

Final Environmental Impact Statement and Section 4(f) Evaluation

Volume I



Russell Street / South 3rd Street - Missoula
STPU-M 8105(8)
UPN 4128

August 2011

**RUSSELL STREET / SOUTH 3RD STREET
STPU-M 8105(8)
Control No. 4128**

Missoula County, Montana

**FINAL ENVIRONMENTAL IMPACT STATEMENT
AND FINAL SECTION 4(F) EVALUATION**

Submitted Pursuant to 42 U.S.C. 4332(c), 49 U.S.C. 303, 23 CFR 774, Sections 2-3-104 & 75-1-201, M.C.A., 23 CFR 771.123, and Executive Orders 11990, 11988, and 12898

By the

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MONTANA DEPARTMENT OF TRANSPORTATION

and

CITY OF MISSOULA

and

Cooperating Agencies

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

Montana Fish, Wildlife & Parks

8/4/2011
Date Reviewed & Approved for Distribution

8/2/2011
Date Reviewed & Approved for Distribution

7/27/2011
Date Reviewed & Approved for Distribution

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Abstract: The proposed action is the reconstruction of Russell Street from West Broadway Street to Mount Avenue/South 14th Street, and South 3rd Street from Reserve Street to Russell Street to address current and projected safety and operational needs. The Preferred Alternative would have four travel lanes and a center turn lane/median on Russell Street, and two travel lanes and a center turn lane/median on South 3rd Street. Major intersections on Russell Street and South 3rd Street would be controlled with signals.

This Final Environmental Impact Statement has been issued to address concerns or preferences identified by the public and regulatory agencies during the comment period on the Draft Environmental Impact Statement.

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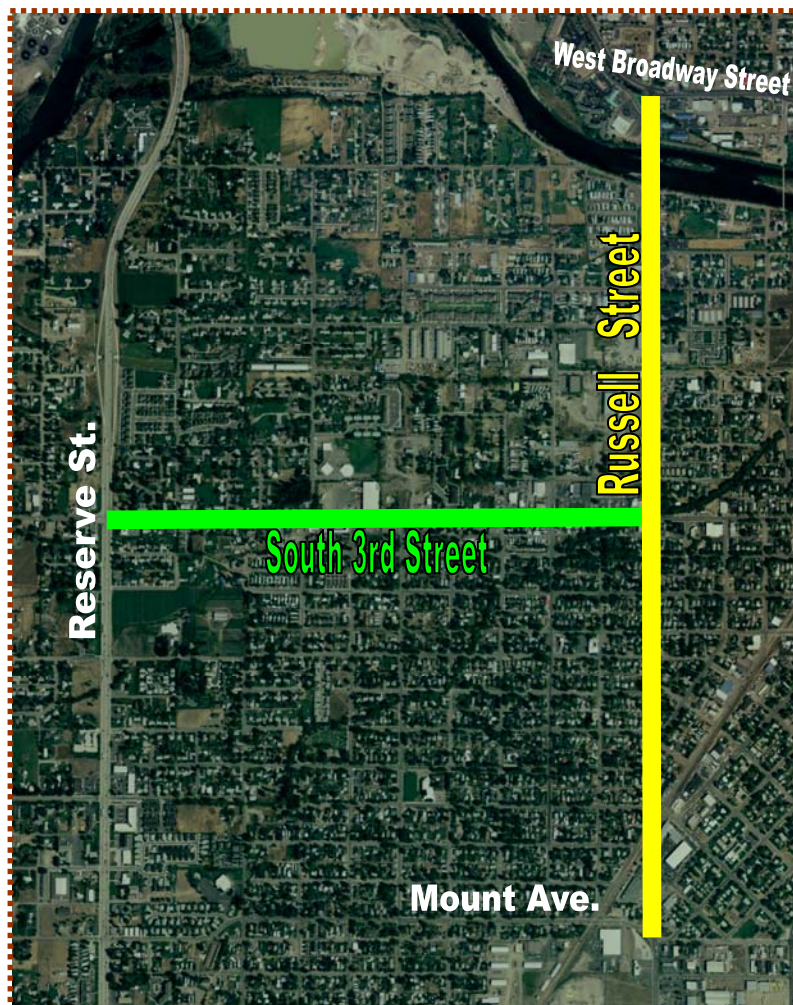
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EXECUTIVE SUMMARY

The proposed project includes the reconstruction of approximately 1.5 miles of Russell Street from the intersection at West Broadway Street south to Mount Avenue/South 14th Street, and reconstruction of approximately one mile of South 3rd Street from Reserve Street east to Russell Street.

Russell Street currently varies in width from two to four lanes including turn lanes at some intersections, and includes a two-lane bridge over the Clark Fork River. And South 3rd Street currently varies in width but generally includes one travel lane in each direction and turn lanes at some intersections.



Proposed Action

The City of Missoula, in cooperation with the Montana Department of Transportation and the Federal Highway Administration, initiated a study to evaluate alternatives to address the current and projected safety and mobility concerns on Russell Street and South 3rd Street. The proposed project includes vehicular capacity improvements, accommodation of alternative transportation modes, transit pullouts, sidewalks, grade-separated trail crossings, curb & gutter, boulevards, bicycle lanes, and stormwater drainage. Signalization of key intersections, as well as the potential for construction of roundabout traffic control, were both evaluated during the project development process.

Purpose of the Proposed Action

Given the physical location and functional designations of the Russell Street and South 3rd Street routes, the high traffic volumes, crash history, and multi-modal use of the corridors, the purpose of this proposed project is to provide substantive safety and mobility improvements for all modes of travel in the Russell Street and South 3rd Street corridors.

Need for the Proposed Action

In these two corridors, a lack of future system capacity and lack of sidewalk continuity are two substantive deficiencies affecting mobility for both motorized and non-motorized users and that point to a need for improvements. If these two issues can be addressed, additional benefits can also be gained in the following areas: vehicular, pedestrian, and bicycle safety; trail connectivity; improved transit service; and upgrades to an aging bridge structure.

Development of Alternatives

Initial project alternatives for Russell Street and South 3rd Street were developed based on forecast travel demand and congestion levels, bike/pedestrian corridor travel and crossing safety, issues raised in the public involvement process, and efforts to avoid known physical constraints within the corridors. Throughout the public involvement process, participants expressed a desire that improvements in the Russell Street and South 3rd Street corridors include bicycle facilities, sidewalks, bus turnouts, curbs and gutters for stormwater management, river trail system access to the roadway, illumination, landscaping, and pedestrian crossing facilities. The inclusion or exclusion of these elements will determine the width and functionality of the facilities, and define the overall feel of the corridors.



Description of Alternatives

The following summary tables outline the major features of the No Build and the five Build alternatives for Russell Street, and the four Build alternatives for South 3rd Street that were analyzed as part of this environmental review. Chapter 2 provides illustrations of the preliminary design for all Build Alternatives.

Russell Street Alternatives:

	Alt. 1 (No Build)	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 5 (refined)
Number of Vehicular Lanes:						
Mount to South 8 th	2	2	2+	4+	4+	4+
South 8 th to South 5 th	2	2+	2+	4+	4+	4+
South 5 th to South 3 rd	4	4	4	4+	4+	4+
South 3 rd to the bridge	2+	2+	2+	4+	4+	4+
The bridge to W. Broadway	2	4	4	4+	4+	4+
Intersection Control:						
Signals	✓			✓		
Roundabouts		✓	✓		✓	✓*
Design Elements:						
Sidewalks		✓	✓	✓	✓	✓
Bike lanes		✓	✓	✓	✓	✓
Boulevards		✓	✓	✓	✓	✓
Curb/Gutter		✓	✓	✓	✓	✓
Lighting		✓	✓	✓	✓	✓
Bus Pullouts		✓	✓	✓	✓	✓

South 3rd Street Alternatives:

	Alt. A (No Build)	Alt. B	Alt. C	Alt. D	Alt. E
Number of Vehicular Lanes:					
Reserve St. to Russell St.	2	2	2+	3+	2+
Intersection Control:					
Signals	✓			✓	✓
Roundabouts		✓	✓		
Design Elements:					
Sidewalks		✓	✓	✓	✓
Bike lanes		✓	✓	✓	✓
Boulevards		✓	✓	✓	✓
Curb/Gutter		✓	✓	✓	✓
Lighting		✓	✓	✓	✓
Bus Pullouts		✓	✓	✓	✓

Notes: 2+ denotes a two-lane section with a center turn lane/raised median
 3+ denotes a three-lane section (two lanes westbound, one lane eastbound) with a center turn lane/raised median
 4+ denotes a four-lane section with a center turn lane/raised median
 ✓* denotes a modified roundabout design to minimize impacts to protected resources

Summary Evaluation

The No Build condition under Alternative 1 on Russell Street and Alternative A on South 3rd Street would include routine maintenance, but no reconstruction, widening or improvement in multi-modal mobility. As such, there would be no right-of-way acquisition, no physical impact to existing residential and business properties, and a relatively minor cost compared to the Build Alternatives. The primary difference in impacts and costs between the Build Alternatives is outlined below:

Russell Street:

Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 5 (refined)
<ul style="list-style-type: none">• 9 Homes• 13 Commercial Buildings• 9 4(f) Properties• 4.34 acres new right-of-way• \$48.3 million	<ul style="list-style-type: none">• 9 Homes• 13 Commercial Buildings• 9 4(f) Properties• 4.87 acres new right-of-way• \$48.8 million	<ul style="list-style-type: none">• 11 Homes• 10 Commercial Buildings• 6 4(f) Properties• 4.59 acres new right-of-way• \$45.0 million	<ul style="list-style-type: none">• 18 Homes• 13 Commercial Buildings• 10 4(f) Properties• 5.65 acres new right-of-way• \$52.6 million	<ul style="list-style-type: none">• 10 Homes• 11 Commercial Buildings• 8 4(f) Properties• 4.38 acres new right-of-way• \$46.5 million

South 3rd Street:

Alt. B	Alt. C	Alt. D	Alt. E
<ul style="list-style-type: none">• 1 Home• 4 Commercial Buildings• 2.38 acres of new right-of-way• \$12.2 million	<ul style="list-style-type: none">• 1 Home• 4 Commercial Buildings• 2.77 acres of new right-of-way• \$12.7 million	<ul style="list-style-type: none">• 0 Homes• 3 Commercial Buildings• 3.62 acres of new right-of-way• \$12.5 million	<ul style="list-style-type: none">• 0 Homes• 3 Commercial Buildings• 2.63 acres of new right-of-way• \$11.4 million

Notes:

Section 4(f) properties, including historic as well as park and recreational resources, are included based on any “use” of the property as defined in Section 4.14 of this FEIS.

Planning level cost estimates are in 2009 dollars with an assumption for phased construction. If the project were constructed in phases, it would be possible to construct the segment from West Broadway Street to approximately South 3rd Street at a cost of approximately \$25.0 million in the year 2012. The project sponsor will continue to seek funding and prioritize Surface Transportation Program-Urban (STPU) funds for subsequent phases and accumulate those funds over the next several years to ensure funding of the project.

Utility relocations are estimated at \$1.1 million on Russell Street, and \$700,000 on South 3rd Street for each alternative. Right-of-way estimates are also planning-level and dependent upon final right-of-way negotiations.



Based on the operational analysis and the impacts and costs summarized above, the following decisions were made regarding the elimination and further evaluation of alternatives:

Russell Street Alternatives	Status	Rationale
1 – No Build	Retained	Must retain for comparison.
2 – 2/2+/4 lanes w/ Roundabouts	<i>Eliminated</i>	Does not meet Purpose and Need.
3 – 2+/4 lanes w/ Roundabouts	<i>Eliminated</i>	Does not meet Purpose and Need.
4 – 4+ lanes w/ Signals	Selected as Preferred Alternative	Meets Purpose and Need, and has least impact and cost.
5 – 4+ lanes w/ Roundabouts	Retained for Detailed Analysis	Meets Purpose and Need, but has Adverse Effect on protected historic properties.
5* - 4+ lanes w/ Modified Roundabouts	Retained for Detailed Analysis	Meets Purpose and Need, but has Adverse Effect on protected historic property.
South 3rd Street Alternatives		
A – No Build	Retained	Must retain for comparison.
B – 2 lanes w/ Roundabouts	Retained for Detailed Analysis	Meets Purpose and Need, but provides operational improvements for least amount of time.
C – 2+ lanes w/ Roundabouts	Retained for Detailed Analysis	Meets Purpose and Need, but provides operational improvements for a limited period of time.
D – 3+ lanes w/ Signals	Retained for Detailed Analysis	Meets Purpose and Need, but has larger impact with minimal gain in operational efficiency as compared to E.
E – 2+ lanes w/ Signals	Selected as the Preferred Alternative	Meets Purpose and Need, has least cost, least impact, and provides operational improvements for greatest period of time as compared to the roundabout alternatives.

Note: * Alternative 5 was refined to include alignment shifts and modifications to the proposed roundabouts in an attempt to avoid and minimize impacts to protected resources.

Identification of the Preferred Alternatives

Based on the fact that Alternative 4 satisfies the purpose and need to provide substantive safety and mobility improvements for all modes of travel within the corridor, has fewer Section 4(f) impacts, and less overall impact as compared to Alternative 5 and the refined Alternative 5, the four-lane roadway improvement with a center turn lane/raised median, and signalized intersections proposed under **Alternative 4 for Russell Street is identified as the Preferred Alternative.**

Alternative 5 (refined) was vigorously explored as the locally preferred alternative due in large part to community preference for roundabout intersection control and the expressed desire for a roadway improvement project like Stephens Avenue. During detailed analysis, it became apparent that Alternative 5 (even through refinement) would impose an impact on protected historic properties within the corridor that could be avoided with other alternatives. Due to unavoidable impacts to the historic properties at South 5th Street, Alternative 5 has been advanced for detailed consideration but ultimately not identified as the preferred alternative due to impacts to historic resources. However, the City of Missoula remains committed to providing the necessary roadway safety and capacity improvements while providing a facility that is aesthetically pleasing and enhances the existing characteristics of the surrounding area.

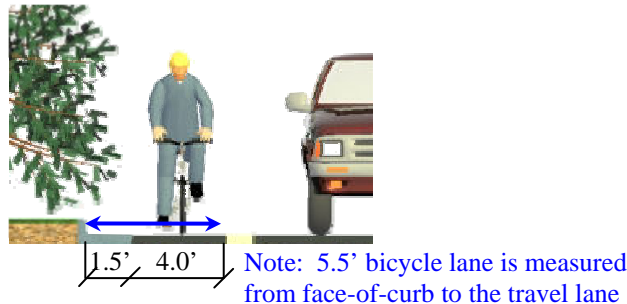
Alternative C was identified as the Preliminary Preferred Alternative on South 3rd Street in the Draft Environmental Impact Statement. Subsequent traffic analyses conducted for South 3rd Street in 2010 indicate that the proposed roundabouts fail to provide sufficient capacity by the design year of 2035. (See *South 3rd Street Traffic Update Memo* in Appendix G.) The *Traffic Update Memo* revealed that Alternatives D and E provide substantive improvement in the intersection Level of Service as compared to the roundabout alternatives. This analysis also confirmed that Alternatives D and E on South 3rd Street continue to satisfy the Purpose and Need as well as the general Goals and Objectives established for the project. As compared to Alternative D, Alternative E also minimizes right-of-way impacts and has the least cost as compared to other Build alternatives, and provides improved safety as compared to the No Build condition. For these reasons, **Alternative E has been identified as the Preferred Alternative on South 3rd Street.**

Specific Design Elements of the Preferred Alternatives

The nine design features recommended by the Advisory Committee would be fully incorporated into each of the Build Alternatives, as appropriate. The common design features are:

- The existing **Russell Street Bridge** would be removed and replaced in the same general location with four lanes over the Clark Fork River to provide adequate capacity for projected traffic volumes and necessary hydraulic capacity.
- **Bicycle lanes** would be included to improve multi-modal transportation in the corridors. Bicycle lanes measuring approximately 5.5 feet wide measured from the face of the curb would be constructed on both sides of Russell Street and South 3rd Street. The proposed bicycle lanes would be delineated from motorized traffic by a solid white painted stripe and would be clearly marked as bicycle lanes.

Typical Bike Lane Cross Section



All graphics in this document are conceptual and not intended to reflect final design details. Measurements are approximate until final design.

- **Sidewalks** measuring approximately 5.0 feet wide would be constructed along both sides of Russell Street and South 3rd Street.
- **Grade separated pedestrian/bicycle crossings** would be provided for the Milwaukee Corridor Trail, Bitterroot Branch, Shady Grove, and River Front Trail systems as they cross Russell Street.
- **Curb and gutter** as well as drywells/sumps would be included to improve stormwater management.
- **Street lighting** would be included to improve aesthetics and safety.
- **Landscaped boulevards** would be constructed on both sides of Russell Street and South 3rd Street between the curb and sidewalk, as well as medians in both corridors, to improve aesthetics.
- **Bus pullouts** would be incorporated into the final design along Russell Street north of South 3rd Street, and along South 3rd Street from Russell Street to Reserve

Street. The transit system currently does not serve Russell Street south of South 5th Street, so no pullouts are planned for that portion of the corridor.

- On-street parking within the City right-of-way is currently prohibited along Russell Street and South 3rd Streets. **Parking restrictions would be maintained** in these corridors.

Russell Street –Preferred Alternative:

The Preferred Alternative on Russell Street (Alternative 4) consists of two southbound and two northbound travel lanes, with raised medians and center turn lanes, and the use of signal control at key intersections.

As with all other Build alternatives, the Preferred Alternative on Russell Street includes the following alignment and access modifications:

- Longstaff Street would be restricted to a right-in and right-out only connection with Russell Street.
- Lawrence Street would be realigned to a right-angle intersection with Russell Street with left turn storage on Russell Street.
- Access to Russell Street from Harlem Street and Kern Street on the east side of Russell Street would be restricted to a right-in and right-out only connection.
- Addison Street would be realigned to a right-angle intersection with Russell Street opposite from South 8th Street. Knowles Street would be shifted slightly to the north to match with South 11th Street on the west.
- River Road would generally remain in its current configuration with minor intersection modifications and a restricted right-in and right-out connection with Russell Street. In addition, right-of-way would be purchased for the construction of a new link between River Road and Idaho Street that would become part of the River Road connection to Russell Street via Wyoming Street. The connection would include a newly constructed section of road running north-south adjacent to the western boundary of Mobile City Trailer Park between existing River Road and Idaho Street. It would also include reconstructed sections of Idaho Street between the new road along the western border of the Mobile City Trailer Park and Catlin Street; Catlin Street between Idaho Street and Wyoming Street; and Wyoming Street between Catlin Street and Russell Street.

South 3rd Street –Preferred Alternative:

The Preferred Alternative on South 3rd Street (Alternative E) includes two travel lanes (one in each direction), signal control at select intersections, and the use of raised landscaped medians as appropriate.



Trail Connections:

The Preferred Alternative also includes three trail connections on Russell Street described as follows:

Bitterroot Branch Trail Connection

The Bitterroot Branch Trail Crossing would be constructed as an undercrossing* under Russell Street. The undercrossing* would be constructed in approximately the same location as the existing trail crossing. The existing trail alignment would be modified to connect to the undercrossing structure.

Milwaukee Corridor Trail Connection

The Milwaukee Corridor Trail Crossing would be constructed as an undercrossing* under Russell Street. The undercrossing* would be constructed in approximately the same location as where the existing trail terminates on the east side of Russell Street. The existing trail alignment would be modified to connect to the undercrossing structure.

Shady Grove (River Trail System) Trail Connection

Reconstruction of the Russell Street Bridge would include extension of the Shady Grove Trail westward under the north end of the bridge and construction of connections to the sidewalks on both sides of Russell Street. An undercrossing* would also be provided under the south end of the bridge to accommodate future extension of the River Trail System to be completed by others.

*Note: *During early scoping and project development, it was determined that pedestrian/bicycle under crossings would be preferable to an overpass structure, or to an at-grade crossing. If during final design, it appears that geotechnical conditions, or underground utilities would prohibit construction of the intended under-crossings, these crossings could be redesigned as an overpass. It would not be desirable, and it is not intended that these trail crossings would be left as at-grade crossings if the corridor is reconstructed.*

Impact and Mitigation Commitment Summary

No Build Alternatives

While the physical impacts would be limited under the No Build Alternative, this condition would result in worsening congestion and increasing difficulty of residential and business access for all modes of travel, as well as a hindrance on the operation of emergency response vehicles, including fire, police, and medical aid.

Build Alternatives

The following tables provide a summary of the expected impacts and proposed mitigation measures for the various alternatives.

Final Environmental Impact Statement



Russell Street

Resource	Impacts	Mitigation Commitments
Land Use		
	No impacts on land use are expected from any of the Build Alternatives.	No mitigation required.
Farmlands		
	No farmlands are located within project corridor.	No mitigation required.
Social Impacts		
Access	Alternatives 2, 3, 4, 5, and 5-Refined provide substantial improvement in multi-modal access through the use of additional travel lanes, bike lanes, and sidewalks throughout..	No mitigation required; however, the City and Montana Department of Transportation will meet with police, fire, and emergency service providers to coordinate access concerns for the construction phase.
Property Impacts	All Build Alternatives require additional Right-of-Way in order to accommodate the widening of Russell Street. Alternatives 2 and 3 require nine homes be acquired including four Section 4(f) properties. Alternative 4 requires 11 homes to be acquired including two Section 4(f) properties. Alternative 5 requires 18 homes be acquired including six Section 4(f) properties. Alternative 5-Refined requires 10 homes be acquired including four Section 4(f) properties.	Fair market value will be paid for properties to be acquired. Displaced residents will be relocated in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
Environmental Justice	Properties potentially protected under Environmental Justice will not be disproportionately impacted as a result of the Build Alternatives.	No mitigation required.
Economic Impacts		
Business Advancement	Alternatives 2, 3, 4, 5, and 5-Refined provide substantial improvement to business advancement opportunities because of the implementation of traffic controls and subsequent access improvements.	No mitigation required.
Property Impacts	All Build Alternatives require additional Right-of-Way in order to accommodate the widening of Russell Street. Alternatives 2, 3, and 5 require 13 commercial buildings be acquired. Alternative 4 requires 10 commercial buildings be acquired. Alternative 5-Refined requires 11 commercial buildings be acquired.	Fair market value will be paid for properties to be acquired. Displaced businesses will be compensated in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Russell Street - Continued

Parks and Recreation		
	<p>The Build alternatives would impact passive green space (Kern Park and Hart Park) owned by the City of Missoula. Recreation opportunities within the project area would be mostly beneficial, though short-term impacts under the Build alternatives would include:</p> <ul style="list-style-type: none"> -Access restrictions to parks, trails, and the Clark Fork River during construction -Traffic congestion in areas of active construction -Dust, exhaust, and airborne debris in areas of active construction 	<p>Mitigation of the loss of green space will include additional landscaping and green space along Russell Street between Mount Avenue/South 14th Street and South 3rd Street. Trail impacts would be mitigated by providing three new grade separated crossings in the corridor.</p>
Pedestrian and Bicycle		
	<p>All Build Alternatives include five and one-half foot wide bike lanes and five foot wide sidewalks are part of the design amenities in the Preferred Alternative. Three grade separated trail crossings are also included.</p>	<p>Bicycle and pedestrian access will be improved within the project corridor, therefore, no mitigation is necessary for the proposed project.</p>
Air Quality		
	<p>Regional analysis shows that the Preferred Alternative would not have a detrimental effect on regional air quality.</p>	<p>No mitigation is required.</p>
Noise		
	<p>The noise impact criterion is predicted to be exceeded at 13 out of 56 receptor locations in the forecast year for the Build Alternatives. Of the 13 impacted receptor locations, 11 are the same receptors that will also be impacted by the No Build Alternative in the forecast year and seven are being impacted by the No Build Alternative under current conditions. An additional 12 receptor locations (representing 13 single-family residences) may also be removed due to right-of-way acquisition for the proposed project.</p>	<p>No feasible or reasonable noise mitigation was identified for existing receptors. To minimize traffic noise impacts at planned or proposed developments within the project area, noise-compatible land uses and /or noise mitigation measures will need to be incorporated into future development.</p>



Russell Street - Continued

Water Quality		
Surface/Stormwater	An increase in the area of the roadway surface would lead to more runoff which could possibly be contaminated by pollutants associated with the operation of a motor vehicle.	Direct impacts and indirect effects to water resources and water quality of the area will be minimized or avoided using Best Management Practices, in coordination with the Environmental Protection Agency during final design. Management of surface runoff may include a dry well system which may be subject to additional requirements. The final designs will comply with provisions of the Montana Department of Environmental Quality's impaired water body designation and total maximum daily loads for the Clark Fork River and the Missoula Valley Water Quality Ordinance for protection of the Missoula Valley Aquifer. Construction mitigation will include development of revegetation plan, erosion control plan, stormwater pollution prevention plan, and coordination of water quality permits with the appropriate regulatory agencies.
Groundwater	Surface runoff from all Build Alternatives could percolate through the alluvial materials and into the Missoula Valley Aquifer.	
Wetlands		
	No wetlands were defined within the project corridor.	No mitigation required.
Water Body and Wildlife Habitat		
	<p>In association with the Russell Street Bridge replacement included in all Build Alternatives, some temporary impacts would be anticipated during construction activities. Long-term impacts resulting from all Build Alternatives would include the permanent loss of some of the riparian vegetation used as habitat by small animals as well as soil exposure to long-term colonization by noxious weeds.</p> <p>The irrigation ditch on the west side of the mobile home park off of River Road will need to be piped as a result of all Build Alternatives and additional connections on River Road. The ditch is owned by Orchard Homes Ditch Company.</p>	Mitigation in the Russell Street corridor includes raptor-proofing or power lines, preservation and restoration of riparian vegetation, erosion and sediment control, revegetation of areas disturbed by construction, and tree planting.
Floodplains		
	There are two locations in the project area where project work as a result of the Build Alternatives may infringe on the 100-year floodplain. The first is the Russell Street Bridge and its abutments, particularly the east side of Russell Street near the south abutment. The second is the south edge of West Broadway Street west of the intersection with Russell Street.	The proposed Russell Street Bridge will increase the hydraulic opening associated with the structure. Additionally, the Shady Grove Trail undercrossing of the bridge will be designed above the 2-year flood elevation. The final design process will include hydraulic and floodplain analysis in order to ensure compliance with Federal Emergency Management Agency regulations.

Threatened or Endangered Species		
	Because of the Russell Street Bridge replacement included in all Build Alternatives, bull trout and designated critical habitat are likely to be adversely affected by the proposed project.	Best Management Practices would be applied to reduce the amount of sediment entering the Clark Fork River. Formal consultation with the US Fish and Wildlife Service has also concluded with a Biological Opinion for this project which outlines additional mitigation measures, including directions on the use of coffer dams, bridge removal techniques, restrictions on the use of work bridges, and a monitoring plan for bridge demolition and removal.
Historic and Cultural Resources		
	In addition to crossing the Bitterroot Branch of the Northern Pacific Railroad under each Build Alternative, the following Section 4(f) “use” would occur under each alternative: No Build – none Alt. 2 – five historic residences Alt. 3 – five historic residences Alt. 4 (Preferred) – two historic residences Alt. 5 – six historic residences Alt. 5 Refined – four historic residences	A Historic American Building Survey would be conducted, an oral history of the Russell Street Neighborhood would be recorded, and large format photographs of the Russell Street Corridor would be taken before, during, and after construction.
Hazardous Materials		
	All Build Alternatives could affect the many sites along Russell Street that have the potential for hazardous materials concerns including asbestos, lead paint, and petroleum hydrocarbon contamination to soil and groundwater. The Russell Street Bridge could also be potentially hazardous as all bridges built during that time were painted with lead-based paint.	During the design and right-of-way phases of the proposed project, possible contamination sites would be investigated for the presence of hazardous materials. All buildings to be acquired within the project corridor would also be inspected for asbestos and lead contamination. A lead paint abatement plan for the Russell Street Bridge would need to be developed.
Visual Resources		
	Many of the design features in the Build Alternatives would improve the aesthetic quality of the corridor. Even though the road surface is wider under Alternatives 4, 5, and 5- Refined than Alternatives 2 and 3, placement of landscaping features within raised medians and landscaped boulevards would soften views from the road as well as providing a buffer zone between traffic and pedestrians. The removal of existing vegetation in the corridor may be necessary including some large diameter trees.	Due to the overall positive impacts on visual resources, no mitigation is required.



South 3rd Street

Resource	Impacts	Mitigation Commitments
Land Use		
	No impacts under Alternatives B, C, D, or E.	No mitigation required.
Farmlands		
	No farmlands are located within project corridor.	No mitigation required.
Social Impacts		
Access	Alternatives B, C, D, and E result in substantial improvement in multi-modal access through the use of addition of travel lanes, bike lanes, and sidewalks throughout.	No mitigation required; however, the City and Montana Department of Transportation will meet with police, fire, and emergency service providers to coordinate access concerns for the construction phase.
Property Impacts	Alternatives B, C, D, and E require additional Right-of-Way would be required in order to accommodate the widening of South 3 rd Street. Alternatives B and C require one home to be acquired. No homes would be acquired under Alternatives D and E.	Fair market value will be paid for properties to be acquired in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
Environmental Justice	Properties potentially protected under Environmental Justice will not be disproportionately impacted as a result of the Build Alternatives.	No mitigation required.
Economic Impacts		
Business Advancement	Alternatives B, C, D, and E result in substantial improvement to business advancement opportunities because of the implementation of traffic controls and subsequent access improvements.	No mitigation required.
Property Impacts	Alternatives B, C, D, and E require additional Right-of-Way would be required in order to accommodate the widening of South 3 rd Street. Alternatives B and C require four commercial buildings to be acquired. Three commercial buildings would need to be acquired under Alternatives D and E.	Fair market value will be paid for properties to be acquired. Displaced businesses will be compensated in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
Parks and Recreation		
	No impacts to Parks and Recreation are predicted under any of the Build Alternatives.	No mitigation required.
Pedestrian and Bicycle		
	Five and one-half foot wide bike lanes and five foot wide sidewalks are part of the design amenities included in Alternatives B, C, D, and E.	Bicycle and pedestrian access will be improved within the project corridor; therefore, no mitigation is necessary for the proposed project.

Air Quality		
	Regional analysis shows that the Preferred Alternative would not have a detrimental effect on regional air quality.	No mitigation required.
Noise		
	The noise impact criterion is predicted to be exceeded at 21 out of 44 receptor locations in the forecast year for the Preferred Alternative. Of the 21 impacted receptor locations, 17 are the same receptors that will also be impacted by the No Build Alternative in the forecast year and six are being impacted by the No Build Alternative under current conditions. An additional four receptors may also be removed due to right-of-way acquisition for the project.	There is an opportunity for a sound barrier between Garfield and Catlin Streets. This barrier would impact access to the first row of mobile homes along the south-side of South 3 rd Street. A final decision of the installation of the abatement measure will be made during the final design process.
Water Quality		
	An increase in the area of the roadway surface under Alternatives B, C, D, and E would lead to more runoff which could possibly be contaminated by pollutants associated with the operation of a motor vehicle. This could percolate through the alluvial materials and into the Missoula Valley Aquifer.	Direct impacts and indirect effects to water resources and water quality of the area will be minimized or avoided using Best Management Practices, in coordination with the Environmental Protection Agency. Management of surface runoff may include a dry well system which may be subject to additional requirements. The final designs will comply with provisions of the Montana Department of Environmental Quality's impaired water body designation and total maximum daily loads for the Clark Fork River and the Missoula Valley Water Quality Ordinance for protection of the Missoula Valley Aquifer. Construction mitigation will include development of revegetation plan, erosion control plan, stormwater pollution prevention plan, and coordination of water quality permits with the appropriate regulatory agencies.
Wetlands		
	No wetlands were defined within the project corridor.	No mitigation required.
Water Body and Wildlife Habitat		
	No impacts under Alternatives B, C, D, or E.	No mitigation required.
Floodplains		
	No impacts under Alternatives B, C, D, or E.	No mitigation required.



South 3rd Street - Continued

Threatened or Endangered Species		
	No impacts under Alternatives B, C, D, or E.	No mitigation required
Historic and Cultural Resources		
	No Section 4(f) “use” under Alternatives B, C, D, or E.	No mitigation required.
Hazardous Materials		
	Alternatives B, C, D, and E all affect several sites along the project have the potential for hazardous materials concerns including asbestos, lead paint, and petroleum hydrocarbon contamination to soil and ground water.	During the design and right-of-way phases of the proposed project, possible contamination sites will be investigated for contamination. All buildings to be acquired within the project corridor will also be inspected for asbestos and lead contamination.
Visual Resources		
	Many of the design features in Alternatives B, C, D, and E would improve the aesthetic quality of the corridor. Even though the road surface may be wider under Alternatives B, C, D, and E, placement of landscaping features within raised medians and landscaped boulevards would soften views from the road. The removal of existing vegetation in the corridor may be necessary including some large diameter trees.	No mitigation required.

Construction Phasing

The Metropolitan Planning Organization (MPO) receives approximately \$2.0 million dollars per year that can be accumulated under the anticipated annual allocations, and would have to seek additional funding to cover the remaining costs beyond regular funding sources. Based on currently available funds, reconstruction of Russell and South 3rd Streets as proposed in this Environmental Impact Statement would likely be phased over time. Construction projects would be programmed and completed as funds become available over the next several years.

Prior to finalizing a Record of Decision, the entire project would need to be included in the fiscally constrained portion of the conforming Long Range Transportation Plan and, in addition, include in the approved Transportation Improvement Program at least one subsequent phase, which includes final design, right-of-way, utility relocation or construction.

During the public comment period on the Draft Environmental Impact Statement, concerns were raised that during the development of the separate project phases, changes in the character of the corridor from infill development, redevelopment, or transportation demand management strategies included in the Long Range Transportation Plan, could affect the traffic forecasts used to establish the Purpose and Need for the project. Following the completion of this National Environmental Policy Act / Montana Environmental Policy Act document, appropriate state and federal rules and regulations will guide the future consideration and development (as deemed appropriate) of any re-evaluations to this document. The consideration of when to prepare a re-evaluation will be based on requirements at 40 CFR 1502.9(c), 23 CFR 771.129, and ARM 18.2.247 which include provisions for considering the emergence of significant new circumstances or information that has bearing on the proposed action or its impacts on environmental considerations. Conditions possibly meriting re-evaluation will be reviewed prior to construction of the separate project phases in accordance with federal guidelines as noted above, and, if necessary, a re-evaluation of the Environmental Impact Statement would be conducted to determine if the document remains valid for the proposed project (pursuant to the state and federal regulations cited above). If no substantial changes have occurred, the project would proceed under the approved decision document.



Funding

Through the Missoula area metropolitan transportation planning process, Russell Street has been prioritized as the number one priority for federal and state funds provided through the Surface Transportation Program-Urban funding program. Additional federal, state, and local funding prioritized through the metropolitan transportation planning process includes Congestion Mitigation and Air Quality funding, Bridge funding, Enhancement funding, and local funds. Also, a congressionally directed earmark was provided for this project through the most recent federal transportation funding bill, the Safe, Accountable, Flexible, Efficient Transportation Equity Act –A Legacy for Users.

The total cost of the preferred alternatives for Russell Street and South 3rd Street in year of expenditure dollars is approximately \$56 million. The city recently amended their Long Range Transportation Plan (LRTP), in order to provide local funding for the estimated \$11.5 million needed for the construction of South 3rd Street. As a result, the city's current Transportation Improvement Plan (TIP, FFY 2011-2015) and amended 2008 LRTP include a combination of available and planned revenue sources, which collectively provide fiscal constraint for the construction of the preferred alternatives for both Russell Street and South 3rd Street projects. The project sponsor will continue to seek funding and prioritize Surface Transportation Program-Urban (STPU) funds for subsequent phases and accumulate those funds over the next several years to ensure funding of the project.

Missoula Federal Fiscal Year 2011-2015 Transportation Improvement Program

Project	Amount Reserved
<i>1st Phase</i>	
South 3rd Street (Reserve to Russell)	\$2,000,000 (Local funding)
Russell Street (South 3 rd Street to West Broadway Street)	\$17,795,800 (Surface Transportation Program-Urban)
Milwaukee Trail West	\$550,000 (Surface Transportation Program - Enhancement)
Russell Street Bridge	\$5,542,400 (Bridge)
Russell Street	\$6,275,500 (Earmark)

2008 Missoula Long Range Transportation Plan

<i>2nd Phase</i>	Amount/Source identified
South 3rd Street (Reserve to Russell)	\$9,500,000 (Local funding- 2008 LRTP amendment #2)
Russell Street (Mount Avenue to South 3 rd Street)	\$7,000,000 (Future Earmark - City)
	\$6,600,000 (Local funding)
	Surface Transportation Program - Urban funds
	Accrue annual allocations @
	1,829,439/yr starting in 2015 to complete project.

**Other potential federal aid funding source, Surface Transportation Program - Enhancement*

Permits and Coordination Required

Prior to construction of the Russell Street and South 3rd Street reconstruction project the following permits and coordination would be required:

- Section 401 Certification of the Clean Water Act – Water Quality Certification from the Montana Department of Environmental Quality.
- Section 404 Permit of the Clean Water Act from the U.S. Army Corps of Engineers.
- Montana Pollutant Discharge Elimination Permit from the Montana Department of Environmental Quality.
- Montana Land-Use License or Easement on Navigable Water from the Montana Department of Natural Resources and Conservation.
- Floodplain encroachments must be approved by the Missoula County Floodplain Administrator.
- Montana Stream Preservation Act (SPA 124 coordination) with Montana Fish, Wildlife & Parks.
- City of Missoula MS4 Permit.
- Any necessary drywell permitting would be coordinated with the U.S. Environmental Protection Agency.



TABLE OF CONTENTS

FOREWORD	Foreword - 1
1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION	1-1
1.1 Project Area Description	1-1
1.2 Proposed Action	1-4
1.3 Purpose of the Proposed Action	1-4
1.4 Need for the Proposed Action	1-4
1.5 Additional Benefits of Improvements	1-13
1.6 Goals and Objectives	1-16
2.0 ALTERNATIVES ANALYSIS	2-1
2.1 Development of Alternatives	2-1
2.2 Description of Alternatives	2-5
Specific Design Elements Common to All Build Alternatives	2-5
Russell Street Alternatives	2-9
South 3 rd Street Alternatives	2-20
2.3 Analysis of Alternatives	2-30
2.4 Identification of the Preferred Alternatives	2-100
2.5 Specific Design Elements of the Preferred Alternatives	2-114
2.6 Other Alternatives Considered But Eliminated	2-120
2.7 Construction Phasing and Funding Strategies	2-122
3.0 AFFECTED ENVIRONMENT	3-1
3.1 Land Use	3-1
3.2 Farmlands	3-5
3.3 Social Conditions	3-5
3.4 Economic Conditions	3-10
3.5 Parks and Recreation	3-10
3.6 Pedestrian and Bicycle Conditions	3-12
3.7 Air Quality	3-13
3.8 Noise	3-17
3.9 Water Quality	3-23
3.10 Wetlands	3-25
3.11 Water Bodies and Wildlife Habitat	3-25
3.12 Floodplains	3-28
3.13 Threatened and Endangered Species	3-30
3.14 Historic and Cultural Resources	3-31
3.15 Hazardous Materials	3-35
3.16 Visual Resources	3-36

Table of Contents

4.0	ENVIRONMENTAL CONSEQUENCES & MITIGATION	4-1
4.1	Land Use Impacts	4-1
4.2	Farmland Impacts	4-2
4.3	Social Impacts.....	4-2
4.4	Economic Impacts.....	4-6
4.5	Parks and Recreation Impacts	4-8
4.6	Pedestrian and Bicycle Impacts	4-12
4.7	Air Quality Impacts	4-14
4.8	Noise Impacts	4-17
4.9	Water Quality Impacts	4-21
4.10	Wetland Impacts	4-23
4.11	Water Body and Wildlife Habitat Impacts.....	4-24
4.12	Floodplain Impacts	4-26
4.13	Threatened and Endangered Species Impacts	4-28
4.14	Historic and Cultural Resource Impacts	4-30
4.15	Hazardous Materials Impacts.....	4-35
4.16	Visual Resource Impacts	4-38
4.17	Indirect and Cumulative Impacts	4-41
4.18	Construction Impacts	4-55
4.19	Energy Implications	4-59
4.20	Relationship Between Short-Term Use . . . and Long-Term Productivity.....	4-60
4.21	Irreversible and Irretrievable Commitment of Resources.....	4-60
4.22	Permits and Coordination Required.....	4-61
5.0	FINAL SECTION 4(F) EVALUATION	5-1
5.1	Proposed Action.....	5-2
5.2	Section 4(f) Properties	5-2
5.3	Impacts on the Section 4(f) Properties.....	5-5
5.4	Avoidance Alternatives.....	5-12
5.5	Measures to Minimize Harm	5-15
5.6	Coordination	5-15
6.0	LIST OF PREPARERS AND REVIEWERS	6-1
7.0	COMMENTS AND COORDINATION.....	7-1
7.1	Advisory Committees	7-1
7.2	Public Meetings	7-3
7.3	Agency Coordination.....	7-5
7.4	Summary of Public Comments	7-5
7.5	Other Public Involvement and Information Techniques.....	7-7
8.0	DISTRIBUTION LIST	8-1



LIST OF FIGURES

F-1	Major Arterial Network	Foreword-3
1-1	Project Location Map.....	1-2
1-2	Existing Transportation Facility Conditions	1-3
1-3	Existing and Projected Traffic Volumes on Russell Street and South 3 rd Street	1-5
1-4	Mainline Level of Service Definitions.....	1-6
1-5	Intersection Level of Service Definitions	1-7
1-6	Russell Street Level of Service	1-9
1-7	South 3 rd Street Level of Service	1-10
1-8	City of Missoula Bike Lane/Route Map	1-12
1-9	Mountain Line Bus Routes in Project Area	1-13
2-1	Typical Roundabout Features	2-3
2-2	Baseline Modifications to Russell Street	2-7
2-3	Proposed River Road Connection.....	2-8
2-4	Alternative 1 – General Elements	2-11
2-5	Alternative 2 – General Elements	2-13
2-6	Alternative 3 – General Elements	2-15
2-7	Alternative 4 – General Elements	2-17
2-8	Alternative 5 – General Elements	2-19
2-9	Alternative A – General Elements	2-21
2-10	Alternative B – General Elements	2-23
2-11	Alternative C – General Elements	2-25
2-12	Alternative D – General Elements	2-27
2-13	Alternative E – General Elements.....	2-29
2-14	Hourglass Effect	2-32
2-15	Typical Lane Utilization Imbalance.....	2-33
2-16	Russell Street – Alternative 2	2-42
2-17	Russell Street – Alternative 3	2-50
2-18	Russell Street – Alternative 4	2-58
2-19	Russell Street – Alternative 5	2-66
2-20	South 3 rd Street – Alternative B	2-74
2-21	South 3 rd Street – Alternative C	2-81
2-22	South 3 rd Street – Alternative D	2-88
2-23	South 3 rd Street – Alternative E	2-95
2-24	Alternative 5-Refined – General Elements	2-103
2-25	Russell Street – Alternative 5-Refined	2-105
2-26	Russell Street Preferred Alternative (Alt. 4) – General Elements	2-117
2-27	South 3 rd Street Preferred Alternative (Alt. E) – General Elements	2-119
3-1	Land Use	3-3
3-2	Neighborhoods within Project Corridor	3-8
3-3	Community and Public Facilities, and Parks and Recreation Areas	3-9
3-4	Existing Pedestrian and Bike Facilities.....	3-12
3-5	Russell Street Noise Receptor Locations	3-18
3-6	South 3 rd Street Noise Receptor Locations	3-19

Table of Contents

3-7	Irrigation Ditches Intersecting Study Area	3-27
3-8	Clark Fork River 100-Year Floodplain.....	3-29
3-9	Sites Eligible for Listing on the National Register of Historic Places (Russell St.)	3-33
3-10	Sites Eligible for Listing on the National Register of Historic Places (South 3 rd St.) ...	3-34
3-11	Underground Storage Tank Sites	3-35
4-1	Neighborhood Connectivity within Project Corridor.....	4-5
4-2	Samples of Grade Separated Structures	4-9
4-3	Bitterroot Branch Trail Under-crossing	4-10
4-4	Milwaukee Corridor Trail Under-crossing	4-10
4-5	Shady Grove Trail Connections.....	4-11
4-6	Preliminary Design of the Proposed Russell Street Bridge	4-25
4-7	Locations of Potential Hazardous Materials Impacts	4-36
5-1	Section 4(f) Property Impacts	5-3
5-2	De Minimis Impacts on Site 24MO800	5-8
5-3	De Minimis Impacts to Trail Crossings	5-9
5-4	Impacts on 824 Russell Street (24MO811).....	5-10
5-5	Impacts on 941 Kern Street (24MO819)	5-11
5-6	Avoidance Alternative Constraints	5-13

LIST OF TABLES

1.1	Crash Types on Russell Street	1-14
1.2	Crash Types on South 3 rd Street.....	1-14
2.1	Russell Street Alternatives – Overview of Major Features.....	2-10
2.2	South 3 rd Street Alternatives – Overview of Major Features.....	2-20
2.3	Safety and Capacity Evaluation Matrix	2-30
2.4	Safety Comparison Summary for Predicted Crash Conditions on Russell Street.....	2-31
2.5	Overall Performance Measure Results.....	2-34
2.6	Parameters for General Urban Thoroughfares	2-36
2.7	Summary of Impacts on Russell Street.....	2-38
2.8	Summary of Impacts on South 3 rd Street	2-39
2.9	Preliminary Estimated Costs of the Build Alternatives	2-39
2.10	Screening Summary	2-101
2.11	Impact Comparison of the Forwarded Alternatives on Russell Street.....	2-111
2.12	South 3 rd Street Alternative C and E Comparison (2035 Level of Service)	2-112
3.1	Missoula County and City of Missoula Population Growth, 1980 to 2010.....	3-5
3.2	Racial Composition.....	3-6
3.3	Estimated Percentage of Population Below the Poverty Level.....	3-6
3.4	Receptors and Predicted Noise Levels (Russell Street)	3-20
3.5	Receptors and Predicted Noise Levels (South 3 rd Street)	3-22
3.6	Sites Eligible or Listed on the National Register of Historic Places.....	3-32



4.1	Summary Comparison of Impacts to Residences and Community Facilities	4-3
4.2	Summary Comparison of Impacts to Commercial Properties	4-7
4.3	Bicycle Compatibility Index	4-13
4.4	Carbon Monoxide Screen Model Results	4-16
4.5	Russell Street Receptors and Predicted Noise Levels	4-18
4.6	South 3 rd Street Receptors and Predicted Noise Levels	4-19
4.7	Historic Properties Avoided by All Build Alternatives	4-33
4.8	Historic Resource Impacts	4-33
4.9	Summary of Potential Hazardous Materials Impacts.....	4-35
4.10	Visual Benefits of Build Alternatives	4-40
5.1	Section 106 Determinations on Properties Protected by Section 4(f).....	5-6
7.1	Advisory Committee Members.....	7-1
7.2	Summary of Public Meetings.....	7-3

APPENDICES: IN VOLUME I:

- A. Roundabouts: An Informational Guide
- B. Planning Level Cost Estimates
- C. State Historic Preservation Office Coordination
- D. Public and Agency Coordination Summary and Correspondence
- E. De Minimis Coordination

APPENDICES: IN VOLUME II:

- F. Biological Opinion
- G. Traffic Analyses Updates
- H. Written Comments and Responses
- I. Public Hearing Transcript Comments and Responses
- J. Court Reporter Transcript Comments and Responses

Table of Contents

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FOREWORD

Population trends in the greater Missoula area have shown a steady increase with a projection for continued growth. In Missoula County, population growth averaged less than 0.5 percent a year during the decade from 1980 to 1990, from 1990 to 2000 the rate averaged nearly 2.0 percent per year, and from 2000-2010 the rate averaged about 1.4 percent per year.. The 2000 population of the County was close to 96,000, with just over 57,000 of those individuals residing within the City of Missoula. The 2010 population of Missoula County was nearly 110,000, with about 67,000 individuals residing within the City of Missoula. Growth outside of the County but still within the greater Missoula commuting area also continues to increase. According to a U.S. Census Bureau forecast in 2001, the population of Missoula County is expected to exceed 114,000 by the year 2015. This level of growth has led City and County officials to focus a great deal of attention on the maintenance and upgrade of much of the area's outdated and insufficient infrastructure.

In response to the roadway infrastructure needs and consistent with priorities established through the Missoula area metropolitan transportation planning process, the City of Missoula, in cooperation with the Federal Highway Administration and the Montana Department of Transportation, proposes to improve portions of Russell Street and South 3rd Street in Missoula, Montana. The project is intended to address current and projected capacity issues. The proposed Russell Street and South 3rd Street improvements are consistent with recommendations contained in the *Missoula Urban Comprehensive Plan–1998 Update*, the 1996, 1999, and 2004 *Missoula Transportation Plan Updates*, and the *Missoula Non-Motorized Transportation Plan* (2002).

History and Background

Long Range Planning Process

The Missoula Office of Planning and Grants coordinated the Missoula Transportation Plan updates of 1996, 1999, and 2004 with input from the public, the Transportation Policy Coordinating Committee, and the Transportation Technical Advisory Committee. These committees consist of representatives from the City of Missoula, Missoula County, MDT, FHWA, the Missoula Urban Transportation District, the Missoula Ravalli Transportation Management Association, and other community organizations. An ad hoc Citizens Transportation Advisory Group and the public at-large also provided input into the Missoula transportation planning process. The Missoula Transportation Plan, along with the *Missoula Urban Comprehensive Plan–1998 Update*, provides the guiding principles for planning and development within the City.

As part of the metropolitan transportation planning process, a road system needs assessment was completed within the Missoula transportation planning process that included an analysis of the Russell Street corridor and the South 3rd Street corridor. The 2004 Missoula Transportation Plan Update forwarded recommendations from previous Plan Updates to widening Russell Street to five lanes and South 3rd Street to three lanes to correct roadway deficiencies. The analysis of

Foreword

South 3rd Street in the Plan identified the intersections of South 3rd Street with Reserve Street and with Russell Street as high crash locations and capacity-related modifications were recommended for South 3rd Street to meet future traffic demands. Modifications to both Russell Street and South 3rd Street were recommended as Major Network Improvement Projects in the Plan.

The 2004 Transportation Plan identified the intersections of Russell Street with West Broadway Street, Wyoming Street, South 2nd Street, South 3rd Street, and Mount Avenue as locations with at least 12 crashes per year. The intersections of Russell Street with South 5th Street, and South 3rd Street with Reserve Street were identified as locations with crashes higher than expected for an urban route with these traffic volumes. In addition, the congestion levels for many intersections within the project area were determined to be higher than the desired level for a major arterial. An analysis of the projected traffic volumes indicated that the portion of Russell Street between the Mount Avenue/South 14th Street and West Broadway Street intersections would require modifications to meet future capacity-related travel demands. This is discussed in more detail in Chapter 1 of the Environmental Impact Statement, in Section 1.4.

Addition of Proposed South 3rd Street Project

The South 3rd Street project began as a separate project in 1999. An Environmental Assessment was initiated under both the National and Montana Environmental Policy Act processes to study alternative modifications to South 3rd Street to increase capacity, correct roadway deficiencies, and improve safety. The Russell Street project was scheduled to begin the analysis phase in 2000. Because of the interconnected relationship of the two corridors, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration decided to combine the two projects into one analysis and Environmental Impact Statement. Two members of the Advisory Committee from the original South 3rd Street project joined the Advisory Committee for the Russell Street and South 3rd Street project, which provided continuity between the two projects. The work that had previously been completed for South 3rd Street was incorporated into the early phases of the environmental review process.

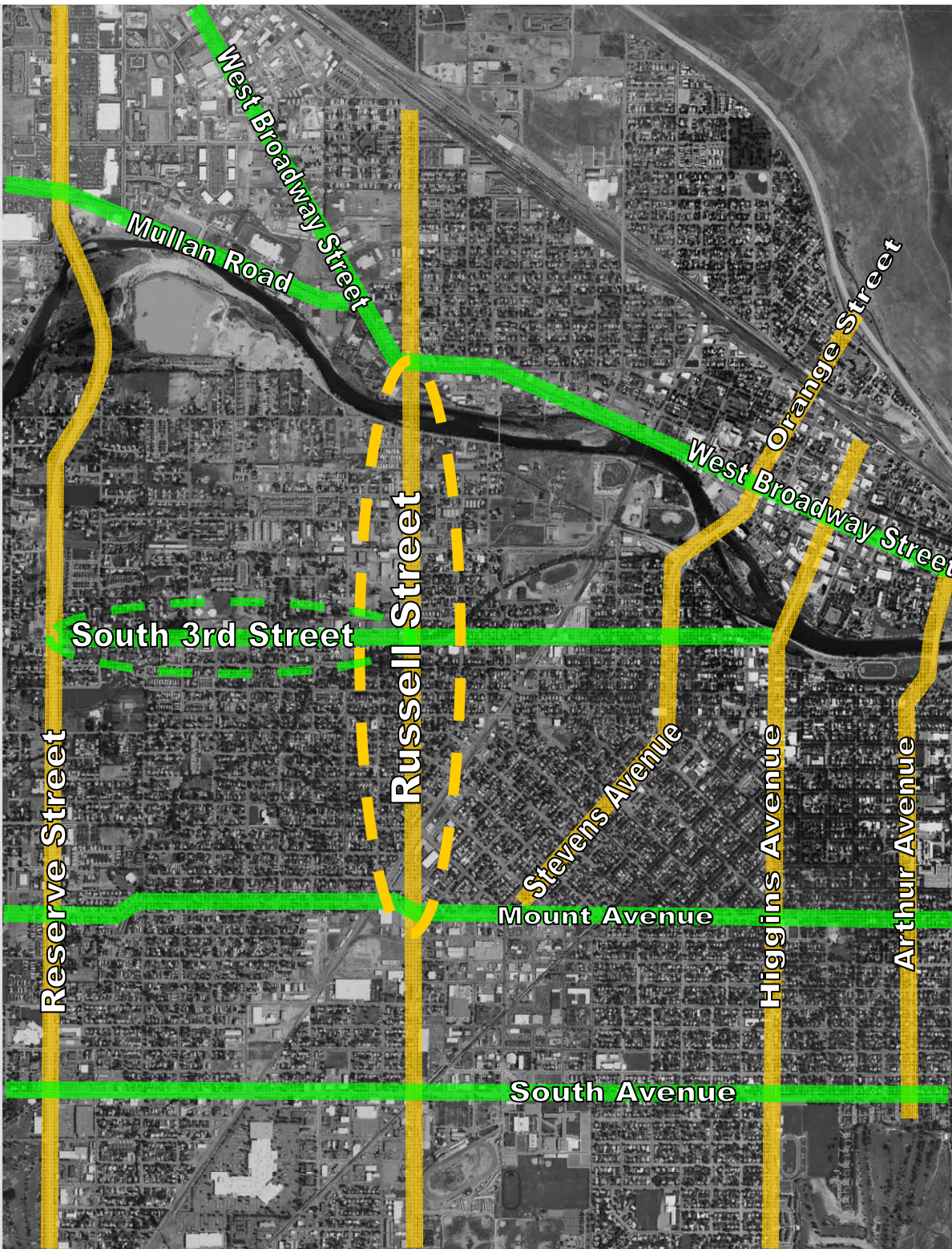
Logical Termini

Missoula's roadway system consists of a network of major roads (arterials) that serve longer trips through the urban area and collectors and local streets that provide connections to and between arterials and direct land access. As depicted in Figure F-1, Reserve Street, Russell Street, Stevens/Orange Street, Higgins Avenue, and Arthur Avenue are the key north-south arterials in the city. South Avenue, Mount Avenue, South 3rd Street, and West Broadway Street comprise the key east-west arterials, and complete the major arterial network for the City of Missoula.

As a part of the roadway grid system, Russell Street is particularly important as a major arterial due to its location and orientation. Russell Street lies 11 blocks east of Reserve Street, the most westerly arterial, and 14 blocks west of the next continuous north-south arterial, Higgins Avenue. Russell Street provides a critical north-south link in this part of the community, and provides one of only five river crossings for vehicular traffic in the city. South 3rd Street plays a similar role in an east-west fashion as one of only four major east-west arterials in the grid system.



Figure F-1
Major Arterial Network



Foreword

The lengths of these two corridors are dictated by their logical connections to other major links in this overall city street network. The proposed project on Russell Street would connect with an existing four-lane segment of Russell Street south of Mount Avenue/South 14th Street. Thus a continuous four-lane arterial would be provided for the extent of Russell Street up to its intersection with West Broadway Street.

The proposed improvements on South 3rd Street would connect between two major north-south arterials, Reserve Street and Russell Street.

These two projects thus have logical termini and have independent utility in the sense that each project could be constructed independent of the other without impacting the function or usefulness of the other corridor.

Activities since circulation of the DEIS

The Russell Street / South 3rd Street Draft Environmental Impact Statement (DEIS) was circulated for public review and comment on August 29, 2008, with a close of comment date set for October 20, 2008. During this period, members of the Missoula City Council requested an extension of the public comment period. The comment period was extended to November 4, 2008, and a Public Hearing was conducted on September 24, 2008.

Based on some of the public comment received, members of the public and Missoula City Council requested a “peer review” of the traffic analyses conducted for the Draft Environmental Impact Statement for Russell Street. Because the Missoula Area Metropolitan Planning Organization was in the process of completing an update to the Long Range Transportation Plan near the same time, the project team agreed that there would be value in updating the traffic analysis for the Final Environmental Impact Statement (FEIS). Subsequent to the completion of the analysis update for Russell Street, the analyses for South 3rd Street were also updated. Chapter 2 of this FEIS contains updated traffic information from both the *Russell Street Traffic Analysis Update* conducted in 2009, and the *South 3rd Street Traffic Update Memo*. Additionally, Appendix G contains a summary of the analyses and findings of both updates. Detailed technical memoranda, modeling output and final reports can also be obtained from the City of Missoula.

These traffic analyses updates allowed the project team to examine design options proposed by public participants. The results of the independent analyses validated some previous findings and recommendations, and allowed the project team to make modifications in the Preferred Alternatives for both Russell Street and South 3rd Street in order to extend the lifespan of the proposed safety and mobility improvements.



1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This chapter provides a summary description of the project area and the proposed actions by the City of Missoula, the Montana Department of Transportation, and the Federal Highway Administration. This chapter also provides a definition of the specific purpose of the proposed project and the need for the proposed improvements.

This chapter explains the purpose the proposed project is intended to serve in the community; the operational deficiencies that need to be addressed to make this facility function as intended; the additional benefits to the traveling public that could be gained from improvements in this corridor; and ends with a compilation of goals and objectives that were developed by the public and were used to develop the alternatives presented in Chapter 2 of this document.

1.1 Project Area Description

As illustrated in Figure 1-1, the proposed project is located in western Montana, in the City and County of Missoula. The proposed project lies entirely within the city limits.

The proposed project consists of approximately 1.5 miles of Russell Street from Mount Avenue on the southern end to West Broadway Street on the northern end. The existing roadway varies in width from two to four lanes including turn lanes at some intersections, and includes a two-lane bridge over the Clark Fork River.

The proposed South 3rd Street improvements extend approximately one mile from Reserve Street on the west to Russell Street on the east. The existing roadway varies in width but generally includes one travel lane in each direction and turn lanes at some intersections.

Existing Conditions of Transportation Facilities

Russell Street

Russell Street is a north-south principal arterial connecting Higgins Avenue / 39th Street to West Broadway Street (and Railroad Street further to the north) in west-central Missoula. As illustrated in Figure 1-2, the section of Russell Street under study from Mount Avenue/South 14th Street to West Broadway Street varies from two to four lanes with turn lanes. Currently, traffic signals are located on Russell Street at its intersections with Mount Avenue/South 14th Street, South 5th Street, South 3rd Street, and West Broadway Street. The signalized intersections along the corridor have pedestrian crossing facilities, including pedestrian signals, and are handicapped accessible (with curb ramps at all crossings).

There are no exclusive bike lanes and limited pedestrian facilities along Russell Street between Mount Avenue/South 14th Street and West Broadway Street. There are intermittently paved shoulders from Mount Avenue/South 14th Street to South 3rd Street, and gravel shoulders from South 3rd Street to West Broadway Street. The existing Russell Street Bridge has sidewalks on both sides.

Chapter 1.0 - Purpose and Need

Figure 1-1
Project Location Map

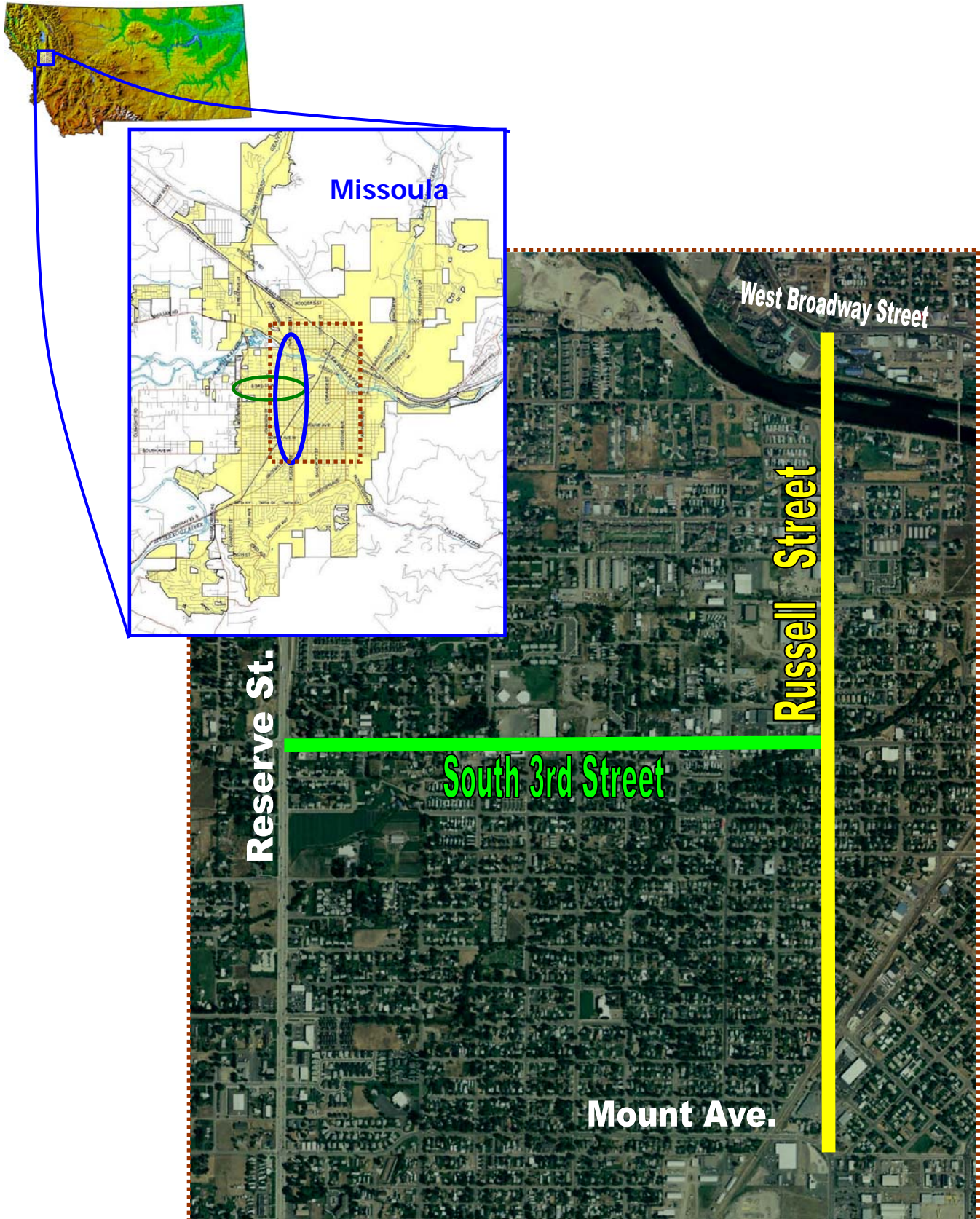




Figure 1-2
Existing Transportation Facility Conditions



Chapter 1.0 - Purpose and Need

The existing Russell Street Bridge, formally known as the Lincoln-Russell Bridge, was built in 1957. The bridge consists of two, 12± foot lanes and two, 4.0± foot raised sidewalks adjacent to the roadway. The existing bridge is approximately 420 feet long with four 105 foot spans over the approximately 407-foot bottom width channel. The structure is supported by three in-stream piers. The existing vertical clearance between the Russell Street Bridge and the 100-year flood elevation at the south abutment is approximately 4.0 feet. Runoff from the existing Russell Street Bridge currently drains into the Clark Fork River. The bridge footings support the interior piers and are approximately 10 feet wide by 34± feet long with a thickness of approximately 7.0 feet. Each abutment cap is supported by a wall resting on two pads that are approximately 3.0 by 14± feet wide with a thickness of approximately 4.0 feet.

South 3rd Street

South 3rd Street is an east-west minor arterial connecting Clements Road to South Higgins Avenue in west-central Missoula. As illustrated in Figure 1-2, the section of South 3rd Street under study from Reserve Street to Russell Street is approximately one mile in length and consists of an approximately 24 foot wide, two-lane section of roadway with intermittent paved shoulders, and no bicycle or pedestrian facilities, except for crosswalks at two un-signalized intersections and at the intersections with Curtis and Catlin Streets. There are traffic signals at the intersections of South 3rd Street at Reserve Street and Russell Street.

1.2 Proposed Action

Based on priorities established through the metropolitan transportation planning process, the City of Missoula, in cooperation with the Montana Department of Transportation and the Federal Highway Administration, initiated a study to evaluate alternatives to address the current and projected safety and mobility concerns on Russell Street and South 3rd Street. The general proposed action under consideration includes vehicular capacity improvements, accommodation of alternative transportation modes, transit pullouts, sidewalks, curb & gutter, boulevards, bicycle lanes, and stormwater drainage. Signalization of key intersections, as well as the potential for construction of roundabout traffic control is also under consideration with this proposed action.

1.3 Purpose of the Proposed Action

Given the physical location and functional designations of the Russell Street and South 3rd Street routes, the high traffic volumes, crash history, and multi-modal use of the corridors, **the purpose of this proposed project is to provide substantive safety and mobility improvements for all modes of travel in the Russell Street and South 3rd Street corridors.** Discussions in the following section outline the extent of the need for such improvements.

1.4 Need for the Proposed Action

The need for a transportation improvement project is generally established through an examination of characteristics such as capacity and forecast travel demand, crash history, lack of roadway network linkages, inadequate transit accessibility or bicycle and pedestrian facilities, or

outdated design features. In their Technical Advisory (6640.8A), the Federal Highway Administration outlines several different issues or problems that may be used to substantiate the need for improvements.

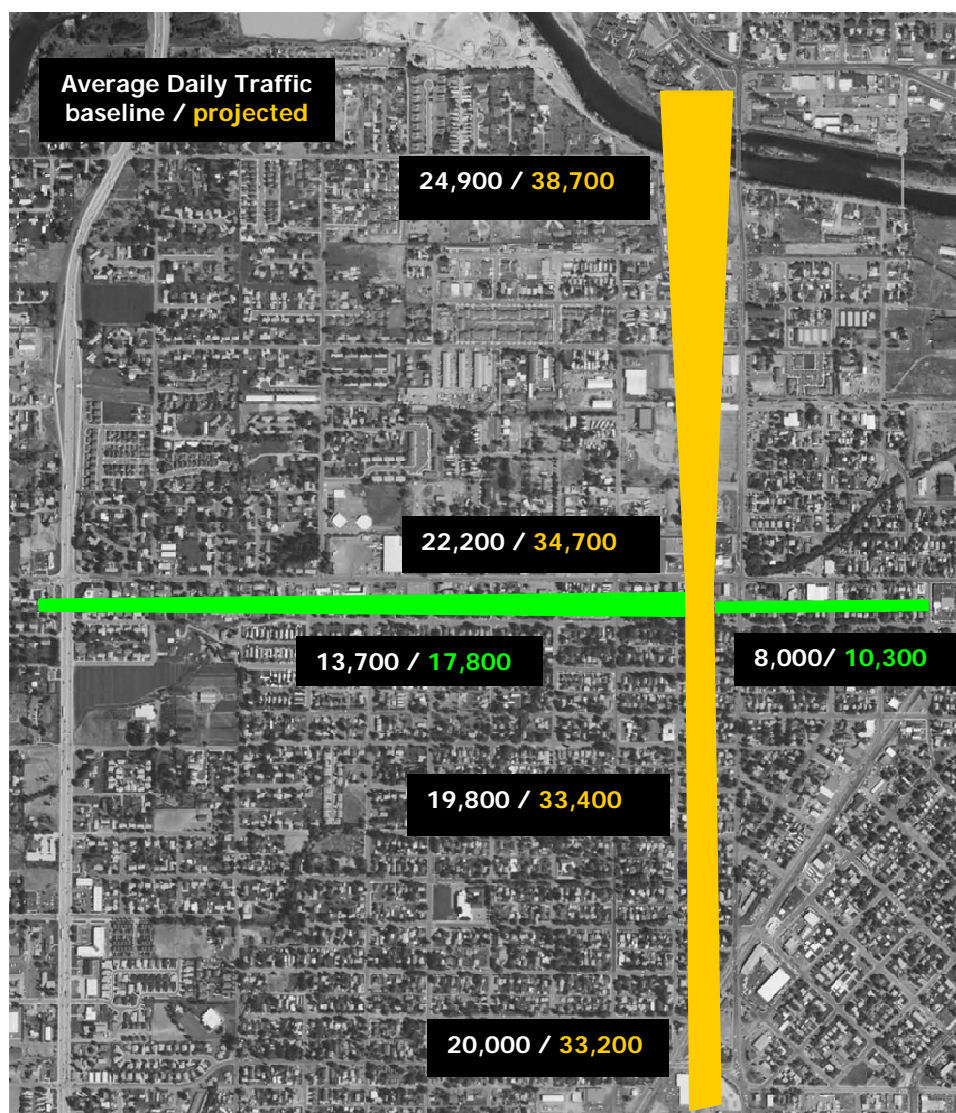
The need for improvements in these two corridors is based on a lack of future system capacity and lack of sidewalk continuity.

If these two issues can be addressed, additional benefits can also be gained in the following areas: vehicular, pedestrian, and bicycle safety; trail connectivity; improved transit service; and upgrades to an aging bridge structure. These needs and benefits are discussed below.

Vehicle Capacity and Level of Service

Russell Street currently experiences high levels of congestion during the morning and evening peak periods (or rush hours). As illustrated in Figure 1-3, traffic volumes counted on Russell Street in 2009 ranged from 19,800 average annual daily traffic south of South 3rd Street to 24,900 vehicles at the south end of the Russell Street Bridge. With no transportation improvements, this range of traffic volumes is projected to increase to 33,200 and 38,700 vehicles respectively by the year 2035, which exceeds the traffic volumes that were projected in the 1996 Missoula Transportation Plan Update. Both the 1996 Missoula Transportation Plan Update and the 1999 Missoula Transportation Plan Update listed Russell Street as the number two

Figure 1-3
Existing and Projected Traffic Volumes on Russell and South 3rd



North-South Arterial
East-West Arterial

Note: Projected volumes on Russell Street represent a constrained No Build condition.

Chapter 1.0 - Purpose and Need

priority for major improvement projects to remedy capacity-related problems. Russell Street continued to be listed in the 2004 Missoula Transportation Plan Update, but the Update did not prioritize projects as did previous reports.







South 3rd Street is one of several east-west arterials south of West Broadway Street that provides important roadway links between the major north-south arterials and also serves adjacent residential and commercial areas. Traffic volumes counted on South 3rd Street in 2001 ranged from 8,000 vehicles just east of Russell Street to 13,700 vehicles just west of Russell Street. Because traffic growth was relatively flat between 2001 and 2009 on South 3rd Street, these same volumes were used as the baseline for the traffic analysis update. These traffic volumes are projected to increase to 10,300 and 17,800 vehicles respectively by the year 2035. Both the 1996 Missoula Transportation Plan Update and the 1999 Missoula Transportation Plan Update listed South 3rd Street as the number one priority for major improvement projects to remedy capacity related problems. The 2004 Missoula Plan Update did not prioritize projects, but continued to list South 3rd Street as a key project.

Maintaining adequate capacity for the multiple travel modes that use principal arterials is key to maintaining an efficiently functioning roadway system.

It should be noted that the Missoula Area Metropolitan Planning Organization completed an update to the Long Range Transportation Plan in 2009 while the Draft Environmental Impact Statement was in public circulation. The Long Range Transportation Plan provides traffic projections through the year 2035 which provide the basis for the updated traffic analyses in this Final Environmental Impact Statement. The 2008 Envision Missoula Survey also reports that the highest percentage of survey respondents rank “Expand Roadway Capacity” as their dominant choice of transportation improvements for Missoula.

Traffic conditions on transportation facilities are commonly defined using the Level of Service concept. As shown in Figures 1-4 and 1-5, the *Highway Capacity Manual* defines Level of Service based on average travel speed, percent time delay, intersection delay, and capacity utilization to provide a qualitative assessment of the driver’s experience. Six Level of Service categories ranging from A to F are used to describe

Figure 1-4
Mainline Level of Service Definitions

Level of Service	Flow Conditions	Technical Descriptions
A		Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. No delays
B		Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. No delays
C		Stable traffic flow, but less freedom to select speed, change lanes or pass. Minimal delays
D		Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. Minimal delays
E		Unstable traffic flow. Speeds change quickly and maneuverability is low. Significant delays
F		Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. Considerable delays

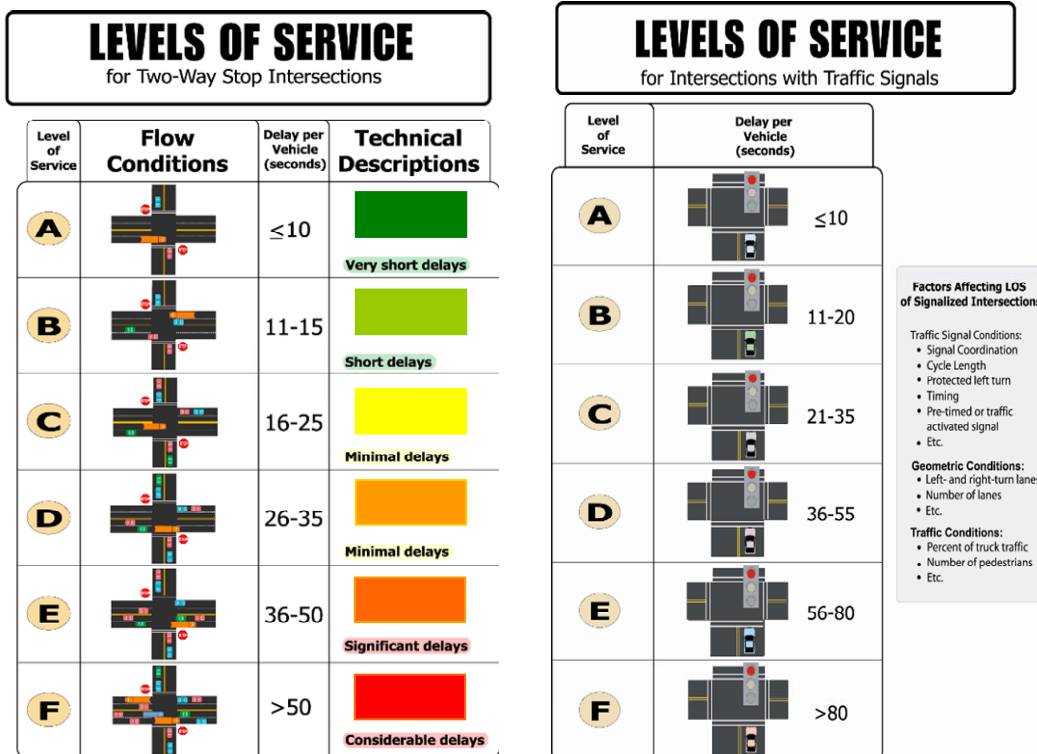
Source: 2000 HCM, Exhibit 20-2, Level of Service Criteria for Two-Lane Highways.

traffic operations. Level of Service A represents the best conditions and Level of Service F represents the worst. The existing facility does not provide adequate capacity to accommodate current traffic volumes during peak periods. If no improvements are made, traffic congestion in the corridor will worsen and the peak periods (or morning and evening “rush hours”) will extend in duration by the year 2035. In particular, intersection operations on Russell Street are anticipated to degrade to Level of Service F at several locations, meaning drivers will experience substantial delays at these locations. Russell Street will not be capable of accommodating increased traffic volumes in the future without both mainline capacity and intersection improvements which may include signals, roundabouts, and/or turn lanes at many locations.

Recognizing that a Level of Service A is not always achievable in every corridor due to physical constraints and excessive cost, each state establishes minimum thresholds or benchmarks they strive to achieve on a given type of facility. Benchmark Level of Service values identified in the *Montana Road Design Manual* (MDT 2006) are C or better for urban principal and urban minor arterials and D or better for collectors. While not optimal, these Level of Service benchmarks offer minimal delays and are generally acceptable in light of higher costs and impacts associated with achieving a higher Level of Service.

For intersections, Level of Service is defined in terms of delay or the amount of time the average driver spends waiting at a signal or for a gap in traffic. This delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to intersection traffic control (stop signs or signals), geometrics, traffic and incidents. Levels of Service for intersections are defined to represent reasonable ranges of delay.

Figure 1-5
Intersection Level of Service Definitions



Source: 2000 HCM, Exhibit 17-2, Level of Service Criteria for TWSC Intersections

Source: 2000 HCM, Exhibit 16-2, Level of Service Criteria for Signalized Intersections

Chapter 1.0 - Purpose and Need

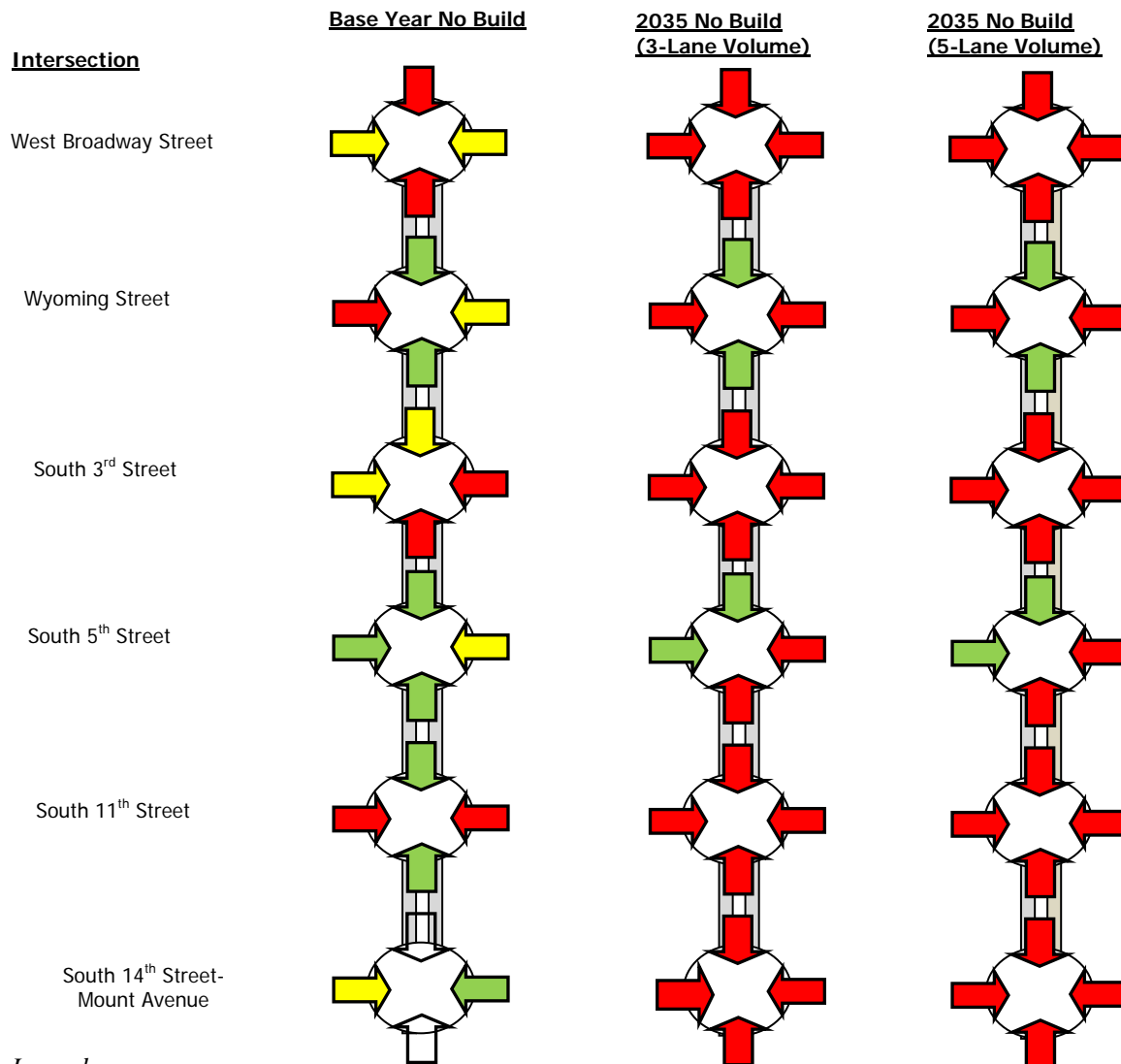
The targeted Level of Service for intersections, according to Montana Department of Transportation, is C for urban principal (Russell Street) and minor arterials and D for collectors (South 3rd Street). In addition to these general requirements, the City of Missoula specified a minimum Level of Service of D for South 5th Street, South 6th Street, Wyoming Street, and Catlin Street. The goal for this project is to provide Level of Service C on Russell Street and South 3rd Street.

As illustrated in Figures 1-6 and 1-7, both Russell Street and South 3rd Street have intersections that currently have inadequate operating conditions. It should also be noted that these congested conditions result in more idling time, and higher levels of vehicle emissions which have substantial air quality implications. This concern is discussed further in Chapters 3 and 4 of this document.

As depicted in Figure 1-6, both signalized and un-signalized intersections along Russell Street are currently failing to achieve the targeted Level of Service. During the *Russell Street Traffic Analysis Update* (see Appendix G for a summary), future traffic projections for year 2035 were generated for both a three-lane scenario and a five-lane scenario. Figure 1-6 illustrates that as the area population grows (under either future traffic volume scenario), traffic in the Russell Street corridor is expected to increase, and operating conditions are expected to decline without mainline capacity and intersection improvements.



**Figure 1-6
Russell Street Level of Service**



Legend:

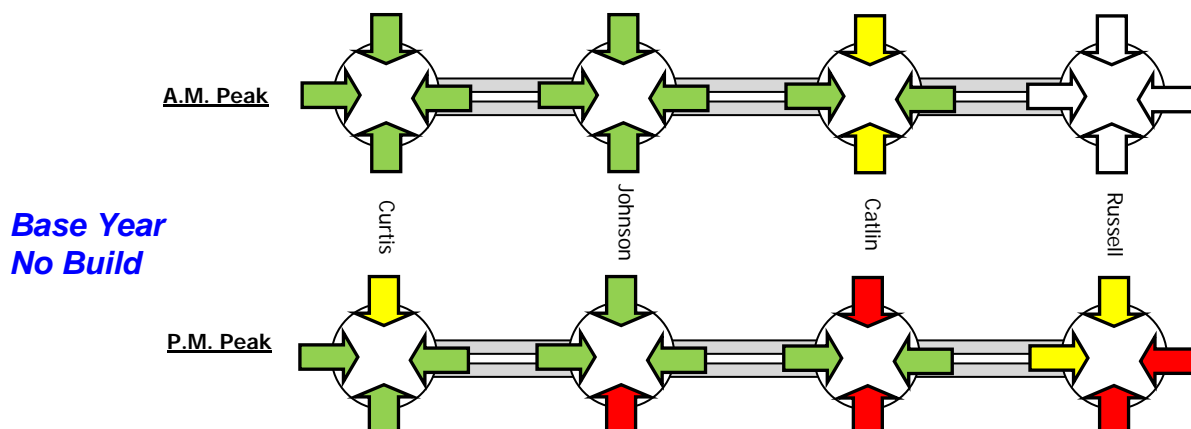
- Level of Service C or Better
- Level of Service D
- Level of Service E or F
- Data not available.

Source:

Kittelson & Associates, Inc.
Traffic Analysis Update, 2009

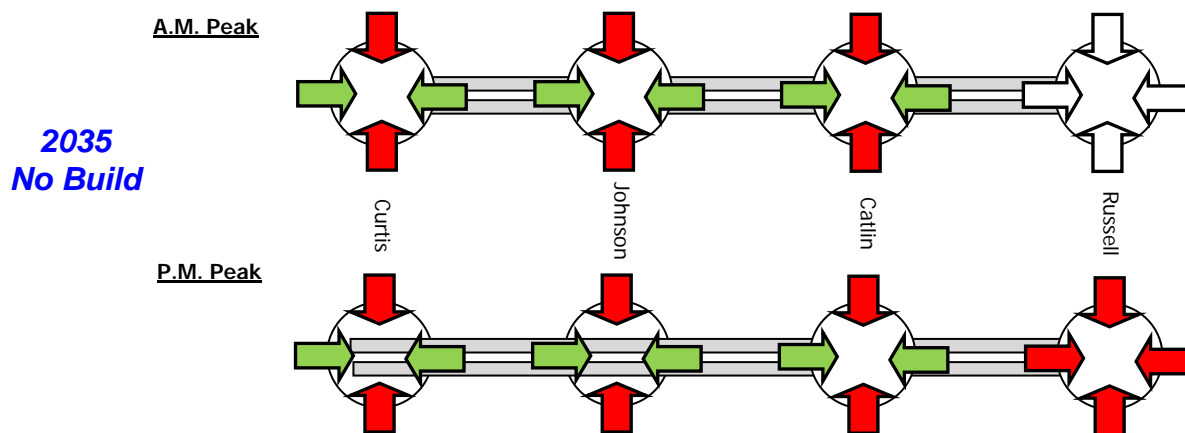
Chapter 1.0 - Purpose and Need

Figure 1-7
South 3rd Street Level of Service



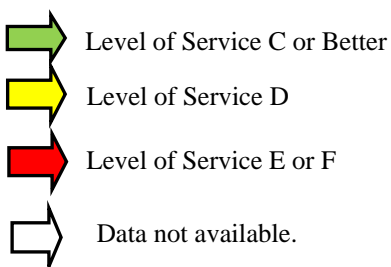
As indicated in the graphic above, the intersection operations on South 3rd Street at Catlin Street (in the P.M. peak hour) and Russell Street currently operate at poor levels.

By the year 2035, the intersection operations are anticipated to deteriorate to failing levels throughout the South 3rd Street corridor between Reserve Street and Russell Street, if no improvements are made.



Source:
DOWL HKM, 2010
Analysis originally prepared based on 2001 data,
reforecast to 2009, then projected to 2035.

Legend:





Pedestrian and Bicycle Facilities

In addition to carrying cars and trucks, many of the city's roadways are important corridors for non-motorized travel. A network of trails that intersect with the roadway network also serves pedestrians and bicyclists. Pedestrian/bicycle routes can be accommodated in a variety of ways, but Russell Street is particularly important in fulfilling those needs in Missoula due to its continuous north-south linkage through this portion of the community. South 3rd Street plays a similar role in an east-west fashion.

According to the *2001 Missoula Non-Motorized Transportation Plan*, the purpose of bicycle lanes is to indicate, by providing a defined space on the roadway, to both motorists and bicyclists that bicyclists belong on the road. Signed and striped bicycle lanes are the preferred bikeway design choice for principal arterials, minor arterials, and collectors with high volumes of traffic. Cyclists utilize combinations of bicycle routes to form systems for travel throughout the city; therefore, facilities should be provided to make the systems truly multi-modal. According to the American Association of State Highway and Transportation Officials', *Guide to the Development of Bicycle Facilities*, the preferred width ranges from four to five feet depending on traffic speeds and volumes, and whether on-street parking is permitted.

Bike lanes help define road space, decrease the stress level of bicyclists riding in traffic, encourage bicyclists to ride in the correct direction of travel, and signal motorists that cyclists have a right to the road. Bike lanes help to better organize the flow of traffic and reduce the chance that motorists will stray into cyclists' path of travel. In addition, several real-time studies (where cyclists of varying abilities and backgrounds ride and assess actual routes and street conditions) have found that cyclists are more comfortable and assess a street as having a better level of service for them where there are marked bike lanes present.

In summary, bike lanes do the following:

- support and encourage bicycling as a means of transportation;
- help define road space;
- promote a more orderly flow of traffic;
- encourage bicyclists to ride in the correct direction, with the flow of traffic;
- give bicyclists a clear place to be so they are not tempted to ride on the sidewalk;
- remind motorists to look for cyclists when turning;
- signal motorists that cyclists have a right to the road;
- reduce the chance that motorists will stray into cyclists' path of travel;
- make it less likely that passing motorists swerve toward opposing traffic; and/or
- decrease the stress level of bicyclists riding in traffic.

While the City has designated several arterials, including Russell Street, as a bicycle route, they do not necessarily include dedicated bicycle lanes. Well-designed facilities encourage proper behavior and decrease the likelihood of crashes. Numerous studies have shown that dedicated bicycle lanes improve safety and promote proper riding behavior.

Chapter 1.0 - Purpose and Need

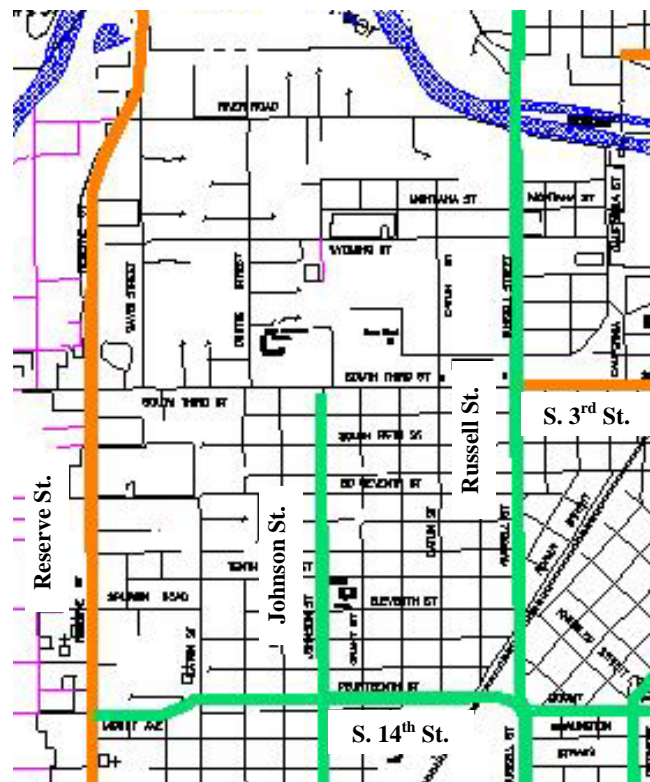
Current bicycle and pedestrian facilities are inconsistent throughout the Russell Street and South 3rd Street corridors. Sidewalks or paved shoulders are provided in limited areas, while pedestrian routes are discontinuous or nonexistent in others. These pedestrian facilities also do not meet the current requirements of the Americans with Disabilities Act. This poor condition, inaccessibility, and inconsistency in the route discourages pedestrian travel or requires that they walk on the roadway in several portions of the corridor. There are also several areas where worn paths can be found on the roadway shoulder or lawns giving evidence of bicycle and pedestrian use even in the absence of a formal facility.

Numerous comments were received during project scoping and public information meetings which emphasized the importance of a safe and enjoyable means for bicycle and pedestrian travel within this project corridor. The 1996 Missoula Transportation Plan Update recommends that a cohesive network of bicycle facilities be developed in the urban portions of Missoula to accommodate the safe and efficient travel of bicyclists. The Plan Update also identifies a need for improvement of sidewalks and pedestrian facilities, particularly for disabled persons and those who depend on sidewalks within Missoula. The 2004 Missoula Transportation Plan Update, although not explicit echoes these recommendations. Together, these planning efforts and the expressed opinion from public participants in this project development process, have identified the clear desire to improve bicycle and pedestrian facilities within this corridor.

According to the City of Missoula *Bike Lane / Route Map* (illustrated in Figure 1-8), the entire length of Russell Street from Mount Avenue to West Broadway Street is considered a bicycle route; however, neither Russell Street nor South 3rd Streets have bicycle lanes, and the inconsistent paved width may cause bicyclists to ride in traffic.

More explicit detail of the size and location of current facilities is discussed in Chapter 3 of this document.

Figure 1-8
City of Missoula Bike Lane / Route Map



Bike lanes shown in orange,
Bike routes shown in green.



1.5 Additional Benefits of Improvements

Intermodal Relationships

Both Russell Street and South 3rd Street are served by the Mountain Line bus system, as illustrated in Figure 1-9.

Route 2 (shown in pink) serves Russell Street from South 5th Street to West Broadway Street.

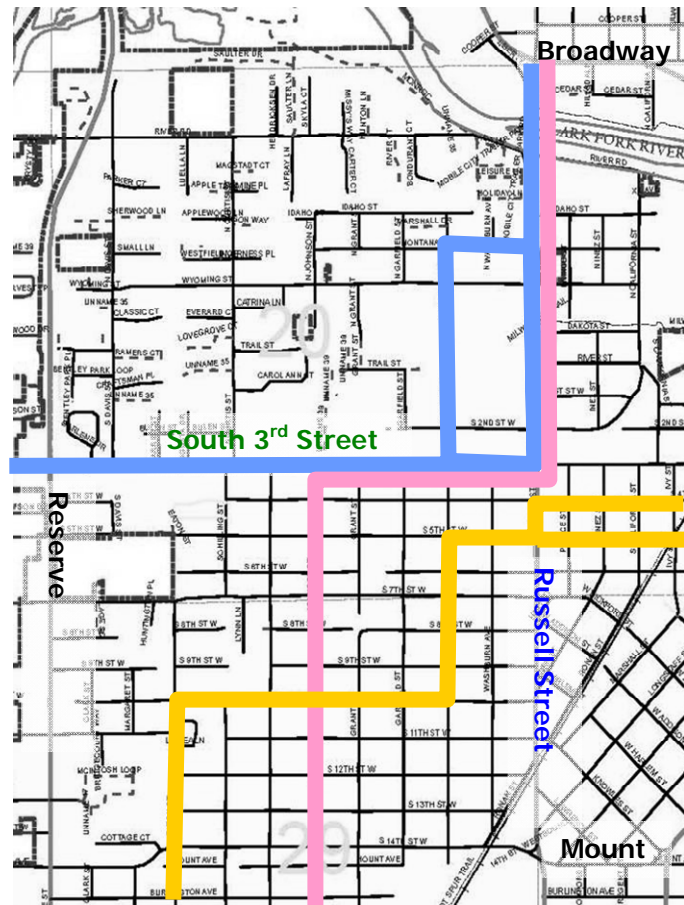
Route 9 (shown in blue) serves Russell Street from South 3rd Street to West Broadway Street, and South 3rd Street throughout the project area from Russell Street to Reserve Street.

Route 8 (shown in gold) serves Russell Street from South 5th Street to South 3rd Street.

The 1996 Missoula Transportation Plan Update identified a need for bus service throughout the Russell Street corridor.

Substantial improvements in capacity along Russell Street and South 3rd Street would improve the efficiency of transit routes utilizing these corridors, and provide a more attractive service for transit riders. And the inclusion of bicycle lanes, sidewalks, and bus stop or pullout locations, would improve the overall intermodal relationships as well.

Figure 1-9
Mountain Line Bus Routes in Project Area



★ Updated Route Map

Source: Mountain Line web page September 2009

Safety Performance

During the period from July 1, 2004 through June 30, 2007, there were a total of 289 crashes on Russell Street. Crashes at intersections accounted for 219 of those, while crashes between intersections on Russell Street contributed another 70 crashes to the total. 89 crashes involved injuries, again with the majority (70) occurring at intersections, and 19 occurring between intersections. There were no fatal crashes. The percentage of in-intersection or intersection related crashes (76.5 percent) on Russell Street is substantially higher than the statewide average of 55.3 percent for the same types of crashes in a similar urban setting.

Chapter 1.0 - Purpose and Need

As shown in Table 1.1 the predominant crash types on Russell Street were rear-end (61 percent), followed by right-angle (23 percent), and left turn (11 percent). The calculated crash rate for Russell Street excluding the intersection crashes is 2.15 per million vehicle miles traveled, which is lower than the national average crash rate of 6.17 crashes per million vehicle miles traveled. The statewide crash rate in Montana for urban areas with a population greater than 5,000 is 5.66 per million vehicle miles traveled. Of the 289 crashes on Russell Street, eight involved a bicycle or pedestrian which is about 2.8 percent of the crashes on Russell Street. Of all the urban crashes in the State of Montana, pedestrian/bicycle crashes account for two percent.

Table 1.1
Crash Types on Russell Street (July 1, 2004 - June 30, 2007)

Crash Type	Total Number	Percentage of Total
Rear End	176	60.9%
Right Angle	67	23.2%
Left Turn	33	11.4%
Other	13	4.5%
Total	289	100%

Source: Montana Department of Transportation, 2007

During the period from July 1, 2004 through June 30, 2007, there were a total of 122 crashes within the South 3rd Street study area. Crashes at intersections accounted for 79 of those, while crashes between intersections accounted for 43. There were 41 injury crashes, with 28 occurring at intersections, and 13 between intersections. There were no fatal crashes. The percentage of in-intersection or intersection related crashes (63 percent) on 3rd Street is substantially higher than the statewide average of 55.3 percent for the same types of crashes in a similar urban setting.

As illustrated in Table 1.2 the predominant crash types on South 3rd Street were rear-end (54.9 percent), right-angle (22.1 percent), and left turn (11.5 percent). The calculated crash rate for South 3rd Street excluding the intersection crashes is 3.69 per million vehicle miles traveled. The statewide crash rate in Montana for similar urban areas is 5.66 per million vehicle miles traveled. Of the 122 crashes on South 3rd Street, eight involved a bicycle or pedestrian which is about 2.5 percent of the crashes on South 3rd Street. Of all the urban crashes in the State of Montana, pedestrian/bicycle crashes account for two percent.

Table 1.2
Crash Types on South 3rd Street (July 1, 2004 - June 30, 2007)

Crash Type	Total Number	Percentage of Total
Rear End	67	54.9%
Right Angle	27	22.1%
Left Turn	14	11.5%
Other	14	11.5%
Total	122	100%

Source: Montana Department of Transportation, 2007.



Structural Deficiencies

The Russell Street Bridge over the Clark Fork River was constructed in 1957. The structure is a two-lane steel structure that does not meet current Montana Department of Transportation design standards or seismic bridge codes. The bridge consists of a 24 foot wide travel surface with two raised, four foot sidewalks immediately adjacent to the travel lanes. The bridge is typically congested at peak hours (for a period of 2 to 3 hours) and traffic is adversely affected by the inefficiency of the intersection of West Broadway Street and Russell Streets. The *Missoula Non-Motorized Transportation Plan* identifies the bridge as needing to better accommodate bicyclists and pedestrians, and traffic projections indicate that the bridge does not provide enough carrying capacity to facilitate the traffic needs at the Russell Street and West Broadway Street intersection.

Based on a bridge inspection conducted in 2008 the existing structure has a Sufficiency Rating of 55.3 on a scale of 0 to 100, and was determined to be functionally obsolete and eligible for rehabilitation. The structure is currently programmed for re-inspection in July 2010.

The sufficiency rating for a bridge structure is based on its structural adequacy and safety, necessity for public use, serviceability, and functional obsolescence. The rating is used to determine a structure's adequacy, both with regard to its load-carrying capabilities and its ability to accommodate the volume of traffic the road serves. The ratings are developed by the Federal Highway Administration and are one of the parameters used in allocating federal funding for the Highway Bridge Replacement and Rehabilitation Program. They provide a basis for establishing eligibility and priority for replacing or rehabilitating bridges. In general, the lower the rating (on a scale from 0 to 100), the higher the priority.

View of Russell Street Bridge steel structure



1.6 Goals and Objectives

During the project development process, regulatory agencies, an Advisory Committee established for this project, and the general public were asked to provide input on the proposed project. That input was used to develop a series of goals and objectives, which are outlined below. The goals (in bold text below) are broad statements of desired characteristics for corridor improvements. These goals were used to help develop the initial range of alternatives. The objectives (bulleted items below) are more detailed design concepts to be incorporated into the proposed project's final design, if feasible.

The goals and objectives developed through the process included:

Improve safety and mobility

- Provide adequate travel lanes and turn lanes to accommodate projected demand at an acceptable level of service
- Provide designated lanes/facilities for safe bicycle and pedestrian use
- Widen the bridge over the Clark Fork River to accommodate additional vehicle lanes and bicycle/pedestrian facilities
- Provide design and traffic control measures to improve safety

Improve multi-modal access and mobility

- Provide trail linkages within and across the Russell Street and South 3rd Street corridors
- Provide grade-separated bicycle and pedestrian crossings of Russell Street
- Provide facilities compliant with the Americans with Disabilities Act
- Provide adequate space for bus stops and pullouts in the corridors
- Explore the use of roundabouts to improve on the safety of turn movements and access to adjacent homes and businesses

Minimize impacts

- Reduce the adverse environmental impacts of transportation on the corridor
- Address air quality and water quality issues related to the current transportation infrastructure in the corridor
- Mitigate unavoidable impacts

Maintain Community Character

- Develop a transportation facility that maintains or enhances a sense of the residential and commercial neighborhoods within the corridor
- Provide aesthetically pleasing design elements such as a landscaped boulevard



2.0 ALTERNATIVES ANALYSIS

The following chapter documents the alternatives development and evaluation process utilized to identify the Preferred Alternatives. In an effort to identify the optimal investment in these travel corridors while recognizing the values and concerns expressed by the public, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration utilized a collaborative and objective process to develop alternatives and determine the degree to which those alternatives satisfied the specific purpose and need of improving safety and mobility in the corridor. The more general goals of minimizing impacts and maintaining community character also provided guidance in the refinement of the alternatives and development of preliminary design details.

The alternatives development process was iterative and involved two major evaluation stages. The first stage involved the exploration of the No Build and several Build alternatives with varying capacity and intersection control measures on both Russell Street and South 3rd Street. A preliminary evaluation of impacts necessitated a further refinement of those alternatives that best met the safety and mobility needs. Those alternatives were refined and evaluated again for their ability to provide targeted safety and mobility improvements, to compare their preliminary impacts, and to assess their cost-effectiveness.

This chapter steps through the process in chronological order, starting with a summary of how and why the alternatives were developed, moving through description of the alternatives, discussing the alternatives evaluation process, identifying the Preferred Alternatives, and ending with a discussion of the goals and objectives used to further refine and evaluate the alternatives.

2.1 Development of Alternatives

An Advisory Committee was formed to provide citizen input to the City of Missoula, Montana Department of Transportation, and Federal Highway Administration. A list of the members of the Advisory Committee is provided in Chapter 7 – Comments and Coordination. Advisory Committee members were charged with the responsibility of acting as a liaison between their constituents and the project team. They were also active in the outreach, preparation, and attendance of the public meetings. Advisory Committee members spent considerable time discussing critical project issues, participating in twelve meetings from late 2000 to early 2002. This committee was disbanded upon development and evaluation of alternatives.

In addition, as part of the formal National Environmental Policy Act and Montana Environmental Policy Act processes, an initial Public Scoping Meeting was held on November 16, 2000 and seven additional public meetings were held prior to the publication of the Draft Environmental Impact Statement. The seven additional public meetings included a four-day, community workshop hosted by Dan Burden of *Walkable Communities* and further meetings to discuss and refine alternatives. Public input from these meetings covered a wide range of issues that affected all travel modes and were dispersed throughout the study area and beyond.

Chapter 2.0 - Alternatives Analysis

Stephens Avenue was reconstructed in the late 1990's, and has been referred to by the public as an example of what the community expects for a roadway reconstruction project in Missoula. The Stephens Avenue corridor includes landscaping, raised medians, left turn storage, bicycle lanes, sidewalks, boulevards, and pedestrian crossings. Initial project alternatives for Russell Street and South 3rd Street were developed based on forecast travel demand and congestion levels, bike/pedestrian corridor travel and crossing safety, issues raised in the public involvement process, and efforts to avoid known physical constraints within the corridors. Throughout the public involvement process, participants expressed a desire that improvements in the Russell Street and South 3rd Street corridors include bicycle facilities, sidewalks, bus turnouts, curbs and gutters for stormwater management, river trail system access to the roadway, illumination, landscaping, and pedestrian crossing facilities. The inclusion or exclusion of these elements will determine the width and functionality of the facilities, and define the overall feel of the corridors.

During the development and evaluation of alternatives, small modifications were made to the design concepts in an attempt to satisfy the goals and objectives outlined in Chapter 1. As outlined in the following section, the No Build and two Build alternatives on Russell Street fail to satisfy Purpose and Need. The two remaining alternatives were considered viable, but additional modifications were determined to be desirable to further minimize impacts and improve the conceptual design. Only one of these alternatives was able to minimize impacts to protected historic resources at South 5th Street and is identified as the Preferred Alternative. Specific design elements of the Preferred Alternatives are discussed in Section 2.5. Other options considered early in the process, but eliminated for various reasons, are discussed in Section 2.6.

Background on Consideration of Roundabouts

One of the objectives of this project as discussed in Chapter 1 – Purpose and Need, included the development of alternatives to “explore the use of roundabouts to improve on the safety of turn movements and access to adjacent homes and commercial buildings.” The roundabout concept is relatively new to Montana, but this form of intersection control is becoming more common in western states and has been used throughout the world for many years. Even with broader use across the country, there are frequent misperceptions on roundabouts. The following provides some background information on what this intersection concept entails. More can be read about roundabouts from *Roundabouts: An Informational Guide* (See List of Technical Reports in the Table of Contents of this document, and Appendix A for a summary).

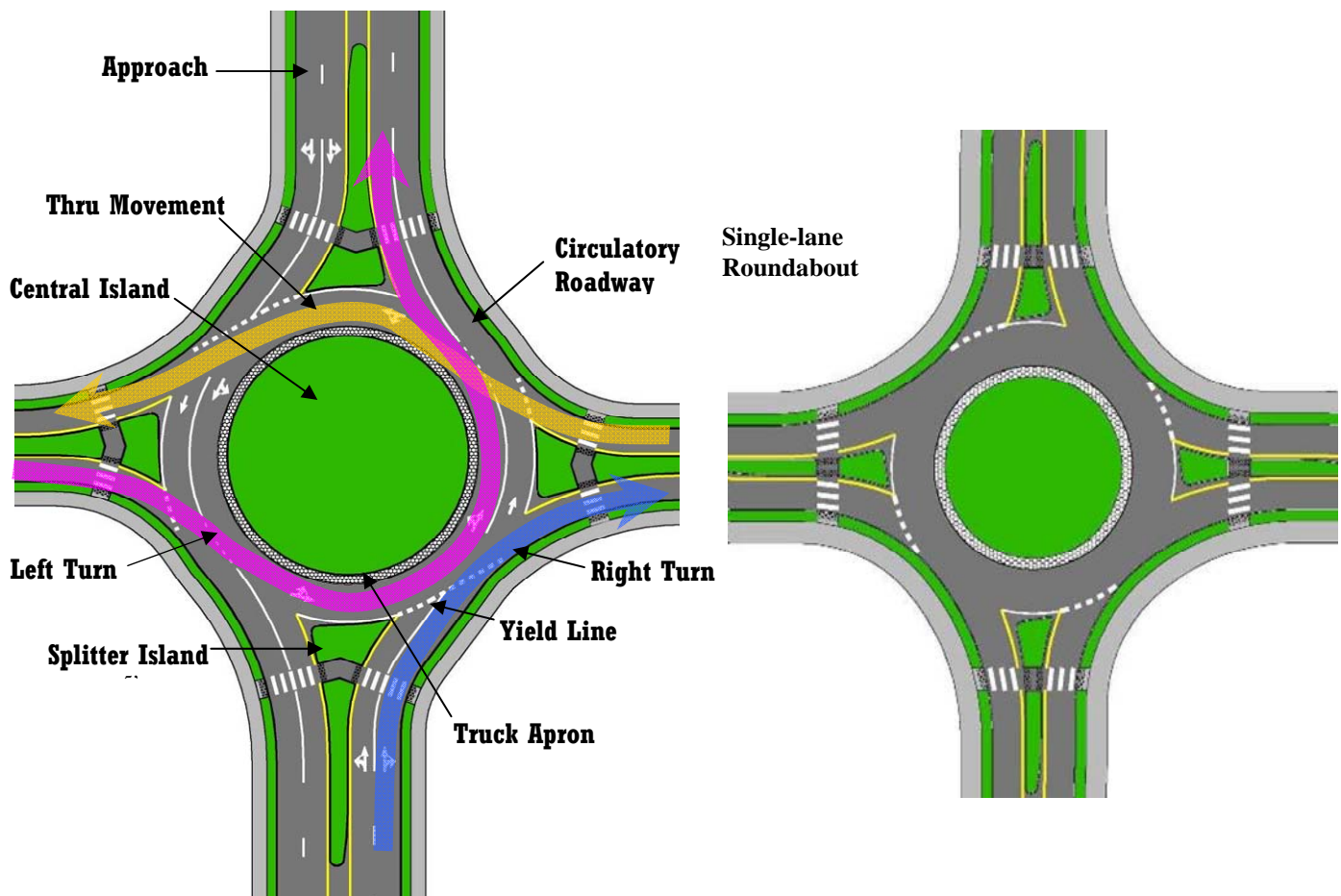
Roundabouts are not the same as a “rotary” or “traffic circle”

A roundabout is not the same as the older-style rotary or traffic circle like those found in some east coast and European cities. Although the United States was home to the first one-way rotary system in the world (implemented around New York City's Columbus Circle in 1904), traffic circles had fallen out of favor in this country by the 1950s. Older traffic circles, located primarily in the northeastern states, encountered serious operational and safety problems, including the tendency to lock up at higher volumes.

Based in large part on this country's experience with the older and existing traffic circles built prior to 1990, the modern roundabout has been notably less popular in the United States than abroad. The modern roundabout has been successful in several countries in Europe and Australia, where the roundabout has changed the practice of intersection design. Just in the last decade, communities in the United States have experimented with the modern roundabout, and based on their success, there has been a growing interest in their development across the country.

The main difference between older style rotary or traffic circles and roundabouts is in how traffic enters the circle and which vehicle has the right-of-way. Figure 2-1 illustrates the typical features of a modern roundabout. With roundabouts, drivers wishing to enter must yield to vehicles already in the circle. With many of the older traffic circles, drivers inside the circle must yield to the vehicles entering the circle. Roundabouts can be designed to handle fire trucks, buses, and various sizes of emergency vehicles, as well as truck and trailer combinations. To accommodate these larger vehicles, the center island of a roundabout is often built with a gradually sloped and flat curb, called a truck apron.

Figure 2-1
Typical Roundabout Features



Chapter 2.0 - Alternatives Analysis

Modern roundabouts range in size from mini-roundabouts (with outside diameters as small as 50 feet), to compact roundabouts (with outside diameters between 98 to 115 feet), to large, often multilane, roundabouts up to 492 feet in diameter with more than four entries, and two-bridge grade-separated roundabouts, located over or under freeways.

Roundabouts also differ from traffic calming islands often seen in neighborhoods where the intent is to slow traffic speeds in residential areas and reduce crashes.

Background on Consideration of Turn Lanes

The initial traffic analysis conducted for this Environmental Impact Statement indicated that additional turn lanes would be beneficial in achieving safety and capacity improvements at major intersections in the Russell Street corridor. Public comment on the Draft Environmental Impact Statement challenged the assertion that additional turn lanes would result in safety improvements. The following provides a summary of national research on the safety benefits of turn lanes at at-grade intersections which provides the rationale for their inclusion in the proposed project.

The Federal Highway Administration report, *Safety Effectiveness of Intersection Left- and Right-Turn Lanes* (FHWA-RD-02-089, July 2002) includes recommendations based on the research on the effectiveness of turn lane improvements on at-grade intersections. The conclusions and recommendations include the following:

Added left-turn lanes are effective in improving safety at signalized and unsignalized intersections in both rural and urban areas. Installation of a single left-turn lane on a major-road approach would be expected to reduce total intersection crashes at rural unsignalized intersections by 28 percent for four-leg intersections and by 44 percent for three-leg intersections. At urban unsignalized intersections, installation of a left-turn lane on one approach would be expected to reduce crashes by 27 percent for four-leg intersections and by 33 percent for three-leg intersections. At four-leg urban signalized intersections, installation of a left-turn lane on one approach would be expected to reduce crashes by 10 percent. Installation of left-turn lanes on both major-road approaches to a four-leg intersection would be expected to increase, but not quite double, the resulting effectiveness measures for total intersection crashes.

Added right-turn lanes are effective in improving safety at signalized and unsignalized intersections in both rural and urban areas. Installation of a single right-turn lane on a major-road approach would be expected to reduce total intersection crashes at rural unsignalized intersections by 14 percent and crashes at urban signalized intersections by four percent. Right-turn lane installation reduced crashes on individual approaches to four-leg intersections by 27 percent at rural unsignalized intersections and by 18 percent at urban signalized intersections. Only limited results were found for right-turn lane installation at three-leg intersections. Installation of right-turn lanes on both major-road approaches to a four-leg intersections would be expected to increase, but not quite double.



2.2 Description of Alternatives

The following is a description of the No Build, the five Build alternatives developed for Russell Street, and the four Build alternatives developed for South 3rd Street. Preceding the descriptions of individual alternatives are summaries of several design features, access modifications, or minor intersection realignments that would be components of any of the Build alternatives in these corridors.

Design options were also developed for the Bitterroot Branch Trail and the Milwaukee Corridor Trail crossings of Russell Street. Those options were screened, and the most preferable is presented as a component of all of the Russell Street Build alternatives.

Specific Design Elements Common to All Build Alternatives

To support the stated Purpose and Need for the proposed project, the Advisory Committee recommended nine design features that would be common to all Build alternatives. The common features are:

- The existing Russell Street Bridge would be removed and replaced with four lanes over the Clark Fork River to provide adequate capacity for projected traffic volumes. The proposed bridge concept is a 4-span, approximately 450 foot long structure. The proposed bridge supports would be in the same location longitudinally in the river as the existing piers. The new bridge profile and low chord would be higher than the existing bridge resulting in a larger hydraulic opening.
- Bicycle lanes would be included to improve multi-modal transportation in the corridors.
- Sidewalks would be constructed along both sides of each route to improve pedestrian comfort and safety.
- Grade separated pedestrian/bicycle crossings would be provided for the Milwaukee Corridor Trail and Bitterroot Branch Trail systems as they cross Russell Street.
- Curb and gutter would be included to improve stormwater management.
- Street lighting would be included to improve aesthetics and safety.
- Landscaped boulevards would be constructed on both sides of Russell Street and South 3rd Street between the curb and sidewalk to improve aesthetics.
- Bus pullouts would be incorporated into the final design along Russell Street north of South 3rd Street, and along South 3rd Street from Russell Street to Reserve Street, and can be accommodated within the bike lane/boulevard section without requiring additional right-of-way.
- On-street parking within the City right-of-way is currently prohibited along Russell Street and South 3rd Streets. Parking restrictions would be enforced in these areas.

Chapter 2.0 - Alternatives Analysis

Raised medians were also identified as one of the treatments to improve pedestrian crossings, reduce conflict points at driveways and minor cross streets, and provide aesthetic improvements with landscaped areas. Raised medians provide refuge in the center of the street so pedestrians can cross one direction of traffic at a time. Each alternative has different amounts of raised median, as noted in each individual description. The length of landscaped median will depend on the number of access points desired, and the length of turn movements required at those access points.

Access at driveways and cross streets affected by raised medians would be provided for by entering right-turns and exiting right-turns. Motorists desiring to turn left would be accommodated through u-turns at the open intersections, at roundabouts, or by turning in advance of the access point and routing around the block. The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

All Build alternatives would also include the following alignment and access improvements, as depicted in Figure 2-2:

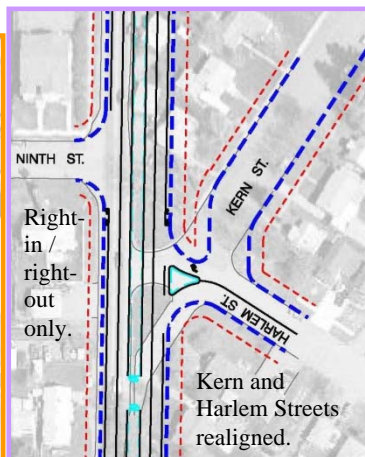
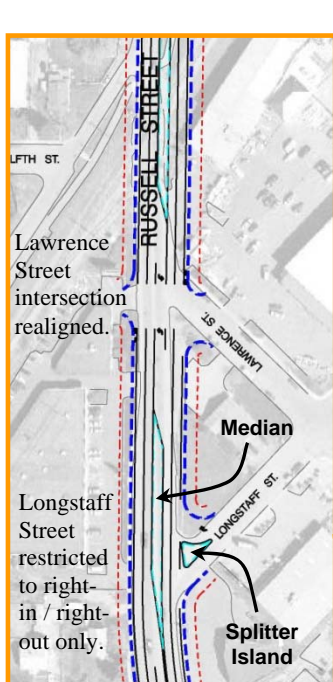
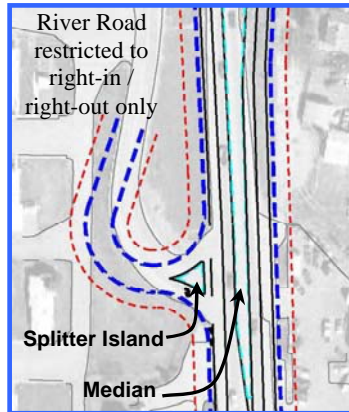
- Longstaff Street would be restricted to a right-in and right-out only connection with Russell Street.
- Lawrence Street would be realigned to a right-angle intersection with Russell Street.
- Access to Russell Street from Harlem Street and Kern Street on the east side of Russell Street would be restricted to a right-in and right-out only connection.
- Addison Street would be realigned to a right-angle intersection with Russell Street opposite from South 8th Street.
- Curb and gutter sections measuring 2.0± feet wide would be constructed on both sides of Russell Street and South 3rd Street with gutters located immediately inside the curb and would provide a functional width of 5.5± feet for the bicycle lane.
- Where space is adequate along the proposed right-of-way, landscaped boulevards would be constructed on both sides of Russell Street and South 3rd Street between the curb and proposed sidewalk. Landscaping would also be included in center medians and roundabouts as appropriate.
- Knowles Street would be shifted slightly to the north to match with South 11th Street on the west.

Final Environmental Impact Statement



**Figure 2-2
Baseline Modifications to Russell Street**

New connection from River Road.
New construction west of Mobile
City Trailer, and improvements to
existing roadways along Idaho Street,
Catlin Street, and Wyoming Street.



West Broadway Street

Clark Fork River
River Road

Idaho Street

Montana Street

Wyoming Street

Dakota Street

River Street
South 1st Street

South 2nd Street

South 3rd Street

South 4th Street

South 5th Street

South 6th Street

South 7th Street

South 8th Street

South 9th Street

South 10th Street

South 11th/Knowles
Street

South 12th Street

South 13th Street

Mount Avenue /
South 14th Street

Chapter 2.0 - Alternatives Analysis

- River Road would generally remain in its current configuration with minor intersection modifications and a restricted right-in and right-out connection with Russell Street. In addition, right-of-way would be purchased for the construction of a new link between River Road and Idaho Street that would become part of the River Road connection to Russell Street via Wyoming Street. The connection would include a newly constructed section of road running north-south adjacent to the western boundary of Mobile City Trailer Park between existing River Road and Idaho Street. It would also include reconstructed sections of Idaho Street between the new road along the western border of the Mobile City Trailer Park and Catlin Street; Catlin Street between Idaho Street and Wyoming Street; and Wyoming Street between Catlin Street and Russell Street.

Figure 2-3
Proposed River Road Connection



Trail Connections

The Build Alternatives also include three trail connections that cross the Russell Street corridor. The following trail connections would be made.

Bitterroot Branch Trail Connection

The Bitterroot Branch Trail connection is located at the intersection of the Bitterroot Branch Trail and Russell Street south of the intersection of Russell Street and South 11th Street/Knowles Street. Under the Build Alternatives, the Bitterroot Branch Trail Crossing would be constructed



as a tunnel under Russell Street. The tunnel crossing would be constructed in approximately the same location as the existing trail crossing. The existing trail alignment would be modified to connect to the tunnel structure crossing.

Milwaukee Corridor Trail Connection

The Milwaukee Corridor Trail connection is located where Dakota Street intersects with Russell Street. The trail ends a short distance from the east side of Russell Street and currently trail users cross Russell Street at the Wyoming Street intersection. Under the Build Alternatives, the Milwaukee Corridor Trail Crossing would be constructed as a tunnel under Russell Street. The tunnel crossing would be constructed in approximately the same location as where the existing trail terminates on the east side of Russell Street. The existing trail alignment would be modified to connect to the tunnel structure crossing.

Shady Grove (River Trail System) Trail Connection

The Shady Grove Trail connection is located parallel to the east side of Russell Street north of the bridge. The trail turns east and extends approximately one-half mile along the riverfront to Burton Street. Reconstruction of the Russell Street Bridge would include extension of the Shady Grove Trail westward under the bridge and construction of connections to the sidewalks on both sides of Russell Street.

These trail connections are depicted in Chapter 4, Section 4.5 – Parks and Recreation Impacts.

During early scoping and project development, it was determined that pedestrian/bicycle tunnels would be preferable to an overpass structure, or to an at-grade crossing. If during final design, it appears that geotechnical conditions, or underground utilities would prohibit construction of the intended under-crossings, these crossings could be redesigned as an overpass. It would not be desirable, and it is not intended that these trail crossings would be left as at-grade crossings if the corridor is reconstructed.

Russell Street Alternatives:

Originally, the No Build (Alternative 1) and three Build alternatives were identified for Russell Street, Alternatives 2 and 3 with roundabouts, and Alternative 4 with traffic signals. During the process of analyzing the three Build alternatives, it became apparent that another alternative that has four travel lanes, a median/center turn lane, and roundabouts at the major intersections should be included as a viable alternative. There were two-lane facilities (Alternatives 2 and 3) and a four-lane facility with signals (Alternative 4) but a four-lane facility with roundabouts was lacking. This four-lane alternative was added and identified as Alternative 5. Further modifications were made to Alternative 5 (and analyzed separately as Alternative 5-Refined) during later stages of analysis and are discussed in Section 2.4.

Table 2.1 provides an overview of the Russell Street alternatives, and the sections that follow provide more detailed descriptions and graphical representations of the various alternatives.

Chapter 2.0 - Alternatives Analysis

Table 2.1
Russell Street Alternatives – Overview of Major Features

	Alt. 1 (No Build)	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Number of Vehicular Lanes:					
Mount to South 8 th	2	2	2+	4+	4+
South 8 th to South 5 th	2	2+	2+	4+	4+
South 5 th to South 3 rd	4	4	4	4+	4+
South 3 rd to the bridge	2+	2+	2+	4+	4+
The bridge to W. Broadway	2	4	4	4+	4+
Intersection Control:					
Signals	✓			✓	
Roundabouts		✓	✓		✓
Design Elements:					
Sidewalks		✓	✓	✓	✓
Bike lanes		✓	✓	✓	✓
Boulevards		✓	✓	✓	✓
Curb/Gutter		✓	✓	✓	✓
Lighting		✓	✓	✓	✓
Bus Pullouts		✓	✓	✓	✓

Notes: 2+ denotes a two-lane section with a center turn lane/raised median
4+ denotes a four-lane section with a center turn lane / raised median

Source: HKM Engineering., 2007

Alternative 1 – No Build

Alternative 1 is the No Build Alternative and would provide no improvements to Russell Street or the existing Russell Street Bridge. Routine maintenance would continue in accordance with City, County, and state policies. Figure 2-4 illustrates the No Build Alternative and the following provides a summary of the major features:

Lane Configuration:

- Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
- Four travel lanes from South 5th Street to South 3rd Street
- Two travel lanes and a center turn lane from South 3rd Street to Russell Street Bridge
- Two travel lanes from Russell Street Bridge to West Broadway Street

Signalized Intersection Control at:

- Mount Avenue/South 14th Street
- South 5th Street
- South 3rd Street
- West Broadway Street

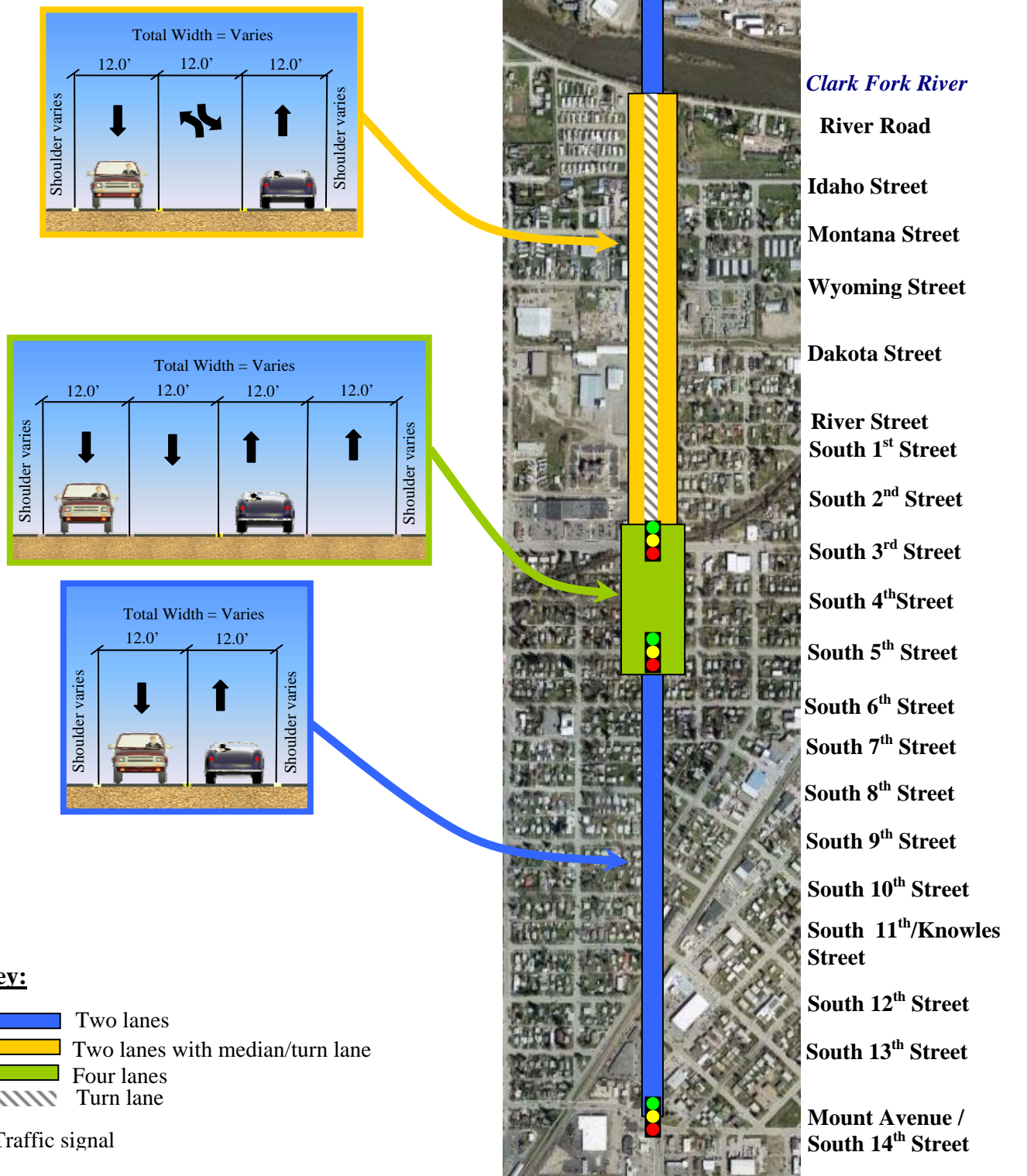
All other streets intersecting Russell Street are, and would continue to be, controlled by stop signs.

Center turn lane between:

- South 3rd Street and the Russell Street Bridge



Figure 2-4
Alternative 1 – General Elements



Chapter 2.0 - Alternatives Analysis

Alternative 2

2 / 2+ / 4 Lanes with Roundabouts

Alternative 2 is very similar to the existing condition in lane configuration but includes the use of roundabouts at select intersections and limited use of raised medians to control through traffic and increase the functionality of the intersections and roundabouts.

Figure 2-5 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

- Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
- Four travel lanes from South 5th Street to South 3rd Street
- Two travel lanes from South 3rd Street to Wyoming Street
- Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

- Mount Avenue/South 14th Street
- South 5th Street
- South 3rd Street
- Wyoming Street

Single-Lane Roundabouts at:

- South 11th Street

Signal Control at:

- West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

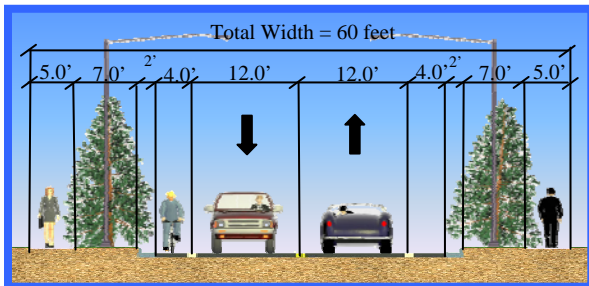
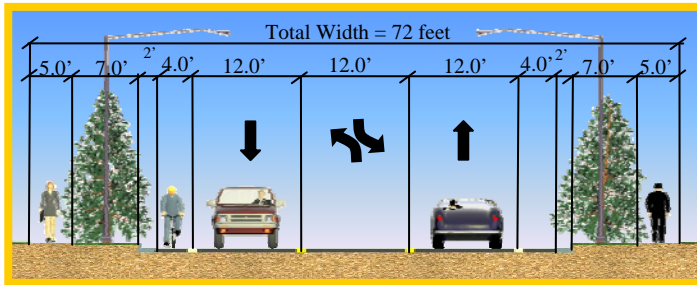
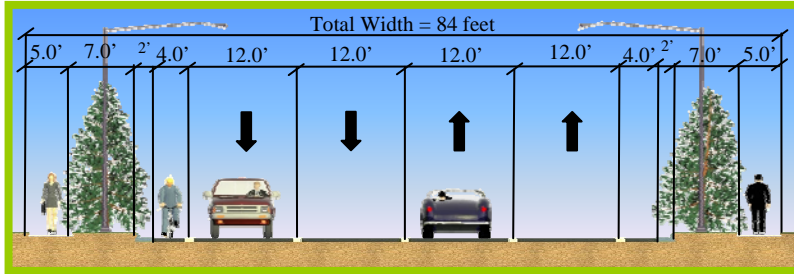
The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on historic and recreational properties protected under Section 4(f) of the U.S. Department of Transportation Act, as discussed later in this document.

Final Environmental Impact Statement



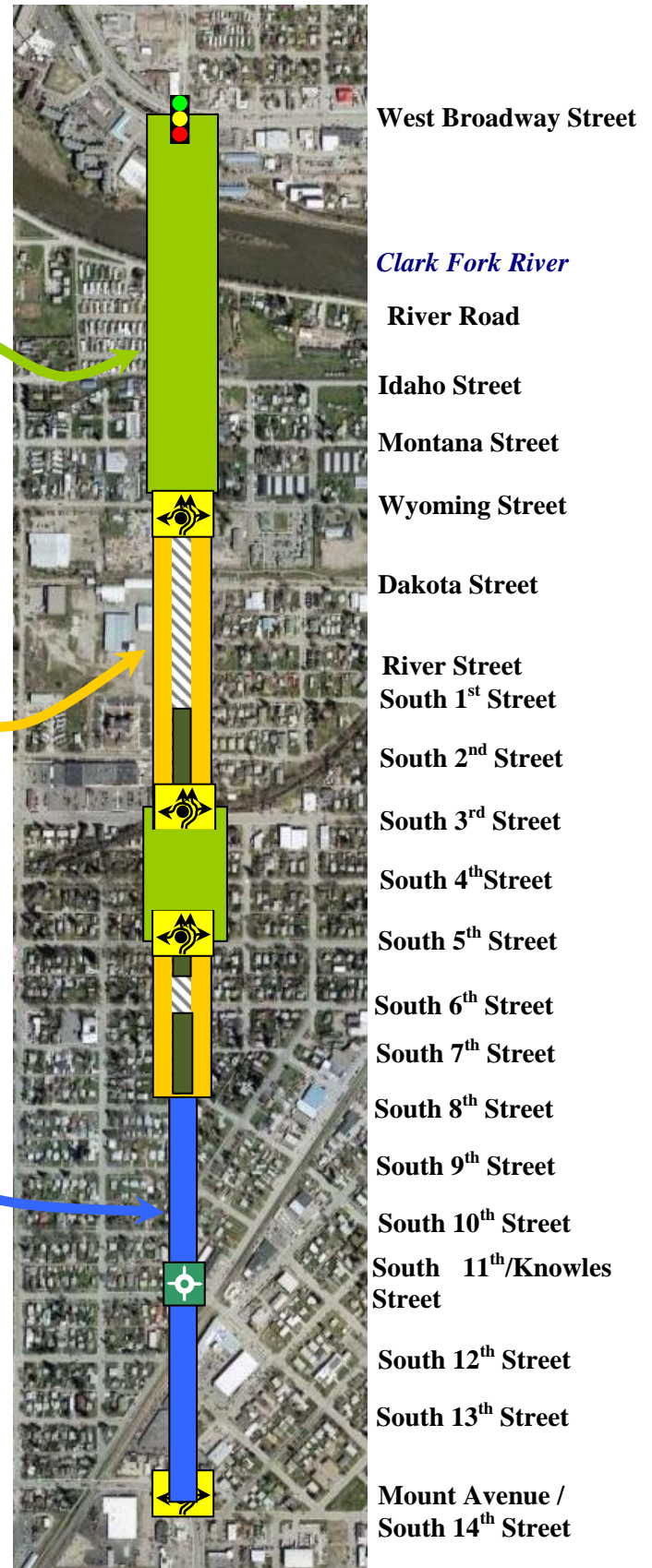
Figure 2-5
Alternative 2 – General Elements

All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.
Preliminary design details are provided in Figure 2-16



Key:

- Two lanes
- Two lanes with median/turn lane
- Four lanes
- Raised median
- Turn lane
- Traffic signal
- Single Lane Roundabout
- Double Lane Roundabout



Chapter 2.0 - Alternatives Analysis

Alternative 3

2+/4 Lanes with Roundabouts

Alternative 3 is similar to Alternative 2 in terms of lane configuration and intersection control but includes twice the length of raised median as compared to Alternative 2, and adds a median between Mount Avenue to South 8th Street. Figure 2-6 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

- Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
- Four travel lanes from South 5th Street to South 3rd Street
- Two travel lanes from South 3rd Street to Wyoming Street
- Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

- Mount Avenue/South 14th Street
- South 5th Street
- South 3rd Street
- Wyoming Street

Single-Lane Roundabouts at:

- South 11th Street

Signal Control at:

- West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

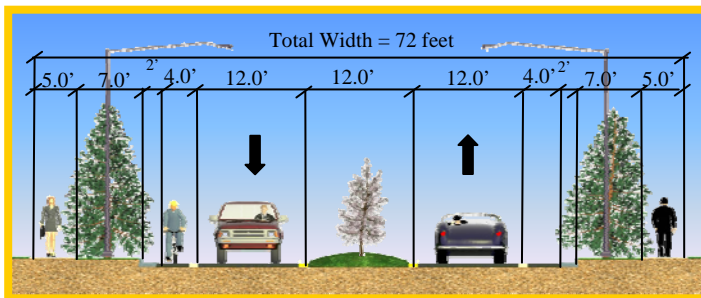
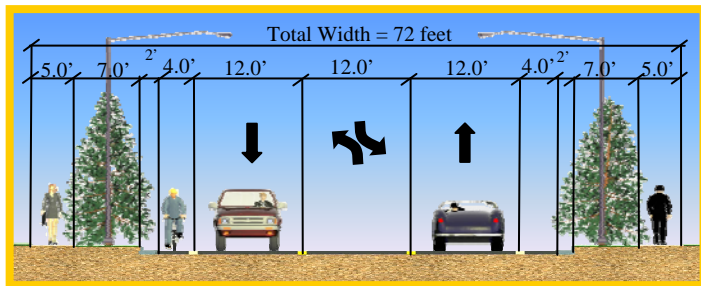
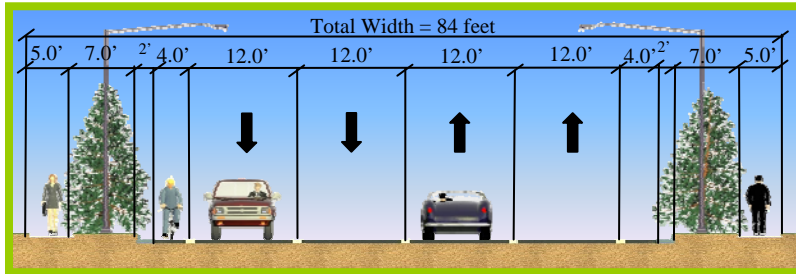
The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, as discussed later in this document.

Final Environmental Impact Statement



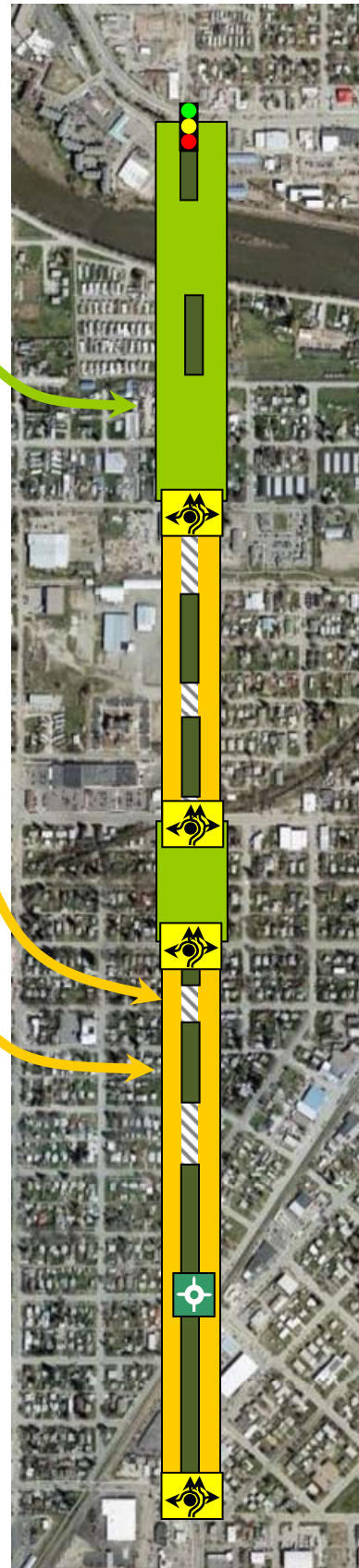
Figure 2-6
Alternative 3 – General Elements

All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.
Preliminary design details are provided in Figure 2-17.



Key:

- Two lanes with median/turn lane
- Four lanes
- Raised median
- Turn lane
- Traffic signal
- Single Lane Roundabout
- Double Lane Roundabout



West Broadway Street

Clark Fork River

River Road

Idaho Street

Montana Street

Wyoming Street

Dakota Street

River Street

South 1st Street

South 2nd Street

South 3rd Street

South 4th Street

South 5th Street

South 6th Street

South 7th Street

South 8th Street

South 9th Street

South 10th Street

South 11th/Knowles Street

South 12th Street

South 13th Street

Mount Avenue / South 14th Street

Chapter 2.0 - Alternatives Analysis

Alternative 4

4+ Lanes with Signals

Russell Street would have four travel lanes (two southbound and two northbound) plus a center turn lane or raised median throughout the corridor. Major intersections would be controlled by signals.

Figure 2-7 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

none

Single-Lane Roundabouts at:

none

Signal Control at:

Mount Avenue/South 14th Street (existing)

South 5th Street (existing)

South 3rd Street (existing)

Wyoming Street

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

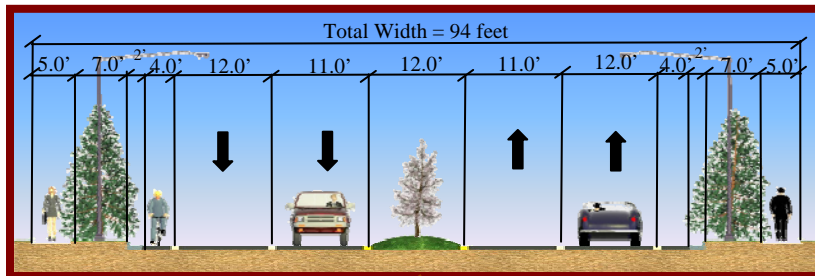
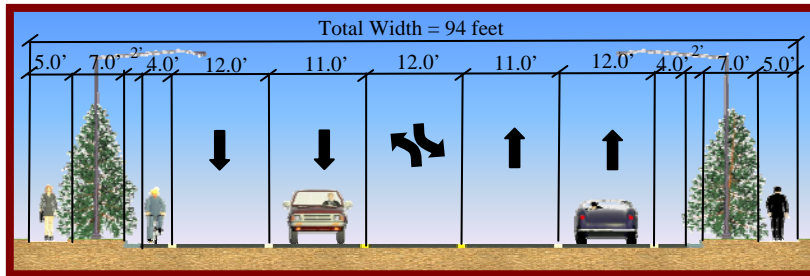
The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, as discussed later in this document.

Final Environmental Impact Statement







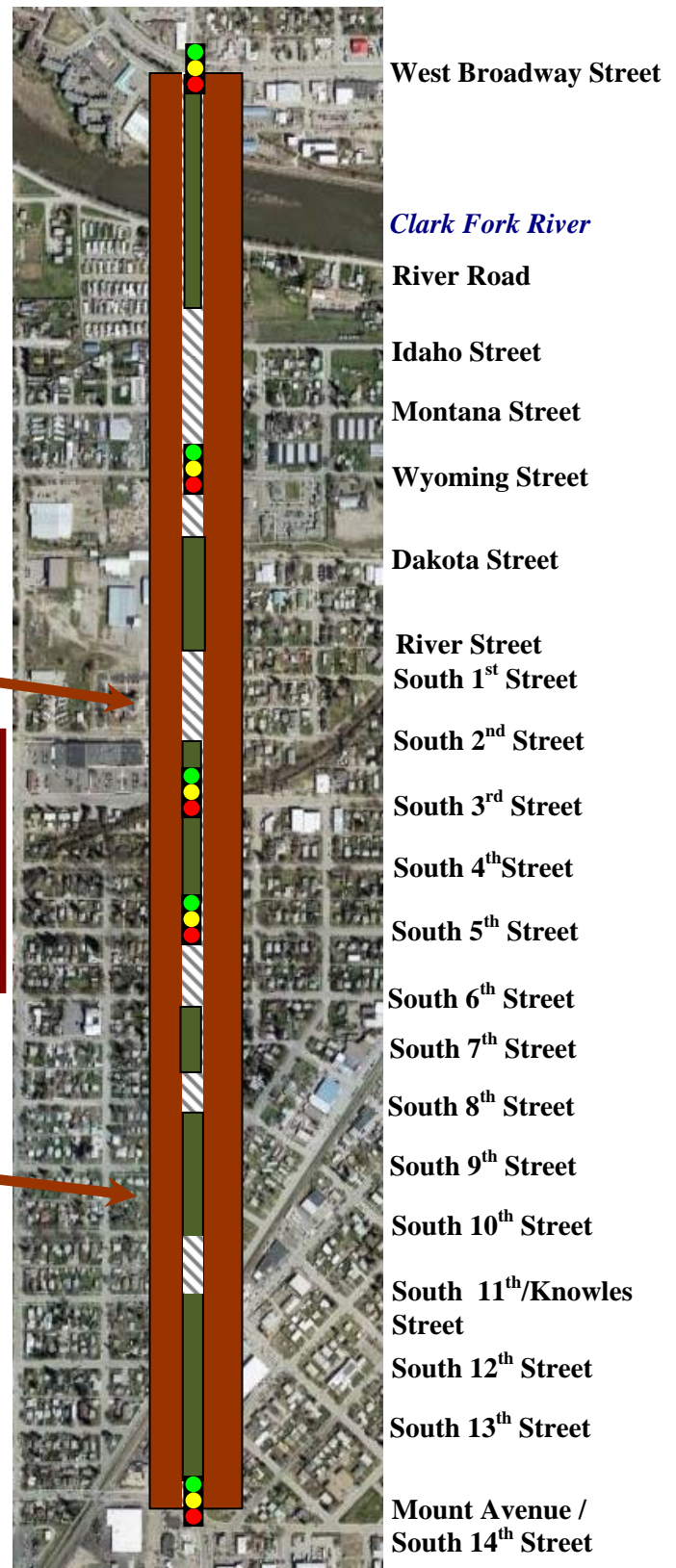
Figure 2-7
Alternative 4 – General Elements

All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.
Preliminary design details are provided in Figure 2-18.



Key:

-  Four lanes with median/turn lane
-  Raised median
-  Turn lane
-  Traffic signal



Alternative 5

4+ Lanes with Roundabouts

Alternative 5 is identical to Alternative 4 in terms of lane configuration (two southbound and two northbound, with raised medians and center turn lanes) on Russell Street. However, the major intersections would be controlled by roundabouts instead of traffic signals. The West Broadway Street intersection would remain signalized. Like Alternative 4, raised medians would be used throughout the Russell Street corridor to enhance the flow of through traffic. Figure 2-8 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street
South 11th Street

Single-Lane Roundabouts at:

none

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

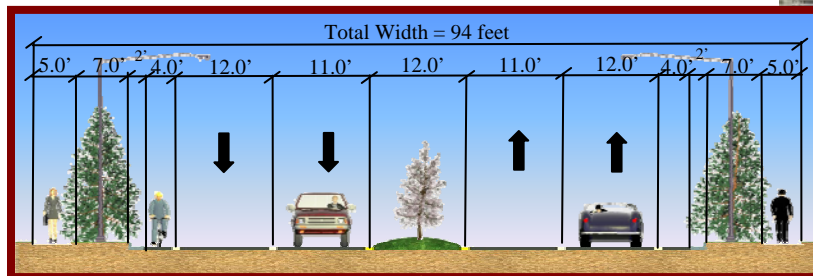
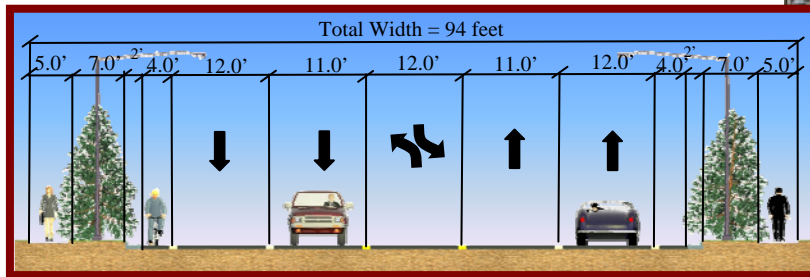
The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, as discussed later in this document.

Final Environmental Impact Statement








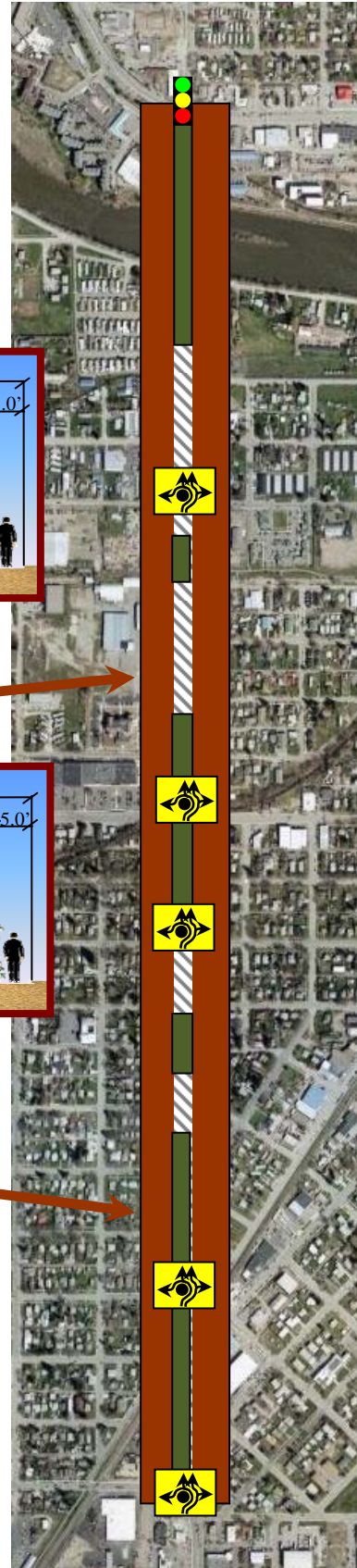
Figure 2-8
Alternative 5 – General Elements

*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.
Preliminary design details are provided in Figure 2-19.*



Key:

-  Four lanes with median/turn lane
-  Raised median
-  Turn lane
-  Traffic signal
-  Double Lane Roundabout



West Broadway Street

Clark Fork River

River Road

Idaho Street

Montana Street

Wyoming Street

Dakota Street

River Street

South 1st Street

South 2nd Street

South 3rd Street

South 4th Street

South 5th Street

South 6th Street

South 7th Street

South 8th Street

South 9th Street

South 10th Street

South 11th/Knowles Street

South 12th Street

South 13th Street

Mount Avenue / South 14th Street

Chapter 2.0 - Alternatives Analysis

South 3rd Street Alternatives:

Table 2.2 provides an overview of the South 3rd Street alternatives, and the sections that follow provide more detailed descriptions and graphical representations of the proposed improvements.

Table 2.2
South 3rd Street Alternatives – Overview of Major Features

	Alt. A (No Build)	Alt. B	Alt. C	Alt. D	Alt. E
Number of Vehicular Lanes:					
Reserve St. to Russell St.	2	2	2+	3+	2+
Intersection Control:					
Signals	✓			✓	✓
Roundabouts		✓	✓		
Design Elements:					
Sidewalks		✓	✓	✓	✓
Bike lanes		✓	✓	✓	✓
Boulevards		✓	✓	✓	✓
Curb/Gutter		✓	✓	✓	✓
Lighting		✓	✓	✓	✓
Bus Pullouts		✓	✓	✓	✓

Notes: 2+ denotes a two-lane facility with a center turn lane / raised median

3+ denotes a three-lane facility (2 eastbound, 1 westbound) with a center turn lane / raised median

Source: HKM Engineering Inc., 2007

For South 3rd Street Alternatives C, D, and E, raised medians would be added wherever practicable. Access at driveways and minor cross streets affected by the raised medians will be restricted to entering right-turns and exiting right-turns. Motorists desiring to turn left would be accommodated through u-turns at the open intersections, at roundabouts, or by turning in advance of the access point and routing around the block.



Alternative A No Build

Alternative A is the No Build Alternative and would provide no improvements to South 3rd Street. Routine maintenance would continue in accordance with City and State policies. The following provides a summary of the major features:

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Signalized Intersection Control at:

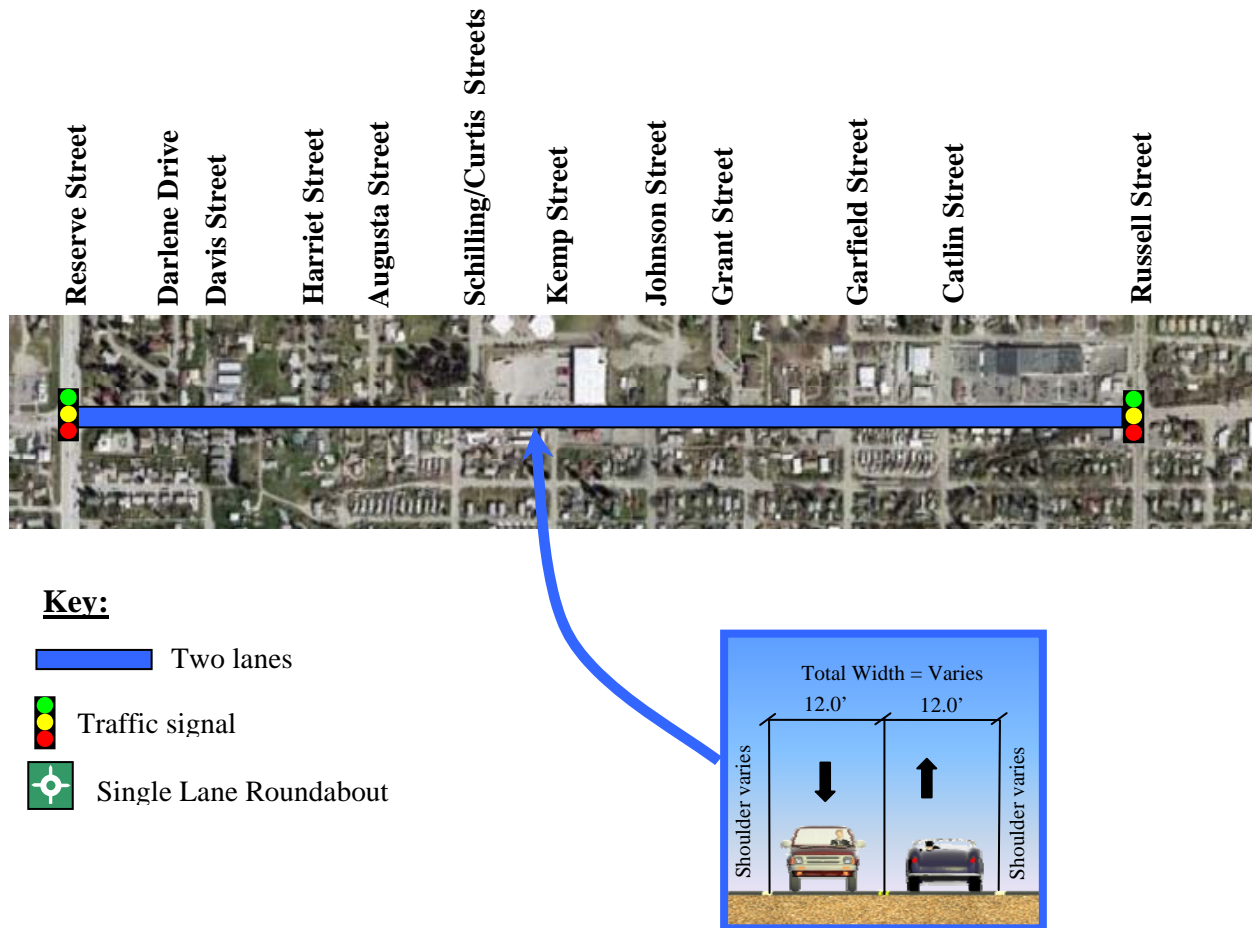
Reserve Street

Russell Street

All other streets intersecting South 3rd Street are, and would be controlled by stop signs.

There are no raised medians or center turn lanes.

Figure 2-9
Alternative A – General Elements



All graphics in this document are conceptual and not intended to reflect final design details.

Chapter 2.0 - Alternatives Analysis

Alternative B

2 Lanes with Roundabouts

Alternative B has the same lane configuration as Alternative A (existing conditions/No Build), but includes bicycle lanes, boulevards, sidewalks, and roundabouts at select intersections.

Figure 2-10 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

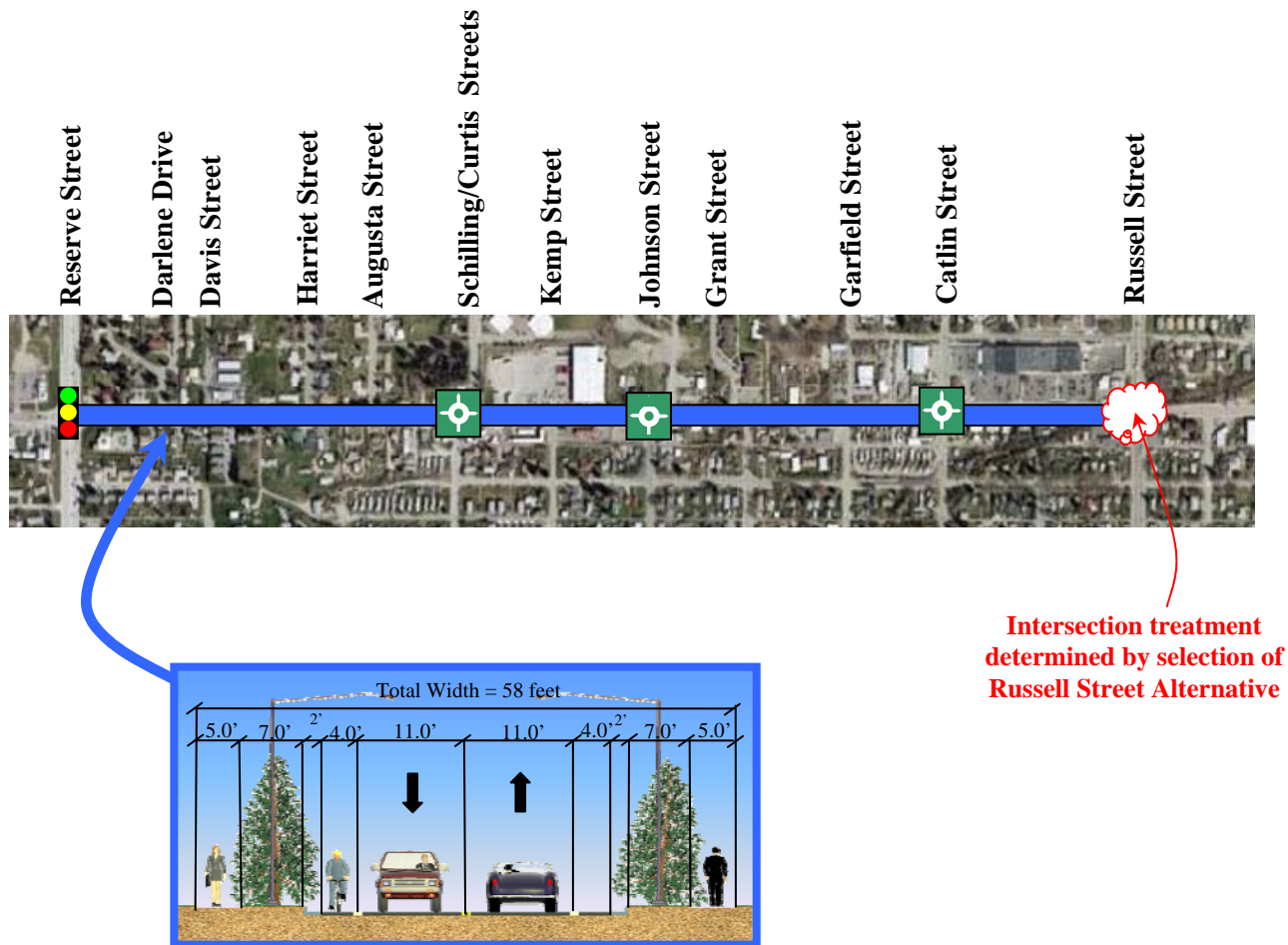
Raised median / Center turn lane:

None included in this alternative.

Alignment:





The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

Figure 2-10
Alternative B – General Elements



*All graphics in this document are conceptual and not intended to reflect final design details.
Preliminary design details are provided in Figure 2-20.*

Key:

-  Two lanes
-  Traffic signal
-  Full Single Lane Roundabout
-  3-Leg Single Lane Roundabout

Alternative C

2+ Lanes with Roundabouts

Alternative C includes two travel lanes (one in each direction), roundabouts at select intersections, and the use of raised medians through a majority of the corridor to control through traffic and increase the functionality of the intersections and roundabouts.

Figure 2-11 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

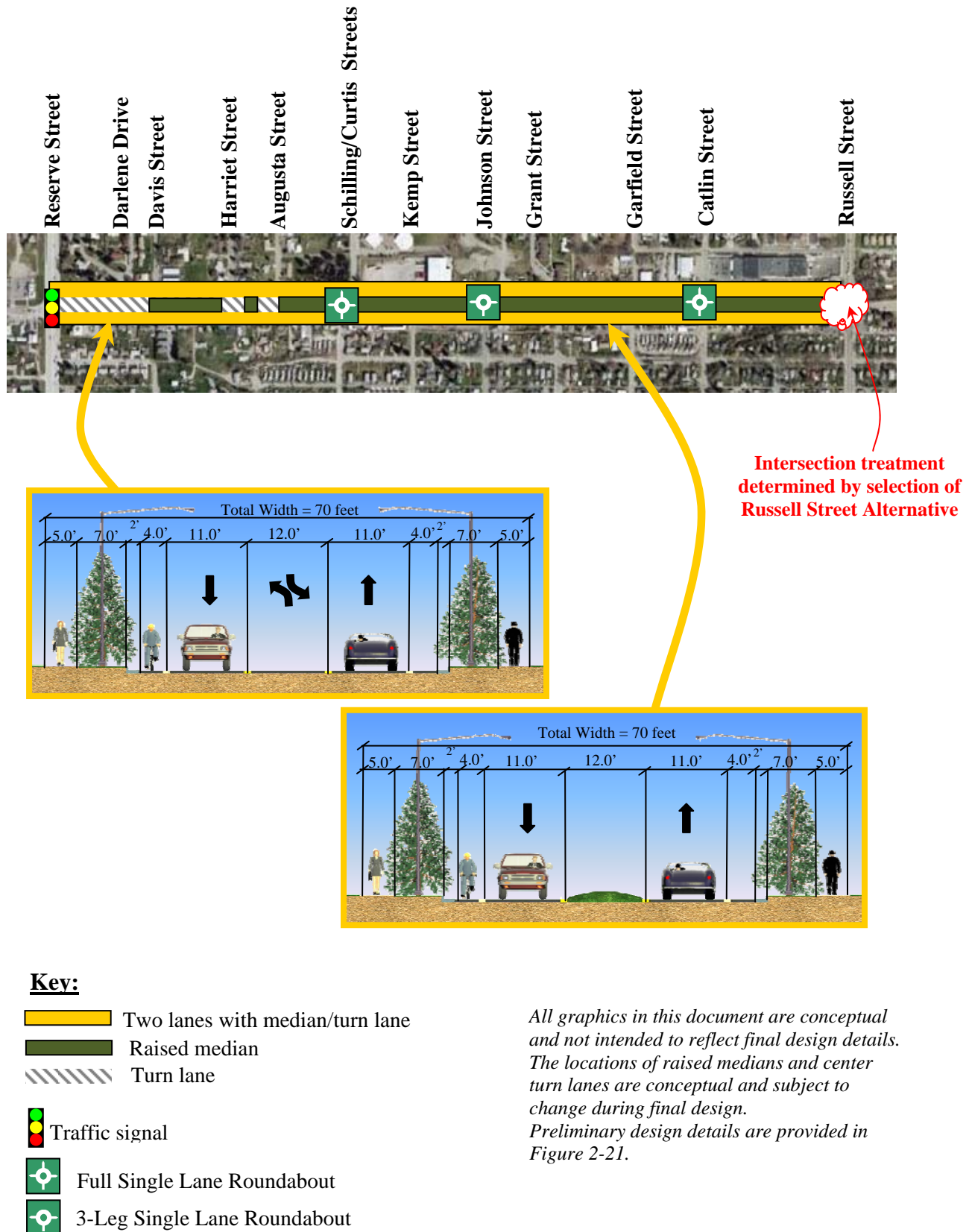
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

Figure 2-11
Alternative C – General Elements



Alternative D

3+ Lanes with Signals

Alternative D would include one eastbound lane, but two westbound lanes due to the close proximity of the proposed traffic signals. The length of the additional lanes and tapers for the proposed signals at the Curtis Street/Schilling Street, Johnson Street and Catlin Street intersections on South 3rd Street overlapped, thus becoming efficient to convert the overlapping tapers into a second westbound travel lane between Reserve Street and Russell Street.

Figure 2-12 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Three travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)
Schilling Street/Curtis Street
Johnson Street
Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

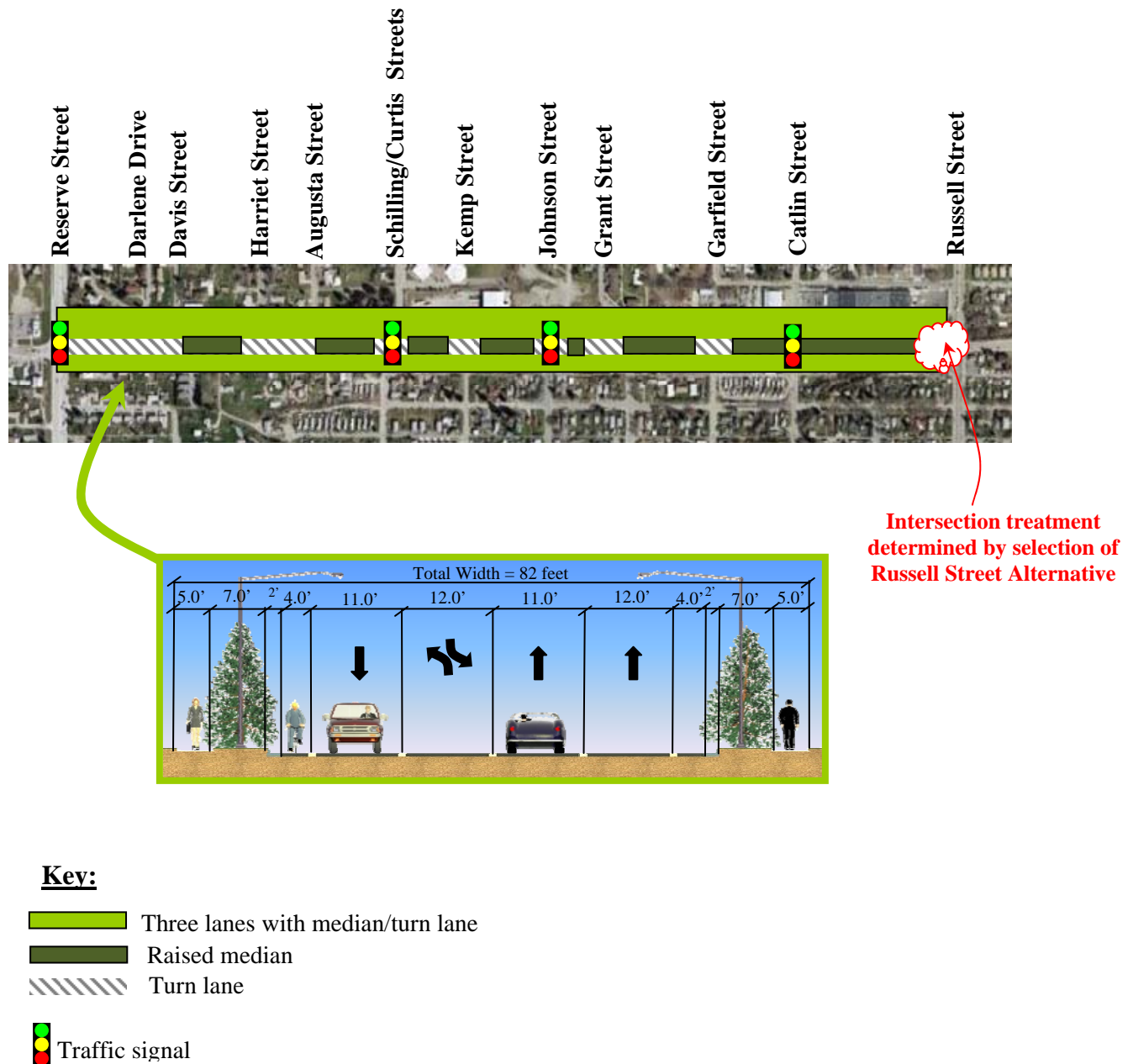
Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

Final Environmental Impact Statement



Figure 2-12
Alternative D – General Elements



*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.
Preliminary design details are provided in Figure 2-22.*

Chapter 2.0 - Alternatives Analysis

Alternative E

2+ Lanes with Signals

Alternative E includes two travel lanes (one in each direction), the use of raised medians and center turn lanes, and signalized intersections.

Figure 2-13 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)

Schilling Street/Curtis Street

Johnson Street

Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

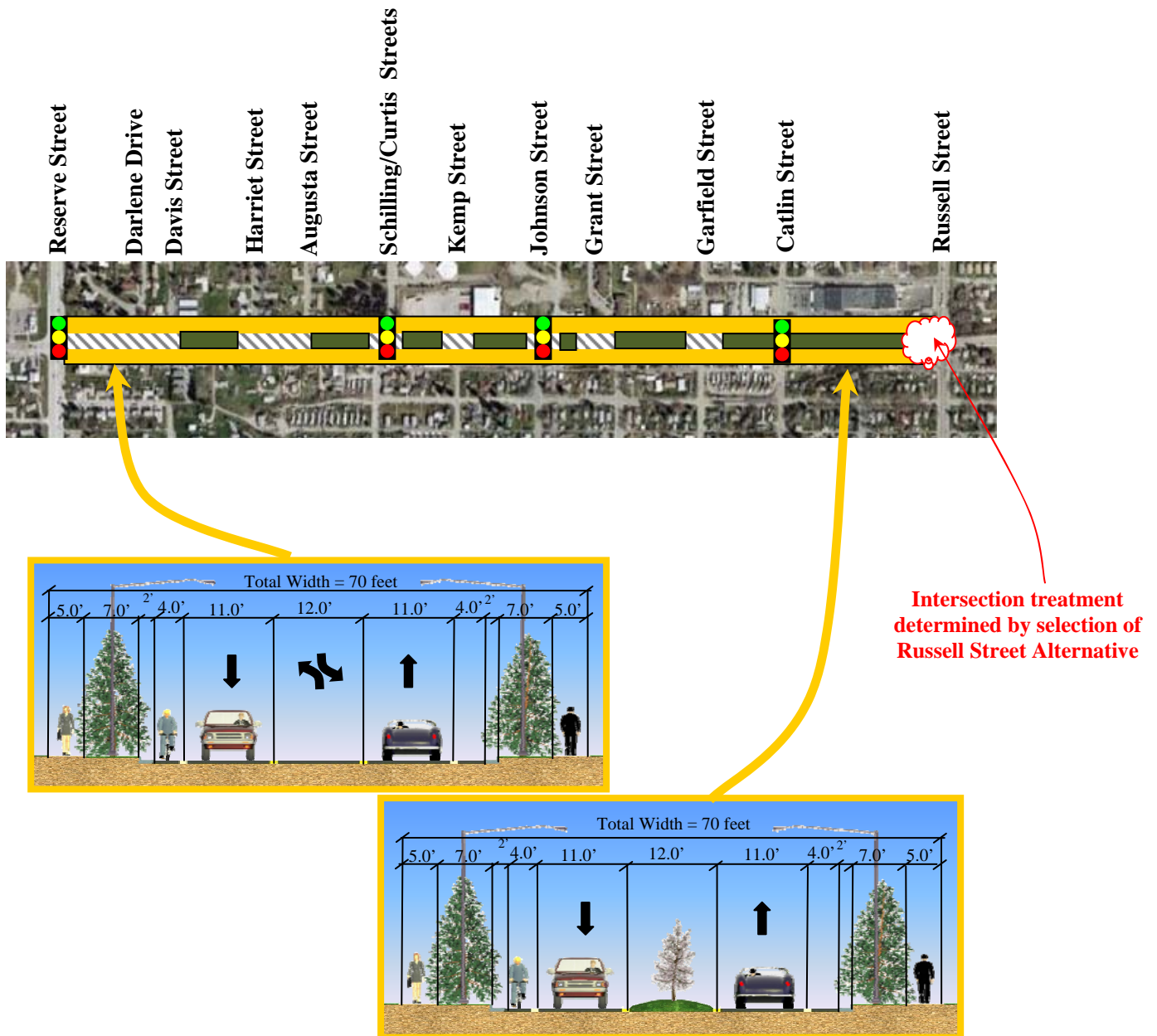
Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

Final Environmental Impact Statement



Figure 2-13
Alternative E – General Elements



Key:

- Two lanes with median/turn lane
- Raised median
- Turn lane
- Traffic signal

All graphics in this document are conceptual and not intended to reflect final design details. The locations of raised medians and center turn lanes are conceptual and subject to change during final design. Preliminary design details are provided in Figure 2-23.

2.3 Analysis of Alternatives

Chapter 1 of this Environmental Impact Statement outlined the overall need for improvements in the Russell Street and South 3rd Street corridors, as well as the purpose of the proposed improvements. As further articulation of the purpose and need for the proposed project, the chapter also provided a comprehensive list of goals and objectives developed through extensive coordination with the Advisory Committee and other agency and public participants over the past several years. Those goals and objectives were used to develop the alternatives presented above, and are used to evaluate the alternatives in the following section.

Based on the goals and objectives, the criteria are organized to evaluate the ability of each alternative to:

- Improve safety and capacity
- Improve multi-modal access and mobility
- Minimize impacts
- Maintain community character

The guiding principle in the development and evaluation of alternatives is to provide safety and mobility improvements first, then look for opportunities to minimize impacts and maintain community character. The following sections provide an accounting of the degree to which each alternative satisfies the broad purpose and need, and the more specific goals and objectives.

Improve Safety and Capacity

Four criteria were developed to evaluate the safety and capacity advantages of the alternatives. Table 2.3 provides a matrix of the alternatives compared to these criteria.

Table 2.3
Safety and Capacity Evaluation Matrix

Criteria	Alternatives									
	1	2	3	4	5	A	B	C	D	E
Provide adequate travel lanes and turn lanes to accommodate projected demand at the target Level of Service	O	O	O	✓	✓	O	✓	✓	✓	✓
Provide designated lanes/facilities for bicycle and pedestrian use	O	✓	✓	✓	✓	O	✓	✓	✓	✓
Widen the bridge over the Clark Fork River to accommodate additional travel lanes and bicycle/pedestrian facilities	O	✓	✓	✓	✓	-	-	-	-	-
Provide design and traffic control measures to improve safety	O	✓	✓	✓	✓	O	✓	✓	✓	✓

Key: ✓ = Satisfies the criteria O = Does not adequately satisfy the criteria



As depicted in Table 2.3, all Build alternatives provide designated bike and pedestrian facilities, widen the bridge over the Clark Fork River, and include design and traffic control measures to improve safety. The Build alternatives differ, however, in their ability to accommodate projected travel demand and improve safety.

Roadway safety is generally a function of the geometric design of the roadway, the interaction of different modes of travel, and the congestion levels a driver and/or pedestrian or bicyclist experiences. The crash history in the Russell Street and South 3rd Street corridors reveals that most vehicle crashes occur at congested intersections along these routes. All Build alternatives provide for the dedication of bicycle lanes, inclusion of sidewalks, and some type of intersection control and cross-walks at major intersections. These elements alone provide an improvement in both vehicular and pedestrian/bicyclist safety by reducing conflict between these different modes of travel. All the Build Alternatives also help lower speeds through the following design improvements:

- Narrowed travel lanes and overall cross-section*
- Street-side landscaping
- Landscaped medians
- Multiple controlled intersections with pedestrian crosswalks and refuges

Through the inclusion of design elements to reduce conflicts and reduce speeds, all Build alternatives promote some safety benefits. Safety is also a function of congestion levels, which are improved to varying degrees by the Build alternatives.

The Traffic Analysis Update conducted in 2009 provided a detailed safety analysis comparing each Build Alternative on Russell Street to a respective No Build condition (three-lane and five-lane volume projections) for Russell Street in 2035. Table 2.4 provides a comparison of Build Alternatives to the No Build Alternative under the two forecast volume scenarios on Russell Street. The data is shown as a percentage of predicted motor vehicle average crash frequency as compared to the No Build Alternative.

Table 2.4
Safety Comparison Summary for Predicted Crash Conditions on Russell Street

	3-Lane Volume Scenario			5-Lane Volume Scenario		
	Alt 1	Alt 2	Alt 3	Alt 1	Alt 4	Alt 5-R
Percentage of Crashes Compared to Alternative 1 (No Build)	100%	67%	65%	100%	70%	63%

Source: Russell Street Traffic Analysis Update. Kittelson and Associates, 2009.

As shown in Table 2.4, Alternatives 2, 3 and 5-Refined would yield the largest reduction in crash frequency as compared to the base prediction. Given that the volumes are lower (approximately 3,000 to 5,000 vehicles per day) under the three-lane alternatives, Alternatives 2 and 3 are predicted to have lower absolute average crash frequencies than Alternatives 4 and 5-Refined.

* The proposed project includes the narrowest lanes permissible under current design standards for the interior lanes (in accordance with American Association of State Highway Transportation Officials guidance for this type of facility), but 12 foot lanes in the exterior to maintain an adequate buffer between vehicles and bicyclists.

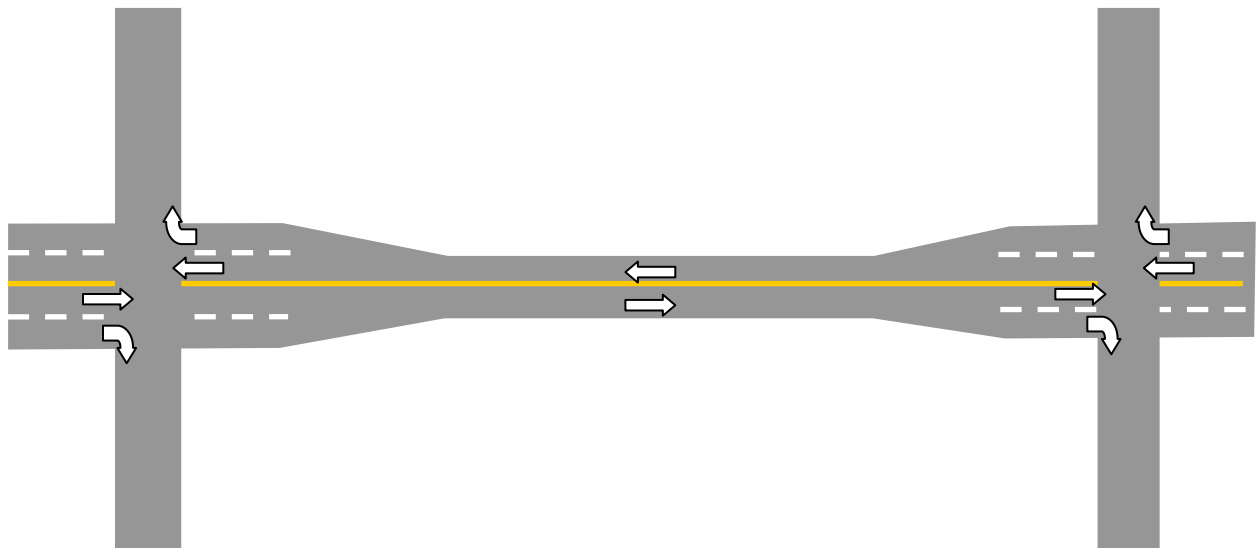
Chapter 2.0 - Alternatives Analysis

However, with traffic diverted to other routes because of a lack of capacity on Russell Street, it is possible that crashes will shift to other routes.

The above safety analysis focuses primarily on motor vehicle crashes because there are currently no predictive models for pedestrian and bicyclist crashes with motor vehicles at roundabouts. Generally though, the predictive models for non-auto crashes are proportional to the predicted average crash frequency of motor vehicle crashes.

As noted in Chapter 1 of this document, congestion is traditionally described in terms of the Level of Service experienced by the traveler (refer to Figure 1-4). As noted in the sections above, Russell Street Alternatives 2 and 3 have one travel lane in each direction. Initial Level of Service calculations showed that several of the major intersections could not meet the targeted Level of Service C goal on Russell Street, and in fact dropped to failing levels. To improve the Level of Service, through lanes were added to increase the capacity of each approach until the overall Level of Service of the major intersections met the Level of Service C goal. This process was followed for all of the Build alternatives. The result was that several intersections required two travel lanes for the through movement. These additional through lanes, where appropriate, were then merged into one lane just downstream of the intersection. As illustrated in Figure 2-14, this creates an “hourglass effect” on the roadway where it bulges at the intersections and narrows along the mainline between.

Figure 2-14
Hourglass Effect

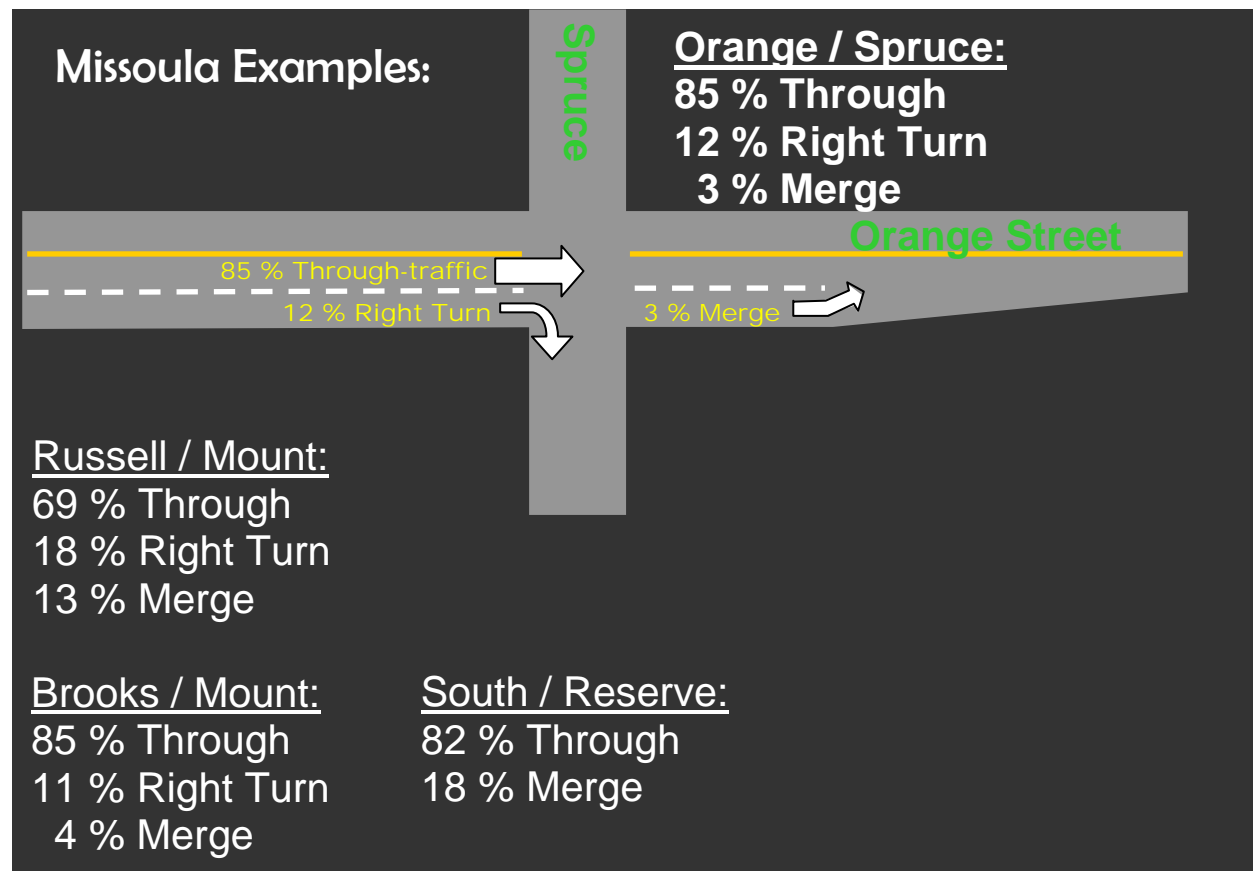


At first appearance, this configuration was projected to accommodate the future demand. However, the assumption was that the through traffic would balance out between both lanes as they moved through the intersection (e.g. 50 percent in the interior lane, and 50 percent in the exterior lane). Montana Department of Transportation staff collected field data from across the state to validate this assumption but found that most motorists will not use the exterior lane when they know it will be dropped less than 1,500 feet downstream of the intersection.



Observations by City of Missoula and Montana Department of Transportation staff in Missoula indicate that drivers do not make use of both lanes equally. A count of westbound traffic on South Avenue at Reserve Street showed that 82 percent of the through traffic remained in the inside travel lane and the remainder of traffic used the outside lane. Figure 2-15 illustrates this scenario.

Figure 2-15
Typical Lane Utilization Imbalance



Source: Montana Department of Transportation - Traffic and Safety Bureau. 2005

Level of Service analysis was conducted based on existing and forecast traffic volumes, as well as the “hourglass effect” noted above. Table 2.5 provides the results of the Multi-Modal Level of Service analysis conducted for intersection and corridor segment operations under existing and forecast conditions for the No Build and four Build alternatives on Russell Street.

The Traffic Analysis Update provided an overall operational and safety analysis summary, repeated here in Table 2.5. The overall performance results are summarized by the major intersections and the corridor segments using a relative ranking system of “Good,” “Fair,” and “Poor.” If a performance measure is rated “Good,” for a given alternative or option it can be concluded that the analysis found it to be relatively good or superior to other alternatives/options; however, it doesn’t necessarily mean that it is absolutely good or acceptable per agency standard. Likewise, if a performance measure is rated “Poor,” for a given alternative or option it can be

Chapter 2.0 - Alternatives Analysis

concluded that the analysis found it to be relatively poor or inferior to other alternatives/options; however, it doesn't necessarily mean that it is absolutely poor or unacceptable per agency standards.

As summarized in Table 2.5, Alternative 1 has the most "Poor" ratings and Alternative 4 has the most "Good" ratings of all the analyzed alternatives and options. In addition, Alternatives 2 and 3 have more "Poor" ratings than "Good" ratings; whereas, Alternative 5-Refined has more "Good" ratings than "Poor" ratings.

Table 2.5
Overall Performance Measure Results

Performance Measure		Alternatives				
		1	2	3	4	5-Ref.
Major Intersections	Safety	○	●	●	◐	●
	Automobile	○	○	○	●	◐
	Pedestrian	○	◐	◐	●	○
	Bicycle	○	○	○	●	◐
Corridor Segments	Safety	○	◐	◐	●	●
	Automobile	◐	○	○	●	◐
	Pedestrian	○	◐	◐	●	●
	Bicycle	○	◐	◐	●	◐
	Transit	○	◐	◐	◐	◐

● = Good

◐ = Fair

○ = Poor

Source: Russell Street Traffic Analysis Update, Final Report, Kittelson & Associates, August 2009.

Each of the Build Alternatives are anticipated to be improvements over the No Build Alternative. Generally, the alternatives with roundabouts do not rate as well as those with traffic signals for automobiles, bicycles, and pedestrians at the major intersections; however, they operate better in regards to safety. In addition, the alternatives with three lanes do not rate as well as those with five lanes along the corridor segments.

The Traffic Analysis Update included new traffic counts, an updated traffic demand model, and new design year (2035 vs. original study design year of 2025) and as a result of that revision, none of the alternatives will meet the Level of Service targets used to evaluate performance for the 2025 design year for the new 2035 conditions. As such, the alternatives were re-evaluated and the alternative that best meets the purpose and need and objectives of the project was identified as the preferred alternative. To quantify the corridor operation over time, a lifespan analysis was performed for each build alternative to identify when the facility under the given improvements begins to reach a capacity limit.

Without further improvements, Alternatives 2 and 3 experience severe congestion in 2010 (assuming the project were constructed by that time), Alternative 5-Refined would reach congested levels by 2012, and Alternative 4 has the longest lifespan by operating within the targeted Level of Service range up to 2023.



The lifespan of each alternative may be extended if the traffic projections are not realized as anticipated per the local travel demand model and Long Range Transportation Plan. For a reduction in traffic projections to occur, changes in current land use, mode split, population growth, and/or culture would need to occur. In addition, enhancements can be made to each of the build alternatives to increase their anticipated lifespan. Applying similar enhancements to each Build Alternative does not change the relative ranking of each alternative, nor does it elevate any of the alternatives to a level where it would meet the design year criteria for the year 2035. These enhancements are discussed further in Section 2.5 of this Chapter.

Improve Multi-Modal Access and Mobility

The Build alternatives on Russell Street and South 3rd Street satisfy the evaluation criteria for this group by providing:

- Trail linkages within and across both corridors,
- Grade-separated bike and pedestrian crossings of Russell Street,
- Facilities compliant with the Americans with Disabilities Act, and
- Adequate space for bus stops and pullouts in the corridors, where appropriate.

In response to public comment, analysis was conducted to provide a deeper understanding of the multimodal access and mobility improvements. As summarized in Appendix G, a combined intersection and segment Level of Service for transit, bicycle, and pedestrian mode is derived based on several inputs for the No Build and Build conditions for the Russell Street corridor. The analysis provides a relative comparison between the alternatives.

Alternatives 4 and 5-Refined achieve the overall highest bicycle Level of Service for the corridor with a LOS “E.” Specifically, these alternatives performed better due to less traffic volume in the outermost lane next to the bike lane and for Alternative 4, signalized intersections perform better than roundabouts.

Each of the Build Alternatives performs better for the pedestrian Level of Service than the existing and No Build conditions, based largely on the addition of a continuous sidewalk and buffer (bike lane and landscape area with trees) from the travel lanes. Pedestrian Level of Service also generally performs better at signalized intersections than at roundabouts due to pedestrians being able to cross the intersection under a controlled crossing (i.e., pedestrian signal with walk and flashing don’t walk symbols) versus at roundabouts where pedestrians must negotiate a gap in the traffic stream or wait for a vehicle to yield and allow the pedestrian to cross. However, if in the future, pedestrian crossings at the roundabouts are signalized (*Note: This topic is currently being researched at the national level to identify guidelines for providing signalized traffic control for pedestrian crossings at roundabouts*), the pedestrian Level of Service at the roundabouts may be slightly better than at a typical signalized intersection due to the crossing distance being shorter than at a typical signalized intersection.

The transit amenities and service are planned to be the same under all future conditions, and is projected to be LOS “D” for each of the Build Alternatives.

Chapter 2.0 - Alternatives Analysis

Minimize Impacts

In accordance with the goals and objectives, every Build alternative on Russell Street and South 3rd Street includes:

- Reasonable flexibility in design standards by providing minimum widths as outlined in American Association of State Highway Transportation Officials guidelines,
- A design that reduces congestion and idling time to minimize vehicular impact on air quality,
- Stormwater designs to improve water quality runoff entering the Clark Fork River through the use of Best Management Practices, and
- Mitigation for unavoidable impacts (as outlined in Chapter 4).

Maintain Community Character

Throughout the public involvement process, participants have expressed a concern that Russell Street not turn into another Reserve Street. Reserve Street has four travel lanes and a center turn lane, and little landscaping. There are negative impressions of the pavement width, lack of landscaping, high speeds, and the perception of inadequate bicycle and pedestrian facilities. Because of the public input on the design aspects to be incorporated into the Russell Street Corridor, preliminary design elements are based on context sensitive solutions. Attempting to adhere to public preference and the goals and objectives identified in Chapter One, general baseline parameters had to be set for Russell and South 3rd Streets. According to *An Institute of Transportation Engineers (ITE) Proposed Recommended Practice: Context Sensitive Solutions in Designing Major Urban Thoroughfares*, Russell Street and South 3rd Street can both be characterized as arterial urban thoroughfares. Table 2.6 provides a comparison of general parameters for urban thoroughfares to features of the No Build and Build alternatives on Russell Street.

Table 2.6
Parameters for General Urban Thoroughfares in Residential and Commercial Areas under Constrained Conditions

Feature	ITE Recommended	Current Conditions	Build Alternatives 2035
Roadside Width:	16.5 feet	Varies	12 foot minimum
Traveled Way:			
Target Speed (mph)	35 mph	35 mph	35 mph
No. of Through Lanes	4 to 6	2 to 4	2 to 4
Lane Width	10 to 12 feet	12 feet	11 to 12 feet
Median Width	14 to 16 feet	none	12 feet
Bike Lanes:	5 to 6 feet	none	5.5 feet
Traffic Volume (vpd)	10,000-40,000	19,800 - 24,900	37,300 – 43,000
Intersections:	Urban single-lane roundabouts should be considered at intersections on arterial		
Roundabouts	avenues with less than 20,000 entering vehicles per day.		

Source: Institute of Transportation Engineers (ITE)

Note: 2035 traffic volumes are for the five-lane Build scenario.

According to the Institute of Transportation Engineers, specific deviations from these parameters are allowed under constrained conditions. Specifically, the following variations are allowed:

- Roadside Width can be reduced to 12 feet in commercial areas and nine feet in residential areas which allows for a five foot sidewalk.
- Median Width can be reduced to a minimum of 10 feet on arterial thoroughfares.
- The Institute of Transportation Engineers also recommends no more than four through lanes in residential areas.

In the context of this mixed-use corridor, many public participants also suggested the use of guidance provided under the “Complete Streets” concept to provide safe, comfortable, and convenient facilities for pedestrian, bicyclist, motorist, and transit users of all ages and abilities. The following graphics illustrate conditions on an urban arterial before the application of Complete Streets design concepts, and an illustration of how the facility would appear and operate after application of the design concepts.



Source: *National Complete Streets Coalition*, completestreets.com

Based on the criteria outlined in Table 2.6, and the goals outlined in the Complete Streets concept, each of the Build Alternatives fulfill the goal of maintaining community character through the inclusion of a balanced mix of transportation amenities on a multi-lane facility. Each of the Build alternatives on both Russell Street and South 3rd Street provide aesthetically pleasing design elements in the form of landscaped boulevards. With the exception of Alternative B on South 3rd Street, each of the Build alternatives include raised medians to allow for landscaping in the center of the roadways. Alternatives 2, 3, and 5 on Russell Street, and Alternative C on South 3rd Street include longer stretches of median for landscaping as compared to other alternatives.

With regard to a recognition of the commercial nature of the northern portion, and respect for the varied residential/commercial nature of the southern portion of the Russell Street corridor, all

Chapter 2.0 - Alternatives Analysis

Build alternatives provide amenities and design elements to improve multi-modal mobility and access to homes and commercial buildings while still providing aesthetic improvements.

Summary Comparison of Impacts

To assist decision-makers and the public in understanding the environmental choices among Build alternatives, a comparison of the environmental impacts of the Build alternatives is included in Tables 2.7 and 2.8 below. Graphic illustrations of the alternatives and their impacts are also provided in Figures 2-16 through 2-23, following the tables. The details of the impacts and proposed mitigation are documented in Chapter 4 of this Environmental Impact Statement.

Table 2.7
Summary of Impacts on Russell Street

Section	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Mount Avenue to South 11th Street	<ul style="list-style-type: none"> • 3 Commercial Buildings • 3 4(f) Properties • 0.89 acres new right-of-way 	<ul style="list-style-type: none"> • 3 Commercial Buildings • 3 4(f) Properties • 0.99 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 2 4(f) Properties • 0.73 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Homes • 3 Commercial Buildings • 3 4(f) Properties • 1.02 acres new right-of-way
South 11th Street to South 3rd Street	<ul style="list-style-type: none"> • 9 Homes • 4 Commercial Buildings • 4 4(f) Properties • 1.22 acres new right-of-way 	<ul style="list-style-type: none"> • 9 Homes • 4 Commercial Buildings • 4 4(f) Properties • 1.43 acres new right-of-way 	<ul style="list-style-type: none"> • 11 Homes • 5 Commercial Buildings • 2 4(f) Properties • 1.65 acres new right-of-way 	<ul style="list-style-type: none"> • 17 Homes • 5 Commercial Buildings • 5 4(f) Properties • 2.01 acres new right-of-way
South 3rd Street to Wyoming Street	<ul style="list-style-type: none"> • 3 Commercial Buildings • 1 4(f) Property • 0.63 acres new right-of-way 	<ul style="list-style-type: none"> • 3 Commercial Buildings • 1 4(f) Property • 0.67 acres new right-of-way 	<ul style="list-style-type: none"> • 1 4(f) Property • 0.93 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.84 acres new right-of-way
Wyoming Street to Russell Street Bridge	<ul style="list-style-type: none"> • 1 Commercial Building • 0.80 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Commercial Building • 1.00 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Commercial Building • 0.64 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Commercial Building • 0.98 acres new right-of-way
Russell Street Bridge to West Broadway	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.80 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.78 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.64 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.79 acres new right-of-way
Totals	<ul style="list-style-type: none"> • 9 Homes • 13 Commercial Buildings • 9 4(f) Properties • 4.34 acres new right-of-way 	<ul style="list-style-type: none"> • 9 Homes • 13 Commercial Buildings • 9 4(f) Properties • 4.87 acres new right-of-way 	<ul style="list-style-type: none"> • 11 Homes • 10 Commercial Buildings • 6 4(f) Properties • 4.59 acres new right-of-way 	<ul style="list-style-type: none"> • 18 Homes • 13 Commercial Buildings • 10 4(f) Properties • 5.65 acres new right-of-way

Notes:

Right-of-way estimates are planning-level and dependent upon final right-of-way negotiations.

Section 4(f) properties include historic as well as park and recreational resources. Their inclusion indicates a “use” as defined in Section 4.14 of this FEIS.



Table 2.8
Summary of Impacts on South 3rd Street

Section	Alternative B	Alternative C	Alternative D	Alternative E
Reserve Street to Russell Street	• 1 Home	• 1 Home	• 0 Homes	• 0 Homes
	• 4 Commercial Buildings	• 4 Commercial Buildings	• 3 Commercial Buildings	• 3 Commercial Buildings
	• 2.38 acres of new right-of-way	• 2.77 acres of new right-of-way	• 3.62 acres of new right-of-way	• 2.63 acres of new right-of-way

Note:

Right-of-way estimates are planning-level and dependent upon final right-of-way negotiations.

Preliminary Cost Estimate

Table 2.9 compares the costs of the Build alternatives under consideration for the Russell Street and South 3rd Street projects.

Table 2.9
Preliminary Estimated Costs of the Build Alternatives

	Construction Engineering	Construction	Right-of-Way	Design Fee	Total Construction & Right-of-Way
Russell Street					
Alternative 2	\$4.2 million	\$33.7 million	\$8.1 million	\$2.3 million	\$48.3 million
Alternative 3	\$4.2 million	\$33.9 million	\$8.4 million	\$2.3 million	\$48.8 million
Alternative 4	\$4.0 million	\$32.0 million	\$6.9 million	\$2.1 million	\$45.0 million
Alternative 5	\$4.4 million	\$35.5 million	\$10.3 million	\$2.4 million	\$52.6 million
South 3rd Street					
Alternative B	\$1.0 million	\$7.6 million	\$3.0 million	\$0.6 million	\$12.2 million
Alternative C	\$1.1 million	\$8.1 million	\$2.9 million	\$0.6 million	\$12.7 million
Alternative D	\$1.1 million	\$8.1 million	\$2.7 million	\$0.6 million	\$12.5 million
Alternative E	\$1.0 million	\$7.6 million	\$2.2 million	\$0.6 million	\$11.4 million

Note: These planning level estimates are in 2009 dollars and include an assumption for phased construction. If the project were constructed in phases, it would be possible to construct the segment from West Broadway Street to approximately South 3rd Street at a cost of approximately \$25.0 million in the year 2012. The project sponsor will continue to seek funding and prioritize Surface Transportation Program-Urban (STPU) funds for subsequent phases and accumulate those funds over the next several years to ensure funding of the project.

Utility relocations are estimated at \$1.1 million on Russell Street, and \$700,000 on South 3rd Street for each alternative. Right-of-way estimates are also planning-level and dependent upon final right-of-way negotiations.

Chapter 2.0 - Alternatives Analysis

Alternative 2 – 2+ Lanes with Roundabouts

Lane Configuration:

Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
Four travel lanes from South 5th Street to South 3rd Street
Two travel lanes from South 3rd Street to Wyoming Street
Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street

Single-Lane Roundabouts at:

South 11th Street

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on historic and recreational properties protected under Section 4(f) of the U.S. Department of Transportation Act, as discussed in Chapter 5 of this document.



Residential Impacts under Alternative 2

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1508 5th St. 1445 5th St. 1501 5th St. 1509 5th St. 824 Russell St. 1000 Russell St. 1010 Russell St. 935 Kern St. 941 Kern St.	521 Russell St. 1425 5 th St. 802 Russell St. 738 Russell Street	1431 3rd St. 1436 4th. St. W 1501 4th St. W 1439 4th St. W 1500 11th St. W	1427 2nd St. W 1510 S. 5th St. 1439 5th St. 1502 6th St. W 1501 6th St. W 808 Russell St. 1500 7th St. W 820 Russell St. 1016 Kern St.	1501 S. 7th St. 915 Russell St. 1500 8th St. W 1501 9th St. W 1135 10th St. W 1501 S. 10th St. 1501 11th St. 1501 Russell St.

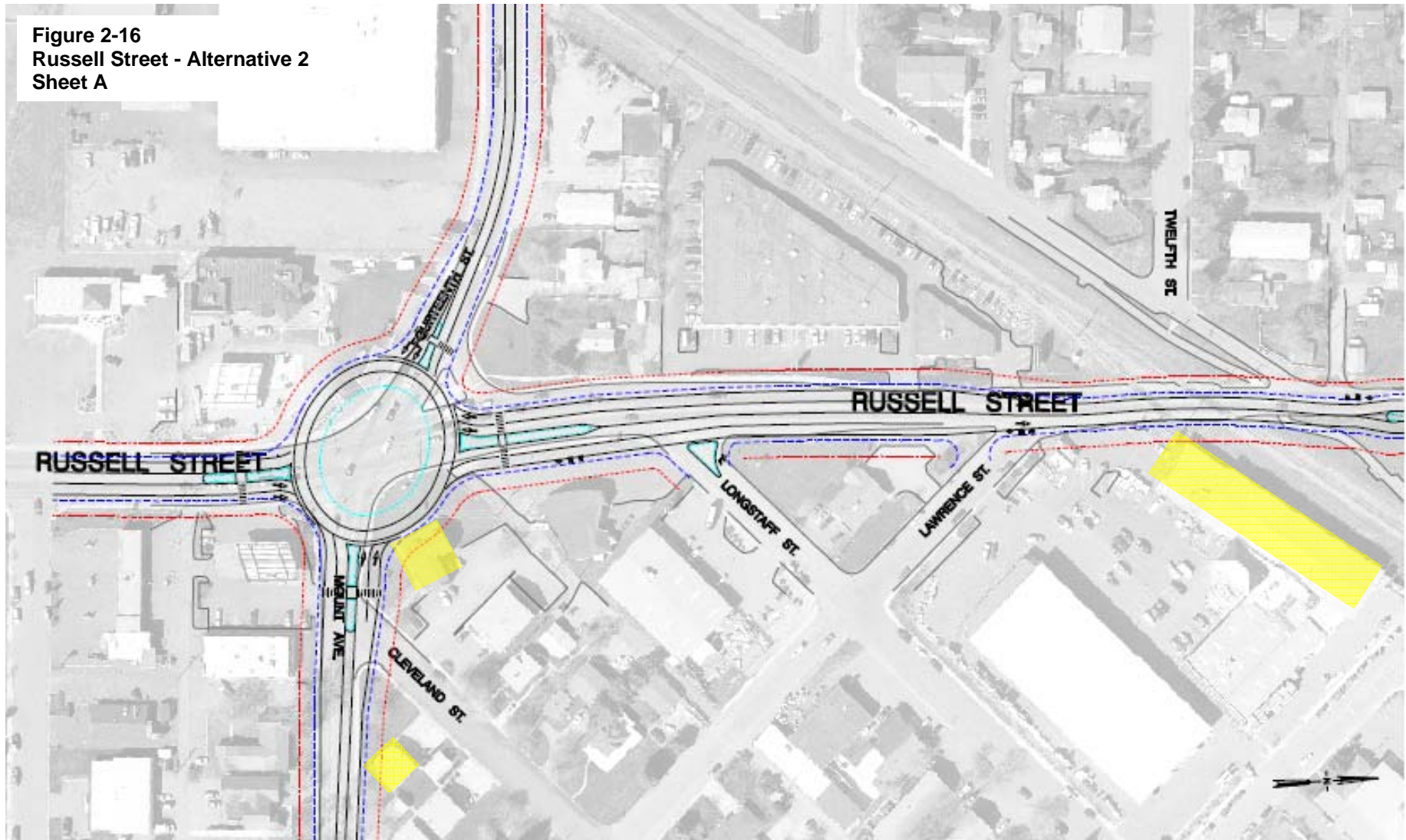
Commercial Impacts under Alternative 2

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1500 Broadway St. 1440 Broadway St. 1400 Wyoming St. 1515 Wyoming St. 121 Russell St. 403 Russell St. 500 Russell St. 501 Russell St. 1440 5th St. 1035 Ronan St. Montana Rail Link 1204 Mount Ave. (Previously 1208 Mount Ave.) 1520 Russell St.	1407 River Rd. 1503 Montana St. (Previously 1503 Russell St.) 140 Russell St. Mount and Russell St.	1427 W. Broadway St. 1451 Broadway St. 1120 Russell St.	1540 Broadway St. 215 Russell St. 1007 Mount Ave.	1417 3 rd St. 1440 Russell St.

* “Direct Impact” implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.

Chapter 2.0 - Alternatives Analysis

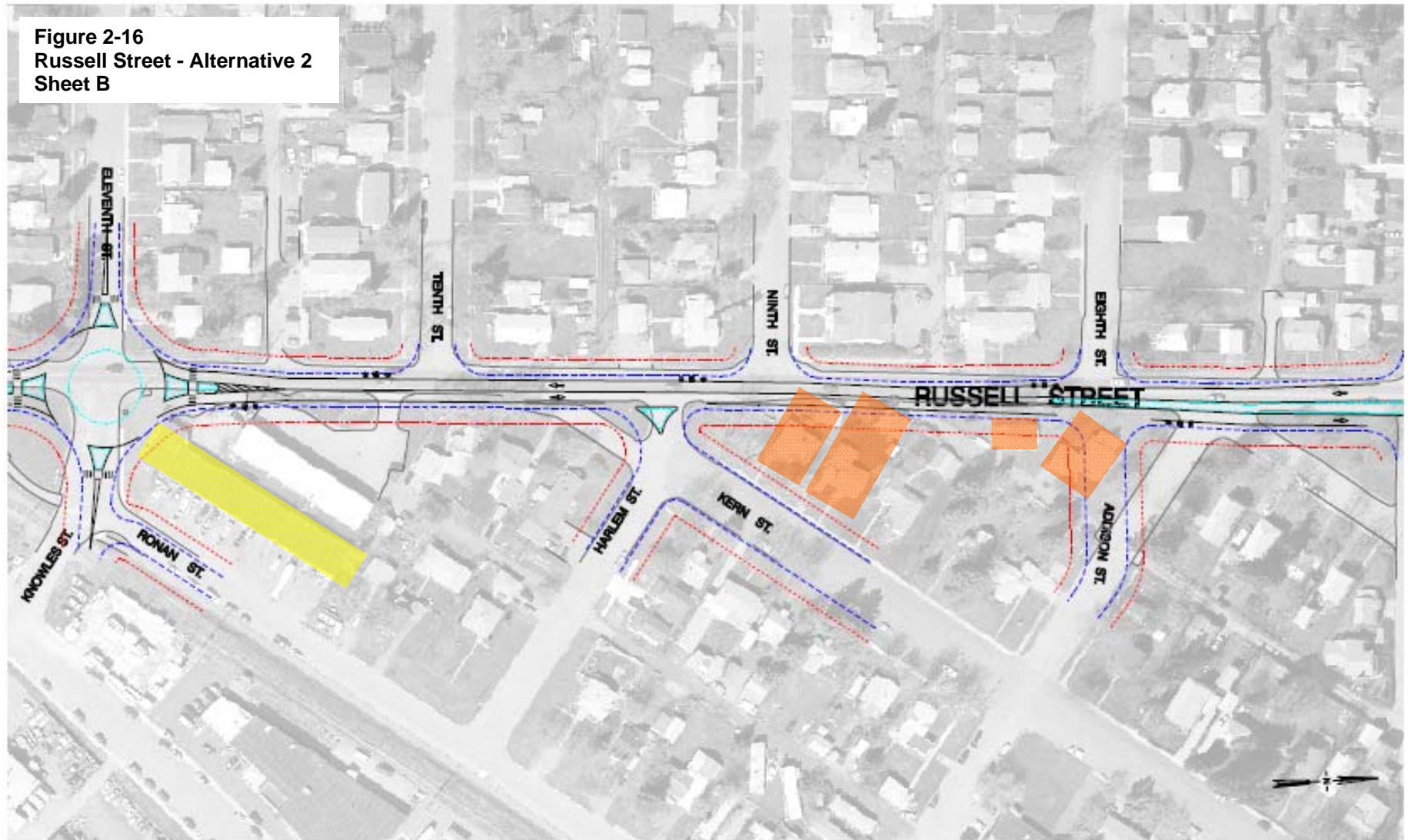
Figure 2-16
Russell Street - Alternative 2
Sheet A



*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*



Figure 2-16
Russell Street - Alternative 2
Sheet B



*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-16
Russell Street - Alternative 2
Sheet C

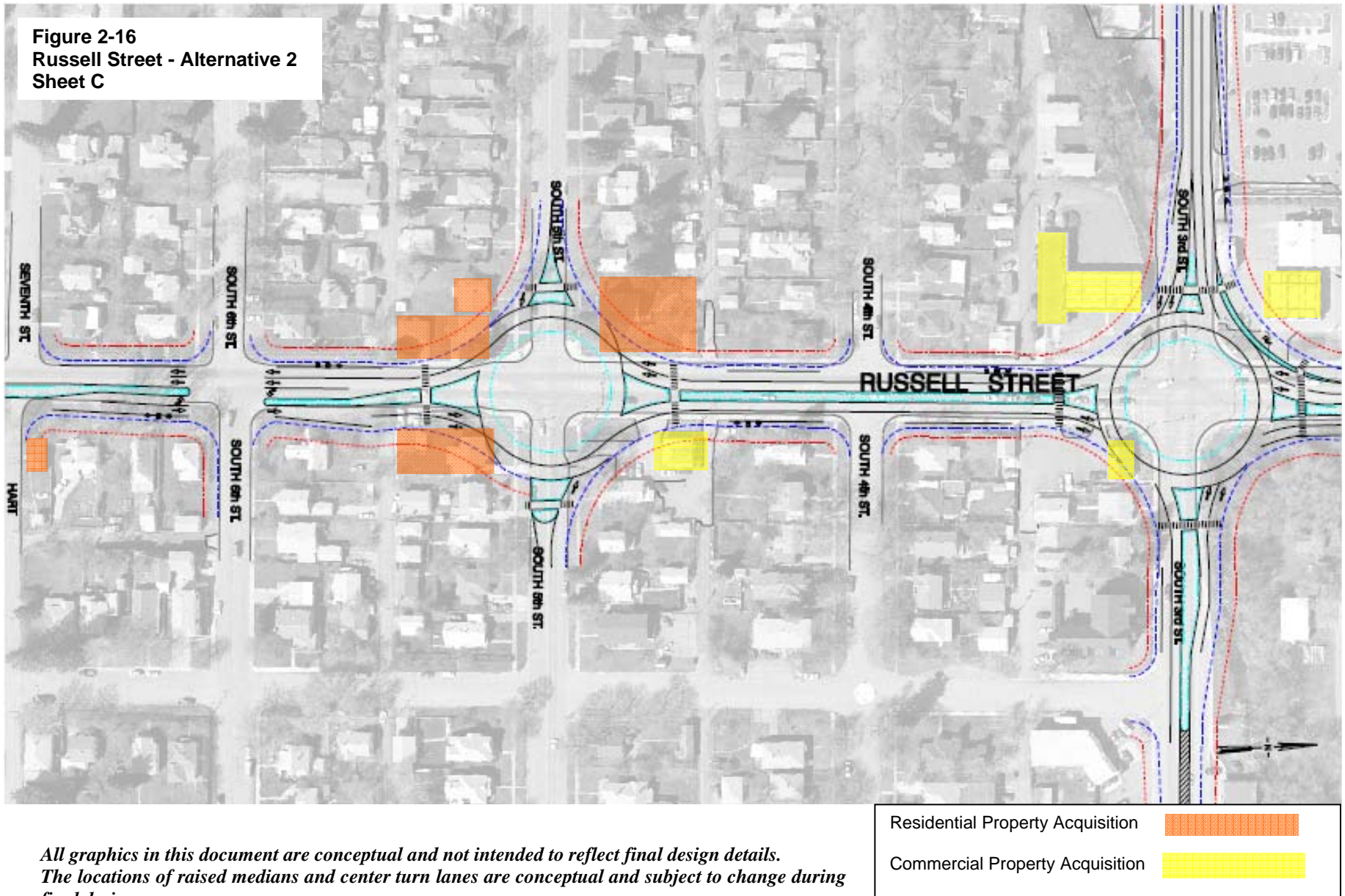
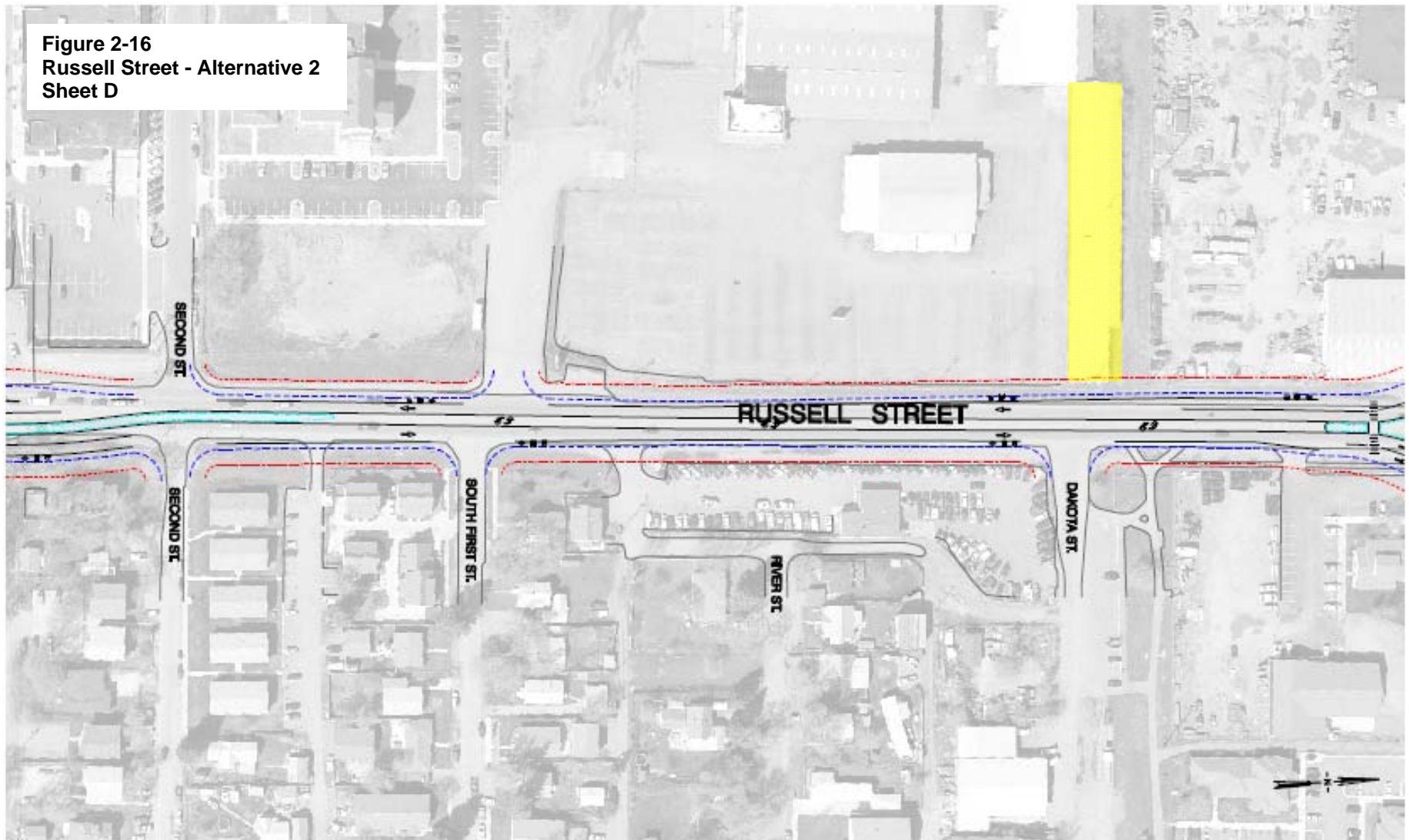






Figure 2-16
Russell Street - Alternative 2
Sheet D

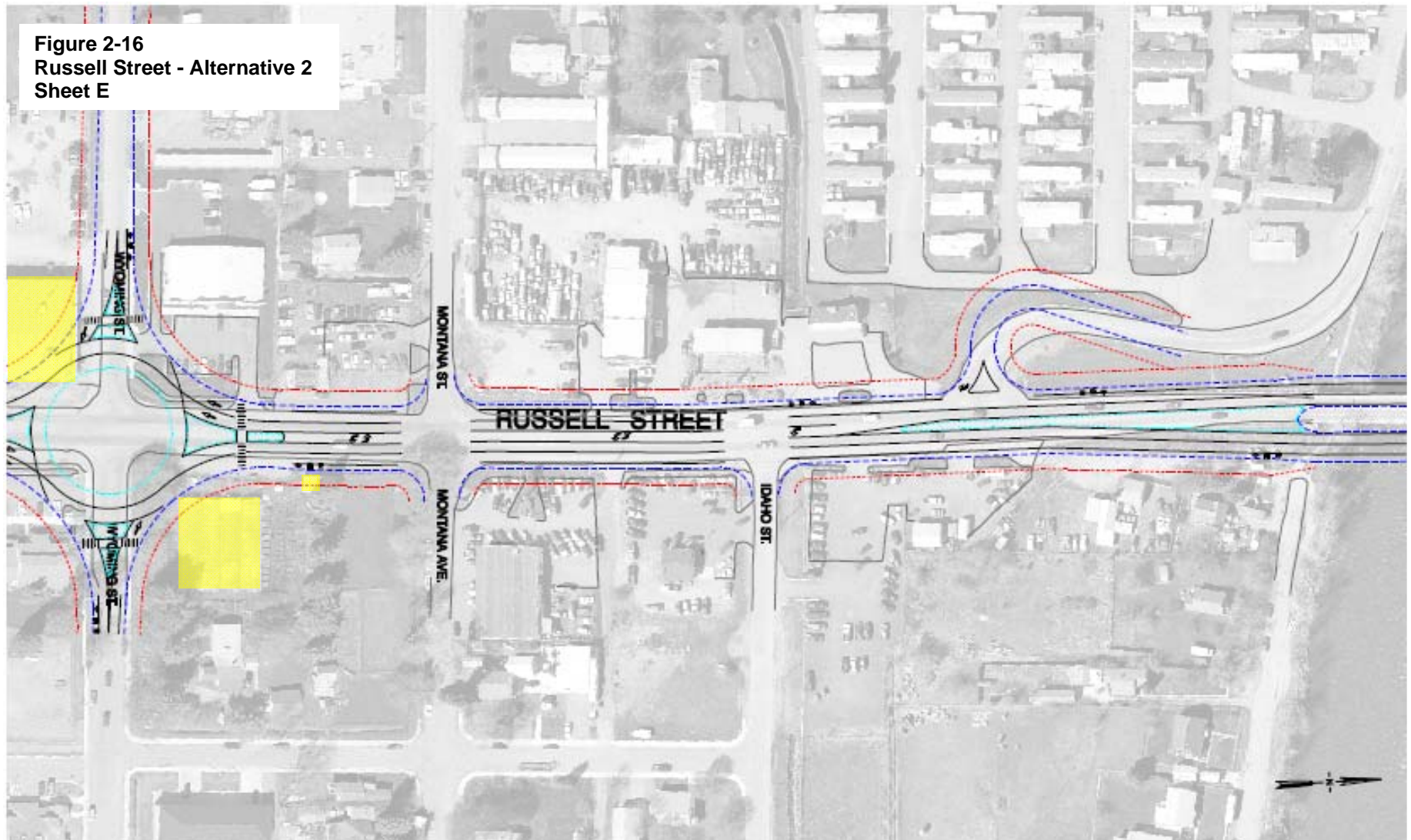


*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-16
Russell Street - Alternative 2
Sheet E



Residential Property Acquisition



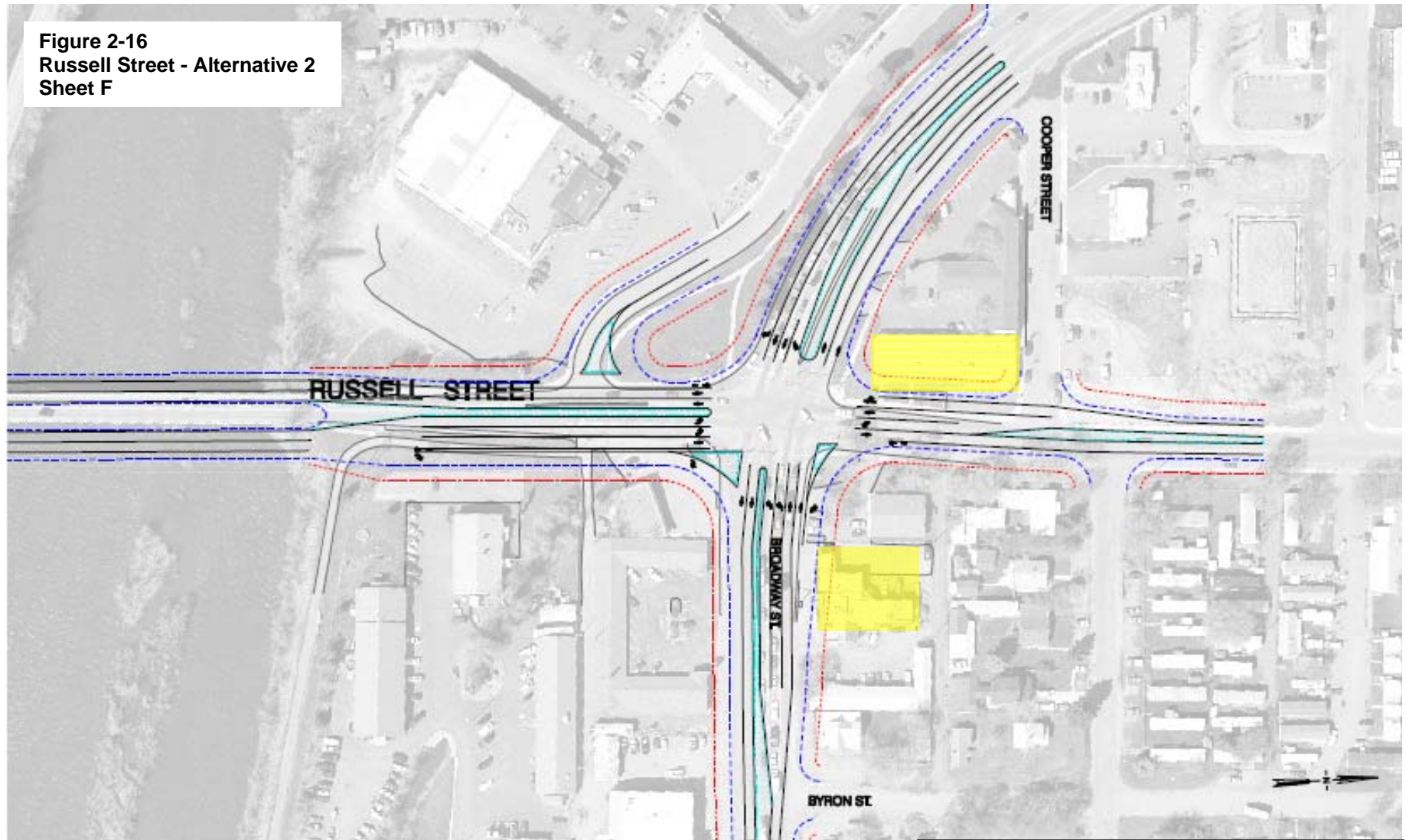
Commercial Property Acquisition



*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*



Figure 2-16
Russell Street - Alternative 2
Sheet F



*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Residential Property Acquisition	
Commercial Property Acquisition	

Alternative 3 - 2+4 Lanes with Roundabouts

Lane Configuration:

Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
Four travel lanes from South 5th Street to South 3rd Street
Two travel lanes from South 3rd Street to Wyoming Street
Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street

Single-Lane Roundabouts at:

South 11th Street

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

Final Environmental Impact Statement

Residential Impacts under Alternative 3

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1508 5th St.	1016 Kern St.	1431 3rd St.	1510 S. 5th St.	1501 S. 7th St.
1445 5th St.	521 Russell St.	1436 4th. St. W	1439 5th St.	915 Russell St.
1501 5th St.	1425 5 th St.	1501 4th St. W	1502 6th St. W	1500 8th St. W
1509 5th St.	802 Russell St.	1439 4th St. W	1501 6th St. W	1501 9th St. W
824 Russell St.		738 Russell St.	808 Russell St.	1135 10th St. W
1000 Russell St.		915 Kern St.	1500 7th St. W	1501 S. 10th St.
1010 Russell St.		1500 11th St. W	820 Russell St.	
935 Kern St.			1012 Kern St.	
941 Kern St.			1501 11th St.	

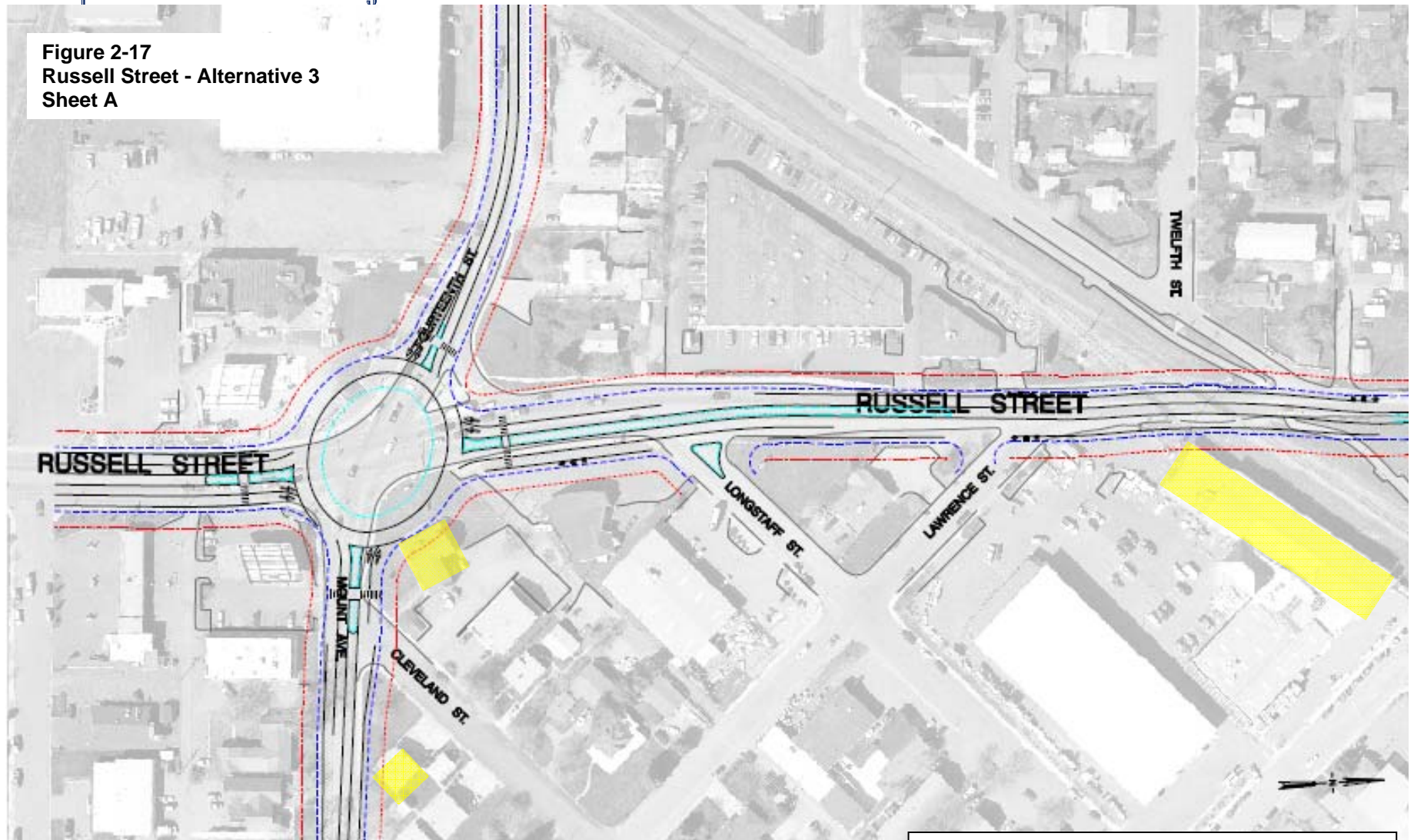
Commercial Impacts under Alternative 3

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1500 Broadway St.	1120 Russell St.	1427 W. Broadway St.	1540 Broadway St.	1417 3 rd St.
1440 Broadway St.	1407 River Rd.	1451 Broadway St.	215 Russell St.	1516 12th St.
1400 Wyoming St.	1503 Montana St. (Previously 1503 Russell St.)	Mount and Russell St.	1427 2nd St. W	1500 Russell St.
1515 Wyoming St.	140 Russell St.		1440 Russell St.	
121 Russell St.			1007 Mount Ave.	
403 Russell St.				
500 Russell St.				
501 Russell St.				
1440 5th St.				
1035 Ronan St.				
Montana Rail Link				
1204 Mount Ave. (Previously 1208 Mount Ave.)				
1520 Russell St.				

* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.

Chapter 2.0 - Alternatives Analysis

Figure 2-17
Russell Street - Alternative 3
Sheet A



All graphics in this document are conceptual and not intended to reflect final design details. The locations of raised medians and center turn lanes are conceptual and subject to change during final design.



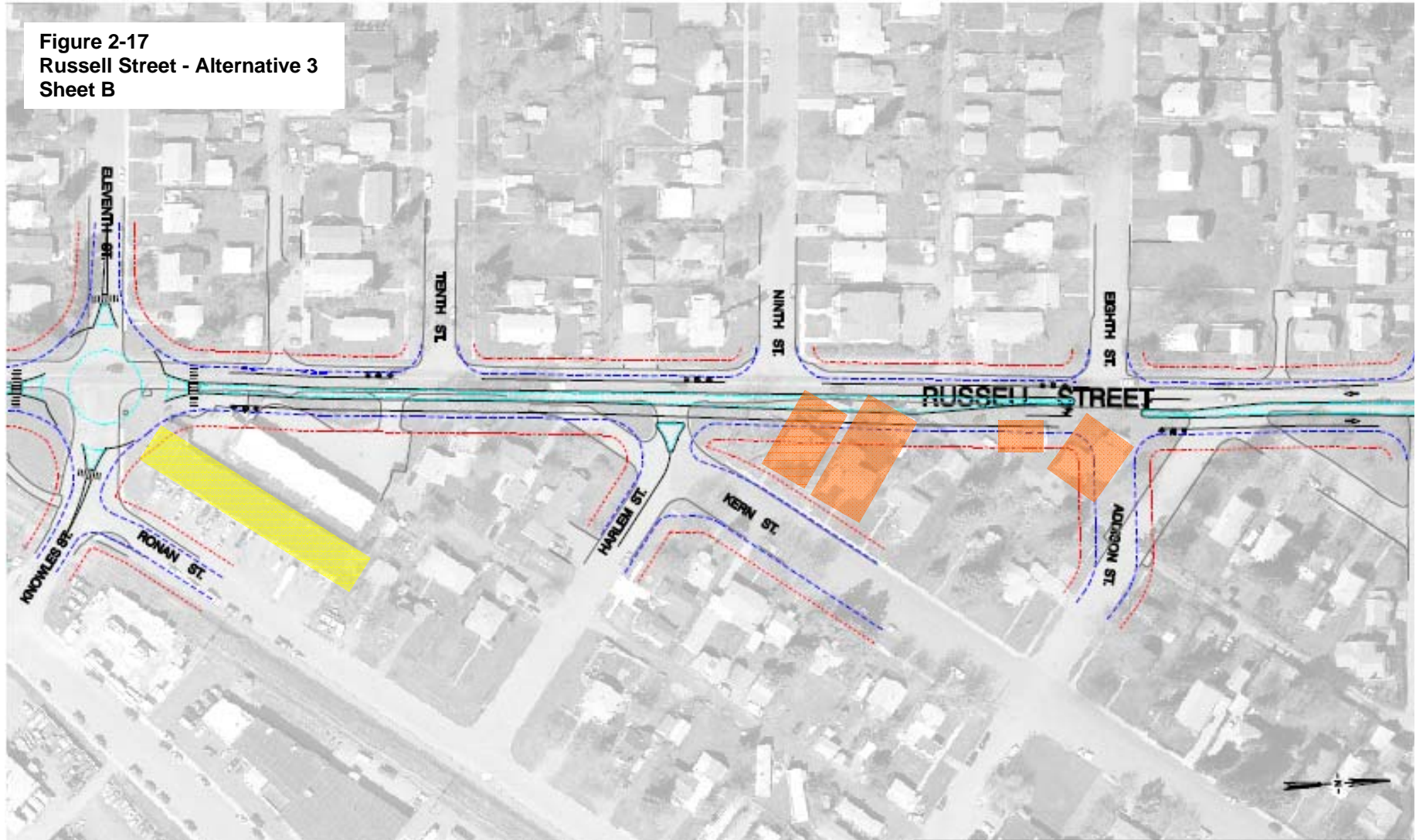


Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-17
Russell Street - Alternative 3
Sheet B

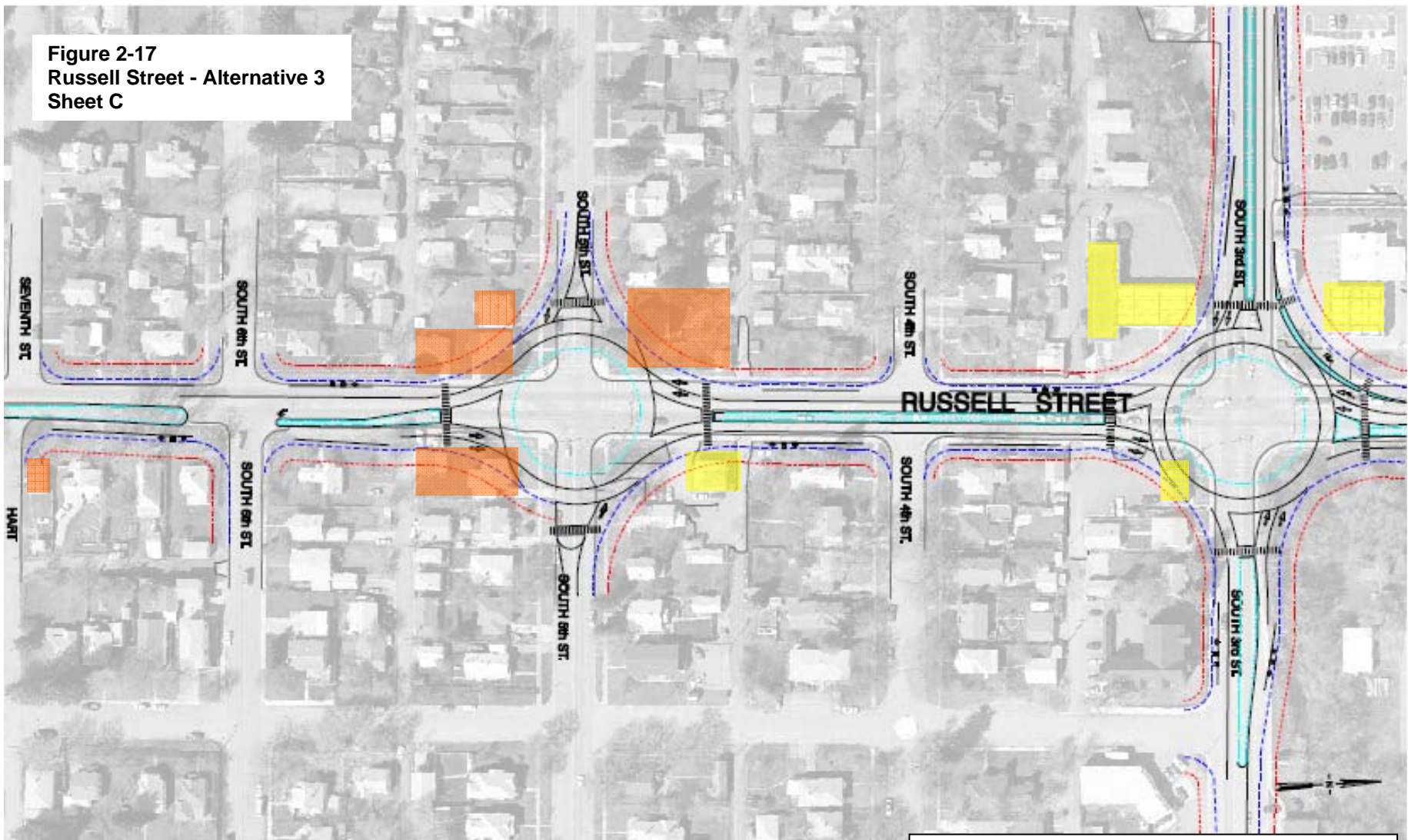


Residential Property Acquisition	
Commercial Property Acquisition	

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Chapter 2.0 - Alternatives Analysis

Figure 2-17
Russell Street - Alternative 3
Sheet C



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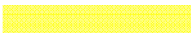
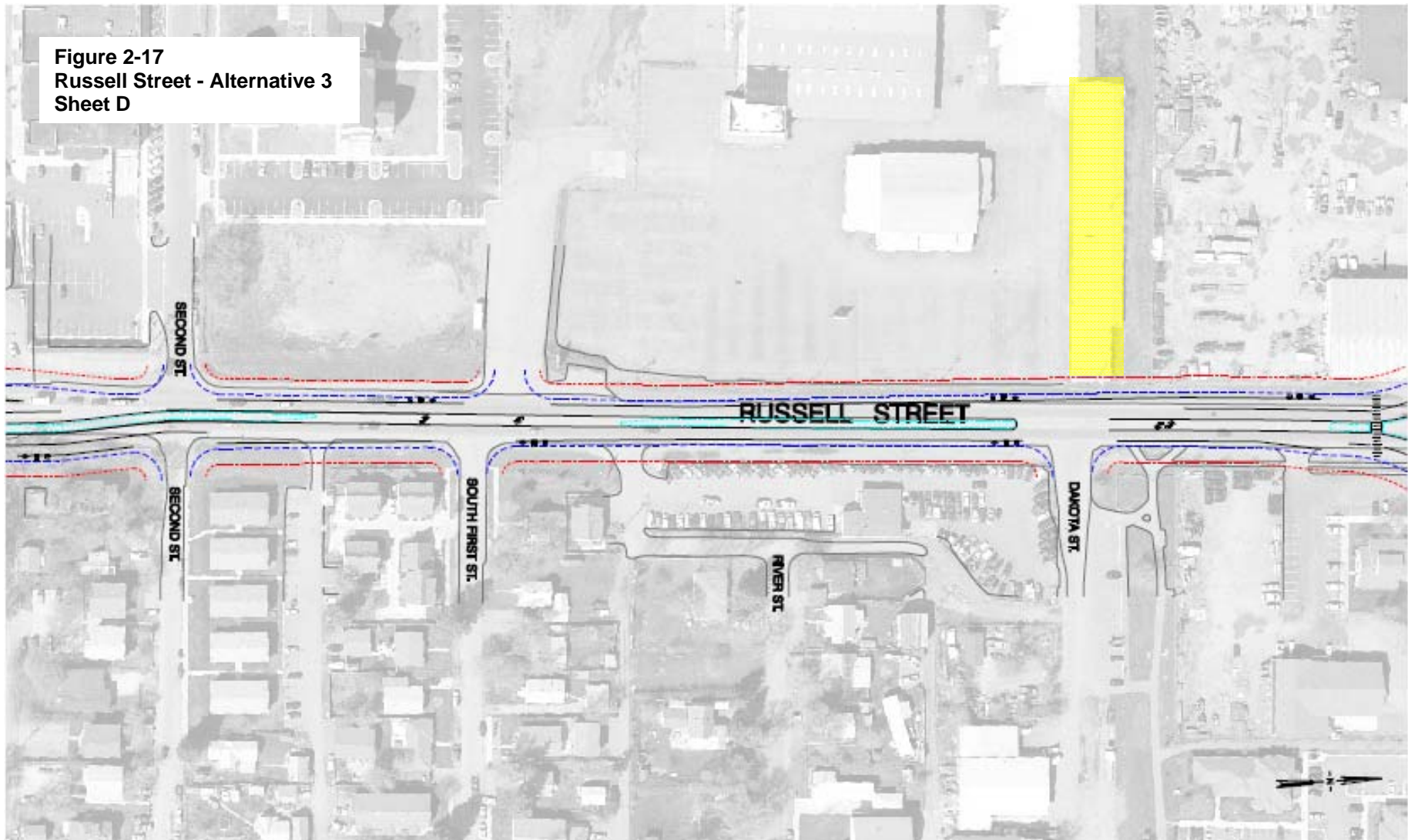
Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-17
Russell Street - Alternative 3
Sheet D

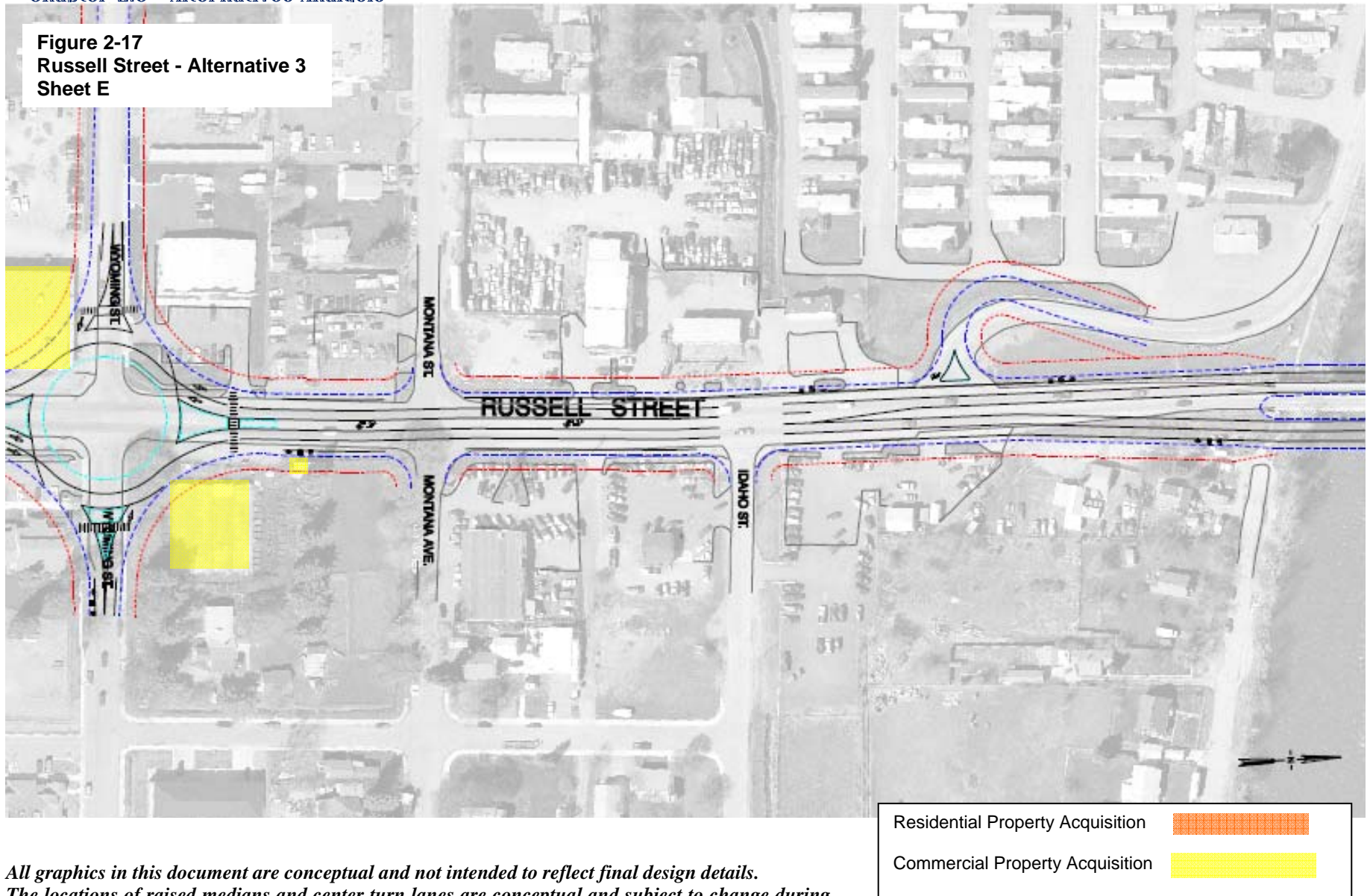


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Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

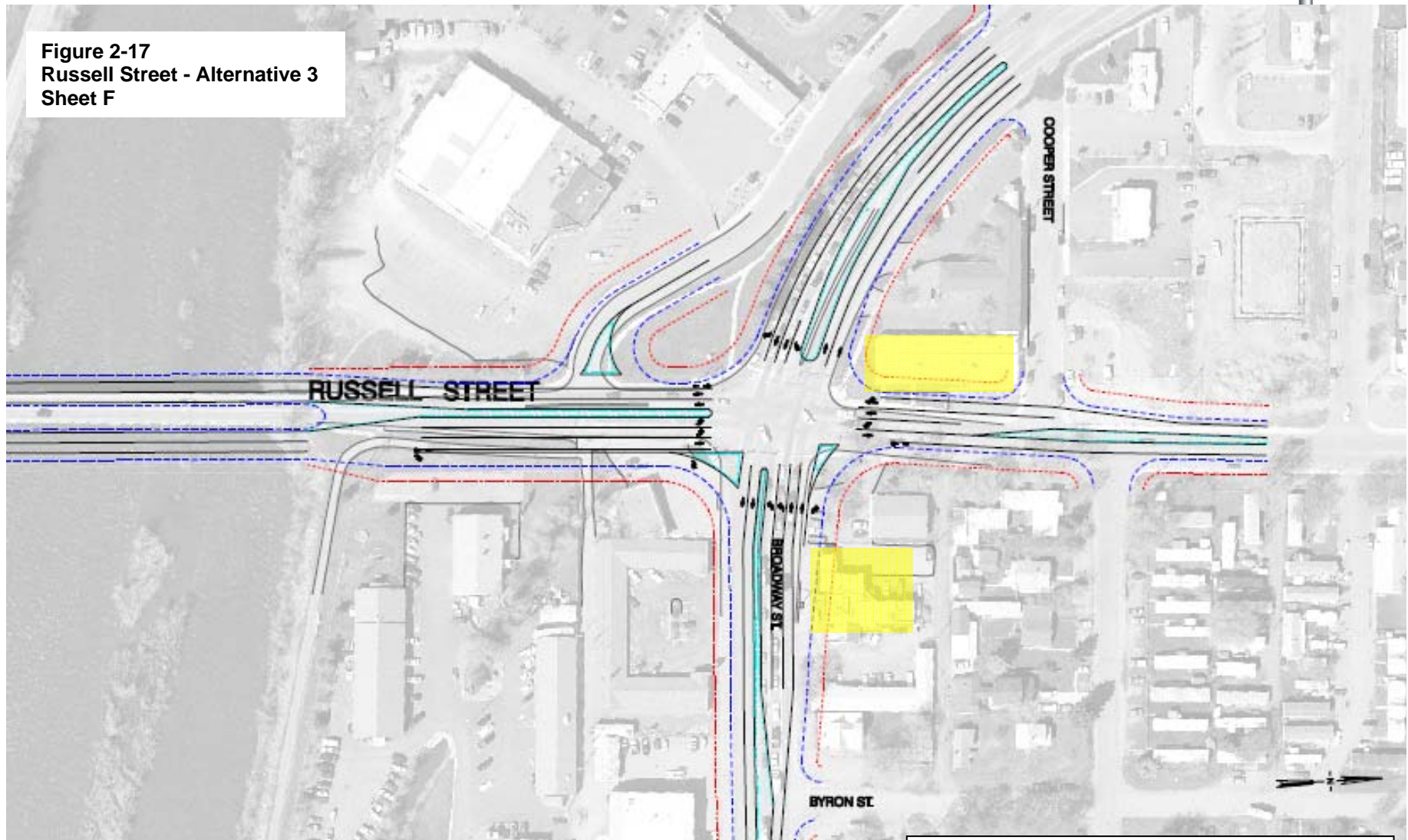
Figure 2-17
Russell Street - Alternative 3
Sheet E





*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*



Figure 2-17
Russell Street - Alternative 3
Sheet F



All graphics in this document are conceptual and not intended to reflect final design details. The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Alternative 4 - 4+ Lanes with Signals

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

none

Single-Lane Roundabouts at:

none

Signal Control at:

Mount Avenue/South 14th Street (existing)

South 5th Street (existing)

South 3rd Street (existing)

Wyoming Street

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

Final Environmental Impact Statement

Residential Impacts under Alternative 4

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
521 Russell St. 1445 5th St. 802 Russell St. 824 Russell St. 1000 Russell St. 1010 Russell St. 915 Kern St. 935 Kern St. 941 Kern St. 1012 Kern St. 1016 Kern St.	820 Russell St. 1436 S. 4 th St	1439 4th St. W 738 Russell St. 808 Russell St. 1501 11th St.	1431 3rd St. 1501 4th St. W 1502 6th St. W 1501 6th St. W 1500 7th St. W 1500 8th St. W 1501 10th St. 1500 11th St. W 1501 5th St.	915 Russell St. 1501 1500 ½ 7 th St. 1501 9th St. W 1135 10th St. W 1501 Russell St. 1500 14th St. W 1516 & 1516 1/2 12th

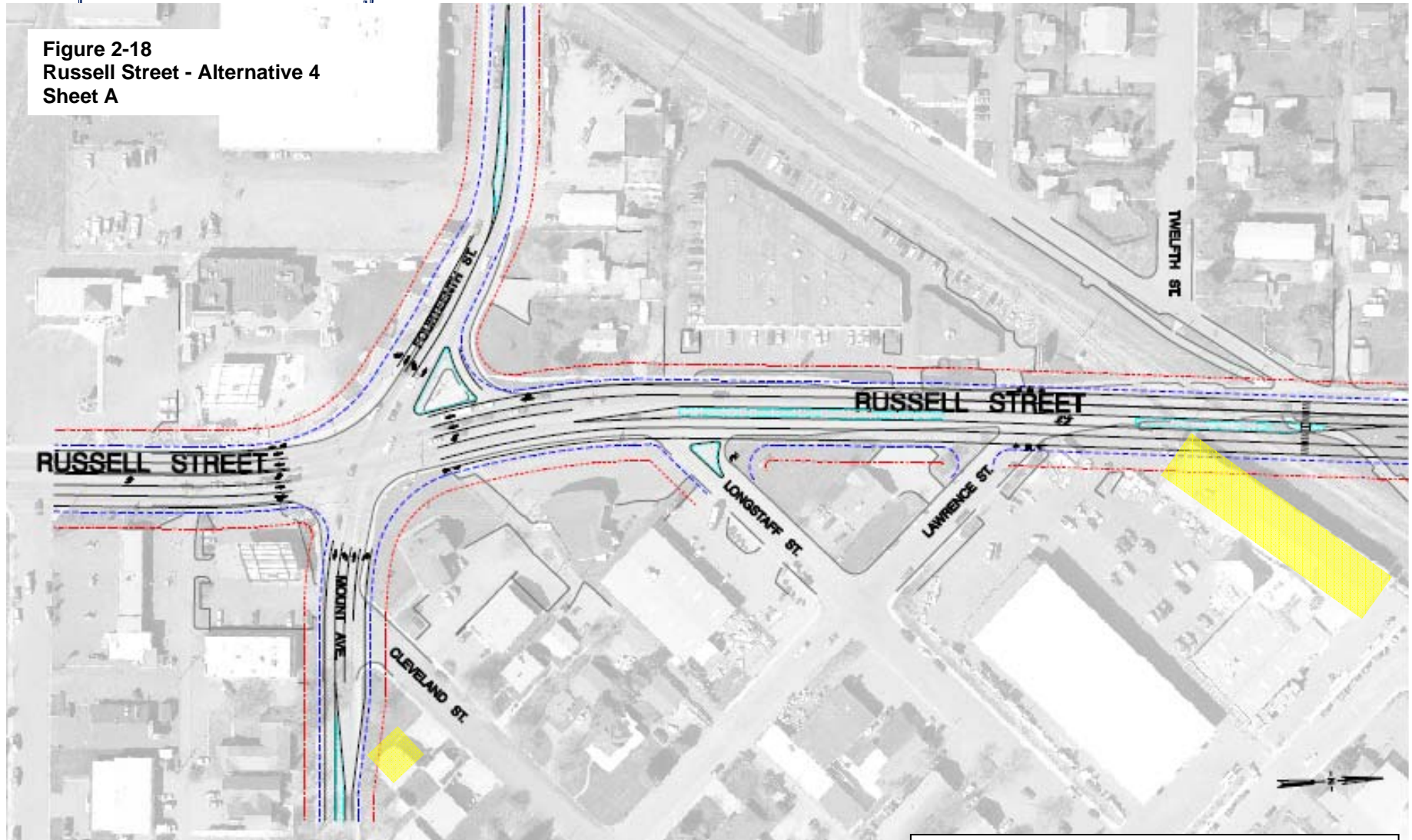
Commercial Impacts under Alternative 4

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1440 Broadway St. 1500 Broadway St. 1400 Wyoming St.. 500 Russell St 501 Russell St. 1440 S. 5 th St.. 1120 Russell St. 1035 Ronan St. Montana Rail Link 1204 Mount Ave. (Previously 1208 Mount Ave.)	1407 River Rd. 1503 Montana St. (Previously 1503 Russell St.) 121 Russell St. 1515 Wyoming 1451 W. Broadway Mount and Russell St. 1440 S. 5 th St.	1427 W. Broadway	403 Russell St. 1440 Russell St. 1540 W. Broadway 1437 1 st St. W 1007 Mount Ave.	140 Russell St. 1417 S. 3 rd St. 100 Russell St. 1520 Russell St. 1427 2nd St.



* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.

Chapter 2.0 - Alternatives Analysis

Figure 2-18
Russell Street - Alternative 4
Sheet A

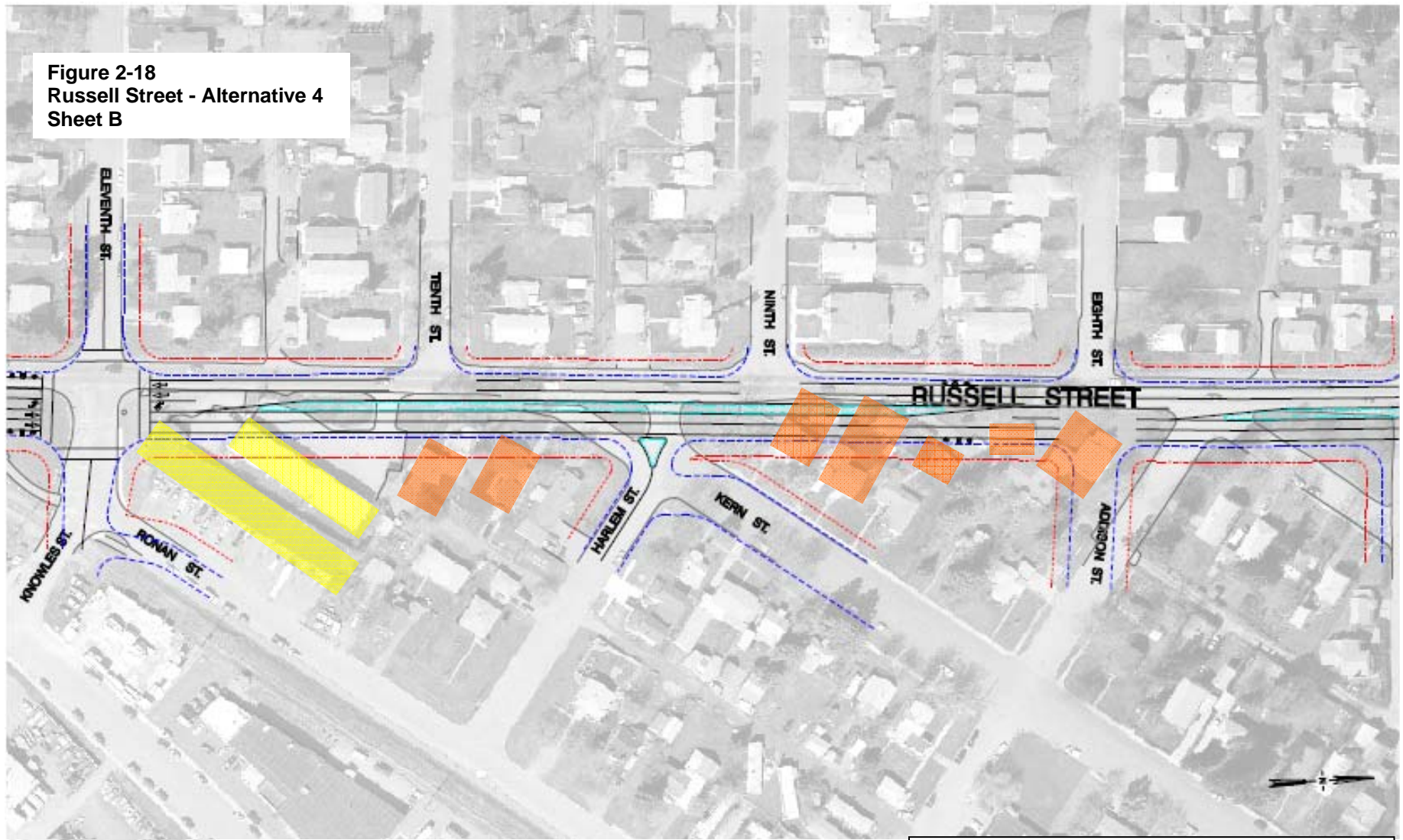


*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Residential Property Acquisition	
Commercial Property Acquisition	



**Figure 2-18
Russell Street - Alternative 4
Sheet B**

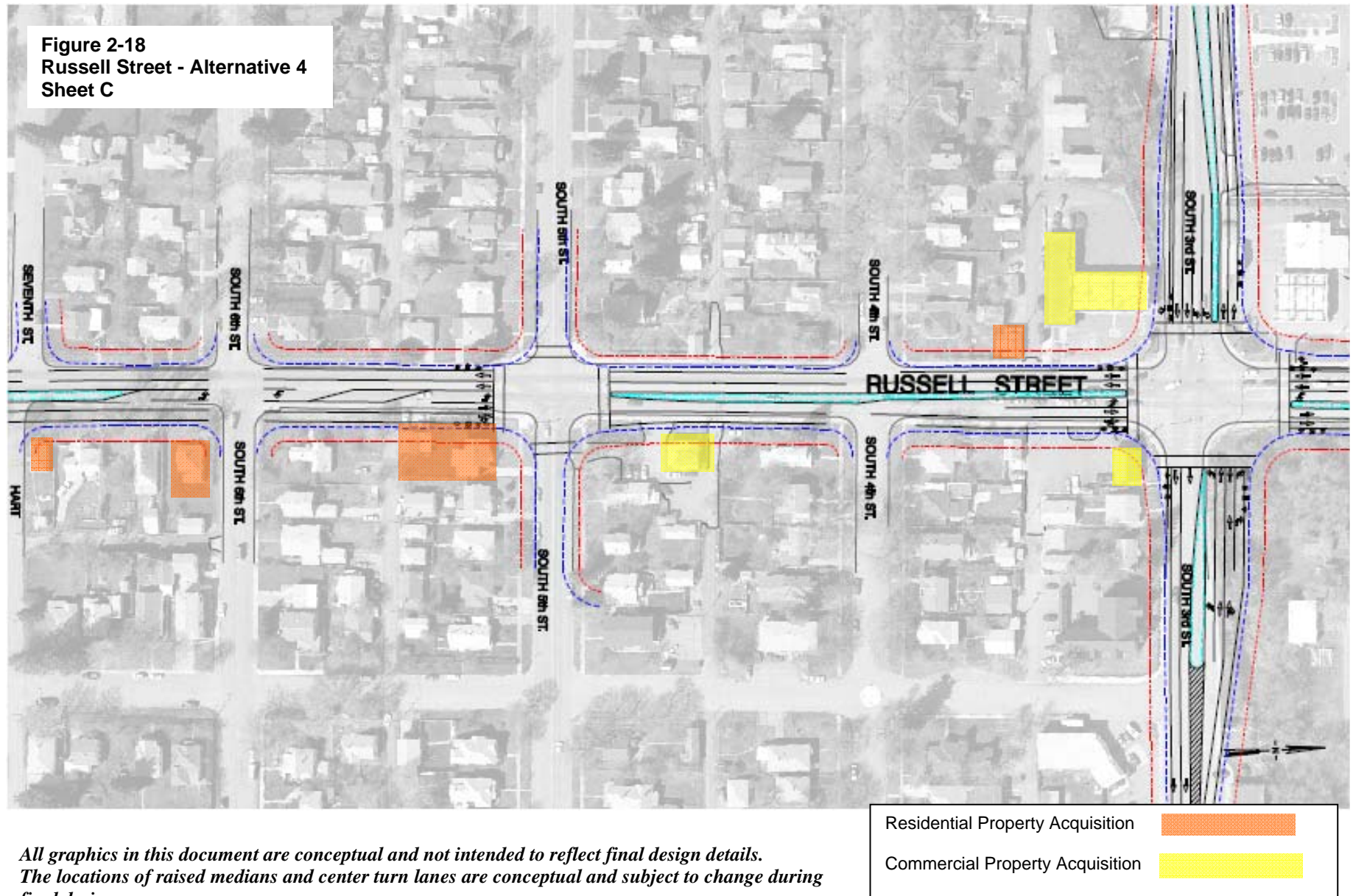


*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Residential Property Acquisition	
Commercial Property Acquisition	

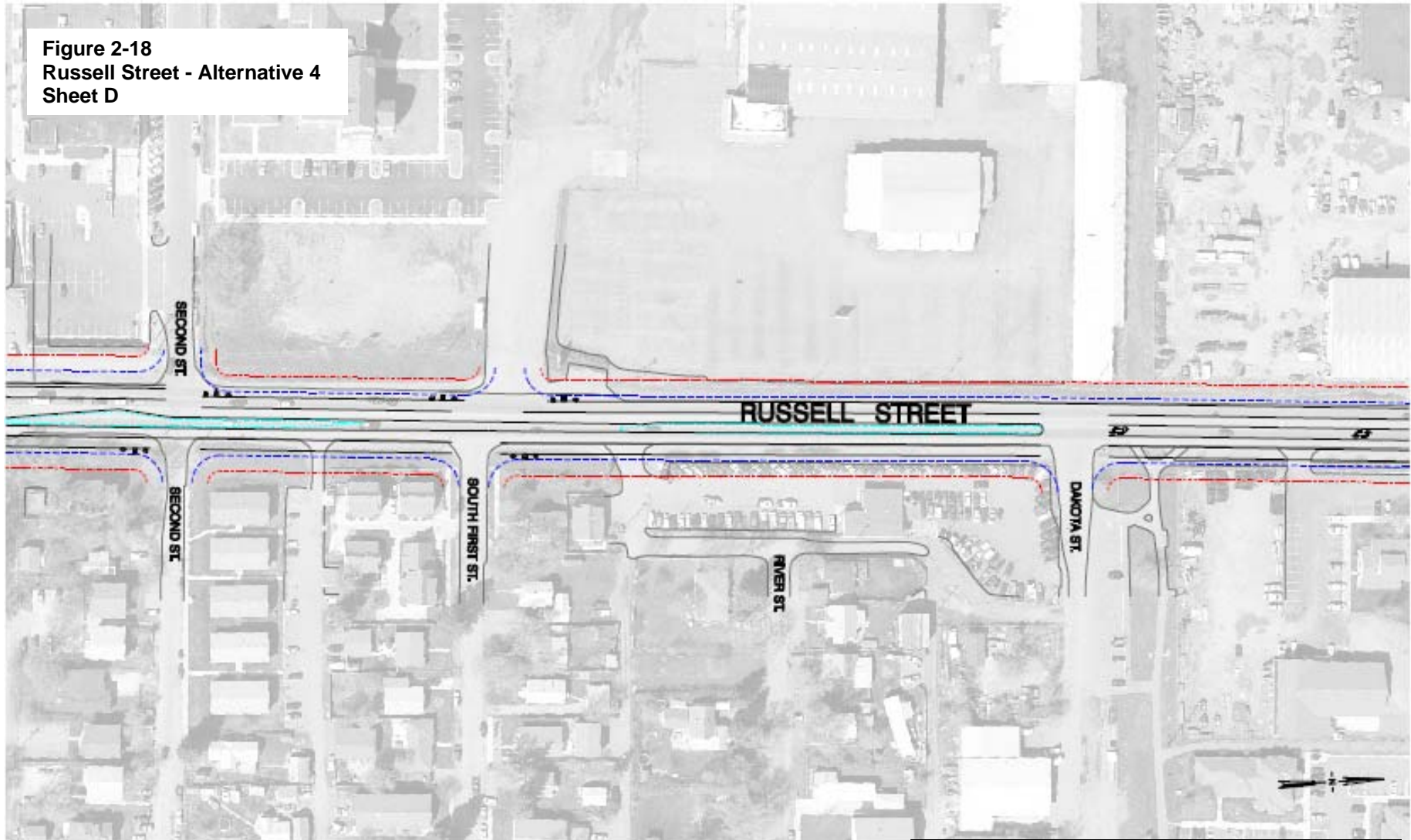
Chapter 2.0 - Alternatives Analysis

Figure 2-18
Russell Street - Alternative 4
Sheet C





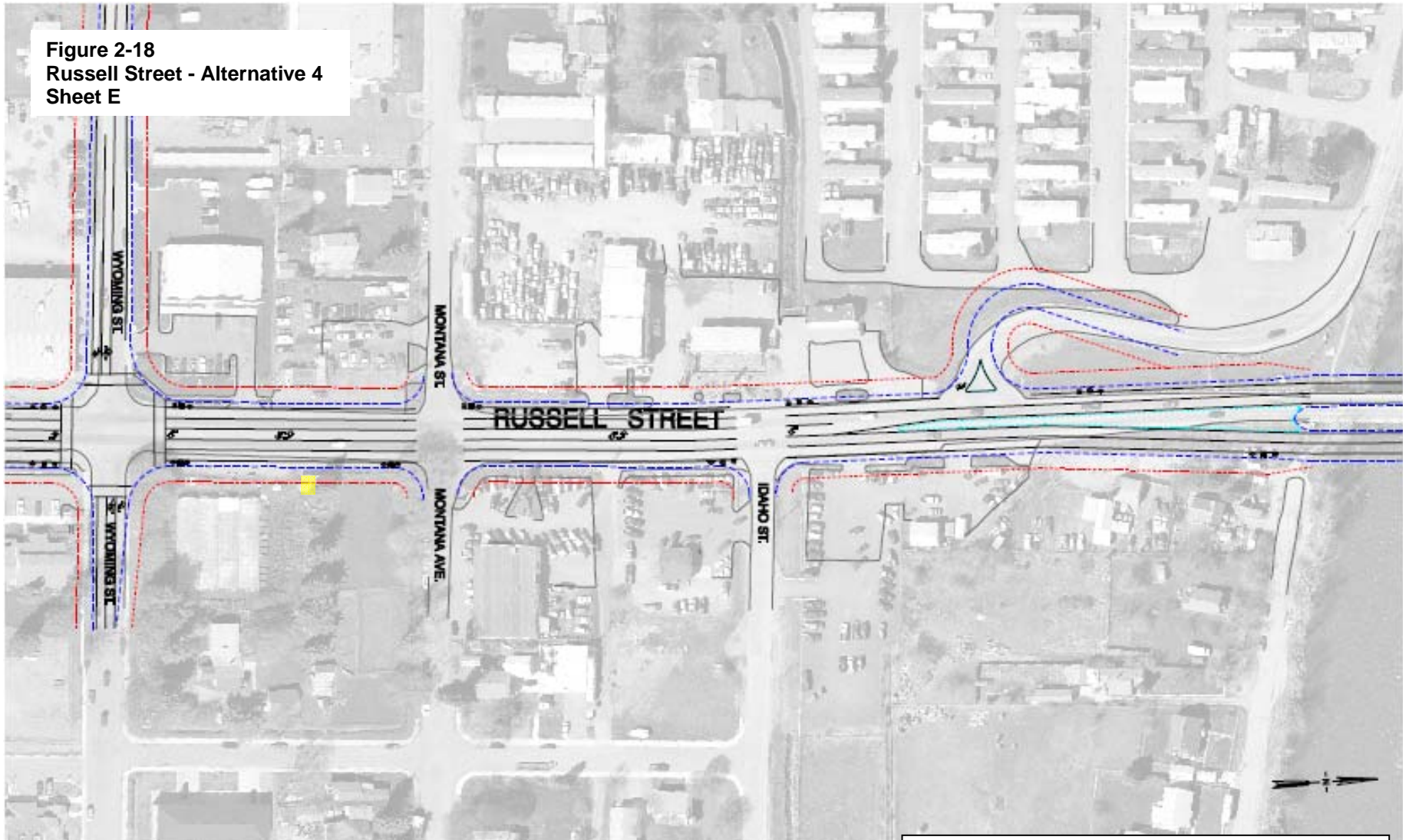
**Figure 2-18
Russell Street - Alternative 4
Sheet D**





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Chapter 2.0 - Alternatives Analysis

Figure 2-18
Russell Street - Alternative 4
Sheet E

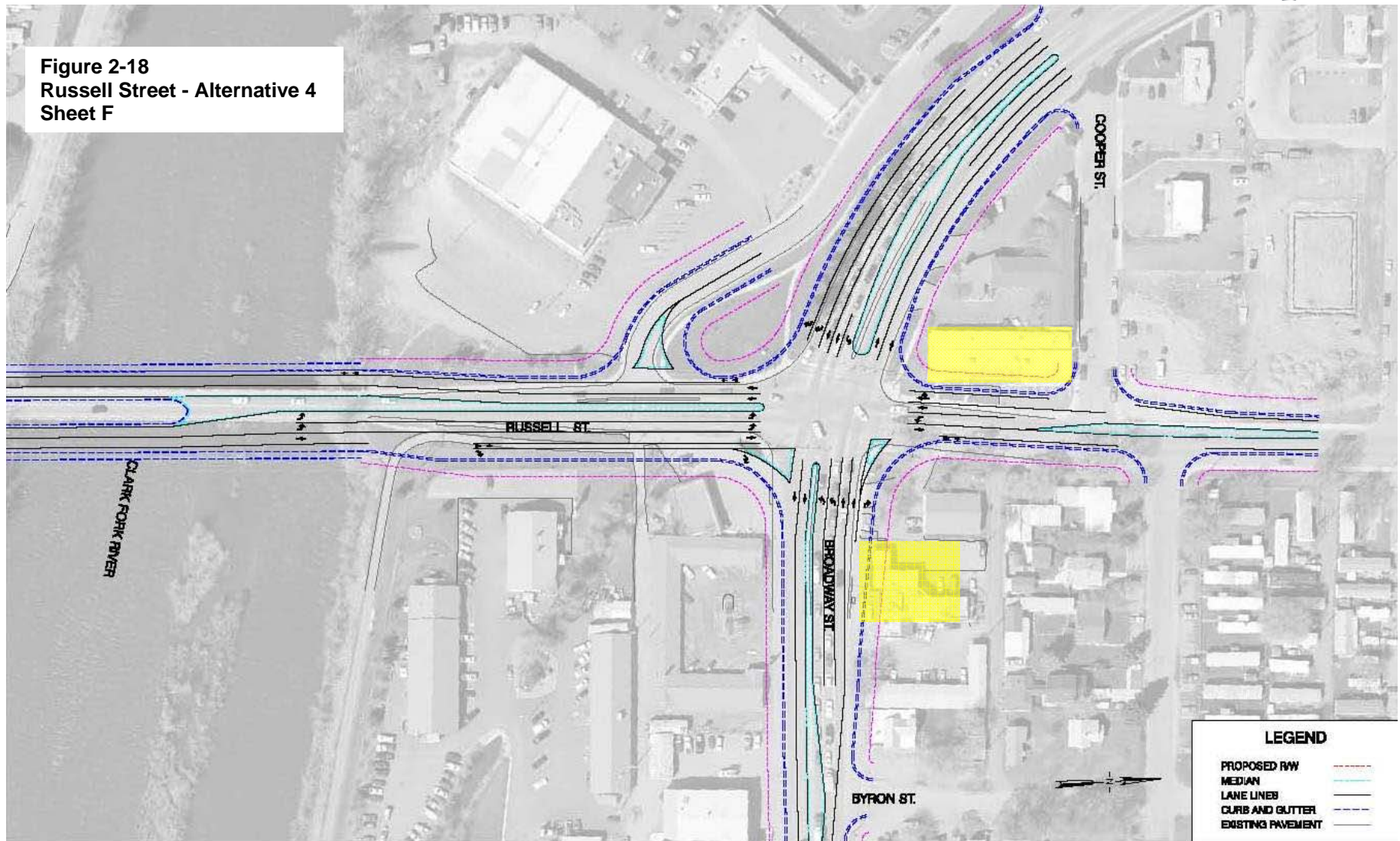


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The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Residential Property Acquisition	
Commercial Property Acquisition	



**Figure 2-18
Russell Street - Alternative 4
Sheet F**



LEGEND	
PROPOSED RW	---
MEDIAN	---
LANE LINES	---
CURB AND GUTTER	---
EXISTING PAVEMENT	---

*All graphics in this document are conceptual and not intended to reflect final design details.
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Residential Property Acquisition	
Commercial Property Acquisition	

Alternative 5 - 4+ Lanes with Roundabouts

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street

South 5th Street

South 3rd Street

Wyoming Street

South 11th Street

Single-Lane Roundabouts at:

none

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

Final Environmental Impact Statement

Residential Impacts under Alternative 5

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1508 5th St. 1439 5th St. 1445 5th St. 1501 5th St. 1509 5th St. 802 Russell St. 820 Russell St. 824 Russell St. 1000 Russell St. 1010 Russell St. 915 Kern St. 935 Kern St. 941 Kern St. 1012 Kern St. 1016 Kern St. 1520 11th St. 1500 11th St. W 1501 11th St.	808 Russell St. 738 Russell St. 521 Russell St.	1431 3rd St. 1436 4th. St. W 1501 4th St. W 1501 S. 10th St.	1439 4th St. W 1510 S. 5th St. 1502 6th St. W 1501 6th St. W 1501 Russell St.	1405 S. 5th St. 1500 7th St. W 915 Russell St. 1500 8th St. W 1501 9th St. W 1135 10th St. W

Commercial Impacts under Alternative 5

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1500 Broadway St. 1440 Broadway St. 1400 Wyoming St. 1515 Wyoming St. 403 Russell St. 500 Russell St. 501 Russell St. 1440 5th St. 1120 Russell St. 1035 Ronan St. Montana Rail Link 1204 Mount Ave. (Previously 1208 Mount Ave.) 1520 Russell St.	1407 River Rd. 1503 Montana St. (Previously 1503 Russell St.) 140 Russell St. 121 Russell St. 1425 5 th St. 1516 12 th St.	1427 W. Broadway St. 1451 Broadway St. Mount and Russell St.	1540 W. Broadway 1440 Russell St.	215 Russell St. 1437 1st St. W 1427 2nd St. W 100 Russell St. 1007 Mount Ave.

* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.

Chapter 2.0 - Alternatives Analysis

Figure 2-19
Russell Street - Alternative 5
Sheet A

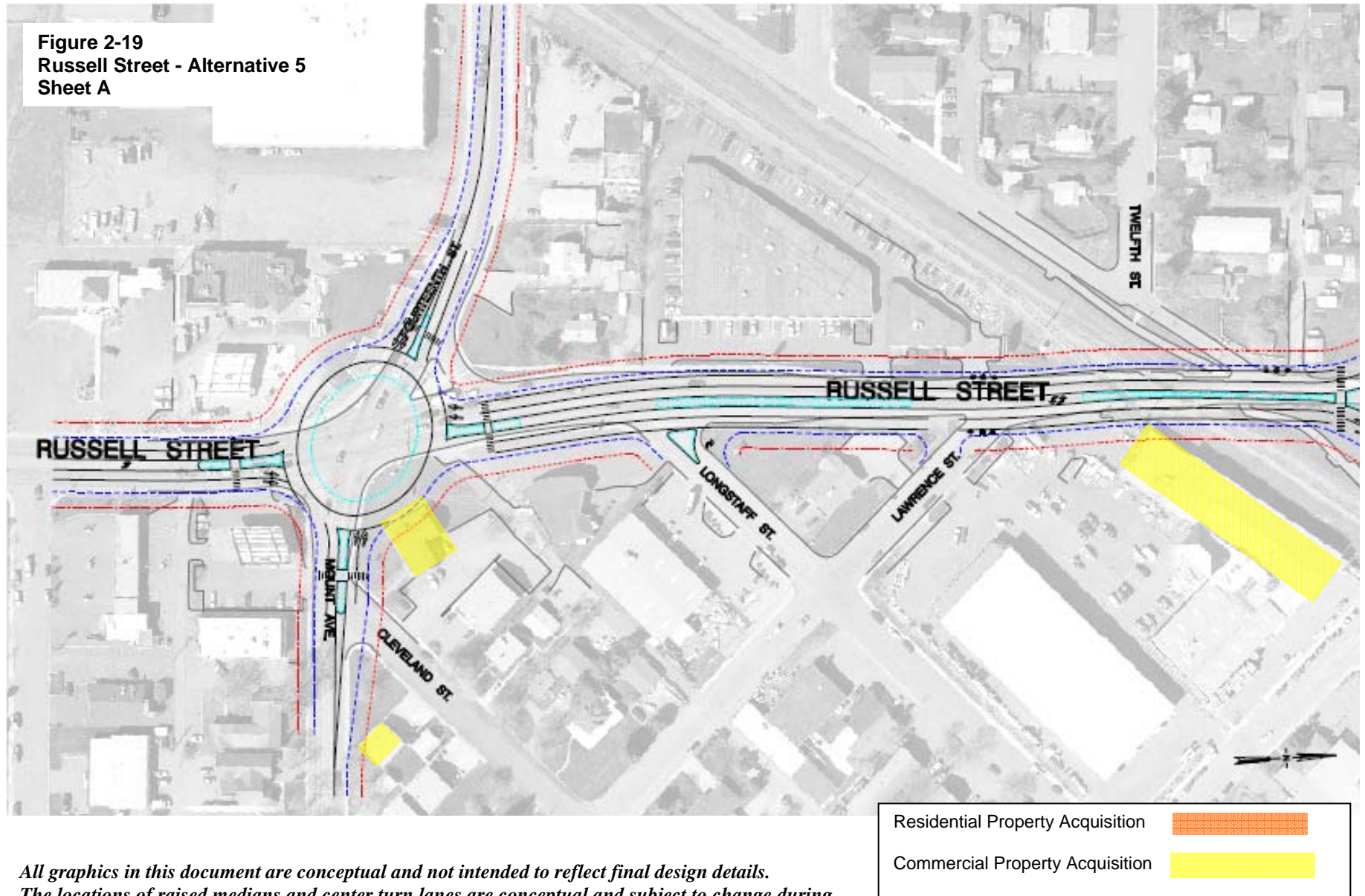
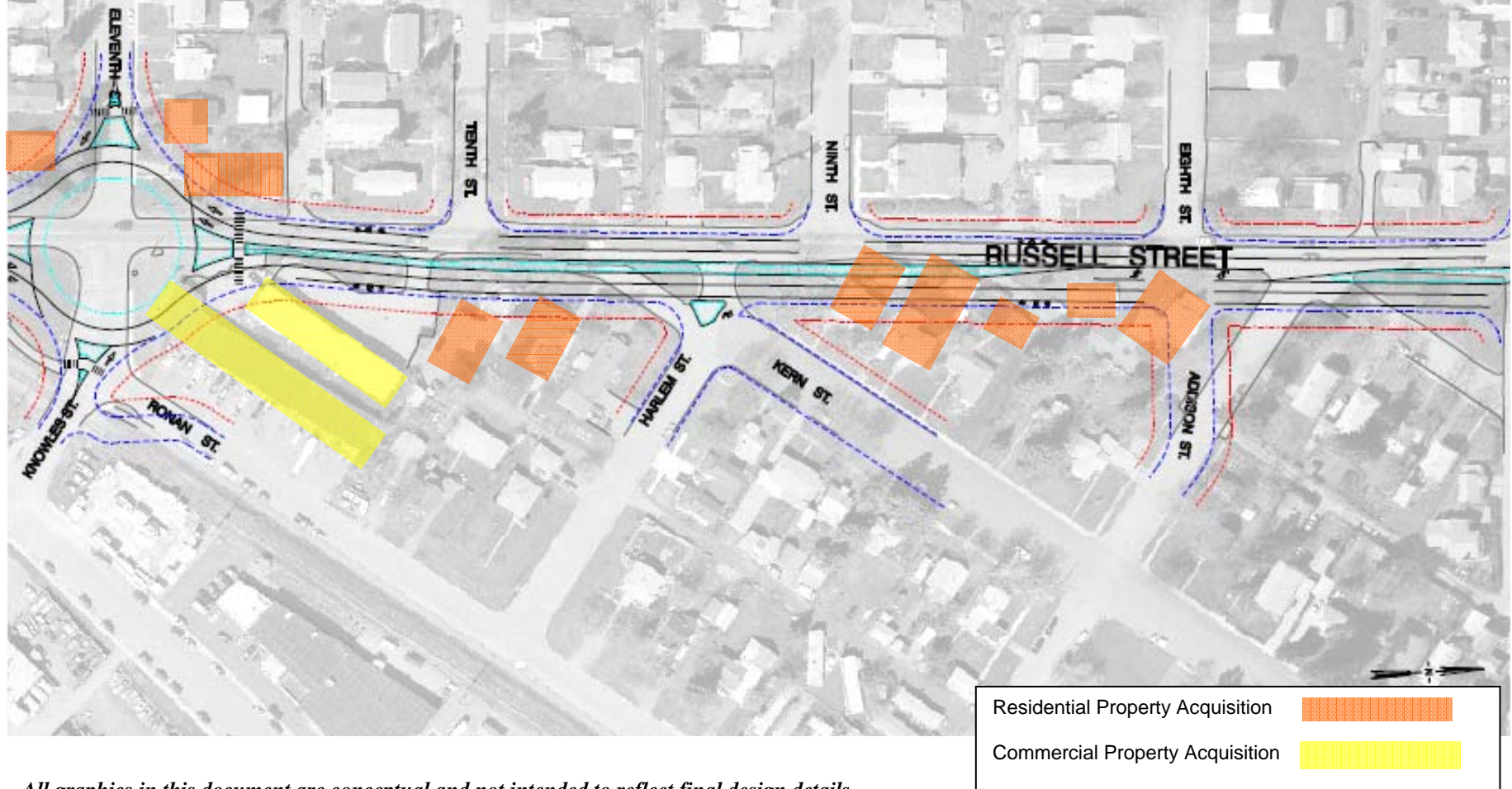




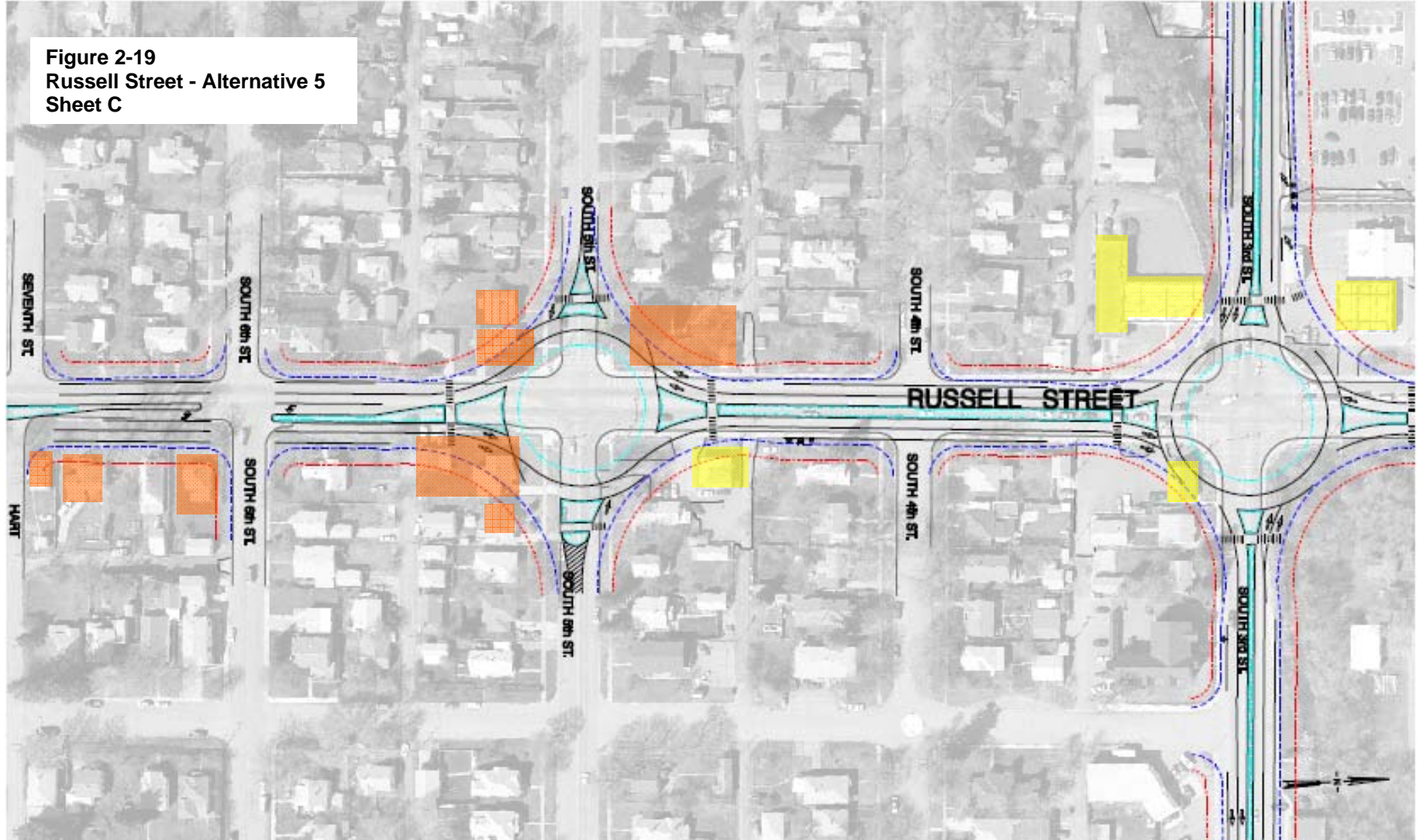
Figure 2-19
Russell Street - Alternative 5
Sheet B



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The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Chapter 2.0 - Alternatives Analysis

Figure 2-19
Russell Street - Alternative 5
Sheet C



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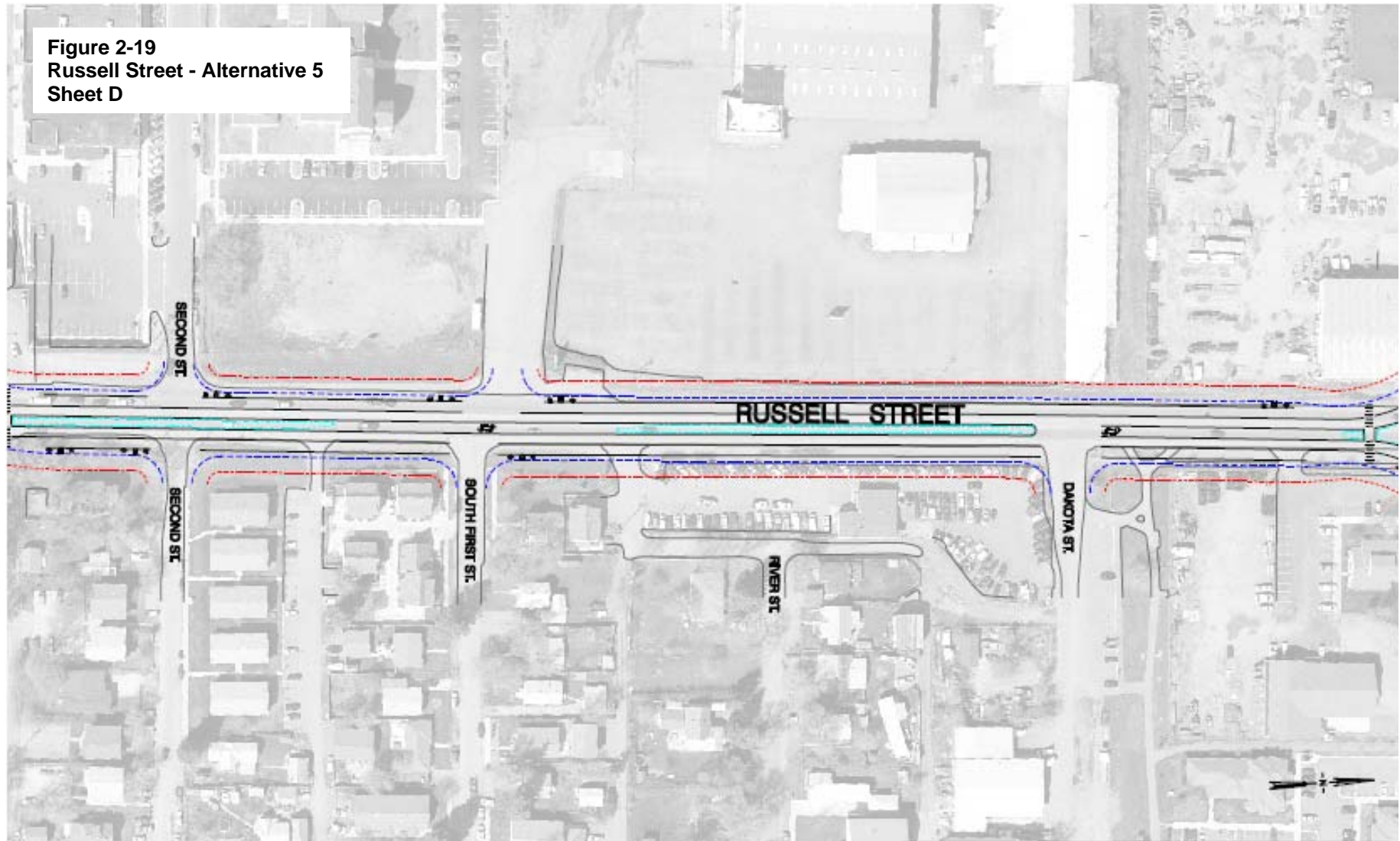
Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-19
Russell Street - Alternative 5
Sheet D



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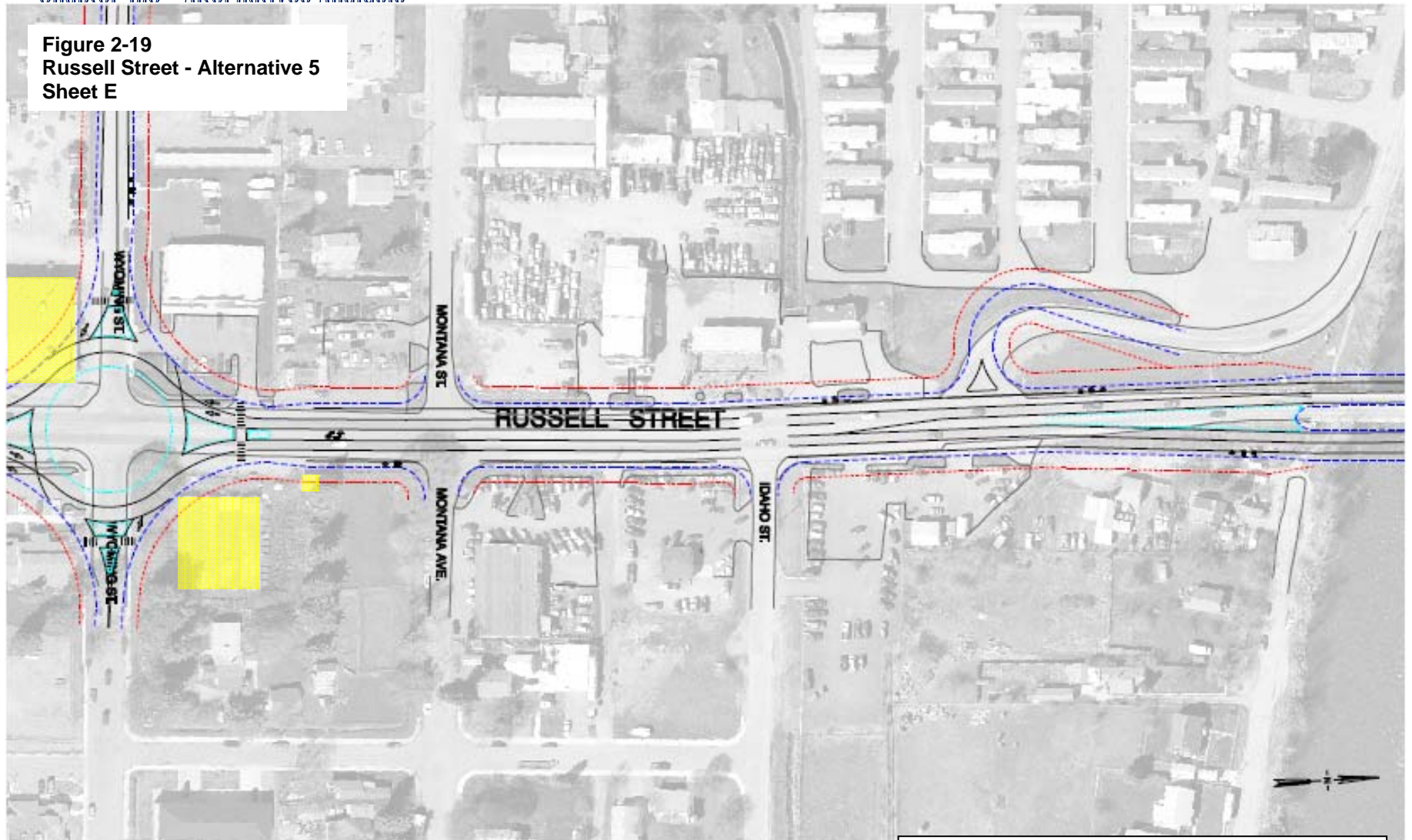


Residential Property Acquisition	
Commercial Property Acquisition	

Figure 2-19
Russell Street - Alternative 5
Sheet E

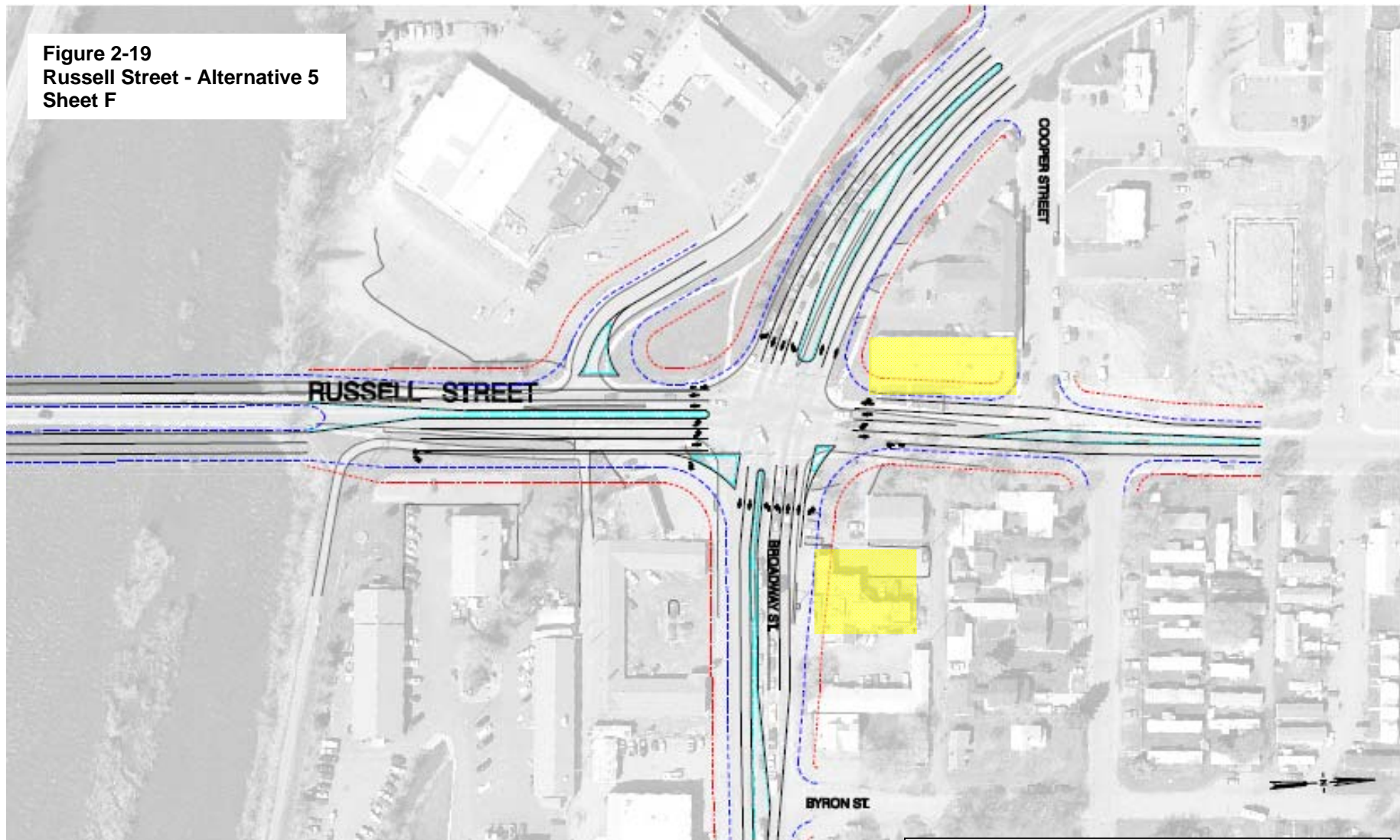


Residential Property Acquisition	
Commercial Property Acquisition	

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Figure 2-19
Russell Street - Alternative 5
Sheet F



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Residential Property Acquisition	
Commercial Property Acquisition	

Alternative B - 2 Lanes with Roundabouts

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

None included in this alternative.

Alignment:

The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

Final Environmental Impact Statement

Residential Impacts under Alternative B

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
2204 3rd St.	1701 3rd St. 2601 3rd St.	2415 3rd St.	1701 3rd St. 417 Curtis St. 1602 Grant St.	1701 3rd St.

Commercial Impacts under Alternative B

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1939 3rd St.	2340 3rd St.	1301 3rd St. 1655 3rd St.	1318 3rd St. 1819 3rd St.	2207 3rd St. 3210 3rd St. W
2135 3rd St.	2600 3rd St.			
1616 3rd St.		2539 3rd St.	1855 3rd St.	2316 3rd St. W
520 Shillings St. (Previously 2140 4 th St.)			2115 3rd St.	2422 3rd St.

* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.

Figure 2-20
South 3rd Street - Alternative B
Sheet A



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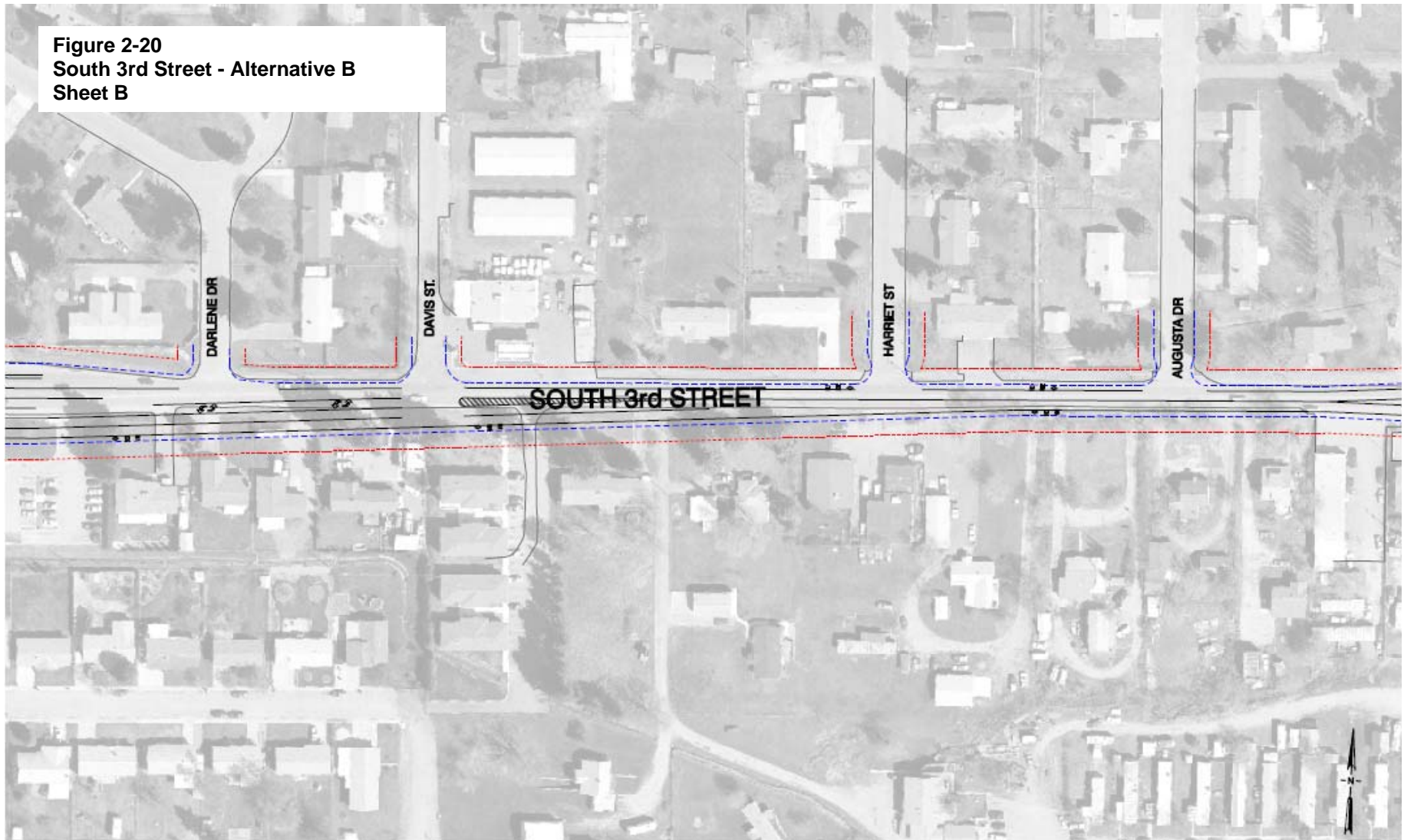
Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-20
South 3rd Street - Alternative B
Sheet B

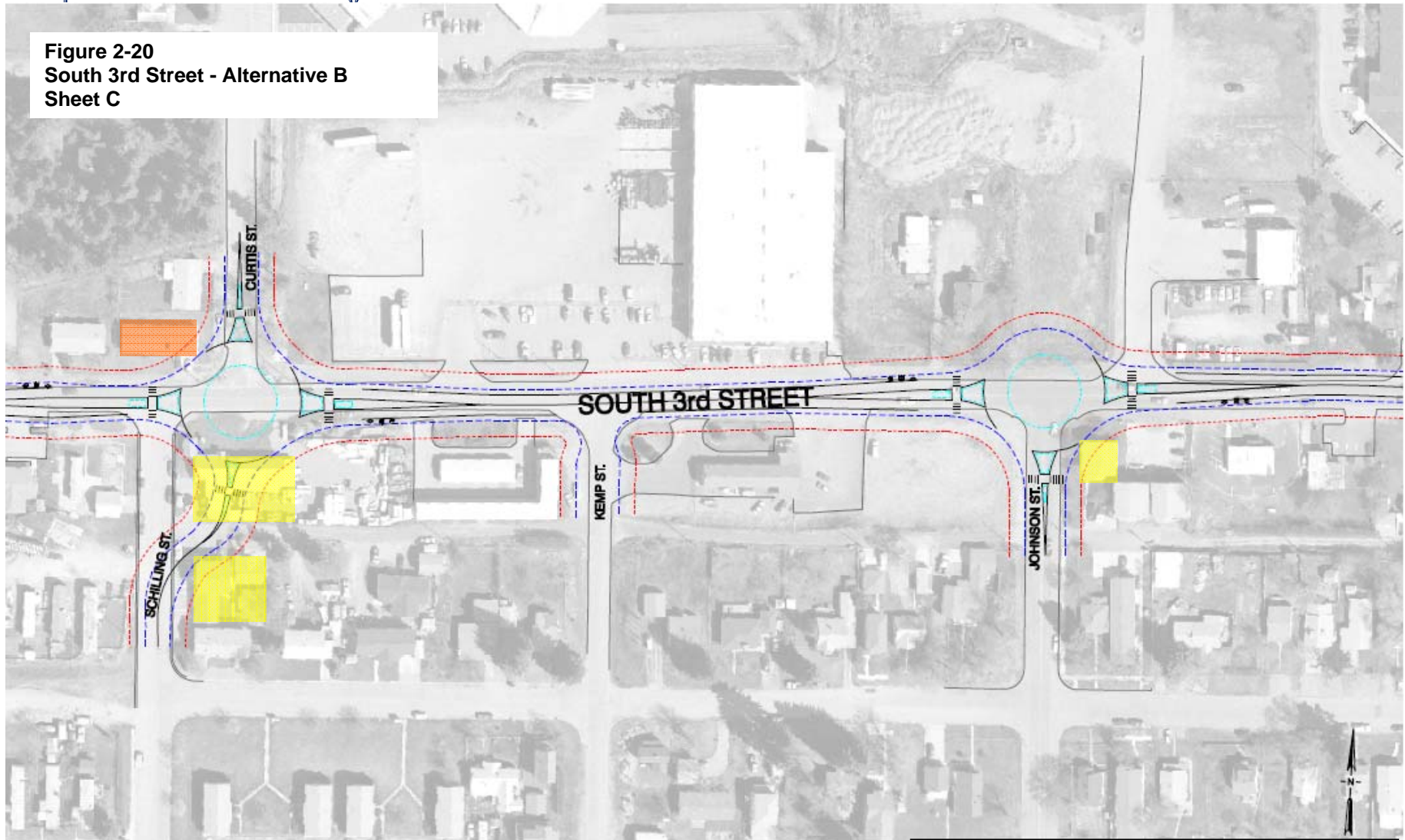




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Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-20
South 3rd Street - Alternative B
Sheet C

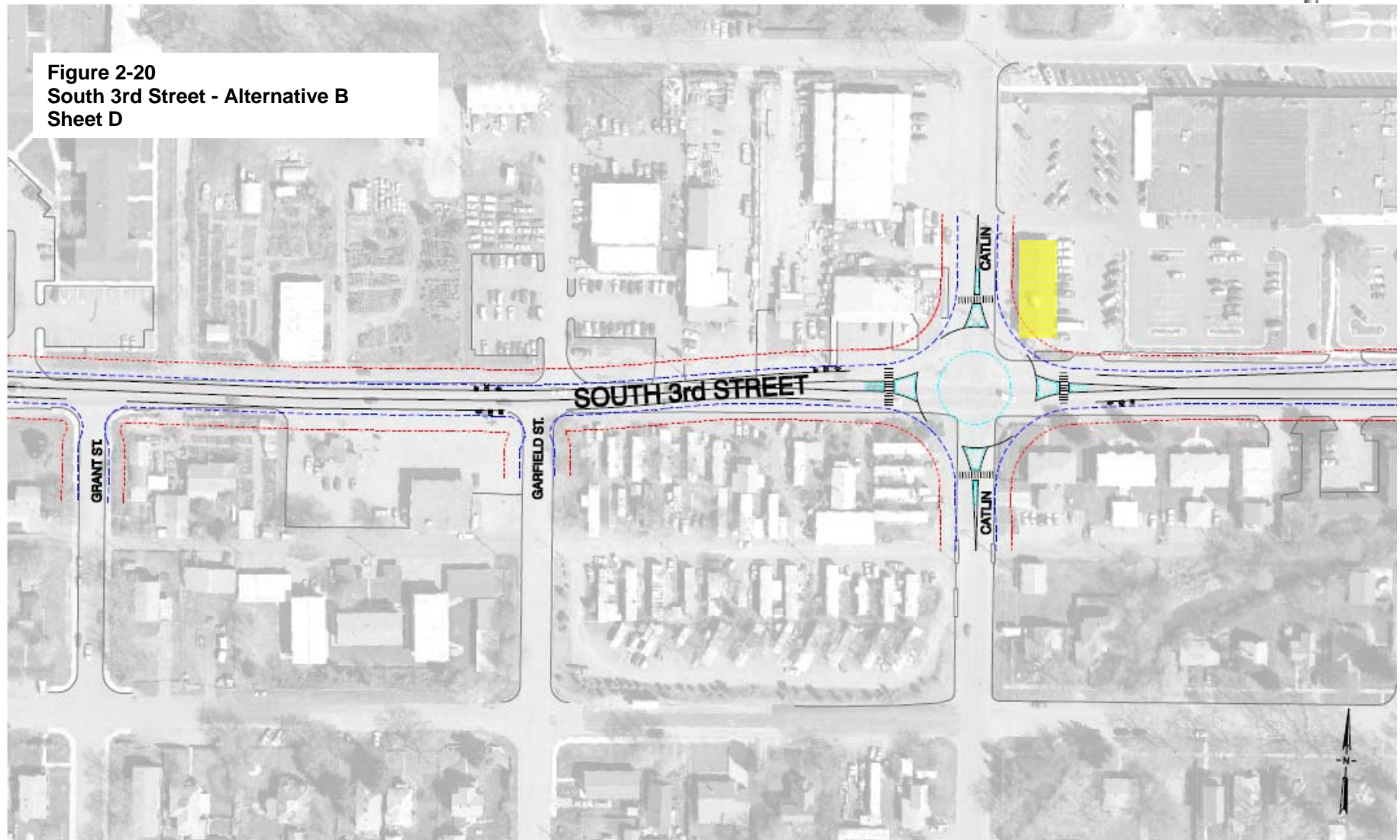


Residential Property Acquisition	
Commercial Property Acquisition	

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Figure 2-20
South 3rd Street - Alternative B
Sheet D

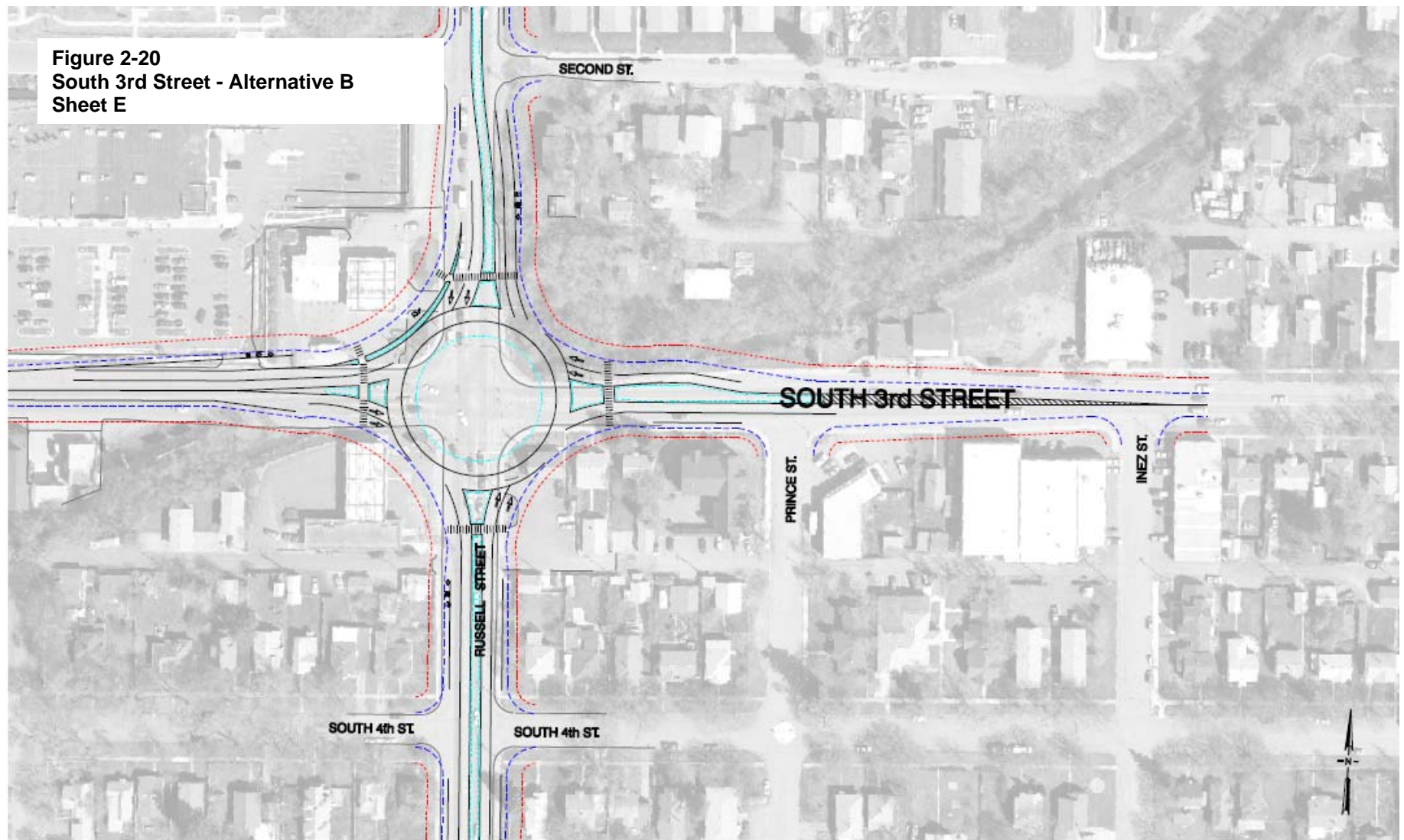


Residential Property Acquisition	
Commercial Property Acquisition	

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The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*

Chapter 2.0 - Alternatives Analysis

Figure 2-20
South 3rd Street - Alternative B
Sheet E



Residential Property Acquisition



Commercial Property Acquisition



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Alternative C - 2+ Lanes with Roundabouts

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

Chapter 2.0 - Alternatives Analysis

Residential Impacts under Alternative C

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
2204 3rd St.	1701 3rd St. 2601 3rd St.	1701 3rd St. 1602 Grant St. 2415 3rd St.	417 Curtis St.	1701 3rd St. 1910 3rd St. 2224 3rd St. 2422 3rd St.

Commercial Impacts under Alternative C

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1939 3rd St.	520 Shillings St. (Previously 2140 4 th St.)	1301 3rd St.	1290 3rd St.	1920 3rd St.
2135 3rd St.	2340 3rd St.	1819 3rd St.	1541 3rd St.	2002 3rd St.
1318 3rd St.	2600 3rd St.	1855 3rd St.	1655 3rd St.	2310 3rd St.
1616 3rd St.		2539 3rd St.	2115 3rd St. 2207 3rd St.	2316 3rd St.

* “Direct Impact” implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.



Figure 2-21
South 3rd Street - Alternative C
Sheet A



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Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-21
South 3rd Street - Alternative C
Sheet B



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final design.*



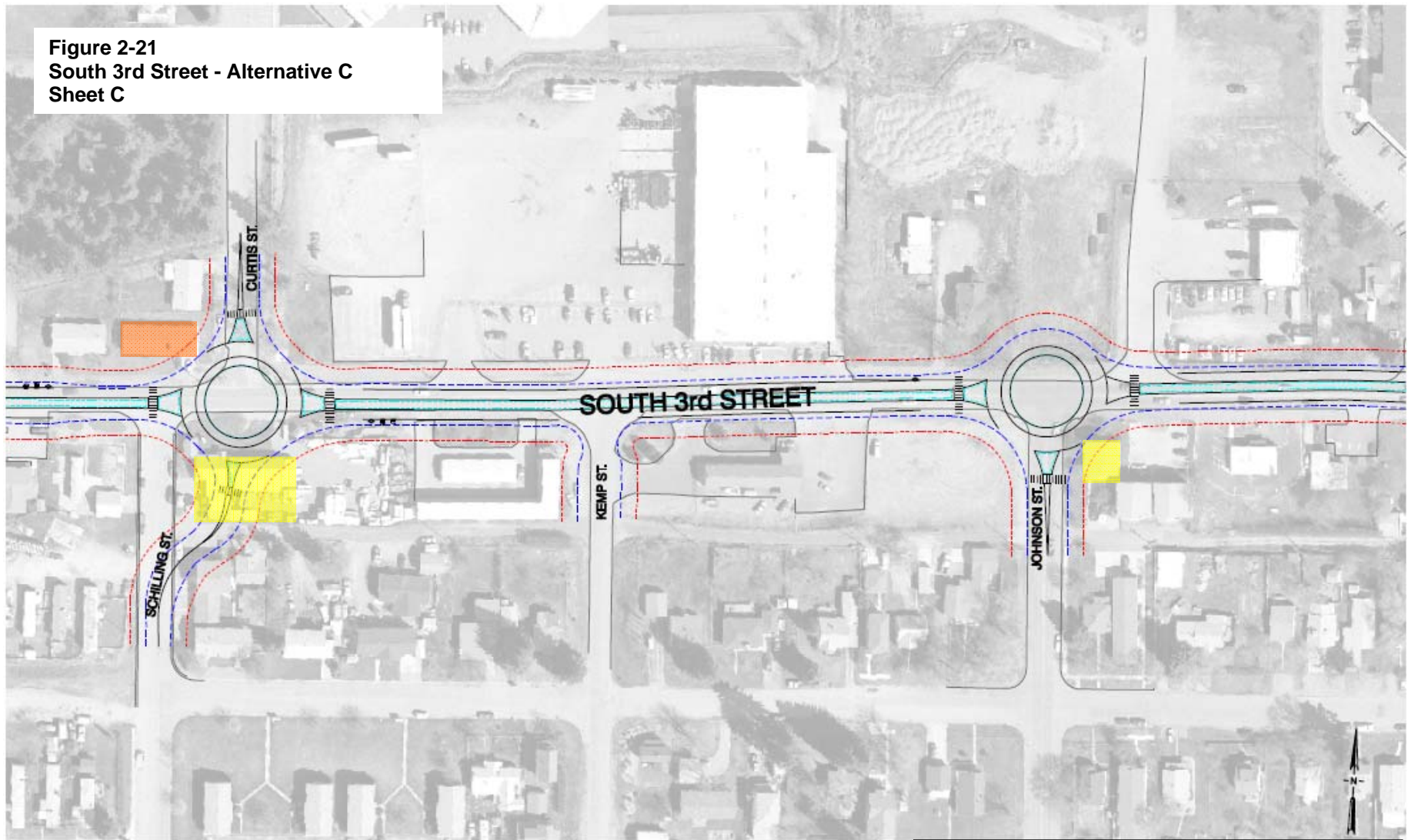


Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-21
South 3rd Street - Alternative C
Sheet C

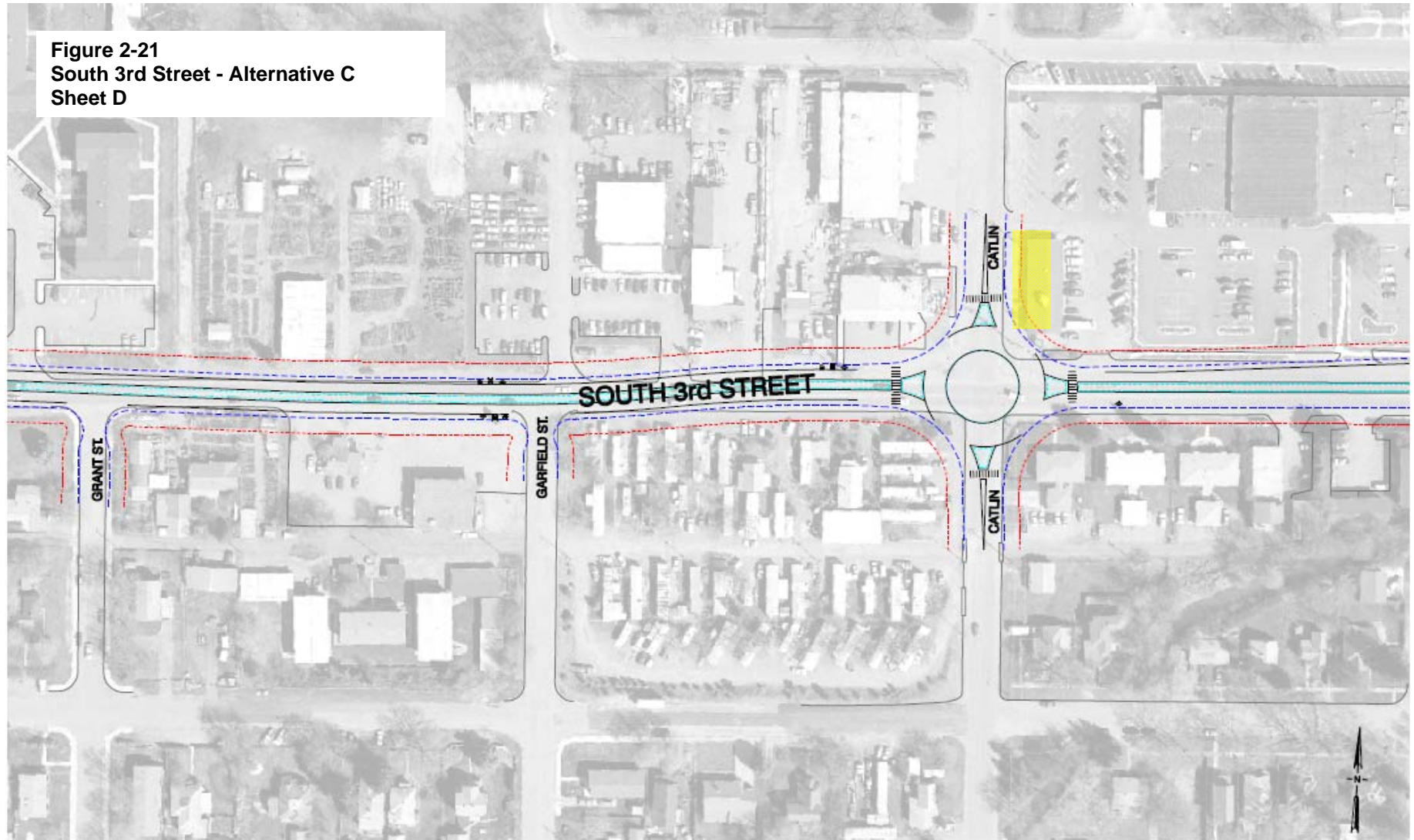


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Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-21
South 3rd Street - Alternative C
Sheet D



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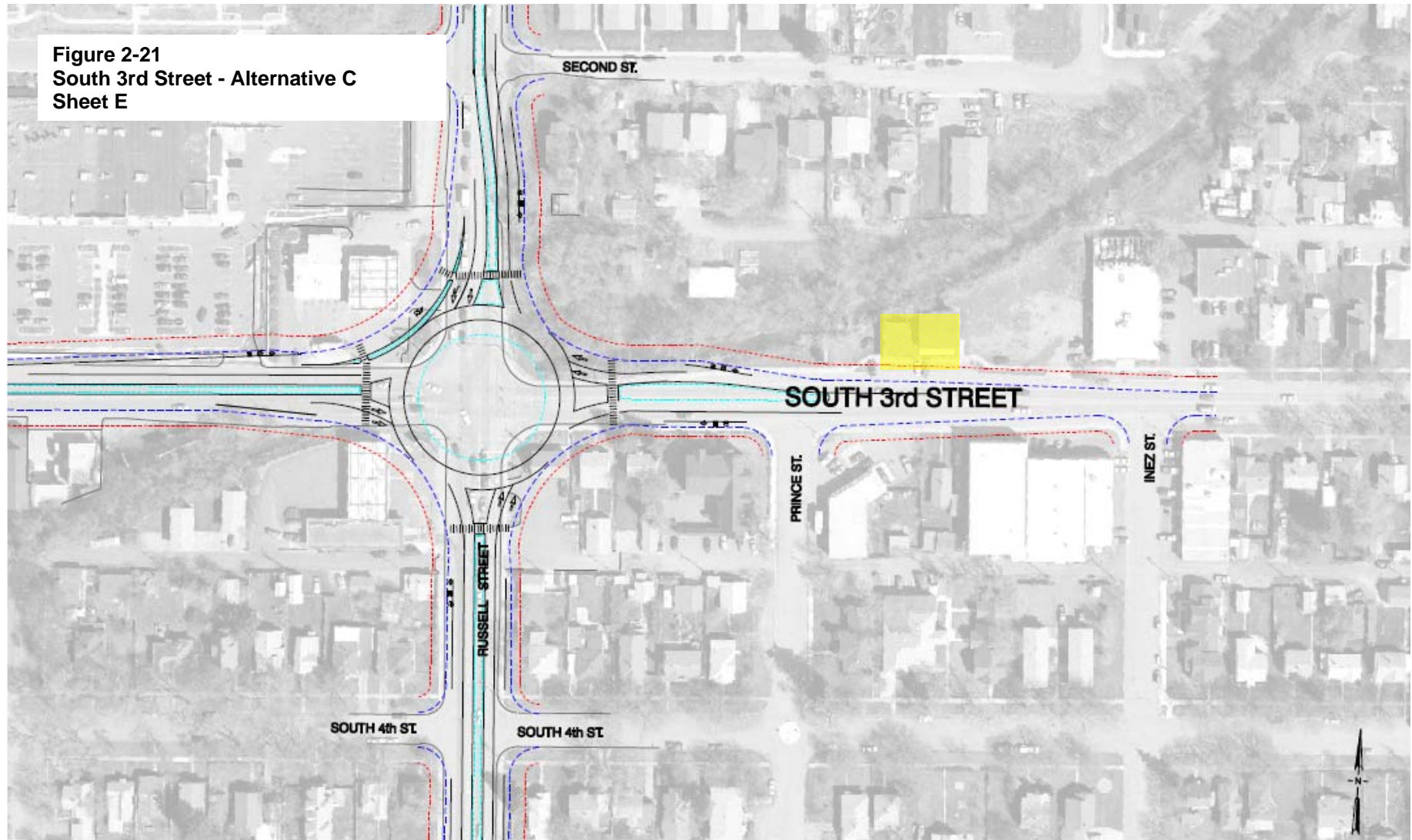


Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-21
South 3rd Street - Alternative C
Sheet E



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Residential Property Acquisition	
Commercial Property Acquisition	

Alternative D - 3+ Lanes with Signals

Lane Configuration:

Three travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)

Schilling Street/Curtis Street

Johnson Street

Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

Final Environmental Impact Statement

Residential Impacts under Alternative D

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
	1701 3rd St. 2601 3rd St.	1701 3rd St. 1602 Grant St. 1910 3rd St. 2204 3rd St. 2415 3rd St. 2539 3rd St.	1701 3rd St. 417 Curtis St. 2224 3 rd St. 2213 3rd St.	1701 3rd St. 2422 3rd St.

Commercial Impacts under Alternative D

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1318 3rd St. 1819 3rd St. 2135 3rd St.	1939 3rd St. 2207 3rd St. 2340 3rd St. 2600 3rd St.	1301 3rd St. 1855 3rd St. 1920 3rd St. 1616 3rd St.	1290 3rd St. 1541 3rd St. 2115 3rd St. 520 Shillings St. (Previously 2140 4 th St.) 2221 3rd St.	2002 3rd St. 2249 3rd St. 2310 3rd St. W 2316 3rd St. 1655 3rd St.

* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.

Chapter 2.0 - Alternatives Analysis

Figure 2-22
South 3rd Street - Alternative D
Sheet A



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during final design.*

Residential Property Acquisition

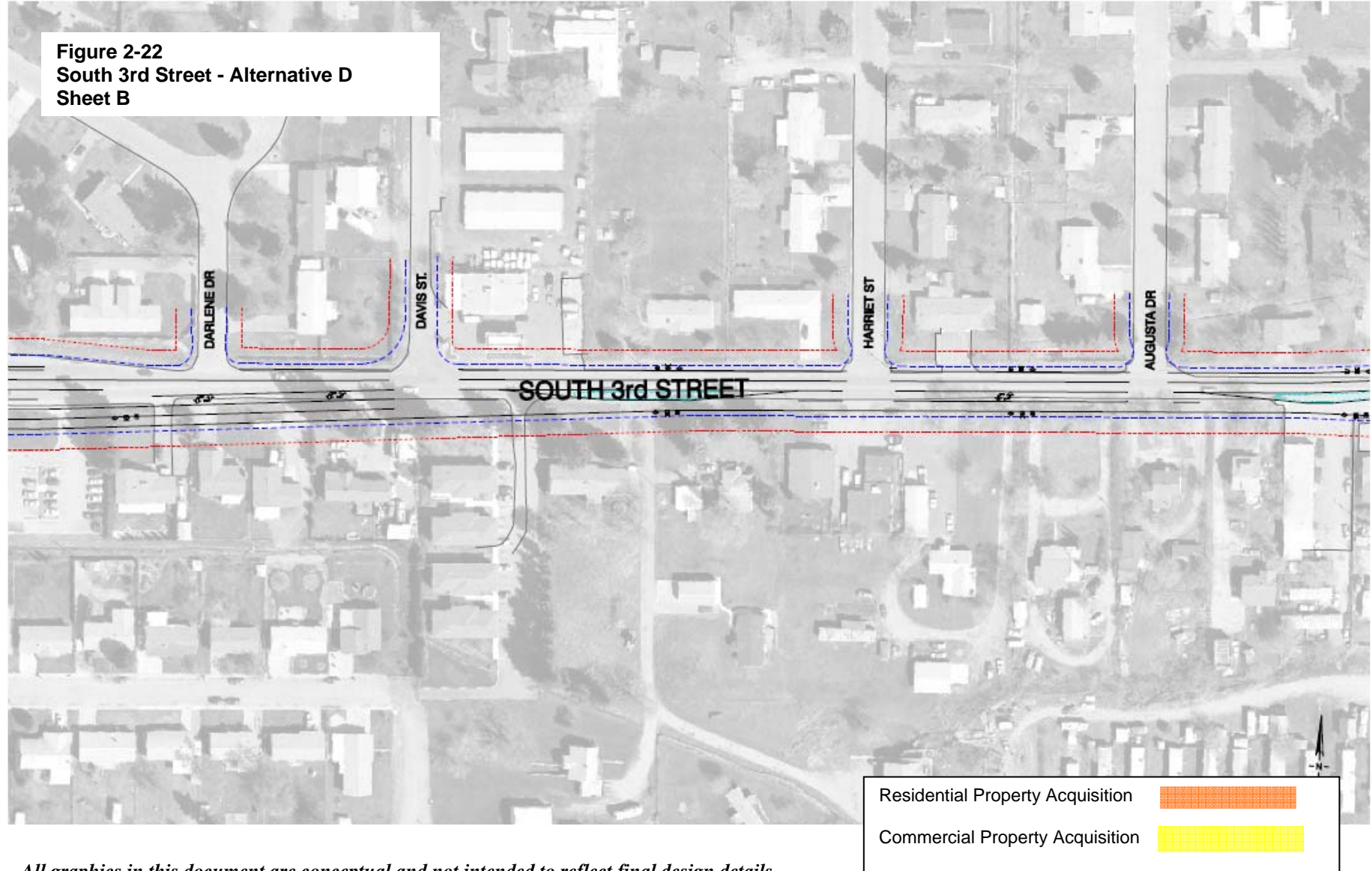


Commercial Property Acquisition





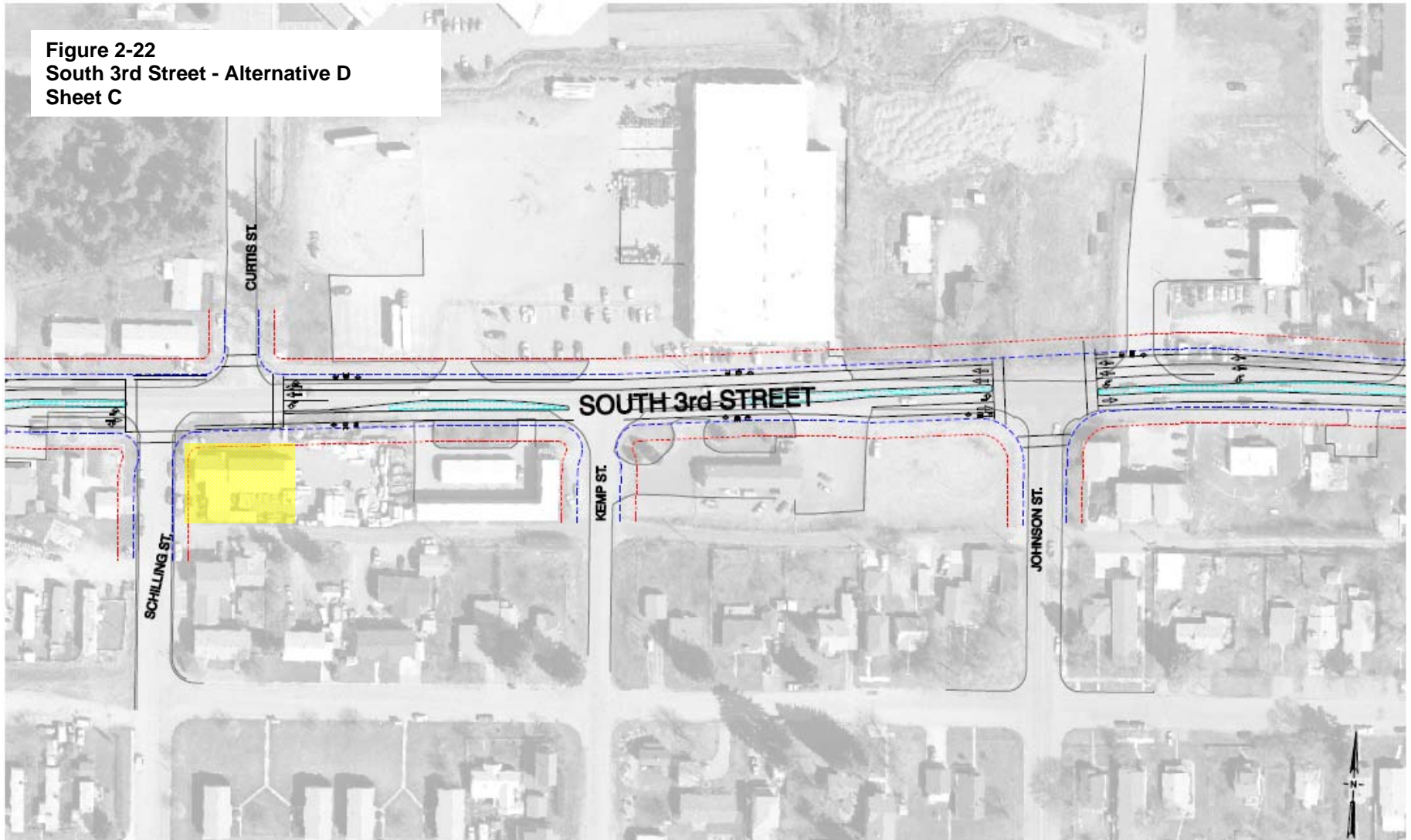
Figure 2-22
South 3rd Street - Alternative D
Sheet B



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Chapter 2.0 - Alternatives Analysis

Figure 2-22
South 3rd Street - Alternative D
Sheet C



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The locations of raised medians and center turn lanes are conceptual and subject to change
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Residential Property Acquisition

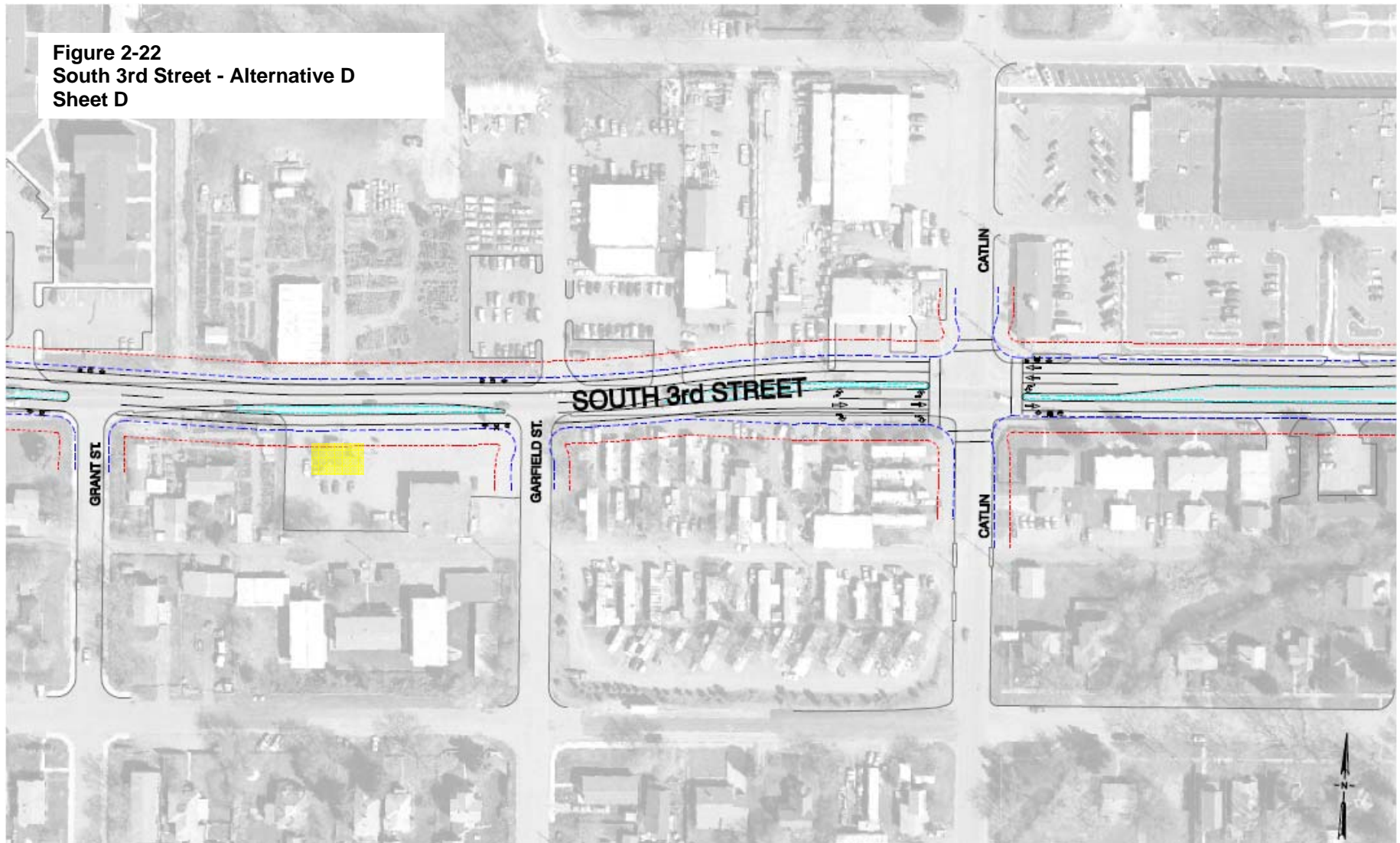


Commercial Property Acquisition





Figure 2-22
South 3rd Street - Alternative D
Sheet D

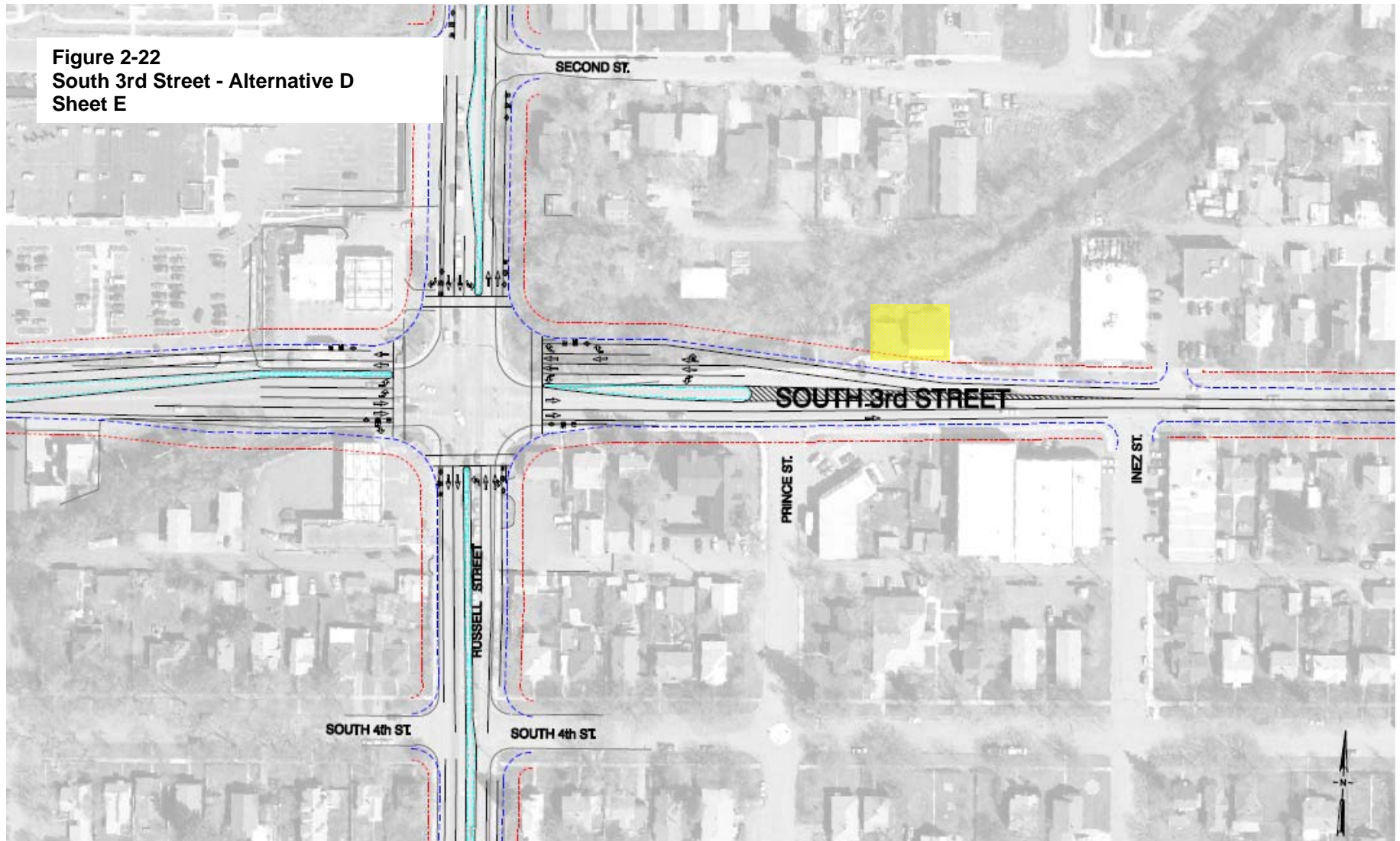


*All graphics in this document are conceptual and not intended to reflect final design details.
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.*



Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-22
South 3rd Street - Alternative D
Sheet E



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Residential Property Acquisition	
Commercial Property Acquisition	

Alternative E - 2+ Lanes with Signals

Alternative E includes two travel lanes (one in each direction), the use of raised medians and center turn lanes, and signalized intersections.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)

Schilling Street/Curtis Street

Johnson Street

Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

Chapter 2.0 - Alternatives Analysis

Residential Impacts under Alternative E

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
	1701 3rd St.	1701 3rd St.	1701 3rd St.	1701 3rd St.
		1602 Grant St.	417 Curtis St.	1910 3rd St.
	2601 3rd St.	2415 3rd St.		2204 3rd St.
		2539 3rd St.		2422 3rd St.

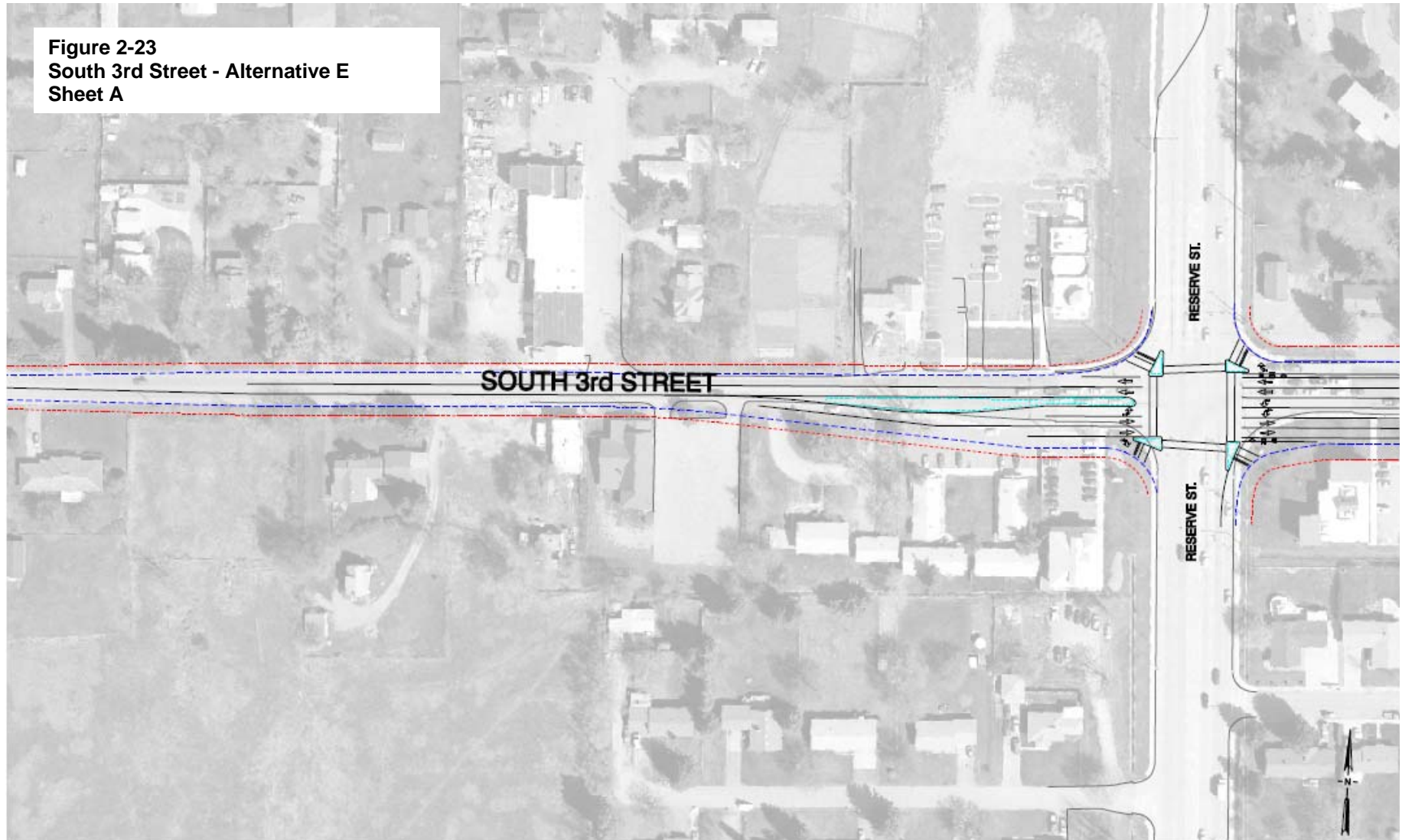
Commercial Impacts under Alternative E

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1318 3rd St.	1939 3rd St.	1301 3rd St.	1290 3rd St.	1601 3rd St.
1819 3rd St.	2207 3rd St.	1616 3rd St.	1541 3rd St.	1655 3rd St.
2135 3rd St.	2340 3rd St.		2115 3rd St.	1855 3rd St.
	2600 3rd St.		2221 3rd St	1920 3rd St.
			520 Schillings St. (Previously 2140 4 th St.)	2002 3rd St.
			.	2249 3rd St.
				2310 3rd St. W
				2316 3rd St.

* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.



Figure 2-23
South 3rd Street - Alternative E
Sheet A

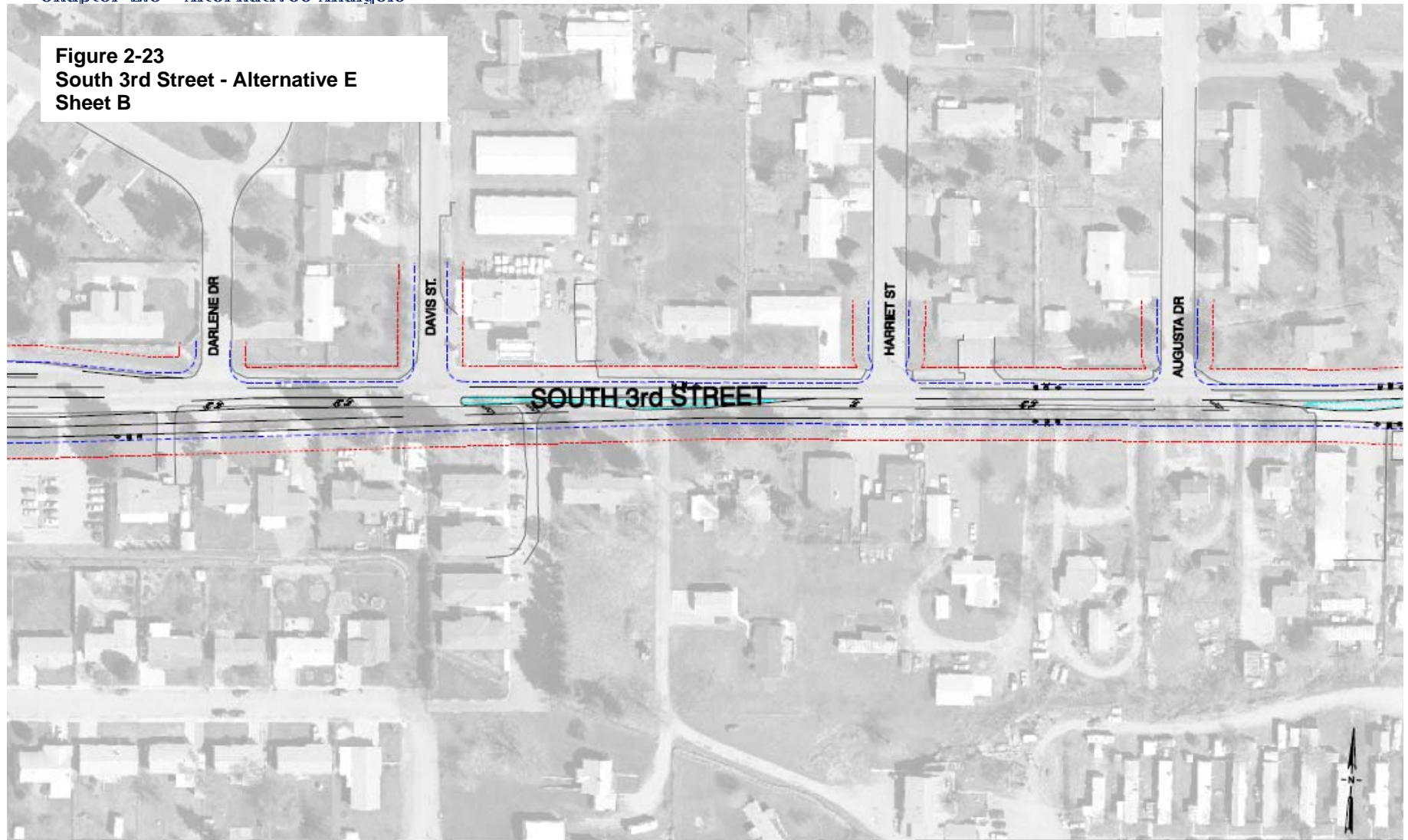


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Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-23
South 3rd Street - Alternative E
Sheet B



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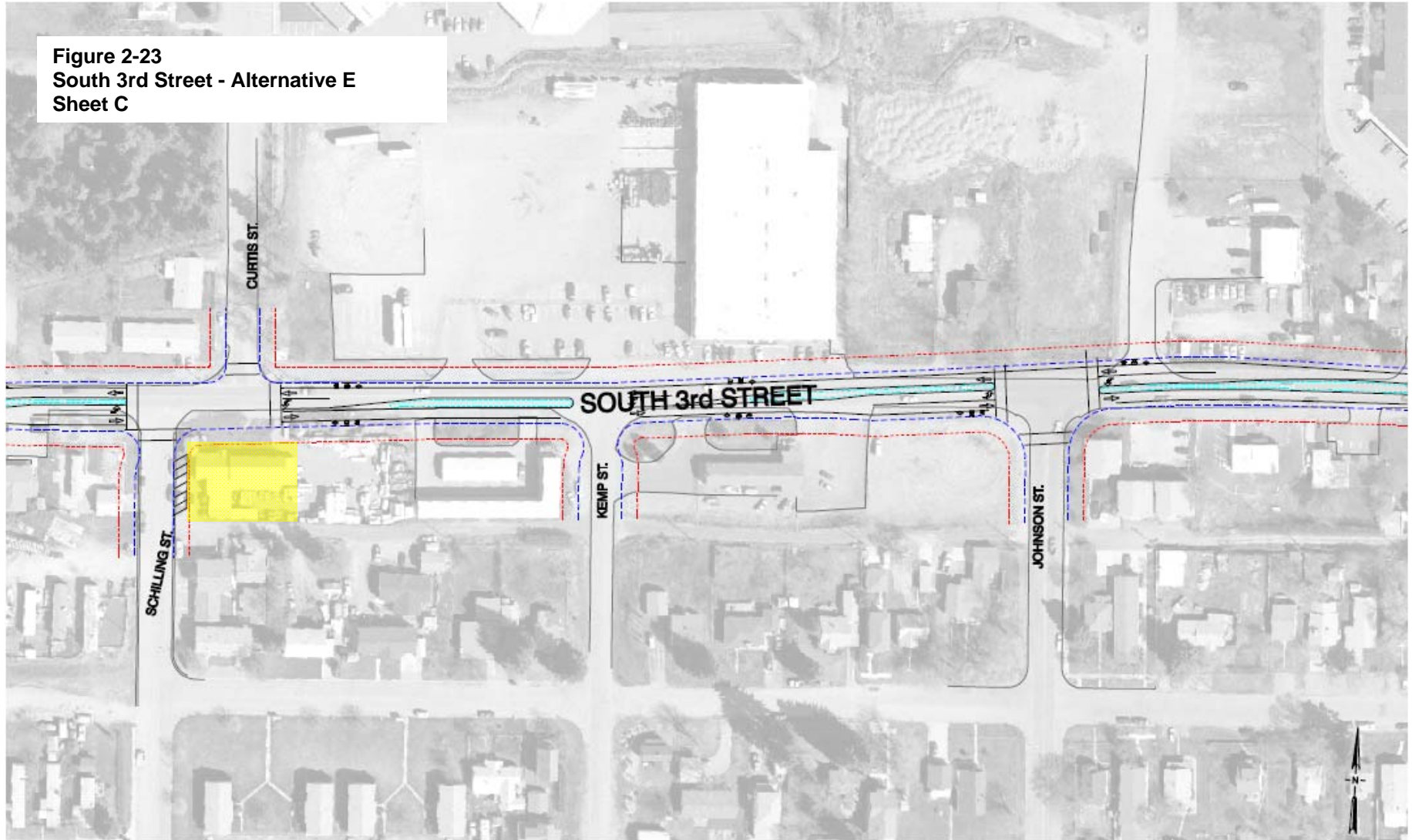
Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-23
South 3rd Street - Alternative E
Sheet C

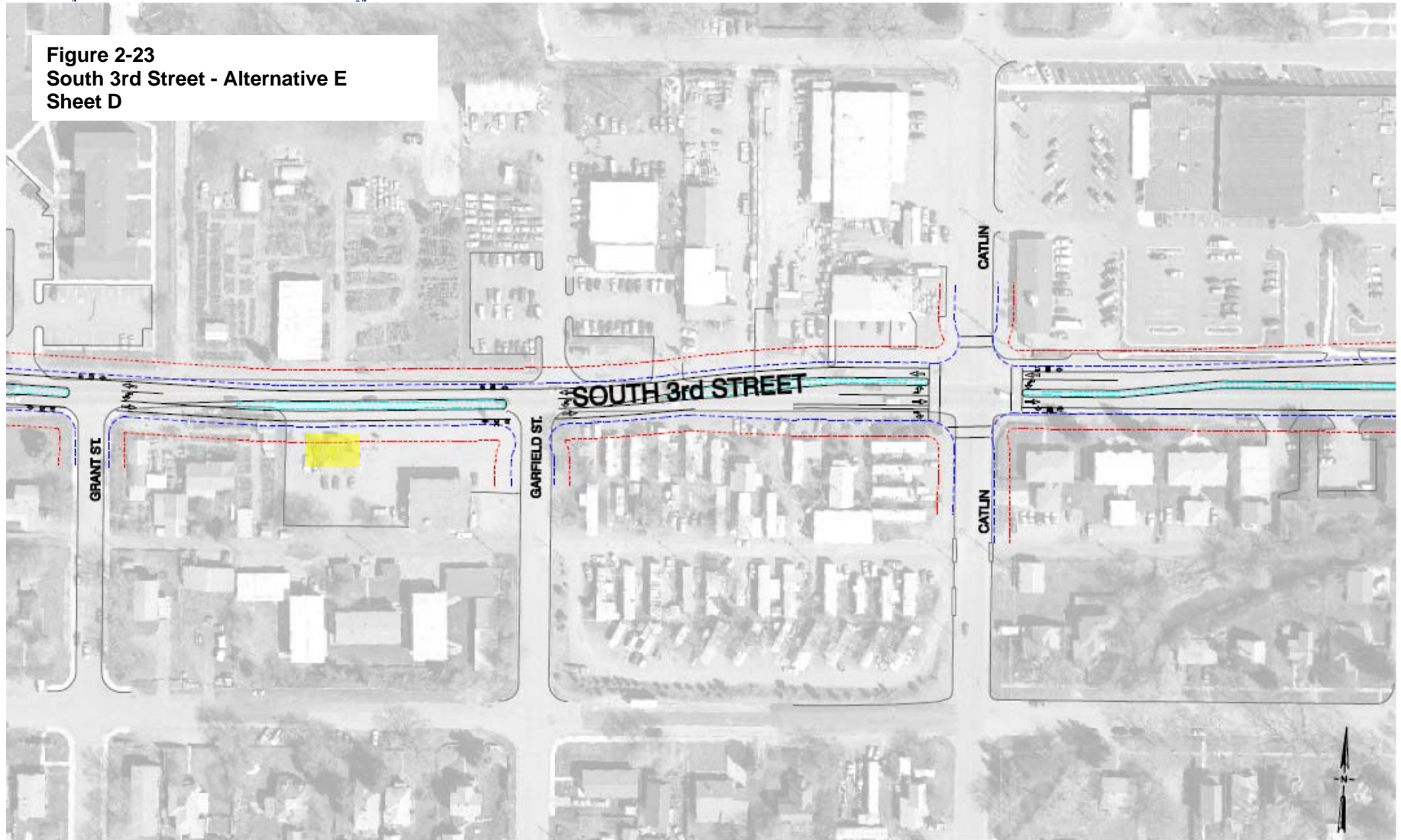


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Residential Property Acquisition	
Commercial Property Acquisition	

Chapter 2.0 - Alternatives Analysis

Figure 2-23
South 3rd Street - Alternative E
Sheet D



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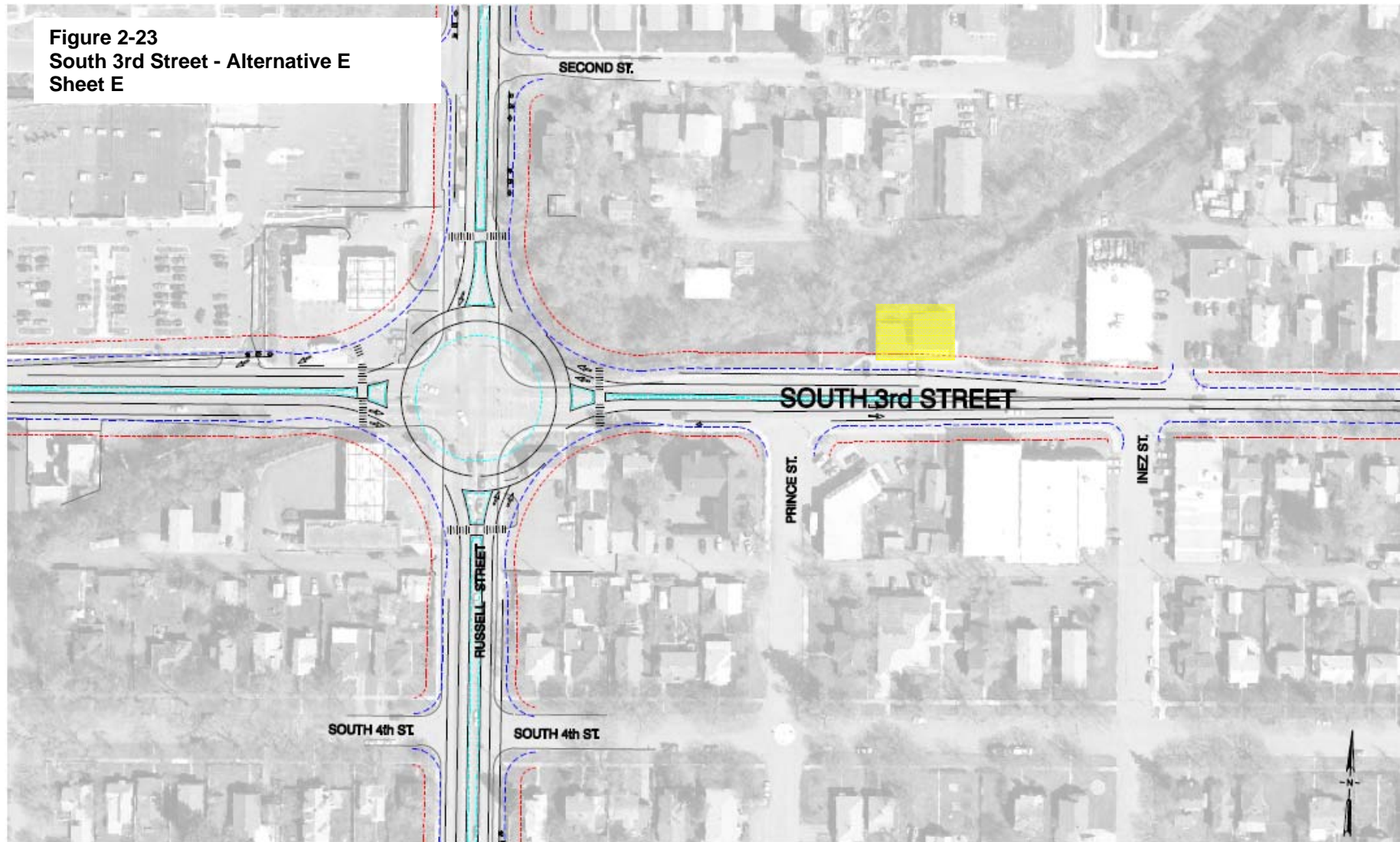


Residential Property Acquisition	
Commercial Property Acquisition	



Figure 2-23
South 3rd Street - Alternative E
Sheet E



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Residential Property Acquisition	
Commercial Property Acquisition	

2.4 Identification of the Preferred Alternatives

During early project development and through the analysis outlined in the previous section, Russell Street Alternative 5, and South 3rd Street Alternative C initially appeared to best satisfy the purpose and need, as well as the community driven goals to maintain community character through the use of roundabouts and landscaping treatments. However, when two alternatives similarly satisfy a project purpose and need, the alternative with less impact on the Section 4(f) resource must be selected. In this case, both Alternatives 4 and 5 generally satisfy purpose and need, but Alternative 4 has less impact and was identified as the Preferred Alternative. The Draft Environmental Impact Statement identified Alternative C as the Preliminary Preferred Alternative on South 3rd Street. Further analysis using an updated analysis methodology and the 2035 projections suggests that the roundabouts may begin to experience severe congestion soon after completion. (See analysis in Appendix G.) For this reason, Alternative E (with signalized intersections) has been selected as the Preferred Alternative for South 3rd Street.

This section provides a summary of the alternative selection process, the attempts to refine the Build Alternatives to minimize impacts, and the ultimate decision to select Alternative 4 on Russell Street and Alternative E on South 3rd Street as the Preferred Alternatives.

Selection Process

According to guidance provided by the Federal Highway Administration, an alternative must first meet the stated purpose and need for the proposed project to be considered “reasonable” and worthy of further evaluation. In this case, the purpose and need of the proposed project is to provide substantive safety and mobility improvements for all modes in the Russell Street and South 3rd Street corridors.

If an alternative satisfies the purpose and need, it can be forwarded for evaluation of other factors such as cost, environmental impacts, and public support. In this case, planning level cost estimates were prepared, a planning-level design was prepared to compare impacts, and public support is gauged by the degree to which the alternatives satisfy the evaluation criteria developed through Advisory Committee and public participation. Table 2.10 provides a summary of the results of this evaluation process.

Final Environmental Impact Statement

Table 2.10
Screening Summary

Alternative	Screen 1	Screen 2			Final Recommendation
	Meets Purpose and Need	Multimodal	Minimizes Impacts	Maintains Character	
1	No	--	--	--	<i>Must Forward</i>
2	No	--	--	--	<i>Eliminate</i>
3	No	--	--	--	<i>Eliminate</i>
4	Yes	Yes	Yes	Yes	<i>Forward</i>
5	Yes	Yes	Yes	Yes	<i>Forward</i>
A	No	--	--	--	<i>Must Forward</i>
B	Yes	Yes	Yes	Yes	<i>Forward</i>
C	No*	Yes	Yes	Yes	<i>Forward*</i>
D	Yes	Yes	Yes	Yes	<i>Forward</i>
E	Yes	Yes	Yes	Yes	<i>Forward</i>

*Note: Alternative C appeared to satisfy Purpose and Need in the DEIS using the 2025 traffic projections. Traffic projections generated for the Traffic Analysis Update for the year 2035 exceed the capacity of the Alternative C based on new national analysis methodologies which better correlate with US driving characteristics.

Based on the analysis presented earlier in this chapter, as well as input from the public, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration eliminated two alternatives from further consideration on Russell Street. Alternatives 2 and 3 do not provide the necessary capacity and safety improvements to warrant the substantial investment that would be required in design, right-of-way acquisition, and construction of the two lane facilities proposed under these alternatives. Due to the high degree of interest in these alternatives from the public, they were reviewed at a preliminary level to see if they could be justified in light of a substantial savings in cost or minimization of impact to the neighboring properties. As demonstrated earlier in this chapter, their costs are not extraordinarily different than other more effective alternatives, and their impacts are similar to or greater than Alternative 4 which satisfies all other goals and objectives.

Under year 2025 traffic projections, all of the South 3rd Street alternatives appeared to satisfy the Purpose and Need for the proposed project. In the Draft Environmental Impact Statement, Alternatives B and C were noted as providing a higher Level of Service for a longer period of time as compared to Alternatives D and E. The operational advantage, as well as the inclusion of roundabout intersection control in Alternatives B and C, made these two alternatives more desirable given the level of public support for the roundabout options. The *Traffic Update Memo* prepared in 2010 utilized an updated traffic analysis methodology including a more accurate reflection of driver characteristics in roundabouts in the US. The modeling results based on this adjustment indicate that the single-lane roundabouts proposed on South 3rd Street would become highly congested, producing long queues of traffic upstream and downstream of the roundabout intersections long before the new design year of 2035. Further discussion of this analysis and a change in the Preferred Alternative on South 3rd Street follows in this section.

In a continuing effort to satisfy the public desire to construct major arterials in a fashion different from that of Reserve Street, and to develop a system of roundabouts in the two intersecting

Chapter 2.0 - Alternatives Analysis

corridors, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration refined the conceptual design of Alternative 5 to see if impacts could be further minimized and forward this alternative as the Preferred. Those efforts are outlined below.

Refinement of Alternative 5

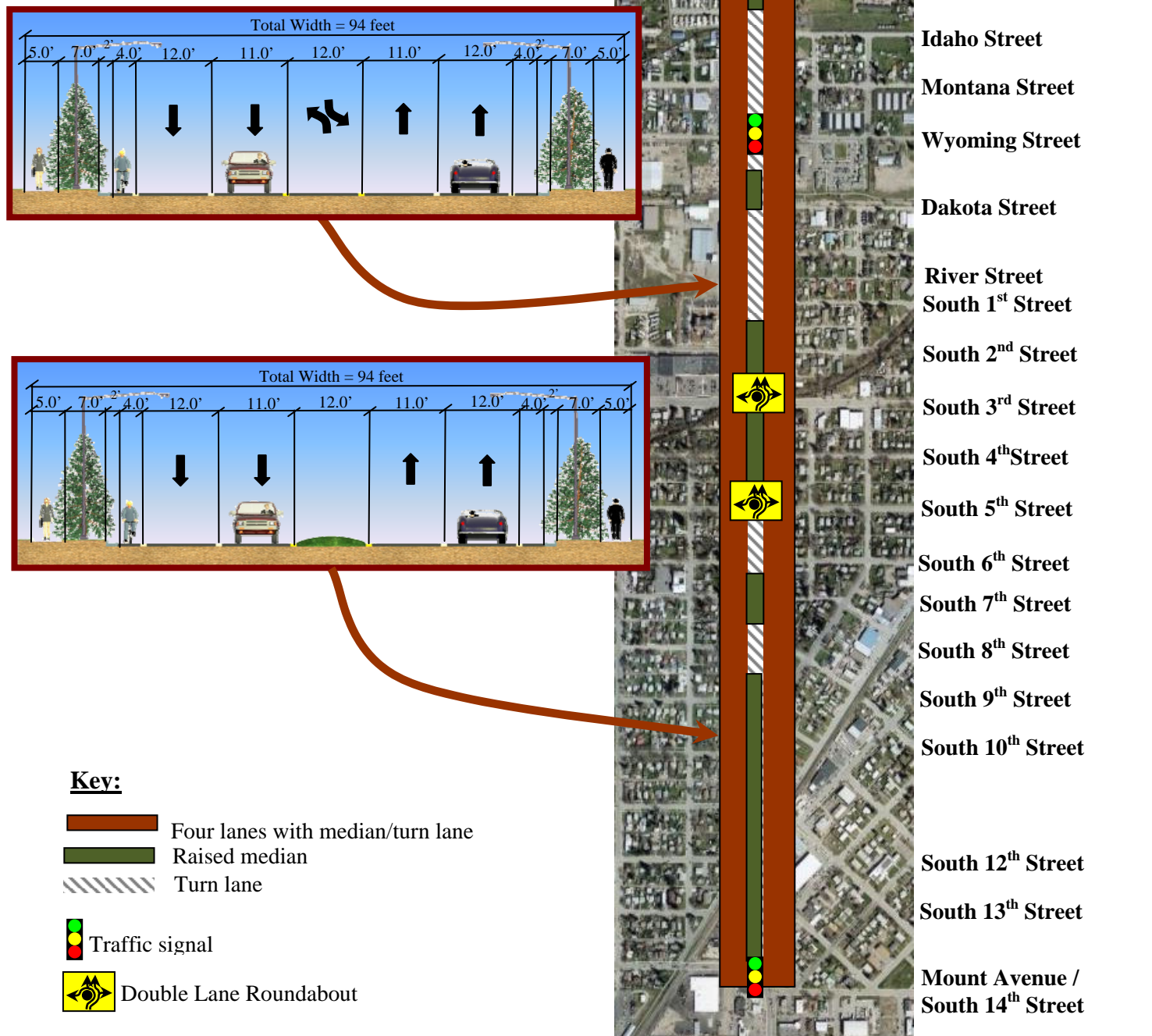
The following modifications were made to Alternative 5 on Russell Street, as illustrated in Figure 2-24 and shown in preliminary design detail in Figure 2-25.

- To reduce the right-of-way requirements and costs associated with building a roundabout, the existing traffic signal would be left in place at Mount Avenue/South 14th Street.
- In order to minimize impacts to surrounding properties protected by Section 4(f), the proposed roundabouts at South 5th Street and South 3rd Street were reduced in size as compared to previous alternatives.
- Considerable time was spent investigating the potential of installing a roundabout at the South 11th Street/Knowles Street intersection. Due to the constraints of surrounding development, including properties protected by Section 4(f) of the Transportation Act, design modifications were necessary that hindered the ability of the roundabout intersection to provide optimal operation. Therefore, the intersection would remain a stop-controlled condition under this alternative.
- A traffic signal was selected for Wyoming Street because of the substantial right-of-way that would need to be acquired with a roundabout, and the potential operational issue of having a roundabout in close proximity to the signal at West Broadway Street.
- Improvements to the Russell Street and West Broadway Street intersection are limited to those turning movements on West Broadway Street that are affected by the Russell Street improvements such as double left-turn lanes westbound on West Broadway Street turning south onto Russell Street and one westbound right-turn lane north onto Russell Street. Other improvements to the West Broadway Street portion of the intersection are not part of this project at this time.

Final Environmental Impact Statement

Figure 2-24
Alternative 5 – Refined
General Elements

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Preliminary design details can be found in Figure 2-25.*



Chapter 2.0 - Alternatives Analysis

Residential Impacts under Alternative 5 Refined

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1439 4th St. W	1431 3rd St.	1427 2 nd St. W	1501 5th St.	1501 & 1500 1/2 S. 7th St.
1445 5th St.	1436 4th. St. W	1508 5th St.	1502 6th St. W	915 Russell St.
824 Russell St.	1439 5th St.	808 Russell St.	1501 6th St. W	1501 9th St. W
1000 Russell St.	738 Russell St.	1500 11th St. W	1500 7th St. W	1501 Russell St.
1010 Russell St.	802 Russell St.	1501 11th St.	1500 8th St. W	1500 14th St. W
915 Kern St.	820 Russell St.	521 Russell St.	1135 10th St. W	
935 Kern St.			1501 S. 10th St.	
941 Kern St.			1516 & 1516 1/2 12th	
1012 Kern St.				
1016 Kern St.				

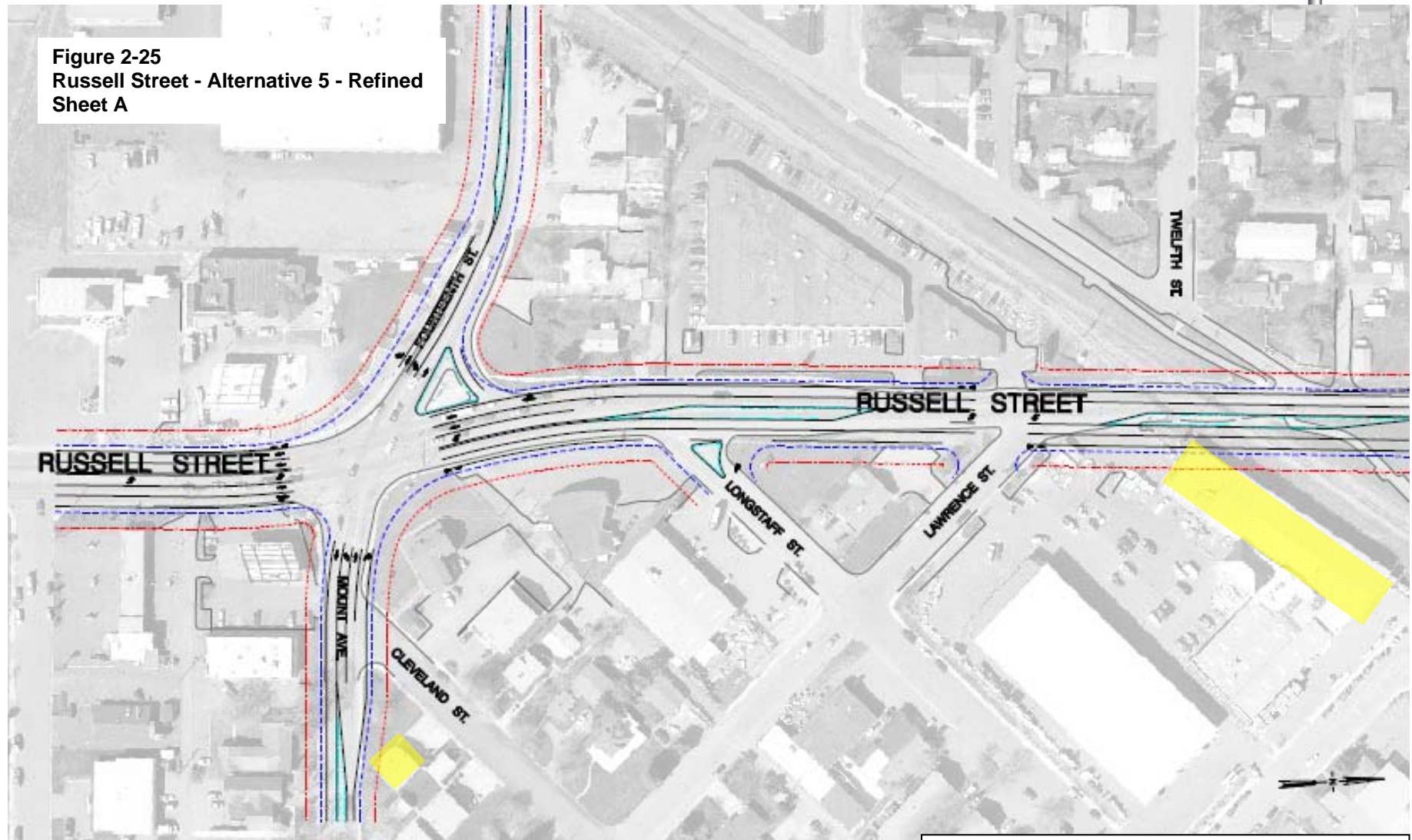
Commercial Impacts under Alternative 5 Refined

Direct Impact*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 W. Broadway	140 Russell St.
1440 Broadway St.	1515 Wyoming St.	1451 Broadway St.	1437 1 st St. W	100 Russell St.
1503 Montana St. (Previously 1503 Russell St.)	121 Russell St.	501 Russell St.	1007 Mount Ave.	1417 3rd St.
1400 Wyoming St.	Mount and Russell St.	1440 Russell St.		1520 Russell St.
500 Russell St.				
1425 5 th St.				
1440 5th St.				
1120 Russell St.				
1035 Ronan St.				
Montana Rail Link				
1204 Mount Ave. (Previously 1208 Mount Ave.)				

* "Direct Impact" implies that the existing structure is in conflict with the proposed construction limits. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired.



Figure 2-25
Russell Street - Alternative 5 - Refined
Sheet A

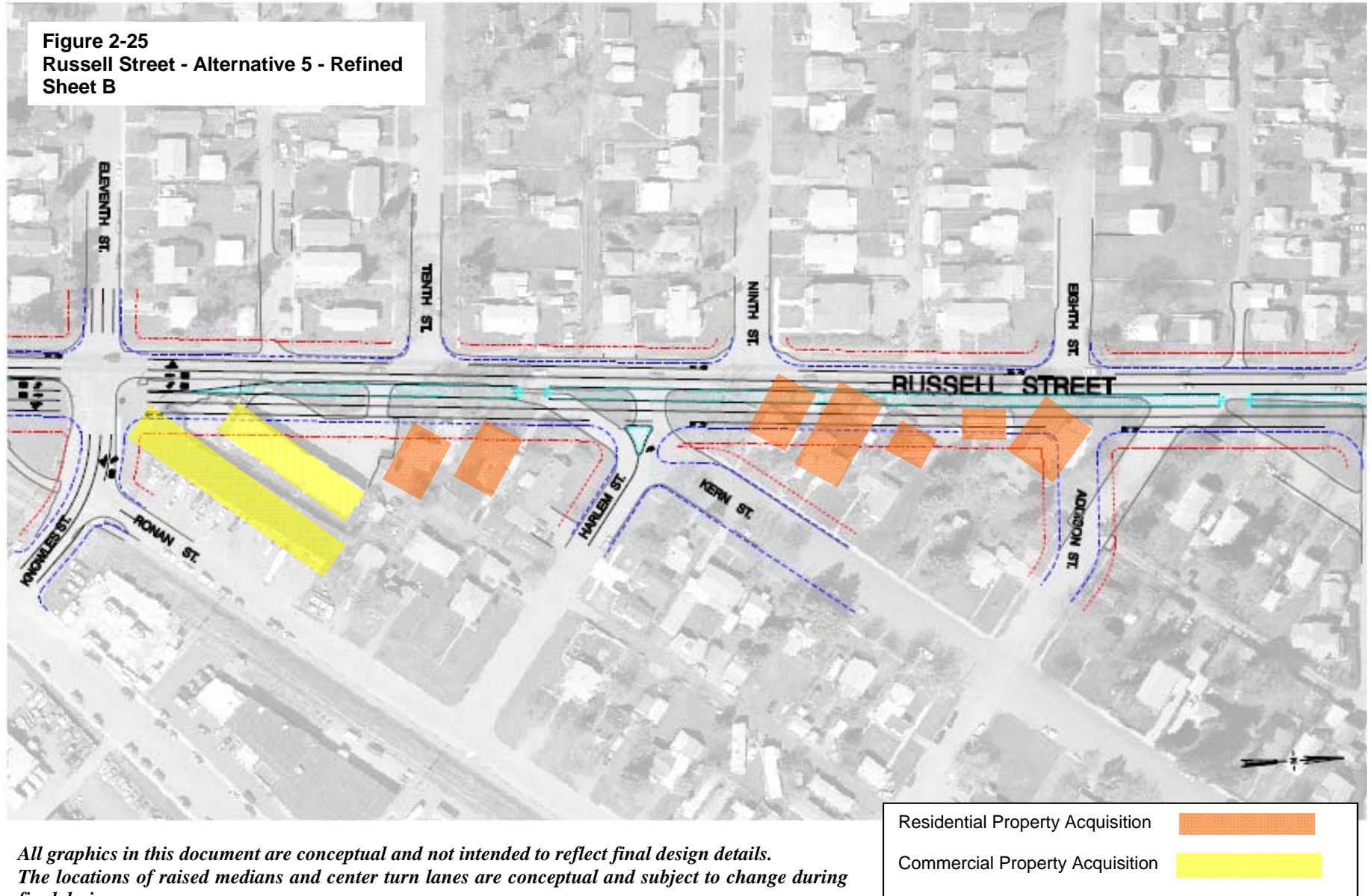


Residential Property Acquisition	
Commercial Property Acquisition	

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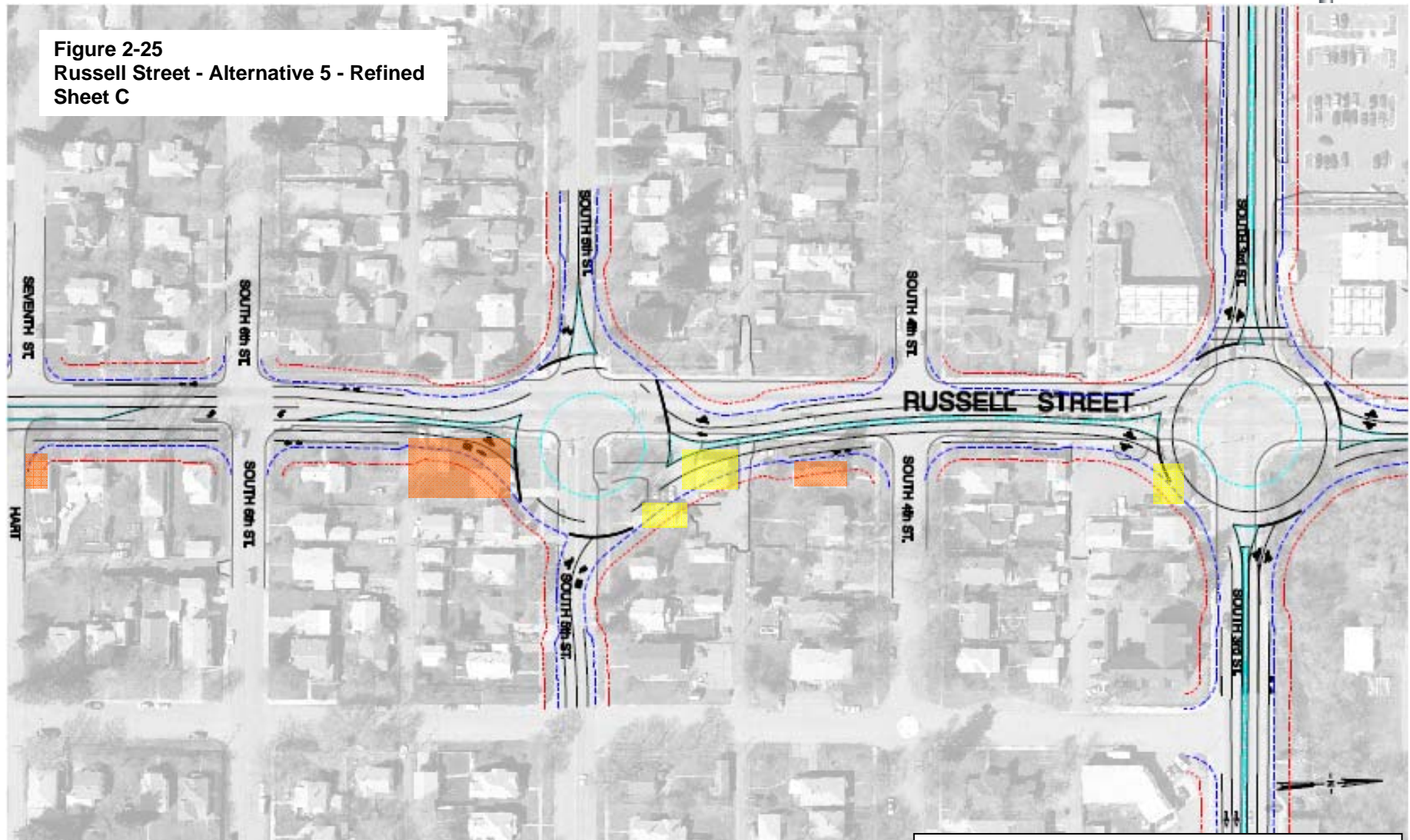
Chapter 2.0 - Alternatives Analysis


Figure 2-25
Russell Street - Alternative 5 - Refined
Sheet B





**Figure 2-25
Russell Street - Alternative 5 - Refined
Sheet C**

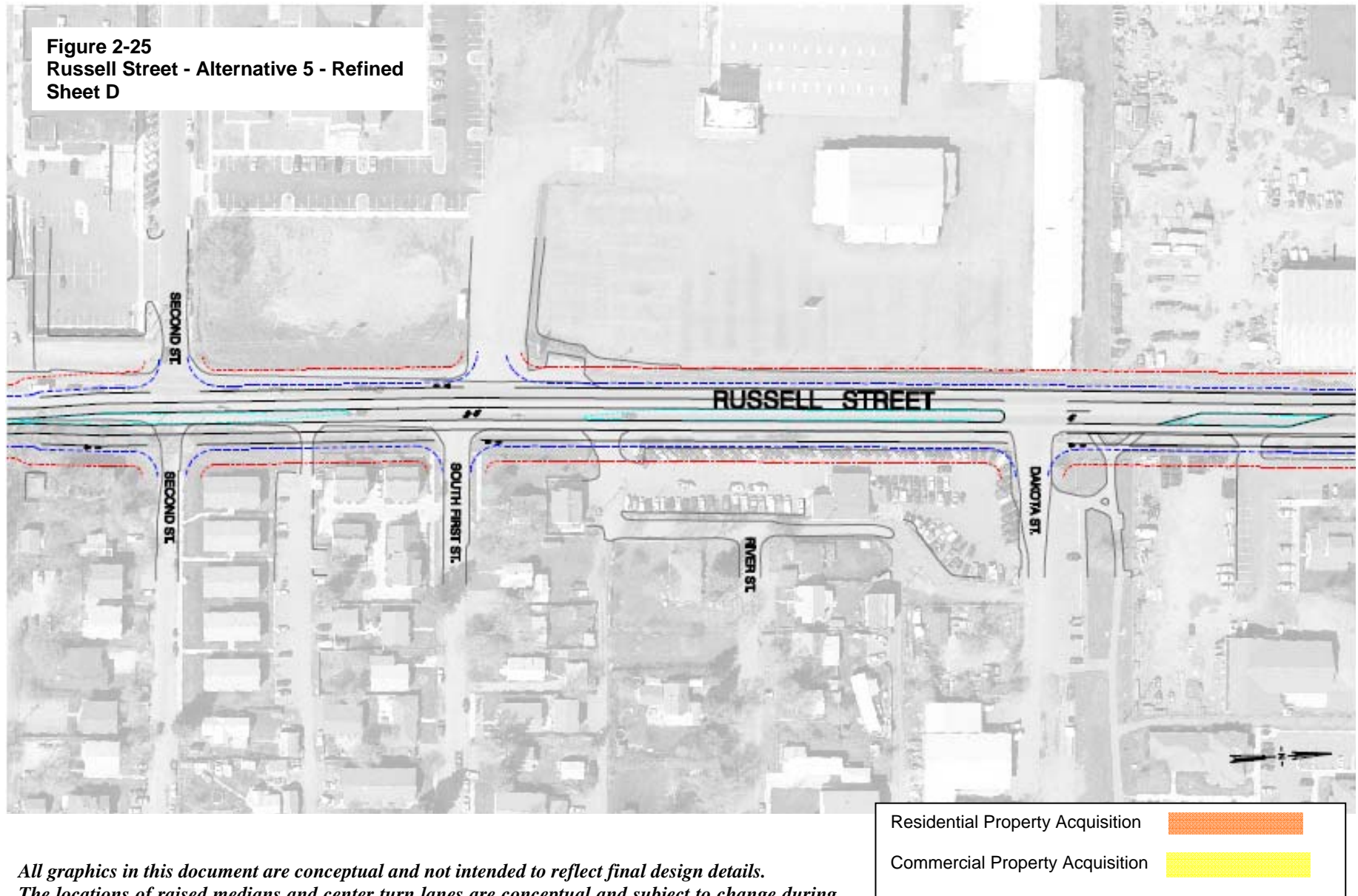


Residential Property Acquisition	
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Chapter 2.0 - Alternatives Analysis

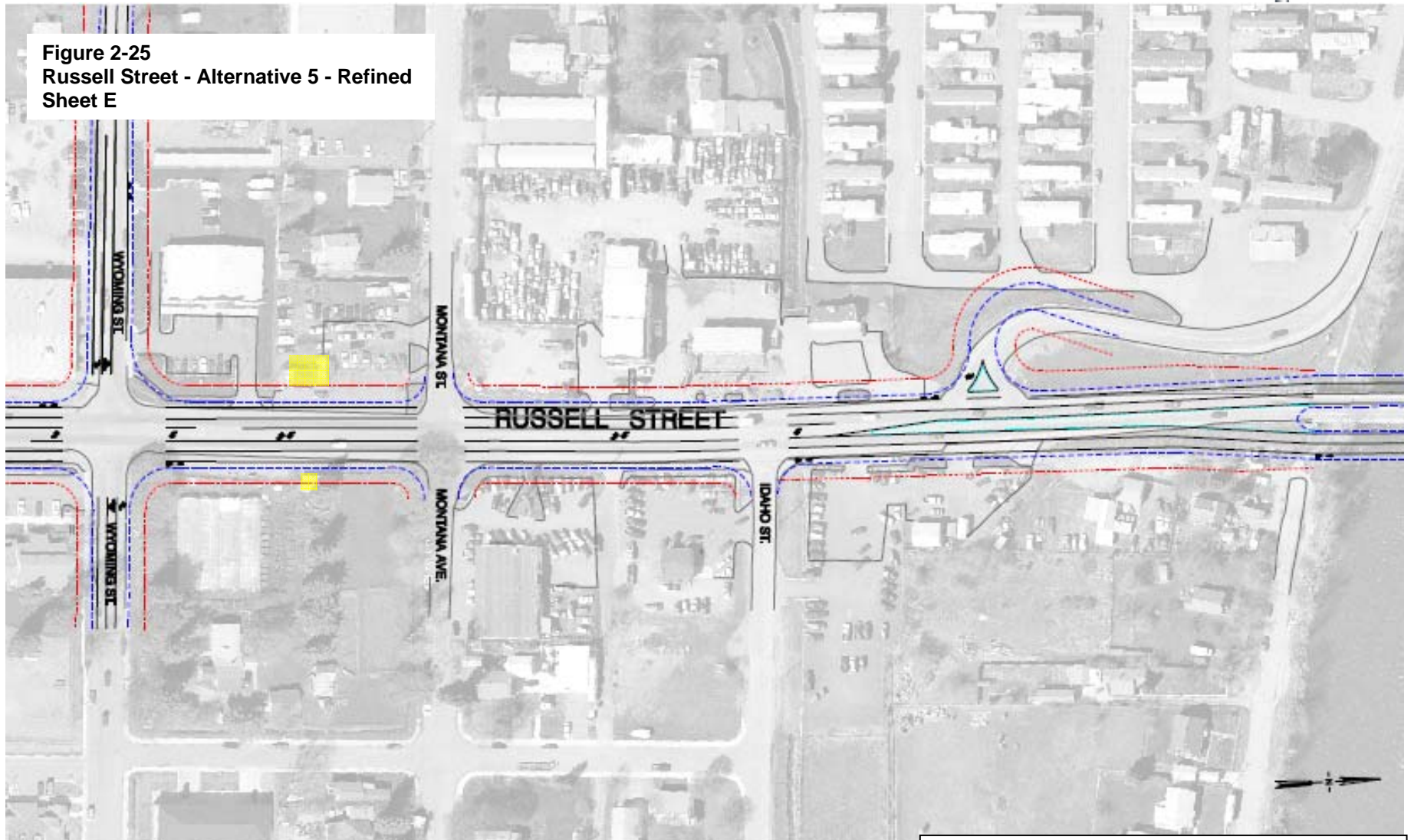
Figure 2-25
Russell Street - Alternative 5 - Refined
Sheet D


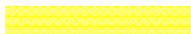


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Figure 2-25
Russell Street - Alternative 5 - Refined
Sheet E

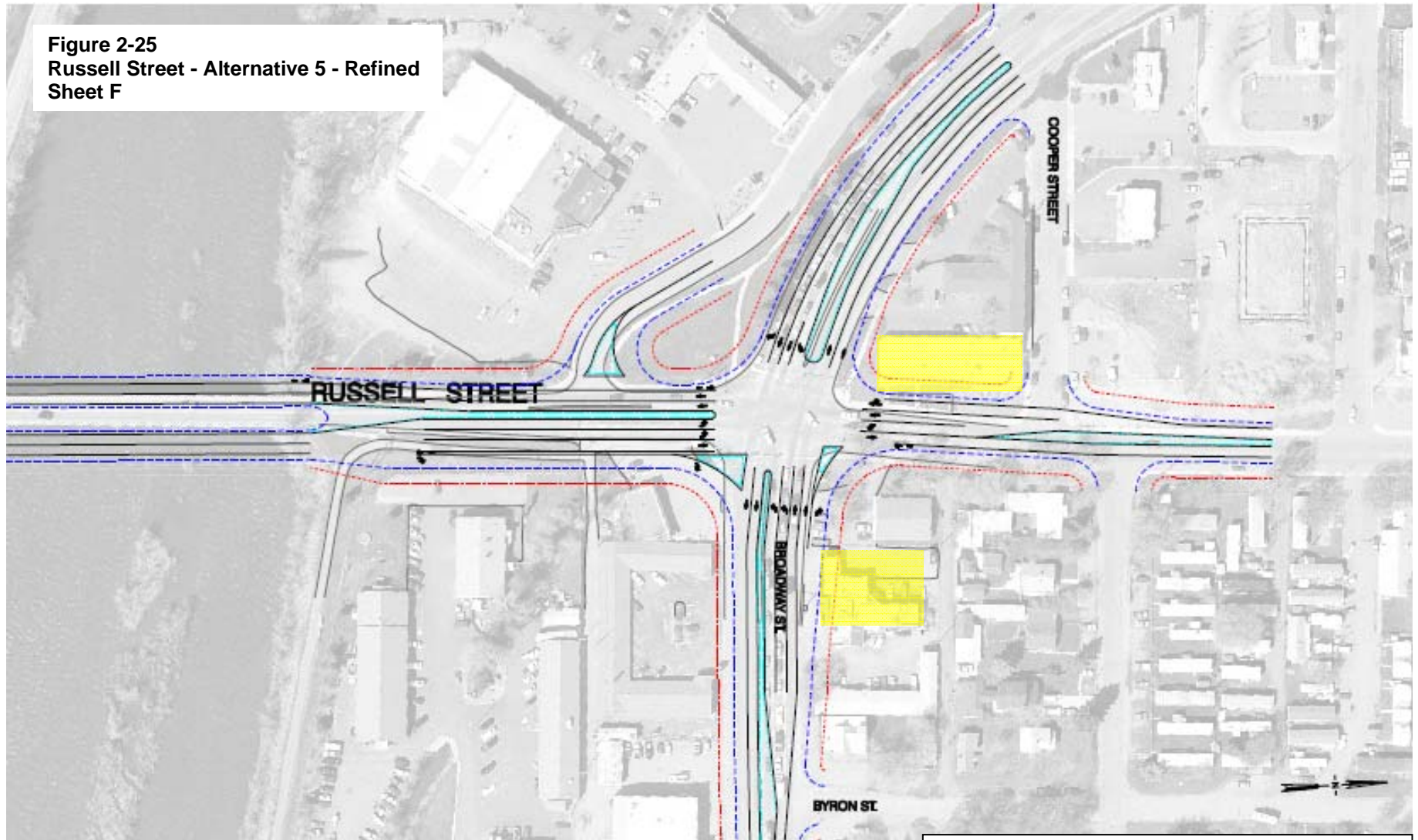


Residential Property Acquisition	
Commercial Property Acquisition	


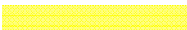
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Chapter 2.0 - Alternatives Analysis

Figure 2-25
Russell Street - Alternative 5 - Refined
Sheet F



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Residential Property Acquisition	
Commercial Property Acquisition	

Final Environmental Impact Statement

Table 2.11 provides a summary of impacts from the forwarded Build Alternatives that meet the Purpose and Need.

Table 2.11
Impact Comparison of the Forwarded Alternatives on Russell Street

Section	Alternative 4	Alternative 5	Alternative 5 (Refined)
Mount Avenue to South 11th Street	<ul style="list-style-type: none"> • 2 Commercial Buildings • 2 4(f) Properties • 0.73 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Homes • 3 Commercial Buildings • 3 4(f) Properties • 1.02 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Building • 2 4(f) Properties • 0.71 acres new right-of-way
South 11th Street to South 3rd Street	<ul style="list-style-type: none"> • 11 Homes • 5 Commercial Buildings • 2 4(f) Properties • 1.65 acres new right-of-way 	<ul style="list-style-type: none"> • 17 Homes • 5 Commercial Buildings • 5 4(f) Properties • 2.01 acres new right-of-way 	<ul style="list-style-type: none"> • 10 Homes • 5 Commercial Buildings • 4 4(f) Properties • 1.71 acres new right-of-way
South 3rd Street to Wyoming Street	<ul style="list-style-type: none"> • 1 4(f) Property • 0.93 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.84 acres new right-of-way 	<ul style="list-style-type: none"> • 1 4(f) Property • 0.63 acres new right-of-way
Wyoming Street to Russell Street Bridge	<ul style="list-style-type: none"> • 1 Commercial Building • 0.64 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Commercial Building • 0.98 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 0.67 acres new right-of-way
Russell Street Bridge to West Broadway	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.64 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.79 acres new right-of-way 	<ul style="list-style-type: none"> • 2 Commercial Buildings • 1 4(f) Property • 0.66 acres new right-of-way
Totals	<ul style="list-style-type: none"> • 11 Homes • 10 Commercial Buildings • 6 4(f) Properties • 4.59 acres new right-of-way 	<ul style="list-style-type: none"> • 18 Homes • 13 Commercial Buildings • 10 4(f) Properties • 5.65 acres new right-of-way 	<ul style="list-style-type: none"> • 10 Homes • 11 Commercial Buildings • 8 4(f) Properties • 4.38 acres new right-of-way
Cost Estimate	\$45.0 million	\$52.6 million	\$46.5 million

Note: These planning level estimates are in 2009 dollars. If the project were constructed in phases, it would be possible to construct the segment from West Broadway Street to approximately South 3rd Street at a cost of approximately \$25.0 million in the year 2012. The project sponsor will continue to seek funding and prioritize Surface Transportation Program-Urban (STPU) funds for subsequent phases and accumulate those funds over the next several years to ensure funding of the project. Utility relocations are estimated at \$1.1 million on Russell Street, and \$700,000 on South 3rd Street for each alternative. Right-of-way estimates are also planning-level and dependent upon final right-of-way negotiations.

Section 4(f) properties include historic as well as park and recreational resources. Their inclusion indicates a “use” as defined in Section 4.14 of this FEIS.

Change in Preferred Alternative on South 3rd Street

During preparation of the *Traffic Analysis Update* which was conducted for the Russell Street corridor, it became necessary to update the traffic projections and Level of Service analysis for South 3rd Street as well. During the South 3rd Street update, the analysis revealed that the single lane roundabouts proposed on South 3rd Street would begin to fail before the design year of 2035. The analysis in the *South 3rd Street Traffic Update Memo* (included in Appendix G) identifies a year of failure of 2016 for the Catlin Street intersection, 2024 for the Johnson Street intersection, and 2028 for the Curtis Street intersection. The analysis indicates that the intersections fail due to the high demand of westbound traffic along South 3rd Street, which impedes the southbound traffic from entering the roundabout. Similarly, the small volume of northbound traffic entering the roundabout appears to add to the already substantial delay for the westbound traffic attempting to enter the roundabout. The high volumes of traffic trying to enter the roundabouts exceeds the ability of the roundabout to accommodate the approaching traffic, thus leading to excessive queues backing through adjacent intersections resulting in a gridlock situation. Further analysis showed that the use of signalized control on South 3rd Street extended the design life of the project until 2035. Table 2.12 provides a summary comparison of selected intersection Level of Service values for Alternatives C and E in 2035.

Table 2.12
South 3rd Street Alternative C and E Comparison (2035 LOS)

Intersection	Alternative C	Alternative E
Catlin	F	E
Johnson	F	C
Curtis	D	C

Source: DOWL HKM, 2009.

Because of the substantive improvement in Level of Service on South 3rd Street utilizing signalized intersection control, the roundabout Alternatives have been eliminated. Both Alternatives D and E provide substantive operational improvements for a longer period of time than the roundabout intersection alternatives. Alternative D (with two westbound lanes) has a larger footprint and requires nearly 40 percent more right-of-way and would cost approximately 10 percent more than Alternative E, for similar operational improvements. For these reasons, the Preferred Alternative on South 3rd Street was changed from Alternative C to Alternative E.

Selection of the Preferred Alternatives

Based on the fact that Alternative 4 satisfies the purpose and need to improve safety and mobility within the corridor, has fewer Section 4(f) impacts, and less overall impact as compared to Alternative 5 and the refined Alternative 5, the four-lane roadway improvement with signalized intersections proposed under Alternative 4 for Russell Street is identified as the Preferred Alternative.

Alternative 5 (refined) was vigorously explored as the locally preferred alternative due in large part to community preference for roundabout intersection control and the expressed desire for a roadway improvement project like Stevens Avenue. During detailed analysis, it became

Final Environmental Impact Statement

apparent that Alternative 5 (even through refinement) would impose an impact on protected historic properties within the corridor that could be avoided with other alternatives. Due to unavoidable impacts to the historic properties at South 5th Street, Alternative 5 has been advanced for detailed consideration but ultimately not identified as the preferred alternative due to impacts to historic resources. However, the City of Missoula remains committed to providing the necessary roadway safety and capacity improvements while providing a facility that is aesthetically pleasing and enhances the existing characteristics of the surrounding area.

The modeling conducted for the *Russell Street Traffic Analysis Update* identified several locations where the addition of a right or left turn lane could extend the operation life of the Russell Street improvements. The most immediate benefits are anticipated with the addition of turn lanes in the northern portion of the corridor at Russell Street and West Broadway Street. An additional right turn lane from eastbound West Broadway Street onto southbound Russell Street, as well as an additional left turn lane from northbound Russell Street on to westbound West Broadway Street have been incorporated into the preliminary design in this Final Environmental Impact Statement. These modifications are shown in Figure 2-18. These modifications can be accommodated within existing or already planned right-of-way and do not result in additional impacts not already disclosed in the Draft Environmental Impact Statement.

The analyses of Russell Street and South 3rd Street were conducted as two separate studies based on current transportation engineering practices. Signalized intersections and roundabouts operate and experience capacity failure differently. When a roundabout experiences capacity failure it can be catastrophic, leading to gridlock. This gridlock is typified by extensive queues on one or more legs and stagnate flows within the roundabout. When the internal roundabout traffic fails to circulate, waiting vehicles can no longer enter the intersection, even if their destination leg is not congested. Roundabouts in series, such as evaluated on South 3rd Street, negatively impact each other as the queues build between them, effectively blocking the entire corridor.

A traffic signal has the ability to interrupt the mainline queue and introduce gaps for crossing traffic, allowing the minor leg traffic through the intersection. This metering effect of signalization allows the intersection to continue to function with increased delay, in comparison to the roundabout that has no ability to meter traffic during very high volume times of day.

Single-lane roundabouts were dismissed on Russell Street because they would not operate acceptably under current traffic conditions. Roundabout enhancements to improve operations would involve adding more lanes which is not feasible or practical because multi-lane roundabouts require additional right-of-way impacts to Section 4(f) resources. Signalized intersections bring the intersection capacity closer to accommodating the projected 2035 design year volumes while minimizing impacts and meeting the Purpose and Need. Signalized intersections allow greater flexibility than roundabouts to improving the intersection operations with the addition of left- or right-turn lanes.

As noted above, Alternative C was identified as the Preliminary Preferred Alternative on South 3rd Street in the Draft Environmental Impact Statement. Subsequent analyses conducted in 2010

Chapter 2.0 - Alternatives Analysis

indicate that the proposed single-lane roundabouts fail to provide sufficient capacity in the design year of 2035. The 3rd Street roundabout alternatives experience capacity failure beginning in 2016 while the signalized alternatives operate through the 2035 design year. (See *South 3rd Street Traffic Update Memo*, in Appendix G.) This analysis confirmed that Alternative E on South 3rd Street continues to satisfy the Purpose and Need as well as the general Goals and Objectives established for the project. Alternative E also minimizes right-of-way impacts and provides improved safety as compared to the No Build condition. For these reasons, Alternative E has been identified as the Preferred Alternative on South 3rd Street.

Based on the analysis conducted for the Draft Environmental Impact Statement, subsequent analysis of 2035 traffic projections, and comments from the Public Hearing and formal comment period, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration have identified Alternative 4 on Russell Street and Alternative E on South 3rd Street as the Preferred Alternatives. The analysis in Chapter 4 represents the impacts and mitigation for these two alternatives.

2.5 Specific Design Elements of the Preferred Alternatives

The nine design features recommended by the Advisory Committee would be fully incorporated into any alternative identified as the Preferred Alternative. The common features are:

- The existing **Russell Street Bridge** would be removed and replaced in the same general location with four lanes over the Clark Fork River to provide adequate capacity for projected traffic volumes and necessary hydraulic capacity.
- **Bicycle lanes** would be included to improve multi-modal transportation in the corridors. Bicycle lanes measuring approximately 5.5 feet wide measured from the face of the curb would be constructed on both sides of Russell Street and South 3rd Street. The proposed bicycle lanes would be delineated from motorized traffic by a solid white painted stripe and would be clearly marked as bicycle lanes.
- **Sidewalks** measuring approximately 5.0 feet wide would be constructed along both sides of Russell Street and South 3rd Street.
- **Grade separated pedestrian/bicycle crossings** would be provided for the Milwaukee Corridor Trail, Bitterroot Branch, Shady Grove, and River Front Trail systems as they cross Russell Street.
- **Curb and gutter** as well as drywells/sumps would be included to improve stormwater management.
- **Street lighting** would be included to improve aesthetics and safety.
- **Landscaped boulevards** would be constructed on both sides of Russell Street and South 3rd Street between the curb and sidewalk, as well as medians in both corridors, to improve aesthetics.

Final Environmental Impact Statement

- **Bus pullouts** would be incorporated into the final design along Russell Street north of South 3rd Street, and along South 3rd Street from Russell Street to Reserve Street. The transit system currently does not serve Russell Street south of South 5th Street, so no pullouts are planned for that portion of the corridor.
- On-street parking within the City right-of-way is currently prohibited along Russell Street and South 3rd Streets. **Parking restrictions would be maintained** in these areas.

As with all other Build alternatives, the Preferred Alternative includes the following alignment and access modifications:

- Longstaff Street would be restricted to a right-in and right-out only connection with Russell Street.
- Lawrence Street would be realigned to a right-angle intersection with Russell Street with left turn storage on Russell Street.
- Access to Russell Street from Harlem Street and Kern Street on the east side of Russell Street would be restricted to a right-in and right-out only connection.
- Addison Street would be realigned to a right-angle intersection with Russell Street opposite from South 8th Street. Addison Street and South 8th Street would be restricted to right-in and right-out only connections with Russell Street.
- Knowles Street would be shifted slightly to the north to match with South 11th Street on the west.
- River Road would generally remain in its current configuration with minor intersection modification and a restricted right-in and right-out connection with Russell Street. In addition, right-of-way would be purchased for the construction of a new link between River Road and Idaho Street that would become part of the River Road connection to Russell Street via Wyoming Street. The connection would include a newly constructed section of road running north-south adjacent to the western boundary of Mobile City Trailer Park between existing River Road and Idaho Street. It would also include reconstructed sections of Idaho Street between Catlin Street and the new road along the western border of Mobile City Trailer Park; Catlin Street between Idaho Street and Wyoming Street; and Wyoming Street between Catlin Street and Russell Street.

As noted previously, the Traffic Analysis Update included recommendations for design enhancements that could extend the service life of the proposed improvements. Two modifications that are anticipated to have near-term benefits without resulting in any additional impacts include extending the storage length for the northbound and westbound left-turn lanes on Russell Street and West Broadway Street, and inclusion of a second eastbound right-turn lane on West Broadway Street. These turn lanes are shown in Figure 2-18 (Sheet F).

Chapter 2.0 - Alternatives Analysis

Russell Street –Preferred Alternative:

Russell Street Alternative 4 is the Preferred Alternative with two southbound and two northbound travel lanes, raised medians and center turn lanes, and the use of signal control at select intersections on Russell Street.

Figure 2-26 illustrates the major features of this alternative, and the following provides a summary. (Figure 2-18 provides a more detailed illustration of the proposed improvements on Russell Street.)

Lane Configuration:

Four travel lanes from Mount Avenue/ South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

none

Single-Lane Roundabouts at:

none

Signal Control at:

Mount Avenue/South 14th Street (existing)

South 5th Street (existing)

South 3rd Street (existing)

Wyoming Street

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

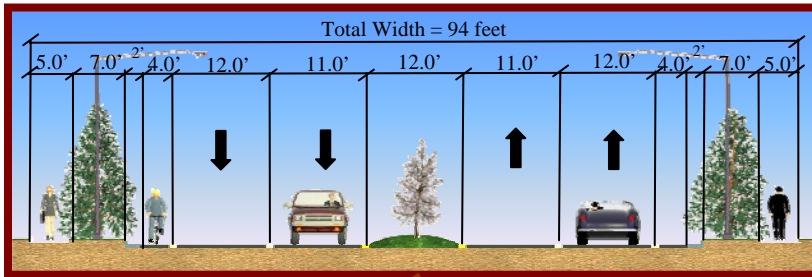
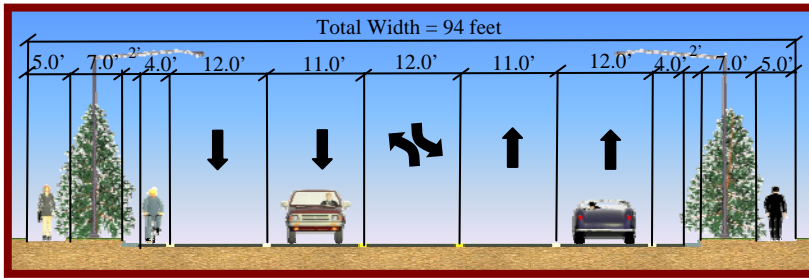
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern segment would shift to the east to minimize the impact on properties protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, as discussed later in this document.





Final Environmental Impact Statement

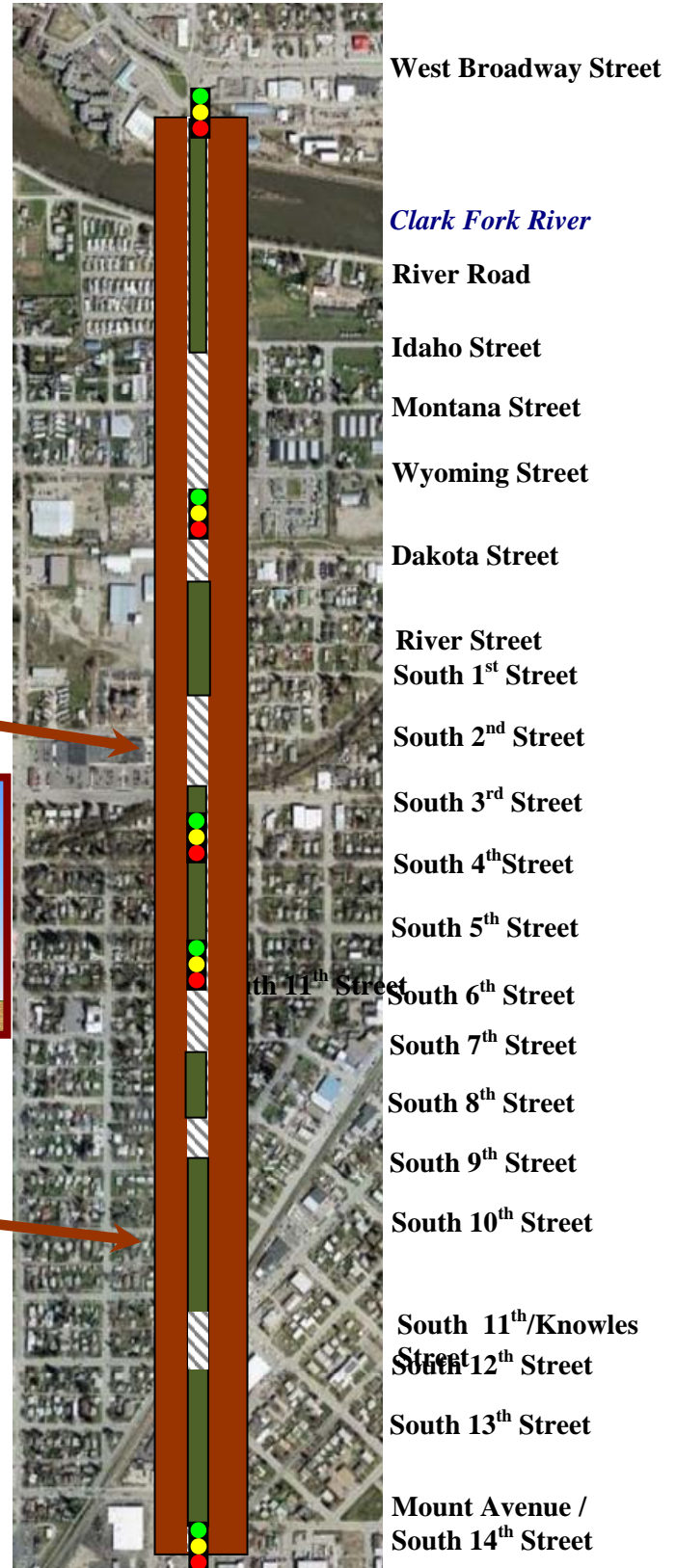
Figure 2-26
Russell Street Preferred Alternative (Alt. 4) –
General Elements



All graphics in this document are conceptual and not intended to reflect final design details. The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Key:

-  Four lanes with median/turn lane
-  Raised median
-  Turn lane
-  Traffic signal



Chapter 2.0 - Alternatives Analysis

South 3rd Street –Preferred Alternative:

Alternative E is the Preferred Alternative on South 3rd Street and includes two travel lanes (one in each direction), signals at select intersections, and the use of raised landscaped medians, as appropriate.

Figure 2-27 illustrates the major features of this alternative, and the following provides a summary. (Figure 2-23 provides a more detailed illustration of the Preferred Alternative on South 3rd Street.)

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

Two-Lane Roundabouts at:

none

Single-Lane Roundabouts at:

none

Signal Control at:

Reserve Street (existing)

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Russell Street (as determined by the Russell Street Preferred Alternative)

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

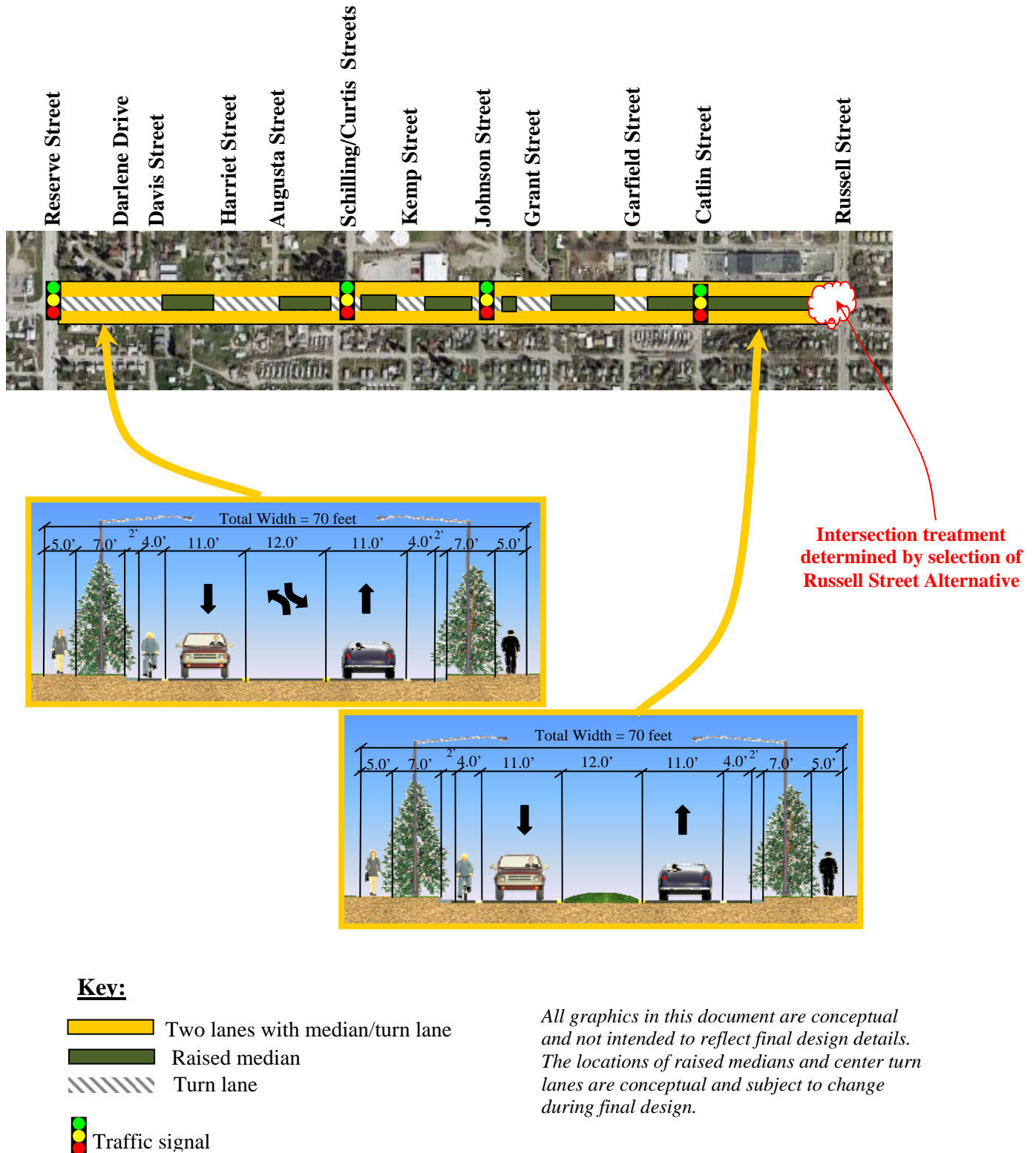
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

Final Environmental Impact Statement

Figure 2-27
South 3rd Street Preferred Alternative (Alt. E) – General Elements



2.6 Other Alternatives Considered but Eliminated

Several alternatives were suggested through the public involvement process that were not carried forward into detailed analysis. These alternatives and the reasons for their elimination by the City of Missoula, Montana Department of Transportation, and Federal Highway Administration are discussed in this section.

Transportation System Management:

Transportation System Management strategies focus on improving roadway efficiency, and typically overlap with Intelligent Transportation System technologies. The primary purpose of Transportation System Management is to “get the most out of the existing system” through cost effective improvements such as adding auxiliary lanes in heavily congested portions of a corridor, adding turn lanes at congested intersections, or optimizing signal timing throughout a corridor. Other options might include fringe parking, ridesharing, and High Occupancy Vehicle (HOV) lanes.

The Federal Highway Administration has indicated in their Technical Advisory (TA 6640.8A) that these limited construction alternatives are “usually relevant only for major projects proposed in urbanized areas over 200,000 in population.” Due to the relatively limited population size of Missoula, the short length of the roadway improvement project, and the diversity of commuting trips in this corridor, it was determined that a Transportation System Management alternative would not provide the necessary improvements in capacity to eliminate the need for other investments in capacity expansion. It is feasible, however, that efficiencies can be gained through better signal timing or the use of turn lanes at key intersections along both Russell Street and South 3rd Street, and may be explored further if improvement projects progress in these corridors.

Transportation Demand Management:

Transportation Demand Management refers to programs designed to maximize the people-moving capability of the transportation system by increasing the number of persons in a vehicle, or by influencing the time of, or need to, travel. These transportation planning strategies are typically aimed at traffic congestion relief and air quality management through the reduction of single-occupant vehicle use. These efforts are generally implemented by:

- Employers at individual worksites
- Organized groups of employers, referred to as Transportation Management Associations (TMAs)
- Quasi-public organizations that serve as the focal point of programs

Missoula in Motion (MIM), the Missoula Ravalli Transportation Management Association (MR TMA), and the Associated Students of the University of Montana (ASUM) serve as the Transportation Demand Management coordinators within the Missoula metropolitan area.

Transportation Demand Management is an integral part of the regional transportation planning process, and the Missoula 2008 Long Range Transportation Plan Update identified over \$16 million allocated towards these programs. As a component of the Long Range Transportation

Final Environmental Impact Statement

Plan, these strategies are accounted for in the regional travel demand model, and cannot independently address the purpose and need for improvements in the Russell Street and South 3rd Street corridors. Investment in these strategies will continue to be an important part of the transportation solution in Missoula, and will be used in conjunction with the proposed capacity improvements as part of this project.

Four-Lane Russell Street:

The Advisory Committee and general public participants involved in the scoping process considered a four-lane road with no median on Russell Street. A four-lane road with no median or center turn lane is considered less safe than most other lane configurations on this type of roadway. Motorists waiting to make left turns delay traffic. Other motorists then pull out into the outside lane to pass the vehicle waiting to turn left, which leads to an increase in the number of conflicts and traffic crashes. In addition, it is more difficult for pedestrians to cross a wide roadway without medians. The Advisory Committee concluded that this lane configuration did not meet the project purpose and need because it did not safely improve the movement of pedestrians and traffic through the project corridors, and therefore recommended to the Federal Highway Administration that it be eliminated.

West Broadway Street Flyover:

Attendees at public scoping meetings suggested an elevated roadway (flyover) for the West Broadway Street and Russell Street intersection. The Advisory Committee considered the potential cost and environmental impacts on the Clark Fork River and the associated riparian area to be too great based on the substantial increase in the intersection footprint. Incorporating a flyover ramp would add \$16 to \$20 million to the construction costs, increase right-of way impacts, as well as have a negative impact on the pedestrian and bicycle environment at the intersection due to the structure footprint relative to those facilities. The flyover bridge would have to begin over the Clark Fork River in order to get up and over the intersection with West Broadway Street. This would necessitate a wider bridge over the Clark Fork River and increased riparian impacts and right-of-way impacts. The proposed bridge foot print cannot be reduced and still satisfy traffic lane capacity, pedestrian, and bike needs.

Continuous Two-Way Left-Turn Lanes:

Attendees at public scoping meetings suggested using raised medians instead of continuous two-way left-turn center lanes. Continuous two-way left-turn center lanes throughout the corridor were not considered in further detail because the public wanted raised medians with landscaping to improve the look and feel of the corridor to meet the goals of the project. The raised medians coupled with short segments of two-way left turn lanes and left-turn storage pockets at certain locations provide nearly the same opportunities for motorists to turn left as two-way left-turn center lanes. Raised medians provided a greater margin of safety by separating the different directions of traffic when compared to the continuous two-way left-turn center lanes.

Partial Closure of Russell Street:

Attendees at public scoping meetings suggested closure of Russell Street north of the intersection of West Broadway Street and Russell Street as an option for improving traffic congestion at that intersection. Closure of the north leg of the intersection would result in only a modest decrease

Chapter 2.0 - Alternatives Analysis

in volume entering from the north. The through-movements would likely enter West Broadway Street at another location and result in an increase in turning movements from West Broadway onto Russell Street. Based on these considerations and that the link does not affect the recommendations for improvements within the remainder of the Russell Street corridor, this design option has not been considered in any detail in this process.

I-90 / Russell Street Interchange:

Public comments on project alternatives suggested connecting Russell Street to Interstate 90. This connection was not considered in detail because it is outside the scope of the Russell Street and South 3rd Street reconstruction project. The scope of the project includes improvement of traffic congestion and conditions on Russell Street from Mount Avenue/South 14th Street to West Broadway Street. Connection of Russell Street to Interstate 90 is more appropriately considered in the metropolitan transportation planning process, which includes areas outside the Russell Street and South 3rd Street project area.

East-West Underpass Connection of River Road:

The public scoping meetings addressed the current access difficulties for residents in the River Road area. Attendees at scoping meetings proposed to connect River Road west of Russell Street to River Road east of Russell Street (underneath the Russell Street Bridge). This connection was eliminated from detailed study. The Interdisciplinary Team concluded that the costs were too high and environmental impacts on the Clark Fork River, the associated riparian area, and fisheries resources would increase if the bridge were constructed to a height that could accommodate a road crossing underneath Russell Street, and a berm were constructed adjacent to the Clark Fork River. Continually pumping water out from behind the berm and maintaining the pumping equipment would add life-long costs to the project. Lowering the elevation of River Road below the bridge to provide adequate vehicle clearance would create a safety problem if a vehicle became trapped under the bridge during a flood. Raising the elevation of the bridge in order to accommodate River Road traffic below the bridge is not feasible because bridge elevation is constrained by the existing Russell Street and West Broadway Street intersection.

Smaller bridge over the Clark Fork River:

The bridge design is based on existing and forecast traffic demand, as well as bicycle and pedestrian needs. Narrowing the bridge structure will decrease capacity and impact operation of both Russell Street and the intersection with West Broadway Street.

2.7 Construction Phasing and Funding Strategies

The total costs for the proposed project will ultimately differ from the planning level estimates presented in this document.

Phasing

The Metropolitan Planning Organization (MPO) receives approximately \$2.0 million dollars per year that can be accumulated under the anticipated annual allocations, and would have to seek additional funding to cover the remaining costs beyond regular funding sources. Based on

Final Environmental Impact Statement

currently available funds, reconstruction of Russell and South 3rd Streets as proposed in this Environmental Impact Statement would likely be phased over time. Construction projects would be programmed and completed as funds become available over the next several years.

Prior to finalizing a Record of Decision, the entire project would need to be included in the fiscally constrained portion of the conforming Long Range Transportation Plan and, in addition, include in the approved Transportation Improvement Program at least one subsequent phase, which includes final design, right-of-way, utility relocation or construction.

During the public comment period on the Draft Environmental Impact Statement, concerns were raised that during the development of the separate project phases, changes in the character of the corridor from infill development, redevelopment, or transportation demand management strategies included in the Long Range Transportation Plan, could affect the traffic forecasts used to establish the Purpose and Need for the project. Following the completion of this National Environmental Policy Act / Montana Environmental Policy Act document, appropriate state and federal rules and regulations will guide the future consideration and development (as deemed appropriate) of any re-evaluations to this document. The consideration of when to prepare a re-evaluation will be based on requirements at 40 CFR 1502.9(c), 23 CFR 771.129, and ARM 18.2.247 which include provisions for considering the emergence of significant new circumstances or information that has bearing on the proposed action or its impacts on environmental considerations. Conditions possibly meriting re-evaluation will be reviewed prior to construction of the separate project phases in accordance with federal guidelines as noted above, and, if necessary, a re-evaluation of the Environmental Impact Statement would be conducted to determine if the document remains valid for the proposed project (pursuant to the state and federal regulations cited above). If no substantial changes have occurred, the project would proceed under the approved decision document.

Funding

Through the Missoula area metropolitan transportation planning process, Russell Street has been prioritized as the number one priority for federal and state funds provided through the Surface Transportation Program-Urban funding program. Additional federal, state, and local funding prioritized through the metropolitan transportation planning process includes Congestion Mitigation and Air Quality funding, Bridge funding, Enhancement funding, and local funds. Also, a congressionally directed earmark was provided for this project through the most recent federal transportation funding bill, the Safe, Accountable, Flexible, Efficient Transportation Equity Act –A Legacy for Users.

The total cost of the preferred alternatives for Russell Street and South 3rd Street in year of expenditure dollars is approximately \$56 million. The city recently amended their Long Range Transportation Plan (LRTP), in order to provide local funding for the estimated \$11.5 million needed for the construction of South 3rd Street. As a result, the city's current Transportation Improvement Plan (TIP, FFY 2011-2015) and amended 2008 LRTP include a combination of available and planned revenue sources, which collectively provide fiscal constraint for the construction of the preferred alternatives for both Russell Street and South 3rd Street projects.

Chapter 2.0 - Alternatives Analysis

The project sponsor will continue to seek funding and prioritize Surface Transportation Program-Urban (STPU) funds for subsequent phases and accumulate those funds over the next several years to ensure funding of the project.

Missoula Federal Fiscal Year 2011-2015 Transportation Improvement Program

Project	Amount Reserved
<i>1st Phase</i>	
South 3rd Street (Reserve to Russell)	\$2,000,000 (Local funding)
Russell Street (South 3 rd Street to West Broadway Street)	\$17,795,800 (Surface Transportation Program-Urban)
Milwaukee Trail West	\$550,000 (Surface Transportation Program - Enhancement)
Russell Street Bridge	\$5,542,400 (Bridge)
Russell Street	\$6,275,500 (Earmark)

2008 Missoula Long Range Transportation Plan

<i>2nd Phase</i>	Amount/Source identified
South 3rd Street (Reserve to Russell)	\$9,500,000 (Local funding- 2008 LRTP amendment #2)
Russell Street (Mount Avenue to South 3 rd Street)	\$7,000,000 (Future Earmark - City)
	\$6,600,000 (Local funding)
	Surface Transportation Program - Urban funds
	Accrue annual allocations @
	1,829,439/yr starting in 2015 to complete project.

**Other potential federal aid funding source, Surface Transportation Program - Enhancement*



3.0 AFFECTED ENVIRONMENT

This chapter describes the existing social, economic, and environmental conditions in the Russell Street and South 3rd Street corridors. The information in this chapter serves as the baseline for assessing impacts associated with the proposed reconstruction and widening of Russell Street from Mount Avenue to West Broadway Street, and South 3rd Street from Russell Street to Reserve Street. Chapter 4 – Environmental Consequences and Mitigation – documents the analysis of social, economic, and environmental consequences of the proposed action in relation to the existing baseline.

Guidance provided by the National Environmental Policy Act (42 United States Code 4332(2)(c)), Montana Environmental Policy Act (§ 2-2-104 and § 75-1-201 Montana Code Annotated), the Federal Highway Administration (Technical Advisory 6640-8A), and the Montana Department of Transportation identified issues of concern that require analysis. The following issue areas are traditionally reviewed in an Environmental Impact Statement and are documented in this chapter:

- Land Use
- Farmlands
- Social Conditions
- Economic Conditions
- Parks and Recreation
- Pedestrian and Bicycle Facilities
- Air Quality
- Noise
- Water Quality
- Wetlands
- Water Bodies and Wildlife Resources
- Floodplains
- Threatened and Endangered Species
- Historic and Cultural Resources
- Hazardous Materials
- Visual Resources

3.1 Land Use

This section describes existing land use and zoning patterns in the project area. Applicable City land use policies and comprehensive plans are also discussed. City land use policies, comprehensive plans, and zoning information were reviewed to determine existing land uses in the project area.

Chapter 3.0 - Affected Environment

Existing Land Uses

The Russell Street corridor can be characterized as commercial/light industrial in the southern portion from Mount Avenue to the railroad crossing at Ronan Street, primarily residential from the railroad north to South 3rd Street, and commercial/retail from South 3rd Street north to West Broadway Street. South 3rd Street is primarily commercial with pockets of high-density residential from Reserve Street to Russell Street.

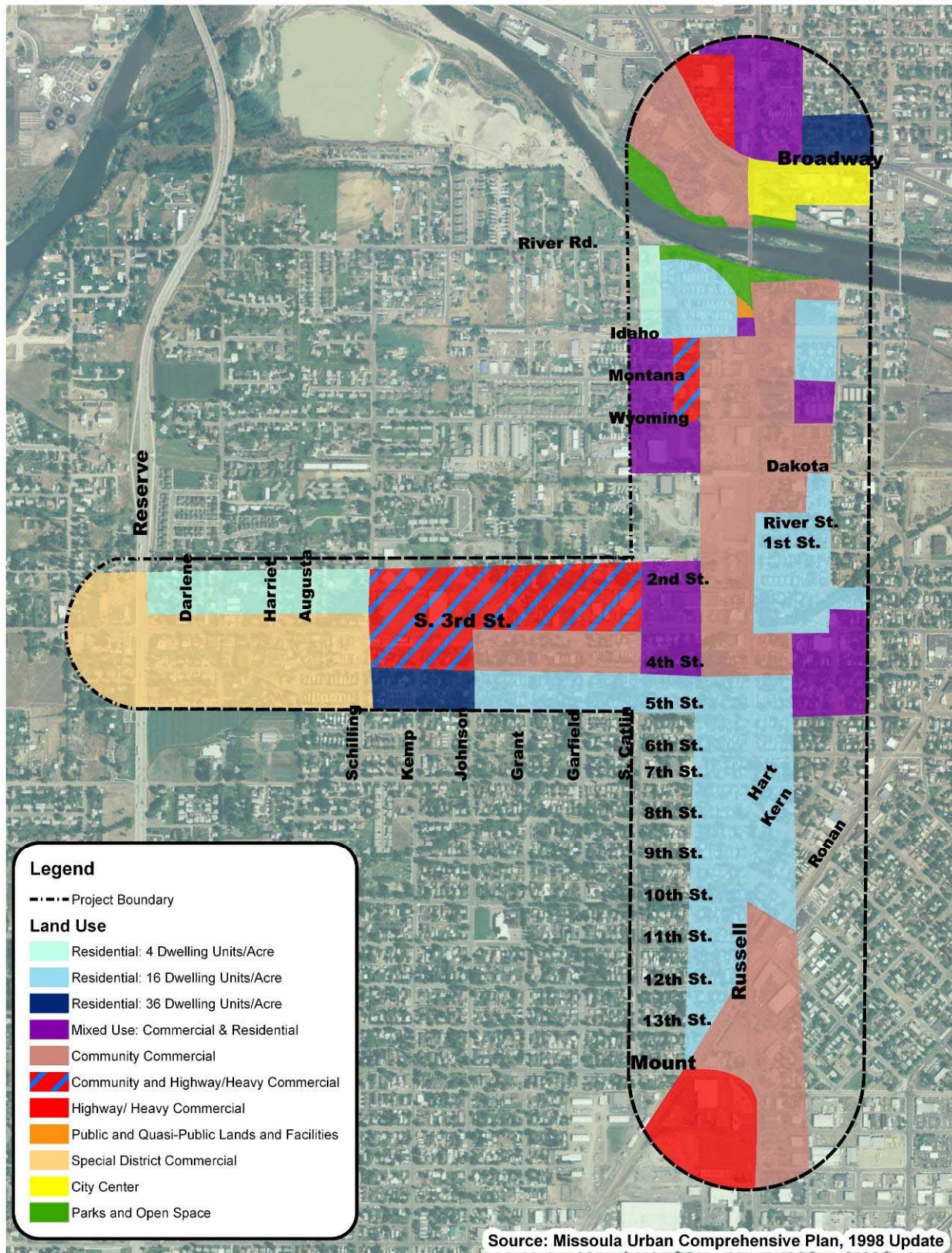
Two large infill sites are also located in or near the study area. The old Intermountain Lumber site (Market Square) is a large parcel that fronts Russell Street on the west side, south of Dakota Street. This site is currently planned for major redevelopment as a mixed use retail/office/residential development. The Champion Mill site is also located near the project area and also has plans for a mixed use development and would have roadway network and trail connectivity to the Russell Street and South 3rd Street corridors.

The following provides a general description of the types of uses in these corridors. Figure 3-1 illustrates the existing zoning in the study area.

- ***Residential Use*** - Most residences in the project area are single-family structures, but there are multi-family structures including duplexes, triplexes, and four- to eight- unit structures along both corridors. Three mobile home courts are located within the study area along South 3rd Street.
- ***Commercial and Retail Use*** - Commercial and retail activity in the study area provide retail goods and services to the surrounding residential area. The project area supports a variety of businesses that are primarily small and locally owned. Businesses located within the project area include a beverage distribution warehouse, car dealerships, construction and home improvement businesses, gas stations, small markets and grocery stores, professional offices, an auto body service and supply, restaurants, and hotels.
- ***Public Lands and Facilities*** - Land ownership within the project area is primarily private; however, the City has designated two small public parks in the project corridor, Hart Park and Kern Park. The proposed project also intersects three trail systems: the Shady Grove Trail, the Milwaukee Corridor Trail, and the Bitterroot Branch Trail. (These resources are discussed in more detail in the *Parks and Recreation* section).

The City of Missoula has designated a small area of land south of the Russell Street Bridge and on the west side of Russell Street as public land. This property is zoned P-II: Public Lands and Institutions District. The City of Missoula has also preserved a narrow strip of land on each side of the Clark Fork River, which includes the Shady Grove Trail, as an “area of riparian resource” for the benefit of the public.

Figure 3-1
Land Use



Chapter 3.0 - Affected Environment

Local Land Use Policies and Regulations

The *Missoula Urban Comprehensive Plan–1998 Update* is a policy document intended to provide the City, County, and other agencies and districts with a coordinated guide for long-term change. The Plan provides planning and regulatory tools to achieve a countywide pattern of community building, land use, and conservation that reflects the environmental, economic, aesthetic, health and social values of the Missoula County residents. The neighborhood between Russell Street, South 3rd Street, Reserve Street and the Clark Fork River completed an *Infrastructure Plan* in 2004 as an amendment to the *Missoula Urban Comprehensive Plan–1998 Update*. The *Infrastructure Plan* is primarily an inventory of existing infrastructure and a review of potential linkages between trails, parks, and roads.

Land uses identified in the *Missoula Urban Comprehensive Plan–1998 Update* for the study area are visually represented in Figure 3-1 and include (in order from most to least prevalent) residential, community commercial, community and highway/heavy commercial, mixed use: commercial and residential, special district commercial, public and quasi-public lands and facilities, and parks and open space.

A portion of the proposed project is located within Urban Renewal District 2, which is one of six sub-districts of the proposed City Center District as defined in the *Missoula Urban Comprehensive Plan–1998 Update*. The City Center District concept, presented in the plan, is intended to encourage continued commitment to renovation of Missoula's urban core.

Zoning in the Study Area

Zoning within the study area is regulated primarily by the Missoula City Zoning Ordinance (Title 19). However, the parcel containing the Pink Grizzly Nursery, located on the east side of Russell Street between Wyoming Street and Montana Avenue, is governed by County zoning. Residential, commercial, and mixed-use zones predominate, and these zones are moderately fragmented throughout the study area, as opposed to consisting of large contiguous areas of uniform zoning.

As described in the *Reserve Street Area Plan 1995 Update*, a Special District #2 zoning district was created along Reserve Street, generally between South 3rd Street and South Avenue West. This special zoning ordinance was created to “discourage the aesthetic and functional pitfalls of strip commercial development and, instead, foster a healthy mix of residential and light commercial activities along the heavily traveled roadway.” The City Special District #2 Ordinance affects several properties along South 3rd Street, and is intended to promote a wide range of land uses including residential, business offices, and other commercial activities.



3.2 Farmlands

Based on consultation with the Missoula office of the Natural Resource Conservation Service, the study area does not contain lands designated as “prime, unique or statewide important farmland” that would be eligible for protection under the Federal Farmland Protection Act. The Russell Street and South 3rd Street study area is designated urban land by the Natural Resource and Conservation Service, and therefore the provisions of the Federal Farmland Protection Act do not apply. No further analysis of farmland conditions or impacts will be conducted for this proposed project.

3.3 Social Conditions

This section provides an overview of the general social conditions in the study area including population, demographics, community facilities, and parks and recreational facilities.

Population

As shown below in Table 3.1, the U.S. Census Bureau reported Missoula County’s population in 2010 as 109,299, up from 95,802 in 2000 and 78,687 in 1990. Annual population growth in Missoula County averaged 1.99 percent from 1990 to 2000 and 1.41 percent from 2000 to 2010. The population of the City of Missoula was 66,788 in 2010, up from 57,053 in 2000 and 42,918 in 1990. The average annual growth rate for the City of Missoula was much greater than that for Missoula County during the period 1980 to 1990. Between 1990 and 2000, however, the average annual growth rate for the County (1.99 percent) was much closer to that for the City (2.89 percent); the same trend being true between 2000 and 2010 with the County having an average growth rate of 1.41 percent and the City with a growth rate of 1.71 percent.

Table 3.1
Missoula County and City of Missoula Population Growth, 1980-2010

Area	Total Population 1980	Total Population 1990	Total Population 2000	Total Population 2010	Average Annual Growth Rate (%)	Average Annual Growth Rate (%)	Average Annual Growth Rate (%)
					1980- 1990	1990- 2000	2000- 2010
Missoula County	76,016	78,687	95,802	109,299	0.35	1.99	1.41
City of Missoula	33,388	42,918	57,053	66,788	2.54	2.89	1.71
Project Area ^a	N/A	18,896	21,313	24,622	N/A	1.21	1.55

Source: U.S. Census Bureau, 1990, 2001a., 2010

^a Includes Census tracts 2.01, 7, 8, 10, and 11.

Minority and Low-Income Populations

Data related to the racial composition of the State of Montana, Missoula County, the City of Missoula, and the project area were obtained on-line from the U.S. Census Bureau and are based

Chapter 3.0 - Affected Environment

on the 2010 Census. Table 3.2 below illustrates that the population of the project area (Census Tracts 2.01, 7, 8, 10, and 11) has slightly greater racial diversity than the City of Missoula as a whole. Larger populations of Native Americans and people of Hispanic or Latino descent account for this difference in racial composition. As shown in Table 3.2 below, the population of the project area has slightly less racial diversity than the state of Montana because the Native American population is higher for the state as a whole.

Table 3.2
Racial Composition

	State of Montana ^a	Missoula County	City of Missoula ^a	Project Area ^a
White	884,961 89.4%	101,320 92.7%	61,534 92.1%	22,361 90.8%
Black	4,027 0.4%	445 0.4%	352 0.5%	144 0.6%
Native American	62,555 6.3%	2,872 2.6%	1,838 2.8%	976 4.0%
Asian	6,253 0.6%	1236 1.1%	809 1.2%	197 0.8%
Native Hawaiian	668 0.1%	105 0.1%	69 0.1%	32 0.1%
Hispanic or Latino	28,565 2.9%	2,861 2.6%	1,943 2.9%	864 3.5%
Other	5,975 0.6%	478 0.4%	334 0.5%	126 0.5%
Total	989,415	109,299	66,788	24,622

Source: U.S. Census Bureau, 2010

^a Percentages add to more than 100 percent due to rounding.

As documented in Table 3.3, the estimated percentage of the study area population living below the poverty level in 2009 was 27.0 percent compared with 23.7 percent for the City of Missoula. The poverty rate in Missoula County was 18.2 percent, while the percentage for the state was slightly lower at 14.7percent.

Table 3.3
Estimated Percent of Population Below the Poverty Level

Poverty Level	Montana Percent of Total	Missoula County Percent of Total	City of Missoula Percent of Total	Project Area Percent of Total
Above	85.3	81.8	76.3	73.0
Below	14.7	18.2	23.7	27.0
Total	100.0	100.0	100.0	100.0

Source: U.S. Census Bureau, 2005-2009 American Community Survey 5-Year Estimates

Note: Due to the progressive release of 2010 Census Information, 2010 decennial census poverty data was not available during the drafting of the EIS.

Executive Order 12898, issued in February 1994, directs all Federal agencies to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate,



disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations in the United States . . .” It is not uncommon for low-income residential areas to be located closer, or adjacent to, highway and major arterial corridors. There are two Section 8 housing units and a mobile home park within the study area that represent likely clusters of lower income residences than the remainder of the corridor, and likely affect the poverty level data presented above. In the interest of privacy, potentially impacted residences were not surveyed to identify their individual status within any disadvantaged group; however an assessment of disproportionate impacts on low income and minority populations is made in Chapter 4 of this document based on this Executive Order.

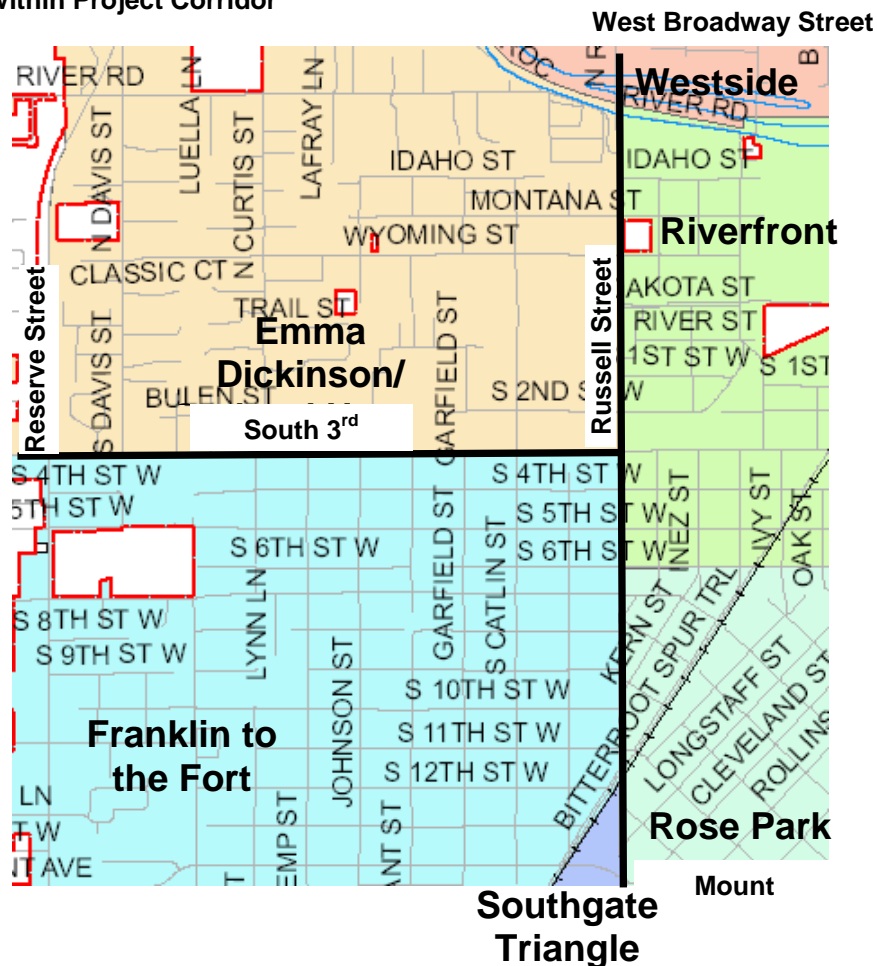
Community and Public Facilities

The project study area lies within six neighborhoods in the City of Missoula as shown in Figure 3-2. Russell Street has historically identified the western edge of the River Front and Rose Park neighborhoods, and the eastern edge of the Emma Dickinson/Orchard Homes, Franklin to the Fort, and the Southgate Triangle neighborhoods. Additionally, South 3rd Street forms the southern edge of the Emma Dickinson/Orchard Homes neighborhood, and northern edge of the Franklin to the Fort neighborhood.

In addition to the six neighborhoods identified above, the study area also forms the edge of three elementary school districts (Franklin, Hawthorne, and Paxson), two middle school districts (C.S. Porter and Washington), and two high school districts (Big Sky and Hellgate). Russell Street and South 3rd Street serve as the jurisdictional boundaries between each of these districts. The Hellgate District is the only school district that crosses Russell Street within the project area, and only does so for a small segment between Mount Avenue and South 7th Street.

Chapter 3.0 - Affected Environment

Figure 3-2
Neighborhoods within Project Corridor

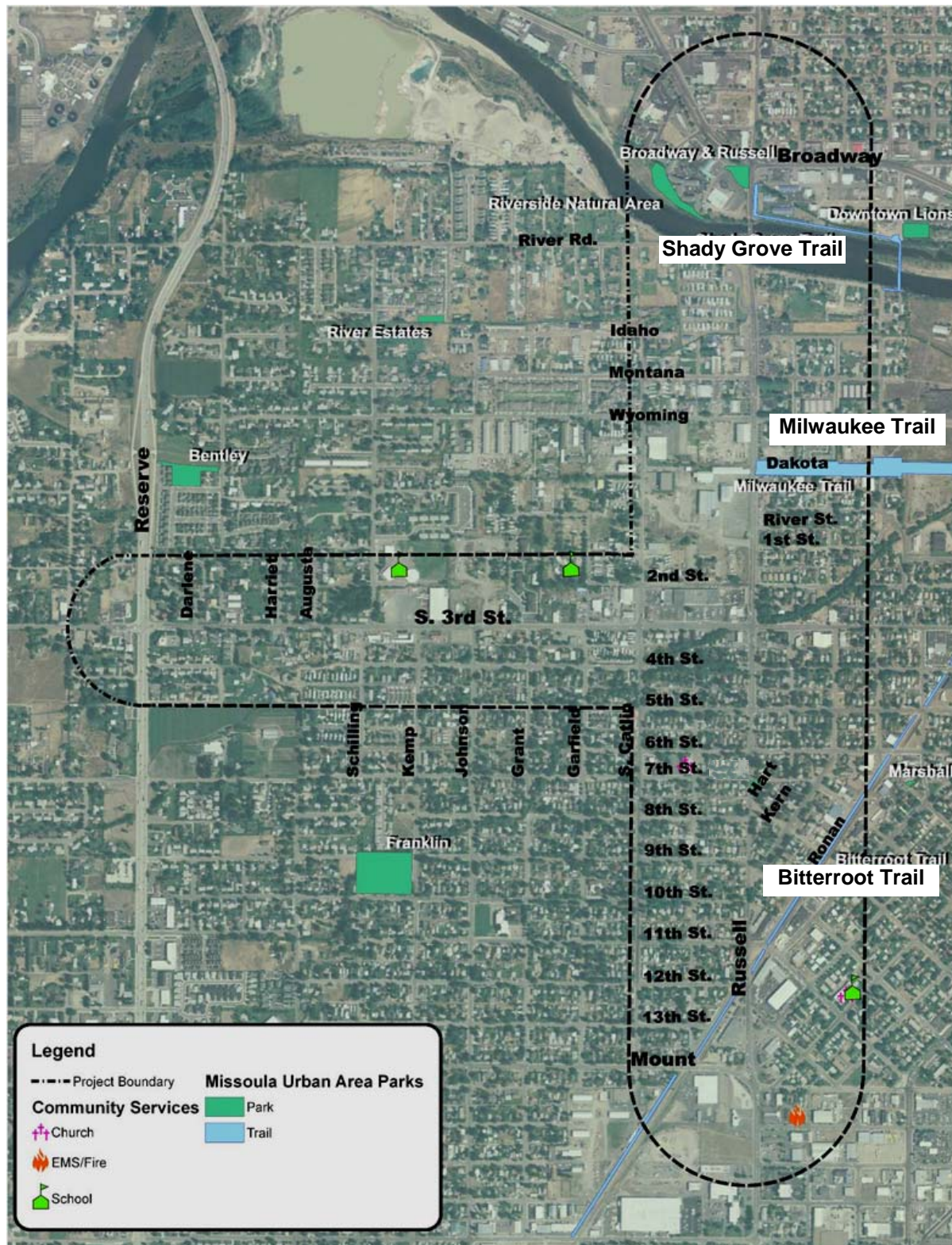


The study area contains several facilities providing public services including schools, churches, emergency services, and medical care. The project area is also served by the Missoula Fire Department, who provides fire suppression and emergency medical response, technical and rope rescue, river rescue, fire investigations, non-emergency public service calls, public education, and code enforcement within the city limits.

The Missoula Fire Department operates five stations within the City of Missoula and crews respond to emergencies depending on the proximity of station location to the location of the emergency and the availability of crews. Fire station 2 (located at 247 Mount Avenue) typically responds to emergencies on Russell Street from Mount Avenue to South 3rd Street. Fire station 4 (located at 3011 Latimer Street) typically responds to emergencies on Russell Street from South 3rd Street to West Broadway Street, and on South 3rd Street from Russell Street to Reserve Street.

Figure 3-3 illustrates the location of these facilities within the study area. While none of these facilities are located immediately on either Russell Street or South 3rd Street, the route provides primary access to and from these community and public facilities within this part of the city.

Figure 3-3
Community and Public Facilities, and Parks and Recreation Areas



3.4 Economic Conditions

In general, Missoula County's economy grew faster than that of the state as a whole. In addition, the United States Department of Labor, Bureau of Labor Statistics reported the annual average unemployment rate for Missoula County decreased from 6.0 percent in 1990 to 4.0 percent in 2000 and increased to 7.3 percent in 2010. The average unemployment rate in Missoula County for January through May of 2011 was approximately 7.9 percent.

Employment

For the past two decades employment in Missoula County has grown more quickly than that for the nearby counties. According to the United States Department of Labor, Bureau of Labor Statistics, as of May 2011, the unemployment rate in Missoula County was 6.9 percent, up from 3.6 percent in May 2000. Annual unemployment rates in 2010 for three nearby counties, Mineral, Sanders and Ravalli counties, were 11.5 percent, 14.6, and 9.7 percent, respectively.

Housing

According to data gathered by the Missoula Organization of REALTORS® between May 2006 and May 2011, the median price of homes sold in Missoula and the immediate suburban areas in the month of May remained nearly the same at \$197,500 to \$197,777. The total annual number of home sales decreased to 830 in 2010, compared to 1443 in 2006.

Information on rents was obtained from the U.S. Census Bureau 2005-2009 American Community Survey Estimates. The estimated median gross rent for the project area is \$677, which is slightly higher than the median gross rent for the City of Missoula (\$659), but slightly lower than that of Missoula County (\$683). Median rents for the state of Montana are lower (\$613) than those found in the Missoula area.

3.5 Parks and Recreation

Three publicly owned trail facilities and two passive parks are located within the project area and are discussed below. Figures 3-3 illustrates the location of area parks and trails in the project corridor.

Bitterroot Branch Trail - Within the project corridor, the Bitterroot Branch Trail is located within a portion of the railroad right-of-way adjacent to the active rail route operated by Montana Rail Link. The two mile trail extends from Hickory Street near McCormick Park, across Russell Street to McDonald Street. The Bitterroot Trail Committee, a group of citizens and staff from local and state agencies, formed in 2008 to work on extending the trail from its current terminus at McDonald Street to an existing trail south of Lolo via an undetermined route. The trail is maintained by the City of Missoula Parks Department. Portions of the trail outside of the railroad right-of-way are owned by the City of Missoula. There is an existing at-grade crossing at the intersection of the Bitterroot Branch Trail at Russell Street. Striping is painted on Russell Street, and warnings signs have been placed at the crossing to alert motorists that bicycles and pedestrians cross at the intersection.



Milwaukee Corridor Trail - The Milwaukee Corridor Trail lies within the abandoned corridor of the Milwaukee Railroad between Russell Street, near the Dakota Street intersection, and Hickory Street. A commuter trail paralleling the old Milwaukee line is the major east/west non-motorized transportation connection as listed in the Non-Motorized Transportation Plan, the Missoula Urban Area Open Space Plan, and the Master Parks & Recreation Plan for the Greater Missoula Area. On a larger scale, the old railroad presents an opportunity to create a rail-trail that could cross the entire State of Montana connecting to Milwaukee rail-trails in Idaho and Washington. The existing trail begins at Russell Street and extends approximately 4.5 miles east on the south side of the Clark Fork River ending south of East Missoula. The Parks Department is currently working to extend the trail east to Bonner and west into the Mullan area. The trail, is an important component of the Missoula Bicycle Commuter Network, and intersects the Bitterroot Branch Trail near McCormick Park, which serves as a hub of Missoula's trail system. The City of Missoula owns the trail and plans to extend the Milwaukee Corridor Trail west of Russell Street, to Reserve Street and the Clark Fork River, but plans are contingent on agreements with landowners in the area. The existing trail ends approximately 200 feet east of Russell Street and connects to Wyoming Street. Milwaukee Corridor Trail users who continue west cross Russell Street at the intersection of Russell Street and Wyoming Street.

Shady Grove Trail - The Shady Grove Trail is located parallel to the east side of Russell Street north of the Clark Fork Bridge. The trail turns east and extends approximately one-half mile along the riverfront to Burton Street. The City of Missoula owns the Shady Grove Trail and plans to formally extend the trail under the Russell Street Bridge. Current under-crossings are shown in the photos below.



Passive Green Spaces - The City of Missoula owns and maintains Kern and Hart Parks as passive green space. Kern Park is adjacent to the Bitterroot Branch Trail between Knowles and Russell Streets and is approximately 3,600 square feet in size. Hart Park is located adjacent to Russell Street at its intersection with Hart Street and is approximately 5,663 square feet. As these parks serve limited recreational purpose and are not significant to the City's recreational program due to their small size and location next to Russell Street, they are not protected by Section 4(f) of the U.S. Transportation Act (See Appendix E for Parks Department Concurrence).

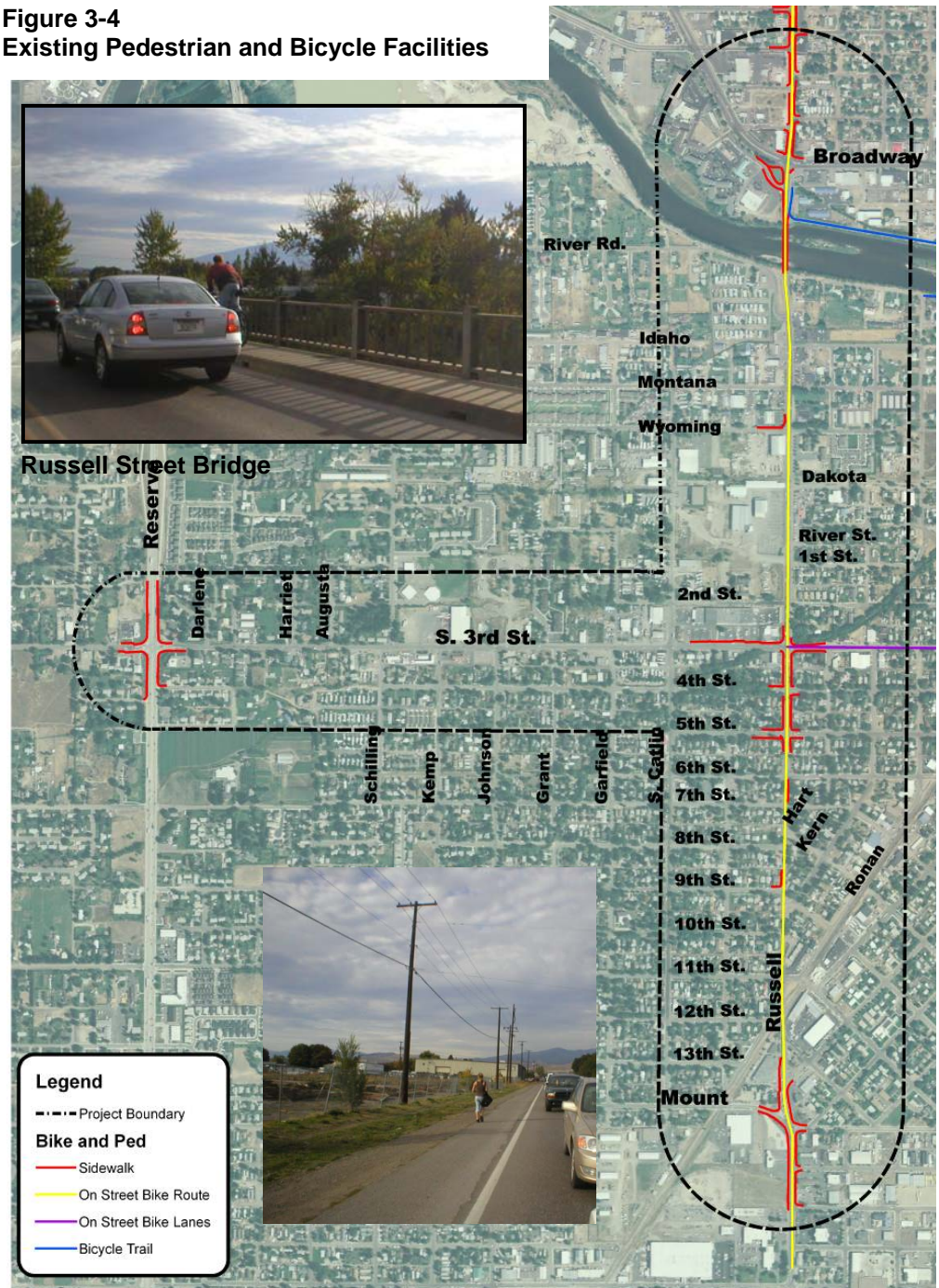
3.6 Pedestrian and Bicycle Conditions

This section describes the existing bicycle and pedestrian conditions in the study corridor. The condition of the existing bicycle and pedestrian facilities are based on observations, the 2004 *Missoula Transportation Plan Update*, and comments received during public involvement activities for this project.

Russell Street

Sidewalks are intermittent throughout the Russell Street corridor as illustrated in Figure 3-4. Pedestrian crossing facilities, including pedestrian signals, and handicapped accessible curb ramps, are located at the signalized intersections at Mount Avenue/South 14th Street, South 5th Street, South 3rd Street, and West Broadway Street. Russell Street is designated as an on-street bicycle route, and does not have bicycle lanes. Russell Street does have a paved shoulder from Mount Avenue/South 14th Street to South 5th Street on both sides of the street. There are also shoulders from South 3rd Street to the Clark Fork Bridge. The bridge has sidewalks on both sides. There are no paved shoulders on the north side of the bridge.

Figure 3-4
Existing Pedestrian and Bicycle Facilities





South 3rd Street

South 3rd Street has no designated bicycle or pedestrian facilities, except for crosswalks at two signalized intersections and at the intersections with Curtis and Catlin Streets. The signalized intersections are handicapped accessible, including curb ramps at all crossings. South 3rd Street has paved shoulders along both sides of the street from Curtis Street/ Schilling Street to Russell Street. There are no paved shoulders from Curtis Street to Reserve Street and there is a narrow paved shoulder on the south side of the street from Reserve Street to Schilling Street.

3.7 Air Quality

Air quality non-attainment and maintenance areas, such as the Missoula Metropolitan planning area, are subject to an air quality conformity determination by the Metropolitan Planning Organization, Federal Highway Administration and Federal Transit Administration in accordance with Federal Clean Air Act requirements, Environmental Protection Agency conformity regulations, Federal transportation planning requirements and State of Montana air quality rules, as pertain to conformity. The Clean Air Act was passed by Congress in 1970, amended in 1977 and again in 1990. The Clean Air Act of 1970 established six criteria pollutants for which the US Environmental Protection Agency was required to set National Ambient Air Quality Standards. These national air quality standards are federal health-based standards that set allowable concentrations and exposure limits for each of these six pollutants. Among these six are carbon monoxide and particulate matter.

The Environmental Protection Agency, Department of Environmental Quality, and the Missoula City-County Health Department regulate concentration of pollutants in the outdoor air and contaminant emissions from air pollution sources. Environmental Protection Agency standards are generally used to determine limits for pollutant concentration levels unless local standards are more stringent. The Missoula City-County Health Department maintains several monitoring stations in the City of Missoula that are located where air quality problems have the highest potential to occur. Data are collected at monitoring stations for a number of years and are used as a basis to determine whether air quality standards are met. The Department of Environmental Quality and the Environmental Protection Agency designate regions as being either attainment or non-attainment areas for each individual air pollutant. Attainment status is a measure of whether air quality in an area complies with the National Ambient Air Quality Standards.

The 1977 amendments defined “non-attainment” areas as localities where air pollution levels persistently exceed the National Ambient Air Quality Standards and require the development of State Implementation Plans that contain procedures to monitor, control, maintain, and enforce compliance with the National Ambient Air Quality Standards. Once the area can demonstrate consistent and projected compliance with the National Ambient Air Quality Standards, a petition may be submitted to the Environmental Protection Agency for redesignation as an attainment area under a maintenance plan. The Environmental Protection Agency may grant the petition dependent upon the submittal of a maintenance plan which will ensure that there are no future exceedances of the National Ambient Air Quality Standards. Upon approval, the area is then considered a maintenance area.

Chapter 3.0 - Affected Environment

The Transportation Conformity Rule of 1993 was developed as required by the Clean Air Act Amendments of 1990. This rule established the criteria and procedures by which the Federal Highway Administration, the Federal Transit Administration, and metropolitan planning organizations determine the conformity of federally funded or approved highway and transit plans, programs, and projects to existing State Implementation Plans. According to the Clean Air Act Amendments, federally supported activities must conform to the implementation plan purpose of attaining and maintaining the National Ambient Air Quality Standards.

Carbon Monoxide

Missoula was designated as a non-attainment area for carbon monoxide in 1978 because of repeated violations of the 8-hour average National Ambient Air Quality Standards in 1977 and early 1978. Most of the problem centered on a congested intersection, known as “Malfunction Junction,” where three major streets (Brooks Street, South Street and Russell Street) come together. Residential wood burning is also another major contributor to violations. The community took several steps to reduce the ambient levels of carbon monoxide, including intersection changes, woodstove regulations, and outdoor burning regulations. Missoula also relied on the federal motor vehicle emission reduction program to reduce carbon monoxide emissions. However, Missoula continued to violate the National Ambient Air Quality Standards until 1992, when it was required to implement an oxygenated fuels program during November, December, January, and February. Since the fuels program began in November 1992, Missoula has not recorded a violation of the National Ambient Air Quality Standards.

Between 1990 and 2000, carbon monoxide emissions in the Missoula area decreased by 40 percent. The biggest reductions were from on-road motor vehicles and woodstoves. However, in 2000, these two sources still represented over 95 percent of the carbon monoxide emissions in the non-attainment area. The remaining sources, industry, natural gas combustion, off-road vehicles and railroads, were responsible for less than five percent of the carbon monoxide emissions on a typical winter weekday.

On May 27, 2005, the Governor of Montana submitted to the Environmental Protection Agency the request from the Missoula City-County Air Pollution Control Board for the redesignation of Missoula County as a carbon monoxide attainment area. A comprehensive maintenance plan that met the requirements of the Clean Air Act was included in the submittal. On August 17, 2007, the Environmental Protection Agency published a final rule in the *Federal Register* (72 FR 46158) stating their approval of the State Implementation Plan revisions submitted by the State of Montana and the redesignation request submitted by the Governor. The Missoula carbon monoxide non-attainment area was redesignated to attainment effective September 17, 2007. In the same rulemaking, EPA also approved the carbon monoxide maintenance plan, which includes transportation conformity motor vehicle emission budgets for 2000, 2010, and 2020. The maintenance plan demonstrates that Missoula will continue to meet the National Ambient Air Quality Standards through the year 2020.

The maintenance plan provided for Missoula to continue to maintain the National Ambient Air Quality Standards and prevent backsliding by keeping essential programs in place, including stationary source permitting, outdoor burning permitting, solid fuel burning device restrictions,



and the oxygenated fuels program. These programs are contained within the Missoula City-County Air Pollution Control Program, are already a part of the State Implementation Plan, and were not revised.

Particulate Matter

The Missoula urban area has a history of exceeding the Montana and National Ambient Air Quality particulate standards. The first recorded exceedances for particulate were in 1969. Missoula was able to meet the federal annual average ambient air quality standard for particulate matter in terms of total suspended particulate in 1973 and again in 1975. However, violations of the daily total suspended particulate standard continued during the winter months, likely due to residential wood burning.

In July of 1987, the Environmental Protection Agency passed a standard for particulate matter with an aerodynamic diameter less than or equal to 10 microns, this new standard replaced the total suspended particulate standard. During the winter of 1986-1987, the Missoula City-County Health Department conducted a chemical mass balance study to apportion the sources of particulate matter in the valley. Residential wood smoke was 47 percent of the particulate matter during the study followed by road dust at 22.6 percent, motor vehicle exhaust at 10.2 percent and industry at 7.6 percent.

Missoula exceeded the annual average particulate matter standard in 1986 and exceeded the 24-hour particulate matter standard several times between 1987 and 1989. Because of these exceedances, Missoula was designated a non-attainment area for particulate matter and Montana was required to submit a State Implementation Plan to the Environmental Protection Agency to reduce particulate matter emissions in the valley. The State Implementation Plan specified that both the city and the county had adopted regulations on residential wood stoves, outdoor burning, industry, fugitive emissions, street sanding, and street maintenance. Missoula has not violated a federal particulate standard since 1989.

In January of 1999, Missoula began monitoring for fine particulate matter with an aerodynamic diameter less than or equal to 2.5 microns. National ambient air quality standards for fine particulate matter standard were promulgated by the Environmental Protection Agency on July 18, 1997, to address concerns that the previous particulate matter (PM₁₀) standards did not adequately protect human health. Because recent studies indicate that particulate matter in ambient air has health effects at lower concentrations than previously thought, on September 21, 2006, the Environmental Protection Agency revised the particulate matter standards.

The Missoula area is currently a non-attainment area for particulate matter (PM₁₀) due to past violations of the standards. Missoula is currently meeting the standards for particulate matter and has not exceeded these air quality standards since 1989. The Missoula City and County Health Department may seek re-designation from the Environmental Protection Agency in the future. As of October 2009, the Environmental Protection Agency has designated all of Montana (with the exception of the Libby area) as in attainment for fine particulate matter (PM_{2.5}).

Chapter 3.0 - Affected Environment

Fine particle pollution comes primarily from combustion sources such as woodstoves, outdoor burning, vehicle engines and industrial processes. Road dust and other types of dust also contribute to fine particulate in the air. In the winter months - when Missoula has the highest levels of pollution - dust is not as much of an issue because the ground is often wet or frozen. According to the *Missoula Montana PM_{2.5} Source Apportionment Research* report of November 2007, residential wood combustion was the largest source of fine particulate matter.

Mobil Source Air Toxics

The Environmental Protection Agency has identified a group of 21 mobile source air toxics (set forth in Environmental Protection Agency's final rule, *Control of Emissions of Hazardous Air Pollutants from Mobile Sources*) and extracted six priority Mobile Source Air Toxics considered to be priority transportation toxics. The Environmental Protection Agency has issued a number of regulations that will dramatically decrease Mobile Source Air Toxics through cleaner fuels and cleaner engines. According to a Federal Highways Administration analysis, even if vehicle miles of travel (VMT) increase by 64 percent, reductions of 57 percent to 87 percent in Mobile Source Air Toxics are projected from 2000 to 2020.

Under the Federal Highways Administration interim guidance issued for air toxic analysis in Environmental documents, the Preferred Alternative would be classified as a minor project for which the ultimate traffic level is predicted to be less than 150,000 average vehicles per day. The Environmental Protection Agency and Federal Highways Administration have acknowledged technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects and how this may prevent meaningful or reliable estimates of Mobile Source Air Toxic emissions and effects of specific projects. However, even though reliable methods do not exist to accurately estimate the health impacts of Mobile Source Air Toxics at the project level, it is possible to qualitatively assess the levels of future Mobile Source Air Toxic emissions.

Because the anticipated vehicle miles of travel under both the No Build and Preferred Alternative are nearly the same, it is expected that there would be no appreciable difference in overall Mobile Source Air Toxics emissions between the alternatives. The roadway widening proposed as part of the Preferred Alternative would have the effect of moving some traffic closer to nearby homes, schools and businesses; therefore, there may be localized areas where ambient concentrations of Mobile Source Air Toxics could be higher than the No Build Alternative. This localized impact could be offset due to increases in speeds and reductions in congestion (which are associated with lower Mobile Source Air Toxic emissions).

Overall, Environmental Protection Agency's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide Mobile Source Air Toxic levels to be substantially lower than today. Local conditions may differ from the national projections in terms of fleet mix and turnover, vehicle miles of travel growth rates, and local control measures; however, the magnitude of the Environmental Protection Agency-projected reductions is so great (even after accounting for vehicle miles of travel growth) that Mobile Source Air Toxic emissions in the study area are likely to be lower in the future in nearly all cases.



3.8 Noise

According to the Federal Aid Policy Guide, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (23 CFR 772), this project is defined as a Type I project as a “proposed Federal or Federal-aid highway project... which increases the number of through-traffic lanes and therefore a noise analysis is required.”

The noise analysis was conducted in accordance with the U.S. Code of Federal Regulations Part 772 (23 CFR 772) *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, and the Montana Department of Transportation’s *Traffic Noise Analysis and Abatement: Policy and Procedure Manual*. According to the noise study report, 56 noise-sensitive receptors on Russell Street were identified within approximately 490 feet of the existing roadway centerline, including single-family residences, mobile homes, apartments, townhomes, senior living apartments, and duplexes. The noise receptors for Russell Street are illustrated in Figure 3-5. An additional 44 noise receptors were identified for South 3rd Street and are depicted in Figure 3-6.

According to the Montana Department of Transportation, traffic noise impacts occur at residences if predicted traffic noise levels are 66 A-weighted decibels or greater in the project design year for the Preferred Alternative, or if the predicted noise levels in the design year for the Preferred Alternative are 13 A-weighted decibels higher than the noise levels in the current year for the No-Build Alternative. If either criterion is met, then an impact occurs, and traffic noise abatement measures need to be considered and determined if they are reasonable and feasible.

The City of Missoula Noise Control Ordinance (Missoula City Code Section 9.30) establishes maximum permissible noise levels for receivers 25 feet or greater from a noise source within a public right-of-way or the property line of a private property. For the purpose of this analysis, a receiver is a single-family residence or a multi-unit complex with four units or less. Noise limits are based on the zoning of the receiving property, and vary by the time of day. Noise levels in the ordinance may be exceeded by up to 10 decibels for up to 15 minutes of any one-hour period. There is no exemption in the City of Missoula Noise Control Ordinance for traffic traveling within rights-of-way, and it is subject to the same limits.

The Federal Highway Administration’s Traffic Noise Model Version 2.5 computer program was used to predict future traffic noise levels under a No-Build scenario to provide a baseline for future comparison. Table 3.4 lists existing and predicted noise levels for the Russell Street No-Build Alternative as compared to existing conditions.

Chapter 3.0 - Affected Environment

Figure 3-5
Russell Street Noise Receptor Locations

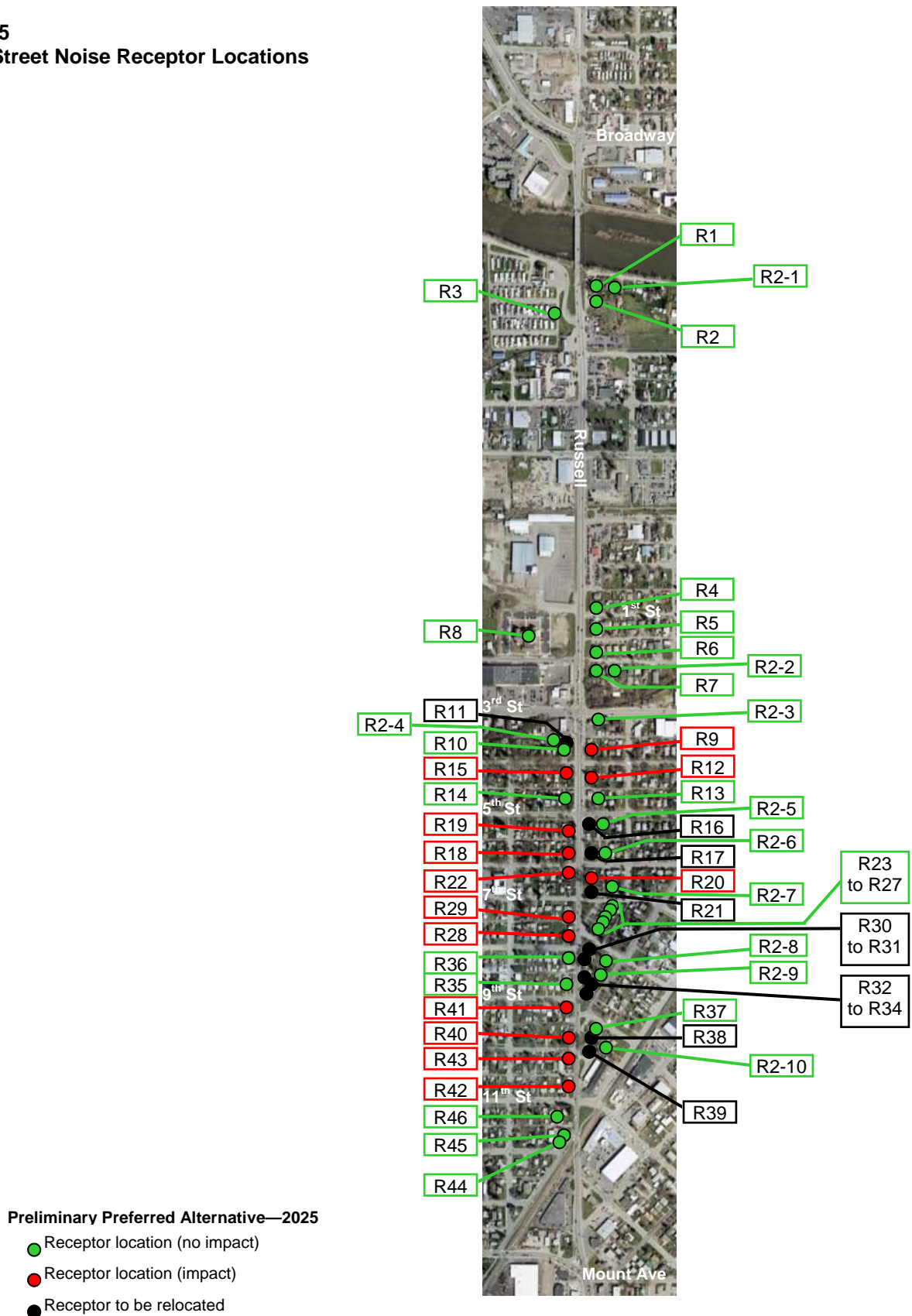
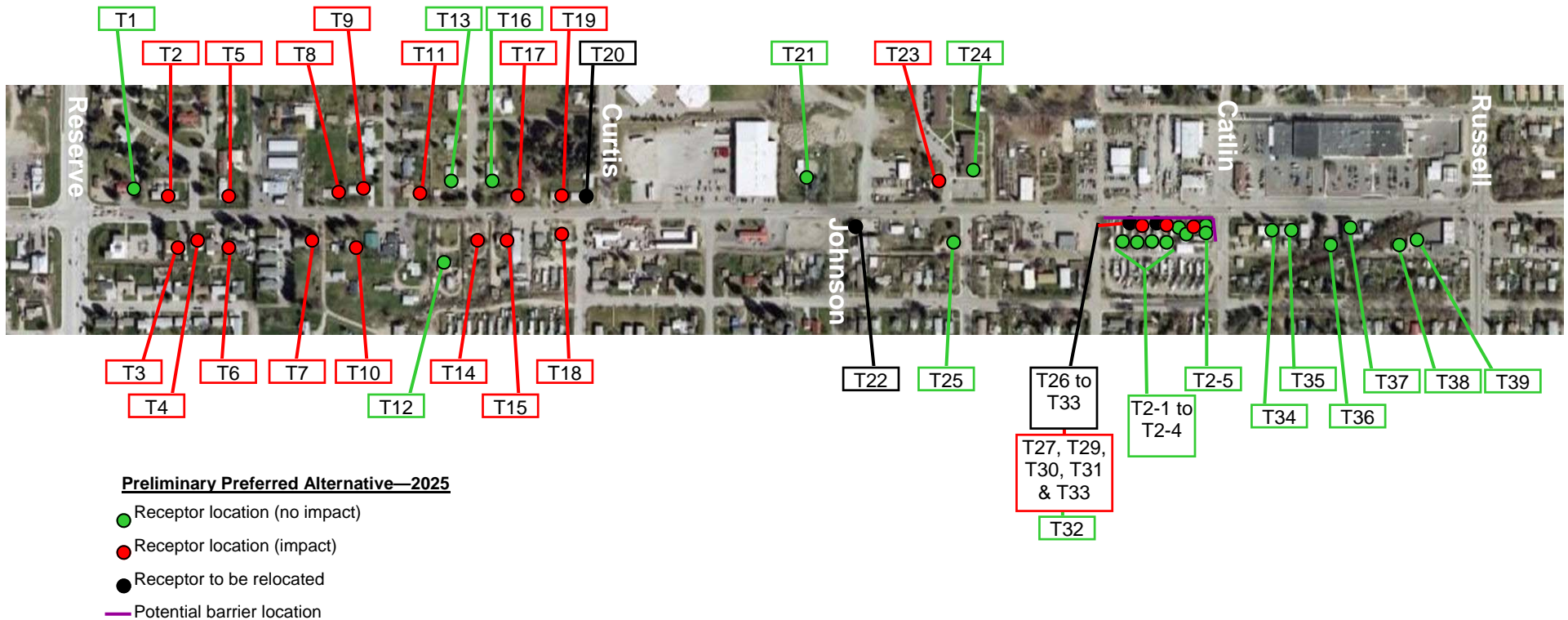




Figure 3-6
South 3rd Street Noise Receptor Locations



Chapter 3.0 - Affected Environment

56 receptor locations were evaluated along Russell Street for traffic noise impacts. As outlined in Table 3.4, the Montana Department of Transportation noise impact criteria is expected to be met or exceeded at 12 out of 56 receptor locations in the present year and at 22 receptor locations in the design year for the No Build Alternative along Russell Street.

Table 3.4
Russell Street
Receptors and Predicted Noise Levels for Existing and Future No-Build Conditions

Receptor	Description	Current Year Noise Levels	20-Year Forecast Noise Levels (No-Build)
West Broadway Street to South 1st Street			
R1	Single-family residence	62	63
R2	Single-family residence	62	64
R3	4 mobile homes	60	62
R2-1	Single-family residence, 2 nd row	60	62
R4	Single-family residence	63	65
South 1st Street to South 2nd Street			
R5	4 townhomes	58	60
R6	4 apartments (2 up/2 down)	63	65
South 2nd Street to South 3rd Street			
R7	4 apartments (2 up/2 down)	64	65
R8	Senior living apartments	58	60
R2-2	Single-family residence, 2 nd row	61	63
South 3rd Street to South 4th Street			
R9	Single-family residence	64	66
R10	Single-family residence	64	66
R11	Single-family residence	66	68
R2-3	Single-family residence, 2 nd row	62	63
R2-4	Single-family residence, 2 nd row	62	64
South 4th Street to South 5th Street			
R12	Single-family residence	64	65
R13	Single-family residence	62	63
R14	Single-family residence	63	65
R15	Single-family residence	65	67
South 5th Street to South 6th Street			
R16	Single-family residence	64	66
R17	Single-family residence	63	65
R18	Single-family residence	65	67
R19	2 Single-family residences	66	68
R2-5	Single-family residence, 2 nd row	60	62
R2-6	Single-family residence, 2 nd row	60	62
South 6th Street to South 7th Street			
R20	2 Single-family residences	63	65
R21	2 Single-family residences	64	65
R22	2 Single-family residences	65	67
R2-7	2 Single-family residences, 2 nd row	68	60
South 7th Street to South 8th Street			
R23	Single-family residence	58	60



Table 3.4
Russell Street
Receptors and Predicted Noise Levels for Existing and Future No-Build Conditions

Receptor	Description	Current Year Noise Levels	20-Year Forecast Noise Levels (No-Build)
R24	Single-family residence	59	60
R25	Single-family residence	69	61
R26	Single-family residence	60	62
R27	Single-family residence	61	63
R28	Single-family residence	66	67
R29	2 Single-family residences	66	67
South 8th Street to South 9th Street			
R30	Single-family residence	65	67
R31	Single-family residence	66	67
R32	Single-family residence	67	69
R33	Single-family residence	64	65
R34	Single-family residence	66	67
R35	Townhome (1 residence)	65	67
R36	Single-family residence	65	67
R2-8	Single-family residence, 2 nd row	58	60
R2-9	Single-family residence, 2 nd row	60	62
South 9th Street to South 10th Street			
R37	Single-family residence	62	64
R38	Single-family residence	63	65
R39	Single-family residence	65	66
R40	Single-family residence	66	68
R41	Single-family residence	66	68
R2-10	Single-family residence, 2 nd row	58	60
South 10th Street to South 11th Street			
R42	2 Single-family residences	67	68
R43	4 apartments (2 up/2 down)	66	68
South 11th Street to Mount Avenue/South 14th Street			
R44	Single-family residence	61	63
R45	Single-family residence	66	68
R46	Single-family residence	64	65
Total Impacts:		12	22

Chapter 3.0 - Affected Environment

44 receptor locations were evaluated along South 3rd Street for traffic noise impacts. As outlined in Table 3.5, the Montana Department of Transportation noise impact criteria is expected to be met or exceeded at 10 out of 44 receptor locations in the present year and at 22 receptor locations in the design year for the No Build Alternative along South 3rd Street.

Table 3.5
South 3rd Street
Receptors and Predicted Noise Levels for Existing and Future No-Build Conditions

Receptor	Description	No Build Alternative L _{eq} (h), Present Year 2000 (dBA)	No Build Alternative L _{eq} (h), Design Year 2025 (dBA)
Reserve Street to Schilling/Curtis Streets			
T1	Single-family residence	63	65
T2	Duplex (2 residences)	65	67
T3	Single-family residence	63	65
T4	Single-family residence	64	66
T5	Single-family residence	65	67
T6	2 Single-family residences	63	66
T7	4 apartments (2 up/2 down)	63	66
T8	Single-family residence	65	67
T9	Duplex (2 residences)	64	66
T10	Single-family residence	63	65
T11	Duplex (2 residences)	65	67
T12	3 Single-family residences	60	62
T13	Single-family residence	63	65
T14	Single-family residence	63	65
T15	Single-family residence	64	66
T16	Single-family residence	62	65
T17	Single-family residence	66	68
T18	Mobile home	65	67
T19	Single-family residence	66	68
T20	Single-family residence	66	68
Schilling/Curtis Streets to Johnson Street			
T21	Single-family residence	62	64
T22	2 apartments (1 up/1 down)	67	68
Johnson Street to Catlin Street			
T23	Single-family residence	64	65
T24	6 apartments (2-3 rd floor, 2-2 nd floor, 1-1 st floor)	63	64
T25	Single-family residence	64	65
T26	2 Mobile homes	67	69
T27	Mobile home	66	68
T28	Mobile home	68	69
T29	Mobile home	67	68
T30	Single-family residence	65	66
T31	Mobile home	66	68
T32	Single-family residence	65	66
T33	Mobile home	66	68
T2-1	Mobile home, 2 nd row	63	64
T2-2	2 Mobile homes, 2 nd row	63	64



Table 3.5
South 3rd Street
Receptors and Predicted Noise Levels for Existing and Future No-Build Conditions

Receptor	Description	No Build Alternative L _{eq} (h), Present Year 2000 (dBA)	No Build Alternative L _{eq} (h), Design Year 2025 (dBA)
T2-3	2 Mobile homes, 2 nd row	63	64
T2-4	3 Mobile homes, 2 nd row	63	64
T2-5	Mobile home, 2 nd row	63	64
Catlin Street to Russell Street			
T34	Duplex (2 residences)	63	65
T35	Duplex (2 residences)	63	65
T36	4 apartments (2 up/2 down)	61	62
T37	4 apartments (2 up/2 down)	63	65
T38	4 apartments (2 up/2 down)	60	61
T39	4 apartments (2 up/2 down)	60	62
Total Impacts:		10	22

3.9 Water Quality

This section provides an overview of the existing water quality conditions of water resources in the study area. Much of the following information on the Middle Clark Fork watershed was obtained from the Montana Department of Environmental Quality internet site.

Surface Water

The major surface water feature in the project area is the Clark Fork River, which intersects the project corridor at the Russell Street Bridge. Under authority of Section 303(d) of the Clean Water Act, several sections of the Clark Fork River are included on the Montana Department of Environmental Quality 2002 list of impaired and threatened water bodies, including a section within the project area. The Clark Fork River is considered water quality-limited. Water quality-limited waters are lakes and stream segments that do not meet, or are not expected to meet, state water quality standards. Under the terms of the Clean Water Act, states were directed to develop total maximum daily loads that set limits on point and non-point source pollution loading to water quality-limited bodies. Total maximum daily loads have not yet been developed for the Clark Fork River. According to the Montana Department of Environmental Quality, the Clark Fork River from Warm Springs Creek to the Flathead River, which includes the study area, is on the high priority list for development of total maximum daily loads in Montana.

According to the Environmental Protection Agency website, immediate risks to public health from a contaminated drinking water supply have been temporarily addressed. With the implementation of the Milltown Reservoir Sediments Record of Decision, the Environmental Protection Agency expects the Milltown drinking water supply to be cleaned up permanently.

Chapter 3.0 - Affected Environment

Stormwater

Stormwater drainage systems in the area are somewhat limited under existing conditions. Most stormwater leaves the roadways as sheet flow. Some stormwater leaves the roadway and flows into small infiltration systems (drywells). A small amount of runoff from the project area is conveyed directly to the main Missoula Irrigation District channel that intersects the study area at the Russell Street/South 3rd Street intersection. In addition, runoff from the Russell Street Bridge drains directly to the Clark Fork River.

Ground Water

The Missoula Valley Aquifer is the primary groundwater resource of the Missoula Valley and project area. Drinking water for 80 percent of Missoula County residents is supplied from groundwater from the Missoula Valley Aquifer. This Missoula Valley Aquifer is designated as a “sole source aquifer” under Section 1424(e) of the Safe Drinking Water Act. This designation made at the request of the Missoula City-County Health Department in 1988, provides for Environmental Protection Agency review of federal financially assisted projects to assure that such federally assisted projects do not contaminate an aquifer that is the sole or principle source of drinking water for an area.

Within the Missoula Valley Water Quality District, the City of Missoula adopted the *Missoula Valley Water Quality Ordinance* in June 2001. This ordinance is intended to protect the public health, safety, and general welfare of those utilizing the Missoula Valley Aquifer and surface water in the Missoula Valley for drinking water, recreation, and other beneficial uses. As such, it establishes prohibitions and restrictions to prevent surface water and groundwater contamination.

The Missoula Valley Aquifer is a shallow, highly transmissive, unconfined alluvial aquifer which extends along the Clark Fork River Valley. Recharge of the aquifer is provided from stream water seepage from the Clark Fork River and from precipitation which falls on the ground surface and eventually percolates through the alluvial deposits of the Clark Fork River Valley. These alluvial materials filter contaminants from the percolating water. Other recharge sources include:

- Direct precipitation on the aquifer.
- Discharge from the adjacent hydrostratigraphic units
- Stormwater runoff.
- Septic Systems.
- Leakage from irrigation ditches.

Much of the precipitation within the Missoula area is intercepted by impervious surfaces, such as rooftops and road and parking lot pavement. To minimize direct discharge to surface waters, such as the Clark Fork River, the runoff from the impervious surfaces is conveyed to “dry wells” or sumps that have been established by the City of Missoula within the city limits. The dry wells or sumps collect and direct the surface runoff in to the alluvial materials and, after percolating through the alluvial materials, the runoff eventually reaches the Missoula Valley Aquifer.



3.10 Wetlands

Wetland determinations for the project area were performed in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual. No wetlands were identified within the Russell Street and South 3rd Street corridors, including the riparian area adjacent to the Clark Fork River where bridge replacement activities are proposed.

3.11 Water Bodies and Wildlife Habitat

Aside from the Clark Fork River (described in the previous Water Quality section), there are no other natural streams or channels in the study area; therefore, this section focuses primarily on existing irrigation ditches and wildlife habitat in the study area.

Based on the recent Talent Water Decision (2001), the U.S. Army Corps of Engineers considers irrigation ditches as jurisdictional “Waters of the United States” under Section 404 of the Clean Water Act if they have a downstream surface connection to other waters of the United States and/or jurisdictional wetlands. Three irrigation districts lie within or coincide with the study area: the Missoula Irrigation District, Orchard Homes Ditch Company, and Hellgate Valley Irrigation Company (Flynn-Lowney Ditch). The Hellgate Valley Irrigation Company and the Missoula Irrigation District have downstream surface connections to other waters of the U.S. and would be considered jurisdictional by the Corps of Engineers. Figure 3-7 illustrates the location of these ditches in the proximity of the study area.

Each of these three irrigation districts currently gains access to the ditches for maintenance through prescriptive easements. No permanent access points or roadways exist for maintenance personnel from Russell Street or South 3rd Street. There are no plans by the irrigation district to expand or improve the existing facilities in or near the project corridor.

Wildlife

According to the *Biological Resources Report* prepared for this proposed project, wildlife habitat within the project area consists primarily of disturbed (human-altered), urban, and riparian habitat associated with the Clark Fork River offering little natural wildlife habitat. Landscaping along the roadways provides habitat for some wildlife species adapted to the urban environment. Riparian habitat exists along the Clark Fork River, which bisects Russell Street between River Road and West Broadway Street at the northern terminus of the proposed project.

Wildlife use of the project area is greatly influenced by the high level of development in and around the project area. The Clark Fork River intersects the study area and provides habitat for a number of wildlife species. Some species may use the river corridor to travel from one part of the Missoula Valley to another. Other species are adapted to living in an urban environment and use habitat in the project area on a year-round basis.

Chapter 3.0 - Affected Environment

According to the *Biological Resources Report*, several species of waterfowl frequent the Clark Fork River corridor and great blue herons often set up rookeries in the area; however, there are currently no heron rookeries in the project area.

A variety of small to medium mammals, several bat species, and amphibian and reptile species are expected to reside within the project area. Large herbivores also pass through the project vicinity and occasionally reside in the project area.

Species of Concern

According to the *Biological Resources Report*, there are no recorded plant species of concern within the project area, but seven records of rare or sensitive wildlife species in the Missoula area; however, the proposed project area lacks suitable habitat and the Montana Natural Heritage Program database lists the occurrence of these species as unlikely.

Noxious Weeds

Invasive species typical of disturbed areas, such as spotted knapweed, are present in the study area. Herbaceous species, such as sedges and rushes, also exist in the riparian area but are not dominant.

Figure 3-7
Irrigation Ditches Intersecting Study Area



3.12 Floodplains

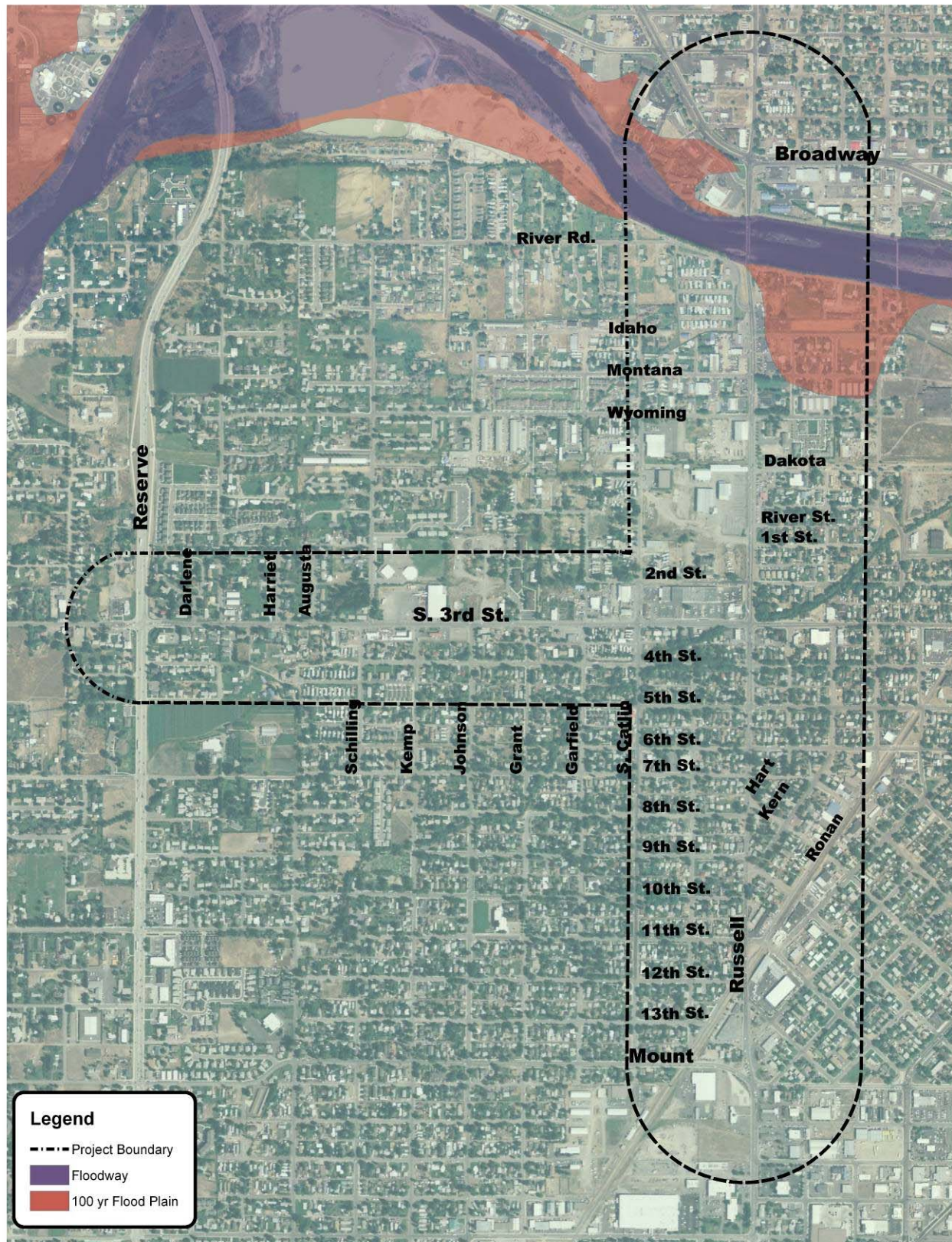
The Clark Fork River bisects Russell Street between River Road and West Broadway Street in the northern portion of the study area. Flood control measures that have been implemented along this river reach include filling and rip-rapping of banks and removing riparian vegetation. Approximately 60 percent of the Clark Fork River reach between East Missoula and the Reserve Street Bridge has been confined by bank stabilization projects. This reach is approximately 4.5 miles in length and incorporates the urban portion of the river, including the Russell Street Bridge area.

As shown in Figure 3-8, Russell Street is in close proximity to the Clark Fork River floodplain from approximately Montana Street north to West Broadway Street, including the crossing of the floodway with the Russell Street Bridge. The floodplain boundary is in closest proximity to the existing roadway near the southern end of the bridge and in the southwest quadrant of the Russell Street / West Broadway Street intersection.

The width of the floodplain and floodway, which are concurrent at the bridge, is approximately 400 feet at that location.



Figure 3-8
Clark Fork River 100-year Floodplain



3.13 Threatened and Endangered Species

According to the Biological Resources Report prepared for this proposed project, there are five federally-listed threatened and endangered species that have the potential to occur in the project area. Only the bull trout and the bald eagle are anticipated to occur within the study area and are discussed below.

Bull Trout – (*Threatened*)

The bull trout was listed by the U.S. Fish and Wildlife Service as a threatened species in 1998. Bull trout in the middle Clark Fork River drainage presently are uncommon to rare. Numbers of bull trout in this section of the Clark Fork River are too low to estimate.

The Clark Fork River has been identified as nodal habitat for bull trout. Nodal habitats are defined as waters that provide migratory corridors, over wintering areas, or are otherwise critical to the population at some point in its life history. The primary risks to bull trout in the Middle Clark Fork River system are the main stem river dams, which limit bull trout migration, and water quality degradation related to agricultural practices, and past and potential timber harvest. The Milltown Dam was located approximately nine miles upstream of the Russell Street Bridge. Until its demolition and removal, this dam was a barrier to upstream fish passage, limiting bull trout access to spawning areas. A dam on Rattlesnake Creek, upstream of the project area, was also a barrier to fish passage until recently when a ladder was installed. The Clark Fork River is not included in the listing of critical habitat for bull trout.

Bald Eagle – (*De-listed*)

The Bald eagle was originally listed as endangered in 1967, but recovery efforts led to increased numbers and an expanded range for the eagles. In 1995, the bald eagle was down-listed to threatened status, and was de-listed as of the summer of 2007.

According to the Biological Resources Report prepared for this proposed project, bald eagles are known to use habitat along the Clark Fork River near Missoula as spring or fall migrants. Bald eagles may be present along the Clark Fork River at any time of year; however, heaviest use within the project corridor is during winter months. Bald eagles use habitat along the Clark Fork River near Reserve Street (approximately one mile west of Russell Street), primarily during the winter months for perching, foraging, and roosting. Bald eagles have been observed fishing in the river and resting in the cottonwood trees on the island complex near the Orange Street Bridge, approximately one mile east of the Russell Street Bridge.

According to the Biological Resources Report, there are currently no bald eagles nesting within the project area.



3.14 Historic and Cultural Resources

Three historic and cultural resource inventories were completed to determine whether properties in the study area were eligible for listing on the National Register of Historic Places (NRHP). The cultural resource reports referenced in this historic and cultural resources section are available from the Montana Department of Transportation and the City of Missoula.

According to the Montana State Historic Preservation Officer, a total of 33 properties are eligible for listing on the National Register of Historic Places in the Russell Street and South 3rd Street project corridors and are listed in Table 3.6. (See also, concurrence letter in Appendix C). Additionally, two potential historic districts were identified within the study area. The Orchard Homes subdivision on South 3rd Street west of Reserve Street was identified as eligible for listing on the NRHP as a potential historic district. Three properties within the potential Orchard Homes Historic District were identified as individually eligible for listing on the National Register of Historic Places. Fourteen properties on South 3rd Street east of Russell Street were identified as eligible for listing on the National Register of Historic Places as contributing components of a potential historic district.

There are three historic irrigation ditches located within the project area. The ditches were evaluated by the Montana Department of Transportation for eligibility for listing on the National Register of Historic Places and were determined to be ineligible. The Montana State Historic Preservation Officer has concurred with this determination.

Figures 3-9 and 3-10 illustrate the locations of properties eligible for listing on the National Register of Historic Places. The majority of the sites identified are located in the southern portion of the Russell Street corridor, and at the ends of the South 3rd Street corridor.

Chapter 3.0 - Affected Environment

Table 3.6
Sites Eligible or Listed on the National Register of Historic Places

Site Number	Street Address/Location
24MO718	Bitterroot Branch of the Northern Pacific Railroad
24MO796	1436 South 4 th Street
24MO798	1501 South 4 th Street
24MO800	1508 South 5 th Street
24MO801	1501 South 5 th Street and 715 Russell Street
24MO805	1502 South 6 th Street
24MO811	824 Russell Street
24MO812	1501 South 7 th Street
24MO814	1500 South 8 th Street
24MO819	941 Kern Street
24MO820	1135 Russell Street
24MO822	1500 ½ South 11 th Street
24MO823	1501 South 11 th Street
24MO842	1038 South 3 rd Street
24MO843	1046 South 3 rd Street
24MO845	1102 South 3 rd Street
24MO849	1133 South 3 rd Street
24MO850	1135 South 3 rd Street
24MO852	1202 South 3 rd Street
24MO853	1203 South 3 rd Street
24MO855	1221 South 3 rd Street
24MO856	1225 South 3 rd Street
24MO858	1229 South 3 rd Street
24MO859	1230 South 3 rd Street
24MO860	1250 South 3 rd Street
24MO861	1256 South 3 rd Street
24MO862	1262 South 3 rd Street
24MO881	2537 South 3 rd Street
24MO882	2540 South 3 rd Street
24MO884	2601 South 3 rd Street
24MO885	2608 South 3 rd Street
24MO891	Potential South 3 rd Street Historic District
24MO892	Potential Orchard Homes Historic District



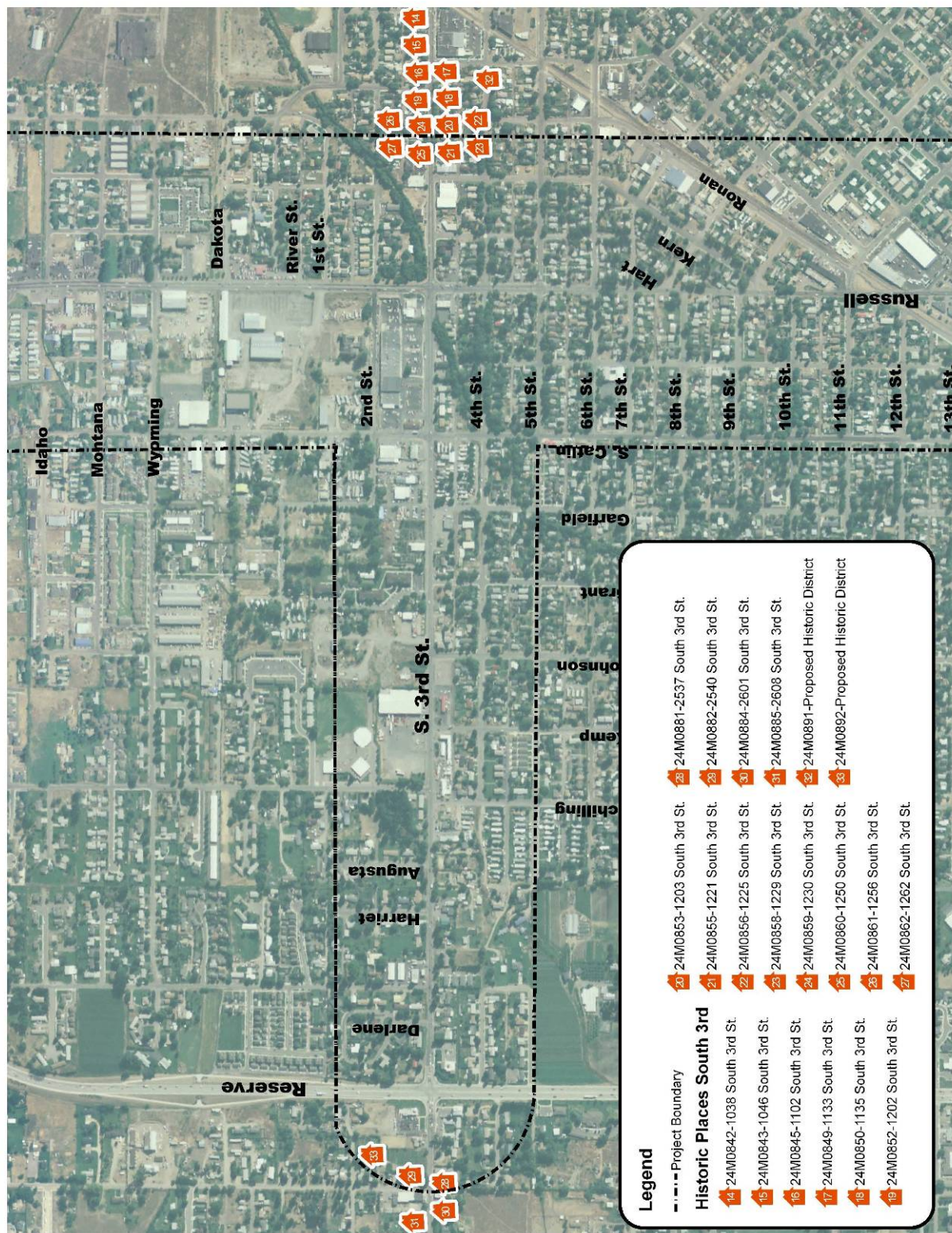
Figure 3-9
Sites Listed or Eligible for Listing on the National Register of Historic Places
(Russell Street – Mount Avenue to South 3rd Street)



Chapter 3.0 - Affected Environment

Figure 3-10

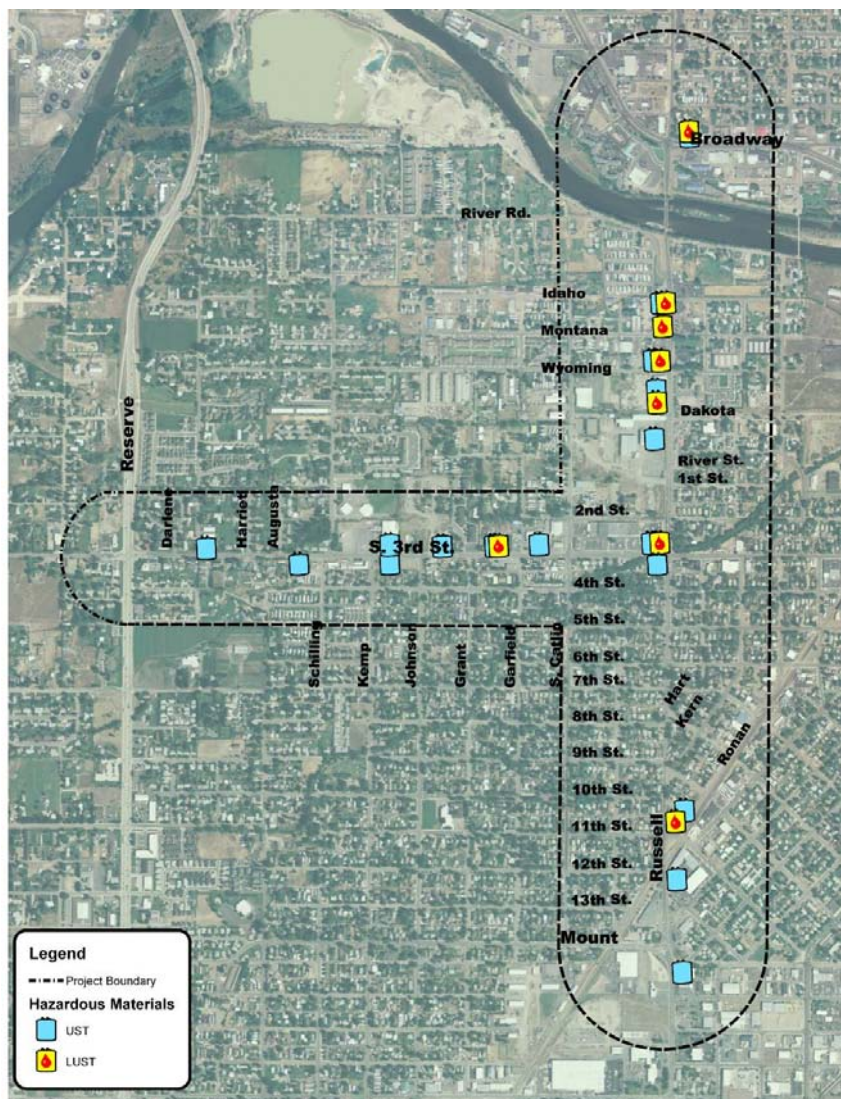
Sites Listed or Eligible for Listing on the National Register of Historic Places
(South 3rd Street – Reserve Street to Russell Street)



3.15 Hazardous Materials

According to the Hazardous Materials Technical Memorandum prepared for this proposed project, the area contains over 150 sites that could contain hazardous materials. Montana leaking underground storage tank files were the only regulatory files reviewed, since they were the only release sites identified by the database search. Upon further review, there are 17 sites that contain Underground Storage Tanks, and only eight sites that have records of Leaking Underground Storage Tanks within the study area. Figure 3-11 illustrates the general location of both existing Underground Storage Tanks and Leaking Underground Storage Tanks in the immediate vicinity of Russell and South 3rd Streets. Additionally, petroleum hydrocarbon release has been documented at several sites within the project corridor. Specific contamination at each of these sites is unknown without further investigation, but there is a potential for construction and long-term impacts.

Figure 3-11
Underground Storage Tank Sites



Other hazardous materials may be encountered, including asbestos and lead contamination in structures that would be acquired by the proposed project. Furthermore, The Russell Street Bridge was built during a time period when all steel structures of its type were painted with a lead based paint. It is likely that remediation measures will have to be performed in order to minimize environmental impacts.

3.16 Visual Resources

Missoula is situated in a valley surrounded by the Rattlesnake Wilderness area to the north, the Bitterroot Mountain Range to the south and west, and Mount Jumbo and Mount Sentinel to the east. The contours of Russell Street and South 3rd Street are mostly straight and flat, with slight deviations in a few areas. The area has a commercial character with residential areas interspersed and generally lacks substantial focal points such as medians or landscaped areas along the roadways. Curbs and landscaping occur occasionally within the project corridor, which contribute to an undefined appearance along the roadway. Vegetation is mostly limited to residential lots. The visual character of Russell and South 3rd Streets includes traffic signals, street lights, roadway and commercial signage, and utility lines and poles. The absence of sidewalks along South 3rd Street and the incomplete segments of sidewalks along Russell Street decrease visual unity and definition within the corridor.

The following sections describe the visual resources associated with each portion of the project.

Russell Street (Mount Avenue to South 3rd Street)

Views on the road include a multilane intersection, adjacent commercial structures, overhead power lines, and signage at Russell Street and Mount Avenue/South 14th Street. A few businesses have landscaped areas adjacent to Russell Street, but vegetation is mostly limited to residential lots. The road narrows to two lanes as it enters the primarily residential neighborhood between Lawrence and South 6th Streets. Overhead power lines continue through the residential neighborhood, but the absence of commercial structures and signage offers unified views in this area.

Viewers away from the road are exposed to foreground and midground views similar to those experienced by viewers on the road, but background views of the corridor include mostly unobstructed views of the mountains to the north, south, east, and west. Large deciduous trees, which are abundant within residential areas along this segment, are visible away from the road.



Russell Street (South 3rd Street to West Broadway Street)

Views from this portion of the road include a three-lane road with a predominantly commercial setting. Views in this segment are not unified and are characterized by extensive signage and commercial structures. Away from the road, foreground and midground views of commercial areas are interspersed with a few residential structures. There are background mountain views to the north, south, east, and west. Near the Russell Street Bridge, there are relatively unobstructed views of the Clark Fork River and the surrounding mountains.



South 3rd Street

This portion is generally characterized by commercial and residential sites. Views from the road include commercial and residential structures, parking lots, signage, utility lines, and poles. Away from the road, there are background views of the mountains surrounding the Missoula Valley, which are partially obscured by commercial and residential buildings and urban infrastructure.



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4.0 ENVIRONMENTAL CONSEQUENCES & MITIGATION

This chapter provides an analysis of the potential beneficial and adverse social, economic, and environmental effects of the alternatives under consideration, and describes the measures proposed to mitigate adverse impacts. Each section provides the scientific and analytical basis for evaluating the comparative merits of providing no transportation improvements in the study area to providing safety and mobility improvements in both the Russell Street and South 3rd Street corridors.

Based on the summary comparison of alternatives provided in Chapter 2, the No Build Alternative, Alternatives 4, 5, and a refined Alternative 5 on Russell Street, and Alternatives B, C, D, and E on South 3rd Street have been forwarded for more detailed analysis. Because the general footprint of the Build alternatives is very similar, differences in impacts between them are minor, and are generally isolated to differences around the intersections. Where possible, the impacts are described in general terms in the following sections. Specific distinctions are made between alternatives where there are important differences between impacts.

4.1 Land Use Impacts

No Build Alternative

Aside from the opportunity for some infill development and large lot redevelopment at the old Intermountain Lumber site, land use along the proposed project corridor is not expected to change if the No Build Alternative is selected. Under the No Build Alternative, no improvements to infrastructure would be made and the lack of sidewalks, curbs, and bicycle lanes would remain.

All Build Alternatives

The project is not intended to induce new traffic or population growth, but merely to meet current and foreseeable demands for new multi-modal travel capacity. Existing land uses are not expected to change in the project area as a result of this proposed project; however, the addition of travel lanes would require the acquisition of new right-of-way from existing residential and business property owners. The right-of-way necessary at some locations would require the acquisition of the complete parcel, resulting in the permanent displacement of existing homes or commercial buildings. Displacements are discussed in Section 4.3 – Social Impacts, below.

Based on the concern expressed by the public that Russell Street not evolve into another Reserve Street, it is important to note that the roadway improvements alone would not change the land use within this corridor. While improved access and mobility may make adjacent properties more desirable, ultimately, the growth and land use changes adjacent to the project corridor are dictated by the City zoning and land use plans which restrict the density and types of development that may occur. The interconnected nature of transportation investment and land use is discussed further in Section 4.17 – Indirect and Cumulative Impacts.

Chapter 4.0 - Environmental Consequences and Mitigation

Consistency with Plans, Policies, and Regulations

The proposed project is consistent with the urban centers developed in the *Missoula Urban Comprehensive Plan–1998 Update*. While the urban centers concept was developed primarily to reduce traffic congestion, it also has potentially beneficial social impacts in promoting pedestrian-oriented neighborhoods.

Preferred Alternatives

There are minimal differences in land use impacts between the Preferred Alternatives and any of the other Build alternatives.

Mitigation

No impacts on land use are expected as a result of this project. No land use mitigation is proposed or required under the Preferred Alternatives.

4.2 Farmland Impacts

There are no farmlands in the Russell Street and South 3rd Street project corridors. No mitigation is proposed or required.

4.3 Social Impacts

No Build Alternative

Under the No Build Alternative, Russell and South 3rd Streets would remain unchanged. The No Build Alternative would result in worsening congestion and increasing difficulty of residential and business access, as well as a hindrance on the operation of emergency response vehicles, including fire, police, and medical aid.

All Build Alternatives

Right-of-way Acquisitions and Relocations

Right-of-way would be required throughout much of the corridor to accommodate the proposed improvements under any of the Build alternatives. Table 4.1 provides a comparative summary of the proposed right-of-way impacts on residential properties and community facilities within the Russell Street corridor. Details on South 3rd Street follow the table.

The proposed improvements to River Road discussed in Section 2.2 will be a minimum of six feet from the nearest mobile home. This calculation is based on an aerial layout rather than surveyed data.



Since circulation of the Draft Environmental Impact Statement and completion of the *Traffic Analysis Update*, additional turn lanes have been proposed at the Russell Street / West Broadway Street intersection. These additional features do not result in additional acquisitions or right-of-way requirements.

Table 4.1

Summary Comparison of Impacts to Residences and Community Facilities on Russell Street

Section	Alternative 4	Alternative 5	Alternative 5 (Refined)
Mount Avenue to South 11th Street	<ul style="list-style-type: none"> • 2 4(f) Properties • 0.73 acres new right-of-way 	<ul style="list-style-type: none"> • 1 Home • 3 4(f) Properties • 1.02 acres new right-of-way 	<ul style="list-style-type: none"> • 2 4(f) Properties • 0.71 acres new right-of-way
South 11th Street to South 3rd Street	<ul style="list-style-type: none"> • 11 Homes • 2 4(f) Properties • 1.65 acres new right-of-way 	<ul style="list-style-type: none"> • 17 Homes • 5 4(f) Properties • 2.01 acres new right-of-way 	<ul style="list-style-type: none"> • 10 Homes • 4 4(f) Properties • 1.71 acres new right-of-way
South 3rd Street to Wyoming Street	<ul style="list-style-type: none"> • 1 4(f) Property • 0.93 acres new right-of-way 	<ul style="list-style-type: none"> • 1 4(f) Property • 0.84 acres new right-of-way 	<ul style="list-style-type: none"> • 1 4(f) Property • 0.63 acres new right-of-way
Wyoming Street to Russell Street Bridge	<ul style="list-style-type: none"> • 0.64 acres new right-of-way 	<ul style="list-style-type: none"> • 0.98 acres new right-of-way 	<ul style="list-style-type: none"> • 0.67 acres new right-of-way
Russell Street Bridge to West Broadway	<ul style="list-style-type: none"> • 1 4(f) Property • 0.64 acres new right-of-way 	<ul style="list-style-type: none"> • 1 4(f) Property • 0.79 acres new right-of-way 	<ul style="list-style-type: none"> • 1 4(f) Property • 0.66 acres new right-of-way
Totals	<ul style="list-style-type: none"> • 11 Homes • 6 4(f) Properties • 4.59 acres new right-of-way 	<ul style="list-style-type: none"> • 18 Homes • 10 4(f) Properties • 5.65 acres new right-of-way 	<ul style="list-style-type: none"> • 10 Homes • 8 4(f) Properties • 4.38 acres new right-of-way

Note: Section 4(f) properties include historic as well as park and recreational resources, and are included if there is any “use” of the property as defined in Section 4.14 of this FEIS.

Summary Comparison of Impacts to Residences and Community Facilities on South 3rd Street

Section	Alternative B	Alternative C	Alternative D	Alternative E
Reserve Street to Russell Street	<ul style="list-style-type: none"> • 1 Home • 2.38 acres of new right-of-way 	<ul style="list-style-type: none"> • 1 Home • 2.77 acres of new right-of-way 	<ul style="list-style-type: none"> • 0 Homes • 3.62 acres of new right-of-way 	<ul style="list-style-type: none"> • 0 Homes • 2.63 acres of new right-of-way

Although the housing vacancy rate in Missoula was less than two percent, at the outset of this study there were 340 active residential listings in Missoula. Approximately 420 units have been built in the County each year since 1995. It is likely that the displaced residents would be able to find alternative housing. For any acquired properties, the terms of Title VI of the Civil Rights Act of 1964 that ensure equal rights and equal protection under the law would apply. In the

Chapter 4.0 - Environmental Consequences and Mitigation

event that residential property is acquired for the project, it would be purchased for fair market value and in compliance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* and appropriate Sections of Montana Code.

Environmental Justice

Displacement of residents may be necessary due to the general widening of both Russell Street and South 3rd Street. Measures to minimize harm were taken into consideration. All displaced residents will be provided with relocation assistance as provided by the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*.

Beyond assistance afforded to any dislocated person, no special mitigation would be required from an Environmental Justice standpoint. From guidance provided in the Department of Transportation's Final Environmental Justice Strategy, it can be determined that there are no "disproportionately high and adverse effects on minority or low-income populations." This determination was made based on the fact that neither the Section 8 housing nor the mobile home park identified in Chapter 3 are directly impacted by the project, and that the impacted residences are dispersed throughout the two linear corridors. A shift in alignment or intersection design would result in impacts to properties with similar socioeconomic characteristics on neighboring parcels. This finding is consistent with the following criteria as outlined in the Executive Order on Environmental Justice:

- The adverse impact from the project is **not** predominantly born by a minority population and/or low-income population; and,
- The adverse impact suffered by the minority or low-income population is **not** more severe or greater in magnitude than the adverse impact that will be suffered by the non-minority population and/or non-low-income population.

Community and Public Facilities

Under all of the Build alternatives, traffic flow and emergency vehicle response time would improve. Increased road width and additional travel lanes would minimize conflicts with emergency vehicles in comparison to the No Build Alternative. Fire and emergency response vehicles would have the option to use Opticom at signalized intersections which could allow emergency response vehicles to move through an intersection a few seconds faster than at a signalized intersection without Opticom.

When considering the social impacts of the proposed roadway project, the Federal Highway Administration is generally concerned about community cohesion, splitting neighborhoods, and separating residents from community facilities. Impacts to school districts, recreational areas, services, and community amenities are also of concern.

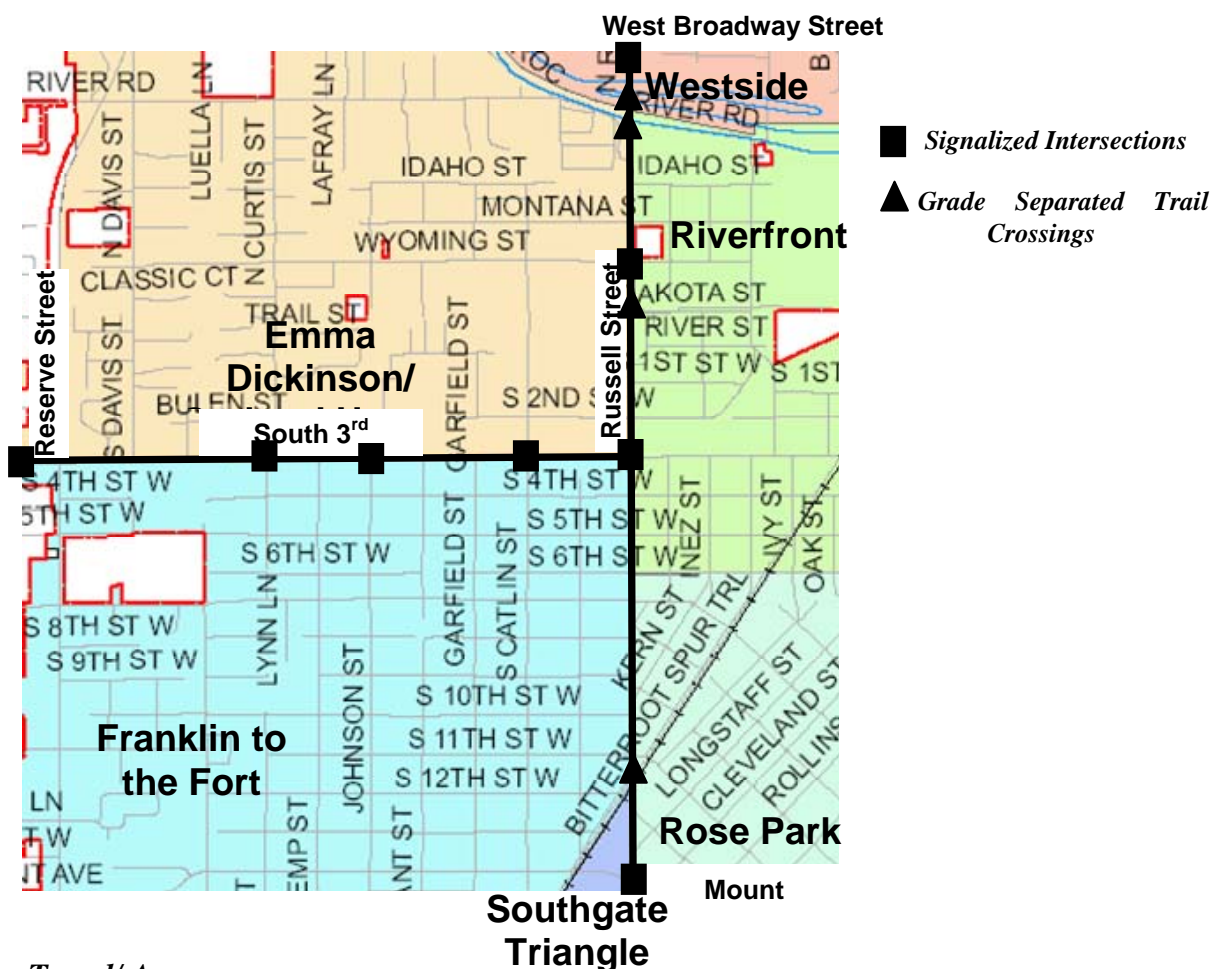
As discussed in Chapter 3, both Russell Street and South 3rd Street have historically established the edges of several neighborhoods and school districts, and only one such jurisdictional boundary crosses Russell Street. Given that Russell Street is an urban arterial, and is intended to serve both local and regional traffic, and currently marks the edge of these neighborhoods and



districts, the proposed improvements would not split neighborhoods, isolate any portion of an existing neighborhood, or separate residents from community facilities within their neighborhoods.

It is anticipated that the proposed project would have an overall positive effect on neighborhood connectivity through the installation of sidewalks, bike lanes, and grade-separated pedestrian crossings at three locations within the Russell Street corridor. These proposed amenities are intended to knit these separate neighborhoods into a more cohesive community by providing safer and more aesthetic opportunities to cross existing real and perceived boundary lines. These connections are depicted in Figure 4-1.

Figure 4-1
Neighborhood Connectivity within Project Corridor



Travel/ Access

There will be an overall improvement in multi-modal access through the addition of travel lanes, bike lanes, and sidewalks throughout the Russell Street and South 3rd Street corridors. Access will be limited to entering right-turns and exiting right-turns at driveways and cross streets affected by raised medians. Motorists desiring to turn left would be accommodated through u-turns at roundabouts or at open intersections, or by turning in advance of the access point. Additional breaks in the median would be considered during the final design of the proposed project. While these medians are intended to improve the overall operation of Russell Street and

Chapter 4.0 - Environmental Consequences and Mitigation

South 3rd Street, they will result in a change from current driving patterns and behaviors. The ultimate impact is considered to be positive, thus no mitigation would be proposed.

Please refer to Chapter 2 for figures and tables illustrating properties which will be directly impacted as a result of the Build Alternatives.

Mitigation

Property to be acquired for the proposed project would be purchased for fair market value, and displaced residents and commercial property owners would be provided with relocation advisory services and may be eligible for relocation benefits in compliance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended in 1987 and Sections 70-31-101 and 70-31-311 of the Montana Code Annotated (MCA).

4.4 Economic Impacts

No Build Alternative

Congestion translates into higher opportunity costs (lower productivity due to lost time) in the movement of goods, services, and labor force. Increasing levels of congestion could, over time, affect the ability of the businesses within the study area to attract new business, but it is not anticipated that overall growth in the Missoula area would be affected.

All Build Alternatives

Purchase of property would remove those parcels from the tax rolls; however, because the property to be acquired would represent less than one-half of one percent of the property in the City of Missoula, their removal from the rolls would not have a major effect on tax revenues.

Table 4.2 below provides a summary comparison of the various Build alternative impacts to commercial properties within the corridor.



Table 4.2
Summary Comparison of Impacts to Commercial Properties on Russell Street

Section	Alternative 4 (Preferred)	Alternative 5	Alternative 5 (Refined)
Mount Avenue to South 11 th Street	2 Commercial Buildings	3 Commercial Buildings	2 Commercial Buildings
South 11 th Street to South 3 rd Street	5 Commercial Buildings	5 Commercial Buildings	5 Commercial Buildings
South 3 rd Street to Wyoming Street		2 Commercial Buildings	
Wyoming Street to Russell Street Bridge	1 Commercial Building	1 Commercial Building	2 Commercial Building
Russell Street Bridge to West Broadway Street	2 Commercial Buildings	2 Commercial Buildings	2 Commercial Buildings
Totals	10 Commercial Buildings	13 Commercial Buildings	11 Commercial Buildings

Summary Comparison of Impacts to Commercial Buildings on South 3rd Street

	Alternative B	Alternative C	Alternative D	Alternative E (Preferred)
Reserve Street to Russell Street	4 Commercial Buildings	4 Commercial Buildings	3 Commercial Buildings	3 Commercial Buildings

Those alternatives reducing congestion or making travel easier will tend to improve commercial activity. Travel along the corridor will be reduced in cost, time, and risk of accidents. These are considered positive impacts.

As indicated in Table 4.2, up to 17 commercial buildings (13 with the Preferred Alternatives) on both Russell Street and South 3rd Street could require acquisition under the various Build Alternatives, while property would be acquired from several more. This does not necessarily mean that further avoidance measures cannot be explored or that the entire parcel would need to be acquired. These impacted properties are shown in Chapter 2 in Figures 2-16 to 2-25. Displaced commercial building owners would receive relocation assistance as required by law. Given the number of business enterprises affected compared to the availability of alternative commercial space in the Missoula area, acquisition of commercial space is not anticipated to affect the local economy.

Chapter 4.0 - Environmental Consequences and Mitigation

Mitigation

Any of the Build Alternatives may result in a number of commercial buildings being acquired. The Montana Department of Transportation will purchase properties and provide relocation assistance, as prescribed by the *Uniform Relocation Act of 1970* and Sections 70-31-101 and 70-31-311 of the Montana Code Annotated.

The acquisition of land or improvements for highway construction is governed by state and federal laws and regulations designed to protect both the landowners and taxpaying public. Landowners affected are entitled to receive fair market value for any land or buildings acquired and any damages as defined by law to remaining land due to the effects of highway construction. This action will be in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (Public Law 91-646 as amended), (42 United States Code Section 4651 and 4652, et. seq.) and the *Uniform Relocations Act Amendments of 1987* (Public Law 100-17). Relocation resources are available to all residential and business owners without discrimination.

4.5 Parks and Recreation Impacts

No Build Alternative

No changes would be made to parks or recreational facilities within the corridor.

All Build Alternatives

Parks and Recreational Facilities

The Build alternatives would impact passive green space (Kern Park and Hart Park) owned by the City of Missoula. These passive parks are small and serve limited recreational purpose, and thus have no protection under Section 4(f) of the Transportation Act (see correspondence with the City of Missoula Parks Department in Appendix E). These parks would be eliminated, the Thomas Neely commemorative sign relocated, and opportunities for park and recreational enhancements identified elsewhere.

All Build alternatives would provide opportunities for the following recreational design improvements:

- Bike facilities
- Sidewalks
- River trail under the bridge and trail system access to Russell Street at the north and south ends of the Russell Street Bridge
- Grade Separated Trail crossings for Bitterroot Branch Trail and Milwaukee Corridor Trail facilities
- Landscaping
- Pedestrian crossing facilities

The Russell Street Bridge design would include sidewalks and bicycle lanes on both the east and west sides of the structure, and would include access to the river trail system from the roadway from the north and south ends of the bridge.

Recreation opportunities within the project area would be mostly beneficial, though short-term impacts under the Build alternatives would include:

- Access restrictions to parks, trails, and the Clark Fork River during construction
- Traffic congestion in areas of active construction
- Dust, exhaust, and airborne debris in areas of active construction

Trail Connectivity

The grade-separated connections of trails crossing the Russell Street corridor are an integral part of the Build alternatives. This grade separation provides system continuity for safe and efficient travel for bicyclists and pedestrians in and through the corridor. Following is a description of each trail crossing along Russell Street.

As noted in Chapter 2, during early scoping and project development, it was determined that pedestrian/bicycle tunnels would be preferable to an overpass structure, or to an at-grade crossing. If during final design, it appears that geotechnical conditions, or underground utilities would prohibit construction of the intended under-crossings, these crossings could be redesigned as an overpass. Figure 4-2 provides an example of both an overpass and underpass treatment for pedestrian crossings. It would not be desirable, and it is not intended that these trail crossings would be left as at-grade crossings if the corridor is reconstructed.

Figure 4-2
Samples of Grade-Separated Structures



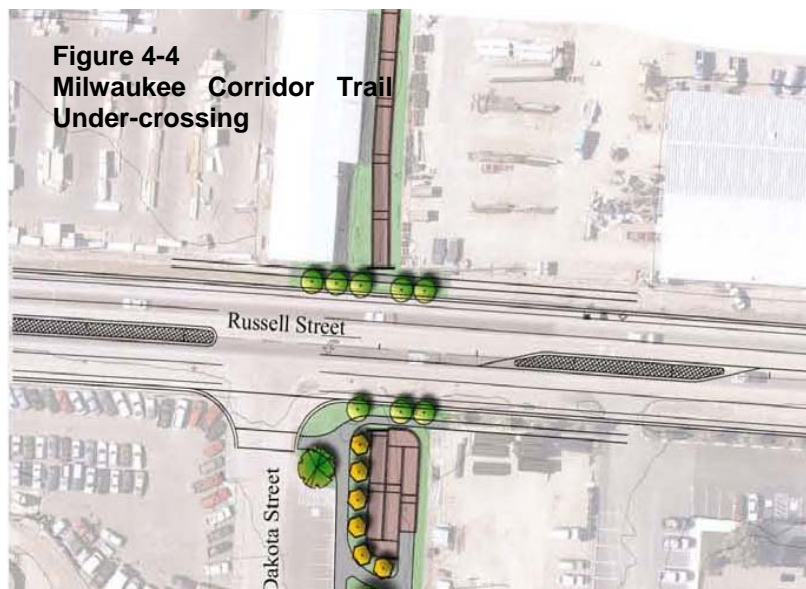
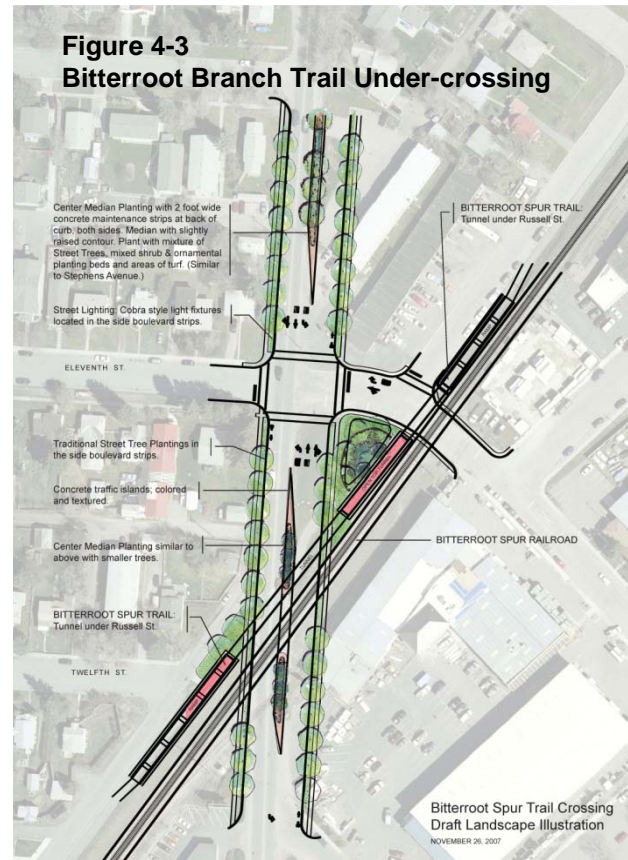
Chapter 4.0 - Environmental Consequences and Mitigation

Bitterroot Branch Trail Connection

The Bitterroot Branch Trail connection is located at the intersection of the Bitterroot Branch Trail and Russell Street south of the intersection of Russell Street and South 11th Street/Knowles Street. Under any of the Build alternatives, the Bitterroot Branch Trail Crossing would be constructed as a tunnel under Russell Street. The tunnel crossing would be constructed in approximately the same location as the existing trail crossing. The existing trail alignment would be modified to connect to the tunnel structure crossing.

Milwaukee Corridor Trail Connection

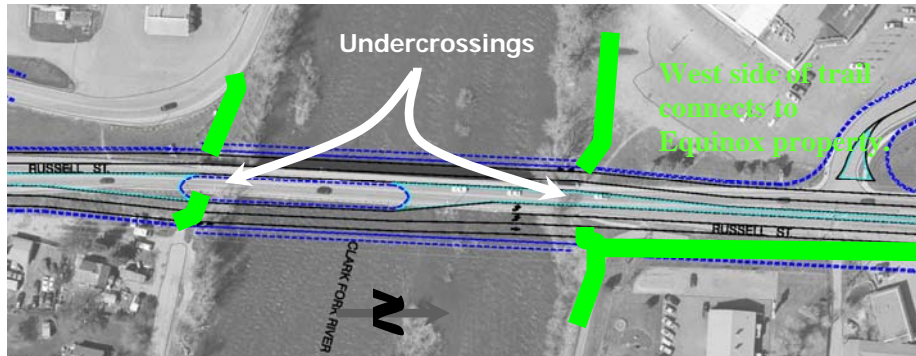
The Milwaukee Corridor Trail connection is located where Dakota Street intersects with Russell Street. The trail ends a short distance from the east side of Russell Street and currently trail users cross Russell Street at the Wyoming Street intersection. Under any of the Build alternatives, the Milwaukee Corridor Trail Crossing would be constructed as a tunnel under Russell Street. The tunnel crossing would be constructed in approximately the same location as where the existing trail terminates on the east side of Russell Street. The existing trail alignment would be modified to connect to the tunnel structure crossing.



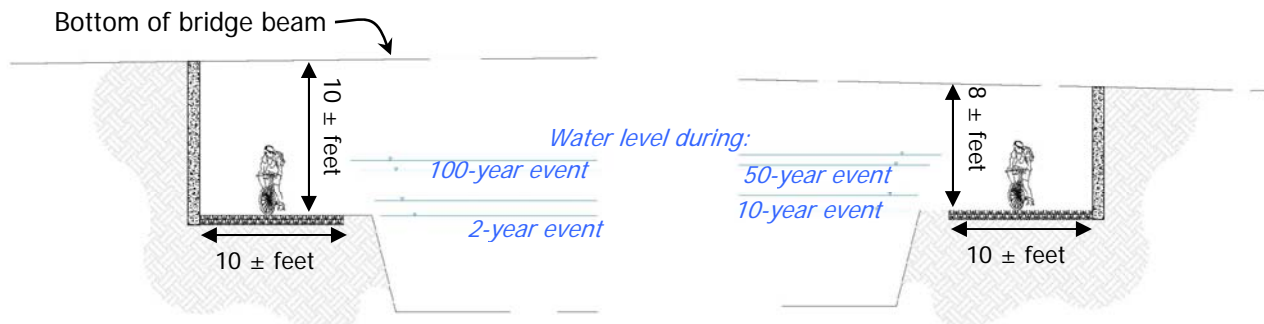
Shady Grove Trail Connection

The Shady Grove Trail connection is located parallel to the east side of Russell Street north of the bridge. The trail turns east and extends approximately 0.5 miles along the riverfront to Burton Street. Reconstruction of the Russell Street Bridge under any of the Build alternatives would include extension of the Shady Grove Trail westward under the bridge and construction of connections to the sidewalks on both sides of Russell Street. A connection to local streets on the south side of the river would also be made between the east and west sides of River Road.

Figure 4-5
Shady Grove Trail Connections



The underpasses would provide enough clearance for recreational use beneath the new Russell Street Bridge, but could be inundated during high-water events, as depicted below.



Mitigation

Mitigation of the loss of green space will include additional landscaping and green space along Russell Street between Mount Avenue/South 14th Street and South 3rd Street. The amount of green space that will be added as a result of the proposed project will be the same or greater than the amount that would be adversely affected. The right-of-way negotiation process will allow for the monetary value of Hart and Kern Parks to be directed to the City's Parks Department to be used in conformance with the City's Master Parks and Recreation Plan for the Greater Missoula Area (May 2004).

Trail impacts will be mitigated by the construction of trails directly under the bridge, connecting back up to the Shady Grove Trail on the north river bank, and connecting up to the sidewalk on Russell Street from the south river bank. Trail impacts will also be mitigated by providing grade separated crossing facilities at Bitterroot Branch Trail crossing and the Milwaukee Corridor Trail crossing at Russell Street.

4.6 Pedestrian and Bicycle Impacts

No Build Alternative

Under the No Build Alternative, bicycle and pedestrian facilities would remain unchanged. Signalized crossings provide isolated pockets of service to pedestrians. However, the lack of continuous sidewalks, the lack of separation from vehicular traffic along these two corridors, and the difficulty faced by pedestrians crossing either corridor at locations other than signals creates a substandard quality of service for pedestrians and bicyclists on Russell Street and South 3rd Street.

All Build Alternatives

The American Association of State Highway and Transportation Officials (AASHTO) standards recommend a bike lane width of five feet measured from the face of a curb or guardrail to the bike lane stripe. Under any of the Build alternatives, 5.5 foot bicycle lanes (measured from face of curb) would be provided on both sides of Russell Street and South 3rd Street. The four-foot asphalt bike lanes would be separated from motorized traffic by a solid white painted line, and would be clearly marked as bicycle lanes. The curb and gutter on both roadways would be two feet wide with the gutters located immediately inside of the curb and would provide an additional 1.5 feet of width to the bicycle lane. This provides an effective 5.5 foot bike lane (measured from face of curb) that exceeds American Association of State Highway and Transportation Officials standards.

Sidewalks measuring five feet in width would also be constructed, and would include a grass strip along the outside edge. This strip would vary in width depending upon adjacent development and could be eliminated in the commercial areas on the north end of the project depending on right-of-way constraints and public preference. Sidewalks would generally be separated from traffic by a bicycle lane and landscaped boulevard, except on the bridge structure and in locations where bus pullouts would be located immediately adjacent to the sidewalk.

As discussed below, any of the Build alternatives would provide the long-term benefit of higher bicycle and pedestrian quality of service and safety as compared to the No Build Alternative.

Bicycle Quality of Service

Traffic conditions on transportation facilities are commonly defined using the “Level of Service” concept. The *Highway Capacity Manual* defines vehicle Level of Service based on average travel speed, percent time delay, intersection delay, and capacity utilization to provide a qualitative assessment of the driver’s experience. The Federal Highway Administration has developed a similar ranking Level of Service system to assess bicyclists’ experience through the use of a Bicycle Compatibility Index (Index). The Index concept is based on the comfort level riders feel when using roadway facilities and is derived from such factors as the presence and width of bicycle lanes or paved shoulders, curb lane width and volumes, presence and occupancy level of parking lanes, and type of roadside development. Adjustment factors for truck volumes, parking turnover and right-turn volumes were also incorporated.



Six Level of Service/Index categories are used to describe bicycle compatibility. As shown in Table 4.3, Level of Service A (Index ≤ 1.50) represents the best conditions, and Level of Service F (Index ≥ 5.31) represents the worst.

Table 4.3
Bicycle Compatibility Index

Level of Service	Bicycle Compatibility Index Range	Compatibility Level
A	≤ 1.50	Extremely High
B	1.51 – 2.30	Very High
C	2.31 – 3.40	Moderately High
D	3.41 – 4.40	Moderately Low
E	4.41 – 5.30	Very Low
F	≥ 5.31	Extremely Low

Note: Qualifiers for compatibility level pertain to the average adult bicyclist.
Source: U.S. Department of Transportation, National Transportation Library

It is important to note that the Index is intended for mid-block bicycle use; it does not account for major intersection evaluations.

Based on existing conditions, the Bicycle Compatibility Index for Russell Street and South 3rd Street is 4.70, and thus currently provides a “Very Low” compatibility level. Without improvements, the corresponding bicycle Level of Service will be at F (calculated at 5.35 or Extremely Low) in the corridor within the next 20 years. With the improvements included in the Build alternatives, the bicycle Level of Service would attain a C designation or better by providing an Index of 2.80 (Moderately High).

An additional analysis tool was used to assess bicycle Level of Service as part of the Traffic Analysis Update in 2009. As summarized in Appendix G, the Preferred Alternative on Russell Street ranks the highest of the Build Alternatives. The high ranking was attributed mainly to lower traffic volumes in the outermost lane next to the bike lane, as well as the inclusion of signalized intersections. (Additional analysis on South 3rd Street is also included in Appendix G.)

Pedestrian Quality of Service

Each of the Build alternatives would provide a five foot sidewalk separated from traffic by a bicycle lane and landscaped boulevard.

In addition, the existing Russell Street Bridge would be replaced with a structure that would include sidewalks on the outside, street lighting, and bicycle lanes adjacent to both the east-side and west-side outside travel lanes on the new structure.

As with the bicycle analysis, an additional tool was used to assess pedestrian Level of Service on Russell Street as part of the Traffic Analysis Update in 2009. As summarized in Appendix G, each of the Build Alternatives are projected to perform at an overall Level of Service of C or better. This improvement over the No Build Alternative is directly related to the inclusion of continuous sidewalk and buffer (bike lane and landscape area with trees) from the travel lanes.

Chapter 4.0 - Environmental Consequences and Mitigation

Signalized intersections were also shown to operate better for pedestrians than roundabout intersections because pedestrians are able to cross the intersection under a controlled crossing (i.e., pedestrian signal with 'walk'/'don't walk' symbols) versus at roundabouts where pedestrians must negotiate a gap in the traffic stream or wait for a vehicle to yield and allow the pedestrian to cross.

Mitigation

Construction methods would allow for pedestrian and bicycle travel through the project vicinity, either through temporary facilities or through signs redirecting bicyclists and pedestrians to nearby alternate routes.

Bicycle and pedestrian access will be upgraded throughout the project corridor. Upgraded pedestrian facilities at intersections will comply with Americans with Disabilities Act requirements.

4.7 Air Quality Impacts

Air quality non-attainment and maintenance areas, such as the Missoula Metropolitan planning area, are subject to an air quality conformity determination by the Metropolitan Planning Organization, Federal Highway Administration, and Federal Transit Administration in accordance with Federal Clean Air Act requirements, Environmental Protection Agency conformity regulations, and State of Montana air quality rules, as pertain to conformity. Air Quality Conformity is a determination made by the funding agencies that transportation plans, programs, and projects in non-attainment and maintenance areas meet the purpose of the State Implementation Plan. The purpose of conformity is to ensure that transportation plans, programs, and projects do not produce new air quality violations, worsen existing violations, or delay timely attainment of such standards for which an area is designated non-attainment, to ensure compliance with an air quality maintenance plan, and to support the intent of the various transportation funding acts and of the 1990 Clean Air Act Amendments to integrate transportation, land use, and air quality planning. Conformity procedures are also used in the National Environmental Policy Act process to ensure that proposed projects will not violate air quality standards.

No Build Alternative

Motor vehicle exhaust is one of the primary concerns for air quality, thus impacts are anticipated under the No Build alternative since traffic is anticipated to increase regardless of whether improvements are made within these corridors. Localized air quality conditions could worsen as traffic levels rise, and congestion increases at several intersections along Russell Street and South 3rd Street.

All Build Alternatives

The proposed improvements along Russell Street and South 3rd Street have been included in the 1996, 1999, 2004, and 2008 Missoula Transportation Plan Updates as regionally significant



projects. As part of the regional transportation planning process, both the Russell Street and South 3rd Street improvements were modeled for the regional emissions analysis for air quality conformity. The regional analysis demonstrates that the proposed projects would not increase regional emissions and would not increase the frequency or severity of violations. The regional analysis further shows that emissions are below the Environmental Protection Agency-established emissions budget for the region. The current design of these projects does not differ substantially from that proposed and modeled for these Long Range Transportation Plan Updates. The Missoula Transportation Improvement Program for federal fiscal years 2007-2011 includes these two regionally significant projects and was found to conform based on analysis provided in Missoula's 2008 Transportation Plan Update. The latest Long Range Transportation Plan (2008 update) was found to conform on March 11, 2009. The 2010-2014 Transportation Improvement Program received approval on November 20, 2009.

Project Conformity for Particulate Matter (PM₁₀)

The 2008 Long Range Transportation Plan Update was found to be in conformity with air quality standards with respect to all pollutants with the exception of PM₁₀. Conformity can be achieved through the use of "washed sand" in all areas currently receiving unwashed sand treatments during winter driving conditions.

Based on coordination between the Montana Department of Transportation, City of Missoula, Missoula City-County Air Pollution Control Board, Montana Department of Environmental Quality, Environmental Protection Agency, Federal Highway Administration, and Federal Transit Administration, the proposed project on Russell Street and South 3rd Street does not require a PM₁₀ hot spot analysis. This determination is based on the following factors:

- Missoula has not exceeded the PM₁₀ standard since 1989. A PM₁₀ monitoring station is located approximately ¾ mile from the south end of the project.
- Curb-and-gutter will be provided throughout the project and unpaved approaches and undesignated on-street parking areas will be paved, aiding in the recovery of road sand material.
- Speed limits in the project corridors are, and will remain 35 miles per hour. Reduced speeds have a tendency to reduce the amount of particulate matter that gets suspended in the air.
- Recent changes to Transportation Conformity Regulations reduce the number of projects where a PM₁₀ hot-spot analysis is required, limiting those analyses to projects of air quality concern.

The Environmental Protection Agency concurred with this determination on February 1, 2010 (refer to correspondence in Appendix D).

Project Conformity for Carbon Monoxide (CO)

As noted above, the Long Range Transportation Plan was found to be in conformity with all air quality standards, including carbon monoxide. The Environmental Protection Agency requires a carbon monoxide (CO) concentration (or "hot-spot") analysis for areas where transportation improvements cannot demonstrate a Level of Service C or better at major intersections in the

Chapter 4.0 - Environmental Consequences and Mitigation

project area. Since several intersections will fail to achieve this goal by 2035 on Russell Street, a “hot spot” analysis was conducted for the worst intersection: Russell Street / South 3rd Street.

Conformity regulations require that the hot-spot analysis be conducted for the year of peak emissions during the lifetime of the project. This is to ensure that any potential violations of the carbon monoxide standards are captured by the modeling, and to ensure that the standards will be met over the lifetime of the project. Total carbon monoxide emission from a fleet of vehicles depends on two factors: how clean the vehicles are, and how much they drive. All else being equal, increased traffic volumes would translate into higher emissions; however, at the same time that traffic volumes are increasing, the vehicle fleet is also getting cleaner due to turnover (older cars meeting less stringent emission standards are being scrapped at the end of their life, and replaced by newer cars meeting tighter emissions standards). According to the 2008 Transportation Plan Update, 2010 is the year with the highest emissions rate on a regional basis, even though 2035 is the year with the highest traffic levels.

Two air quality modeling scenarios were analyzed: a baseline with 2009 traffic volumes and the existing roadway configuration, and a future case with projected 2015 traffic volumes and the Preferred Alternative configuration. Following analysis protocol, the estimated year of project completion (2015) was selected for hot-spot analysis since the regional analysis shows declining carbon monoxide emissions for the entire period between 2010 and 2035.

Running the air quality dispersion model yields carbon monoxide ambient air quality impacts for comparison to the 1-hour and 8-hour Montana and National Ambient Air Quality Standards. The screening analysis results shown in Table 4.4 demonstrate that current and projected traffic conditions at the Russell Street / South 3rd Street intersection do not cause or contribute to a violation of either the Montana or National Ambient Air Quality Standards for carbon monoxide. Further, the proposed improvements are not anticipated to degrade ambient carbon monoxide concentrations. Because this intersection is expected to experience the highest overall traffic volumes of any within the project, this analysis demonstrates air quality compliance for the Preferred Alternative.

Table 4.4
Carbon Monoxide Screen Model Results

Analysis Year	Averaging Period	Model Results	Montana/National Ambient Air Quality Standards	In Compliance?
2010	1 hour	4.3 ppm	23/35 ppm	Yes
2010	8 hour	3.0 ppm	9/9 ppm	Yes
2015	1 hour	3.8 ppm	23/35 ppm	Yes
2015	8 hour	2.7 ppm	9/9 ppm	Yes

Source: Bison Engineering, 2010

Note: Measures are provided in parts per million (ppm).

Based on the discussions above, the proposed improvements on Russell Street and South 3rd Street are demonstrated to meet the conformity criteria for federally funded transportation projects under the Code of Federal Regulations, Title 40, Section 93, and conform to the requirements of the Clean Air Act Amendments of 1990.



Transportation plan updates are required at least every four years in air quality non-attainment and maintenance areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends. (23 CFR Section 450.32(c))

Mitigation

To meet air quality standards for particulate matter (PM₁₀) as part of the Long Range Transportation Plan process, the City of Missoula has committed to the use of washed sand in 2025 in those areas where unwashed sand is currently in use. The air quality conformity analysis will be updated every four years as part of the Long Range Transportation Plan update. No air quality mitigation is required at the project level.

4.8 Noise Impacts

For Russell Street, the Montana Department of Transportation noise impact criteria (66 decibels) is predicted to be met or exceeded at 12 out of 56 receptor locations (representing 14 single-family residences and four apartment units) under current conditions and 22 receptor locations (representing 24 single-family residences, four apartment units and one townhome) in the forecast year for the No Build Alternative. The noise impact criterion is also predicted to be exceeded at 13 out of 56 receptor locations in the forecast year for the Preferred Alternatives. The impacted receptors represent 17 single-family homes and four apartment units. Of the 13 impacted receptor locations, 11 are the same receptors that will also be impacted by the No Build Alternative in the forecast year and seven are being impacted by the No Build Alternative under current conditions. An additional 12 receptor locations (representing 13 single-family residences) may also be removed due to right-of-way acquisition for the proposed project.

For South 3rd Street, the Montana Department of Transportation noise impact criteria (66 decibels) is predicted to be met or exceeded at 10 out of 44 receptor locations (representing three single-family residences, seven mobile homes, and two apartment units) under current conditions and 22 receptor locations (representing 11 single-family residences, eight mobile homes, six duplex units, and six apartment units) in the forecast year for the No Build Alternative. The noise impact criterion is also predicted to be exceeded at 21 out of 44 receptor locations in the forecast year for the Build Alternatives. The impacted receptors represent 13 single-family homes, five mobile homes, six duplex units, and four apartment units. Of the 21 impacted receptor locations, 17 are the same receptors that will also be impacted by the No Build Alternative in the forecast year and six are being impacted by the No Build Alternative under current conditions. An additional four receptors (representing one single-family residence, two apartment units and three mobile homes) may also be removed due to right-of-way acquisition for the project.

The Federal Highway Administration Traffic Noise Model Version 2.5 computer program was used to predict the traffic noise levels under the future No Build conditions and the future Build conditions on both Russell Street and South 3rd Street. Table 4.5 lists existing and predicted noise levels for the Russell Street alternatives, and Table 4.6 lists the same data for South 3rd Street.

Chapter 4.0 - Environmental Consequences and Mitigation

Table 4.5
Russell Street
Receptors and Predicted Noise Levels for the No Build and Build Alternatives

Receptor	Description	No Build Alternative $L_{eq}(h)$, Present Year 2000 (dBA)	No Build Alternative $L_{eq}(h)$, Design Year 2025 (dBA)	Build Alternatives $L_{eq}(h)$, Design Year 2025 (dBA)
South 3rd Street to South 4th Street				
R9	Single-family residence	64	66	66
R10	Single-family residence	64	66	65
R11	Single-family residence	66	68	Acquire
South 4th Street to South 5th Street				
R12	Single-family residence	64	65	66
R15	Single-family residence	65	67	66
South 5th Street to South 6th Street				
R16	Single-family residence	64	66	Acquire
R17	Single-family residence	63	65	Acquire
R18	Single-family residence	65	67	67
R19	2 Single-family residences	66	68	67
South 6th Street to South 7th Street				
R20	2 Single-family residences	63	65	67
R21	2 Single-family residences	64	65	Acquire
R22	2 Single-family residences	65	67	66
South 7th Street to South 8th Street				
R28	Single-family residence	66	67	66
R29	2 Single-family residences	66	67	66
South 8th Street to South 9th Street				
R30	Single-family residence	65	67	Acquire
R31	Single-family residence	66	67	Acquire
R32	Single-family residence	67	69	Acquire
R33	Single-family residence	64	65	Acquire
R34	Single-family residence	66	67	Acquire
R35	Townhome (1 residence)	65	67	65
R36	Single-family residence	65	67	65
South 9th Street to South 10th Street				
R38	Single-family residence	63	65	Acquire
R39	Single-family residence	65	66	Acquire
R40	Single-family residence	66	68	66
R41	Single-family residence	66	68	66
South 10th Street to South 11th Street				
R42	2 Single-family residences	67	68	67
R43	4 apartments (2 up/2 down)	66	68	66
South 11th Street to Mount Avenue/South 14th Street				
R45	Single-family residence	66	68	Acquire
Total Impacts:		12	22	13

Source: Big Sky Acoustics, 2008.

Note: The table results are representative of all 4-lane Build Alternatives, however the number of acquisitions vary.



Table 4.6
South 3rd Street
Receptors and Predicted Noise Levels for the No Build and Build Alternatives

Receptor	Description	No Build Alternative $L_{eq}(h)$, Present Year 2000 (dBA)	No Build Alternative $L_{eq}(h)$, Design Year 2025 (dBA)	Build Alternatives $L_{eq}(h)$, Design Year 2025 (dBA)
Reserve Street to Schilling/Curtis Streets				
T2	Duplex (2 residences)	65	67	66
T3	Single-family residence	63	65	66
T4	Single-family residence	64	66	67
T5	Single-family residence	65	67	67
T6	2 Single-family residences	63	66	66
T8	Single-family residence	65	67	67
T7	4 apartments (2 up/2 down)	63	66	66
T9	Duplex (2 residences)	64	66	66
T10	Single-family residence	63	65	66
T11	Duplex (2 residences)	65	67	67
T14	Single-family residence	63	65	66
T15	Single-family residence	64	66	66
T17	Single-family residence	66	68	68
T18	Mobile home	65	67	67
T19	Single-family residence	66	68	67
T20	Single-family residence	66	68	Acquire
Schilling/Curtis Streets to Johnson Street				
T22	2 apartments (1 up/1 down)	67	68	Acquire
Johnson Street to Catlin Street				
T23	Single-family residence	64	65	66
T26	2 Mobile homes	67	69	Acquire
T27	Mobile home	66	68	67
T28	Mobile home	68	69	Acquire
T29	Mobile home	67	68	67
T30	Single-family residence	65	66	66
T31	Mobile home	66	68	67
T32	Single-family residence	65	66	65
T33	Mobile home	66	68	66
Total Impacts:		10	22	21

Source: Big Sky Acoustics, 2008.

Note: The table results are representative of all 4-lane Build Alternatives, however the number of acquisitions vary.

When traffic noise impacts are predicted, practicable abatement measures for the mitigation of highway traffic noise need to be considered, and the measures need to be assessed to determine if they are reasonable and feasible. Potential abatement measures include modifying the proposed Preferred Alternative designs, the construction of noise barriers or berms, and traffic management measures, such as reducing the speed limit, restricting the access of certain vehicle types, and using quieter pavements. Barriers typically provide the highest level of noise reduction of these mitigation measures.

Chapter 4.0 - Environmental Consequences and Mitigation

According to the Montana Department of Transportation Noise Policy, to determine if a mitigation measure is feasible, the measure must provide a minimum 6-decibel reduction in noise levels at residences located closest to the roadway, and must not represent a safety hazard to vehicles traveling on the roadway or to the residents of the homes. To determine if a mitigation measure is reasonable involves more subjective factors, including the comparison of the noise levels associated with the No Build Alternative to those associated with the Preferred Alternative, the cost of the abatement, the timing of development, and the opinion and acceptance of impacted residents regarding the noise abatement measure. Another factor in determining if an abatement measure is reasonable is the comparison of forecast year noise levels. The Montana Department of Transportation has determined that if the predicted noise levels for a Preferred Alternative in the forecast year of a project exceed the noise levels in the forecast year for the No Build Alternative by three decibels or more at an impacted receptor, the abatement may be considered reasonable.

Shifting the horizontal or vertical alignments to reduce traffic noise impacts could provide more distance between a roadway and a receptor, resulting in lower noise levels at a receptor. However, additional horizontal alignment shifts for Russell Street or South 3rd Street are not reasonable or feasible for this project, due to the dense urban development and potential impacts/relocations to additional buildings along the roadways. For a vertical alignment shift to be effective the elevation of the roadway would have to be lowered enough to block the direct line of sight of the entire roadway at the noise-sensitive receptor locations. Therefore, shifting the vertical alignment of the Preferred Alternatives is not feasible due to the number of cross streets and direct access to adjacent properties.

A barrier is most effective when it is continuous and solid, and it blocks the direct line-of-sight between the roadway and a receptor. Barrier design guidelines are presented in the Federal Highway Administration *Highway Noise Barrier Design Handbook*, February 2000, and can be viewed at (<http://www.fhwa.dot.gov/environment/noise/design/index.htm>). The Handbook includes information concerning various types of barriers and materials, aesthetics, and structural, drainage and safety considerations.

Mitigation

The noise study identified one location along South 3rd Street where the construction of a barrier may be a reasonable and feasible noise mitigation measure. A mobile home park is located south of South 3rd Street between Garfield and Catlin Streets, and an eight-foot barrier wall could be constructed on the right-of-way line between Garfield and Catlin Streets. One of the methods used to determine if a barrier is reasonable is the Cost-Effectiveness Index. The Index incorporates the number of receptors that would be benefited by the barrier, the total noise reduction provided by the barrier, and the total cost of barrier materials and construction. The calculated Cost Effective Index associated with the barrier configuration for the mobile home park, which includes six first row and eight second row benefited mobile homes, meets the Cost Effective Index requirement. However, many of the first row mobile home residents currently access their homes and park along the south side of South 3rd Street, and this access would be eliminated by a barrier wall. A final decision of the installation of the abatement measure will be made during the final design process.



4.9 Water Quality Impacts

No Build Alternative

Under the No Build Alternative, there would be no replacement or modification of the existing roadway and therefore no construction activities and no associated impacts on water resources.

Operational impacts on water resources in the area would remain the same as under existing conditions. At present (and under the No Build Alternative), runoff from most of the existing roadway drains to drywells and infiltrates into the underlying aquifer, potentially affecting ground water.

All Build Alternatives

Surface Water

The Montana Department of Environmental Quality is required by Section 303(d) of the Clean Water Act to identify and prioritize those waters for which Total Maximum Daily Loads need to be identified. These loads are an assessment of the amount of pollutant a water body can receive and not violate water quality standards. The Total Maximum Daily Loads determine how much “pollutant load” a lake or stream can assimilate. The Clark Fork River is on the Total Maximum Daily Load list for the presence of Arsenic, Cadmium, Chlorophyll-a, Copper, Nitrogen, Sewage, and Phosphorus from Mill Tailings and Municipal and Industrial Point Sources.

In general, there would be an increase in the total surface area of paved road related to widening and reconstruction under the Build alternatives. The increase in total road surface area decreases the overall permeability of substrate and increases the rate and quantity of surface water runoff from the roadway. The increased surface water runoff has increased potential for erosion, transport of dissolved and particulate contaminants, and for sedimentation.

The quality of runoff from roadways is impacted by vehicle-related contaminants, such as motor oil, grease, and tire rubber. In addition, surface water runoff is impacted by herbicides and pesticides that may be used in landscaped or maintained areas along the streets.

More rigorous standards would be met (with respect to grade, surface water runoff controls, sedimentation, and erosion control), and impacts to surface water quality due to erosion and siltation would be reduced. Through the use of Best Management Practices, the Build alternatives would have no adverse effect on water quality, and in fact would likely improve the quality of stormwater runoff relative to existing conditions.

Stormwater

Stormwater runoff from roadway areas within the project limits that currently drain to the Clark Fork River would be treated using Best Management Practices before being directed to the River. As a result of this modification, no impacts on the Clark Fork River from roadway pollutants in runoff would occur, resulting in an improvement over existing conditions.

Chapter 4.0 - Environmental Consequences and Mitigation

Past projects and activities that have impacted and continue to impact the quality of surface water resources in the project area, particularly water quality in the Clark Fork River, include urbanization in the Missoula Valley; bank stabilization, channelization, and construction of levees; diversions for irrigation and municipal uses; removal of riparian vegetation along the river; mining; agricultural practices; and construction and recent removal of the Milltown Dam approximately six miles east (upstream) of the project area.

The proposed construction of the roadway improvements along Russell Street and South 3rd Street could result in an increase in pollutant loads to surface water, and this increase in pollutant loads would temporarily increase cumulative impacts, principally to the Clark Fork River. However, any project in the vicinity of surface waters is required to obtain permits which require the implementation of practices to control and reduce sediment and pollutant runoff to surface waters.

All roadway and bridge runoff within the project limits would be captured and treated using Best Management Practices. Treated water would be returned to the Clark Fork River or to drywells in accordance with the City's current practice and in coordination with the Environmental Protection Agency. Implementation of these measures and enforcement of the permitting requirements would minimize the potential for this project to contribute to cumulative impacts on surface waters during construction.

Groundwater

The groundwater impacts considered include groundwater availability and supply, as well as quality. No direct impacts to groundwater availability and supply are anticipated to occur with any of the Build alternatives. Direct impacts on groundwater quality from any of the alternatives would be related to stormwater discharge from both the construction and the operation of the proposed improvements.

Under the Build alternatives, precipitation normally falling on the ground surface and eventually percolating downward to the Missoula Valley Aquifer would be intercepted by the impervious surfaces; this precipitation could contain roadway materials such as oil, grease, salts, heavy metals and other materials associated with the operation of vehicles and maintenance of roadways. A majority, if not all, of these materials would be filtered out as the runoff percolates through the alluvial materials before reaching the Missoula Valley Aquifer, which is designated as a Sole Source Aquifer. A Sole Source Aquifer designation is intended to protect drinking water supplies in areas with few or no alternative sources to groundwater resource, and where if contamination occurred, using an alternative source would be extremely expensive. The designation protects an area's groundwater resource by requiring Environmental Protection Agency review of any proposed projects within the designated area that are receiving federal financial assistance. All proposed projects receiving federal funds are subject to review to ensure they do not endanger the water sources.

If the City of Missoula establishes a "dry well" or other equivalent system for treatment of contaminated runoff in the vicinity of the project corridor, runoff from the impervious surfaces would be collected and filtered before reaching the aquifer. Because the groundwater elevation at times may be 10 feet or less below the ground surfaces (depending on the time of year and



recharge intensity), surface water entering the dry wells could come into direct contact with Missoula Valley Aquifer groundwater.

Mitigation

Direct impacts and indirect effects to water resources and water quality of the area resulting from any of the alternatives will be avoided or minimized by design and incorporation of water quality facilities using Best Management Practices, as developed in coordination with the Environmental Protection Agency during final design. Best Management Practices can also reduce construction and operation impacts when properly deployed. Construction during low flow can minimize impacts related to scouring and the transport of sediment downstream.

Should the Best Management Practice selected to manage stormwater runoff for the Preferred Alternative include the use of a “dry well” system, additional Environmental Protection Agency and Missoula Valley Water Quality District requirements may be necessary to ensure protection of the Missoula Valley Aquifer. Requirements may include submittal of construction plans, design capacities, inspection and maintenance requirements, and groundwater monitoring, if necessary.

Regardless of which specific Best Management Practice is chosen to address runoff water quality, the final designs will comply with provisions of the Montana Department of Environmental Quality’s impaired water body designation and total maximum daily loads for the Clark Fork River and the Missoula Valley Water Quality Ordinance for protection of the Missoula Valley Aquifer.

Mitigation measures that will be implemented during construction include:

- All work in and adjacent to water resources will follow state, federal, and local permit requirements.
- Development of a revegetation plan, erosion control plan, and stormwater pollution prevention plan will be coordinated with appropriate permitting and resource agencies.

4.10 Wetlands Impacts

No wetlands were identified within the Russell Street and South 3rd Street project corridors, including the riparian area adjacent to the Clark Fork River where bridge replacement activities are proposed. The proposed project will not result in wetland impacts and therefore mitigation measures are not necessary.

4.11 Water Body and Wildlife Habitat Impacts

No Build Alternative

Under the No Build Alternative, no additional water body or wildlife habitat would be disturbed or lost. Increased traffic noise may discourage birds from using trees near the roadways for perching and resting; however, habitat in the project area is currently fragmented from decades of commercial and residential development. No new impacts on fisheries would occur under the No Build Alternative. The habitat and fish species diversity in the Clark Fork River would remain the same.

Urban development along the Clark Fork River would continue to deter species that normally inhabit riparian areas. Under the No Build Alternative, no existing vegetation would be removed and no new landscaping would occur. Vegetation along the road corridor would remain primarily ornamental and the riparian vegetation along the Clark Fork River would remain intact.

All Build Alternatives

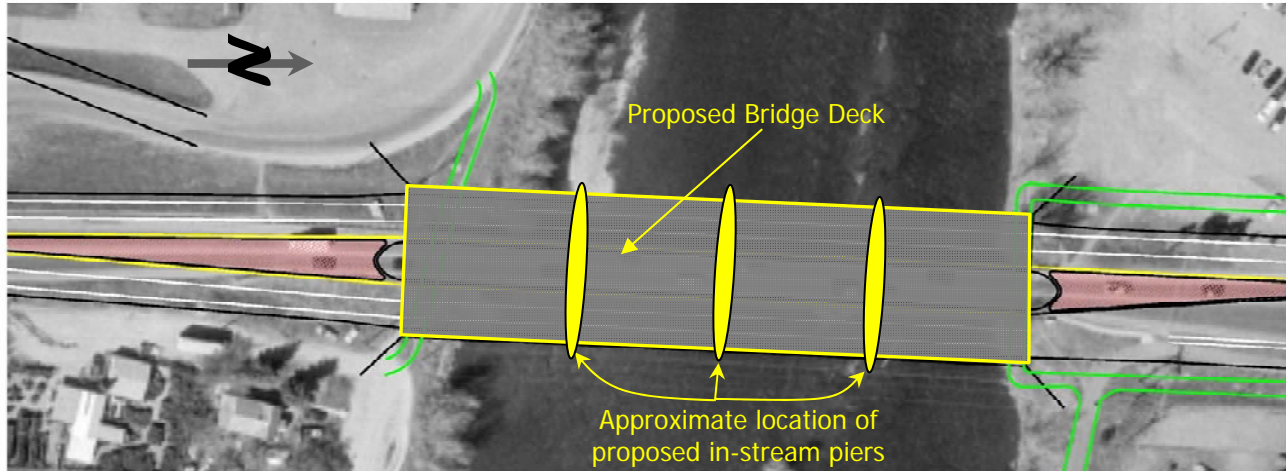
The existing Russell Street Bridge would be removed and replaced with four lanes over the Clark Fork River to provide adequate capacity for projected traffic volumes under any of the Build alternatives. The new bridge would be positioned in the same general location and piers along the same alignment as the existing bridge piers. The proposed bridge is a four-span approximately 450 foot long structure. The proposed in-stream bridge supports would be in the same location longitudinally in the river as the existing piers. The new bridge profile and low chord would be higher than the existing bridge resulting in a larger hydraulic opening. Scour predictions for the 50-year and 500-year frequency storm events were determined to be reasonable. The minimal constriction scour depths results from the fact that the proposed bridge spans the floodplain and no constriction in the cross section was created due to the new bridge. The bridge would be supported on in-stream support structures as well as by abutments on the north and south banks of the Clark Fork River. The overall impacted area from the bridge is calculated at less than 0.5 acres using a 10 foot offset from the piers and a two year storm at the bridge abutments. However, some temporary impacts would be anticipated during bridge demolition and construction activities. Bridge replacement activities would include construction of a temporary work bridge; demolition of the existing bridge; excavation and grading of bridge abutments; construction of new bridge foundations; and erection of new bridge decks. The extent of earthwork to be conducted at the bridge abutments, and specific demolition and construction methods to be used are yet to be determined. Figure 4-6 illustrates the preliminary design for the Russell Street Bridge.

Under any of the Build Alternatives, the following long-term impacts on terrestrial biological resources would occur:

- Widening of the Russell Street Bridge would result in the loss of some riparian vegetation used as habitat and movement corridors by small mammals, and several species of amphibians, fish, and birds.

- Soils exposed during construction would be susceptible to long-term colonization by noxious weeds.

Figure 4-6
Preliminary Design of the Proposed Russell Street Bridge



All roadway and bridge runoff within the project limits would be captured and treated using Best Management Practices. Treated water would be returned to the Clark Fork River or to drywells, in accordance with the City's current practice and in coordination with the Environmental Protection Agency, resulting in a net reduction in the amount of pollutants entering the Clark Fork River.

Road widening would require extension of the existing culverts underneath the roadway where irrigation ditches are crossed. Because these systems do not support fish within the project area, no loss of habitat is expected. The irrigation ditch on the west side of the mobile home park off of River Road will need to be piped as a result of the proposed improvements and additional connections on River Road. The ditch is owned by Orchard Homes Ditch Company as described in Section 3.11

There would be minimal additional adverse impacts on wildlife habitat compared to the No Build Alternative because habitat is already fragmented.

Mitigation

The following mitigation will be implemented in order to avoid and minimize impacts on wildlife and vegetation from the Build Alternatives:

- While the Bald Eagle has been de-listed, power lines, that are modified or reconstructed as a result of the proposed project will be raptor-proofed in accordance with Montana Department of Transportation standard practices.
- Unique requirements for bridge removal and construction will be addressed in Special Provisions as appropriate.
- Preservation and restoration of riparian vegetation along the banks of the Clark Fork River within the project area during and/or after construction will

Chapter 4.0 - Environmental Consequences and Mitigation

- be a priority. If vegetation is removed, the disturbed ground will be revegetated with appropriate riparian species.
- Federal, state and local regulations for erosion and sediment control will be followed.
- Areas disturbed during and/or after construction will be revegetated as soon as practicable to mitigate erosion.
- Tree planting will occur in accordance with the City of Missoula's Urban Forestry policy.

Efforts will be made to reduce both the amount of sediment produced and the duration of sediment production. The mitigation proposed includes methods to reduce the amount of sediment that reaches the Clark Fork River during construction. Potential timing restrictions with regard to in-stream construction will be outlined in state and federal permits, which will be secured by the Montana Department of Transportation and the contractors. Impacts on water quality at the irrigation ditches may be avoided by constructing outside the irrigation season when the ditches are dry.

Best Management Practices for erosion control would be applied to reduce the amount of sediment entering the river. Riparian vegetation would be protected by minimizing disturbance of riparian vegetation during construction.

4.12 Floodplain Impacts

No Build Alternative

Under the No Build Alternative, there would be no replacement or modification of the existing roadway or bridge, and therefore no associated impacts on floodplains.

All Build Alternatives

There are two locations in the project area where project work may infringe on the 100-year floodplain. The first is the Russell Street Bridge and its abutments, particularly the east side of Russell Street near the south abutment. The second is the south edge of West Broadway Street west of the intersection with Russell Street. These impacts are discussed qualitatively as potential impacts. The Build Alternatives follow the existing longitudinal embankment and would require an embankment expansion for the proposed improvements. This embankment widening would result in a minor longitudinal encroachment into the floodplain. The current width of the 100-year floodplain at the bridge is approximately 400 feet, under any of the Build Alternatives; the floodplain width would increase to approximately 420 feet. No fill within the floodplain is proposed other than that necessary to reconstruct the bridge piers. The quantity of fill in the floodplain would be determined during final design.

In accordance with 23 CFR Part 650 requirements, reconstruction of the Russell Street Bridge is not expected to impact flooding conditions in the Clark Fork River under any of the Build Alternatives, based on the *Bridge Opening Recommendations Memo* prepared by the consultant HNTB. The existing bridge opening would be maintained to avoid adding embankment fill



within the river channel. In addition, existing embankment material will be excavated to provide clearance for a pedestrian/bicycle trail.

The Missoula County floodplain regulations require a minimum of two feet of vertical clearance. Several discussions with the Missoula County Floodplain manager, the Fire Department, and the Montana Department of Transportation Bridge Bureau led to the agreement that the vertical clearance between the lowest point of the proposed bridge (south end of the bridge) and the 100-year flood elevation would match the vertical clearance of the existing bridge as closely as possible under the Build alternatives. The Fire Department also agreed that in the case of an emergency, rescue watercraft would enter the river either above or below the bridge during a flood depending on the location of the emergency. Results of a hydraulic modeling study of the existing and proposed bridge openings indicate that there would be no increase in backwater from the proposed bridge compared to existing conditions.

Floodplain boundaries are based on expected flood water elevation. Because much of the project area exhibits low relief, a small change in elevation in the project area typically represents a substantial change in horizontal distance of the floodplain. The bridge and roadway would be expanded to the east toward the 100-year floodplain boundary on the south side of the river, therefore, it is anticipated that some fill material could be placed in the 100-year floodplain for the construction of the bridge. However, fill placed in the 100-year floodplain for the bridge could be mitigated by the removal of existing fill for the proposed development of the recreational trails underneath the bridge. It should be noted that the existing levee in the vicinity of the bridge will be maintained.

The proposed project would not promote or encourage development within the delineated floodplain, nor increase the flood liability hazards from its construction. This proposed project would therefore be considered to be in compliance with Presidential Executive Order #11988, regarding Floodplain Management.

Mitigation

Construction of the new bridge over the Clark Fork River may infringe on the 100-year floodplain. Any fill into the 100-year floodplain will be in compliance with Executive Order #11988 and State and City floodplain regulations which require that any fill into the floodplain not increase the base flood elevation by more than 0.5 feet. Therefore, mitigation will not be required.

The proposed Russell Street Bridge would increase the hydraulic opening associated with the structure. A wider bridge opening would not improve the hydraulic capacity of the river because there are constrictions downstream of the bridge which affect upstream water surface elevations. The proposed project is not expected to result in any additional changes in stream channel morphology. Additionally, the Shady Grove Trail underpass of the bridge would be designed above the two-year flood elevation. The final design process will include hydraulic and floodplain analysis in order to ensure compliance with Federal Emergency Management Agency regulations.

Chapter 4.0 - Environmental Consequences and Mitigation

A hydraulic analysis, prepared in accordance with the rules and regulations of the Federal Emergency Management Agency and the Montana Department of Transportation, will be required for final design to determine if the resulting water surface elevations are acceptable and to demonstrate that the flood waters within the project area will not provide any additional impacts to the adjacent land owners and structures. The analysis will specify bridge size, scour and erosion protection, and applicable flood proofing measures.

A floodplain development permit will be required from the Missoula Floodplain Administrator.

4.13 Threatened and Endangered Species Impacts

No Build Alternative

Under the No Build Alternative, no habitat for threatened, endangered, or candidate species would be disturbed or lost. Urban development along the Clark Fork River would continue to deter species normally inhabiting riparian areas. Under the No Build Alternative, no existing vegetation would be removed and no new landscaping would be installed. Vegetation along the road corridor would remain primarily ornamental and the riparian vegetation along the Clark Fork River would remain intact.

All Build Alternatives

A determination of effect for the proposed Russell Street and South 3rd Street reconstruction project for bull trout was completed in coordination with the US Fish & Wildlife Service. Based on the coordination documented in this proposed project's Biological Resources Report, the proposed project is **likely to adversely affect** bull trout and designated critical habitat.

With the release of the Draft Environmental Impact Statement, the US Fish & Wildlife Service was engaged in formal consultation under Section 7 of the Endangered Species Act. In March 2010, the US Fish & Wildlife Service issued a formal Biological Opinion in accordance with the Act. That Biological Opinion (contained in Appendix F) provides a detailed account of the US Fish & Wildlife Service determination that the direct and cumulative effects of the proposed project **would not be likely to jeopardize the continued existence of bull trout, and not likely to destroy or adversely modify designated bull trout critical habitat**. These conclusions are based on the magnitude of the project's effects (to reproduction, distribution and abundance) in relation to the listed population and that even though some short-term construction-related impacts are anticipated, the proposed action would maintain the long-term condition of bull trout critical habitat in the Clark Fork River within the project area in the Clark Fork River basin bull trout critical habitat unit.

Section 9 of the Endangered Species Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. The Biological Opinion for this project describes actions anticipated to occur during implementation of the project and proposes actions that, when implemented, are likely to adversely affect bull trout. The US Fish & Wildlife Service anticipates that implementation of this project as described in the Biological Opinion would



likely impart a level of adverse effect to individual bull trout to the extent that incidental take would occur.

Mitigation

Biological Opinions typically provide reasonable and prudent measures which are expected to reduce the amount of incidental take. Reasonable and prudent measures are those measures necessary and appropriate to minimize the incidental take resulting from the proposed action. Reasonable and prudent measures are non-discretionary and must be implemented by the Administration in order for the exemption in the Biological Opinion to apply. The US Fish & Wildlife Service believes the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of bull trout:

The Administration and the Department shall identify and implement means to reduce the potential for incidental take of bull trout from direct mortality and from increases in the amount of sediment and other pollutants entering the Clark Fork River as a result of construction related activities associated with this project.

In order to be exempt from the prohibitions of Section 9 of the Endangered Species Act, Biological Opinions typically provide terms and conditions which implement the reasonable and prudent measures and outline reporting and monitoring requirements. Terms and conditions are non-discretionary. To fulfill the reasonable and prudent measure above, the following terms and conditions shall be implemented:

- a) Materials excavated from inside any coffer dams shall not enter any stream. All water from inside the coffer dams should be pumped to contained settling ponds on the stream bank. Equipment access to the coffer dams shall be made without entering the stream channel.
- b) To the maximum extent feasible, the existing bridge will be disassembled and removed without pieces being allowed to fall into the river. If portions of the old bridge do fall into the river during demolition, they will be removed from the stream as quickly as possible and with as little disturbance to the stream bed and banks as possible. Any blasting required for pier or footing removal will be contained to the maximum extent feasible using some type of containment or shielding device to attenuate the blast's pressure wave in the water and to prevent debris from entering the stream.
- c) If work bridges are required and it becomes necessary to leave them in place during winter, such structures shall be constructed to withstand winter icing and spring runoff conditions to prevent collapse.
- d) The Administration and the Department shall monitor bridge replacement activities (including bridge demolition and removal) to ensure that these activities comply with the biological assessment, supporting documentation, and Biological Opinion for this project.

In addition to these terms and conditions, the Service believes that implementation of the measures listed above in the "Description of proposed action" section of the Biological Opinion

Chapter 4.0 - Environmental Consequences and Mitigation

(pages 5-8), and referenced in the “Effects of the action,” “Conclusion,” and “Effect of the take” sections of the Biological Opinion and incidental take statement, will minimize impacts to bull trout and incidental take. Those measures include adequate monitoring and reporting requirements, so no additional reasonable and prudent measures or additional terms and conditions are necessary.

4.14 Historic and Cultural Resource Impacts

This section describes potential impacts on historic properties that may be caused by the proposed Russell Street and South 3rd Street reconstruction project.

Two distinct regulatory processes are required for historic resources: Section 106 consultation with the State Historic Preservation Office, and Section 4(f) of the Transportation Act which requires additional consultation by the Federal Highway Administration. Both processes are described below, and an additional discussion of the Section 4(f) process is provided in Chapter 5 of this Final Environmental Impact Statement.

Section 106

Section 106 of the National Historic Preservation Act and its implementing regulations found in the Code of Federal Regulations (Title 36 Part 800) sets out a process designed to assure that historic properties such as structures, buildings, objects, districts, or archaeological sites that meet the National Register of Historic Places criteria for eligibility are considered during project development and implementation. The State Historic Preservation Officer and the Federal Highway Administration considered eligible or listed properties that may be affected by the proposed project. The two agencies will come to an agreement on how to avoid or reduce the adverse effects of the proposed project on historic resources. Letters documenting their concurrence are included in Appendix C.

Through this process, the State Historic Preservation Officer makes a determination of effect on each property eligible for listing on the National Register of Historic Places. For the purposes of this proposed project, these determinations include:

- ***No Effect*** – No right-of-way would be acquired, and the site would not be affected by the proposed project.
- ***No Adverse Effect*** – Some right-of-way would be acquired, but the proposed project’s effects do not meet the criteria of Adverse Effect, or the proposed project has been modified or conditions imposed to avoid adverse effects.
- ***Adverse Effect*** – The proposed right-of-way would require full acquisition of the property, or the project would alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association.



Section 4(f)

Section 4(f) of Title 23 of the Code of Federal Regulations (23 CFR 774) states that the Federal Highway Administration may not approve the use of land from a significant publicly owned public park, recreation area, wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- 1) there is no feasible and prudent alternative to the use of land from the property; and
- 2) the action includes all necessary planning to minimize harm to the property resulting from such use.

The Final Section 4(f) Evaluation, presented in Chapter 5, will be used by the Federal Highway Administration to establish whether the project would result in the “use” of such property. Regulations governing this process can be found in Title 23 of the Code of Federal Regulations. A “use” occurs when (1) land from a Section 4(f) site is acquired for a transportation project; (2) there is an occupancy of land that is adverse in terms of the statute’s preservationist purposes; or (3) the proximity impacts of the transportation project on the Section 4(f) site, without acquisition of land, are so great that the purposes for which the Section 4(f) site exists are substantially impaired (this is also known as a constructive use).

No Build Alternative

There would be no impacts on historic or cultural properties, and therefore **No Effect** under the provisions of Section 106 for the No Build Alternative. As this alternative would not involve any construction, there would be no “use” of a historic site, thus no Section 4(f) impacts.

All Build Alternatives

Of the 33 properties identified as eligible for listing on the National Register of Historic Places, the Montana State Historic Preservation Office has determined that the various Build alternatives would have **No Effect** on 26 of those sites, as outlined in Table 4.7.

Impacts to the seven remaining historic properties vary by alternative as described below, and summarized in Table 4.8.

- The Bitterroot Branch of the Northern Pacific Railroad (**24MO718**) is a linear site that currently crosses Russell Street in the southerly portion of the corridor. This site would be impacted by any Build alternative. Based on the fact that the site would remain largely intact, and impacts would be limited to a wider at-grade railroad crossing at the same existing location, these impacts have been determined to have **No Adverse Effect** on the historic railroad.
- Two historic residences (**24MO811 and 24MO819**) lie in very close proximity to the existing alignment and selection of any build alternative would require removal of the structures, resulting in an **Adverse Effect** to these sites.
- The residence in the northwest quadrant of the South 5th Street intersection with Russell Street (**24MO800**) would be directly impacted by Alternative 5, resulting in an **Adverse**

Chapter 4.0 - Environmental Consequences and Mitigation

Effect determination. The remaining build alternatives avoid impacts to the structure but would require encroachments on the property resulting in a Section 4(f) “use.” The Preferred Alternative requires a very minor encroachment and results in a **No Effect** determination. The roundabout intersection in Alternative 5-Refined encroaches deeper into the property resulting in a **No Adverse Effect** determination.

- The residence in the southwest quadrant of South 5th Street (**24MO801**) would be avoided by the Preferred Alternative, resulting in a **No Effect** determination. Alternative 5, with a roundabout at this intersection, would require removal of the structure and result in an **Adverse Effect** determination. Alternative 5-Refined attempted to shift the roundabout at this intersection to the east. This shift results in the acquisition of additional properties on the east side of Russell Street, while the roundabout would still lie within approximately ten feet of the historic structure on the west. Alternative 5-Refined, while avoiding the structure still encroaches on the property to the point of having a **No Adverse Effect** determination.
- The small residential structure to the rear of the lot in the northwest quadrant of the South 11th Street intersection with Russell Street (**24MO822**) would be removed by construction of the roundabout in Alternative 5, resulting in an **Adverse Effect**. Both Alternative 5-Refined and the Preferred Alternative have a stop-controlled intersection at this location which will avoid impacts to this structure, resulting in a **No Effect** determination.
- The residence in the southwest quadrant of the South 11th Street intersection with Russell Street (**24MO823**) would be removed by construction of the roundabout in Alternative 5, resulting in an **Adverse Effect**. Both Alternative 5-Refined and the Preferred Alternative have a stop-controlled intersection at this location, and with the use of a small retaining wall can avoid impacts, resulting in a **No Effect** determination.

Appendix C provides documentation of the coordination with the State Historic Preservation Officer according to Section 106 of the National Historic Preservation Act.

For those historic sites that have a No Adverse Effect determination, the Federal Highway Administration has determined, through consultation with the State Historic Preservation Office, that no further Section 4(f) evaluation would be required. This determination has been made in accordance with new regulations contained in the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) regarding De Minimis findings on impacts to historic resources. Correspondence regarding this determination is included in Appendix C, and is discussed in more detail in Chapter 5 of this Environmental Impact Statement.

Further information on the properties to be acquired, and having an **Adverse Effect**, is included in the Final Section 4(f) Evaluation contained in Chapter 5 of this Final Environmental Impact Statement.



Table 4.7
Historic Properties Avoided by All Build Alternatives

Site #	Location	Type of Site	Type of Impact	Determination of Effect
24MO796	1436 South 4 th Street	Residence	None	No Effect
24MO798	1501 South 4 th Street	Residence	None	No Effect
24MO805	1502 South 6 th Street	Residence	None	No Effect
24MO812	1501 South 7 th Street	Residence	None	No Effect
24MO814	1500 South 8 th Street	Residence	None	No Effect
24MO820	1135 Russell Street	Residence	None	No Effect
24MO842	1038 South 3 rd Street	Residence	None	No Effect
24MO843	1046 South 3 rd Street	Residence	None	No Effect
24MO845	1102 South 3 rd Street	Residence	None	No Effect
24MO849	1133 South 3 rd Street	Residence	None	No Effect
24MO850	1135 South 3 rd Street	Residence	None	No Effect
24MO852	1202 South 3 rd Street	Residence	None	No Effect
24MO853	1203 South 3 rd Street	Residence	None	No Effect
24MO855	1221 South 3 rd Street	Residence	None	No Effect
24MO856	1225 South 3 rd Street	Residence	None	No Effect
24MO858	1229 South 3 rd Street	Residence	None	No Effect
24MO859	1230 South 3 rd Street	Residence	None	No Effect
24MO860	1250 South 3 rd Street	Residence	None	No Effect
24MO861	1256 South 3 rd Street	Residence	None	No Effect
24MO862	1262 South 3 rd Street	Residence	None	No Effect
24MO881	2537 South 3 rd Street	Residence	None	No Effect
24MO882	2540 South 3 rd Street	Residence	None	No Effect
24MO884	2601 South 3 rd Street	Residence	None	No Effect
24MO885	2608 South 3 rd Street	Residence	None	No Effect
24MO891*	Proposed South 3 rd Street Historic District	District	None	No Effect
24MO892 **	Proposed Orchard Homes Historic District	District	None	No Effect

Notes: * Includes: 24MO842, 24MO843, 24MO845, 24MO849, 24MO850, 24MO852, 24MO853, 24MO855, 24MO856, 24MO858, 24MO859, 24MO860, 24MO861, and 24MO862.

** Includes: 24MO881, 24MO882, and 24MO884.

Table 4.8
Historic Resource Impacts

Site #	Location	Alternative 4 (Preferred)	Alternative 5	Alternative 5 (Refined)
24MO718	Bitterroot Branch of the Northern Pacific Railroad	No Adverse Effect	No Adverse Effect	No Adverse Effect
24MO800	1508 South 5 th Street	No Effect	Adverse Effect	No Adverse Effect
24MO801	1501 South 5 th Street and 715 Russell Street	No Effect	Adverse Effect	No Adverse Effect
24MO811	824 Russell Street	Adverse Effect	Adverse Effect	Adverse Effect
24MO819	941 Kern Street	Adverse Effect	Adverse Effect	Adverse Effect
24MO822	1500 ½ South 11 th Street	No Effect	Adverse Effect	No Effect
24MO823	1501 South 11 th Street	No Effect	Adverse Effect	No Effect

Chapter 4.0 - Environmental Consequences and Mitigation

Mitigation

The following mitigations are proposed for impacts on historic properties caused by the Russell Street and South 3rd Street proposed project:

- A Historic American Building Survey documentation of the sites identified as adversely affected in the Final Environmental Impact Statement would be conducted prior to the initiation of construction activities on Russell Street.
- The Montana Department of Transportation would undertake an oral history project of the Russell Street neighborhood affected by the proposed project. The Montana Department of Transportation will conduct the oral history according to the standards developed by the Montana Historical Society. The tapes would be transcribed and housed at the Montana Historical Society with copies provided to the Mansfield Library at the University of Montana.
- Large format photographs would be taken of the Russell Street and South 3rd Street project corridor before, during and after construction to document the impact of the project on the corridor and the historic properties located there. Copies of the photographs would be provided to the Montana State Historic Preservation Office and the Missoula County Historic Preservation Office.

The above mitigation measures have been documented in a Memorandum of Agreement between the Federal Highway Administration and the State Historic Preservation Officer, with the Montana Department of Transportation acting as a concurring party (see Appendix C).



4.15 Hazardous Materials Impacts

The following section discusses the hazardous materials sites that may be affected by construction activities and/or pose potential long-term clean-up/control requirements.

No Build Alternative

No long-term or short-term construction impacts are anticipated under the No Build Alternative. Potential and existing hazardous material sites along the project corridor may not be mitigated as a result of the No Build Alternative.

All Build Alternatives

Table 4.9 summarizes all hazardous material sites within the proposed project area which could potentially be affected by any of the Build alternatives. Figure 4-7 illustrates their location relative to the project corridor. An additional six sites are also identified due to the potential to encounter contaminated soils resulting from spills at these locations.

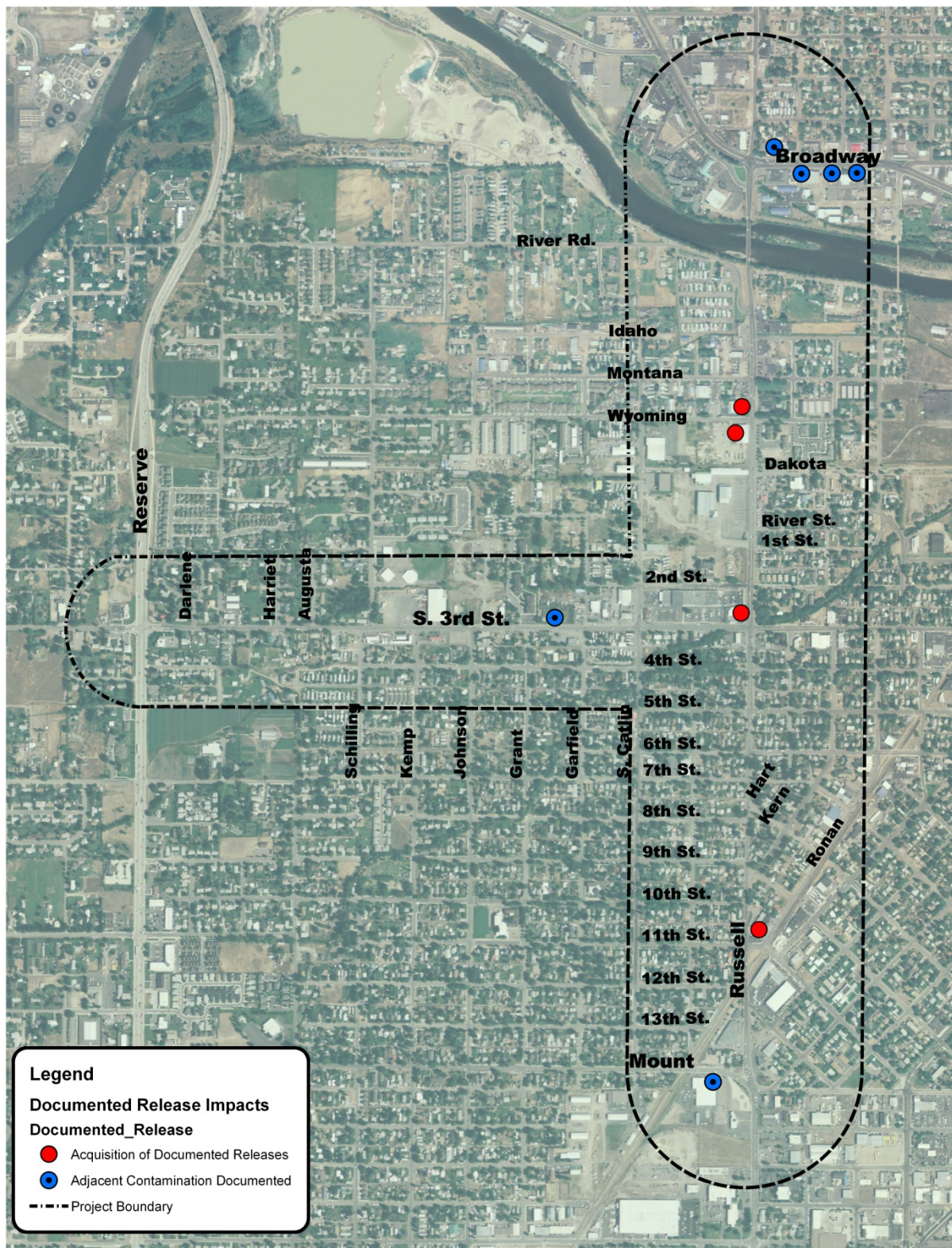
Table 4.9
Summary of Potential Hazardous Materials Impacts

Site ID	Site Name	Address	Type of Site	Location on Alignment	Impact on Alignment	Type of Acquisition	PSI Priority
28	Buffingtons Auto Repair	1027 Ronan	UST, LUST	On Alignment/ Adjacent	Documented petroleum release. Potential impacts to construction activities. Potential long-term impacts.	Full/Partial	High
10.02	Holiday Station Store #278	403 S. Russell	UST, LUST	On Alignment/ Adjacent	Documented release to the soil. Soil has been excavated. Potential impacts to construction activities.	Full	High
13.01	Plum Creek Timber Co. LP	140 N. Russell (700 Gregg Lane)	UST, LUST	On Alignment/ Adjacent	Documented release to soil and groundwater. All UST have been removed. Ground water flow varies, last reported to the NE in May 2000. Potential impacts to construction activities.	Partial	High
13.03	4G Plumbing and Heating, Inc.	1515 Wyoming	UST, LUST	On Alignment/ Adjacent	Documented petroleum release to the soil. Soil has been excavated. Potential impacts to construction activities. Potential long-term impacts.	Partial	High

Source: Herrera Environmental Consultants. *Hazardous Materials Technical Report - Russell and South Third Street Reconstruction Project*. December 2002

Chapter 4.0 - Environmental Consequences and Mitigation

Figure 4-7
Locations of Potential Hazardous Materials Impacts





The likelihood of impacts from encountering existing contaminated sites depends upon the extent and character of contamination and would be minimized by identifying the sites and potential sites prior to construction and employing appropriate control, clean-up, and disposal measures. A variety of impacts, beneficial and/or adverse, could result from encounters with existing hazardous materials sites, including:

- Contamination, that otherwise would remain in place and potentially migrate, may be discovered and addressed by the proposed project.
- Contamination may be cleaned up faster to accommodate project construction.
- Contamination may be prevented by removing potential existing sources, such as underground storage tanks, before they release contaminants.
- Contaminated materials may be uncovered, allowing more direct exposure to the public.
- Contamination may be spread as a result of construction.

Project impacts on the environment at each hazardous materials site cannot be assessed without detailed evaluations of site-specific conditions. However, with proper control techniques, contaminated soil can be removed and disposed of or treated at locations designed for hazardous materials management; contaminated ground water would be treated either onsite or at a licensed offsite facility. By using licensed carriers and vehicles equipped for the task, limited risk of public exposure would occur during removal and transport offsite. If encountered, onsite treatment of ground water would employ techniques engineered for the specific contaminants encountered.

Long-term impacts would occur where properties are acquired that have ongoing clean-up responsibility (after construction) and would include long-term monitoring and documenting site closure. Such sites are typically associated with ground water contamination or multiple contaminant sources.

Mitigation

Many sites along the project have the potential for hazardous materials concerns at deep soil levels, specifically, petroleum hydrocarbon contamination to soil and ground water. During the design and right-of-way phases of project development, these sites would be investigated in detail for soil and ground water impacts that may affect construction.

If hazardous materials remediation is necessary during construction, the contractor would be required to submit a health and safety plan to the Montana Department of Transportation prior to beginning work. There will be special provisions included in the contract documents to address contaminated soil and ground water as needed.

Prior to construction, the Montana Department of Transportation will inspect for asbestos and possibly for lead contamination in all buildings that have been or would be acquired for right-of-way purposes and that are slated for demolition. A lead paint abatement plan would be prepared for lead-based paint on the Russell Street Bridge. Portions of the Russell Street Bridge would be encapsulated during demolition to collect concrete debris and loosened lead paint. Established methods and controls would be implemented to prevent worker and public exposure to lead paint

Chapter 4.0 - Environmental Consequences and Mitigation

and asbestos in accordance with the Occupational Safety and Health Administration (OSHA), Montana Department of Labor and Industry occupational safety and health requirements, and Montana Department of Environmental Quality permit requirements for demolitions.

Throughout the construction process, encounters with hazardous materials would be documented and reported appropriately. Project planning would accommodate regulatory agency requirements as well as disposal or treatment facility requirements.

Properties left with residual contamination would be clearly identified in documentation provided to the Montana Department of Environmental Quality.

4.16 Visual Resource Impacts

A discussion of the visual characteristics and aesthetic qualities of the existing corridor was given in Section 3.16. The following are general observations of visual resources and possible impacts from a qualitative point of view. The photographs given in Section 3.16 should be taken as a general representation of the appearance of the alternatives. More specific details will be more fully developed during the design stages of the chosen Build Alternatives for Russell and South 3rd Streets.

No Build Alternative

The aesthetic conditions within the project corridor would remain unchanged under the No Build Alternative. The area would continue to lack focal points, such as medians or landscaped areas along the roadways, and vegetation would continue to be limited to residential lots. Foreground, midground, and background views from the road would remain unchanged under the No Build Alternative.

All Build Alternatives

Existing vegetation within proposed rights-of-way of the project corridor would be removed. The greatest impacts on aesthetic quality would occur when large diameter trees, which provide unity, vividness, and visual buffers to the built environment, are removed in residential areas.

Signalized intersections on Russell Street provides less opportunity for additional landscaping than would otherwise be provided by roundabouts; however a signal controlled intersection also has a smaller footprint at the intersections, thus less overall visual impact at those locations. The overall impacts and potential benefits are very similar between all of the Build alternatives.

The visual quality of the project corridor would improve under any of the Build Alternatives. Although the project would result in a wider roadway and an increase in paved surfaces, landscaping would be incorporated into the road design to soften the foreground and mid-ground views from the road and to help break up the space that is currently dominated by the built environment. Trees will be planted in accordance with the City of Missoula's Urban Forestry tree planting specifications. Raised medians would be landscaped where appropriate. Vividness,

intactness, and unity would improve with the implementation of landscaping features under all action alternatives.



Design features proposed for the new bridge would improve the visual quality of the project corridor by creating focal points along the roadway that unify visual elements of the landscape. Foreground and mid-ground viewers of Russell Street from River Road to West Broadway Street would experience improved views of the bridge and the associated built environment. In addition, background views from the bridge would improve due to the slightly higher elevation of the bridge.

Foreground and mid-ground views from the roadway (driver's perspective) would include increased views of the built environment. Background views would improve in the southern portion of Russell Street because several residences on the east side of Russell Street would be removed; therefore, background views to the east would increase unless and until redevelopment occurs on these parcels. Background views would remain as they are in the northern portion of Russell Street and on South 3rd Street. Placement of landscaping features within raised medians and landscaped boulevards would soften views of and from the road.

Sidewalks and bicycle lanes proposed under the action alternatives would improve the unity of the project area. Proposed landscaping, lighting, and additional green space in the right-of-way would create focal points along the roadway. Together, these design features would enhance the visual connection between the project corridor and the surrounding community. The image and intactness of the neighborhoods located adjacent to the roadway would improve.

Adverse light and glare impacts would be minimized as appropriate through use of directional lighting and careful placement of lights and signage. Lighting would meet Montana Department of Transportation standards and City "Dark Skies Ordinance" through such measures as cut-offs to minimize glare. Table 4.10 describes visual benefits from the various Build Alternatives.

Chapter 4.0 - Environmental Consequences and Mitigation

Table 4.10
Visual Benefits of Build Alternatives

Design Feature	Visual Impacts and Benefits
Bicycle facilities	<ul style="list-style-type: none">▪ Increased roadway width▪ Opportunities for improved non-motorized transportation could decrease the visual impacts of traffic congestion
Sidewalks	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Provide visual focal points along the roadway
Bus turnouts	<ul style="list-style-type: none">▪ Increased roadway width▪ Opportunities for community transportation could decrease the visual impacts of traffic congestion
River trail system access to roadway	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Improve non-motorized transportation, therefore reducing visual impacts of traffic congestion and providing visual relief from the built environment
Trail crossings for existing trail facilities	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Improve non-motorized transportation, therefore reducing visual impacts of traffic congestion and providing visual relief from the built environment
Landscaping	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Create focal points along roadway (boulevards, medians, and roundabouts) and provide visual relief from the built environment
Illumination	<ul style="list-style-type: none">▪ Increased visibility and possibly glare along roadway
Americans with Disabilities Act compliance	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Improved access for persons with disabilities▪ Wider sidewalks would allow utility poles and signs to be moved off sidewalks, which would be an improvement under the Americans with Disabilities Act
Crossing facilities	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Provide visual focal points along the roadway▪ An above-grade crossing would decrease the vividness, intactness, and unity of the surrounding area
Roundabouts	<ul style="list-style-type: none">▪ Increased right-of-way width▪ Landscaping opportunities▪ Create focal points within roadway and provide visual relief from built environment

Mitigation

Due to the overall positive impact on visual resources, no mitigation is required.



4.17 Indirect and Cumulative Effects

Indirect Effects

The Council on Environmental Quality's regulations for implementing the National Environmental Policy Act defines indirect effects as "...caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."

Indirect effects usually include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. Although direct and indirect effects can cause cumulative impacts; cumulative impacts are not necessarily indirect effects.

Over the past two decades, there has been a substantial amount of research conducted on the indirect effects of transportation improvements on land use. There are basically two schools of thought on the subject: 1) that the addition of roadway capacity induces new growth and results in increased congestion, or 2) that construction of additional roadway capacity is merely a response to the historical land consumption trends and patterns which have favored suburban decentralization and dispersion. In practice, neither is wholly accurate. Land use and transportation are inextricably intertwined and frequently cyclical in nature with improved accessibility increasing land values, land values affecting their use, changing uses affecting the need for transportation investments, roadway improvements further changing access and so on.

It is also important to recognize that the effects of transportation in facilitating physical development are not necessarily the same as its effects on economic growth. If a region is growing economically, development will occur somewhere within or near it. Combined with the effects of land use and zoning policies which are controlled by each local jurisdiction, transportation investments may influence the *location* of growth, but they alone do not *cause* the growth.

Induced travel is a term used by economists to describe the additional demand for travel that occurs as the generalized cost of travel decreases.¹ The theory of induced vehicle travel suggests that increases in carrying capacity of a specific roadway corridor would result in an increased level of vehicle traffic due to a decrease in the cost of travel, especially the time-costs of travel. Generally, induced travel applies to new roadway carrying capacity; for example, the widening of a roadway to improve Level of Service. Traffic on Russell Street and South 3rd Street has been growing at a steady rate over the past 30 years. This growth trend is anticipated to continue regardless of any improvements on these routes themselves. Improving capacity in these corridors is not anticipated to induce growth; rather, it would maintain and improve access for residents, commercial traffic, and regional users and may result in a shift in some drivers' travel patterns.

Research compiled by the Transportation Research Board indicates that transportation variables are no more critical to location decisions than such factors as housing type, size, and cost, as well as real or perceived differences in neighborhood characteristics such as crime rates and the

¹ FHWA. 2005. Induced Travel: Frequently Asked Questions. <http://www.fhwa.dot.gov/planning/itfaq.htm>

Chapter 4.0 - Environmental Consequences and Mitigation

quality of schools. Moreover, lifestyle and life-cycle variations (such as price of gas, scenery, property taxes, federal monetary policies which affect mortgage rates, general state of the economy, availability of jobs, etc.) have been found to be equally important as (and in some cases much more important than) transportation determinants of location and land use choices. Given the dynamic relationship between all of these variables, a direct connection between new capacity and residential or business development is tenuous at best. Based on the planned redevelopment and growth constraints within the study area as discussed under Land Use, it is anticipated that the project is unlikely to induce any substantial changes in travel or land use patterns, due to the nature of the proposed project and location.

There are no other indirect effects to aspects of the natural (such as, air, water and ecosystems) or the built environments, due to the nature of the proposed project, location, and developed nature of the project area. The purpose of the proposed project is to provide substantive safety and mobility improvements for all modes of travel in the Russell Street and South 3rd Street corridors. Direct impacts as a result of the proposed project are primarily related to the expansion of the facilities. The proposed project is located in a fairly developed and established area of Missoula, consisting primarily of residential neighborhoods and commercial retail areas.

Cumulative Effects

This section addresses the potential cumulative effects in the study area. The Council on Environmental Quality's regulations for implementing the National Environmental Policy Act defines cumulative effects as:

“Impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions.” (40 CFR 1508.7)

Russell Street and South 3rd Street are existing roadway facilities, therefore, cumulative impacts include any additive impacts associated with the historic construction, reconstruction, and use of the existing facility, as well as additive impacts created by other projects in the general area. The analyses presented in this document indicate that adverse impacts from the reconstruction of Russell Street and South 3rd Street are limited to specific resources. As such, the incremental impacts when added to other past, present, and reasonably foreseeable future actions are limited to those same resource areas.

The following sections summarize the past, present and reasonably foreseeable actions within the study area; a summary of those resources not affected by this project, thus having no cumulative impact; and a discussion of those resources impacted by this project, thus experiencing a cumulative impact.

Past, Present, and Reasonably Foreseeable Actions

The first inhabitants of the Missoula area were American Indians from the Salish tribe. They called the area "Nemissoolatakoo," from which "Missoula" is derived. The word translates roughly to "river of ambush/surprise," a reflection of the inter-tribal fighting common to the area.



The Indians' first encounter with whites came in 1805 when the Lewis and Clark expedition passed through the Missoula Valley.

There were no permanent white settlements in the Missoula Valley until 1860 when C. P. Higgins and Francis Worden opened a trading post called the Hellgate Village on the Blackfoot River near the eastern edge of the valley. It was followed by a sawmill and a flour mill, which the settlers called "Missoula Mills". The completion of the Mullan Road connecting Fort Benton, Montana with Walla Walla, Washington and passing through the Missoula Valley meant fast growth for the burgeoning city, buoyed by the U.S. Army's establishment of Fort Missoula in 1877, and the arrival of the Northern Pacific Railroad in 1883. With this Missoula became a trading center in earnest, distributing produce and grain grown in the agriculturally prosperous Bitterroot Valley. Businessmen A. B. Hammond, E. L. Bonner, and R. A. Eddy established the Missoula Mercantile Company in the early 1880s.

The city's success was aided by two other factors. First was the opening of the University of Montana in September 1895, serving as the center of public higher education for Western Montana. Then, in 1908, Missoula became a regional headquarters for the Forest Service, which began training smokejumpers in 1942. The Aerial Fire Depot was built in 1954, and big industry came to Missoula in 1956, with the groundbreaking for the first pulp mill.

Until the mid 1970s, logging was a mainstay industry with log yards throughout the city. Many ran teepee burners to dispose of waste material, contributing to the smoky haze that sometimes covered the town. The current site of Southgate Mall was once the location of the largest log-processing yard within several hundred miles. The saws could be heard over two miles away on a clear summer night. However, by the early 1990s, changes in the economic fortunes in the city had shut down all the Missoula log yards.

Missoula is located within the fly fishing Golden Triangle and the surrounding area is a popular area for hunting deer, elk, bear, moose, and other game animals. This provides Missoula with an ample tourism industry based on hunting and fishing.

The most relevant past actions include the construction of both Russell Street and South 3rd Street. A description of these corridors is provided as historical context for the other discussions.

Russell Street between South 10th Street and South 3rd Street was historically developed as a local-access road through a primarily residential, working class-neighborhood (Daly and Low's residential subdivisions are located to the west of Russell Street and the South Missoula and Knowles #2 subdivisions are located to the east). The roadway use changed with the construction of the Russell Street Bridge in 1957. After the Russell Street Bridge was constructed, Russell Street served as a primary connecting route between West Broadway Street and Brooks Street. Agricultural property at the southern end of the historic Orchard Homes subdivision was sold in the late 1950s and Russell Street north of South 3rd Street began developing commercially.

South 3rd Street was initially constructed as a primary thoroughfare, connecting the growing Orchard Homes community with the City of Missoula center. South 3rd Street also provided access to the loading docks and other industrial facilities associated with the Bitterroot Branch of the Northern Pacific Railroad.

Chapter 4.0 - Environmental Consequences and Mitigation

Current and reasonably foreseeable future projects which affect resources within the study area include public and private actions such as the Intermountain Lumber site redevelopment, Liberty Lanes redevelopment, Milltown Dam Removal, Reclamation of the Stimson Lumber Site, and the redevelopment at the Champion Mill site.

Redevelopment of the former **Liberty Lanes** site, which is just over three acres in size, includes a two-phase low-income housing project. The 34-unit Equinox phase was completed in 2009, and the Solstice phase including an additional 34 units, is currently under construction.

Redevelopment of the **Intermountain Lumber** site has been included in an Urban Renewal District since 1991. Intermountain closed its doors on the 12 acre site on Russell Street in 2002. In 2003, the Missoula Housing Authority purchased the property. In 2010, the Garden District, a low-income rental housing facility, was opened by the Montana Housing Authority on just under two acres of the site. Efforts are currently ongoing to develop a mixed commercial and residential facility on the portion of the property fronting along Russell Street.

Removal of the Milltown Dam is being conducted by the Environmental Protection Agency. In 1981, arsenic contamination was discovered in drinking water wells near the Milltown Dam and Reservoir. The site was added to the National Priorities List for cleanup under Superfund in 1983. The Superfund Site includes 120 miles of the Clark Fork River and is developed into three Operable Units: (1) Milltown Drinking Water Supply; (2) Milltown Reservoir Sediments; and, (3) Clark Fork River.

There were approximately 6.6 million cubic yards of contaminated sediments behind the Milltown Dam which were contaminating the drinking water supply and releasing copper downstream of the dam, threatening fish and aquatic life. The sediments were deposited during the 1900s as a result of mining activities in Butte. A Record of Decision was issued in 2004 calling for the removal of the dam and highly contaminated sediments.

The cleanup process includes the removal of the Milltown Dam and Powerhouse, the excavation of 2.2 million yards of highly contaminated sediments and transport to the Anaconda Smelter Superfund Site, the restoration of the Milltown drinking water supply, unrestricted fish passage, and the return of the Clark Fork and Blackfoot Rivers to a more natural and free-flowing state.

The remediation and removal of sediments is projected to be done in 2010 and the restoration should be completed by 2012.

Reclamation of the Stimson Lumber Site is anticipated to be complete by the summer of 2011. The Montana Department of Environmental Quality, Department of Justice, and Stimson Lumber Company reached a settlement in *Montana v. Stimson* in which Stimson Lumber Company will remove the Cooling Pond and Berm area which encroaches into the Blackfoot River at Stimson's Bonner Mill. The project will include the removal of an estimated 146,354 cubic yards of material from the Blackfoot River. The most dangerous of the material will be shipped to an out-of-state facility, some will be shipped to the Missoula landfill, and some may be placed at an on-site repository. The removal of waste started in September of 2010, initially anticipated to require 1,500 truckloads. During the excavation of material, however, the contractor discovered an unanticipated amount of logs, timbers, and concrete that needed to be



removed along with the contaminated soils. The identification of the extra materials resulted in an additional four months of removal activity to the original schedule. Excavation of materials was originally slated to be completed in November 2010, but, as a result of the delay, was not completed until March 2011. Revegetation and planting efforts will begin in the spring of 2011 and be completed by May 30, 2011.

The **Champion Lumber Mill** was located between California and Hickory Streets on the south side of the Clark Fork River. In 2007, the Missoula City Council zoned the 46-acre site for a high-density urban infill project. The project will have 285 lots and 520 residential units. The commercial and residential property development could create jobs, provide future housing, and will include parks and trails. Petroleum had polluted portions of the land, and the Montana Department of Environmental Quality oversaw the removal of trichloroethylene from the soil. The task was completed in 2009. The site must be remediated before it can be purchased; the potential developer is following a voluntary cleanup plan which gives them until 2012 to fully clean up the property. When the Department of Environmental Quality signs off on the cleanup, it can be sold to the developer. The Missoula Office of Planning and Grants as well as the Missoula Area Economic Development Corporation were able to provide money from the city's Brownfields Revolving Loan Fund to help finance the site cleanup. The loan will be repaid once the property is sold to the developer.

Five other transportation-related projects are planned or ongoing in the general area. These include:

- Missoula Urban Renewal District, Capital Improvement Program – The lack of curb and sidewalk has been identified in the Urban Renewal District II Study and Plan as a condition contributing to blight in the District. A previous phase constructed curb and sidewalk along Catlin Street between South 3rd Street and Wyoming Street, and Wyoming Street between Catlin Street and Russell Street, and 2nd Street and Garfield Street. Improvements under this Capital Improvement Program item will continue to reduce blight and facilitate the implementation of the Urban Renewal District II Plan by constructing sidewalks where there continue to be gaps in the sidewalk network within the urban renewal district.
- Mullan & Reserve – The purpose of this project is to add an additional left turn lane at the intersection of Reserve Street and Mullan Road to accommodate the northbound Reserve traffic. On Reserve Street, the project begins at the end of the Clark Fork River Bridge. The project then extends north to the beginning of the raised median on Reserve Street. On Mullan Road, the project begins just west of the side entrance into the Northgate Shopping Center. The project then extends west to the signalized intersection of Mullan Road and Clark Fork Lane. A 14-foot right turn lane and a five-foot bike lane will also be included on Reserve Street, south of the Mullan/Reserve intersection. A 12-foot right turn lane and a five-foot bike lane will also be included on Mullan Road, west of the Mullan/Reserve intersection. Existing signals at the northwest corner of the Mullan/Reserve intersection will be removed and new ones added.
- Missoula Signal Optimization – The purpose of the Missoula Signal Optimization project is to review and update traffic signal timings at 51 signalized intersections in Missoula.

Chapter 4.0 - Environmental Consequences and Mitigation

The project will collect traffic count data and optimize traffic signal timings along corridors to improve safety and efficiency of the network. The project will also make recommendations regarding potential future traffic signal equipment upgrades.

- Missoula East & West – The proposed scope of work is to reconstruct and reconfigure the ramps and intersections of both Orange Street and Van Buren Street with I-90.
- Milwaukee Railroad Path – This Community Transportation Enhancement Program project is to construct a 10-foot wide path between Russell Street and Davis Street but does nothing at Russell Street. It is out for bid and will be constructed in the summer of 2011.

Resources not subject to Cumulative Impact Analysis

The 1997 Council on Environmental Quality Cumulative Effects Guidance states that not all potential cumulative effects issues need to be included in the analysis. Cumulative effects analysis should “count what counts” and not include issues that have little relevance or consequence to the effects of the proposed action. Pursuant to this guidance, the following are not subject to cumulative impact analysis as they relate to this project.

Farmlands

There are no lands within the project corridors designated as “prime, unique or statewide important farmlands” that would be eligible for protection under the Federal Farmland Protection Act.

Wetlands

No wetlands were identified within the Russell Street and South 3rd Street project corridors, including the riparian area adjacent to the Clark Fork River where bridge replacement activities are proposed.

Floodplains

The removal of the Milltown dam and the Liberty Lanes site re-development into low-income housing are two known projects that will impact floodplains associated with the Clark Fork River. The removal of the dam will allow the river to return to more free flowing conditions. The site re-development included the removal of a number of large pieces of concrete rubble and included some bank restoration and re-vegetation efforts.

Because of the highly urbanized nature of the downtown Missoula area; however, the floodplain associated with the Clark Fork River has already been subjected to constraints. It is not anticipated that this project will increase the base flood elevation. However, if an increase is necessary, as noted in Section 4.12, the project will not increase the base flood elevation by more than 0.5 feet, which will ensure compliance with Executive Order #11988 and State and City floodplain regulations.



Visual Resources

Due to the highly urbanized setting of Russell Street over the past 50-plus years, both in terms of roadway usage and surrounding land uses, inclusion of landscaped elements in the proposed project would provide an overall enhancement to the visual character from both an adjacent perspective as well as the perspective of the traveler moving along the corridor(s).

Air Quality

By its nature, air quality impacts are analyzed on a regional basis and a broad range of existing, planned and programmed projects are included in the analysis. The regional analysis demonstrates that the proposed projects would not increase regional emissions and would not increase the frequency or severity of violations. The regional analysis further shows that emissions are below the Environmental Protection Agency-established emissions budget for the region.

Resources of Concern

The following resources are included for analysis due to the potential for additive impacts from the proposed improvements on Russell Street and South 3rd Street.

Land Use

The geographic boundaries to land use were considered within the immediate and immediate surrounding areas of the Russell Street and South 3rd Street corridors. For the purposes of this analysis, the “immediate surrounding areas” is defined as an approximate three-block radius around the South 3rd Street and Russell Street corridors (as illustrated in Figure 3-1). These are appropriate boundaries for the study area, as the proposed project improvements are not anticipated to have a regional effect on traffic or development patterns and the proposed study area provides a good representation of the mix of land use currently and planned for the area.

The South 3rd Street and Russell Street project is situated within six Missoula neighborhoods. The Northside/Westside, River Front, River Road, Rose Park, Southgate Triangle, and Franklin to the Fort neighborhoods contain residential and commercial developments with numerous parks and open spaces that serve the entire Missoula community.

The River Front and River Road neighborhoods generally fit within the Southside River Front planning area. The *2000 Southside Riverfront Area Comprehensive Plan* identified the center of this district as the vacant former lumber mill.

Residential development within the neighborhoods is a mixture of single family homes, apartment complexes, duplexes, and mobile home parks. As earlier as 1900, residential development has taken place within the project proposal area. The earliest residential developments were part of the Cobban and Dinsmore subdivisions within western section of the Riverfront neighborhood between present day Reserve and Russell Streets.

Chapter 4.0 - Environmental Consequences and Mitigation

Within the Russell Street corridor from River Road to South 3rd Street, residential development took place mainly from 1910 to 1929.² From South 3rd Street to Mount Avenue, development was happened 1930 to 1956.³ By 1956, most of the present day Russell Street corridor had been built in with single family homes.⁴ Since then, most of the residential development is limited to south of South 3rd Street to Mount Avenue.

Since 1972, commercial development has been concentrated on the northern end of Russell Street from the river to South 3rd Street West. The most significant development within the corridor and surrounding area was the Intermountain Lumber site. This industrial site was built in 1946. By 1972, the lumber operations were closed and the site operated as a lumber yard. The most familiar businesses within the corridor are the Pink Grizzly, Reds Towing, Holiday Gas Station, the Good Food Store, and several used car lots.

On South 3rd Street from Russell Street to Reserve Street, the corridor is dominated by mixed uses of residential homes, a garden nursery, a gas station, and other small businesses. Since 2003, two high-density residential facilities, the Good Food Store, and Home Resources have been built within the River Front area. Commercial development is concentrated within the Russell Street to South 3rd Street corridor and South 3rd Street to Reserve Street travelway. The city was able to secure the remaining easements to construct additional paths to extend the Milwaukee Pedestrian Trail and construction will start soon.

Other than some minor infill developments, the only major planned land use changes within the corridor are the redevelopment of the Intermountain Lumber and Liberty Lanes sites. The plan put forward by the Missoula Housing Authority for the Intermountain site has been partially completed as the Garden District, a low-income rental facility. Further development at the site envisions both a commercial and residential complex which would include affordable housing units and green space along Russell Street. The Liberty Lane site has been redeveloped as affordable housing.

The former Champion Mill site is located between California and Hickory Streets on the south side of the Clark Fork River. In 2007, the Missoula City Council zoned the 46-acre site for a high-density urban infill project. The project will have 285 lots and 520 residential units. The commercial and residential property development could create jobs, provide future housing, and will include parks and trails.

Both Russell Street and South 3rd Street are fairly well developed, but some opportunities for infill or redevelopment do exist, particularly at the former Intermountain Lumber site. Transportation improvements in this area would tend to promote infill development as opposed to roadway extensions to outlying areas which may promote more dispersed-type development (see Indirect Impacts discussion at the beginning of this section). Since the proposed project lies entirely within the city limits, the direction of future growth will be determined more by zoning

² *Results of a Cultural Resources Inventory of the Russell Street Expansion Corridor*, Missoula County, Montana: Inventory Forms. Historical Research Associates, Inc. Missoula, Montana. January 2001.

³ *Results of a Cultural Resources Inventory of the Russell Street Expansion Corridor*, Missoula County, Montana: Inventory Forms. Historical Research Associates, Inc. Missoula, Montana. January 2001.

⁴ *Results of a Cultural Resources Inventory of the Russell Street Expansion Corridor*, Missoula County, Montana: Inventory Forms. Historical Research Associates, Inc. Missoula, Montana. January 2001.



and permitting by the City of Missoula than by the widening of either of these routes. The zoning in this area is currently under review by the Missoula Office of Planning and Grants. The city solicited comments on zoning within the general study from city agencies in late March 2011. The request noted that “the vision itself – one of pedestrian-friendly, mixed-use area according to the Southside Riverfront Comprehensive Plan Amendment – requires zoning that promotes community and neighborhood-scale commercial and residential uses, as opposed to heavy commercial or industrial uses.” Early committee meetings concluded that much of the zoning in place along Russell Street and South 3rd Streets in this area is sufficient to accomplish the community vision, but participants want to take a closer look at the large areas poised for redevelopment. The focus of the zoning changes will be on creating uniformity in height, use, and setback.

Based on this information, the cumulative impacts on land use, development trends and growth are consistent with local plans and policies.

Parks and Recreation/Pedestrian and Bicycle Facilities

The City of Missoula is a very bicycle-friendly community where one has many opportunities to travel by bicycle and get around town. Since 2003, the city of Missoula has been awarded silver status by the League of American Bicyclists. The League’s Bicycle Friendly Community Campaign recognizes communities that actively support bicycling by providing safe accommodations for cycling and encourage residents to bike for transportation and recreation. Missoula is also the home of Adventure Cycling Association; North America’s largest cycling membership organization, which makes the city a focal point for bicycle travel.

For the purposes of this analysis, the geographic boundaries for pedestrian and bicycle facilities were considered within the the city of Missoula, as a whole. These are appropriate boundaries for the study area, as the city has developed an infrastructure for bicycle and pedestrian facilities within the city and surrounding area of the project corridors. The proposed construction of bicycle and pedestrian facilities, as a part of the proposed project, will address missing links in the city’s network. The new bicycle and pedestrian facilities will complete connections with existing facilities in the surrounding area of the Russell Street and South 3rd Street corridors.

Improvements to the pedestrian and bicycle facilities that currently cross Russell Street, and the inclusion of bike lanes and sidewalks where none currently exist on either Russell Street or South 3rd Street would provide improved access to grade-separated trail crossings and better trail connectivity to existing parks and recreational facilities. An increase in the pedestrian and bicycle level of service through traffic control measures, addition of bike lanes, and four grade separated trail crossings will provide a positive impact to the corridor. Those improvements include:

- Riverfront Trail – some portions of which are already in place through the Liberty Lanes/Equinox property,
- Milwaukee Trail – the extension from Russell Street to Reserve Street was recently contracted and will be constructed in the near term, and
- Bitterroot Trail – will be extended in the near term.

Chapter 4.0 - Environmental Consequences and Mitigation

Based on the above, it is anticipated that the cumulative impacts on parks, trails and bike/ped facilities will continue to improve their viability as a resource in the future.

Water Quality

The lateral extent of the Missoula Aquifer varies from about 0.25 miles wide at the mouth of Hellgate Canyon, to 6.25 miles wide between Maclay Flats and the mouth of Grant Creek; the overall length is approximately 20 miles. Groundwater flows generally west southwestward through the Catlin Street Mobile Court area. The aquifer in this area is classified as having moderate source water sensitivity, because it is semi-confined and comprised of unconsolidated alluvium. The Missoula Valley Aquifer has been designated a “Sole Source Aquifer” by the U.S. Environmental Protection Agency. Recharge is derived mainly from the Clark Fork River, underflow from the Clark Fork Valley, tributary drainages and Tertiary units flanking the valley. The Clark Fork River loses water to the aquifer along some stretches and gains water from the aquifer along other stretches of its path through the Missoula Valley (Smith, 1992; Woessner, 1988). Ground water generally flows slightly south of west through this area.

The single largest project in the aquifer related to water quality is the removal of the Milltown Dam, being conducted by the Environmental Protection Agency. In 1981, arsenic contamination was discovered in drinking water wells near the Milltown Dam and Reservoir. The site was added to the National Priorities List for cleanup under Superfund in 1983. The Superfund Site includes 120 miles of the Clark Fork River and is developed into three Operable Units: (1) Milltown Drinking Water Supply; (2) Milltown Reservoir Sediments; and, (3) Clark Fork River.

There were approximately 6.6 million cubic yards of contaminated sediments behind the Milltown Dam which were contaminating the drinking water supply and releasing copper downstream of the dam, threatening fish and aquatic life. The sediments were deposited during the 1900s as a result of mining activities in Butte. A Record of Decision was issued in 2004 calling for the removal of the dam and highly contaminated sediments.

The cleanup process includes the removal of the Milltown Dam and Powerhouse, the excavation of 2.2 million yards of highly contaminated sediments and transport to the Anaconda Smelter Superfund Site, the restoration of the Milltown drinking water supply, unrestricted fish passage, and the return of the Clark Fork and Blackfoot Rivers to a more natural and free-flowing state.

The remediation and removal of sediments and restoration of the area is projected to be completed by 2012.

Apart from the Milltown Dam project, the City of Missoula is undergoing continual redevelopment in commercial areas, new housing construction, and construction and repair of existing infrastructure. The primary effect of these activities along with other, more recent projects in the vicinity of the Russell Street and South 3rd Street corridor is limited to the construction period when exposed soils and demolition activities may cause sedimentation and pollutant runoff to surface waters. All current and future construction activities associated with a water of the U.S. require adherence to permits aimed at protecting surface waters such as the Montana pollutant and discharge elimination system permit administered by Montana Department of Environmental Quality, Section 404 permit administered by the US Army Corps



of Engineers and the associated Water Quality Certification administered by the Department of Environmental Quality.

Cumulative water quality issues are examined based on both surface water and groundwater considerations in the regional watershed. There are ongoing water quality studies for the Missoula aquifer, and the regulatory agencies are continually updating and modifying best management practices to improve water quality in the region. These permits require implementation of Best Management Practices to reduce pollutants and sediment in runoff draining to surface waters. With remediation of past water pollution and with best management practices and permitting requirements, there will be limited adverse impacts to water quality.

Water Bodies and Wildlife Habitat

Due to the highly localized impacts of the project at the Clark Fork River, the geographic boundaries for water bodies and wildlife habitat considerations were generally limited to the urbanized portion of the Clark Fork River, where Russell Street crosses the river. This is an appropriate analysis area, as the project area consists primarily of disturbed areas along the river, offering little natural wildlife habitat. Wildlife use of the habitat is greatly influenced by the extent of development that has occurred within the project area.

Having said that, given the dynamic nature of a river system, it is appropriate to consider past, present, and reasonably foreseeable future actions that have influenced fisheries resources in the analysis area and coming in to the analysis area. These actions include channelization, construction of impassable dams, bank stabilization and encroachment on the floodplain, urbanization, mining, and irrigation diversions. These actions have contributed to the current condition of the Clark Fork River and its ability to support fisheries. The cleanup process associated with the removal of the Milltown Dam and Powerhouse is anticipated to provide improvements to the health of the aquatic habitat. That project includes the excavation of 2.2 million yards of highly contaminated sediments and transport to the Anaconda Smelter Superfund Site, the restoration of the Milltown drinking water supply, unrestricted fish passage, and the return of the Clark Fork and Blackfoot Rivers to a more natural and free-flowing state.

Efforts to clean up pollution from past projects are planned. Runoff from impervious areas along Russell Street and South 3rd Street will be treated with Best Management Practices and potential impacts from future projects will be subject to review by the permitting authorities. Therefore, minimal cumulative effects on surface waters supporting fish are expected.

The project would contribute a minor loss to the cumulative effect on vegetation in the riparian corridor and the habitat it provides. Because this area is already highly developed with recreational facilities (parks and trails) its use by wildlife is limited. However, those species that are adapted to human presence are observed in these areas (bald eagle, deer, songbirds, raccoons) and their presence within the riparian area is expected to continue even after the project is completed.

Extensive trail development along the river is ongoing. Combining future recreational opportunities with existing development along a fragmented river corridor, while preserving trees and providing additional plantings, provides a balance for the shared use of this resource by both humans and wildlife. Because the future overall use and habitat conditions in the area

Chapter 4.0 - Environmental Consequences and Mitigation

would be subject to coordination and regulatory oversight by Federal, State and local wildlife agencies, cumulative effects on wildlife are expected to be minimal. By committing resources to the preservation of open spaces, the future projects will ultimately provide a greater benefit to wildlife, reducing the overall cumulative impact on biological resources.

Hazardous Materials

The geographic boundary for hazardous materials is limited to Missoula's urbanized area due to the fact that the bulk of any potential and known contaminated sites are within developed portions of the city. The location of leaking underground storage tanks, spills, and past contamination is well documented. It is anticipated that this project would result in a net benefit with regard to hazardous materials in that if any contaminated soils or hazardous materials are encountered, they will be remediated.

While not directly affected by the Russell Street or South 3rd Street improvements, the cleanup of the Champion Mill site should be noted as a beneficial cumulative impact with regard to the cleanup of hazardous materials in the study area. Petroleum had polluted portions of the land, and the Montana Department of Environmental Quality oversaw the removal of trichloroethylene from the soil. The task was completed in 2009. The site must be remediated before it can be purchased; the potential developer is following a voluntary cleanup plan which gives them until 2012 to fully clean up the property. When the Department of Environmental Quality signs off on the cleanup, it can be sold to the developer. The Missoula Office of Planning and Grants as well as the Missoula Area Economic Development Corporation were able to provide money from the city's Brownfields Revolving Loan Fund to help finance the site cleanup. The loan will be repaid once the property is sold to the developer.

Reclamation of the Stimson Lumber Site is also ongoing, and anticipated to be complete by the summer of 2011. The Montana Department of Environmental Quality, Department of Justice, and Stimson Lumber Company reached a settlement in *Montana v. Stimson* in which Stimson Lumber Company will remove the Cooling Pond and Berm area which encroaches into the Blackfoot River at Stimson's Bonner Mill. The project will include the removal of an estimated 146,354 cubic yards of material from the Blackfoot River. The most dangerous of the material will be shipped to an out-of-state facility, some will be shipped to the Missoula landfill, and some may be placed at an on-site repository. Removal of waste material began in September of 2010, initially anticipated to require 1,500 truckloads. Excavation of materials was completed in March 2011. Re-vegetation and planting efforts will begin in the spring of 2011 and be completed by May 30, 2011.

There is some potential to encounter hazardous materials at approximately 10 sites within the Russell Street and South 3rd Street corridors. While no substantive issues are anticipated, the discovery and treatment and/or removal of contaminated soils would contribute to lessen the overall hazardous materials in the area. The cumulative impacts from all these projects would lessen the presence of hazardous materials.

Social Conditions/Community Cohesion

The geographic boundaries for social conditions/community cohesion characteristics were considered within the immediate and immediate surrounding areas of the Russell Street and



South 3rd Street corridors. For the purposes of this analysis, the “immediate surrounding areas” is defined as an approximate three-block radius around the South 3rd Street and Russell Street corridors (as illustrated in Figure 3-1). These are appropriate boundaries for the study area, as the project is not anticipated to have an appreciable effect on development patterns, and the proposed area provides a good representation of the existing and proposed mix of land use and development within the project area. As noted in Section 4.3, the proposed project will result in the acquisition of residences within the project corridor and will require 4.32 acres of new right-of-way. Any acquisition of new right-of-way has the potential to split neighborhoods, disrupt community cohesion, and separate residents from community facilities.

Russell Street and South 3rd Street currently serve as boundaries in defining the edges of seven adjacent neighborhoods. While the proposed project will shift those edges, with the proposed acquisition of a number of properties, the extent of right-of-way acquisition has been minimized and the proposal will not result in a split of any existing neighborhoods.

Impacts from this proposed action are anticipated to be largely positive from a mobility and emergency response perspective, positive from a business access perspective, and positive in reducing opportunity costs associated with congestion delay.

Intermountain Lumber has been included in an Urban Renewal District since 1991. Intermountain Lumber closed its doors on the 12 acre site on Russell Street in 2002. In 2003, the Missoula Housing Authority purchased the property. In 2010, the Garden District, a low-income rental housing facility was opened by the Montana Housing Authority. Efforts are currently ongoing to develop a mixed commercial and residential facility on the portion of the property fronting along Russell Street.

The reconstruction and widening along Russell Street will require the removal of several homes to accommodate the widening of the roadway and the installation of bicycle and pedestrian facilities. Given the amount of ongoing housing development in the area (Equinox, Solstice, and Garden District), the loss of homes along Russell Street is not anticipated to affect overall housing stock availability or affordability.

With plans for redevelopment projects and improved accessibility in the geographic area, it is likely the overall community cohesion will become more “livable” in the future.

Noise

Geographic boundaries for noise are typically isolated to a limited area surrounding the subject roadway, particularly in an urban, built-up area; thus, the cumulative impact analysis is limited to the Russell Street and South 3rd Street corridors. The Russell Street and South 3rd Street project is projected to cause noise impacts on 34 receptors within the project area. Under the No Build Alternative 44 receptors would be impacted. No feasible or reasonable noise mitigation was identified for existing receptors, thus there is a cumulative noise impact within the Russell Street and South 3rd Street corridors resulting from the existing and projected roadway usage which accounts for reasonably foreseeable growth in traffic volumes from population growth and infill development in the project area. With future development, it is anticipated that the amount of noise sensitive receptors may increase in the area. To minimize noise impacts at planned or proposed developments within the project area, City could identify noise-compatible land uses

Chapter 4.0 - Environmental Consequences and Mitigation

and /or noise mitigation measures that could be incorporated into future development. Therefore, cumulative impacts on the noise sensitive receptors are anticipated to be minor.

Threatened and Endangered Species

The geographic boundary is generally along the Clark Fork River and its associated riparian areas which support a greater diversity of wildlife than other developed portions of the project area. Although there are four threatened and endangered species in Missoula County, the only Threatened and Endangered Species occurring in the area is the bull trout. While the Biological Resources Report prepared for this project indicated that the project is “likely to adversely affect bull trout,” the Biological Opinion issued by the US Fish and Wildlife Service determined that the “direct and cumulative effects of the proposed project would not be likely to jeopardize the continued existence of bull trout, and not likely to destroy or adversely modify designated bull trout critical habitat. These conclusions are based on the magnitude of the project’s effects in relation to the listed population and that even though some short-term construction-related impacts are anticipated; the proposed action would maintain the long-term condition of bull trout critical habitat in the Clark Fork River within the project area in the Clark Fork River basin bull trout critical habitat unit.”

Historic and Cultural Resources

The geographic boundaries for the study area associated with historic and cultural resources considerations was the city of Missoula, as a whole. It is appropriate to consider the city for the purposes of analysis, as historic preservation efforts are typically driven by local jurisdiction efforts, in conjunction with the State Historic Preservation Office, on a city wide basis. The impacts associated with the removal of a historic resource are considered primarily from the loss of the particular resource, but also in conjunction with how many other similar resources are available within the jurisdiction.

Missoula has nine historic districts listed on the National Register of Historic Places, none of which are adjacent to or nearby the Russell Street/South 3rd Street project. The Missoula Office of Planning and Grants has no plans to work on a historic district designation in the Russell Street/South 3rd Street project area. Missoula County has seventy sites on the National Register of Historic Places. Because of the city’s long history, the inventory of historic properties will continue to grow.

Amongst the past, present, and reasonably foreseeable actions previously identified, the following impacts to cultural and historic resources were identified:

Removal of the Milltown Dam. This project is an undertaking of the Environmental Protection Agency. It involved the removal of the old Western Lumber Company Dam and powerhouse at the confluence of the Clark Fork and Blackfoot rivers. The dam was removed as part of a cleanup effort to remove over a century’s worth of contaminated soils that had washed down the river from Butte and Anaconda. Although the dam and powerhouse were removed (the powerhouse was National Register-eligible and mitigated by the Environmental Protection Agency), the project has benefits to cultural resources. The restoration of the confluence of the two rivers has benefits to both Native American and Euro-American history. The confluence was important to Native Americans as a



terminus of Cokahlarshkit (the Road to the Buffalo) and to Euro-Americans for its association with the Mullan Military Road and the settlement of Hellgate in the 1860s. The project also included the restoration of a historic bridge into a pedestrian structure. So, while the removal of the National Register-eligible dam and powerhouse represents a loss of historic resources, the restoration provided positive benefits to cultural resources in the Missoula area. No other National Register-eligible buildings were removed as a result of the Environmental Protection Agency project.

Reclamation of the Stimson Lumber Site. The work does not have a federal nexus and, thus, did not require Section 106 consultation. The work is occurring under the oversight of the Montana Department of Environmental Quality. It is not believed that any National Register-eligible buildings were removed as a result of the project. But, the residential area associated with the old Bonner Mill and some industrial buildings are currently under consideration for listing as an historic district by the Montana State Historic Preservation Office and will not be impacted.

Liberty Lanes. Based on discussion with the city of Missoula/Missoula County Historic Preservation Office, it doesn't appear that any cultural and historic resources were impacted by the action.

Intermountain Lumber. Based on discussion with the city of Missoula/Missoula County Historic Preservation Office, it doesn't appear that any cultural and historic resources were impacted by the action.

Champion Lumber Mill. Based on discussion with the city of Missoula/Missoula County Historic Preservation Office, it doesn't appear that any cultural and historic resources were impacted by the action.

In general, the cumulative effects of redevelopment and modernization projects within the city and project area (particularly those that do not have a federal nexus) have the potential to decrease the numbers of historic properties within Missoula.

4.18 Construction Impacts

Land Use

Short-term construction impacts may include disruptions of access to residential, commercial, and recreational properties adjacent to the project corridor.

Social and Economic Conditions

Short-term construction impacts such as minor traffic delays and temporary lane closures would occur with the Preferred Alternative. Modified school bus and Mountain Line routes would also likely be adopted during construction.

Construction within the project corridor would result in temporary restricted vehicle access on some streets, which could affect fire and emergency response traffic, and law enforcement

Chapter 4.0 - Environmental Consequences and Mitigation

traffic. Restricted access would be limited to as little time as necessary. Construction would also result in temporary restricted access to fire hydrants. Fire and emergency response, law enforcement, and solid waste collection services would be contacted during the final design phase and during the construction phase so that alternate routes and schedules could be planned.

Utilities would be relocated as needed and there would be no long-term impacts. Relocation or realignment of utilities in the project corridor would be completed according to City of Missoula standard practices. Construction may require relocation of several overhead electric distribution lines, telecommunication lines, light posts, underground utility boxes, and a low pressure gas line depending on the roadway design. Coordination with the utility owners would occur during the design phase of the project.

The City of Missoula, Montana Department of Transportation, and Federal Highway Administration will coordinate with Montana Rail Link regarding possible disruptions to the rail line crossing of Russell Street during the final design and construction stages of the project.

The City of Missoula and/or Montana Department of Transportation will meet with the fire and police departments during design and construction to ensure that impacts created by lines of traffic and medians are minimized. The City and/or Montana Department of Transportation will work with emergency service providers to ensure that adequate access is maintained near the project during construction.

Pedestrian and Bicycle Conditions

Short-term construction impacts including traffic delays and temporary lane and sidewalk closures would occur. These are expected to vary depending on the extent and nature of the construction disturbance, and on the time necessary to complete construction.

Disturbances related to project construction may require bicyclists and pedestrians to travel closer to vehicle traffic as well as to construction machinery. Sidewalk and shoulder closures may require pedestrians and bicyclists to be directed to alternate routes.

Air Quality

To minimize dust from construction activities that would contribute to ambient concentrations of suspended particulate matter, the construction contractor(s) will comply with the Montana Department of Transportation Best Management Practices, and in accordance with Montana Pollutant Discharge Elimination System, Construction General Permit.

The construction contractor(s) would be required to comply with current Missoula Air Quality Regulations.

Noise

Construction activities associated with the Build Alternatives are likely to produce sound levels exceeding allowable limits as established by the Missoula Municipal Code 9.30.040 (Table 3-3). There would be temporary increases in sound levels at locations near active construction areas



and along routes to these areas. There are many homes within 50 to 100 feet of areas where active construction would occur and these would likely be affected by noise from construction activities involving heavy equipment and hauling of construction materials. The increase in noise would depend on the type of equipment being used and the amount of time it is in use.

Contractors will comply with current rules and regulations set forth in the Missoula Municipal Noise Ordinance. Construction zones will be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to an applicable construction permit issued by the City of Missoula.

Water Quality

The most substantial potential impacts to surface water quality are related to replacement of the Russell Street Bridge. Soil erosion, debris and dust from bridge demolition, and heavy equipment use all could result in impacts on water quality in the Clark Fork River.

Operation of heavy equipment at the site would require fueling and engine maintenance activities that involve oil, grease, solvents, and other engine fluids. Best Management Practices will be utilized to minimize the potential for these materials to impact stormwater runoff.

Water resource impacts typically associated with demolition activities include increased debris loading to stormwater conveyance systems and increased particulate loading in runoff. Best Management Practices will be utilized to minimize the potential for water resources impacts. Given the distance from the river and the high volume of flow in the river, any associated impacts are expected to be very minor.

Water Bodies and Wildlife Habitat

Short-term construction impacts on fish may occur during several stages of construction, including in-stream construction, dewatering of the construction zone, construction of a work bridge, removal of the bridge, and during trail construction. Erosion caused by reconstruction of the project could cause short-term increases in turbidity resulting in minor effects to aquatic species of the Clark Fork River.

Construction activities would result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity in the river downstream of the project; particularly during precipitation events. Increased exposure of soils in the project area would provide a continuing source of sediment into the local system during precipitation events until stabilized.

In-stream construction activities may also increase sediment levels in the river. In-stream construction includes construction of new bridge piers, removal of piers from the old bridge after the new bridge is completed, and construction and removal of work bridges if necessary.

The existing Russell Street Bridge would require removal under the Preferred Alternative. The concrete deck and the existing piers would be removed according to the conditions of the required stream permits. Construction activities near the bridge resulting in increased activity

Chapter 4.0 - Environmental Consequences and Mitigation

and noise in the area could temporarily disrupt or displace wildlife living in or traveling through the riparian habitat near the bridge.

Unique requirements for bridge removal and construction will be addressed in Special Provisions as appropriate. These requirements will be coordinated with the appropriate resource agencies during final design.

In-stream activities associated with the project may result in temporary adverse impacts to important bull trout habitat downstream of the project. Exposure of cut-slopes and other areas adjacent to the river, and other disturbances described above will increase the potential for sediments to reach the Clark Fork until stabilized, possibly impairing habitat suitability. These effects would, however, be substantially reduced through application and monitoring of Best Management Practices for pollutant/sediment/erosion control during and following construction as required by the Montana Department of Transportation standard specifications, and Montana Fish, Wildlife, & Parks Stream Protection Act and federal Section 404 Clean Water Act permits required for the project. The contractor will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) in compliance with the Montana Pollutant Discharge Elimination Permit from the Montana Department of Environmental Quality.

Floodplains

Potential construction-related impacts on floodplains are primarily related to construction of a work bridge, if necessary, as a part of Russell Street Bridge replacement activities. Pending final design, the project impacts within the 100-year floodplain could increase the potential for flooding, however, floodplain permits would be secured if necessary prior to construction.

If a work bridge is necessary, it will be removed in its entirety from the Clark Fork River floodplain/floodway when construction activities have completed.

Threatened and Endangered Species

Increases in turbidity, suspended sediment, and other pollutants can reduce stream productivity, reduce feeding opportunities for fish, and result in fish avoidance of important habitat. Deposited sediments reduce habitat volume by filling pools and intergravel spaces which are critical to young fish.

Best Management Practices will be utilized to minimize the potential for sediment discharge to the Clark Fork River during construction. The potential implementation of in-stream timing restrictions will further reduce potential impacts to the Clark Fork River. The “likely to adversely affect” determination for Bull Trout required formal consultation with the U.S. Fish and Wildlife Service, which has been completed. Appendix F contains the Biological Opinion issued for this project and contains mitigation measures to be employed during construction.

Historic and Cultural Resources

There would be no construction impacts to historic and cultural resources.



Hazardous Materials

Impacts associated with existing contamination present on any of the alternative sites would be largely short-term (during construction).

Visual Resources

Short-term construction related impacts would include:

- Traffic congestion in areas of active construction
- Construction vehicles and equipment
- Clearing and grading activities resulting in exposed soils until surfacing or replanting occurs
- Erosion control devices such as silt fences, plastic ground cover, and straw bales
- Dust, exhaust, and airborne debris in areas of active construction
- Staging areas used for equipment storage and construction materials
- Lighting and signage resulting in increased glare.

4.19 Energy Implications

The dominant energy source for the transportation sector is petroleum, and nearly two thirds of the petroleum consumed in the United States is in this sector. The highway mode accounts for nearly three-fourths of total transportation energy use with about 80 percent from automobiles, light trucks, and motorcycles, and about 20 percent from heavy trucks and buses.

Fuel consumption is a function of traffic characteristics similar to those affecting emissions. Primary characteristics include traffic flow, driver behavior, highway geometrics, vehicle fleet, and climate. Modeling by the Oak Ridge National Laboratory suggests that of all the travel-related factors affecting fuel economy, average vehicle speed explains most of the variability in fuel consumption and is a good predictor of fuel economy for most urban trips. Fuel efficiency under steady flow, cruise-type driving conditions peaks at speeds of 35 to 45 miles per hour and then rapidly declines at higher speeds. At lower speeds, however, engine friction, tires, and accessories (power steering and air conditioning, for example), as well as repeated braking and acceleration, also reduce fuel efficiency.

No Build Alternative

While the fuel efficiency of the vehicle fleet is expected to improve over the next 20 years, increased congestion resulting in stop-and-go traffic under the No Build Alternative would increase the overall energy requirements in these corridors.

Preferred Alternatives

By adding capacity, and thus increasing average vehicle speeds and smoothing traffic flows as compared to the No Build Alternative, the Preferred Alternatives would have the greatest positive effect on those fuel economy factors related to travel conditions and driver behavior.

Chapter 4.0 - Environmental Consequences and Mitigation

While the overall effect on energy requirements is not anticipated to entail an appreciable benefit, similar to air quality, it does not cause or contribute to additional problems.

Mitigation

No mitigation is required.

4.20 Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Short-term impacts are anticipated during the construction of the proposed improvements to Russell Street and South 3rd Street. These impacts include traffic disruptions during reconstruction of the travel lanes, bridge replacement, and disruption to the trail systems. These disruptions may result in short-term impacts to residential and business access, and local traffic flow.

As described in Section 4.18 (Construction Impacts) of this chapter, short-term impacts related to noise, air quality, and water quality can also be expected. Mitigation measures would be employed to offset these impacts.

The proposed improvements in these corridors are consistent with local and regional planning for land use and the transportation corridors; thus the contribution to the maintenance and enhancement of long-term productivity of the uses within the study area, as well as the surrounding area, outweighs the more localized, short-term impacts anticipated by the proposed project.

4.21 Irreversible and Irretrievable Commitment of Resources

Construction of the proposed improvements to Russell Street and South 3rd Street would involve the commitment of a wide range of resources including:

- Natural resources in the form of land converted for roadway use;
- Physical resources in the form of construction materials for the improved facilities;
- Human resources in the form of labor employed during construction; and
- Fiscal resources in the form of public funding for construction.

Land used for the Preferred Alternatives is considered an irreversible commitment during the time period that the land is used for a roadway facility. However, if a greater need arises for use of the land or if the roadway facilities are no longer needed, the land can be converted to another use. At present, there is no reason to believe that such a conversion would ever be necessary or desirable.



Considerable amounts of fossil fuels, labor, and roadway construction materials such as gravel, steel, concrete, and bituminous pavement would be required to implement the Preferred Alternatives. These materials are generally considered irretrievable; however, they are not in short supply and their use would not have an adverse or cumulative impact on the continued availability of these resources. Some materials, such as gravel, pavement products, and steel may be recycled for future use.

Human resources would be used for the design, construction, and maintenance of the project.

Construction would also require a substantial one-time expenditure of local, state, and federal funds, which are not retrievable. Funds have already been committed and spent for planning, preliminary design, environmental studies, and developing the Draft and Final Environmental Impact Statements.

The commitment of these resources is based on the belief that the users of the transportation system (local, region, state, national, and international) would benefit by the improved quality of the transportation system. The primary benefits are increased accessibility, safety, time savings, and greater availability of quality services which are anticipated to outweigh the commitment of these resources.

4.22 Permits and Coordination Required

Prior to construction of the Russell Street and South 3rd Street reconstruction project the following permits and coordination would be required:

- Section 401 Certification of the Clean Water Act – Water Quality Certification from the Montana Department of Environmental Quality
- Section 404 Permit of the Clean Water Act from the U.S. Army Corps of Engineers.
- Montana Pollutant Discharge Elimination Permit from the Montana Department of Environmental Quality
- Montana Land-Use License or Easement on Navigable Water from the Montana Department of Natural Resources
- Floodplain encroachments must be approved by the Missoula County Floodplain Administrator.
- Montana Stream Preservation Act (SPA 124 coordination) with Montana Fish, Wildlife & Parks.
- City of Missoula MS4 Permit
- Any necessary drywell permitting would be coordinated with the Environmental Protection Agency.

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5.0 FINAL SECTION 4(f) EVALUATION

This chapter provides a description of properties located within the Russell Street and South 3rd Street corridors that are protected by Section 4(f) of the Transportation Act of 1966 (49 USC 303). Section 4(f) declares that “[i]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that “[t]he Secretary [of Transportation] shall not approve any program or project (other than any project for a park road or parkway under Section 204 of this title) which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, State, or local significance as so determined by such officials unless:

- 1) there is no feasible and prudent alternative to the use of such land; and
- 2) such program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

This Section 4(f) Evaluation documents the considerations, consultations, and alternative studies supporting the conclusion that there are no feasible and prudent alternatives to the use of the Section 4(f) resources located in the Russell Street and South 3rd Street corridors and that the Preferred Alternative includes all possible planning to minimize harm to the affected resource(s).

The United States Supreme Court clarified the definitions of the words “feasible” and “prudent” as they are used in Section 4(f) to mean:

“Feasible” - Capable of being done “only if it comports to sound engineering practice and judgment.”

“Prudent” - For an alternative to be considered *not prudent*, “it must be shown that unique problems or unusual factors, or, that cost, environmental impacts, or community disruptions of such extraordinary magnitude, are associated with such alternative.”

In 2005, Congress amended Section 4(f) as part of the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users*. This amendment authorizes the Federal Highway Administration to approve a project that results in a *de minimis* impact to a Section 4(f) resource without the evaluation of avoidance alternatives typically required in a Section 4(f) Evaluation.

Chapter 5.0 - Final Section 4(f) Evaluation

The amendment regarding *de minimis* impacts states in part:

The requirements of this section shall be considered to be satisfied and an alternatives analysis not required if the Secretary [of Transportation] determines that a transportation program or project will have a *de minimis* impact on the historic site, parks, recreation areas, and wildlife or waterfowl refuges. In making any determination, the Secretary shall consider to be part of a transportation program or project any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the transportation program or project. With respect to historic sites, the Secretary may make a finding of *de minimis* impact only if the Secretary has determined in accordance with the consultation process required under Section 106 of the National Historic Preservation Act that the transportation program or project will have no adverse effect on the historic site or there will be no historic properties affected by the transportation program or project; the finding has received written concurrence from the State Historic Preservation Officer; and the finding was developed in consultation with the parties consulted under the Section 106 process.

5.1 Proposed Action

The City of Missoula, in cooperation with the Montana Department of Transportation and the Federal Highway Administration, initiated a study to evaluate alternatives to address the current and projected safety mobility concerns on Russell Street and South 3rd Street. The 1996 Missoula Transportation Plan Update recommended widening Russell Street to 4+ lanes and South 3rd Street to 2+ lanes to correct roadway deficiencies. The general proposed action under consideration includes vehicular capacity improvements, accommodation of alternative transportation modes, grade separated trail crossings, transit pullouts, sidewalks, curb & gutter, boulevards, and bicycle lanes. Signalization of key intersections, as well as the potential for construction of roundabout traffic control is also under consideration with this proposed action.

5.2 Section 4(f) Properties

As outlined in Chapters 3 and 4 of this Environmental Impact Statement, there are 36 properties within proximity of the proposed project that are protected by Section 4(f) including historic buildings, a historic rail line, and three recreational trails (See Section 3.5 for trail and Section 3.14 for historic property information). Figure 5-1 illustrates the location of each protected property and the Section 106 determination under the various build alternatives.

Of the 33 properties identified as eligible for listing on the National Register of Historic Places, the Montana State Historic Preservation Office has determined through Section 106 consultation that the various Build alternatives would have **No Effect** on 26 of those sites, as outlined in Chapter 4. The No Effect determination was based on the ability to avoid the need for right-of-way from these 26 sites. Based on the preliminary design, there is **no “use”** and no further analysis of these 26 properties under Section 4(f).

Final Environmental Impact Statement



Figure 5-1
Section 4(f) Property Impacts – Mount Avenue to South 3rd Street

**Alt
2**



**Alt
3**



**Alt
4**



**Alt
5**



**Alt
5R**



Key:

24MO###

Historic Site
Recording Number

No Effect

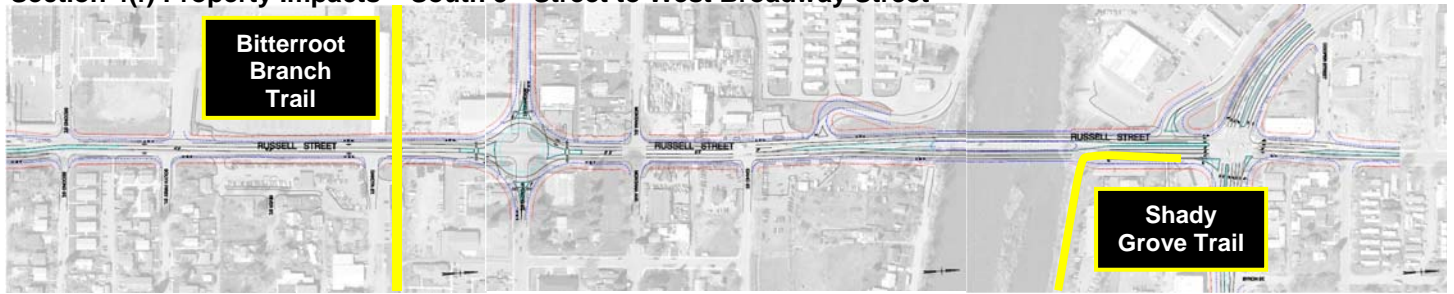
No Adverse Effect

Adverse Effect

Chapter 5.0 - Final Section 4(f) Evaluation

Figure 5-1
Section 4(f) Property Impacts – South 3rd Street to West Broadway Street

**Alt
2**



**Alt
3**



**Alt
4**



**Alt
5**



**Alt
5R**



Key:

24M0###

Historic Site
Recording Number

No Effect

No Adverse Effect

Adverse Effect



5.3 Impacts on the Section 4(f) Properties

Each of the build alternatives on Russell Street involves a Section 4(f) “use” of seven of the 33 historic properties, as well as the three trails. The specific level of impact on the historic properties varies by alternative as described below, and summarized in Table 5.1.

- The Bitterroot Branch of the Northern Pacific Railroad (**24MO718**) is a linear site that currently crosses Russell Street in the southerly portion of the corridor. This site would be impacted by any Build alternative. Based on the fact that the site would remain largely intact, and impacts would be limited to a wider at-grade railroad crossing at the same existing location, these impacts have been determined to have **No Adverse Effect** on the historic railroad but still constitute a Section 4(f) “use” of the resource.
- Two historic residences (**24MO811 and 24MO819**) lie in very close proximity to the existing alignment and selection of any build alternative would require removal of the structures. This permanent incorporation of the site into the transportation facility results in an **Adverse Effect** to these sites, and a Section 4(f) “use” of the resource.
- The residence in the northwest quadrant of the South 5th Street intersection with Russell Street (**24MO800**) would be directly impacted by Alternative 5, resulting in an **Adverse Effect** determination. The remaining build alternatives avoid impacts to the structure but would require encroachments on the property resulting in a Section 4(f) “use.” The Preferred Alternative requires a very minor encroachment and results in a **No Effect** determination. The roundabout intersection in Alternative 5-Refined encroaches deeper into the property resulting in a **No Adverse Effect** determination.
- The residence in the southwest quadrant of South 5th Street (**24MO801**) would be avoided by the Preferred Alternative, resulting in a **No Effect** determination. Alternative 5, with a roundabout at this intersection, would require removal of the structure and result in an **Adverse Effect** determination. Alternative 5-Refined attempted to shift the roundabout at this intersection to the east. This shift results in the acquisition of additional properties on the east side of Russell Street, while the roundabout would still lie within approximately ten feet of the historic structure on the west. Alternative 5-Refined, while avoiding the structure still encroaches on the property to the point of having a **No Adverse Effect** determination.
- The small residential structure to the rear of the lot in the northwest quadrant of the South 11th Street intersection with Russell Street (**24MO822**) would be removed by construction of the roundabout in Alternative 5, resulting in an **Adverse Effect**. Both Alternative 5-Refined and the Preferred Alternative have a stop-controlled intersection at this location which will avoid impacts to this structure, resulting in a **No Effect** determination.
- The residence in the southwest quadrant of the South 11th Street intersection with Russell Street (**24MO823**) would be removed by construction of the roundabout in Alternative 5,

Chapter 5.0 - Final Section 4(f) Evaluation

resulting in an **Adverse Effect**. Both Alternative 5-Refined and the Preferred Alternative have a stop-controlled intersection at this location, and with the use of a small retaining wall can avoid impacts, resulting in a **No Effect** determination.

Appendix C provides documentation of the coordination with the State Historic Preservation Officer according to Section 106 of the National Historic Preservation Act.

Table 5.1
Section 106 Determination on Properties Protected by Section 4(f)

Site #	Location	Alternative 2	Alternative 3	Alternative 4 (Preferred)	Alternative 5	Alternative 5 (Refined)
24MO718	Bitterroot Branch of the Northern Pacific Railroad	No Adverse Effect	No Adverse Effect	No Adverse Effect	No Adverse Effect	No Adverse Effect
24MO800	1508 South 5 th Street	Adverse Effect	Adverse Effect	No Effect	Adverse Effect	No Adverse Effect
24MO801	1501 South 5 th Street and 715 Russell Street	Adverse Effect	Adverse Effect	No Effect	Adverse Effect	No Adverse Effect
24MO811	824 Russell Street	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect
24MO819	941 Kern Street	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect
24MO822	1500 ½ South 11 th Street	No Effect	No Effect	No Effect	Adverse Effect	No Effect
24MO823	1501 South 11 th Street	No Adverse Effect	No Adverse Effect	No Effect	Adverse Effect	No Effect

As summarized in Table 5.1, Alternatives 2 and 3 have an Adverse Effect on four historic properties, Alternative 4 has an Adverse Effect on two historic properties, Alternative 5 has an Adverse Effect on six historic properties, and 5-Refined has an Adverse Effect on two historic properties. The Adverse Effect determinations were based on whether the new facility would be in direct conflict with an existing historic structure or whether there would be substantial right-of-way encroachments on the historic property. Alternative 4 requires the least physical impact on historic structures and right-of-way encroachments as compared to the other Build alternatives.

Two residential properties (24MO811 and 24MO819) protected by Section 4(f) would be fully acquired under the any of the Build alternatives because the new right-of-way bisects the historic structures themselves. These impacts are discussed later in this section.

In addition to the historic sites noted above, three trails located in the Russell Street corridor are also protected by Section 4(f). Each of these trails is oriented perpendicular to, and are currently crossed by Russell Street. Each of the build alternatives would continue to cross these trails and result in a “use” of the Section 4(f) property. See the de minimis discussion below for details on the impacts to these resources. Based on the analysis summarized above, Alternative 4 has the least impact on properties protected by Section 4(f), and has been forwarded as the Preferred Alternative.



***De Minimis* Coordination**

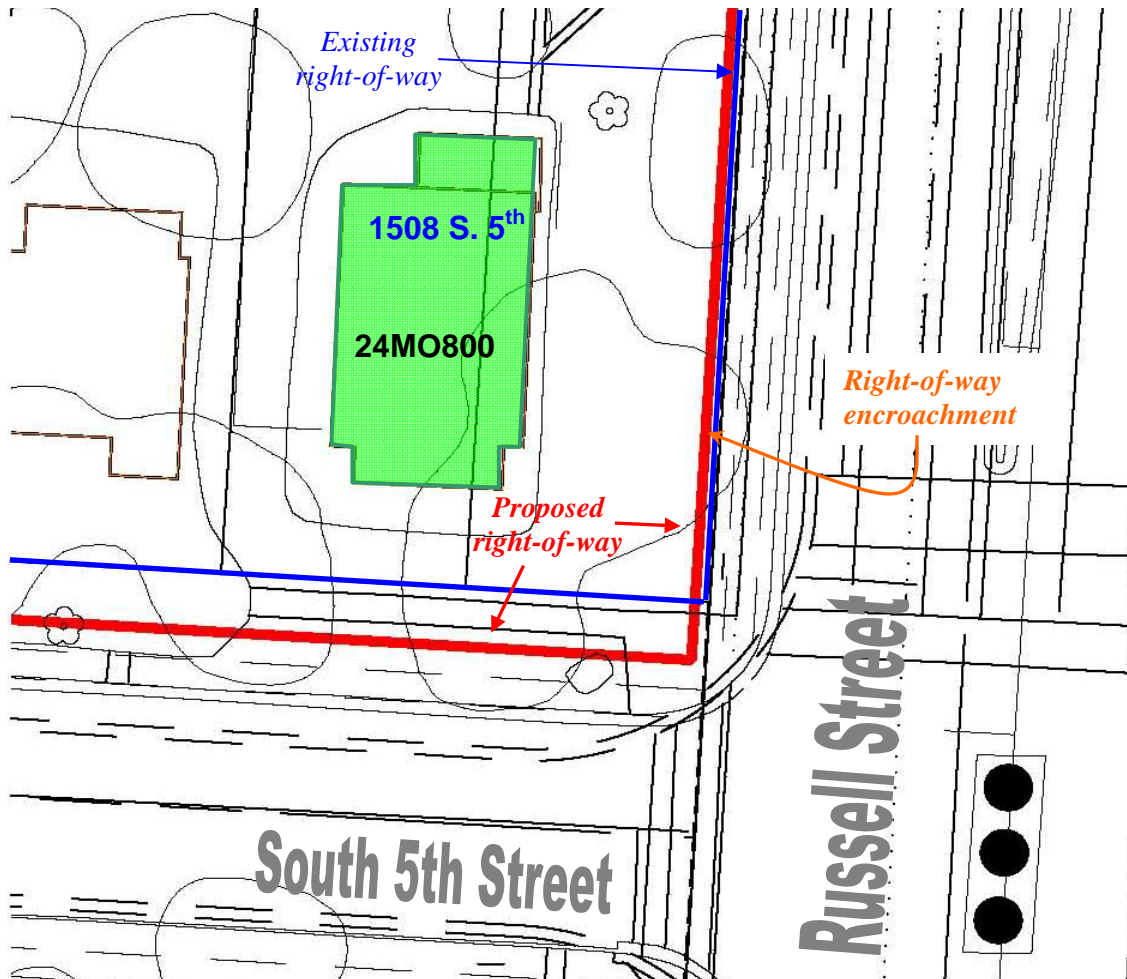
All impacts to 28 historic properties are completely avoided by the Preferred Alternative. Minimal right-of-way would be required from one property (24MO800) at the intersection of Russell Street and South 5th Street as depicted in Figure 5-2. Approximately 325 square feet of new right-of-way would be required along the eastern edge of this property adjacent to Russell Street. This is a narrow sliver of right-of-way necessary for the roadway expansion and inclusion of bicycle lanes, boulevard, and sidewalk.

The Federal Highway Administration has made a *de minimis* finding on the impacts to 24MO800, as well as three recreational trails, and the railroad currently intersected by Russell Street.

The Montana State Historic Preservation Officer has concurred with the finding of **No Effect** on site 24MO800 at 1508 South 5th Street although there is a minimal use of the property, and the Federal Highway Administration has notified the Officer that they have made a *de minimis* finding based on this Section 106 determination of effect. The acquisition is minor in nature and does not significantly change the setting or characteristics of the property that make it eligible for the National Register of Historic Places. The Public Hearing and comment period conducted for the Draft Environmental Impact Statement served as the opportunity for public review and comment on these impacts. The Federal Highway Administration's *de minimis* letter is included in Appendix E, and the Montana Department of Transportation's determination of effect and the State Historic Preservation Officer's letter of concurrence are included in Appendix C.

The Bitterroot Branch of the Northern Pacific railroad main line would continue to be intersected by Russell Street, and would not experience any further physical disruption. The Bitterroot Branch Trail, Milwaukee Trail, and Shady Grove Trail would each also continue to be intersected by Russell Street as depicted in Figure 5-3, but the proposed project would provide for grade-separated crossings and provide an overall improvement to the recreational use of these trail facilities. Thus, the impact to these Section 4(f) recreational facilities would be short-term and temporary. Additionally, this transportation enhancement project and mitigation activities associated with any of the Build Alternatives use the protected Section 4(f) properties for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for Section 4(f) protection. The addition of grade-separated crossings, included in the Build Alternatives, would promote the future use of the three trails.

Figure 5-2
De Minimis Impacts on Site 24MO800



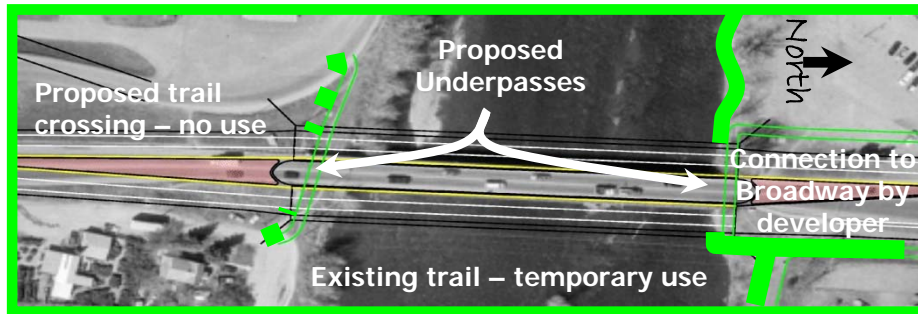
Final Environmental Impact Statement



Figure 5-3

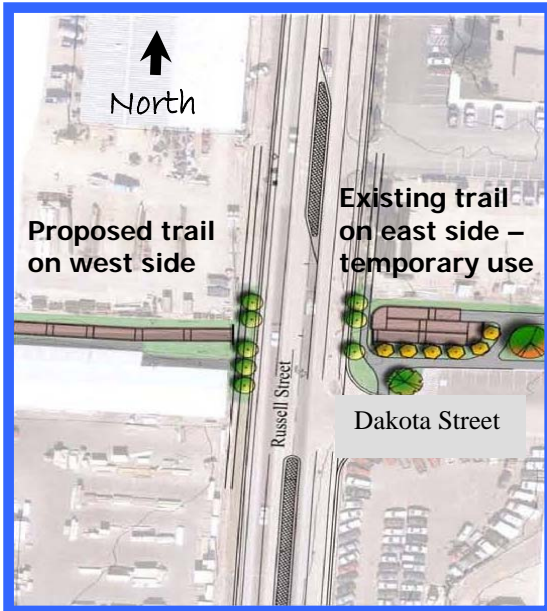
De Minimis Impacts to Trail Crossings

as Elements of the Proposed Russell Street reconstruction project

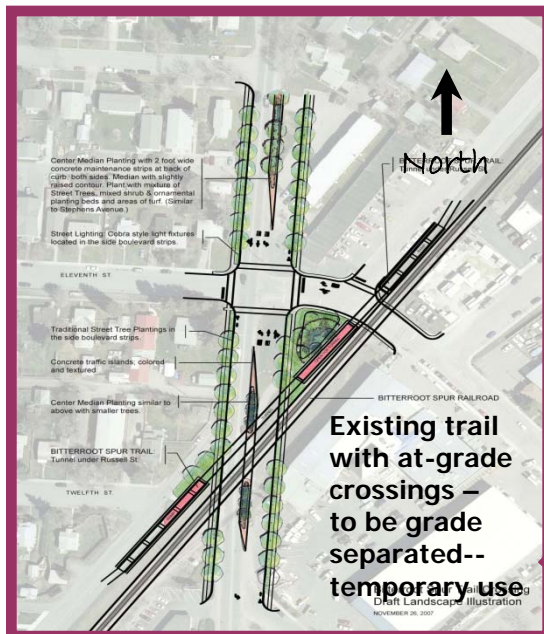


Shady Grove Trail

Milwaukee Corridor Trail



Bitterroot Branch Trail



West Broadway Street

Clark Fork River

River Road

Idaho Street

Montana Street

Wyoming

Dakota Street

River Street

South 1st Street

South 2nd Street

South 3rd

South 4th Street

South 5th

South 6th Street

South 7th

South 8th

South 9th Street

South 10th

South 11th Street

South 12th Street

South 13th

Mount Avenue /
South 14th

Chapter 5.0 - Final Section 4(f) Evaluation

The proposed construction limits of the Build Alternatives are in direct conflict with two residential properties (24MO811 and 24MO819) protected by Section 4(f).

As illustrated in Figures 5-4 and 5-5, the proposed new right-of-way completely bisects these two residential structures along Russell Street. These structures could not remain in their current location with the proposed roadway improvements, resulting in a “use” under Section 4(f).

Figure 5-4
Impacts on 824 Russell Street
(24MO811)

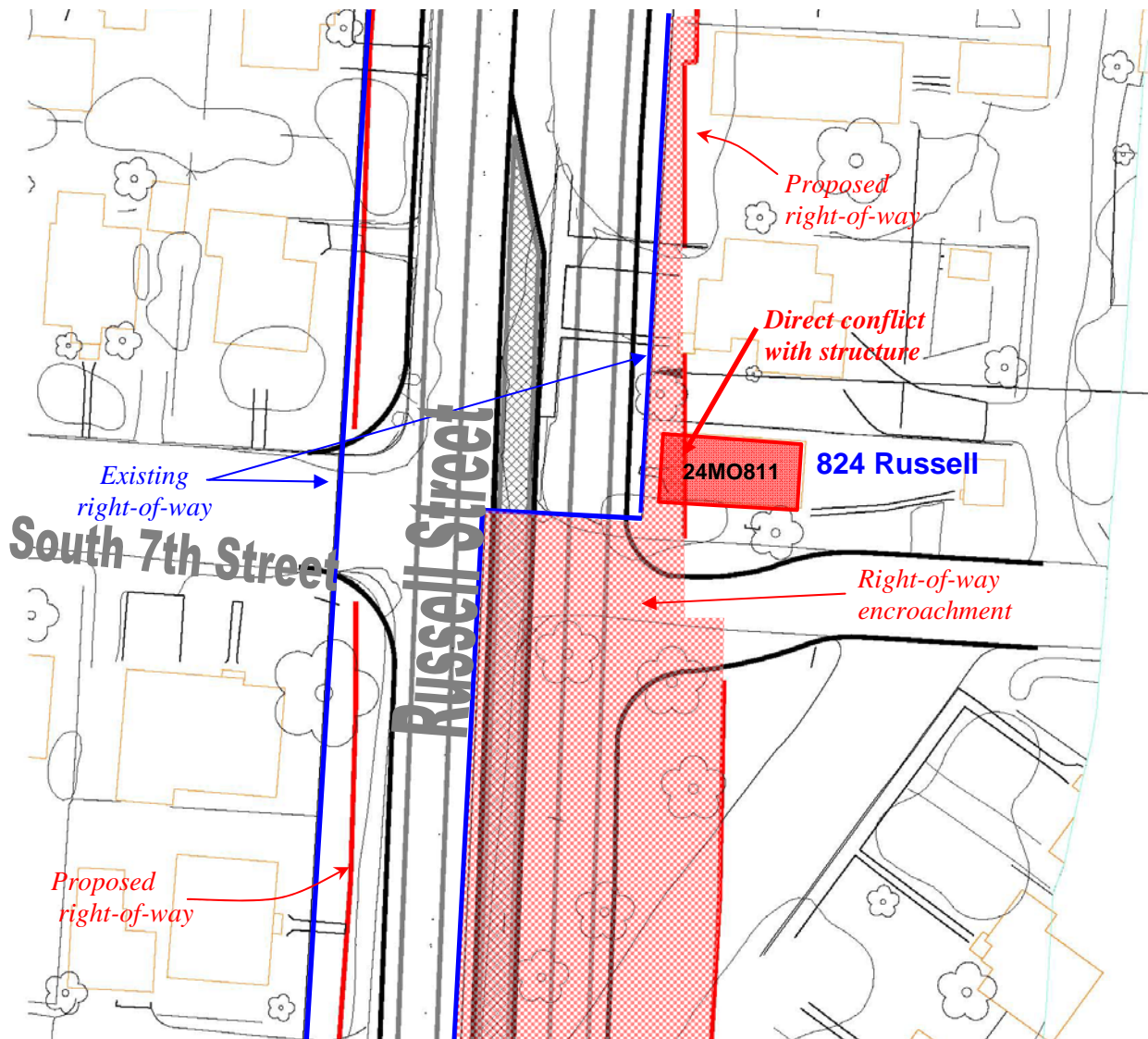
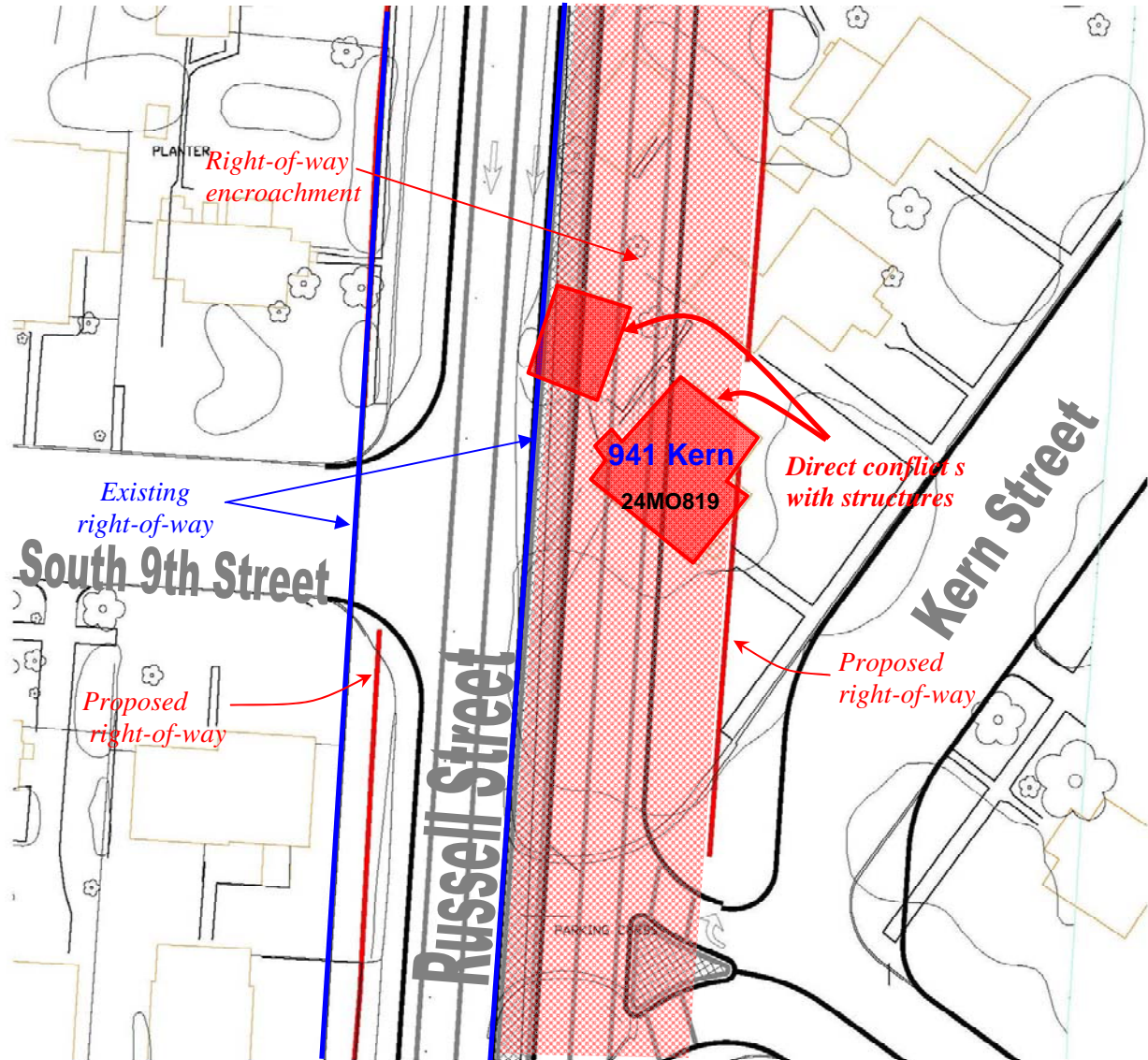


Figure 5-5
Impacts on 941 Kern Street
(24MO819)



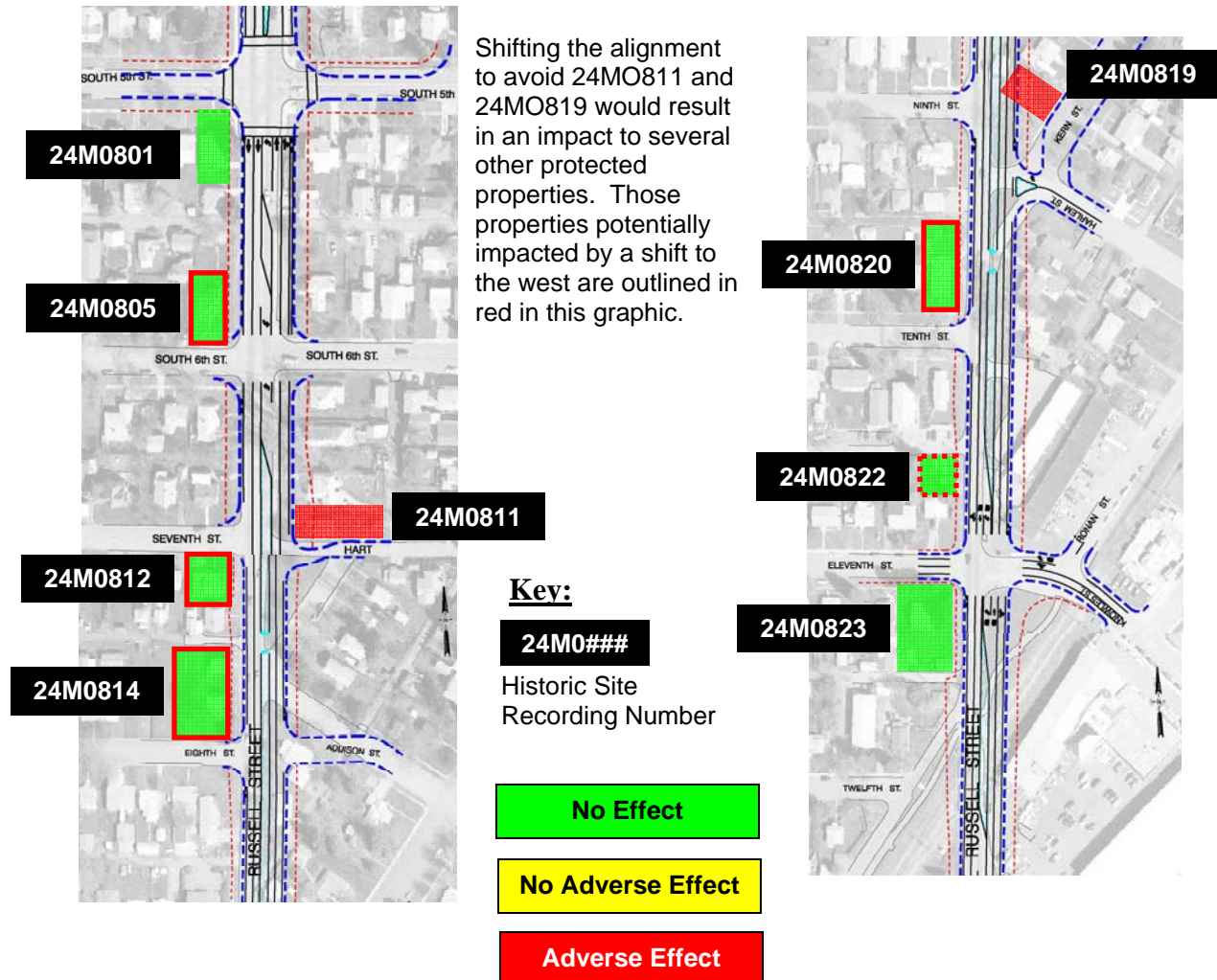
5.4 Avoidance Alternatives

The only complete avoidance alternative available is the No-Build Alternative. This option was determined to be unreasonable because it does not satisfy the basic Purpose and Need for the proposed project. Any basic widening of Russell Street will impact 24MO819. The realignment of Hart and South 7th Streets along with the basic widening of Russell Street will impact 24MO811. The implementation of a single element included in the Build Alternatives such as a sidewalk, would impact these properties. Thus, any refinement of the Build Alternatives to avoid impacts is not feasible or prudent because the resulting alternatives would fail to meet Purpose and Need.

Traditional means of avoiding protected resources might include narrowing the cross-section of the roadway through steepened side slopes, or narrowing or eliminating entire elements of the improvements, or shifting the alignment away from those resources. In this case, even minimal improvements in the corridor would impact Section 4(f) resources, and an alignment shift would simply impact different and more numerous resources protect by Section 4(f).

Any capacity improvements on Russell Street would result in impacts to Section 4(f) resources. As illustrated in Figure 5-6 below, shifting the alignment to the west to avoid impacts to site 24MO811 would result in an impact to sites 24MO805, 24MO812, and 24MO814. Similarly, shifting to the west to avoid impacts to site 24MO819 would result in impacts to sites 24MO820 and possibly 24MO822. The proposed alignment avoids impacts to the remaining Section 4(f) properties, and was determined to be the least damaging alternative overall.

Figure 5-6
Avoidance Alternative Constraints



Due to the location of several 4(f) properties in immediate proximity and on both sides of the existing alignment, avoidance of all impacts to all Section 4(f) properties is not feasible with any safety or mobility improvements in the Russell Street corridor. A shift to the west to avoid the structure at site 24M0811 and 24M0819 would result in an undesirable “kink” in the Russell Street alignment, and would result in additional impacts to the Section 4(f) properties on the west side of the existing alignment. The proposed alignment also minimizes impacts to other non-protected properties in proximity to these two sites.

Chapter 5.0 - Final Section 4(f) Evaluation

Because there is no feasible and prudent avoidance alternative the Preferred Alternative on Russell Street is the only design option which causes the least overall harm in light of the Section 4(f)'s commitment to preservation of Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites within the corridor. In accordance with 23 CFR 774.3(c)(1), the following criteria were considered when making this determination:

- Ability to mitigate adverse impacts to Section 4(f) property
 - Because the Build Alternatives all require complete acquisition of the properties, mitigation would come in the form of a Historic American Building Survey document, an oral history to Montana Historical Society Standards, and large format photographs provided to the Montana State Historic Preservation Office and the Missoula County Historic Preservation Office in accordance with the Memorandum of Agreement contained in Appendix C.
- The relative severity of the remaining harm to the Section 4(f) property after mitigation
 - All Build Alternatives result in a full acquisition and removal of these two historic resources.
- The relative significance of the Section 4(f) property
 - These two structures are representative of those typical to the historic south-side development and Missoula's 1950s working class neighborhood. A number of similar structures would remain in the immediate vicinity.
- The views of the officials with jurisdiction over each Section 4(f) property
 - According to coordination with the State Historic Preservation Office, these resources are very similar to others within the project corridor.
- The degree to which each alternative meets the purpose and need of the project
 - All four-lane alternatives satisfy the Purpose and Need, but the Preferred Alternative is able to eliminate impacts to up to three other Section 4(f) properties within the corridor.
- After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)
 - The order of magnitude difference in impacts to other resources within the corridor from the Build Alternatives is relatively minor, however, the Preferred Alternative results in fewer residential and commercial displacements.
- Substantial differences in costs among the alternatives
 - There is approximately a 12 percent difference in the high and low cost estimates for the forwarded Build Alternatives, with the Preferred Alternative being less than one percent more than the least cost alternative.

For the above reasons, the proposed alignment is the most prudent in light of the statute's preservation purpose.



5.5 Measures to Minimize Harm

Throughout the corridor, efforts were made to minimize impacts to surrounding residential and business locations in response to the expressed concern to maintain the sense of community. Special attention was paid to protected Section 4(f) properties, however the minimum space needed for the safety and operational improvements did not allow for complete avoidance. Minimization efforts were described previously as part of the avoidance measures.

5.6 Coordination

The Montana Department of Transportation and Federal Highway Administration have coordinated the proposed impacts to historic properties with the Montana State Historic Preservation Officer (see correspondence in Appendix C).

Summary and Approval

All required alternatives have been evaluated and the Preferred Alternative includes all possible planning to minimize harm which will be incorporated in this proposed project. This document is submitted pursuant to 49 U.S.C. 303 and in accordance with the provisions of 16 U.S.C. 470f.

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6.0 LIST OF PREPARERS AND REVIEWERS

Reviewer/Affiliation	Role	Education and Experience
Lloyd H. Rue, P.E., P.T.O.E. Program Development Engineer FHWA	Lead Agency	B.S. Civil Engineering, M.S. Civil Engineering. 21 years experience in geometric design, traffic engineering, and safety.
Brian Hasselbach Right-of-Way and Environmental Programs Manager FHWA	Lead Agency	B.S. Civil Engineering, B.S. Biology, Masters of Environmental Studies. 12 years experience in design, construction, environment, and right-of-way.
Gene R. Kaufman, P.E. Operations Engineer FHWA	Lead Agency	B.S. Civil Engineering. Over 16 years of professional experience in highway engineering, construction and program/project management.
Doug Moeller, P.E. Missoula District Administrator MDT	Lead Agency	B.S. Civil Engineering. District Administrator. 35 years of professional experience.
Shane Stack, P.E. Missoula District Engineering Services Engineer MDT	Lead Agency	B.S. Civil Engineering. 14 years of transportation related experience.
Miki Lloyd, P.E. Consultant Project Engineer MDT	Lead Agency, Interagency Coordination	B.S. Civil Engineering. 15 years of professional experience.
Tom Martin, P.E. Bureau Chief - Environmental Services MDT	Lead Agency, Environmental Compliance	B.S., Civil Engineering. Over 16 years in transportation engineering, environmental review and program/project management.
Heidy Bruner, P.E. Engineering Section Supervisor Environmental Services MDT	Lead Agency, Environmental Compliance	B.S., Environmental Engineering. Approximately 12 years environmental engineering review, design and management.
Susan Kilcrease Environmental Services Missoula District MDT	Lead Agency, Environmental Compliance	B.S., Civil Engineering. B.S. Business Administration. 8 years in project management and 15 years in environmental project development and compliance.

Chapter 6.0 - List of Preparers and Reviewers

Table Continued:

Reviewer/Affiliation	Role	Education and Experience
Steve King, P.E. Public Works Director City of Missoula	Lead Agency	B.S., Civil Engineering. Over 21 years of Civil and Municipal Engineering and administrative experience.
Kevin Slovarp, P.E. City Engineer City of Missoula	Lead Agency	M.S., Civil Engineering. B.S. Business Administration. 12 years of professional experience.
Gregg Wood Project Dvpmt. Coordinator City of Missoula	Lead Agency	B.S., Building Construction. Over 18 years of construction management and contract administration experience.

Preparer/Affiliation	Role	Education and Experience
Darryl L. James Gallatin Public Affairs	Project Management, Public Involvement, Environmental Compliance	M.P.A., Environmental Law and Natural Resource Policy; B.A., Public Affairs and Political Science. Senior consultant with over 20 years of professional experience in transportation planning, NEPA/MEPA process management and analysis, public engagement, and technical report writing.
Tyler J. Schott Gallatin Public Affairs	Document Preparation	B.A., Civil Engineering (ongoing). Four years of environmental analysis and documentation experience. Professional focus on transportation planning and environmental documentation.
Jennifer James	Deputy Project Manager, Public Involvement	B.S., Civil Engineering. Over 10 years experience in environmental technical documentation, public involvement, and traffic engineering.
Phil Odegard, P.E. DOWL HKM	Preliminary Design	B.S., Civil Engineering. Over 20 years experience in alternatives analysis, feasibility studies, and comprehensive roadway design.



7.0 COMMENTS AND COORDINATION

The proposed Russell Street and South 3rd Street reconstruction project is a cooperative project of the City of Missoula, Montana Department of Transportation, and the Federal Highway Administration. The project planning process included extensive public outreach through various committees, public meetings, a door to door neighborhood canvass, mailings, and website.

7.1 Advisory Committees

Project Advisory Committee

The Advisory Committee was made up of federal, state, regional, and local agency representatives and environmental, business, and local citizen representation. This group was established to provide recommendations and input to the project team. Group members were charged with the responsibility to act as a liaison between their constituents and the project team. They were also active in the outreach, preparation, and attendance of the public meetings. Committee members' participation was integral in keeping the project team informed about specific and broader public concerns.

Committee members spent considerable time discussing critical project issues and participated in twelve meetings over the course of two years, during which they developed an alternative ranking matrix. The Advisory Committee also recommended nine design features that would be common to all alternatives. These nine design features, discussed in Chapter 2, helped guide the development of the Build alternatives based on the Purpose and Need outlined in Chapter 1.

Having fulfilled their intended responsibilities to the proposed project, the committee was disbanded in 2006. A list of all Advisory Committee Members is listed in Table 7.1 below.

Table 7.1
Advisory Committee Members

Organization	Representative
Bicycle/Pedestrian Advisory Board	Mike Beltz
Bicycle/Pedestrian Advisory Board	Eric Edlund
Corridor Resident (Shared)	Mike Hanson
Corridor Resident (Shared)	Kate Sutherland
Freight Haulers	Jim McKinny
Local Business Representatives	Kevin Gordon
Local Business Representatives	Nate English; John Dayries
Local Business Representatives	Don Sokoloski
Local Business Representatives	Mark Denton
Local Business Representatives	Norman Carey
Low Income Housing	Kathy Dutton
Missoula Chamber of Commerce	Katie Ward
Missoula in Motion	Nora Knell
Missoula Indian Center	(Karla Harris) - Peggy Cochran

Chapter 7.0 - Comments and Coordination

Missoula Trails	Bob Giordano
Missoula Urban Transit District Board	Nancy McKiddy
Office of Transportation, The Associated Students of The University of Montana	Nancy McKiddy
Montana Rail Link	Steve Werner
MT Public Health & Human Services	(John Collins) – Trusty, Marilyn
MT Public Health & Human Services, Disabled Services	Paul Peterson
Neighborhood Council, Emma Dickenson/Orchard Homes	Don Stinger
Neighborhood Council, Franklin to the Fort	Jerry Tahija
Neighborhood Council, Northside/Westside	Bob Jaffe
Neighborhood Council, Riverfront	Ken Thompson
Neighborhood Council, Rose Park	Linda Smith
Neighborhood Council, Southgate Triangle	Hans Christiansen
Smart Growth Transportation Committee	John Couch
City of Missoula Public Works	Bruce Bender
City of Missoula Public Works	Joe Oliphant
City of Missoula Public Works	Steve King
Missoula County Road Dept.	Gregory H. Robertson
Federal Highways Administration (FHWA)	Craig Genzlinger
Missoula City Council Ward 2	Anne Kazmierczak
Missoula City Council Ward 2	Jim McGrath
Missoula City Council Ward 3	John Torma
Missoula City Council Ward 3	Lou Ann Crowley
Missoula City Council Ward 6	Ed Childers
Missoula City Council Ward 6	Clayton Floyd
Missoula Office of Planning and Grants	Dave Prescott
Missoula Redevelopment Agency (MRA)	Geoff Badenoch
Montana Department of Transportation (MDT)	Fred Bente
House of Representatives	Tom Facey
Montana Department of Transportation (MDT)	Loran Frazier
Herrera Environmental Consultants, Inc.	Kris Lee
Skillings-Connolly, Inc.	Kelly Harris
Skillings-Connolly, Inc.	Richard Weaver
Skillings-Connolly, Inc.	Thaddeus Dickson

Transportation Technical Advisory Committee

The Transportation Technical Advisory Committee is a standing committee composed of technical specialists from federal, state, county, and city agencies. The committee was responsible for providing technical guidance on compliance with federal, state, county, and city regulations and standards, and issues such as threatened and endangered species, and social and economic concerns.



7.2 Public Meetings

The Notice of Intent to prepare an Environmental Impact Statement was published in the Federal Register/Vol. 65, No. 201/Tuesday, October 17, 2000.

The initial Public Scoping Meeting was held November 16, 2000. Six additional public meetings were held prior to the publication of the Draft Environmental Impact Statement. A formal Public Hearing was also held on the Draft Environmental Impact Statement on September 24, 2008. The public meetings conducted to date are summarized in Table 7.2.

Table 7.2
Summary of Public Meetings

Date and Place	Attendance
November 16, 2000 Franklin Elementary School	49 people signed in for an estimated attendance of 60 people.
February 8 – 12, 2001 Missoula City Hall Franklin Elementary School Missoula Public Library	91 people signed in over the course of the 4-day workshop plus an additional 41 elementary students for an estimated attendance of 150.
May 7, 2001 Missoula Public Library	89 people signed in for an estimated attendance of 100.
February 21, 2002 Missoula Public Library	141 people signed in for an estimated attendance of 150.
March 15, 2002 Missoula City Hall	45 people signed in Follow up meeting with Dan Burden of Walkable Communities
October 26, 2006 Franklin Elementary School	115 people signed into the project status meeting.
April 16, 2008 Franklin Elementary School	97 people signed in for an estimated attendance of 110
September 24, 2008 Franklin Elementary School	175 people signed in for an estimated attendance of 190 people.

The public meetings covered a range of topics and issues over the course of the project. All meeting locations were accessible under the Americans with Disabilities Act (ADA), and held at locations easily reached by transit. At every meeting, name and address information was obtained from all attendees by placing a dedicated greeter at the door to welcome citizens to the event, ensure sign-in, distribute a project newsletter, and provide a brief overview. All public meetings encouraged participants to provide written comments by placing comment cards or notes directly on displays and maps. All comments received have been retained as part of this proposed project's Administrative Record.

November 16, 2000 (Public Scoping Meeting) - The first public scoping meeting was held after publication of the Notice of Intent. The goal of this meeting was to provide the public with an initial overview of the project and to collect feedback and comments to help guide the public involvement process and understand the issues.

February 8-12, 2001 (Community Workshop) - The second meeting was a community workshop hosted by Dan Burden of *Walkable Communities*. The goal of the community workshop was to bring the community together over the course of several days in a

Chapter 7.0 - Comments and Coordination

brainstorming session to identify community values, identify issues and concerns, and develop conceptual ideas to guide the development of alternatives. The *Russell Street and South Third Street Reconstruction Workshop Report* documented the process and outcomes of the community workshop and was distributed on the City's website, at subsequent open houses, City Hall, and made available at the Missoula Public Library. Copies of the report are available upon request.

Workshop participants showed a preference for investigating roundabouts as an alternative to signalized intersections to help improve the visual quality, safety, and landscaping opportunities throughout the corridor. Roundabouts were subsequently investigated and remain as prominent intersection control features on two out of four current alternatives.

May 7, 2001 (Public Meeting) - The third public meeting focused in on the preliminary project alternatives. Large strip maps were placed on the walls of the Missoula Public Library meeting room so that citizens could compare alternatives and view potential impacts. In addition, the report produced from the community workshop was provided for citizens to view. Other displays at this meeting included a project schedule, a display providing an overview of the NEPA process, and an educational video about roundabouts.

February 21, 2002 (Public Meeting) - The fourth public meeting further refined community feedback and advisory committee input and provided corridor strip maps and other displays for comment. The strip maps illustrated action alternatives, which were overlaid on aerial photos of the No-Build alternative and citizens were encouraged to write comments on the maps. In addition to the alternative displays, a station depicting bike and pedestrian crossings, a display providing an overview and definition of historical properties, and a graphic providing information regarding roundabouts were all available for comment.

March 15, 2002 (Follow-up Meeting) – This meeting was held to discuss the *Russell Street and South 3rd Street Reconstruction Workshop Report*. During this informal meeting, jointly organized by community and project team members, Dan Burden of Walkable Communities described in greater detail several aspects of the report, expanded on the principles of bike and pedestrian accessibility, and discussed roundabouts. This meeting provided community and project team members the opportunity to actively engage in a question and answer session with Dan Burden and hear additional community issues and concerns.

October, 26 2006 (Public Information Meeting) – This meeting was held to provide an update to the public on the project, project delays, and a subsequent change in the consultant team. The meeting summarized the project development process, where the project stood in the overall process, identification of the Preliminary Preferred Alternatives, and the Section 4(f) issues that had stalled the proposed project.

April 16, 2008 (Public Information Meeting) – This meeting was held to provide an update to the public on the project, and the change in the Preliminary Preferred Alternative on Russell Street. The meeting summarized the project development process, the progress on the project since the last public meeting, identification of the new Preliminary Preferred Alternative on Russell Street, and the Section 4(f) issues which mandated the change in the Preliminary Preferred Alternative on Russell Street.



September 24, 2008 (Formal Public Hearing) – A formal Public Hearing was held during the public review period on the Draft Environmental Impact Statement to take public comments on the document. Public comments were taken in writing, through a court reporter, and through verbal testimony at the Hearing. These comments are reproduced in Appendices H, I, and J of this FEIS.

7.3 Agency Coordination

Additional resource agencies and government entities have been consulted when specific issues necessitated involvement. Copies of correspondence received from these agencies is contained in Appendix D.

Given the location of the proposed project approximately 32 kilometers (20 miles) south of the Flathead Indian Reservation, the Confederated Salish Kootenai Tribe was notified of the project.

7.4 Summary of Public Comments

Comments on the Russell Street / South 3rd Street project have been received since the initiation of the project in 2000, and those comments have been retained in the Administrative Record. Comments and concerns covered a wide range of issues that affected all travel modes. Suggestions ranged from small improvements within the study area, while others were broad, far-reaching recommendations that went well beyond the scope of the proposed project. Issues identified through public scoping frequently involved the following:

- System capacity
- Roundabouts
- Bicycle and pedestrian compatibility and safety
- Traffic safety and crash reduction
- Emergency medical services compatibility
- Local bus transit service
- Environmental issues, including air quality, noise, fish, pedestrian-oriented development and land use planning, cut-through traffic in neighborhoods, potential for displacements, and construction impacts.
- Access and ADA considerations
- Cost of construction

Most of the traffic comments deal with the subject of congestion, capacity, cut-through traffic, flow, and general vehicular usability. Some comments were found to indicate some level of preference for improving the capacity of the Russell Street and South 3rd Street corridors. Most comments frequently focused on more comprehensive issues of creating multi-modal transportation systems that do not “turn Missoula into Los Angeles.” In other instances, comments that did not voice support for increasing capacity did so by discouraging a five-lane freeway that would “divide neighborhoods.”

Chapter 7.0 - Comments and Coordination

The support for the capacity improvement was often directly stated, for example, “Russell is a mess and needs expansion” or “As fast as Missoula is growing, we do NOT need another leisurely route; we need to get traffic across the river in a very efficient manner.” Along the same line of direct support, another commenter stated that, “There is no question that Russell Street between South Avenue and Broadway needs to be widened and upgraded. In doing so, I suggest that it be designed as a major thoroughfare much like Reserve Street.”

Others expressed support for capacity improvements less directly by suggesting roundabouts be used to “keep the traffic moving, end the stop and go, help air quality.” Some expressed concerns about excessive cut-through traffic and encouraged the project team to alleviate the neighborhood overflow. On several occasions public comments simultaneously supported both “slow-moving, and continuously flowing traffic” or noted “four lanes takes the pressure off Orange.”

Overall, there appears to be strong support for capacity improvements and an acknowledgement that congestion is an issue. Caveats include concerns that the neighborhood will be divided, excessive relocations required, or high speeds encouraged. In addition, many stressed the need to ensure that cyclists and pedestrians can coexist safely with vehicles in a manner that encourages multi-modal use.

A higher percentage of comments relate to bicycles than to environmental impacts, aesthetics, or pedestrian issues. These numbers do not imply support for or against any given topic, but are indicative of the amount of community dialogue around these issues.

Reserve Street as a Negative Model

An issue that was made many times but is difficult to categorize is the sentiment that Russell Street not become another Reserve Street. Reserve Street is a four-lane road with a center turn lane. Raised medians and landscaping are generally not abundant along Reserve Street. Many have written in and challenged the project team to “...consider alternatives to what was done on Reserve Street.” The features of Reserve Street that received negative comments include excessive pavement width, lack of landscaping, high speed, and the perception of inadequate bicycle and pedestrian facilities.

However, some individuals would approve of reconstructing Russell Street similar to Reserve Street. A few written statements have been received stating that Russell be “designed as a major thoroughfare such as Reserve Street. Please reconstruct it as wide as possible to move vehicles as fast, as safe and as economically as possible.” There have been few comments encouraging Russell Street to be constructed like Reserve Street.

Stephens Avenue as a Positive Model

Stephens Street has been repeatedly offered as a positive example of how to approach the proposed reconstruction project. Stephens Street is a four-lane road with raised medians and substantial use of landscaping. At the February 21, 2002, over 140 people attended to view the current project alternatives. Many offered comments, both verbal and written, that cited Stephens Avenue as a benchmark of excellence in road design and stated they would like to see Russell Street and South 3rd Street look similar. One person wrote, “Lately I’ve been pleased to



travel the Stephens Avenue route to my home off of North Orange because it feels safer and more comfortable than any other main artery.” Many others complimented the City on the use of landscaping and observed that cars tend to drive more slowly and more considerately on Stephens Avenue. Many others appreciated that the newly reconstructed Stephens Avenue maintains the character and quality of the neighborhood.

All of the action alternatives and the Preferred Alternative include features incorporated into the Stephens Avenue design, including curbs, gutters, sidewalks, boulevards, bicycle lanes, raised medians, landscaping, and lighting. The City has been able to offer Stephens Street as an example of a completed project that looks similar to how Russell Street and South Third Street would look after reconstruction.

Multimodal Design

Although some comments supported only bicycle improvements, with others advocating for only vehicular improvements, many people observed a need to design Russell Street and South Third Street in a way that accommodates all users. Some stated that, “Rebuilding our streets to accommodate the needs of bicyclists and pedestrians as well as cars is extremely important to me.” Others commented, “As a car owner and bicyclist, I believe that we need to make sure our streets are accessible to all transportation choices so that cars, bicyclists, and pedestrians can coexist safely and keep Missoula livable.” A multimodal system is identified in the project’s purpose and need. People continue to write comments supporting this approach, further emphasizing the community’s preference for a multimodal system.

Roundabouts or Signals

The emergence of roundabouts as an alternative to signalized intersections is a direct example of how the public involvement process has affected this project. The community workshop facilitated by Dan Burden and attended by over 150 people in February of 2001, encouraged citizens to offer their ideas for the Russell Street and South 3rd Street project. Of the many ideas offered at this meeting by members of the public, the idea of replacing some signalized intersections with roundabouts, in conjunction with other improvements, was common.

The community in attendance at the workshop perceived that roundabouts offered opportunities for landscaping, reduced the number of travel lanes, and offered safety improvements at intersections, and suggested that the project team do a more thorough evaluation of feasibility. After considerable study and scrutiny, roundabouts have been included in three out of the four action alternatives.

7.5 Other Public Involvement and Information Techniques

In an effort to gather information and inform as many citizens and interest groups as possible, a variety of public involvement techniques were used during the course of the study. These included maintaining an extensive mailing list, newsletters, an Internet website, press releases, student senate presentation, and a door to door canvass.

Chapter 7.0 - Comments and Coordination

Door to Door Neighborhood Canvass

On September 26th and 27th of 2006, the project consultant conducted an informal door-to-door canvass of the neighborhood. A memo outlining the comments and concerns received is included in the Administrative Record. The intent was to inform those in the corridor that there was a new project team and to provide a personal invitation to the public information meeting in October. The consultants spoke with over 90 business owners, property owners, and residents and left post card invitations to the public meeting for those who were not available.

Many of the residents spoken with were concerned about impacts to their specific properties and how access would be impacted. Most were very anxious for the project to move forward because they feel the corridor is unsafe and the uncertainty has been difficult. A number of the residents and business owners expressed concerns regarding the roundabouts. There were questions about how they would operate, the amount of right of way needed, and whether or not they make sense in the locations proposed.

Student Senate Presentation

A presentation was made to the Associated Students of the University of Montana on February 2, 2007 at 6:00 pm. The Student Senate had passed a resolution opposing the Preliminary Preferred Alternative that was presented to the public in 2006. During discussions between the Student Senate and the consultant team, it became apparent that the Senate had previously been given inaccurate information regarding the Alternative. The presentation included a summary of the process, the alternatives that have been considered to date, and a detailed description of the Preliminary Preferred Alternative. The Senate agreed to reconsider their resolution once the Preliminary Preferred Alternative had been verified by the new consultant team.

Media

News releases were sent out prior to each series of public meetings. The news releases went to the local newspapers, televisions, and radio. Prior to public meetings, notices were also sent via postcards to all of those businesses and community residents that were on the self-designated distribution list. Approximately 500 postcards were sent out. These post cards and press releases notified the public of the topics, and time and place for each meeting, as well as information on accommodations for any known disability.

Internet Website

Throughout the study, Russell Street / South 3rd Street project information has been available on the Internet. Updates, meeting notices, public comments, screening, alternative information, and project contacts have been posted on the Russell Street webpage. The project web page is contained within the Montana Department of Transportation website where the public can view other projects and link back to the project page. The internet address was included in every newsletter published during the project.

Newsletters

Electronic newsletters were sent during the final phases of the Environmental Impact Statement process. To date, 10 newsletters were distributed to an e-mailing list of over 125 people.



8.0 DISTRIBUTION LIST

Federal Agencies

U.S. Fish and Wildlife Service
585 Shepard Way
Helena, MT 59601
Attn: Mark Wilson, Field Supervisor

U.S. Army Corps of Engineers
Regulatory Office
10 West 15th Street, Suite 2200
Helena, MT 59626
Attn: Todd Tillinger, Montana Program
Manager

EPA Region 8 Montana Office
Air Quality Program
10 West 15th St., Suite 3200
Helena, MT 59626
Attn: Betsy Wahl

EPA Region 8 Montana Office
10 West 15th St., Suite 3200
Helena, MT 59626
Attn: Julie DalSoglio, Director

State Agencies

Montana State Historic Preservation Office
1410 Eighth Avenue
P.O. Box 201202
Helena, MT 59620-1202
Attn: Dr. Mark Baumler, Historian

Montana State Historic Preservation Office
1410 Eighth Avenue
P.O. Box 201202
Helena, MT 59620-1202
Attn: Josef Warhank, Historian/Compliance
Officer

Montana Fish Wildlife & Parks
1420 East Sixth Ave
Helena, MT 59620-0701
Attn: Glenn Phillips

Montana Fish Wildlife & Parks
3201 Spurgin Road
Missoula, MT 59804
Attn: Mack Long

Montana Department of Environmental
Quality
1520 East Sixth Ave
Helena, MT 59620-0901
Attn: Thomas Ellerhoff
Greg Hallsten

Montana Department of Natural Resources
and Conservation
1625 11th Avenue
Helena, MT 59104-0437
Attn: Mary Sexton, Director

Montana Environmental Quality Council
Office of the Director
Capital Post Office
P.O. Box 215
Helena, MT 59620

Montana State Library
1515 East 6th Avenue
P.O. Box 201800
Helena, MT 59620-1800
Attn: Roberta Gebhardt, Collections
Management Librarian

Chapter 8.0 - Distribution List

Local Government Agencies

Missoula Public Works Department
435 Ryman Street
Missoula, MT 59802

Mayor's Office
435 Ryman Street
Missoula, MT 59802

Missoula Parks and Recreation Department
100 Hickory Street
Missoula, MT 59802
Attn: Donna Gaukler, Director

Orchard Homes Irrigation District
2641 Gleason
Missoula, MT 59804
Attn: Marvin Ross, District President

Mountain Line Transit
1221 Shakespear
Missoula, MT 59802
Attn: Steve Earle, Director

Missoula Ravalli Transportation
Management Association
127 West Spruce Street
Missoula, MT 59802

Missoula City Fire Department
625 East Pine Street
Missoula, MT 59802

Missoula Rural Fire District
2521 South Avenue West
Missoula, MT 59804

Missoula Parking Commission
128 West Main Street
Missoula, MT 59802

Missoula Redevelopment Agency
123 Spruce Street
Missoula, MT 59802

Missoula Street Maintenance Division
800 West Broadway
Missoula, MT 59802

Missoula Traffic Services Division
100 Hickory Street
Missoula, MT 59802

Missoula Wastewater Division
1100 Clark Fork Drive
Missoula, MT 59802

Missoula Environmental Health Services
301 West Alder
Missoula, MT 59802

Missoula County Commissioners
Missoula County Courthouse
200 West Broadway
Missoula, MT 59802

Missoula Conservation District
3550 Mullan Road
Missoula, MT 59808

Missoula Development Authority
200 West Broadway
Missoula, MT 59802

Missoula Co. Floodplain Administrator
435 Ryman Street
Missoula, MT 59802
Attn: Todd Klietz

APPENDIX A:

Roundabouts: An Informational Guide

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THE FOLLOWING TEXT IS EXCERPTED ENTIRELY FROM THE

FEDERAL HIGHWAY ADMINISTRATION ROUNDABOUT GUIDE

Roundabouts: An Informational Guide, U.S. Department of Transportation, Federal Highway Administration Publication No. FHWA-RD-00-067.

1.1.1 Scope of the Guide

Despite the comprehensive nature of this document, it cannot discuss every issue related to roundabouts. In particular, it does not represent the following topics:

Roundabouts with more than two entry lanes on an approach.

While acknowledging the existence and potential of such large roundabouts, the guide does not provide specific guidance on the analysis or design of such roundabouts. However, the design principles contained in this document are also applicable to larger roundabouts. . . . The advantages of larger roundabouts are their higher capacities that may make them attractive alternatives at sites with high traffic volumes. More intricate design is required to ensure adequate operational and safety performance. Therefore expert operations and design advice should be sought and roundabout analysis software should be utilized in such circumstances. As users and designers in the United States become more familiar with roundabouts, this experience may then be extended to such applications. p. 3

Chapter 2. Policy Considerations

Roundabouts have unique characteristics that warrant consideration by developers and managers of the road system. p. 23

2.1.1 Safety

Roundabouts have been demonstrated to be generally safer for motor vehicles and pedestrians than other forms of at-grade intersections. p. 23

If achieved by good design, then in principle, lower vehicle speeds should provide the following safety benefits:

- **Reduce crash severity for pedestrians and bicyclists, including older pedestrians, children, and impaired persons;**
- **Provide more time for entering drivers to judge, adjust speed for, and entire a gap in circulating traffic;**

- **Allow safer merges into circulating traffic;**
- **Provide more time for all users to detect and correct for their mistakes or mistakes of others;**
- **Make the intersection safer for novice users.** p. 24

The number of vehicle-vehicle conflict points for four-leg intersections drops from thirty-two to eight with roundabouts, a 75 percent decrease. Fewer conflict points means fewer opportunities for collisions. . . . The severity of a collision is determined largely by the speed of impact and the angle of impact. The higher the speed, the more severe the collision. The higher the angle of impact, the more severe the collision. Roundabouts reduce in severity or eliminate many severe conflicts that are present in traditional intersections. p. 25

The most severe crashes at signalized intersections occur when there is a violation of the traffic control device designed to separate conflicts by time (e.g., a right-angle collision due to a motorist running a red light, or vehicle-pedestrian collisions.) The ability of roundabouts to reduce conflicts through physical, geometric features has been demonstrated to be more effective than the reliance on driver obedience to traffic control devices. At intersections with more than four legs, a roundabout or pair of roundabouts may sometimes be the most practical alternative to minimize the number of conflicts. p. 26

2.1.2. Vehicle delay and queue storage

When operating within their capacity, roundabout intersections typically operate with lower vehicle delays than other intersection forms and control types. With a roundabout, it is unnecessary for traffic to come to a complete stop when no conflicts present themselves, or else deceleration will avoid a conflict. When there are queues on one or more approaches, traffic within the queues usually continues to move, and this is typically more tolerable for drivers than a stopped or standing queue. The performance of roundabouts during off-peak periods is particularly good in contrast to other intersection forms, typically with very low average delays. p. 28

2.1.5 Environmental factors

Roundabouts may provide environmental benefits if they reduce vehicle delay and the number and duration of stops compared with an alternative. Even when there are heavy volumes, vehicles continue to advance slowly in moving queues rather than coming to a complete stop. This may reduce noise and air quality impacts and fuel consumption significantly by reducing the number of acceleration/deceleration cycles and the time spent idling.

In general, if stop or yield control is insufficient, traffic through roundabouts generates less pollution and consumes less fuel than traffic at fixed-time signalized intersections. p. 29

2.1.6 Spatial requirements

To the extent that a comparable roundabout would outperform a signal in terms of reduced delay and thus shorter queues, it will require less queue storage space on the approach legs. If a signalized intersection requires long or multiple turn lanes to provide sufficient capacity or storage, a roundabout with similar capacity may require less space on the approaches. As a result, roundabouts may reduce the need for additional right-of-way on the links between intersections, at the expense of additional right-of-way requirements at the intersections themselves. . . . The right-of-way savings between intersection may make it feasible to accommodate parking, wider sidewalks, planter strips, wider outside lanes, and/or bicycle lanes in order to better accommodate pedestrians and/or bicyclists. Another space-saving strategy is the use of flared approach lanes to provide additional capacity at the intersection while maintaining the benefit of reduced spatial requirements upstream and downstream of an intersection.

At interchange ramp terminals, paired roundabouts have been used to reduce the number of lanes in freeway over- and underpasses. In compact urban areas, there are typically signalized intersections at both ends of overpass bridges, necessitating two additional overpass lanes to provide capacity and storage at the signalized intersections. p. 29-30.

2.1.7 Operation and maintenance costs

Compared to signalized intersections, a roundabout does not have signal equipment that requires constant power, periodic light bulb and detection maintenance, and regular signal timing updates. Roundabouts, however, can have higher landscape maintenance costs, depending on the degree of landscaping provided on the central island, splitter islands, and perimeter. Illumination costs for roundabouts and signalized intersections are similar. Drivers sometimes face a confusing situation when they approach a signalized intersection during a power failure, but such failures have minimal temporary effect on roundabouts or any other unsignalized intersections, other than the possible loss of illumination. The service life of a roundabout is significantly longer, approximately 25 years, compared with 10 years for a typical signal. p. 30.

2.1.9 Aesthetics

Roundabouts offer the opportunity to provide attractive entries or centerpieces to communities. However, hard objects in the central island directly facing the entries are a safety hazard. The portions of the central island and, to a lesser degree, the splitter islands that are not subject to sight-distance requirements offer opportunities for aesthetic landscaping. Pavement textures can be varied on the aprons as well. . . They can also be used in tourist or shopping areas to facilitate safe U-turns and to demarcate

commercial uses from residential areas. They have been justified as a spur to economic development, conveying to developers that the area is favorable for investment in redevelopment. Some are exhibited as a “signature” feature on community postcards, advertisements, and travelogues. p. 30

2.1.10 Design for older drivers

In the United States, there is a trend toward an aging population, as well as individuals continuing to drive until an older age. . . Roundabouts designed for low, consistent speeds cater to the preferences of older drivers: slower speeds, time to make decisions, act, and react; uncomplicated situations to interpret; simple decision-making; a reduced need to look over one’s shoulder; a reduced need to judge closing speeds of fast traffic accurately; and a reduced need to judge gaps in fast traffic accurately. For example, two-way stop controlled intersections may be appropriate for replacement with a roundabout when a crash analysis indicates that age-related collisions are prevalent. p. 31-32

2.2.5 Emergency vehicles

Roundabouts provide emergency vehicles the benefit of lower vehicle speeds, which may make roundabouts safer for them to negotiate than signalized crossings. Unlike at signalized intersections, emergency vehicle drivers are not faced with through vehicles unexpectedly running the intersection and hitting them at high speed. p. 35

2.3 Costs Associated with Roundabouts

Many factors influence the amount of economic investment justified for any type of intersection. Costs associated with roundabouts include construction costs, engineering and design fees, land acquisition, and maintenance costs. Benefits may include reduced crash rates and severity, reduced delay, stops, fuel consumption, and emissions. . . .

At new sites, and at signalized intersections that require widening at one or more approaches to provide additional turn lanes, a roundabout can be a comparable or less expensive alternative. While roundabouts typically require more pavement area at the intersection, they may require less pavement width on the upstream approaches and downstream exits if multiple turn lanes associated with a signalized intersection can be avoided. The cost savings of reduced approach roadway widths is particularly advantageous at interchange ramp terminals and other intersections adjacent to grade separations where wider roads may result in larger bridge structures. . . .

Recent roundabout projects in the United States have shown a wide range in reported construction costs. Assuming “1988 U.S. Dollars” in the following examples, costs ranged from \$10,000 for a retrofit application of an existing traffic circle to \$500,000 for a new roundabout at the junction of two State highways. National Cooperative Highway Research Program (NCHRP) Synthesis 264 reports that the average construction cost

of 14 U.S. roundabouts, none being part of an interchange, was approximately \$250,000. This amount includes all construction elements, but does not include land acquisition. p. 36

2.5 Public Involvement

[A] proposal to install a roundabout may initially experience a negative public reaction. However, the history of the first few roundabouts installed in the United States also indicates that the public attitude toward roundabouts improves significantly after construction. A recent survey conducted of jurisdictions across the United States reported a significant negative public attitude toward roundabouts prior to construction (68 of the response were negative or very negative), but a positive attitude after construction (73 percent of the responses were positive or very positive). p. 40

Chapter 3. Planning

3.4.4 Operational Improvement

A roundabouts will always provide a higher capacity and lower delays than AWSC (All Way Stop Controls) operating with the same traffic volumes and right-of-way-limitations. . . . A roundabout that operates within its capacity will generally produce lower delays than a signalized intersection operating with the same traffic volumes and right-of-way limitations. p. 62

3.5.3 Signal control alternative

When traffic volumes are heavy enough to warrant signalization, the selection process becomes somewhat more rigorous. The usual basis for selection here is that a roundabout will provide better operational performance than a signal in terms of stops, delay, fuel consumption, and pollution emissions. For planning purposes, this may generally be assumed to be the case provided that the roundabout is operating within its capacity. The task then becomes to assess whether any roundabout configuration can be made to work satisfactorily. If not, then a signal or grade separation are remaining alternatives. As in the case of stop control, intersections with heavy left turns are especially good roundabout candidates. . . . As in the case of AWSC (All Way Stop Control) operations, some of the most important benefits of a roundabout compared to a traffic signal will accrue during off-peak periods. p. 67-68

Chapter 4. Operation

4.5 Computer Software for Roundabouts

While the procedures provided in this chapter are recommended for most applications covered by this guide, models such as ARCADY, RODEL, SIDRA, KREISEL, or GIRABASE may be consulted to determine the effects of geometric parameters,

particularly for multilane roundabouts outside the realm of this guide, or for fine-tuning designs to improve performance. p. 96

Chapter 6. Geometric Design

6.3.10 Intersection sight distance

Intersection sight distance is the distance required for a driver without the right of way to perceive and react to the presence of conflicting vehicles. . . . At roundabouts, the only locations requiring evaluation of intersection sight distances are the entries. . . . British research on sight distance determined that excessive intersection sight distance resulted in a higher frequency of crashes. This value, consistent with British and French practice, is intended to require vehicles to slow down prior to entering the roundabouts, which allows them to focus on the pedestrian crossing prior to entry. If the approach leg of the sight triangle is greater than 15 m (49 ft), it may be advisable to add landscaping to restrict sight distance to the minimum requirements. . . . Excessive intersection sight distance can lead to higher vehicle speeds and reduce the safety of the intersection for all road users (vehicles, bicycles, pedestrians.) p. 161-163

Chapter 8. Systems Considerations

8.5.3 Wide roads and narrow roads

The ultimate manifestation of roundabouts in a system context is to use them in lieu of signalized intersections. Some European cities such as Nantes, France, and some Australian cities have implemented such a policy. It is generally recognized that intersections (or nodes), not road segments (or links), are typically the bottlenecks in urban roadway networks. A focus on maximizing intersection capacity rather than widening streets may therefore be appropriate. Efficient, signalized intersections, however, usually require that exclusive turn lanes be provided, with sufficient storage to avoid queue spillback into through lanes and adjacent intersections. In contrast, roundabouts may require more right-of-way at the nodes, but this may be offset by not requiring as many basic lanes on the approaches, relative to signalized arterials. p. 225

APPENDIX B:
Conceptual Design and Cost Estimates

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Cost Estimate Technical Memorandum for Russell and South 3rd Street EIS

February 4, 2011

Prepared By:



104 East Broadway, Suite G-1
Helena, MT 59601

<u>I. Introduction</u>	<u>3</u>
<u>II. Design Assumptions Common to All Build Alternatives</u>	<u>3</u>
<u>III. Typical Sections for the Russell Street Alternatives</u>	<u>4</u>
ALTERNATIVE 1 – NO BUILD OPTION	4
ALTERNATIVE 2 – 2+ LANES WITH ROUNDABOUTS.....	5
ALTERNATIVE 3 - 2+/4 LANES WITH ROUNDABOUTS	8
ALTERNATIVE 4 - 4+ LANES WITH SIGNALS	11
ALTERNATIVE 5 - 4+ LANES WITH ROUNDABOUTS	14
ALTERNATIVE 5 – REFINED.....	18
<u>IV. Typical Sections for the South 3rd Street Alternatives</u>	<u>21</u>
ALTERNATIVE A – NO BUILD	21
ALTERNATIVE B - 2 LANES WITH ROUNDABOUTS	22
ALTERNATIVE C - 2+ LANES WITH ROUNDABOUTS.....	25
ALTERNATIVE D - 3+ LANES WITH SIGNALS	28
ALTERNATIVE E - 2+ LANES WITH SIGNALS.....	31

I. Introduction

This technical memorandum presents the typical section and design assumptions for all alternatives on the Russell Street and South 3rd Street Improvements. It must be recognized that the criteria presented in this memorandum are the design criteria we will strive to achieve; however, during the life of the project, physical and/or political features may force deviation from the criteria in certain areas of these corridors.

II. Design Assumptions Common to All Build Alternatives

The following design assumptions are used for all alternatives:

- The existing Russell Street Bridge would be removed and replaced with a four-lane bridge to provide adequate capacity for projected traffic volumes.
- Bicycle lanes would be included to improve multi-modal transportation in the corridors.
- Sidewalks would be constructed along both sides of each route to improve pedestrian comfort and safety.
- Grade separated pedestrian/bicycle crossings would be provided for the Milwaukee Corridor Trail and Bitterroot Branch Trail systems as they cross Russell Street.
- Curb and gutter would be included to improve storm water management.
- Street lighting would be included to improve aesthetics and safety.
- Landscaped boulevards would be constructed on both sides of Russell Street and South 3rd Street between the curb and sidewalk to improve aesthetics and provide snow storage.
- Bus pullouts would be incorporated into the final design along Russell Street north of South 3rd Street, and along South 3rd Street from Russell Street to Reserve Street. The transit system currently does not serve Russell Street south of South 3rd Street, so no pullouts are currently planned for that portion of the corridor. (Possible Future Expansion)
- On-street parking within the City right-of-way is currently prohibited along Russell Street and South 3rd Streets. Parking restrictions would be perpetuated in these areas for the proposed designs.
- Longstaff Street would be restricted to a right-in and right-out only connection with Russell Street.
- Lawrence Street would be realigned to a right-angle intersection with Russell Street.
- Access to Russell Street from Harlem Street and Kern Street on the east side of Russell Street would be restricted to a right-in and right-out only connection.
- Addison Street would be realigned to a right-angle intersection with Russell Street opposite from South 8th Street. Addison Street and South 8th Street would be restricted to right-in and right-out only connections with Russell Street.
- River Road would remain in its current configuration and would be restricted to a right-in and right-out connection with Russell Street. In addition, right-of-way would be purchased for the construction of a new link between River Road and Idaho Street that would become part of the future River Road connection to Russell Street via Wyoming Street. The future connection would include a newly constructed section of road running north-south adjacent to the western boundary of Mobile City Trailer between existing

River Road and Idaho Street. It would also include reconstructed sections of Idaho Street between the new River Road and Catlin Street; Catlin Street between Idaho Street and Wyoming Street; and Wyoming Street between Catlin Street and Russell Street.

III. Typical Sections for the Russell Street Alternatives

Table 1 outlines the standard section widths

Table 1. Russell Street Standard Section Widths

		Outside Lane	Inside Lane	Bike Lane	Raised Median	TWLT	Curb & Gutter	Boulevard	Sidewalks
Alternative	2	12'	N/A	4'	N/A	12'	2'	7'	5'
	3	12'	N/A	4'	12'	12'	2'	7'	5'
	4	12'	11'	4'	12'	12'	2'	7'	5'
	5	12'	11'	4'	12'	12'	2'	7'	5'
	5 Refined	12'	11'	4'	12'	12'	2'	7'	5'

-Includes Alignment Shift in Southern Portion

Alternative 1 – No Build Option

The No-Build Alternative would provide no improvements to Russell Street.

Alternative 2 – 2+ Lanes with Roundabouts

Alternative 2 is very similar to the existing condition in lane configuration but includes the use of roundabouts at select intersections and limited use of raised medians to control through traffic and increase the functionality of the intersections and roundabouts.

Figure 2-5 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

- Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
- Four travel lanes from South 5th Street to South 3rd Street
- Two travel lanes from South 3rd Street to Wyoming Street
- Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:***Two-Lane Roundabouts at:***

- Mount Avenue/South 14th Street
- South 5th Street
- South 3rd Street
- Wyoming Street

Single-Lane Roundabouts at:

- South 11th Street

Signal Control at:

- West Broadway Street (existing)
- All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on historic and recreational properties protected under Section 4(f) of the U.S. Department of Transportation Act, as discussed in Chapter 5 of this document.

Residential Impacts under Alternative 2

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1508 5th St.	521 Russell St.	1431 3rd St.	1427 2nd St. W	1501 S. 7th St.
1445 5th St.	1425 5 th St.	1436 4th. St. W	1510 S. 5th St.	915 Russell St.
1501 5th St.	802 Russell St.	1501 4th St. W	1439 5th St.	1500 8th St. W
1509 5th St.	738 Russell Street	1439 4th St. W	1502 6th St. W	1501 9th St. W
824 Russell St.		1500 11th St. W	1501 6th St. W	1135 10th St. W
1000 Russell St.			808 Russell St.	1501 S. 10th St.
1010 Russell St.			1500 7th St. W	1501 11th St.
935 Kern St.			820 Russell St.	1501 Russell St.
941 Kern St.			1016 Kern St.	

Commercial Impacts under Alternative 2

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 Broadway St.	1417 3 rd St.
1440 Broadway St.	1503 Montana St. (Previously 1503 Russell St.)	1451 Broadway St.	215 Russell St.	1440 Russell St.
1400 Wyoming St.	140 Russell St.	1120 Russell St.	1007 Mount Ave.	
1515 Wyoming St.	Mount and Russell St.			
121 Russell St.				
403 Russell St.				
500 Russell St.				
501 Russell St.				
1440 5th St.				
1035 Ronan St.				
Montana Rail Link				
1204 Mount Ave. (Previously 1208 Mount Ave.)				
1520 Russell St.				

Montana Department of Transportation

Page

BID PRICES
Jan. 09 - Aug. 09Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative 2	Date:	June 3, 2010
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4128	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices Dollars	Amount Dollars	Unit Prices Dollars	Amount Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	22	REMOVE STRUCTURE	EACH	\$50,000.00	\$1,100,000.00		\$1,100,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$2,838.00		\$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$428,730.00		\$428,730.00
202230000	3,500	REMOVE CURB & GUTTER	M	\$9.30	\$32,550.00		\$32,550.00
202241000	3,100	REMOVE SIDEWALK	M2	\$10.57	\$32,767.00		\$32,767.00
203120000	39,139	EXCAVATION-STREET	M3	\$11.79	\$461,449.00		\$461,449.00
203300000	68,240	EMBANKMENT IN PLACE	M3	\$7.93	\$541,143.00		\$541,143.00
301270000	27,264	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$236,106.00		\$236,106.00
301440000	59,270	COVER - TYPE 2	M2	\$29.21	\$1,731,277.00		\$1,731,277.00
401080000	13,554	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$7,997.00		\$7,997.00
401100000	109	DUST PALLIATIVE	MT	\$26.34	\$2,845.00		\$2,845.00
401200000	190	HYDRATED LIME	MT	\$166.99	\$31,728.00		\$31,728.00
402097000	731	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$550,969.00		\$550,969.00
402225000	118	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$74,856.00		\$74,856.00
557310000	250	PEDESTRIAN RAIL	M	\$400.59	\$100,148.00		\$100,148.00
606000000	125	GUARD RAIL-STEEL	M	\$59.23	\$7,404.00		\$7,404.00
608100000	7,896	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$335,817.00		\$335,817.00
608150000	1,077	SIDEWALK-CONCRETE 150 MM	M2	\$53.13	\$57,221.00		\$57,221.00
608290100	142	TRUNCATED DOMES	M2	\$422.45	\$59,988.00		\$59,988.00
608500100	2,750	CONCRETE 100 MM	M2	\$47.98	\$131,945.00		\$131,945.00
609000000	7,450	CURB & GUTTER-CONCRETE	M	\$37.02	\$275,799.00		\$275,799.00
610300000	30,000	SODDING	M2	\$11.43	\$342,900.00		\$342,900.00
614000000	1,500	RETAINING WALL	M2	\$92.10	\$138,150.00		\$138,150.00
619690000	100	SIGN - INSTALL	EACH	\$1,250.00	\$125,000.00		\$125,000.00
619700000	100	REMOVE SIGNS	EACH	\$36.94	\$3,694.00		\$3,694.00
620010000	450	STRIPING-WHITE PAINT	L	\$5.65	\$2,543.00		\$2,543.00
620020000	330	STRIPING-YELLOW PAINT	L	\$5.76	\$1,901.00		\$1,901.00
620045000	670	YELLOW CURB MARKING EPOXY	L	\$97.10	\$24,857.00		\$24,857.00
620110000	450	STRIPING-WHITE EPOXY	L	\$12.07	\$5,432.00		\$5,432.00
620120000	330	STRIPING-YELLOW EPOXY	L	\$12.10	\$3,993.00		\$3,993.00
620130000	110	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$6,144.00		\$6,144.00
621421000	45	ADJUST DROP INLET	EACH	\$452.00	\$20,340.00		\$20,340.00
621430000	47	ADJUST MANHOLES	EACH	\$385.37	\$18,112.00		\$18,112.00
621440000	8	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$18,120.00		\$18,120.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	1	Irrigation Structure	LS	\$300,000.00	\$300,000.00		\$300,000.00
	31	Adjust Water Valve	EACH	\$325.00	\$10,075.00		\$10,075.00
	1	Bridge over Clark Fork River	LS	\$7,220,000.00	\$7,220,000.00		\$7,220,000.00
	2	Railroad Gates	EACH	\$180,000.00	\$360,000.00		\$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	\$3,281.00	\$111,160.00		\$111,160.00
	3	Roundabout Intersections	EACH	\$400,000.00	\$1,200,000.00		\$1,200,000.00
	1	Elliptical Roundabout		\$450,000.00	\$450,000.00		\$450,000.00
	1	Small Roundabout		\$300,000.00	\$300,000.00		\$300,000.00
	1	Signalized Intersections	EACH	\$250,000.00	\$250,000.00		\$250,000.00
	38	Dry Wells	EACH	\$10,000.00	\$380,000.00		\$380,000.00
	1	Knowles Pedestrian Tunnel	LS	\$701,643.00	\$701,643.00		\$701,643.00
	1	Dakota Pedestrian Tunnel	LS	\$244,000.00	\$244,000.00		\$244,000.00
	1	Wyoming St. Addition	LS	\$982,000.00	\$982,000.00		\$982,000.00
	1	Costs Associated with Phasing Project	LS	\$1,706,473.00	\$1,706,473.00		\$1,706,473.00
		Subtotal			\$21,283,864.00		\$21,283,864.00
	8%	Mobilization			\$1,702,709.12		\$1,702,709.12
		Subtotal			\$22,986,573.12		\$22,986,573.12
	12%	Contingency			\$2,758,388.77		\$2,758,388.77
		Subtotal			\$25,744,961.89		\$25,744,961.89
	3%	Inflation	Years	3.00	\$2,387,253.08		\$2,387,253.08
		Construction Total			\$28,132,214.98		\$28,133,000.00
	15%	Construction Engineering			\$4,219,832.25		\$4,220,000.00
		Total Construction			\$32,352,047.22		\$32,353,000.00
	14.06%	Indirect Cost (IDC)-Construction					\$3,956,000.00
		Total Construction w/IDC					\$32,089,000.00
	14.06%	Indirect Cost (IDC) - Construction Engineering					\$594,000.00
		Total Construction Engineering w/IDC					\$4,814,000.00
		Total w/IDC					\$36,903,000.00
	17,583	Right-Of-Way	M2	\$130.00	\$2,283,000.00		\$2,283,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$5,791,322.00	\$5,791,000.00		\$5,791,000.00
		Total Right of Way					\$8,074,000.00
		Utility Relocates					\$1,100,000.00
	8.00%	Design Fee					\$2,261,000.00
		Total Construction + ROW + Utility + Design Fee					\$48,328,000.00

Alternative 3 - 2+4 Lanes with Roundabouts

Alternative 3 is similar to Alternative 2 in terms of lane configuration and intersection control but includes twice the length of raised median as compared to Alternative 2, and adds a median between Mount Avenue to South 8th Street. Figure 2-6 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
Four travel lanes from South 5th Street to South 3rd Street
Two travel lanes from South 3rd Street to Wyoming Street
Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:***Two-Lane Roundabouts at:***

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street

Single-Lane Roundabouts at:

South 11th Street

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

Residential Impacts under Alternative 3

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1508 5th St.	1016 Kern St.	1431 3rd St.	1510 S. 5th St.	1501 S. 7th St.
1445 5th St.	521 Russell St.	1436 4th. St. W	1439 5th St.	915 Russell St.
1501 5th St.	1425 5 th St.	1501 4th St. W	1502 6th St. W	1500 8th St. W
1509 5th St.	802 Russell St.	1439 4th St. W	1501 6th St. W	1501 9th St. W
824 Russell St.		738 Russell St.	808 Russell St.	1135 10th St. W
1000 Russell St.		915 Kern St.	1500 7th St. W	1501 S. 10th St.
1010 Russell St.		1500 11th St. W	820 Russell St.	
935 Kern St.			1012 Kern St.	
941 Kern St.			1501 11th St.	

Commercial Impacts under Alternative 3

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1500 Broadway St.	1120 Russell St.	1427 W. Broadway St.	1540 Broadway St.	1417 3 rd St.
1440 Broadway St.	1407 River Rd.	1451 Broadway St.	215 Russell St.	1516 12th St.
1400 Wyoming St.	1503 Montana St. (Previously 1503 Russell St.)	Mount and Russell St.	1427 2nd St. W	1500 Russell St.
1515 Wyoming St.	140 Russell St.		1440 Russell St.	
121 Russell St.			1007 Mount Ave.	
403 Russell St.				
500 Russell St.				
501 Russell St.				
1440 5th St.				
1035 Ronan St.				
Montana Rail Link				
1204 Mount Ave. (Previously 1208 Mount Ave.)				
1520 Russell St.				

Montana Department of Transportation

Pag

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative 3	Date:	June 3, 2010
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4128	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices Dollars	Amount Dollars	Unit Prices Dollars	Amount Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	22	REMOVE STRUCTURE	EACH	\$50,000.00	\$1,100,000.00		\$1,100,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$2,838.00		\$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$428,730.00		\$428,730.00
202230000	3,500	REMOVE CURB & GUTTER	M	\$9.30	\$32,550.00		\$32,550.00
202241000	3,100	REMOVE SIDEWALK	M2	\$10.57	\$32,767.00		\$32,767.00
203120000	39,000	EXCAVATION-STREET	M3	\$11.79	\$459,810.00		\$459,810.00
203300000	68,212	EMBANKMENT IN PLACE	M3	\$7.93	\$540,921.00		\$540,921.00
301270000	27,970	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$242,220.00		\$242,220.00
301440020	60,800	COVER - TYPE 2	M2	\$29.21	\$1,775,968.00		\$1,775,968.00
401080000	13,906	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$8,205.00		\$8,205.00
401100000	111	DUST PALLIATIVE	MT	\$26.34	\$2,924.00		\$2,924.00
401200000	195	HYDRATED LIME	MT	\$166.99	\$32,563.00		\$32,563.00
402097000	751	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$566,044.00		\$566,044.00
402225000	112	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$71,049.00		\$71,049.00
557310000	250	PEDESTRIAN RAIL	M	\$400.59	\$100,148.00		\$100,148.00
606000000	125	GUARD RAIL-STEEL	M	\$59.23	\$7,404.00		\$7,404.00
606100000	8,667	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$368,606.00		\$368,606.00
606150000	1,182	SIDEWALK-CONCRETE 150 MM	M2	\$53.13	\$62,800.00		\$62,800.00
606290100	142	TRUNCATED DOMES	M2	\$422.45	\$59,988.00		\$59,988.00
606500100	3,515	CONCRETE 100 MM	M2	\$47.98	\$168,650.00		\$168,650.00
609000000	6,096	CURB & GUTTER-CONCRETE	M	\$37.02	\$225,674.00		\$225,674.00
610300000	30,000	SODDING	M2	\$11.43	\$342,900.00		\$342,900.00
614000000	1,500	RETAINING WALL	EACH	\$92.10	\$138,150.00		\$138,150.00
619690000	100	SIGN - INSTALL	EACH	\$1,250.00	\$125,000.00		\$125,000.00
619700000	100	REMOVE SIGNS	EACH	\$36.94	\$3,694.00		\$3,694.00
620010000	420	STRIPING-WHITE PAINT	L	\$5.65	\$2,373.00		\$2,373.00
620020000	365	STRIPING-YELLOW PAINT	L	\$5.76	\$2,102.00		\$2,102.00
620045000	760	YELLOW CURB MARKING EPOXY	L	\$37.10	\$28,196.00		\$28,196.00
620110000	420	STRIPING-WHITE EPOXY	L	\$12.07	\$5,069.00		\$5,069.00
620120000	365	STRIPING-YELLOW EPOXY	L	\$12.10	\$4,417.00		\$4,417.00
620130000	100	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$5,585.00		\$5,585.00
621421000	72	ADJUST DROP INLET	EACH	\$452.00	\$32,544.00		\$32,544.00
621430000	47	ADJUST MANHOLES	EACH	\$385.37	\$18,112.00		\$18,112.00
621440000	8	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$18,120.00		\$18,120.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	1	Irrigation Structure	LS	\$300,000.00	\$300,000.00		\$300,000.00
	31	Adjust Water Valve	EACH	\$325.00	\$10,075.00		\$10,075.00
	1	Bridge over Clark Fork River	LS	\$7,220,000.00	\$7,220,000.00		\$7,220,000.00
	2	Railroad Gates	EACH	\$180,000.00	\$360,000.00		\$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	\$3,281.00	\$111,160.00		\$111,160.00
	3	Roundabout Intersections	EACH	\$400,000.00	\$1,200,000.00		\$1,200,000.00
	1	Elliptical Roundabout	EACH	\$450,000.00	\$450,000.00		\$450,000.00
	1	Small Roundabout	EACH	\$300,000.00	\$300,000.00		\$300,000.00
	1	Signalized Intersections	EACH	\$250,000.00	\$250,000.00		\$250,000.00
	38	Dry Wells	EACH	\$10,000.00	\$380,000.00		\$380,000.00
	1	Knowles Pedestrian Tunnel	LS	\$701,643.00	\$701,643.00		\$701,643.00
	1	Dakota Pedestrian Tunnel	LS	\$244,000.00	\$244,000.00		\$244,000.00
	1	Wyoming St. Addition	LS	\$982,000.00	\$982,000.00		\$982,000.00
	1	Costs Associated with Phasing Project	LS	\$1,706,473.00	\$1,706,473.00		\$1,706,473.00
		Subtotal			\$19,678,751.00		\$21,385,224.00
	8%	Mobilization			\$1,574,300.08		\$1,710,817.92
		Subtotal			\$21,253,051.08		\$23,096,041.92
	12%	Contingency			\$2,550,366.13		\$2,771,525.03
		Subtotal			\$23,803,417.21		\$25,867,566.95
	3%	Inflation	Years	3.00	\$2,207,219.47		\$2,398,621.88
		Construction Total			\$26,010,636.68		\$28,267,000.00
	15%	Construction Engineering			\$3,901,695.50		\$4,241,000.00
		Total Construction			\$29,912,332.18		\$32,508,000.00
	14.06%	Indirect Cost (IDC)-Construction					\$3,975,000.00
		Total Construction w/IDC					\$32,242,000.00
	14.06%	Indirect Cost (IDC) - Construction Engineering					\$597,000.00
		Total Construction Engineering w/IDC					\$4,838,000.00
		Total w/IDC					\$37,080,000.00
	19,725	Right-Of-Way	M2	\$130.00	\$2,565,000.00		\$2,565,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$5,791,322.00	\$5,792,000.00		\$5,792,000.00
		Total Right of Way					\$8,357,000.00
		Utility Relocates					\$1,100,000.00
	8.00%	Design Fee					\$2,262,000.00
		Total Construction + ROW + Utility + Design Fee					\$48,799,000.00

Alternative 4 - 4+ Lanes with Signals

Russell Street would have four travel lanes (two southbound and two northbound) plus a center turn lane or raised median throughout the corridor. Major intersections would be controlled by signals.

Figure 2-7 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:***Two-Lane Roundabouts at:***

none

Single-Lane Roundabouts at:

none

Signal Control at:

Mount Avenue/South 14th Street (existing)

South 5th Street (existing)

South 3rd Street (existing)

Wyoming Street

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

Residential Impacts under Alternative 4

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
521 Russell St.	820 Russell St.	1439 4th St. W	1431 3rd St.	915 Russell St.
1445 5th St.	1436 S. 4 th St	738 Russell St.	1501 4th St. W	1501 1500 ½ 7 th St.
802 Russell St.		808 Russell St.	1502 6th St. W	1501 9th St. W
824 Russell St.		1501 11th St.	1501 6th St. W	1135 10th St. W
1000 Russell St.			1500 7th St. W	1501 Russell St.
1010 Russell St.			1500 8th St. W	1500 14th St. W
915 Kern St.			1501 10th St.	1516 & 1516 1/2 12th
935 Kern St.			1500 11th St. W	
941 Kern St.			1501 5th St.	
1012 Kern St.				
1016 Kern St.				

Commercial Impacts under Alternative 4

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1440 Broadway St.	1407 River Rd. 1503 Montana St. (Previously 1503 Russell St.)	1427 W. Broadway	403 Russell St.	140 Russell St.
1500 Broadway St.			1440 Russell St. 1540 W. Broadway	1417 S. 3 rd St.
1400 Wyoming St.	121 Russell St.		1437 1 st St. W	100 Russell St.
500 Russell St.	1515 Wyoming		1007 Mount Ave.	1520 Russell St.
501 Russell St.	1451 W. Broadway Mount and Russell St.			1427 2nd St.
1440 S. 5 th St.	1440 S. 5 th St.			
1120 Russell St.				
1035 Ronan St.				
Montana Rail Link 1204 Mount Ave. (Previously 1208 Mount Ave.)				

Montana Department of Transportation

Page 1 of 1

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative 4	Date:	June 3, 2010
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4128	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	21	REMOVE STRUCTURE	EACH	\$50,000.00	\$1,050,000.00		\$1,050,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$2,838.00		\$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$428,730.00		\$428,730.00
202230000	3,500	REMOVE CURB & GUTTER	M	\$9.30	\$32,550.00		\$32,550.00
202241000	3,100	REMOVE SIDEWALK	M2	\$10.57	\$32,767.00		\$32,767.00
203120000	39,000	EXCAVATION-STREET	M3	\$11.79	\$459,810.00		\$459,810.00
203300000	68,340	EMBANKMENT IN PLACE	M3	\$7.93	\$541,936.00		\$541,936.00
301270000	39,500	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$342,070.00		\$342,070.00
301440020	85,800	COVER - TYPE 2	M2	\$29.21	\$2,506,218.00		\$2,506,218.00
401080000	16,405	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$9,679.00		\$9,679.00
401100000	130	DUST PALLIATIVE	MT	\$26.34	\$3,424.00		\$3,424.00
401200000	230	HYDRATED LIME	MT	\$166.99	\$38,408.00		\$38,408.00
402097000	886	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$667,796.00		\$667,796.00
402225000	132	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$83,737.00		\$83,737.00
557310000	250	PEDESTRIAN RAIL	M	\$400.59	\$100,148.00		\$100,148.00
606000000	125	GUARD RAIL-STEEL	M	\$59.23	\$7,404.00		\$7,404.00
608100000	10,124	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$430,574.00		\$430,574.00
608150000	1,380	SIDEWALK-CONCRETE 150 MM	M2	\$53.13	\$73,319.00		\$73,319.00
608290100	142	TRUNCATED DOMES	M2	\$422.45	\$59,988.00		\$59,988.00
608500100	4,772	CONCRETE 100 MM	M2	\$47.98	\$228,961.00		\$228,961.00
609000000	8,259	CURB & GUTTER-CONCRETE	M	\$37.02	\$305,748.00		\$305,748.00
610300000	30,000	SODDING	M2	\$11.43	\$342,900.00		\$342,900.00
614000000	1,500	RETAINING WALL	M2	\$92.10	\$138,150.00		\$138,150.00
619690000	105	SIGN - INSTALL	EACH	\$1,250.00	\$131,250.00		\$131,250.00
619700000	105	REMOVE SIGNS	EACH	\$36.94	\$3,879.00		\$3,879.00
620010000	655	STRIPING-WHITE PAINT	L	\$5.65	\$3,701.00		\$3,701.00
620020000	315	STRIPING-YELLOW PAINT	L	\$5.76	\$1,814.00		\$1,814.00
620045000	935	YELLOW CURB MARKING EPOXY	L	\$37.10	\$34,689.00		\$34,689.00
620110000	655	STRIPING-WHITE EPOXY	L	\$12.07	\$7,906.00		\$7,906.00
620120000	315	STRIPING-YELLOW EPOXY	L	\$12.10	\$3,812.00		\$3,812.00
620130000	78	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$4,356.00		\$4,356.00
621421000	74	ADJUST DROP INLET	EACH	\$452.00	\$33,448.00		\$33,448.00
621430000	48	ADJUST MANHOLES	EACH	\$385.37	\$18,498.00		\$18,498.00
621440000	9	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$20,385.00		\$20,385.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	1	Irrigation Structure	LS	\$300,000.00	\$300,000.00		\$300,000.00
	31	Adjust Water Valve	EACH	\$325.00	\$10,075.00		\$10,075.00
	1	Bridge over Clark Fork River	LS	\$7,220,000.00	\$7,220,000.00		\$7,220,000.00
	2	Railroad Gates	EACH	\$180,000.00	\$360,000.00		\$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	\$3,281.00	\$111,554.00		\$111,554.00
	6	Signalized Intersections	EACH	\$250,000.00	\$1,500,000.00		\$1,500,000.00
	38	Dry Wells	EACH	\$10,000.00	\$380,000.00		\$380,000.00
	1	Knowles Pedestrian Tunnel	LS	\$701,643.00	\$701,643.00		\$701,643.00
	1	Dakota Pedestrian Tunnel	LS	\$244,000.00	\$244,000.00		\$244,000.00
	1	Wyoming St. Addition	LS	\$982,000.00	\$982,000.00		\$982,000.00
		Subtotal			\$20,113,915.00		\$20,113,915.00
	8%	Mobilization			\$1,609,113.20		\$1,609,113.20
		Subtotal			\$21,723,028.20		\$21,723,028.20
	12%	Contingency			\$2,606,763.38		\$2,606,763.38
		Subtotal			\$24,329,791.58		\$24,329,791.58
	3%	Inflation	Years	3.00	\$2,256,028.58		\$2,256,028.58
		Construction Total			\$26,585,820.17		\$26,585,820.17
	15%	Construction Engineering			\$3,987,873.03		\$3,987,873.03
		Total Construction			\$30,573,693.19		\$30,573,693.19
	14.06%	Indirect Cost (IDC)-Construction					\$3,738,000.00
		Total Construction w/IDC					\$30,324,000.00
	14.06%	Indirect Cost (IDC) - Construction Engineering					\$561,000.00
		Total Construction Engineering w/IDC					\$4,549,000.00
		Total w/IDC					\$34,873,000.00
	18,565	Right-Of-Way	M2	\$130.00	\$2,414,000.00		\$2,414,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$4,478,702.00	\$4,479,000.00		\$4,479,000.00
		Total Right of Way					\$6,893,000.00
		Utility Relocates					\$1,100,000.00
	8.00%	Design Fee					\$2,127,000.00
		Total Construction + ROW + Utility + Design Fee					\$44,993,000.00

Alternative 5 - 4+ Lanes with Roundabouts

Alternative 5 is identical to Alternative 4 in terms of lane configuration (two southbound and two northbound, with raised medians and center turn lanes) on Russell Street. However, the major intersections would be controlled by roundabouts instead of traffic signals. The West Broadway Street intersection would remain signalized. Like Alternative 4, raised medians would be used throughout the Russell Street corridor to enhance the flow of through traffic. Figure 2-8 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:***Two-Lane Roundabouts at:***

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street
South 11th Street

Single-Lane Roundabouts at:

none

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

Residential Impacts under Alternative 5

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1508 5th St.	808 Russell St.	1431 3rd St.	1439 4th St. W	1405 S. 5th St.
1439 5th St.	738 Russell St.	1436 4th. St. W	1510 S. 5th St.	1500 7th St. W
1445 5th St.	521 Russell St.	1501 4th St. W	1502 6th St. W	915 Russell St.
1501 5th St.		1501 S. 10th St.	1501 6th St. W	1500 8th St. W
1509 5th St.			1501 Russell St.	1501 9th St. W
802 Russell St.				1135 10th St. W
820 Russell St.				
824 Russell St.				
1000 Russell St.				
1010 Russell St.				
915 Kern St.				
935 Kern St.				
941 Kern St.				
1012 Kern St.				
1016 Kern St.				
1520 11th St.				
1500 11th St. W				
1501 11th St.				

Commercial Impacts under Alternative 5

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 W. Broadway	215 Russell St.
1440 Broadway St.	1503 Montana St. (Previously 1503 Russell St.)	1451 Broadway St.	1440 Russell St.	1437 1st St. W
1400 Wyoming St.	140 Russell St.	Mount and Russell St.		1427 2nd St. W
1515 Wyoming St.	121 Russell St.			100 Russell St.
403 Russell St.	1425 5 th St.			1007 Mount Ave.
500 Russell St.	1516 12 th St.			
501 Russell St.				
1440 5th St.				
1120 Russell St.				
1035 Ronan St.				
Montana Rail Link				
1204 Mount Ave. (Previously 1208 Mount Ave.)				
1520 Russell St.				

Montana Department of Transportation

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative 5	Date:	June 3, 2010
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4128	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	31	REMOVE STRUCTURE	EACH	\$50,000.00	\$1,550,000.00		\$1,550,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$2,838.00		\$2,838.00
202120000	48,500	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$428,730.00		\$428,730.00
202230000	3,500	REMOVE CURB & GUTTER	M	\$9.30	\$32,550.00		\$32,550.00
202241000	3,100	REMOVE SIDEWALK	M2	\$10.57	\$32,767.00		\$32,767.00
203120000	39,000	EXCAVATION-STREET	M3	\$11.79	\$459,810.00		\$459,810.00
203300000	67,860	EMBANKMENT IN PLACE	M3	\$7.93	\$538,130.00		\$538,130.00
301270000	29,779	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$257,886.00		\$257,886.00
301440020	64,737	COVER - TYPE 2	M2	\$29.21	\$1,890,968.00		\$1,890,968.00
401080000	14,805	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$8,735.00		\$8,735.00
401100000	118	DUST PALLIATIVE	MT	\$26.34	\$3,108.00		\$3,108.00
401200000	207	HYDRATED LIME	MT	\$166.99	\$34,567.00		\$34,567.00
402097000	800	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$602,976.00		\$602,976.00
402225000	119	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$75,490.00		\$75,490.00
557310000	250	PEDESTRIAN RAIL	M	\$400.59	\$100,148.00		\$100,148.00
608000000	125	GUARD RAIL-STEEL	M	\$59.23	\$7,404.00		\$7,404.00
608100000	8,944	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$380,388.00		\$380,388.00
608150000	1,220	SIDEWALK-CONCRETE 150 MM	M2	\$53.13	\$64,819.00		\$64,819.00
608290100	142	TRUNCATED DOMES	M2	\$422.45	\$59,988.00		\$59,988.00
608500100	3,740	CONCRETE 100 MM	M2	\$47.98	\$179,445.00		\$179,445.00
609000000	6,075	CURB & GUTTER-CONCRETE	M	\$37.02	\$224,897.00		\$224,897.00
610300000	30,000	SODDING	M2	\$11.43	\$342,900.00		\$342,900.00
614000000	1,500	RETAINING WALL	M2	\$92.10	\$138,150.00		\$138,150.00
619690000	100	SIGN - INSTALL	EACH	\$1,250.00	\$125,000.00		\$125,000.00
619700000	100	REMOVE SIGNS	EACH	\$36.94	\$3,694.00		\$3,694.00
620010000	540	STRIPING-WHITE PAINT	L	\$5.65	\$3,051.00		\$3,051.00
620020000	377	STRIPING-YELLOW PAINT	L	\$5.76	\$2,172.00		\$2,172.00
620045000	728	YELLOW CURB MARKING EPOXY	L	\$37.10	\$27,009.00		\$27,009.00
620110000	540	STRIPING-WHITE EPOXY	L	\$12.07	\$6,518.00		\$6,518.00
620120000	377	STRIPING-YELLOW EPOXY	L	\$12.10	\$4,562.00		\$4,562.00
620130000	100	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$5,585.00		\$5,585.00
621421000	72	ADJUST DROP INLET	EACH	\$452.00	\$32,544.00		\$32,544.00
621430000	47	ADJUST MANHOLES	EACH	\$385.37	\$18,112.00		\$18,112.00
621440000	8	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$18,120.00		\$18,120.00
655000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	1	Irrigation Structure	LS	\$300,000.00	\$300,000.00		\$300,000.00
	31	Adjust Water Valve	EACH	\$325.00	\$10,075.00		\$10,075.00
	1	Bridge over Clark Fork River	LS	\$7,220,000.00	\$7,220,000.00		\$7,220,000.00
	2	Railroad Gates	EACH	\$180,000.00	\$360,000.00		\$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	\$3,281.00	\$111,160.00		\$111,160.00
	4	Roundabout Intersections	EACH	\$450,000.00	\$1,800,000.00		\$1,800,000.00
	1	Elliptical Roundabout	EACH	\$500,000.00	\$500,000.00		\$500,000.00
	1	Signalized Intersections	EACH	\$250,000.00	\$250,000.00		\$250,000.00
	38	Dry Wells	EACH	\$10,000.00	\$380,000.00		\$380,000.00
	1	Knowles Pedestrian Tunnel	LS	\$701,643.00	\$701,643.00		\$701,643.00
	1	Dakota Pedestrian Tunnel	LS	\$244,000.00	\$244,000.00		\$244,000.00
	1	Wyoming St. Addition	LS	\$982,000.00	\$982,000.00		\$982,000.00
	1	Costs Associated with Phasing Project	LS	\$1,706,473.00	\$1,706,473.00		\$1,706,473.00
		Subtotal			\$20,675,889.00		\$22,382,162.00
	8%	Mobilization			\$1,654,055.12		\$1,790,572.96
		Subtotal			\$22,329,744.12		\$24,172,734.96
	12%	Contingency			\$2,679,569.29		\$2,900,728.20
		Subtotal			\$25,009,313.41		\$27,073,463.16
	3%	Inflation	Years	3.00	\$2,319,038.60		\$2,510,441.02
		Construction Total			\$27,328,352.02		\$29,584,000.00
	15%	Construction Engineering			\$4,099,252.80		\$4,438,000.00
		Total Construction			\$31,427,604.82		\$34,022,000.00
	14.06%	Indirect Cost (IDC)-Construction					\$4,160,000.00
		Total Construction w/IDC					\$38,182,000.00
	14.06%	Indirect Cost (IDC) - Construction Engineering					\$624,000.00
		Total Construction Engineering w/IDC					\$5,062,000.00
		Total w/IDC					\$38,806,000.00
	22,859	Right-Of-Way	M2	\$130.00	\$2,972,000.00		\$2,972,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$7,310,214.00	\$7,311,000.00		\$7,311,000.00
		Total Right of Way					\$10,283,000.00
		Utility Relocates					\$1,100,000.00
	8.00%	Design Fee					\$2,367,000.00
		Total Construction + ROW + Utility + Design Fee					\$52,556,000.00

Alternative 5 – Refined

The following modifications were made to Alternative 5 on Russell Street.

- To reduce the right-of-way requirements and costs associated with building a roundabout, the existing traffic signal would be left in place at Mount Avenue/South 14th Street.
- In order to minimize impacts to surrounding properties protected by Section 4(f), the proposed roundabouts at South 5th Street and South 3rd Street were reduced in size as compared to previous alternatives.
- Considerable time was spent investigating the potential of installing a roundabout at the South 11th Street/Knowles Street intersection. Due to the constraints of surrounding development, including properties protected by Section 4(f) of the Transportation Act, design modifications were necessary that hindered the ability of the roundabout intersection to provide optimal operation. Therefore, the intersection would remain a stop-controlled condition under this alternative.
- A traffic signal was selected for Wyoming Street because of the substantial right-of-way that would need to be acquired with a roundabout, and the potential operational issue of having a roundabout in close proximity to the signal at West Broadway Street.
- Improvements to the Russell Street and West Broadway Street intersection are limited to those turning movements on West Broadway Street that are affected by the Russell Street improvements such as double left-turn lanes westbound on West Broadway Street turning south onto Russell Street and one westbound right-turn lane north onto Russell Street. Other improvements to the West Broadway Street portion of the intersection are not part of this project at this time.

Residential Impacts under Alternative 5 Refined

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1439 4th St. W	1431 3rd St.	1427 2 nd St. W	1501 5th St.	1501 & 1500 1/2 S. 7th St.
1445 5th St.	1436 4th. St. W	1508 5th St.	1502 6th St. W	915 Russell St.
824 Russell St.	1439 5th St.	808 Russell St.	1501 6th St. W	1501 9th St. W
1000 Russell St.	738 Russell St.	1500 11th St. W	1500 7th St. W	1501 Russell St.
1010 Russell St.	802 Russell St.	1501 11th St.	1500 8th St. W	1500 14th St. W
915 Kern St.	820 Russell St.	521 Russell St.	1135 10th St. W	
935 Kern St.			1501 S. 10th St.	
941 Kern St.			1516 & 1516 1/2 12th	
1012 Kern St.				
1016 Kern St.				

Commercial Impacts under Alternative 5 Refined

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>Russell Street</i>				
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 W. Broadway	140 Russell St.
1440 Broadway St.	1515 Wyoming St.	1451 Broadway St.	1437 1 st St. W	100 Russell St.
1503 Montana St. (Previously 1503 Russell St.)	121 Russell St.	501 Russell St.	1007 Mount Ave.	1417 3rd St.
1400 Wyoming St.	Mount and Russell St.	1440 Russell St.		1520 Russell St.
500 Russell St.				
1425 5 th St.				
1440 5th St.				
1120 Russell St.				
1035 Ronan St.				
Montana Rail Link				
1204 Mount Ave. (Previously 1208 Mount Ave.)				

Montana Department of Transportation

Page

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative 5 Refined	Date:	June 3, 2010
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4128	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	21	REMOVE STRUCTURE	EACH	\$50,000.00	\$1,050,000.00		\$1,050,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$2,838.00		\$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$428,730.00		\$428,730.00
202230000	3,500	REMOVE CURB & GUTTER	M	\$9.30	\$32,550.00		\$32,550.00
202241000	3,100	REMOVE SIDEWALK	M2	\$10.57	\$32,767.00		\$32,767.00
203120000	39,000	EXCAVATION-STREET	M3	\$11.79	\$459,810.00		\$459,810.00
203300000	67,860	EMBANKMENT IN PLACE	M3	\$7.93	\$538,130.00		\$538,130.00
301270000	29,773	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$257,886.00		\$257,886.00
301440020	64,737	COVER - TYPE 2	M2	\$29.21	\$1,890,968.00		\$1,890,968.00
401080000	14,805	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$8,735.00		\$8,735.00
401100000	118	DUST PALLIATIVE	MT	\$26.34	\$3,108.00		\$3,108.00
401200000	207	HYDRATED LIME	MT	\$166.99	\$34,567.00		\$34,567.00
402097000	800	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$602,976.00		\$602,976.00
402225000	119	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$75,490.00		\$75,490.00
557310000	250	PEDESTRIAN RAIL	M	\$400.59	\$100,148.00		\$100,148.00
606000000	125	GUARD RAIL-STEEL	M	\$59.23	\$7,404.00		\$7,404.00
608100000	7,932	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$337,348.00		\$337,348.00
608150000	1,082	SIDEWALK-CONCRETE 150 MM	M2	\$53.13	\$57,487.00		\$57,487.00
608290100	142	TRUNCATED DOMES	M2	\$422.45	\$59,988.00		\$59,988.00
608500100	3,740	CONCRETE 100 MM	M2	\$47.98	\$179,445.00		\$179,445.00
609000000	6,075	CURB & GUTTER-CONCRETE	M	\$37.02	\$224,897.00		\$224,897.00
610300000	30,000	SODDING	M2	\$11.43	\$342,900.00		\$342,900.00
614000000	1,500	RETAINING WALL	M2	\$82.10	\$138,150.00		\$138,150.00
619690000	100	SIGN - INSTALL	EACH	\$1,250.00	\$125,000.00		\$125,000.00
619700000	100	REMOVE SIGNS	EACH	\$36.94	\$3,694.00		\$3,694.00
620010000	540	STRIPING-WHITE PAINT	L	\$5.65	\$3,051.00		\$3,051.00
620020000	377	STRIPING-YELLOW PAINT	L	\$5.76	\$2,172.00		\$2,172.00
620045000	728	YELLOW CURB MARKING EPOXY	L	\$37.10	\$27,009.00		\$27,009.00
620110000	540	STRIPING-WHITE EPOXY	L	\$12.07	\$6,518.00		\$6,518.00
620120000	377	STRIPING-YELLOW EPOXY	L	\$12.10	\$4,562.00		\$4,562.00
620130000	100	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$5,585.00		\$5,585.00
621421000	72	ADJUST DROP INLET	EACH	\$452.00	\$32,544.00		\$32,544.00
621430000	47	ADJUST MANHOLES	EACH	\$385.37	\$18,112.00		\$18,112.00
621440000	8	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$18,120.00		\$18,120.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	1	Irrigation Structure	LS	\$300,000.00	\$300,000.00		\$300,000.00
	31	Adjust Water Valve	EACH	\$325.00	\$10,075.00		\$10,075.00
	1	Bridge over Clark Fork River	LS	\$7,220,000.00	\$7,220,000.00		\$7,220,000.00
	2	Railroad Gates	EACH	\$180,000.00	\$360,000.00		\$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	\$3,281.00	\$111,160.00		\$111,160.00
	2	Roundabout Intersections	EACH	\$400,000.00	\$800,000.00		\$800,000.00
	4	Signalized Intersections	EACH	\$250,000.00	\$1,000,000.00		\$1,000,000.00
	38	Dry Wells	EACH	\$10,000.00	\$380,000.00		\$380,000.00
	1	Knowles Pedestrian Tunnel	LS	\$701,643.00	\$701,643.00		\$701,643.00
	1	Dakota Pedestrian Tunnel	LS	\$244,000.00	\$244,000.00		\$244,000.00
	1	Wyoming St. Addition	LS	\$982,000.00	\$982,000.00		\$982,000.00
	1	Costs Associated with Phasing Project	LS	\$1,706,473.00	\$1,706,473.00		\$1,706,473.00
		Subtotal			\$19,375,317.00		\$21,081,790.00
	8%	Mobilization			\$1,550,025.36		\$1,686,543.20
		Subtotal			\$20,925,342.36		\$22,768,333.20
	12%	Contingency			\$2,511,041.08		\$2,732,199.98
		Subtotal			\$23,436,383.44		\$25,500,533.18
	3%	Inflation	Years	3.00	\$2,179,185.53		\$2,384,587.94
		Construction Total			\$25,609,568.97		\$27,885,000.00
	15%	Construction Engineering			\$3,841,435.35		\$4,180,000.00
		Total Construction			\$29,451,004.32		\$32,065,000.00
	14.06%	Indirect Cost (IDC)-Construction					\$3,918,000.00
		Total Construction w/IDC					\$31,783,000.00
	14.06%	Indirect Cost (IDC) - Construction Engineering					\$588,000.00
		Total Construction Engineering w/IDC					\$4,768,000.00
		Total w/IDC					\$36,551,000.00
	17,738	Right-Of-Way	M2	\$130.00	\$2,306,000.00		\$2,306,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$4,298,002.00	\$4,299,000.00		\$4,299,000.00
		Total Right of Way					\$6,605,000.00
		Utility Relocates					\$1,100,000.00
	8.00%	Design Fee					\$2,229,000.00
		Total Construction + ROW + Utility + Design Fee					\$46,485,000.00

IV. Typical Sections for the South 3rd Street Alternatives

Alternative A – No Build

Alternative A is the No-Build Alternative and would provide no improvements to South 3rd Street. Routine maintenance would continue in accordance with City and State policies. The following provides a summary of the major features:

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Signalized Intersection Control at:

Reserve Street

Russell Street

All other streets intersecting South 3rd Street are, and would be controlled by stop signs.

There are no raised medians or center turn lanes.

Alternative B - 2 Lanes with Roundabouts

Alternative B has the same lane configuration as Alternative A (existing conditions/No Build), but includes bicycle lanes, boulevards, sidewalks, and roundabouts at select intersections.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

None included in this alternative.

Alignment:

The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

Residential Impacts under Alternative B

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
2204 3rd St.	1701 3rd St. 2601 3rd St.	2415 3rd St.	1701 3rd St. 417 Curtis St. 1602 Grant St.	1701 3rd St.

Commercial Impacts under Alternative B

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
1939 3rd St.	2340 3rd St.	1301 3rd St. 1655 3rd St.	1318 3rd St. 1819 3rd St.	2207 3rd St. 3210 3rd St. W
2135 3rd St.	2600 3rd St.			
1616 3rd St. 520 Shillings St. (Previously 2140 4 th St.)		2539 3rd St.	1855 3rd St. 2115 3rd St.	2316 3rd St. W 2422 3rd St.

Montana Department of Transportation

Page 1 of 1

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative B	Date:	June 3, 2010
Project Length:	2,120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	5	REMOVE STRUCTURE	EACH	\$50,000.00	\$250,000.00		\$250,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$13,336.00		\$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$247,124.00		\$247,124.00
202230000	2,516	REMOVE CURB & GUTTER	M	\$9.30	\$23,395.00		\$23,395.00
202241000	2,436	REMOVE SIDEWALK	M2	\$10.57	\$25,748.00		\$25,748.00
203120000	21,794	EXCAVATION-STREET	M3	\$11.79	\$256,951.00		\$256,951.00
203300000	5,487	EMBANKMENT IN PLACE	M3	\$7.93	\$43,510.00		\$43,510.00
301270000	16,446	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$142,422.00		\$142,422.00
301440020	35,752	COVER - TYPE 2	M2	\$29.21	\$1,044,316.00		\$1,044,316.00
401080000	8,176	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$4,824.00		\$4,824.00
401100000	65	DUST PALLIATIVE	MT	\$26.34	\$1,712.00		\$1,712.00
401200000	114	HYDRATED LIME	MT	\$166.99	\$19,037.00		\$19,037.00
402097000	442	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$333,144.00		\$333,144.00
402225000	66	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$41,868.00		\$41,868.00
608100000	6,238	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$265,302.00		\$265,302.00
608150000	1,714	SIDEWALK-CONCRETE 150 MM	M2	\$53.15	\$91,099.00		\$91,099.00
608290100	43	TRUNCATED DOMES	M2	\$422.45	\$18,072.00		\$18,072.00
608500100	630	CONCRETE 100 MM	M2	\$47.98	\$30,237.00		\$30,237.00
609000000	6,274	CURB & GUTTER-CONCRETE	M	\$37.02	\$232,263.00		\$232,263.00
610300000	5,764	SODDING	M2	\$11.43	\$65,883.00		\$65,883.00
614000000	1,315	RETAINING WALL	M2	\$92.10	\$121,112.00		\$121,112.00
619690000	50	SIGN - INSTALL	EACH	\$1,250.00	\$62,500.00		\$62,500.00
619700000	50	REMOVE SIGNS	EACH	\$36.94	\$1,847.00		\$1,847.00
620010000	158	STRIPING-WHITE PAINT	L	\$5.65	\$893.00		\$893.00
620045000	956	YELLOW CURB MARKING EPOXY	L	\$37.10	\$35,479.00		\$35,479.00
620110000	158	STRIPING-WHITE EPOXY	L	\$12.07	\$1,907.00		\$1,907.00
620120000	169	STRIPING-YELLOW EPOXY	L	\$12.10	\$2,045.00		\$2,045.00
620130000	14	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$782.00		\$782.00
621421000	12	ADJUST DROP INLET	EACH	\$452.00	\$5,424.00		\$5,424.00
621430000	15	ADJUST MANHOLES	EACH	\$385.37	\$5,781.00		\$5,781.00
621440000	5	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$11,325.00		\$11,325.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	26	Adjust Water Valve	EACH	\$325.00	\$8,450.00		\$8,450.00
	0	5 Lane-Roundabout Intersections	EACH	\$400,000.00	\$0.00		\$0.00
	3	3 Lane-Roundabout Intersections	EACH	\$300,000.00	\$900,000.00		\$900,000.00
	1	Signalized Intersections	EACH	\$250,000.00	\$250,000.00		\$250,000.00
	51	Dry Wells	EACH	\$10,000.00	\$510,000.00		\$510,000.00
		Subtotal			\$5,221,538.00		\$5,221,538.00
	8%	Mobilization			\$417,723.04		\$417,723.04
		Subtotal			\$5,639,261.04		\$5,639,261.04
	12%	Contingency			\$676,711.32		\$676,711.32
		Subtotal			\$6,315,972.36		\$6,315,972.36
	3%	Inflation	Years	3.00	\$585,661.17		\$585,661.17
		Construction Total			\$6,901,633.53		\$6,901,633.53
	15%	Construction Engineering			\$1,035,245.03		\$1,035,245.03
		Total Construction			\$7,936,878.56		\$7,936,878.56
	9,648	Right-Of-Way	M2	\$130.00	\$1,255,000.00		\$1,255,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$1,789,450.00	\$1,790,000.00		\$1,790,000.00
		Total Right of Way					\$3,045,000.00
		Utility Relocates					\$700,000.00
	8.00%	Design Fee					\$553,000.00
		Total Construction + ROW + Utility + Design Fee					\$12,236,000.00

Alternative C - 2+ Lanes with Roundabouts

Alternative C includes two travel lanes (one in each direction), roundabouts at select intersections, and the use of raised medians through a majority of the corridor to control through traffic and increase the functionality of the intersections and roundabouts.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street

Johnson Street

Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

Residential Impacts under Alternative C

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
2204 3rd St.	1701 3rd St. 2601 3rd St.	1701 3rd St. 1602 Grant St. 2415 3rd St.	417 Curtis St.	1701 3rd St. 1910 3rd St. 2224 3rd St. 2422 3rd St.

Commercial Impacts under Alternative C

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
1939 3rd St.	520 Shillings St. (Previously 2140 4 th St.)	1301 3rd St.	1290 3rd St.	1920 3rd St.
2135 3rd St.	2340 3rd St.	1819 3rd St.	1541 3rd St.	2002 3rd St.
1318 3rd St.	2600 3rd St.	1855 3rd St.	1655 3rd St.	2310 3rd St.
1616 3rd St.		2539 3rd St.	2115 3rd St. 2207 3rd St.	2316 3rd St.

Montana Department of Transportation

Page 1 of 1

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative C	Date:	June 3, 2010
Project Length:	2,120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	6	REMOVE STRUCTURE	EACH	\$50,000.00	\$300,000.00		\$300,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$13,336.00		\$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$247,124.00		\$247,124.00
202230000	2,516	REMOVE CURB & GUTTER	M	\$9.30	\$23,395.00		\$23,395.00
202241000	2,436	REMOVE SIDEWALK	M2	\$10.57	\$25,748.00		\$25,748.00
203120000	23,770	EXCAVATION-STREET	M3	\$11.79	\$280,248.00		\$280,248.00
203300000	5,806	EMBANKMENT IN PLACE	M3	\$7.93	\$46,040.00		\$46,040.00
301270000	17,936	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$155,326.00		\$155,326.00
301440020	38,992	COVER - TYPE 2	M2	\$29.21	\$1,138,956.00		\$1,138,956.00
401080000	8,917	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$5,261.00		\$5,261.00
401100000	71	DUST PALLIATIVE	MT	\$26.34	\$1,870.00		\$1,870.00
401200000	125	HYDRATED LIME	MT	\$166.99	\$20,874.00		\$20,874.00
402097000	482	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$363,293.00		\$363,293.00
402225000	72	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$45,675.00		\$45,675.00
608100000	6,157	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$261,857.00		\$261,857.00
608150000	1,659	SIDEWALK-CONCRETE 150 MM	M2	\$53.15	\$88,176.00		\$88,176.00
608290100	43	TRUNCATED DOMES	M2	\$422.45	\$18,072.00		\$18,072.00
608500100	2,709	CONCRETE 100 MM	M2	\$47.98	\$129,973.00		\$129,973.00
609000000	7,111	CURB & GUTTER-CONCRETE	M	\$37.02	\$263,249.00		\$263,249.00
610300000	5,876	SODDING	M2	\$11.43	\$67,168.00		\$67,168.00
614000000	1,159	RETAINING WALL	M2	\$92.10	\$106,706.00		\$106,706.00
619690000	50	SIGN - INSTALL	EACH	\$1,250.00	\$62,500.00		\$62,500.00
619700000	50	REMOVE SIGNS	EACH	\$36.94	\$1,847.00		\$1,847.00
620010000	162	STRIPING-WHITE PAINT	L	\$5.65	\$915.00		\$915.00
620045000	1,266	YELLOW CURB MARKING EPOXY	L	\$37.10	\$46,960.00		\$46,960.00
620110000	162	STRIPING-WHITE EPOXY	L	\$12.07	\$1,955.00		\$1,955.00
620120000	210	STRIPING-YELLOW EPOXY	L	\$12.10	\$2,547.00		\$2,547.00
620130000	12	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$681.00		\$681.00
621421000	14	ADJUST DROP INLET	EACH	\$452.00	\$6,328.00		\$6,328.00
621430000	20	ADJUST MANHOLES	EACH	\$385.37	\$7,707.00		\$7,707.00
621440000	5	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$11,325.00		\$11,325.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	29	Adjust Water Valve	EACH	\$325.00	\$9,425.00		\$9,425.00
	0	5 Lane-Roundabout Intersections	EACH	\$400,000.00	\$0.00		\$0.00
	3	3 Lane-Roundabout Intersections	EACH	\$300,000.00	\$900,000.00		\$900,000.00
	1	Signalized Intersections	EACH	\$250,000.00	\$250,000.00		\$250,000.00
	51	Dry Wells	EACH	\$10,000.00	\$510,000.00		\$510,000.00
		Subtotal			\$5,568,287.00		\$5,568,287.00
	8%	Mobilization			\$445,462.96		\$445,462.96
		Subtotal			\$6,013,749.96		\$6,013,749.96
	12%	Contingency			\$721,650.00		\$721,650.00
		Subtotal			\$6,735,399.96		\$6,735,399.96
	3%	Inflation	Years	3.00	\$624,553.43		\$624,553.43
		Construction Total			\$7,359,953.39		\$7,359,953.39
	15%	Construction Engineering			\$1,103,993.01		\$1,104,000.00
		Total Construction			\$8,463,946.39		\$8,464,000.00
	11,205	Right-Of-Way	M2	\$130.00	\$1,457,000.00		\$1,457,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$1,438,788.00	\$1,439,000.00		\$1,439,000.00
		Total Right of Way					\$2,896,000.00
		Utility Relocates					\$700,000.00
	8.00%	Design Fee					\$589,000.00
		Total Construction + ROW + Utility + Design Fee					\$12,649,000.00

Alternative D - 3+ Lanes with Signals

Alternative D would include one eastbound lane, but two westbound lanes due to the close proximity of the proposed traffic signals. The length of the additional lanes and tapers for the proposed signals at the Curtis Street/Schilling Street, Johnson Street and Catlin Street intersections on South 3rd Street overlapped, thus becoming efficient to convert the overlapping tapers into a second westbound travel lane between Reserve Street and Russell Street.

Lane Configuration:

Three travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)
Schilling Street/Curtis Street
Johnson Street
Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

*South 3rd Street Alternative E***Residential Impacts under Alternative D**

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
	1701 3rd St. 2601 3rd St.	1701 3rd St. 1602 Grant St. 1910 3rd St. 2204 3rd St. 2415 3rd St. 2539 3rd St.	1701 3rd St. 417 Curtis St. 2224 3 rd St. 2213 3rd St.	1701 3rd St. 2422 3rd St.

Commercial Impacts under Alternative D

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
1318 3rd St. 1819 3rd St. 2135 3rd St.	1939 3rd St. 2207 3rd St. 2340 3rd St. 2600 3rd St.	1301 3rd St. 1855 3rd St. 1920 3rd St. 1616 3rd St.	1290 3rd St. 1541 3rd St. 2115 3rd St. 520 Shillings St. (Previously 2140 4 th St.) 2221 3rd St.	2002 3rd St. 2249 3rd St. 2310 3rd St. W 2316 3rd St. 1655 3rd St.

South 3rd Street Alternative E

Montana Department of Transportation

Page 1 of 1

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative D	Date:	June 3, 2010
Project Length:	2,120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	2	REMOVE STRUCTURE	EACH	\$50,000.00	\$100,000.00		\$100,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$13,336.00		\$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$247,124.00		\$247,124.00
202230000	2,516	REMOVE CURB & GUTTER	M	\$9.30	\$23,395.00		\$23,395.00
202241000	2,436	REMOVE SIDEWALK	M2	\$10.57	\$25,748.00		\$25,748.00
203120000	27,427	EXCAVATION-STREET	M3	\$11.79	\$323,364.00		\$323,364.00
203300000	5,804	EMBANKMENT IN PLACE	M3	\$7.93	\$46,022.00		\$46,022.00
301270000	20,696	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$179,227.00		\$179,227.00
301440020	44,991	COVER - TYPE 2	M2	\$29.21	\$1,314,187.00		\$1,314,187.00
401080000	10,290	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$6,071.00		\$6,071.00
401100000	82	DUST PALLIATIVE	MT	\$26.34	\$2,160.00		\$2,160.00
401200000	144	HYDRATED LIME	MT	\$166.99	\$24,047.00		\$24,047.00
402097000	556	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$419,068.00		\$419,068.00
402225000	83	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$52,653.00		\$52,653.00
608100000	6,465	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$274,956.00		\$274,956.00
608150000	1,654	SIDEWALK-CONCRETE 150 MM	M2	\$53.15	\$87,910.00		\$87,910.00
608290100	43	TRUNCATED DOMES	M2	\$422.45	\$18,072.00		\$18,072.00
608500100	1,917	CONCRETE 100 MM	M2	\$47.98	\$91,978.00		\$91,978.00
609000000	7,028	CURB & GUTTER-CONCRETE	M	\$37.02	\$260,177.00		\$260,177.00
610300000	5,505	SODDING	M2	\$11.43	\$62,919.00		\$62,919.00
614000000	1,942	RETAINING WALL	M2	\$92.10	\$178,812.00		\$178,812.00
619690000	50	SIGN - INSTALL	EACH	\$1,250.00	\$62,500.00		\$62,500.00
619700000	50	REMOVE SIGNS	EACH	\$36.94	\$1,847.00		\$1,847.00
620010000	252	STRIPING-WHITE PAINT	L	\$5.65	\$1,427.00		\$1,427.00
620045000	1,166	YELLOW CURB MARKING EPOXY	L	\$37.10	\$43,256.00		\$43,256.00
620110000	252	STRIPING-WHITE EPOXY	L	\$12.07	\$3,047.00		\$3,047.00
620120000	202	STRIPING-YELLOW EPOXY	L	\$12.10	\$2,448.00		\$2,448.00
620130000	37	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$2,079.00		\$2,079.00
621421000	15	ADJUST DROP INLET	EACH	\$452.00	\$6,780.00		\$6,780.00
621430000	20	ADJUST MANHOLES	EACH	\$385.37	\$7,707.00		\$7,707.00
621440000	5	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$11,325.00		\$11,325.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	29	Adjust Water Valve	EACH	\$325.00	\$9,425.00		\$9,425.00
	0	5 Lane-Roundabout Intersections	EACH	\$400,000.00	\$0.00		\$0.00
	0	3 Lane-Roundabout Intersections	EACH	\$300,000.00	\$0.00		\$0.00
	4	Signalized Intersections	EACH	\$250,000.00	\$1,000,000.00		\$1,000,000.00
	51	Dry Wells	EACH	\$10,000.00	\$510,000.00		\$510,000.00
		Subtotal			\$5,566,817.00		\$5,566,817.00
	8%	Mobilization			\$445,345.36		\$445,345.36
		Subtotal			\$6,012,162.36		\$6,012,162.36
	12%	Contingency			\$721,459.48		\$721,459.48
		Subtotal			\$6,733,621.84		\$6,733,621.84
	3%	Inflation	Years	3.00	\$624,388.55		\$624,388.55
		Construction Total			\$7,358,010.40		\$7,358,010.40
	15%	Construction Engineering			\$1,103,701.56		\$1,103,701.56
		Total Construction			\$8,461,711.96		\$8,461,711.96
	14,662	Right-Of-Way	M2	\$130.00	\$1,907,000.00		\$1,907,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$799,058.00	\$800,000.00		\$800,000.00
		Total Right of Way			\$2,707,000.00		\$2,707,000.00
		Utility Relocates			\$700,000.00		\$700,000.00
	8.00%	Design Fee			\$589,000.00		\$589,000.00
		Total Construction + ROW + Utility + Design Fee			\$12,459,000.00		\$12,459,000.00

*South 3rd Street Alternative E***Alternative E - 2+ Lanes with Signals**

Alternative E includes two travel lanes (one in each direction), the use of raised medians and center turn lanes, and signalized intersections.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)

Schilling Street/Curtis Street

Johnson Street

Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

The proposed alignment would generally follow the centerline of the existing alignment.

Residential Impacts under Alternative E

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
	1701 3rd St.	1701 3rd St.	1701 3rd St.	1701 3rd St.
		1602 Grant St.	417 Curtis St.	1910 3rd St.
	2601 3rd St.	2415 3rd St.		2204 3rd St.
		2539 3rd St.		2422 3rd St.

Commercial Impacts under Alternative E

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
<i>South 3rd Street</i>				
1318 3rd St.	1939 3rd St.	1301 3rd St.	1290 3rd St.	1601 3rd St.
1819 3rd St.	2207 3rd St.	1616 3rd St.	1541 3rd St.	1655 3rd St.
2135 3rd St.	2340 3rd St.		2115 3rd St.	1855 3rd St.
	2600 3rd St.		2221 3rd St.	1920 3rd St.
			520 Schillings St. (Previously 2140 4 th St.)	2002 3rd St.
				2249 3rd St.
				2310 3rd St. W
				2316 3rd St.

Montana Department of Transportation

Page 1 of 1

BID PRICES
Jan. 09 - Aug. 09

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	DOWL HKM
Project Number:	Alternative E	Date:	June 3, 2010
Project Length:	2,120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	\$5,000.00	\$10,000.00		\$10,000.00
202013000	2	REMOVE STRUCTURE	EACH	\$50,000.00	\$100,000.00		\$100,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	\$11.35	\$13,336.00		\$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	\$9.22	\$247,124.00		\$247,124.00
202230000	2,516	REMOVE CURB & GUTTER	M	\$9.30	\$23,395.00		\$23,395.00
202241000	2,436	REMOVE SIDEWALK	M2	\$10.57	\$25,748.00		\$25,748.00
203120000	25,178	EXCAVATION-STREET	M3	\$11.79	\$296,849.00		\$296,849.00
203300000	5,603	EMBANKMENT IN PLACE	M3	\$7.93	\$44,428.00		\$44,428.00
301270000	18,999	CRUSHED AGGREGATE COURSE	M3	\$8.66	\$164,531.00		\$164,531.00
301440020	41,302	COVER - TYPE 2	M2	\$29.21	\$1,206,431.00		\$1,206,431.00
401080000	9,446	PLANT MIX BIT SURF GR S - 19 MM	MT	\$0.59	\$5,573.00		\$5,573.00
401100000	75	DUST PALLIATIVE	MT	\$26.34	\$1,976.00		\$1,976.00
401200000	132	HYDRATED LIME	MT	\$166.99	\$22,043.00		\$22,043.00
402097000	510	ASPHALT CEMENT PG 70-28	MT	\$753.72	\$384,397.00		\$384,397.00
402225000	76	EMULSIFIED ASPHALT CRS-2P	MT	\$634.37	\$48,212.00		\$48,212.00
608100000	6,573	SIDEWALK-CONCRETE 100 MM	M2	\$42.53	\$279,550.00		\$279,550.00
608150000	1,520	SIDEWALK-CONCRETE 150 MM	M2	\$53.15	\$80,788.00		\$80,788.00
608290100	43	TRUNCATED DOMES	M2	\$422.45	\$18,072.00		\$18,072.00
608500100	1,708	CONCRETE 100 MM	M2	\$47.98	\$81,958.00		\$81,958.00
609000000	7,254	CURB & GUTTER-CONCRETE	M	\$37.02	\$268,543.00		\$268,543.00
610300000	5,505	SODDING	M2	\$11.43	\$62,919.00		\$62,919.00
614000000	724	RETAINING WALL	M2	\$92.10	\$66,637.00		\$66,637.00
619690000	50	SIGN - INSTALL	EACH	\$1,250.00	\$62,500.00		\$62,500.00
619700000	50	REMOVE SIGNS	EACH	\$36.94	\$1,847.00		\$1,847.00
620010000	199	STRIPING-WHITE PAINT	L	\$5.65	\$1,124.00		\$1,124.00
620045000	1,227	YELLOW CURB MARKING EPOXY	L	\$37.10	\$45,513.00		\$45,513.00
620110000	199	STRIPING-WHITE EPOXY	L	\$12.07	\$2,401.00		\$2,401.00
620120000	188	STRIPING-YELLOW EPOXY	L	\$12.10	\$2,278.00		\$2,278.00
620130000	43	WORDS/SYMBOLS-WHITE EPOXY	L	\$55.85	\$2,402.00		\$2,402.00
621421000	15	ADJUST DROP INLET	EACH	\$452.00	\$6,780.00		\$6,780.00
621430000	20	ADJUST MANHOLES	EACH	\$385.37	\$7,707.00		\$7,707.00
621440000	5	ADJUST FIRE HYDRANT	EACH	\$2,265.00	\$11,325.00		\$11,325.00
855000100	1	LANDSCAPING	LS	\$143,750.00	\$143,750.00		\$143,750.00
	29	Adjust Water Valve	EACH	\$325.00	\$9,425.00		\$9,425.00
	0	5 Lane-Roundabout Intersections	EACH	\$400,000.00	\$0.00		\$0.00
	0	3 Lane-Roundabout Intersections	EACH	\$300,000.00	\$0.00		\$0.00
	4	Signalized Intersections	EACH	\$250,000.00	\$1,000,000.00		\$1,000,000.00
	51	Dry Wells	EACH	\$10,000.00	\$510,000.00		\$510,000.00
		Subtotal			\$5,259,562.00		\$5,259,562.00
	8%	Mobilization			\$420,764.96		\$420,764.96
		Subtotal			\$5,680,326.96		\$5,680,326.96
	12%	Contingency			\$681,639.24		\$681,639.24
		Subtotal			\$6,361,966.20		\$6,361,966.20
	3%	Inflation	Years	3.00	\$589,926.04		\$589,926.04
		Construction Total			\$6,951,892.23		\$6,951,892.23
	15%	Construction Engineering			\$1,042,783.84		\$1,042,783.84
		Total Construction			\$7,994,676.07		\$7,994,676.07
	10,640	Right-Of-Way	M2	\$130.00	\$1,384,000.00		\$1,384,000.00
	1	Right-Of-Way (Compensation for Structures)	LS	\$799,058.00	\$800,000.00		\$800,000.00
		Total Right of Way					\$2,184,000.00
		Utility Relocates					\$700,000.00
	8.00%	Design Fee					\$556,000.00
		Total Construction + ROW + Utility + Design Fee					\$11,435,000.00

RIGHT-OF-WAY IMPACTS

Alternative 1 has no impacts as a No Build Option. The impacts of the other alternatives are listed in the tables below.

Table 3. Russell Street Right-of-Way Impacts

Yellow Depicts Section 4(f) Properties

Russell Street Right of Way (All Measurements are from Back of Sidewalk)								
				Alt 2	Alt 3	Alt 4	Alt 5	Alt 5 Refined
Buildings Taken		2003 Value	Owner					
1520 Russell St.	Commercial	\$303,300	Big Brothers Big Sisters	X	X		X	
1204 Mount Ave.	Commercial	\$172,600	Fred Stout	X	X	X	X	X
Montana Rail Link	Commercial	\$24,900	Lumber Boyce Co.	X	X	X	X	X
1501 11th St.	Residential	\$103,200	Steve Morin				X	
11th Street						\$197,500		
1500 11th St.	Residential	\$123,615	Thomas Finch				X	
1520 11th St.	Residential	\$147,200	Margaret Arendt				X	
1035 Ronan St.	Commercial	\$403,520	T & E Building Partnership	X	X	X	X	X
1120 Russell St.	Commercial	\$336,763	Kenneth Decosta			X	X	X
1016 Kern St.	Residential	\$112,700	Secretary of Housing and Urban			X	X	X
1012 Kern St.	Residential	\$119,500	Julie Cardarelli			X	X	X
941 Kern St.	Residential	\$125,200	Scott Bouma	X	X	X	X	X
935 Kern St.	Residential	\$159,255	Earl Hanson	X	X	X	X	X
915 Kern St.	Residential	\$127,900	Wesley Sorensen			X	X	X
1010 Russell St.	Residential	\$87,200	Don Steele	X	X	X	X	X
1000 Russell St.	Residential	\$155,900	Alton Helm	X	X	X	X	X
824 Russell St.	Residential	\$79,600	Richard Smith	X	X	X	X	X
802 Russell St.	Residential	\$79,400	Sean Kahoe			X	X	
820 Russell St.	Residential	\$87,900	Alan & Gerald Preszler				X	
1509 5th St.	Residential	\$95,700	Nila Sterner	X	X		X	
1501 5th St.	Residential	\$129,971	Mike & Heather Nichols	X	X		X	X
1445 5th St.	Residential	\$127,500	Wallace & Nila Beebe	X	X	X	X	X
1439 5th St.	Residential	\$130,200	Nancy McLaughlin				X	
1508 5th St.	Residential	\$114,700	Michael Kruse	X	X		X	X
1439 4th St.	Residential	\$91,400	Constance Muller					X
1440 5th St.	Commercial	\$100,825	Glenn Hensley	X	X	X	X	X
1425 5th St.	Commercial	\$132,600	George Kourse					X
521 Russell St.	Residential	\$69,000	John Wolverton			X		
501 Russell St.	Commercial	\$333,000	Clean Car Enterprises LLC	X	X	X	X	
500 Russell St.	Commercial	\$128,500	Eldon & Mary Castor	X	X	X	X	X
1431 3rd St.	Residential	\$126,900	Leo Might					
3rd Street						\$2,545,763		
403 Russell St.	Commercial	\$453,900	Rocky Mountain Oil Co.	X	X		X	
121 Russell St.	Commercial	\$200,000	No Data	X	X			
1515 Wyoming St.	Commercial	\$557,400	Berkeley United LLC	X	X		X	
Wyoming Street								
1400 Wyoming St.	Commercial	\$171,700	Pink Grizzly Greenhouse	X	X	X	X	X
1503 Montana St.	Commercial	\$118,400	Hall Family Limited Partnership					X
Clark Fork Bridge						\$171,700		
1451 Broadway St.	Commercial	\$145,940	Northwest Fuel Systems Inc.					
1427 W. Broadway St.	Commercial	\$468,980	Alex Mohan Subrayan					
1440 Broadway St.	Commercial	\$175,900	Intelligent Machines Inc.	X	X	X	X	X
1500 Broadway St.	Commercial	\$346,600	Arlyn F. Lemer	X	X	X	X	X
						\$522,500		
Total				\$4,447,171	\$4,447,171	\$3,437,463	\$5,615,549	\$3,298,463
Total + 30%				\$5,781,322	\$5,781,322	\$4,468,702	\$7,300,214	\$4,288,002

Table 4. South 3rd Street Right-of-Way Impacts

3rd St. Right of Way (All Measurements are from Back of Sidewalk)							
Buildings Taken	Residential/Commercial	2003 Value	Owner	Alt B/2	Alt C/3	Alt D/4	Alt E/5
1318 3rd St.	Commercial	\$245,760	Martinsen		X	X	X
1616 3rd St.	Commercial	\$350,600	T & C Lounge	X	X		
1819 3rd St.	Commercial	\$151,200	Delmar Hewlett			X	X
1939 3rd St.	Commercial	\$164,600	Greg Hamilton	X	X		
2135 3rd St.	Commercial	\$217,700	Mark Denton	X	X	X	X
520 Schillings St.	Commercial	\$515,500	Right Field Properties	X			
2204 3rd St.	Residential	\$128,100	James Schilz	X	X		
Total				\$1,376,500	\$1,106,760	\$614,660	\$614,660
Total + 30%				\$1,789,450	\$1,438,788	\$799,058	\$799,058

Full Take

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APPENDIX C:

State Historic Preservation Office Coordination

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If you have any questions, please contact me at 444-6258.

A handwritten signature in black ink that reads "Jon Axline". The signature is fluid and cursive, with the first name "Jon" and last name "Axline" clearly distinguishable.

Jon Axline, Historian
Environmental Services

Copies: Doug Moeller, P.E., Missoula District Administrator
Tim Conway, P.E., Consultant Design
Bonnie Gundrum, Resources Section



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

December 20, 2007

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

CONCUR
MONTANA SHPO

DATE 8 Jan 08 SIGNED

JAN 08

Josef
MDT
Russell St -
Missoula

RECEIVED

JAN 10 2008

ENVIRONMENTAL

Subject: STPU 8105(8)
Russell Street - Missoula
Control No. 4128

Dear Mark:

The above project has undergone a series of revisions and modifications since we submitted the cultural resource report to you in 2002. We have also submitted two Determinations of Effect for which your office concurred with our findings on March 5, 2003 and November 19, 2004. Since then, however, the project design has undergone another revision to avoid impacting some of the historic properties along Russell Street. There has, consequently, been a change in the impacts to five historic properties along Russell Street between Twelfth Street South and South 3rd Street: 24MO823, 24MO814, 24MO812, 24MO811, and 24MO798.

Site 24MO823 is a residence that was constructed in the mid-1920s and is eligible for the National Register of Historic Places (NRHP) under Criteria A and C because of its association with the development of the south side neighborhood and its high degree of architectural integrity. On March 5, 2003, you concurred with our determination that the proposed project would have No Adverse Effect to the property. The roadway has been redesigned to avoid impacts to the historic residence (Attachment 1). The MDT intends to build a 3:1 slope off the back of the sidewalk and install a 10-inch retaining wall to keep the construction limits within the existing Right-of-Way (R/W). There would be no physical encroachment on the historic property or the residence. The existing landscaping would remain intact. The setting of the site has already been significantly impacted by recent commercial development on the opposite side of Russell Street. Based on the revision of the design, we now believe the proposed project would have **No Effect** to 24MO823.

Site 24MO814 is a residence constructed in 1921. It is eligible for the NRHP under Criterion A for its association with the early 20th century development of Missoula's south side neighborhoods and under Criterion C because of its high degree of architectural integrity. On March 5, 2003, your office concurred with our determination that the proposed Russell Street project would have No Adverse Effect to the historic property. Since then, however, the design for Russell Street in the vicinity of 24MO814 has been modified to avoid impacting the site. The backslopes behind the sidewalk have been increased to 3:1 thus keeping the construction limits within the existing R/W (Attachment 1). There would be no physical encroachment on the property by the proposed project. The existing landscaping would be perpetuated and there would be no changes to the historic residence. The setting of the site has already been

compromised by recent commercial and residential development in its proximity. The proposed Russell Street – Missoula project would, therefore, be **No Effect** to 24MO814.

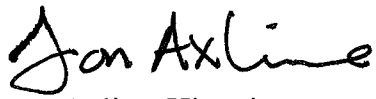
Site 24MO812 is a residence constructed in 1956. It is eligible for the NRHP under Criteria A and C because of its association with the post-WWII development of the south side residential area and its high degree of architectural integrity. On March 5, 2003 you concurred with our determination that the proposed project would have No Adverse Effect to the historic property. The preliminary plans have been modified to install 3:1 slopes off the back of the sidewalk, which would keep the construction limits within the existing R/W (Attachment 1). There would be no physical encroachment on the historic property and the residence would not be impacted by the reconstruction of the roadway. The setting of the site has already been significantly impacted by recent commercial and residential construction in the neighborhood. Based on the existing plans, there would be **No Effect** to 24MO812.

Site 24MO811 is an historic residence that was constructed in late 1950s and is eligible for the NRHP because of its association with the post-war development of the south side area and because it is representative of post-WWII residential architecture. SHPO concurred with our Determination of No Effect for this property on November 19, 2004. Since then, however, the design of Russell Street has been modified to accommodate the construction of a roundabout at the intersection of Russell and South 5th Street. To accommodate the roundabout and avoid impacting four historic properties on the west side of Russell (24MO800, 801, 805 and 798), the alignment of Russell has been shifted to the east. Widening of the roadway has also caused some change in the alignment of the roadway. Consequently, about 59 square meters of this property would be acquired for the widening of the roadway and the roundabout (Attachment 2). That acquisition would include most of the property and the residence. The project would result in the demolition of the residence. The proposed project would have an **Adverse Effect** to 24MO811.

Site 24MO798 was constructed in the early 20th century and is eligible for the NRHP under Criteria A and C for its association with the initial development of the south side neighborhood and because it retains a high degree of architectural integrity. On March 5, 2003, you concurred with our determination that the proposed project would have No Adverse Effect to the historic property. The revised preliminary plans for this property indicated that the alignment of Russell Street would be shift to the east and away from the site (Attachment 2). Consequently, no additional R/W would be required there and the slopes would not have to be modified to keep the construction limits within the existing R/W. The roadway would be farther from the site than it is presently. Based on the preliminary plans, we have determined that the proposed project would have **No Effect** to 24MO798.

On November 19, 2004, your office concurred with our determination that the proposed Russell Street project would have an Adverse Effect to 24MO819. That determination is still valid. The MDT will begin developing a Memorandum of Agreement to mitigate the impacts to 24MO811 and 24MO819.

If you have any questions, please contact me at 444-6258.

A handwritten signature in black ink that reads "Jon Axline". The signature is fluid and cursive, with the first name "Jon" and last name "Axline" clearly legible.

Jon Axline, Historian
Environmental Services

Attachments

cc: Dwane Kailey, P.E., Missoula District Administrator
Tim Conway, P.E., Consultant Design
Bonnie Steg, Resources Section
Craig Genzlinger, P.E., FHWA

Nov 22 04 03:53p
11/22/2004 12:05

Herrera Env Cons
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MDT ENVIRONMENTAL

P. 2
PAGE 02

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Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

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NOV 22 2004

David A. Galt, Director
Judy Martz, Governor

ENVIRONMENTAL

CONCUR
MONTANA SHPO

November 4, 2004

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

DATE 11/04/04 SIGNED

Josef
MDT
Russell Street
Missoula
REVISED

Subject: STPU 8105(8)
Russell Street - Missoula
Control No. 4128

Dear Mark:

On June 2, 2003, your office concurred with our determination that the above project would have an impact to six properties on Russell Street in Missoula. They are: 24MO796, 24MO800, 24MO801, 24MO805, 24MO811, 24MO819, 24MO822, and 24MO823. A Memorandum of Agreement was also developed stipulating how the MDT would mitigate the adverse effects to six properties: 24MO796, 24MO801, 24MO805, 24MO811, 24MO819, and 24MO822. That agreement was signed on July 23, 2003. Since then, however, the MDT has redesigned Russell Street in the vicinity of the effected historic sites in order to minimize or avoid impacts to them all together.

Site 24MO796 is located near the intersection of Russell Street and South 3rd Street. The MDT has proposed a roundabout to be located at the intersection. Russell Street has been redesigned to minimize impacts to National Register-eligible properties along the route. Under Preliminary Preferred Alternative (PPA), the construction limits for the intersection have been reduced in size and impacts to 24MO796 reduced. Because of the redesigned intersection, all work would be conducted within the existing R/W at 24MO796. There would be No Effect to 24MO796.

The alignment at the intersection of Russell Street and South 5th Street has been shifted away from 24MO800 to minimize impacts to the historic property by the proposed project. Approximately 2% of the 10245.99 square foot property would be utilized for the installation of a sidewalk along Russell Street. There would be no physical encroachment on the historic residence located on the property and the landscaping would remain largely intact. There would, therefore, be no significant change in the setting of the property and the characteristics that make it eligible for the National Register would remain intact. The proposed PPA would have No Effect to 24MO800.

The redesigned PPA would not result in the demolition or removal of 24MO801. The property is located at the intersection of Russell Street and South 5th Street. The redesigned roundabout proposed for that intersection means that the buildings at 24MO801 would not be located within the construction limits and would not be demolished or removed because of the project. Approximately 245 square feet of the

file: MDT/2004

Environmental Services Unit
Phone: (406) 444-7228
Fax: (406) 444-7245

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STPU 8105(8)
Russell Street - Missoula
Page 2

southeast corner of the property would be needed to accommodate the roundabout. That constitutes about 5% of the 5,237 square foot property. There would be no physical encroachment on any of the structures on the property and the landscaping would remain mostly intact and unchanged. To minimize the impacts to the property, a retaining wall would be installed on the northeast corner of the property. Based on the redesign of the intersection, we have determined that the proposed Russell Street project would have **No Adverse Effect** to 24MO801 under the PPA.

Russell Street has been redesigned at 24MO805 under the PPA. There would be no additional R/W needed at the site and it would remain intact and unchanged. The building on the site would not be physically harmed and the existing landscaping would be perpetuated. There would, therefore, be **No Effect** to 24MO805 under the PPA for this project.

There would be **No Effect** to 24MO811 as a result of the redesigned Russell Street project under the PPA. The redesign of the project under the PPA would restrict all construction activities to the existing R/W along Russell Street. A retaining wall would be constructed along the R/W boundary to minimize the impacts to the dwelling. There would be no significant change in the setting of the site and no physical encroachment on the residence as a result of the project.

There would still be an **Adverse Effect** to 24MO819 as a result of the proposed project. The widening of Russell Street would result in the demolition or removal of the residence. There is no change in our original Determination of Adverse Effect for this property.

At 24MO822, the proposed roundabout at the intersection of Russell Street and Eleventh Street has been redesigned to reduce the impact to the historic residence. A retaining wall would be constructed at the southeast corner of the property that would minimize the impacts. The new construction limits would cause the loss of 316.56 square feet or about 5% of the total 6,405.43 square foot property. The residence would not be demolished or removed as it would have been before the redesign. Indeed, there would be no physical encroachment on the dwelling and the landscaping around it would remain intact. Consequently, there would be **No Effect** to the property under the PPA for this project.

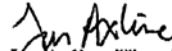
Russell Street has been redesigned under the PPA to minimize impacts to the National Register-eligible 24MO823. The site is located at the intersection of Russell Street and Eleventh Avenue where it has been proposed to construct a roundabout. The alignment of Russell Street has been shifted away from 24MO823 to accommodate widening of the street and minimize the impacts to the property. Consequently, approximately 4% of the corner of the property would be required to accommodate the reconfiguration of the

STPU 8105(8)
Russell Street – Missoula
Page 3

roadway and the addition of a sidewalk. The impacts to the site would be accomplished by the installation of a retaining wall adjacent to the sidewalk so a minimal amount of property would be required at the site. There would, consequently, be no physical encroachment on the two buildings located at the site and they would continue to exist intact and unchanged. There would be some change in the landscaping of the site, but it would not cause a significant change in the appearance of the site as a whole and it would also largely remain intact. Based on the redesign of the roadway under the PPA, there would be **No Effect** to 24MO823 as a result of the proposed project.

In summary, the proposed Russell Street – Missoula project would have **No Effect** to 24MO796, 24MO805, 24MO811, and 24MO822 under the Preliminary Preferred Alternative. There would be **No Adverse Effect** to 24MO801 and an **Adverse Effect** to 24MO819. We request your concurrence. This document supercedes the Determination of June 2, 2003. The MOA will be revised to reflect the changes in the Determination of Effect. There would be no change in the impacts to the other National Register-eligible sites within this project that have been previously evaluated.

If you have any questions, please contact me at 444-6258.


Jon Axline, Historian
Environmental Services

Enclosures

cc: Loran Frazier, P.E., Missoula District Administrator
Tom Martin, P.E., Consultant Design
Bonnie Steg, Resources Section

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MEMORANDUM OF AGREEMENT

STPU 8105(8)

**RUSSELL STREET & SOUTH THIRD STREET - MISSOULA
MISSOULA COUNTY, MONTANA**

Control No. 4128

WHEREAS the Federal Highway Administration (FHWA) proposes to assist the Montana Department of Transportation (MDT) in funding the Russell Street & South Third Street - Missoula highway reconstruction project.

WHEREAS FHWA has determined that the undertaking will have an effect on six historic properties located on Russell Street in Missoula: 24MO796, 24MO801, 24MO805, 24MO811, 24MO819, and 24MO822, properties eligible for inclusion in the National Register of Historic Places. The FHWA has consulted with the Montana State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations, "Protection of Historic Properties" (36 CFR 800);

WHEREAS MDT participated in the consultation and have been invited to concur in this amended Memorandum of Agreement;

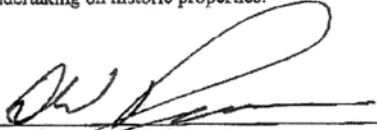
NOW, THEREFORE, FHWA and the Montana SHPO agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

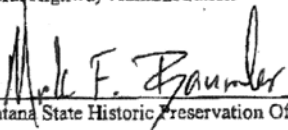
- 1) Conduct Historic American Building Survey (HABS)-level documentation of 24MO796, 24MO801, 24MO805, 24MO811, 24MO819, and 24MO822 prior to the initiation of construction activities on Russell Street.
- 2) The MDT will undertake an oral history project of the Russell Street neighborhood impacted by the proposed project. The oral history will be conducted by the MDT according to the standards developed by the Montana Historical Society. The tapes will be transcribed and housed at the Montana Historical Society with copies provided to the Mansfield Library at the University of Montana.
- 3) Large-format photographs will be taken of the Russell Street corridor before, during and after construction to document the impact of the project on the corridor and the historic properties located there. Copies of the photographs will be provided to the Montana SHPO and to the Missoula County Historic Preservation Office.
- 4) If a dispute arises regarding the implementation of Agreement, FHWA shall consult with the objecting party to resolve the dispute. If any consulting party determines

that the dispute cannot be resolved, FHWA shall request the further comments of the Advisory Council on Historic Preservation pursuant to the Council's regulations.

EXECUTION OF THIS MEMORANDUM OF AGREEMENT and implementation of its terms evidences that FHWA has afforded the Council an opportunity to comment on the Russell Street & South Third Street - Missoula highway reconstruction project and its affects on historic properties, and that FHWA has taken into account the effect of the Undertaking on historic properties.


Federal Highway Administration

7-23-2003
Date


Montana State Historic Preservation Office

7/10/2003
Date

Concurring Party:


Montana Department of Transportation

7-7-03
Date

02

T-248 P.001/001 F-245

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LUCY MARTZ GORRENT

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7-10-89				
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/		✓ 36 Prcnast Engr.		
/		✓ 30 Asstcant		
		30 Assoc Mgr		
		51 Salary Mgnt.		
		52 Road Design		
		33 Environment		
		34 Hydrologic		
		✓ 35 Survey & Mapping)		
		✓ 35 Traffic Eng.		
		✓ 36 Consultant Den.		
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MONTANA HISTORICAL SOCIETY

225 North Roberts ♦ P.O. Box 201201 ♦ Helena, MT 59620-1201
♦ (406) 444-2694 ♦ FAX (406) 444-2696 ♦ www.montanahistoricalsociety.org ♦

June 2, 2003

JON AXLINE
MDT
2701 PROSPECT AVENUE
PO BOX 201001
HELENA MONTANA 59620 1001

RECEIVED

JUN 03 2003

ENVIRONMENTAL

RE: STPU 8105(8) Russell Street & South Third Street - Missoula - Control No. 4128

Dear Jon,

We have no problem with the latest alternative, which you have explained to us. We request that in the future where you have a project inside the incorporated area where there is a Certified Local Government (CLG), that you view them as an interested party for consultation.

We are ready to sign a final copy of the MOA, which you submitted on this project. Send us a copy signed by your folks and we will sign.

If you have any questions about any points that I have made, you may call me at (406) 444-0388, or email jwarhank@state.mt.us.

Sincerely,

Josef J Warhank
Review & Compliance Officer

file: MDT 2003

2003110613



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

David A. Galt, Director
Judy Martz, Governor

November 4, 2003

CONCUR
MONTANA SHPO

MASTER FILE
COPY

DATE 11-12-03 SIGNED *[Signature]*

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

Subject: STPU 8105(8)
Russell Street - Missoula
Control No. 4128

- Josef
- MDT
- Russell St - Missoula

Dear Mark:

Enclosed are the amended site forms and the CRABS for three irrigation ditches located within the above project area. We have determined that the Miller - Kelley & Cave-Gannon Ditch (24MO225), Orchard Homes Ditch (24MO545) and the Flynn-Lowney Ditch (24MO550) are ineligible for the National Register of Historic Places for the reasons specified in the site forms. We request your concurrence.

If you have any questions, please contact me at 444-6258.

[Signature: Jon Axline]
Jon Axline, Historian
Environmental Services

Enclosures

cc: Loran Frazier, P.E., Missoula District Administrator
Carl Peil, P.E., Preconstruction Bureau
Jean Riley, P.E., Engineering Section
Bonnie Steg, Resources Section

File: MDT/2003

Environmental Services Unit
Phone: (406) 444-7228
Fax: (406) 444-7245

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Road Report: (800) 226-7823
TTY: (800) 335-7592

APPENDIX D:

Public and Agency Coordination Summary and Correspondence

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Darryl James

From: Lloyd, Miki [mlloyd@mt.gov]
Sent: Monday, February 01, 2010 12:30 PM
To: 'Gregg Wood'; Kilcrease, Susan; Darryl James; Odegard, Phil
Subject: FW: 4128 Russell/3rd St PM-10, Take 3
Attachments: Tom-Martin-MDT-RussellSt-3rdSt-DEIS-letter-1-26-10.pdf; 4128ENAIRHW3.pdf

EPA concurs for PM10.

-----Original Message-----

From: Russ.Tim@epamail.epa.gov [mailto:Russ.Tim@epamail.epa.gov]
Sent: Monday, February 01, 2010 12:16 PM
To: Helm, Cora
Cc: Kaufman, Gene; 'Ann Cundy'; 'Mamie Colburn'; Merchant, Eric; Lloyd, Miki; Kilcrease, Susan; Steve King (SKing@ci.missoula.mt.us); Potts.Stephen@epamail.epa.gov; Martin, Tom; lloyd.rue@dot.gov; Lebow-Aal.Deborah@EPA.gov; Eisele.Adam@epamail.epa.gov
Subject: Re: 4128 Russell/3rd St PM-10, Take 3

Cora,

Thank you for MDT's reply provided below in response to our letter of January 26, 2010 (.pdf file attached below).

Our January 26, 2010 letter requested additional information with respect to an aspect of the 1993 version of EPA's conformity rule (ref. 40 CFR 93.131(d) and 58 FR 62250, November 24, 1993)). We had requested that MDT address the issue which is whether the subject project has essentially identical vehicle and roadway emissions and dispersion characteristics to the roadway system where PM10 violations have been monitored. EPA has reviewed the additional intersection information that was provided in Tom Martin's letter of January 29, 2010 (see .pdf file attached below), and finds that MDT has sufficiently addressed the intersection comparison issue. Therefore, EPA concurs that a PM10 qualitative hot spot analysis is not required for this project.

We also appreciate you clarifying information with regard to the data that appears in our Air Quality System (AQS), with respect to the PM10 exceedance of 164µg/m3 in 2000, and will look to resolution of the exceptional event question between our Monitoring personnel and MDEQ. Please note, whether this exceedance is or is not a reflection of an exceptional event, does not affect our concurrence as stated above for the PM10 hot spot analysis.

Please let me know if there are any questions.

(See attached file:
Tom-Martin-MDT-RussellSt-3rdSt-DEIS-letter-1-26-10.pdf)

Tim

Tim Russ
Environmental Scientist
USEPA Region 8
Air Program
1595 Wynkoop Street (8P-AR)
Denver, CO 80202-1129

Ph. (303) 312-6479
Fax (303) 312-6064
e-mail: russ.tim@epa.gov

From: "Helm, Cora" <cohelm@mt.gov>
To: Tim Russ/R8/USEPA/US@EPA
Cc: 'Mamie Colburn' <Colburnm@ho.missoula.mt.us>, "Kaufman, Gene" <a0403@mt.gov>, Stephen Potts/MO/R8/USEPA/US@EPA, "Lloyd, Miki" <mlloyd@mt.gov>, "Kilcrease, Susan" <skilcrease@mt.gov>, "Merchant, Eric" <EMerchant@mt.gov>, 'Ann Cundy' <acundy@co.missoula.mt.us>, "Steve King (SKing@ci.missoula.mt.us)" <SKing@ci.missoula.mt.us>, "Martin, Tom" <tomartin@mt.gov>
Date: 01/29/2010 01:56 PM
Subject: 4128 Russell/3rd St PM-10, Take 3

Tim,

Here is our follow-up to your January 26 letter. Please note that no hard copy will be arriving in the mail and we have asked a quick turnaround, if at all possible.

-Cora

Cora G. Helm, P.G.
Montana Department of Transportation
Environmental Services
P.O. Box 201001
Helena, MT 59620-1001
ph: 406-444-7659
fax: 406-444-7245
cohelm@mt.gov

(See attached file: 4128ENAIHW3.pdf)



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

29 January 2010

Tim Russ
Environmental Scientist
USEPA Region 8
Air Program
1595 Wynkoop Street (8P-AR)
Denver, CO 80202-1129

SENT VIA EMAIL ONLY

Subject: STPU-M 8105(8) CN 4128
Russell Street/South 3rd Street
PM-10 Hot-Spot Conformity Determination
Additional Information as You Requested

This letter provides additional information that you requested in your letter dated 26 January 2010. Our understanding is that you are questioning a PM-10 exceedance recorded in 2000, when our letter said there had been not PM-10 violations since 1989. You also need to know if the Russell/Third Street project has “essentially identical” vehicle and roadway emission and dispersion characteristics as the site where past PM-10 monitoring violations have been recorded.

Let's first tackle the 24- hour PM-10 exceedance, which your letter noted was $164 \mu\text{g}/\text{m}^3$. The 24-hour PM-10 violation was recorded in on August 9, 2000 during a wildfire event. Wildfires are flagged as Exceptional Events (EE's) and do not count towards a violation of the Ambient Air Quality Standard. There were several wildfire events that same month and subsequent years, but those events were flagged as EE's and have not been recorded as exceedences. Records given to the state and EPA should indicate that August 9th was also flagged and noted as an EE and should not count against the federal standard. Other than federal recognized EE's such as wildfire smoke, we stand by the statement that the last PM-10 violation that can be attributed to transportation / woodstove / road dust / inversion conditions was in 1989, 21 years ago.

The only monitoring location in Missoula now recording PM-10 is located at 3131 Washburn Road, at Boyd Park. Prior to last year, there was also a PM-10 monitoring location at the Missoula City-County Health Department Building, but that location now is monitoring PM-2.5 and not PM-10. The Boyd Park monitoring location is several blocks south of Brooks Street (US Highway 12), and one block west of Russell Street. As stated previously, the monitoring location is approximately $\frac{3}{4}$ mile from the southern end of the Russell Street/South3rd Street

project. In contrast, the proposed project location is an area of much lower traffic volumes and speeds, and is a considerable distance from any major highway. These are specific differences between the Boyd Park monitoring location and the Russell Street/South 3rd Street project:

1. Cross-traffic volumes are higher at Brooks Street (Hwy 12) than the cross-street traffic on Russell Street at Mount Ave. or South 3rd Street.
2. Cross street capacity: Brooks Street is a 4-lane road way, and Mount Avenue and South 3rd Street are two-lane roadways.
3. Russell Street is a 4- and 3-lane typical at Brooks Street, and a three-lane system at South 3rd Street. At Mount Ave., Russell Street has similar lane configurations.
4. Russell Street at Brooks Street is a curb and gutter section, where the section at South 3rd and Russell Street is not.
5. Mount Ave. and Russell Street have curb and gutter, but north of Mount Ave., along Russell Street there is no curb and gutter.

An additional note also: the last letter stated the current and design speed limit for the Russell Street/South 3rd Street project is 35 mph. That is incorrect, the current and design year speed limits are 30 mph.

This is a time-critical project; we request your concurrence within 6 working days of receipt of this letter.



Tom Martin, PE, MDT Environmental Services Bureau Chief
406-444-0879

E copies: R. Steve King, Director of Public Works, City of Missoula
Stephen Potts, NEPA Coordinator, EPA Region 8 Office, Helena
Ann W. Cundy, Sr. Transportation Planner, Missoula Office of Planning & Grants
Eric Merchant, Dept. of Environmental Quality Permitting & Compliance Division
Susan Kilcrease, MDT Missoula
Miki Lloyd, MDT Consultant Design
Gene Kaufman, FHWA Helena
Mamie Colburn, Missoula City-County Health Department



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

JAN 26 2010

Ref: 8P-AR

Mr. Tom Martin, Environmental Services Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620-1001

Re: Russell Street/South 3rd Street PM₁₀ Hot-Spot Analysis Evaluation

Dear Mr. Martin:

The purpose of this letter is to respond to the information provided in your letter of December 28, 2009 (copy enclosed) and respond to your request for EPA's concurrence that the subject project does not need a PM₁₀ hot-spot analysis. EPA is unable to give our concurrence at this time and requests that information be provided, to complete this evaluation, as described at the end of this letter.

Background:

As described in a November 5, 2009 e-mail from Tim Russ to Miki Lloyd (MDT) and others, on March 10, 2006, EPA promulgated revised PM_{2.5} and PM₁₀ project level hotspot analysis requirements for conformity determinations (see 71 FR 12468). We noted that several revisions were made to EPA's conformity rule from 1995 through 2005, but these earlier revisions did not modify the 1993 40 CFR 93.131 CO and PM₁₀ hotspot requirements. Montana's Federally-approved conformity rule provisions are dated 1999 and 1996 (for section 7.8.1304) and pre-date EPA's 2006 conformity rule revisions. Therefore, we requested that a re-evaluation of the necessity for a qualitative PM₁₀ hot-spot analysis be performed for the Russell St./South 3rd St. DEIS. We further described in our November 5, 2009 e-mail that as Montana's Federally-approved conformity rule predates EPA's 2006 final rule, this re-evaluation needed to address the prior 1993 conformity rule requirements for hotspot analyses which appear on page 62250 (Vol. 58) of the November 24, 1993 Federal Register (see esp. 93.131(d)). We have enclosed a copy of this particular page from the Federal Register.

Findings:

MDT has addressed the first of two relevant aspects from 40 CFR 93.131(d) from the 1993 conformity rule (and we add clarification below) and one aspect still needs to be addressed by MDOT. The specific language that needs to be addressed from 40 CFR 93.131(d) and from 58 FR 62250 (November 24, 1993) is:

"(d) PM₁₀ hot-spot analysis must be performed for projects which are located at sites at which violations have been verified by monitoring, and at sites which have essentially the identical vehicle and roadway emission and dispersion characteristics (including sites near one at which a violation has been monitored)."

Based on this language, MDT needs to address two issues; (1) whether the subject project is located at a site where PM₁₀ violations have been monitored, and (2) whether the subject project has essentially identical vehicle and roadway emissions and dispersion characteristics to the roadway system where PM₁₀ violations have been monitored.

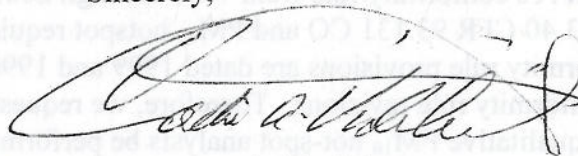
With regard to the monitored PM₁₀ data referenced in your letter, EPA agrees that the relevant monitor is located approximately ¾ of a mile from the project. However, to clarify this point in your letter, we do note that based on data entered by the State in our Air Quality System (AQS) the monitor did record a PM₁₀ exceedance of 164µg/m³ in 2000. This information does sufficiently address the above issue from 40 CFR 93.131(d) and from 58 FR 62250 (November 24, 1993) of whether the subject project is located at a site where PM₁₀ violations have been monitored.

Additional Information Needed:

MDT, however, still needs to address the second issue which is whether the subject project has essentially identical vehicle and roadway emissions and dispersion characteristics to the roadway system where PM₁₀ violations have been monitored. Once this additional information is provided, we will respond to your request for concurrence.

If there are any questions, please contact Tim Russ of my staff at (303) 312-6479 or e-mail at russ.tim@epa.gov.

Sincerely,



Callie A. Videtich, Director
Air Program

Enclosure

Cc: Eric Merchant, Montana Department of Environmental Quality
Gene Kaufman, FHWA, Montana Division
Cora Helms, MDT
Stephen Potts, USEPA, 8MO





Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

28 December 2009

Tim Russ
Environmental Scientist
USEPA Region 8
Air Program
1595 Wynkoop Street (8P-AR)
Denver, CO 80202-1129

Subject: STPU-M 8105(8) CN 4128
Russell St/South 3rd Street
PM-10 Hot-Spot Conformity Determination

This letter is to request concurrence with our conclusion that this project does not require a PM-10 hot spot analysis for the reasons outlined here.

Although there are more recent Transportation Conformity regulations in the federal register, it has been determined that Montana must revert back to the pre-2006 regulations because EPA has failed to act on the annual incorporation-by-reference in Montana's SIP updates.

The project is entirely within the boundaries of the PM-10 non-attainment area in Missoula, Montana and is not a project exempt from the requirement to determine conformity, as listed in 40 CFR 93.126 – Table 2. The Montana Department of Transportation determined that per 40 CFR Part 93.123(b)(2), a quantitative hot-spot analysis is not required but a qualitative analysis through Consultation (40 CFR 93.105) may be needed for the project. The project is described in detail in the Draft EIS, available on-line at this location:
http://www.mdt.mt.gov/pubinvolve/eis_ea.shtml.

For the following reasons MDT proposes that no further qualitative analysis is needed for the project, and that all the requirements of 40 CFR Part 93, Subpart-A are met:

- Missoula has not had an exceedence of the PM-10 standard since 1989; a PM-10 monitoring station is located approximately ¾ mile away from the south end of the project.
- Curb and gutter will be provided throughout the project and unpaved approaches and undesignated on-street parking areas will be paved, aiding in the recovery of road sand material.

- Speed limits in the project corridor are and will remain 35 mph; reduced speeds have a tendency to reduce the amount of particulate matter that gets suspended in the air.
- EPA's latest changes to the Transportation Conformity Regulations (see document EPA420-B-08-001, January 2008) reduces the number of projects where a PM-10 hot-spot analysis is required, limiting those analyses to projects of air quality concern. Such projects include those that will result in a significant increase of diesel vehicles, such as on facilities where the AADT is greater than 125,000 and 8% or more of the traffic is diesel truck traffic. Although we must evaluate this project under the old rule, this change indicates that EPA does not feel that smaller projects are a threat to local PM-10 emissions.

This letter was written in consultation with FHWA Helena, City of Missoula, Missoula's Office of Planning & Grants, and the Montana Department of Environmental Quality. We request your concurrence within 30 days of receipt of this letter. Contact Cora Helm, MDT Environmental Services with your questions or concerns, 406-444-7659.

Stan Stenberg for TM

Tom Martin, PE, MDT Environmental Services Bureau Chief
406-444-0879

copies: R. Steve King, Director of Public Works, City of Missoula
Stephen Potts, NEPA Coordinator, EPA Region 8 Office, Helena
Ann W. Cundy, Sr. Transportation Planner, Missoula Office of Planning & Grants
Eric Merchant, Dept. of Environmental Quality Permitting & Compliance Division
Susan Kilcrease, MDT Missoula
Miki Lloyd, MDT Consultant Design
Gene Kaufman, FHWA Helena

alternatives, and transportation system policies.

(d) *Projects not from a conforming plan and TIP in isolated rural nonattainment and maintenance areas.* This paragraph applies to any nonattainment or maintenance area or any portion thereof which does not have a metropolitan transportation plan or TIP and whose projects are not part of the emissions analysis of any MPO's metropolitan transportation plan or TIP (because the nonattainment or maintenance area or portion thereof does not contain a metropolitan planning area or portion of a metropolitan planning area and is not part of a Metropolitan Statistical Area or Consolidated Metropolitan Statistical Area which is or contains a nonattainment or maintenance area).

(1) Conformity demonstrations for projects in these areas may satisfy the requirements of §§ 93.120, 93.124, and 93.127 with one regional emissions analysis which includes all the regionally significant projects in the nonattainment or maintenance area (or portion thereof).

(2) The requirements of § 93.120 shall be satisfied according to the procedures in § 93.120(c), with references to the "transportation plan" taken to mean the statewide transportation plan.

(3) The requirements of §§ 93.124 and 93.127 which reference "transportation plan" or "TIP" shall be taken to mean those projects in the statewide transportation plan or statewide TIP which are in the nonattainment or maintenance area (or portion thereof).

(4) The requirement of § 93.129(b) shall be satisfied if:

(i) The project is included in the regional emissions analysis which includes all regionally significant highway and transportation projects in the nonattainment or maintenance area (or portion thereof) and supports the most recent conformity determination made according to the requirements of §§ 93.120, 93.124, or 93.127 (as modified by paragraphs (d)(2) and (d)(3) of this section), as appropriate for the time period and pollutant; and

(ii) The project's design concept and scope have not changed significantly from those which were included in the regional emissions analysis, or in a manner which would significantly impact use of the facility.

(e) *PM₁₀ from construction-related fugitive dust.* (1) For areas in which the implementation plan does not identify construction-related fugitive PM₁₀ as a contributor to the nonattainment problem, the fugitive PM₁₀ emissions associated with highway and transit project construction are not required to

be considered in the regional emissions analysis.

(2) In PM₁₀ nonattainment and maintenance areas with implementation plans which identify construction-related fugitive PM₁₀ as a contributor to the nonattainment problem, the regional PM₁₀ emissions analysis shall consider construction-related fugitive PM₁₀ and shall account for the level of construction activity, the fugitive PM₁₀ control measures in the applicable implementation plan, and the dust-producing capacity of the proposed activities.

§ 93.131 Procedures for determining localized CO and PM₁₀ concentrations (hot-spot analyses).

(a) In the following cases, CO hot-spot analyses must be based on the applicable air quality models, data bases, and other requirements specified in 40 CFR part 51, Appendix W ("Guideline on Air Quality Models (Revised)" (1988), supplement A (1987) and supplement B (1993), EPA publication no. 450/2-78-027R), unless, after the interagency consultation process described in § 93.105 and with the approval of the EPA Regional Administrator, these models, data bases, and other requirements are determined to be inappropriate:

(1) For projects in or affecting locations, areas, or categories of sites which are identified in the applicable implementation plan as sites of current violation or possible current violation;

(2) For those intersections at Level-of-Service D, E, or F, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes related to a new project in the vicinity;

(3) For any project involving or affecting any of the intersections which the applicable implementation plan identifies as the top three intersections in the nonattainment or maintenance area based on the highest traffic volumes;

(4) For any project involving or affecting any of the intersections which the applicable implementation plan identifies as the top three intersections in the nonattainment or maintenance area based on the worst Level-of-Service; and

(5) Where use of the "Guideline" models is practicable and reasonable given the potential for violations.

(b) In cases other than those described in paragraph (a) of this section, other quantitative methods may be used if they represent reasonable and common professional practice.

(c) CO hot-spot analyses must include the entire project, and may be performed only after the major design

features which will significantly impact CO concentrations have been identified. The background concentration can be estimated using the ratio of future to current traffic multiplied by the ratio of future to current emission factors.

(d) PM₁₀ hot-spot analysis must be performed for projects which are located at sites at which violations have been verified by monitoring, and at sites which have essentially identical vehicle and roadway emission and dispersion characteristics (including sites near one at which a violation has been monitored). The projects which require PM-10 hot-spot analysis shall be determined through the interagency consultation process required in § 93.105. In PM-10 nonattainment and maintenance areas, new or expanded bus and rail terminals and transfer points which increase the number of diesel vehicles congregating at a single location require hot-spot analysis. DOT may choose to make a categorical conformity determination on bus and rail terminals or transfer points based on appropriate modeling of various terminal sizes, configurations, and activity levels. The requirements of this paragraph for quantitative hot-spot analysis will not take effect until EPA releases modeling guidance on this subject and announces in the Federal Register that these requirements are in effect.

(e) Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for those inputs which are required for both analyses.

(f) PM₁₀ or CO mitigation or control measures shall be assumed in the hot-spot analysis only where there are written commitments from the project sponsor and/or operator to the implementation of such measures, as required by § 93.133(a).

(g) CO and PM₁₀ hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established "Guideline" methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.

§ 93.132 Using the motor vehicle emissions budget in the applicable implementation plan (or implementation plan submission).

(a) In interpreting an applicable implementation plan (or implementation plan submission) with respect to its motor vehicle emissions budget(s), the MPO and DOT may not



March 21, 2008

Donna Gaukler, Director
City of Missoula Parks and Recreation Department
435 Ryman Street
Missoula, MT 59802

Re: Section 4(f) Regulations: Significance of Kern and Hart Parks Sites

Project Name: Russell Street/South 3rd Street
Project Number: STPU-M 8105(8)
Control Number: 4128

Dear Donna:

The Montana Department of Transportation is evaluating potential environmental impacts that may be associated with the above project. With this letter we are requesting your assistance in providing public land information on the Kern and Hart Parks sites. We need your information to determine if a certain federal regulation might be applicable to this project.

The federal regulation we are specifically interested in is codified at 49 USC 303 Section 4(f) and 23 CFR 771.135 and is referred to as the Section 4(f) Regulation. Potentially applicable portions of the Section 4(f) Regulation state that the Federal Highway Administration (FHWA) can approve projects requiring the use of publicly owned land of a public park or recreation area only if there is no feasible and prudent alternative to such use and only if the project includes all possible planning to minimize harm.

The project under consideration involves reconstruction of Russell Street from Mount Avenue/South 14th Street to West Broadway Street to address current and projected safety and operational needs. The Preliminary Preferred Alternative would have four travel lanes and a center turn lane/median on Russell Street. In general, a conscious effort was made to keep construction limits to a minimum. However, in order to provide a safe roadway for the public, construction limits in certain areas must extend beyond existing right of way.

Roadway widening associated with the reconstruction of Russell Street would necessitate the acquisition of some land that is currently associated with both Hart Park and Kern Park. Those potential right-of-way takes are shown on the enclosed figure. The polygon shapes identifies the parks. The lighter shading indicates the proposed right of way needed and the darker shading is the remainder of the park.

Before the NEPA process can proceed, it must be determined if the 4(f) Regulation is applicable to the Kern Park and Hart Park sites. MDT cannot determine applicability of this regulation. "Officials having jurisdiction" must determine applicability of the 4(f) Regulation by evaluating the

major purposes and functions of the site and the significance of the site. For purposes of applying this regulation, the City of Missoula Parks Department should consider four criteria in your evaluation of the parks sites. Those criteria are outlined below.

First, the site must be publicly owned. Our records indicate both Kern Park and Hart Park are publicly owned and therefore, the first criterion is met. Please inform us if our understanding is incorrect.

Second, the site must be open to the public. Our understanding is that both Kern Park and Hart Park are open to the public at all times. As a result, the second criterion is met. Please inform us if our understanding is incorrect.

Third, one of the major purposes and functions of the site must be a park or recreation area. Please note that incidental, secondary, occasional or dispersed recreational activities do not constitute a major purpose.¹ Our understanding is that because of the limited size of the parks, there is inadequate room for active recreation and use of these parks is mainly passive. Further, we understand that there are no current or proposed recreational uses of the potentially impacted portions of either the Kern Park or the Hart Park. Please inform us if our understanding is incorrect.

If the third criterion is met, then the fourth criterion must be considered. For the fourth criterion to be met, each site must be a "significant property." Significance means that in comparing the availability and function of Kern Park and Hart Park with the park and recreation objectives of the community or authority, these parks play an important role in meeting those objectives. Management plans or other official forms of documentation regarding the land, if available and up-to-date, are important in this determination.² Our understanding is that the potentially impacted portions of Kern Park and Hart Park do not play an important role in meeting community overall recreation objectives. Please inform us if the City of Missoula determines that Kern Park and Hart Park are significant properties.

Based on our preliminary review of the impacts to these sites, it appears that Kern Park and Hart Park may not meet the criteria for Section 4(f) applicability. However, the City of Missoula Parks Department, as the officials with jurisdiction over the Kern and Hart Parks, must make that applicability determination.

If you determine that one of the primary purposes and functions of the site is not recreation and/or the site is not significant, the Section 4(f) regulations would not apply and the road reconstruction project could proceed as proposed. Please sign below if you concur. If you do not concur, please respond with a letter.

¹ US Department of Transportation Federal Highway Administration, Office of Planning, Environment and Realty Project Development and Environmental Review, *FHWA Section 4(f) Policy Paper*, page 11, March 1, 2005.

² *Ibidem*, page 12.

MT DEPT OF TRANSPORTATION
2008 MAR 27 AM 10:57

If you have any questions or concerns, please phone me at 406.523-5842. I will be pleased to assist you. Thank you for your assistance in this matter.

Sincerely,



Susan Kilcrease
Project Development Engineer
Environmental Services Bureau

The City of Missoula Public Works Department concurs that Kern Park and Hart Park are not primarily used for park or recreation areas and are not "significant" to the City's overall recreation system.

Name

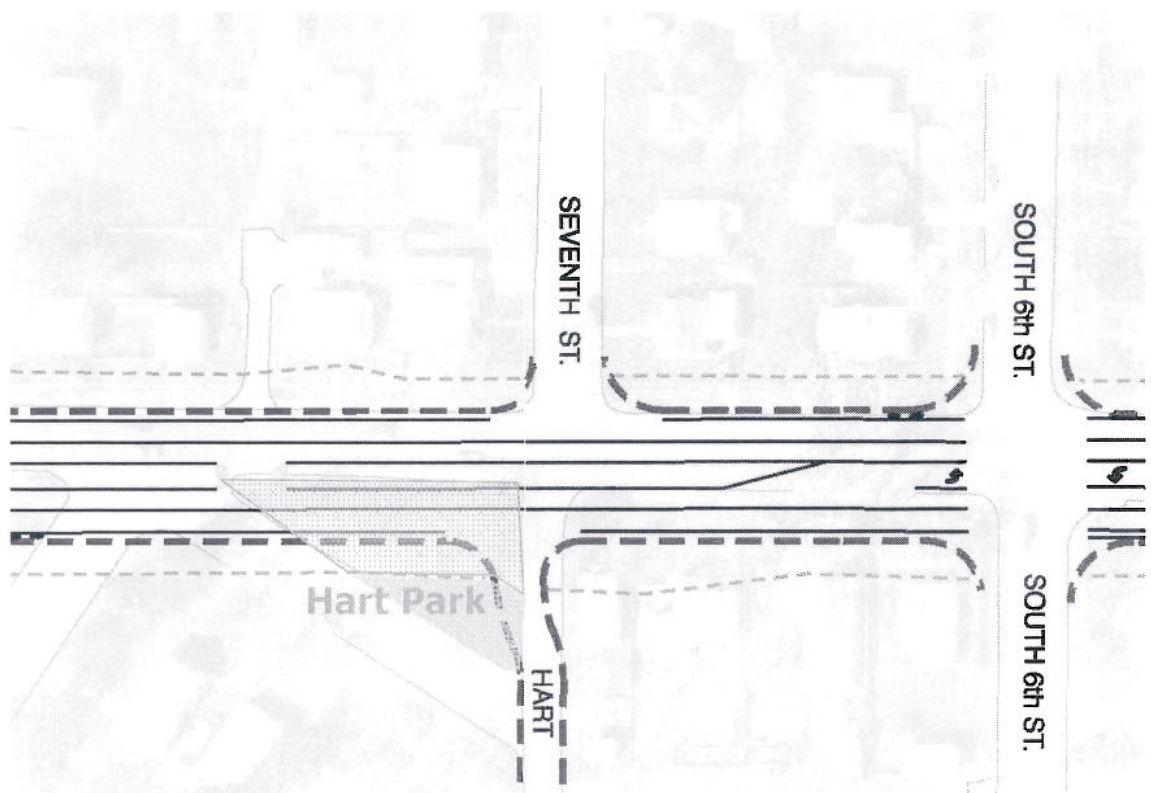
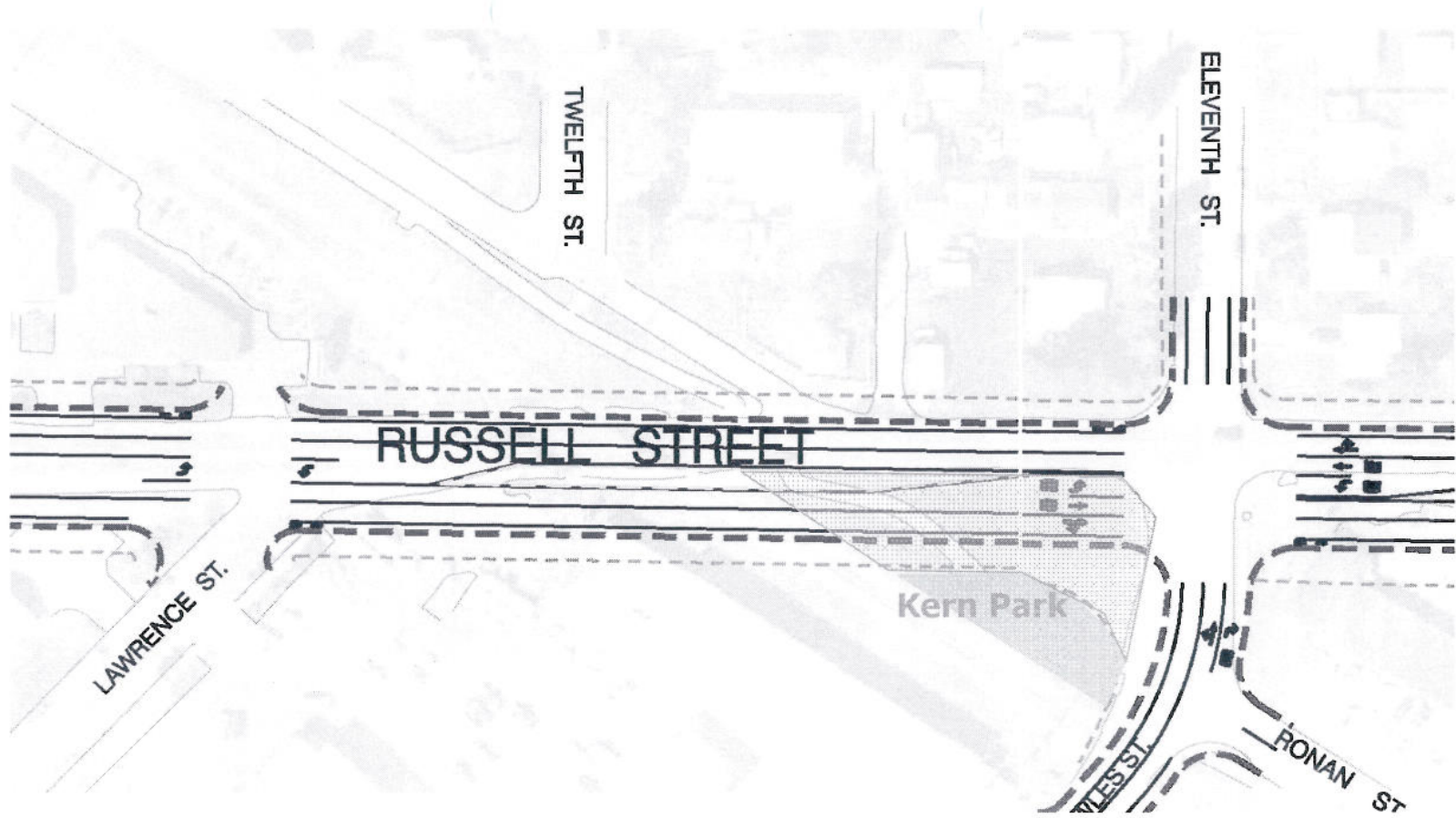
Date

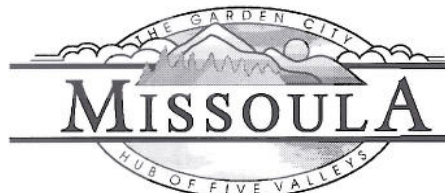
Title

enclosures

cc: Tom Martin, PE
Dwane Kailey
Paul R. Ferry, PE
Tim Conway, PE
Craig Genzlinger, PE
Gregg Wood
Darryl L. James, AICP
File

MDT Environmental Service Bureau Chief
MDT Missoula District Administrator
MDT Highways Engineer
MDT Consultant Design Engineer
FHWA
Missoula Department of Public Works
HKM Engineering





Parks & Recreation

Susan Kilcrease
MDT
P.O. Box 201001
Missoula, MT 59620-1001

April 4, 2008

RE: Section 4(f) Regulations – Kern and Hart Parks

Dear Susan,

In response to your letter dated 3/21/2008 regarding Kern and Hart Parks, I have the following comments:

- 1) The first three criteria under 49 USC 303.4(f) are met in regards to Kern and Hart Parks: (1) they are publicly owned; (2) they are open to the public; and (3) they are City parks. The law requires the land at issue to be either a park OR a recreation area, not both, as your analysis implies in the 3rd paragraph, page 2 of your letter. Even though this fact does not affect the ultimate outcome in this particular case, I felt it was important to clarify that fact.
- 2) The letter dated May 30, 2001 from Parks Director Jim Van Fossen, thoroughly describes the history and the significance of the two parks to the immediate neighborhood and thus I will not repeat that information. However, the 2001 letter does not specially answer the question of whether or not the two parks rise to the level of significance for 4(f) purposes, which as you point out in your letter, you believe they do not. After reviewing the statute and the March 2005 FHWA Section 4(f) Policy Paper, I have concluded that I agree with your analysis that the two parks do not meet the fourth criterion.
- 3) I believe the loss of these two parks will be felt by the neighborhood since they are located in one of the most underserved areas based upon the Master Parks & Recreation Plan inventory of population compared to developed parkland acres. Thus, I feel it is important to state that we expect to be fully compensated for the lost parkland acreage. The funds received would help us develop parks and trails in the immediate area, approximate half mile radius.

Sincerely,


Donna Gaukler, Director Missoula Parks & Recreation

CC: Gregg Wood, Missoula Public Works
Bruce Bender, Missoula CAO



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

July 29, 2008

Donna Gaukler, Director
City of Missoula Parks and Recreation Department
600 Cregg Lane
Missoula, MT 59802

Re: Section 4(f) Regulations: Significance of Hart and Kern Parks Sites

**Russell Street/South 3rd Street
STPU-M 8105(8)
Control Number 4128**

Dear Donna:

Thank you for your letter of April 4, 2008 and our meeting on April 25, 2008. Both helped MDT understand your department's concerns regarding Hart and Kern Parks. The additional information you provided to MDT and the consultant on future park and trail developments was also very helpful and has been incorporated in the Draft EIS.

To address your concerns the following mitigation language has been included in the Draft EIS in the parks and Recreation section.

Mitigation of the loss of green space will include additional landscaping and green space along Russell Street between Mount Avenue/South 14th Street and South 3rd Street. The amount of green space that will be added as a result of the proposed project will be the same or greater than the amount that would be adversely affected. The Right of Way negotiation process will allow for the monetary value of Hart and Kern Park to be directed to the City's Park Department to be used in conformance with the City's Master Parks and Recreation Plan for the Greater Missoula Area (May 2004).

With this letter MDT requests your concurrence that Hart and Kern Parks are not significant per Section 4(f) and therefore the Section 4(f) regulations would not apply. Please sign below if you concur and return to our office.

If you have any questions or concerns, please phone me at 406-523-5842. I will be pleased to assist you. Thank you for your assistance in this matter.

Sincerely,



Susan Kilcrease
Project Development Engineer
MDT Environmental Services Bureau

Attachment:

Missoula Parks and Recreation April 4, 2008 letter to MDT

The City of Missoula Parks and Recreation Department concurs that Kern Park and Hart Park are not primarily used for park or recreation areas and are not "significant" to the City's overall recreation system.



Name

7/30/08

Date

Parks + Recreation Director

Title

cc: Tom Martin, PE
Dwane Kailey
Paul R. Ferry, PE
Tim Conway, PE
Craig Genzlinger, PE
Gregg Wood
Darryl L. James, AICP
File

MDT Environmental Service Bureau Chief
MDT Missoula District Administrator
MDT Highways Engineer
MDT Consultant Design Engineer
FHWA
Missoula Department of Public Works
HKM Engineering



United States Department of the Interior

FISH AND WILDLIFE SERVICE

MONTANA FIELD OFFICE
100 N. PARK, SUITE 320
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339

M.17 FHWA - Russell Street (Missoula)

August 28, 2003

Laura Jones Lofink
Herrera Environmental Consultants, Inc.
101 East Broadway
Suite 610
Missoula, Montana 59802

Dear Ms. Lofink:

This is in response to your June 3, 2003 letter regarding the Russell Street and South Third Street Reconstruction Project proposed by the Montana Department of Transportation and the Federal Highway Administration to occur within the City of Missoula in Missoula County, Montana. Your letter requested an updated list of threatened and endangered species that may occur near the proposed project area from the U.S. Fish and Wildlife Service (Service). Previously, on March 8, 2001 and on August 26, 2002, the Service has provided such lists for this project. However, because a significant amount of time has passed, you are requesting an updated list. These comments have been prepared under the authority of, and in accordance with, the provisions of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*) and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

In accordance with section 7(c) of the Act, the Service has determined that the following threatened, endangered, proposed and candidate species may be present in the vicinity of the project area.

Listed Species

Expected Occurrence

bald eagle (*Haliaeetus leucocephalus*); threatened

spring or fall migrant; winter resident

bull trout (*Salvelinus confluentus*); threatened

resident in Clark Fork River

Proposed Species or Critical Habitat

Expected Occurrence

bull trout critical habitat

Clark Fork River

Candidate Species

Expected Occurrence

yellow-billed cuckoo (*Coccyzus americanus*)

riparian areas with cottonwoods and willows

Section 7(c) of the Act requires that federal agencies proposing major construction activities complete a biological assessment to determine the effects of the proposed actions on listed and proposed species and use the biological assessment to determine whether formal consultation is required. A major construction activity is defined as "a construction project (or other undertaking having similar physical impacts) which is a major federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act (NEPA)" (50 CFR Part 402). If a biological assessment is not required (i.e., all other actions), the federal agency is still required to review their proposed activities to determine whether listed species may be affected. If such a determination is made, consultation with the Service is required.

For those actions wherein a biological assessment is required, the assessment should be completed within 180 days of initiation. This time frame can be extended by mutual agreement between the federal agency or its designated non-federal representative and the Service. If an assessment is not initiated within 90 days, this list of threatened and endangered (T/E) species should be verified with the Service prior to initiation of the assessment. The biological assessment may be undertaken as part of the federal agency's compliance of section 102 of NEPA and incorporated into the NEPA documents. We recommend that biological assessments include the following:

1. A description of the project.
2. A description of the specific area that may be affected by the action.
3. The current status, habitat use, and behavior of T/E species in the project area.
4. Discussion of the methods used to determine the information in Item 3.
5. An analysis of the affects of the action on listed species and proposed species and their habitats, including an analysis of any cumulative effects.
6. Coordination/mitigation measures that will reduce/eliminate adverse impacts to T/E species.
7. The expected status of T/E species in the future (short and long term) during and after project completion.
8. A determination of "is likely to adversely affect" or "is not likely to adversely affect" for listed species.
9. A determination of "is likely to jeopardize" or "is not likely to jeopardize" for proposed species.
10. Citation of literature and personal contacts used in developing the assessment.

If it is determined that a proposed program or project "is likely to adversely affect" any listed species, formal consultation should be initiated with this office. If it is concluded that the project "is not likely to adversely affect" listed species, the Service should be asked to review the assessment and concur with the determination of no adverse effect.

Pursuant to section 7(a) (4) of the Act, if it is determined that any proposed species may be jeopardized, the federal agency should initiate a conference with the Service to discuss conservation measures for those species. For more information regarding species of concern

occurring in the project areas, including proposed and candidate species, please contact the Montana Natural Heritage Program, 1515 East 6th Ave., Helena, 59601, (406) 444-3009.

A federal agency may designate a non-federal representative to conduct informal consultation or prepare biological assessments. However, the ultimate responsibility for Section 7 compliance remains with the federal agency and written notice should be provided to the Service upon such a designation. We recommend that federal agencies provide their non-federal representatives with proper guidance and oversight during preparation of biological assessments and evaluation of potential impacts to listed species.

Section 7(d) of the Act requires that the federal agency and permit/applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives until consultation on listed species is completed.

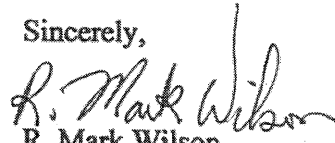
Power lines in the vicinity, if not properly constructed, could pose electrocution hazards for bald eagles. To conserve eagles and other large raptors protected by federal law, we urge that any power lines that need to be modified or reconstructed as a result of these projects be raptor-proofed following the criteria and techniques similar to those outlined in the publication, "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996." A copy may be obtained from: Jim Fitzpatrick, Treasurer, Carpenter Nature Center, 12805 St. Croix Trail South, Hastings, MN 55033. The use of such techniques would likely be most beneficial adjacent to expected raptor foraging areas (i.e., stream crossings or wetlands that support populations of waterfowl).

One of the components of the proposed project would be the replacement of the Russell Street bridge over the Clark Fork River. Bridges that do not allow for inevitable migration of the stream channel will require extensive erosion control in the foreseeable future. These increased bank stabilization activities, including riprap, have both indirect and direct cumulative impacts that significantly affect the physical, chemical and biological dynamics of the stream and its associated aquatic resources. As cumulative effects to these resources increase, the option to riprap and stabilize stream channels upstream of bridges may no longer be viable. The Service recommends that the design of stream crossings include an analysis of cumulative indirect and direct impacts including calculation of bedload dynamics and future bridge maintenance activities and the consideration of additional bridge length as a means of ameliorating these impacts.

It appears likely that the proposed construction activities may impact wetlands or other waters of the United States. If so, Corps of Engineers (Corps) Section 404 permits may eventually be required. In that event, depending on permit type and other factors, the Service may be required to review permit applications and will recommend any protection or mitigation measures to the Corps as may appear reasonable and prudent based on the information available at that time. We suggest that it would be prudent to design project components such that they impact aquatic sites to the minimum extent possible.

We apologize for the late response to your information request. The Service appreciates your efforts to consider and conserve fish and wildlife resources, including threatened and endangered species. If you have questions regarding this letter, please contact Mr. Scott Jackson, of my staff, at (406)449-5225, extension 201.

Sincerely,

A handwritten signature in cursive script that reads "R. Mark Wilson". The signature is written in dark ink and is positioned above the printed name.

R. Mark Wilson
Field Supervisor

From: Scott_Jackson@fws.gov [mailto:Scott_Jackson@fws.gov]
Sent: Friday, October 22, 2004 2:46 PM
To: Julie Kightlinger
Cc: Anne_Vandehey@fws.gov
Subject: Re: M.17 FHWA - Russell Street (Missoula)

Hi Julie,

Per your request, this message provides an update to the list of threatened, endangered, or candidate species that may occur within the vicinity of MDT's proposed Russell Street and South Third Street Reconstruction project in Missoula. Previous lists and updates have been provided on March 8, 2001, August 26, 2002, and August 28, 2003. The most recent list included bald eagles, bull trout, and yellow-billed cuckoo, in addition to proposed critical habitat for bull trout. The FWS recently (October 6, 2004) published the final rule designating critical habitat for bull trout in the Klamath River and Columbia River populations. No critical habitat for bull trout was designated in Montana for the Columbia River population, so bull trout critical habitat should be removed from the list for this project. Bald eagles, bull trout, and yellow-billed cuckoo should remain the listed species that may occur near this project location, primarily in association with the proposed replacement of the Clark Fork River bridge on Russell Street.

Thank you for your request. Please feel free to call me if you have questions regarding the ESA aspects of this project, or if there is any other information I can provide. Have a good weekend!

Scott Jackson, Wildlife Biologist
U.S. Fish and Wildlife Service
100 North Park Avenue, Suite 320
Helena, Montana 59601
(406)449-5225, ext. 201
scott_jackson@fws.gov

To <scott_jackson@fws.gov>
Subject: M.17 FHWA - Russell Street (Missoula)
10/19/04 04:27 PM
Mr. Jackson,

On August 28, 2003 we received an updated list of threatened and endangered species that may occur near the Russell Street and South Third Street Reconstruction Project proposed by the Montana Department of Transportation and the Federal Highway administration to occur in the City of Missoula, in Missoula County, Montana. Since time has passed since this list was request from the U.S. Fish and Wildlife Service, I am requesting a verification that no changes have occurred to the list.

Sincerely,
Julie Kightlinger
Herrera Environmental Consultants
101 E Broadway, Suite 610
Missoula, MT 59801
(406) 721-6763



Montana Fish, Wildlife & Parks

3201 Spurgin Road
Missoula, MT 59804
(406) 542-5500
Fax (406) 542-5529

Mr. Dale W. Paulson
Federal Highway Administration
2880 Skyway Drive
Helena, MT 59602

DEC 22

Dear Mr. Paulson:

This letter is in response to your request for involvement by Montana Fish, Wildlife and Parks in the EIS review on the Russell Street-South Third Street EIS. Thank you for initiating the coordination with this department, and yes we are interested in participating.

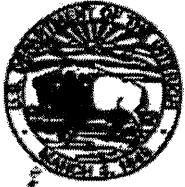
I would ask that for fisheries issues that you contact Ladd Knotek. For wildlife issues please contact John Firebaugh. Finally, for trails or recreation, the contact person will be Lee Bastian. All of the above can be contacted at the above address or phone.

Sincerely,

A handwritten signature in black ink, appearing to read "Mack Long".

Mack Long
Regional Supervisor

C: file



United States Department of the Interior

FISH AND WILDLIFE SERVICE

MONTANA FIELD OFFICE
100 N. PARK, SUITE 320
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339

00062-116
RECEIVED

JAN 13 2003

Skidings-Connolly, Inc.
Consulting Engineers

M.17 FHWA Russell St. (Missoula)

January 4, 2001

Dale W. Paulson
Federal Highway Administration
Montana Division
2880 Skyway Drive
Helena, Montana 59602

Dear Mr. Paulson:

This responds to your letter dated December 6, 2000, regarding the initiation of an environmental impact statement by the Federal Highway Administration and the Montana Department of Transportation for their proposal to reconstruct portions of the Russell Street - South Third Street corridors within the City of Missoula in Missoula County, Montana. Your letter requested that the US Fish and Wildlife Service (Service) be a Cooperating Agency with regards to this project. The Service received your letter on December 20.

The Service agrees to be a Cooperating Agency for this project. As such, the Service will review and respond to documents required for compliance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et. seq.), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.).

If you have questions regarding this letter, please contact Mr. Scott Jackson at (406)449-5225, ext. 201.

Sincerely,

R. Mark Wilson
Field Supervisor

**Russell Street / South 3rd Street
Advisory Council Meetings Summaries**

November 29, 2000

Missoula City Council Chambers

ABSTRACT

Thirty-eight members were in attendance. During this first meeting Dick Weaver gave an overview of the project and gave an entire rough budget estimate of \$12 million. Kelly Harris led a discussion on the Roles and Responsibilities of the Advisory Council. Dick Weaver then discussed membership, the decision making process, and roles of the Advisory Committee, Interdisciplinary Team, Public Works and City Council, the Federal Highway Administration, and Skillings-Connolly, Inc. Kelly Harris presented the preliminary project schedule. Purpose and Need Discussion was led by Kris Lee in order to establish criteria, look at concerns, and issues regarding the Russell Street project.

December 14, 2000

Missoula City Council Chambers

ABSTRACT

Thirty-four members were in attendance. This meeting began with a public comment forum where Kelly Harris talked about the notification and participation of the people north of 3rd. A Mr. Comstock had emailed him a note expressing his concerns on this issue. The Advisory Committee then discussed the rules for how they would function and a consensus approved of the Rules of Order. Next, Kris Lee presented an overview of the EIS procedure; during this time discussion, impacts and the advisory committee's role was laid out. The Discussion of Alternatives was developed into three sections, 3rd Street, Russell from 3rd to Broadway, and then Russell from 3rd Street South. Alignments, bike lanes, the ROW, lane configuration, and the Russell Street Bridge were all subjects during this time. The meeting ended with discussion on the Priority Matrix.

January 11, 2001

Missoula City Council Chambers

ABSTRACT

Thirty-three members of the Advisory Council were in attendance. This meeting discussed bicycle lanes, the Summary of Alternatives, Purpose and Needs Statement, Alternative Development, and a Public Involvement Section. Bicycle lanes were discussed because of a public comment which suggested total bicycle/car segregation. The Summary of Alternative talked about Russell from Broadway to 3rd and from 3rd to Mount. The Purpose and Needs Statements suggested wording: "Provide a safe and efficient transportation system while conserving of enhancing the environmental, scenic, historical, and community resources." Various changes were proposed to the statement by members of the council. Alternative Development discussed the breakdown of corridors into sections as well as lane configuration. Finally, the Public Involvement discussed the public kickoff event on February 2 and the open house on April 12.

January 18, 2001

Missoula City Council Chambers

ABSTRACT

Twenty-eight members of the Advisory Council were in attendance. Bob Giordano gave a presentation on different ways of doing bikeways with a separation with examples from Montreal and Europe. Kelly Harris then talked about Alternative Development and presented slides showing various lane configurations with specifications on lane width. Kris Lee handed out a new checklist as a draft for starting the process of looking at each alternative and

seeing if it meets the 6 Purpose and Needs Statements. Kelly Harris then gave an explanation of the completed analyses including, lane alternatives and design speed. Thad Dickson talked about Public Involvement and suggested that flyers be posted. The media had also showed interest on the project. Lastly, the schedule was firmed to have another meeting on February 1.

February 1, 2001
Council Groves Apartments

ABSTRACT

Twenty-three members of the Advisory Council were in attendance. Dick Weaver clarified that the Advisory Council is a recommending body not a decision-making body and urged members to be respectful during meetings. Changes were proposed on the Purpose and Need Statement to which a consensus for change was achieved on only one of the 3 motions. Preliminary alternatives of 3rd and Russell Street were discussed, as well as common features to all alternatives. It was suggested to add illumination, pedestrian crossing facilities (ADA Compliant), and landscaping. The checklist was applied to each of the alternatives to comply with the Purpose and Need Statement and the meeting was adjourned.

March 1, 2001
Missoula City Council Chambers

ABSTRACT

Thirty-four members of the Advisory Council were in attendance. A public comment was made by Jim McGrath on the Walkable Communities workshop and the actual abilities of the Advisory Council. Viable Alternatives were clarified and the features common to all alternatives were reiterated, but it was stressed that all options are still on the table and any issue can be revisited. A Traffic Engineering "Class" was then given to the members; it talked about basic concepts in traffic engineering in order to clarify questions raised about design speed. The NEPA process was discussed and it was suggested that the matrix will help to look at alternatives i.e. lane widths regarding environmental consequences.

March 8, 2001
Missoula City Council Chambers

ABSTRACT

Twenty-five members of the Advisory Council were in attendance. The first item discussed was the Alternative Matrix which will be used in the recommendation process. A presentation was given on how information was gathered in order to develop the matrix itself. Members were then asked to rank alternatives on a variety of criteria. An open discussion brought up the EIS, the Walkable Communities Workshop, and the need for something to be done on Russell. The meeting concluded with the following items being tabled: Design Speeds, Capacity, LOS, On Street Parking, Roundabouts, Decisioning tools for subcategories, and the Charrette Report.

May 10, 2001
Missoula City Council Chambers

ABSTRACT

Thirty members of the Advisory Council were in attendance. Public comments from Dave Durnford and Kate Whitlock who were both concerned about Russell losing its residential character and informed the council that people are becoming frustrated with the contradictory information they are getting from different authorities. The tabled items from the previous meeting were discussed and then the summaries from the alternative matrix were

handed out. An open comment section brought up the ideas about accessibility of meetings to public and fixed income resident relocation.

May 16, 2001
Wells Fargo Bank Conference Room

ABSTRACT

Thirty members of the Advisory Council were in attendance. The Purpose and Need was again discussed and Dick Weaver again stressed that the Advisory Council needs to give input to the process. The Summary of Impacts was discussed next and many questions arose about pedestrian safety in all alternatives offered. The Council now went on to discuss the matrix and the alternatives. In summary, most intersections approaches current operate at an acceptable LOS, but there are certain movement, generally left-hand turns from the minor street onto the major street, which to not achieve required levels. The Committee the moved for an open comment period during which time summer project involvement and pedestrian transit were again discussed, following that the meeting was adjourned.

February 20, 2002
Missoula City Council Chambers

ABSTRACT

Thirty-two members of the Advisory Council were in attendance. A public comment was made by Michael Kustudia who suggested using materials from a community workshop put on by Dan Burden. A project update stated that the Scope of Work and Cost Proposals were prepared and a notice to proceed received. Survey data, preliminary design, and Air-Noise studies were all in progress. The floor was then open for questions. A power point presentation summarizing the matrix was given by Kris Lee. From this exercise overall conclusions showed which alternatives were favored by the advisory council. Neighborhood Councils then voiced there opinions to the process. An Open Committee Discussion talked about the Walkable Communities Report, roundabouts, turn signals, EIS drafts, and design speed changes. A quick schedule overview was given and the meeting was adjourned.

October 8, 2002
Missoula City Council Chambers

ABSTRACT

Thirty-two members of the Advisory Council were in attendance. Kelly Harris updated the council on the project process at the current time. All of the EIS work is being done by Herrera Environmental. The schedule of progress was reviewed and the City of Missoula will meet on October 17, 2002 to choose their preliminary preferred alternative. The council expressed its concern for public education on roundabouts. It was again stressed that alternatives can be blended to create a desired outcome. Steve King then spoke to the Advisory Council on the trip taken by transit officials to Denver to see the implementation of roundabouts first-hand. Cost Estimates were reviewed and the meeting was adjourned.

**Russell Street / South 3rd Street
Interdisciplinary Team Meetings Summaries**

December 15, 2000

Missoula City Council Chambers

ABSTRACT

Twenty-three members of the ID Team were in attendance. Kelly Harris introduced the meetings purpose as looking at the roadways and talk about alternative presently posted. The team then discussed its roles and responsibilities. Purpose and Needs Discussion talked about setting boundaries for alternatives. Topics discussed were possible lane configurations and Russell Street Capacity (current and projected). Alternatives discussion also brought up lane configuration and capacity as well as pedestrian transport, bridge widening, and the EIS. Schedule was discussed and the meeting adjourned.

January 19, 2001

Missoula City Council Chambers

ABSTRACT

Twenty-three members of the ID Team were in attendance. Kris Lee first handed out the draft fo the Purpose and Need Statement that the Advisory Council agreed upon. Gerald Dorn from HNTB came in and gave a talk about bridge and flood design. Draft Alternative Development was discussed by Kelly Harris and mainly talked about lane configuration, closure notices, bridge design considerations, and design speed. Talked about schedule and adjourned.

May 2, 2001

Missoula City Council Chambers

ABSTRACT

Twenty-three members of the ID Team were in attendance. A brief update was given on the Advisory Council's decisions mainly including Purpose and Need, alternative designs, and use of the alternatives matrix. 3 alternatives were then presented to the ID team to study in depth. And Intersection traffic control –traffic signals or roundabouts- was also looked at. The team then discussed preliminary drawings of the project. The Fire Department adamantly opposed roundabouts at any location on Russell or 3rd because they are major cross-town routes. Also brought up was storm water catch basins and police concerns with roundabouts. Gerry Dorn again talked about the bridge. The EIS progress was then presented by Kris Lee, additionally the ID Team went over the Alternative Matrix. The schedule and public involvement was discussed and the meeting was adjourned.

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APPENDIX E:

De Minimis Coordination

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U.S. Department
of Transportation
**Federal Highway
Administration**

2008051206
Montana Division

May 7, 2008

BY: [Signature]
585 Shepard Way
Helena, MT 59601

Mark Baumler
State Historic Preservation Office
1410 8th Avenue
PO Box 201202
Helena, MT 59620-1202

In Reply Refer To:
HDA-MT

Subject: ***De minimis Finding***
Russell Street - Missoula
STPU 8105(8)
Control No. 4128

Dear Mr. Baumler:

By way of this letter, the Federal Highway Administration (FHWA) is requesting written concurrence from the Montana State Historic Preservation Office (SHPO) with the NO EFFECT determination for 24MO800 at the intersection of Russell St. and South 3rd Street, as well as for 24MO718, the Bitterroot Branch of the Northern Pacific Railroad. Enclosed for your use and information are exhibits showing the limits of the proposed new right of way and previous correspondence with your office from MDT on this project.

In addition to Section 106 of the National Historic Preservation Act (NHPA), FHWA must comply with the provisions of Section 4(f) of the 1966 Department of Transportation Act. Historically, Section 4(f) has required that prior to approval of any federally-funded highway project resulting in the "use" of listed or eligible historic properties under the NHPA; the FHWA must perform an avoidance analysis to determine whether there is a "feasible and prudent" alternative that would avoid the Section 4(f) resource.

In August of 2005, Section 138 of title 23, USC was amended under the Safe, Accountable, Flexible, and Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). Section 6009 of SAFETEA-LU provided new legislative authority to address programs and projects with minor or 'de minimis' impacts on a Section 4(f) resource.

More specifically, Section 6009(b) (2) of SAFETEA-LU states:

(2) HISTORIC SITES.--With respect to historic sites, the Secretary may make a finding of *de minimis impact* only if--

(A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C. 470f), that--

**MOVING THE
AMERICAN
ECONOMY**

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable State historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

This new provision of Section 4(f) is the basis of this letter, and of the FHWA's determination of *de minimis* impacts.

***De Minimis* Determination**

The findings of "no effect" reflect a conclusion that the uses identified in the attached exhibits will not "alter, directly or indirectly, any of the characteristics of [the] historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

If you concur in the determinations, FHWA intends to make a finding that impacts to historic resources that would result from implementation of the subject project would be *de minimis* for purposes of Section 4(f), as recently amended by Congress.

Request for Concurrence

The FHWA requests the written concurrence of the Montana SHPO in the above-described finding of "no effect" on historic resources from the subject project. This written concurrence will be evidence that the concurrence and consultation requirements of Section 6009 of SAFETEA-LU, as they will be codified at 23 U.S.C. § 138(b) (2) (B) & (C), and 49 U.S.C. § 303 (d) (2) (B) and (C) are satisfied. Concurrence can be provided either by signing and dating this letter or by separate letter from the Montana SHPO to the Federal Highway Administration, 585 Shepard Way, Helena, MT 59601.

Sincerely,



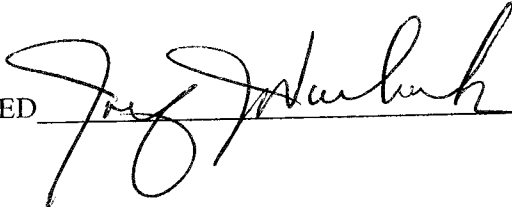
Kevin L. McLaury, P.E.
Division Administrator

Enclosures

cc: Tom Martin, MDT, Environmental
Susan Kilcrease, MDT, Missoula
Fred Bente, MDT, Consultant Design
Carl James, FHWA, Transportation Specialist

File: STPU 8105(8) cg/lw

CONCUR
MONTANA SHPO:

DATE 23 May 08 SIGNED 



U.S. Department
of Transportation
**Federal Highway
Administration**

Montana Division

May 20, 2008

RECEIVED
JUN 02 2008

FHWA
MONTANA DIVISION 585 Shepard Way
Helena, MT 59601

Donna Gaukler, Director
City of Missoula Parks and Recreation
435 Ryman Street
Missoula, MT 59802

In Reply Refer To:
HDA-MT

RE: *De Minimis Finding* for:
Shady Grove Trail
Milwaukee Corridor Trail
Bitterroot Branch Trail

Project Name: Russell Street / South 3rd Street - Draft Environmental Impact
Statement (DEIS)
Project Number: STPU 8105(8)
Control Number: 4128

Dear Ms. Gaukler:

This letter is a follow up to our meeting with you, the Montana Department of Transportation (MDT), and the City of Missoula Public Works staff, on April 25, 2008.

We appreciated the opportunity to visit with you about the subject project, as well as your Department's plans for enhancement of the trail systems in Missoula. As was discussed at the meeting, all three trails identified above will be provided with a grade separated crossing at the intersection with Russell Street, and will connect with existing or planned trail facilities. An additional graphic in the DEIS will show a cross section of how the under crossing structures could look to accommodate a 10-foot wide path.

The temporary uses and under crossings are necessary for the construction and maintenance of the subject project, and the trails have been determined to be public recreation area(s) and provided protection under Section 4(f) of the 1966 Department of Transportation Act.

In August of 2005, Section 138 of title 23, USC was amended under the Safe, Accountable, Flexible, and Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). Section 6009 of SAFETEA-LU provided new legislative authority to address programs and projects with minor or 'de minimis' impacts on a Section 4(f) resource.

**MOVING THE
AMERICAN
ECONOMY**

Subsection (b) (3) of said Section 6009 provides the following requirements for a de minimis finding;

(3) PARKS, RECREATION AREAS, AND WILDLIFE OR WATERFOWL REFUGES. – With respect to parks recreational areas, or wildlife or waterfowl refuges, the Secretary may make a finding of de minimis impact only if –

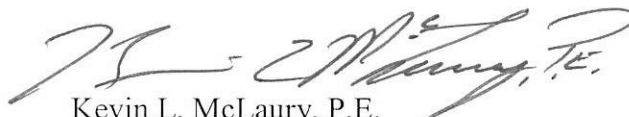
“(A) the Secretary has determined, after public notice and opportunity for public review and comment, that the transportation program or project will not adversely affect the activities, features, and attributes of the park, recreational area, or wildlife or waterfowl refuge eligible for protection under this section; and

“(B) the finding of the Secretary has received concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge.”.

Therefore, based upon the previous coordination and the requirements explained above, I am hereby requesting your concurrence in a finding of *de minimis impact* to the trail/Russell Street intersections shown on the attached exhibit.

I have enclosed a duplicate, original letter for your records. Please sign both letters and return one original in the enclosed envelope. If you have any questions, please contact Craig Genzlinger@dot.gov or call 406-449-5302, ext. 240.

Sincerely,



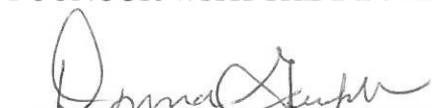
Kevin L. McLaury, P.E.
Division Administrator

Attachment

cc: Susan Kilcrease, MDT - Missoula
Tom Martin, MDT- Environment
Greg Wood - City of Missoula
Carl James, Transportation Specialist

File: STPU 8105(8) cg/lw

I CONCUR WITH THE DE MINIMIS FINDING AS IDENTIFIED HEREIN

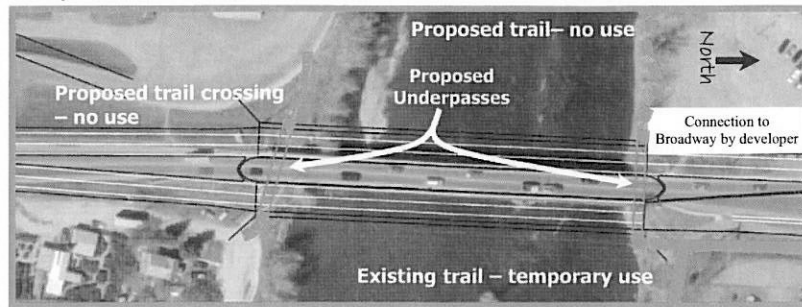


Donna Gaukler, Director
City of Missoula Parks and Recreation

5/29/08
Date

**Proposed Improvements to Trail Crossings
as elements of the proposed Russell Street reconstruction project**

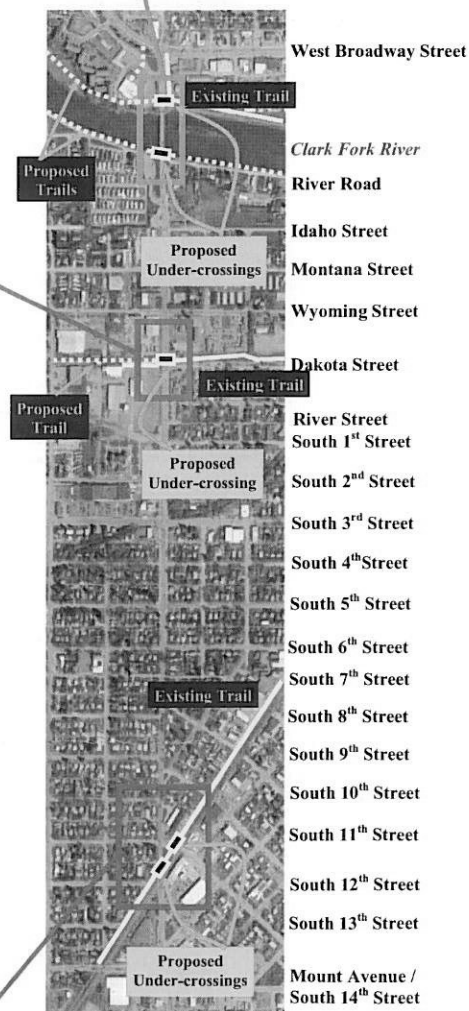
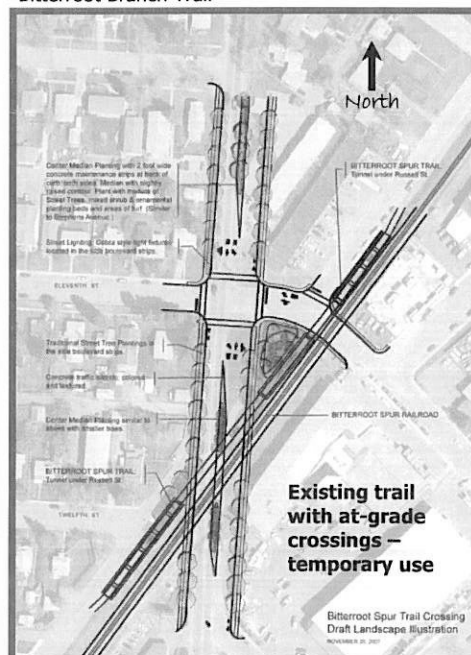
Shady Grove Trail



Milwaukee Corridor Trail



Bitterroot Branch Trail



Notes:

The existing Shady Grove Trail along the Clark Fork would be formally extended under the Russell Street bridge. The trail would likely continue along the riverfront, and a connection to West Broadway Street constructed by a local developer.

The Milwaukee Corridor Trail would be extended west underneath Russell Street. An extension of the trail to the west would be constructed by the City of Missoula.

The existing Bitterroot Branch Trail would be depressed into the project area to cross underneath both Russell Street and South 11th/Knowles Street.



Volume II

Appendices F-J

Final Environmental Impact Statement and Section 4(f) Evaluation



Russell Street / South 3rd Street - Missoula
STPU-M 8105(8)
UPN 4128

August 2011



APPENDIX F –

Biological Opinion

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES
MONTANA FIELD OFFICE
585 SHEPARD WAY
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339

M.17 FHWA Russell Street (Missoula)

March 2, 2010

Brian Hasselbach
Federal Highway Administration
Montana Division
585 Shepard Way
Helena, Montana 59601

Dear Mr. Hasselbach:

This letter transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the proposed Russell Street & South Third Street – Missoula project to be constructed in Missoula County, Montana (Project No. STPU 8105(8); Control No. 4128). As part of this project, the Russell Street Bridge over the Clark Fork River within the City of Missoula would be replaced. It has been determined that activities associated with this project would be likely to adversely affect threatened bull trout (*Salvelinus confluentus*) and designated bull trout critical habitat. Therefore, the Federal Highway Administration (Administration) initiated formal consultation with the Service in a letter dated August 15, 2008. This document was prepared in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Section 7(b)(3)(A) of the Act requires that the Secretary of Interior issue biological opinions on Federal agency actions that may affect listed species or critical habitat. Biological opinions determine if the action proposed by the action agency is likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. Section 7(b)(3)(A) of the Act also requires the Secretary to suggest reasonable and prudent alternatives to any action that is found likely to jeopardize the continued existence of listed species or result in an adverse modification of critical habitat, if any has been designated. This biological opinion addresses only impacts to federally-listed species and does not address the overall environmental acceptability of the proposed actions.

This biological opinion is based on information provided in this project's biological assessment (BA), dated July 3, 2008, conversations with State and Federal agency personnel, and other sources of information. A complete administrative record of this consultation is on file in this office.

In addition to this consultation on bull trout and its critical habitat, the Service also acknowledges the BAs determination that this project would not affect threatened grizzly bears (*Ursus arctos horribilis*) or threatened Canada lynx (*Lynx canadensis*).

Your patience and cooperation in meeting our joint responsibilities under the Act are appreciated. If you have questions regarding this consultation, please contact Scott Jackson, of my staff, at (406)449-5225, extension 201.

Sincerely,

A handwritten signature in cursive script that reads "R. Mark Wilson". The signature is written in dark ink on a light background.

R. Mark Wilson
Field Supervisor

Enclosure

Copies (w/enclosure) to:

Bonnie Gundrum, MDT, Helena, MT
Pat Basting, MDT, Missoula, MT
Todd Tillinger, COE, Helena, MT
Sarena Selbo, FWS, Denver, CO
File 7759

ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

BIOLOGICAL OPINION

for the effects to threatened bull trout (*Salvelinus confluentus*)
and designated bull trout critical habitat
associated with replacement of the Russell Street Bridge
across the Clark Fork River within the City of Missoula,
Missoula County, Montana

Russell Street & South Third Street – Missoula Project
STPU 8105(8); CN: 4128

Agency: Federal Highway Administration
Montana Division
Helena, Montana

Consultation Conducted by: U.S. Fish and Wildlife Service
Montana Field Office
Helena, Montana

March 2, 2010

Table of Contents

BIOLOGICAL OPINION

I. Introduction	3
Background.	3
Designated critical habitat	4
II. Description of proposed action	5
III. Status of the species and critical habitat	8
Bull trout	
Listing history	8
Species description.	8
Life history	9
Population dynamics.	9
Status and distribution.	13
Designated bull trout critical habitat	17
Summary of determinations from past bull trout consultations	18
Analysis of the species and critical habitat likely to be affected	19
Other listed species	19
IV. Environmental baseline	19
Status of the species and critical habitat within the action area.	20
Factors affecting species environment within the action area	24
V. Effects of the action	25
VI. Cumulative effects	29
VII. Conclusion	30
Jeopardy analysis for bull trout	30
Adverse modification analysis for designated bull trout critical habitat	32
<u>INCIDENTAL TAKE STATEMENT</u>	32
Amount or extent of take anticipated.	33
Effect of the take	34
Reasonable and prudent measures	34
Terms and conditions.	35
<u>CONSERVATION RECOMMENDATIONS</u>	36
<u>REINITIATION NOTICE</u>	36
<u>REFERENCES CITED</u>	38
Appendix A	44

BIOLOGICAL OPINION

I. Introduction

This biological opinion addresses project related effects to the threatened bull trout (*Salvelinus confluentus*) and designated bull trout critical habitat in accordance with the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). The U.S. Fish and Wildlife Service (Service) based this opinion on our review of the biological assessment (BA) for the proposed Russell Street & South Third Street - Missoula project (Project No. STPU 8105(8); Control No. 4128) that was prepared for the Montana Department of Transportation (dated July 3, 2008), and on additional information in our files.

Section 7(b)(3)(A) of the Act requires that the Secretary of Interior issue biological opinions on federal agency actions that may affect listed species or critical habitat. Biological opinions determine if the action proposed by the action agency is likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. Section 7(b)(3)(A) of the Act also requires the Secretary to suggest reasonable and prudent alternatives to any action that is found likely to jeopardize the continued existence of listed species or result in an adverse modification of critical habitat, if any has been designated. This biological opinion addresses only impacts to bull trout and bull trout critical habitat and does not address the overall environmental acceptability of the proposed action.

Background

For the purposes of the bull trout jeopardy analysis, the Service uses the hierarchical relationship between units of geographical scales that characterize effects at the lowest unit or scale (i.e., local population) toward the highest unit or scale of analysis (i.e., the Columbia River Interim Recovery Unit). This analytical framework relies heavily on the importance of core area bull trout populations for survival and recovery of the species. Core areas form the building blocks that provide for conservation of the bull trout evolutionary legacy as represented by the major evolutionary groups (Coastal, Snake River, and Upper Columbia River). Should the adverse effects of a proposed action not rise to the level where they appreciably reduce both survival and recovery of the species at a lower scale (e.g., local or core population), by deduction the proposed action would not jeopardize bull trout at the higher scale of the interim recovery unit (Columbia River) or the coterminous United States (i.e., range wide). Therefore, such a determination would result in a no-jeopardy finding. However, should a proposed action produce adverse effects that are determined to appreciably reduce both survival and recovery of the species at a lower scale of analysis, then further analysis is warranted at the next higher scale. Generally, if a proposed federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted because of the relationship of each core area population to the survival and recovery of the species as a whole (70 CFR 56258).

In summary, until the Draft Bull Trout Recovery Plan is finalized, the Service has adopted the use of *local population*, *core area*, *management unit*, and *interim recovery unit* for purposes of consultation and recovery. The core area scale is an appropriate unit of analysis by which threats

to bull trout and recovery should be measured (FR 70, No 185). For the purposes of this consultation the hierarchical relationships between these geographical units of analysis is illustrated in Table 1.

Table 1. Hierarchy of units of analysis for bull trout jeopardy analysis for the proposed Russell Street & South Third Street – Missoula project.

Name/Unit of Scale	Hierarchical Relationship
Coterminous United States	Range of bull trout
Columbia River Interim Recovery Unit/DPS	One of the five interim recovery units in the range of the species within the coterminous United States
Clark Fork Management Unit	One of the 23 management units in the Columbia River Interim Recovery Unit/DPS
Clark Fork River Section 2 Core Area	One of the 36 core areas within the Clark Fork Management Unit
Local Populations: Rattlesnake Creek, Petty Creek, Fish Creek, Trout Creek, Cedar Creek and St. Regis River	Six local populations in the Clark Fork Section 2 Core Area. A local population is considered to be the smallest group of fish that is known to represent an interacting reproductive unit.

The action area for this biological opinion includes the channel and banks of the Clark Fork River extending from 0.25 miles upstream of the Russell Street Bridge to 0.5 miles downstream of this bridge. The Clark Fork River and tributaries were historically and are currently occupied by bull trout. Of specific concern in this biological opinion are the actions that may impact bull trout in the Clark Fork River itself. This project does not occur within a local population. The Rattlesnake Creek local population is the closest to this project area.

Based on the information that is analyzed and described in this biological opinion, this project will not jeopardize the survival and recovery of bull trout; nor will it destroy or adversely modify bull trout critical habitat. More detailed rationale and discussion for these conclusions is provided below.

Designated critical habitat

Critical habitat designations identify habitat areas that provide essential life cycle needs of the species to the extent known using the best scientific and commercial data available (United States Department of the Interior (USDI) 2005a). Critical habitat has been designated within the Clark Fork River Section 2 Core Area and includes the Clark Fork River in this project's action area. Impacts anticipated from the proposed actions have been determined to be not discountable, insignificant or entirely beneficial, and are likely to adversely affect designated bull trout critical habitat in the Clark Fork River.

II. Description of proposed action

The City of Missoula, in cooperation with the Montana Department of Transportation (MDT, Department) and the Federal Highway Administration (FHWA, Administration), is proposing to reconstruct approximately 1.5 miles of Russell Street and 1.0 mile of South Third Street within the city limits of Missoula in Missoula County, Montana (STPU 8105(8); CN 4128). Project limits include: the section of Russell Street between the intersection of Mount Avenue/South 14th Street and Broadway Street; and the section of South Third Street between Reserve Street and Russell Street. The project is situated in an urban setting with a mix of residential and commercial properties. A two-lane bridge crossing the Clark Fork River on Russell Street occurs within project limits. An Environmental Impact Statement has been prepared to examine various alternatives for improving transportation in the project corridor and to identify the associated environmental impacts. Each of the action alternatives provides different lane configurations and traffic controls. However, one aspect that is common to all of the action alternatives, including the preferred alternative, would be the removal of the existing two-lane Russell Street Bridge and the construction of a four-lane structure over the Clark Fork River (FHWA 2008). Activities associated with this bridge replacement, and their effects on threatened bull trout and designated bull trout critical habitat, will be the focus of this biological opinion.

The Russell Street Bridge over the Clark Fork River is a four-span 420-foot long steel structure with a 24-foot wide travel surface with two raised four-foot sidewalks immediately adjacent to the travel lanes. The proposed four-lane bridge concept is a four-span structure that would be approximately 450 feet long. The bottom width of the river channel is 407 feet at this location (Post, Buckley, Schuh & Jernigan (PBS&J) 2008). The new bridge would be built on the same alignment and its drilled-shaft pier locations would be in the same location longitudinally in the river as the existing piers. The new bridge profile and low chord would be higher than the existing bridge resulting in a larger hydraulic opening for the river (FHWA 2008).

Given the physical location and functional designations of the Russell Street and South Third Street routes, the high traffic volumes, crash history and multi-modal use of the corridors, the purpose of this proposed project is to provide substantive safety and mobility improvements for all modes of travel in these corridors. The proposed project includes vehicular capacity improvements, accommodation of alternative transportation modes, transit pullouts, sidewalks, grade-separated trail crossings, curbs and gutters, boulevards, bicycle lanes and storm water drainage (FHWA 2008).

Prior to and during construction, MDT will be required to acquire and comply with various state and federal water quality permits in association with this project. These include an erosion control plan to be filed with Montana Department of Environmental Quality (MDEQ) as well as MFWP Stream Protection Act (124) and Corps of Engineers' Clean Water Act (404/401) permits and certifications. Section 208 of the MDT *Standard Specifications for Road and Bridge Construction* (MDT 1995) specifies the process with which the contractor must comply to prevent and control the siltation of lakes, streams, rivers, ponds, and other wetlands (PBS&J 2008).

The contractor must comply with the MFWP, MDEQ, and all other state or federal laws or regulations for preventing or abating erosion, water pollution, and siltation. The contractor must submit an MPDES Erosion Control Plan to the MDT Environmental Services, Engineering Section, 30 days prior to construction and must gain approval for this plan prior to work commencement. Plans must be followed to prevent polluting and siltation of state waters. Chemicals, fuels, lubricants, bitumen, raw sewage, and other wastes must be prevented from entering state waters. Erosion, siltation, and water pollution must be controlled during all work suspensions (PBS&J 2008).

Temporary erosion controls must be installed prior to each construction stage and maintained until they are no longer needed or conflict with the work. Devices that conflict with the work that are removed must be replaced at the end of each shift. Damaged, inadequate, or non-functioning devices must be repaired or replaced. Following removal, temporary sites must be re-graded to match the surrounding terrain. Permanent pollution controls must be installed concurrently with or immediately following work that disturbs the ground and must be left in place after work is complete. The contractor must finish, topsoil, fertilize, mulch, seed, and place permanent erosion control as slopes are finished and not at the contractor's convenience and must recondition, re-mulch, re-fertilize, and re-seed areas that fail to establish an acceptable stand during the specified seeding periods. Temporary construction facilities must be planned to: minimize disturbance to streambanks, streambank vegetation, streambeds, and state waters; not restrict or impede fish passage in streams; and not restrict any water flow anticipated during use (PBS&J 2008).

Additionally, the specifications require that the contractor must (unless specifically permitted to do otherwise):

- not spill or dump material from equipment into streams or associated wetlands;
- not permit wash water from cleaning concrete related equipment or wet concrete to enter streams, riparian areas, or wetlands;
- not place fill or embankment material into streams, streambeds, wetlands, or riparian areas unless specifically permitted to do so;
- locate staging or storage areas at least 50 feet horizontally from the highest anticipated water level during construction;
- store and handle petroleum products, chemicals, cement, and other deleterious materials to prevent their entering streams and/or wetlands;
- provide sediment controls for drainage from topsoil stockpiles, staging areas, access roads, channel changes, and instream excavations; and
- reclaim streambeds and streambanks as close as possible to their pre-disturbed condition (PBS&J 2008).

The following conservation measures to reduce potential impacts to bull trout will either be added to this project's contract as a special provision or as noted are already MDT Standard Specifications for Road and Bridge Construction, 2006 Edition:

- Instream work conducted within the Clark Fork river channel will be kept to a minimum. All work below the ordinary high water mark will be completed in the shortest amount of time feasible.
- Instream work conducted within the Clark Fork River will be kept to the limits shown on plan sheets. No construction equipment will be allowed to operate within the active channel of any stream unless otherwise permitted to do so. Schedule instream construction activities such that as many of the necessary construction activities as the Department determines feasible occur “in the dry.” MDT will strive to maintain and protect riparian vegetation to the maximum extent possible within the construction zone (PBS&J 2008).

Other standard MDT specifications for road and bridge construction that will be applied to this project include:

- A section 402/Montana Pollutant Discharge Elimination System permit from the Montana Department of Environmental Quality’s Permitting and Compliance Division will be required. A Notice of Intent for Stormwater Discharges under the Montana Pollutant Discharge Elimination System (MPDES) and a General Permit (MTR 100000; effective June 8, 2002) will be required with DEQ for the control of water pollution for both specific and non-point sources.
- Design and implementation of an approved Stormwater Pollution Prevention Plan (SWPP).
- Reseed and revegetate all disturbed areas with desirable or native vegetation, including embankments and borrow ditches, and adding a woody vegetation component to the riparian revegetation plans.
- Use bank stabilization measures for disturbed channel banks.
- All waste fuels, lubricating fluids, herbicides, and other chemicals will be collected and disposed of in a manner that ensures minimal environmental impact will occur. Construction equipment will be inspected daily (during work days) to ensure hydraulic, fuel and lubrication systems are in good condition and free of leaks to prevent these materials from entering any stream. Vehicle servicing and refueling areas, fuel storage areas, and construction staging and materials storage areas will be sited a minimum of 50 feet from ordinary high water, typically referred to as the Q2 elevation, and contained properly to ensure that spilled fluids or stored materials do not enter any stream.
- Structures designed to minimize sediment and pollutant runoff from sensitive areas such as settling ponds, vehicle and fuel storage areas, hazardous materials storage sites, erosion control structures, and coffer dams will be visually monitored daily, especially following precipitation events, to ensure these structures are functioning properly (PBS&J 2008).

In addition, as per standard operating procedure regarding notification of the Service regarding injured, sick or dead bull trout related to MDT’s construction projects, the following reporting provision will be adhered to:

- Upon locating dead, injured or sick bull trout, notification must be made within 24 hours to the Service's Montana Field Office at (406)449-5225. Record information relative to the date, time and location of dead or injured bull trout when found, and possible cause of injury or death of each fish and provide this information to the Service (PBS&J 2008).

III. Status of the species and critical habitat

Bull trout

Listing history

In September 1985, bull trout in the coterminous United States were designated as a category 2 candidate for listing, in the Annual Notice of Review (USDI 1997). Category 2 candidates show some evidence of vulnerability but not enough information is available to support a listing of the species (USDI 1997). Bull trout status changed in May 1993 when the Service placed bull trout in category 1 of the candidate species list (USDI 1997). The listing of category 1 species was justified, but precluded due to other higher priority listing actions (USDI 1997).

In June 1998, the Service published the final rule listing the Klamath River and Columbia River distinct population segments (DPS) as threatened (USDI 1998c), with an effective date of July 10, 1998. In November 1999, the Service published a rule listing all populations of bull trout as threatened throughout its entire range in the coterminous United States (USDI 1999), with an effective date of December 1, 1999. The Service completed a Five-year Review in 2008 and concluded that the bull trout should remain listed as threatened (USDI 2008).

The bull trout was initially listed as three DPSs (63 FR 31647, 64 FR 17110). The preamble to the final listing rule for the United States coterminous population of the bull trout discusses the consolidation of these DPSs, plus two other population segments, into one listed taxon and the application of the jeopardy standard under section 7 of the Act relative to this species (64 FR 58930): "Although this rule consolidates the five bull trout DPSs into one listed taxon, based on conformance with the DPS policy for purposes of consultation under section 7 of the Act, we intend to retain recognition of each DPS in light of available scientific information relating to their uniqueness and significance. Under this approach, these DPSs will be treated as interim recovery units with respect to application of the jeopardy standard until an approved recovery plan is developed. Formal establishment of bull trout recovery units will occur during the recovery planning process."

Please note that consideration of the above recovery units for purposes of the jeopardy analysis is done within the context of making the jeopardy determination at the scale of the entire listed species in accordance with Service policy (USDI 2006).

Species description

Please refer to the "*Bull Trout (Salvelinus confluentus) Draft Recovery Plan Chapter 1 Introduction*" p. 6-7 (USDI 2002a).

Life history

Please refer to the “*Bull Trout (Salvelinus confluentus) Draft Recovery Plan Chapter 1 Introduction*” p. 8-12 (USDI 2002a).

Population dynamics

Population size: Bull trout have declined in overall range and numbers of fish. Though still widespread, there have been numerous local extirpations reported throughout the Columbia River basin (Thomas 1992; Goetz 1994; USDI 2002b). The Service recognized 121 bull trout core areas; with consolidation of four core areas, this number is now 118 within the coterminous U.S. range (USDI 2002b). Due to the high concentration of isolated lakes in the headwaters a significant portion of those (35) are located in a single subbasin in western Montana and northern Idaho. The ensuing baseline and effects analysis uses the core area and its component local populations as the unit of biological organization (USDI 2002b) to demonstrate the influences of land management activities on population persistence at several scales.

The concept of establishing core areas that contain bull trout populations with the demographic characteristics needed to ensure their persistence and with the habitat needed to sustain those characteristics for the purposes of bull trout conservation is reflected in the scientific literature (Rieman and McIntyre 1993, Montana Bull Trout Scientific Group (MBTSG) 1998; Frissell 1993). Further, quite a bit of specific information on bull trout presence, population status, migratory behavior, spawning behavior, and habitat relationships has been developed since the 1998 listing action (USDI 2002b, Whitesel et al. 2004, USDI 2005a). This scientific literature suggests that core areas do not contribute equally to the regional persistence of bull trout due to the wide differences between local populations that result from the variability of habitat quality and population conditions found in individual watersheds that comprise the core areas. Core areas that have large, stable bull trout populations and high quality habitat are the primary sources for re-colonization if other areas fail and are the mainstay to ensure a high probability of persistence despite deterministic and stochastic threats. In terms of management, it is these “stronghold” core areas where conservation should be emphasized (Rieman and McIntyre 1993). In other core areas, the likelihood of persistence is not as strong and the probability of persistence is less than desired. These core areas may require more intensive management and monitoring to ensure that desirable demographic and habitat characteristics are protected, enhanced, or restored (Rieman and McIntyre 1993).

As a result of the availability of new information, as well as a reconsideration of the scientific literature, the Draft Bull Trout Recovery Plan (USDI 2002a) defined core areas and their local populations as the population units more appropriate for the purposes of assessing the current status of bull trout and tracking progress towards recovery.

Public comment on the Draft Bull Trout Recovery Plan for the Klamath River and Columbia River populations (USDI 2002b) was closed on February 27, 2003. Public comment for the Jarbidge and Coastal-Puget Sound populations closed on October 29, 2004. Peer review was also conducted on all of the draft Recovery Plan documents in approximately the same respective time periods. Although suggestions to more accurately identify the delineation of specific local

populations and their relationships to identified core areas were received, no issues were raised relative to the general concept of the local population/core area definitions or relationships. There were, however, substantial concerns with the definition of "recovery unit". As a result, the Service's current draft of the recovery plan for all populations of bull trout has substituted the term "management unit" for "recovery unit" (i.e., because "recovery unit" is a unique term relative to Section 7 consultation and listing programs).

The Service recognizes that the existing management units have no consistent biological significance across the range, but they do provide an orderly avenue for management and coordination with other stakeholders. The final resolution of how management units will be described has not been fully completed. Pending completion of the ongoing bull trout five-year review that was initiated in March 2005 and decisions forthcoming from that process, additional resolution of the recovery unit structure is anticipated. Regardless, we do not anticipate that the basic structure of major genetic groupings, core areas and local populations will be modified, except in response to new biological information that causes refinement within individual core areas.

To evaluate the current status of bull trout distribution and abundance for the five-year review, the Service analyzed the most recent information on bull trout relative to core areas and local populations (USDI 2005a).

Some core areas are considered at inherently higher risk of extirpation from naturally occurring or human-caused events, especially where the core areas are:

- Unlikely to be reestablished by individuals from another core area (i.e., functionally or geographically isolated from other core areas);
- Limited to a single spawning area (i.e., spatially restricted); and either
- Characterized by low individual or spawning numbers; or
- Primarily of a single life-history form.

For example, a core area that is isolated in a small watershed upstream of an impassable waterfall (e.g., several of those found in Glacier National Park) would be considered at elevated risk of extirpation from naturally occurring events, especially if the core area had low numbers of fish that spawn in a restricted area. In such cases, an event such as a fire or flood affecting the spawning area could eliminate bull trout from the core area, and the impassable waterfall would prevent reestablishment from fish downstream. However, a core area residing downstream of the waterfall might not be considered at the same level of risk of extirpation from naturally occurring events because there would be potential for immigration of fish from adjacent core areas either upstream or downstream.

In the process of reviewing information relative to the bull trout listing process, the status of core areas (previously called subpopulations in the listing process) was based on modified criteria of Rieman et al. (1997), including the abundance, trends in abundance, and the presence of life

history forms of bull trout. In the listing, the Service considered a “core area” (i.e., subpopulation) “strong” if 5,000 individuals or 500 spawners likely occurred in the subpopulation, abundance appeared stable or increasing, and life-history forms were likely to persist. The Service considered a subpopulation “depressed” if less than 5,000 individuals or 500 spawners likely occurred in the subpopulation, abundance appeared to be declining, or a life-history form historically present had been lost. The complete review of this evaluation is found in a status summary compiled by the Service (USDI 1998c).

Based on abundance, trends in abundance, and the presence of life-history forms, bull trout were considered strong in 13 percent of the occupied range in the interior Columbia River basin (Quigley and Arbelbide 1997). Using various estimates of bull trout range, Rieman et al. (1997) estimated that bull trout populations were strong in 6 percent of the subwatersheds in the Columbia River basin. Bull trout declines have been attributed to the effects of land and water management activities, including forest management and road building, mining, agricultural practices, livestock grazing (Meehan 1991; Frissell 1993), isolation and habitat fragmentation from dams and agricultural diversions (Rode 1990; Jakober 1995), fisheries management practices, poaching and the introduction of non-native species (Rode 1990; Bond 1992; Donald and Alger 1993; Leary et al. 1993; Pratt and Huston 1993; Rieman and McIntyre 1993; MBTSG 1998; USDI 2002b and 2002c; Fredenberg 2002).

Population variability: Distribution of existing bull trout populations is often patchy even where numbers are still strong and habitat is in good condition (Rieman and McIntyre 1993, 1995). It is unlikely bull trout occupied all of the accessible streams within the range at any one time. The number of bull trout within a population can vary dramatically both spatially and temporally. Redd (a covered gravel nest constructed by adult spawning bull trout where eggs are deposited) counts are commonly used to assess population trends. Existing long-term redd count data indicate a high degree of variability within and between populations (Rieman and McIntyre 1996, USDI 2002b, USDI 2005a). Habitat preferences or selection is likely important (Rieman and McIntyre 1995; Dambacher and Jones 1997; Baxter et al. 1999), but more stochastic extirpation and colonization processes may influence distribution even within suitable habitats (Rieman and McIntyre 1995).

Population stability: The best available information indicates that bull trout are in widespread decline across their historic range (USDI 1998b) and are characterized by numerous, often reproductively isolated core areas in the Columbia River basin with evidence of recent local extirpations (Rieman et al. 1997; USDI 2002b). The largest contiguous areas supporting bull trout are in central Idaho and western Montana. Many bull trout core areas are characterized by declining trends, but a few are increasing and in most the status is unknown (USDI 2005a).

The viability of functioning core areas for bull trout depend on the habitat quality and population characteristics of the multiple local populations that comprise the core area. Rieman and McIntyre (1993) reported that the extinction rate of small local populations was high when testing hypothetical populations during a 30 year timeframe and increased fivefold when migrating bull trout were restricted to low numbers. It appeared the more isolated and independent the local population, the higher the risk of extinction. In contrast, even with moderate amounts of immigration (i.e., connectivity) to the local population, the risk of

extinction was one-fourth as high in these connected environments. Some populations will be stable and more robust than and may act as “sources” while other less stable and less robust populations may act as “sinks.” Further, these roles may switch at different times (Rieman and McIntyre 1993).

Some local populations will persist in habitat conditions that are less than optimal. In these cases, Rieman and McIntyre (1993) propose that managers create core areas so that any seriously degraded local population could be re-colonized from other core areas (i.e., opportunities should exist within larger river basins that allow some natural connection whenever possible). The Lower Clark Fork Core Area is such a case, where recolonization is highly possible from the healthy bull trout population in the Lake Pend Oreille Core Area as a result of re-establishing connectivity by artificial fish passage past the dams in the lower Clark Fork River.

What is evident is that the stability of a rangewide population of bull trout depends on the maintenance of protecting those habitats in the best condition with the strongest populations. Fragmentation and disruption of bull trout habitat will increasingly isolate local populations and life history forms, thus reducing survival, growth, and resilience of individual local populations. As long as there are multiple, robust local populations to support several widely distributed healthy functioning core areas within the range of bull trout, the higher the likelihood bull trout will be able to survive catastrophic events, normal environmental variation, and the effects of human activities (Rieman and McIntyre 1993), including fragmentation and disruption.

Population structure: Whitesel et al. (2004) noted that although there are multiple resources that contribute to the subject, Spruell et al. (2003) best summarized genetic information on bull trout population structure. Spruell et al. (2003) analyzed 1,847 bull trout from 65 sampling locations, four located in three coastal drainages (Klamath, Queets, and Skagit Rivers), one in the Saskatchewan River drainage (Belly River), and 60 scattered throughout the Columbia River Basin. They concluded that there is a consistent pattern among genetic studies of bull trout, regardless of whether examining allozymes, mitochondrial DNA, or most recently microsatellite loci. Typically, the genetic pattern shows relatively little genetic variation within populations, but substantial divergence between populations. Microsatellite loci analysis supports the existence of at least three major genetically differentiated groups (or lineages) of bull trout (Spruell et al. 2003). They were characterized as:

- “Coastal”, including the Deschutes River and all of the Columbia River drainage downstream, as well as most coastal streams in Washington, Oregon, and British Columbia. A compelling case also exists that the Klamath Basin represents a unique evolutionary lineage within the coastal group.
- “Snake River”, which also included the John Day, Umatilla, and Walla Walla Rivers. Despite close proximity of the John Day and Deschutes Rivers, a striking level of divergence between bull trout in these two systems was observed.
- “Upper Columbia River” which includes the entire basin in Montana and northern Idaho. A tentative assignment was made by Spruell et al. (2003) of the Saskatchewan River

drainage populations (east of the continental divide), grouping them with the upper Columbia River group.

Spruell et al. (2003) noted that within the major assemblages, populations were further subdivided, primarily at the level of major river basins. Taylor et al. (1999) surveyed bull trout populations, primarily from Canada, and found a major divergence between inland and coastal populations. Costello et al. (2003) suggested the patterns reflected the existence of two glacial refugia, consistent with the conclusions of Spruell and the biogeographic analysis of Haas and McPhail (2001). Both Taylor et al. (1999) and Spruell et al. (2003) concluded that the Deschutes River represented the most upstream limit of the coastal lineage in the Columbia River Basin.

Status and distribution

The historic range (coterminous listing/five recovery units) of bull trout was restricted to North America (Cavender 1978; Haas and McPhail 1991). Bull trout were historically recorded from the McCloud River in northern California, the Klamath River basin in Oregon and throughout the Columbia River basin in much of interior Oregon, Washington, Idaho, northern Nevada, and western Montana. They also occurred in coastal and interior Canada in much of British Columbia, with populations extending along the east slopes of the Rockies in Alberta and including a small area in northern Montana (Rieman et al. 1997).

Bull trout distribution has probably contracted and expanded periodically with natural climate change (Williams et al. 1997). Genetic variation (presence of unique alleles) suggests an extended and evolutionarily important isolation between populations in the Klamath basin and those in the Columbia River basin (Leary et al. 1993). Populations within the Columbia River basin are more closely allied and are thought to have expanded from at least two common glacial refugia in recent geologic time (Williams et al. 1997; Haas and McPhail 2001; Whitesel et al. 2004).

Despite bull trout occurring widely across a major portion of the historic potential range, many areas support only remnant populations of bull trout. Bull trout were reported present in 36 percent and unknown or unclassified in 28 percent of the subwatersheds within the potential historic range. Strong populations were estimated to occur in only 6 percent of the potential historic range (Rieman et al. 1997). Bull trout are now extirpated in California and only remnant populations are found in portions of Oregon (Ratliff and Howell 1992). A small population still exists in the headwaters of the Jarbidge River, Nevada, which represents the present southern limit of the species' range.

Range-wide, local populations of bull trout within their respective core areas are often isolated and remnant. Migratory life histories have been lost or limited throughout major portions of the range (Ratliff and Howell 1992; Pratt and Huston 1993; Rieman and McIntyre 1993, 1995; Goetz 1994; Jakober 1995; MBTSG 1998; USDI 2002b; USDI 2005a) and fluvial bull trout populations in portions of the upper Columbia River basin appear to be nearly extirpated (USDI 2002b, 2005a). Resident populations existing in headwater tributary reaches are isolated and generally low in abundance (Thomas 1992).

The Service recognizes 118 bull trout core areas rangewide in Idaho, Montana, Oregon, Nevada and Washington (USDI 2002b). Core areas are defined as approximating interacting biological units for bull trout (USDI 2002b). Bull trout are threatened by habitat loss and degradation, passage restrictions at dams, and competition from non-native species, especially brook trout (*S. fontinalis*) and lake trout (*S. namaycush*). The American Fisheries Society listed bull trout as a species of concern in all of its range (California, Idaho, Montana, Nevada, Oregon, Washington, Alberta, and British Columbia) except Alaska, because of present or threatened destruction, modification, or curtailment of its habitat or range and introduction of exotic species (Williams et al. 1989). Bull trout have been categorized as an indicator species of forest and ecosystem health as they are particularly sensitive to environmental change (Rieman and McIntyre 1993).

Of the five bull trout recovery units identified in the draft recovery plan, this project would occur within the Columbia River basin recovery unit. The following describes the status of bull trout within the geographic units of analysis within which this project would occur: Columbia River Basin Interim Recovery Unit; Clark Fork Management Unit; and the Clark Fork River Section 2 Core Area.

Status of bull trout in the Columbia River Basin Interim Recovery Unit: Similar to the status of bull trout throughout their entire range that has been previously stated, local bull trout populations within their respective Columbia River basin core areas are often isolated and remnant and migratory life histories have been lost or limited throughout major portions of the basin (Ratliff and Howell 1992; Pratt and Huston 1993; Rieman and McIntyre 1993, 1995; Goetz 1994; Jakober 1995; MBTSG 1998; USDI 2002b; USDI 2005a). Fluvial bull trout populations in portions of the upper Columbia River basin appear to be nearly extirpated (USDI 2002b, 2005a).

Generally, where status is known and population data exists, bull trout populations throughout the Columbia River basin are at best stable and more often declining (Thomas 1992; Schill 1992; Pratt and Huston 1993; USDI 2005a). Bull trout in the Columbia basin have been estimated to occupy about 45 percent of their historic range (Quigley and Arbelbide 1997). This interim recovery unit currently contains about 90 core areas and 500 local populations. The condition of the bull trout within these core areas varies from poor to good but generally all have been subject to the combined effects of habitat degradation, fragmentation and alterations associated with one or more of the following activities: dewatering; road construction and maintenance; mining, and grazing; the blockage of migratory corridors by dams or other diversion structures; poor water quality; incidental angler harvest; entrainment into diversion channels; and introduced non-native species. Many of the bull trout core areas occur as isolated watersheds in headwater tributaries, or in tributaries where the migratory corridors have been lost or restricted. Few bull trout core areas are considered strong in terms of relative abundance and core area stability (USDI 1998c; USDI 2005a). Strong core areas are generally associated with large areas of contiguous habitat. The draft bull trout recovery plan (USDI 2002b) identifies the following conservation needs for this unit: maintain or expand the current distribution of the bull trout within core areas; maintain stable or increasing trends in bull trout abundance; maintain/restore suitable habitat conditions for all bull trout life history stages and strategies; and conserve genetic diversity and provide opportunities for genetic exchange.

Status of bull trout in the Clark Fork Management Unit: The Clark Fork River forms at the confluence of Silver Bow and Warm Springs Creeks near Anaconda, Montana, and flows northwesterly for approximately 350 miles to Lake Pend Oreille in northern Idaho. Three hydropower dams are located on the mainstem of the Clark Fork River upstream from Lake Pend Oreille, but downstream of the project area. The former Milltown Dam located approximately 9 miles upstream of the project area was removed during the spring of 2008. The drainage area of the Clark Fork River is about 6,000 square mile (PBS&J 2008).

The Clark Fork Management Unit is amongst the largest and most diverse across the species' range and contains the highest number of core areas of any management unit, due in large part to the preponderance of isolated headwater lakes in the system. In the Clark Fork Management Unit (USDI 2002a), which includes all of the Clark Fork River Basin from Albeni Falls Dam (outlet of Lake Pend Oreille) upstream to Montana headwaters, the Service described 35 core areas for bull trout. Bull trout within the larger and more diverse core areas are typically characterized by having relatively small amounts of genetic diversity within a local population but high levels of divergence between them (see for example Kanda and Allendorf 2001, Neraas and Spruell 2001). At the lowest rung in the hierarchical organizational level, the Draft Bull Trout Recovery Plan (USDI 2002a) describes groups of bull trout that spawn together in tributaries as local populations. There are approximately 152 local populations of bull trout currently described in the Clark Fork Management Unit (USDI 2002a).

The Service considers many of the core areas in the Clark Fork River drainage to be at risk of extirpation due in part to natural isolation, single life-history form, and low abundance. Expansion of nonnative species including lake trout into headwater lakes is the single largest human-caused threat in most of the 25 primarily adfluvial core areas. Dams and degraded habitat have contributed to bull trout declines across this management unit.

Status of bull trout in the Clark Fork River Section 2 Core Area: The core area relative to the proposed action within the Clark Fork Management Unit is the Clark Fork River Section 2 Core Area. The following describes the status of this core area.

The status and trend of bull trout in this core area were both considered "unknown" based on information available at the time of listing (USDI 1998c). This is still largely the case, although more intensive bull trout surveys have been conducted in recent years in this portion of the Clark Fork River drainage, primarily by Montana Fish, Wildlife and Parks (MFWP). Local spawning populations in Cedar Creek, Fish Creek, Rattlesnake Creek, and the St. Regis River have been monitored sporadically (MFWP 2004). The surveys have identified up to 17 redds in Cedar Creek (2002), 20 redds in Fish Creek (2003), 33 redds in Rattlesnake Creek (2003), and 18 redds in the St. Regis River (2003). Counts in the high single digits or low double digits have also occurred in most systems. These results indicate adult bull trout numbers in this core area range from roughly 100 to 200 fish, although there's uncertainty in that estimate. No trend is indicated by the short period of record. Most local populations are well below historical levels of natural abundance and are inadequate to maintain long-term genetic viability. Juvenile bull trout are widely distributed, but at low densities.

Milltown Dam, which blocked fish passage at the upper boundary of this core area since 1908, has been removed. While benefits are more likely to accrue to the next core area upstream, by allowing bull trout that migrate to return to natal headwaters, benefits to this core area will occur as well. Benefits of restoring fish passage throughout the system (over four major dams as a result of both the Avista and Thompson Falls projects, as well as the Milltown Dam removal) cannot be fully anticipated, nor will they be fully realized for several bull trout generations.

With fish passage now provided at Rattlesnake Dam (Missoulia *in litt.* 05/16/02), the removal of Milltown Dam and additional efforts, past fragmentation of this core area is being improved. However, significant habitat limitations remain (e.g., dewatering, thermal enrichment, nonnative species, impacts of whirling disease, expanding recreational use) and full recovery of bull trout is at best an uncertain prospect. Potentially, this core area should be able to support 1,000 or more adult bull trout. Thus, the emphasis has been placed on connectivity to restore this core area as a functioning portion of a larger complex of core areas.

Threats to this core area include (regardless of severity, scope, or immediacy of the impacts): introduced species/fisheries management, forest management practices, forest roads, angling or harvest (legal or illegal), fish passage issues (artificial barriers to migration), residential development and urbanization, and water quality impairment from non-specific or multiple sources.

Please refer to the “Bull Trout Cores Area Templates Complete Core Area by Core Area Analysis” for a complete review of the status of bull trout core areas in the Upper Columbia River (USDI 2009, pp. 1-16). We hereby incorporate the information found in those pages into our analysis.

In 2005, the Service assessed the conservation status of bull trout and the vulnerability for each of 121 bull trout core areas (now 118 core areas)(USDI 2005b). We reviewed the Bull Trout Core Area Conservation Assessment and concluded that that the original threats to bull trout still existed for the most part in all core areas, but no substantial new and widespread threats were discovered during this review or in the review of previous biological opinions on bull trout. This finding indicates the baseline conditions overall range-wide had not changed substantially in the last five years and that the trend and magnitude of the range-wide population had not worsened nor did it improve measurably.

The risk assessment or ranking portion of the status review was modeled to assess the relative status of each of the 118 core areas. The model used to rank the relative risk to bull trout was based on the Natural Heritage Programs’ NatureServe Conservation Status Assessment Criteria, which had been applied in previous assessments of fish status, including bull trout (Master et al. 2003, MNHP 2004). The model integrated four factors: population abundance, distribution, population trend, and threats. For a complete understanding of the ranking process, a more thorough review of the report which describes the model and the output (USDI 2005b) is required.

As indicated in Table 2, the *integration of species and habitat condition* indicator for this core area is FUR (functioning at unacceptable risk). Of the 63 6th field HUCs in this core area, 56 are

FUR and 7 FAR (functioning at risk). Two 6th field HUCs have been upgraded to a higher functional level due to increases in populations associated with barrier removal. The remainder of the 6th field HUCs in this core area have not changed since 2000.

Results of the status assessment (USDI 2005b) indicated that Clark Fork Section 2 Core Area was functioning at “at risk” because of very limited and/or declining numbers, range, and/or habitat, making the bull trout in this core area vulnerable to extirpation.

Protecting, restoring and maintaining suitable habitat conditions within the Clark Fork Management Unit are a high priority identified in the draft Recovery Plan (USDI 2002a). Actions needed to achieve this include reducing road sediment and upgrading problem roads and improving water quality. Maintaining and improving habitat condition on Federal lands in western Montana is crucial for the recovery of the species.

Designated bull trout critical habitat

On September 26, 2005, the final rule for bull trout critical habitat was published for the Klamath River, Columbia River, Jarbidge River, Coastal Puget Sound, and Saint Mary-Belly River populations of bull trout (USDI 2005b). This final designation encompasses approximately 3,828 miles of streams, 143,218 acres of lakes in Idaho, Montana, Oregon, and Washington, and 985 miles of shoreline paralleling marine habitat in Washington. The lateral extent for rivers and streams is defined by the ordinary high water line or the bankfull elevation. The lateral extent of designated lakes is defined by the perimeter of the water body mapped on 1:24,000 scale topographic maps.

All areas designated as critical habitat for bull trout are within the species’ historic geographic range and contain enough of the primary constituent elements (PCEs) identified as essential to its conservation in the area designated to enable the bull trout to carry out normal behavior. Much of what is known about the specific physical and biological requirements of bull trout are described in the proposed designation of critical habitat rule (USDI 2002c). PCEs include, but are not limited to: space for individual and population growth, and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance (USDI 2004). Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that the bull trout’s PCEs are:

1. Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72 °F (0 to 22 °C) but are found more frequently in temperatures ranging from 36 to 59 °F (2 to 15 °C). These temperature ranges may vary depending on bull trout life history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence. Stream reaches with temperatures that preclude any bull trout use are specifically excluded from designation;

2. Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures;
3. Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. This should include a minimal amount of fine substrate less than 0.25 inch (0.63 centimeter) in diameter.
4. A natural hydrograph, including peak, high, low, and base flows within historic ranges or, if regulated, currently operate under a biological opinion that addresses bull trout, or a hydrograph that demonstrates the ability to support bull trout populations by minimizing daily and day-to-day fluctuations and minimizing departures from the natural cycle of flow levels corresponding with seasonal variation;
5. Springs, seeps, groundwater sources, and subsurface water to contribute to water quality and quantity as a cold water source;
6. Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows;
7. An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish; and
8. Permanent water of sufficient quantity and quality such that normal reproduction, growth, and survival are not inhibited (USDI 2005b).

This designation protects PCEs necessary to support the life history functions which were the basis for the designation. Because not all life history functions require all the PCEs, not all habitats will contain all the PCEs (USDI 2005b).

The Russell Street Bridge replacement effort affects designated bull trout critical habitat in the Clark Fork River within the Clark Fork River basin bull trout critical habitat unit. Project-related effects to critical habitat in the Clark Fork River are addressed in this biological opinion.

Summary of determinations from past bull trout consultations

The Service is in the process of analyzing all of the bull trout biological opinions, range-wide from Federal listing (June 1998) until present. Thus far the analysis shows that the Service has consulted on a wide array of actions, which have had varying levels of effect and varying timeframes for implementation. None of the actions consulted on were found to appreciably reduce the likelihood of survival and recovery of the bull trout in any core area or result in the loss of any subpopulations (USDI 2003). The total number of biological opinions and other forms of take (i.e., Section 10 permits) issued for the Clark Fork River Management Unit between the time of bull trout listing and February 2010 is 97 (39 between the time of listing and August 2003; and 58 between August 2003 and February 2010). Twelve biological opinions

have been issued in the Clark Fork Section 2 Core Area since August 2003. These numbers do not include this biological opinion.

Analysis of the species and critical habitat likely to be affected

Bull trout are listed as threatened and critical habitat has been designated under the Act. The proposed action would occur in the Clark Fork River Section 2 Core Area for bull trout. This core area lies within the Clark Fork Management Unit, which in turn occurs within the Columbia River Interim Recovery Unit. The affected core area contains six local bull trout populations, and the action area for this project does not occur within any of these local populations. Within the Clark Fork River Section 2 Core Area, the Clark Fork River, where this proposed project would occur, from its confluence with the Flathead River upstream approximately 119.4 miles to the site of the former Milltown Dam, provides historically occupied foraging, migratory, and overwintering habitat that is still currently occupied, but at very low abundance levels. This reach is important to provide for the recovered distribution of bull trout, including maintenance of existing populations and the migratory life history form essential to the conservation of bull trout (USDI 2002c). The proposed action would occur in the upper reach of the Clark Fork River Section 2 Core Area and would result in adverse effects to bull trout. The proposed action would also occur within the Clark Fork River Basin Critical Habitat Unit 2, where the proposed project would be likely to adversely affect bull trout critical habitat in the Clark Fork River (PBS&J 2008).

Other listed species

In addition to bull trout and its critical habitat, the other federally-listed species that may be present in the vicinity of the project area include the threatened Canada lynx (*Lynx canadensis*) and threatened grizzly bear (*Ursus arctos horribilis*). The Service acknowledges the Administration's determination that this proposed project would have no effect on either lynx or grizzlies. If an occurrence of a listed species is newly discovered in the proximity of this project as construction progresses, the Administration should consult with the Service regarding that new information.

IV. Environmental baseline

Regulations implementing the Act, as amended (16 U.S.C. 1531 et seq.) (50 CFR 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area, which have already undergone section 7 consultation, and the impacts of State and private actions in the action area, which are contemporaneous with the consultation in progress. The environmental baseline should characterize the effects of past and ongoing human factors leading to the current status of the species, their habitats, and ecosystem within the action area. Such actions include, but are not limited to, previous timber harvest, road construction, residential development and other land management activities.

Status of the species and critical habitat within the action area

Action area, as defined by the Act, includes the entire area that would be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. For the purposes of this biological opinion, the action area is defined as the channel and banks of the Clark Fork River extending from 0.25 miles upstream of the Russell Street Bridge, to 0.5 miles downstream of that crossing.

The action area has been defined by the potential for project-generated sediment and related impacts to influence the movement, habitat use and persistence of bull trout. The action area upstream from the proposed bank stabilization sites would be affected by temporary disturbance of fish passage due to instream activities. The action area downstream of project activities would be affected by turbidity and sediment deposition. The action area serves as bull trout foraging, migratory, and overwintering habitat.

Baseline conditions for bull trout habitat in the action area were assessed using information in the *Middle Clark Fork River Section 7 Consultation Watershed; Bull Trout Baseline Analysis, Lolo National Forest* (USDA 2000), the BA for this project (PBS&J 2008), draft bull trout recovery plan (USDI 2002b), and other sources of information. Bull trout are present in the mainstem Clark Fork River, although the status of the bull trout population within this system is considered depressed. The migratory form of bull trout is most likely present within this drainage. Migratory populations have been limited by Cabinet Gorge, Noxon and Thompson Falls Dams, and in the past, Milltown Dam. Some of the tributaries to the Clark Fork River are suspected to have fish barriers that are a result of highway crossings. Other streams crossed by various forest access roads undoubtedly create additional fish barriers, which further fragment local populations. Connectivity is limited due to the dams mentioned, but could occur between other populations that occur above Thompson Falls Dam (USDA 2000).

Bull trout in the middle Clark Fork River drainage presently are uncommon to rare. Since 1980, rainbow trout has been the most abundant salmonid species in Milltown reach of the Clark Fork River (from Milltown Dam downstream). Brown trout are much less common. Numbers of bull trout in this section of the Clark Fork River are estimated to be one to two fish per mile (PBS&J 2008).

Bull trout in the Clark Fork River are fluvial, meaning that the adult fish inhabit the mainstem river but migrate to tributary streams to spawn. Juvenile fish generally remain in tributaries from one to four years before migrating to the mainstem river (PBS&J 2008).

Adult bull trout use the Clark Fork River in the project area to migrate to tributaries to spawn. Rattlesnake Creek, just upstream of the project area is one of the most important spawning areas for bull trout in the middle Clark Fork River. Redd counts for Rattlesnake Creek are higher than any other tributary in the middle Clark Fork. Upstream migration occurs in June through the project area and return migration following spawning occurs in late September through November (PBS&J 2008).

The Clark Fork River has been identified as nodal habitat for bull trout. Nodal habitats are defined as waters that provide migratory corridors, over-wintering areas, or are otherwise critical to the population at some point in its life history (MBTSG 1996). Because nodal waters are essential for the survival of migratory bull trout, maintenance and enhancement of nodal waters is essential for any restoration goal.

Limited information is available about bull trout micro-habitat use in the project area; however, one bull trout was documented immediately adjacent to the Russell Street Bridge in June of 2001. This fish may have been temporarily using pool habitat near the bridge while migrating to a spawning tributary upstream. Also, radio-tagged bull trout also have been documented using the Clark Fork River near the Russell Street Bridge during winter months (PBS&J 2008).

The reach of the Clark Fork River within the City of Missoula has been degraded by urbanization. The portion of the river that passes through Missoula has been channelized and riprapped, riparian vegetation has been removed, and backwaters have been filled. The river channel and floodplain through Missoula have been extensively altered by the U.S. Army Corps of Engineers flood control levees that were built in the 1960s. Sixty percent of the Clark Fork River reach between East Missoula and the Reserve Street Bridge has been confined by levees and bank stabilization projects. This reach is 4.5 miles in length and includes the urban portion of the river, including the Russell Street Bridge area. If areas of floodplain fill are considered, the percentage of stabilized channel likely is in excess of 90 percent within this stretch of river. The average gradient of the river in the project area is 9.4 feet per mile (PBS&J 2008).

During high water events, the urban reach of the Clark Fork River flows onto an artificially narrow floodplain that has minimal function compared to historic conditions. Surface water runoff from surrounding parking lots and streets carries varying amounts of urban pollutants and is discharged directly to the river via storm drainage systems. Although the river is largely isolated from its floodplain within the City of Missoula, the floodplain in many downstream areas remains relatively intact. Downstream of the City of Missoula, the Clark Fork River system is characterized by multiple channels and an expansive floodplain. Overall, the Missoula County portion of the Clark Fork River is approximately 12 percent stabilized (PBS&J 2008).

The Clark Fork River supplies water to several irrigation canals that cross the project area including the main Missoula Irrigation ditch and several small laterals. These canals are used seasonally. Because there are no fish screens in place at the points of diversion, fish are present in the canals during periods of use. No quantitative data are available on fish populations present in the canals, but canals likely contain the same mix of species found in the Clark Fork River (PBS&J 2008).

Urbanization has resulted in water quality problems in the Clark Fork River system near Missoula. The Clark Fork River is on the State's 303d list of impaired waterbodies, with arsenic, cadmium, chlorophyll-a, copper, nitrogen, sewage, and phosphorous listed as probable causes, and industrial point sources, municipal point sources, and mill tailings listed as probable sources. Nutrients released from the Missoula sewage treatment plant and the Smurfit-Stone Container pulp mill (downstream of the project area), potentially toxic metals originating from mine tailings in the upper Clark Fork River drainage, and fine sediments introduced into the river by

human-related activities contribute to water quality impairment in the Clark Fork River (PBS&J 2008).

Water temperatures in this reach of the Clark Fork River annually exceed the preferred temperature range for bull trout and other salmonids during portions of July and August. During periods of high water temperatures, bull trout in the Clark Fork River utilize thermal plumes, coldwater tributaries and groundwater inflow areas (PBS&J 2008).

Available information also indicates that dams, timber harvest, road construction, introductions of non-native fish species, and residential development have all affected bull trout habitat and populations in the action area. The impacts from these activities are reflected in the four population and 19 habitat indicators defined in “*A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Bull Trout Subpopulation Watershed Scale*” (USDI 1998b). An evaluation of these four population indicators and 19 habitat indicators was conducted at the sub-watershed scale to establish the environmental baseline. Table 2 displays the baseline conditions and the effects of the proposed action for the project area.

As referenced above, Table 2 displays the results of the “Matrix of Diagnostics / Pathways and Indicators” (matrix), the objective of which is to integrate the biological and habitat conditions to arrive at a determination of the potential effect of land management activities on a listed species. There are three condition levels: “functioning appropriately (FA);” “functioning at risk (FAR);” and “functioning at unacceptable risk (FUR).” These three categories of function are defined for each indicator in the matrix. In concept, indicators in a watershed are “functioning appropriately” when they maintain strong and significant populations that are interconnected and promote recovery of a listed species or its critical habitat to a status that will provide self-sustaining and self-regulating populations. When the indicators are “functioning at risk,” they provide for persistence of the species but in more isolated populations and may not promote recovery of a listed species or its critical habitat without active or passive restoration efforts. “Functioning at unacceptable risk” suggests the listed species continues to be absent from historical habitat, or is rare or being maintained at a low population level, although the habitat may maintain the species at this low persistence level, active restoration is needed to begin recovery of the species.

Action agencies authorizing activities within areas occupied by bull trout are mandated by the Act to consider the environmental baseline in the action area and effects to bull trout that would likely occur as a result of management actions. To that end, agency biologists use the four biological indicators and the 19 physical habitat indicators in the matrix for bull trout to assess the environmental baseline conditions and determine the likelihood of take per interagency guidance and agreement on section 7 consultations on the effects of actions to bull trout (USDI 1998a, 1998b). Take could occur as direct harm or harassment of individuals or indirectly through adverse impacts to bull trout habitat. The majority of the matrix analysis consists of specific consideration of the 19 habitat indicators. Analysis of the matrix habitat indicators relative to project effects provides a very thorough assessment of the existing habitat conditions and potential impacts to bull trout habitat.

Table 2. Effects matrix checklist for MDT's proposed Russell Street & South Third Street - Missoula Project (PBS&J 2008).

Diagnostic/Pathways: Indicators	Population and Environmental Baseline (FA, FAR, FUR) ¹	Major Effects ² of the Action(s) (Restore, Maintain, Degrade)	Minor Effects ³ of the Action(s) (Restore, Maintain, Degrade)	Comments
SUBPOPULATION CHARACTERISTICS				
Subpopulation Size	FUR	Maintain	Maintain	
Growth & Survival	FUR	Maintain	Maintain	
Life History Diversity & Isolation	FAR	Maintain	Maintain	
Persistence and Genetic Integrity	FAR	Maintain	Maintain	
WATER QUALITY				
Temperature	FUR	Maintain	Maintain	
Sediment	FAR	Maintain	Degrade	Temporary impacts
Chemical Contamination / Nutrients	FUR	Maintain	Maintain	
HABITAT ACCESS				
Physical Barriers	FAR	Maintain	Maintain	
HABITAT ELEMENTS				
Substrate Embeddedness	FAR	Maintain	Degrade	Temporary impacts
Large Woody Debris	FAR	Maintain	Maintain	
Pool Frequency & Quality	FAR	Maintain	Maintain	
Large Pools	FAR	Maintain	Maintain	
Off-Channel Habitat	FAR	Maintain	Maintain	
Refugia	FUR	Maintain	Maintain	
CHANNEL CONDITION & DYNAMICS				
Wetted Width/Max Depth Ratio	FAR	Maintain	Maintain	
Streambank Condition	FAR	Maintain	Maintain	
Floodplain Connectivity	FUR	Maintain	Maintain	
FLOW & HYDROLOGY				
Change in Peak/Base Flows	FAR	Maintain	Maintain	
Drainage network Increase	FAR	Maintain	Maintain	
WATERSHED CONDITIONS				
Road Density & Location	FUR	Maintain	Maintain	
Disturbance History	FUR	Maintain	Maintain	
Riparian Conservation Area	FUR	Maintain	Degrade	Minor fill placement
Disturbance Regime	FAR	Maintain	Maintain	
Integration of Species & Habitat Condition	FUR	Maintain	Maintain	

¹**Functioning Appropriately – FA; Functioning at Risk – FAR; Functioning at Unacceptable Risk - FUR**

²**Major effects** - change one level from baseline condition (e.g., FA to FAR).

³**Minor effects** - Indicates action may result in an incremental or cumulative effect, but does not result in a functional change to the system (no change in functional level).

While assessing the environmental baseline and potential effects to bull trout as a species, agency biologists concurrently provide a companion analysis of effects to the PCEs for designated critical habitat and related habitat indicators (Appendix A). Based on the matrix crosswalk, at least one habitat indicator in each of the eight PCEs is rated as “functioning at risk” or “functioning at unacceptable risk.” Therefore, in summary, based on the site specific environmental baseline of bull trout habitat conditions provided in the BA for this project, linkage to the PCEs considering those habitat indicators described in Appendix A, and other factors as necessary, all PCEs in this stretch of the Clark Fork River within the project corridor are functioning in less than optimal condition.

Factors affecting species environment within the action area

Risks to bull trout have been evaluated by the MBTSG (1996) based on the degree to which a risk factor was presumed to contribute to the current and past status of the species and the threat the risk factor poses to future restoration of the fish. Some of these risk factors are discussed below.

Habitat within this portion of the Clark Fork River drainage has been heavily impacted, resulting in high fragmentation. Almost all the middle Clark Fork drainage has high road densities. Because of the high road densities and topography of the landscape, there are also a large percentage of roads within 300 feet of streams. Interstate 90 has had a large impact on the river throughout this reach of the Clark Fork River. Highway crossings and railroad crossings have had an impact on migration corridors, affecting spawning and rearing processes (USDA 2000). These developments likely had a major impact at the time they were constructed and these impacts continue today. In addition, there is a future risk of toxic spills occurring and materials entering the river (MBTSG 1996). Isolation from tributaries due to barriers could have large impacts on reproduction processes of bull trout. Impacts from past riparian timber harvest and road building have caused a lack of potential large woody debris. This has the potential to affect stream bank stability and increase stream temperatures. Non-point pollution is also a concern from agriculture, rural development and industry. Historic upstream mining has resulted in sediments contaminated with heavy metals still moving through the project area. Because much of this area occurs within valley bottoms and precipitation is relatively low, the area is quite conducive to grazing. Related effects include lack of riparian vegetation, stream bank instability and thermal impacts reducing amounts of cold water provided by tributary streams (USDA 2000).

Of particular interest in this segment of the Clark Fork River below the former Milltown Dam site is the effect of heavy metals on aquatic organisms, including bull trout, in the river. Long-term monitoring of benthic macro-invertebrates in the Clark Fork suggests little-to-no adverse effects of metals below Milltown Dam. Similarly, long-term monitoring of periphyton (algae and heterotrophic microbes) in the Clark Fork River indicates periphyton are unimpaired by pollution as well. Extensive study and analysis of the potential effects of heavy metals on aquatic organisms in the Clark Fork River below Milltown Dam was completed as part of the biological assessment for proposed Milltown Reservoir remedial actions. In summary, the biological assessment concluded that typical downstream concentrations of contaminants derived from Milltown Reservoir sediments are unlikely to be of concern for bull trout. It was further

determined that remedial actions at Milltown Reservoir would have a long-term beneficial effect on the Clark Fork River below the dam. With respect to the Russell Street Bridge replacement, it is unlikely that sediments re-suspended in the water column during construction would contain contaminant levels significant enough to result in adverse impacts to bull trout and other aquatic organisms downstream of the project (PBS&J 2008).

The primary risks to bull trout in this system are the mainstem river dams, which limit bull trout migration. Although the migratory life form of bull trout still persists, many tributaries are no longer accessible or are no longer used. Other risks include illegal introductions, fish management, mining, dam operations, transportation systems, illegal harvest and population trends (MBTSG 1996).

Water quality degradation related to agricultural practices and past and potential timber harvest is also a primary risk to bull trout in this portion of the Clark Fork drainage (MBTSG 1996). The reach of the Clark Fork River within the City of Missoula has also been degraded by urbanization. The portion of the river that passes through Missoula has been channelized and riprapped, riparian vegetation has been removed, and backwaters have been filled. Much of this activity has been done for flood control in the urban area. Urbanization has also resulted in water quality problems in the Clark Fork River system near Missoula (PBS&J 2008).

V. Effects of the action

"Effects of the action" refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action that would be added to the environmental baseline. Direct effects are considered immediate effects of the project on the species or its habitat. Indirect effects are those caused by the proposed action and are later in time, but are still reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend upon the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consultation. The effects of the action are added to the environmental baseline to determine the future baseline and to form the basis for the determination in this opinion. Should the Federal action result in a jeopardy situation and/or adverse modification conclusion, the Service may propose reasonable and prudent alternatives that the Federal agency can take to avoid violation of section 7(a)(2). The effects discussed below are the result of direct and indirect impacts of implementing the proposed project.

Much of the information in the following section relative to the effects of this proposed project on bull trout was excerpted from the Department's BA for this project (PBS&J 2008). The Service agrees with these analyses and does not expect any effects to bull trout other than those described below. A summary of effects on relevant bull trout indicators from work associated with this bridge replacement project are provided in Table 2.

Direct effects are impacts caused by specific projects that occur at the same time and place and have immediate effects on the species or its habitat (e.g., construction equipment operating in the wetted channel runs across a redd, killing eggs; or road fill deposited in the stream kills a fish). Transportation improvement projects can potentially have direct impacts on bull trout in five

ways: 1) direct mortality of individual fish at all life stages; 2) major disturbance of fish in the project area; 3) major temporary displacement of fish species in the vicinity of the project area; 4) major elimination of supporting aquatic and/or riparian habitat in the project area (critical habitat features); and 5) project activities causing substantial, long-term reductions water quality due to excessive sedimentation and toxic substances, resulting in reduced availability of prey or increased toxicity of prey through bio-accumulation of contaminants.

Direct mortality of bull trout could occur during construction project activities by killing adult or juvenile fish or incubating eggs. Direct mortality that can occur during all life stages results from removal or destruction of a redd during the egg incubation, elimination or major reduction of important spring, summer, and winter rearing habitat for juvenile fish, and major unnatural disturbances of adult spawning fish resulting in abandonment of redd construction. Discussions with local fisheries biologists indicate there is little bull trout use of this stretch of the Clark Fork River. Use by bull trout is primarily as overwinter and nodal habitat. There is no known spawning of bull trout occurring in this stretch of the Clark Fork River, with spawning occurring in tributaries to the river. The primary fish species in this segment of the river are rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*) and mountain whitefish (*Prosopium williamsoni*) (PBS&J 2008).

Short-term construction related impacts to aquatic resources within the project limits will primarily result from direct disturbance associated with demolition of the existing Russell Street Bridge and construction of its replacement, including the placement of rip rap for bank protection. The steel members of the existing bridge may collapse and fall into the river during removal of the bridge. If this occurs, the pieces would likely be dragged out of the river onto the riverbank and then disassembled and removed for disposal. Dragging the steel out of the river would potentially gouge the streambed and increase sediment levels in the river. Bridge deck removal is another potential source of disturbance as contractors may not be able to catch and contain fine materials before falling into the river. This impact is expected to be minor, as the contractor will be required to contain most of that material. Pier demolition, which would extend below the existing streambed will be yet another source of disturbance to the river. Depending on techniques used, direct fish mortality in the immediate vicinity of the piers is possible should blasting of the piers take place (PBS&J 2008).

Construction and removal of work bridges may be necessary for this project, which would introduce additional sources of disturbance to the river and its banks. It is expected that work bridges would be built of driven steel pile bents at approximately 20-foot spacing with a timber deck. Riverbed sediment is likely to be disturbed during construction and removal of the work bridge (PBS&J 2008).

Temporary displacement of fish in the project area can occur from an increase in sediment or major changes in the active channel caused by construction activities. This impact would prevent the use of fish in the project area. Displacement, generally over a large enough area and during ongoing project activities, can increase fish densities and competition in areas outside the project site and possibly lead to increased seasonal fish mortality. However, the area of impact with the proposed project is quite small. Bull trout might return to the area after construction activities stop if the remaining habitat is capable of supporting fish. Based upon the best

available information, use of the immediate project vicinity by bull trout occurs throughout the year, but is uncommon (PBS&J 2008).

The drilled shaft pier construction method is likely to generate notably less sediment than conventional pier construction methods because the work area would be totally enclosed. Once the drilled shafts are in place, the construction area within the casing must be dewatered. The water that will be pumped from the construction area will be high in suspended sediments. Pumped water will be discharged into a sediment retention basin prior to release back into the Clark Fork River (PBS&J 2008).

Indirect effects are impacts caused by or result from actions of specific projects that are later in time and space and are reasonably certain to occur (e.g., degrading aquatic and riparian habitat, and water quality to where fish survival and/or production is substantially reduced during any life stage). Indirect effects, with the exception of direct mortality of fish, are the same as direct effects but are less severe and immediate in observable impacts to sensitive fish species and their habitat. In addition, they can manifest themselves after completion of project activities and can change long-term human use and resource condition. Transportation improvement projects can potentially have indirect impacts on bull trout in four ways: 1) increased seasonal disturbance of fish in the project area; 2) temporary displacement of fish in the vicinity of the project area; 3) elimination of supporting vegetation in the project area; and 4) project activities causing substantial, long-term reductions water quality and stream habitat, due to excessive sedimentation and persistent, toxic substances.

Transportation improvement projects could create disturbed areas that, over the long-term, could increase sediment loads into the water body, thereby reducing availability, quality, and abundance of spawning gravel and substrate needed for macroinvertebrate production. Also, additions of toxic substances during project construction could have long-term effects on fish production by reducing egg survival and macroinvertebrate production in stream gravel.

Increases in turbidity, suspended sediment, and other pollutants can reduce stream productivity, reduce feeding opportunities for bull trout, and result in avoidance by adult migrants and juvenile and subadult residents of important habitat. Deposited sediments reduce habitat volume by filling pools and intergravel spaces, which are critical to young fish. As no bull trout spawning is known or suspected at or immediately downstream of all project related instream activities, no significant impacts to spawning or embryonic development are anticipated from this project.

Construction activities would result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity in the river downstream of the project, particularly during precipitation events. Increased exposure of soils in the project area would provide a continuing source of sediment into the local system during precipitation events until stabilized (PBS&J 2008).

The Russell Street Bridge receives heavy applications of liquid de-icer. Presently, the City of Missoula uses a de-icer with a magnesium/chloride based, which contains contaminants such as sulfate, phosphorus, and nitrogen. Storm water runoff on the bridge also contains the typical contaminants associated with heavily traveled roadways, including lead and petroleum

hydrocarbons. There may be an overall increase of contaminants entering the river from the proposed bridge because the proposed bridge would have two additional traffic lanes. The additional lanes would require increased use of liquid de-icer. The drainage plan for the proposed bridge is to direct runoff away from the river. All roadway and bridge runoff within the project limits would be captured and treated using best management practices. Treated water would be returned to the Clark Fork River or to drywells in accordance with the City's current practice and in coordination with the Environmental Protection Agency. This strategy would be effective in reducing the amount of de-icer and other contaminants that enter the river (PBS&J 2008).

Reconstruction of the Russell Street Bridge is not expected to impact flooding conditions in the Clark Fork River. The existing bridge is a 4-span 420 foot long structure over the 407 foot bottom width channel. The proposed bridge concept is a 4-span, 450 foot long structure. The proposed 12 instream piers will be in the same location longitudinally in the rivers as the existing piers. The new bridge profile and low chord will be higher than the existing bridge resulting in a larger hydraulic opening. Scour predictions for the 50-year and 500-year frequency storm events were determined to be reasonable. The minimal constriction scour depths results from the fact that the proposed bridge spans the floodplain and no constriction in the cross section was created due to the new bridge. Results of a hydraulic modeling study of the existing and proposed bridge openings indicate that there would be no increase in backwater from the proposed bridge compared to existing conditions. The proposed project is not expected to result in any additional changes in stream channel morphology (PBS&J 2008).

Because of the conservation measures (contract special provisions and standard construction specifications) that would be implemented during construction, many of the effects listed above should be avoided or minimized relative to bull trout and its critical habitat. These conservation measures were previously listed in the "Description of proposed action" section of this biological opinion.

Interrelated and interdependent actions related to this proposed project include activities associated with the action that have no independent utility apart from the proposed project, and that depend on project implementation (e.g., a spoil site or borrow pit for fill and riprap, or equipment staging area). Those actions and activities that occur in support of road and bridge construction can affect bull trout and its habitats if not properly coordinated.

Increases in sedimentation from activities related to this bridge replacement project are expected to adversely affect bull trout. These impacts are considered more than insignificant or inconsequential and would adversely affect aquatic habitat as well as the associated life history stages of bull trout in the middle Clark Fork River drainage. However, many of these impacts would be relatively short-term.

In addition, the BA for this project used the population and habitat indicators from the bull trout matrix in Table 2 as the basis for determining effects to bull trout and critical habitat as a result of the proposed action. PCE analysis is based on the linkage between the PCEs and the matrix (Appendix A) and any other factors pertinent to the project analysis.

Analysis of the Russell Street & South Third Street – Missoula project indicates that the activities associated with this project are likely to affect the matrix habitat indicators *Sediment*, *Substrate Embeddedness* and *Riparian Conservation Areas*, as described in Table 2. The project-related activities are expected to result in short-term degradation of these habitat elements and subsequently PCEs 1, 2, 3, 5, 7 and 8. The impacts associated with the proposed action are not discountable, insignificant or entirely beneficial. As such, the proposed Russell Street & South Third Street - Missoula project is likely to adversely affect designated critical habitat for bull trout in the Clark Fork River.

VI. Cumulative effects

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they will require separate consultation pursuant to section 7 of the Act.

Much of the higher elevation land of the middle Clark Fork River drainage is under Federal management and future activities proposed to occur on these lands will undergo separate consultation as Federal actions subject to section 7. Actions on Federal lands within the middle Clark Fork drainage include: timber harvest, livestock grazing, trail construction and maintenance, prescribed burning and wildfire suppression, noxious weed control, road construction and maintenance, and maintenance or reconstruction of irrigation structures such as dams, ditches, and diversions. Several other transportation projects are forthcoming in this area, but will undergo separate consultation in the future. Most of the lower elevation lands near the mainstem Clark Fork River are under private ownership. Activities on these lands tend to include more livestock and agricultural production, development of residential properties, and commercial properties. It is likely that most of these activities on both public and private lands will continue in the future, some of which will tend to degrade overall watershed conditions. Some proactive efforts by private, State, and Federal entities to improve watershed conditions will likely occur as well.

Angler harvest and poaching has been identified as one reason for bull trout decline (USDI 2002b). It is likely that recreational fishing in especially in known spawning streams in the fall will likely increase as the general residential population in western Montana increases. In addition, misidentification of bull trout has been a concern because of the similarity of appearance with brook trout. Although harvest of bull trout is illegal, incidental catch does occur and the fate of the released bull trout is unknown, but some level of hooking mortality is likely due to the associated stress and handling of the release (Long 1997).

The harvest of bull trout, either unintentionally or illegally, could have a direct effect on the local resident bull trout population and possibly the migratory adfluvial component of bull trout populations in Montana. The extent of the effect would be dependent on the amount of increased recreational fishing pressure, which is a function of the increased number of fishermen utilizing the fish resources each season. Illegal poaching is difficult to quantify, but generally increases in likelihood as the human population in the vicinity grows (Ross 1997).

Given the increasing certainty that climate change is occurring and is accelerating (Intergovernmental Panel on Climate Change (IPCC) 2007, Battin et al. 2007), we can no longer assume that climate conditions in the future will resemble those in the past. Climate change has the potential to profoundly alter the aquatic ecosystems upon which the bull trout depends via alterations in water yield, peak flows, and water temperatures in streams and large waterbodies, and an increase in the frequency and magnitude of catastrophic wildfires in adjacent terrestrial habitats (Bisson et al. 2003). In the Pacific Northwest, most climate change predictive models project warmer air temperatures, increases in winter precipitation, and decreases in summer precipitation. Warmer temperatures will lead to more precipitation falling as rain rather than snow. As the seasonal amount of snow pack diminishes, the timing and volume of stream flows are likely to change and peak river flows are likely to increase in affected areas. In watersheds with high densities of roads and stream crossings the potential for road related landslides may increase. A large percentage of the culverts on National Forest lands are either a total or partial barrier for juvenile salmonids, reducing access to available habitats at higher elevations on 1st and 2nd order streams (USDA 2006). Many of the culverts surveyed had high constriction ratios, limiting the ability of the culverts to pass 100-year flow events, thus increasing the potential for culvert failure and potential for road-related landslides with the onset of climate change. In addition to changes in the hydrological cycle, impacts from changes in fire frequency will likely exacerbate on-going legacy effects from the existing road system. Impacts from the existing road system are likely to increase.

Cumulative effects of the middle Clark Fork River drainage are reflected in bull trout population numbers and life history forms. Concern for the effects to bull trout populations from increased human activity levels has been summarized by the MBTSG (1996) and the Forest Service (USDA 2000). In general, effects from the activities mentioned above decrease the amount of bull trout spawning habitat, limit potential large woody debris and pool habitat, put stream temperatures at risk, and probably inhibit necessary migration corridors for this species (USDA 2000).

VII. Conclusion

Jeopardy analysis for bull trout

The implementing regulations for section 7 (50 CFR 402) define “jeopardize the continued existence of” as “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”

After reviewing the current status of bull trout, the environmental baseline for the management unit and action area, the effects of the bridge replacement activities associated with the proposed Russell Street & South Third Street - Missoula project in Missoula County, Montana, and the cumulative effects, it is the Service's biological opinion that this project, as proposed, would not be likely to jeopardize the continued existence of bull trout. Our conclusion is based on the magnitude of the project's effects (to reproduction, distribution and abundance) in relation to the listed population.

As discussed earlier in this biological opinion, the approach to our jeopardy analysis in relation to the proposed action follows a hierarchical relationship between units of analysis (i.e., geographical subdivisions) that characterize effects at the lowest unit or scale of analysis (the local population) toward the highest unit or scale of analysis (the Columbia River Interim Recovery Unit) of analysis. The hierarchical relationship between units of analysis is used to determine whether the proposed action is likely to jeopardize the survival and recovery of bull trout. As mentioned previously, should the adverse effects of the proposed action not rise to the level where it appreciably reduces both survival and recovery of the species at a lower scale, such as the local or core population, the proposed action could not jeopardize bull trout in the coterminous United States (i.e., rangewide). Therefore, the determination would result in a no-jeopardy finding. However, should a proposed action cause adverse effects that are determined to appreciably reduce both survival and recovery of the species at a lower scale of analysis (i.e., local population), then further analysis is warranted at the next higher scale (i.e., core area).

Our conclusion is based on the magnitude of the project's effects in relation to the Clark Fork River Section 2 Core Area bull trout population. The Service's rationale for the non-jeopardy conclusion for this project includes, but is not limited to, the following factors:

- Implementation of the proposed action is not anticipated to reduce the reproduction, numbers, or distribution of bull trout within the action area or Clark Fork River Section 2 Core Area to the degree that the likelihood of any local population's survival or recovery is reduced.
- The action area provides foraging, migratory and overwintering habitat for bull trout, with no spawning or rearing habitat present. Although bull trout may be present in the action area at any time during the year, project implementation would not prevent fish from migrating through the area. Bull trout may be displaced from portions of the action area for short periods of time, however adjacent habitat similar to that in the project area would be undisturbed and available to bull trout.
- Measures to protect water quality and reduce instream habitat effects would be implemented to reduce impacts to aquatic resources during this project's bridge replacement activities.
- Due to project design features and conservation measures for the protection of aquatic species, including bull trout, the proposed action is not likely to have any population level effects, or core area effects, and is not expected to affect any adjacent bull trout core areas. These design features and conservation measures are listed in the "Description of proposed action" section (pages 5-8) of this biological opinion.

Implementation of the proposed action is not likely to appreciably reduce the likelihood of survival or recovery of bull trout in the action area or any of the local populations in the Clark Fork River Section 2 Core Area. Therefore, based on the magnitude of the project's effects in relation to this core area, the proposed action is not likely to jeopardize the continued existence of bull trout in the Clark Fork River Section 2 Core Area or the coterminous listing of bull trout.

Adverse modification analysis for designated bull trout critical habitat

The Service defines destruction or adverse modification as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” However, recent decisions by the 5th and 9th Circuit Court of Appeals have invalidated this definition. Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

After reviewing the current status of the Clark Fork River Section 2 Core Area of bull trout and its relationship bull trout populations at the Clark Fork Management Unit and Columbia River Interim Recovery Unit scales, the status of bull trout critical habitat in the Clark Fork River within the Clark Fork River basin bull trout critical habitat unit, the environmental baseline for the action area, the effects of the proposed action and cumulative effects, it is the Service's biological opinion that the actions, as proposed, are not likely to destroy or adversely modify designated bull trout critical habitat.

Given the design elements proposed for the Russell Street Bridge replacement, along with the construction techniques and conservation measures that would be utilized during project implementation (i.e., best management practices and sediment control measures), adverse effects to PCEs 1, 2, 3, 5, 7 and 8 in the Clark Fork River would be short-term. Therefore, PCEs 1, 2, 3, 5, 7 and 8 are likely to retain their ability to be functionally established. Overall, even though some short-term construction-related impacts are anticipated, the proposed action would maintain the long-term condition of bull trout critical habitat in the Clark Fork River within the project area in the Clark Fork River basin bull trout critical habitat unit.

Although PCEs 1, 2, 3, 5, 7 and 8 are currently not in optimal condition in the Clark Fork River, they are functioning and would remain functional after implementation of this proposed project. The Clark Fork River is considered foraging, migratory and overwintering habitat for bull trout. This project would not change the functioning status of PCEs in the Clark Fork River, nor in the Clark Fork River basin bull trout critical habitat unit. Therefore, no destruction or adverse modification of bull trout critical habitat would occur as a result of the implementation of this proposed action.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly

impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as an intentional or negligent act or omission that creates the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by the Federal Highway Administration and their designated non-Federal representative (Montana Department of Transportation) so that they become binding conditions of any grant, permit or contract issued to the construction contractors who are selected to construct this project, as appropriate, for the exemption in section 7(o)(2) to apply. The Administration has a continuing duty to regulate the activity covered by this incidental take statement. If the Administration: (1) fails to assume and implement the terms and conditions; or (2) fails to require the chosen construction contractors to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, grant or contract document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Administration must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR 402.14(i)(3)].

The BA for this project describes actions anticipated to occur during implementation of the Russell Street & South Third Street – Missoula project and proposes actions that, when implemented, are likely to adversely affect bull trout. The Service anticipates that implementation of this project as described in the BA would likely impart a level of adverse effect to individual bull trout to the extent that incidental take would occur.

Amount or extent of take anticipated

The Service anticipates that activities associated with the Russell Street Bridge replacement across the Clark Fork River in Missoula County, Montana as previously described, would result in some incidental take of bull trout in the form of harm, harassment, or mortality related to expected short-term degradation of aquatic habitat parameters including substrate quality, rearing habitat and food supply and the related risk to bull trout life history stages. An increase in sedimentation related to construction activities is anticipated to adversely affect and likely result in a take of bull trout by harming or impairing feeding and sheltering patterns of adult and juvenile bull trout. These actions contribute to the overall risk to bull trout in the Clark Fork River drainage and measures must be taken to minimize take.

The amount of take that may result from implementation of the proposed action is difficult to quantify for the following reasons:

1. the duration and magnitude of sediment delivery is largely a function of weather conditions and the effectiveness of conservation measures;

2. aquatic habitat modifications are often difficult to ascribe to particular sources, especially in areas already degraded by other activities and facilities;
3. losses to bull trout in any life stage caused by project-related activities may be masked by, or impossible to differentiate from those occurring as a result of, wide seasonal fluctuations in numbers; and
4. measures proposed by the Administration and the Department to minimize the impacts to bull trout and bull trout habitat in the action area will likely be effective to varying degrees.

For these reasons, the actual amount or extent of the anticipated incidental take is difficult to quantify. In cases such as these, the Service uses surrogate measures to determine the amount or extent of incidental take and whether the amount of take anticipated has been exceeded. In this biological opinion we use project design and project-related construction techniques for these purposes. Thus, if the design and construction of the project are not implemented as indicated in the BA submitted to the Service for consultation, the level of incidental take anticipated in this biological opinion may be considered to have been exceeded. Such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The Administration must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

The Service anticipates that incidental take of bull trout would occur in the Clark Fork River in the vicinity of the Russell Street Bridge replacement within the City of Missoula. The Clark Fork River is used by bull trout for foraging, migratory and overwintering habitat in this core area. Incidental take of bull trout is anticipated to occur within the project's action area during the period when bridge replacement activities are occurring.

Effect of the take

In the accompanying biological opinion, the Service determined the anticipated level of adverse impacts from this project would not substantially reduce the potential for persistence or recovery of the Clark Fork River Section 2 Core Area encompassing the action area, and thus would not be likely to result in jeopardy to the Clark Fork Management Area or the Columbia River Interim Recovery Unit population of bull trout. The Administration and the Department are implementing measures which would sufficiently minimize impacts to bull trout (see the "Description of proposed action" section on pages 5-8 above).

Reasonable and prudent measures

Biological opinions typically provide reasonable and prudent measures which are expected to reduce the amount of incidental take. Reasonable and prudent measures are those measures necessary and appropriate to minimize the incidental take resulting from the proposed action.

Reasonable and prudent measures are non-discretionary and must be implemented by the Administration in order for the exemption in section 7(o)(2) to apply.

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of bull trout.

1. The Administration and the Department shall identify and implement means to reduce the potential for incidental take of bull trout from direct mortality and from increases in the amount of sediment and other pollutants entering the Clark Fork River as a result of construction related activities associated with this project.

Terms and conditions

In order to be exempt from the prohibitions of section 9 of the Act, biological opinions typically provide terms and conditions which implement the reasonable and prudent measures and outline reporting and monitoring requirements. Terms and conditions are non-discretionary.

To fulfill reasonable and prudent measure #1, the following terms and conditions shall be implemented:

1.
 - a) Materials excavated from inside any coffer dams shall not enter any stream. All water from inside the coffer dams should be pumped to contained settling ponds on the stream bank. Equipment access to the coffer dams shall be made without entering the stream channel.
 - b) To the maximum extent feasible, the existing bridge will be disassembled and removed without pieces being allowed to fall into the river. If portions of the old bridge do fall into the river during demolition, they will be removed from the stream as quickly as possible and with as little disturbance to the stream bed and banks as possible. Any blasting required for pier or footing removal will be contained to the maximum extent feasible using some type of containment or shielding device to attenuate the blast's pressure wave in the water and to prevent debris from entering the stream.
 - c) If work bridges are required and it becomes necessary to leave them in place during winter, such structures shall be constructed to withstand winter icing and spring runoff conditions to prevent collapse.
 - d) The Administration and the Department shall monitor bridge replacement activities (including bridge demolition and removal) to ensure that these activities comply with the biological assessment, supporting documentation, and biological opinion for this project.

In addition to these terms and conditions, the Service believes that implementation of the measures listed above in the "Description of proposed action" section (pages 5-8), and referenced in the "Effects of the action," "Conclusion," and "Effect of the take" sections of this

biological opinion and incidental take statement, will minimize impacts to bull trout and incidental take. Those measures include adequate monitoring and reporting requirements, so no additional reasonable and prudent measures or additional terms and conditions are necessary.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. To assist in meeting the Administration's responsibilities under Section 7(a)(1) of the Act, and to utilize authorities granted within the recent transportation funding laws, the Service strongly recommends that the Administration and the Department work proactively with the Service, Montana Fish, Wildlife and Parks, and others to identify and remedy impacts to salmonids, including bull trout, within the Clark Fork River Section 2 Core Area that are the result of transportation systems. Within this area, many streams were channelized during road and railroad construction, resulting in shortening of stream channels, increased erosion, higher water velocities, and loss of fish habitat. In addition, there is a risk of future toxic spills occurring and materials entering these streams.
2. The Service recommends the Administration and the Department explore potential opportunities to utilize their expertise and authorities to promote innovative and non-traditional fisheries enhancement projects within the middle Clark Fork River watershed by partnering in some manner with other agencies or groups to share knowledge and resources to restore or enhance fisheries habitat within the Clark Fork River Section 2 Core Area that has been degraded by activities other than those related to transportation. The draft Bull Trout Recovery Plan recommends many recovery tasks that need to be accomplished to protect, restore, and maintain suitable habitat conditions for bull trout in this area. These tasks pertain to transportation and non-transportation related impacts to bull trout habitat (USDI 2002b).

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the actions outlined in the request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not

considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

A handwritten signature in black ink that reads "R. Mark Wilson". The signature is written in a cursive style with a horizontal line extending from the end of the name.

R. Mark Wilson
Field Supervisor

March 2, 2010

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Appendix A

PCEs for bull trout critical habitat and associated matrix habitat indicators.

Crosswalk to support PCE analysis through the matrix of pathway indicators for bull trout

PCEs for bull trout critical habitat and associated matrix habitat indicators.

PCE #	PCE description	Associated matrix habitat indicators
1	Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72 °F (0 to 22 °C), but are found more frequently in temperatures ranging from 36 to 59 °F (2 to 15 °C). These temperature ranges may vary depending on bull trout life history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence. Stream reaches with temperatures that preclude any bull trout use are specifically excluded from designation.	<ul style="list-style-type: none"> - Temperature - Refugia - Average wetted width/maximum depth ratio in scour pools in a reach - Streambank condition - Change in peak/base flows - Riparian conservation areas - Floodplain connectivity
2	Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures.	<ul style="list-style-type: none"> - Large woody debris - Pool frequency and quality - Large pools - Off channel habitat - Refugia - Average wetted width/maximum depth ratio in scour pools in a reach - Streambank condition - Floodplain connectivity - Riparian conservation areas
3	Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. This should include a minimal amount of fine substrate less than 0.25 inch (6.3 millimeters) in diameter.	<ul style="list-style-type: none"> - Sediment - Substrate embeddedness - Large woody debris - Pool frequency and quality
4	A natural hydrograph, including peak, high, low, and base flows within historic ranges or, if regulated, currently operates under a biological opinion that addresses bull trout, or a hydrograph that demonstrates the ability to support bull trout populations by minimizing daily and day-to-day fluctuations and minimizing departures from the natural cycle of flow levels corresponding with seasonal variation.	<ul style="list-style-type: none"> - Change in peak/base flows - Increase in drainage network - Disturbance history - Disturbance regime
5	Springs, seeps, groundwater sources, and subsurface water to contribute to water quality and quantity as a cold water source.	<ul style="list-style-type: none"> - Floodplain connectivity - Change in peak/base flows - Increase in drainage network - Riparian conservation areas - Chemical contamination/nutrients
6	Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows.	<ul style="list-style-type: none"> - Life history diversity and isolation - Persistence and genetic integrity - Temperature - Chemical contamination/nutrients - Physical barriers - Average wetted width/maximum depth ratio in scour pools in a reach - Change in peak/base flows - Refugia
7	An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.	<ul style="list-style-type: none"> - Growth and survival - Life history diversity and isolation - Riparian conservation areas - Floodplain connectivity (importance of aquatic habitat condition-indirectly covered by previous 6 PCEs)
8	Permanent water of sufficient quantity and quality such that normal reproduction, growth, and survival are not inhibited.	<ul style="list-style-type: none"> - Sediment - Chemical contamination/nutrients - Change in peak/base flows

Crosswalk to Support Primary Constituent Element Analysis Through the Matrix of Pathway Indicators for Bull Trout

This matrix crosswalk provides information supporting the rationale that the primary constituent elements (PCEs) for bull trout critical habitat are thoroughly addressed and evaluated when the bull trout matrix analysis is utilized. It recognizes that the environmental baseline and determination of effect for bull trout consist of both biological and habitat components that are addressed in the PCEs listed in the Final Rule designating critical habitat (USFWS 2005). Below are the eight PCEs and the supporting rationale:

PCE 1. Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72 °F (0 to 22 °C) but are found more frequently in temperatures ranging from 36 to 59 °F (2 to 15 °C). These temperature ranges may vary depending on bull trout life history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence. Stream reaches with temperatures that preclude any bull trout use are specifically excluded from designation.

This PCE is addressed directly by the analysis of *temperature*. It is addressed indirectly through consideration of *refugia*, which by definition is high quality habitat of appropriate temperature. Important components of refugia include pool frequency and quality and large pools. *Average wetted width/maximum depth ratio in scour pools* is an indication of water volume, which indirectly indicates water temperature, (i.e., low ratios indicate deeper water, which in turn indicates possible refugia). This indicator, in conjunction with *change in peak/base flows*, is an indicator of potential temperature and refugia concerns, particularly during low flow periods. *Streambank condition*, *floodplain connectivity* and *riparian conservation areas* address the components of shade and groundwater influence, both of which are important factors of water temperature. Stable streambanks and intact riparian areas, which include part of the floodplain, typically support adequate vegetation to maintain thermal cover to streams during low flow periods.

PCE 2. Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structure.

The analysis of *large woody debris*, such as current values and sources available for recruitment, directly addresses this PCE. Large woody debris increases channel complexity and creates pools and undercut banks. *Pool frequency and quality* would also directly address this PCE, showing the number of pools per mile as well as the amount of cover and temperature of water in the pools. *Average wetted width/maximum depth ratio in scour pools in a reach* is an indicator of channel shape and pool quality. Low ratios suggest deeper, higher quality pools. *Large pools*, consisting of a wide range of water depths, velocities, substrates and cover, are typical of high quality habitat and are a key component of channel complexity (USFWS 1998b). An analysis of *off-channel habitat* would describe side-channels and other off-channel areas. *Streambank condition* would analyze the stability of the banks, including such features as undercut banks. The analysis of both *riparian conservation areas* and *floodplain connectivity* would directly address this PCE. Floodplain and riparian functions include the maintenance of habitat and

channel complexity, the recruitment of large woody debris and the connectivity to off-channel habitats or side channels (USFWS 1998b). Complex habitats provide refugia for bull trout and in turn, *refugia* analysis would assess complex stream channels. All of these habitat indicators consider the numerous characteristics of instream bull trout habitat and quantify critical components that are fundamental to creating and maintaining complex instream habitat over time.

PCE 3. Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. This should include a minimal amount of fine substrate less than 0.25 inch (6.3 millimeters) in diameter.

This PCE is addressed directly by analysis of *sediment* in areas of spawning and incubation and considers directly the size class composition of instream sediments, particularly fine sediments ≤ 6.3 mm. This PCE is also addressed directly by analysis of *substrate embeddedness* in rearing areas, which is a function of sediment size class and bedload transport. Both of these indicators would assess substrate composition and stability in relation to the various life stages of bull trout as well as sediment transportation and deposition. *Large woody debris* and *pool frequency and quality* affect sediment transport and redistribution within a stream and would indirectly affect substrate composition and amounts.

PCE 4. A natural hydrograph, including peak, high, low, and base flows within historic ranges or, if regulated, currently operates under a biological opinion that addresses bull trout, or a hydrograph that demonstrates the ability to support bull trout populations by minimizing daily and day-to-day fluctuations and minimizing departures from the natural cycle of flow levels corresponding with seasonal variation.

This PCE is addressed by analysis of *change in peak/base flows*, which considers changes in hydrograph amplitude or timing with respect to watershed size, geology, and geography. Considering *increase in drainage network* and *disturbance history* provides further information. Roads and vegetation management both have effects strongly linked to a stream's hydrograph. *Disturbance regime* ties this information together to consider how a watershed reacts to disturbance and the time required to recover back to pre-disturbance conditions.

PCE 5. Springs, seeps, groundwater sources, and subsurface water to contribute to water quality and quantity as a cold water source.

This PCE is addressed by analysis of *floodplain connectivity* and *riparian conservation areas*. *Floodplain connectivity* considers hydrologic linkage of off-channel areas with the main channel and overbank flow maintenance of wetland function and riparian vegetation and succession. Floodplain and riparian areas provide hydrologic connectivity for springs, seeps, groundwater upwelling and wetlands and contribute to the maintenance of the water table (USFWS 1998b). The analysis of *changes in peak/base flows* would address subsurface water connectivity. *Increase in drainage network* would address potential changes to groundwater sources and subsurface water connectivity. *Chemical contamination/nutrients* would address concerns regarding groundwater water quality.

PCE 6. Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows.

The biological indicator *life history diversity and isolation* addresses the function of migration and/or subsequent isolation with respect to the population. The biological indicator *persistence and genetic integrity* indirectly reflects the status of migratory corridors. Physical, biological or chemical barriers to migration are addressed directly through water quality habitat indicators, including *temperature*, *chemical contamination/nutrients* and *physical barriers*. The analysis of these indicators would assess if barriers have been created due to impacts such as high temperatures, high concentrations of contaminants or physical barriers. Analysis of *change in peak/base flows* and *average wetted width/maximum depth ratio in scour pools in a reach* would assess whether changes in flow might create a seasonal barrier to migration. An analysis of *refugia*, which considers the habitat's ability to support strong, well distributed, and connected populations for all life stages and forms of bull trout, would also be pertinent to this PCE.

PCE 7. An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.

An analysis of *floodplain connectivity* and *riparian conservation areas* would assess these contributions to the food base. Floodplain and riparian areas provide habitat to aquatic invertebrates, which in turn provides a forage base to bull trout (USFWS 1998a). This PCE is indirectly addressed through the biological indicator of *growth and survival* and *life history diversity and isolation*. Both of these indicators look at habitat quality and subpopulation condition, which provides information on food base. This PCE is a synthesis of the previous PCEs. It is addressed through the analysis of biological and habitat indicators in that, if a bull trout population either exists or could exist in a watershed, then there is an adequate forage base. A healthy habitat provides a forage base for the target species. Any potential impairment to the forage base has been addressed by way of summarizing the biological and habitat indicators.

PCE 8. Permanent water having low levels of contaminants such that normal reproduction, growth and survival are not inhibited.

Flow conditions, such as perennial or ephemeral would be analyzed through *changes in peak/base flows*, and addressed in consideration of current base flows. Changes in hydrograph amplitude or timing with respect to watershed size, geology, and geography would be considered. The level of contaminants is addressed directly by the analysis of *chemical contamination/nutrients* and *sediment*. Current listing under 303(d) status should be considered, as well as the causes for that listing. *Sediment* is considered a contaminant especially in spawning and rearing habitat and analysis would apply to this PCE.

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APPENDIX G – Traffic Analyses Updates

This appendix provides summaries of two separate traffic analyses updates conducted for Russell Street and South 3rd Street. In response to public comments and a request by the City of Missoula City Council, Kittelson & Associates was hired in the spring of 2009 to conduct a review of the traffic analyses included in the Draft Environmental Impact Statement, to update the traffic projections to the year 2035 based on the most recent Missoula Area Long Range Transportation Plan Update, and to examine whether any changes in traffic projections or differing analysis methodologies would give rise to a change in the Preliminary Preferred Alternative for Russell Street as outlined in the Draft Environmental Impact Statement.

In late 2009, DOWL HKM was tasked with updating the traffic analyses on South 3rd Street to bring the analyses up to the same forecast year (2035) as the analysis on Russell Street. This analysis was more limited in scope than the Kittelson work, but used an analysis methodology updated and approved by the Federal Highway Administration in the review of the proposed roundabouts on South 3rd Street. Below is an overview of the findings of the enclosed technical memoranda.

Russell Street Traffic Analysis Update

In addition to the update of the traffic volume forecasts to the year 2035, Kittelson examined two new design options on Russell Street to determine if a hybrid approach might be reasonable to satisfy the project Purpose and Need, while attempting to minimize the overall footprint of the proposed improvements. The two new design options were:

- Option 6 – including a mix of two travel lanes with and without raised/landscaped median between South 14th Street/Mount Avenue and Wyoming Street, and four travel lanes with a median between Wyoming Street and West Broadway Street. This option also included four single-lane roundabouts along the corridor.
- Option 7 – including two continuous travel lanes with raised/landscaped median between South 14th Street/Mount Avenue and South 5th Street, and four travel lanes with a median between South 5th Street and West Broadway Street. This option also included traffic signals at all major intersections throughout the corridor.

The analysis indicates that Option 6 does not provide substantive safety and mobility improvements due to the limited capacity of the single lane roundabouts. Option 6 was projected to be at or over capacity immediately upon completion of the improvements. Option 7 was shown to have similar operating characteristics as the Preliminary Preferred Alternative (Alt. 4), except for the Level of Service at the intersection of South 5th Street, which operates much more poorly under Option 7. Option 7 also introduces a lane discontinuity in the system, going from five lanes south of South 14th Street/Mount Avenue, to a three-lane section between South 14th Street and South 5th Street, back to five lanes from South 5th Street to West Broadway Street. This configuration also limits the ability of the corridor to receive any operational benefit with future turn-lane or through-lane improvements at the intersections of South 14th Street and South

Appendix G - Traffic Analysis Update Summary

3rd Street. Option 7 also lacks the capacity to accept side street traffic which could lead to an increase in traffic on parallel streets. Option 7 was a hybrid and that was why it is labeled as such, not an independent alternative, but a combination of Alternatives 3 and 4.

Based on these findings and that Alternative 4 continues to provide the best overall corridor and intersection operations by the year 2035, it has been identified as the Preferred Alternative in the Final Environmental Impact Statement.

South 3rd Street Traffic Analysis Update

DOWL HKM reviewed the previously developed traffic forecasts as well as intersection capacity and level of service analyses for South 3rd Street. They developed 2009 base year travel data from the original 1999/2001 data which was forecast to 2005 for the DEIS. Based on relatively flat traffic growth on South 3rd Street between 2005 and 2009, the 2005 data was used as the 2009 baseline. Using a 1.6 percent average growth rate out to 2035 yielded a slightly lower ADT than was reported in the DEIS, and which was reasonable given the recent growth rates.

The analysis also utilized an updated roundabout analysis methodology. DOWL HKM used the same modeling software as the initial analysis, however FHWA has modified the “environmental factor” to account for differences in how the average US driver responds to roundabouts versus how an average driver in Australia or the UK responds to roundabouts. This modification in the modeling inputs produces much different results than the previous analysis. The analysis found that the entering volumes exceed the volume thresholds identified by FHWA, capacity was exceeded prior to design year, and excessive vehicle stacking leads to gridlock situations throughout the corridor. For these reasons, the roundabout alternatives have been eliminated in favor of signalized intersections which were shown to provide better operational improvements for a longer period of time.

The South 3rd Street analysis was more limited in scope than the analysis on Russell Street, evaluating the traffic operations exclusively. It was clearly demonstrated that the Preferred Alternative in the Draft Environmental Impact Statement with roundabouts would fail to operate through the new design year of 2035. The signalized alternative was analyzed and found to operate for the projected future traffic volumes with the design year timeframe at an acceptable level of service. All other design elements remained the same between the two alternatives for South 3rd Street, so no addition analysis was necessary. Similar analysis methodology was used to assess the intersection capacity and operation on Russell Street.



Summary of: “Russell Street Traffic Analysis Update”

Kittelson & Associates, August 2009

1.0 Introduction

Subsequent to publication of the Draft Environmental Impact Statement (DEIS) for this project, an update to Missoula’s Long Range Transportation Plan was completed. Ongoing public involvement for the project also showed great interest in additional analysis or investigation. Principally for these reasons, the City of Missoula, Montana Department of Transportation (MDT), and Federal Highway Administration (FHWA) conducted additional analyses or investigations for traffic operations, safety, and multi-modal performance of the Russell Street alternatives. The results of these analyses are documented in three Technical Memoranda and a Final Traffic Analysis Update report. These analyses were conducted in the spring/summer of 2009. The analysis reviewed the original findings of the Russell Street / South 3rd Street DEIS with the most current data, investigated additional concepts raised through public and City official comment on the DEIS, and affirmed the preliminary preferred alternative for Russell Street best meets Purpose and Need.

The analysis summarized in this Appendix was performed with forecasted traffic conditions for the future year, 2035. This analysis year is consistent with the Missoula Long Range Transportation Plan (2008). The Traffic Analysis Update includes the following:

- New data collection
- Development of new baseline and forecast traffic volumes
- Traffic operational analysis using Synchro and the 2000 Highway Capacity Manual
- Safety analysis using procedures outlined in the Draft Highway Safety Manual
- Multimodal level-of-service analysis for bicyclists, pedestrians, and transit under forecast (year 2035) traffic conditions

This analysis was conducted for the following DEIS Alternatives:

- **Alternative 1** is the No-Build Alternative and would provide no improvements to Russell Street or the existing Russell Street Bridge.
- **Alternative 2** includes a mix of two travel lanes with and without a raised median between Mount Avenue/South 14th Street and Wyoming Street. Four travel lanes would be provided between Wyoming Street and West Broadway Street. Intersection control would consist of a mix of signals, single-lane roundabouts, and multi-lane roundabouts.
- **Alternative 3** includes a mix of two travel lanes with mostly raised median between Mount Avenue/South 14th Street and Wyoming Street. Four travel lanes and a center turn-lane/raised median would be included from Wyoming Street to West Broadway Street. Intersection control would consist of signals, single-lane roundabouts, and multi-lane roundabouts.
- **Alternative 4** includes four continuous travel lanes with a center turn-lane/raised median from Mount Avenue/South 14th Street to West Broadway Street. Intersection control would consist of signals throughout the corridor.

Appendix G - Traffic Analysis Update Summary

- **Alternative 5-Refined** includes four travel lanes with a center turn-lane/raised median between Mount Avenue/South 14th Street and West Broadway Street. Intersection control would consist of signals and multi-lane roundabouts.

The following two additional Options were investigated in response to public and agency comment on the DEIS:

- **Option 6** includes a mix of two travel lanes with and without a raised median between Mount Avenue/South 14th Street and Wyoming Street. Four lanes with a center turn-lane/raised median would be included between Wyoming Street and West Broadway Street. Intersection control would consist of signals, single-lane roundabouts, and multi-lane roundabouts.
- **Option 7** includes two continuous travel lanes with a center turn-lane/raised median from Mount Avenue/South 14th Street to South 5th Street, and four continuous travel lanes with a center turn-lane/raised median from South 5th Street to West Broadway Street. Intersection control would consist of traffic signals throughout the corridor.

This Appendix provides a summary of the key elements of the analysis update, including a presentation of the traffic projection methodology and results, the operational analyses, the safety analysis, and a set of recommendations for improvements to the proposed project on Russell Street.

2.0 Traffic Projection Update

Travel demand model traffic forecasts for the year 2005 No Build and year 2035 Build scenarios were obtained from MDT and the Missoula Office of Planning and Grants, and were used to develop traffic volumes at the study intersections. The NCHRP 255 methodology (Transportation Research Board, National Cooperative Highway Research Program Report 255: *Highway Traffic Data for Urbanized Area Project Planning and Design*, December 1982) was used in the development of the year 2035 weekday p.m. peak hour traffic volumes. As presented in Technical Memorandum #1, two traffic volume scenarios were developed that reflect year 2035 forecast travel demand for the Russell Street corridor assuming a three-lane and five-lane roadway cross-section. MDT provided the following travel demand models to assist in the development of the future traffic volume scenarios:

- **Year 2005 No Build**
- **Year 2035 Three-lane Russell Street** - This is a special request model that is based on the recommendations in the Long Range Transportation Plan; however, it is modified such that Russell Street has the capacity of a three-lane facility between South 14th Street/Mount Avenue and Wyoming Street.
- **Year 2035 Five-lane Russell Street** - This model reflects the transportation improvements and land use forecasts recommended in the 2008 Missoula Long Range Transportation Plan.

Caution must be exercised when using a regional travel demand model like this one to conduct a subarea corridor transportation study, in as much as it is primarily used for air quality analysis



and the transportation and land use components can be relatively coarse. The result is a generalized forecast of travel demand that is suitable at a regional level, but must be interpreted for use at the subarea level. The year 2035 regional travel demand model is used in this study as it contains the latest land use assumptions approved by the City and County, transportation improvements that are planned and funded, and is the adopted travel demand model from the Long Range Transportation Plan process. From these travel demand model runs, the traffic volume scenarios were post-processed, or refined per the methodology described in NCHRP Report 255. Alternatives 1, 2, and 3, and Option 6 utilize the three-lane volume scenario. Alternatives 1, 4, and 5-Refined, and Option 7 utilize the five-lane volume scenario.

Base year daily traffic volumes on Russell Street range between 20,000 and 22,000 vehicles and includes both local and regional trips across the bridge. Traffic on Russell Street has seen a steady growth rate of 0.7 percent per year over the past 30 years. Overall, traffic volumes in the study area have seen a small change over the past 15 years, but an increase of approximately 0.5 percent to 1.2 percent over the past 30 years. The projected growth rates from the travel demand model are 1.9 percent for the three-lane scenario, and 2.3 percent for the five-lane scenario on Russell Street. The overall regional growth rate is consistent under both scenarios.

The projected growth rates assuming a five-lane Russell Street corridor are approximately double the historical growth rate. The projected growth rate under the three-lane Russell Street corridor is between the historical and five-lane Russell Street growth rates. The growth rate on Russell Street is estimated to be higher over the next 30 years than the historical growth rate due to the following factors:

- Russell Street has available capacity in the model as opposed to other transportation facilities (i.e., Reserve Street, Orange Street, Arthur Avenue/Madison Street, and most of Brooks Street/Higgins Avenue) that cross the Clark Fork River. This results in more regional traffic choosing to use this corridor under the five-lane facility over the next 30 years.
- Several larger, vacant parcels near the corridor (such as the Intermountain Lumber site and Champion Mill site) are planned to be redeveloped over the next 30 years. These redeveloped properties will add new trips to the corridor under both the three-lane and five-lane scenarios.

The traffic volume on Russell Street is expected to be higher as a five-lane arterial than as a three-lane arterial due to the available capacity with five lanes. The growth pattern of Russell Street may be similar under both the three-lane and five-lane lane facilities until the traffic volumes reach the capacity of a three-lane arterial. As the roadway reaches capacity as a three-lane facility, it is anticipated that traffic volume on Russell Street will reroute to other north-south arterials (i.e., Reserve Street, Orange Street, etc.) due to improved travel times to cross the Clark Fork River.

Table 1 summarizes the weekday p.m. peak hour and daily link traffic volumes at key locations on the corridor for year 2035 traffic conditions and for comparable purposes to existing conditions.

Appendix G - Traffic Analysis Update Summary

Table 1
Existing and Forecast (Year 2035) Link Traffic Volumes

Segment Location on Russell Street	Existing Traffic Volumes		Year 2035 Traffic Volumes (Three-Lane)		Year 2035 Traffic Volumes (Five-Lanes)	
	PM Peak Hour	Daily	PM Peak Hour	Daily	PM Peak Hour	Daily
North of West Broadway Street	535	6,580	955	11,800	835	10,300
West Broadway Street and River Road	2,025	24,900	3,145	38,700	3,430	42,200
South 2 nd Street and South 3 rd Street	1,800	22,200	2,820	34,700	3,000	36,900
South 3 rd Street and South 5 th Street	1,625	19,800	2,710	33,300	3,045	37,300
South 11 th Street and Ronan Street	1,625	20,000	2,715	33,200	3,110	38,200
South of South 14 th Street	1,870	22,900	2,600	32,000	2,865	35,200

Source: Kittelson and Associates, Traffic Analysis Update, Final Report, August 2009

As shown in Table 1, the year 2035 travel demand is projected to be lower south of South 14th Street/Mount Avenue than the rest of the corridor due to more vehicles entering and leaving Russell Street via Mount Avenue and South 14th Street. Additionally, a higher relative traffic demand is projected to enter and leave the corridor via South 5th Street for the five-lane scenario than the three-lane scenario. The year 2035 traffic volumes represent forecast traffic demand per the travel demand model and may differ from the actual traffic volumes that will come to be on the corridor. One of the potential causes of this difference is that if critical road segments and/or intersections do not supply sufficient capacity for the forecast demand, some traffic may divert to other corridors or they will travel during time periods with less demand. For example, if the Russell Street/West Broadway Street intersection is projected to operate over capacity during the weekday p.m. peak hour, not all of the traffic demand will be able to pass through the intersection during the course of an hour and it will limit or meter the amount of traffic that can travel on Russell Street during that time period.

Mode Split Shift and Sensitivity Analysis

The non-automobile mode (i.e., bicycle, pedestrian, and transit) split was evaluated to identify if forecast traffic volumes can be reduced by some factor to account for an increase in alternative modes of travel in the corridor. A potential range for non-automobile mode trends over the next 30 years was estimated after review of several national and local resources and past census data for the City and the area surrounding the Russell Street corridor. (Refer to Technical Memorandum #2).

The increase in non-automobile mode split could reasonably range between zero and eight percent. The medium estimate of three to four percent is based on current trends for the City and Russell Street corridor. The high estimate of eight percent is based on the potential of increased



pedestrian and bicycle ridership resulting from improved bicycle and pedestrian facilities along the corridor and enhanced transit service and amenities within the corridor.

A sensitivity analysis was performed for the Alternatives and Options to assess whether the projected mode shift increase might affect future traffic operations within the corridor by reducing single-occupant vehicle volumes. Changes in traffic operations occurring under the reduced volume scenarios were not substantial enough to result in a change in the Preferred Alternative in the EIS.

3.0 Operational Analysis

This section provides a summary of the analysis contained in the Technical Memoranda and Traffic Analysis Update final report. Each sub-section provides an overview of the analysis methodology and results.

3.1 Vehicular Traffic

Methodology

A traffic operational analysis was performed to evaluate the DEIS Alternatives 1, 2, 3, 4, and 5-Refined and Options 6 and 7 under year 2035 weekday p.m. peak hour traffic conditions. This analysis included an intersection analysis to assess level-of-service, capacity, and a corridor-level analysis to estimate travel times for each Alternative and Option.

The operational results from the Highway Capacity Manual (HCM) reports in Synchro were reported for signalized and un-signalized intersections. The draft 2010 HCM methodology was used to perform the roundabout intersection operational analysis for Alternatives 2, 3, 5-Refined, and Option 6. The proposed HCM methodologies are based on the findings presented in NCHRP Report 572 (Transportation Research Board. National Cooperative Highway Research Program: *Roundabouts in the United States*, 2009), which is based on the most current and complete U.S. data available.

A corridor-level analysis was performed using both the Synchro model and operational results from the intersection analysis for roundabouts. Travel time results were estimated for each direction of travel under year 2035 traffic conditions.

Intersection Operations Analysis Results

All of the intersection operations are projected to operate at a LOS “E” or worse and mostly over capacity under the three-lane and five-lane volume scenarios for Alternative 1 (No-Build).

Each of the Build alternatives and options are projected to operate at LOS “E” or worse and over capacity at the West Broadway Street intersection. Under Alternatives 2, 3, and Option 6, most of the intersection operations are projected to operate primarily at LOS “E” or worse due in large

Appendix G - Traffic Analysis Update Summary

part to the lack of capacity at the roundabout intersections. For the Build Alternatives with a single or multilane roundabout at the South 3rd Street intersection, this intersection is projected to operate at a LOS “F” and over capacity.

The intersection operations with Alternatives 4 and 5-Refined, and Option 7 are better than Alternatives 2, 3, and Option 6; however, still operate at Level of Service “D” or worse.

With Alternative 4 and Option 7, lane enhancements can be provided at the signalized intersections to improve the LOS at the intersections. For instance, the addition of a second northbound left-turn lane at South 3rd Street reduces the 95th percentile vehicle queues, so they do not spillback to South 6th Street under the weekday p.m. peak hour traffic conditions.

Each of the Build alternatives and options are projected to operate under capacity at most of the intersections with the sensitivity analysis. However, the South 3rd Street and South 14th Street/Mount Avenue intersections are projected to continue to operate over capacity with roundabout traffic control. The traffic signal at South 3rd Street in Alternative 4 and Option 7 are projected to operate just over capacity. With the addition of a second northbound left-turn lane, the intersection will improve to a LOS “D” and under capacity condition. The addition of this left-turn lane is critical to the operations of this intersection. Without this second northbound left-turn lane, the 95th percentile vehicle queues are anticipated to spill back to South 6th Street under the weekday p.m. peak hour traffic conditions.

Corridor Operations Analysis Results

As demonstrated in Table 2, Alternative 4 and Option 7 have the best performance for travel times under year 2035 traffic conditions. Alternative 1 and Option 7 have better travel times than Alternatives 2, 3, 5-Refined, and Option 6 due to the substantial delay caused at the over-capacity roundabout intersections and the additional traffic signal control under Alternative 5-Refined.

Table 2
Travel Time Summary for Existing and Future Traffic Conditions

Direction of Travel	Analysis Scenario	DEIS Alternatives						Options	
		Alt 1 (Three-Lane)	Alt 1 (Five-Lane)	Alt 2	Alt 3	Alt 4	Alt 5-R	Opt 6	Opt 7
Northbound (Minutes:Seconds)	2035 Volumes	7:35	8:35	8:35	8:50	4:20	9:40	>15:00	4:05*
	Sensitivity Analysis	6:35	7:05	6:40	6:50	4:10	7:00	>15:00	4:03*
Southbound (Minutes:Seconds)	2035 Volumes	6:35	8:55	12:30	13:05	5:10	13:40	>15:00	6:43*
	Sensitivity Analysis	5:40	6:50	8:50	9:10	4:50	9:45	>15:00	5:30*

Source: Kittelson & Associates, *Traffic Analysis Update Technical Memorandum #2*, 2009

Note: * Improved travel times were a direct result of adjusting the “green time” on Russell Street, which will adversely affect operations of traffic entering from the side streets.



The southbound travel time for Alternative 5-Refined can be improved by six minutes with the addition of a southbound right-turn bypass lane. Similar to the intersection operations, the travel times are improved for all of the alternatives under the sensitivity analysis.

3.2 Multimodal Level of Service (MMLOS)

For the multimodal level of service analysis, the methodology from the NCHRP Report 3-70 (Transportation Research Board. National Cooperative Highway Research Program Report 3-70, *Multimodal Level of Service for Urban Streets*, 2009) was used as a basis for evaluating multiple modes of travel on the Russell Street corridor. NCHRP 3-70 provides a scientific basis for evaluating multimodal level of service (MMLOS) on urban streets, like the Russell Street corridor. The MMLOS analysis method for urban streets consists of a set of recommended procedures for predicting traveler perceptions of quality of service and performance measures for urban streets. From the analysis, a combined intersection and segment LOS for transit, bicycle, and pedestrian mode is derived based on several inputs for the No-Build and Build conditions for the Russell Street corridor. The resultant LOS corresponds to the advantages and disadvantages that travelers perceive of roundabouts and traffic signal control, sidewalk and bike lane widths, buffers between the travel lane and bike paths and sidewalks, and other characteristics found on an urban roadway. Safety is indirectly considered in the MMLOS analysis in that the letter ratings are based in large part on the comfort levels of bicyclists and pedestrians and one factor in comfort levels is the safety of the facility perceived by the user. The MMLOS analysis was applied to the different alternatives and options on Russell Street to provide the project team with a relative comparison between the alternatives and options.

Alternatives 4, 5-Refined, and Option 7 achieve the overall highest bicycle LOS for the corridor with a LOS “E.” Specifically, these alternatives performed better due to less traffic volume in the outermost lane next to the bike lane and for Alternative 4 and Option 7, signalized intersections perform better than roundabouts. Certain segments and intersections have a grade of LOS “E” or “F” under all alternatives. This is primarily due to the amount of traffic volumes forecast for the corridor.

Each of the alternatives and options perform better for the pedestrian LOS than the existing and No-Build conditions. This is due to the addition of a continuous sidewalk and buffer (bike lane and landscape area with trees) from the travel lanes. However, Option 6 operates poorer than Alternatives 2 through 5-Refined and Option 7 due to the lack of boulevard treatment at the southern end of the corridor. Also, pedestrian LOS generally performs better at signalized intersections than at roundabouts. The better performance is due to pedestrians being able to cross the intersection under a controlled crossing (i.e., pedestrian signal with walk and flashing don’t walk symbols) versus at roundabouts where pedestrians must negotiate a gap in the traffic stream or wait for a vehicle to yield and allow the pedestrian to cross. However, if in the future, pedestrian crossings at the roundabouts are signalized (*Note: This topic is currently being researched at the national level to identify guidelines for providing signalized traffic control for pedestrian crossings at roundabouts*), the pedestrian LOS at the roundabouts may be slightly

Appendix G - Traffic Analysis Update Summary

better than at a typical signalized intersection due to the crossing distance being shorter than at a typical signalized intersection.

The transit amenities and service are planned to be the same under all future conditions, so a comparison table was not prepared for transit LOS. The transit LOS is projected to be LOS “D” for all of the alternatives and options.

4.0 Safety Analysis

Methodology

The safety analysis was conducted using the procedures outlined in the draft Highway Safety Manual (HSM), expected to be published by AASHTO in late 2009/early 2010 (American Association of State Highway and Transportation Officials. *Draft Highway Safety Manual*, 2009). The HSM is similar to the HCM in that it is definitive, science-based, and created from widely accepted analysis procedures. The primary benefit of the HSM is that it allows for quantitative, predictive analysis of expected average crashes (e.g., it is expected that the average crash frequency for this alternative is X crashes per year), as opposed to the qualitative, descriptive-based analysis of historical crash data (e.g., there are more rear-end crashes at location Y than location Z), which makes up much of existing practice in safety analysis.

The HSM provides separate predictive methods for rural two-lane highways, rural multi-lane highways, and urban and suburban arterials. The urban and suburban arterials methodology was applied for the analysis of Russell Street and provides a relative comparison between the different alternatives/options for Russell Street. A relative comparison is made because the analysis is not calibrated to local conditions. In order to calibrate the safety predictive functions, the HSM recommends that data be analyzed for the most recent two- to three-year period for a minimum of 30 to 50 sites of the facility type being analyzed (e.g. four-lane divided roadway), or the total number of available sites, within the jurisdiction for which the calibration is being performed. This calibration effort would typically be performed on a jurisdiction-wide level.

Vehicular Safety Analysis Results

Since sufficient local data was not available to calibrate the models contained within the HSM, the results shown compare each alternative to their respective No-Build condition (e.g. Alternatives 2 and 3 and Option 6 are compared to Alternative 1 with three-lane volumes and Alternatives 4 and 5-Refined are compared to Alternative 1 with five-lane volumes). The percentages are the proportion of predicted motor vehicle average crash frequency for the alternative compared to the predicted motor vehicle average crash frequency for the respective No-Build Alternative (e.g. Alternative 2 is predicted to have 67 percent of the average crash frequency of Alternative 1 with three-lane volumes).

On a relative basis, Alternatives 2, 3, and 5-Refined would yield the largest reduction in crash frequency as compared to their respective base predictions. With the exception of Option 6, the alternatives include medians to restrict driveways and intersections to right-in/right-out access.



Medians will reduce the number of head-on, side-swipe, angle and turning crashes; therefore, with no medians, Option 6 has the smallest decline in crash frequency as compared to other alternatives.

Alternatives 2, 3, and 5-Refined include options for roundabouts at major intersections, thereby reducing the expected average crash frequency, as compared to Alternative 4 which includes signal control at the intersections. Alternative 3 shows an additional reduction in expected crash frequency as compared to Alternative 2 because there are more medians in Alternative 3, especially in the southern portion of the corridor.

Table 3
Safety Summary for Future Traffic Conditions

	Three-Lane Volume Scenario				Five-Lane Volume Scenario			
	Alt 1	Alt 2	Alt 3	Opt 6	Alt 1	Alt 4	Alt 5-R	Opt 7
Percentage of Crashes Compared to No-Build Scenario (Alt 1)	100%	67%	65%	85%	100%	70%	63%	73%

Source: Kittelson & Associates, *Traffic Analysis Update Technical Memorandum #2*, 2009.

Given that traffic volumes are lower (approximately 3,000 to 5,000 vehicles per day) under the three-lane alternatives, Alternatives 2 and 3 are predicted to have lower absolute average crash frequencies than Alternatives 4, 5-Refined, and Option 7. However, with traffic diverted to other routes in Missoula (e.g. Reserve Street, Orange Street) it is possible that crashes will migrate to other locations on the system.

Pedestrian/Bicycle Safety Analysis Results

The safety analysis conducted for the Traffic Analysis Update focuses primarily on motor vehicle crashes because there are currently no predictive models for pedestrian and bicyclist crashes with motor vehicles at roundabouts. Generally though, the predictive models for non-auto crashes are proportional to the predicted average crash frequency of motor vehicle crashes; however, a fair comparison cannot be made between alternatives in regards to these types of crashes.

The information presented in Table 3 is one technical component of the safety information presented in Table 4. Other elements of the safety analysis included analyzing the safety performance at intersections and on the corridor using the methodology from the AASHTO Highway Safety Manual. A two-lane roadway has a higher crash frequency of single-vehicle crashes than a four-lane roadway. This is one of the factors that differentiate the safety ratings on the corridor segments (Alternative 4 has two through lanes in each direction, Option 7 has one through lane each direction for a section of the corridor) presented in Table 4.

5.0 Overall Performance Measure Results

The overall performance results are summarized by the major intersections and the corridor segments using a relative ranking system of “Good,” “Fair,” and “Poor.” If a performance

Appendix G - Traffic Analysis Update Summary

measure is rated “Good,” for a given alternative or option it can be concluded that the analysis found it to be relatively good or superior to other alternatives/options; however, it doesn’t necessarily mean that it is absolutely good or acceptable per agency standard. Likewise, if a performance measure is rated “Poor,” for a given alternative or option it can be concluded that the analysis found it to be relatively poor or inferior to other alternatives/options; however, it doesn’t necessarily mean that it is absolutely poor or unacceptable per agency standards.

As summarized in Table 4, Alternative 1 has the most “Poor” ratings and Alternative 4 has the most “Good” ratings of all the analyzed alternatives and options. In addition, Alternatives 2 and 3 and Option 6 have more “Poor” ratings than “Good” ratings; whereas, Alternative 5-Refined and Option 7 have more “Good” ratings than “Poor” ratings.

Table 4
Overall Performance Measure Results

Performance Measure		DEIS Alternatives					Options	
		Alt 1	Alt 2	Alt 3	Alt 4	Alt 5-R	Opt 6	Opt 7
Major Intersections	Safety	○	●	●	◐	●	◐	◐
	Automobile	○	○	○	●	◐	○	◐
	Pedestrian	○	◐	◐	●	○	◐	●
	Bicycle	○	○	○	●	◐	○	●
Corridor Segments	Safety	○	◐	◐	●	●	◐	◐
	Automobile	◐	○	○	●	◐	○	●
	Pedestrian	○	◐	◐	●	●	◐	◐
	Bicycle	○	◐	◐	●	◐	◐	●
	Transit	○	◐	◐	◐	◐	◐	◐

● = Good

◐ = Fair

○ = Poor

Source: Kittelson & Associates, *Traffic Analysis Update, Final Report*, August 2009.

Each of the Build Alternatives and Options are anticipated to be improvements over the No Build scenario. Generally, the Alternatives and Options with roundabouts do not rate as well as those with traffic signals for automobiles, bicycles, and pedestrians at the major intersections; however, they operate better in regards to safety. In addition, the alternatives and options with three lanes do not rate as well as those with five lanes along the corridor segments.

Automobile

The automobile performance was determined by analyzing the intersection traffic operations per the HCM and draft HCM procedures. The results summarized above in Table 4, focus solely on the major intersections and are determined by the number of major intersections that are expected to operate at LOS “C” or better. All of the minor intersections operate with two-way stop control and were not considered in this summary as they do not impose substantial delay to the Russell Street corridor and most of them have sufficient capacity on Russell Street. Most of the delay, queues, and capacity issues that arise at the two-way stop controlled intersections will be noticed on the side-streets. The automobile intersection “Good” rating corresponds to a



scenario with two major intersections operating at LOS “C” or better, the “Fair” rating corresponds to a scenario with one major intersection operating at LOS “C” or better, and the “Poor” rating corresponds to a scenario where no major intersections operate acceptably.

The segment performance measure rating is based upon the sum of the expected corridor travel time in the northbound and southbound directions. If the summed travel time is less than 11 minutes the alternative/option is considered “Good,” if the travel time is greater than 11 minutes but less than 18 minutes the alternative/option is considered “Fair,” and if the travel time is greater than 18 minutes the alternative/option is considered “Poor.”

Pedestrian, Bicycle, and Transit

The pedestrian, bicycle, and transit performance measure ratings were determined by the values calculated from the methodology identified in the NCHRP Report 3-70. The values of each alternative and option were averaged in each direction of travel, summed, and compared relatively to each other. Similar values were grouped together and threshold levels were created for each mode of travel at the intersection and segment level. If no substantive differences were found, the alternatives and options receive the same rating. For example, all the build alternatives and options are rated “Fair” for transit because the values are similar. NCHRP Report 3-70 does not calculate values for transit at the intersection level.

Final Technical Memoranda #2 and #3 provide a more thorough summary of the performance measures for each alternative and option.

6.0 Lifespan Analysis

As outlined in the performance measure result summary, some of the build alternatives and options are anticipated to operate better than others. However, none of the alternatives and options are expected to operate acceptably under year 2035 traffic conditions and meet the City and MDT’s operation goals per the projected traffic volumes. As such, a lifespan analysis was performed for each build alternative/option to identify when the facility under the given improvements begins to reach a capacity limit.

Without further improvements, Option 6 fails under immediate existing conditions, Alternatives 2 and 3 fail in 2010 (assuming the project were constructed by that time), and Alternative 4 and Option 7 have the longest lifespan by operating acceptably up to 2023.

The lifespan of each alternative and option may be extended if the traffic projections are not realized as anticipated per the local travel demand model and LRTP. For a reduction in traffic projections to occur, changes in current land use, mode split, population growth, and/or culture would need to occur. In addition, enhancements can be made to each of the build alternatives and options to increase their acceptable lifespan. For example, as designed in the DEIS, Alternatives 2 and 3 are anticipated to operate acceptably through year 2010 however, if a single-lane roundabout is not built at the South 11th Street/Knowles Street intersection it would be expected to operate through year 2019.

7.0 Tradeoffs and Recommendations

Intersection Traffic Control

One of the substantive differences between the alternatives and options is the type of intersection traffic control utilized at the major Russell Street intersections. The five Alternatives and two Options assume a mix of roundabouts, traffic signals, and two-way stop-controlled intersection traffic control devices at the major intersections.

Research has found that roundabouts generally have a lower number of collisions and less have severe collisions than traffic signals and stop-controlled intersections. In addition, when operating efficiently, roundabouts can experience less delay than traffic signals because they utilize yield control rather than stop control (red light) and they provide more capacity to the minor-street approaches than two-way stop-controlled intersections. Roundabouts do not have protected crossings for pedestrians; however, splitter islands do provide the opportunity for two-stage crossings. Bicyclists cannot travel through a roundabout in their exclusive right-of-way (defined bike-lane) but they have the opportunity to behave as a vehicle at nearly identical speeds or use the pedestrian facilities depending on their comfort level. Roundabouts require a substantial amount of right-of-way at the intersection location but sometimes are able to reduce roadway width when turn-lanes are not required. Depending on the roundabout design, it can be difficult to enhance a roundabout or provide additional capacity without needing to reconstruct the entire intersection. As noted earlier, Alternatives 2, 3, 5-Refined, and Option 6 include several locations with roundabouts and resulted in a better safety performance at these intersections. However, a major disadvantage with the roundabouts as configured is that they lacked the capacity to accommodate the year 2035 traffic volumes, which resulted in lengthy vehicle delays and queue spillback between intersections.

Traffic signals tend to experience a higher number of collisions than roundabouts and stop-controlled intersections; however, they can provide more capacity at an intersection. Depending on the intersection design, exclusive bicycle and pedestrian facilities can be provided at a signalized intersection and a protected phase can assist with their travel through the intersection. Signalized intersections can be retrofitted more easily than roundabouts to provide additional capacity but these improvements can create a large right-of-way footprint. All of the alternatives and options have at least one traffic signal at an intersection on the corridor. As noted earlier in the analysis, the travel time and intersection operations were generally better at the signalized intersections. However, some of these intersections do not meet the LOS goals for the City or MDT under year 2035 traffic conditions. An advantage of having a traffic signal system on the corridor is that the traffic signals can be coordinated to assist with managing traffic flow, vehicle queues, and vehicle emissions.

Two-way stop controlled intersections provide free flow capacity to the major street's through movements; however, the minor streets have limited capacity and may not be able to access the major street easily. Crosswalks are provided for pedestrians but it can be difficult for pedestrians and bicyclists to cross the uncontrolled main road's travel lanes. Similar to signalized intersections, additional lanes can be added to a two-way stop controlled intersection but that



increases the intersection's footprint and provides minimal additional capacity for the minor street approaches.

Roadway Cross-Section

Another substantive difference between the alternatives and options is the roadway cross-section along the Russell Street corridor. Between the alternatives and options the roadway cross-section ranges from having two travel lanes to five travel lanes.

The Missoula LRTP identifies Russell Street as a five-lane facility for the entirety of the study corridor. As a result, the travel demand model and planned system-wide traffic levels and transportation improvements assume Russell Street is a five-lane facility. As a five-lane facility, Russell Street provides additional capacity to the area's transportation system. The additional capacity is important when noting the expected congestion of the other parallel roadway facilities that cross the Clark Fork River. A narrower Russell Street facility decreases the capacity of Russell Street and may cause traffic to reroute to other facilities (e.g., Reserve Street and Orange Street) causing a system-wide impact not currently planned for in the LRTP or other transportation studies. The three-lane facility has its advantages with a narrower street, but it is projected to result in a congested environment during the year 2035 peak hour traffic conditions.

More travel lanes generally provide additional capacity which in turn can reduce vehicle queues, delay, and travel times. In addition, a roadway with only one through travel lane in each direction is generally limited to having one exclusive right-turn and/or left-turn lane; whereas, a roadway with multiple through travel lanes can accommodate multiple turn lanes to enhance intersection capacity. For example, the intersections of West Broadway Street/Russell Street, South 3rd Street/Russell Street, and South 14th Street/Mount Avenue are projected to operate over capacity in year 2035. Lane enhancements on the side streets, such as, adding a second left-turn lane or right-turn lane were identified in the analysis to improve the year 2035 traffic operations. For these improvements to occur, Russell Street would need to have two receiving lanes to accommodate a second turn lane at the intersection.

The roadway cross-section consists of more than automobile travel lanes. For instance, the alternatives and options include raised, landscaped and striped medians, bicycle lanes, sidewalks, landscaped boulevards, and bus pull-outs for transit service. The raised, landscaped (non-traversable) medians provide several safety and operational benefits to the corridor, including:

- access management by restricting certain access locations to right-in/right-out movements (i.e., some of the alternatives/options include this treatment between South 3rd Street and South 14th Street/Mount Avenue),
- a separation between vehicles traveling in opposite directions can reduce the potential for head-on collisions,
- positive guidance to motorists on the roadway,
- left-turn vehicular conflict reduction with pedestrians and bicyclists, and
- aesthetic enhancements to the roadway

(Transportation Research Board, *Access Management Manual*, 2003).

Appendix G - Traffic Analysis Update Summary

As noted in the TRB Access Management Manual, non-traversable (raised) medians should be considered when traffic volumes exceed 24,000 to 28,000 vehicles per day. The year 2035 traffic projections exceed this traffic volume threshold for the corridor.

Pedestrian treatments, such as sidewalks, marked crossings at the signalized and roundabout intersections, and landscaped boulevard between the curb and sidewalk are generally included with the alternatives and options. All of these treatments will provide major enhancements to the corridor for the pedestrian experience.

Bicycle lanes at approximately 5.5 feet are identified for all of the build alternatives and options.

The bike lanes are proposed to be delineated with a solid white painted stripe and bike symbols to clearly identify the lane as a bike lane.

Bus pull-outs are identified for all of the build alternatives and options and would be coordinated with Mountain Line for location of the stops. Bus pull-outs provide several safety and operational benefits that include:

- Patrons are able to board and alight out of the travel lane,
- A protected area away from the moving vehicles for both the stopped bus and the bus patrons, and
- An opportunity for bus operators to exit the travel lane, stop and pick-up any riders with minimal delay to the traffic flow, and with their use of turn signal/automated signs to easily enter into the traffic flow when vehicles yield to the buses per the City's new ordinance.

8.0 Recommended Design Enhancements

The following list provides a summary of intersection and roadway enhancements to improve the multimodal operations and safety of the corridor that could be considered as part of the Preferred Alternative in the FEIS. The traffic modeling did not incorporate enhancements into the alternative for analysis and comparison. The enhancements were developed after the City, MDT, and FHWA had selected the Preferred Alternative. Applying enhancements to the alternatives for comparison would not change their relative performance or operation when compared to each other. This list is not in a priority or chronological order.

- The pedestrian LOS and safety could be enhanced at the signalized intersections with the following treatments.
 - Stamped Concrete in Crosswalk: Provides drivers a visual cue to be aware of pedestrians.
 - Leading or Lagging Pedestrian Interval: Start the pedestrian phase a few seconds before the vehicle phase or end the pedestrian phase a few seconds after the vehicle phase to provide additional buffer between the vehicle and pedestrian phases.



- Pedestrian Countdown Signals: Provides additional guidance to pedestrians on the amount of time that is available to cross the intersection before a vehicle phase begins.
 - Pedestrian Island Refuge: Provides pedestrians with a refuge while crossing a larger sized intersection.
- The bicycle LOS and safety may be enhanced at the signalized intersections and along the corridor with the following treatments.
 - Bike Box: A 14-foot space reserved in front of the vehicle stop bar used for locations with shared through/right-turn lanes to improve awareness for motorists and bicyclists.
 - Inductive Loop Bicycle Detection: When a bicyclist pulls onto the bicycle lane marking at the intersection, an inductive loop detects the presence of a bicycle and assists with reducing delay to bicyclists.
 - Colored/Outlined Bike Lanes: Coloring/outlining of bike lane enhances vehicular and bicycle awareness on the street.
- The transit LOS could be enhanced along the corridor with the following treatments which would be provided by Mountain Line.
 - Increase the service frequency of buses (i.e., move from 30-minute headways to 15-minute headways) on the existing routes for the northern section of the corridor.
 - Provide transit service to the southern section of the corridor.
- The automobile LOS and safety could be enhanced at the signalized intersections and along the corridor with the following treatments.
 - Develop coordinated signal timing plans for the signalized intersections based on the posted speed for the corridor.
 - West Broadway Street at Russell Street – Extend the storage length for the northbound and westbound left-turn lanes to approximately 500 feet and add a 2nd eastbound right-turn lane. The addition of a second eastbound right-turn lane provides an additional three years of acceptable operations and a five percent (+230 p.m. peak hour vehicles) increase in total entering volume served at this intersection.
 - South 3rd Street at Russell Street – Extend the storage length for the eastbound and southbound left-turn lanes to approximately 500 feet and 150 feet, respectively. Either, extend the storage length for the northbound left-turn lane to South 5th Street or add a second northbound left-turn lane. The addition of a northbound left-turn lane provides an additional eight years of acceptable operations and a twenty percent (+840 p.m. peak hour vehicles) increase in total entering volume served at this intersection.
 - South 11th Street/Knowles Street at Russell Street – Monitor the traffic volumes at this intersection for potential future signalization as it serves as the only east-west crossing of the railroad for the neighborhood between South 6th Street and South 14th Street/Mount Avenue. (Note: *The signal should be evaluated in conjunction*

Appendix G - Traffic Analysis Update Summary

with the existing railroad crossings on Russell Street and on South 11th Street/Knowles Street due to their close proximity.)

- South 14th Street/Mount Avenue at Russell Street – Extend the storage length for the southbound left-turn lane up to Lawrence Street or add a second southbound left-turn lane. Add a northbound right-turn lane. Extend the storage lengths or add a second left-turn lane for the westbound and eastbound left-turn lanes. The addition of a southbound left-turn and northbound right-turn lanes provide an additional five years of acceptable operations and an 11 percent (+440 p.m. peak hour vehicles) increase in total entering volume served at this intersection.

Appendix H - Written Comments and Responses

This appendix provides responses to written comments submitted during the official public comment period held between August 25, 2008 and November 4, 2008, as well as those received at the Public Hearing held on September 24, 2008. Only those comments received during the official comment period are included in this Appendix. Comments received on this project outside the comment period have been retained by the project team and may be considered as the project proceeds.

Comments are reproduced on the left side of the page, and corresponding responses are provided on the right side of the page. Where possible, individual themes within a comment are called out with a label in the left margin (i.e.: 21-A, 21-B, 21-C) so that corresponding responses can be more easily tracked on the right. The following tables log the comments in the order received, and their location in this appendix.

Comment	Name	Page
1	Kate Caciari	7
2	George Erickson	8
3	Jamie	9
4	Cory Gray	10
5	Ken Thompson	11
6	Kyle Lingscheit	13
7	S. Earle, Mountain Line	14
8	J. Chambers, Opportunity Resources	16
9	Don Williams	17
10	Judie Rasmussen	18
11	Kim Latreille	19
12	Sharon Palmer	20
13	Nick Kaufman	21
14	James E Kuffer	22
15	JoAnn Hoven	23
16	Joseph Gorsh	24
17	Rob Tabish	25
18	Robert Quade	26
19	Marta Meengs	27
20	Art Gidel	28
21	William and Carol Babington	29
22	M. Hegedus, Mountainview Estates	30
23	Lynn Ascher	31
24	Ruth Link, Missoula Org. of Realtors	32
25	Michael Priske	33
26	Kathleen Sedoff	34
27	Max Granger	35
28	Anne Greene	36
29	Heather Stone	38
30	Kip Rand	39
31	Erica Dossa	40
32	Peggy Miller	41
33	Rich Landini	42
34	ANON	43
35	Darin Austin	44
36	Steve Knight	45
37	Bettijane Larson	46
38	Sheri and Ken Thick	49
39	Shelley Lingscheit	50
40	Myrt Charney	51
41	Tami St Onge	53
42	Carol Babington	55
43	Kathy Gaskill	56
44	Chad Bauer, Missoula Area Chamber	57
45	Susan Rodli	58

Comment	Name	Page
46	Alex Zimmerman	59
47	Dave Glaser	60
48	Ruth Havican	61
49	Terry L. Forest, DJ&A, P.C.	62
50	Kevin Verlanic	63
51	Tom Severson	64
52	David Durocher	64
53	Al Price	65
54	W. Taylor, US Dept. of Interior	67
55	Jennifer Wells	68
56	Nicole Sullivan	69
57	Holly McKinney	70
58	Ron Ver Way	71
59	Rod Austin	71
60	Cate Campbell	72
61	Stephen Smith	73
62	Adam Johnson	74
63	John Wolverton	75
64	Lois A. Cassan, Nelson Personnel	77
65	Caroline Smith	78
66	Andrew Stickney	80
67	Emily Schernbra	81
68	Scott Michell	82
69	Larry Roberts	83
70	Melanie Moeller	84
71	Al Chaffey	85
72	Michael Blazeovich	86
73	Ethel MacDonald	88
74	Lisa Klempay	90
75	Tom Platt	91
76	Kevin Dohr	93
77	William T. Riggert	94
78	Wayne Gravatt	97
79	Kirt Foster	98
80	Mona Munson	99
81	Steve Corrick	100
82	Tom Gress	101
83	Anita Brown	102
84	Kim Buchanan	103
85	Richard Meisinger	104
86	Albert Haith	105
87	Kevin Rocek	106
88	Jeffrey Ellis	107
89	Dennis Doherty	108
90	Judith Wahlberg	109

Appendix H - Written Comments and Responses

Comment	Name	Page
91	Carol Babington	110
92	Lance Roeske	111
93	Christy Nielsen	112
94	Gertrude Stevens	113
95	Celia Grohmann	114
96	Twyla Johnson	115
97	Warren Wright	116
98	Barbara Gorsh	117
99	Dan Worrell	117
100	Sandy Gjeffe	118
101	Joan Hoedel	119
102	K.C. Hart	120
103	Ruth Link	121
104	Patrick Dauenhauer	122
105	Mae Hassman	123
106	Jerry Ford	125
107	Scott Hollenbeck	126
108	John Pearson	127
109	Sara Anderson	128
110	Sen. David Wanzenried	129
111	Chris Kirschten	130
112	Muriel Friedman	131
113	Geoff Gilbert	132
114	Kathy Noble	133
115	Eric Andersen	134
116	Violet Olsen	136
117	John Wardell, US EPA	137
118	Layne Rolston, Good Food Store	147
119	Linda Pearson	148
120	N. Wilson, ASUM Transportation	149
121	Warren Worth, Western MT Eng.	157
122	Bob Boyce, Boyce Lumber	158
123	Jack Boyce, Oasis Hot Springs Spas	159
124	Stephen Schombel	160
125	Rep. Betsy Hands	161
126	Larry Bergum	163
127	G. Bakke, Missoula Chamber Board	163
128	Adam Switalski	164
129	Celia Winkler	165
130	DeAndria Gutzmer	166
131	Susan Swierc	166
132	David Hickman	167
133	Jack Chambers	168
134	Jan Klepper	169
135	Tim Furey	170
136	Phoebe Hunter	171
137	Gordon Lemon	173
138	Julie Kightlinger	175
139	Dave Durnford	177
140	Kathi Wood	181
141	ASUM	182
142	Jim Salisbury	185
143	Timothy Bechtold, Sussex School	187
144	Carla Aldegarie	190
145	Jean Clark	191
146	Annette Walker	192
147	Jon Bonnicksen	193
148	Erik Harris	194
149	Darl Enger	200
150	Richard Huffman	200
151	John Gordon, Gordon Spoon, P.C.	201

Comment	Name	Page
152	Shane Clouse, Pink Grizzly	202
153	Shelley Bundy	206
154	John Coffee	207
155	Linda Dobak	208
156	Perry Deschamps	209
157	Carol Kraft	210
158	Devin Khoury	211
159	David Guschausky	212
160	John Geesen	213
161	James Wheeler	214
162	Sylvia Funk	215
163	William T. Babington	216
164	Daniel Worrell	217
165	Tim Hall, Garden City Harvest	218
166	Shane Clouse, Pink Grizzly	220
167	Gary Clark	221
168	Doug Lawrence	221
169	William Kohl	222
170	Ronald Bender, Worden Thane, P.C.	222
171	Stephanie Millar, Mountain Line	223
172	Jim Weatherly	225
173	JoAnna Nuckols	226
174	Jay Getz	227
175	John Suprock	228
176	Doug Frandsen	229
177	Hans Christiansen	230
178	Daniel Sackett	230
179	Thomas Hilley	231
180	Kris Holenbeck-Hawkins	232
181	Cindy Bartling	233
182	Diane Day	234
183	J Burbank	235
184	Mary Johnson	236
185	Norman Carey	237
186	Hugh Martinsen	238
187	Mary Ellen Cote	239
188	Patricia Hogan	240
189	Linda McCarthy, Downtown Assoc.	242
190	Kevin Hyde	243
191	Shirley Simonson	244
192	Jerry Ford, Lambros Real Estate	244
193	Derf Johnson	245
194	Vicki Watson	246
195	BWAM, MIST, MAST	247
196	Alderman, Jason Wiener	267
197	Curtis Thompson, DJ&A, P.C.	273
198	Donna Maddux	274
199	Jed Little /Tracy Herndon	275
200	Alderman, Bob Jaffe	277
201	Councilwoman, Stacy Rye	278
202	J. Rimel, Mountain Press Publishing	279
203	Linda Smith	281
204	Julie Aldegarie	283
205	Mike Turner	284
206	John Salmonson	285
207	J. Corday, Missoula Parks & Rec.	287
208	Marilyn Mueller	295
209	John Dunkum	297
210	Elizabeth Thompson	298
211	Mary Price	299

Key Issues Identified from Comments Received

The following provides a summary response to comments and questions posed by a number of individuals. This is not intended to be all-inclusive, but representative of major themes of comments received.

How was the Citizen Advisory Committee input used?

The Citizens Advisory Committee was an important part of the early stages of the process. The Committee helped identify issues and concerns, as well as goals and objectives for the proposed project which all led to the inclusion of several key elements of the proposed project. Such committees, as part of an environmental process, are not intended to be formal decision-making bodies. They are intended to provide non-technical input, and the Committee completed this mission for the Russell Street/South 3rd Street project. The time commitment, earnest interest in the project, and the opinions of the Committee members are greatly appreciated by the City, Montana Department of Transportation, and the Federal Highway Administration. As noted in Chapter 7 of the EIS, over the course of this project there were 12 Citizen Advisory Committee meetings, eight public meetings, a door-to-door canvass of residents and business owners, a presentation to the University of Montana Student Senate, media outreach efforts, an internet site, and newsletters/e-newsletters sent to interested parties. The input received from these various activities, coupled with the comments received on the DEIS, and the objective analysis conducted, all combine to guide the ultimate decision for the project.

Are the traffic projections reasonable, particularly given rising fuel costs?

The traffic projections were developed through the Long Range Transportation Plan Update process. In years past, there have been attempts to provide ranges of growth based on different growth patterns and densities. The level of land use control has not been achieved that would promote substantive changes in travel patterns or volumes in Missoula, and many 20-year projections have been exceeded in just four or five years. Additional modeling has been conducted to validate the projections currently in use, and the Traffic Analysis Update confirms that these are sound assumptions even given the fluctuation in fuel prices. Moreover, it is extremely early to suggest that rising fuels costs are going to have a long-term effect on travel behavior. History suggests that travelers adjust to higher fuel prices in short order; however, this project will have flexibility in the final design to make any necessary adjustments in capacity relative to changes in traffic patterns or volumes that may occur over the remainder of the project development process. A new travel demand model was developed as part of the Traffic Analysis Update conducted in the spring/summer of 2009. The model forecasts included a sensitivity analysis and mode-shift calculation. Please refer to Appendix G for a summary of the Traffic Analysis Update.

Why not choose a lesser alternative to avoid impacts and reduce costs?

Impacts to surrounding homes and businesses are a major concern to the project sponsors, and have been proposed only after lengthy analysis and consideration of alternatives. Due to the constraints within the Russell Street and South 3rd Street corridors, there are no transportation improvements proposed in the EIS, nor raised during the project development process that provide safe and efficient transportation services and do not impose some impact on adjacent residents and businesses. The attempt throughout the project development process has been to

Appendix H - Written Comments and Responses

identify the most substantial improvement in safety and efficiency for all modes of travel, while minimizing impacts to the surrounding environment. The Preferred Alternative meets that essential goal. Alternatives that provide fewer transportation efficiencies do not necessarily impose substantially fewer impacts. In fact, the Preferred Alternative required the least residential and commercial acquisitions of the Build Alternatives proposed. Alternatives 2, 3, and 5-Refined impact 22 homes and businesses, Alternative 5 impacts 31, and the Preferred Alternative impacts 21. (Please refer to Table 4.1 in the EIS.)

Improvements in this corridor – even just those to put in sidewalks, curb-and-gutter, and bike lanes – has an impact on adjacent properties. The impacts proposed in the EIS, which do include the removal of homes and businesses, are from a balanced mix of improvements for all modes of travel. The mix includes 22 feet of new pavement for vehicular use, between 14 and 26 feet of landscaping (depending on whether the median includes a turn lane), and over 20 feet of paved surface for bicycle and pedestrian use. These dimensions can be shifted slightly in either direction to better reflect community preferences and code compliance, but the balance of proposed improvements is fairly established.

Each of the Build Alternatives also cost between \$40 million and \$55 million, with the Preferred Alternative falling closer to the bottom end of that range.

How does the Preferred Alternative improve travel for bicyclists and pedestrians?

There are currently four opportunities for bikes and pedestrians to cross Russell Street within the project corridor at one of the current signalized intersections. The Preferred Alternative would provide five additional crossing opportunities, one at a new signalized intersection at Wyoming Street, and four grade-separated crossings at the Bitterroot Branch Trail, Milwaukee Trail, and two at the Riverfront Trail system at the Clark Fork River. Additional crossing opportunities would be provided with pedestrian refuges in the raised medians throughout the corridor.

Did you analyze the “Three-Plus” Alternative in the EIS?

An option similar to the “3-Plus” configuration has been analyzed as part of the Traffic Analysis Update conducted in the spring/summer of 2009. Based on the updated traffic analysis, the “3-Plus” option would provide “poor” conditions for both vehicular and bicycle travel. Due to this failure to meet the basic Purpose and Need, options such as the “3-Plus” are not included in the FEIS. Both current and projected traffic volumes overwhelm the existing roadway, and according to the Traffic Analysis Update summarized in Appendix G, options similar to the “3-Plus” are overwhelmed by the year 2010. This failure to provide improved travel conditions for automobile traffic, by definition, fails to satisfy the stated Purpose and Need to “provide substantive safety and mobility improvements for *all modes* of travel in the Russell Street and South 3rd Street corridors.” [emphasis added] Please refer to Table 2.5 in the EIS for more detailed information.

Many in the community do not like Reserve Street. Will this be similar?

Public sentiment with regard to the aesthetic and operational feel of Reserve Street has been noted in the EIS in Section 7.4, and alternatives were developed on Russell Street to mirror a facility more like Stephens Avenue, with two travel lanes in each direction, a center turn lane/raised, landscaped median, bike lanes, landscaped boulevards, and curb/gutter/sidewalk.



The difference in physical width between Reserve Street and the Preferred Alternative should also be understood. A typical section with the same elements as the Preferred Alternative measures 105 feet on Reserve Street compared to 94 feet on Russell Street. The reduced width on Russell Street is due to the minimization of the travel lane, center lane, and boulevard widths included in the Preferred Alternative.

Are roundabouts a good design application in the Russell Street and South 3rd Street corridors?

Roundabouts are an acceptable traffic design tool under the right circumstances. Single-lane roundabouts were eliminated for the Russell Street and South 3rd Street corridors based on their inability to accommodate current and future traffic volumes, and multi-lane roundabouts were eliminated on Russell Street due to their right-of-way impacts on protected historic properties as compared to that of a signalized intersection design. (See also Chapter 5 of the EIS for a discussion of Section 4(f) protection.)

Can the design be modified after the EIS is completed and the project moves into final design and construction?

The project is anticipated to be constructed in phases, likely beginning with the northerly segment from Broadway south (including the bridge). As the project design proceeds, modifications could be made to other segments if substantial changes occur in traffic or adjacent land uses. These changes would be evaluated to determine if modifications in the recommended number of travel lanes may be required, or if changes to intersection designs would improve operations. Please refer to Section 2.7 of the EIS for a more detailed phasing discussion.

Appendix H - Written Comments and Responses

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Final Environmental Impact Statement



Comment 1

From: Kate Caciari <centerice@bresnan.net>

Date: August 24, 2008 2:27:25 PM MDT

To: mdtcommentsrusselleis@mt.gov

Subject: Comment On Russell Street EIS

1-A PLEASE use common sense in the development of major road systems in Missoula. THINK 10-20 years in the future. Will this planning meet the demands of an ever-increasing population? Reserve Street was obsolete at its completion. If there had been foresight, there would have been six lanes, bike lanes, an access road for mall traffic, and a cloverleaf to enable truck routes and Interstate 90 destinations, There was the room for it; but not the foresight.

1-B Eight years to make a decision shows that too many special interest groups are being involved; we basically have no decision maker. Just check out the difference in cost analyses from 2000 to 2008. By the time road systems are to be placed in action, businesses have lined up vacant lots, condos built, etc. hindering effective roadways.

It will just be a matter of time before the city will be sued because emergency vehicles can't get to crisis situations due to streets with no access (Stephens Ave) or cul de sacs. Yet the streets are 'pretty'. Let's stop all the 'fluff' and build roads to move traffic. (Check out Great Falls with their expressway; Frenchtown with its access roads and bike trails)..

1-C

Thanks... kate

1-A Recent modeling prepared for this proposed project indicates that the Preferred Alternative would provide sufficient capacity on Russell Street and South 3rd Street through the year 2023. Russell Street is very confined (particularly compared to Reserve Street) due to surrounding residential and commercial development. The Preferred Alternative best meets the Purpose and Need while attempting to minimize impacts.

1-B The extensive public and agency coordination required under the NEPA/MEPA process often takes what seems to be an inordinate amount of time. The intent is to ensure that the decision-makers have sufficient information to make well informed decisions and are fully aware of the potential impacts of their projects. In addition to the extensive public information disseminated on this project, the City of Missoula has been in regular contact with planning staff and development interests to ensure compatibility between developments and the Preferred Alternative.

1-C The proposed improvements are intended to move people – whether they choose to travel by single-occupant-vehicle, carpool, transit, bicycle, or on foot.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 2

From: George Erickson [mailto:gerickson@flymissoula.com]

Sent: Monday, August 25, 2008 8:05 AM

To: mdtcommentsrusselleis@mt.gov

Subject: Comment On Russell Street EIS

I like this.

I ride this on my bike to and from work 7 months of the year and occasionally fear for my life due to a combination of traffic congestion and poor road conditions.

This project needs to move forward. 'Something' is better than what's in place now and you'll never, ever please everyone!!!

George Erickson
640 Dearborn
Missoula

The build alternatives presented in the EIS were developed with a focus on multimodal transportation improvements. The facilities provided as part of the Preferred Alternative are intended for safe and easy use by all citizens whether they are walking, biking, driving alone, carpooling, or using transit.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 3

3-A Overall I really like Russell street Alternative #4, although I'm not excited about another light at Wyoming St, I understand it's need. I do understand the encouragement and safety needs of ped/cyclists, but it is important to remember to move traffic. I think that plan #4 does both for peds/cyclists and motorists. With our community growing and traffic increasing we need to take big steps now (i.e., 4 lanes) rather than wasting funds now to only rebuild bigger later.

3-B I understand the logic of the roundabouts, however, people in this town DO NOT know how to navigate or yield in or around them. This really needs to be taken into consideration when considering a roundabout.

A concerned citizen who wanted to weigh in,

Jamie

3-A See response to Comment 2 regarding the balanced accommodation and safety improvements of all modes.

3-B While roundabouts have been eliminated from consideration on Russell Street and South 3rd Street, roundabouts are a viable and effective traffic management tool under the right conditions and generally safer than signalized intersections because they eliminate a number of conflict points. The City of Missoula remains convinced that roundabouts will be a positive addition to the transportation solutions in this community, and will continue to explore opportunities to implement this design where appropriate. Within the next two to three years, there will be roundabout intersections in operation in Billings, Helena, Kalispell, and Missoula.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 4

4-A I know that 99.9% of the public comments coming in on this plan will be negative - because of course people only comment when they disagree. So I hope that MDT will keep that in mind, and realize that I do speak for the majority in Missoula:

MDT's plan for Russell Street in Missoula is ABSOLUTELY FANTASTIC!!!!!!!!!!!!!!!!!!!!!!

4-B I am extremely impressed by the planning, insight, time, energy, talent, intelligence and hard work that went in to this plan. It's a plan that will work awesomely for everyone, now and for the future traffic flow of Missoula.

4-C I hope that MDT is not swayed by the minority of irrational winers (who of course scream the loudest), and who have no professional transportation experience or education.

Thank you!
Cori Gray, Missoula Montana

4-A The number of comments in favor and against the project have been relatively balanced to date. It is frequently the case, that public officials and staff only hear from their constituents when they are upset with an action. Public decision-makers must balance the need to address public safety concerns and infrastructure needs with the impacts of the proposed project.

4-B As you note, the Preferred Alternative is intended to provide a balanced solution for a variety of modes, both now and into the foreseeable future.

4-C While many who may have commented on the DEIS have no professional transportation education or experience, their impressions of the project are important and will be considered as the project moves forward. Objective input from lay persons often leads to better solutions.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 5

5-A I participated in the group that met about this project for almost a year and a half. Many of us put in long hours, willingly, and the “preferred alternative” in this EIS is not at all what the majority of the participants supported. In fact, I feel, as do others, that we were “disbanded” because we didn’t go the way that the engineers and officials involved wanted the project to go. So that really goes a long way to having citizens that care, are involved and enthusiastic to participate in helping make our city better, want to continue to do so. This entire project has been very, very, very poorly herded through the process thus far.

5-B We do not want reserve street copied over and moved into our neighborhood. It has all the amenities that the “Preferred Alternative” has and it is ugly, unwelcoming, intimidating to pedestrians and bicylists and not green at all. The “preferred alternative” will have vast swaths of pavement that are hot, contribute to acres of water run-off instead of being absorbed into our dry environment, and is absolutely crazy to build in these times when alternative transportation is being used and sought after, due to rising fuel costs. That one fact, rising fuel costs, is not discussed nor factored into this “preferred alternative” anywhere that I can find. Yet again, building for motorized vehicles is the priority, when use is dropping and the unique characteristics of the locale are not even brought into discussions for considerations.

5-A The Citizens Advisory Committee was an important part of the early stages of the process. The Committee helped identify issues and concerns, as well as goals and objectives for the proposed project which all led to the inclusion of several key elements of the proposed project. Such committees, as part of an environmental process, are not intended to be formal decision-making bodies. They are intended to provide non-technical input, and the Committee completed this mission for the Russell Street/South 3rd Street project. As you are aware, the project stalled after 2002 when contract negotiations broke down with the initial consultant. The next several years were spent analyzing various roundabout design options in attempt to avoid impacts to protected resources. The new consultant, hired in 2006, was tasked with completing the DEIS. At that stage, the alternatives were well defined, and there were no substantive changes from what had been presented to the Citizens Advisory Committee in 2002. The time commitment, earnest interest in the project, and the opinions of the Committee members are greatly appreciated by the City, Montana Department of Transportation, and the Federal Highway Administration. As noted in Chapter 7 of the EIS, over the course of this project there were 12 Citizen Advisory Committee meetings, eight public meetings, a door-to-door canvass of residents and business owners, a presentation to the University of Montana Student Senate, media outreach efforts, an internet site, and newsletters/e-newsletters sent to interested parties. The input received from these various activities, coupled with the comments received on the DEIS, and the objective analysis conducted, all combine to guide the ultimate decision for the project.

5-B It is extremely early to suggest that rising fuels costs are going to have a long-term effect on travel behavior. History suggests that travelers adjust to higher fuel prices in short order; however, this project will have flexibility in the final design to make any necessary adjustments in capacity relative to changes in traffic patterns or volumes that may occur over the remainder of the project development process. (See also response to Comment 185-B regarding potential project phasing).

Appendix H - Written Comments and Responses

5-C Reserve street is huge. It is basically brand new. It does not move traffic at all. Go there at the rush hours and you will sit and sit and creep. So the “preferred alternative” will be like that, and just because it is big and wide that doesn’t mean that it will move traffic.

5-D Where are the forward thinking, “outside-the-box” minds at work on this? This EIS indicates they don’t exist, nor are they encouraged to participate in this process. If this “preferred alternative” is built, is there a plan to put a trolley-car line down the middle in the future? We will look very different in 25 years and where is the planning or building for that change?

5-E I am vastly disappointed with the narrow-vision and superior attitudes that are and were exhibited with the EIS. We mere city taxpayers don’t count in the least. Our time was un and under appreciated, our voices were minimized and finally done away with altogether, and our future-looking vision is not even worth a footnote nor asterisk. This project of millions of dollars is a dinosaur already; and there is not an indication nor desire exhibited to make it green or sustainable. That word, sustainable, isn’t in the document anywhere.

How can we afford this terrible and short-sighted design??

Truly,

Ken Thompson

5-C As one of the main north-south arterials in Missoula, and one of five crossings of the Clark Fork River, Russell Street is currently and anticipated to continue to be a major travel route. As the community continues to grow and parcels immediately adjacent to Russell Street develop or redevelop, travel demand will naturally increase. The project proponents agree that transit and non-motorized travel play an important role in Missoula, but to eliminate the need for any capacity improvements, all new trips would need to occur by some mode other than a single-occupant-vehicle.

5-D Without any capacity expansion, there is no opportunity for improvement in safety or mobility improvements for any mode of travel. Buses, and carpools would sit in the same congestion as the single-occupant vehicle, and bicyclists and pedestrians would continue to be discouraged from traveling in the Russell Street corridor due to the continuous queues of vehicular traffic. With capacity expansion today, vehicular growth can be accommodated in the near term. If there are substantial changes in travel behaviors, then lanes could be dedicated to High Occupancy Vehicle lanes, or transit lanes, or as you suggest, to a trolley car line, if the demand for those modes becomes more prevalent in the future.

5-E The public decision-makers are tasked with the responsibility to provide safe and reliable transportation facilities, and to spend taxpayer dollars responsibly. Please refer to Table 2.6 and the discussion on maintaining community character in Chapter 2 of the EIS which outlines the use of Context Sensitive Solutions and Complete Streets, which are built on the concept of sustainability.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 6

- 6-A** The Russell street project needs to be a 4 lane project in order to move the traffic through this town. Don't make the same mistake that you have done on West Broadway. I, as do many others, now avoid West Broadway and travel east-west through the neighborhood streets that run parallel to West Broadway. You've created a huge traffic problem with the back-ups and increased traffic in the residential areas. If Russell street is not adequately improve, the same thing will happen. If it is done correctly, it could ease traffic on Reserve. Russell street should be a 4 lane road and should be pushed all the way to the freeway with a new on off ramp in order to improve traffic flow in Missoula.
- 6-B**

Kyle Lingscheit

- 6-A** Modeling conducted for the proposed project suggests what you indicate in your comment. Most travelers will seek out the path of least resistance to get from their origin to their destination. With no improvements in the Russell Street corridor, a certain number will choose a different mode, others will adjust their travel behavior by leaving earlier or later than normal to travel outside the peak hours, and others will seek other routes – particularly on less traveled neighborhood streets. The intent of this project is to enable Russell Street and South 3rd Street to operate as the main arterials they are designated to be. Without additional capacity on these routes, it is anticipated that congestion would increase on other major routes on the grid, and could increase the level of cut-through traffic in neighborhoods.

- 6-B** As noted in Section 2.6 of the EIS, the concept of extending Russell Street to I-90 was not examined as part of this proposed project because it is not included in the Long Range Transportation Plan.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 7

To the project team,

7-A I am writing to request that key members of the project team attend the September 25, 2008 MUTD Board meeting to present the draft EIS for the Russell / 3rd project and allow board members to ask questions regarding transit's role in this project. The board is very interested in providing written comment on changes in policy direction that may be necessary as a result of this DEIS and the ensuing project. The project will have a large impact on the entire Missoula Urban Transportation District and the service we provide. At the board meeting yesterday some of the discussion regarding the DEIS centered around:

- 7-B** 1. How is transit's role in the Missoula infrastructure, and specifically in this project, considered in the alternative(s) analysis?
- 7-C** 2. What minimum transit design standards were referenced as a guideline to assess and address the economic, social and environmental impact of this project as it was modeled and is planned for implementation?
- 7-D** 3. What specific infrastructure and passenger amenity improvements are planned for throughout the area to accompany increased demand for public transit that will occur as a result of increased housing density, increased commercial space, and increased VMT?
- 7-E** 4. If the project results in a demand for increased public transit service, what funds have been identified to initiate and operate that service?
- 7-F** 5. Will the street crossings in the selected alternative be sufficient to allow for safe comfortable "neighborhood style" access to bus stops as opposed to walking long distances to dash cross the street (or seek a point of refuge) on the way to catch a bus?

7-A Representatives from the City of Missoula attended the September 25, 2008 meeting, as requested.

7-B Transit is viewed as an important element in meeting future transportation needs in Missoula. All of the build alternatives would accommodate future transit stops as necessary, but are not specifically called out in the DEIS so as not to predetermine decisions to be made by the transit authority.

7-C No specific transit design is precluded by the Preferred Alternatives. Mountain Line will be consulted during final design with regard to transit facility needs and design standards.

7-D Specific transit infrastructure improvements were not discussed in the DEIS as they are outside the scope of the proposed project. These decisions are more appropriately left to the transit authority. Nothing in the DEIS precludes any transit investments or improvements in the study area.

7-E Transit participation is unlikely to be affected by the proposed project, and no funding has been identified. Transit use is more likely to be directly affected by changes in land use, gas prices, parking prices, and other local policies than the proposed capacity improvements in the Russell Street and South 3rd Street corridors.

7-F Pedestrian crossings of Russell and South 3rd Streets will be designed in accordance with national standards for safe pedestrian facilities. MDT and the City of Missoula adhere to the Manual on Uniform Traffic Control Devices (MUTCD) and the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Pedestrian Facilities to provide for pedestrian access and safe street crossing. Sidewalks and street crossings (including over and undercrossings), pedestrian signals, signs, street furniture, transit stops, and all connecting pathways will be designed and constructed so that all pedestrians, including people with disabilities can travel safely and independently.



Final Environmental Impact Statement

7-G

6. Some of the information in the DEIS needs to be updated – such as the transit map in the project area and the Advisory Committee information.

7-H

We are hoping that an opportunity for the board to discuss these items and others that come up as the DES is reviewed can be arranged for at our upcoming meeting. If not could we schedule another time and place prior to the end of the comment period? Thank you very much for your consideration,

Stephen G. Earle / Mountain Line General Manager

1221 Shakespeare, Missoula, MT 59802

searle@mountainline.com / 406-543-8386, ext 104

7-G

The transit map was pulled from the Mountain Line webpage. It appears this map has been updated by Mountain Line since preparation of the DEIS and has been updated in the FEIS. It is not clear from the comment what information needs to be updated with regard to the Advisory Committee.

7-H

No further requests have been made to discuss these items in further detail, but the project team remains open for further discussions on transit in these corridors.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 8



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

As a business on the south end of Russell, we have been waiting for this improvement for years. We would hope that you do not change the ~~the~~ four lane solution, we need to move traffic and our bridges are our bottlenecks that restrict traffic flow. Please help open it up!

The Preferred Alternative remains as a four travel lane facility, and the bridge crossing of the Clark Fork would also carry four lanes of travel. As the project progresses, each segment forwarded for final design can be reviewed to ensure that the current proposal still meets community needs at the time of construction, and for a reasonable period beyond.

Thank you for your comment and interest in the project.

To receive further project information, please provide your name and address:

Name: Jack Chambers
Opportunity Resources
Address: 2821 S. Russell St.
Missoula, MT 59801

Please leave your comments with Project Team staff at the meeting, or mail to:

Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009





Final Environmental Impact Statement

Comment 9



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

I support the "Preferred Alternative" for the
Russell St. Project.

The goal of a Transportation Plan is to move
traffic efficiently and safely.

To receive further project information, please provide your name and address:

Name: Don Williams

Address: 701 Vintage Rd
Missoula MT 59603

Please leave your
comments with Project
Team staff at the meeting,
or mail to:

Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009



As noted, the proposed project is intended to move all modes of travel in a safer and more efficient manner.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 10



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

I am in support of the preferred alternative
for the Russell Street project. Please proceed.

Thank you for your comment and interest in the project.

To receive further project information, please provide your name and address:

Name: Judie Rasmussen

Address: 1874 Dairy View Ct
Missoula MT 59814

Please leave your
comments with Project
Team staff at the meeting,
or mail to:

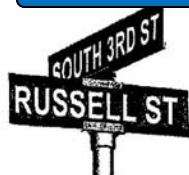
Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009





Final Environmental Impact Statement

Comment 11



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

*I am in support of the preferred
alternatives for the Russell St project*

Thank you for your comment and interest in the project.

To receive further project information, please provide your name and address:

Name:

Kim Feltner

Address:

*1408 Chandler W.
Missoula, MT 59802*

Please leave your
comments with Project
Team staff at the meeting,
or mail to:

Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009



Appendix H - Written Comments and Responses

Comment 12



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

After hearing a lengthy discussion regarding the Russell St. Expansion I feel very confident that there will be an amicable coming together of the neighborhoods and state design to enlarge Russell to carry the desperately needed transportation that will only continue to grow in our community. I am emphatically for the enlargement of this major street.

Thank you for your comment and interest in the project.

To receive further project information, please provide your name and address:

Name:

Sharon Palmer

Address:

3640 Snowdrift Lane
Missoula, MT. 59808

Please leave your comments with Project Team staff at the meeting, or mail to:

Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009

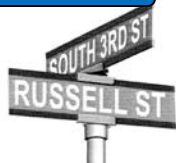


11



Final Environmental Impact Statement

Comment 13



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

I prefer a four-lane with a center turn lane
• we need to get to downtown to support business
• we need to keep cut-through traffic out of the neighborhoods
• we need a street section similar to orange street by Food Farm.

Thank you for your comment and interest in the project.

To receive further project information, please provide your name and address:

Name: Nick Kaufman

Address: 3021 Palmer / 4040 Snaught
Missoula MT

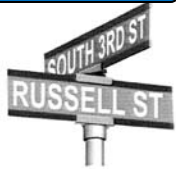
Please leave your comments with Project Team staff at the meeting, or mail to:

Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009



Appendix H - Written Comments and Responses

Comment 14



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing September 24, 2008

We Invite Your Comments:

4- LANE minimum

Thank you for your comment and interest in the project.

To receive further project information, please provide your name and address:

Name:

James E. Kuffa

Address:

5014 Orchard Ave
Missoula

Please leave your comments with Project Team staff at the meeting, or mail to:

Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009





Final Environmental Impact Statement

Comment 15

Your plan sounds great—the sooner the better.
Thanks--

JoAnn Hoven
Public Information Coordinator
Marketing and Public Relations Department
St. Patrick Hospital and Health Sciences Center
500 West Broadway
Missoula, MT 59802

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 16

From: Gorsh Joseph [mailto:gorshjb@msn.com]
Sent: Monday, September 22, 2008 2:57 PM
To: John Engen
Cc: Bruce Bender; Steve King;
citycouncil@ci.missoula.mt.us
Subject: RUSSELL STREET CONSTRUCTION

16-A

re. Russell Street,

As a resident of South Russell Street, I believe it is time the city gets busy and builds a 4 lane bridge and road all the way between Broadway Street on the North and Malfunction junction to the South.

16-B

We have already spent an inordinate amount of time and money studying what needs to be done and how to do it. Missoula needs a modern up to date grid to accommodate today's traffic and tomorrow's future growth. The grid should be made up of at least 5 North/South and 5 East/West Arterial streets to traverse from one side of town to the other. Bike paths and pedestrian ways are needed for local inter- neighborhood movement and travel between adjacent neighborhoods, mostly in the daylight and fair weather. The major arterials need to be designed to safely handle a mix of cars, busses and truck traffic including eighteen - wheelers that supply our grocery stores, etc., both off of the highways and across town. The bridge across the river automatically makes Russell Street an arterial. The number of users on an hourly, daily, and weekly basis already bares this out, and as infill progresses, especially with multi-family homes, the problem will soon become even bigger.

16-C

Keep in mind that a 3 lane road is really a 2 lane road with a temporary parking place to make a left turn.

We need a 4 lane road now and for the next thirty years of growth.

Joseph W. Gorsh
Missoula, 251-6686

16-A

There is currently a federal earmark available for bridge reconstruction. The bridge would likely be in the first phase of construction and would carry four lanes of travel across the Clark Fork.

16-B

The Missoula Long Range Transportation Plan Update is typically what identifies the overall character and function of transportation facilities on the grid. As noted, Russell Street is a critical arterial and one of the only five north-south routes that crosses the Clark Fork. Other improvements in the transportation network include the bicycle and pedestrian connections noted in the comment.

16-C

The four lane facility (with turn lanes/landscaped median) remains the Preferred Alternative for Russell Street.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 17

In regards to commentary on the subject of.....
The Russell Street Improvement Debacle

17-A I have recently read about some interesting details of the ongoing plans for improving Russell Street south of the Clark Fork River. As is usually expected with any major civic project, there have been cost overruns, time wasted in exploring bad ideas, and just plain incompetence. Some high dollar expenditures cannot and should not be overlooked or avoided, such as EISs or community input allowance. Unfortunately, when the process begins to sag under its own weight, it is time to rethink the process, not the goal.

17-B It is fairly obvious that this issue is suffering from the same illness that every other community effort in Missoula suffers from. There are too many cooks in the kitchen trying to make decisions, when in reality only one intelligent voice really needs to be heard. This is a question of efficiency, not aesthetics. There are only a ridiculously few passages across the Clark Fork for the amount of traffic that needs to get over it. The better the system is for making traffic flow work, the happier the majority of people who use this system will be. Unfortunately, just as with the "Broadway Diet" and Malfunction Junction, every whiny NIMBY obstructionist is given a voice in how to proceed. Just fix the road and get on with it! Over-priced used car lots and wandering pedestrians will adapt.

17-C Perhaps foolishly, I like to think that our elected officials at the city and county level got their positions because they exhibited a modicum of common sense [at least to somebody, somewhere], and that being in their respective positions would give them the authority to make important decisions without having to resort to mob rule. We elected them and pay them to do the research, find the real problems, and determine the best solutions for what affects all of us as citizens of Missoula and Missoula County. I for one didn't knowingly vote for the kind of anarchy that seems to control business in this town.

Rob Tabish.

17-A The NEPA/MEPA process can at times seem arduous and time consuming, but does provide public officials with valuable data to make fully informed decisions. All projects utilizing federal and state funds must adhere to the NEPA and MEPA processes, respectively.

17-B Due to the nature of the funding for the project, and the jurisdictional overlaps on Russell Street, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration are all responsible for addressing the transportation needs on this route. The proscribed process provides an opportunity for broad public involvement, but the project decisions lies with the transportation officials.

17-C The City of Missoula, Montana Department of Transportation, and Federal Highway Administration have worked cooperatively to develop a project that meets the stated purpose and need identified by the community, and that minimizes impacts to the various social, economic, and environmental resources surrounding the project. The Federal Highway Administration is the lead agency on the project and will sign the Record of Decision, if appropriate. City and County officials could assume the lead and make unilateral decision, but would have to forego federal funding.

Appendix H - Written Comments and Responses

Comment 18

From: robert quade [<mailto:rquade@bresnan.net>]
Sent: Tuesday, September 23, 2008 3:20 PM
To: John Engen
Cc: Steve King; Bruce Bender;
citycouncil@ci.missoula.mt.us
Subject: Russell Street Construction

Mayor Engen,

As I have followed the discussion of the proposed reconstruction of Russell street in the Missoulian, I feel compelled to contribute my support, as a Missoula south side resident, for the construction of a four lane road (with appropriate turn lanes) for the street from Broadway to Brooks.

As Reserve street becomes more and more heavily used, we must find ways to open up other north/south corridor streets to keep up with the population growth and resulting traffic. As discussion of this project unfolds, I am reminded of a similar situation that took place regarding the rebuilding of Highway 93 north from Missoula to Polson and the ensuing result of that road, ie, a combination of two, three, and four lanes. Missoula does not want to end up with a similar road for Russell street. We can and should build a four lane street that will accommodate everyone's needs, ie, vehicles, bikes, and pedestrians. It can be done!

Sincerely;

Robert E Quade
Concerned South Side Resident

Thank you for your comment, and your interest in the project.

The Preferred Alternative does include four travel lanes, a center turn lane/median, bike lanes, and sidewalks to accommodate multi-modal travel in this corridor. Due to the funding constraints, it is likely that Russell Street would be constructed in several phases, which would mean a variation in the number of lanes over the next several years. The additional lanes would likely be constructed starting at West Broadway Street and going south as far as practicable, then continuing reconstruction in the southern portion as appropriate and as funding becomes available.

Final Environmental Impact Statement



Comment 19

9-19-08

9-17-08

Dear Mayor Engen,

I'm concerned that Russell is rebuilt as a neighborhood street, not a highway through neighborhoods. As my elected public leader I urge you to

19-A

compare all the suggestions of Smart Growth, the need for increasing alternative transportation and not endorsing a plan, such as the 4-5 lane Russell St. plan. It is so

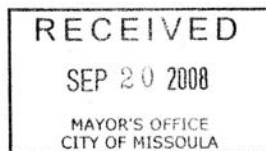
19-B

important that we preserve the quality of Russell St. neighborhood and choose a plan that does not demolish houses, businesses, and make it a scary street to cross if on a bike, on foot, in a wheelchair, pushing a stroller, etc. →

19-C

take the lead on this, please!
Thank-you.

Marta Meengs



Marta Meengs
107 North Ave W.

Missoula, MT 59801

mmeengs@msn.com

19-A

The Preferred Alternative on Russell Street is based on urban street standards used throughout Montana and across the country. These standards are much different than highway standards and provide for bicycle and pedestrian use, transit use, and single-occupant vehicular travel.

19-B

The impacts to the surrounding homes and businesses is a major concern to the project sponsors, and has been proposed only after lengthy analysis and consideration of alternatives. Each of the Build alternatives that provide comparable levels of safety and capacity improvement, or that provide the same pedestrian, bicyclist, and aesthetic improvements require the acquisition of homes and businesses to varying degrees. No viable alternative completely avoids the acquisition of homes or businesses in the Russell Street corridor. Please refer to Table 4.1 in the EIS.

19-C

The roadway will be designed to provide pedestrian and bicyclists crossing opportunities at designated locations such as signalized intersections and the grade separated crossings located along the Bitterroot Branch Trail, Milwaukee Trail, and the Riverfront Trail system. Additional crossings will be provided at non-signalized intersections through the use of pedestrian refuges in the raised medians.

Appendix H - Written Comments and Responses

Comment 20

20-A I am writing in support of the preferred alternative for Russell Street improvements. The proposed plan provides a good balance for various traffic modes (vehicles, bicycles, pedestrians) and is neighborhood friendly and attractive. The Stephens Avenue model is a good one - I really like the way this street turned out (even though I was skeptical at first).

20-B I definitely oppose any significant changes initiated by neighborhood groups in the Russell Street area. I am really tired of Missoula's infrastructure held hostage by neighborhood NIMBY groups.

Thanks for your hard work on this project.

Art Gidel
4855 Scott Allen drive
Missoula, MT 59803

20-A As noted, the project is intended to provide safety and mobility improvements for all modes of travel, and the design elements were based largely on public support for a multi-modal facility such as Stephens Avenue.

20-B The ultimate project decision will be based upon the technical analysis, consideration of impacts and mitigation, and public sentiment on the project. As exhibited in this Appendix, a variety of opinions have been expressed and will be considered equally.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 21

Hi~

We have reviewed all proposals for the Russell street improvement and support your recommendation of Alternate #4.

Our reasons are the same as yours:

1. Fewer bldgs. are demolished
2. Cost less
3. Does not build roundabouts. (We have travelled in Europe and are familiar w/roundabouts and believe there will be more accidents)
4. Moves traffic more efficiently
5. Drivers do not like merging lanes and therefore, do not use those lanes.

Sincerely,

William R. Babington, Jr.

Carol h. Babington

123 Crestview Lane

Missoula, MT 59803

406-493-6012

Thank you for your comment, and your interest in the project.

Appendix H - Written Comments and Responses

Comment 22

From: Michael Hegedus
[<mailto:mhegedus@bresnan.net>]
Sent: Wednesday, September 24, 2008 11:48 AM
To: John Engen
Cc: Bruce Bender; Steve King;
citycouncil@ci.missoula.mt.us
Subject: Russell Street Construction

A 4-lane road is imperative. Why only partially improve the situation (a left turn lane), when a real improvement (two lanes north, two lanes south) is what truly solves the congestion, both now and for the future?

Mike Hegedus
Mountainview Estates HOA
4503 Hillview Way
Missoula, MT 59803

Thank you for your comment, and your interest in the project.



Final Environmental Impact Statement

Comment 23

My comment applies to Russell St. between Third St and Mount:

23-A I oppose the four lane plan for that section of Russell; it unnecessarily disrupts a settled neighborhood. My preference is for three lanes, the third lane being reserved for turning. Widening that stretch of Russell seems unnecessary given the current and probably future number of cars using it and the short travel time between Mount and Third at all times of the day. Evidence shows that presenting the public with a four-lane thoroughfare draws cars that never previously used the route.

23-B There is already a very serviceable, efficient four-lane road, i.e., Stephens, a few block east of Russell, that connects Mount and Third, and in my experience it is a VERY under-used connector. Surely some of the traffic now using Russell between Mount and Third could just as easily take Stephens / Orange as an alternate route.

lynn ascher
612 brooks
missoula

23-A Both current and projected traffic volumes overwhelm the existing roadway, and according to the Traffic Analysis Update, would overwhelm a three lane facility by the year 2010. As discussed in the EIS, and confirmed in the Traffic Analysis Update, the four lane alternatives, and the Preferred Alternative in particular, provides the greatest overall level of safety and capacity improvements at both intersections and corridor segments. Please refer to Table 2.5 in the EIS, and Appendix G for a summary of the Traffic Analysis Update.

23-B There are diverging thoughts on the theory that an improved facility “draws cars that never previously used” a route. Growth in traffic following transportation improvements is often called “induced growth” or “latent demand.” Most professionals will acknowledge that there is a certain amount of “latent demand” for transportation facilities, meaning that more travelers will choose a particular route if it is uncongested during their time of travel. If this were inherently accurate for all facilities, Stephens Avenue would not be under-used as the comment suggests. Most commuters will choose the path of least resistance to get from their origin to their destination. In this case, it does not appear that Stephens Avenue is regarded as a viable alternate route to those traveling on Russell Street as they already encounter more congestion on Russell Street than on Stephens Avenue. (See also Section 4.17 of the EIS for an expanded discussion on the relationship between transportation and land use.)

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 24



September 24, 2008

To: Missoula Public Works
Montana Department of Transportation
Missoula City Council

To whom it may concern:

The Missoula Organization of REALTORS® (MOR) is thankful for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. The four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city. It is also important to note, that while MOR does represent many members, citizens of Missoula, we are also a business working on the corner of 3rd & Russell. We recognize and appreciate that there is an urgent need to create a safer system for commuting in this area.

While it is unfortunate that homes would be lost to this expansion, it is important to recognize that Russell is a major arterial network for this community. With only four bridges open to vehicle traffic that cross the Clarkfork River; those streets provide the connections to our city. With current plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections.

Although it is clear that Missoula is ahead of many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

The Missoula Organization of REALTORS® feels that the Russell/3rd Street Preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walkable, and bikeable tradition for our city. MOR would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,

Ruth A. Link
Public Affairs Director

Thank you for your comment, and your interest in the project.



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Final Environmental Impact Statement

Comment 25

Hi,

I have lived in Missoula for 32 years and have watched the city and traffic grow. Russell definitely needs to be widened and improve. I purposely try to avoid it now as the traffic is so bad. This wastes fuel and puts more traffic on other roads. I have reviewed this plan (the preferred plan) and I am FOR this plan.

**Thank You,
Michael Priske**

Thank you for your comment, and your interest in the project.

Appendix H - Written Comments and Responses

Comment 26

I attended the Franklin School meeting last night--very well done. I would like to add to Peggy Millers comment on the overpass versus underpass. In Europe the overpass is implemented much more than the underpass. I visit Spain a great deal and have seen many. To my understanding---less expensive--and--very attractive. The safety of bicyclists and pedestrians cannot be emphasized more with this system.

Thank you for all you do.

Sincerely,

Kathleen Sedoff

While an overpass structure can be much more costly than an underpass, the EIS does not necessarily specify which type of grade-separation would be implemented. The EIS notes that, if during the design process “it appears that geotechnical conditions, or underground utilities would prohibit construction of the intended under-crossings, these crossings could be redesigned as an overpass.” The City of Missoula, Montana Department of Transportation, and Federal Highway Administration will consider the costs and relative benefits of each design option during the final design process.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 27



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

27-A

The "Environmental Impact" of the proposed Russell St. Superhighway would be terrible for both the local neighborhoods as well as the larger Missoula community. With the looming inevitability of the collapse of our oil-dependent transportation infrastructure, we are faced with a situation in which we ~~must~~ must choose to develop sustainable (i.e., non-automotive) means of getting around — or choose to be caught unprepared and ill-equipped for a catastrophe of our own making. Please, for the sake of the health and well-being of Missoula: scrap the Superhighway and adopt the Citizens' Alternative!

27-B

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MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Max Granger

Address: 1009 W. Sussex

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

27-A

A shift in investment priorities for transportation improvements needs to be made at the Long Range Transportation Planning level, and vetted through the public process. Consistent with the Plan, projects currently identified in Missoula focus on the multi-modal solutions such as those proposed for Russell Street and South 3rd Street. There appears to be more of an interest in more fuel efficient vehicles, hybrid vehicles, electric vehicles, alternate fuel vehicles, but still transportation preference for single-occupant vehicles by the vast majority of the commuting public.

27-B

Both current and projected traffic volumes overwhelm the existing roadway, and according to the Traffic Analysis Update summarized in Appendix G, options similar to the "Citizens' Alternative" are overwhelmed by the year 2010. This failure to provide improved travel conditions for automobile traffic, by definition, fails to satisfy the stated Purpose and Need to "provide substantive safety and mobility improvements for *all modes* of travel in the Russell Street and South 3rd Street corridors." [emphasis added] Please refer to Table 2.5 in the EIS for more detailed information.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 28



We Invite Your Comments:

28-A

I am a biker - I do not use a car to travel in Missoula. The preferred alternative (in fact all alternatives) show a 4 foot wide bike lane. The presenter at the public meeting on the 24th Sept described the width as 5 1/2 feet - but he included the gutter and I think the curb surface. If the presenter was a biker, he would know that riding a bike in the gutters is incredibly dangerous. Four feet is not wide enough to ride safely with cars that close with their rear view mirrors next to your handle bars. The seven foot wide bike lanes suggested by the citizen alternative is much better.

28-B

Also, the re-routing of traffic through the existing trailer park on River Road immediately west of the Russell St. bridge, this major thoroughfare

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Anne Greene

Address: 303 Tremont St.
Missoula, MT
59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

28-A

Minimum bicycle facility width: "An operating space of 1.2 m (4 feet) is assumed as the minimum width for any facility designed for exclusive or preferential use by bicyclists. Where motor vehicle traffic volumes, motor vehicle or bicyclist speed, and the mix of truck and bus traffic increase, a more comfortable operating space of 1.5 m (5 feet) or more is desirable." Page 5

Paved shoulder minimum width: "Paved shoulders should be at least 1.2 m (4 feet) wide to accommodate bicycle travel.... Additional shoulder width is also desirable if motor vehicle speeds exceed 80 km/h (50 mph)...." Page 16

Minimum width of bike lanes, no curb and gutter: "For roadways with no curb and gutter, the minimum width of a bike lane should be 1.2 m (4 feet).... A width of 1.5 m (5 feet) or greater is preferable and additional widths are desirable where substantial truck traffic is present, or where motor vehicle speeds exceed 80 km/h (50 mph)." Pages 22-23

Minimum width of bike lanes with curb and gutter: "(For a) bike lane along the outer portion of an urban curbed street where parking is prohibited, the recommended width of a bike lane is 1.5 m (5 feet) from the face of a curb or guardrail to the bike lane stripe. This 1.5-m (5-foot) width should be sufficient in cases where a 0.3-0.6 m (1-2 foot) wide concrete gutter pan exists...." Page 23

Bike lane/shoulder maintenance and cleaning: "Since bicyclists usually tend to ride a distance of 32 to 40 inches from a curb face, it is very important that the pavement surface in this zone be smooth and free of structures." Page 23 "Regular maintenance of bicycle lanes (and shoulders) should be a top priority, since bicyclists are unable to use a lane with potholes, debris or broken glass." Page 8

Wide curb lanes: "Wide curb lanes for bicycle use are usually preferred where shoulders are not provided, such as in restrictive urban areas. On highway sections without designated bikeways, an outside or curb lane wider than 3.6 m (12 feet) can better accommodate both bicycles and motor vehicles in the same lane and thus is beneficial to both In general, 4.2 m (14 feet) of usable lane width is the recommended width for shared use in a wide curb lane." Page 17

28-B

The "Citizen Alternative" does not have consistent seven (7) foot bike lanes throughout the corridor. From South 11th Street to South 7th Street, the Citizens Plan calls for five (5) foot bike lanes and six (6) foot sidewalks. The Plan does not identify curb and gutter in this section which means the bike lane would have to be 4.5 feet from face of curb to the lane striping, or the sidewalk width would be reduced to 5.5 feet to remain within the 42 feet proscribed by the Citizen's Plan in this segment. Neither of these reduced dimensions satisfy state or local design guidelines.

Final Environmental Impact Statement



would cut through an established residential area and make it

28-C

subject to Very heavy vehicle traffic (mainly gravel trucks from River Road.) Several trailer

28-D

homes would be severely affected if not made uninhabitable. In

28-E

addition, the water supply for both the trailer park and the small development west of it may be severely affected because it consists of a well in the path of the expanded road going north/south off River Road.

28-C

Traffic projections indicate that the volume of traffic on River Road accessing Russell Street is around 250 vehicles during the peak hour, which is not uncommon to expect for a residential street.

28-D

The roadway along the western edge of the mobile home park is intended to be constructed along the existing gravel road, without impacting existing homes.

28-E

The domestic water well will either be avoided or replaced with the proposed project. Water service disruption could occur during construction but would be short-term and temporary, and water users would be notified before the disruption.

Thank you for your comment and interest in the project.

Anne Greene

Appendix H - Written Comments and Responses

Comment 29

June 13th, 2008

To Whom It May Concern:

RE: Environmental Impact Study for 3rd Street & Russell Project

As a visually impaired pedestrian I find crossing islands very useful for crossing busy streets that have one lane for each direction (for example 39th, South Ave). I am in favor for crossing islands to be along 3rd Street between Russell & Reserve except at 3rd & Curtis. I feel the traffic at that intersection warrants a traffic light to be installed there. Many pedestrians have to cross there every day going or coming from the Adult Center or the Coke facility. In regards to the Russell & 3rd intersection, I realize that the traffic light there is not moving the traffic through efficiently. However, I am very strongly against installing a roundabout there as the solution. Based on my understanding of roundabouts, many drivers are so focused on getting into it, going around it, and as they are accelerating out of it, it is hard for them to acknowledge that a pedestrian maybe attempting to cross or be crossing. It is my understanding that pedestrians cross at roundabouts that are in residential neighborhoods but are inclined not to cross at roundabouts located at extremely busy intersections.

29-A

29-B

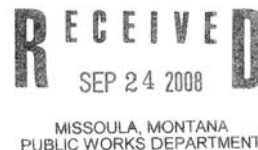
29-C

29-D

I have found that very wide, white striped crosswalks (such as at SW Higgins at Bancroft & SW Higgins at Park) to be much easier to see then the traditional two skinny white lines on either side to represent the crosswalk. I also prefer curb cuts that have the truncated dome pads (the bumpy pads). When the truncated domes are not present, it is often difficult to indicate with a cane where the curb cut ends & the gutter begins because they are often blended together. As for the color of corners & bus cut out areas, I would find a brighter color to be more useful to see then the dullish red that was used along 39th & South Ave. In addition, I support the Mountain Line drivers who have expressed that they feel there should be guardrails installed along the Russell/Broadway Bridge to protect pedestrians from the street like the ones do along the Orange Street & Higgins Street bridges.

Sincerely,
Heather Stone
(406) 251-9722

Heather Stone
9-24-08



29-A

The Preferred Alternative on South 3rd Street includes installation of a signal at Schilling/Curtis once warranted. See also response to Comment 38 regarding the change in the Preferred Alternative on South 3rd Street.

29-B

The Preferred Alternative does not propose roundabouts on Russell Street or South 3rd Street. The intersection at South 3rd Street would remain signalized under the Preferred Alternative.

29-C

Pedestrian crossings at the signalized intersections on Russell Street and South 3rd Street would include curb-cuts, striping, and truncated domes in compliance with MDT's policy as well as ADA requirements.

29-D

The proposed bridge crossing has adequate space for bicycle and pedestrian travel and would not likely include an additional barrier between pedestrian and vehicular traffic.

Thank you for your comment and interest in the project.



Comment 30



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

30-A

The preferred 5-lane alternative in the draft EIS is unnecessary and will have numerous negative consequences. Russel Street does not need that much traffic capacity. A two-lane street with a turn lane, expanded bike lanes, and roundabouts will make Russel Street most accessible for a variety of users, safe, and will maintain the current character of the neighborhood. Furthermore, the project will be extremely expensive, diverting financial resources for the next 20 years that the City of Missoula could put toward other projects. Please consider the citizens' plan supported by the public and many local organizations!

30-B

30-A

Please refer to Appendix G for a summary of the growth projections, capacity calculations, and safety analysis which was conducted as part of the Traffic Analysis Update in the spring/summer 2009. This analysis confirmed that Alternative 4 (the Preferred Alternative) is projected to perform substantially better overall than the two and three-lane alternatives.

30-B

Project priorities are established through the Long Range Transportation Plan, and the Russell Street project has been identified as a priority for several years. Based on the planning-level cost estimates prepared for the EIS, each of the build alternatives analyzed is estimated to cost approximately \$40 million. Please refer to Table 2.9 in the EIS for a summary comparison, or Appendix B for detailed cost estimate spreadsheets.

Thank you for your comment and interest in the project.

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Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Kip Rand

Address: 734 Monroe St.
Missoula 59802

Please leave your
comments with Project
Team staff at the Hearing,
or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Appendix H - Written Comments and Responses

Comment 31



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period SEP 24 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

We Invite Your Comments:

- 31-A** I am in support of the citizens plan for Russel & South 3rd street. In this plan russel street will stay at 3 lanes of car-traffic but include bikelanes & sidewalks. I feel the 5-lane plan for Russel is extreme & unnecessary.
- 31-B** Also I do not support the removal of homes & buisnesses. Missoula is a town with a very good "small town" appeal & it is part of our charm. Expanding the 3rd street & russel will quicken the pace of the area & encourage ~~car~~ greater car traffic when these road should be bike & pedestrian friendly. I think roundabouts & the "3 lane plus" plan will be a good compromise between all road users: bikes, pedestrians, buses, cars. Also, adopting the citizens plan will not require massive overhaul of the current roadway & will cost us less.
- 31-C**
- 31-D**
- 31-E**
- 31-F**
- 31-G**

To receive further project information, please provide your name and address:

Name: ERICA DOSSA

Address: 1618 Howell St.

MISSOULA, MT 59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

All comments due by October 20, 2008

- 31-A** Please refer to response to Comment 27-B regarding the failure of the "citizens plan" to satisfy Purpose and Need.
- 31-B** Please refer to response to Comment 27-B regarding the Purpose and Need.
- 31-C** As noted in response to Comment 19-B, no viable alternative completely avoids the acquisition of homes or businesses in the Russell Street corridor.
- 31-D** See response to Comment 23-B regarding the concept of induced traffic.
- 31-E** The Preferred Alternative includes facilities for bicyclists and pedestrians that meet accepted state and national standards for these types of facilities.
- 31-F** The "3 lane plus" plan does not provide a compromise for vehicular traffic as similar options examined provide no improvements in safety or capacity, even in the immediate term. Please refer to response to Comment 27-B.
- 31-G** As with any of the proposed alternatives, the "citizens' plan" would require complete reconstruction of Russell Street, and is estimated to cost close to \$40 million, which is comparable to the other build alternatives.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement

Comment 32



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period SEP 24 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

We Invite Your Comments:

- Recommendations →
- 32-A 1) 3+ lanes only -- keep traffic going to Reserve
 - 32-B 2) Use bridges over Russell for bicycles -- not tunnels
 - 32-C 3) excessive use of trees, foliage etc to keep a local human feel
 - 32-D 4) Bike lanes everywhere
 - 32-E 5) Improve ability for bikes + strollers to get across

This section of Missoula is a community with much foot traffic + stroller + bicycle traffic going across Russell at all points.

The community wishes to see this improvement to improve this foot / bike / stroller traffic ability. Car traffic is not that bad.

I live 3 doors away from Russell on 7th St South west

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Peggy Miller
Address: 1520 S. 7th St W
Missoula, MT 59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

- 32-A Please refer to response to Comment 27-B regarding the failure of options similar to the "3+ lane" plan to meet Purpose and Need.
- 32-B See response to Comment 26 regarding the options for grade-separation of the trail crossings.
- 32-C The Preferred Alternative would include landscaping in the medians and boulevards, as appropriate.
- 32-D The Preferred Alternative includes bicycle lanes on both Russell Street and South 3rd Street.
- 32-E See response to Comment 36-A regarding crossing areas for bicyclists and pedestrians, and Appendix G for a discussion of the pedestrian safety analysis.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 33



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period SEP 24 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

We Invite Your Comments:

33-A

Build the bridge with 4 lanes - you have the money
Do Not put 4 lanes on S. Russell St! To even
consider this is illness.
Do not go into the rat experiment for federal
money.

33-B

Reserve is only tolerated as the connection
between 93 North and South. The 'Added Value'
of turning that thru-fare into 'shopping' is
also illness!
Bureaucracy is illness!

33-C

Our bike lanes are a joke - They are bare shoulders.

33-D

Russell Street is a neighborhood not a link shopping
SAUSAGE of a rest stop.

33-E

If you build it it will get used - that is not pleasing
but it's true. You are supposed to lead not allow - where
do you think 4 lanes will lead us? it's illness!

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Rich Landini

Address: 303 S. Inez St
Missoula MT 59801

Please leave your
comments with Project
Team staff at the Hearing,
or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

33-A

Construction of a four-lane bridge structure with no intent of providing capacity improvements on a connecting facility would be difficult to justify. Please refer to response to Comment 27-B regarding the Purpose and Need for improvements.

33-B

The Preferred Alternative is not anticipated to change the existing or planned land uses along Russell Street. Any attempts to change the corridor "into 'shopping'" would be outside the scope and intent of this project.

33-C

See response to Comment 28-A regarding the standards for bicycle lanes.

33-D

Russell Street is a principal arterial serving residential neighborhoods, commercial areas, and local and regional commuter trips.

33-E

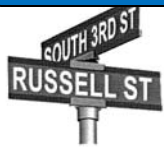
The Preferred Alternative is intended to meet existing and future demand. It is not intended to "lead" growth or travel patterns, but be responsive to current and anticipated needs.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 34



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

The Draft plan is short sighted AND FAILS to ADDRESS KEY ISSUES. The First ISSUE:

34-A Why is there so much traffic on an Artery through

34-B A neighborhood? Is this a planning ISSUE? The concentrations of 'Box' stores have effects on this better City planning may be the culprit, not a narrow Russell.

The Second ISSUE:

34-C Future transportation ISSUES are not solved by building wider roads to hold

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MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: _____

Address: _____

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

34-A Russell Street is a principal arterial, and one of only five north-south corridors that cross the Clark Fork. The corridor changes in character as it travels north through residential and commercial land uses.

34-B City planning may have an effect on the location of growth, but not necessarily the rate of growth as long as all other economic factors are positive.

34-C One of the critical reasons why the Preferred Alternative includes the provision of bicycle lanes and sidewalks, and can accommodate transit within the defined footprint, is to accommodate existing multi-modal demand as well as future changes in mode choice by Missoula travelers.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 35



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

35-A

AS a taxpaying citizen of Missoula living within sight of Russell St. I support the THREE LANE OPTION FOR RUSSELL ST. I am opposed to a 4 lane (Stephen Ave) or 5 Lane (Rose Ave) option. It is important to preserve the walkability of this neighborhood - you can see on other streets the race car behavior of drivers when there are two lanes going the same direction.

35-B

I believe that traffic calming devices and areas are critical and will go in conjunction with side-walks and bike lanes.

35-C

I would also like to see some kind of traffic calming devices on Kern St. as drivers cut through to 6th Street at high rates of speed - There are many young children that live on my street and they need a safer environment to grow up in.

35-A

The three-lane alternatives were eliminated due to a failure to provide "substantive safety and mobility improvements for all modes" as required by the Purpose and Need for this project; however, each of the build alternatives improves the walkability of Russell Street through the inclusion of boulevard sidewalks.

35-B

Landscaped boulevards and medians are anticipated to have a traffic calming effect on Russell Street and South 3rd Street.

35-C

The intersection of Russell Street and Kern Street is proposed to be reconfigured and may reduce the amount of cut-through traffic. You are encouraged to contact the City if you have specific concerns on Kern Street that could be handled under a separate project.

Thank you for your comment and interest in the project.

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MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Dawn Austin

Address: 816 Kern St.

Missoula, MT 59801

Please leave your
comments with Project
Team staff at the Hearing,
or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Final Environmental Impact Statement



Comment 36



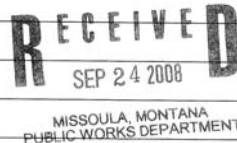
Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

- 36-A** I'm interested in more bike + pedestrian safe crossings across Russell St. I believe signals, crosswalks / flashing lights etc. could accomplish this easily. 5 lanes of traffic is too much. This is my neighborhood
- 36-B** and I do not wish to see Russell become more busy, more heavily trafficked, etc. (trucks + heavy equipment)
- 36-C** I sincerely hope you find a way to listen to the residents that live on and nearby this already very busy street.



Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Steve Knight

Address: 1616 S. 10th St. W.
Missoula 59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

- 36-A** There are currently four opportunities for bikes and pedestrians to cross Russell Street within the project corridor at one of the current signalized intersections. The Preferred Alternative would provide five additional crossing opportunities, one at a new signalized intersection at Wyoming Street, and four grade-separated crossings at the Bitterroot Branch Trail, Milwaukee Trail, and two at the Riverfront Trail system at the Clark Fork River. Additional crossing opportunities would be provided with pedestrian refuges in the raised medians throughout the corridor.

- 36-B** Russell Street is anticipated to become more heavily traveled regardless of the improvements made. The intent of the Preferred Alternative is to maintain as much flow as reasonable for this mixed residential and commercial corridor.

- 36-C** Please see response to Comment 5-A regarding public engagement efforts for this project. Additionally, the project team has made a concerted effort to talk with all of the business and home owners along both Russell Street and South 3rd Street (see Chapter 7, Section 7.5 of the EIS). While some expressed concern for individual impacts, and the functionality of roundabouts, the majority of those contacted were in full support of the proposed improvements. Fewer than 10 percent of the individuals interviewed expressed complete opposition to capacity expansion on Russell Street.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 37

September 2008
DEIS Public Involvement
Director of Public Works for Missoula
Missoula City Council Members:

37-A I am very interested and I am following closely the progress on the South Third and Russell Street work to improve traffic flow. This is very important to the people who live near and north of the river who attempt to gain access to the south part of Missoula for appointments, shopping, and many other reasons. This is a main thoroughfare for many residents, as well as many workers to travel it daily. We should have routes for traffic flow as other cities do. Not many cities have right or left turn only streets that has become common in Missoula. For fact, I cannot name a city I've visited that has this option on main thoroughfares, and I have traveled a great deal.

37-B I was on the committee who first worked to open 'Russell Street' to traffic many years ago, and although it should have been made four lanes when first built, it has survived many years. Now it is entirely too small to hold the volume of traffic that needs to use it. Please, let's do it right this time and make four lanes with bike lanes, needed because of the bridge. Many bike riders use that form of recreation so they should be safe, but not necessarily an obstacle to traffic flow. I think this can be done right for all concerned. I don't feel that bike riders should have precedent over those of us who have to drive our cars, and who are unable to ride bikes, but let's keep them safe. Many do not follow the rules.

37-A The raised median is proposed to enhance the visual character of the corridor, and to improve traffic operations by limiting the number of conflict points. This is a nationally accepted traffic management tool, and a sound application for this corridor. The Federal Highway Administration published an informational brochure entitled "*Benefits of Access Management*" that provides the following summary information:

Median treatments for roadways represent one of the most effective means to regulate access, but are also the most controversial. The two major median treatments include two-way left turn lanes and raised medians. The safety benefits of median improvements have been the subject of numerous studies and syntheses. Studies of both particular corridors and comparative research on different types of median treatments indicate the significant safety benefits from access management techniques. According to an analysis of crash data in seven states, raised medians reduce crashes by over 40 percent in urban areas and over 60 percent in rural areas. A study of corridors in several cities in Iowa found that two-way left-turn lanes reduced crashes by as much as 70 percent, improved level of service by one full grade in some areas, and increased lane capacity by as much as 36 percent. Raised medians also provide extra protection for pedestrians. A study of median treatments in Georgia found that raised medians reduced pedestrian-involved crashes by 45 percent and fatalities by 78 percent, compared to two-way left-turn lanes.

37-B Cyclists and pedestrians would be segregated from vehicular traffic in their own dedicated facilities. Bike lanes would be signed and striped separately from the motor vehicle travel lanes, and sidewalks would be separated from the travel lanes by the bike lane and boulevard. Boulevards could be eliminated in commercial areas to provide for wider sidewalks or narrowed overall width. Specific design elements will be determined during final design.



Final Environmental Impact Statement

37-C The circle turnabout idea on Third and Russell is just a hazard to all concerned. I saw these in Germany and was not impressed at all. The traffic light works beautifully for the flow of traffic at Third and Russell, with four lanes north and south plus bike lanes is the only way to go. Please consider those who need to get from here to there in the shortest time possible to make room for others who need to too. It doesn't hurt anyone to stop a few minutes at a traffic light as most are well adjusted for traffic flow.

37-D The mess that was made by blocking South Avenue to through traffic should not be repeated on Russell. We need to make traffic flow streets available as our heavy traffic increases with growth, not present obstacles. Our streets are lined with trees and enough beautification, so let's be practical and use the space available for needs not wants...Our economy doesn't allow extras.

37-E At this time the traffic on West Broadway backs up to Palmer Street because of the stupid way the Broadway Diet is designed when Broadway should be an open flow of traffic from West to East. The only asset of the 'Diet' is the traffic light that should have been installed originally when even the cost would have been better. This street should be opened again to four lanes especially by November when the Broadway Safeway will open as it is impossible to break into a steady string of traffic headed west on Broadway as it is now.

37-C The roundabout intersection control at Russell Street and South 3rd Street has been eliminated due to impacts associated with adjacent roundabout intersections on Russell Street. It is no longer considered under this EIS.

37-D Raised medians are provided to divide the directional flow of traffic, at times they can also act as pedestrian refuges and as a minimally invasive method for traffic calming because they change drivers perception of the roadway width. The preliminary cost estimate for landscaping is \$25,000, which amounts to less than one percent of the total projected project costs.

37-E Modifications on West Broadway Street outside of those necessary at the Russell Street intersection improvements outlined in this document are beyond the scope of this proposed project.

Appendix H - Written Comments and Responses

37-F One of the biggest hazards is the Orange Street/Broadway intersection. For anyone not familiar with that intersection it has definitely a good chance of an accident, but if not road rage for sure. Everyone has been in the wrong lane at least once.....

37-G It shouldn't hurt anyone's feelings to ride their bikes a block over on safe bike lanes to avoid heavy traffic by doing so. This could help a great deal and add safety even if one side of Spruce near the hospital would be closed to parking to help the Broadway problem.

Sincerely,
Bettijane Larson
bjl@bigsky.net
900 Palmer St.
Missoula, MT 59802

37-F The West Broadway Street intersection with Orange Street is outside the scope and limits of this proposed project.

37-G The Preferred Alternative provides sufficient bicycle facilities to safely travel on Russell Street. The nearest designated bike routes are on Johnson Street to the west, and Stephens Avenue to the east.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 38

We have lived in Missoula for our entire lives, we learned to drive in this city and have seen the growth of the city and the outlying areas during the past 30 years. It is unacceptable to spend millions of dollars on a so called "improvement" that will barely meet the traffic needs when it is finally completed.

We support Alternative 4 for Russell Street and Alternative D for Third Street. We cannot put our heads in the sand and think that the traffic, congestion, and pollution will not increase in our city.

We feel for the homeowners in the affected areas, but building/improving a road that is NOT adequate to pacify the homeowners in the immediate areas is NOT the answer. The roads in question effective hundreds of people today and by completion thousands of commuters whether bicyclist, drivers and pedestrians.

We urge you to accept Alternative 4 for Russell Street and Alternative D for Third Street.

Sincerely

Sheri & Ken Thick
6305 Gharrett Ave.
Missoula MT 59803

The Preferred Alternative on Russell Street is Alternative 4, which includes four travel lanes and a center turn lane/raised median, as well as bike lanes, boulevard sidewalks, signalized intersections, and grade-separated pedestrian/bicycle crossings.

Since circulation of the DEIS, and further analysis associated with the Traffic Analysis Update (summarized in Appendix G), the Preferred Alternative on South 3rd Street has been changed to Alternative E, which includes two travel lanes and a center turn lane/raised median, as well as bike lanes, boulevard sidewalks, and signalized intersections. Please refer to the discussion on this change in Chapter 2, Section 2.4 of the EIS. As noted in the EIS, Alternative D was slightly more expensive, and provided no substantive operational advantage over Alternative E.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 39

From: Shelley Lingscheit

Sent: Wednesday, September 24, 2008 9:16 PM

To: Bruner, Heidi; Grant, Paul; Kailey, Dwane; Kilcrease, Susan; Lloyd, Miki; Martin, Tom; McClure, Amber; Nunnallee, Benjamin; Stack, Shane

Cc: craig.genzlinger@fhwa.dot.gov

Subject: Comment On Russell Street EIS

We would like to see Russell street a four lane road to move the traffic in an efficient manner. Broadway diet did not work. Traffic is always backed up, especially during the rush hours and holidays. Missoula is only going to continue to grow, we must have the roads to move the traffic.

Thank you for listening,
Shelley Lingscheit

Thank you for your comment and your interest in the project.



Final Environmental Impact Statement

Comment 40

I am in favor of the preferred plan outlined in the EIS. Briefly I would like to comment on a few of the reasons why.

Missoula is a commercial hub for Western Montana. As a result, business activities are an important economic asset in maintaining that status. Business must have customers to survive. Most customers travel to stores by motor vehicle and if they are hindered in anyway by poor roads, they will revert to on-line and catalog shopping in lieu of shopping locally. Russell Street is an important arterial roadway rather than a neighborhood street and thus must be constructed accordingly.

Next, the demographics of Missoula have shown over recent years that the aging population is not only growing number-wise, it is growing in a proportional ratio compared with other age groups. This is best proved by the population which keeps going up, however school district population continues to fall each year. The biggest population growth factors are: 1 – Commercial and Retail Hub, 2 – University Activities, and 3 – The Heart Institute and other health care facilities which are very important to the aging population and attract them to retire in Missoula. The senior citizens will continue to drive and also are the people most needing timely response to emergency vehicles. A narrow traffic accumulator road could mean life or death to a resident if a responder is delayed because of traffic jams. We cannot afford to say “we can take care of you in an emergency during low traffic times, but we don’t care about you if you have a heart attack during rush hour traffic”. The Street must be built for peak loads in the future.

Please consider the elderly when designing Russell Street and approve the preferred alternate of a four lane street.

Thank you for your comment and your interest in the project.

40-A

40-A

Emergency response times were noted as a concern in the EIS, but not highlighted to this degree. It is agreed that this is an important consideration for the proposed improvements.

Appendix H - Written Comments and Responses

40-B

Pedestrian facilities, sidewalks and trails are important too. I just returned from a trip out of Missoula to attend a family wedding. I took note that news articles in a large city newspaper are informing people of the action being taken around the Country by School Districts in eliminating many school bus routes (going green, high cost of gas, and the most logical choice to cut budgets rather than taking money out of the classroom) and forcing children to walk to school or asking parents to car pool in getting kids to school. If this trend becomes a necessity here in Missoula, we should be prepared with adequate pedestrian facilities and school crossings.

Thank you for the opportunity to comment on this important and long overdue project.

Myrt Charney
Senior Citizen and Former City Councilor
605 Carter Ct, Missoula, MT 59801
One who uses a car and ventures the intersection of River Road and Russell numerous times a day.

40-B

Pedestrian safety is one of the critical goals of the Preferred Alternative, and is promoted through the inclusion of sidewalks throughout the Russell Street and South 3rd Street corridors, as shown on all Build alternatives.

Thank you again for your comment.



Comment 41

I am a resident in the neighborhood of Russell St. and 3rd St. I would personally be affected by the "Preferred Alternative" that is currently under review. I live in the Mobile City Trailer Park, on the West side. While the impact on me personally would be a negative one, as I

41-A would have to move (the right of way appears to come to my front door), I am in favor of part of the construction, and against other parts. I believe that Russell Street should be revamped and should include sidewalks and bike paths. I believe most likely the road should be widened to 5 lanes because it's inevitable that Missoula's growth will necessitate this. I do not believe that any streets should be

41-B resitricted to right turn only or restricted access, or one way. In my experience with the other projects taken on by the City of Missoula, this has been ineffective and creates a hassel for drivers trying to navigate their way through the streets of Missoula. The South Ave. project is a perfect example of this. If you look at the planning of streets and traffic in larger cities (I lived in the Seattle area for 14

41-C years), you do not see traffic being re-routed through residential neighborhoods in large numbers. It simply is not done. Roads are built with a direct route and traffic generally turns all ways off of or on to these roads. I have always thought this was most efficient. I believe there should be no re-routing of traffic off of Russell, onto Wyoming, then onto Catlin, next to Idaho St. and eventually onto a street that will be newly constructed where my home currently sits, all to get to River Rd. off of Russell St. This is simply inefficient.

41-A As noted in the EIS, no acquisitions of residences are anticipated at the Mobile City Trailer Park.

41-B The restriction of turn movements provides substantial safety and efficiency improvements and allows for aesthetic improvements in the corridor which were noted as a priority during early public meetings. See also response to Comment 37-A regarding the benefits of the medians.

41-C The intersection modifications at River Road will not re-route traffic through a residential area, but rather has the potential to shift some traffic from the east and north sides of the Mobile City Trailer Park to the west side. According to data contained in the Traffic Analysis Update conducted during the spring/summer of 2009, approximately 160 vehicles make turning movements through the Russell Street/ River Road intersection during the peak hour, and 230 to 260 vehicles are anticipated to make these same movements by the year 2035. Approximately 50 vehicles make an eastbound to northbound movement from River Road onto Russell Street, and 35 vehicles make a northbound to westbound movement from Russell Street onto River Road. This totals 85 vehicles during the evening peak hour. These movements would be restricted under the Preferred Alternative and would potentially use the new connection to Catlin Street. By the year 2035, the modeling suggests the total of these two movements could rise to nearly 150 vehicles in the evening peak hour. This increase would occur regardless of improvements to Russell Street. It is important to note that only a portion of those 150 vehicles would use the new extension to Idaho and Catlin Street, as some of the current and projected traffic would utilize Wyoming Street from a point further to the west or choose a different route altogether.

Appendix H - Written Comments and Responses

- 41-D** In addition it will be a negative impact on the residents that will be affected and there is a large habitat of wildlife right outside my front door. There are approximately 50 ducks that live all summer in the field across the street and in the irrigation ditch. There are also many deer that are in the area. If the road (Russell St.) is constructed, I believe a turn lane should be constructed at the proposed light on Wyoming Street and if drivers choose to navigate through the currently in place roadways to get to River Rd. they may do so. At the same time, there should also be a turn lane that allows traffic to turn left onto River Rd. as they do today. If this would not work for some reason, I think there should be a "cloverleaf" built on the East side of Russell Street to allow access to River Rd. in a fashion that would allow right turn only traffic onto River Rd. and cars could access the east side of Russell St. via the cloverleaf that would be built via River Rd. over or under the bridge.

Thank you,

Tami St Onge

- 41-D** This limited construction would likely have little effect on either the ducks or the deer which currently have to cross River Road to access this habitat.
- 41-E** A northbound left turn lane is currently proposed as part of the intersection improvements at Wyoming Street.
- 41-F** A turn lane at River Road is undesirable due to the close proximity of Idaho Street and the south end of the bridge structure which cause geometric and operational challenges that can be overcome with the proposed right-in/right-out access on River Road.
- 41-G** A cloverleaf intersection would be prohibitively expensive for this low-volume movement, and would have a significant impact on the Clark Fork River.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 42



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Public Hearing
September 24, 2008

We Invite Your Comments:

What's Best for Russell Street:

- 42-A** 1. - Safe & secure : 3 Plus does not provide safety or security. When a car is forced to merge in heavy traffic from a 4 lane to 2 lane, it endangers pedestrians, bicyclists & motorists. (dead bicyclists)
- 42-B** 2. - Roundabouts : DO NOT allow smooth flow of traffic & cause accidents.
- 42-C** 3. - The overwhelming majority of Missoulians (75%) want better roads to cross the city.
- 42-D** 4. - 3 Plus is cheaper! Not in the long run, after 5 yrs. of the same traffic congestion, it will have to be widened & reconstructed, DO it right the first time.
- To receive further project information, please provide your name and address:
- Name: Carol Babington
- Address: 123 Chestnut Lane
Missoula, MT
59803
493-6012
- Please leave your comments with Project Team staff at the meeting, or mail to:
- Darryl L. James
HKM Engineering Inc.
PO Box 1009
Helena, MT 59624-1009
- 42-E** 5. Bicyclists do not pay gas tax, therefore, \$\$ collected from tax should be spent on road improvements, not bike lanes.

- 42-A** A three-lane facility is acceptable under the right conditions; however, a three-lane facility on Russell Street would not provide substantive safety or mobility improvements. Please also refer to response to Comment 27-B.
- 42-B** Roundabouts are accepted traffic management tools, and in many cases reduce the severity of accidents as compared to signalized intersections with a high percentage of turning movements.
- 42-C** According to the Envision Missoula polls, 75 percent of Missoula residents report that they want better roads. For Russell Street, the Preferred Alternative would best address the current and forecasted problems and traffic volumes.
- 42-D** See response to Comment 31-G regarding the cost of options similar to the "3 Plus" alternative.
- 42-E** Guidelines on the use of federal transportation funds leads transportation authorities to provide safe and efficient facilities for all modes of travel. Taking cyclists out of travel lanes is safer for both the bicyclist and the vehicle driver.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 43

September 25, 2008

Greg Wood
Missoula Public Works
435 Ryman St
Missoula, MT 59802

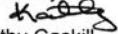
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SEP 29 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Dear Mr. Wood,

From the reading I have done I feel the proposal from residents to have a mostly 3-lane Russell Street with the addition of bike and pedestrian corridors would best suit the community. That plan would provide adequately for vehicle travel while also encouraging alternative forms of travel. I try to bike to work as much as possible and the most frequent reason co-workers give for not biking is that they do not feel safe with the traffic. A design that would encourage non-vehicle travel and help people feel safe would have a positive impact on lowering traffic congestion and a side benefit of promoting a healthy life style.

Sincerely,


Kathy Gaskill
1520 Khanabad Drive
Missoula, MT 59802
829-8978

Please refer to response to Comment 27-B regarding the failure of the three-lane alternatives to satisfy the Purpose and Need for this project.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 44



Tuesday, September 23, 2008

To: Darryl L. James
HKM Engineering Inc
P. O. Box 1009
Helena, MT 59624-1009

From: Chad Bauer, Chairman of Board Chad.Bauer@awin.com
Kim Latrielle, President/CEO kim@missoulachamber.com

Cc: Gregg Wood, Missoula City Project Coordinator

Re: Russell Street/South 3rd Street West Draft Environmental
Impact Statement

The Missoula Area Chamber of Commerce Board of Directors voted to support the preferred alternative build out of four lanes for Russell Street as identified in the EIS. The Chamber Board of Directors has forwarded the Public Hearing information and comment form to the Chamber membership to encourage a business voice in this process. The Missoula Chamber has a membership of 950 businesses, employing over 17,000 individuals.

Thank you for the opportunity to provide comment.

Thank you for your comment and your interest in the project.

Missoula Area Chamber of Commerce
P. O. Box 7577; Missoula, MT 59807
406.543.6623
www.missoulachamber.com

Appendix H - Written Comments and Responses

Comment 45

To All Involved;
After looking at the proposed plans, this is a ludicrous idea. There are businesses on the south side of 3rd Street that will not be accessible for someone traveling west on 3rd Street. This will have a great adverse impact upon these businesses. What is the reasoning for this? It seems Missoula has a lot bigger fish to fry than this.

Susan Rodli
Nelson Personnel

See responses to Comments 37-A and 37-D regarding the rationale for inclusion of raised, landscaped medians on both Russell Street and South 3rd Street. As noted in the FEIS, roundabouts are no longer included in the Preferred Alternatives on either Russell Street or South 3rd Street.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 46

MDT Officers,

Although I do not live directly on Russell St or 3rd St, I do live on Montana St, which requires me to take either Russell St or 3rd St if I want to go around anywhere. I attended the community forum held at Franklin School on Sep 24th, and I would like to offer some comments on the proposed EIS plan.

46-A I oppose a five-lane roadway across Russell St. I don't believe that there is adequate street space and I am hesitant about turning it into a virtual highway right through town. However, I do support a four-lane roadway with the capacity to handle maximum rush-hour traffic, or at least an improvement over the current conditions.

I wonder about the possibility of expanding alternative 3 to extend four travel lanes all the way to South 5th St, and I like the idea of two-lane roundabout where feasible. Essentially, the summary might look like this:

Lane Configuration:

Two travel lanes (WITH a center turn lane) from Mount Ave/South 14th St to South 5th St

46-B Four travel lanes (WITHOUT a center turn lane) from South 5th St to West Broadway St

Intersection Control:

46-C *Two-Lane Roundabouts at:*

South 5th St

Wyoming St

Single-Lane Roundabouts at:

South 11th St

Signal Control at:

Mount Ave/South 14th St (existing)

South 3rd St (existing)

West Broadway St (existing)

All other streets intersecting Russell St would be controlled by stop signs.

46-A A four-lane facility with a center turn lane/median is much safer than simply a facility with two lanes in either direction. Removing turning vehicles from the through vehicles substantially improves both traffic flow and safety. Please also refer to response to Comment 37-A regarding the benefits of median treatments.

46-B See response above regarding a four-lane facility.

46-C Roundabout operations can be disrupted by nearby signalized intersections. The Russell Street / South 3rd Street intersection is proposed with signal control, due to constraints presented by several historic properties, particularly at South 5th Street.

Appendix H - Written Comments and Responses

46-D As far as 3rd St, I approve of option C as the preferred alternative, with no additional suggestions.

Thanks for the opportunity to comment on this plan.

Alex Zimmerman

Comment 47

47-A As a resident of the Franklin to the Fort neighborhood, I would like to see two primary outcomes from the revamp of the Russell and 3rd street corridors:

- Ease of traffic flow (keeping traffic out of neighborhoods and on thoroughfares)
- Easy and safe access for pedestrians moving from F2F to neighborhoods adjacent and across Russell and 3rd streets

It seems to me that the following alternatives would best serve the needs of residents, commuters and pedestrians now and into the foreseeable future:

47-B Russell Street Alt 5 (refined)
3rd Street Alt C

Having a very attractive boulevard and roundabouts will move traffic, provide safe and friendly pedestrian atmosphere and provide a critical link from the F2F and Westside neighborhoods to the downtown areas. I appreciate the opportunity to comment.

Dave Glaser
1805 S 9th street west
Missoula, MT 59801

Thank you

46-D Please refer to response to Comment 38 regarding the change in the Preferred Alternative on South 3rd Street from Alternative C to Alternative E.

Thank you for your comment and interest in the project.

47-A The Preferred Alternative is intended to provide both improvements in traffic flow and safety, and substantial improvements to bicyclists and pedestrians within and across the Russell Street corridor.

47-B While Alternative 5 (Refined) was analyzed due to its desirability by the City, it was eliminated due to impacts to protected historic resources (Please refer to Chapter 5 of the EIS for a discussion of Section 4(f) protection afforded to these properties). Alternative E on South 3rd Street has been forwarded as the Preferred Alternative in this corridor. Please refer to response to Chapter 2 of the EIS for more information on the consideration of roundabouts on South 3rd Street.



Comment 48

Submitted: 09/19/2008 09:23:40
Project Commenting On: Russel Street
Name: Ruth Havican
Address Line 1: 365 Blue Heron Lane
City: Missoula
State/Province: mt
Postal Code: 59804

Comment or Question:

I would like to mention that I believe it is imperative that separate grade crossings be retained as part of the planned Russel Street project. The separate grade crossings allow all people of all skills and mobility's to use alternative transportation and thereby reduce congestion, while improving air quality and physical health. This area is greatly used by bicylies, pedestrians and a good deal of disabled people in wheel chairs and/or walkers and canes.

Grade-separated trail crossings are an integral part of any build alternative on Russell Street. They are currently part of the Preferred Alternative at the trail crossings of the Bitterroot Trail, Milwaukee Trail, and Riverfront Trail system.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 49

Dear Sirs

I support the 4 lane preferred option and strongly suggest that the minority not take this project away from the people who want to “solve” a traffic problem not keep traffic congestion in Missoula a norm.

Terry

Terry L. Forest, PE
DJ&A, P.C.
3203 Russell Street
Missoula, Mt. 59801
406-721-4320

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 50

Name: Kevin Verlanic
Address Line 1: 1228 South 4th West
City: Missoula
State/Province: Mt
Postal Code: 59801

Comment or Question:

If we truly want to help the state become more green as the esteemed Al Gore is extolling, should it not behove us one of the greatest technological advanced nations in history of this planet to come up with a better solution than just another Reserve Street which really is not a solution to anything. The time to act is now, no longer can we as a society continue down the path of major sacrifice for the automoblie.

50-A

50-B

50-C

More streets with numerous lanes are not the solution, make alternate modes of transportation more effeicent and quicker, make auto transportation more cumbersome, cutting oil consumption is a goal, all your streets and highways should work towards that.

The time to change our way of thinking is now.

50-A

Russell Street would function and feel much different than Reserve Street. Based on early public comment, the roadway design was modeled more after that of Stephens Avenue with landscaped medians and boulevards. Please refer to Section 7.4 of the EIS regarding previous public input on this issue.

50-B

The Preferred Alternative provides vast improvements for alternative modes of transportation, and with additional capacity for motorized travel, will also provide advantages for carpools and transit if more people choose those options. Until the Long Range Transportation Plan prioritizes investment in infrastructure solely for non-motorized use, the City, MDT, and FHWA have a responsibility to provide facilities that provide safe and efficient travel for all modes.

50-C

While commuter expectations may need to change regarding travel in the growing urban areas of Montana, it is not the role of transportation providers to dictate the policy. Transportation officials are merely responding to the actual travel behaviors, which have not changed substantially over the last several decades.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 51

I support the preferred alternatives outlined in the Draft EIS. If Russell was redesigned in a manner similar to Orange Street (functional and pleasing to the eye) rather than W. Broadway (still the poorest alternative), traffic flow throughout Missoula would improve. Further, there is sufficient access to the bike paths as well as less traveled residential streets to adequately support bike traffic in the area, in addition to the bike lanes proposed.

Tom Severson
Missoula, MT

Thank you for your comment and interest in the project.

Comment 52

David Durocher – left a voice-mail message with Gregg Wood on 9/29/08 and offered the following:

“I would like to see bike traffic separated from vehicle traffic at least on the bridge, possibly with guardrail. I would like to see a light installed at Wyoming and Russell. I support the preferred plan with full bike lanes.”

No barrier separation is anticipated between the bike lanes and vehicular travel lanes in either the Russell Street or South 3rd Street Corridors. A traffic signal at Wyoming Street is anticipated as part of the Preferred Alternative on Russell Street.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement

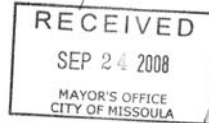


Comment 53

Sept. 23, 2008

Al Price
110 N. Easy St.
Missoula, Mt. 59802

Mayor John Eger
435 Ryman St.
Missoula, Mt. 59802



Dear John,

I was interested in two recent Missoulian articles regarding the Third & Russell St. situation.

The first spoke to the spending of three million dollars over eight years to study the problem!!

The second article described a man from the neighborhood driving the streets at different times of day, looking for big problems. He didn't seem to be saddened by his findings.

I think we may need some change, possibly a bridge. I believe in fixes that are as simple as possible. I have been

Thank you for your comment and your interest in the project.

Appendix H - Written Comments and Responses

disappointed in me in
few engineers over the years, except
for those on trains!
Anyway, after projects such as
West Broadway, Brooke & South, etc.
are completed, several years down
the road people sort of forget
and move on. However, this
does not validate the project!!!

See ya around,
Sincerely,
Al Price



Final Environmental Impact Statement

Comment 54



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240



OCT - 1 2008

9043/1
PEP/NRM

ER 08/875

Mr. Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula, Montana 59802

Dear Mr. Wood:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement and Section 4(f) Evaluation for the **Russell Street and South 3rd Street Reconstruction, City and County of Missoula, Montana**. The Department of the Interior (Department) has reviewed the document and submits our comments.

SECTION 4(f) COMMENTS

The Department acknowledges that historic Section 4(f) properties will be affected by this proposed project. We appreciate that you have coordinated a Memorandum of Agreement with the Montana State Historic Preservation Officer to mitigate these effects. Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources.

We appreciate the opportunity to review this document.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

cc:

MDT (Tom Martin, 2701 Prospect Avenue, Helena, MT 50620)
FHWA (Craig Genzlinger, 585 Shepard Way, Helena, MT 59601)

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OCT 06 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Thank your for your review and concurrence in the findings contained in Chapter 5 of the EIS with regard to unavoidable impacts on the protected Section 4(f) properties.

Appendix H - Written Comments and Responses

Comment 55



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

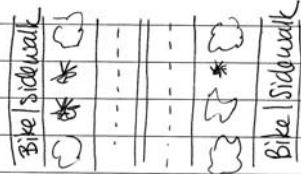
We Invite Your Comments:

55-A

55-B

55-C

My comment is please no roundabouts. I really like the boulevard idea. My biggest concern is for bike and pedestrian traffic. Please consider a large island separating the bike lanes & sidewalks from the street automobile traffic (on each side). Also either a bike/ped lane below or above the new bridge.



Thanks!

RECEIVED
OCT 01 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Jennifer Wells

Address: 2011 Woodlawn Ave.
Missoula, MT 59804

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

55-A

Major intersections on Russell Street and South 3rd Street are proposed to be controlled with traffic signals. See also response to Comment 38 regarding a change in the Preferred Alternative on South 3rd Street.

55-B

The American Association of State Highway Transportation Officials "Guide for the Development of Bicycle Facilities" documents the following with regard to the shared use path illustrated in your comment:

"In general, the designated use of sidewalks (as a signed shared facility) for bicycle travel is unsatisfactory. It is important to recognize that the development of extremely wide sidewalks does not necessarily add to the safety of sidewalk bicycle travel.... Sidewalk bikeways should be considered only under certain limited circumstances, such as: a) To provide bikeway continuity along high speed or heavily traveled roadways having inadequate space for bicyclists, and uninterrupted by driveways and intersections for long distances. b) On long, narrow bridges...." Page 20

55-C

The new structure(s) over the Clark Fork would allow for bicycle and pedestrian travel underneath the bridge on both the north and south sides of the river, as well as over the river on the east and west sides of the bridge structure itself.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 56



DEAR MR WOOD —

I AM WRITING TO EXPRESS MY OPPOSITION TO THE CURRENT PREFERRED PLAN FOR RUSSELL AND 3RD STREETS. I ATTENDED THE PUBLIC MEETING ON 9-24 AND AGREE WITH THE SENTIMENTS EXPRESSED BY MOST OF THOSE WHO SPOKE. I BELIEVE THE MAJORITY OF MISSOULIANS DO NOT WANT ANOTHER RESERVE STREET RIGHT THROUGH THE MIDDLE OF TOWN. I AVOID RESERVE AT ALL COSTS AND WOULD NEVER WALK OR RIDE MY BIKE THERE IF I COULD HELP IT. EVEN

56-B STEPHENS STREET IS UNPLEASANT AND DANGEROUS TO

56-C WALK/RIDE ACROSS. ONE OF THE GREAT THINGS ABOUT MISSOULA IS THAT IT IS SOMEWHAT BICYCLE AND PEDESTRIAN FRIENDLY AND I WOULD LIKE IT TO GO EVEN MORE IN THAT DIRECTION. WITH THE PRICE OF ENERGY GOING UP IT WILL NEED TO ANYWAY. LET'S GET AHEAD OF THE CURVE AND BUILD SOMETHING WE CAN BE PROUD OF INSTEAD OF SOMETHING HUMAN-UNFRIENDLY THAT WE WILL THEN BE STUCK WITH. I HOPE YOU WILL SERIOUSLY RECONSIDER THE 3-PLUS PLAN FOR RUSSELL.

THANK YOU.

—NICOLE SULLIVAN

1700 S. 11TH ST. W.

56-A Public sentiment with regard to the aesthetic and operational feel of Reserve Street has been noted in the EIS in Section 7.4, and alternatives were developed on Russell Street to mirror a facility more like Stephens Avenue, with two travel lanes in each direction, a center turn lane/raised, landscaped median, bike lanes, landscaped boulevards, and curb/gutter/sidewalk. The difference in physical width between Reserve Street and the Preferred Alternative should also be understood. A typical section with the same elements as the Preferred Alternative measures 105 feet on Reserve Street compared to 94 feet on Russell Street. The reduced width on Russell Street is due to the minimization of the travel lane, center lane, and boulevard widths included in the Preferred Alternative.

56-B Please refer to Section 7.4 of the EIS for a discussion of Stephens Avenue. Further, there is no evidence to suggest that Stephens Avenue is dangerous for pedestrians or bicyclists.

56-C The intent of the proposed improvements on Russell Street is to provide transportation mobility for all users – bicyclists, pedestrians, carpoolers, transit riders, and motorists. Options similar to the “3 Plus” plan do not provide improvements for motorists and based on public comment would not be “friendly” to those who choose to drive automobiles.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 57



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

- 57-A** I oppose the "preferred alternative" for Russell Street. I do not want 4 lanes of traffic there. I live on the corner of 11th & Catlin & cross Russell several times a day. I used to live on Stephens, so I know what it's like to try to walk / bike / drive across 4 lanes of traffic: scary & sketchy. I think the projections for future traffic are way off & not taking into consideration high gas prices & Missoula's progressive community. Also, I believe that if you build a big road, more traffic will be drawn to it. Please make an effort to think creatively & not rely on outdated & inapplicable models for traffic modelling. Thank you.
- 57-B**



MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: HOLLY MCKINNEY

Address: 1700 S. 11th St. W
MISSOULA, MT 59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

- 57-A** The Preferred Alternative for Russell Street has center median refuges at locations with raised medians, as does Stephens Avenue, so that a cyclist or pedestrian only has to cross two motor vehicle lanes at a time. (See also response to Comment 37-A regarding the benefits of the raised median.) The Preferred Alternative for Russell Street also offers nine controlled crossings – five signal controlled, and four grade separated crossings.

- 57-B** The traffic projections were developed through the Long Range Transportation Plan Update process. In years past, there have been attempts to provide ranges of growth based on different growth patterns and densities. The level of land use control has not been achieved that would promote substantive changes in travel patterns or volumes in Missoula, and many 20-year projections have been exceeded in just four or five years. Additional modeling has been conducted to validate the projections currently in use, and the Traffic Analysis Update confirms that these are sound assumptions even given the fluctuation in fuel prices. (See also response to Comment 5-B). A new travel demand model was developed as part of the Traffic Analysis Update conducted in the spring/summer of 2009. The model forecasts included a sensitivity analysis and mode-shift calculation. Please refer to Appendix G for a summary of the Traffic Analysis Update.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 58

Because one of the main concerns is bicycle safety, what is the feasibility of putting the boulevards between the pedestrian and bicycle lanes between the bicycle and vehicle traffic lanes and having merge areas at street crossings forcing bicycles into traffic compliance?

Ron Ver Wey

This option would be more costly and require additional right-of-way due to the need for additional curb-and-gutter on both sides of a meandering bike lane. The bike lane as proposed is a proven design and provides substantive safety improvements. Please refer to response to Comment 28-A regarding bike lane design standards.

Thank you for your comment and interest in the project.

Comment 59

Russell Street and South 3rd Street are major motor vehicle arterials that both need the recommended upgrades. Both streets have an impact on traffic into and out of the downtown area and are dramatically insufficient right now. Neither is safe for pedestrians or bicyclist and must accommodate everyone.

I think the current plan as presented will do a great job to help all modes of transportation. This project is a long time coming and should be top priority.

- 59-A** While a roundabout should not be used at Russell and 3rd they might work well at other intersections. I also think that access to Russell might be limited to at least every other block.
- 59-B**

Rod Austin
2662 Stratford Lane
Missoula, Mt 59808

Thank you for your comment and interest in the project.

- 59-A** Roundabout operations can be disrupted by nearby signalized intersections. The Russell Street / South 3rd Street intersection is proposed with signal control, due to constraints presented by several historic properties, particularly at South 5th Street.

- 59-B** Please refer to response to Comment 37-A regarding the benefits of access control and medians.

Appendix H - Written Comments and Responses

Comment 60

Greetings,

60-A The upgrading of Russell Street is overdue but I support the citizen alternative called 3-PLUS instead of the preferred alternative. I travel primarily by bicycle in Missoula, closely followed by walking, with driving as a distant third. I live one block off Russell, just west of ACE Hardware. I visit an old friend at Village Health Care daily and have to cross Reserve Street on my bike. It feels like a version of the autobahn and, for a biker or pedestrian, it constitutes a near-death experience to cross anywhere between lights. Drivers have an extended visual field with higher posted speeds than elsewhere in Missoula. This leads to an expectation of quick travel and anything that moves at human speed or just above is an irritant to drivers. The vast expanse of asphalt isolates neighborhoods and encourages racing vehicle traffic over all other forms of transportation. I would hate to see that sort of roadway constructed along Russell Street.

60-B 3-PLUS is more in keeping with the culture of Missoula and people will get where they are going without endangering one another. The roads don't have to be engineered to reflect people's urge to go faster and faster. While we have the chance, let's take a more enlightened, sensible path. One of these days we are going to have to learn to change our car culture by creating alternatives that spare neighborhoods, reduce gas consumption, and allow people to move about without taking their lives in their hands.

Cheers,
Cate Campbell
PO Box 5671
Missoula, MT 59806

60-A Please refer to response to Comment 27-B regarding the failure of options similar to the “citizen alternative” to satisfy Purpose and Need.

60-B It is neither the design nor intent to encourage higher traffic speeds in the Russell Street corridor. As stated in the Purpose and Need, the intent is to provide substantive improvements in safety and mobility for all modes of travel in the Russell Street and South 3rd Street corridors. The Preferred Alternative best satisfies the stated Purpose and Need.

Thank you for your comment and interest in the project.



Comment 61

My family and I have lived very near Russell Street and Seventh Street for the past 26 years. It is my opinion that the number of vehicles traveling this route has increased beyond its present capacity. We've witnessed at numerous times vehicles impatient with waiting in line for the up ahead traffic to proceed, deciding to travel a side street through a more quieter residential area with thoughts of bypassing the long line of traffic. Often times these impatient vehicles appear to be not traveling at a speed appropriate for the residential area.

Therefore as a resident of the area, I wish to see Russell Street improved to four lanes of traffic which includes a landscaped center median. There is presently an existing area in Missoula for which Russell Street could duplicate or nearly duplicate if off street parking is not included. That being the current Stephens Avenue between Sixth Street and Mount Avenue. To me, this street has the capacity to move traffic, yet maintains the looks and feel of a residential area.

Thank you.
Steven Smith

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 62

From: Adam Johnson [mailto:haulpack@yahoo.com]
Sent: Wednesday, October 01, 2008 5:09 PM
To: MDT Comments - Russell EIS; MDT Comments -
Russell EIS

62-A I am opposed to the preferred alternative, which is to spawn Reserve Street #2. However, I do see problems with the current situation. I am brave enough to ride my bike along Russell but my wife and friends are not. It certainly is not pleasant or safe. However, I am sure that whatever is finally built will be more friendly to all modes of transit.

62-B Also, I heard about one comment at the recent meeting regarding neighbors being able to smell idling cars along Russell. That is terrible, but i'm not convinced that creating two lanes each direction will solve that. Do we know whether residents along Reserve can smell the pollution there? Certainly there are many backups of cars there as well as at Russell. My current thinking is along the lines of Field of Dreams: build it and they will come. In this case it is "build it and even more will come."

Adam Johnson
1206 Phillips St.
Missoula

62-A The proposed project is intended to address not only existing traffic demand and to install pedestrian and bicycle facilities where none exist today, but it is also intended to address future demand. Based on anticipated growth and development in the immediate study area, and areas outside the Russell Street and South 3rd Street corridors that feed through the study area, there will be substantial growth in traffic over the next 20 years.

62-B See Sections 3.7 and 4.7 of the EIS regarding the Air Quality analysis conducted for this project.

62-C While an improved Russell Street may draw travelers from other congested routes, it is not anticipated to encourage new trips during the peak hour. Please refer to response to Comment 23-B regarding the concept of induced growth.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 63

Dear Mister Mayor,

Greetings and good day Sir; and I submit they are always good in our lovely city.

I saw you only briefly at the Russell/3rd public hearing last night, so I am rather disappointed that you were not able to hear many of the folks comments and public sentiment about the 4/5 lane Russell Street proposal. I believe that a fair assessment is that over 90 percent of the verbal comments exhibited some form of opposition to the wide 4/5 lane road proposal that would knock down peoples' homes. However, they did want a better more human scale corridor that serves a broad array of users and many demanded incorporation of progressive modern transportation solutions beyond the business-as-usual model of only moving more cars.

As I believe that you may have missed them, I would like the relay a paraphrasing of my verbal comments:

"About the Russell Street 5 lane proposal:

63-A

There is an interesting, simple test that I've recently heard of to evaluate if development and transportation proposals are healthy for a community; it has 5 questions:

Does it pass the Popsicle Test? Can you walk from the grocery store to your home before the popsicle melts all over your hand? If you have to cross a wide, intimidating 5 lane road, I doubt it. Answer: It fails the Popsicle Test.

Does it pass the Smooch Test? Can you walk through or along this space with your honey and be able to stop and cop a smooch without feeling in danger or on-guard? Along a wide uncomfortable high-speed roadway, I doubt it. Answer: It fails the Smooch Test.

Does it pass the Kid Test? Could you comfortably let your kids go into or cross this space? No Way! Answer: It fails the Kid Test.

63-A

Due to the constraints within the Russell Street and South 3rd Street corridors, there are no transportation improvements proposed in the EIS, nor raised during the project development process that provide safe and efficient transportation services and do not impose some impact on adjacent residents and businesses. The attempt throughout the project development process has been to identify the most substantial improvement in safety and efficiency for all modes of travel, while minimizing impacts to the surrounding environment. The Preferred Alternative meets that essential goal. Alternatives that provide fewer transportation efficiencies do not necessarily impose substantially fewer impacts. In fact, the Preferred Alternative required the least residential and commercial acquisitions of the Build Alternatives proposed. Alternatives 2, 3, and 5-Refined impact 22 homes and businesses, Alternative 5 impacts 31, and the Preferred Alternative impacts 21. See also response to Comment 19-B.

63-B

The facility proposed in the EIS provides substantial improvements over the existing conditions in this corridor. While the broad mix of improvements for all modes may not fully satisfy all users or perspectives in the community, the engineering analysis for the EIS, and subsequent Traffic Analysis Update indicates that the Preferred Alternative is the best solution for this corridor.

Appendix H - Written Comments and Responses

Does it pass the Seniors Test? Could seniors reasonably navigate through this space via any mode? No Way! Answer: It fails the Seniors Test.

Does it pass the Commons Test? Does it give to the community in a way that does not also harm it? Considering the huge negative impacts to housing, neighborhoods and the large dangerous signalized intersections, that's a no. Answer: It fails the Commons Test.

Next I want to talk a little about our shared Montana, Missoula and community values.

63-C Fairness-- Is it a Missoula value to knock down peoples homes and businesses, and impact neighborhoods in such a profound way, just to accommodate fast moving cars?

Family--Montanans want safe friendly spaces, places and neighborhoods to raise their kids, to live, to work and play.

Freedom and Choice-- We are a progressive, intelligent community and we have the right to decide what our community will look like.

63-D Thrift-- A 40 million dollar (plus and growing!) project; we are in dire need of transportation dollars for fixing roads all over the city. A community friendly, human scale roadway can be much less expensive.

63-E I would like all of us, our leadership, especially our City leaders and civil servants, to reflect on our Montana and community values-- does this preferred alternative for Russell Street reflect the will of our community? Does it honor the intelligence and flexibility of our citizens?

I think it does not."

Thank you for your time and attention.
Sincerely,
John Wolverton

63-C Improvements in this corridor – even just those to put in sidewalks, curb-and-gutter, and bike lanes – has an impact on adjacent properties. The impacts proposed in the EIS, which do include the removal of homes and businesses, are from a balanced mix of improvements for all modes of travel. The mix includes 22 feet of new pavement for vehicular use, between 14 and 26 feet of landscaping (depending on whether the median includes a turn lane), and over 20 feet of paved surface for bicycle and pedestrian use. These dimensions can be shifted slightly in either direction to better reflect community preferences and code compliance, but the balance of proposed improvements is fairly established.

63-D Please refer to response to Comment 31-G regarding the similar cost of the various build alternatives.

63-E Based on the public process conducted to date, the Preferred Alternative satisfies the stated Purpose and Need and has received substantial public support.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 64

64-A I have reviewed the above-named proposal and have serious concerns about the project. Placement of a median on 3rd Street will impair or prevent larger trucks, such as those driven by Coca-Cola and Cedar Products, from gaining access to the appropriate property.

64-B In addition, the medians will severely limit access to businesses located all along 3rd Street. At Nelson Personnel, we are already limited by parking available and addition of the median, may prevent many customers from stopping in or doing business with us.

64-C The idea of widening 3rd Street with turn lanes is a great one and for that, we would be grateful. However, please reconsider the placements of medians as it will restrict and in some cases limit, access to all businesses.

Thank you for consideration of my comments.

Lois A. Cassan

Lois A. Cassan, CSP/Office Manager
Professional Employment Consultant
Nelson Personnel
2321 South 3rd Street West
Missoula, MT 59801

64-A The proposed median and intersection designs on South 3rd Street will be designed with consideration of truck turning movements and maintaining reasonable access to commercial properties.

64-B The medians will improve traffic flow. Please reference response to Comment 37-A regarding the benefits of the medians. In addition, the Federal Highway Administration notes in their “Benefits of Access Control” brochure that:

“Installing raised medians often raises serious concerns by the business community that local businesses that depend upon pass-by traffic (especially gas stations and fast-food restaurants) will be adversely affected by medians. Though there are few studies of the actual impacts of medians on business sales, there are several surveys of business owner opinions. Surveys conducted in multiple corridors in Texas, Iowa, and Florida demonstrate that the vast majority of business owners believe there have been no declines in sales, with some believing there are actually improvements in business sales. One study in Texas indicated that corridors with access control improvements experienced an 18 percent increase in property values after construction.”

64-C During the final design process, details will be worked out with individual property owners to determine where medians should be placed, and where critical access points need to be preserved in their current configurations. The overall intent is to provide system improvements, so compromise may be necessary at the individual property level.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 65

From: Caroline Smith [mailto:carolinefsmith@yahoo.com]
Sent: Thursday, October 02, 2008 3:40 PM
To: MDT Comments - Russell EIS
Subject: In support of the 3Plus option for Russell Street

To whom it may concern:

I am writing to state my support for the citizens' plan option for the Russell Street reconfiguration in the city of Missoula. As a resident of the Russell and 3rd Street neighborhood, I am a frequent user of these streets. I drive, walk, and bike on 3rd and Russell frequently. I support the 3 lanes Plus option for several reasons:

- 65-A** 1) As the Reserve Street reconfiguration has proved, adding multiple lanes with stoplights does not necessarily move traffic any faster and will never be able to keep up with a growing number of road users. Roundabouts can and do.
- 65-B** 2) As a frequent bike commuter, I fear streets with four+ lanes. I can't imagine biking on Reserve Street and would have reservations about biking on Russell with four lanes of moving traffic and one turning lane. It's too much distance to cross on a bike.
- 65-C** 3) One of the city's goals seems to be to encourage more citizens to bike and walk. The 4+ plans does the opposite.
- 65-D** 4) Having lived in another city that relied heavily on roundabouts (Auckland, New Zealand), I am impressed by their ability to move a large number of vehicles with ease, even during periods of high traffic pressure. Stoplights create backups (look at the left hand turn lane heading North at Reserve and Mullen Rd at 5 PM on weekdays).
- 65-A** It is agreed that transportation providers will never keep up with the growing demand, but still have a responsibility to provide safety and capacity improvements where feasible and appropriate. The Russell Street corridor is a principal arterial, and an important connection across the Clark Fork. While it is also agreed that roundabouts are a good tool in the right location, this intersection treatment alone will not improve the traffic flow in the Russell Street corridor given the existing and predicted traffic volumes on this route.
- 65-B** Russell Street will include substantial lengths of raised, landscaped median that will include pedestrian/bicyclist refuges to allow for crossing of two motor vehicle lanes at a time.
- 65-C** The Preferred Alternative includes bike lanes and sidewalks that are non-existent in the corridor today.
- 65-D** See response to Comment 3-B and 38 regarding roundabouts.

Final Environmental Impact Statement



65-E Please consider nominating the 3+ option for this reconstruction project.

Thank you for taking my comments into consideration. I look forward to living and commuting in this neighborhood for many years to come, and I appreciate the opportunity to offer my opinion.

Yours,

Caroline Simms
1011 South 2nd St West
Missoula, MT 59801

65-E Please refer to response to Comment 27-B regarding the failure of options similar to the “3+ option” to satisfy Purpose and Need.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 66

I am writing to express my opposition to the preferred alternative for reconstructing Russell St. and South Third St. West.

Several articles have stated that the intent of the preferred alternative is to make the design of Russell and Third more like Stephens Avenue between Mount and Sixth Street as opposed to Reserve St, with landscaping, boulevards, and bicycle lanes.

While I applaud the sentiments behind these design standards, as a bicyclist, I still do not feel safe crossing Stephens Ave.

66-A The boulevards and landscape do add to the visual appeal for drivers and provide the opportunity to create pedestrian/bicycle crossing safety features. However, due to the increased height, it is very difficult to see the two lanes of traffic on the side of the street opposite the landscape median. This creates conditions for potential collisions when a judgement error is made and a bicyclist commits to crossing the street when traffic is clear on the two lanes closest to them, only to discover oncoming traffic coming the other direction. A specific example of this is crossing at Franklin and Stephens. When a bicyclist is crossing northbound, they are able to see the two eastbound lanes very clearly. However, the westbound traffic is partly obscured by the median, especially the trees, making it difficult to see them and thus making a safe crossing difficult for a bicyclist.

66-B The "3-Plus" community plan overcomes this obstacle by reducing the number of lanes to one in each direction for most of the way. The visual distance and width of this plan makes it more likely that a bicyclist would be able to see over a landscaped median.

Thank you for considering this comment.

Sincerely yours,
Andrew Stickney
stickneyal@gmail.com

66-A The refuge in the center allows for the cyclist or the pedestrian to cross two lanes at a time. Neither the cyclist nor pedestrian should intend to cross all four travel lanes at once without assessing the conditions in the opposing lanes.

66-B Please refer to response to Comment 27-B regarding the failure of options similar to the "3-Plus" option to satisfy Purpose and Need. Further, the height and visual obstruction of the landscaped median would not vary between the alternatives.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 67



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

OCT 06 2008

We Invite Your Comments:

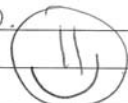
MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

67-A

As a student who bikes over
Russell everyday on the way to work,
and the current student at large on the
UM Transportation Board, I am not in favor of
the current preferred plan, but am instead of
the "Three Plus" plan. To be blunt, the narrow
lanes, lights, large amounts of quickly-moving
traffic, and many intersections are scary for
a biker. However, we bikers continue to ride on
Russell. How many bikers currently ride down
Reserve every day? (I know of none.)

67-B

The students of UM bike more now than ever, and
the citizens of Missoula are so well. It would
be wonderful to see a public roads project
enhance this relationship.



Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Emily Schenck

Address: 209 Helens Court South
Missoula, MT 59801

Please leave your
comments with Project
Team staff at the Hearing,
or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

67-A

Please refer to response to Comment 27-B regarding the failure of options similar to the "Three Plus" plan to satisfy Purpose and Need.

67-B

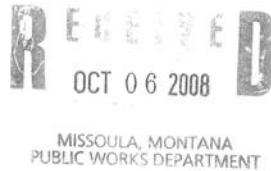
The Preferred Alternative represents a balanced project that enhances the relationship between all modes of travel by providing adequate capacity and dedicated facilities for all modes.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 68

Greg Wood
City of Missoula Public Works
435 Ryman Street
Missoula, MT 59802



Mr. Wood,

You don't need to be a Professional Traffic Engineer to recognize that the preferred 4-lane plan for Russell Street is the only way to go. Anything less would only be an interim solution to Missoula's growing car, bus and bicycle traffic. And what's not to like about it? It includes a new 4-lane bridge, which is a must; four traffic lanes throughout, which give it the best chance of actually handling the amount of traffic it already experiences let alone future volumes; it greatly improves all other modes of travel by including bus pull outs, sidewalks, bike lanes, and bike-pedestrian crossings for connections to existing trails; and it improves safety and esthetics with landscaped boulevards and street lighting.

The preferred design sounds strangely familiar. Matter of fact, it sounds like another Stephens Avenue! Stephens turned out just great. It functions well, speeds are low, it's esthetically pleasing, it's a comfortable street to walk or bike along, and darn if it isn't 4 lanes with signals through a residential neighborhood! What's with all the comparisons to Reserve Street? There is no comparison!

I once heard it said that Missoula city government needs to "listen to the vocal minority but act in a way the benefits the majority". I totally agree. The city's leaders need to listen to the public's concerns and suggested alternatives. They then need to put those public comments in perspective: are they overly idealistic and unachievable, or are they realistic and obtainable. And despite how vocal the minority have been, in the end, they have the responsibility to back a solution that makes sense, is achievable, and benefits the majority!

Scott Michell
4275 Duncan Drive
Missoula, MT 59802

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 69



MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

09-05-08
Larry Roberts
935 Cleveland
Apt B
Missoula, Mt. 59801

Bug Wood
Missoula Public Works.

Dear Bug:

I live between Stephens and
Busell and travel them both on
an almost daily basis. Stephens
is a real pleasure to drive where
you have the median. It feels
accidental and my observation
is that people abide the speed limit.

If you could do something
similar from 3rd to 12th on
Busell, it would be the ultimate.
No two lane to merge in and
out, back idea!

Larry
Roberts

As stated in the EIS, the intent of the proposed improvements is to provide a facility very similar in function and appearance to that of Stephens Avenue, with two travel lanes in each direction, a center turn lane/raised, landscaped median, bike lanes, landscaped boulevards, and curb/gutter/sidewalk. See also response to Comment 56-A.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 70



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

MISSOULA
PUBLIC WORKS DEPARTMENT

We Invite Your Comments:

I support the 3rd to Broadway, Russell Street expansion. I believe it will make the road safer for cyclists, pedestrians & motorists as well as improving the aesthetics of the area which currently looks pretty bleak! I use this road quite often to avoid having to travel the congestion on Reserve St, so I look forward to a improved roadway.

Melanie Moeller

Thank you for your comment and interest in the project.

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Melanie Moeller

Address: 446 Strand Ave
Missoula, MT 59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802



Comment 71

From:Chaffey, Al [achaffey@mt.gov]
Sent:Wednesday, October 08, 2008 7:14 AM
To:MDT Comments - Russell EIS
Subject:Comment On Russell Street EIS

I agree with the county preferred alternatives for Russell and third streets

Al Chaffey
13400 Sapphire Dr
Lolo Mt 59847

Thank you for your comment and interest in the project. For clarification, the proposed improvements have been developed by the City of Missoula, Montana Department of Transportation, and Federal Highway Administration.

Appendix H - Written Comments and Responses

Comment 72

From:MICHAEL BLAZEVIK[mblazevik1503@msn.com]

Sent:Tuesday, October 07, 2008 6:28 PM

To:mdtcommentsrusselleis@mt.gov

Subject:Comment On Russell Street EIS

Dear Sir,

I applaud the desire to increase the traffic flow on Russell from Broadway to Third Street. Missoula needs another avenue across the river that can handle the additional volume of traffic.

72-A However, the desire to utilize traffic circle to expedite traffic flow is a dangerous proposal. They may look good on paper and computer models, however having lived in Europe while stationed with the US Army in the 80's, I found roundabouts (traffic circles) to be dangerous not only to pedestrian and bicycle traffic, but also to other vehicular traffic, especially when truck traffic is introduced. Next to driving the Autobahn, I found driving in areas where there were traffic circles to be very dangerous. I have experienced one lane traffic circles with seven or eight entry/exit points to eight lane circles with only three or four entry/exit points. These larger traffic circles took up several city blocks and usually had some type of monument, park or garden in the center. Very grand but impractical. During peak traffic times, pedestrians could not cross and enter these "grand areas".

I am sure the designers are not going to make these circles narrow or make them of cobblestones. None the less, these traffic circles become very dangerous during inclement weather. Snow removal becomes an issue and ice turns these circles into a danger zone.

72-A The Preferred Alternatives do not include roundabouts on either Russell Street or South 3rd Street. Please refer to response to Comment 38 regarding the change in the Preferred Alternative on South 3rd Street.

Please also refer to the "Background on Consideration of Roundabouts" discussion in Section 2.1 of the EIS. This discussion outlines the critical difference between traffic circles and roundabouts. More information on roundabouts and their safety features is included in Appendix A of this EIS.



Final Environmental Impact Statement

72-B

I have personally experienced the traffic calming devices the city of Missoula placed in the University district. During the first few months, there were several accidents and numerous incidents of damage to city property. Several of the signs that were placed in the center were run over or pulled up. Flowers and shrubs were damaged. I witnessed people driving the wrong way to make left hand turns during the middle of the day. I observed fire truck, trash collection vehicles, delivery vehicles and some small trucks towing trailers having to drive up onto the center curb to negotiate these circles. Snow removal became a problem because snow plows could not negotiate the circle.

I personally think that normal intersections with the proper signage or traffic control lights would better serve the community, save land space and promote safer pedestrian, bicycle and vehicle traffic flow.

M. Blazeovich
USA, Retired
Missoula

72-B

The traffic calming tools used in the University district are very different from the roundabouts proposed in some of the Russell Street and South 3rd Street alternatives. Please refer to the comment above for more information.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 73

From:Ethel [ethelmacd@gmail.com]

Sent:Monday, October 06, 2008 3:11 PM

To:mdtcommentsrusselleis@mt.gov

Subject:Comment On Russell Street EIS

Point of agreement: The present Russell and Third Streets need improvement; both lack sidewalks and safe spaces for bikes.

73-A I support a four-lane Russell Street Bridge (with bike lane and sidewalk) and from the Russell Bridge to Third Street, as enough space exists.

I do NOT support four-five lanes from Third Street south to Mount because it would be disruptive to the neighborhood and would create another division between east and west Missoula. People between Russell and Reserve would be on an island with highway-style traffic on either side. Specifically, these are the environmental impacts I object to:

- 73-B** 1. Increased volume invited by two lanes each way.
- 73-C** 2. Increased speeds invited by two lanes each way, regardless of speed limits.
- 73-D** 3. Increased danger to pedestrians trying to cross, except for designated underpasses or traffic lights.
- 73-E** 4. Increased air and noise pollution in the immediate neighborhood.
- 73-F** 5. Increased danger to children playing in the vicinity of the street.
- 73-G** 6. Moderate or low-income housing removed at a time people cannot find houses they can afford.
- 73-H** 7. The Third and Russell intersection is so large it would be a hazard for bicyclists and pedestrians to try to cross.

73-I I also object because I feel the views of the original CAC and the public have not been fully considered in the choice of the final plan.

73-A While the right-of-way is wider in the northern portion of the corridor, some new right-of-way will be required on both sides even in the commercial areas north of South 3rd Street. See response to Comment 19-B and 63-A. (See also more detailed discussion regarding future phasing potential in response to Comment 185-B).

73-B The roadway capacity improvements are not intended to “invite” more traffic, but to accommodate the existing and projected traffic volumes on Russell Street and South 3rd Street. Please refer to response to Comment 23-B.

73-C There is no intention of increasing the posted speed limit in either corridor. Speeds are largely determined by the driver’s comfort level, and by enforcement. Inclusion of raised medians, narrowed lanes, and signalized intersections are intended to provide a traffic calming effect within the corridor.

73-D Please refer to the findings of the Traffic Analysis Update contained in Appendix G that suggest substantial safety and mobility improvements for pedestrians and bicyclists with the Preferred Alternative.

73-E Better traffic flow contributes to better air quality (see updated analysis in Section 4.7 of the EIS), and the EIS includes a detailed noise analysis that illustrates a minimal noise affect between future No Build conditions and the Build Alternatives.

73-F Children playing in the vicinity of the street today are separated by nothing more than an undefined shoulder. Under the Preferred Alternative, a child in an adjacent yard would be separated by a sidewalk, landscaped boulevard, and a bike lane – over 18 feet of defined space. Please also refer to correspondence from the Parks and Recreation Department in Appendix C regarding the existing passive green space adjacent to the roadway.

73-G Please refer to responses to Comments 19-B and 63-A regarding the similarity in impacts between the various build alternatives.

73-H The EIS outlined an intersection design to accommodate future demand. Further refinements will likely occur during final design. Even so, the intersection at Russell Street and South 3rd Street will likely be substantial, but signal phasing as well as signing and striping for the crossing will provide adequate protection for bicyclists and pedestrians.

73-I Please refer to responses to Comments 5-A and 36-C regarding the Citizen Advisory Committee and additional public outreach efforts outlined in the EIS.



Final Environmental Impact Statement

73-J I believe the traffic projections are outdated and would actually be less because a neighborhood-friendly two-lane street with roundabouts would invite less and slower (but steadily moving) traffic and bicycle and transit use. However, a thoroughfare type design would invite more and faster traffic, and approach those projections while making bicycle, transit, and pedestrian access more difficult and the surrounding environment unpleasant, polluted, and unsafe.

73-K In studying traffic patterns on the Russell corridor, I'm convinced the congestion is due not to the number of cars on Russell but to the Broadway/Russell intersection and to a lesser extent, the Third-Russell intersection. In both cases, you have five or more lanes and left turns. Making all of Russell Street four-five lanes will only add to the congestion at Russell/Broadway.

Thank you for your consideration of these comments.

Ethel MacDonald
316 West Central Ave.
Missoula 59801

73-J Please see Appendix G for a summary of the recent modeling efforts accompanying the Traffic Analysis Update conducted in the spring/summer of 2009. The analysis indicates that a two-lane street would not provide a “steadily moving” corridor for either single-occupant-vehicles or transit. Improvements in the general traffic flow are also a benefit to transit. The facilities proposed for bicyclists and pedestrians provide substantial safety and mobility improvements over the existing conditions, and are nationally accepted as safe design practices.

73-K The comment is correct in stating that the facility, with uninterrupted flow, could likely handle a much higher volume of traffic. As it actually occurs, there are a number of intersections and access points that contribute to degradation in the overall flow of traffic through the corridor. Intersection improvements at South 3rd Street will alleviate some of the delay due to the addition of through lanes and turn lanes to reduce the turning conflicts. The Russell Street intersection at West Broadway is also proposed for reconstruction as part of this project and would improve traffic flow through this intersection.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 74

Submitted: 10/03/2008 19:18:36
Project Commenting On: Russell Street/South 3rd Street -
Missoula

Dear Sirs,

I attended the public hearing on this project on September 24, 2008. There was overwhelming lack of support for the 5-lane alternatives in favor of a 3-lane alternative.

74-A My question is this: if the City of Missoula and the Montana Department of Transportation, and the Federal Highway Administration are truly listening to the public then what will it, the listening, look like? Short of offering some sort of 3-lane alternative I can't imagine the public will feel listened to. The public could not have been more clear about what it wants and doesn't want.

Regards, Lisa Klempay
543-5904

74-B P.S. Please accept lower grades for traffic flow. I find it normal, at certain times of day at certain intersections of town, to be stopped in traffic. We do not need to spend millions of dollars to solve this problem.

Thank you for your participation and comment.

74-A Public input is an important part of the NEPA/MEPA process and is being fully considered; however, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration are not relieved of their responsibility to design roadways that meet certain safety and mobility standards, and to provide an investment of public funds in projects that provide an overall benefit to the traveling public. Please refer to response to Comment 27-B regarding the failure of the 3-lane alternatives to satisfy the Purpose and Need.

74-B The Preferred Alternative provides the longest lifespan of the alternatives analyzed, but does not strive to achieve a specific level of service (or grade for traffic flow).



Final Environmental Impact Statement

Comment 75

From: Tom Platt [tplatt@hybrideg.com]
Sent: Wednesday, October 08, 2008 9:47 AM
To: mdtcommentsrusselleis@mt.gov
Subject: Comment On Russell Street EIS

75-A I appreciate the opportunity to submit comments on the Russell Street/South 3rd Avenue expansion plan. I support the three-lane alternative prepared by 3-Plus for Russell and request that the new proposal be included in the EIS process.

I have used Russell and 3rd streets for over 15 years as a driver and bicyclist. I have also used Broadway extensively both before and after the Broadway Diet and I fully support the move to reduce Broadway to three lanes accompanied by ample bike lanes and pedestrian-friendly crossings. While I do drive my car in Missoula for many activities, I bike to work and to shopping during all four seasons and am convinced that

75-B we must make our community more bike- and pedestrian-friendly if we hope to meet the social and environmental

75-C challenges we will face in coming decades. I have read a variety of research papers and public surveys that document how traffic increases to fill additional lanes, resulting in congestion and hazards to non-motorized users comparable to the conditions that preceded the changes. Russell Street is a

75-D serious goat-rope but more lanes will not improve the situation for long (witness Reserve Street), so let's not spend millions of taxpayer dollars on a plan that won't solve our problem.

75-A An option similar to the “3-Plus” configuration has been analyzed as part of the Traffic Analysis Update conducted in the spring/summer of 2009. Based on the updated traffic analysis, the “3-Plus” option would provide “poor” conditions for both vehicular and bicycle travel. Due to this failure to meet the basic Purpose and Need, options such as the “3-Plus” are not included in the FEIS. Please also refer to response to Comment 27-B.

75-B The Preferred Alternatives include substantial improvements in the provision of bicycle and pedestrian facilities.

75-C Please refer to response to Comment 23-B regarding the concept of induced travel versus latent demand.

75-D The comment is correct that simply adding capacity to Russell Street will not solve the overall transportation congestions issues in Missoula. However, these improvements on Russell Street, are an important part of the overall plan for improvements to roadways, bike lanes, sidewalks and trails, and transit improvements across the Missoula travel network.

Appendix H - Written Comments and Responses

- 75-E** In light of the above, I support the new alternative prepared by 3-Plus for Russell. One lane each north-south and east-west, separated by turn lanes and flanked by wide bike lanes and commuter-friendly public transportation stops will prepare us for the changes in our automobile culture sure to follow the current economic turmoil. Roundabouts work well in European countries and once we get used to them they'll work for us here - they reduce idling at stop-lights and allow smooth traffic flow at a modest speed. As traffic engineers you know that slow and steady wins the commuter race and the commuter pulse is what we build roads to accommodate. Let's not overbuild and have a major paved corridor slice through the developing heart of the River Road area.
- 75-F** This part of Missoula is going to be our best chance to create a new urban core in our community but a five-lane super speedway will insure the area is dangerous to our children and to our environmentally-responsible bikers and walkers.
- 75-G** Missoula's city government and planning department do a good job in creating plans that look toward the future but leaving the 3-Plus alternative out of this plan is a mistake. I hope you will embrace this user-friendly vision of Missoula's future. Thanks very much.

Tom Platt
301 Pattee Canyon Dr.
Missoula, Montana 59803

- 75-E** See response to Comment 75-A regarding the failure of the “3-Plus” alternative to meet Purpose and Need. It should also be noted that the “3-Plus” alternative does not provide bike lanes any wider than the Preferred Alternative in the residential portion of the corridor.
- 75-F** Roundabouts were not eliminated for operational reasons, but rather due to their impacts on surrounding Section 4(f) properties (For more information, please see Chapter 5 of the EIS). The City continues to strongly support the implementation of roundabouts wherever they are appropriate.
- 75-G** The Preferred Alternative is consistent with urban planning principles and Complete Streets tools for principal arterials.
- 75-H** Please see response to Comment 27-B regarding the failure of the “3-Plus” alternative to meet the Purpose and Need.

Thank you for your comments and interest in the project.



Final Environmental Impact Statement

Comment 76

From: kevin dohr [mailto:ossitadelisol@yahoo.com]

Sent: Wednesday, October 08, 2008 10:43 AM

To: mdtcommentsrusselleis@mt.gov

Subject: Comment On Russell Street EIS

- 76-A** I feel that it is vital that when we design our streets and public spaces we place a priority on pedestrian and bicycle safety and promote a sense of neighborhood and community. For this reason I strongly advocate that we consider alternatives to the proposed 5-lane thoroughfare being proposed for Russell Street. The City
- 76-B** and State proposed street design is the kind of "one-size-fits-all" development that does not honor the uniqueness of our city and will undermine the integrity of some of Missoula's oldest and finest neighborhoods along the Russell Street corridor. I
- 76-C** encourage you to consider an alternative known as "3 Plus for Russell", which provides for a neighborhood-friendly street and increased safety and utility for all modes of transportation.

Kevin Dohr, Missoula, Montana.

- 76-A** The Preferred Alternative provides a balanced approach to providing safety and mobility improvements for all modes of travel, and gives no special treatment to any single objective.

- 76-B** The Preferred Alternative was intentionally modeled after the Stephens Avenue design, which is in an older residential neighborhood, and provides substantial improvements for all modes, while respecting the adjacent land uses.

- 76-C** Please refer to response to Comment 27-B regarding the failure of options similar to the "3 Plus for Russell" to satisfy Purpose and Need.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 77

Wm. T. Riggert
410 Ben Hogan Dr.
Missoula, Montana 59803



MR. GREGG WOOD:----- 10-09-08

GREG I AM AN 86 YR. OLD RESIDENT OF MSO. I WAS INVOLVED IN MANY CITY THINGS INCLUDING STREETS AND ALLEY COMMITTEE(GONE) AIRPORT BOARD- PARKING COMMISSION- POLICE COMMISSIONER AND MORE.

A GREAT DEAL OF MONEY HAS BEEN SPENT ON RUSSELL STREET WHEN ONE CONCEDERS THE ELIMINATION OF MALFUNCTION JUNCTION/RUSSELL/BROOKS PROJECT. I HOPE THE CITY WILL COME UP WITH A FIRST CLASS STREET. RUSSELL ALMOST CERTAINLY IS THE LAST REAL NORTH SOUTH CORRIDOR FOR THE CORE CITY AND WILL GAIN IN USE WITH POPULATION GROWTH AND IRST CLASS PLANNING. I SEE RUSSELL EXTENDING NORTH BEYOND W/BROADWAY T O AN INTERCHANGE ON I - 90 BETWEEN ORANGE AND RESERVE. MUCH VACANT LAND IS STILL OUT THERE TO BE DEVELOPED YET AND PERHAPS EVEN NORTH OF I-90. CITY AFTER CITY HAS HAD TO ADD INTERCHANGES EVERY YEAR.

NO MATTER WHAT IS SPENT NOW I SEE NO CHANCE OF THINGS BEING CHEAPER LATER ON. CARS SITTING AND WAITING CREATE A LOT OF POLLUTION (ONE OF THE PRIME REASONS AND JUSTIFICATION FOR THE ENTIRE MALFUNCTION JUNCTION PROJECT.)AND COST A LOT TO SIT AND IDLE,LOST TIME FOR THE DRIVER ALSO!

HOME AND LAND OWNERS ARE ALWAYS NERVOUS, UPSET OR OTHER ABOUT CHANGE. ALMOST ALWAYS THEY ARE HANDSOMELY REWARDED FOR THEIR HOLDINGS AND DISRUPTIONS. PROPERTY VALUES ALWAYS RISE WITH GOOD DEVELOPMENT OF TRANSPORTATION.

THIS HAS RUN LONGER THAN INTENDED BUT BEAR WITH ME AND PLEASE READ THE ENCLOSED LETTER COPY.

Thank You! Bill R

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



gregg: I wrote this to the Arpt Authority
A2 per date. Much stated here still
is valid. The Authority just recently purchased
more land. I heard that Big Flat Route people are
WMT RIGGERT 410 Ben Hogan Dr. Missoula MT 59802
(I was CHAIRMAN TPRS) Dated 7-28-03 SO TIME DOES DO!

Then MANAGER
SINCE PROSECUTED

JOHN SEYMOUR
MSO CO ARPT.

7-28-03

R
OCT 10 2008

MISSOULA MONTANA
PUBLIC WORKS DEPARTMENT

DEAR JOHN:

THE MISSOULIAN OF SAT. JULY 5TH PUBLISHED THE ARTICLE ON THE FINE
JOB YOU HAVE DONE ABOUT EXPANDING THE AIRPORT LAND. THIS IS AN
EXCEEDINGLY IMPORTANT PROCEEDING. CONGRATULATIONS TO YOU AND THE
AUTHORITY. I WISH I HAD SEEN SOME EMPHASIS ON WORD IMPORTANT.

PLEASE DON'T TAKE THIS AS LECTURING. PERHAPS IT IS MY SEVENTEEN
YEARS AS A PARTICIPANT IN THE AIRPORT DEVELOPMENT THAT KEEPS ME
INTERESTED. I CAN THINK OF A LOT OF THINGS WE SHOULD HAVE DONE AND
DIDN'T BECAUSE WE LACKED EXPERIENCE AND DID NOT ANTICIPATE SUCH
COMMUNITY GROWTH.

I AM IN HOPES THAT YOU ALL ARE ALSO THINKING ABOUT ACQUIRING LAND
TO THE EAST. (BE GREEDY). I SEE LARGE PIPES LAYING IN THE FIELD AT THE
OLD JACK DOHERTY RANCH. WHAT IS THE PIPE FOR? I ALWAYS FELT HIS
PROPERTY COULD INFLUENCE AIRPORT OPERATIONS AS ALSO THE BUD FLYNN
PROPERTY. DOES THE COUNTY HAVE ANY LAND THAT COULD BE TRADED FOR
SOME OF THESE LANDS? COUNTY OFFICIALS(COMMISSIONERS I SUPPOSE) COULD
NOT DO BETTER FOR THE PEOPLE. THIS IS NOT SHORT TERM PLANNING!

I FEAR RESIDENTIAL HOUSING IN THE IMMEDIATE EAST APPROACH ZONES
TO RUNWAY TWO NINE. ARE COUNTY/ CITY ZONING AND PLANNING FOLKS
AWARE OF THE NATIONWIDE AIRPORT APPROACH AND DEPARTURE PROBLEMS,
BOTH SURFACE TRAFFIC AND AIR ROUTES? ADDED TAX REVENUE AND
CRAFTY DEVELOPERS SEEM TO INFLUENCE DEVELOPMENT AND ZONING MORE
THAN COMMON SENSE!

MY THOUGHTS THAT FOLLOW ARE SOMEWHAT INFLUENCED BY MY EARLY
EXPERIENCE WITH RESERVE STREET DEVELOPMENT. IT ILLUSTRATES HOW FAR
OFF PLANNERS CAN BE. IN THE EARLY SEVENTIES, 1974, I LOCATED BUSINESS
PROPERTY ON SOUTH RESERVE. PART OF THE DECISION WAS BASED ON THE
PROPOSED BRIDGING OF THE RIVER AT MULLAN AND RESERVE. AT PUBLIC
MEETING WE WERE TOLD OF THE PROJECT BY THE HEAD OF THE STATE HIGHWAY
DEPARTMENT. I ASKED IF THE BRIDGE WAS TO BE FOUR LANES? ANS., "NO"
HAVE YOU PURCHASED LAND FOR FOUR LANE RIGHT OF WAY? ANS. "NO" WHAT
ABOUT THE REST OF THE ROUTE? "NO" WE SEE NO NEED FOR THIS. WELL JOHN,
MILLIONS AND NOT MANY YEARS LATTER IT IS NOW ONE OF THE MOST USED
FOUR LANE CITY STREETS IN MONTANA. EMPHASIS ON STREET. THE BETTER
PLANNING WOULD HAVE BEEN, A HIGHWAY WITH FRONTAGE ROADS FOR LOCAL
TRFFIC.

I HAVE BEEN CONCERNED FOR SEVERAL YEARS AND SEEM TO BE ALONE IN
THIS THOUGHT. BEAR WITH ME FOR A MINUTE JOHN. NECESSITY WILL REQUIRE
CITY- COUNTY-STATE PLANNERS & POLITICAL ENTITIES TO COME TO GRIPS WITH
A BITTERROOT TO INTERSTATE NINETY ROUTE. IWOULD CALL THIS A MISSOULA
BYPASS. MANY BITTERROOTERS NOW HAVE BUSINESS ONLY AT THE AIRPORT OR
BEYOND ON I- NINETY OR HIGHWAY NINETY THREE. RESERVE IS NOW AN
ONEROUS CITY STREET BECOMING MORE DEVELOPED AND CROWDED EACH DAY.
ALL GROWING CITIES GO THRU THIS. PLANNING AND EXECUTION ARE ALWAYS
YEARS BEHIND! MONEY? SURE. IT'S PRIMARY! YET ONE MUST THINK
POPULATION GROWTH AT ALL TIMES. MONEY WILL FOLLOW. OUR AIRPORT IS
TOO IMPORTANT ECONOMICALLY TO BE ANYWHERE IN THE BACKGROUND
OF POLITICAL/ SOCIAL THINKING.

Attachment to Mr. Riggert's letter. No response necessary.

Appendix H - Written Comments and Responses

AS AN IDEA THE ROUTE COULD EXIT THE BITTERROOT VALLEY NEAR BLUE MOUNTAIN RD. SOUTH WEST OF THE RIVER AND CROSS OVER AND THENCE PROCEED TO THE AIRPORT INTERCHANGE. IT SHOULD BE ROUTED BELOW THE EASTERN BLUFF OF THE FIELD(SOME OF IT ON EARL PRUYN PROPERTY WHO HAS TOLD ME HE WOULD DEDICATE RIGHT OF WAY). SUCH ROUTE MOST CERTAINLY SHOULD BE LIMITED ACCESS SO THAT IT WILL MOVE TRAFFIC AND NOT BECOME A CITY STREET. EXAMPLE RESERVE.

IF NOTHING ELSE, JOHN, THE ROUTE FROM AIRPORT TO MULLAN ROAD, ALONE, WOULD GREATLY IMPROVE ACCESS TO THE AIRPORT FOR MANY PEOPLE AND BE A START FOR FUTURE ENHANCEMENT OF AIRPORT PROPERTY ON ALL OF THE SOUTH BOUNDARY. AS A SELLING POINT IT WOULD OPEN UP AIRPORT ACCESS TO BIG FLAT AND ALL SUCH LAND DOWN MULLAN ROAD.

THE POPULATION IN THE BITTERROOT VALLEY WILL BE LARGER THAN THE URBAN AREA OF MISSOULA. ANY BETS? THE AIRPORT IS PRIMARY IN ALL ROAD, HIGHWAY AND ROUTE PLANNING. AVOIDANCE OF THE COSTLY MISTAKES AND TOUGH AIRPORT ACCESSIBILITY PROBLEMS SUFFERED BY MOST CITIES WOULD NICE. I DO NOT SEE THIS AS THE AIRPORT AUTHORITIES PRIMARY JOB BUT SHOULD BE A VERY IMPORTANT CONCERN OF ALL OUR POLITICAL ENTITIES.

I THINK AIRPORTS SHOULD, AS A MATTER OF PRINCIPAL, **FIGHT ALL** DEVELOPMENTS NEAR OR IN THE FLIGHT PATHS AND ZONES. HOW TO BE POPULAR, RIGHT?

I SEE NOTHING EASY IN ANY OF THIS BUT I FEEL LAND ACQUISITION IS THE CORRECT PATH. I MUST SAY I SEE FEW CITY- COUNTY OR STATE OFFICIALS, EXCEPT YOUR PEOPLE, WITH THIS KIND OF FORWARD(MANY YEARS ,100?200?1000?) THINKING HERE AT THE PRESENT TIME. THAT CAN BE EXPECTED BECAUSE NEED OR CHANGE CAUSES STRESS IN ANY MATTER, SO WHY NOT AVOID IT? IS THERE A WAY TO GET THE ATTENTION AND THE FULL POLITICAL HELP YOU NEED?

AIR PROFESSIONALS ARE PROBABLY STUCK WITH THE JOB OF TEACHING THIS IMPORTANT SUBJECT! LETS BE AGGRESSIVE ABOUT THIS MATTER. STIR SOME THINGS UP!

I HAVE SAID FOR MANY YEARS THAT THE AIRPORT IS THE CRITICAL **BUSINESS HUB** OF THE FIVE GREAT VALLEYS. THERE IS NO OTHER SATISFACTORY PLACE FOR ITS LOCATION.

AGAIN GOOD JOB TO YOU AND THE AUTHORITY. KEEP CHARGING!

BILL RIGGERT

Attachment to Mr. Riggert's letter. No response necessary.

Final Environmental Impact Statement



Comment 78

10/9/08

To whom it may concern,

The purpose of this letter is to express my support for both the preferred alternatives for Russell and 3rd streets. As with any city dissected by a waterway, bridges can cause problematic traffic patterns. Russell St. needs to have a 4-lane bridge. In addition, Russell St. is a major Missoula arterial with significant traffic volume. It is vital that Russell is reconstructed with a 4-lane roadway. This Russell St. improvement, also, has the potential to lessen traffic on Reserve St. This roadway improvement would be augmented by higher speed limit standards, 30 MPH or 35 MPH, similar to Stephens Av. Lastly, the proposed design elements, bicycle lanes, sidewalks, curbs and gutters, etc, enhance the entire roadway.

Also, I support Alternative C for 3rd St.

Respectfully,
Wayne Grovato

1710 35th St.
Missoula, MT
59801

While the Preferred Alternative is similar to the improvements on Stephens Avenue, the proposed improvements would not result in a change in the posted speed limit in the corridor. See also response to Comment 73-C.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 79

We need real streets, we need to quit screwing around. And as long as y'all continue to talk about nimbys as if they were real comments, I find it impossible to take this stuff seriously. Stop it!

Kirt Foster
Lolo, MT

All comments received during the NEPA/MEPA process must be handled objectively. Some comments received have been very objective, and result in improvements to the overall design.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 80

Montana Department of Transportation Tom Martin MDT PO Box
2012001 Helena, MT 59620

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

The Missoula Organization of REALTORS feels that the Russell/3rd Street Preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Mona Munson
509 W Kent Ave
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 81

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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The Missoula Organization of REALTORS feels that the Russell/3rd Street Preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Steve Corrick
115 Takima Dr
Missoula, MT 59803

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 82

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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Sincerely,
Tom Gress
PO Box 17216
Missoula, MT 59808

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 83

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

The Missoula Organization of REALTORS feels that the Russell/3rd Street Preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Anita Brown
2120 S Reserve St #209
Missoula, MT 59801

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 84

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

The Missoula Organization of REALTORS feels that the Russell/3rd Street Preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Kim Buchanan
7480 Arroyo Ln
Missoula, MT 59808

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 85

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

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Sincerely,
Richard Meisinger
3011 American Way
Missoula, MT 59808

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 86

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

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Sincerely,
Albert Haith
17898 Mullan Rd
Frenchtown, MT 59834

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 87

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout your city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit your city, neighborhoods, and citizens to get a real start on the traffic issues we face. Idling cars only contribute further to CO2 problems. You can try all you want to get people out of their cars, but I pass many empty park & rides on my daily commute from the Bitterroot valley. Not everyone can bike! And the bus system doesn't run often enough for a successful mass-transit plan.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. Roundabouts in other cities across America do nothing but impede the movement of emergency vehicles, and do little for pedestrians. They stop traffic each time a pedestrian wishes to cross, and simply lengthen and slow the flow of traffic. Road diets will never stop traffic from increasing, and your pipe dreams for light-rail will never be funded. Missoula is not Portland. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area. Missoulians can't negotiate a 4-way stop. How do you expect them to handle a roundabout?

I feel that the Russell/3rd Street Preferred alternative would promote better circulation in your city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for your city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Kevin Rocek
5592 Meadowview Dr S
Florence, MT 59833

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 88

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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Sincerely,
Jeffrey Ellis
422 W Alder St
Missoula, MT 59802

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 89

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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Sincerely,
Dennis Doherty
PO Box 5005
Missoula, MT 59808

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 90

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Judith Wahlberg
416 Connell Ave
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 91

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Carol Babington
123 Crestview Ln
Missoula, MT 59803

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 92

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Lance Roeske
PO Box 849
Lolo, MT 59847

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 93

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Christy Nielsen
1105 Garfield
Missoula, MT 59801

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 94

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Gertrude Stevens
901 Ben Hogan Dr
Missoula, MT 59803

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 95

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Celia Grohmann
4013 Stevensville River Rd
Stevensville, MT 59870

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 96

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Twyla Johnson
PO Box 490
Seeley Lake, MT 59868

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 97

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Warren Wright
4059 Wakantanka Way
Stevensville, MT 59870-

Thank you for your comment and interest in the project.



Comment 98

This is to notify you that I support the City's preferred alternative, for a four lane street on Russell Street. I do not support the 3-Plus plan.

Thank you,

Barbara Gorsh
4511 Hillview Way
Missoula 59803
406-251-6686

Thank you for your comment and interest in the project.

Comment 99

On 9/24 Dan Worrell (406) 532-9261 left a phone message with a comment on Russell Street. Gregg Wood saved his message. It is as follows:

"I just want to support this Russell / S. 3rd plan. We definitely need 4 lanes. We definitely need traffic reduction, or flow improvements. And I am just in support of making it happen."

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 100

From: Sandy Properties 2000 [mailto:Scott@properties2000.com]
Sent: Thursday, October 09, 2008 1:01 PM
To: sking@ci.missoula.mt.us; MDT Comments - Russell EIS
Subject: Russell Street

100-A I would like to address the Russell St. issue. Russell Street need to be 4 lines and what would make it even better would be if it went all the way to I-90.

The last thing Missoula needs is more streets that are not able to handle the day to day volume of traffic. I know that a lot of people think that we should be moving away from using our cars. That is a good thought however in Missoula it is not the real world. So to make more streets not able to handle the volume cars that we have to day and that we will have as Missoula grows in my mind is not good planning for the future of the community.

I have lived in Missoula since 1977 so I have seen a lot of changes over the years. I must say that the changes having to do with roads ways over the last few years in my thought have not been for the betterment of the area.

100-B My husband's family home was on Reserve Street before it became 4 lines. They had to sell and move which was hard for the family; however in the end it was better of the family and the community.

Sandy Gjefle
3400 Loraine Dr
Missoula, Mt 59803
406-251-5096
SKGjefle@msn.com

100-A Extension of Russell Street to I-90 is not currently included in the Long Range Transportation Plan. There is no intention to extend Russell Street to I-90 as part of this proposed project, as noted in Section 2.6 of the EIS.

100-B These impacts on individual residents and business owners are undoubtedly difficult, and the intent is to avoid and minimize these impacts wherever practicable. This was also a stated goal of the project in Section 1.6 of the EIS.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 101

I would like to comment on the Russel/3rd Street plan for Missoula. I support Option 4 primarily because it will improve the flow of traffic significantly in a city with far too much congestion. I've lived in Missoula for twenty years and have seen not only traffic get worse but also high risk driving behavior as a result of this congestion. I never cross an intersection without looking to see who has run the red light because it is no longer the exception but the rule. I fear for our young people just learning to drive in such frightening conditions, and fully expect these conditions to worsen as Missoula continues to grow. We must act now to move traffic from point A to point B.

My primary route of travel is along Mullan Road, through Reserve St. intersections, down Broadway to either Stephens or Higgins. Reserve is dangerous. Broadway is ridiculous - and dangerous, and Stephens is fine. I avoid Russell because of gridlock.

I understand the desire to keep traffic anywhere but in 'my' backyard; however, traffic must flow through all of our backyards because we choose to live in a metropolitan area. I live off Mullan Road and fully expect it to become a 4 lane road at some point in time because it needs to be. The residents of Missoula who live along Russell need to allow this proposal to move forward. Honestly, the proposal would improve the appearance of that neighborhood. Trees, medians and bike lanes are good! We do NOT need another road like Broadway anywhere in Missoula.

Please - move forward on Option 4 and help reduce road rage, unsafe behavior, and the flow of traffic.

Sincerely,
Joan Hoedel

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 102

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
K.C. Hart
2785 Meriwether St
Missoula, MT 59803-

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 103

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

As a lifelong resident of Missoula, with friends and work along Russell, I see first hand on a daily basis how necessary this expansion is. I see traffic stacked up at lights for hours at a time, I see cars speeding past on the side streets in an effort to avoid Russell, and I also see bikes narrowly missed by cars in their effort to get around. This is longer just an issue of convenience, but one of safety; bicyclist, pedestrian, and children at play.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Ruth Link

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 104

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Sincerely,
Patrick Dauenhauer
620 E Sussex Ave
Missoula, MT 59801

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 105

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. For the past year I have traveled frequently, sometimes daily, between my office near the corner of Third and Russell and Montana Cancer Center at St. Pat's. The shortest route would be Russell to Broadway. However, I quickly experienced that while this may have been the shortest, it was by far not the quickest.

Instead I went to 5th street, turned right onto Russell and left onto 6th. Although my appointments varied throughout the day, more often than not traffic was backed up for the 3rd Street light well past 6th Street and stopped to leave the intersection clear so that I was able to turn. I take exception to the gentleman quoted in the paper that excess traffic is only an issue during rush hour.

From 6th I turned left onto Orange. The contrast demonstrates why I feel that the four traffic lanes with a center turn lane is the best alternative for Russell. Traffic moves quickly on Orange with minimal delays even during the 4-5:00 hour. I have also traveled the other direction on Orange, going from St. Pat's to Brooks during rush hour. While there is more traffic and it moves slower, it still moves and allows cross town access, again with minimal delay. We don't have to wonder whether this configuration would work to better move traffic across town--we have Orange Street to experience how it works.

Russell is a major arterial network for this community. We all love the fact that a river runs through Missoula, but we have to be realistic about the limitations that come with it. The arterials can only be where there are bridges. We have to be smart about how we plan the system that includes that cross-river connectivity. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Mae Hassman
923 Dixon
Missoula, MT 59801-



Final Environmental Impact Statement

Comment 106

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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Sincerely,
Jerry Ford
610 Benton Ave
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 107

Dear All,

I reside in the Rattlesnake Valley, 32 years; I ride a bike occasionally, drive my car for my business (real estate broker) and believe that all modes of transportation should be considered in the overall scheme of Missoula's transportation needs. I am though, very tired of the bike/ped lobby talking louder and demanding that we park our cars! This state is the 4th largest in the USA and people generally live here because they enjoy the wealth of outdoor opportunities in our area and State in general. Add our wonderful four seasons to the mix and it become increasingly difficult for all but the most able bodied to walk and or bike year round. Therefore, autos are the preferred mode of transportation for the majority of the public!

Please, build 4 lanes to handle our growing traffic needs, the preferred alternative, on Russell

Street. Another "diet" is the last thing we need on Russell. Stephens, is a beautiful 4 lane street and in my opinion should be utilized as an example for construction of Russell.

Perhaps, we should consider bike lanes on parallel streets to arterials, as it is a much more pleasant experience riding on "side" streets than worrying about a bike/auto collision on a arterial bike lane. Of course this side street strategy requires some common sense, and that commodity is hard to find in today's public arena.

Thank-you,

Scott Hollenbeck

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 108



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments: SOME FRIENDS OF MINE WHO ARE
PROPOSERS OF A 4 LANE RUSSELL ST. WERE TO INTIMIDATED
BY THE ROWDY OPONENTS AT THE PUBLIC HEARING.

I SUPPORT, ENCOURAGE, WELCOME
A 4 LANE RUSSELL ST. ITS ~~PROGROWTH~~ PRO GROWTH
AND GOOD FOR MISSOULA. WE HAVE ONE SHOT AT THIS WITH
THE 40 MILLION DOLLARS. LET'S BUILD THE 4 LANE
RUSSELL ST AND THE 4 LANE RUSSELL BRIDGE FIRST.
THEN ALL THE OBSTRUCTIONISTS AND OPONENTS CAN
MODIFY, BARRICADE, TAPE OFF THEIR PREVIOUS BICYCLE
LANES. THE POPULATION OF MISSOULA IS GOING TO
GROW WHETHER WE WANT IT OR NOT. LET'S DO IT RIGHT
THE FIRST TIME. I GET TIRED OF ALL THE PEOPLE
THAT MOVE HERE FROM OTHER STATES AND COUNTRIES AND
WANT TO SHUT THE DOOR FOR OTHERS BEHIND THEM.

RECEIVED
OCT 14 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: JOHN PEARSON
Address: 6020 LOWER MILLER CREEK RD
MISSOULA, MT. 59803

Please leave your
comments with Project
Team staff at the Hearing,
or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 109



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

109-A

I am vehemently opposed to the "preferred alternative" reconstruction of Russell Street. It is an unconscionable and irresponsible use of taxpayer money to construct what is essentially a second Preserve Street right the heart of Missoula. Russell Street is in admittedly poor shape; it has received very little attention over the past two and a half

109-B

decades that we have lived in the neighborhood. Curbs, gutters, and sidewalks should all have been installed years ago. If Russell from Mount to Broadway was a more affluent neighborhood improvements would have been made as needed.

109-C

I urge you to consider the citizens alternative of three traffic lanes, with bike lanes, curbs, gutters, and sidewalks included. Clearly, although the draft EIS states the City of Missoula is committed to a proposal that would "enhance the existing characteristics of the surrounding area", that is not

109-D

true. The neighborhood character would be destroyed and more isolation imposed on the families affected

109-A

As noted in the EIS, Russell Street is a major arterial and one of only five river crossings in the community. The project has been proposed to satisfy the responsibility to provide safe and efficient transportation for local and regional travel in and around Missoula.

109-B

Installation of curbs, gutters, and sidewalks, as well as capacity improvements, have been in the planning stage for over a decade. The delay is due to funding constraints and the lengthy review process this project has undergone.

109-C

See response to Comment 27-B regarding the failure of options similar to the "citizens alternative" to satisfy the purpose and need for the project.

109-D

The Preferred Alternative includes several elements, including bike lanes, boulevards, curb and gutter, sidewalks, and landscaped medians, that will all lend to improve the operation and visual appeal of the corridor.

Thank you for your comment and interest in the project.

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Sara Anderson

Address: 1244 S 6th W
Missoula MT 59801

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Final Environmental Impact Statement



Comment 110

Montana State Senate



SENATOR DAVID E. WANZENRIED
SENATE DISTRICT 49

HELENA ADDRESS:
PO BOX 200500
HELENA, MONTANA 59620-0500
PHONE: (406) 444-4800

HOME ADDRESS:
903 SKY DRIVE
MISSOULA, MT 59804-3121

The Big Sky Country

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OCT 14 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

COMMITTEES:
FINANCE AND CLAIMS
EDUCATION SUBCOMMITTEE
JUDICIARY
NATURAL RESOURCES

8 October 2008

Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula, Montana 59802

SUBJECT: Draft Environmental Impact Statement – Russell Street/ South 3rd Street

Dear Mr. Wood:

110-A After reading the draft environmental statement and the many alternatives it contains, I am convinced the only alternative that truly makes sense is one not included, the Russell Street Citizens' Plan, or the "Three Plus for Russell Street" alternative.

110-B Missoula does not need another Reserve Street. Most of the citizens I represent who reside in nearby neighborhoods do not want a 94' swath cut through the middle of closely-knit residential areas.

110-C From having lived in neighborhoods immediately adjacent to or right on both Russell and Reserve Streets for the past 15 years, it is painfully obvious that danger accompanies each trip, whether in a vehicle, on foot or on a bicycle.

110-D The "Three Plus" Plan ensures greater safety for pedestrians and motorists alike. It is more cost-effective and more energy efficient. It maintains the integrity of neighborhoods and reduces noise and air pollution.

110-E Concerns over carbon emissions, climate change and the depletion of finite fossil fuel resources mean more Missoulians, either out of necessity or choice, will increasingly convert to and rely more on non-motorized modes of transportation. Well conceived transportation systems integrate, protect and encourage these and other users.

110-A An option similar to the "Citizens' Plan" was evaluated as part of the Traffic Analysis Update and eliminated due to its failure to satisfy the project purpose and need. Please also refer to response to Comment 27-B.

110-B The Preferred Alternative was intentionally designed to be more like Stephens Avenue than Reserve Street, and will not be a homogenous 94 foot swath. Nearly 30 percent of that width will be planted median or boulevard in many locations. Russell Street is a principal arterial in the community and serves needs beyond those of the adjacent neighborhoods. As with any linear infrastructure, the impacts are necessarily concentrated in a few areas to minimize the impact on the broader community.

110-C Safety improvements are part of the purpose and need for the project. The Preferred Alternative provides the best balance of safety and mobility improvements unlike other alternatives examined during this process. See also Appendix G for a summary of the safety analysis.

110-D The Traffic Analysis Update suggests that options similar to the "Three Plus Plan" would be less safe, slightly more expensive (Alternative 2 is estimated at \$41.3 million and the Preferred Alternative is estimated at \$39.6 million - see also response to Comment 31-G), and result in higher levels of congestion (less energy efficient) than the Preferred Alternative. As noted in the EIS, several homes and businesses would be impacted by the project, but the surrounding neighborhoods would benefit from improved sidewalk and bike lane connectivity, landscaped medians and boulevards, grade-separated trail crossings, and the potential for decreased cut-through traffic through capacity increases on Russell Street. Noise impacts are virtually the same between alternatives, and the Preferred Alternative does not cause or contribute to exceedances of air quality standards. See analysis in Section 4.7 of the EIS.

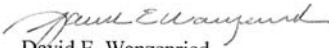
110-E The Preferred Alternative provides the best blend of improvements for all modes of travel, and the greatest flexibility for future modification if such a large-scale travel mode shift were to occur. For instance, one travel lane in each direction could be converted to High Occupancy Vehicle or transit use if fewer people were driving alone.

Appendix H - Written Comments and Responses

110-F The preferred alternative in the draft environmental impact statement does nothing but lay down more asphalt for vehicles and encourage more vehicle traffic volumes.
110-G Tragically, it proposes to adopt the same dysfunctional model we see on Reserve Street: heavy use, characterized by clogged intersections and gridlock. Why should we expect different results if the same concepts are applied on Russell Street?

110-H By selecting and refining the “Three Plus” alternative, we will be investing in a functional, versatile, innovative plan and leave future generations a gift we can be proud of.

Respectfully,


David E. Wanzenried
Senate District #49

Comment 111

I support the preferred alternative, #4
Chris Kirschten
4671 Christian Drive
Missoula, MT 59803

110-F The Preferred Alternative is quite intentional in doing more than simply laying down more asphalt for vehicular traffic. The Preferred Alternative includes bike lanes (which are non-existent today), sidewalks (which are non-continuous today), landscaped boulevards (to maintain and enhance the character of the corridor), raised/landscaped medians (to enhance the character and provide pedestrian refuge throughout the corridor), and grade-separated pedestrian/bicycle crossings (to greatly improve safety). These design elements are more similar to Stephens Avenue than Reserve Street, and are consistent with the broad range of perspectives brought by the area business owners, residents, and users of the Russell Street corridor during the project development process.

110-G See response to Comment 23-B regarding induced growth.

110-H As indicated by the EIS and the Traffic Analysis Update, the three-lane options fail to provide substantive safety and mobility improvements for all modes of travel, thus are inherently less functional and versatile.

Thank you for your comment and interest in the project.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 112

112-A As a 17-year resident of Missoula, I have come to hate the Russell-South Third intersection--but I hate the preferred alternative even more. I try to do as many errands as possible by bike when the weather is good, and I like to walk instead of drive short distances between stores. I try to avoid that intersection whenever I can, or at least use it early or late in the day. That means I also avoid shopping at the Good Food Store and other establishments in the vicinity. I am sure other people have the same approach.

112-B A huge intersection intended to move traffic through quickly will make the area even more daunting to would-be shoppers, as well as people who live in the neighborhood. Problems with fast traffic, glare from necessary lighting, and especially the need to remove a number of homes and businesses cannot be justified--or readily remediated. Russell Street is indeed a neighborhood, which would be destroyed by a huge intersection. I am especially disturbed by the very long box culvert for bike-ped that will invite muggers and teens who want to drink and smoke marijuana, while frightening would-be users with its low visibility and tomb-like ambience.

112-D It would be an enormous travesty if the intersection came to resemble the Reserve Street corridor--and the Russell Street neighborhood came to resemble the no-neighborhood around Reserve Street. Having seen roundabouts work well in Europe, I consider the Citizens' Plan ("3 Plus") an entirely workable alternative. I believe that, instead of more motor vehicle traffic in another decade, there will be more public transport and bike-ped users through this intersection. I urge you to update the preferred alternative using more realistic projections--and to look again at the Citizens' Plan as most constant with Missoula values.

112-E

Sincerely,
Muriel R. Friedman, M.D.
2726 Highland Dr.
Missoula, MT 59802
549-8373

112-A Please see Appendix G for a ranking of the safety of the Preferred Alternative compared to the other alternatives and options which were explored. Response to Comment 23-A may also provide some insight into this issue.

112-B See responses to Comments 19-B and 63-A regarding the impacts from each alternative. Further, any acquisitions necessary for the Preferred Alternative would be in compliance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*.

112-C The purpose of the grade-separated crossings is to create a safe and uninhibited path for the Shady Grove, Riverfront, Milwaukee, and Bitterroot Branch Trails. The American Association of State Highway Transportation Officials *Policy on Geometric Design of Highways and Streets* approves of the use of either an overpass or underpass as a viable means of providing a safe crossing for bicyclists and pedestrians. Safety elements such as grade, lighting, and landscaping will be determined during the final design process.

112-D The design elements of the Preferred Alternative are more consistent with those of Stephens Avenue, rather than Reserve Street. See also responses to Comments 50-A and 56-A.

112-E Additional options, including one similar to the "Citizens' Plan," were analyzed as part of the Traffic Analysis Update conducted in the spring/summer of 2009. This analysis indicates that these two and three-lane options fail to provide any substantive safety or mobility improvements in the Russell Street corridor.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 113

113-A It saddens me to see the alternatives chosen for this project... more so the 2 that have been eliminated.

Bigger always seems to be better, eh?

113-B I cross 6th street (west to east) on my bicycle most days (~>220days/year) and it appears to me that the chosen alternative will make that near impossible. Coming home from work will be easy (5th Street light), but what about crossing sixth?

113-C Is it possible to see the list of residents that are for such a proposal? I have yet to talk to a single one...

Geoff Gilbert

113-A Alternatives 2 and 3 were eliminated on the basis that they could not satisfy the functional needs of the corridor. A four-lane alternative is needed to safely and efficiently accommodate the current and projected traffic volumes on Russell Street.

113-B A signal controlled intersection is provided one block to the north at South 5th Street. Additional pedestrian refuges will be located intermittently throughout the corridor to facilitate the safe crossing of two vehicle lanes at a time. It should also be noted that the Preferred Alternative includes grade-separated crossings at four locations in the Russell Street corridor. See also response to Comment 36-A.

113-C The project team has not collected a list of all those in favor of the project, but all comments received are included in the Appendices to the EIS. The NEPA process does not facilitate a “vote” on the Preferred Alternative, rather it intends to foster an objective decision-making process that provides sound technical analysis and an assessment of the impacts associated with a specific project.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 114

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I travel Russell Street 10-12 times each week and I feel that the four traffic lanes with a center turn lane would make a totally nonfunctional street become a thoroughfare to connect one part of the city with the other. It's very frustrating to be in a traffic line from Broadway to 3rd each night on the way home from work. The reconstruction of Russell/3rd would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

No one wants to be forced from their home for any reason. But I believe in this case the common good outweighs those of the homeowners. Our traffic continues to grow and I can't imagine this corridor 5 or 10 years from now if nothing is done. Current growth plans such as UFDA and the Missoula Downtown Master Plan suggest substantial residential growth in the downtown area so it is important to maintain and grow these connections. It would benefit our city, neighborhoods, and citizens to do this project now and avoid the nightmare that will be upon us if we do not act.

This corridor is also very unsafe for bicycles and pedestrians. It's scary to have bikes and pedestrians so close to cars in inclement weather. I don't suppose the pedestrians and bikers like it any better than drivers, but I am constantly on edge as I drive this route in those conditions. The four lane alternative will offer much greater safety for all who use Russell and 3rd. Four lanes also makes bus transportation less of an obstacle as we encourage drivers to use public methods of transportation.

I believe that the Russell/3rd Street preferred alternative would promote much better circulation in our city, take pressure off Reserve Street,(the congestion there is why I use Russell) and continue the beautiful and SAFE, drivable, walk-able, and bike-able tradition for our city. Thank you for the opportunity to comment on this most important project for our city.

LET'S GET ON WITH IT!!

Sincerely,
Kathy Noble
1622 Jackie Dr
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 115

Dear Sirs,

I would like to comment on the proposed Russell Street Road Improvement project. I am very much in favor of the "Preferred Alternative" of this project for many reasons.

Firstly, the design of four lanes with turning pockets & bike/ped access is one with the future of a growing community in mind. These sorts of project should be intended for the next 20-30 years, not just right now. There is nothing worse than improving a road, only to maintain it's obsolescence (See Highway 93 in Lake County). Missoula is a community which is growing by leaps and bounds, both on a city-wide and local scale. What I mean is the entire Missoula-area community is growing, on the entire periphery and the interior. Also, the Russell Street corridor will, in the next few years, be experiencing the addition of a substantial new development on the old Intermountain Lumber site, between 2nd St & Wyoming St. This will increase the number & need of the local residents to quickly get in and out of their neighborhood, instead of "parking" on the access roads, waiting to get into traffic. So there will be a serious need to move an increasing quantity of traffic, both from a local access & arterial use standpoint. It seems to me the whole point of the project is to increase the volume capability for the roadway, not just "pretty it up" and add some bike/ped features.

Secondly, there are the safety aspects involved. Having just one lane in each direction, frustrations increase, and foolish decisions will be made, potentially causing serious injury to both drivers and bike riders. While the city can't be held responsible for such decisions, they have a responsibility to manage the environment in which these sort of decisions will be made. Also, the inclusion of bike/ped access that goes over or under the roadway significantly lowers the chance of conflict for those folks crossing the roadway.

Thirdly, there are the environmental impacts. If the road's capacity is not increased, there will continue to be backed-up traffic, belching their pollutants into the atmosphere, adding to the ever-growing problem of greenhouse gases. We, as a community, owe it to the rest of planet to do everything we can to mitigate our contribution to this problem. Hundreds of cars sitting, idling throughout the day does not do that. It exacerbates it. Keep the cars moving and their impact will be lessened.



Final Environmental Impact Statement

Finally, I would like to state my frustrations regarding the very small percentage of people who think they can hold the entire city hostage on transportation decisions. Their NIMBY approach is self-serving and short-sighted. Contrary to what they extol, the citizens of Missoula will not go throw their keys into the river to protest fuel prices (which, by the way, are decreasing). If anything, people will instead choose alternative fuel vehicles, such as hybrid, electric, or fuel-cell powered cars and trucks. To think that someday Missoula will resemble Amsterdam or Beijing with regards to quantity of bike use is foolish, and is intended as a tool to further promote their personal agendas. Not to mention ignoring the needs of seniors, the handicapped, and those who cannot consider non-automobile use as a transportation option. I am growing very weary of the "bike or else" crowd. Last time I checked, bikes do not pay into the gas tax funds, nor does their licensing fees go towards road maintenance.

As far as design specifications go, I have just a few suggestions. I think the use of a multi-directional interior left-turn lane is dangerous and the implementation of left-turn pockets is a more controlled, sensible approach to getting motorists out of the flow of travel to make their turn. I believe that in the residential section of the project, the use of boulevards between the roadway and the sidewalks is acceptable, but I think curbside sidewalks would be better suited for the commercial portion. The aesthetics are not as critical, and the costs involved would be lower. There would be less land to acquire and less maintenance for the city to perform.

So, please build this road improvement as a four-lane road with left turn pockets and bike/ped access. It is the design for the realistic future, for ALL Missoulians.

Thank you for your time in this important matter,

Eric Andersen

Curb-side sidewalk design in the commercial section of the corridor will be explored during the final design phase of the project.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 116

Hello,

I'm writing to voice my concern for the current plans for Russell Street. I'd like to ask for an improved Russell St. alternative that maintains neighborhood driving speeds, as

116-A Mount/14th and Russell drivers already utilize the neighborhood streets as thru-ways to larger roads, causing multiple accidents and near-misses in a neighborhood with

116-B several churches, a large elementary school, housing for developmentally and physically disabled, as well as housing

116-C for the elderly and Section 8 participants, and one that is

116-D already lacking adequate sidewalks and traffic routing

116-E signage. I believe the Citizens Plan for Russell achieves this.

116-F In addition, I'm also concerned that the original plan did not take into consideration the environmental impact on our

116-G neighborhood, nor did it consider the current state of traffic growth which has flattened due to rising gas prices. I would like to see the city foster this plateau of driving by facilitating more bike and pedestrian-friendly areas. Russell is hard enough to cross without adding more lanes. Therefore, I'd

116-H like to also ask for an updated analysis of of biking, walking, transit and car-pooling along the part of Russell covered by the draft EIS.

Thank you for your assistance in this matter,
Violet Olsen

116-A The added capacity of the Preferred Alternatives for the Russell Street and South 3rd Street corridors is anticipated to help reduce the cut-through traffic within the project area.

116-B The Preferred Alternative will not directly affect any of the elementary schools in the project area. Crossing of Russell Street will be made safer by the addition of four grade separated crossings as well as improved intersection control.

116-C The Missoula Housing Authority has announced plans to build a multi-unit affordable housing development at the former Intermountain Lumber Site which will provide reasonably priced housing for the elderly and lower income families.

116-D The Preferred Alternative for Russell Street includes sidewalks and boulevards over the entire length of the project.

116-E See response to Comment 27-B regarding options similar to the "Citizens Plan."

116-F The purpose of the NEPA process is to evaluate impacts to surrounding areas from a range of reasonable alternatives. The EIS examines elements of the human environment ranging from social and economic conditions to visual resources. Information on the impacts to these resources can be found in Chapter 4 of the EIS.

116-G The City of Missoula and Montana Department of Transportation monitor traffic trends in Missoula on an annual basis. Over the past two years, there has been a flat growth trend on Russell Street, but it is premature to suggest that this is due to the price of fuel. National research suggests that the link between fuel price and travel is minimal and short-lived. A 2008 report from the Congressional Budget Office indicates that when motorists are faced with an increase in gasoline prices they will first curtail low-value, optional trips. Additionally, the Federal Highway Administration does not recommend changing planning assumptions based on an increase in gas prices. See also response to Comment 5-B.

116-H Please refer to Appendix G for a summary of the Traffic Analysis Update regarding multi-modal analysis.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 117



U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 West 15th Street, Suite 3200
HELENA, MONTANA 59626

Ref: 8MO

October 14, 2008

Mr. Greg Wood
City of Missoula Public Works
435 Ryman Street
Missoula, Montana T 59802



Re: CEQ 20080327: STPU-M 8105 (8), CN 4128,
Russell Street/South 3rd Street Project Draft EIS

Dear Mr. Wood:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Draft Environmental Impact Statement (DEIS) for the Russell Street/South 3rd Street Project. The EPA reviews EISs in accordance with its responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major Federal agency action. The EPA's comments include a rating of the environmental impact of the proposed action and the adequacy of the NEPA document.

We support the City of Missoula's, Montana Dept. of Transportation's (MDT) and Federal Highway Administration's (FHWA) efforts to improve safety and mobility in the Russell Street and South 3rd Street corridors, particularly proposed efforts to increase opportunities for pedestrian and bicycle travel. We understand, however, that there are public concerns about the potential effects of the proposed 4/5 lane Russell Street configuration on local community and neighborhood character and bicycle and pedestrian passage. We encourage the City of Missoula, MDT and FHWA to fully consider such public concerns as additional evaluation of Russell Street lane configurations are carried out. We also suggest that you consider segregation of bicycle lanes from traffic lanes on the proposed Russell Street modifications, since that may provide a degree of safety that may better promote use of bicycle lanes on a busy 4/5 lane roadway. The EPA is a Smart Growth Network partner, and we also encourage the lead agencies to fully evaluate and consider smart growth options as it conducts additional deliberations on transportation improvements for this project (see <http://www.epa.gov/smartgrowth/> and http://www.epa.gov/smartgrowth/sg_network.htm).

We also want to indicate that the Missoula area is still designated an air quality non-attainment area for particulates less than 10 microns (PM-10), and we did not see analysis for PM-10 in the DEIS. A hot spot analysis is required under the criteria found at 40 CFR 93.123(b)(1). While exhaust emissions of PM-10 may decrease with the preferred alternative, it

(This cover letter provides a summary of comments provided by the Environmental Protection Agency. Detailed comments and responses are provided on the following pages.)



Appendix H - Written Comments and Responses

is likely that road dust emissions may increase as a result of increased volume of traffic and speeds, and construction activities. The FEIS should include PM-10 analysis, including discussion of potential increased traffic volume and speeds, effects on PM-10 levels, and potential for an increase in PM-10 National Ambient Air Quality Standards exceedances due to proposed activities. We also recommend additional discussion and information regarding proposed measures to control particulate emissions during construction.

In addition, we have some environmental concerns regarding potential adverse effects to water quality and aquatic habitat associated with demolition of the old Russell Street bridge over the Clark Fork River and construction of a new bridge. We encourage use of bridge designs that will collect runoff from the bridge surfaces and roadway and direct runoff to treatment systems rather than directly discharge road runoff to surface waters. We understand that the agencies anticipate treatment of bridge runoff, but we believe a commitment for effective runoff treatment should be identified in the FEIS and ROD, and that additional information on bridge/road runoff treatment systems should be provided to assure effective treatment, and thus, protection of both the Clark Fork River and the Missoula Valley Sole Source Aquifer water quality.

We understand that the agencies intend to address bridge removal and construction with Special Provisions during final design, but similar to our comment above regarding treatment of bridge runoff, we believe the FEIS and ROD should include a commitment for effective management controls during bridge construction to avoid entry of concrete dust, construction debris, and lead based paint dust or flakes into the Clark Fork River during demolition of the old bridge and reconstruction of the new bridge.

Also, it appears to us that the existing bridge, which was built many years ago, may impede some flood flows since there is deposition of sediments immediately upstream of the bridge, and such deposition is often an indicator that movement of sediment down the river may be impeded. We recommend that an alluvial geomorphologist and hydrologist be included on the bridge design team in order to evaluate such considerations and incorporate appropriate bridge design modifications that may offer opportunities to correct any deficiencies in the hydraulic opening that may exist with the present bridge (e.g., longer bridge spans, reduce number of bridge piers/supports in the river channel, modify width and/or orientation of bridge piers/supports, etc.). It is important that the proposed new Russell Street bridge provide an adequate span of the Clark Fork River channel, floodway and riparian area to pass flood flows, flood borne debris, sediment, and bedload, with minimal river channel, floodplain and riparian encroachment, and minimal creation of scour or erosive eddies, sedimentation, gravel deposition, and backwater (e.g., wide bridge spans, and/or construction of bridges on pilings, as opposed to fill reduce encroachment). We support a bridge design that will reduce flow impedances and encroachment on and within the river channel as much as possible.

Our more detailed questions, comments, and concerns regarding the analysis, documentation, or potential environmental impacts of the Russell Street/South 3rd Street Project DEIS are included in the enclosure with this letter. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Russell Street/South 3rd Street Project DEIS has

(This cover letter provides a summary of comments provided by the Environmental Protection Agency. Detailed comments and responses are provided on the following pages.)

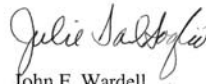
Final Environmental Impact Statement



been rated as Category EC-2 (Environmental Concerns - Insufficient Information). Our concerns revolve around potential adverse water and air quality effects that may occur during construction. A summary of EPA's DEIS rating criteria is attached.

We thank you for the opportunity to review and comment on this DEIS. If you have questions regarding our comments please feel free to call Mr. Steve Potts of my staff in Missoula at 406-329-3313 or in Helena at 406-457-5022, or via e-mail at potts.stephen@epa.gov.

Sincerely,


for John F. Wardell
Director
EPA Montana Office

Enclosures

cc: Larry Svoboda/Connie Collins, EPA, 8EPA-N, Denver
Robert Ray/Jeff Ryan, MDEQ, Helena

(In discussions with EPA personnel, the project team understands that the EC-2 rating is common to complex EIS's. Based on this rating, and the specific comments articulated by EPA, the project team has engaged with EPA to address the agency's concerns to the extent possible at this point in the project development process. Responses to individual comments are provided on the following pages.)

Appendix H - Written Comments and Responses

EPA Comments on Russell Street and South 3rd Street Project Draft EIS

Brief Project Overview:

The draft EIS for the Russell Street and South 3rd Street Reconstruction Project is being prepared by the Montana Dept. of Transportation in cooperation with the City of Missoula and Federal Highway Administration to improve traffic flow and roadway safety and maintenance on Russell Street and South 3rd Street. These roadways are main arterials in the City of Missoula, Montana, which are currently experiencing traffic congestion, and safety concerns, and have inadequate bicycle and pedestrian crossings, and the Russell Street bridge over the Clark Fork River is considered to be too narrow. The proposed project includes reconstruction of approximately 1.5 miles of Russell Street from the intersection of Mount Avenue/South 14th north to West Broadway Street, including construction of a new Clark Fork River bridge, and reconstruction of approximately 1 mile of South 3rd Street from Reserve Street east to Russell Street.

(This overview does not require a response.)

Alternatives evaluated include the no-build alternatives, Alternatives 1 (Russell Street) and Alternative A (South 3rd Street), and five build alternatives for Russell Street (Alternatives 2 -5 and Alternative 5 refined), and four build alternatives for South 3rd Street (Alternatives B-E). All Russell Street alternatives would include bicycle lanes and sidewalks, and remove the existing two-lane bridge over the Clark Fork River and construct a new four-lane bridge, and provide grade separated crossings at the Russell Street connection with the Bitterroot Branch Trail, Milwaukee Corridor Trail, and Shady Grove (River) Trail.

Russell Street Alternative 2 would involve reconstructing Russell Street with two lanes (one northbound and one southbound) from Mount Avenue/South 14th to South 8th; two lanes with center median from South 8th to South 1st Street; two travel lanes and a center turn lane from S. 1st St. to Wyoming St; and four travel lanes from Wyoming Street to West Broadway. Two lane roundabouts would be placed at four intersections (i.e., intersections with Mount/South 14th, South 5th, South 3rd, and Wyoming Street. A single lane roundabout would be placed at the intersection with South 11th St/Knowles St., and a traffic light would remain at Broadway and Russell Street intersection.

Russell Street Alternative 3 is the same lane configurations and intersection control as Alternative 2, but includes twice the raised median to enhance traffic flow as compared to Alternative 2, and a median between Mount Ave and South 8th Street.

Russell Street Alternative 4 would involve four travel lanes from Mount Avenue/South 14th to West Broadway plus a center turn lane or raised median throughout the corridor. Major intersections would be controlled by traffic signals. This is the preliminary preferred alternative for Russell Street.

Russell Street Alternative 5 would involve the same four lane configuration as Alternative 4, but would use two lane roundabouts at the major intersections except with a traffic signal at the West Broadway intersection.



Final Environmental Impact Statement

Russell Street Alternative 5 refined includes modifications to Alternative 5 to reduce right-of-way requirements/impacts to adjacent properties (e.g., leave the existing traffic signal at the Russell St.- Mount Ave. intersection; reduce size of roundabouts at S. 3rd St. and S. 5th St.; include traffic signal at Russell St-Wyoming St. intersection instead of roundabout; eliminate roundabout at S. Knowles St).

South 3rd Street Alternative B would involve two lanes (one eastbound and one westbound) with roundabouts at three intersections (i.e., intersections with Curtis, Johnson, and Catlin Streets) and a traffic signal at the intersection with Reserve Street. There would be no raised medians within the corridor except at select locations where they would increase the functionality of intersections.

South 3rd Street Alternative C is similar to Alternative B, however, raised medians and center turn lanes would be used more liberally than for Alternative B throughout the corridor to enhance traffic flow. This is the preliminary preferred alternative for S. 3rd Street.

South 3rd Street Alternative D would include one eastbound lane and two westbound lanes with traffic signals at Reserve Curtis, Johnson, and Catlin Streets.

South 3rd Street Alternative E includes two travel lanes use of raised medians, and center turn lanes and traffic signals at the four major intersections.

Comments:

1. We appreciate the inclusion of many figures and aerial photos, including the large foldout figures and photos, in the DEIS that clearly display the project alternatives and features for the affected roadways. These figures and photos greatly aid in improving public understanding of project features and proposed alternatives.
2. We very much support proposed addition of sidewalks and bicycle lanes to Russell Street and S. 3rd Street, including adding pedestrian and bicycle travel opportunities to the proposed new Russell Street bridge (pages 2-4 to 2-6). We also support the provision of underpasses at the intersections of the Bitterroot Branch trail, Milwaukee Corridor trail, and Shady Grove (River) trail with Russell Street to improve connectivity of existing pedestrian and bicycle paths.

117-A

We understand that there are public concerns regarding the potential effects of the proposed 4/5 lane configuration on Russell Street in regard to local community and neighborhood character. We encourage you to fully consider such public concerns as additional evaluation of the Russell Street lane configurations are carried out. We also suggest that you consider segregation of bicycle lanes from traffic lanes on Russell Street, since that may provide a degree of safety on the busy 4/5 lane roadway that may better promote use of bicycle lanes. The EPA is a Smart Growth Network partner, and we also encourage the lead agencies to evaluate and consider smart growth options as it

117-B

117-A

Please refer to Appendix G for the additional traffic analysis conducted to address public and local official concerns.

117-B

Additional segregation of bicycle lanes from vehicular travel lanes would require additional right-of-way and property acquisition. Throughout the project development process, and particularly with the development of the project goals and objective, the public has requested minimization of the overall project footprint, regardless of the type of improvement being proposed.

Appendix H - Written Comments and Responses

conducts additional deliberations regarding transportation improvements for the Russell Street, South 3rd Street and other areas of the City of Missoula (see <http://www.epa.gov/smartgrowth/> and http://www.epa.gov/smartgrowth/sg_network.htm).

117-C

3. Five build alternatives for Russell Street are mentioned in the beginning of the Executive Summary (page ES-3), however, only four Russell Street build alternatives are included in the alternatives discussions and comparison tables in Chapter 2, until the refinement of Alternative 5 is mentioned on page 2-40. This created some confusion in trying to follow and understand the fifth Russell Street build alternative. It is our understanding that Alternative 5 refined involves a modified roundabout design and alignment to reduce to impacts to historic properties (page ES-5). We suggest that confusion regarding the number of Russell Street alternatives evaluated could be avoided by either stating that there were four Russell Street build alternatives, including some refinements for Alternative 5, or by describing Alternative 5 refined as a separate alternative equivalent to the other Russell Street build alternatives. It is our understanding that the refinements to Alternative 5 would still adversely impact historic properties, and thus, this alternative is not identified as the preferred alternative.

117-D

4. An important environmental concern with the proposed project are potential impacts associated with removal of the existing Russell Street bridge, and construction of a new bridge across the Clark Fork River. The DEIS includes discussion of structural deficiencies of the existing bridge on page 1-15, and provides some information on the proposed new bridge on page 4-30. We believe that it is important that the proposed new bridge provide an adequate span of the Clark Fork River channel, floodway and riparian area to pass flood flows, flood borne debris, sediment, and bedload, with minimal river channel, floodplain and riparian encroachment, and minimal creation of scour or erosive eddies, sedimentation, gravel deposition, and backwater (e.g., wide bridge spans, and/or construction of bridges on pilings, as opposed to fill reduce encroachment).

It appears to us that the existing bridge, which was built many years ago, may impede some flood flows since there appears to be deposition of sediments immediately upstream of the bridge, and such deposition is often an indicator that movement of sediment down the river may be impeded. We recommend that an alluvial geomorphologist and hydrologist be included on the bridge design team in order to evaluate such considerations and incorporate appropriate bridge design modifications that may offer opportunities correcting any deficiencies in the hydraulic opening that may exist with the present bridge (e.g., longer bridge spans, reduce number of bridge piers/supports in the river channel, modify width and/or orientation of bridge piers/supports, etc.). We support a bridge design that will reduce flow impedances and encroachment on and within the river channel as much as possible.

117-E

5. We also encourage use of bridge designs that will collect runoff from the bridge surfaces and roadway and direct such runoff to treatment systems rather than directly

117-C

This EIS is intended to provide a diary of the project development process. As such, Alternative 5-Refined was introduced later in Chapter 2 to reflect the fact that it was developed specifically in response to impacts imposed by other viable alternatives. Additional text has been inserted into Chapter 2 to clarify this part of the alternatives development and evaluation process.

117-D

Final bridge design will include detailed hydraulics analysis and be completed in coordination with appropriate regulatory and permitting agencies. Appropriate, current state-of-the-practice design standards will be utilized in the design process to assure the new structure provides an adequate hydraulic opening.

117-E

Runoff from the bridge will be collected and treated prior to discharge into the Clark Fork River.



Final Environmental Impact Statement

discharge road runoff to surface waters to reduce potential for contamination of the river. We understand that the agencies anticipate treatment of bridge runoff, but we believe such a commitment for effective runoff treatment should be identified in the FEIS and ROD. We recommend that the FEIS and ROD clearly state that runoff from the bridges surfaces and roadway will be collected and directed to treatment systems such as dry well or infiltration beds to avoid direct discharge of contaminated bridge runoff to the Clark Fork River.

- 117-F** 6. Also in regard to bridge removal and reconstruction, we recommend that management practices be developed to control entry of concrete dust, construction debris, and lead based paint dust or flakes into the Clark Fork River during bridge demolition and construction. Bridge demolition and construction techniques that capture dust, bridge debris and sandblasting or scraping residue should be identified and discussed. We suggest that you contact Mr. Bob Reinke of the Montana Dept. of Environmental Quality in Helena at 406-444-1435 and Mr. Jeff Ryan at 406-444-4626, regarding requirements for bridge work and necessary mitigation measures to protect water quality.

We understand that the agencies intend to address bridge removal and construction with Special Provisions during final design, but similar to our comment above regarding treatment of bridge runoff, we believe the FEIS and ROD should include a commitment for effective management controls during bridge construction to avoid entry of concrete dust, construction debris, and lead based paint dust or flakes into the Clark Fork River during demolition of the old bridge and reconstruction of the new bridge.

- 117-G** 7. The U.S. Army Corps of Engineers (Todd Tillinger in Helena at 406-441-1375) should also be contacted in regard to 404 permit requirements for placement of fill material in the river. There may also be a need to consider timing limitations for bridge demolition and construction work depending upon potential impacts to Clark Fork River water quality and fisheries. The U.S. Fish & Wildlife Service and Montana Dept. of Fish, Wildlife & Parks should also be consulted in regard to bridge demolition and construction work that may impact aquatic life in the river.

- 117-H** 8. It is stated that no wetlands were identified within the Russell Street and South 3rd Street corridors, and the proposed project will not result in wetland impacts (page 4-29). We understand that the riparian area adjacent to the Clark Fork River was assessed for the presence of wetlands and no wetlands were identified. For improved public understanding it may be helpful to state that, "no wetlands were identified within the Russell Street and South 3rd Street corridors, including the riparian area adjacent to the Clark Fork River where bridge replacement activities are proposed." This would help clarify that project consultants did not identify jurisdictional wetlands adjacent to the river.

9. As you know, the Missoula Valley Aquifer is the primary groundwater resource of the Missoula Valley, supplying 80 percent of the drinking water of Missoula County

- 117-F** Construction impacts to Water Quality as well as Water Bodies and Wildlife Habitat are discussed in Section 4.18 of the EIS. This section of the EIS acknowledges that bridge removal activities will be conducted in accordance with Best Management Practices, and will be outlined in Special Provisions to be coordinated with the appropriate resource agencies during final design. Bridge demolition and construction plans are not developed to the degree necessary to outline specific management controls at this point in the project development process. However, the City of Missoula and Montana Department of Transportation are committed to satisfying the requirements of the Highway Construction Standard Erosion Control Work Plan, Stream Protection Act, and Section 404 Clean Water Act permits required for this project.

- 117-G** Both the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service have been, and will continue to be engaged in this project development process.

- 117-H** This text has been added to the FEIS to help clarify the analysis and findings.

Appendix H - Written Comments and Responses

residents, and is designated a sole source aquifer under Section 1424(e) of the Safe Drinking Water Act. The DEIS indicates that “if” the City of Missoula establishes a dry well system in the vicinity of the project corridor, runoff from impervious surfaces could be collected in dry wells and filtered through the alluvium before reaching the aquifer (page 4-28). On page 4-29 it is stated that “should” the Best Management Practices selected to manage stormwater runoff for the preferred alternative include the use of a dry well system additional EPA and Missoula Valley Water Quality District requirements may be necessary to protect the Missoula Valley Aquifer.

117-I

This language does not appear to provide a definitive commitment that dry wells will be used, nor is there much information about the potential dry well treatment system, or depth to groundwater in areas where drywells may be proposed. We have been advised that detailed dry well design will occur during the final design, and there is a commitment to protect the Missoula Valley Aquifer. We believe that a clear commitment that dry wells or an equivalent treatment system would in fact be used to capture and treat roadway runoff to protect aquifer quality should be included in the FEIS. We recommend that this commitment be stated in the FEIS, and that the language regarding “if” or “should” a dry well system be used, be modified to indicate that a dry well or equivalent system for treatment of contaminated runoff discharges to groundwater “will” be used. This will provide greater assurances that an appropriate treatment system will be used to protect groundwater.

We also recommend that additional information on dry well or equivalent treatment system design be provided in the FEIS to provide assurances that groundwater quality will be adequately protected. Dry wells can be an effective way to remove contaminants from storm water runoff when there is a deep enough soil profile to provide for filtering and adsorption of contaminants, but we would like to see a more definitive information in the FEIS about the dry wells, including soil characteristics and depth to groundwater. Also, it is important that a regular dry well inspection and maintenance schedule be implemented, and that groundwater monitoring be performed to assure that dry wells provide effective treatment of storm water runoff from the roadway. Information on dry well inspection, maintenance on groundwater monitoring should also be provided in the FEIS. If you have any questions regarding the requested groundwater protection information and compliance with the Sole Source Aquifer Program please contact Ms. Darcy Campbell of EPA’s Region 8 Groundwater Protection Program Office in Denver at 303-312-6709.

117-J

10. The Missoula area is still currently designated a non-attainment area for PM-10 (page 3-15), however, we did not see analysis for PM-10 in the DEIS. A hot spot analysis is required under the criteria found at 40 CFR 93.123(b)(1). In addition there should be an analysis for the PM-10 emission trends for the action and no action alternative. This will give the DEIS reader an indication of the expected impacts regardless of whether or not it will cause a National Ambient Air Quality Standards (NAAQS) violation. While exhaust emissions of PM-10 may decrease it is likely that road dust emissions may increase because of the increased volume of traffic and speeds, and construction

117-I

The intent of the language contained in the EIS is to maintain flexibility in final design regarding what type of treatment system is ultimately employed. Additional text has been inserted into this section of the EIS to ensure a commitment to capture and treat runoff prior to discharge into the aquifer and/or the Clark Fork River.

The City of Missoula has been coordinating with EPA’s Region 8 Groundwater Protection Program Office and will continue to engage with EPA during the design process to ensure the use of Best Management Practices at the time of final design and construction.

117-J

The Montana Department of Transportation made the determination that PM-10 hot spot analysis was not required for this project. EPA concurred with that determination on February 1, 2010. Please refer to Appendix D for copies of this correspondence.



Final Environmental Impact Statement

activities. We recommend that the FEIS include additional discussion of potential increased traffic volume and speeds, effects on PM-10 levels, and potential for an increase in PM-10 NAAQS exceedances due to proposed activities. If you have any questions please contact Mr. Jeffrey Kimes in our Denver Regional Office at 303-312-6445.

117-K 11. Air quality impacts during construction while temporary can be of long duration in projects lasting several years. Particulates and diesel emissions in high concentrations can be present during construction and should be evaluated. The duration and project phasing of construction activities and resultant emissions should be discussed in the FEIS. The DEIS indicates that construction contractors will comply with applicable dust control requirements, but those dust control requirements are not identified. We believe the FEIS should identify the specific actions to be taken to minimize dust, and equipment emissions from construction vehicles and roadway vehicles and other activities that will disturb the soil. This will enable the public to better understand efforts to reduce dust emissions during construction. We also recommend that the FEIS describe methods that will be used to minimize tracking of soil and mud from unpaved areas during construction to avoid particulate matter pollution from the re-entrainment of dried mud and soil by vehicles passing through and near the project area.

117-L 12. We are pleased that the DEIS states that Mobile Source Air Toxics (MSATs) emissions are likely to be lower in the future (page 3-17), although the DEIS also states that roadway widening proposed as part of the preferred alternative would have the effect of moving some traffic closer to nearby homes, schools, and businesses, so that there may be localized areas where ambient concentrations of MSATs could be higher than the No Build Alternative. This discussion also indicates that there are technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects of MSATs. EPA agrees that there are uncertainties associated with calculating future health impacts of MSATs, since ambient background levels are generally not known for specific air contaminants and assumptions would have to be made on the residence time of an individual in neighborhoods near roadways. However, estimates on human health environmental impacts are often done, and we often recommend quantitative analyses of human health impacts. However, we acknowledge that the qualitative analysis of MSAT emissions for the Russell Street and South 3rd Street project is adequate due to the relatively low level of anticipated MSAT emissions.

117-M 13. On page 4-37 it is stated that the location of historic sites is shown on Figure 4-7, however, it appears that Figure 4-9 (page 4-40) shows the location of historic sites. We suggest that this labeling error be corrected. We support protection of historic and 4(f) sites as much as possible.

117-K The EIS references Best Management Practices, which provides more flexibility at this stage of the project development process. This project will likely be constructed in phases over several years, and the construction techniques and abatement measures may change. Identifying specific measures in the EIS limits the ability of a contractor to provide competitive bids and limits the ability to employ new techniques developed after the EIS is completed.

117-L Thank you. Comment noted.

117-M Thank you, this text has been corrected.

Appendix H - Written Comments and Responses

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment, February, 1987.

This attachment to the EPA comment letter explains the EIS rating system and requires no response.

Final Environmental Impact Statement

Comment 118



October 15, 2008

To whom it may concern:

After reviewing the Draft Environmental Impact Statement for Missoula's Russell Street/South 3rd Street reconstruction, we would like to voice our support for keeping this project moving forward. As a business located at the heart of this project, we feel it's extremely important to reduce congestion and improve safety for all modes of traffic on these streets.

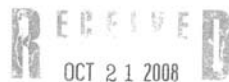
Focusing on the safety and mobility concerns of the Good Food Store customers and staff, we offer the following comments on the DEIS:

- **Third & Russell intersection.** Because of the volume of traffic at this intersection, we are concerned that drivers, bikers and walkers will not be able to safely negotiate a roundabout. We support "signal control" at this intersection.
- **Catlin and Third intersection.** We support a roundabout at this intersection.
- **Grade-separated trail crossings.** We're very pleased the DEIS advocates four underpasses to enhance trail connectivity and safety. In the Final Environmental Impact Statement, we would like to see an additional illustration to help us understand how the Milwaukee Trail Underpass connects to bicycle and pedestrian pathways to the west. A similar concern relates to the executive summary's description on page 8 of new construction and reconstruction of several road segments in the area boxed by Russell, River Road, 3rd and Catlin streets. We feel it important that bicyclists and pedestrians are also able to move safely and efficiently through this area. Again, we would like to see a more detailed illustration of plans for this area.
- **Vehicle speed.** Please ensure the road design does not "warrant" speeds greater than 30 to 35 miles per hour.
- **Lighting.** Safe streets and sidewalks demand adequate lighting but we are concerned that these streets can also be "over lit," negatively impacting residents bordering Russell and 3rd Streets.
- **Landscaping.** As befitting the Garden City, we hope you will design medians and boulevards with diverse and beautiful plants.

In closing, we'd like to reiterate our feeling that the status quo on Russell and 3rd streets is unacceptable. We encourage your continued efforts on this project and appreciate the opportunity to give the City of Missoula and the Montana Department of Transportation our feedback.

Sincerely,

Layne Rolston
Good Food Store, Communications Director



MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT



Thank you for your comment and interest in the project.

118-A

118-A

There are no current trails to the west. The grade separation would be constructed to connect to an existing or planned trail during the final design stage. No extensions of the trail would be provided by this project beyond the Russell Street right-of-way limits.

118-B

118-B

There is no intent to change the posted speed limit in either the Russell Street or South 3rd Street corridors under this project. See also response to Comment 73-C.

118-C

118-C

Lighting issues will be coordinated during the design process. Lighting will be consistent with Missoula's Dark Skies Ordinance, or other current lighting standards, as appropriate.

118-D

118-D

Boulevard and median landscaping will be coordinated with the appropriate local agency during final design.

Appendix H - Written Comments and Responses

Comment 119



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

PUBLIC WORKS DEPARTMENT

We Invite Your Comments:

None of us like the fact that there are more & more people moving into our wonderful state. However - there is nothing we can do to stop things from wanting our lifestyle for this own families. Since we can not stop the influx we need to accommodate & make sure it does not create a hardship on everyone. The Russell Street 4 lane Budget & design are great - I support this change.

I do find it disturbing that the upstanding citizens were too intimidated by the rabble rousers to speak up.

Thank you for your comment and interest in the project.

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name:

Jinda J. Pearson

Address:

6020 Lower Mullan Ct
Missoula, MT 59803

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802



Final Environmental Impact Statement

Comment 120

Russell EIS – technical comments by Nancy Wilson, Director, ASUM Transportation

Supported unanimously by the Associated Students of The University of Montana Transportation Board – current members: John Wilke (ASUM Senator), Gail Tangaipak (ASUM Senator), Miranda Leftridge (ASUM Senator), Eric Loomis, Kip Rand, Jordan Hess, and Siri Smillie (ASUM Vice President)

The Russell project preferred alternative is not supported by the ASUM Transportation board for the following reasons:

120-A Americans with Disabilities Act requirement will not be met until project is completed which is currently listed in the long range transportation plan as 2033.

120-B A 4 foot bike lane is not safe. The bike lane is suggested to be 5.5 in the EIS but is not as this measurement includes the curb and gutter is dangerous for bikers – the gutter line can actually throw a bicyclist into traffic.

120-C No on street parking is included in the preferred alternative in any of the project. On street parking can act as a traffic calming device and could be added to the section River road and Third.

120-D Transit requires that users can cross the street safely at any intersection – not just at under crossings.

120-A Each phase of the project will be built in accordance with all requirements of the ADA. Furthermore, each phase of the Preferred Alternative provides a substantial improvement to the facility from an ADA standpoint as compared to the No-Build Alternative.

120-B See response to Comment 28-A for a discussion of national standards on appropriate bike lane design.

120-C As a major arterial, parking is currently prohibited on Russell Street and South 3rd Street, and no recommendations for on-street parking were ever raised during the project development process. Additionally, the American Association of State Highway Transportation Officials *Guide for the Development of Bicycle Facilities* states that

“On-street parking increases the potential for conflicts between motor vehicles and bicyclists. The most common bicycle riding location on urban roadways is in the area between parked cars and moving motor vehicles. Here, bicyclists are subjected to opening car doors, vehicles exiting parking spaces, extended mirrors that narrow the travel space, and obscured vies of intersecting traffic.” (Page 17)

This would also result in a larger footprint and require more acquisitions.

120-D In addition to the four grade-separated trail crossings along Russell Street, pedestrians can cross Russell at five signalized intersections, and intermittent refuges throughout the corridor.

Appendix H - Written Comments and Responses

120-E If safety is being addressed - 4 lanes of traffic is much less safe for pedestrians as the inside lane may not stop after the outside lane has stopped. The concrete example of this is in Missoula on West Broadway. 5 pedestrian deaths occurred in a three to four year period while that roadway was a 4 lane with a turning lane design. The state actually reduced the size of that street to a three lane facility and there has not been a pedestrian death since. How can 4(5) lanes on Russell be any safer than they were on Broadway?

120-F Social impacts – 13 houses and 2 businesses being removed directly affects those looking for low to moderate priced housing in central districts. If one looks at residencies/businesses instead of buildings there are 14 residencies and 10 businesses affected.

120-G A map was developed of the student body addresses in 2001 showing a significant number of University students in the neighborhoods along Russell. Since 2001 many more affordable housing units have been added to the Franklin to the Fort neighborhood. Students, faculty and staff living in the “Russell to the Fort” neighborhood, would have to go out of their way to use either the Wyoming or the Milwaukee Corridor pedestrian crossings instead of crossing at 4th, 5th, 6th, or 7th, which would be the most direct access for a safe pedestrian, bike crossing.

120-H Park land would be reduced in an area already critically short of parks. Medians are not parks.

120-I Noise – in the draft EIS it is suggested that 22 receptors currently exist in the corridor and if the preferred alternative was build some of those would be removed so the noise receptors would be reduced to 13. In actuality the increase in speed due to the width of the street and the increase in traffic would greatly increase noise in the neighborhood.

120-E The four-lane segment on West Broadway Street was recommended to be upgraded to five lanes for safety and capacity reasons. Since a comprehensive reconstruction project along Broadway was not feasible in the near term, the City and its engineering consultants determined that the best short-term solution would be to convert the roadway into a three-lane to isolate the left-turning movements and provide some pedestrian refuge. This project on West Broadway was not intended to be a long-term solution as it still fails to provide necessary capacity or optimal safety improvements. Please see also response to Comment 23 for a discussion of the safety improvements the Preferred Alternative is anticipated to provide. Also see Appendix G for a detailed comparison of the safety rankings of the Preferred Alternative relative to the other alternatives and options examined.

120-F Table 2.11 in the EIS identifies 11 homes and 10 commercial buildings that will be impacted by the Preferred Alternative on Russell Street. Many of the houses in the Russell Street Corridor are valued between \$100,000 and \$200,000. An August 2010 search of the Missoula Multiple Listing Service returns 14 homes available between \$100,000 and \$120,000; 56 homes between \$120,000 and \$150,000; 84 homes between \$150,000 and \$175,000; and 127 homes between \$175,000 and \$200,000. See also response to Comment 19-B regarding impacts across alternatives, and the mitigation discussion in Sections 4.3 and 4.4 of the EIS regarding adherence to acquisition policies.

120-G Pedestrian crossings in the immediate area of the Franklin to the Fort neighborhood include the grade-separated Bitterroot Branch Trail crossing, signalized intersections at South 5th Street and South 3rd Street, and pedestrian refuges intermittently throughout the corridor. Signalized intersections will have timed pedestrian intervals to create a safe path of travel across the roadway. Bike lanes are also being provided to allow for improved bicycle travel on Russell and South 3rd Streets.

120-H The proposed project is in accordance with the City of Missoula Parks Master Plan. Kern and Hart Parks are designated as passive green space by the City of Missoula. They serve limited recreational purpose and are not protected under Section 4(f) of the Transportation Act as confirmed by correspondence in Appendix E.

120-I The detailed noise analysis, which fully accounts for traffic volumes and speeds, indicates that the noise level will not increase substantially, and that it will affect up to 13 residences.



Final Environmental Impact Statement

120-J Visual resources – the mitigation “due to the overall positive impacts on visual resources, no mitigation is required” is a personal perspective of the consultant. Certainly the voices from the neighborhood disagree with this statement as the neighbors think it will be a very dangerous eye sore.

120-K The intersection at Russell and third would be wider than Mullan/Reserve intersection. Pedestrians would have to cross a much larger intersection. Current and proposed* pedestrian crossings at Russell/3rd intersection:

NW to SW: 76' to 106' (39.4% longer pedestrian crossing)
SW to SE: 71' to 102' (43.7% longer pedestrian crossing)
SE to NE: 56' to 118' (110.7% longer pedestrian crossing)
NE to NW: 73' to 104' (42.5% longer pedestrian crossing)

120-L All crossings are unprotected- no median refuges

*preferred City/State alternative for 5-lane Russell, derived from p.2-51 of DEIS:

http://www.mdt.mt.gov/pubinvolve/docs/eis_ea/eis_russellst_ch1-2.pdf

Comparison to longest unprotected ped crossing at Reserve and Mullan: 86'

120-M Bicycle Pedestrian mitigation – “Bicycle and pedestrian access will be improved within the project corridor; therefore, no mitigation is necessary for the proposed project.” We would argue with this statement as currently the area is only one travel lane in each direction in most of the corridor which is much easier and safer for pedestrians and bicyclists to cross safely.

120-J The Build Alternatives explored in the EIS each included landscaped boulevards and medians as well as bike lanes and sidewalks.

120-K The EIS lays out a preliminary intersection footprint for improvements at the Russell Street / South 3rd Street intersection. The final width of the intersection and necessary number of lanes will be determined during the design process, but it will undoubtedly be larger than the current configuration. See also response to Comment 73-H regarding this intersection configuration.

120-L The pedestrian crossings are signal protected and do not require median refuges.

120-M Currently there is a lack of bike lanes, sidewalks, boulevards and no grade separated crossings within the project corridor. The Preferred Alternative would add all of the above while providing enough multi-modal capacity for future growth in Missoula.

Appendix H - Written Comments and Responses

120-N The preferred alternative will make crossing the street much less safe and will constrict bicycles and pedestrians to trail crossings as drivers will be frustrated with those that try and cross at street level after tax payers have spent huge sums building three crossings.

120-O No mention of community built art/sound wall removal as 4 F – this wall is at Russell and 2nd and is a 4F property due to it's community build and it's status as an public art area. The Homeword-Fireweed court straw-bale wall should be characterized as a historic and *cultural resource*.

120-P The proposed River Road connection on Catlin increases miles traveled for that neighborhood. This is in direct conflict with Missoula's work to reduce miles driven through Missoula In Motion (a TDM effort supported through CMAQ funds)

120-Q Future traffic projections – traffic projections are being made on the number of additional houses to be added to this area and does not take into account that development in this area is being encouraged by the city as this area is well served by transit and is on the bike/pedestrian system. To use standard traffic projections for this sub division is just not accurate. The ball field development is close to downtown, grocery stores, recreation, and jobs, all of which will reduce vehicle trips from this neighborhood. Also traffic projections do not take into account the

120-R change in drivers choices since gas prices have increased from \$1.40 to almost \$4/gallon. Please note under Chapter 4.0 Impacts and Mitigation "Consistency with Plans, Policies, and Regulations The proposed project is consistent with the urban centers developed in the Missoula Urban Comprehensive Plan – 1998 Update. While the urban centers concept was developed primarily to reduce traffic congestion, it also has potentially beneficial social impacts in promoting pedestrian-oriented neighborhoods."

120-N The Traffic Analysis Update confirms the findings that the Preferred Alternative results in safer movements for pedestrians and bicyclists throughout the corridor. These movements are not restricted to grade-separated crossings, but are available at five signal-controlled intersections, and intermittent locations throughout the corridor where refuges can be located within raised medians.

120-O Section 4(f) refers to a specific section of law giving protection to a "... public park, recreation area, or wildlife and waterfowl refuge ... or land from an historic site ..." (23 U.S.C. 138) The wall along Russell Street does not meet any of these criteria and is not afforded protection under this law. The term "cultural resources" in the context of this law typically refers to historic structures or archeological sites and does not apply to the wall along Russell Street. The art/sound wall was constructed in 2000, and is composed of straw bales covered in stucco and mosaic tile. The wall was constructed by volunteers associated with homeWORD. It was constructed within State right-of-way and an encroachment permit was obtained from Department of Transportation. The permit application prepared by homeWORD clearly states that the wall will be in place "until wall is required to be removed." The specific conditions of the permit granted by the Department of Transportation include, "Changes in Highway. If State highway changes necessitate changes in structures or installations installed under this permit, Permittee will make necessary changes without expense to the State."

120-P The right-in/right-out at River Road, and the routing of eastbound to northbound traffic to Wyoming and on to Russell at the new signal, will result in a much safer and more efficient route than attempting to access Russell Street from River Road at an un-signalized intersection with poor visibility across the bridge. The routing of this movement affects approximately 50 to 100 vehicles in the peak hour, and would not have a substantial effect on miles traveled in Missoula.

120-Q The traffic projections used in the EIS were updated during the spring/summer of 2009. The model used in the study contains the latest land use assumptions approved by the City and County that incorporate the expected development within the corridor, and transportation improvements that are planned and funded in the Long Range Transportation Plan. Please refer to responses to Comments 57-B and 116-G. Please see Appendix G for a summary of the updated analysis.

120-R See response to Comment 5-B and 116-G for a discussion of travel behavior relative to fuel prices.



Final Environmental Impact Statement

120-S Level of service – the preferred alternative suggests building the intersection of 3rd and Russell for level of service C at peak hour. This should be reduced to level of service E for peak hour as peak hour service at C is just not affordable for this community and is not acceptable to the surrounding neighborhood. This is also not a standard practice – building to level of service C for peak traffic for a 25 year projection – nationally.

120-T Intermountain Lumber site – Missoula Housing Authority is for sure doing 36 units at the Garden District multi-family units at the back lot of Intermountain along Catlin; and they are now planning on about 20 more residential units on one of the south center lots; with plans to sell the 3 remaining lots adjacent to Russell and Milwaukee Road. This is not the density that was addressed in the EIS.

120-U Passive Green Spaces – We would like to again take issue with the park land description that is given on 3-11 as it states that two parks – Kern and Hart parks – are not significant to the City’s recreational program due to their small size and location next to Russell Street. These parks are important to the neighborhoods connected to them as park land in this area is almost non-existent.

120-V Air Quality - At public meetings the consultant and Steve King both stated that a two lane project would affect air quality and that was why we wouldn’t be able to consider them. On 3 16 this is disputed “Because the anticipated vehicles miles of travel under both the No Build and Preferred Alternative are nearly the same, it is expected that there would be no appreciable difference in over Mobile Source Air Toxics emissions between the alternatives.”

120-S The EIS outlined “targeted” LOS thresholds. The original analysis indicated that the Russell Street / South 3rd Street intersection would operate within the “D” range during the peak hour within the 20-year planning horizon. Based on the Traffic Analysis Update, this intersection is anticipated to drop to the “E” or “F” range before 2035 with the Preferred Alternative configuration.

120-T The EIS does not produce independent assumptions on infill densities. These assumptions are developed by the community in coordination with MDT during the Long Range Transportation Plan (LRTP) Update process. Those densities, and the modeled traffic volumes from the LRTP provide the basis for the projected traffic volumes on any given roadway in the Missoula planning area.

120-U The proposed project is in accordance with the City of Missoula Parks Master Plan. Kern and Hart Parks are designated as passive green space by the City of Missoula. They serve limited recreational purpose and are not protected under Section 4(f) of the Transportation Act as confirmed by correspondence in Appendix E.

120-V Air quality concerns were not a deciding factor in the dismissal of the two or three-lane alternatives. To put the reference in proper context, it should be understood that Vehicle Miles of Travel would not vary appreciably between alternatives and thus would have negligible difference in Mobile Source Air Toxics; however, levels of congestion do affect carbon emissions. Long queues of idling vehicles will produce more carbon emissions than free-flowing traffic. The No Build Alternative was noted as having the potential to contribute to localized air pollution at congested intersections.

Appendix H - Written Comments and Responses

120-W Water Quality – the preferred alternative is the project with the most paved surface causing the need for more dry wells or sumps. It seems to make sense for better water quality the less paved surface the better.

Chapter 4.0 -0 Impacts and Mitigation

120-X 4-4 completely disagree with the second to the last paragraph “Given that Russell Street is an urban arterial, and is intended to serve both local and regional traffic, and currently marks the edge of these neighborhoods and districts, *the proposed improvements would not split neighborhoods, isolate any portion of an existing neighborhood, or separate residents from community facilities within their neighborhoods.*”

This is just not accurate – people living on the east side of Russell need to cross Russell to get to the grocery store and school and people living on the west side of Russell need to cross Russell to get to downtown and the University. This preferred roadway definitely has a negative effect on the neighborhood. Under crossings are out of the way for a good portion of the neighborhood and the ability to cross safely at all intersections – due to a four lane road as explained above – actually cuts this neighborhood in two.

120-Y 4-6 Detailed Right of way impacts on Residential Properties from the Preliminary Preferred Alternatives – Will property owners be able to afford to still live in the neighborhood and will neighborhood properties be found for them? These properties are good housing yet not worth a lot on the market. Many of those living in these properties will be displaced and probably have to live much farther from the core of town, causing them much higher transportation costs.

120-W All build alternatives include additional impervious surface and require water quality mitigation. Drywells and sumps are a standard practice for mitigating the potential impacts to water quality from surface runoff.

120-X The EIS accurately depicts Russell Street as a major arterial, historically, currently, and as proposed. The EIS states that an improved Russell Street will not affect the cohesion of established “neighborhoods.” Elements of the design intentionally accommodate pedestrian crossings through grade-separated crossings, signalized intersections, and median refuges. Pedestrian counts collected as part of the Peer Review indicate that the majority of pedestrian travel occurs north of South 5th Street and south of South 11th Street, which are in very close proximity to these crossings.

It is also important to note that the text cited is merely stating that improvements on Russell Street will not affect established neighborhoods. There is an undeniable effect on the ability of all traffic to get from these neighborhoods to other destinations such as downtown and the University. The current congestion and lack of multi-modal facilities on Russell Street points to the need for the overall improvements recommended in the EIS.

120-Y See response to Comment 19-B on the acquisition of structures as a result of the Preferred Alternative and the mitigation discussion in Sections 4.3 and 4.3 of the EIS regarding adherence to acquisition policies.



Final Environmental Impact Statement

4-49 Historic and Cultural Resources

120-z In the statement from the Montana Department of Transportation historian he states “.....assuming that the Montana Department of Transportation demonstrates that there is no reasonable or prudent alternative to construction of one of the action alternatives, Montana Department of Transportation proposes to address this cumulative effect by funding a neighborhood survey designed to identify whether or not the adjacent neighborhood(s) represent a National Register eligible district or districts, to identify the boundaries of that district, and to identify the character defining features of that district. This survey effort would assist in the future preservation of the neighborhood(s) beyond Russell Street sufficient to avoid additional adverse effects....” In other words this project is an adverse effect on the historical overall sense of the

120-aa neighborhoods. The 3 plus alternative should be thoroughly studied as it would be a prudent alternative in the eyes of over 800 Missoula residents and would be more historically accurate for these great old neighborhoods.

120-bb 4.19 Energy Implications – increasing the size of this roadway fails to address other modes increasing if this project were built as context sensitive design instead of being built as an urban highway design. The other energy implication is the environmental cost of more pavement as the preferred alternative adds 2 lanes in most places and will add 8 lanes at the intersection of 3rd and Russell. If the design included roundabouts the stop start comment made in this section would be reduced substantially. Also this section fails to discuss the concept of induced demand with the perception of a wide open roadway thereby actually causing more traffic and increasing the amount of petroleum consumed.

120-z The term “adverse effect” has specific meaning in the context of the law. Through coordination with the State Historic Preservation Officer, this project does not have an adverse effect on any historic resource. The comment from the Department of Transportation historian was speaking in the context of defining a historic district “beyond Russell Street,” suggesting that Russell Street is an existing feature forming a boundary to such a district.

120-aa Please refer to response to Comment 27-B regarding the failure of options similar to the “3 plus” alternative to satisfy Purpose and Need.

120-bb This project is based on the outcome of the regional transportation planning process, and accommodates both vehicular traffic as well as a substantial increase in travel by other non-motorized modes. The concept of induced demand is discussed in response to Comment 23-B. It is unlikely that improvements such as those preferred for Russell Street would induce new traffic, but could result in shifting traffic from one route or time of day to another, which has little effect on overall energy use.

Appendix H - Written Comments and Responses

120-cc

Issue should be taken with the consultant's statement made in the preliminary preferred alternatives section: "by adding capacity, and thus increasing average vehicle speed and smoothing traffic flows as compared to the No-Build Alternative, the Preliminary Preferred Alternatives would have the greatest positive effect on those fuel economy factors related to travel conditions and driver behavior."

120-cc

Traffic modeling supports the proposition that reducing the occurrence of start-and-stop traffic as well as idling in lengthy queues, fuel consumption will be decreased.

120-dd

Public comment – The citizen committee was disbanded suddenly in 2002. Several committee members are concerned about the legality of this. The citizen committee constantly questioned the 4-5 lane facility and continued to ask if a road could be developed in a way that moved from 5-3 lanes to keep the community and neighborhood feel. Also, at every public meeting I have been at – which is all but one, there has been substantial (actually all but three at each meeting) public comment opposing the Russell street "preferred design." These comments have been taken but not responded to and the "preferred" alternative continues to resurface without significant change.

120-dd

Please see the response to Comment 5-A regarding the Citizens' Advisory Committee process, and Comment 36-C regarding additional outreach efforts.

Thank you for your comment and interest in the project.

*Nancy Wilson, Director
Associated Students of The University of Montana
Office of Transportation
University Center, Suite 114
Missoula, MT 59812
406 243 4599
Fax 406 243 5430*

Final Environmental Impact Statement



Comment 121

To Whom it may Concern:

I strongly favor the preferred alternative, a four lane expansion of Russell Street, for as much of the street as funds allow. Our firm is a Russell Street business; both ourselves and our customers experience frequent delays and difficulties proceeding north from Mount and Russell to Broadway and Russell.

Thank you for your comment and interest in the project.

Warren Worth

Western Montana Engineering, Inc.
1527 South Russell
Missoula MT 59801
721-5776 phone
721-5777 fax

Appendix H - Written Comments and Responses

Comment 122



October 15, 2008

Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula MT 59802

Mr. Wood:

After attending the public hearing and a follow-up conversation with Mr. King and Mr. Wood we are going on record to express our strong opposition to the "preferred alternative" plan for the Russell Street project for the following reasons.

122-A

1. As a local business facing increased competition from box stores, increasing costs including but not limited to federal, state and local taxes, utilities, insurance, fuel, wages, etc. we cannot stand by while our property is taken from us. This will result in yet another burden to our survival. Boyce Lumber has been a part of this community since 1937, creating many jobs and supporting Missoula. What we are seeing here is almost a sense of apathy from those who are pushing this project.

122-B

2. While we understand that something needs to be done to accommodate the normal increased traffic in the future, we feel that the additional "amenities" such as boulevard sidewalks and bike lanes are the primary, if not the sole reason for the encroachment of our property and are not necessary.

122-C

3. We feel that any improvements to Russell Street should be done to accommodate the natural growth of traffic flow along the route. We feel that the preferred alternative will attract additional traffic that might not otherwise use Russell Street, making access in and out of our business more difficult due to the added traffic.

122-D

4. We feel that the preferred alternative will destroy the neighborhood quality and feel of the area.

122-E

We suggest that the City look at a smaller footprint that will not have the devastating impact on our business as well as other business and private property owners that the preferred alternative poses. We find the preferred alternative unacceptable.

Sincerely,

Bob Boyce, President

Jack Boyce, Vice-President

Steve Boyce, Treasurer

Annette M. Boyce, Secretary



122-A

The City of Missoula and MDT will adhere to the state and federal laws governing property acquisitions. The acquisitions illustrated in the DEIS are based on a preliminary design. Final right-of-way requirements will be identified and negotiated with individual property owners as the project progresses. All acquisitions will be in accordance with existing state and federal laws requiring just compensation.

122-B

Elimination of the "amenities" would in fact reduce the footprint of the improvements and likely result in avoidance of your property; however, these elements were strongly supported by community members participating in the project development process and are integral to efforts to maintain and enhance community character along this route. That said, project designers will work with each property owner to avoid impacts where practicable.

122-C

The Preferred Alternative is not projected to induce traffic, but merely accommodate the natural rate of growth over the next 20 years. Please refer to response to Comment 23-B.

122-D

Please see the response to Comment 120-X as well as Figure 3-2 in the EIS for a depiction of the current neighborhood boundaries.

122-E

Several alternatives were analyzed that would have had less impact, but failed to provide any substantive improvement in overall safety and operational characteristics in the Russell Street corridor.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 123



1400 S. Russell St.
Missoula, MT 59801

Phone (406) 721-5842
Fax (406) 721-5843

www.oasisspas.com
email: jack@oasisspas.com

October 15, 2008

Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula MT 59802

Mr. Wood:

I appreciate the opportunity to comment on the preferred proposal on the Russell Street project.

After reviewing the preferred proposal for the Russell Street improvements and the huge impact that it will have on my business I would like to comment that I am opposed to the following items in the "preferred proposal".

123-A I oppose the boulevard and sidewalk combination due to the huge impact on the property and my business. I am also opposed to the bicycle route on a major street such as Russell Street. The bicycles should use other alternative route and stay off of Russell Street.

123-B I would like to see the foot print of the project minimized thus saving my business from closure which would result in my loss of income and the loss of jobs for my employees.

123-C I would also propose that Russell Street make a deviation to the west at the Russell Street, Ronan Street intersection thus hopefully leaving my business location and parking area intact.

123-D I also support all efforts to maintain the neighbor hood atmosphere of the area and not turning Russell Street into another Reserve Street.

Sincerely,

Jack Boyce, President

Jack Boyce
Annette M. Boyce, Secretary/Treasurer

Annette M. Boyce
Jesse Boyce, Vice President

Jesse Boyce



123-A See response to Comment 122-B regarding the inclusion of sidewalks and boulevards on Russell. Bike lanes were included to provide safety and mobility improvements for bicycle travel within this corridor. This is consistent with local planning exercises, public input during this process, and current practice in this corridor.

123-B The City of Missoula and MDT will work with each individual property owner during the design process to negotiate right-of-way requirements and compensation.

123-C Adjusting the alignment of Russell Street to completely avoid this structure would result in undesirable effects on the geometry of the intersections of at least three nearby intersections and the railroad, as well as result in residential and commercial acquisitions on the west side of Russell Street. Three of these residences on the west side of Russell Street are protected historic properties. Please see Chapter 5 of the EIS for more information regarding Section 4(f) protection.

123-D See response to Comment 120-X and Figure 3-2 in the EIS regarding impacts to adjacent neighborhoods.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 124

Stephen Schombel
2200 Applewood Lane
Missoula, MT 59801
721-4686

Steve King
Director of Public Works

As you know, the economy is getting very shaky. People are also getting hit by rising costs and stagnating wages. And worse is yet to come. Therefore, I beg you to scale back on the grand plans for the reconstruction of Russell and Third Streets, and to get rid of some of the unnecessary features. Not only will this lower the initial cost, but will also greatly reduce future maintenance expenses.

124-A

First to go should be the tree lined boulevards. They are pretty, but one of the most impractical street designs ever. Whether you are on foot, bike, or parking, why should you have to wade through grass and dodge tree branches instead of simply stepping onto a sidewalk next to the pavement? When the trees grow large they block lines of sight and untrimmed branches cause bicycle riders to dodge into traffic, creating more hazards. Next to go would be the landscaped center medians. Nice, but they require a lot of maintenance and water, and, once the novelty wears off they don't add much. I hardly ever look at Stephens Avenue anymore. Plus neither of the above fits in with the existing character of the neighborhoods. I drive or ride through every working day and know what the neighborhoods look like.

124-B

Some kind of median divider is probably needed on much of Russell, but Third is mostly commercial with a lot of small businesses. People need to turn left to get into and out of these businesses. Also, long left turn lanes are needed at the intersection of Russell and Third. If I read the plan right, it looks like the turn lanes will be a lot shorter. But this will just cause more congestion.

124-C

I'm open minded about roundabouts vs. traffic lights. But riding a bicycle through the various traffic calming devices around town makes me very nervous. When there are cars coming from both directions they just aren't wide enough. I guess the cars are supposed to slow down and get behind the bike, but few drivers seem to know this. No one seems to be writing rules or educating the public on how roundabouts are supposed to work. I wish the city would build just one so we can see how it works before building them all over. Lastly, I hope that some means for cyclists and pedestrians to cross these busy streets remains in the plan, even though they will add to the cost. Underpasses would be wonderful.

124-D

Please just build us a cheap and efficient four lane with traffic lights.

Stephen Schombel



RECEIVED
OCT 16 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

124-A

See also response to Comment 37-A regarding the inclusion of landscaped medians and boulevards as a means of improving safety and enhancing community character.

124-B

The exact location and length of center medians and turn lanes will be decided during final design.

124-C

Please refer to responses to Comments 72-A and 72-B regarding the difference between roundabouts and traffic circles.

124-D

Support of multi-modal transportation is an integral part of this project, through the inclusion of grade separated crossings, dedicated bike lanes, and boulevard sidewalks.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 125



The Big Sky Country

MONTANA HOUSE OF REPRESENTATIVES

REPRESENTATIVE BETSY HANDS
HOUSE DISTRICT 99

HELENA ADDRESS:
CAPITOL BUILDING
PO BOX 200400
HELENA, MONTANA 59620-0400
PHONE: (406) 444-4800

HOME ADDRESS:
1337 SHERWOOD STREET
MISSOULA, MONTANA 59802
PHONE: (406) 721-3881



14 October 2008

Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula, Montana 59802

SUBJECT: Draft Environmental Impact Statement – Russell Street/ South 3rd Street

Dear Mr. Wood:

125-A After reading the draft environmental statement and the many alternatives it contains, I am convinced the only alternative that truly makes sense is one not included, the Russell Street Citizens' Plan, or the "Three Plus for Russell Street" alternative.

125-B Missoula does not need another Reserve Street. Most of the citizens I represent who reside in nearby neighborhoods do not want a 94' swath cut through the middle of closely-knit residential areas.

125-C From working for homeWORD, a non-profit housing organization, as well as living in the Westside neighborhood for over 8 years, I know very well the danger of the Russell Street thoroughfare. In fact, while I worked at homeWORD, I oversaw the reconstruction of the strawbale wall twice from cars that careened into the wall (the wall actually protected the residents from physical harm). As a resident of the Westside neighborhood, I frequently use my bicycle to get to the stores and other friends' houses and I have a lot of trouble getting across the street due to the current road design focused on cars. We have also watched Reserve Street clogged with traffic. They did not use the complete street design, which actually encourages all modes of transportation. It is painfully obvious that danger accompanies each trip on Reserve Street, whether in a vehicle, on foot or on a bicycle.

125-E The "Three Plus" Plan ensures greater safety for pedestrians and motorists alike. It is more cost-effective and more energy efficient. It maintains the integrity of neighborhoods and reduces noise and air pollution.

125-A Please see response to Comment 110-A.

125-B Please see response to Comment 110-B.

125-C Please see response to Comment 36-A and 120-G regarding safety and accessibility for bicycle and pedestrian traffic crossing Russell Street.

125-D Russell Street incorporates many of the elements of the Complete Streets concept to accommodate all modes of transportation. Please refer to the discussion on "Maintaining Community Character" in Section 2.3 of the FEIS, and the reference to National Complete Streets design applications.

125-E Please see response to Comment 110-E.

Appendix H - Written Comments and Responses

125-F Concerns over carbon emissions, climate change and the depletion of finite fossil fuel resources mean more Missoulians, either out of necessity or choice, will increasingly convert to and rely more on non-motorized modes of transportation. Well conceived transportation systems integrate, protect and encourage these and other users.

125-G The preferred alternative in the draft environmental impact statement does nothing but lay down more asphalt for vehicles and encourage more vehicle traffic volumes. Tragically, it proposes to adopt the same dysfunctional model we see on Reserve Street: heavy use, characterized by clogged intersections and gridlock. Why should we expect different results if the same concepts are applied on Russell Street?

125-H By selecting and refining the “Three Plus” alternative, we will be investing in a functional, versatile, innovative plan and leave future generations a gift we can be proud of.

Respectfully,



Betsy Hands
House District #99

125-F See response to Comment 110-F.

125-G See response to Comment 110-G.

125-H See response to Comment 110-H.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 126

Gregg Wood received a phone call from Larry Bergum, 116 Grandview Way, Missoula, MT (251-6915). His comments are as follows:

“I just want to voice my support for the preferred alternative. I like Stephens Avenue and the planted medians and think this is a good plan.”

Thank you for your comment and interest in the project.

Comment 127

The Missoula Area Chamber of Commerce Board of Directors voted to support the preferred alternative build out of four lanes for Russell Street as identified in the EIS. The project needs to be completed in a timely order.

Thank you for your consideration.

Gary Bakke

Missoula Area Chamber of Commerce
Business Advocate
406-543-6623 ext. 31
gary@missoulachamber.com
www.missoulachamber.com

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 128

To whom it may concern,

I am a Missoula resident who lives two blocks off of Russell St., south of the Clark Fork River. My wife and I commute to work and around town primarily on bicycle. Unfortunately, we do not go on Russell Street or Reserve Street because of safety concerns. We appreciate your work to improve the conditions of Russell St both for cars and bicycles. However, we do not support the large 5 lane version, as we feel it will be similar to Reserve Street and be essentially unusable by pedestrians and bicyclists.

128-A

128-B

128-C

128-D

128-E

Specifically, we do not feel that there was adequate analysis in the EIS for biking, walking, carpooling, and transit options along Russell St. This is especially relevant considering the nation-wide increased use of bicycles and mass transportation in the last few months.

Models that suggest ever increasing use of private motorized vehicles are inaccurate and do not account for the significant increase in the costs of gas coupled with a global recession. Students in particular are driving much less as documented by the lack of parking for bikes on campus and the frantic building of bicycle racks across campus and town.

Please consider the citizens alternative (3-plus) which would allow

both cars and bicycles to use Russell Street. With the current preferred alternative, we would have another road essentially deemed car-only affecting the local community and businesses.

Thank you,

Adam and Erin Switalski

1707 Phillips St.

Missoula, MT 59802

128-A

The EIS recognizes that Russell Street in its current configuration does not provide adequate facilities for either bicyclists or pedestrians; however, it is unclear from the comment why, with dedicated facilities for both bicyclists and pedestrians, that Russell Street would be “unusable” for these modes of travel in the future. The design elements included are commonly accepted across the country and proven to be much safer than the current conditions.

128-B

Please see Appendix G regarding modeling for mode choice.

128-C

Please see response to Comment 5-B and 116-G regarding the relationship between travel behavior and fuel price.

128-D

Please see response to Comment 27-B regarding the failure of options similar to the “citizens alternative” to satisfy the purpose and need.

128-E

The current Preferred Alternative provides bike lanes, boulevard sidewalks, and grade-separated crossings that are specifically and solely included for non-motorized travel.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 129

To Whom It May Concern:

129-A The "preferred" design is insane. It uses a sledge hammer to fix a problem that requires a more nuanced approach. I live in this neighborhood, and the idea of a four lane highway strikes me as both unnecessary and intrusive. Not only will people lose their homes, but the plan introduces a level of noise and traffic that is totally unacceptable.

129-B Russell really isn't bad until you get to the intersection at Third, so what needs to be fixed there is timing the lights and widening the intersection right around the intersection. From Third to the bridge, Russell could use some widening, along with improving pedestrian and bicycle crossings.

129-C But to make Russell into a four lane road all the way from Broadway to 39th St. would result in moving a lot of the Reserve traffic to Russell, thereby defeating the object of the fix. We should be exploring other possibilities, such as reducing automobile traffic through alternative transportation. Once it is built, we are stuck with it, even if it proves to be a gargantuan mistake. We're just feeding the monster, like they did in California.

129-D I don't see why I should have to give up the peace and quiet of my neighborhood so that someone in the South Hills can get to Costco faster. That's five minutes for that person; a lifetime of smog and noise for me.

Celia Winkler
705 Longstaff
Missoula, MT 59801
celia.winkler@umontana.edu
office: 406-243-5843
home: 406-549-6285

129-A See responses to Comments 23-A regarding the Purpose and Need, and Comment 19-B regarding impacts to residences regardless of the alternative selected. See also response to Comment 120-I regarding noise impacts.

129-B See Appendix G for a discussion of a similar concept explored during the Traffic Analysis Update conducted in the spring/summer of 2009.

129-C Area-wide modeling suggests that Reserve Street traffic would be largely unaffected by the capacity improvements on Russell Street. The full complement of improvements included in the Preferred Alternative provide opportunities for alternative modes of transportation through dedicated bike lanes and sidewalks, and does not preclude additional transit service either in general traffic or as a dedicated lane at some point in the future.

129-D Russell Street is a major arterial, serving local residential and business traffic as well as area-wide work, shopping, recreational, and commercial traffic.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 130

I am not in favor of the Proposed EIS, but rather think the alternative idea of 3+ would be a better solution for our neighborhood...we need to slow traffic down in that area not have it be a freeway of sorts and with 5 lanes that encourages speeding, and lots of pedestrian and bike traffic would be impacted I imagine as well. I walk to the Good Food Store from my home and want to feel safe getting across Russell.

Thanks for public comment...

DeAndria Gutzmer
1221 S 3rd St W

Comment 131

As a parent of small children who travel to school daily over the Russell corridor, I am extremely familiar with the traffic patterns, which at their worst are still only a few minutes of slowdown between the river and 3rd street. Surely improved light timing between the Broadway and 3rd street lights would solve a huge portion of the problem at high traffic times at a greatly reduced cost and impact than the extravagant, expensive and neighborhood-destroying 5 lane plan. If expansion is necessary given new housing at the old mill site, than surely the intelligent 3-plus plan promoted by the Bike Walk Alliance of Missoula is the best alternative to devastating that corridor with the kind of back ups and 10 plus minutes of congestion found along the 5 lane catastrophe of Reserve street. Please try to learn the lesson that intelligent planning is not equivalent to a large number of lanes. Thank you for your consideration of sound alternatives and reasonable restraint in planning for growth.

Susan Swierc

See response to Comment 27-B for a discussion of the analysis of options similar to the “3+” concept on Russell Street.

The Preferred Alternative is an urban arterial design similar to Stephens Avenue, with sidewalks, dedicated bike lanes, and pedestrian refuges in the landscaped median to provide a safer environment for bicycle and pedestrian travel than currently exists.

Thank you for your comment and interest in the project.

Traffic operations along Russell Street have undergone extensive technical, engineering analysis. Following release of the DEIS, the operations went through additional traffic analyses (see Appendix G for an overview of those findings). All of the analyses identify a need for additional vehicle capacity beyond that advocated by the Bike Walk Alliance. See also response to Comment 27-B regarding the failure of options similar to the “3-plus” plan to satisfy Purpose and Need, and Comment 31-G for a discussion of the cost differences.

“Planning for growth” does not occur at the project level, but rather at the Long Range Transportation Planning level where assumptions are made on growth in population, employment, and vehicle trips. The results of area-wide modeling based on those assumptions are what is used to define individual projects.

Thank you for your comment and interest in the project.



Comment 132

10/16/08

Re: Russell and Third

Time has come to update and improve our traffic system in Missoula. Although I disagree with the aspect of traffic circles, I do place my support **in favor** of the **preferred alternate**. It's time for city officials to take the bull by the horns and get this project started. There has been way too much time consumed by the constant changing and dragging of feet on this project.

David Hickman
3003 El Dora Ln.
Missoula, Mt. 59803

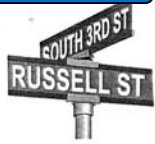
A handwritten signature in black ink, appearing to read "David Hickman", is written over the printed name and address.

Thank you for your comment and interest in the project.



Appendix H - Written Comments and Responses

Comment 133



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

OCT 17 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

We Invite Your Comments:

Opportunity Resources is in full support of the EIS's preferred plan of 4 lanes and center turn lanes for all of the Russell corridor, even beyond 3rd to Mount. We operate two business locations that use this corridor extensively for over 50 years. Our main office at 2821 S. Russell and our woodshop on the corner of 3rd St. and Ash, just a short distance from the 3rd/Russell intersection. We transport 50 to 75 adults with disabilities on Russell through this corridor TWICE DAILY! Most of these folks are going to and from work, so during heavy traffic, they CANNOT RIDE BICYCLES or take the city bus.

I believe the proposed plan will reduce the amount of time these folks will have to sit on vans and save this ^{non-profit} corporation many dollars in fuel costs. I attended the Public Hearing on Sept 24 and did not testify because of the intimidating crowd. Please understand they do not speak for the majority of Missoulians!

Public Hearing on September 24, 2008

Thank you.

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name:

Jack Chambers, CEO

Address:

Opportunity Resources,
2821 S. Russell St.
Missoula, MT 59803

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 134



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

*I support the ^{proposed} EIS for
Russell St. expansion.*

RECEIVED
OCT 17 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name:

Jan Klepper

Address:

*1020 Whitaker Dr.
Missoula MT 59801*

Please leave your
comments with Project
Team staff at the Hearing,
or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 135



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

Draft EIS Comment Period

We Invite Your Comments:

I support the proposed EIS preferred plan for the Russell / 3rd St. project.

I also encourage & support bike, bus & walking expansion in this area.

RECEIVED
OCT 17 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Public Hearing on September 24, 2008

All comments due by October 20, 2008

To receive further project information, please provide your name and address:

Name: Tim Furey

Address: 280 Hellgate Dr.

MSIA, 59802

Please leave your comments with Project Team staff at the Hearing, or mail to:

Gregg Wood
City of Missoula
435 Ryman Street
Missoula, MT 59802

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 136

Russell Street EIS Comments by Phoebe Hunter – October 18, 2008

A) First of all I would like to say that I support the Preferred Alternative (C) for South 3rd Street with one major exception: a single lane roundabout at 3rd and Russell instead of a signaled intersection– see comments below.

B) I am opposed to the Draft EIS Preferred Alternative (#4) for reasons that follow. I support the Russell Street Citizen’s Plan, “3 – Plus for Russell Street.” Issues and concerns for which I would like to see further analysis include:

1. Safety

136-A

a. For pedestrians – 5 plus lanes is a huge distance for pedestrians to navigate. There is simply not enough time for many pedestrians, such as the elderly, the disabled, the injured or children, to get across. This is especially true of the proposed intersection at Russell and 3rd. This intersection would be even larger than the current one at Reserve and Mullan. I have seen families, including young children, trying to negotiate this intersection and found myself sitting in the car thinking, these parents must be insane or, at a minimum, negligent to endanger their children so. Five lane corridors are not, by definition, pedestrian friendly. Three-plus lanes is much more manageable. Longer times at signals will not solve this problem, especially since streets are supposed to be safely crossable at any intersection – not just crossings.

136-B

b. For bicyclists – As proposed, the four-foot bike lane (not counting the curb and gutter) is a substandard width and dangerous to cyclists.

136-C

c. For motorists – Signaled intersections have many points of conflict and consequently cause more accidents. Research indicates that single lane roundabouts are much safer for all users, including drivers of motor vehicles.

Thank you for your comment and interest in the project.

136-A

Please see the responses to Comments 36-A and 120-G regarding pedestrian crossings. Additionally, Appendix G provides information on Pedestrian and Bicycle LOS as well as a safety analysis of the corridor.

136-B

See response to Comment 28-A for a discussion of national standards for bicycle lane widths.

136-C

Roundabouts can improve safety under certain circumstances, but single-lane roundabouts do not provide adequate capacity in either the Russell Street or South 3rd Street corridors. Please see Appendix G for a summary of recent modeling results for various alternatives and options, and response to Comment 38 regarding the change in the Preferred Alternative on South 3rd Street.

Appendix H - Written Comments and Responses

136-D

2. Cost

A scaled-down design for Russell Street could save millions of dollars as there would be no need for right-of-way purchases or demolition of homes and businesses. There would also be reduced lane miles of asphalt, smaller intersection development, operating costs (with roundabouts instead of signals) and utility relocation.

136-E

3. Removal of Homes and Businesses

This would be an unnecessary hardship with the 3-Plus design.

136-F

4. Pollution

Considerably less air, light, noise and water pollution would result from a smaller scale design that includes single lane roundabouts. Mitigation measures might help reduce some forms of pollution with a 5-Plus corridor with signals but a 3-Plus corridor with roundabouts would create less of all forms of pollution to begin with, especially if higher speed limits would result from a larger corridor.

136-G

136-H

5. Impact on Bordering Neighborhoods

I live in a bordering neighborhood, the Emma Dickinson/Orchard Homes/River Road Neighborhood. We are already bordered to the west by one huge traffic corridor. Some of the negative impacts of a second corridor to the east are clear: increased air, noise, light and water pollution, further isolation of our neighborhood by massive traffic flows, and reduction of property values.

136-I

6. Need for reassessment and updated analysis given developments

- a. How have higher gas prices and increasing use of mass transit, car- pooling, bicycles and walking affected projected traffic growth?
- b. How have future traffic projections been affected by neighborhood development and projected density for the area?
- c. How was the process for arriving at the city's preferred alternative affected by the truncated involvement of citizens and neighbors?

136-J

136-D

See response to Comment 31-G for a cost comparison between the various build alternatives.

136-E

See response to Comment 19-B for a comparison of impacts of the various build alternatives.

136-F

Scientific analysis conducted as part of the project development process does not identify a substantial difference in air, noise, water, or light pollution impacts between the various Build alternatives.

136-G

There is no intent to raise the posted speed limit on Russell Street as part of this project. See also response to Comment 73-C.

136-H

Please see the response to Comment 120-X as well as Figure 3-2 in the EIS regarding impacts on bordering neighborhoods.

136-I

Please refer to Appendix G for information regarding mode-shift and the sensitivity analysis which was conducted during the Traffic Analysis Update during the spring/summer of 2009. Additionally, please see the response to Comment 5-B and 116-G regarding travel behavior relative to fuel prices.

136-J

Please see the response to Comment 5-A regarding the Citizen Advisory Committee.



Final Environmental Impact Statement

Comment 137

The increasing density of traffic in this valley necessitates we find reasonable and expeditious corridors to allow it to flow. There are no happy, "don't build" alternatives to facilitating traffic. Waiting to fix this only prolongs the property damage and loss of life as the problem worsens. While many complain about the Reserve Street configuration, during moderate traffic it's swift and efficient, saving time and fuel to move a great volume. When it breaks it is because the volume is too large for this single North South route. Currently Russell malfunctions as an effective arterial about one third of the average day, far worse than Reserve's percentage of overload. Anyone who lives or works near Russell as I have for 20 years knows it's more dangerous and frequently takes longer to traverse than the same distance on Reserve.

Orange-Stephens is more esthetically pleasing and a much better route when it serves, it just isn't long enough or well enough connected to pull a large volume of traffic way from Russell.

I want to see the preferred alternatives built as soon as possible, starting with that dangerous bridge. I wonder how many people have died because emergency vehicles can't get across it when traffic is backed up from Mullan on Broadway to Mount on Russell. If you have ever been stuck on the bridge when a fire truck needs to cross you would want that bridge to have been rebuilt years ago.

One of the fundamental problems of traffic in this community is the lack of logical arterials. The East-West corridors are all broken or fail to connect. Broadway is on a point-less diet. Third starts in a residential area with bad visibility and proceeds at 25mph too far. Fifth-Sixth are impaired with the same limit until they effectively terminate at Russell. South has been chopped up to repair Malfunction junction and 39th doesn't properly connect to Highway 93. The recommended improvements to Russell and 3rd Streets will be significant upgrades of the carrying capacities of those and go a long way in relieving the clogged arteries.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Those who oppose the alternatives have sounded to me like they are vastly unrealistic and would stridently prefer everyone to live as they do and believe the same "truths" about progress and growth. I love riding my bicycle and the proposed improvements to the trail system will help me to use it more readily from where I live. I don't like to ride my bike in traffic and safe routes with no cars are far preferable to me than bike lanes along-side stinking cars. And anyone wanting to ride bikes on snow-covered streets had better be prepared to crash, so the folks wanting to reduce car use need to be realistic about how other free citizens are going to behave.

Gordon Lemon
2134B S. 6th St. W.
Missoula, MT 59801



Final Environmental Impact Statement

Comment 138

To Whom it May Concern,

138-A I am writing to state my objections to the preferred alternative chosen in the draft EIS. I feel that 4 lanes plus a turn lane running through our neighborhood is not the right option. I am the mother of two small children and live in the project area. I cross Russell Street several times a day on foot, bike or in a car and as unsafe as Russell and Third is now without sidewalks and bike lanes, adding two lanes of traffic will only make matters worse.

138-B In order to get most places in town I need to cross Russell or Third Streets. I often ride my bike and walk with my children, and as gas prices increase will do so more and more. Pedestrian and bicycle safety are of utmost importance. Russell Street certainly needs to be more pedestrian and bicycle friendly, but if adding bike lanes and side walks means adding additional lanes for cars we are not gaining safety. Adding additional lanes will simply result in more traffic. I do not want a "Reserve Street" running through the middle of my neighborhood and feel that the preferred alternative will be doing exactly that. Reserve Street was built to fit 20-year projections for traffic in that area. Now, traffic at Mullan and Reserve is worse than ever.

Reserve Street has bike lanes and sidewalks but is in no way compatible with a residential neighborhood such as still exists on Russell south of Third.

138-A Please refer to responses to Comments 23-A and 57-B, and see Appendix G for a description of the analyses which were conducted for the Traffic Analysis Update during the spring/summer of 2009. This Appendix also provides information on the safety of various alternatives and options analyzed.

138-B Please refer to Appendix G for a discussion of the bicycle and pedestrian safety improvements provided by the Preferred Alternative. See also, response to Comment 23-B regarding the concept of induced traffic, and responses to Comments 50-A and 56-A regarding the comparison of the Preferred Alternative to Reserve Street.

Appendix H - Written Comments and Responses

138-C

Current conditions at Third and Russell for pedestrians are very poor. Cars do not stop for pedestrians even when pedestrians have a walk light. Adding more cars to the intersection is going to make matters worse. I recently stood at the corner trying to cross Third with a stroller and carrying an infant. Despite having the walk light, a string of cars continued to turn right on red completely ignoring the fact that we were trying to cross the street. Finally, a bicyclist got off his bike and walked out to get people to stop turning and let me cross—something I would not do with my children. How will matters improve with additional lanes of traffic?

138-D

We need to think about more than just getting people in cars through the area as fast as possible. We also need to think about the people that live and work in the area.

138-E

I chose to live and raise a family on a quiet street in Missoula because I love the quality of life that comes with it. We have the ability to make improvements that will truly keep this a great place to live, even as we grow larger, for those who choose to walk, bike or drive. I support the 3-plus plan for Russell and Third Streets.

Thank you,
Julie Kightlinger
1532 South 4th Street West
Missoula, MT 59801

138-C

Traffic volumes on Russell Street are projected to increase regardless of what improvements are implemented.

138-D

The Preferred Alternative provides a balanced mix of improvements for all modes of travel in the Russell Street and South 3rd Street corridors.

138-E

Please see the response to Comment 27-B for a discussion of the analysis of an option similar to the “3-plus plan” for Russell Street.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 139

There are many factors that I feel this project and accompanying EIS skim over in relation to the department's preferred alternative, a 5 lane highway through a residential neighborhood. Some of my concerns are even aesthetic, something that can't be quantified on a rating scale. I was raised on 7th and Russell and still co-own a home just a house away from Russell. The little park was undeveloped at the time and the neighbor kids would ice the hill out into Russell to practice skiing, and my father and retired HP officer Tom Nealy would mow the hill after the grass was planted. I have attended meetings since 2000 on this project and feel that a workable alternative has never been truly sought and that by simply twisting the facts of what is and what will be, has turned simply to cramming a very expensive and ineffective alternative down the citizens's throat. I don't feel that the voices of the citizens have really been heard and that the original intent was to **build-up the quality into the neighborhood** but **not just build-up the quantity of the road**. It seems that we're building a road and not a community. At the meetings I attended, I asked who had studied similar problems and solutions elsewhere; finding none who would admit to it, I recommended to the engineers that they needed to look at what other cities have done in residential neighborhoods. Did anyone really take this comment seriously?

139-A

139-B

139-C

139-D

1. This traffic problem starts with the fact that engineers historically design traffic patterns to concentrate more and more traffic onto fewer streets. This goal has not worked in the past and yet engineers are still designing with the same priorities in mind, rather than looking to dispersing traffic as a better way to manage traffic flow because alternative routes exist when accidents happen or infrastructure needs to be repaired. Simply widening a road to more lanes does not solve volume or speed when it is counterproductive to preserving in this case the character of a residential neighborhood. I've been told by our own city council that this traffic is nothing--Since they came from New York with tons of traffic, why this contention? My response was that I didn't want Missoula to be New York. By denying the residential character in this design makes the new road a nuisance. So are we bringing the problem of a greater nuisance to the neighborhood when we're supposed to be solving problems.

139-A

Please see the response to Comment 5-A regarding the participation of the Citizen Advisory Committee, and Chapter 7 in the EIS regarding the extensive public involvement throughout this project.

139-B

Comments received at public meetings are investigated to the extent that they can add new information to the project development process. This project strives to incorporate Context Sensitive Solutions into its development and design which takes into account the specific problems facing travelers of all modes, as well as area residents in the Russell Street corridor. The inclusion of bike lanes, boulevard sidewalks, curb and gutter, landscaped medians, and minimum travel lane widths (as explained in the EIS in Sections 1.6 and 2.3) all demonstrate the efforts to recognize the travel conditions and context of the corridor.

139-C

As a major urban arterial, Russell Street is intended to move local and regional traffic through the city and across the Clark Fork at one of only five crossing opportunities. Improvements to Russell Street are unlikely to concentrate or disperse traffic over the long term. It is simply intended to accommodate the anticipated growth in traffic that will occur through infill development within this corridor, and overall growth in the Missoula area.

139-D

The residential character of the southern portion of the corridor is recognized and complemented through the inclusion of grade-separated trail crossings, landscaped medians and boulevards, increased traffic control, and bicycle and pedestrian facilities.

Appendix H - Written Comments and Responses

139-E 2. The Historical nature of the "now" two homes at 5th and Russell will be rendered moot on a 5 lane highway. Originally it was all the homes on the west side of Russell were sacro-sanct because they were over 50 years old, Now it is just two???" The context "setting" would so greatly be altered that these homes would probably not survive as residential units, just as all the other houses adjacent to Russell would suffer the same fate."This happened on South Avenue between Russell and Reserve where commercial business have converted the residences fronting the street and the problems of commercial traffic and rear access are eroding deeper and deeper into the neighborhoods.

139-F 3. The preferred alternative shows no effective visual or noise buffers. Trees can help a little visually, but such a tiny boulevard will not sustain them. Trees do not help with noise, and to be an effective psychologic buffer would need to be quite old, such as those on the Residential part of Brooks.. Residential neighborhoods are anywyere from 60 to 80% green, that is; without hardscape even if you include the footprint of the houses. This fact should be a guiding influence in any design for Russell. If one wanted ultimately to have a truly residential character road the designers should be thinking "parkway." My experience of parkways is largely from Kansas City, and they are planned and work very effectively for a large number of people.

139-G Whining about taking as little as possible can do more harm than good. In this case, sacrificing the homes on the east side of Russell to achieve the desired goal of a 5 lane highway is not responsible design when you subject the new adjacent houses to the impacts of such a large roadway. Ideally a parkway with 5 lanes could be created only by taking both sides of Russell and then buffering the remaining houses on both sides from the sights and sounds of a highway. Perhaps toying with the grade level of the road which could be used to direct sound up and out and how this might tie into the intersecting streets. Perhaps giving plantings some meaningful depth. Large medians could protect the pedestrian, and aesthetically create the opportunity for displaying art, fountains and plantings that say something about Missoula. I find most designers think small, and rarely look at the ultimate solutions to find out what is possible and what might be the most important qualities to address, preferring instead to fall back on their jaded figures and use of standards. Standards are not a bible for design but merely guidelines and when misusedyou get mundane.... everywhere.

139-E To be considered eligible for listing on the National Register of Historic Places, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance.

- *Age and Integrity.* Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?
- *Significance.* Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archeological investigation about our past?

According to the Montana State Historic Preservation Officer, a total of 33 properties in the Russell Street and South 3rd Street corridors are eligible for listing on the Register. The surrounding environment does not affect the eligibility of these properties.

139-F Please refer to the noise analysis contained in the EIS in Sections 3.8 and 4.8. The guiding influences on the design for the Russell Street improvement are drawn from the Purpose and Need, as well as the Goals and Objectives outlined in Section 1.6 of the EIS. These key influences were developed through active engagement with the public and regulatory agencies involved throughout the development of the project.

139-G One of the goals of the proposed project is to minimize the impacts within the corridor. The most feasible method to accomplish this is to minimize the overall width of the transportation facility while still providing multi-modal safety and capacity improvements. The desire for a much larger parkway was not raised during the project development process, and appears to be in conflict with the input received to minimize impacts. Any substantial change in elevation along Russell Street would also have substantial right-of-way and cost implications.



Final Environmental Impact Statement

139-H 4. The bicycle lane is simply dangerous on a 4 lane road where part of that lane is actually gutter, and the junctions with other streets are extremely hazardous. Even the 3 lane plus design has a rather small bike lane, but because it is on a two lane road it would probably work. The perception of the drivers on 4 lane roads especially with extra pavement to the sides makes the driving speed faster than the designed speed as originally engineered. Reserve Street is a perfect example.... where I was told the design speed would be 35 miles an hr... Yeah, sure,,,

139-I 5. I don't believe that the alternative of one way on Russell and the other way on Catlin has been explored enough, or even a three land on russell and a three land on Catlin. On my visits to Spokane Washington I often use the one way streets such as Wall street which extends from downtown to past Francis at the North End of the city... These one way streets go through residential neighborhoods of the same vintage as those homes along Russell and there seems to be few negative effects.

139-J Catlin street in Missoula is way too wide. Narrowing it would slow the speed of traffic and possibly it could be made one way from 3rd to 14th and Russell could be one way going North. This is a method of dispersing traffic rather than concentrating traffic, plus limiting the paved space and traffic conflicts. To be really inovative, since the intersection of third and russell and Catlin and 4th are at about the same elevation perhaps an elevated roadway connecting the two intersections with traffic on third going beneath.

139-K 6. Yes we will always have traffic of some kind, but who is say that the vehicles will be the same as we have now. 40 million dollars is a lot of money, especially at a crucial time in the economics of this country and I don't think that we're getting a livable, sustainable alternative, not only for the neighborhood but also for the city

139-H Please see response to Comment 28-A regarding adequate bike lane width. This national bike design guide makes no distinction between the necessary width of a bike lane on a four lane roadway compared to a two lane. The inclusion of landscaped medians and boulevard sidewalks are intended to provide aesthetic improvements as well as have a traffic calming effect in this corridor. See also responses to Comments 37-A and 37-D.

139-I This alternative was not raised during the project development process, but one-way couplets work best on immediately adjacent and continuous corridors over the same reach, and with similar land uses. Catlin Street is two blocks away, is entirely residential in the southern portion, and would need to tie back into Russell Street somewhere in the northern portion to cross the bridge.

139-J This alternative was not raised during the project development process and would be extremely expensive compared to other alternatives that adequately address the stated Purpose and Need for improvements in the Russell Street and South 3rd Street corridors.

139-K The proposed improvements on Russell Street provide adequate facilities for anticipated growth in following accepted modeling and forecasting practices. These improvements also provide the greatest flexibility in future use if substantial changes were to occur in the type or mode of vehicle use.

Appendix H - Written Comments and Responses

- 139-L** **If I had to choose an option today I would prefer a 3 lane design.** I simply am not satisfied with the 5 lane alternative and that every alternative has been looked at. I would like to add that I do not feel that a rubber stamp design placing the same concept of Stephens onto Russell works. I have stood in the median of Stephens and I don't feel comfortable being in that narrow strip. Parking along Stephens make for very dangerous visual lines to on-coming traffic, and the lighting is toooooo much (obtrusive during the day and too bright at night) an expense which we don't need. Silhouette lighting is sufficient
- 139-M**
- 139-N**

Thank you for the opportunity to comment.

Dave Durnford
631 Cleveland
Missoula, MT 59801

- 139-L** Please refer to response to Comment 27-B regarding the failure of the three-lane design alternatives to satisfy Purpose and Need.
- 139-M** Please see response to Comment 5-A for an explanation of the active engagement of the public during the alternatives scoping process.
- 139-N** The Preferred Alternative is similar to Stephens Avenue in that it provides boulevard sidewalks, bike lanes, and landscaped medians, but is not the same design in overall size or function. Further, no on-street parking is proposed as part of the Preferred Alternative, and the lighting details will be completed during final design.

Thank you for your comment and participation.



Comment 140

We would like to comment favorably on the proposed EIS for Russell Street. After learning that this project will be similar to the improvements on Stephens, and after driving both Stephens and Reserve recently, We feel that the present EIS is a good solution for all needs. We would request that proper lighting be installed in the underpasses for the safety of both bikers and pedestrians. Let's not reinvent the wheel. Let's move ahead on a project that has been in the works for too long.

Kathi and Glenn Wood

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 141

To Whom it May Concern:

On October 15, 2008, The Associated Student of The University of Montana supported the enclosed resolution regarding the Russell Street renovation. The area impacted by the proposed five-lane roadway is an area of high student-population density and many cross or use that corridor to get to school. This raises several concerns, including the possibility of losing affordable housing in a tight market, the safety of students who are pedestrians and cyclists, especially those biking to campus, and the detrimental impact such a large roadway would have on the community of that neighborhood.

ASUM recognizes the growth in and around the Missoula community but disagrees that such a large, unsafe roadway is necessary, based on continually increasing bus ridership, cycling, and use of other alternatives modes of transportation in Missoula. We support a more efficient three lane system that is bike and pedestrian friendly.

Please see the attached resolution and contact us with any questions. Thank you.

Sincerely,

Trevor Hunter
ASUM President
The University of Montana
University Center Suite 105
Missoula, Montana 59812
(406)-243-2038
asum.president@umontan.edu

Siri Smillie
ASUM Vice President
The University of Montana
University Suite 105
Missoula, MT 59812
(406)-243-2037
asum.vicepres@umontana.edu

Thank you for your comment and interest in the project.

Please see following pages for detailed responses to comments raised in this cover letter and attachment.



Final Environmental Impact Statement

The Associated Students of The University of Montana Resolution Regarding Russell Street Renovation

October 15, 2008

Senate Bill Number SB18-08/09

Authored by: Senator John Wilke

Whereas, many students of The University of Montana walk, bike, or use public transit to get to campus;

Whereas, affordable housing is difficult for students of The University of Montana to find in Missoula;

141-A-F Whereas, a five-lane roadway on Russell Street would decrease pedestrian and bicycle safety, increase vehicle speeds, remove thirteen houses and two businesses from the core of Missoula, negatively affect neighborhood character, induce additional traffic and create a Reserve-style street in the core of Missoula;

141-G Whereas, traffic counts in Missoula are currently stabilizing while bus ridership is increasing, making a five-lane roadway on Russell Street unnecessary;

141-H Whereas, a more efficient three-lane plan would work within the existing right-of-way and would not require removing any homes or businesses on Russell Street;

141-I Whereas, under a three-lane plan, there would be adequate space for all segments of Russell Street to include sidewalks, bike lanes, and at least two travel lanes;

141-J Whereas, the ASUM senate in fall 2006 opposed a five-lane option, and any plan that would remove an excessive number of houses on Russell Street;

141-A Please refer to Appendix G regarding pedestrian and bicycle safety.

141-B Please refer to response to Comment 73-C regarding vehicle speeds.

141-C Please refer to the EIS, in Sections 4.3 and 4.4 for an accurate depiction of impacts.

141-D Please refer to response to Comment 120-X regarding neighborhood character.

141-E Please refer to response to Comment 23-B regarding induced traffic.

141-F Please refer to responses to Comments 50-A and 56-A regarding the differences between Reserve Street and the proposed project.

141-G Please refer to response to Comment 57-B regarding the traffic modeling and need for improvements in this corridor.

141-H Please refer to response to Comment 27-B regarding the failure of the three-lane plans to meet Purpose and Need, and Comment 19-B regarding the impacts of the various build alternatives.

141-I Please refer to response to Comment 19-B regarding the right-of-way requirements of a three-lane alternative.

141-J Please refer to response to Comment 19-B regarding the impacts of the various build alternatives.

Appendix H - Written Comments and Responses

141-K Whereas, the ASUM senate in fall 2006 supported a three-lane system for the Russell Street renovation;

Therefore, Let It be Resolved that the Associated Students of the The University of Montana oppose a five-lane roadway for the Russell Street Renovation;

141-L Let it be Further Resolved that ASUM would support a more efficient, bike and pedestrian friendly three-lane system for the Russell Street Renovation.

Authored by: John Wilke
Sponsored by: Miranda Leftridge, Gail Tangjaipak, Emily May

141-K Please refer to response to Comment 27-B regarding the failure of the three-lane plans to meet Purpose and Need.

141-L Please refer to Appendix G, and discussions in Sections 2.3 and 4.6 of the FEIS for an assessment of the bicycle and pedestrian safety and mobility advantages of each of the Build Alternatives.



Final Environmental Impact Statement

Comment 142

I am a life long Montana resident and a resident of Missoula since 1983, not counting four years of college at the U of M.

I would like to vote in favor of the preferred plan number 4. I could also be in favor of a roundabout but traffic signals would be best.

The reality is that Russell is a key corridor in Missoula. I have traveled that route hundreds of times. I feel that Missoula is actually lucky to have such a route that actually does not have a higher concentration of residences that will be affected.

Not being un sympathetic, but the condition of most of the residence along the affected route do not really show a concern for the condition of their property. It is obvious that because of the impact of the current traffic the owners have consciously chosen not to improve their property. I believe the benefits to the community, by adopting the preferred route, far out way the affect on a hand full of residences.

142-A That said, the owners of the affected property should be compensated fairly and it would seem prudent to even pay them 10% above appraised value to facilitate the process. That would be a small cost given the size of the project and possibility of delay.

The 93 strip along Brooks is an example of how a four lane road with turn outs and controlled access can greatly benefit a traffic problem at a reasonable cost for the long term. Before that road was redesigned some years ago we all know it was a disaster. Today the traffic flows freely and safely. Russell Street should be designed the same way. It is too bad Broadway was not designed as such. Broadway is a glaring example of a failed plan to appease the few while affecting the many.

Our street system should be designed to accommodate bicyclists, but they are not the sole reason, nor the main reason for our streets. The preferred route appears to accommodate vehicle users, bicyclists and pedestrians fairly.

Thank you for your comment and interest in the project.

142-A As noted in the EIS, all property acquisitions on this project will be conducted in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended in 1987, and Sections 70-31-101 and 70-31-311 of the Montana Code Annotated.

142-B See response to Comment 120-E regarding the interim improvements on West Broadway Street.

Appendix H - Written Comments and Responses

I attended the public hearing, at I believe Franklin School, last month. I was very impressed by the testimony of the young man that will be greatly affected by the construction. He was honest enough to say the preferred route was the best route for both the city, himself and his family. He has a good honest outlook on the project and understands that free flowing traffic is both healthier and quieter.

Missoula needs to make the hard decisions that benefit the majority of its citizens. Billings has much better traffic flows because long ago they decided to spread the traffic flow over several routes rather than a few like Reserve Street. Third Street needs the same consideration for East-West traffic flow.

Jim Salisbury
5221 Laree Ct
Missoula, Mt 59803-2429
406-542-2676 Home and Fax
406-240-0766 Cell
damtgriz@msn.com



Comment 143

Sussex School

1800 South Second Street West
Missoula, MT 59801
406-549-8327

Tom Martin
Montana Department of Transportation
PO Box 201001
Helena MT 59620-1001

October 20, 2008

Re: Third & Russell Project

Mr. Martin:

I am writing on behalf of Sussex School, a private school located in Missoula that serves 90 students in kindergarden through eighth grades. Since 1980, the school has been located at 1800 South 2nd Street West, two blocks from Russell Street and one block from South Third Street West. Our students and staff come to school from throughout Missoula and from points outside of town. The school's board of directors is aware of the planning process in progress for a future reconstruction of these major streets. Since both construction and the eventual outcome of that construction will have profound effects on the school for many years, its transportation options, and its immediate surrounding neighborhood, we are pleased to have this chance to comment on the draft EIS.

Appendix H - Written Comments and Responses

143-A The safety of our students, their families, and our faculty and staff is a high priority. The school also supports multi-modal transportation; we have very high participation in Missoula's annual Bike Walk Bus Week, and many of our families come by carpool, bicycle or bus year-round. One of our parents recently worked very hard with Mountain Line to restore a morning bus from the Rattlesnake that was very important to our school. We are aware that with ninety students, the school has the potential to generate thousands of vehicle miles annually, and we work actively to offer and encourage alternatives.

First, we are very pleased by several elements of the EIS. We are happy to see the commitment to several below-grade crossings of Russell. These will offer our families and staff safe access by bike or on foot if they are approaching from the east. We urge you to retain these in the project regardless of what budget woes may challenge it along the way. Moreover, we urge that these separate-grade crossings be installed as the first element of this project and be available for public use as a first order of priority. We are also pleased to see the proposed improvements to South Third Street West. The intersection of Third and Catlin is one that our students must cross in the afternoon to reach the Mountain Line bus stop, and the improvements to this intersection, including sidewalks and a roundabout, promise to increase their safety.

143-C We also believe that there are some elements missing from the EIS. First, the presence of Sussex School is not acknowledged. Sussex has been in this location for twenty eight years, and owns its buildings and surrounding grounds. We plan to expand the school to 115 students in the short-term future. As a permanent fixture of the neighborhood, even though we are not publicly funded, we should be noted and accommodated in the project and EIS.

143-D

143-A The Preferred Alternative has been developed with the expressed intent of accommodating bicycle, pedestrian, transit, and vehicular travel.

143-B The grade-separated crossings will likely be constructed in conjunction with the reconstruction of the corresponding segment of Russell Street.

143-C While not specifically labeled, the location of Sussex School is identified in Figure 3-3 of the EIS.

143-D It is not clear what additional accommodations are being requested.



Final Environmental Impact Statement

143-E Second, we are keenly aware of the controversy over design options, traffic studies, and the needed future capacity of Russell Street. Rather than weighing in on five lanes versus three lanes, we'd like to ask for more information in the form of detailed safety studies. We cannot accurately evaluate the preferred alternative, or any other alternative, until we can understand the relative safety of each option--particularly for bicycles and pedestrians, but also for our families and staff who travel by bus and car. This information is notably missing from the EIS, as noted by the consultants in their public hearing last month.

Once again, we appreciate the opportunity to review the options in this process. Please feel free to contact me or Robyn Gaddy, the Sussex School Director, with any questions or concerns you may have.

Sincerely,

/s/
Timothy M. Bechtold,
President,
Sussex School Board of Directors

143-E Please refer to Appendix G for a summary of the updated traffic analysis which includes an overview of the safety analyses conducted for the various build alternatives

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 144

I am most definately in favor of the preferred alternative for Russell Street. The current configuration of one lane of traffic in each direction is completely insufficient to handle the volume of vehicles on the road. As the city grows, the number of cars is only going to increase and we need aterial routes that are capable of handling it. We need to move more cars in an efficient way, which means a widened roadway and signals, not bring the flow to a halt with roundabouts.

Thank you,

Carla Aldegarie
PO Box 16687
Missoula MT 59808

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 145

145-A I would like to go on record opposing the city of Missoula's current preferred alternative for improvement to Russell and Third. I much prefer the citizen's preferred alternative which is the talked about 3 plus option.

145-B I live in this neighborhood and ride my bike and walk Russell street daily and would not like to see it become a 4 lane super highway similar to Reserve street. I am very concerned about the noise for starters. Having lived on Reserve, it's unbearable.

145-C There needs to be more analysis done and released on the bike, pedestrian, public transit and carpooling options that should be made available on this route. With increased gas prices and the need for more cost effective modes of transportation, this community is crying out for SAFE options, not more expensive routes.

145-D We simply can't afford this giant mess, nor can our nation, whose funding may be up in the air for years given the recent international financial crisis. It would be folly to put our eggs in that basket and it's not what this community wants anyway. This project is about improving our community, not seeing how many federal dollars we can get.

Let's take the conservative approach and provide a safe and pleasing corridor through my neighborhood, not another speedy death trap like Reserve Street. Let's keep the speed, the cost, the disturbance, and the noise DOWN. Bigger is not always better.

145-E

Thank you for your hard work, time and commitment to fairness and democracy.

Jean Clark

jeanclark@LambrosERA.com

145-A Please refer to response to Comment 27-B regarding options similar to the "3 plus option."

145-B The noise impacts discussion in Section 4.8 of the EIS states that as a result of the Preferred Alternative 13 receptors will be impacted. In comparison, under the No-Build Alternative, projected noise impacts in 2025 will number 22.

145-C The Preferred Alternative includes dedicated bicycle and pedestrian facilities. Transit is accommodated to the extent planned by Mountain Line (See response to Comment 7). See Appendix G for the latest safety analysis conducted for this proposed project, and response to Comment 5-B and 116-G regarding the relationship between travel behavior and fuel prices.

145-D As documented in the EIS, each of the Build alternatives on Russell Street are anticipated to cost between \$40 and \$45 million.

145-E Bigger is not always better; however, in this case, several analysis tools and methodologies have indicated that additional capacity is needed to safely and efficiently accommodate current and projected travel demand for all modes in this corridor. Please refer to Appendix G for a summary of the Traffic Analysis Update.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 146

Regarding Russell Street and South Third:

- 146-A** While I acknowledge the need for a new bridge on Russell St., I would like full consideration given to the 3+ proposal: specifically an analysis of a plan that does not widen the corridor and remove homes and businesses. I would also be interested in a study of the impact of improved public transportation routes, the encouragement of park-and-ride lots to accompany better public transit, adequate and SAFE bike and pedestrian passageways, and the use of roundabouts.
- 146-B**
- 146-C**

- 146-E** Do wider streets move traffic more efficiently? It all comes to a stop at the traffic lights, no matter how wide the street (Reserve case in point). Surely an alternative plan such as 3+ can address the rush hour traffic without inviting more cars to an area that should maintain a residential atmosphere and have traffic-calming measures in place. I cross or drive on Russell four times a day, and the backlogs seem only to occur during the 8 a.m. and 5 p.m. work rushes. Please do not invite more traffic!
- 146-D**

While I appreciate the comparison of the “preferred” plan to Stephens Ave., I must say—as much as I like Stephens Ave.—traffic moves entirely too fast there. I find myself running for my life trying to cross both in my car and on foot.

- 146-F**
- 146-G** Olympia, Washington, has made very effective use of roundabouts on a busy thoroughway. Two such installations interface a lovely, mature residential area, the capitol grounds, and the downtown. Traffic flows smoothly without excess speed, and foot traffic and buses are accommodated.

Thank you for your consideration,

Annette Walker
621 Woodford Ave.
Missoula, MT 59801



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MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

- 146-A** An option similar to the “3+ proposal” was considered during the Traffic Analysis Update summarized in Appendix G.

- 146-B** Please refer to response to Comment 19-B regarding the impacts of the various build alternatives.

- 146-C** The Preferred Alternative accommodates public transportation and bicycle and pedestrian travel. Other alternatives were examined that included roundabouts, but were eliminated as described in Chapter 2, Section 2.3.

- 146-D** Please refer to response to Comment 23-B regarding induced traffic.

- 146-E** Please refer to response to Comment 73-K regarding the effect of intersection conflicts on traffic flow. Please refer to response to Comment 27-B regarding the failure of concepts similar to the “3+” option to satisfy Purpose and Need.

- 146-F** Please see the response to Comment 73-C for a discussion of travel speeds through the corridor.

- 146-G** Roundabouts are an acceptable traffic design tool under the right circumstances. Single-lane roundabouts were eliminated for the Russell Street and South 3rd Street corridors based on their inability to accommodate current and future traffic volumes, and multi-lane roundabouts were eliminated on Russell Street due to their right-of-way impacts on protected historic properties as compared to that of a signalized intersection design. (See also Chapter 5 of the EIS for a discussion of Section 4(f) protection.)

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 147

Formal Public Comment on the Russell Street / South 3rd Street Environmental Impact Statement

Sept. 24, 2008

147-A

Since a 5 lane Russell alternative may attract new traffic (as Reserve street did) we need to analyze how the surrounding Neighborhoods will be affected. (Noise, Bike & Pedestrian safety and Neighborhood integration)

147-B

Also, I feel ~~we~~ we need an updated analysis on Traffic flow projects (since higher gas prices are changing peoples Driving habits (ie less miles driven and more bike use).

147-C

Plus an updated analysis on how to encourage more Biking, Walking and mass Transit use on & around Russell street (To lessen the use of Driving and the need for larger Capacity Streets).

Name Jon BONNICKSEN

Address 215 Burkington AVE.

Missoula, MT. 59801

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MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Draft EIS Hearing will be held at 6 p.m. at Franklin School.

147-A

Chapter 4 of the EIS contains an analysis of impacts on 16 aspects of the natural and human environment in the project corridor, including noise, bicycle and pedestrian safety, and social impacts. See also response to Comment 23-B regarding the concept of induced traffic.

147-B

Further traffic analysis was conducted for the Traffic Analysis Update during the spring/summer of 2009. This analysis included safety and level of service levels of all modes of travel through the corridor along with updated traffic projections and an analysis of a possible mode shift away from automobile travel. The results of this analysis can be found in Appendix G. See also response to Comment 5-B and 116-G regarding the effect of fuel price on driving behavior.

147-C

The Russell Street project was identified through the Long Range Transportation Planning process. This process includes analysis of transit, Travel Demand Measures, Transportation System Management, bicycle and pedestrian trends and facility needs, as well as existing and projected roadway congestion and safety. The "need" for safety and capacity improvements along Russell Street has been established through multiple processes – the Long Range Transportation Plan, the Russell Street DEIS, and the more recent Traffic Analysis Update.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 148

To whom it may concern:

The following comments are submitted in regard to the proposed Russell/3rd road reconstruction project in Missoula.

I attended the public hearing on this project on September 24, read the summary handout, and studied the engineering firm's street diagrams in detail. I am a near neighbor to the project's affected roadways, as I live four blocks south of 3rd St. and four blocks west of Russell St. I have lived in various Missoula neighborhoods over a cumulative span of 15 years and I know the city's major roadways quite well. I regularly use all three common modes of transit (automotive, bicycle, and pedestrian) to reach the surrounding urban areas from my neighborhood.

148-A In my view as an interested citizen, the proposed project is well-reasoned, well-researched, and well-intended, but only has it half-right in its attempt to serve the best interests of the Missoula

148-B public. I will present my rationale below, but in summary, I contend that the plans for the road areas north of 3rd, between 3rd and 6th, and all of 3rd St. are useful and welcome, but the plans for expanding the road areas between Mount and 6th are unwarranted, will have a wildly-unreasonable impact on the existing home base and quality of life in central Missoula, and ought to be revisited before it is too late.

My view coincides, to a small extent, with those who have proposed a counter-plan, the so-called Citizen's Plan for 3rd and Russell. However, I think that plan is radically flawed as well -- it too is only half-right (it's just the other half).

148-A The technical analyses conducted for this project, including the Traffic Analysis Update, have concluded that capacity improvements are in fact necessary to provide reasonable traffic flow over the planning horizon. With regard to the level of impacts, the right-of-way is very limited in the southern portion of the corridor, thus any widening to accommodate bicyclists, pedestrians, landscaping, or additional vehicular travel lanes will require the acquisition of additional right-of-way as well as existing homes and commercial structures. The Preferred Alternative impacts two additional homes and two fewer commercial buildings than the two and three-lane alternatives explored in the EIS. The reduction in impacts as part of the Preferred Alternative are due to the elimination of roundabout intersection control. Please also refer to response to Comment 19-B regarding the similarity of impacts between alternatives.

148-B Please refer to response to Comment 185-B regarding potential project phasing.



Final Environmental Impact Statement

Here are the points in my rationale that are in agreement with the Preferred Alternative Plan:

148-C First, the ideas to place a signal at Wyoming St., go from two lanes to four feeding the approaches to the bridge at the Clark Fork, and designing a tunnel for bicycles at Dakota Street are entirely sound. The bridge is the bottleneck generating the whole problem, and at peak times the bottleneck pushes the congested northbound traffic back to the 5th St. area. A light at Wyoming, for its part, is the best way to adapt for future residential growth in the former Champion Mill and Intermountain Lumber sites on either side of Russell. The Citizen's Plan falls well short of the mark on this count in believing that a roundabout would work here. To accommodate the volume of traffic from the bridge to the intersection at 3rd and vice versa, two travel lanes in each direction will definitely be required, and a new signal in the middle of that run is the best way to allow cars to enter and exit residential streets next to a four-lane span.

148-D Second, the idea to leave 3rd and Russell as a signal-based intersection is the right one. This intersection carries significant bicycle and foot traffic due to the proximity of a sizable grocery store in the area. Traffic must be brought to a full stop to improve the safety of these users. Given the volume of cars that must pass through this intersection, a large roundabout would become problematic -- a hazard that would have to be circumnavigated by bicycles and pedestrians in this area. The Citizen's Plan therefore again deals with this area incorrectly.

148-C Technical analysis conducted for this project support this conclusion.

148-D A roundabout is not necessarily an inappropriate design for this type of intersection or surrounding land uses. Traffic operations at roundabouts are disrupted by signalized intersections located in close proximity. A roundabout at this location was eliminated because a roundabout could not be installed at South 5th Street due to impacts on an adjacent historic property protected by Section 4(f). Please see Chapter 5 of the EIS for more information. Please also refer to response to Comment 38 regarding roundabouts on South 3rd Street.

Appendix H - Written Comments and Responses

Third, the idea of placing roundabouts at three locations along a revamped two-lane 3rd St., at Catlin, Johnson, and Curtis, is entirely justified and entirely welcome. Most traffic on 3rd passes all the way along it, and while this fact today makes it difficult to turn left out of (or into) the three aforementioned north-south streets, small roundabouts will remedy this need without creating the "accordion" traffic problem that would become the case if any of those three intersections were controlled by a signal.

I now turn to my rationale for seeing major drawbacks to the proposed plan.

The compelling objection to the Preferred Alternative Plan, and the key issue that should be on the minds of decision-makers for this project, is the treatment of the sector from 6th to Mount.

148-E The project proposes to destroy eleven homes and at least seven small businesses in this part of the corridor, displace the families and proprietors in those buildings, and radically alter the

148-F character of the bike/pedestrian crosswalk running parallel to the railroad tracks south of 11th St. This is not a suitable choice of action for the city, nor is it justified. Once the bridge over the Clark Fork is expanded, relieving the traffic that presently backs

148-G up to 3rd, having four lanes in this section of Russell will be superfluous and would exact a huge toll on the neighborhood at either side of Russell in the 5th-to-11th corridor. In addition to

148-H the number of homes being leveled, the houses that remained would now have to deal with a 4+ lane roadway right next to them rather than a tree-lined urban thoroughfare. The tiny, quiet

148-I residential area that forms a wedge between Ronan, 6th, and Russell would be even more isolated from the homes west of Russell. And this would be done solely

148-E Please see response to Comment 19-B for a discussion of business and residential property acquisition.

148-F Please see response to Comment 185-B regarding the opportunity to revisit the design in the southern portion of the corridor if appropriate in the future.

148-G The bike/pedestrian cross walk will be replaced by a grade separated crossing at South 11th Street and Russell Street, providing for improved safety.

148-H As noted above, the difference in impacts between the various alternatives is relatively small.

148-I The Preferred Alternative includes landscaped boulevards and median which will likely include more trees than will be removed for construction.



Final Environmental Impact Statement

148-J to serve automotive traffic congestion that will be sufficiently reduced by the expansion of the Russell St. bridge and the sector north of 3rd St.!

We can see that there is good reason that the Citizen's Plan has come to be -- paving four-plus lanes through a pleasant neighborhood section of the city is, on its face, an illogical and unwelcome idea.

148-K This lack of logic is further accented by the negative impact on the local housing market due to the elimination of eleven modest houses in the center of the city, and by the negative impact to the city's urban forest by the elimination of most of the established shade trees along that span of road. The Citizen's Plan has the right answer on this count.

148-L It is already challenging for a bicycle to cross Russell St. during daylight hours anywhere generally south of 5th St. With no intersection controls built into the run between 5th and Mount by the Preferred Alternative Plan, crossing a widened Russell in that area on foot or by bicycle will be much harder, and much less safe, than it is today. A great many bicycle commuters originate in the mornings between 3rd and 14th, going east on routes to downtown and the university. It is unreasonable to push the foot traffic and bicycle riders in a dense residential area all the way south to a pedestrian tunnel. The expanded footprint of the proposed roadway will choke off that bicycle traffic -- an undesirable outcome. What's more, the

148-M tunnel construction implied by the Preferred Alternative Plan will clearly have to be subterranean rather than being a street-level underpass (like the comfortable, daylit one at Orange and Cregg Lane), since the railroad tracks will have to stay where they are to support locomotive passage, and the Preferred Alternative does not call for an overpass to cross those tracks. A subterranean tunnel in that area, running at an angle to a four-lane roadway, will be a long, dark, unsafe stretch of buried path that will likely over time become unpopular and underutilized.

148-J As noted, the Preferred Alternative includes dedicated bike lanes, sidewalks, and landscaping amenities.

148-K Please refer to response to Comment 19-B regarding the impacts of the build alternatives.

148-L The Preferred Alternative includes a grade-separated crossing for the Bitterroot Branch Trail as well as improved traffic control at Mount Avenue, South 5th Street, South 3rd Street, and Wyoming Street which help pedestrians and bicyclists to cross the corridor safely.

148-M The EIS illustrates an underpass, but allows for the construction of an overpass if desired or necessary from an engineering standpoint. See also responses to Comments 26 and 112-C. The concept illustrated in the EIS anticipates an opportunity to provide an opening in the roof of the tunnel to allow natural light. This would be provided in the median area between the northbound and southbound travel lanes.

Appendix H - Written Comments and Responses

148-N What would be most suitable for the run between 6th and Mount is a widened TWO-lane road with sidewalks and secure medians where a bicyclist or pedestrian can pause safely while crossing without halting automotive traffic. At 11th and Knowles, a small roundabout would allow southbound traffic to reach Knowles and other points east safely, allow northbound traffic to safely enter the western neighborhood at 11th after crossing the railroad tracks, and possibly save some or all of the small high-visibility commercial properties located in that area. Furthermore, the natural slowing effect of a roundabout in that location would enhance safety factors of the existing road crossing of the

148-O Bitterroot Branch Trail, which could be left essentially as it is -- saving the cost of constructing a needless tunnel.

148-P Looking around the city we find several major arterials that function well with two lanes, including Russell St. itself from South Ave. to SW 39th. SW 39th would be an ideal model for what is needed between 6th and Mount -- two comfortably-wide lanes, bicycle lanes, speed controls at the larger Paxson St. and Dore Lane intersections that narrow the roadway and enhance safety for pedestrians and bicycles, and intermittent landscaped medians at minor intersections for the same safety purposes. SW 39th carries a substantial volume of traffic between S. Reserve and S. Russell, through a residential neighborhood, and yet is pleasant, efficient, relatively safe, and comfortable for a variety of road users. This is the design model that should be followed for Russell St. between 6th and Mount.

148-Q I urge the public officials at the city, state, and federal level responsible for deciding the fate of this project to consider the above objections strongly before approving the Preferred Alternative Plan as it now stands.

148-N This recommendation is essentially the same as Alternative 2 which is fully described in Section 2.2 of the EIS. This Alternative requires the acquisition of five homes between Mount Avenue and South 6th Street, and another four homes at the intersection of South 5th Street. Five commercial structures would be impacted in the same segment. These impacts are illustrated in Chapter 2, Section 2.3 of the EIS.

148-O The grade-separated crossing was recommended in each of the build alternatives.

148-P For comparison, Russell Street between South Avenue and SW 39th Street currently carries between 11,500 and 14,200 vehicles per day, and SW 39th Street between Russell Street and Reserve Street carries approximately 12,500 vehicles per day. Russell Street between Mount Avenue and West Broadway Street currently carries over 20,000 vehicles per day and is projected to carry between 30,000 and 40,000 vehicles per day by the year 2035.

148-Q The NEPA/MEPA process is intended to fully consider a broad range of factors, and provides a great deal of information to the decision-makers. These comments, and more particularly the issues raised, were considered throughout the project development process. See also response to Comment 74-A.



Final Environmental Impact Statement

- 148-R** Based on what has been reported in local media outlets regarding the availability of funding for the first phase of the project, it seems that it is not too late to proceed with the necessary upgrades to the roadway and bridge between 3rd and Broadway, AND the 3rd St. span between Russell and Reserve, and yet withhold judgement on the need for four lanes between Mount and 6th until it is absolutely proven necessary. A four-lane bridge is going to make a huge difference in remedying the traffic and safety situation we have now. It does not follow that the four lanes must be extended all the way to Mount! On the contrary, the first phase of the project will likely solve the problem for the next 50 years. Please revisit the traffic-load predictions before embarking on a road project south of 6th that will erode Missoula's housing inventory, eliminate several small businesses that deserve support, choke off a healthy flow of bicycle commuter traffic, put a cramp in the Bitterroot Branch Trail, and squeeze a vibrant little neighborhood into a noisy, isolated zone.
- 148-S**

Respectfully,
Erik Harris

- 148-R** The project must be analyzed and rejected or approved as a single project because of the projected need for improvements throughout the Russell Street corridor from Mount Avenue to West Broadway Street, and along South 3rd Street between Reserve Street and Russell Street. However, as noted in the EIS, modifications to the Preferred Alternative could be made in the future if conditions change such that different lane configurations were necessary. The project can be revisited over the next several years as the project proceeds, and is likely constructed in several segments.
- 148-S** Please refer to Appendix G for a summary of the Traffic Analysis Update conducted during the spring/summer of 2009. See also response to Comment185-B regarding potential project phasing.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 149

I favor the five lane proposal for Russell Street throughout its entire length. Russell Street from the river to 14th street is the next prime commercial development area in Missoula. The three lane option (particularly with roundabouts), would be unsafe and out of date before it is even built. Build the road in this area to move traffic efficiently and safely.

Thanks.
Darl Enger

Thank you for your comment and interest in the project.

Comment 150

To whom it may concern:

I am 100% for this project!
Missoula needs this project to begin immediately. I do not want to see some vocal minority delay, change or cancel this critical infrastructure project. Too many times I've sat idle on Russell while traffic is backed up from 3rd street to Broadway! We need this alternative artery for our current transportation needs and a better environment. It is long overdue!
Thank you!

Richard Huffman
10110 Oral Zumwalt Way
Missoula, MT 59803

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 151

Gentlemen:

We spent (as I recall) \$50 million to "solve" the traffic issues at Malfunction Junction because we were told the air pollution resulting from idling vehicles was detrimental. Yet I experience far more "idling" in traffic on 3rd Street and Russell now than ever existed at Malfunction. Unscientifically, I believe it is because traffic moves to these streets to avoid the traffic on North Reserve. Restricting traffic flow on either of these streets is not going to make people ride bikes or walk or ride the bus. Regardless of what the Bike Nazi and his friends contend, you will not force people to change their work habits by social engineering. Rather, we will have more idling cars. Visit the Broadway Diet and see if I'm correct.

Missoula is a community. It is not a coalition of Neighborhoods. Neighborhoods do not as such have a vote. It is time for Missoulians to think about the broader community instead of their own selfish ideological or sociological best interest. We need the original plan just to get by with today's traffic. When North Reserve "solved" the Malfunction Junction problem before the intersection was actually rebuilt, it proved that traffic is like water: it follows the path of least resistance. If we keep building smaller and smaller traffic arteries, we will do nothing more than create bigger and bigger dams. Eventually, the traffic dams will break and we will be flooded.

I strongly recommend that we NOT go with the "alternative" plan. And, I actually live in the city limits and work in the city limits.

Thank you for listening.

John R. Gordon
Spoon Gordon PC
800 South 3rd Street West
P.O. Box 8869
Missoula, MT 59807-8869
(406) 541-2200
john.gordon@sgmlawyers.com

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 152

Dear Sir or Madame,

152-A Thank you for allowing the public to comment on this intricate matter of the Russell Street/South 3rd Street EIS. Greg wood, of the City of Missoula, was kind enough to walk my family's property with me on October 20th. He and I discussed that the drawing in Figure 7 made it appear that my entire business frontage was to be acquired. Greg showed me a larger drawing which showed that the expansion would only affect one of our existing buildings which sits very near our Russell street, west property boundary. That building is the Pink Grizzly firework stand which is now used more as an office and for storage space. The building is built on a concrete foundation with a small basement. We cannot afford to sell all of the property where our greenhouse business currently sits as that would put us entirely out of business.

As a family and a business with ties to Missoula since 1955 we are committed to the progress of the City of Missoula. We are generally in support of the preferred alternative for the Russell Street Expansion. We want to be a proactive part of a solution that works to provide the best alternative for the greatest amount of citizens while allowing us to continue to grow our business. Pink Grizzly currently employs as many as 18 part-time employees with a living wage (currently \$8.00/hour to \$12/hr) through our seasonal enterprises. Pink Grizzly has two full-time employees, one of them being myself, Shane Clouse. I am 35 and hope to grow the business until I retire near age 65. Pink Grizzly currently grosses upwards of \$300,000 annually and continues to grow. Pink Grizzly operates a nursery and garden center from February through October. The business sells Christmas trees and wreaths from November through December. Pink Grizzly operates a website called MontanaWreaths.com in which we ship wreaths to

152-A As the comment notes, the project team has met with you, and had several discussions with members of the Clouse family over the past year. Figure 4-2 of the EIS identifies parcels where a structure is impacted (orange for residential parcels, and yellow for commercial). At this stage of preliminary design, it is difficult to determine where final right-of-way limits would fall, and precisely what acquisition would be necessary, so the EIS provides an estimate based on the current preliminary design. The DEIS did not distinguish between types of structures impacted (for instance whether the structure was a residence, garage, shed, or other outbuilding on residential lots), as the project team did not feel it appropriate to make a determination on whether an impact to an outbuilding would be acceptable and not require full acquisition. During final right-of-way negotiations, each individual landowner would determine whether they felt the impact was substantial enough to require complete acquisition of the parcel, and the City and Montana Department of Transportation would then negotiate those terms. In this particular case, the project team felt it unlikely that the removal/relocation of the pink building would impact the overall operations of the business, but did not want to presume the importance of the structure any more so than a garage on a residential parcel. If the necessary right-of-way can be obtained, and the building removed or relocated on the property, then full acquisition would not be necessary or desired. Nor is it anticipated that right-of-way requirements on Wyoming Street would affect the operation of the business.



Final Environmental Impact Statement

customers all over the United States. The Fireworks portion of our business is owned by our 80 year old Mother Anna Marie Clouse, and operates from June 24-July 5 and December 30 and 31 each year. A large portion of the wreath business is in support of fundraisers for local non-profits such as Sweet Adelines, Spirit at Play, Clinton Close-up, and On Center Dance. The changes in Russell street have the potential to massively effect our business. However, it is quite possible that our business can improve with the changes to Wyoming and Russell street.

152-B Our first issue is one of parking along our Russell Street frontage. Traffic historically pulls off of Russell and parks along our Russell Street frontage. There is also parking for 18 cars along the Wyoming street frontage to the south side of our property. Although there is a large access gate to the business off of Wyoming street most customers use the Russell street parking due to habit and the initial appearance of convenience. I am very interested in improving the flow and safety of our parking for our customers, but we have been waiting to see the final plans for the Russell Street expansion. We are apprehensive to put a considerable amount of capital in to street side parking improvements only to have them torn up during construction. Eventually Pink Grizzly will seek to improve the parking and frontage of the retail center and we are very open to working with the city, and its agents to complete this valuable task.

152-C Our next issue is of commercial property acquisition. Obviously some of our land along Russell street will have to be purchased in order to properly widen Russell street according to the plans for the preferred alternative. While this will affect our business for a time, I believe we can work together with the city of Missoula to plan the best possible alternatives.

152-B The City of Missoula and Montana Department of Transportation will work with each business to negotiate access points and displaced parking on your parcel. Parking is currently not allowed within Russell Street right-of-way, so any perceived loss of on-street parking would not be replaced, but replacement for existing parking on your parcel that is disrupted by the improvements would be negotiated during final design.

152-C The City of Missoula and Department of Transportation will work with each individual land owner during the right-of-way acquisition process to negotiate the terms of sale in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* and appropriate sections of Montana Code.

Appendix H - Written Comments and Responses

152-D I believe we can work out an alternative that sells some of the Clouse property, widens Russell street, and helps us make some improvements to the business. If the "Pink Grizzly" building has to be taken out we will need to find a way to either move it or build another structure for office space and storage. We will also need to move much of our parking to another location on our property or its boundaries. We would look to the city and its agents to help us negotiate solutions.

152-E Our final issue is one of fairness. Property acquisition for right-of-way is always a touchy subject for the public and it is hard for me as well. I have spent a lifetime working my property and am emotionally attached to it. To see it taken away would not only erase my livelihood, it would be a devastating blow to my entire family and all of my employees. I would wager to say it would affect my customers as well. As I stated before I understand the need for progress and I believe we can find some solutions that work for all involved. When looking at an overhead view of Russell street you can see that the road moves to the west significantly at Idaho street so that it can connect with the Russell street bridge. The current EIS show that most of the property to be acquired is on the east side of Russell street. It only seems fair to take right-of way equally from both sides of the road. Another important point to mention are the large tracts of vacant property on the West side of Russell street. Those properties are the old 4-G's building site, the old Intermountain Lumber site, and the vacant site to the East of the Salvation Army Low-income housing development. Those properties start at the Wyoming/Russell intersection and continue south for 5 blocks (including River St. which is not a through street to Russell) to Second street. There is significant development all along the East side of Russell street from Third Street north to Broadway.

152-D As noted above, these concerns are intended to be addressed during the design process and right-of-way negotiations, but we do not anticipate a full acquisition of the parcel under the conditions described.

152-E The alignment of Russell Street through this segment is dictated by the West Broadway Street and Wyoming Street intersections, as well as the placement of the new bridge crossing the Clark Fork. It would not be possible to shift the alignment to the west without affecting the intersection angles and bridge skew.



Final Environmental Impact Statement

152-F The Third street to Russell bridge section of the project is approximately 9 blocks up to the Clark Fork River. More than half of that distance (5 blocks on the West side of the project) is virtually vacant land. The 4-G's site is scheduled for de-construction. Knowing the five blocks from Second Street to Wyoming street on the West side of Russell are completely vacant seems to make the choice to acquire land an easy one. Take the land that impacts the community the least and you will have less battles. Again more than half of the distance of the project from Third Street to the Clark Fork River goes by these vacant properties and yet the EIS shows land to be acquired only along the East side of Russell street. This does not make sense to me. It may make sense from an engineering standpoint, but taking the land entirely from the East side of the road is the path of "most" resistance due to the public it impacts.

In closing I would like to thank you again for your careful study of this project. Greg Wood has been a fantastic liaison for the city of Missoula and the public. I want to help find a successful alternative that allows us to have a safer, more beautiful Russell street corridor and allows my family to continue to grow the business on our land that we have owned since 1955. Thank you for your time and consideration of these matters.

Sincerely,

Shane C.E. Clouse

152-F The proposed improvements in this segment are generally centered on the existing roadway centerline, with widening on both sides of Russell Street. On the east side, improvements encroach 0 to 15 feet beyond the existing right-of-way, and on the west side, improvements encroach 0 to 4 feet beyond the existing right-of-way. It is important to note, however, that the existing right-of-way is not consistent in width, nor is it symmetrical to the existing roadway centerline throughout this stretch between South 2nd Street and Wyoming Street. The existing right-of-way is fairly wide between South 2nd Street and South 1st Street. Between South 1st Street and Dakota Street, the right-of-way narrows by a full parcel width on both the east and west sides of Russell Street. From Dakota Street to Wyoming Street, the right-of-way widens slightly to the east. The proposed alignment was selected to fit as closely as possible within the variable width of the existing right-of-way, while maintaining a sound engineering design and avoiding direct impacts to structures on both sides of Russell Street.

Appendix H - Written Comments and Responses

Comment 153

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Shelley Bundy
8605 A Ranch Club Rd #A
Missoula, MT 59808

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 154

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
John Coffee
2407 Garland Dr
Missoula, MT 59803

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 155

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Linda Dobak
2704 Brooks St Ste C
Missoula, MT 59801

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 156

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Perry Deschamps
PO Box 16233
Missoula, MT 59808

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 157

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Carol Kraft
2005 Edward Ct
Missoula, MT 59804-

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 158

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Devin Khoury
1618 Howell St
Missoula, MT 59802

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 159

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
David Guschausky
2640b Tanbark Way
Missoula, MT 59808-5418

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 160

I think that the most important factor concerning roads is to acknowledge that their purpose is to move traffic well. There is always the safety factor for the area where the roads exist but looks and ambiance take a back seat to efficiency and safety.

The Broadway diet plan is a good example. The idea of taking a major commercial oriented road and squeezing 2 lanes into one to protect pedestrians while dumping major extra traffic onto a residential street is beyond stupid. Is there no common sense left in the world?

Russel is not a residential street. Don't try and make it one.

Sincerely,
John Geesen
620 S 3rd St W
Missoula, MT 59801

Thank you for your comment and interest in the project.

Please refer to response to Comment 120-E regarding the interim nature of the West Broadway Street project.

Appendix H - Written Comments and Responses

Comment 161

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative.

I have long thought that Russel Street was a major problem area. There are too few quick routes through this town and Russel Street long ago should have been four lane. The danger of Russel Street imitating Reserve Street is minimal because of the lack of commercial areas on Russel Street. The intersection at 3rd is a slow, cumbersome process as it stands now. Not much better than the Reserve Street/ Mullan intersection because it is only two lane. Losing homes to provide for the expansion is unfortunate but it is only a matter of time before the good of the many exceeds the good of the few, (sorry Mr. Spock for stealing and changing your line].

161-A This has been a long time coming and though I think it is necessary, I am not sure this is the time to make this change. Missoulians pay their share of taxes now and this change will be expensive in many ways. I understand matching dollars will help ease the burden but with the current economic climate with an economy in serious trouble caused by falling stocks, job losses, high gas prices, downturn in the building and real estate markets, subprime loan, and you add your favorite five or six reasons for this mess, I don't know if Missoula needs any more economic pressure right now.

161-B I haven't hear when this project would take place but I do know that everytime major construction takes place on a street, it is a mess and for awhile causes even more pressure on the alternate routes.

Again, I would like to see this project go through, but I am not sure this is the best time.

Thank you for allowing me to put in my two cents.

Sincerely,
James Wheeler
PO Box 1344
Lolo, MT 59847

161-A The funding allocation for the Preferred Alternative comes from the Long Range Transportation Plan. This Plan is “fiscally constrained” which means that projects within the identified program have a reasonable expectation of being funded through established public and private sources. It is not anticipated that this project would put additional, unplanned financial burden on the community.

161-B Please refer to Chapter 4, Section 4.18, for a discussion of the Social and Economic conditions anticipated during construction.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 162

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Sylvia Funk
5156 Briarwood Ln
Florence, MT 59833

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 163

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
William Babington

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 164

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

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I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Daniel Worrell
2550 Gunsight Ct
59804, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 165

October 20, 2008

Mr. Wood & Mr. Martin:

On behalf of Garden City Harvest (GCH), a Missoula based non-profit organization; please accept these comments in regards to the Draft Environmental Impact Statement for the proposed Russell Street/South Third Street MT Department of Transportation and City of Missoula Public Works project.

Garden City Harvest operates a Neighborhood Community Garden and Farm just one block west of the south end of the Russell Street Bridge (on property behind and adjacent to 1657 River Road).

Catlin Street connection-

165-A Garden City Harvest does not support a change to the current configuration of Catlin Street to the north that turns the western edge of the trailer park into a through street. We believe the proposed change will radically transform the Mobile City Trailer Court area into a glorified median strip between the two streets. Many families walk from the trailer park to the GCH Garden and Farm. They will no longer have safe, unimpeded access as the trailer park will become an urban island, bordered by busy through streets on all sides. This is not safe for the children and families who regularly walk to the site. The River Road Garden and Farm fosters self reliance, community coherence and family activity, these hard won values will be even more difficult to attain when residing alongside these major roadways.

165-B In the event that a connection is developed for the Catlin Street extension to River Road (northern connection) utilizing the western side of the Mobile City Trailer Court. This roadway has the Orchard Homes Ditch adjacent to the road. The River Road Garden and Neighborhood Farm gets all irrigation water from that ditch in that exact alignment. GCH will want assurance that water from that ditch will still be accessible to our farm and garden. Reference: Figure 2-3 in Section 2-8 DEIS.

165-A See response to Comment 41-C regarding the anticipated traffic on the Catlin Street connection.

165-B Water rights to that ditch will be perpetuated both during and after construction.



Final Environmental Impact Statement

Farmland in the project corridor-

165-C

The DEIS Executive summary (p. 17) states that no farmland is within the project corridor. Immediately west of the River Road/Russell St. connection, GCH has operated a community garden and neighborhood farm for over 12 years, serving over 100 families, growing thousands of pounds of food in individual garden plots and CSA shares. Farm land is a finite resource, and at this site, because of its strong community presence every effort must be made to preserve this resource. Any new street connections should be designed with the preservation of the River Road farm/garden into the roadway configuration.

Bicycle and Pedestrian Facilities-

GCH supports the addition of bicycle and pedestrian facilities in all new designs. The on-street and the extension of the trail systems on the north and most importantly, the south side are vitally important to keeping smooth commuting paths open and flowing on the River front trail system. The trail provides direct access to the River Road Community Garden and Neighborhood Farm. GCH Gardens are promoted on or near public trails and paths. Many gardeners utilize alternative transportation modes to access the community garden bicycling and walking being the most frequent modes.

For the Board of Director's and executive staff, thank you for your consideration.

Tim Hall,
Community Garden Program Director, Garden City Harvest

Garden City Harvest
PO Box 205
Missoula, MT 59801

165-C

The “farmlands” discussed in the EIS refer to lands specifically designated by the Natural Resource Conservation Service as having certain soil types, water availability, and production capabilities, and are located outside urban areas. Noting that there are no farmlands in the study area is not meant to de-value this community garden, but is merely stating that no state or federal protection is afforded to any lands in the study area under the Federal Farmland Protection Act. As with all parcels, impacts to the community garden will be minimized to the extent reasonable and practicable.

Thank you for your interest and participation.

Appendix H - Written Comments and Responses

Comment 166

Dear Sir Or Madame,

Thank you for providing us with a detailed description of the alternatives for the Russell St/South 3rd St EIS. My name is Shane Clouse and my family owns the city block at the Wyoming St. Russell St intersections. On the land acquisition page it shows that our land is designated as a piece of property to be acquired for the road expansion. Figure 7 shows that the project intends to acquire the entire Commercial property at 1400 Wyoming street. There are no other properties between Second Street and Idaho street that are proposed to be acquired. I must request an explanation. To solely acquire our property without equally acquiring right of way from adjacent properties is not only unfair, but it does not make sense. The preferred alternative is the four lane with a turning lane it does not make sense that you would need to acquire only our land and none other between Second street and Idaho street. We wish to be a proactive part of the growth in Missoula. To take our land would put as many as 12 family's out of work in the Missoula area from our business alone. It is my only job. You would also be forcing the closure of a Missoula fixture that has been in business since 1955. My comment is based on the description of Figure 4-2 on page 4-9 of DEIS.

Shane Clouse
370-4487

See response to Comment 152 regarding the same parcel and comment. Thank you again for your comment and interest.



Final Environmental Impact Statement

Comment 167

October 16, 2008

I would like to register my support for the preferred alternative build out of Russell Street. It is the logical and practical choice. The community is growing, the streets are overcrowded and the preferred alternative will provide much needed relief.

Gary R. Clark
P.O. Box 3391
Missoula, MT 59806

Thank you for your comment and interest in the project.

Comment 168

I am writing to express my support of the preferred alternative build out of four lanes for Russell St. as identified in the EIS. This project needs to be completed in a timely order. I even support two phases with the bridge over the Clark fork river starting this year.

Doug Lawrence
Mountain West Bank NA

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 169

From: Kohl, William [mailto:WKOHL@SMURFIT.COM]
Sent: Thursday, October 16, 2008 12:17 PM
To: MDT Comments - Russell EIS
Subject: Russell Street Comment Form.doc

I am in support of the preferred alternative build out of four lanes for Russell St. as identified in the EIS. This project needs to be completed in a timely order. Transportation in Missoula has become a major issue and additional roads are required to handle traffic in the direction of Russell Street.

Thank you for your comment and interest in the project.

Comment 170

I am support of the preferred alternative build out of four lanes for Russell Street and identified in Environmental Impact Statement. This main North-South arterial needs to be built and designed to handle traffic not only at its current levels (which during peak rush times is very congested) but additional traffic flow for the future. Failure to design for additional future traffic is detrimental to the movement of traffic in Missoula. As this project has been in the works for decades, this needs to be completed and built with all due speed. Further time lag will only increase the costs and seriously impede traffic flow.

Thank you for your comment and interest in the project.

Ronald A. Bender
WORDEN THANE P.C.
ATTORNEYS AT LAW
111 N. Higgins Ave., Suite 600
P.O. Box 4747
Missoula, MT 59806-4747



Comment 171

To the Russell/3rd Project Team:

The neighborhoods on both sides of Russell Street are heavy users of Mountain Line transit services. With recent improvements to the service in that area we expect transit ridership to increase even further. This neighborhood has very good transit access. Routes 2 and 9 travel on Russell Street between Broadway and 3rd Streets, and the neighborhood between 3rd Street and South Avenue has access to routes 1, 2, 8 and 9. With increased demand and funding, service will likely be expanded in this area.

It is the position of the Missoula Urban Transportation District (MUTD) Board that any changes to Russell Street meet the following criteria:

- 171-A** • The street must be designed to a pedestrian scale.
- Pedestrians must be able to cross safely and comfortably at all intersections. The street crossings in the selected alternative must be sufficient to allow for safe, comfortable "neighborhood style" access to bus stops, as opposed to walking long distances to dash cross the street (or seek a point of refuge) on the way to catch a bus.
- 171-B** • Traffic speeds should be kept to 30 MPH or under for pedestrian safety. In pedestrian / car collisions the survival rate declines rapidly as the rate of speed increases. At 40 MPH the death rate is 85%, at 30 MPH it drops to 45%, at 20 MPH to 5%. 30 MPH strikes a balance between the needs of through traffic and the safety of pedestrians.

171-A From the early stages of this project, one of the goals and objectives has been to improve multimodal access and mobility throughout the corridor. This includes providing trail linkages within and across the Russell Street and South 3rd Street corridors, providing grade-separated bicycle and pedestrian crossings of Russell Street, and compliance with the Americans with Disabilities Act.

171-B There is no intention under this project to change the posted speed limit. The posted speed limit would remain at 30 miles per hour. See also response to Comment 73-C.

Appendix H - Written Comments and Responses

171-C • Travel lanes should not be in excess of 11 feet, in order to promote slower speeds and reduce crossing distances.

171-D • Undercrossings should not be relied upon as pedestrian crossing opportunities. Safe surface crossings are essential for good transit access and neighborhood connectivity. However, we do support quality undercrossings in relation to continuation the trail system.

171-E • Sidewalks must be at least 6 feet in width. We support the provision of boulevards.

171-F • Transit infrastructure such as bus stops, pull outs, etc. must be appropriately placed throughout the corridor, not just where existing routes operate.

On behalf of the Mountain Line Board, thank you for the opportunity to comment on the Russell / South 3rd Street DEIS.

Sincerely,

Stephanie Millar
Transit Planner

Mountain Line
1221 Shakespeare Street
Missoula, MT 59802

171-C The Preferred Alternative provides a mix of 11 and 12 foot travel lanes to balance the neighborhood and regional travel context of the corridor. These widths are consistent with state and national standards for a corridor of this type.

171-D Improved crossing opportunities would be provided at all signalized intersections within the project corridor. Pedestrian refuges would be provided intermittently throughout the remainder of the corridor.

171-E Due to the constrained nature of the project corridor, all features in the corridor were identified at minimum acceptable standards to minimize impacts. Following this overall goal, sidewalks were identified at five feet in width, which is consistent with Missoula standards in existing corridors. (See also response to Comment 196-B).

171-F The Preferred Alternative does not preclude the location of bus stops or pull outs anywhere in the corridor. The location of future transit amenities will be coordinated with Mountain Line.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 172

I strongly urge you to adopt the preferred alternative in the above EIS. The alternative options presented by an independent citizens group only considers impacts on property along Russell Street. This project must consider the impacts of Russell Street on the entire City of Missoula. The additional traffic lanes in the preferred alternative will help relieve traffic impacts on other busy streets in Missoula as well as the Russell Street area. The EIS is a result of many years of study and the preferred alternative is the best solution available to all the citizens of Missoula.

Jim Weatherly

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 173

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
JoAnna nuckols
195 Horseshoe Ln
Missoula, MT 59803

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 174

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Jay Getz
2204 River Rd
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 175

Anything less than this option is a waste of the last 10 years of negotiating on this traffic issue. Please do not give in to the minority pressure. Widen the road, Widen the road NOW.

I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city.

Sincerely,
John Suprock
4095 Kaleigh Ct
Missoula, MT 59801

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 176

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

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Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Doug Frandsen
721 Montana Ave
Missoula, MT 59802

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 177

Please follow the recommendations of the environmental impact statement when rebuilding these streets. I feel that anything less on Russell will be something that we will soon outgrow and then it will have to be redone in the near future. 3rd St. also must be rebuilt so that it will serve our needs for many years. I don't want a few vocal critics to stall the momentum of getting this project completed. I really-really resent that it has taken so long to get started on a project as important as Russell St.

Hans Christiansen
1602 Bel Air Place
Missoula, Mt. 59801

Thank you for your comment and interest in the project.

Comment 178

RUSSELL STREET NEEDS TO BE FIX NOW NOT IN 5 YEARS.

The bridge on Russell street is to small and causes a bottle neck at RUSSELL AND BROADWAY.

Please stop messing around and do what is right and fix this street NOW. I drive a transit bus for Mountain Line and have to sit in traffic all day long. Maybe some of the protesters should ride the bus and see the traffic first hand.

Daniel Sackett
2817 Juneau Dr.
Missoula, Mt 59804-1122

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 179

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Thomas Hilley
431 E Sussex Ave
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 180

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Kris Hollenbeck-Hawkins
5000 Sonoma St
Missoula, MT 59808

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 181

To Whom it may concern,

I am in favor of widening the street to at least 4 lanes with a turning lane. The traffic situation in Missoula is a huge problem and we need more arteries that transport large amounts of traffic. In addition, I believe that rather than use the main streets for bike lanes, whenever possible, it would be a good idea to move the bike lanes onto parallel streets such as Catlin or Washburn Streets.

*Sincerely,
Cindy Bartling*

Thank you for your comment and interest in the project.

The proposed bike lanes on Russell Street are consistent with the Long Range Transportation Plan and Missoula Bike Plan, as well as input received from the Citizen Advisory Committee and the expression of interest from public participants in the development of the Russell Street and South 3rd Street projects.

Appendix H - Written Comments and Responses

Comment 182

Council Member John Hendrickson
435 Ryman Street
Missoula, MT 59802-4207

Dear Council Member Hendrickson,

Thank you for the opportunity to comment on the proposed 3rd Street/Russell expansion preferred alternative. I feel that the four traffic lanes with a center turn lane would be a positive step towards growing connections throughout our city while still maintaining the character of the neighborhood.

I recognize that losing homes to an expansion is unfortunate, but I feel it is important to recognize that Russell is a major arterial network for this community. With current growth plans such as UFDA and the Missoula Downtown Master Plan suggesting substantial residential growth in the downtown area, it is important to maintain and grow those connections. It would benefit our city, neighborhoods, and citizens to get ahead of the traffic issues we face.

Although it is clear that Missoula does better than many communities in Montana for supplying safe alternative transit methods, the major arterial of Russell/3rd Street offers nothing in the way of bike lanes and pedestrian safety. The four-lane preferred alternative would offer the community a safer and more enjoyable way for alternative commuting methods in the area.

I believe that the Russell/3rd Street preferred alternative would promote better circulation in our city, take pressure off Reserve Street, and continue the beautiful, drivable, walk-able, and bike-able tradition for our city. I would like to thank you for the opportunity to make comments on this proposal and the time it took to develop it.

Sincerely,
Diane Day
4316 North Ave W
Missoula, MT 59804

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 183

From: Burbank, J. [mailto:jburbank@mt.gov]

Sent: Tuesday, October 28, 2008 2:36 PM

To: MDT Comments - Russell EIS

Subject: Comment On Russell Street EIS

*I feel that the best alternative for Russell Street is Alternative 4. This will allow traffic to move steadily and, I believe, is the safest alternative for everybody. If roundabouts are put in they will cause more accidents for vehicles, pedestrians and bicyclists for many reasons. One, most drivers and bicyclists **do not** know how to use stop signs let alone roundabouts! Drivers and bicyclists do what they want when they want. Two, Missoulians are very impatient people, roundabouts will only slow the flow of traffic causing more people to take the risk of an accident just to get where they want to go. Three, what happens if an emergency vehicle needs to come down Russell in 5 O'clock traffic and can't get through traffic because of the roundabout? Where are they going to go? How are they going to get through?*

Alternative 4 seems to be the least complicated and most logical option.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 184

RECEIVED
OCT 16 2008
ENVIRONMENTAL



828 Longstaff
Missoula, Montana 59801
October 14, 2008

Tom Martin
Montana Department of Transportation
PO Box 201001
Helena, Montana 59620-1001

Dear Mr. Martin:

I writing to comment on the Russell Street rebuild in Missoula. Please do not accept the alternative plan. This was thought up by a group of untrained lay people who have no vision for Missoula.

Two lanes with a turning lane is not the answer. There is a section that is just that and it doesn't work. Traffic backs up there as badly as the other parts of Russell. Please accept the four lanes with either a turning lane or turning cut outs.

As long as we are spending this enormous amount of money we need to spend it wisely and for the future traffic. Missoula will grow, I hope it does or it will die, and with the growth will come more traffic. We need to plan for the future. We also need to understand the living and working patterns of people in Missoula. Many live on the South side and work on the North. There are more developments going in on the South side, so guess what, more people.

There are only two North-South roads that are convenient for those living on the west side of town. One, Reserve, is already overburdened. Keeping Russell a two lane with a turning lane won't do the job. Please be forward thinking and consider traffic ten or twenty or even thirty years ahead. Please decide on a four lane with a turning lane or turning cut-outs.

I'm not sure about the Round About. People will not understand how to use them and I feel they will impede traffic. The so called traffic calming devices in Missoula aren't the solution either. People speed through these.

Thank you for your attention.

Sincerely,

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 185

October 16, 2008

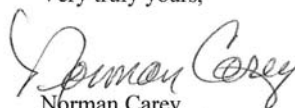
Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula Montana 59802

RE: Russell Street/ South 3rd Street

Gregg:

185-A I was one of the Committee persons for the original study. At no time did I recommend roundabouts nor do I want to see them now. The preferred Alternative for Russell Street I highly recommend. I believe this is the best and most reasonable to construct. I am not sure from 6th Street to Mount Avenue that we will need as much capacity as shown, but definitely we need what is shown to 6th Street. 3rd Street I highly recommend that we do not have roundabouts as I believe they are a big safety issue, cost too much and take too much land to build. From Broadway to 3rd Street needs to be built as soon as possible. The Russell Street Bridge creates a big bottleneck and the sooner this is built will really let everyone see the reality of future construction on 3rd and South Russell.

Very truly yours,


Norman Carey
Westside Lanes and Fun Center

Thank you for your comment and participation in the project.

185-A Please refer to responses to Comments 72-A and 72-B regarding roundabouts.

185-B The project is anticipated to be constructed in phases, likely beginning with the northerly segment from Broadway south (including the bridge). As the project design proceeds, modifications could be made to other segments if substantial changes occur in traffic or adjacent land uses. These changes would be evaluated to determine if modifications in the recommended number of travel lanes may be required, or if changes to intersection designs would improve operations. Please refer to Section 2.7 of the EIS for a more detailed phasing discussion.

RECEIVED
OCT 20 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Appendix H - Written Comments and Responses

Comment 186

Greg Wood
City of Missoula
435 Ryman Street
Missoula, Mt. 59802

Dear Greg,

186-A To put in writing, my concerns about the Russell / South 3rd Street project. It's hard for me to understand, with all of the planning that has been done, that it is still unclear how the preferred alternative effects the parking in front of my property at 1318 and 1320 South 3rd. Let me say again, I would hate to see three Missoula businesses forced out by losing their parking.

186-B The size of the intersection at 3rd and Russell is excessive. Seven lanes on 3rd Street? It is rare that all traffic traveling East and West do not make the light in one stop in the Streets present configuration. One good thing is it doesn't have traffic circles.

Just because the City can get that much of the taxpayers money doesn't mean they need to spend every bit of it.

Respectfully,



Hugh Martinsen
1318 South 3rd W. # 3
Missoula, Mt. 59801



186-A Figure 4-3 and Table 4.4 in the EIS indicates that the structure at 1318 South 3rd Street is a “direct impact.” This means that the structure lies in the path of the back edge of the proposed sidewalk; however, some modifications may be made during the final design process. Where impacts are unavoidable, the City of Missoula and Department of Transportation will work with each individual land owner during the right-of-way acquisition process to negotiate the terms of sale in accordance with the *Uniform Relocation Act* and portions of the City of Missoula’s *Real Property Acquisition and Relocation Policy, Procedures and Guidelines*.

186-B Please refer to response to Comment 73-H regarding the size of the intersection at Russell Street and South 3rd Street.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 187

October 17, 2008

Dear Mr. Wood

I attended many of the Neighborhood Meetings and Public Hearings on the Russell Street/ South 3rd Street improvement project. I won't repeat all the arguments but I support the 3-Plus Russell Street Alternative Plan.

My thanks to all the people who have worked so hard on this project. Obviously it has been very emotional and I think everyone tried to do a professional job.

Mary Ellen Cote
1204 So 4th W
Missoula

Please refer to Appendix G and the response to Comment 27-B for information about how options similar to the "3-Plus" plan fails to meet Purpose and Need.

Thank you for your interest and participation in the project.



Appendix H - Written Comments and Responses

Comment 188

PATRICIA A. HOGAN

October 18, 2008

Gregg Wood
Department of Public Works
435 Ryman St
Missoula, MT 59802

Subject: Response to the DEIS for the Russell Street Reconstruction

Listed here below are my questions and comments on the preliminary preferred alternative (#4) for the Russell Street Draft Environmental Impact Statement, arranged by categories found in Table 7 of the Summary passes out a the public comment meeting on 24 September 2008:



- 188-A** Land Use – Surely the permanent expulsion of residences from the Russell Street corridor, necessitated by the preliminary preferred alternative (#4), must be seen as a land use change, particularly as it results in the separation of the neighborhoods by a heavily travelled corridor?
- 188-B** Social – Access – Improved access by vehicles comes at the expense of access by pedestrians, bicycles, and transit users, not to mention the quality of life in the adjacent residential neighborhoods.
- 188-C** Nor do I trust the projections which dictate that this expansion is necessary. They do not take into account the effect of rising gas prices, slowing economy, and growing mode shift among the community.
- 188-D** Environmental Justice – I disagree that no impacts in this area would follow from the adoption of the preliminary preferred alternative (#4). The loss of eleven homes in the affordable-housing range directly impacts the economically distressed workers of our community. We would do better to adopt an alternative that takes less property.
- 188-E** Business Advancement – I refute the notion that the preliminary preferred alternative (#4) would result in “substantial improvement to business advancement opportunities”. As a patron of local businesses these many years, I find that multi-lane, higher speed corridors diminish my access to the businesses located along them. Often I notice a business I want to patronize, on the spur-of-the-moment. If I am traveling at speeds higher than about 30mph, or find myself in the wrong lane to turn into the business, I simply pass it by, thinking I may turn in at a later date when I am more conveniently situated in the traffic.

1650 South 12th Street West
Missoula MT 59801

(406) 543-5509 - h

188-A See response to Comment 19-B regarding the comparison of impacts across the build alternatives. While there would be direct impact to and removal of several residences and commercial operations under any of the build alternatives, overall land use within the corridor will not change as a result of the proposed project. Please refer to the discussion in Section 4.3 regarding land use and social impacts from the Preferred Alternative.

188-B Access will be improved for both motorized and non-motorized modes of travel through the inclusion of sidewalks, bike lanes, and vehicular travel lanes in the Preferred Alternative.

188-C New modeling efforts were undertaken during the spring/summer of 2009, the results of those efforts are available in Appendix G.

188-D The guidance for assessment of impacts under Environmental Justice requires analysis of “disproportionate impacts.” As noted in the EIS, all of the build alternatives result in impacts to residential and commercial properties. The Preferred Alternative has the least impact to residences as compared to other viable build alternatives. Also see mitigation discussion in Sections 4.3 and 4.4 regarding adherence to acquisition policies.

188-E The Preferred Alternative will not change the posted speed limit, which is currently 30 miles per hour, but will improve business access by reducing congestion which may otherwise divert some customers to other routes or parts of town. Even so, the majority of the businesses in this corridor (auto parts, used cars, hot tubs, building materials, etc.) are not typically impulse shopping destinations.

Final Environmental Impact Statement

Patricia A. Hogan
Response to Russell Street Project DEIS

page 2



188-F For the same reason, I believe this kind of traffic arrangement also leads to rear-end collisions.

188-G Parks and Recreation – Franklin-to-the-Fort neighborhood, my home, is already underserved by parks. Any loss of existing parks cannot be seen as a benefit. Roundabouts at the intersections, on the other hand, could serve to increase the amount of open space in the neighborhood.

188-H Pedestrian and Bicycle – Having to negotiate four or five lanes of traffic to cross a neighborhood street must count as a negative impact for bicycles and pedestrians, including those trying to use public transit. That is why you see no busses on Reserve Street.

Roundabouts at the intersections, fewer lanes, and the slower traffic speeds currently in force along Russell St., would benefit both pedestrians and bicyclists.

188-I For the benefit of all concerned, bus pull-outs and increased funding for the public transit system should be incorporated into this project.

188-J Air Quality – I cannot imagine that air quality will not be impacted as a result of the greatly increased traffic volumes this alternative (#4) will induce!

In view of the traffic congestion resulting from the Reserve Street expansion, we ought to look seriously at the phenomenon of induced traffic demand, and how it will affect the Russell Street corridor.

188-K Noise – If, as indicated, the noise levels are projected to exceed acceptable standards for some of the areas along the Russell Street corridor, and no feasible or reasonable mitigations are proposed, why is #4 still the preliminary preferred alternative?

188-L Water Quality – As probable contamination of groundwater by the increased runoff this alternative (#4) is foreseen in this document, how can we be sure the EPA will provide “the determination that the project is not a threat to contaminate the aquifer”?

188-M For these reasons, as well as for the overall cost and general aesthetics of the plan, I strongly support the citizen-initiated 3-Plus Russell design as a preferred alternative.

Thank you for this opportunity to express my opinions on the Russell Street reconstruction. And thank you for your service.

Sincerely,

Copy: Tom Martin, MDT

188-F Please refer to Appendix G for a summary of the safety analysis conducted for the Traffic Analysis Update.

188-G As noted in the mitigation discussion in Section 4.5 of the EIS, with the addition of landscaped boulevards and medians as well as the green space associated with the trail undercrossings, there will be a net increase in the amount of green space in the neighborhood. The City Department of Parks and Recreation has been actively engaged in identifying potential mitigation for project impacts.

188-H Please refer to Appendix G for a summary of the pedestrian and bicycle safety and operational improvements.

188-I The funding source for this project is outlined in the EIS (see Section 2.7), and these funds are committed through the Long Range Transportation Plan. While the locations are not specifically identified in the EIS, the Preferred Alternative includes construction of bus pull-outs as part of the project. The Preferred Alternative does not preclude additional transit investment through other funding sources.

188-J Please refer to the response to Comment 23-B regarding induced traffic, and Section 4.7 of the EIS for air quality impacts.

188-K Each of the Build alternatives results in an exceedance of noise abatement criteria. The No-Build Alternative results in impacts to 22 residences, and the Preferred Alternative results in impacts to a total of 25 receptors, 12 of which would be removed due to right-of-way requirements, leaving just 13 noise-impacted receptors. See also responses to Comments 120-I and 129-A.

188-L The project has been coordinated with the EPA, and specific design and mitigation elements necessary for regulatory compliance will continue to be coordinated with appropriate regulators during the design stage.

188-M Please refer to response to Comment 27-B as well as Appendix G for a discussion of the dismissal of the “3-Plus” plan as a viable alternative on Russell Street.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 189



President
Bill Bueman
Cherry Creek Radio

Vice President Advocacy
Matt Ellis
Missoula Open Professional Baseball

Vice President Marketing & Events
Blair Lanning-Niklay
St. Patrick Hospital

Vice President Membership
Colleen Rodin
JCCC

Treasurer
Richard Ha
Gahuba, Higgins & Gahuba, P.C.

Past President
Kim Murray
Jazz Ventures/Blue Quest

Board Chair
Brent Campbell
WGMG

Dan Cederberg
Cederberg Law Office

Bryan Flag
First Security Bank

John Harner
First Interstate Bank

Kim Klages
J. Elaine's Bar

Matt Loomis
Baskin Robbins

Brian MacDonell
Community

Julie McFar
The Missoulian

Harry Washburn
Zip Bikes

Kent Watson
Kent Watson & Associates

Racquel Williams
Holiday Inn - Downtown at the Park

Ex-Officio Members
Karl Austin
Downtown Business Improvement District

Edna Buchanan
Missoula Redevelopment Agency

Steve Earle
Mountain Line

Anne Guest
Missoula Parking Commission

Dick King
Missoula Area Economic Development Corporation

Staff
Linda K. McCarthy
Executive Director

Julie Weaver
Debra Haggerty
Susan Goldman
Jennifer Williamson

210 East Main St., Suite C
Missoula, MT 59802
Phone: 406-543-4286
Fax: 406-543-9131
Web: www.missouladowntown.com
E-Mail: mda@missouladowntown.com

October 23, 2008

Gregg Wood
City of Missoula
435 Ryman
Missoula, MT 59802

Gregg,

The Missoula Downtown Association supports the continued efforts to improve Russell and 3rd streets. We see these as key routes to and from Downtown in our community. To that end, we offer the following positions in response to the Russell Draft Environmental Impact Statement:

189-A

■ **Expanded Roadway** – We agree the roadway must be expanded to at least four lanes. However, we would like it to be modeled more after Orange & Stephens rather than Reserve Street. We think the roadway should be designed to enhance the neighborhood rather than be a high speed roadway through the neighborhood.

189-B

■ **Bike Lanes** – We believe bike lanes need to be a part of this construction project, and we are in favor of the proposed under crossings for cyclists and pedestrians.

189-C

■ **Sidewalks** – We believe sidewalks are a key component to this construction project.

■ **No Reserve Street** – We need to avoid the creation of another Reserve Street. We like the Orange/Stephens model better than Reserve Street in terms of design (median, narrow lanes, etc.). We ask that traffic is kept at moderate speeds through limits and design.

189-D

■ **Public Transportation** – Not only must public transportation be included in design elements (i.e. – bus stops), but we should identify how the extra service created by the new roadway will be paid for and subsidized.

189-E

■ **Cost** – We are very concerned that this project could mortgage the future of Missoula transportation projects. Missoula has so many needs that we cannot afford for this project to be overspent. As a result, we hope that a scaled-down version of what has been proposed will be implemented and that implementation will be done in phases. If we build this project all at once, then we compromise our ability to do other projects in Missoula that have similar importance and need. We should carefully manage our resources to phase the project and costs to enable additional projects to flourish at the same time.

In closing, we support this project and realize its importance to Missoula's transportation needs. However, it is our hope that we find ways to get this project completed so as to maintain the integrity of the neighborhood it is in and to avoid delaying every other transportation need in our community due to lack of funds.

Please feel free to contact us should you have any questions or concerns.

Sincerely,

Linda K. McCarthy
On behalf of the MDA Board of Directors and Staff

189-A

The Preferred Alternative contains many of the elements public participants supported from the Stephens Avenue design.

189-B

Bike lanes, sidewalks, and grade-separated crossings are an integral part of the proposed project.

189-C

The current and proposed character of Russell Street is much different than Reserve Street, and no changes in the speed limit are proposed. See also responses to Comments 50-A, 56-A, and 73-C.

189-D

Please refer to response to Comment 188-I regarding bus pull-outs. The Long Range Transportation Plan will identify funding sources for expanded transit services beyond those addressed by this project.

189-E

See response to Comment 31-G regarding project costs. The project will likely be constructed in phases with the first phase most likely extending from Broadway south, including the replacement of the bridge over the Clark Fork. Subsequent phases would be constructed as funding becomes available.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 190

Kevin Hyde
704 Continental Way
Missoula, MT 59803

Re: Comment on Russell Street EIS

The proposal to uniformly widen Russell Street in Missoula to 5 lanes is ill-considered. Such a major highway in the center of town is unnecessary and extremely dangerous.

The Russell Street EIS is critically flawed for the following reasons:

- 190-A** 1. Failure to address highly probable increases in injury and death to pedestrian and cyclists due to higher traffic speeds and longer crossing distances.

Important but of lesser concern:

- 190-B** 2. Failure to address loss of ecosystem and natural amenity services from probable removal of trees to widen the right-of-way.
- 190-C** 3. Failure to address highly probable impacts to water resources due to increases in road surface sediments and toxins available to wash off from the road surface.

- 190-D** I assert that failure to address any of these omissions renders the EIS invalid. Further, failure to address life safety issues may be reasonably expected to result in liability of public officials in the very unfortunate but highly likely event of serious injury and death that could have been prevented by better planning.

s/ Kevin Hyde

- 190-A** Please refer to Appendix G for a summary of the most recent safety and operational analysis of the various alternatives and options.

- 190-B** As noted in Section 4.16 of the EIS, existing vegetation within the right-of-way would be removed. Once construction is completed, new landscaping would be installed in both the median and the boulevards.

- 190-C** Runoff as a result of the proposed project would likely be treated using drywells, or a similar system, which is a commonly accepted and effective method for an application such as this. Final design will be coordinated with EPA.

- 190-D** The EIS has been prepared in accordance with state and federal laws regulating transportation project development. Safety and operational analyses have been conducted in accordance with accepted practices, and are fully disclosed in this EIS. Please refer to Appendix G for more detail.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 191

From: Shirley [mailto:shirleys@lambros.com]
Sent: Monday, November 03, 2008 9:04 AM
To: mdtcommentsrusselleis@mt.gov
Subject: Comment On Russell Street EIS

Greetings,
I strongly feel Russell St must be widened to at least a 5 lane. I would like to see it go all the way to Brooks as a 5 lane.
Thank you, Shirley Simonson

Thank you for your comment and interest in the project. The scope of this project and logical termini do not include an extension to Brooks, as that extension is not included in the Long Range Transportation Plan.

Comment 192

From: Jerry Ford [mailto:jford@montana.com]
Sent: Monday, November 03, 2008 9:38 AM
To: MDT Comments - Russell EIS
Subject: Russell Street

I'd like to know how the businesses between the bridge and 3rd street are going to be accessed; it appears there may be no direct access to most of them. Thanks Jerry Ford

Jerry Ford
Commercial Broker
Lambros Real Estate ERA
3011 American Way
Missoula, MT 59808

State law requires the perpetuation of reasonable land access. During the design and right-of-way acquisition processes, the City and Department of Transportation will negotiate property acquisition and access with each individual property owner.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 193

From: Derf Johnson [mailto:derfjohnson@hotmail.com]

Sent: Monday, November 03, 2008 10:43 AM

To: mdtcommentsrusselleis@mt.gov

Subject: Comment On Russell Street EIS

Hi there,

193-A Im writing to comment on the proposed EIS. First, I would like to voice support for a plan which incorporates a roundabout on 3rd and russell and 3 lanes of traffic including a turning lane. I believe that the current proposal does not reflect the character of the neighborhood nor the future projections for traffic in this area.

193-B I would instead urge the state to work closely with the city to develop a plan for better public transportation and alternative forms of transportation, such as bicycles.

Thanks,
Derf Johnson

193-A Please refer to response to Comment 27-B regarding the failure of the three-lane alternatives to satisfy the Purpose and Need.

193-B The Preferred Alternative includes specific measures to address bicycle and pedestrian travel in the Russell Street and South 3rd Street corridors, and is consistent with the Long Range Transportation Plan Update.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 194

From: Dr Vicki Watson [mailto:vicki.watson@umontana.edu]
Sent: Monday, November 03, 2008 3:20 PM
To: mdtcommentsrusselleis@mt.gov
Subject: Comment On Russell Street EIS--V. Watson

Concerning the Russell Street EIS

194-A I would have liked the time to study this EIS and provide comments, however, the comment deadline coming so close to the national elections and my involvement in that process prevented me from having the time to do this.

194-B I will simply say at this time that I support the neighborhood's 3+ plan rather than the preferred alternative of a 5 lane through these neighborhoods. Russell Street needs to be made more bike & pedestrian friendly. And the proposed 5 lane will make it less so.

194-C We must stop building our infrastructure around a technology that must be phased out in the next couple of decades. We are past Peak Oil production. In a couple of decades, we will pass the peak production of all fossil fuels, including coal. Anything fossil fuel powered will become less and less affordable. Individual vehicles as a mode of transportation will become less and less affordable. Add that to the environmental & neighborhood impact of bigger and bigger roads, and I submit that the preferred alternative should be something smaller, that encourages other forms of transportation, rather than encouraging the individual gas-powered vehicle.

Vicki Watson, 509 Daly, Missoula, MT 59801

194-A The Draft Environmental Impact Statement was advertised and available for public review and comment for 45 days initially, and extended to nearly 75 days after requests for additional time came from the City Council.

194-B Please refer to response to Comment 27-B regarding the failure of options similar to the “3+” plan to satisfy Purpose and Need. The Preferred Alternative provides facilities for both bicycles and pedestrians. See Appendix G for a summary of the recent analysis of bicycle and pedestrian safety provided by the Preferred Alternative.

194-C The Preferred Alternative is based on the documented current and future need for additional system capacity. This capacity projection is based on empirical growth trends supported by three separate analysis processes throughout the study of these two corridors. See also responses to Comments 5-B, 27-A and 116-G regarding the relationship between travel behavior and fuel prices.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 195

To: City of Missoula, Montana Department of Transportation, Federal Highway Administration

From: Bike/Walk Alliance for Missoula, Missoula Institute for Sustainable Transportation, Missoula Advocates for Sustainable Transportation

Subject: Comments for 3rd / Russell Streets Draft Environmental Impact Statement and Section 4(f) Evaluation.

Date: 03 November 2008

Note: For the purposes of this comment the term "agencies" means: The City of Missoula, Montana Department of Transportation, US Federal Highway Administration and HKM Engineering.

Comments as follows:

I.) NEPA VIOLATIONS

NEPA "promotes its sweeping commitment to 'prevent or eliminate damage to the environment' ...by focusing Government and public attention on the environmental effects of proposed agency action," *Marsch v. ONRC*, 490 U.S. 360, 371 (1989). By doing so, "NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct." *Id.*

Similarly the "broad dissemination of information mandated by NEPA permits (the) public and other government agencies to react to the effects of a proposed action at a meaningful time." *Id.* "Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork - even excellent paperwork - but to foster excellent action." 40 CFR 1500.1 (c). As outlined below, the agencies basis for decisions regarding scoping, alternatives, impacts and the course of the public process violates NEPA in a number of significant ways.

A.) Russell Street preliminary preferred alternative, number 4, does not satisfy the purpose and need of the proposed action.

"The Purpose of the proposed project is to provide substantive safety and mobility improvements for all modes of travel in the Russell Street and South 3rd Street corridors"

(Responses to individual comments are provided on the following pages.)

As outlined in the responses to the following comments, the project development process documented in this EIS has been conducted in full compliance with the Council on Environmental Quality's NEPA Regulations (40 CFR Parts 1500-1508), the US Department of Transportation, Federal Highway Administration's Environmental Impact and Related Procedures, Final Rule (23 CFR Parts 635, 640, 650, 712, 771 and 79, and 49 CFR 622), the Federal Highway Administration Technical Advisory T6640.8A, and the State of Montana Environmental Policy Act Statutes (75-1-101 through 324, M.C.A.).

Appendix H - Written Comments and Responses

1.) ALTERNATIVE NUMBER 4 DOES NOT SATISFY THE PURPOSE STATEMENT IN THE FOLLOWING WAYS:

a) SAFETY:

The document fails to adequately express a "hard look" at safety issues as required to satisfy the purpose of the proposed project as further noted:

195-A 1) The preferred alternative actually endorses outdated design features, those being less safe, larger signalized intersections. It does not express any analysis of motor vehicle lane numbers, roadway widths or signalized intersection safety issues related to bike and pedestrian accommodations. We believe the analysis of alternative number 4 should show the projected number and severity of crashes resulting from the traffic volumes and the road configuration being proposed in the DEIS.

195-B 2) There is no substantiation for not adequately addressing or taking a "hard look" at safety issues associated with urban principle arterials. This is especially important now in the Missoula metropolitan area as two recent cyclist fatalities occurred on a well-know urban arterial, Reserve Street, at or near major signalized intersections. In the most recent fatality (June 2008), the detective on the case said that neither the truck driver nor cyclist were at fault, implying that the intersection design was responsible for the cyclist's death.

195-C About safety, considering the aging demographics of our region: "Elderly pedestrians are particularly at risk for injury or death at intersections. Thirty-six percent of pedestrian deaths among people age 65 and older in 1999 occurred at intersections. Many intersections permit pedestrian crossing, yet have signals timed to provide for the maximum movement of vehicles, not pedestrian traffic. (NHTSA 2000) ". This is especially important, given that a number of analysts, including the Center for the Rocky Mountain West, have noted that one of the fastest growing population cohorts in the northern Rocky Mountains and Montana, and especially the state's urban areas such as

195-D Missoula, is senior citizens. The most prominent group representing American residents aged 55 and over, AARP, has found in surveys that its millions of members increasingly prefer walkable neighborhoods with safe streets on which to walk, with adequate walking facilities and safe crossing circumstances on roads serving neighborhoods and commercial areas. The DEIS fails to evaluate the safe transportation needs of this growing part of the population.

195-E Another note about the importance of intersection safety as a priority criterion over and above capacity concerns regarding potential roundabout / 3 lane alternatives: "Far fewer crashes occur at intersections with roundabouts than at intersections with signals or stop signs. A study conducted in Maine of 24 intersections before and after the construction of roundabouts showed a 39 percent overall decrease in crashes and a 76 percent decrease in injury producing crashes. Collisions involving fatal or incapacitating injuries fell by almost 90 percent. (IIHS, 2000)".

Design elements were incorporated using current state of the practice design standards. Several alternatives were developed for the Russell Street corridor to address multi-modal safety and capacity concerns. The number of motor vehicle lanes, lane widths, and intersection controls are fundamental inputs that the Highway Capacity Manual methodology factors into the analyses. The detailed traffic analysis updates presented in Appendix G included collecting new traffic volumes, developing growth rates for the corridor, and estimating future year 2035 traffic volumes using the updated travel demand model. Existing and future year 2035 traffic volumes and motor vehicle lane numbers are presented in Table 1.

An analysis of signalized intersections and tradeoffs associated with traffic signals are presented in Appendix G. Both intersection and corridor treatments, presented in Appendix G, can enhance the safety and operational environment for pedestrians and bicyclists on a signalized corridor.

195-B The incident referred to occurred at a ramp connecting Reserve Street to West Broadway Street. There is no such feature existing or proposed on Russell Street. The safety analysis in Appendix G indicates that the Preferred Alternative is projected to have 30 percent fewer vehicle crashes than that of the No Build on Russell Street. The update focused on traffic operations, safety, and multimodal operations in the corridor. The safety analysis associated with each alternative used the most current safety analysis tools (AASHTO Highway Safety Manual) to assess the relative safety to traffic, pedestrians, bicyclists, and transit. The various needs of a full range of user groups (including the elderly) are considered in the development of these standards.

195-C Regarding safe crossing circumstances, the Manual on Uniform Traffic Control Devices (MUTCD) is "the national standard for all traffic control devices installed on any street. (23 CFR 655.603)" Part 4 of the MUTCD governs the design and installation of traffic signal controls, including provisions for pedestrian signal timing. Further, MCA 61-8-202 directs the Montana Department of Transportation (MDT) to adopt a manual to conform to the MUTCD. MDT discharged this duty by formally adopting the most recent (2003) edition of the MUTCD on June 30, 2004. The governing national standard will be adhered to during the project development process in compliance with the regulatory requirements and standard of care.

195-D Pedestrian clearance times will be consistent with the MUTCD current edition. The 2008 edition increased the minimum clearance time standards in consideration of slower-paced pedestrians. The elderly, children and disabled who often walk at a slower pace will be afforded sufficient clearance time to safely cross the street.

195-E The safety analysis contained in the FEIS outlines the differences between each of the Build Alternatives. It should be noted that the selection of signalized intersections on Russell Street was a result of impacts to protected Section 4(f) properties rather than either safety or capacity advantages. Please refer to responses to Comments 3-B, 46-C, 75-F and 146-G, as well as the analysis in Appendix G.



Final Environmental Impact Statement

195-F Also note: appendix A, FHWA Roundabout guide states "Roundabouts have been demonstrated to be generally safer...than other forms of at-grade intersections." Safety at roundabout intersections has proven to be far superior for roundabouts than signalized intersections according to a recent overview of the technical literature by Tom Vanderbilt (*Traffic*, Random House, July 2008). According to Vanderbilt's survey of traffic engineering, four-way signalized intersections have 56 "points of conflict" whereas roundabouts reduce the points of conflict to as few as 16. The DEIS fails to adequately analyze and weigh the safety benefits of roundabouts, and therefore fails to ensure that the preferred alternative achieves the project purpose, as it relates to safety. The preferred alternative is likely to reduce safety from the current situation.

195-G 3) 2.3 pg 2-31: States "...crash history in the Russell and...reveals that most vehicle crashes occur at congested intersections along these routes." This is a statement supportive of the need to provide better analysis for safety as a priority and to further analyze roundabout intersection alternatives, as intersections in general experience higher crash rates than other lane-miles of roadways. The use of the term "congested" is subjective unless placed in the context of some scale or standard and should not have been used in this context. It is essentially a loaded word that here-in is inappropriately used to compel the reader toward certain conclusions such as a desire to open or flow. As this document should be intended to provide a neutral evaluation of options, the inclusion of the word "congested" is indicative of a predetermined outcome or motive to substantiate or promote an action or build alternative.

195-H 4) 2.3 pg 2-30: Table 2.3, Criteria evaluation matrix; "Provide adequate travel lanes...target level of service.", substantiates that the DEIS has been constructed to support a predetermined outcome that prioritizes motor vehicle capacities over safety and arbitrarily ignores or eliminates analysis or consideration of other options for this corridor. Furthermore, there is no analysis or discussion as to whether a rigid requirement of an "acceptable Level of Service" is an admirable or even a preferable goal. The results of the analysis as examined in this table do not support the purpose of this proposed project.

195-I 5) Further concerns about the preliminary preferred alternative are found at 2.4 pg 2-39: The screening process is invalid due to not analyzing (and subsequently screening) for safety as the primary emphasis of the purpose statement. 2 lane facilities with median turn pockets and single lane roundabouts are well-known to be the safest facilities for all users (and coincidentally have the most efficient through-put generally and at all times of day and night). Thus based on safety concerns alone, a preliminary screening should have eliminated Alternatives 4 and 5, or any potential alternative with 4 or more lanes.

195-J Furthermore the screening process is invalid for not initially modeling (screening) for "mobility improvements for all modes." The screening criteria as offered in the DEIS are indicative that there was a predetermined outcome and bias which eliminated any further substantive rational analysis of any alternative except for a 4/5 motor vehicle lane facility.

195-F As noted above, please refer to Appendix G for a summary of the safety analysis conducted as part of the Traffic Analysis Update, and the finding that the Preferred Alternative provides safety improvements over the current and No Build conditions.

195-G Congestion does in fact play a substantial role in the safety of an intersection. The analysis is based on volumes passing through the intersection which, regardless of how they are characterized in terms of level of service or congestion levels, results in a break-down in operations and sacrifices in safety. "Congestion" is defined in the EIS as "Significant Delays. Unstable traffic flow. Speeds change quickly and maneuverability is low." (See Figure 1-4 in the EIS). Further, "congestion" is a legitimate concern and basis for improvements in accordance with Federal Highway Administration guidance (TA 6640-8A).

195-H The project team identified a "target" level of service knowing that there are substantial constraints in this corridor that would make it difficult to adhere to a specific threshold. There was in fact, no rigid requirement for any specific level of service, but a relative comparison of viable alternatives and their life-cycle advantages. Alternatives 2 and 3 fail to provide any substantive improvement in capacity beyond 2010, as documented in Chapter 2 and Appendix G, thus were not considered viable. Other alternatives with varying lane and intersection configurations were compared against the Purpose and Need to provide substantive safety and mobility improvements, and with regard to costs and impacts to identify the Preferred Alternative.

195-I The statement of Purpose and Need has a dual focus on safety and mobility. The Traffic Analysis Update (summarized in Chapter 2 and Appendix G of the EIS) documents the safety analysis, and indicates that the two and three-lane facilities provide higher safety improvements at the roundabout intersections, but lower safety improvements along the mainline segments as compared to the four and five-lane alternatives. In conjunction with the mobility advantages of the four and five-lane alternatives, this analysis supports the elimination of Alternatives 2 and 3, and confirms that Alternatives 4 and 5 provide substantive safety and mobility improvements.

195-J Alternatives 2 through 5 on Russell Street, and B through E on South 3rd Street accommodate bicycles and pedestrians to the same degree. Only vehicular traffic (including buses) are affected by the lane configuration differences between the alternatives. Each of these Build alternatives provides substantial safety and mobility improvements for all modes as compared to the No Build condition.

Appendix H - Written Comments and Responses

195-K 6) 2.4 pg 2-44 states Alt 5 was vigorously explored "as the locally preferred alternative". That is an erroneous and presumptive statement as the community never explicitly stated any preference for a 5 lane facility. This notation in the DEIS and the convolution of the Citizen Advisory Committee and Community Report information to support Alt 5 as the community's preference, is highly indicative of a predetermined outcome. The community has overwhelmingly supported safety as an overriding preference, which is contrary to the statistically well known low level of safety of 4/5 motor vehicle lane roadways, compared to alternative 2/3 motor vehicle lane facilities. Missoula's experience with 4/5 motor vehicle lane roadways has been extremely problematic, with proportionately greater levels of fatalities. In fact, the City of Missoula and the Montana Department of Transportation have had to retrofit an existing 4 lane roadway (West Broadway between Orange and Russell streets) because of a high occurrence of pedestrian fatalities.

195-L

195-M 7) Aspects of the goals and objectives category are in conflict with the purpose of the proposed project to "...provide substantive safety ...improvements...". At 1.6 pg 1-16: Goal: Improve safety and mobility, Objective bullet 1 "Provide adequate travel lanes and turn lanes...." does not support the purpose statement and is in direct contradiction with Objective bullet 4 "provide design and traffic control measures to IMPROVE SAFETY.". **195-N** You cannot simultaneously improve safety and provide adequate (the implied meaning: more) travel lanes, and especially cannot improve safety by facilitating motor vehicle turning actions which increase points of conflict and high speed crashes. It may be feasible to say: safe to the extent possible for a given design. But generally, mobility and safety are at odds against each other and should be considered in separate goal categories.

195-O 8) Health and safety are interrelated and, given that providing substantive safety improvements are a stated priority purpose of this project, the document should examine the existing and future health effects of the corridor/roadway on residents in the proximity, and on users of the corridor.

195-P Safety and the perception of safety are now recognized as an important component of personal and community health. From the US Dept of Health and Humans Services report, "The Physical Activity Guidelines for Americans" in Chapter 8: Taking Action: Increasing Physical Activity Levels of Americans, states: The low level of physical activity among Americans is a major contributor to the burden of chronic disease. This burden is costly in terms of quality of life and economic resources needed to provide medical care. Like life in other modern societies around the world, life in the United States requires very little daily physical activity. The amount of physical activity we do is largely a matter of personal choice and the environmental conditions under which we live. So far, little progress has been made in meeting our national health objectives for physical activity.". Further on in this US DHHS report it notes that: "The transportation sector has a lead role in designing and implementing options that provide areas for safe walking and bicycling. Mass transit systems also promote walking, as people typically walk to and from transit stops. Programs that support safe walking and bicycling to school help children be more physically active.".

195-K The term "locally preferred alternative" refers to the preference of the City of Missoula over the preference of the Department of Transportation and/or Federal Highway Administration. The decision-making parties were in agreement that a five-lane facility was required to accommodate future demand. The City of Missoula expressed a preference for roundabout intersection control as provided in Alternatives 5 and 5-Refined. Each of the Build alternatives were developed with the community-expressed preference for a street design like Stephens Avenue, and fully incorporate the concept of Context Sensitive Solutions. (See also the performance summary in Appendix G).

195-L See response to Comment 120-E regarding modifications to West Broadway Street.

195-M Research indicates that traffic volumes play a substantial role in the safety performance of urban routes. Federal Highway Administration data suggests improved safety with capacity improvements on congested roadways and segregated through traffic and turning traffic. See additional discussion on the benefits of turn lanes in Section 2.1 of the EIS.

195-N As noted above, additional capacity can result in improved safety. The recent Traffic Analysis Update supports this conclusion.

195-O The project complies with all applicable Clean Air Act requirements, which are enforced by the Environmental Protection Agency in order to protect public health. Further, there is no scientific analysis to indicate that roadways inherently result in significant adverse health affects on a community (beyond those already addressed such as air and water quality), nor were public health concerns noted during early scoping for this project, thus no detailed analysis was conducted.

195-P The Preferred Alternative includes facilities to accommodate bicycle and pedestrian travel along and across Russell Street and South 3rd Street. Please see response to Comments 36-A and 120-G regarding the provision of bicycle and pedestrian facilities and the numerous crossing opportunities.



Final Environmental Impact Statement

b) MOBILITY IMPROVEMENTS:

- 195-Q** 1) Exec Summary (ES) pg 7, The document's traffic analysis presumes that there would be no bus service along Russell south of 5th. The preferred alternative provides no investigation or analysis for potential mode shifting to transit. There should be a complete professional analysis of potential transit infrastructure and programmatic upgrades along the whole Russell corridor. In public meetings, consultants and city officials repeatedly stated that one way to meet future traffic demand in the Russell Street corridor is to shift as much as 30 percent of total travel to non-automobile modes, such as walking, cycling and transit. Yet the traffic analysis and alternatives do not include complete bus transit facilities on Russell Street. The failure of this analysis is even more profound when considering that, over the last year, Missoula residents have shown the greatest shift in demand FOR bus transit services. In year-over-year performance (July 2007 to July 2008), Mountain Line saw a 32% increase in transit ridership. This demonstrates that the DEIS is based on out-dated assumptions and information. The DEIS and analysis must be based on current data, not irrelevant data from years ago.
- 195-R** 2) 1.3 pg 1-4: The preferred alternative (#4) does not provide a "hard look" examination of substantive mobility improvements for bicycles, pedestrians or transit. The preferred alternative presumes that adding grade-separated trails, bike lanes and sidewalks is a mobility improvement; but it does not provide a credible, quantified "hard look" examination of bike/pedestrian, roadway relationships. The document should show the counts/numbers/studies to show that there would be an improvement of cyclist and pedestrian mobility. Additionally it should distinctly define the term modes and multi-modal. There is no substantial analysis or "hard look" at mobility and capacity improvements through multi-modal enhancements, to provide support of the preferred alternative. There is no comparative analysis with other similar corridors serving Missoula. For example, although Reserve Street is a corridor with cycling and walking facilities, it appears that there is not much cycling or walking activity. Periodic observations indicate that few cyclists or pedestrians use Reserve Street, despite the presence of cycling and walking facilities. The DEIS should contain an analysis of similar facilities in Missoula to determine if the Russell Street preferred alternative will substantially improve mobility for cyclists, pedestrians, and transit users.
- 195-S**
- 195-T**
- 195-U** 3) Another example of failing to take a "hard look" at mobility improvements is noted at 4.5 pg 4-18. The text should note that there are currently existing trails under both north and south ends of the river bridge. To state that the project would create "connections" is incorrect as the trails do not currently extend westerly past the Russell Street Bridge. There should be an examination of how many people use the existing trails which currently cross over and under Russell Street, and what are the projected trail user numbers of the preferred alternative. Also what, if any, future trail expansions are expected in order to achieve "connections".

- 195-Q** Nothing in the Preferred Alternative precludes or discourages other modes of travel, and may enhance the opportunity for bus service in the southern portion of the corridor in the future. Assumptions regarding bus service were coordinated with Mountain Line based on current and reasonably foreseeable service at the time of release of the DEIS. The traffic data used, which includes assumptions on mode splits between motorized, non-motorized, and transit usage, were derived from the Long Range Transportation Planning process conducted by the Missoula Office of Planning and Grants in coordination with the Montana Department of Transportation. Dramatic changes in mode splits are not predicted at the regional transportation planning level and thus are not incorporated into the project assumptions. The Traffic Analysis Update included a sensitivity analysis and did not identify the potential to shift enough traffic to eliminate the need for vehicular capacity improvements.
- 195-R** The Build alternatives provide the same improvements for non-motorized travelers within the Russell Street and South 3rd Street corridors. The DEIS included an analysis Bicycle Quality of Service and the Traffic Analysis Update included a comparative analysis of bicycle and pedestrian safety among the Build Alternatives. Each of the Build alternatives examined provides substantial safety and mobility improvements over existing conditions and the Preferred Alternative provides the greatest overall improvement for all modes.
- 195-S** Mode refers to an individual travel choice, such as a single-occupant vehicle, bicycle, or bus. Multi-modal refers to a facility that would accommodate several individual modes.
- 195-T** Each corridor is unique in form and function and is driven in part by adjacent land uses. The LRTP provides a comparative analysis of links in the network, while the EIS takes a more detailed look at a particular corridor within the network.
- 195-U** Please see photos of existing under-crossings at the Clark Fork River bridge now included in the FEIS in Section 3.5. The informal trails currently crossing under the bridge will be fully reconstructed to provide accessible, paved, multi-use paths. The text in Section 4.5 specifically states that a 'connection' is made to the sidewalks on both sides of Russell Street and does not imply connection to a trail system west of the bridge, although these improvements will also tie into the trail projects implemented with the Equinox development located north and west of the bridge. These trail connections were proposed in coordination with the developers of the Equinox site as well as the City Parks and Recreation Department and their existing and planned trail network throughout the corridor.

Appendix H - Written Comments and Responses

195-V 4) 2.2 pg 2-6 states "...it was determined that ped/bike tunnels would be preferable to an overpass structure...". No substantiation or citation is offered for this assertion. There is no comparative analysis of cost, safety, physical constraint or community preference offered for different potential bike/ped crossing alternatives. Thus there is no ability to make a reasoned decision regarding this component of the preferred alternative.

195-W 5) An attempt to justify capacity concerns, found at 1.4 pg 1-6: states: "...Envision Missoula Survey suggests that most Missoula citizens ranked "Expand Roadway Capacity" as their dominant choice of transportation improvements in Missoula.". This is a misleading assertion and an example that there was not a "hard look" at current transportation plans as the Envision survey showed that only 28 percent of people in the area said they felt expanding road capacity would most improve the transportation system. (see Missoula LRTP Findings Report). Furthermore the survey showed that 14 out of the 15 top public choices for improvements were an endorsement of safety, cost savings, bicycling, walking and transit enhancements over a desire for changes to accommodate motor-vehicles. This erroneous use of the survey data from the Envision Missoula survey indicates bias on the part of the agencies involved in development of the project.

195-X 6) "Mobility improvements for all modes" are part of the purpose of this proposed project. As previously stated, there is no analysis or discussion as to whether a rigid requirement of an "acceptable Level of Service" is an admirable or even a preferable goal. Achieving a desired level of service is not stated as a purpose of the proposed project; yet the document extends motor vehicle level of service modeling and prognostications as justification for elimination of other reasonable and potential alternatives. This is further indication that there was a pre-determined outcome related to a single-minded desire to accommodate motor-vehicle capacity.

195-Y The document fails to significantly take a "hard look" at the potential for multi-modal enhancements and it fails to adequately take a "hard look" at safety issues to the extent necessary to satisfy the purpose of the proposed project. These failures are indicative that other alternatives were arbitrarily and capriciously eliminated and that the Russell Street preferred alternative number 4 is a reflection of a pre-determined outcome related to a single-minded desire to accommodate motor-vehicle capacity.

2.) ALTERNATIVE NUMBER 4 DOES NOT SATISFY THE NEED STATEMENT IN THE FOLLOWING WAYS:

1.4 pg 1-4: Need for the Proposed Action; it is stated that: "The need for this transportation improvement project is generally established through an examination of characteristics such as..." then it offers a broad array of conditions that supposedly substantiate need. For this particular project it is stated: "The need for improvements in these two corridors is based on a lack of future system capacity and lack of sidewalk connectivity."

195-V This is considered largely a design detail and can be assessed during the design process. The EIS provides flexibility in this decision as the project progresses. The final decision is likely to be based on what best satisfies the safety and mobility needs in light of right-of-way considerations, cost, and constructability issues.

195-W The language in the EIS has been modified to clarify the findings of the survey. "Expand Roadway Capacity" was the leading, dominant choice at "approximately 29 percent" as reported in the 2008 *Missoula Long Range Transportation Plan*. (p. 2-18) The *Plan* continues to report that, "Residents indicated that expanding road capacity, improving safety, and improving public transit all are believed to improve transportation in the Missoula Valley more than improving bicycle or pedestrian facilities." (p 2-19)

195-X There was no rigid test applied during the initial analysis of alternatives. Subsequent to the DEIS, the Traffic Analysis Update conducted a multi-modal level of service analysis, which assesses the relative safety and mobility experience for bicyclists, pedestrians, vehicular traffic, and transit users. This analysis indicates that the greatest mix of safety and mobility improvements for all modes are provided by the four/five lane alternatives, while the two/three lane alternatives provide the least combined benefit. (Please refer to Table 4 in Appendix G). Based on these analyses, the two/three lane alternatives were eliminated due to a failure to provide substantive safety and mobility improvements for all modes.

195-Y As noted previously, each Build Alternative was specifically intended to provide multi-modal enhancements through the provision of boulevard sidewalks, dedicated bike lanes, and improvements in vehicular capacity through various lane and intersection configurations. Each Alternative and subsequent Option developed during the Update were reviewed for consistency with the Purpose and Need. Those that failed to provide substantive safety and mobility improvements for all modes were eliminated from further consideration. The recent Traffic Analysis Update indicates that the Preferred Alternative best satisfies the stated Purpose and Need.

Final Environmental Impact Statement

195-Z **The document is primarily structured to substantiate data regarding future system capacity. However it largely ignores or does not address: relative crash history, lack of roadway network linkages, inadequate transit accessibility or bike facilities, and outdated design features. As such, in violation of NEPA, there was an arbitrary elimination of any significant consideration or incorporation of these other needs for this proposed action.

a) FUTURE SYSTEM CAPACITY

195-aa 2.7 pg 2-63: Phasing "...If no substantial changes have occurred ..." The term "substantial" needs to be well defined with the quantitative numbers, dates and terms which may trigger re-evaluation. Use of the term "substantial" allows for arbitrary application of changes during phasing or dismissal of concerns about traffic counts or ground condition changes over time. This is also indicative that there was not an adequate analysis or "hard look" at concerns regarding future system capacity.

b) SIDEWALK CONNECTIVITY

195-bb The document exhibits a failure to take a "hard look" at sidewalk connectivity necessary to satisfy the statement of need. As noted at 2.2 pg 2-11: Alternatives Analysis. Alt 1 (figure 2-4), does not accurately depict the ROW widths, nor existing sidewalks between 3rd to 5th, and 5th to 6th. The current cross section has turn lanes, hence differs significantly from the document's graphic depiction. Also, particularly for this section, there should be a depiction/inventory of existing sidewalk, curb and gutter. It is not all varied width shoulders as depicted in figure 2-4. Nor does the document discuss sidewalk connectivity with side and parallel streets. There was not an adequate analysis or "hard look" at concerns regarding sidewalk connectivity.

B) THE AGENCIES FAILED TO PROVIDE AND ANALYZE A REASONABLE RANGE OF ALTERNATIVES

Consideration of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. "[A]n agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action, and sufficient to permit a reasoned choice." This should include reasonable alternatives not within the jurisdiction of the lead agency.

NEPA mandates that agencies study, develop, and describe appropriate alternatives to recommended courses of action in any proposal. The agencies failed to properly provide, consider or analyze a reasonable range of alternatives as exhibited by the below noted deficiencies, dismissals and omissions:

195-Z The text cited comes from a Federal Highway Administration Technical Advisory on environmental document preparation. This Advisory provides guidance, but is not intended to be a checklist included in every NEPA document. The Advisory states, "The following is a list of items which may assist in the explanation of the need for the proposed action. It is by no means all-inclusive or applicable in every situation and is intended only as a guide." In this case, the applicable issues identified in the Long Range Transportation Plan included traffic congestion, the lack of continuous bicycle and/or pedestrian facilities, and an accident history at the Russell Street and South 3rd Street intersection. While the other issues raised in the comment could be applicable to this project, they are not necessarily the primary concern sparking interest in making transportation investments in these corridors. The project as proposed is consistent with the Long Range Transportation Plan and the Long Range Transportation Plan is the appropriate forum for the other considerations declared in the comment.

195-aa A re-evaluation will be governed by the terms of the implementing regulations for the Federal Highway Administration under Environmental Impact and Related Procedures. Specifically, consultations will follow the requirements of 23 CFR 771.129 and will determine whether the decision is valid before the next action proceeds.

195-bb Figure 2-4 is illustrative, not analytical. The inventory is included in Sections 3.5 and 3.6, and the analysis included in Sections 4.5 and 4.6. Sidewalk connectivity outside the immediate Russell Street and South 3rd Street corridors is beyond the scope of this project, as the Purpose and Need is to provide enhancements within these corridors. Further, each of the Build alternatives would provide the same level of improvement in connectivity as compared to the existing and No Build conditions, thus, no detailed analysis was conducted.

Appendix H - Written Comments and Responses

195-cc 1) "Mobility improvements for all modes" are part of the purpose of this proposed project. Achieving a desired level of service is not stated as a purpose of the proposed project; yet the document extends motor vehicle level of service modeling and prognostications as justification for elimination of other reasonable and potential alternatives. This is further indication that there was a pre-determined outcome related to a single-minded desire to accommodate motor-vehicle capacity.

195-dd 1a) The above is further supported by the narrowly defined alternatives which did not exhibit a review or discussion of potential alternatives for converting the thoroughfare (or portions thereof) to options such as a bus-rapid-transit orientation; bike-ways; HOV lanes; alternative commercial truck routes, closure/removal of the river bridge; historic configuration (closure at Bitterroot Branch); couplet-ing with Catlin Street; or conversion to a neighborhood street.

195-ee 2) Regarding Executive Summary (ES) pg 3: There is a bias and pre-determined outcome exhibited by the limited number of Russell Street alternatives ... All 5 alternatives primarily address numbers of motor vehicle lanes, which reflects a bias toward a pre-determined outcome. Stating curb, gutter, sidewalk, lighting, boulevards, etc. as a component of "Alternatives" is disingenuous as those items, be they necessary to satisfy the purpose and need, are routinely required by the city in roadway construction and reconstruction projects; essentially they are "window-dressings" in this document. The primary components of the only offered alternatives are motor vehicle lanes.

195-ff The narrowly defined alternatives do not allow for review or public comment/input on potential alternatives for converting the thoroughfare to a bus-rapid-transit orientation; bikeways; HOV lanes; potential alternative commercial truck routing. In addition, the

195-gg alternatives fail to look at a "blended" approach which was suggested by the citizens advisory committee before it was disbanded in 2001. This approach would not have had a uniform number of travel lanes but would have adjusted the number of travel lanes based on the district which was being served by the adjacent roadway (eg four lanes in the commercial-serving district between Broadway and S. 3rd Streets and three lanes in the residential serving district between S. 3rd Street and S. 14th Street).

195-hh 3) ES pg 3 and Appendix B pg 5 do not agree in their depictions of lane configurations regarding Russell, S 5th to S 3rd. Which configuration is being proposed for Alternative 2? This is an important component of alternatives analysis and precludes the ability to provide a reasoned decision. It is also indicative of a failure to take a hard look and appropriate evaluation of the alternatives.

195-ii 4) ES pg 4 Summary Evaluation chart does not contain Alternative number 1. The chart needs to be lucid so it is clear what would not be taken. ie zero homes, zero commercial buildings, Zero 4(f) properties, etc.. Exposition and review of all data regarding all alternatives is absolutely necessary to permit a reasoned choice.

195-cc A full range of multi-modal alternatives were analyzed in the DEIS. Since each of the Build alternatives provided at least some improvement in mobility for bicyclists and pedestrians through the inclusion of dedicated bike lanes and boulevard sidewalks, there was a substantial amount of discussion on the operational differences between the various vehicular lane configurations across alternatives. Alternatives were not dismissed due to a failure to achieve a threshold level-of-service, but rather due to their inability to provide substantive improvements in safety and level-of-service. Please refer to response to Comment (195-X above) for further information.

195-dd The potential alternatives outlined would not independently address the stated Purpose and Need by providing any measurable impact on either safety or mobility for all modes of travel. See also response to Comment 5-D regarding the potential for future conversion to bus/HOV lanes.

195-ee See response to Comment 195-A and 195-cc above regarding the elements of the Build alternatives.

195-ff See response to Comment 5-D regarding the potential for future conversion of the Preferred Alternative.

195-gg A "blended" approach was analyzed as part of the Traffic Analysis Update and failed to provide substantive safety and mobility improvements. See Appendix G for more information. It is also important to note that as a major arterial, Russell Street does not simply serve the adjacent district as suggested in the comment, but rather serves area-wide travel needs.

195-hh Thank you for pointing out the error in the table and conceptual graphics. This has been corrected. The analysis was based on a four-lane section between South 5th Street and South 3rd Street as depicted in the detailed graphics in Chapter 2, Section 2.3.

195-ii Alternative 1 and Alternative A are now referenced in the table.



Final Environmental Impact Statement

195-jj

5) 2.3 pg 2-32: The simplistic presumptions / analysis offered about the "hourglass effect" did not address the design of the roadway and lane striping and how that affects motorist lane "choices" and queuing. This has been brought to Missoula's attention via the West Broadway Corridor study consultants who explained that eastbound Broadway motorists who were being "trapped" in the Toole Street left turn lane could be, through a very simple re-striping, routed into the thru lane with the left turn lane later presenting itself as an option. The DEIS examples did not analyze the potential for altering the "queuing" behavior of motorists, through design and striping features, that could potentially diffuse the motor-vehicles into both travel lanes thru the intersections of other alternatives. Related to these assertions about queuing behaviors, further analysis of improved intersection efficiency is warranted upon review of Appendix A, FHWA Roundabout Guide, Chapter 8 regarding bottlenecks in urban roadways: "A focus on maximizing intersection capacity rather than widening streets may therefore be appropriate.". And: "...roundabouts may require more right-of-way at the nodes, but this may be offset by not requiring as many basic lanes on approaches, relative to signalized arterials." This is further indication that there was not a reasonable range of alternatives to make a reasoned decision.

195-kk

6) 2.3 pg 2-38: Table 2.8, Preliminary estimated costs. There is no examination or cost analysis of an alternative built within the existing right-of-way. Such an examination would certainly exhibit much lower costs than all other build alternatives due to not necessitating: acquisition of structures, resident and business relocation costs, utility relocation, expansive paving, excessive lighting, potential concerns with underground storage tanks; and could lower administrative fees related to all the aforementioned reduced impacts. Nor does this table exhibit the perpetual operating costs. Alternatives 2 and 3 propose narrower rights of way, thus the document should state clearly why those costs are higher than those alternatives with wider ROW.

195-ll

Further there should be an analysis of an alternative similar to Alternative 2 but with single lane roundabouts and narrower medians (where feasible away from left turn pockets). Such an analysis would show that the assertions regarding no substantial savings in cost or minimization of impacts (see page 2-40) would then be erroneous and possibly biased.

195-mm

7) 2.6 pg 2-61: Other alternatives considered but eliminated: Transportation Demand Management (TDM). The document eliminates the potential for TDM with a simple notation from FHWA that it is "usually relevant only for major projects proposed in urbanized areas over 200,000 population.". Note that FHWA does not summarily preclude considering TDM as a potential alternative; just that it may not be relevant. Eliminating consideration of TDM as an alternative, and failure to analyze TDM as a potential component of any forwarded alternative was an arbitrary and capricious decision. It is even more arbitrary and capricious when considering the statements of the project consultant (HKM) that TDM – ie shifting up to 30 percent of future transportation demand – was one alternative to expanding Russell Street. Further, TDM is considered one of the most vital parts of the City of Missoula's transportation strategy. The DEIS should contain a complete TDM strategy and alternative for the Russell Street corridor.

195-jj

Extensive analysis was conducted on the operations of the corridor. As explained in the hourglass discussion in Section 2.3 of the EIS, and consistent with the Federal Highway Administration text cited in this comment, the intersections were analyzed first (as both signal and roundabout controlled). Several rounds of analysis and the Traffic Analysis Update conclude that intersection improvements alone cannot accommodate the demand, and two additional through-lanes are necessary to provide substantive improvements.

195-kk

Alternative 2 includes bike lanes, boulevard sidewalks, curb-and-gutter, and intersection improvements, and provides two through-lanes for motor vehicles from the Mount Avenue to the Wyoming Street intersections. This alternative requires over four acres of new right-of-way. No alternative that meets the Purpose and Need of improving safety and mobility for all modes can be accommodated within the existing right-of-way. Please see response to Comment 19. With regard to operating costs, the agencies are committed to maintaining the roadway network in its current and improved condition. The difference in operating costs between the various alternatives is minimal and not a factor in overall selection of the Preferred Alternative.

195-ll

Installation of single-lane roundabouts degrades the operation of the key intersections in the Russell Street corridor as compared to existing conditions. Thus, such an alternative fails to meet the Purpose and Need to provide substantive safety and mobility improvements for all modes. Please refer to Appendix G for a summary of the analysis.

195-mm

TDM is an integral part of the transportation solution in Missoula to the extent that it is included in the Long Range Transportation Plan, and is included as a background assumption in the modeling efforts used to predict future travel volumes on Russell Street, South 3rd Street, and across the network. The Traffic Analysis Update included an exercise to account for the impact of a substantial reduction in the traffic forecast through a mode shift. This analysis did not yield a result that would suggest TDM would be a viable stand-alone alternative. For these reasons, TDM has been dismissed as an independent alternative to address future travel demand, with the understanding that it is an inherent part of the travel demand forecast.

Appendix H - Written Comments and Responses

195-nn 8) 2.6 pg 2-62: Alternatives Considered But Eliminated. E-W underpass connection of River Road. There was an arbitrary dismissal of this option by not providing rational analysis. Arbitrarily stating that a car might get trapped under the bridge during a flood; it is unclear what are the examples, standards or studies about this scenario. If this is primarily a safety issue and the potential for a car getting trapped is a standard which necessitates eliminating the option; then signalized intersections should be eliminated as there is a statistically very high potential of serious injury or death at signalized intersections. Also, merely stating that raising the elevation of the bridge is not feasible due to the Broadway/Russell intersection, is not an adequate analysis. What would be the dimensions and constraints? There should be analysis or exposition as to why the bridge could not be higher over the south side of the river? This component is very much related to neighborhood impacts/bypass road behind the Mobile City mobile home court in the Garden City Harvest's garden area. Additional evaluation about the bridge height should be addressed with consideration of Appendix D letter from Fish and Wildlife Service recommending additional bridge length as a means of addressing riparian impacts.

195-oo

195-pp 9) 2.6 pg 2-62 Partial Closure of Russell Street. There is a failure to provide analysis to the alternative of closing Russell Street north of the West Broadway intersection. The document arbitrarily and capriciously eliminates this alternative by erroneously stating that "...it would conflict with local transportation plans...". It does not state how this would conflict, and furthermore, as of Sept 2008 there are no funded, recommended or unfunded projects planned for the section of Russell Street north of West Broadway. Indeed, there is indication that there may be bias within the Missoula Public Works Department toward a pre-determined outcome for the Russell Street corridor. These concerns about bias were raised at a recent City of Missoula Public Works hearing, when a staff member reportedly stated that a top priority is to connect Russell Street to an interchange with Interstate-90, implying the need for an expansion of Russell Street not only in the study area but also north of W. Broadway. A fair analysis and discussion of the option to close Russell Street at West Broadway must be conducted in order to provide for a reasoned decision about this alternative.

195-qq 10) 3.8 pgs 3-20 thru 3-23: Noise receptors /predictions tables should show evaluation of all the considered alternatives; not just current and 20 year no-build noise levels. This is a complete failure to adequately analyze alternatives to the extent necessary to make a reasoned decision. A primary concern of residents in the impacted neighborhoods is noise.

195-rr 11) 5.4 pg 5-9 Avoidance Alternatives: states the only complete avoidance alternative available is the no-build alternative. This is an incorrect assertion as there is a citizens' plan for Russell Street reconstruction which shows that it is possible to provide an enhanced and upgraded roadway which would provide capacity improvements, (and) that avoids impacts to existing homes. See: russellstreet.org for more information.

195-nn Grade-separated intersections are comparatively more expensive than a simple at-grade intersection. In this case, there is some operational benefit to grade-separation, yet there are constructability concerns associated with the floodplain, proximity of intersections at West Broadway Street and Idaho Street, access issues with commercial properties east of Russell Street, as well as the anticipated difference in cost. These factors, as well as those previously noted in the EIS led to elimination of a grade-separated intersection at this location.

195-oo The US Fish & Wildlife Service letter referenced was written in 2003. The letter includes a general recommendation for consideration of additional bridge length, but provided no specific comment on the preliminary design contained in the DEIS since it predates the EIS by five years. No other correspondence was received from USFWS regarding the preliminary bridge design.

195-pp Transportation projects are derived from the Long Range Transportation Planning process. Closure of this link is not included in any approved Plan, thus transportation officials are not empowered to close it with this project. EIS text has been modified to clarify this point. Further, there is no established need to close Russell Street north of West Broadway Street, and the existence (or elimination) of this link does not affect the recommendations for improvements within the remainder of the Russell Street corridor.

195-qq Chapter 3 of the EIS provides a description of the existing conditions or baseline against which the various build alternatives are compared in Chapter 4.

195-rr The referenced text in Section 5.4 is specifically noting avoidance of historic properties protected by Section 4(f). There is no engineering analysis or graphic depiction of right-of-way requirements associated with the "3-Plus for Russell Street" plan as displayed at russellstreet.org, and no manner in which to determine if this could in fact avoid Section 4(f) properties. Further, analysis of similar options in the Traffic Analysis Update indicates that the two and three-lane options fail to provide capacity improvements and yet result in unavoidable impacts to homes and businesses.



Final Environmental Impact Statement

195-ss Furthermore, relocation of the garage at 941 Kern from its present Russell Street location to a new access on Kern Street should be explored and offered as a component of any 2/3 lane alternative. Failure to examine, provide consideration or forward a reasonable build alternative that would significantly retain the existing right-of-way and avoid impacts to any structures is a violation of NEPA.

195-tt 12) 7.2 pg 7-4 The note about the April 16, 2008 meeting, claims that the identification of a new preliminary preferred alternative was "mandated" by issues related to 4(f) properties. No citation was given for what component of the 4(f) Evaluation "mandates" the change. Indeed the document conveys a contradiction to this "mandate" on page 5-11 regarding the relative significance of the Section 4(f) property, which states that full acquisition would be acceptable because a number of similar structures would remain in the immediate vicinity. On one hand it is "mandated" to realign the roadway due to certain 4(f) properties; yet on the other hand it is "acceptable" to impact and remove certain 4(f) properties. This is indicative that the choice of Alternative 4 and elimination of other alternatives was done in an arbitrary and capricious manner in violation of NEPA. There may be evidence in the public record that indicates that public officials held these conflicting views and were unclear in the public process on the importance of 4(f) properties.

195-uu 13) 7.4 pg 7-7 states that all of the action alternatives and the Preliminary Preferred Alternative include features that were incorporated into the Stephens Avenue design; yet it disregards one highly critical difference, that Stephens Avenue reconstruction did not eliminate homes or businesses. Failure to include or discuss this critical distinction precludes the ability to form a reasoned decision in choosing an alternative.

195-vv 14) Other frequently used cyclist and pedestrian crossing locations such as Wyoming, 1st Street, 4th Street and 7th Street should be evaluated for potentially receiving enhanced crossing treatments in addition to common intersection treatments. Also regarding figure 2-7, South 1st Street intersects Russell only from the east; thus a left turn lane would only serve as another point of conflict with little valuable access gain. Due to its proximity to Silvercrest Senior residence and its near equal-distance between Dakota and 3rd, 1st Street is a prime location for an enhanced crosswalk/center island in any chosen alternative.

C) THE AGENCIES FAILED TO TAKE A HARD LOOK AT THE DIRECT IMPACTS OF THIS PROPOSED PROJECT

Pursuant to NEPA the agencies are required to assess the direct impacts of its proposed action on the environment. Direct impacts are caused by the action and occur at the same time and place. See 40 CFR § 1508.8. Under NEPA, the direct impacts of an action must be analyzed based on the affected region, and the locality in which they will occur 40 CFR § 1508.27(a). Here, the agencies need to take a hard look at the direct impacts of their proposed action on the following items:

195-ss Impacts to individual structures will be negotiated with each affected landowner during the final design and right-of-way acquisition process, pursuant to the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as well as Montana state law.

195-tt As noted on page 5-1 of the DEIS, the Secretary of the Department of Transportation shall not approve a project which requires the use of a historic property "unless there is no feasible and prudent alternative to the use of such land; and such program or project includes all possible planning to minimize harm to the . . . historic site resulting from the use." The mandate is to avoid or minimize impacts, and since Alternative 4 satisfies Purpose and Need, and has less impact on the historic property than Alternative 5 or 5-Refined, it was necessarily chosen as the Preferred Alternative. No other alternatives analyzed either avoided Section 4(f) properties or satisfied Purpose and Need.

195-uu This is not an analytical portion of the DEIS, and is merely noting the similarities in design elements included in the Stephens Avenue and the Preferred Alternatives on Russell Street and South 3rd Street.

195-vv These are the kinds of issues the design team will consider during the final design process. Thank you for highlighting this particular case. The team will consider an enhanced crosswalk at this location.

Appendix H - Written Comments and Responses

- 195-ww** 1) ES pg 14: Economic Impacts; Stating: "Substantial improvement to business advancement opportunities..." in the Impacts column. That is not an impact, it may be an effect. This is indicative of a failure to take a hard look at direct economic impacts, which precludes making reasoned decisions about this project.
- 195-xx** 2) ES pg 14: Property Impacts / Impacts; is contradictory to the Business Advancement / Impacts. There is no apparent analysis regarding the impact of acquiring and demolishing businesses weighted against the assertion in Business Advancement about "Substantial improvement...". This is indicative of a failure to take a hard look at property impacts, which precludes making reasoned decisions about this project.
- 195-yy** 3) 2.2 pg 2-7: figure 2-2, does not examine or explain access issues/land use issues for the residence on the NE corner of Addison/Russell. Would old ROW be vacated and incorporated into the residence? Addison Street should be examined for potential closure to motor vehicle access at Russell. This is also a concern for Hart Street residences, see pg 2-51. This is indicative of a failure to take a hard look at these potential direct impacts to these properties.
- 195-zz** 4) 2.4 pg 2-39 Additionally, the screening criteria regarding Maintaining Character are invalid; as the scale, speed and safety of a roadway more profoundly affects an environment than enhancements such as landscaped medians. The document exhibits a failure to take a hard look at these potential direct impacts on the character of the neighborhoods. This issue has been repeatedly raised by residents in affected neighborhoods. It was considered one of the pre-eminent purposes of the project by the original citizens advisory committee. The analysis completely fails to address this important objective.
- 195-aaa** 5) Related to #4 above: 5.5 pg 5-12 Measures to Minimize Harm. The document fails to state if there was any evaluation or efforts "to minimize impacts to surrounding residential and business locations in response to the expressed concern to maintain the sense of community." This section goes on to only describe aforementioned avoidance measures strictly regarding protected-impacted Section 4(f) properties. This is a failure to properly analyze or consider measures to minimize harm to all elements of the community, not just a limited number of properties.
- 195-bbb** 6) 3.0 pg 3-2: Affected Environment, Existing Land Uses: First paragraph incorrectly states that the Russell street corridor from 3rd to W Broadway is commercial/retail. Commercial/Residential is more correct as there are residential housing units on both sides of Russell Street at 2nd, 1st and at River Road, with new Missoula Housing Authority residential housing soon to be constructed at the old Intermountain Lumber site between 1st and Dakota. Figure 3-1 Land Use clearly shows / supports that much of this portion of the Russell corridor is, or is potentially, residential. This is substantial in that future land uses in this area are trending more toward neighborhood residential (and neighborhood retail) development and away from a commercial character.
- 195-ww** FHWA guidance (TA 6640.8A) suggests that this section of an EIS include "the probable beneficial and adverse social, economic, and environmental effects of alternatives under consideration." In keeping with this guidance, the anticipated positive and negative effects of the project on economic conditions in the study area are fully disclosed in Sections 4.4, 4.17 and 4.18.
- 195-xx** See full discussion in Sections 4.4, 4.17 and 4.18 of the EIS.
- 195-yy** Right-of-way and access are negotiated with each individual landowner during the design process. The design is not at a stage during the environmental review process to specify such details.
- 195-zz** These screening criteria are applied only to those alternatives that satisfy the Purpose and Need and all forwarded alternatives were found to satisfy these criteria on at least some level. As noted in response to Comments 5-E, 139-B, and 206-B, the Preferred Alternative incorporated Context Sensitive Design solutions, and "Maintaining Community Character" was one of several important objectives in the overall design process.
- 195-aaa** The cited discussion is specific to properties subject to protection under Section 4(f). Other impacts from the Preferred Alternative are based on a planning-level concepts and will be modified during the final design process. Efforts will be made to avoid and minimize impacts wherever reasonable and practicable during later portions of the design and right-of-way acquisition processes.
- 195-bbb** Currently, two blocks out of the 18 to 20 blocks facing Russell Street between South 3rd Street and West Broadway Street could be characterized as residential. Local planning documents do not support the postulation that this corridor is planned to be predominantly residential.



Final Environmental Impact Statement

This change to residential character is further supported by the current Silver Crest senior housing, the planned Silvercrest community center and the recent subdivision and planned Intermountain residential development and the Sawmill site, which is predominantly residential development. Failure to note or take into account these elements of the existing land uses substantiates that the agencies failed to take a hard look at the direct impacts of this proposed project.

195-ccc 7) 4.3 pg 4-4 states "This determination was made based on the following criteria: The adverse impact from the project is not predominantly born by....low income population...." yet on page 3-6 it is stated that "...potentially impacted residences were not surveyed to identify their individual status within any disadvantaged group;" Thus, how is it known if the environmental justice / adverse impact was properly analyzed or addressed? This is indicative of a failure to take a hard look at potential direct impacts to disadvantaged or low income populations. A significant share of housing between S 12th Street and W. Broadway is low income or affordable housing. The impact of the preferred alternative could fall disproportionately on these residences and their occupants; the DEIS does not prove otherwise.

195-ddd 8) 4.9 pg 4-28, Regarding groundwater impacts and supply: There is a community water well supply that will be directly impacted by the proposed right of way/road behind the Mobile City trailer court that needs have a hard look and be analyzed in order to come to a reasoned decision. The DEIS and alternatives analysis fail to do this.

D) THE AGENCIES FAILED TO ADDRESS INDIRECT AND CUMULATIVE IMPACTS OF THIS PROPOSED PROJECT

Under NEPA the agencies must consider the indirect and cumulative effects of a proposed action. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. A "cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. The Council on Environmental Quality makes clear the scope of analysis in an EIS. See 40 C.F.R. § 1508.25.

195-eee Meaningful cumulative-effects studies must identify: (1) the area in which effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions -- past, proposed, and reasonably foreseeable -- that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate

195-ccc The intent of the Environmental Justice examination is to ensure that a project is not located in an area where less expensive right-of-way can be obtained and the residents do not have the financial resources to oppose a project. Only three areas proximate to the study area were identified as having a potential for low-income or disadvantaged populations, and none of them are impacted by the project. Further, the test is whether the impact is disproportionate. As the comment points out, most of the housing in this corridor is very similar. An examination of the impacts across the various Build Alternatives indicates that there is no difference in impacts to residences based on age, size, or value of the home.

195-ddd Impacts to domestic water sources will be examined in detail during the final design process. Impacts to groundwater will be coordinated with the Environmental Protection Agency as noted in the EIS. No impacts to the community well are anticipated. Any impacts to the community well will be mitigated as part of the project. Mitigation could include replacement of the community well if required.

195-eee See Cumulative Impact discussion contained in the EIS in Section 4.17, which addresses each of these numbered points.

Appendix H - Written Comments and Responses

There is a failure to analyze the potential for indirect and cumulative effects of this proposed project regarding the following items:

195-fff

1) The document does not provide necessary examination of potential indirect and cumulative health effects or growth-inducing consequences of the proposed roadway projects on residents in the adjacent neighborhoods, the community, and on all users of the corridor.

195-ggg

2) ES pg 4, Summary Evaluation Note states: "Right-of-way costs are also conceptual and dependent on final right-of-way negotiations"... "Conceptual costs?" Are these in today's dollar figures? There should be a cost analysis on all potential additional costs (due to mitigation of indirect and cumulative impacts) such as potentially increased costs of: bridge hydrological issues, lead-based paint issues, leaking underground storage tanks and other additional remediation costs. See (3-35) and ES pg 16 under HazMat.

195-hhh

3) ES pg 15: Water Quality: Groundwater impacts/mitigation. The document does not provide analysis of potential indirect or cumulative impacts with regard to the noted seven Russell corridor leaking underground storage tanks. See page 3-35 which states: "there is a potential for construction and long-term impacts. Nor does it provide a cost analysis of mitigation remedies to the potential direct, indirect or cumulative impacts of leaking underground storage tanks.

195-iii

4) ES pg 17: Social Impacts. There is no analysis or statement regarding the broader scale of indirect impacts of severing neighborhoods or dividing the community. The project area is defined too narrowly so as to require a hard look at neighborhood and social impacts or mitigation. The document failed to consider the potential cumulative and indirect impacts on the neighborhood adjacent to the project area, both during project construction and afterwards. This issue has been repeatedly raised by neighborhood residents and the original citizens advisory committee; there is no excuse for a lack of a hard look analysis of social impacts.

195-jjj

5) 4.5 pg 4-18: Conceptual designs for grade separated trails as 10 by 10 concrete box culverts do not have adequate accommodations for creating a perception of safety. There is a very high degree of likelihood that they will not be frequently used due to a perception of being unsafe. It is highly unlikely that any subterranean tunnels, however lit, can be designed to feel safe; thus, the conceptual design should also show proximate, accessible, well lit, at grade crossings with center islands.

195-fff

Council on Environmental Quality guidance on the analysis of cumulative impacts states the following:

Agencies should be guided in their cumulative effects analysis by the scoping process, in which agencies identify the scope and "significant" issues to be addressed in an environmental impact statement. 40 CFR 1500.1(b), 1500.4(g), 1501.7, 1508.25. In the context of scoping, agencies typically decide the extent to which "it is reasonable to anticipate a cumulatively significant impact on the environment." 40 CFR 1508.27(b)(7). Agencies should ensure that their NEPA process produces environmental information that is useful to decision makers and the public by reducing the "accumulation of extraneous background data" and by "emphasizing real environmental issues and alternatives." 40 CFR 1500.2(b). Accordingly, the NEPA process requires agencies to identify "the significant environmental issues deserving study and deemphasizing insignificant issues, narrowing the scope of the environmental impact statement" at an early stage of agency planning. 40 CFR 1500.1(d). The Supreme Court has also emphasized that agencies may properly limit the scope of their cumulative effects analysis based on practical considerations. *Kleppe*, 427 U.S. at 414.

Based on early scoping and the analysis in the EIS, indirect and cumulative health effects of the Preferred Alternative are not reasonably anticipated, nor would such an unanticipated effect be likely to rise to the level of significance that would require detailed analysis.

195-ggg

The term "conceptual" was meant to imply "preliminary" or "planning-level" as indicated earlier in the text cited. This language has been changed in the EIS to provide better clarity. The cost estimates are inflated to ensure that they are consistent with the anticipated year of expenditure in the fiscally constrained LRTP, and include contingencies for additional costs such as mitigation.

195-hhh

The text cited is from Chapter 3 – Affected Environment. For a discussion of impacts and mitigation, the reader should refer to Chapter 4 which discloses the potential for encountering contamination and the range of potential clean-up activities. See above regarding costs.

195-iii

As noted in the EIS, the Preferred Alternative provides improved access to and across this route through inclusion of a broad range of multi-modal elements. The anticipated cumulative effect is only positive with regard to improved mobility in and through this corridor for bikes, pedestrians, and local residential and business travel.

195-jjj

The structure type will be determined during the design phase of the project. The EIS now reflects a design option more similar to that currently in use on Orange Street, which is a well-used underpass structure. The Preferred Alternative will include both grade-separated crossings as well as improved at-grade crossings at several locations.



Final Environmental Impact Statement

195-kkk Excessive length of the conceptual Bitterroot Branch tunnel due to diagonal crossing and addition of a center island to serve virtually non-existent MV left turns at Lawrence, only serves to further create an unsafe atmosphere in the "box culvert". At a minimum, southbound truck traffic headed to the lumberyard at Lawrence could be routed across Knowles to eliminate the center island across the trail. A 2/3 lane Russell Street would narrow this roadway, shorten the subterranean distances and thus could marginally enhance a feeling of safety for pedestrians and cyclists in these box culverts. The document failed to analyze the potential indirect or cumulative impacts of creating unsafe spaces.

195-III 6) 4.7 pg 4-22: Air Quality, "....b) intersections along the corridor are not noted in the State Implementation Plan as being violation areas, potential violation areas are among the 3 highest volume intersections,...". With attainment of the induced demand traffic projections as stated earlier in this document, this component should be re-evaluated as the traffic that the preferred alternative, #4 will induce, could push air quality below a threshold of the standards for violation areas due to the preferred alternative #4 having two very high volume intersections, Russell/W Broadway and Russell 3rd. Further, the DEIS does not address or analyze air quality issues due to induced traffic cold-starts. Essentially how would the build alternatives create additional induced driving in the basin with the resulting profoundly negative impacts to air quality of cold-started engines. The document exhibits a failure to adequately analyze indirect and cumulative impacts to air quality necessary to provide meaningful comment or to make a reasoned decision. This is especially regrettable since agencies constantly reference air quality as a key rationale for an expanded Russell Street corridor.

195-mmm 7) 4.10 pg 4-29 Wetland Impacts; Water Bodies and Wildlife Habitat Regarding the proposed near total enclosure of the irrigation ditch in a culvert along the western edge of Mobile City. Due to the wildlife which inhabit the area, this ditch serves as a de facto riparian wetland area. Other than a general statement at pg 4-48, there is no examination or consideration of the cumulative or indirect impacts on the beavers, deer and the flock of migratory waterfowl which frequent the irrigation ditch and the adjacent open pasture. In place of this bypass road, raising the south end of the Russell Street bridge-deck or installation of a roundabout at the intersection of Russell/Wyoming are alternatives elements that should be thoroughly explored to eliminate the consideration of this bypass road and its potential wetland/wildlife impacts.

195-kkk Undercrossings have been utilized in other areas in Missoula, such as Orange Street, and are well-used facilities. Based on local history with these types of facilities, they are neither perceived to be, nor have they proved to be unsafe for users. Additionally, there are anticipated to be over 100 vehicles during the peak hour utilizing this intersection at Lawrence Street and over 200 vehicles at the Knowles Street intersection. Closing the Lawrence Street intersection and forcing traffic onto Knowles Street would merge pedestrians and bicyclists with over 300 vehicles during the peak hour at an uncontrolled at-grade crossing in close proximity to two intersections.

195-III This project is included in the Long Range Transportation Plan which has been analyzed and approved for air quality conformity. At the request of the Environmental Protection Agency, additional air quality hot spot analyses were conducted which confirmed that this project will not induce any further exceedances of the air quality standards. Please refer to modified text in the Air Quality discussion in Chapter 4 of the FEIS. (See also response to Comment 23-B regarding the concept of induced traffic, and correspondence with EPA included in Appendix D.)

195-mmm A wetland survey was conducted in accordance with the Corps of Engineers standards, and no wetlands were found within the study area. Impacts to this potential wildlife habitat would be considered minimal given the abundance of similar habitat immediately adjacent along the Clark Fork River. During the design phase, the project team will coordinate with appropriate resource agencies to determine if other regulatory requirements need to be taken into consideration for these resources.

Appendix H - Written Comments and Responses

E) THE AGENCIES FAILED TO PROVIDE SUFFICIENT INFORMATION TO ALLOW FOR MEANINGFUL PUBLIC COMMENT, PUBLIC PARTICIPATION AND WELL INFORMED DECISION MAKERS.

NEPA procedures are designed to ensure that accurate "environmental information is available to public officials and citizens before decisions are made and before actions are taken." 40 CFR § 1500.1. The very goal of NEPA, and purpose of preparing NEPA documents to "encourage and facilitate public involvement in decisions which affect the quality of the human environment", to "provide a full and fair discussion of significant environmental impacts (of a proposed action)" and to "inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." CFR § 1500.2; 1502.1.

The public has an important role in the NEPA process, particularly during scoping, in providing input on what issues should be addressed in an EIS and in commenting on the findings in an agency's NEPA documents. The public can participate in the NEPA process by attending NEPA-related hearings or public meetings and by submitting comments directly to the lead agency. The lead agency must take into consideration all comments received from the public and other parties on NEPA documents during the comment period.

Here, a DEIS was submitted for public review and comment. However the DEIS fails to: take into consideration, provide adequate mention, accurate representation or discuss, the following items:

195-nnn

1) On certain graphics located at pages 2-52, 4-8, Appendix 8, 17, 26, 45; 7th Street is incorrectly labeled as Hart Street. This is an indication that the agencies did not take a hard look at conditions on the ground and cannot achieve a reasonable decision without adequate representations of data collection.

195-ooo

2) ES pages 7,10 and 11: Poor graphics representation, especially in the cross-section related to Sidewalk Boulevard and Bike lane relationship. The evergreen trees rowing over the sidewalk and bike-lanes. Missoula's urban forester would not permit such vegetation. This appears to be an attempt to portray a disingenuous picture of visually screening the roadway from the residences / pedestrians. A related notation about ES pg 16: Visual Resources: Stating Mitigations under the Impact column is an incorrect characterization. Also what landscape features exactly? What types of vegetation? Would medians and boulevards have raised beds or berms? The graphics/images of pine tree branches sweeping low over the sidewalks and bike lanes, clearly indicates a potential unsafe visual condition and potential for forcing bicycles to ride closer to motor vehicle lanes. This is indicative of a failure to properly express data and a failure to take a hard look at the relationships between the projects proposed elements.

195-nnn

The intent of the graphic was to show that Hart Street (which lies diagonally and to the south of 7th Street) would be reconfigured. This graphic has been modified for clarity.

195-ooo

These graphics illustrate general features along the alternatives analyzed in the DEIS. Each alternative was depicted in the same fashion. Details on the form of the landscaping or species of vegetation will be conducted in coordination with the appropriate local agency during the final design process. The landscaping elements noted in the summary table are not mitigation efforts, but rather key elements in the overall intent of the project.

Final Environmental Impact Statement

- 195-ppp** 3) ES pg 15: Noise, Impacts; The math on noise receptors does not total up correctly. Also a note in mitigation: "...and/or noise mitigation measures will need to be incorporated into future development." In other words, it should be stated more clearly as: those costs (impacts) would be born by land owners. These failures to lucidly explain information regarding noise receptors effectively limits the public's' ability to effectively comment on this component of the proposed project.
- 195-qqq**
- 195-rrr** 4) At 1.6 pg 1-6: The document's goals and objectives use the term "series" which implies a prioritization; however there is no explanation regarding prioritization or how input was weighted as criteria for establishing the prioritization of the goals and/or objectives. This failure limits the public's' ability to provide meaningful comment regarding these foundational components of the proposed project.
- 195-sss** 5) Furthermore under Goals: Objective bullet 1 stating: "...adequate travel lanes and turn lanes..." does not define if these would be motor vehicle, or dedicated bus, or bike lanes. This failure to provide definitions, limits the public's' ability to provide meaningful comment.
- 195-ttt** 6) 1.6 pg 1-16, Goals: Objective bullet 1 stating: "...adequate travel lanes and turn lanes..." does not define if these would be motor vehicle, dedicated bus, or bike lanes. This is indicative of a failure to take a hard look at foundational components of this project and limits the public's' ability to provide meaningful comment.
- 195-uuu** 7) 1.6 pg 1-16: Goal; Maintain Community Character; yet in Objective bullet 1 it states "maintain or enhances". There is a distinction between "maintain" and "enhance" which should be defined, explained and prioritized. It should also be explained why the goal is only "maintain." Was there any consideration of filtering for perhaps 50 percent maintain and 50 percent enhance? Again, definitions would be necessary to provide an ability to analyze this goal and the application of the objectives. Failure to provide these definitions and priorities, limits the public's' ability to effectively comment on the proposed projects goals. This goal has been identified for eight years as one of the top priorities of the public and of neighborhood residents.
- 195-vvv** 8) 2.2 pg 2-8: At the public hearing in September 2008 the consultant stated that no west-side Mobile City residences would need to be acquired or moved. The graphic / overhead image (figure 2-3) conflicts with that statement as the proposed roadway boundary clips at least one mobile home and the right-of-way boundaries clip 3 other mobile homes. There also appears to be some ROW / structure conflict, mid-block on Wyoming west of Russell, and with numerous small structures along the eastside of Catlin. These discrepancies, between the stated and graphic representations limit the public's ability to provide effective comment on this aspect of the proposed project.

- 195-ppp** Please refer to response to Comment 188-K regarding the calculation of noise impacts.
- 195-qqq** Once a project is completed adjacent to undeveloped property, it is an option of the owner/developer to address noise concerns in how they develop the site or to include mitigation measures. Such mitigation is not required by the transportation officials, so there is no imposed cost.
- 195-rrr** In this sense of the term "series" is referring to the sets of information based on their similar or related themes or topics. There is no stated or intended prioritization to the goals and objectives, nor are they foundational to the project. The Purpose and Need is the foundation to the project. As noted in the text, the goals and objectives were used to guide development of the initial range of alternatives and elements to be incorporated into final design.
- 195-sss** Given that the intent is to serve all modes, the text can be interpreted to cover motor vehicles, buses, and bikes. Each mode is accommodated by the Preferred Alternative.
- 195-ttt** These are not "foundational components," but supplemental guides for the development of alternatives, and are addressed by the Preferred Alternative. These goals were developed prior to detailed traffic analysis which is used to determine the type and size of facility improvements needed to satisfy the stated Purpose and Need. Defining what elements will or will not be included in a project prior to the analysis would violate the objectivity of the analysis by predetermining a specific outcome.
- 195-uuu** These goals and objectives were developed by the Citizen Advisory Committee without explicit definition. They were adapted for use by the project team, and were a valuable tool in developing and screening alternatives.
- 195-vvv** The red lines in the noted graphic are standard right-of-way lines, not construction limits. No impacts are anticipated, and the graphic has been improved to illustrate this fact more clearly.

Appendix H - Written Comments and Responses

195-www

9) 2.2 pg 2-17: Alt Analysis Alt 4 (Figure 2-7) depicts a left turn lane at South 8th Street; yet Executive Summary page 8 states that 8th St would be right in - right out only. This needs clarification; would the text proposal prevail or the graphic? This is indicative of a failure to take a hard look at these proposed project components and thus limits the public's ability to effectively comment and also reduces the ability to reach a reasoned choice amongst alternatives.

195-xxx

10) At the September 2008 public hearing the agencies failed to hold a proper public hearing to gather citizen input regarding this project. The intent of a public hearing is so everyone in the audience can hear the comments of the people speaking at that hearing. The agencies opted for the provision of privately-taken testimony to a court reporter in a secluded part of the meeting room, and thus, not all the citizens present could partake in the total cumulative democratic conversation of that night. That means it was not a public hearing. This is a usurpation of an important component of the public process, and limited the public's ability to engage, evaluate and comment on this proposed project.

195-yyy

11) 6.0 pg 6-1 and 6-2 lists two preparers and one reviewer who have the same last names. The document should examine and state what, if any family or non-professional relations exist between any of the listed persons; and what, if any potential conflict-of-interest concerns may exist.

195-zzz

12) The range of alternatives and issues to be addressed that were brought forward during the public scoping process have been arbitrarily ignored or eliminated. This is particularly the case upon review of the proposed project's Community Report and Citizen's Advisory Committee reports which consistently called for a small-scale roadway design that does not directly or indirectly degrade the character of the neighborhoods or severe one part of the community from another.

195-aaaa

13) Contrary to citizens' work, examinations, issues and concerns noted in the project's Community Report and Citizen's Advisory Committee reports, the statement of need is so narrowly defined so as to arbitrarily eliminate substantial analysis of significant environmental concerns such as air quality, noise and lighting effects on the community and nearby residents; however environmental effects such as air-quality issues are used within the document to justify certain actions or require mitigation.

195-bbbb

14) Contrary to citizens' work, examinations, issues and concerns noted in the project's Community Report and Citizen's Advisory Committee reports, the project areas narrow focus on the geographic corridor essentially limits the public's ability to effectively comment and eliminates the potential for substantial public and neighborhood input regarding indirect, and cumulative impacts.

195-www

The "General Elements" graphics are intended to provide a very general overview of the core elements and are clearly not final design-level detail. The text on the preceding page of each of these graphics clearly indicates that "the locations of raised medians and center turn lanes are conceptual and subject to change during final design." Modifications will continue to be made as the project progresses.

195-xxx

The Hearing provides an opportunity for the public to express their opinions and concerns about the project for consideration by the decision-makers. That goal was fully achieved through verbal and written testimony at the Hearing, or via regular mail or e-mail throughout the comment period. The court reporter was provided for people who either did not have time to wait for an opportunity to speak, did not feel comfortable speaking in public, or who felt threatened by the overall tone of the Hearing. (See Comments 108, 119, and 133). All comments received in any manner throughout the comment period are included in this appendix.

195-yyy

Carl James has retired from the Federal Highway Administration, and is of no relation to either Darryl or Jennifer James.

195-zzz

The scoping process is intended to identify the broad range of issues and concerns within the community, but no single viewpoint is intended to dominate another. The overall process is intended to balance those issues with providing a safe and efficient transportation system. See also response to Comment 5 regarding the Citizen Advisory Committee.

195-aaaa

While a Purpose and Need statement could be written so narrowly as to eliminate alternatives, it cannot obviate the need to analyze impacts. In this case, the Purpose and Need is broad enough to facilitate exploration of a broad range of alternatives that improve safety and mobility, and still requires full social, economic, and environmental analysis which is documented in Chapter 4 of the EIS. Each of the areas of social, economic, and environmental concerns were fully and objectively analyzed throughout this project development process.

195-bbbb

Cumulative effects are discussed in Section 4.17 of the document. The public has had a number of opportunities to comment on the full range of subjects in the EIS, including indirect and cumulative impacts.



Final Environmental Impact Statement

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15) 3.14 pg 3-31: Clarification is needed about use of the phrasing: "listed or eligible historic properties". Does this mean that mere eligibility is all that is needed, even if there is no intent by any party to proceed with historic listing(s)? There appears to be no stated distinction between listed or eligible, even merely for the sake of clarification/understanding. In other words, which of the noted 4(f) properties is actually "listed", not merely eligible?

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Also noted on overhead-overlay-graphics, the project boundaries extend two blocks on either side of both S. 3rd and Russell; yet only homes immediately along Russell Street are tagged. There certainly are numerous such impacted 4(f) properties in the S. 4th and Washburn streets area similar to the area noted at the project boundaries of S. 3rd street, see 3-34.

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Additionally about "historic properties": The document needs to be clear about any standards or distinction between protecting a historic structure and protecting the historic character of a neighborhood. That document should go further in explaining why protecting individual structures in this project is necessary in order to retain or protect historic character. These concerns preclude the ability to provide meaningful comment on this component of the proposed project.

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16) 7.4 pg 7-4 Summary of Public Comments lists "System capacity" at the top of a list of issues frequently identified by the public, yet it does not state if this list is expressed in a priority order. As it is apparently not in any priority order, it would be more appropriate to list the issues in alphabetical order so as not to create the impression of bias. This bias toward a pre-determined outcome of adding motor vehicle capacity is again noted on page 7-5 where it states: "Some comments were found to indicate some level of preference for improving the capacity of the Russell Street corridor...". Then states: "Most comments frequently focused on more comprehensive issues of creating multi-modal transportation systems... and discouraging a five lane freeway that would 'divide neighborhoods' ". Yet further, on page 7-5 and 7-6 the document then, in contradictory fashion, provides numerous citizen quotes that are predominantly framed to be supportive of capacity improvements and concludes that, "Overall there appears to be strong support for capacity improvements and acknowledgment that (?motor vehicle?) congestion is an issue.". This inappropriate, inadequate framing and exposition of public input is designed to mislead the reader in violation of NEPA, and is indicative of bias, toward a pre-determined outcome, on behalf of the entities proposing this action and preparing this document.

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Protection under Section 4(f) is afforded to historic properties that are either listed or eligible for listing on the National Register of Historic Places. There is no distinction under the law in terms of Section 4(f) protection.

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The "project boundary" identified in the graphic is general in nature, and intended to focus the reader on the general area of Russell Street and South 3rd Street. The survey of historic properties was limited to areas that may be affected by the proposed project. Full analysis and detailed graphics of each site investigated are included in the Cultural Resources Inventory prepared for this project, and available from the Department of Transportation. South 3rd Street was reviewed, as were the intersections throughout both Russell Street and South 3rd Street. No impacts would be anticipated in the South 4th Street and Washburn Street area.

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In the spirit and intent of the law, and in the interest of keeping this EIS as concise as possible, the body of the text explains the impacts to protected properties and does not explain what properties are not eligible for protection or why they are not eligible. The technical documents that explain the detail of the analyses are available for public review. For more detailed information, refer to National Register Bulletin No. 15 which defines an historic district as possessing "a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development." That means in this case that if the preponderance of buildings in a defined neighborhood are historic, that is, were built within a specific time, retain a good measure of integrity, and share a common history that it is probably a district. In the case of Russell Street there were more non-historic age buildings and/or buildings that had lost too much integrity to meet the Bulletin's requirements, making the neighborhood(s) not qualify as an historic district. For example, if a defined area contained 100 buildings and more than half of them were not historic or were historic age but did not retain enough architectural integrity, then you would not have an historic district.

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The text plainly states that this presentation of information does "not imply support for or against any given topic, but [is] indicative of the amount of community dialogue around these issues." No conclusions are drawn from this information, nor did it affect the technical analysis used to develop and screen alternatives.

Appendix H - Written Comments and Responses

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Repeatedly, over the more than eight years that improvements in the Russell Street corridor have been under review, public survey data, public comments, public meetings, and citizen advisory processes have apparently been skewed to elevate the needs of motor vehicle transportation and to diminish the needs and capacities of all other modes of transportation. It is essential for the integrity of this process and this project, and to ensure compliance with NEPA, that the public process for Russell Street improvements be fully reviewed and found to be one that "encourage(s) and facilitate(s) public involvement in decisions which affect the quality of the human environment", "provide(s) a full and fair discussion of significant environmental impacts (of a proposed action)" and "inform(s) decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment."

Submitted on 03 NOVEMBER 2008.

Bike/Walk Alliance for Missoula (BWAM, representing more than 150 members),

Missoula Institute for Sustainable Transportation (MIST),

Missoula Advocates for Sustainable Transportation (MAST)

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The project development process was conducted in full compliance with state and federal laws protecting the environment and the public right to participate in this process. Please also refer to response to Comment 5-A.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 196

To Whom It May Concern:

Thank you for the opportunity to submit comments and questions on the Draft Environmental Impact Statement (DEIS) for the Russell Street / South Third Street project. I look forward to seeing the following elements addressed in the forthcoming Final Environmental Impact Statement (FEIS) and anticipate that addressing the comments should lead to selection of some form of Alternative 5 as the Preferred Alternative.

1. Design elements used to determine maximum project impacts

- 196-A** a. Design of the Russell Street corridor should be context-sensitive, including adequate street width for pedestrian refuges, bulb-outs and transit pullouts. (Even if there is no transit service on Russell Street south of Third Street, we should be prepared to accommodate its likely addition during the lifetime of the road.) Please demonstrate that these accommodations can be made within the right-of-way boundaries in the alternatives evaluated—or reconfigure the right-of-way to make the necessary accommodations for non-motorized traffic across Russell Street.
- 196-B** b. Article 3-2, Section 15, Part B of Missoula City Subdivision regulations requires at least 10-foot boulevards and 6-foot sidewalks on “Collector Streets, Local Street Over 200 Dwelling Units or any Commercial/Industrial Major Route/Travel Corridor.” The DEIS includes a design with 5-foot sidewalks and 7-foot boulevards. The preferred alternative in the FEIS should correct this substandard infrastructure design.
- 196-C** c. Article 3-2, Section 15, Part F of Missoula City Subdivision regulations require bike lanes that are five feet to gutter edge. The DEIS preferred alternative proposed bike lanes that are 5.5 feet to the face of the curb with a 1.5-foot gutter sections, amounting to a 4-foot asphalt surface. The on-street bike lane should meet established city standards and the preferred alternative in the FEIS should correct the proposed substandard infrastructure design.

Thank you for your comment, interest and participation in the project.

196-A Because landscaped medians are included in the Preferred Alternative, pedestrian refuges will be incorporated during the design process, wherever practicable. None of the build alternatives on Russell Street would include on-street parking, which is typically where a bulb-out feature would be incorporated, thus bulb-outs are currently not included in the conceptual designs. Transit pull-outs can be accommodated within the 12.5 feet allocated for bike lanes and boulevards without requiring new right-of-way.

196-B The Missoula City Subdivision Regulations are road design guidelines for the Build alternatives in the EIS, but do not directly apply as this project is not associated with a City subdivision. However, the project team will apply the subdivision regulation standards and other local standards to boulevards, sidewalks, and bike lanes on these roads wherever practicable during the design process. The designs for commercial and residential area boulevards and sidewalks may be distinctly different from each other along the project corridors. These designs will seek to maximize widths during the design process.

196-C Current 1999 AASHTO “Guide for the Development of Bicycle Facilities” recommends bike lane width of 5’ from the face of curb to the bike lane stripe (Page 23). As noted above, the project team will apply the subdivision regulation standards and other local standards to bike lanes as practicable to meet or exceed FHWA requirements.

Appendix H - Written Comments and Responses

196-D d. Elements of the road that accommodate non-motorized traffic should be designed to the best standards available, not to mention the adopted standards of the city of Missoula. Proposing substandard design as a method of reducing right-of-way requirements should not be an option; alternatives should be evaluated for 4(f) impacts based on the right-of-way requirements of a design that meets standards. This is not meant to suggest the right-of-way should simply be widened; there is room to accommodate adequate infrastructure by reallocating the proposed right-of-way. For instance, the preferred alternative provides for 11-foot outside auto lanes and 12-foot inside auto lanes; with design speeds not exceeding 35 mph, lanes 10 and 11 feet wide are permissible and the surplus right-of-way can be allocated to bringing sidewalk and bike lanes up to standards.

196-E e. The median planned where Second Street crosses Russell Street blocks a heavily used existing bike route. The preferred alternative in the FEIS should acknowledge the need to provide adequate access for crossing bicycles and pedestrians.

2. Neighborhood impacts north of Third Street

196-F Turning movements into and out of the area north of Wyoming Street on the east side of Russell Street should be restricted to right-in and right-out only to allow a median that facilitates bicycle and pedestrians crossing while limiting pass-through traffic on the unimproved roads that would otherwise allow vehicles to bypass traffic control at Wyoming Street.

3. Assumptions underlying operational evaluation analysis

196-G a. What method was used in the DEIS to calculate mode split in the traffic projections that the level-of-service calculations are based on? If mode split is not endogenous to the model—projected, for instance, based on land-use patterns, population densities and fuel prices—how are these factors incorporated in calculating mode split during post-processing?

196-D In support of the Purpose and Need, and recognizing the Goals and Objectives developed for this project, the project team has worked for several years to provide the greatest improvements reasonable and practicable for all modes of travel while minimizing impacts within this corridor. It is an inconsistent approach to recommend the absolute minimum design standard for one element in the corridor, while recommending the greatest design standards for others. At the end of the analysis, the EIS would have to demonstrate that the Preferred Alternative made every reasonable effort to avoid and/or minimize impacts to properties protected by Section 4(f).

196-E The location of medians and center turn lanes in the EIS are conceptual and they may change during the final design process. As noted previously, pedestrian refuges can be incorporated as appropriate throughout the corridor.

196-F This is a relatively short distance from Wyoming Street to the bridge crossing. Full access is desirable for these business locations, and does not detract from the bicycle and pedestrian crossing locations at the signal at Wyoming Street and the undercrossing at the bridge.

196-G Please refer to page G-6 of Appendix G for information regarding the mode-split and sensitivity analysis conducted as part of the Traffic Analysis Update during the spring/summer of 2009.



Final Environmental Impact Statement

196-H b. The discussion of the hourglass effect on page 2-32 of the DEIS assumes that driver behavior is immutable simply because it was observed to be a certain way. The implications of this assumption for the required road width are substantial. Is it more cost-effective to build additional road than attempting to alter driver behavior by educating drivers to employ optimal merging practices?

196-I c. Given Missoula's experience with the expansion of Reserve Street and its low level-of-service at construction completion, substantial questions remain about whether expanding road capacity solves congestion issues rather than simply inducing demand sufficient to overwhelm any expansion. Support the construction of the project Purpose and Need and selection of the Preferred Alternative in this context.

196-J d. Describe and quantify the anticipated effects of the preferred alternative for Russell Street between Third Street and Mount Avenue on neighborhood streets adjacent to Russell Street. Contrast these effects with a no-build scenario and support the DEIS interpretation of how much traffic will rely on Russell Street rather than parallel neighborhood streets in each scenario.

4. Operational evaluation of alternatives

196-K a. The intersection level-of-service analysis in Table 2.4 is cited as having been taken from Skillings-Connolly's 2005 work. Is the citation correct? If so, in what year were the underlying traffic projections generated and why wasn't this calculation updated with the latest available projections?

196-L b. Level-of-service D is an acceptable level of peak-hour performance for an urban arterial. The DEIS describes level-of-service D as having "minimal delays," which ought to be permissible during peak-hour traffic. Designing for level-of-service D at intersections within the study area will allow narrower intersections with fewer turn lanes and more opportunity for mid-crossing refuges and similar requirements for the safety of non-motorized users.

196-H While driver behavior may not be immutable, it has been observed to be fairly consistent. Drivers will operate in a manner and speed at which they are comfortable, regardless of traffic control and speed limits. Appropriate roadway design takes these human behavioral factors into consideration.

196-I Please refer to response to Comment 23-B regarding latent demand and induced traffic. As the regional modeling and Traffic Analysis Update indicate, capacity improvements on Russell Street will become congested within the 25 year planning horizon. The intent of the project is to provide "substantive improvements in safety and mobility for all modes." The Preferred Alternative provides the highest achievement of this purpose, for the longest period of time, particularly in light of impacts and cost.

196-J Please refer to response to Comment 6-A for a discussion of the cut-through traffic; however, the traffic modeling efforts do not load neighborhood streets. The Preferred Alternative has more capacity to accept side street traffic which should reduce cut through traffic on local access neighborhood streets. The No-build Alternative does not have the capacity to accept side street traffic which will lead to an increase in traffic on parallel neighborhood streets.

196-K Please refer to Appendix G for a summary of the Traffic Analysis Update conducted during the spring/summer of 2009.

196-L As noted in the Traffic Analysis Update, many of the intersections along Russell Street will operate at Level-of-Service D by the end of the planning horizon. This was determined to be acceptable to avoid any further impacts within the corridor.

Appendix H - Written Comments and Responses

196-M c. Explicitly compare the operational and safety performance of Alternative 5 and Alternative 4 in the context of the decision to select Alternative 4 as the Preferred Alternative. On page 2-39, the performance of a double-lane roundabout is characterized as providing “very similar safety and operational improvements” to a multi-lane signal, however Alternative 5 seems to be, in fact, superior for at least three reasons:

196-N 1. Table 2.4 identifies Alternative 5 as having a higher level-of-service at several intersections, which will keep Mount Street operational as-is for a longer period.

196-O 2. Further, the safety benefits of roundabouts over signalization are well-documented. The FEIS should quantify the anticipated safety performance of signalization and roundabouts in each alternative.

196-P 3. Finally, the design features available throughout the corridor with a roundabout design much better conform to “...community preference for roundabout intersection control and the expressed desire for a roadway improvement project like Stevens (sic) Avenue” (DEIS Executive Summary, p. 6).

5. Elements missing from or undervalued by the Evaluation of Impacts

196-Q a. The Social Impacts evaluated in the DEIS understate the impacts to access, particularly non-motorized traffic crossing a wider Russell Street as it runs through an existing neighborhood. Pedestrians with mobility issues and cyclists already have trouble crossing Russell Street south of Third Street. While multiple undercrossings and controlled intersections improve the ability of pedestrians and bicyclists and mobility-challenged to cross Russell, greater road widths increase impacts of the project, requiring mitigation including but not limited to pedestrian refuges and bulb-outs where grade-separated crossings are not appropriate.

196-M The Traffic Analysis Update provides an update to the safety and operational characteristics of these alternatives; however, the decision to forward Alternative 4 as the Preferred Alternative was based on the requirement under Section 4(f) to select an alternative that had a lesser impact on the adjacent historic properties while still satisfying Purpose and Need.

196-N According to the Traffic Analysis Update, Alternative 4 provides improved operations longer than Alternative 5-Refined.

196-O According to the Traffic Analysis Update, crash reductions are anticipated with the multi-lane build alternatives. Crashes under Alternative 5-Refined would be anticipated at 63 percent of the No Build condition, and 70 percent of the No Build condition under Alternative 4.

196-P Multilane roundabouts were dismissed on Russell Street based on the constraints imposed by the historic properties, but the Preferred Alternative remains consistent with the design elements included on Stephens Avenue.

196-Q Please refer to the response to Comment 36-A and 120-G for information regarding pedestrian crossings within the corridor. Bulb-outs are utilized best in conjunction with on street parking, neither of which will be included in the Russell Street corridor. Pedestrian refuges will be incorporated into the design process as the project proceeds.



Final Environmental Impact Statement

- b. The Ped/Bike Impacts section of the DEIS Executive Summary identifies bike lanes and sidewalks as “design amenities.” These facilities are not amenities on urban streets and characterizing them as such permits substandard design (including the insufficient widths for bike lanes, boulevards and sidewalks identified above). Access across Russell Street between below-grade crossings will be negatively impacted by the additional road capacity. Furthermore, subterranean pedestrian crossings such as the one envisioned for the Milwaukee Trail push non-motorized traffic into marginal spaces, which makes people traveling through them vulnerable to what goes on in darkened and isolated places. Automobile traffic, which is negligibly impacted by grade changes and constrained spaces, should travel below-grade while pedestrian and bike traffic, both on Russell Street and crossing it, should have an at- or above- grade crossing. Creative solutions constrained by the height and grade-change requirements for each mode should be employed to least impact non-motorized (unarmored) traffic at non-grade crossings.

6. Effect of 4(f) impacts on selection of the Preferred Alternative

- 196-T** 23 CFR 774 – Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(f)) – includes the following guidance for evaluating impacts on protected resources (**emphasis added**):

Feasible and prudent avoidance alternative.

(1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and **does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.** In assessing the importance of protecting the Section 4(f) property, **it is appropriate to consider the relative value of the resource to the preservation purpose of the statute....**

- 196-R** Describing these design elements as amenities was meant quite literally to convey the positive quality of being pleasant or attractive, something that contributes to physical comfort and safety, and that increases attractiveness or value of the corridor for bicyclists and pedestrians. These design elements are not treated any differently than other elements in the overall conceptual design.

- 196-S** The EIS has retained flexibility in the ultimate design of these grade-separated facilities. Please see responses to Comments 26 and 112-C for information about grade separation of roadways and trail crossings.

196-T 23 CFR 774.3 reads in full:

Approvals: traditional, *de minimis* impact, programmatic evaluation (when a project meets the requirements of one of the 5 approved programmatic evaluations) and the least harm alternative.

-- The Administration may not approve the use of a Section 4(f) property unless:

- 1) there are no feasible and prudent avoidance alternative to use of land from property; and
- 2) the action includes all possible planning to minimize harm to property; or
- 3) the use is determined to be a *de minimis* impact

7 factors for selecting the least harm alternative (when no feasible and prudent avoidance alternatives exist):

(continued on next page)

Appendix H - Written Comments and Responses

(3) An alternative is not prudent if:

- (i) It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
- (ii) It results in unacceptable safety or operational problems;
- (iii) After reasonable mitigation, it still causes:
 - (A) Severe social, economic, or environmental impacts;
 - (B) Severe disruption to established communities;
 - (C) Severe disproportionate impacts to minority or low income populations; or
 - (D) Severe impacts to environmental resources protected under other Federal statutes;
- (iv) It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
- (v) It causes other unique problems or unusual factors; or
- (vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude."**

196-U

In light of the accumulation of additional impacts identified in the comments above and the community sentiment that they constitute a severe disturbance to the adjacent neighborhoods, and the reduction of those impacts by Alternative 5, it is not prudent to avoid the 4(f) resource impacts that would be caused by constructing Alternative 5. A variant of Alternative 5 that best accommodates the other comments submitted should be selected as the preferred alternative in the FEIS.

7. Implementation

196-V

The FEIS and Record of Decision should identify the threshold traffic counts at which level-of-service changes in the preferred and bypassed alternatives. Construction of expanded road capacity should be conditioned on the attainment of those levels when road construction is planned as determined by findings of fact issued by City Council or the Metropolitan Planning Organization.

Thank you again for the opportunity to comment on the Russell Street / South Third Street project DEIS and to have the comments above answered in the FEIS.

-- Administration may approve only the alternative that causes the least overall harm (in light of 4(f) preservation purposes) and includes all possible planning to minimize harm to 4(f) property. Least overall harm is determined by balancing:

- 1) ability to mitigate adverse impacts to each Section 4(f) property (including those resulting in net benefits)
- 2) severity of remaining harm after mitigation to the protected activities, attributes, or features that qualify each property for Section 4(f) protection
- 3) significance of each Section 4(f) property
- 4) views of officials with jurisdiction over each Section 4(f) property
- 5) degree to which each alternative meets the purpose and need
- 6) magnitude of adverse impacts after reasonable mitigation
- 7) substantial difference in cost among alternatives

196-U

Based on the analysis and coordination with the State Historic Preservation Office, the Federal Highway Administration "may approve only the alternative that causes the least overall harm" which is Alternative 4. This alternative does not impose severe impact, disrupt the community, cause disproportionate impact to minority or low-income populations, or other protected resources, and is in fact less costly and has fewer overall impacts than Alternative 5, and very similar to Alternative 5-Refined.

196-V

Please refer to response to Comment 186-B regarding phased implementation. The DEIS contained language regarding construction phasing and opportunity for review of traffic counts and projections. New text has been added to the FEIS, in collaboration with the City Councilman, the Metropolitan Planning Organization's Missoula Office of Planning and Grants, the City of Missoula, Montana Department of Transportation, and Federal Highway Administration.



Final Environmental Impact Statement

Alderman Ed Childers (1755 W. Central Ave., Missoula, MT 59801; echilders@ci.missoula.mt.us), Alderman Dave Strohmaier (508 E. Pine St., Missoula, Montana 59802; dstrohmaier@ci.missoula.mt.us) and Alderwoman Pam Walzer (1329 Sherwood St., Missoula, Montana 59802; pwalzer@ci.missoula.mt.us) concur with the above comments.

Regards,

Jason Wiener
Alderman, Ward One, City of Missoula
1238 Jackson St., Missoula, MT 59802
jwiener@ci.missoula.mt.us

Comment 197

From: Curtis Thompson [mailto:curtis@djanda.com]
Sent: Tuesday, November 04, 2008 8:57 AM
To: mdtcommentsrusselleis@mt.gov
Subject: Comment On Russell Street EIS

I'm writing in support of the preferred option to the Russell Street/South 3rd Street project. This important North-South corridor must be improved to provide for the most efficient flow of traffic possible. I have read articles in the newspaper about the 3+ group and feel that their objectives are contrary to the needs of most Missoulians. I feel that the preferred option addressed the needs of not just cars, but the other forms of transportation the 3+ group is concerned with. Please do not let the vocal opposition of a special interest group override the transportation needs of the community.

Curtis N. Thompson
Professional Engineer

DJ&A, P.C.
Engineers Planners Surveyors
3203 Russell Street
Missoula, MT 59801

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 198

How is the Russell St.
Bridge Project Coming?

Will we be
done before it
breaks under
the weight of
traffic.

Comment has
gone to MDT
as well. Donna Maddy

Thank you for your comment and interest in the project. Replacement of the Russell Street Bridge is included in the Preferred Alternative on Russell Street, and likely to proceed as part of the first phase of construction. A federal earmark has also been secured to fund the bridge replacement specifically.

435 RYMAN • MISSOULA,
DEPARTMENT OF PU

MISSOULA

4741 Bailey 59808
406-253-6546



Final Environmental Impact Statement

Comment 199

Please accept our comments on the Russell Street EIS,

199-A I am concerned that the preferred alternative being pushed by the City of Missoula and MDOT is inappropriate for the neighborhood it passes through and the community as a whole. The four plus lanes being called for will lead to increased speed, noise and traffic, creating yet another Reserve Street styles mess, but in the heart of Missoula. Reserve Street in a barrier that is nearly impossible to cross by foot or bike for much of its length. Despite ample bike lanes, it is dangerous and intimidating for even the most skilled, experienced cyclist, and is no place for children to be walking or biking. Maybe you guys were going for a freeway when you designed Reserve Street, because for all intents and purposes, that is what is there today. The preferred alternative for 3rd and Russell looks frighteningly similar to Reserve Street.

199-B In these times of rising gas prices, dwindling oil supplies, and global warming, it is imperative that Missoula develop the appropriate infrastructure to encourage people to get out of their cars and walk, bike, or ride the bus. Despite the lack of sidewalks and bike lanes, many people are currently walking and biking on Russell and 3rd. If this project is done properly, many more people will get out of their cars and bike Russell to get to the Good Food Store and the many other great businesses in this area. However, if Russell Street is a 4+ lane, Reserve Street bohemeth, it will still just be us diehards and the folks who have no choice who will be out there biking and walking.

199-A Please see responses to Comments 50-A and 56-A for a discussion of the intention of designing Russell Street more similar to that of Stephens Avenue than Reserve Street. Additionally, please refer to Appendix G for an updated analysis of bicycle and pedestrian Level of Service, as well as a safety analysis.

199-B Please refer to the response to Comment 5-B and 116-G regarding the anticipated effect of gas prices on motor vehicle travel. The Preferred Alternative provides improvements for all modes of travel – bicyclists with dedicated bike lanes, pedestrians with boulevard sidewalks, and motorized vehicles and buses with the addition of vehicular capacity.

Appendix H - Written Comments and Responses

199-C We support the citizen developed 3+ for Russell plan. We believe that this plan will create smooth flowing traffic, better communication and cooperation between drivers and thus less road rage, and will be conducive to biking and walking. From our experience, traffic backs up on Russell because of key bottlenecks at 3rd Street and at Broadway, which this plan addresses and will fix. Smooth traffic flow on Russell does not require four lanes everywhere, just good design.

199-D We are concerned that the stretch of Russell between Mount and Malfunction Junction seems to have been left out of this plan. This area is extremely dangerous for bikes and will continue to be a problem no matter which alternative of the 3rd and Russell plan is developed.

Thank you for considering our comments.

Jed Little & Tracy Herndon
1603 Sherwood Street
Missoula, MT 59802

199-C Options similar to the “3+ for Russell plan” were analyzed as part of the Traffic Analysis Update and do not meet Purpose and Need. Please see response to Comment 27-B and Appendix G for a summary of the Traffic Analysis Update conducted during the spring/summer of 2009.

199-D This southerly portion of Russell Street lies outside the boundaries of this project; however, your comment is noted and conveyed to the City of Missoula Public Works Department for future consideration.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 200

To Whom it may concern:

I would like to sign on to the letter submitted by Alderman Jason Wiener. I concur with his comments.

200-A I would also like to express additional concerns about overbuilding the road. Increasing vehicle capacity at the expense of the livability of the neighborhood is unacceptable.

200-B I believe it would be more prudent to require a phased implementation of the project. Start with the bridge and the area south to Third Street. Provide for pedestrian and bike facilities south of Third Street and possibly some lower impact reconfigurations of the roadway and intersections. The Wyoming street connection to Orange and connections between Wyoming and River to the west are scheduled for the upcoming years. These changes should have substantial impact on the traffic volumes on Russell and the intersection at Third. I think we should wait to see how these changes play out and then decide what else needs to be done to Russell Street. We are not interested in putting highways through our neighborhood. Especially if they only serve to reduce trip times by a negligible amount during very limited times of the day.

Thank you,

Bob Jaffe

Alderman, Ward Three, City of Missoula

1225 South 2nd Street West

Missoula, MT 59801

200-A Please refer to response to Comment 23-A regarding the Purpose and Need for the project. The project, as proposed, would not “overbuild” for the projected demand. In fact, the most recent analysis summarized in Appendix G indicates that the proposed improvements will likely maintain only moderate levels of service over the next 20 years. It is also important to recognize that even the inclusion of solely bike lanes and sidewalks through the constrained, residential portion of the corridor would result in impacts to homes. Providing more capacity and safety improvements for all modes of travel, and providing bicycle and pedestrian facilities where none now exist must certainly be seen as an enhancement to the livability of a neighborhood currently bisected by a highly congested urban arterial.

200-B Please refer to response to Comment 185-B regarding phased implementation.

See also revised language in the EIS, developed in collaboration with Alderman Wiener, which more clearly articulates an approach to address concerns regarding changes in land use, travel patterns, traffic forecasts, and actual traffic counts in future years. This language can be found in Section 2.7 of the FEIS.

Appendix H - Written Comments and Responses

Comment 201

Public Comment on the Russell/3rd St. DEIS

I concur with these comments and am submitting them as my public comment on the Russell/3rd St. DEIS as well.

201-A In addition, I would like to see the project segmented into three phases for both construction and as part of the Record Of Decision as well. Phase 1 should be Broadway to 3rd Street, Phase 2 3rd Street from Russell to Reserve and Phase 3 being Russell from 3rd Street to Mount Ave.

201-B I also question the Level of Service conclusion in the DEIS as unrealistic and costly and ask for the conclusion of the LOS to be justified in the final EIS.

201-C I request that the public comment period be held open a total of 120 days.

Stacy Rye
Missoula City Council
Ward 3 Councilwoman
(406) 543-9784

[Note, this comment was received as an attachment to a copy of Councilman Jason Wiener's comments.]

201-A See response to Comment 185-B regarding potential construction phasing, and 200-B regarding revised text in the FEIS.

201-B Please refer to response to Comment 195-H regarding the Level-of-Service goals identified for this project. Alternatives were evaluated for their ability to “provide substantive safety and mobility improvements for all modes.” No alternatives were dismissed for failure to achieve a specific Level of Service, but rather for their ability to provide improvements relative to the operational performance and cost of other alternatives. To that point, the costs among alternatives ranged between approximately \$45 million and \$53 million, with the Preferred Alternative on Russell Street falling at the low end of the range.

201-C SAFETEA-LU under 6002, subsection 139, part g (2) states: ‘Comment Deadlines’ “for comments by agencies and the public on a DEIS, a period of not more than 60 days after publication...unless a different deadline is established by agreement of the lead agency, the project sponsor, and all participating agencies; or the deadline is extended by the lead agency for good cause.” Per the request of City representatives, the comment period was extended to nearly 75 days.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 202

To Whom it May Concern:

In general, I believe that the preferred alternative (Option 3) makes the most sense for both Russell and Third. That said, I think option 5 for both streets should also be given careful consideration. We need to increase capacity on both streets while providing safe passage for both pedestrians and bicyclists. I would certainly commute more regularly on bicycle if I didn't have Russell to contend with. Unfortunately, for my route, good alternatives for biking take me a long way out of the way.

Thank you for your comment and interest in the project.

- 202-A** I own property on Third Street, two blocks east of Russell. We have a couple commercial properties located between Inez and Prince on Third. One of the businesses does rely on shipments arriving via motor freight and common carrier. While many of the deliveries we get are the shorter delivery trucks utilized for around town deliveries, some are over-the-road trucks with longer, full length trucks. At least three other companies down the road from us also depend on such deliveries: Nutritional Laboratories, United Building Center and Opportunity Resources. I ask that you keep in mind such traffic when considering the sort of intersection to construct at Third and Russell.
- 202-B** In addition, please consider pedestrian traffic destined for the Good Food Store. We have noticed an increase in traffic of all sorts since the GFS relocated near us, but particularly pedestrian traffic crossing at Third is an issue.

- 202-A** The conceptual design in the EIS includes assumptions on travel volumes and vehicle types. As the project proceeds through the more detailed design process, the design team will consider truck volumes and turning movements and accommodate reasonable access to the extent practicable.
- 202-B** Please see response to Comments 73-H and 120-K for information regarding the pedestrian facilities at the South 3rd Street intersection.

Appendix H - Written Comments and Responses

202-C I live south of Missoula, as do several of my employees and we commute to work daily on Russell street. It needs additional capacity. There has been a cry against having something looking like Reserve Street through that neighborhood. I agree with that, but do think that a street-scape with an appearance more like that of Stephens Street (Russell) or 39th Street South Third) would be a welcome improvement both esthetically and in terms of traffic flow and safety for vehicular traffic, bicyclists, and pedestrians. One of our editors lives near Stephens and she told me that crossing Stephens with her children is now a much safer and pleasant experience.

If we are going to spend millions of dollars improving these streets, then we should choose an alternative that accomplishes the goals that were developed for the project. Increasing traffic flow, making it more efficient and safer for all sorts of users is an essential part of that mission. At the same time, impact to private property should be minimized and the end result should not look like an LA County freeway but a community through-fare. If the project can't be completed in next decade, then it should be re-assessed since traffic patterns in an age of limited oil availability in the future may dramatically alter our local traffic patterns.

Cordially,

John Rimel
Mountain Press Publishing Company
1301 South Third West
P.O. Box 2399

202-C As noted in the EIS, the Preferred Alternative on Russell Street and South 3rd Street is intended to be functionally and aesthetically similar to that of Stephens Avenue. See also responses to Comments 50-A and 56-A.

202-D See response to Comment 185-B regarding construction phasing.



Final Environmental Impact Statement

Comment 203

This is my comment on the DEIS for Russell and South 3rd Streets.

- 203-A** As a member of the original citizens Advisory Committee (AC), created in Nov 2000, that developed the original Purpose and Need (P & N) document for the reconstruction of Russell and South 3rd Streets, I have a copy of the original P & N statement that includes
- 203-B** this sentence, "Develop a transportation facility that maintains or enhances a sense of the residential and commercial neighborhoods." The city of Missoula received many compliments for including this sentence in the P & N for Russell and South 3rd. The citizens Advisory Committee met intensively from Nov 2000 through May 2001, sometimes twice a month. Although the May 10, 2001 Meeting Agenda included the agenda item, Schedule Additional AC Meetings, no more were ever
- 203-C** scheduled after May 2001. Not long after the AC was abruptly disbanded Missoula Public Works Dept announced that its preferred alternative was a 5 lane alternative. The timing of that announcement indicates that Missoula Public Works Dept gave preference to one alternative over others before all the rigorous analysis required by the DEIS process was done and without allowing the citizens of the AC to participate throughout the process of developing and selecting the preferred alternative, and without informing the public that the P & N would have to be changed to eliminate the sentence that addressed maintaining or enhancing the sense of then neighborhoods.

- 203-A** The Purpose and Need for this proposed project underwent several changes as the project was developed, which is consistent with Federal Highway Administration guidance on the project development process. Guidance on the importance of the Purpose and Need states that the Purpose and Need section of an EIS should:

“lay out why the proposed action, with its inherent costs and environmental impacts, is being pursued. A clear, well-justified purpose and need section explains to the public and decisionmakers that the expenditure of funds is necessary and worthwhile and that the priority the project is being given relative to other needed highway projects is warranted.”

- 203-B** While the statement cited in the comment is reflected in the goals and objectives and was important in developing and screening alternatives, it does not help the decisionmakers or other members of the public understand why tax dollars are being spent on a transportation improvement project.

- 203-C** See also responses to Comments 5-A and 36-C regarding the Citizen Advisory Committee and extensive public involvement on this project.

Appendix H - Written Comments and Responses

My questions are:

203-D 1) In the formal federal DEIS process for reconstructing Russell Street, was it legal to ask 24 citizens to participate in the Partnering Workshop, attend meetings for 6 months to become educated about transportation concepts and issues as members of the citizens AC which was charged with participating throughout the development and selection of the preferred alternative, and then abruptly disband the AC in May 2001 before we had an opportunity to fulfill our charge?

203-E 2) How could Missoula Public Works Dept announce in 2001-2002 that its preferred alternative was a 5 lane when a 5 lane did not meet the original P & N statement in existence at the time? To my knowledge the one sentence Purpose and one sentence Need statements in the current DEIS document were developed much later in the DEIS process without citizen input.

203-F 3) Why was informed citizen input from the citizens AC required in the first 6 months of the Russell Street reconstruction project and not later when the alternatives were being developed and selected?

Linda Smith
545 Woodford St.
Missoula, MT 59801

203-D According to project records, and as disclosed in the EIS, the last formal meeting held with the Citizen Advisory Committee was held on October 8, 2002. The meeting minutes indicate that the Committee was informed that the City would be meeting on October 17, 2002 to select the Preferred Alternative. The work of the Citizen Advisory Committee was greatly appreciated, and provided positive direction for the development and screening of alternatives. This body fully served its purpose in helping to identify key issues, concerns, and potential alternatives. The final decision must, however, be left to the transportation authorities who are responsible to the public for the ultimate project decisions. Council on Environmental Quality regulations themselves do not specifically require agency coordination or public involvement in the development of a Purpose and Need statement. However, this requirement does exist under Section 6002 (23 USC 139) for any EIS prepared for a highway or transit project. Even then, the responsibility for defining a project's Purpose and Need rests with the lead Federal agency preparing the document – in this case the Federal Highway Administration.

203-E Based on Complete Streets and Context Sensitive Solutions guidelines, five-lane alternatives can be consistent with the goal of maintaining community character when the right elements are included. The Preferred Alternative includes those pedestrian, bicycle, and landscaping elements consistent with maintaining and enhancing residential and commercial neighborhoods.

203-F The Advisory Committee was actively involved throughout the development of alternatives. The responsibility for technical analysis then shifted to the Interdisciplinary Team who was responsible for the objective evaluation of the alternatives. The public continued to be engaged in the process through information meetings and the formal Public Hearing on the project. See also response to Comments 5-A and 36-C as noted above.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 204

Ladies and Gentlemen,

I am writing today to express my support for the preferred alternative for Russell Street, which includes two lanes of travel in each direction with turn pockets and a raised median and signalized intersections. I support this for several reasons:

1. The existing three lane configuration clearly cannot handle the existing traffic load. I own a small business which is located at the very south end of the portion of Russell Street included in the EIS, and I often advise out-of-town clients to avoid Russell Street. I avoid Russell Street myself because of the extra time and gas it takes to travel on that road when it gets backed up.
2. Russell is a major arterial street that needs to be able to accommodate the current and future traffic load. Widening Russell may also take pressure off of Reserve Street, as well as Catlin, a convenient bypass around Russell which runs through a residential area and has seen an increase in traffic in recent years. I think it is better to have heavy traffic on arterials designed for such traffic than on narrower residential streets.
3. The section of Russell from the river to the South Third is mostly commercial in character, and therefore arguments that a four-lane road will "destroy a neighborhood" are specious at best.
4. A divided four-lane is safer than the current three-lane configuration. Studies have shown that a divided four-lane results in fewer car-pedestrian accidents when there are areas in the middle of the road so that pedestrians only have to cross two lanes of traffic at a time. Studies have also shown that car crashes are less frequent on divided four lanes than three lanes.
5. Contrary to what some people stated at a recent public hearing, expanding the roadway will not necessarily lead to Reserve-Street-like congestion. In late 1980's or early 1990's, Orange Street between the river and South Sixth was widened to its existing five lane configuration, and it is not congested today. In the same time period, the Orange Street bridge was also widened and South Russell from Mount to South

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Avenue was widened from three lanes to five. These roadways are not congested today. Also, look at the failed Broadway "road diet". The four lane configuration was not congested, yet the three lane is. Reserve Street is congested, in part, because it is used as a highway bypass for Missoula and because of the growth along North Reserve. This is not likely to happen the Russell Street corridor, which already fairly built up (except for the old Intermountain Lumber site).

Thank you,

Julie Aldegarie

Comment 205

205-A My name is Mike Turner, my brother Jon Turner and I own property on the east side of Russell at the south side of the bridge to Idaho Street and lease half of the next block. I have a variety of concerns regarding the construction/ expansion of Russell. I feel that there should be more direct communication with the affected landowners. We currently and historically have had north and south access onto Russell from at least 5 points, including Idaho street, affecting 4 businesses currently and up to 7 in the past. We strongly feel we need to continue having most of that access. Losing certain access points would effectively land lock those properties and thus eliminating their current and historical use. This has been a very long process, too long, and from my perspective no end in site. One obvious problem with that is not knowing what the future holds and thus time consuming and costly for business waiting on projects and trying to guess what may happen , we currently have a vacant property waiting to see what happens, receiving no income but incurring expenses such as taxes. We can not wait another year let alone several. Another very real concern for us is huge negative impact the construction will have on our business as it will probably take two years to build the bridge and we are at 'ground zero'. Is there any mitigation, consideration or compensation for such impacts? The roundabout idea is interesting but I think unworkable in conjunction with stop lights only a few blocks away. Thank you for your time and consideration.

205-B

Mike Turner

205-A The integrity of the project development process is very important and sometimes takes a long time to complete. The project team is committed to completing this phase of the project as soon as possible, without sacrificing the integrity of the process and the ability of the decisionmakers to consider the various viewpoints presented on the Preferred Alternative. The project sponsors understand the uncertainty these projects can create for adjacent landowners and will work with each individual landowner once a decision is made on whether to proceed with this project. The City of Missoula and Department of Transportation will work with each individual land owner during the right-of-way acquisition process to negotiate right-of-way and access in accordance with the *Uniform Relocation Act* and portions of the City of Missoula's *Real Property Acquisition and Relocation Policy, Procedures and Guidelines*. By state law, reasonable access must be perpetuated to a parcel that currently has access.

205-B Roundabouts are not currently part of the Preferred Alternative on either Russell Street, or South 3rd Street. Please refer to responses to Comments 38, 55-A, 72-A, and 72-B for further information.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 206

Russell Street / South 3rd Street Environmental Impact Statement

Comment:

The Draft EIS for Russell/3rd has produced a large negative reaction from individuals and organizations, mostly directed toward the size of the preferred alternative and the perception that the outcome will be very unfriendly to human-scale, non-motorized living and transportation. I too oppose streets and infrastructure which support and encourage unnecessary motor vehicle use.

However, if a single, large, multi-modal bridge is used as the key for this development, the advantages presented by the investment would be foolish to curtail. The preferred alternative on Russell St., at least south to 5th St. would seem to make sense. From 5th to Mount, however, a somewhat smaller, 3 lane, 39th St-like street should be sufficient. Widening the right-of way through this area is essential. The right-of-way from 5th to Mount should be widened even if nothing is done. Emergency vehicles should be able to get through at all times.

206-A

206-A

The project will likely be constructed in phases, most likely beginning at West Broadway Street and the bridge replacement. Please refer to response to Comment 185-B regarding phasing and potential opportunity for future review of the design.

206-B

206-B

Complete Streets principles aren't underlined in the EIS, however they should be explicitly adopted and followed. Context Sensitive Design is not underlined, that I recall, but should be the principle which controls the road design through a variety of environments, particularly the residential neighborhoods south from 5th to Mount. The use of context sensitive design in the rebuilding of US 93 through the SK reservation north of Missoula is a good case in point. The tribes insisted on maintaining a natural setting with two lanes for most sections with passing lanes, and many wildlife passageways. Similarly, a street through our neighborhoods should be as friendly to our neighbors as US 93 is to turtles.

The concept of “Complete Streets” and “Context Sensitive Solutions” were noted in the DEIS in Chapter 2, under the “Maintain Community Character” heading. The design is consistent with the guidelines outlined in the *Institute of Transportation Engineers Proposed Recommended Practice: Context Sensitive Solutions in Designing Major Urban Thoroughfares* as demonstrated in Table 2.6 of the EIS.

Appendix H - Written Comments and Responses

- 206-C** Bike/Ped traffic, particularly pedestrian, east-west is my primary concern. The tunnels are not well described and will be a difficulty as currently pictured. I understand utilities under Russell will make it necessary to make those tunnels very deep requiring them to be very long (about two football fields) at a gentle slope. This will make them blind; users won't be able to see beyond the bend or convex form of the tunnel. They would appear to be unsafe, unappealing, and difficult to drain, clean, and maintain. But if they work, they should not be thought of as simply 'trail' routes; they should be super safe street crossings and as such, should connect with a general, complete sidewalk system. Extending sidewalk connections should be a part of section 4-20 which speaks of 'pedestrian underpass mitigations. Sidewalk connections east-west should be a 'build' requirement of this plan even if they extend several blocks from Russell/3rd.
- 206-D**

The plan for 3rd St. looks very good. It just needs doing soon.

Thank you for this opportunity.

Jon Salmonson
1919 South 8th Street West
Missoula, Mt. 59801

- 206-C** Specific design details for the bicycle/pedestrian underpasses (or overpasses, if necessary or desirable) will be completed during the final design process if this project moves forward. Safety and maintenance will be key factors in determining how these facilities will ultimately be designed and constructed. See also responses to Comments 26 and 112-C.
- 206-D** Extending sidewalks and trails beyond the limits of this project will have to be conducted as a separate project.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 207

MISSOULA

PARKS AND RECREATION DEPARTMENT

600 Cregg Lane • MISSOULA, MT 59801 • (406) 721-7275 • FAX: (406) 552-6275
PARKS • RECREATION • URBAN FORESTRY • CONSERVATION LANDS • TRAILS

Gregg Wood
Missoula Public Works

November 2, 2008

RE: **Russell/3rd Street EIS comments**

Dear Gregg,

The Missoula Parks & Recreation Department submits the following comments:

207-A • **Boulevard Sidewalks** - The EIS preferred alternative shows 5' wide sidewalks and 7' wide boulevards the full distance along both Russell and 3rd Streets. These widths are inadequate and do not meet the City's subdivision regulation standards for Collector Streets under Article 3-2(15)(B), which requires 6' wide concrete sidewalks and 10' wide boulevards. The *Guide for the Development of Bicycle Facilities*, *AASHTO* also recommends 6' to 8' wide sidewalks along arterial streets. For such busy and important arterials, we need to meet these standards. The 10' wide boulevard width is important not only for separating pedestrians from the heavy car and truck traffic, but also for the health of the boulevard trees and snow storage.

207-B • **Wider Bike Lanes** - To increase safety, we recommend that the bike lanes along Russell be widened from 5.5' to 7.5' because a 5.5' lane in fact only provides 4.0' of asphalt riding surface since 1.5' is the concrete curb and gutter. The *AASHTO Guide* states that a 5' bike lane is the minimum, and "Time-Saver Standards for Landscape Architecture," Section 341-2, states that a bike lane should be 5-6' wide at a minimum. We believe it is important to provide more than just the "minimum" for this project due to the heavy truck traffic along Russell coupled with the desire to increase bicycle use. More people are likely to ride their bikes along this route if they feel they can do so safely. As an example of where this already exists, the bike lanes on south Russell (from south of Brooks to 39th) are 6' wide with no concrete/asphalt seam. The additional width can help provide greater safety, as would smooth flat seams at the junction of the concrete with the asphalt.

207-C • Also, we recommend 1' wide bike lane striping to clearly delineate the outside edge of the bike lane. The x-section of the 7.5' width measured from the back of curb to the outside bike lane strip would be as follows: 1.5' of curb and gutter, 5' of open lane, 1' wide striping. The striping should not be a solid 12" line of paint, as that becomes very slick when wet.

207-D • **Improve Bike/ped Crossings** - The EIS does not explain in the text or in figures how bicyclists and pedestrians will be able to safely cross over between 5 to 7 lanes at the numerous junctions along Russell and 3rd. At a minimum, we recommend the seconds

The City of Missoula Public Works Department will continue to coordinate with the Parks and Recreation Department on the issues raised in this comment letter, the majority of which are most appropriately dealt with at the final design stage.

207-A See response to Comment 196-B regarding sidewalk widths in the Preferred Alternative.

207-B Please refer to response to Comment 28-A regarding the bike lane width.

207-C Lane signing and striping will be in accordance with current City of Missoula specifications and in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

207-D The final design of the intersections will be completed with pedestrian and bicycle crossings which meet Americans with Disability Act requirements as well as the MUTCD.

Appendix H - Written Comments and Responses

207-E "count-down" be installed and the device being set for a sufficient amount of time for a handicapped pedestrian to cross any intersection with 6 or 7 lanes. All intersections should have painted pedestrian crosswalks and bike lanes. The bike lanes must be continued through the intersections instead of disappearing about 50-100' before the intersection as they often do through-out Missoula (for example, the South Russell bike lane on the east side disappears about 100' south of the Mal Function Junction intersection). *The AASHTO Guide* presents examples of how this is to be done.

207-F

- **Bike/ped Underpasses -**

- 1) **Milwaukee Trail Crossing** - The *2001 Non-Motorized Transportation Plan* recommends constructing grade-separated crossings at trail intersections with high-volume roadways. (pg. 57) Russell Street is one of the busiest arterials in all of Missoula and is a major barrier to connecting pedestrians and cyclists from east to west. The Milwaukee Trail is one of the most heavily used off-street bike/ped trails in Missoula. The *2004 Master Parks & Recreation Plan for the Greater Missoula Area* indicates on Map 6 a "crossing/connection" at the junction of Russell Street and the Milwaukee Trail. The Plan on page 2-23 states that "Access to neighborhood parks could also be improved in underserved areas by improving pedestrian and bicyclist connections across existing barriers, such as constructing arterial roadway and railroad grade underpasses." The River Road and the Franklin to the Fort neighborhoods are two of the most "underserved" areas within Missoula for neighborhood parkland.

207-G

These factors support why an underpass is warranted and thus we are pleased that the EIS includes grade-separated crossings. However, the 10 X 10 box culvert shown in Figure 4-6 is completely inadequate and unacceptable in size and design for this major trail connection. The standard has been set with the Orange Street and Reserve Street crossing of approximately 10 X 20 corrugated metal culvert, which provides safe passage for multiple bikes and pedestrians at the same time, good natural lighting during the day, discourages graffiti due to the deep metal grooves, and allows for police cruiser access through the tunnel for safety and 911 response. The width of our existing underpasses also allows for clear lines of vision in and out of the space making natural surveillance easy for users or law enforcement personnel. All of these measures together make a facility that is much safer for the public. The Final EIS needs to replace Figure 4-6 with the same culvert design used for the Milwaukee Trail underpass at Orange Street.

207-H

- 2) **Bitterroot Spur Trail Crossing** - As with the Milwaukee, the Bitterroot Spur is the second most heavily used bike/ped trail in our Bicycle Commuter Network that links the Franklin to the Fort area with the downtown, numerous parks, businesses, the University, and other destinations. We are concerned with the length of the underground crossing of Russell and 11th Street, which appears to be a total of over 400 feet. That could cause significant safety problems for cyclists and pedestrians. We understand that Figure 4-4 is labeled a "draft," but we request that we are consulted for the next draft that is placed in the Final EIS. There are a few alternative solutions that we'd like you to consider. One option could include an underpass only under Russell

207-E

The City of Missoula and Department of Transportation will consider the "count-down" crosswalk signals as an option during the detailed design process.

207-F

Various design options outlined by AASHTO will be considered during the detailed design process.

207-G

The design of the underpasses in the EIS is conceptual and may be modified during final design. Other factors which need to be taken into account during the design of a grade separated crossing include impacts to the surrounding area and determination of side slopes and grade of the undercrossing.

207-H

The City of Missoula and Department of Transportation will continue to coordinate with the Parks Department during the detailed design process to identify the most desirable and cost-effective crossing design. Safety of the tunnel will be integral to the final design. Lighting could be incorporated into the tunnel design to enhance safety.



Final Environmental Impact Statement

Street and then a designated, well marked, at-grade bike crossing at 11th Street. Another option could be to install a well marked, at-grade crossing at 11th then cross Russell Street on the south side of the intersection of Russell and 11th. The at-grade crossing at Russell and 11th would be an enhanced "crosswalk." It would have to be signalized and wide enough to accommodate the multi-use traffic. The trail would then turn to the south to replace the sidewalk on the west side of Russell and connect back to the original trail just south of Ronan. A width of 12' width would be appropriate here, with 10' being the absolute minimum.

207-I 3) **Shady Grove Trail** – Figure 4-7 for the Shady Grove Trail connections beneath the Russell Street bridge show a 10' wide bike/ped trail with the vertical concrete bridge abutments on one edge of the trail. Having a solid wall on one side reduces the effective width of the trail significantly. We recommend that the trail width be increased to 13' wide or more in order to have an effective use width of at least 10' based upon AASTHO standards. The crossings under the new bridge will likely be places of congestion on the trails since the paths leading up to them will likely have significant turns and may possibly have relatively short sight distances. Maximizing the width of the trail surface and turning radii, as well as including appropriate warning signage and/or markings will help improve the safety of this situation.

207-J 4) **Cost of Milwaukee & Bitterroot Spur Underpasses** – The Executive Summary on page 2 states that the "purpose of this proposed project is to provide substantive safety and mobility improvements for all modes of travel in the Russell street and South 3rd Street corridors." As noted above, the Milwaukee and Bitterroot Spur Trails are the core of the Bicycle Commuter Network; they are the two main non-motorized commuter trail routes in Missoula. Based upon their significance, we believe funding for right-of-way acquisition and construction of the two underpasses should be accomplished with the same priority and funding as for increasing Russell Street from 2 to 4 lanes; both actions are needed to improve "safety . . . for all modes of travel."

207-K On page 4 of the Executive Summary, it states that the segment from W. Broadway to 3rd can be constructed for approximately \$26.5 million in 2012. On page 21, it appears that part of the funding source for the Milwaukee Trail is \$388,200, which happens to be the same amount of CTEP money currently set aside for constructing the trail between Russell and Davis, not the underpass. Please verify that the funding set aside for the underpass is not the same money we will be using to construct the trail to the west.

207-L 5) **Providing Connections from Underpasses to Sidewalks and bike lanes** - Since the trail crossings will be separated by grade, the design need to allow for connectivity from the sidewalks and bike lanes to the underpasses. On the east side of the existing Orange Street underpass, there are ramps that connect from the underpass to street level. Similar facilities must be planned for all of the separate grade crossings of Russell Street. For the Milwaukee Trail underpass of Russell Street, it appears that the connections perpendicular to Russell could be created in the Dakota Street right-of-way. For the Bitterroot Trail crossing, no matter what form this crossing takes, there needs to be adequate connectivity between the trail and sidewalks and bike lanes.

207-I Flexibility to include a three-foot buffer on either side of this trail undercrossing will be determined during final design when detailed impacts to the floodplain and active river channel can be more accurately examined.

207-J The grade-separated trail crossings are an integral part of the proposed project and would be funded and constructed in conjunction with each respective segment as the project proceeds.

207-K The funding picture outlined in the EIS is meant to demonstrate that the City of Missoula has historic capability to obtain funding from various sources. Under current procedures for federal reimbursement, a project cannot proceed to the next development phase until the next phase is fully funded. This table in the Executive Summary demonstrates that the full funding amount is available, could be available, or the City has demonstrated historic success in obtaining funds.

207-L These connections will be made, and plans provided during the detailed design process.

Appendix H - Written Comments and Responses

207-M

Connecting the sidewalks and bike lanes to the under crossings of the new bridge will also be very important. The Equinox project, west of the north end of the bridge will provide a trail connection between the riverfront trail and the Russell/Broadway intersection. The existing trail connection on the east side of the north end of the bridge must be maintained or enhanced. On the south side of the bridge, new connections must be made in each direction. The connection to the west should be planned so that it could be easily expanded further to the west per the Master Parks Plan goal of continuing the riverfront trail system westward. Also, this trail should intersect River Road connecting to its sidewalks and bike lanes that lead back to Russell. A connection from the south east corner of the bridge to Russell should also be provided.

207-N

- **Green Infrastructure** - Parks and Recreation strongly advocates green infrastructure throughout the Russell and 3rd Street Corridors. Greenscapes, including trees, bushes, dry land grasses, mulch and other treatments improve air and water quality, manage run off, and greatly improve the aesthetics of the corridors. Streets with well designed and well maintained greenscapes slow traffic, encourage use of the corridor by bikers and pedestrians, cool the streetscape and generally enhance the psychological aspects of drivers.

While Parks and Recreation strongly advocates implementation of greenscapes, it is important to note that there are significant and necessary maintenance costs related to maintaining these areas. These costs can be managed through good design, selection of materials, plant species, irrigation systems, and proper installation. As the project progresses, Parks and Recreation expects full involvement in design details, particularly related to boulevards, trees, medians, trails, etc. Parks and Recreation will work with MDOT to develop an appropriate contract for maintenance and care of the State Routes within this project, similar to existing agreements on State Routes within Missoula.

207-O

- **Intersection Details** – Figure 2-18 shows where the new right-of-way will be and also indicates the location of lanes. We recommend providing similar figures for illustrating pedestrian crosswalks and how bikes lanes will carry through the intersections. Intersections are where most bike/vehicle accidents occur and thus we would appreciate seeing details about how to get cyclists safely through. It is very difficult to know how bicycle/pedestrian circulation is being handled at intersections without exhibits that show specifics. Page 29 in AASTHO for bikes has sample diagrams we could provide.

207-P

• **List of Recommended Edits:**

- 1) Figure 3-3 – show proposed Milwaukee Trail extension from Russell to Davis in a different color and revise the Legend to include it. The trail already exists from Davis to Grove Street (with an underpass beneath Reserve St) and so should be shown in blue.

207-Q

- 2) Figure 3-4 – show existing Milwaukee and Bitterroot Spur Trails and proposed Milwaukee Trail extension (see attachment).

207-R

- 3) Section 3.5 **Parks and Recreation** –
 - a) Add the following under the *Milwaukee Corridor Trail* description after the first sentence: "A commuter trail paralleling the old Milwaukee line is the major east/west non-motorized transportation connection as listed in the Non-Motorized Transportation Plan, the Missoula Urban Area Open Space Plan, and the Master Parks & Recreation Plan for the Greater Missoula Area. On a larger scale, the old

207-M

The Equinox connection of the trail to West Broadway Street /Russell Street has been completed. Additional connections will be provided as noted, and details provided during later stages of the design process.

207-N

The design team will work collaboratively with appropriate City personnel to determine what specific landscaping treatments will be included in the final design, and how these areas will be maintained.

207-O

Design details for pedestrian crosswalks and bike lanes at intersections will be coordinated during the final design process. Designs will comply with AASHTO and MUTCD to the extent practicable. The FEIS has been updated to provide a graphic depiction of over and undercrossing structures currently in use in Missoula, some variation of which could be used in the Russell Street corridor.

207-P

Figure 3-3 illustrates existing community and public facilities, parks, and recreation areas. The graphic in the Executive Summary includes an illustration of the planned extension to the west.

207-Q

The mapping has been modified in accordance with information available from the City.

207-R

Requested text edits have been made.



Final Environmental Impact Statement

Milwaukee Road presents an opportunity to create a rail-trail that could cross the entire State of Montana connecting to Milwaukee rail-trails in Idaho and Washington. The existing trail begins at Russell Street and extends approximately 4.5 miles east on the south side of the Clark Fork River ending south of East Missoula. The Parks Department is currently working to extend the trail east to Bonner and west into the Mullan area.

Amend the second sentence as follows: The Trail, ~~which is approximately one-half mile long,~~ is an important . . . no other edits to sentence.

207-S

- b) Add the following under the *Bitterroot Branch Trail* description after the second sentence: "The Bitterroot Trail Committee, a group of citizens and staff from local and state agencies, formed last year to work on extending the trail from its current terminus at McDonald Street west across Reserve Street via an underpass and continuing on to connect with the existing 10' wide asphalt bike trail in south Lolo."

207-T

- c) The correct the square footage of Hart Park is 5,663 sq.ft. (not 2,500).

207-S

Requested text edit has been made.

207-T

The accurate size of Hart Park has been updated in the FEIS.

Thanks for your consideration of our comments.

Sincerely,

Jacquelyn Corday, Open Space Program Manager

Dave Shaw, Parks & Trails Design & Development Manager

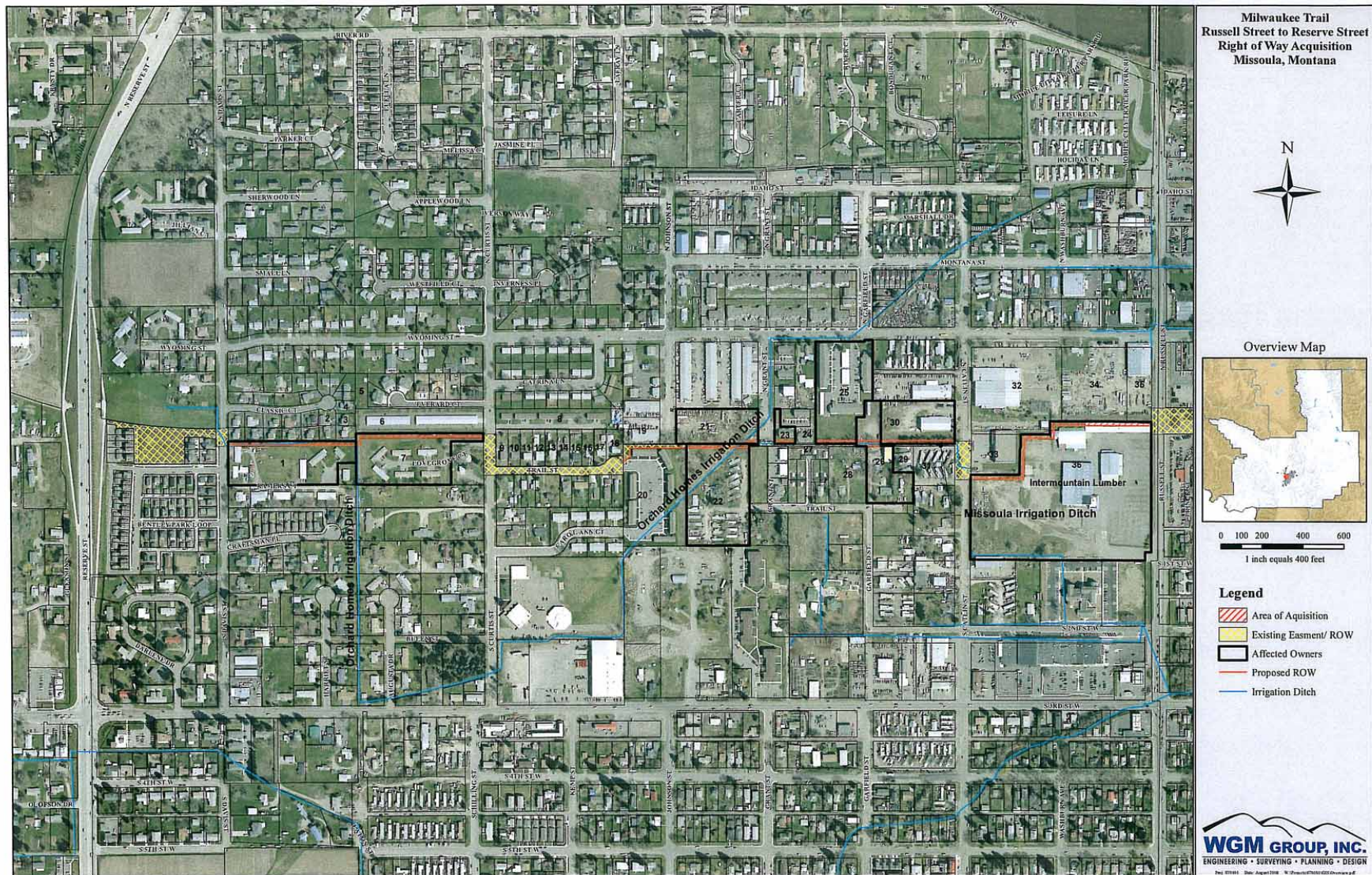
Thank you for your comment and commitment to further coordination.

ATTACHMENTS:

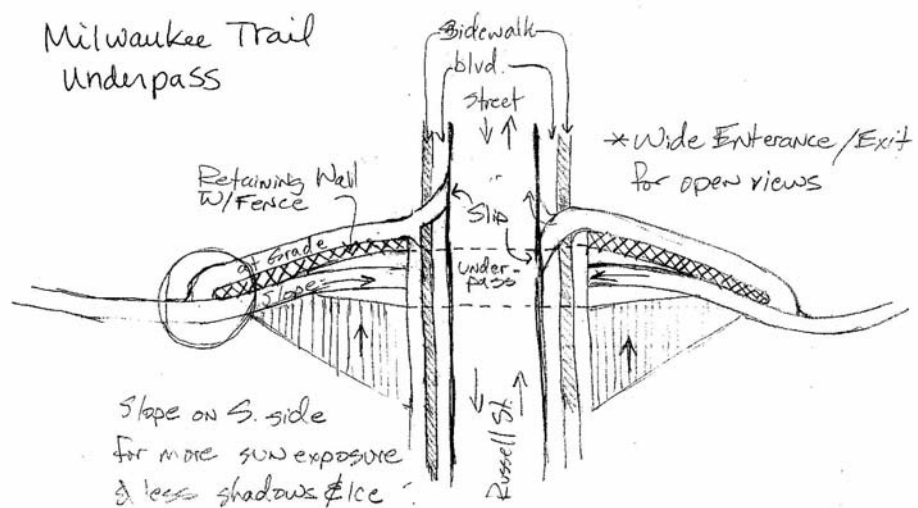
Schematic cross section of underpass at Milwaukee and Russell
Schematic plan view of underpass at Milwaukee and Russell and connecting sidewalks
Proposed route of Milwaukee Trail from Russell to Davis Streets

Appendix H - Written Comments and Responses

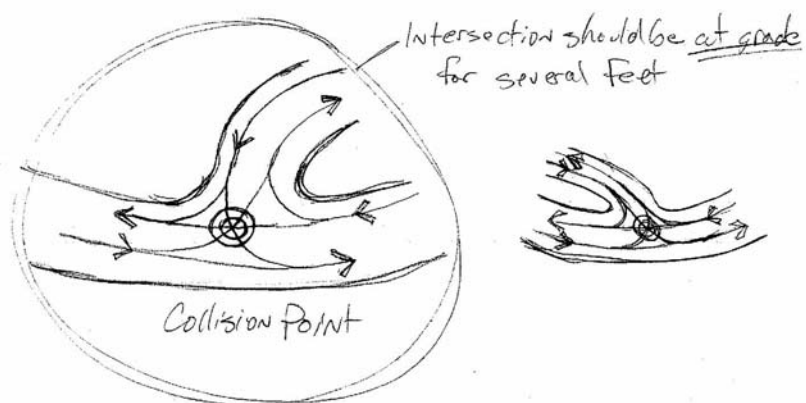
Attachment to Missoula Parks and Recreation Letter



Final Environmental Impact Statement

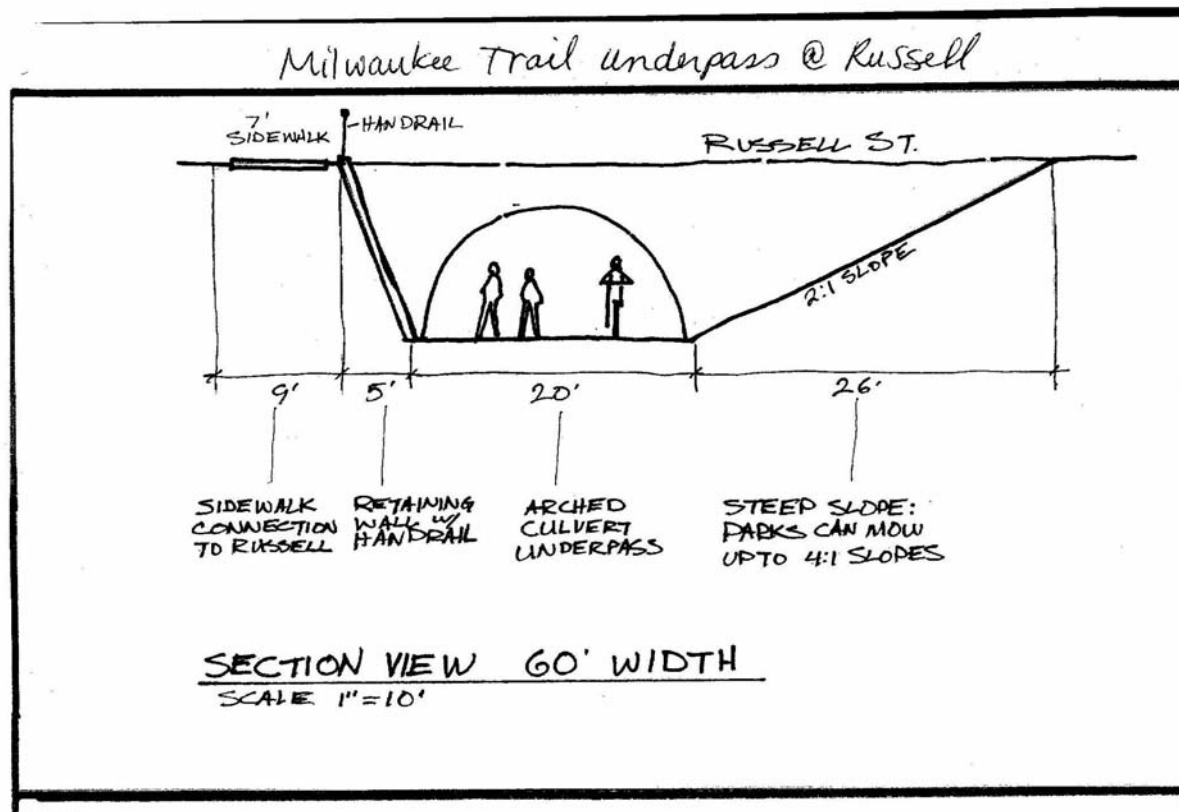


Attachment to Missoula Parks and Recreation Letter



Appendix H - Written Comments and Responses

Attachment to Missoula Parks and Recreation Letter





Final Environmental Impact Statement

Comment 208

To Whom It May Concern:

I would like to comment on the *Russell Street / South 3rd Street Draft Environmental Impact Statement*.

I am the owner of the property at 1436 South 4th Street. I have read the impact statement and there several issues I would like to address.

208-A According to your Draft, Alternative 4 is now being considered for Russell Street. This alternative shows that the street would widen considerably beginning at 4th Street and continuing north to 3rd to add additional north bound lane(s) of traffic for left turn lane(s). I do not see the necessity for this extra north bound lane. Left turns could be accommodated without adding the extra expense and impacting the neighborhood so negatively.

My property appears in your Table 3.6 as “Sites Eligible or Listed on the National Register of Historic Places” and is identified as Site Number 24MO796. I purchased the house in 2003 and have spent much time and money restoring the house. In addition, because of the proximity to Russell Street, I installed a wooden stockade fence to add privacy and help with the noise pollution.

208-B Your Table 4.2 shows that the “right-of-way” will be less than 5 feet from the house and Figure 4-2 shows that the “right-of-way” line is almost on top of the house and cuts through the yard and bisects the garage. I find it difficult to understand how your impact study could list the impact on my property as having “no adverse affect”. If this alternative is chosen, the impact on my property would be extreme. I would not only lose a garage and a fence but also valuable property. Additionally, the right-of-way would be on top of the house, thereby completely diminishing any privacy and greatly adding to the noise pollution.

208-A The Traffic Analysis Update conducted in the spring/summer of 2009 indicates that a dedicated northbound left-turn lane is critical to efficient operation of this intersection. The traffic modeling indicates that over 600 vehicles would utilize this turn lane during the peak hour.

208-B Table 4.2 provides a measurement from the back of sidewalk to the nearest structure on the parcel. The text has been clarified in the EIS. Your interpretation of the graphic is correct; however, the graphic is general in nature and does not reflect the actual intent at this property. As noted in Table 4.8, there would be no right-of-way acquisition, and no impact to this property. The widening of Russell Street is entirely to the east through this segment, so the back of sidewalk (and new right-of-way limit) will be at the edge of your existing property line.

Appendix H - Written Comments and Responses

Valuation would be so depleted that it might as well be condemned. Somehow, it would seem that the City of Missoula would put more value on houses of historic significance.

I would appreciate being kept up to date with the progress of this Draft. Please feel free to contact me with any questions or discussion.

Sincerely,

Marilyn Mueller

Thank you for your comment and interest in the project.

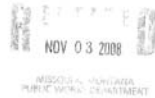
Final Environmental Impact Statement



Comment 209



Mr. John Dunkum
601 E Beckwith Ave
Missoula, MT 59801-4422



I'M 47 YEARS OLD AND GROW UP IN MISSOULA. THIS DOESN'T ENTITLE MY COMMENT TO SOME SPECIAL DISPENSATION OF COURSE, BUT MY LIFESPAN CORRESPONDS MORE OR LESS TO THE GOBBLING UP OF OUR BEAUTIFUL VALLEY BY THE AUTOMOBILE AND THE HIGHWAYS THAT IT SPURNS: BROOKS AND RESERVE STREETS. PLEASE DON'T INFLECT MORE OF THE SAME WITH A 5-LANE RUSSELL STREET, AND ELEPHANTINE ROAD WITH ELEPHANTINE VEHICLES. I HEARD STEVE KING (A PUBLIC WORKS COMMITTEE ON MEAT) SAY THAT

209-A

WITHOUT THE 5-LANE EXPANSION, MOTORISTS ARE OBLIGED TO LEAVE THE ARTERIAL AND NAVIGATE THE SURROUNDING NEIGHBORHOOD. WHAT'S WRONG WITH THAT? WHAT'S SO GREAT-OR USEFUL- ABOUT HIGH-SPEED STRAIGHTWAYS

209-B

THROUGH THE HEART OF TOWN? THERE IS NO QUESTION RUSSELL REQUIRES MODIFICATION, AND IN MY VIEW THE 3-PLUS PLAN FOR THE ROAD ACCOMMODATES "INCREASED TRANSIT CAPACITY", PROVIDES FOR EFFICIENT AND SAFE PASSAGE OF EMERGENCY VEHICLES, IS CONSISTENT WITH THE FAR-SIGHTED GOAL OF ENCOURAGING PEOPLE TO WALK AND BIKE MORE AND DRIVE LESS. I URGE YOU TO ADOPT THE NARROWER, GENTLER, AND LESS RADICAL PLAN FOR RUSSELL STREET NOT FIVE LANES OF HIGH-SPEED HELLISHNESS ON WHICH ANYONE NOT IN A CAR WILL FEAR TO TREAD.

THANKS, JOHN

209-A

It is neither safe nor desirable to encourage traffic to use residential streets for regional travel. Those local streets do not have the safety or capacity elements to support high volumes of traffic.

209-B

Please refer to response to Comment 27-B regarding the failure of options similar to the "3-Plus Plan" to satisfy the project Purpose and Need.

Thank you for your comment and interest in the project.

Appendix H - Written Comments and Responses

Comment 210

On 11/03/2008 @ 3:58 pm I received a voice message with a comment on Russell Street. The comment is from Elizabeth Thompson of 1330 Sherwood Street, just north of the Broadway/Russell intersection, whose telephone number is (406)543-2762. The comment is as follows:

“I would totally love to see as much pedestrian/bicycle friendly development as possible. Two (2) lane alternatives are far more preferable to me than the four (4) lane ones. We've got kids and we love going down to the Good Food Store and to be able to walk and bike there from our neighborhood would be so nice and right now of course it's not quite as friendly unless you go by the back routes.”

While a two-lane alternative fails to provide the safety and mobility improvements intended by this proposed project (see response to Comment 27-B), the Preferred Alternative provides substantial improvements in the bicycle and pedestrian facilities available throughout the Russell Street and South 3rd Street corridors.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 211

October 19, 2008

RECEIVED
NOV 05 2008

MISSOULA, MONTANA
PUBLIC WORKS DEPARTMENT

Gregg Wood
City of Missoula Public Works
435 Ryman Street
Missoula, Montana 598902

Re: Russell Street / South 3rd Street Draft Environmental Impact Statement and Draft Section 4(f) Evaluation (August 2008). Comment period extended to November 4, 2008.

Dear Mr. Wood,

I am a long-time resident of the Slant Street neighborhood and have resided on Lawrence Street for 20+ years. I am concerned about the area bordered by Knowles Street, Mount Avenue and Russell Street. This neighborhood provides good affordable housing to average working people and its central location allows pedestrian and bicycle access to nearby businesses and services. However its location also make the area vulnerable to through-traffic and encroachment from Russell Street and Mount Avenue. Some problems I see with the preferred Russell Street design are as follows:

- 211-A** • Lawrence Street receives a high level of right-in through-traffic from Mount Avenue to Russell Street. Traffic level and traffic speeds are increasing. The Lawrence Street stop sign is often ignored. In November 2004 I met with Steve King, City Engineer about this situation and he felt that improvements to the Mount-Russell intersection will reduce through-traffic on Lawrence Street. What information exists to support this assumption? Was the issue of through-traffic on Lawrence Street carried forward into planning for Russell Street?
- 211-B** • In November, 2004 I also discussed the need for a traffic calming device at the Lawrence Street / Cleveland Street intersection with Phil Smith, Bicycle-Pedestrian Program and Steve King, City Engineer. Was the issue of traffic calming for Lawrence Street and Cleveland Street carried forward into planning for Russell Street?
- 211-C** • Functionally Cleveland Street is part of the Russell-Mount intersection but it's not clear from the DEIS how Cleveland will function at the intersection. This is an issue because traffic volume and traffic speed on Cleveland Street between Mount Avenue and Knowles Street are increasing.
- 211-D** • East-bound traffic volume on Mount Avenue has increased noticeably since the city closed South Avenue to east-bound traffic. The redirected traffic exacerbated the traffic coming from Reserve Street via 14th. Did the city conduct traffic counts for Mount-14th before and after the South Avenue project? Will the increase in Mount Avenue east-bound traffic as a result of the South Avenue closure become the "need"

211-A According to analyses conducted for the Traffic Analysis Update in the spring/summer of 2009, the intersection improvements at Mount/14th Avenue would be expected to accommodate most of the westbound to northbound traffic that might see Lawrence Street as an option. The modeling forecast shows an increase from 20 vehicles in the peak hour on Lawrence to 70 vehicles in the peak hour over the next 25 years. (Please refer to Appendix G for a summary.)

211-B The Lawrence Street / Cleveland Street intersection lies outside the boundaries of this study.

211-C See response to above comment.

211-D This study did not examine changes in travel patterns on South 14th Avenue due to the closure of South Avenue.

Appendix H - Written Comments and Responses

for a future expansion of Mount Avenue between Russell Street and Stephens Avenue?

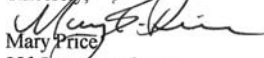
- 211-E** • The proposed Mount-Russell-14th intersection replicates other Missoula mega-intersections that function as free-for-all zones where lanes are crossed and signals are generally ignored. How will this intersection be safer? How can a pedestrian safely and comfortably cross the swath of pavement. How will traffic to and from the two gas stations at the intersection be managed? In my opinion the intersection design does not support the assumption that the intersection will reduce Lawrence Street through-traffic. Does the proposed intersection and widening of Mount Avenue pre-determine a future expansion of Mount Avenue between Russell Street and Stephens Avenue as discussed above?

- 211-F** • In my experience the problem with Russell Street between South 3rd and Mount Avenue is not getting through - even during peak traffic hours. The problem is turning off or turning on Russell Street and crossing Russell Street. I support a 2-lane design with turn lanes or crossing signals from South 3rd to Mount with a 4-lane design from West Broadway to South 3rd including a 4-lane bridge. I do not support a 4-lane through an existing residential area nor a design that is driven by peak traffic hours. I think protection of the adjacent residential area should have a higher priority than through-traffic during a limited number of hours.

- 211-G** • In regards to the public outreach efforts listed in the DEIS: I have never been contacted by the project consultant, the advisory committee, or any agency about this project even though I met with city staff specifically about Russell Street in 2004. Due to my work schedule I have not been able to attend public meetings. Please add my name to any contact lists for the Russell / South 3rd project.

Thank you for your attention to my comments.

Sincerely,


Mary Price
222 Lawrence Street
Missoula, Montana 59801
(406) 270-9432

- 211-E** The intersection will be designed to accommodate protected movements of pedestrians.

- 211-F** The proposed widening of Mount Avenue at the intersection of Russell Street does not necessitate any further widening on Mount/South 14th Avenue.

- 211-G** It is precisely the level of congestion along Russell Street that makes access from the side streets difficult, and causes a breakdown in the overall system. Current modeling, as confirmed through the Traffic Analysis Update, indicates that the Preferred Alternative provides the best opportunity for overall safety and operational improvements; however, the DEIS and FEIS contain language that allow for a reexamination of traffic conditions as the project progresses in the future. Please refer to response to Comment 185-B for more information.

- 211-H** Your name has been added to the contact list for future mailings.

Thank you for your comment and interest in the project.

APPENDIX I - Public Hearing Comments and Responses

This appendix provides responses to verbal comments provided during the Public Hearing held on September 24, 2008. Comments were recorded and transcribed, and responses provided in this document. No official responses were provided at the Hearing.

Comment	Name	Page
221	Marta Meengs	I - 3
222	Scott Bouma	I - 4
223	Jeremy Keene	I - 5
224	Bob Wachtel	I - 6
225	Mike Greathouse	I - 7
226	KristiDuBois	I - 7
227	Dave Durnford	I - 8
228	John Snively	I - 9
229	Jean Clark	I - 9
230	Bob Giardono	I - 10
231	Nancy Wilson	I - 11
232	Anna Marie Clouse	I - 13
233	Jordan Hess	I - 13
234	Will Snodgrass	I - 15
235	Peggy Miller	I - 16
236	Kay Whitlock	I - 19
237	Linda Smith	I - 20
238	Tom Facey	I - 22
239	Nancy McCort	I - 23
240	John Wolverton	I - 25
241	Ethel MacDonald	I - 27
242	Joe Loviske	I - 28
243	Carla Green	I - 29
244	Alex Taft	I - 29
245	Jodi Allison-Burnell	I - 30
246	Ben Weiss	I - 31
247	Mellisa Schmidt	I - 31
248	Elizabeth Rose	I - 32
249	Patricia Hogan	I - 33
250	Dan Oneal	I - 33
251	Gene Holture	I - 33
252	Greg Leary	I - 35
253	Melody Johnson	I - 36

Copies of the Public Hearing sign-in sheets are included at the end of this Appendix.

Appendix I - Public Hearing Comments and Responses

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Final Environmental Impact Statement

Comment 221

Marta Meengs: I would just like to state the following brief seven facts for your consideration. Ten businesses and eleven houses would be removed to accommodate this new road. This would have quite a personal impact on the owners of these businesses and homes and also the houses next to them. Four to five lanes would divide the street from 3rd to 14th Street, create a road with the width and traffic volume of Reserve Street, and bring faster traffic and increased noise to the neighborhood.

221-A Number three, the ability to speed through this neighborhood with the construction of four to five motorized travel lanes would create what is called induced traffic. Induced traffic is the increase attraction of vehicles to a road because it is perceived as a fast thoroughfare.

221-B Number four, two travel lanes going in the same direction or a total of four travel lanes greatly increases the chance of pedestrian-cyclists injury when crossing the road. Even with a boulevard in the middle the second lane of traffic going the same way must still be crossed and often, even though the car in the first lane stops, the car in the second lane does not and keeps driving, increasing the danger to the pedestrian or the cyclists.

221-C Traffic projections are based on outdated perspectives not taking into account increased gas prices, the decreased driving time of drivers, the increased use of mass transit, and increased non-motorized travel choices being made by the citizens.

221-D Number six, a signalized intersection as compared to roundabouts, creates way more pedestrian-cyclist injuries as there are many more points of conflicts in a signalized intersection. Finally we know that more people bike and walk if they feel safer and more comfortable on the roads they travel and cross.

Thank you.

221-A Please refer to response to Comment 19-B, and to Table 4.1 in the FEIS, regarding anticipated impacts.

221-B Please refer to response to Comment 56-A regarding comparisons to Reserve Street; there is no intention of changing the speed limit as part of this project (see response to Comment 73-C); and anticipated noise impacts are fully disclosed in tEIS (see also response to Comment 120-I).

221-C Please refer to response to Comment 23-B for a discussion of induced traffic.

221-D Please refer to response to Comment 66-A regarding pedestrian crossings of the proposed multi-lane roadway.

221-E Please refer to Appendix G for a summary of the Traffic Analysis Update conducted in the spring/summer of 2009.

221-F Please refer to responses to Comments 3-B and 146-G regarding roundabouts. See also Appendix G for a summary of the safety comparison amongst the various alternatives/options with signalized and roundabout intersections.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

Comment 222

Scott Bouma: I'd like to thank all of you for all of you guys for the time you've taken, the public, Darryl and his crew, and all the city and state and federal officials. I own one of the houses that is probably going to be taken by this project so I think I'm somewhat qualified to have an opinion about it. I'm fully in support of what they're suggesting here. Living right next to Russell I know that the traffic is unhealthy. I've got little kids that play out in the yard right by Russell and half the time in the morning and the evening there is traffic just stopped right there by my house and it stinks. There is always traffic going by so traffic is definitely a problem so anything we can do to get the traffic moving more quickly and maybe in waves so that it is a more manageable roadway would be good. The city is growing and I own a house on that street, but I think it is a little bit selfish for the people in the neighborhood to say we're going to keep our neighborhood at the expense of the wider street. Like Darryl showed, this is a major artery and living next to it I know it is. I think it is fair to let the rest of the city have a say in how the city grows. Also a third point is that it is not in good repair right now. I own the garage that you can reach out and slap as you drive by going north. Like Darryl said there are no sidewalks there, no gutters, people are walking by right on the side of the road, so there are definitely safety issues there and this is a good opportunity to clean it up.

I appreciate some of the things the previous lady said – the idea of making it a five lane road would make it unsafe, I think works on the assumption that it is safe right now and it's not. The idea that you're going to divide the community, I think is ... the fact is it is divided right now already. Anybody who has tried to cross Russell especially in my area around 9th Street knows that you have to sit there and wait for a while just to cross and if you've got a couple of kids it is even worse. So the idea of having a couple of dedicated cross walks I think will make it better not worse. In conclusion I support this and I appreciate your time.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 223

Jeremy Keene: My name is Jeremy Keene and I'm with WGM Group; I'm a principle of that company and am the head of our Transportation Group. My involvement with this project goes back over ten years beginning with the South 3rd Street project which was eventually rolled into this EIS process and I'm continuing on as a member of the public and following closely with the events and how it transpired.

Thank you for your comment and interest in the project.

I'm here to speak in favor of the project and generally in favor of the Preferred Alternative. I think this is an important project for economic development and redevelopment of the Russell Street area; it is consistent with the goals and the goals and objectives of the Transportation Plan and the Envision Missoula process that we're going through which really focuses on infill in the urban area and growth inward in the community – that's Russell Street; that's where we are. If we want to create great urban places and great neighborhoods in our community without continuing the sprawl pattern, we have to provide infrastructure to support it and we have to be able to get there by multiple modes of transportation – that's walking, biking, transit, and its cars. So this project needs to, I believe, provide adequate capacity for the immediate future. We're watching traffic volumes very carefully. We saw the decrease in volumes with the increase in gas prices but I think it would be a mistake to assume that's a trend. We need to see what happens over the next few years to get a little bit more data to know really what's going to happen. But given the redevelopment potential of this area, I think it would be a mistake to assume that traffic isn't going to, at least, be what it is today and probably more in the future. Even with a healthy mode split with good urban development, mixed use development that would promote biking and walking and other modes of transportation, we're still going to have car traffic. At the same time I think it's important that we design a road that is compatible with the community.

Appendix I - Public Hearing Comments and Responses

223-B

I have a few specific comments on the Preferred Alternative, the first being that I would like you to consider a Level of Service target of D rather than C because you're targeting a fairly high Level of Service for the peak hour and it really dictates the shape of the road. I think Level of Service D is an accepted criteria in many urban places and would be a reasonable Level of Service to shoot for and it has a major effect on how you design the intersections particularly left-turn lanes and the need for right-turn lanes and double left-turn lanes and that sort of thing. I would also suggest you consider narrower lane widths which would reduce crossing distances for pedestrians and also promote lower speeds. I would request you consider frequent median refuge crossings similar to Stephens where, in addition to the grade-separated crossings, pedestrians have opportunities to get across half the street at a time. Lastly, focus on good design not the number of lanes; that is truly critical.

223-C

223-B

Please refer to response to Comment 195-H regarding level-of-service goals used during project development.

223-C

The Preferred Alternative includes 11 foot interior travel lanes to minimize the overall footprint and calm traffic. See also response to Comment 19-C regarding pedestrian refuges.

Comment 224

Bob Wachtel: I'm here on behalf of the Board of Directors of the Bike/Walk Alliance for Missoula. Our membership is in the neighborhood of 150. After much discussion in our Board meetings and our various project groups, we find that the Preferred Alternative, at this point, is unsatisfactory in maintaining the community nature of the Russell area. We would like to propose that the Three Plus Alternative be examined in more detail and possibly adopted.

Please refer to response to Comment 27-B in Appendix G regarding analysis of options similar to the "Three Plus" alternative. See also responses to Comment 195, as well as the summary of the Traffic Analysis Update presented in Appendix G.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 225

Mike Greathouse: What’s disturbing to me is the amount of traffic that is on Johnson, Catlin, and Garfield, and the people who race through Franklin to the Fort Neighborhood. So I support what they are doing here and I’m hoping that it will alleviate the amount of traffic that races through our neighborhoods.

Comment 226

Kristi DuBois: I’m here representing myself. I bicycle around Missoula and drive around Missoula; I probably drive a lot more than I bicycle and would do it the other way around if I had some safer better ways to get around. I’m opposed to the Preferred Alternative. I would like to see the citizens developed Three Plus Alternative evaluated to see if that could be a better way to do this. I drive Reserve Street every day to go to work. They widened Reserve Street from two lanes to four lanes and looked what happened; it was backed up when it was two lanes and it is backed up with four lanes – you just have four lanes backed up instead of two lanes. If you build it they will come and if you build it for cars, cars will come; if you build it better for bicycles and pedestrians, you’ll get a few more people out of their cars saving the streets for the people that have to drive and making for a healthier community. I’d hate to see people’s home impacted any more than necessary; that’s supposed to be a residential neighborhood. I’m appalled by the fact that the traffic load seems to be the one most important factor in redesigning the roads and I feel like we should design things for people not for cars. I think that the traffic projections may change quite a bit now as people are looking at the cost of gas. I would like to see Missoula look to the future and build things for the future, use innovative ways to get people around town instead of using the same old ways of the past. Thank you.

Thank you for your comment and interest in the project. Please also refer to response to Comment 6-A regarding cut-through traffic.

- 226-A** some safer better ways to get around. I’m opposed to the Preferred Alternative. I would like to see the citizens developed Three Plus Alternative evaluated to see if that could be a better way to do this. I drive Reserve Street every day to go to work. They widened Reserve Street from two lanes to four lanes and looked what happened; it was backed up when it was two lanes and it is backed up with four lanes – you just have four lanes
- 226-B** backed up instead of two lanes. If you build it they will come and if you build it for cars, cars will come; if you build it better for bicycles and pedestrians, you’ll get a few more people out of their cars saving the streets for the people that have to drive and
- 226-C** making for a healthier community. I’d hate to see people’s home impacted any more than necessary; that’s supposed to be a
- 226-D** residential neighborhood. I’m appalled by the fact that the traffic load seems to be the one most important factor in redesigning the roads and I feel like we should design things for
- 226-E** people not for cars. I think that the traffic projections may change quite a bit now as people are looking at the cost of gas. I would like to see Missoula look to the future and build things for the future, use innovative ways to get people around town instead of using the same old ways of the past. Thank you.

- 226-A** Please see Appendix G for a discussion of the safety and operational performance of the various alternatives/options with regard to bicycle and pedestrian travel. See also response to Comment 27-B regarding the failure of options similar to the “Three Plus” plan to satisfy Purpose and Need.
- 226-B** Please see the response to Comment 23-B in Appendix H for a discussion of induced traffic and latent demand.
- 226-C** Please refer to responses to Comments 19-B and 63-A regarding impacts.
- 226-D** The Preferred Alternative includes safety and capacity improvements for bicyclists, pedestrians, transit, and vehicular traffic through the inclusion of bike lanes, sidewalks, grade-separated crossings, and additional travel lanes.
- 226-E** Please see the response to Comments 5-B and 116-G in Appendix H for a discussion of fuel price effect on travel. See also a summary of the Traffic Analysis Update in Appendix G.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

Comment 227

Dave Durnford: I grew up around 7th and Russell so I still have my Mom's house there. We're not just building transportation. It bothers me this whole time that we are just building transportation. We're not addressing character of a residential area at all. Even your Preferred Alternative doesn't do that. Functionally I like the Three Plus idea, however, functionally I don't think it's going to address future traffic. We're always going to have traffic whether we're driving an Ethanol-driven car or an air-driven car; so we're always going to have that. This Preferred Alternative to me ... a residential area is at least 60% undeveloped land, it doesn't have hardscape on it which would be sidewalks, etc., etc. This Preferred Alternative is nothing but pretty much hardscape. I'd be scared to death to ride my bike on it with a little five-foot lane especially at the speeds the people are going to presume they can travel on 24-foot wide lanes going one way and a bike lane and then you've got the curb and a very tiny five-foot tree lane. I don't think that is enough separation or buffer for any of these homes that are historic – they aren't going to be historic for long, they are going to be commercial. All we have to do is look at South Avenue and see what's happened to almost every small house there. That eventually erodes back into the rest of the neighborhood.

I'm going to take the Devil's Advocate for just a moment though and that's possibly approaching, if they took both sides of Russell, and actually made a decent statement about the quality of life in Missoula – that would be a very large median, extremely large buffers on the side. That is something I don't really hear addressed is the identity of Russell rather than just a rubber stamp of Stephens Avenue put on Russell.

- 227-A** The Preferred Alternative incorporates grade-separated crossings, landscaped medians and boulevards, sidewalks, and bike lanes in to enhance the visual and operational appeal for both users and adjacent residents.
- 227-B** Please see response to Comment 27-B regarding the failure of options similar to the "Three Plus" idea to satisfy Purpose and Need.
- 227-C** The Preferred Alternative includes two seven-foot landscaped boulevards, and a landscaped median measuring nearly 12 feet – equaling over 25 percent of this transportation corridor width.
- 227-D** Please see the response to Comment 28-A for national guidelines for bike lanes.
- 227-E** As noted in the EIS, there are two travel lanes for a total of 23 feet in each direction, a 5.5 foot bike lane, a seven foot landscaped boulevard, and a five foot sidewalk on each side of the landscaped median (or center turn lane).
- 227-F** The Preferred Alternative will have a direct effect on only two historic properties, and is not anticipated to result in a change in surrounding land use.
- 227-G** Please refer to response to Comment 5-C regarding the functional designation of Russell Street.

Thank you for your comment and interest in the project.



Comment 228

John Snively: I live in the University area and I have a business on South Higgins Avenue. I can relate very easily to the concerns of the neighborhood toward having a larger roadway constructed in this area. For that reason I'm going to speak against it. I also have a concern that while we're putting a diet on Broadway and reducing the capacity of that major thoroughfare through town, that we are talking about increasing dramatically the capacity of the Russell Street thoroughfare. So that would be my comment. Thank you.

Comment 229

Jean Clark: My name is Jean Clark. I live on Cedar Street just a block east of Russell and a block south of Broadway, so I cross both of them every day. I drive to work half the time and I ride my bike half the time. Quite frankly it is frightening crossing four lanes of traffic on your bike. By the time you get across that second lane, that second lane driver often doesn't see me, and this is the reality I see when I'm out there. Now I know he's talked about 30 mph speed limits but that's not what they're driving. When I drive on my route to work I stick to the 35 mph speed limit, then 45 mph, and I am the slowest driver out there. So by putting four lanes on Russell I feel like you're setting the rules at 30 mph but that's not what drivers are going to drive. So my route to the Good Food Store, forget it. I'm worried about riding my bike across four lanes of traffic. I used to live on Reserve Street and I never ever patronized any of the stores out there only because of crossing back and forth across the traffic. Now where I live I shop locally but if those lanes start increasing, my shopping locally and my community involvement is going to majorly decrease. I guess the other thing is I think we have to look at federal dollars – is our goal to get federal dollars or is our goal to have the community we want?

Please refer to response to Comment 120-E regarding the interim nature of the West Broadway Street project. See also Appendix G for a discussion of the capacity of the Preferred Alternative.

Thank you for your comment and interest in the project.

229-A

my bike half the time. Quite frankly it is frightening crossing four lanes of traffic on your bike. By the time you get across that second lane, that second lane driver often doesn't see me, and this is the reality I see when I'm out there. Now I know he's talked about 30 mph speed limits but that's not what they're driving. When I drive on my route to work I stick to the 35 mph speed limit, then 45 mph, and I am the slowest driver out there. So by putting four lanes on Russell I feel like you're setting the rules at 30 mph but that's not what drivers are going to drive. So my route to the Good Food Store, forget it. I'm worried about riding my bike across four lanes of traffic. I used to live on Reserve Street and I never ever patronized any of the stores out there only because of crossing back and forth across the traffic. Now where I live I shop locally but if those lanes start increasing, my shopping locally and my community involvement is going to majorly decrease. I guess the other thing is I think we have to look at federal dollars – is our goal to get federal dollars or is our goal to have the community we want?

229-A

Please refer to response to Comment 66-A regarding bike/pedestrian crossings of a multi-lane roadway, and response to Comment 73-C regarding posted speed limits.

229-B

229-B

In addition to crossings provided at the signalized intersections there will also be four grade-separated crossings, and intermittent pedestrian refuges in areas with raised medians.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

Comment 230

Bob Giardano: My name is Bob Giardano and I direct Missoula Institute for Sustainable Transportation. I'd like to echo that last speaker – we get \$40 million for this project, it's the local people who have to maintain the project for a long time and that's a big cost. We keep referring to Stephens. There are some big differences between what's being proposed and Stephens. One is if you look in the EIS at the maps at Russell and 3rd and count up all the turn lanes around that intersection it is 24 turn lanes. Mullan and Reserve has 22 turn lanes when you add it up – so you're talking about something with more lanes when you add up all the turning lanes than Mullan and Reserve. We've had two deaths on Reserve this summer; a motorcyclist and a bicyclist. These large signalized intersections present huge challenges and I would say they are not human friendly. Another difference is that Stephens did not remove any homes or businesses – 21 homes and businesses when affordable housing and housing stock is such an issue in the community. I think we really need to examine whether it is worth removing that many places that people live and frequent. Again the volumes that are projected for this Russell project, 34,000 cars; Reserve has 35,000 today so we can't just say we are going to build something that looks like Stephens. Stephens has 16,000 cars today. So imagine Stephens with more than twice the amount of traffic today. So it's not just the look, it's the character. I would say it would be worthwhile to change Reserve into something more like Stephens. And perhaps for Russell we're thinking more of an Arthur.

230-A Please refer to response to Comment 30-B regarding the relative cost of the alternatives.

230-B Please see response to Comment 56-A in Appendix H for a comparison of the Preferred Alternative to that of Stephens Avenue and Reserve Street.

230-C Please see response to Comment 195-M regarding the safety and operational benefits of additional turn lanes at intersections.

230-D Please refer to response to Comment 195-B regarding the accident on Reserve Street.

230-E Please refer to response to Comment 19-B regarding impacts amongst the various alternatives.

230-F Please refer to response to Comment 5-C regarding the functional designation of Russell Street.



Final Environmental Impact Statement

- 230-G** The Three Plus can work. A single-lane roundabout at Russell and 3rd can handle about 15% more traffic than today. The projections for this project are 37% more traffic. Let's work as a community to lower our future driving; it's already happening and as a community we can do that. Envision Missoula in the phone survey, people overwhelmingly said let's have more walking facilities, biking, and transit. And as someone else said it doesn't mean that everyone has to stop driving – it's more of a balanced approach and we can save a lot of money to do that. The Citizens Advisory Committee scored the Three Lane the highest, Spruce Park has scored unanimously for a Three Lane, so I would just encourage everyone to just keep working on this and let's make Russell a street we can be proud of.
- 230-H**

Comment 231

- 231-A** **Nancy Wilson:** My name is Nancy Wilson and I work for ASUM Transportation. I can tell you that students have definitely changed their behavior since gas prices have risen. We counted bikes the last two days and we cannot get enough bike parking on campus right now. It's amazing. I wish I had the numbers to give you but it is a substantial increase. I can tell you on the trails and paths, when I ride my bike there is congestion on trails and paths; people are changing their behavior.

I want to talk about a couple of other things a little more personal. I have two teenage daughters and they have a very limited budget for school clothes. One said I want leather boots and I said go ahead and get your \$200 leather boots; the other one is going to get tennis shoes and jeans and T-shirts.

- 230-G** State of the practice analyses have been conducted to calculate the single lane roundabout capacity at the Russell Street / South 3rd Street intersection. Those calculations put the roundabout at or about capacity under current conditions. Please also refer to the Traffic Analysis Update conducted in Appendix G which indicates that any alternative with single land roundabouts fails on opening day.

- 230-H** The Preferred Alternative provides a balanced mix of pedestrian, bicycle, transit, and vehicular travel improvements through the inclusion of dedicated elements for each of these modes of travel.

Thank you for your comment and interest in the project.

- 231-A** Please see the response to Comment 5-B and 116-G in Appendix G for a discussion of fuel price impacts on driving habits.

Appendix I - Public Hearing Comments and Responses

I have to say to that this project is a project that is buying Missoula just leather boots; we aren't getting the rest of what we need in Missoula. Roger Millar, Director of OPG, points out that the Missoula region gets only 2%, and this could get argued by the State, of the federal transportation dollars that come to the State, we need that 2% of the state's federal transportation dollars to be spent wisely. The State gets these federal dollars annually and has to spend these dollars annually, yet the Department of Transportation insists that Missoula save for this super expensive and super huge Russell project. This means that each year the money that Missoula is saving for this project is being spent somewhere else in Montana and it also means that actually the rest of this project cannot be built for 20 years. That's a long time to save the money that's not actually being saved and is being spent somewhere else in the state. Brian Schweitzer suggests in one of his ads that the federal government tried to step too hard on Montanans by forcing federal ID's on them, I would suggest tonight that the city government stand up to the State and say the same thing about MDT and their position on Russell. I would also suggest that Max Baucus be told that the Federal Transportation Department is making it impossible for us to spend the five million that he worked so hard to get us to build a bridge. Missoulians are concerned that we are going to have a bridge that is going to fall into the river if we don't get something built. Let's build something that we can be proud of. We cannot afford this project. We need to look again at the Three Plus that the neighbors and comments from the public are actually being listened to and developed.

231-B

231-B

This project has been a funding priority in the Long Range Transportation Plan for nearly a decade. Refer to Section 2.7 of the EIS for an accounting of funding currently allocated for the Russell Street Project.

231-C

231-C

This project is jointly sponsored by the City of Missoula, Montana Department of Transportation, and Federal Highway Administration. The rules, regulations, policies, and protocols of each agency have been taken into consideration throughout the project development process.

231-D

231-D

Please refer to response to Comment 27-B, and the detailed analysis in the Traffic Analysis Update, which indicate that options similar to the "Three Plus" fail to satisfy Purpose and Need.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 232

Anna Marie Clouse: My name is Anna Marie Clouse. I'm the mother of the Pink Grizzly if you know where that is. Shane was supposed to be here tonight but he had a meeting so you get me. He wanted me to tell you that he is not for what he calls the Super Two Lane with the turn lane and the four lane bridge because you're going to have a direct impact on the pink Grizzly. If you do all these things you are planning to do; you will destroy the whole front part of the pink Grizzly. Also I've had a lot of things in the mail about the roundabout on 3rd and Russell. If you do that be prepared for lots of deaths and lots of law suits because even at 6 am it's busy. You said when we started that you're here to listen to us – remember that. Thank you.

232-A

232-B

232-A Please see response to Comment 152 for a discussion of the anticipated impact to the Pink Grizzly property.

232-B Please see response to Comment 148-D regarding the consideration of a roundabout at South 3rd Street.

Thank you for your comment and interest in the project.

Comment 233

Jordan Hess: I have a couple of quick points. I'm going to echo what Bob had to say about the intersection at 3rd and Russell. That would become the largest intersection in Missoula and I think that alone makes the project not meet the purpose and need. Bike lanes alone are not enough to create a safe biking facility. We need safe intersections that are human scaled that bicycles can go through without crossing paths with 24 lanes of traffic. That is my biggest concern with this project – the footprint of that intersection. Reserve is such a dead zone when it comes to bikes and it's such a dangerous area for bicyclists with the fatalities and injuries that are occurring out there, so I think that is a big concern.

233-A

233-B

233-C

233-A Please see response to Comment 73-H regarding the size of the Russell Street / South 3rd Street intersection.

233-B Please see the responses to Comment 28-A regarding bike lane design.

233-C Please see Appendix G for information regarding the safety analysis, and response to Comment 195-B regarding the recent fatality on Reserve Street.

Appendix I - Public Hearing Comments and Responses

233-D Also, and I don't know if this is possible, but I would like to see if there is some kind of provision to build transit funding into an EIS. I don't know if there is but I'd love to hear that addressed. Finally I want to address the cost. Attending the Long Range Transportation Plan meeting on Monday where the transportation projects were prioritized for the next 20 sum years, a few cost things of the Russell Street project really bothered me and that was the absolute cost of \$40 plus million plus inflation in the year of construction. Not only that, but the time costs of maybe being 20 some odd years out. I'm a college student in my 20's and I'm going to be in my late 40's by the time this is all said and done. I think that's a long time for the neighborhood to wait for a number of reasons particularly ADA compliance. If the project were completed in 2027 that would be nearly 26 years of noncompliance for ADA with sidewalks that aren't compliant or nonexistent at this point. Going back to what Nancy said as well, the opportunity costs of not completing

233-E other projects. I think we need to spend our funding on intelligent transportation projects – projects like signal optimization, roundabouts to make the most of our infrastructure and things that aren't quite so expensive.

233-D See response to Comment 188-I regarding transit funding.

233-E Projects of this nature fail to satisfy Purpose and Need as stand-alone alternatives. Signal optimization is a tool identified in the 2010 Transportation Plan Update and will be implemented in appropriate locations throughout the City.

Thank you for your comment and interest in the project.



Comment 234

Will Snodgrass: I'm familiar with NEPA and I find that this Draft EIS is deficient in many areas including socio-economic impacts and air quality among other deficiencies. The EIS purports to offer reductions in congestion. Has anyone been to a major city over the ten years? Los Angeles, Chicago, Minneapolis, Seattle, and San

234-A

Francisco all suffer from gridlock and they have built more and more and more roads and what has happened is that more and more cars appear and you have problems such as those that you see right here out on Reserve Street which was widened not very long ago and suffers from gridlock. This DEIS fails utterly to address the cumulative impact of widened roadways. That's a focus of NEPA –

234-B

roadways that conduct vehicular traffic and increasing volumes at higher speeds generating alarming levels of particulate which will interconnect with other wide and widened roadways that generate more of the same dangerous aerosolized particulate and other air toxics causing significant cumulative impacts which again this EIS fails to address. The pollutants are dangerous and they're ubiquitous.

234-C

Wherever there is vehicle traffic these pollutants are found far and wide everywhere. The following language from the EIS in question should not escape scrutiny by people who are concerned about this plan and its insufficiency: "according to the Federal Highway Administration analysis, even if vehicle miles of travel increase by 64%, reductions of 57% to 87% on mobile air source toxics, cars, are projected from 2000 to 2020." Then the EIS goes on to say that "under the Interim Guidance Guidelines issued for Air Toxics Analysis in environmental documents."

Com: (Darryl James) You have about 30 seconds left.

A: (Will Snodgrass) You know I really resent the fact that you're cutting people off – NEPA as you well know says that people are to be allowed more opportunity for comment, not less!

234-A

Please see Comment 23-B in Appendix H for a discussion of the concept of induced growth.

234-B

Please see 73-C in Appendix H for a discussion of vehicles speeds on Russell Street, and Section 4.7 of the EIS for a discussion of Air Quality impacts, particularly the Mobile Source Air Toxics referred to in the comment.

234-C

Please refer to the correspondence with the Environmental Protection Agency in Appendix D for an explanation of the Air Quality Impacts resulting from the proposed project.

Appendix I - Public Hearing Comments and Responses

Com: (Darryl James) Let me explain – we are trying to provide everybody equal opportunity to speak.

A: (Will Snodgrass) I understand that and I'll close but you're not complying with the Montana Constitution either.

(Will Snodgrass, continuing): So what they are saying here is that this is a minor project but they acknowledge that they can't predict what the health effects will be of this project; they simply don't have the data. The EPA has tightened up the regulations because they know that projects like this make people sick. The studies show that if you live near a big road with fast traffic, you have adverse birth outcomes, increased cardiovascular disease, strokes, morbidity and death. This EIS does not address this at all. I'm also concerned about the great potential for public works fraud. I think it's rampant here in Missoula and I think the people of Missoula really have to start looking at what this Public Works Department and the political doormats in Helena, Montana, are doing with our tax money. Thank you.

234-D

234-D

Please refer to the correspondence with the Environmental Protection Agency in Appendix D for an explanation of the Air Quality Impacts resulting from the proposed project. The project team is unaware of any studies, or a position stated by the EPA that "projects like this" result in "adverse birth outcomes, increased cardiovascular disease, strokes, morbidity and death."

Thank you for your comment and interest in the project.

Comment 235

Peggy Miller: I want to show something. I've got an extremely amateurish painting, a fifth grader could have done a far better job at painting this than I did, but I'm going to show it anyway. The reason being is because after I left the meeting that was held at the church a few weeks ago on the same subject and I realized ... first of all I support the Three Plus Plan. Generally from everything I have known in the past about transportation traffic and I'm concerned about future traffic problems have not been included in the projections. The oil crisis I think, etc., will impact our traffic in ways we are not yet including in projections because we don't yet

235-A

235-A

Please see the response to Comment 5-B and 116-G for a discussion of the fuel prices effect on vehicle miles travelled. Additionally, please see Appendix G for information regarding the sensitivity and mode shift analysis that was conducted as part of the Traffic Analysis Update process in the spring/summer of 2009.



Final Environmental Impact Statement

know how much it will impact. So I don't think this plan, and I think Three Plus is closer to what we'll need overall than what has been suggested. So Three Plus is generally what I support.

235-B

I was really trying to figure out ... I don't believe in bicycles having to go out ... I live on 7th, three doors from Russell. Seventh Street has tons of bicycle traffic, tons of strollers, men and women pushing strollers, bicycles pulling strollers, and I see it increasing all the time. So I went home and tried to think through this and basically I don't know if you can see this but I painted basically it's an image as we take 3rd and Russell, 14th Street and Russell, and I'm even suggesting 7th and Russell, that we emphasize bicycles. We're moving ahead with our knowledge and our awareness and we've all asked how we make this a community. If we were to build overpasses or bridges that were large enough, they could even have lights on them, they could have a couple of benches on top so that the bicycles and strollers, etc., so the bike lanes along Russell connected to the ... you can even build them large enough so you have a fountain in the center. They can be beautiful with a lot of trees and it would create a total incentive for bicyclists, strollers, and that traffic and it would connect both sides of Russell in a totally different way. If you have them go underneath Russell, they'll be dark and I've lived in a lot of cities where they've used those. People don't want to use them at night; people don't want to push strollers under tunnels at night. They get smelly, they get dank, and there are a lot of problems with them. So I don't think that is what we're striving to have here in this community. I would recommend that we think of something to add to this plan and I would prefer the Three Plus type of approach which will encourage bicycles and make a very positive area for them.

235-C

235-D

235-B

Please see Comment 27-B in Appendix G regarding the analysis of options similar to the "Three Plus" plan, which indicates that these three-lane alternatives fail to satisfy the Purpose and Need for this project.

235-C

The EIS affords flexibility in the final design, where overpasses could be constructed if they proved to be more desirable from a constructability, safety, and/or cost perspective. See also response to Comments 26 and 112-C.

235-D

Please see response to Comment above regarding the failure of options similar to the "Three Plus" approach.

Thank you for your comment and interest in the project, and thank you for taking the time to illustrate your concept (attached).

Appendix I - Public Hearing Comments and Responses

Peggy Miller's illustration:





Final Environmental Impact Statement

Comment 236

Kay Whitlock: I'm Kay Whitlock. I live on Curtis Street, the most cul-de-sac'd neighborhood in Missoula where trying to make a left turn onto 3rd Street is a challenge to say the least. But I don't want to talk about South 3rd tonight, I think that's a conversation that there needs to be a lot more community conversation in our neighborhood and in adjacent neighborhoods. I do want to speak against the Preferred Russell Street Alternative. I think there are a lot of things at stake. I want to echo the people who have said we're not just building roads, we're trying to build community. Eight years ago in 2001, I was one of the people who was not a formal member of the Citizens Advisory Committee to this project but was a concerned neighborhood member who wanted to go and express some concerns about it. For eight years there has never been an answer or even seriously taking up one of the questions I raised not only by me but was a concern being raised more generally in my neighborhood at the

236-A time. That was what about the people that these projects are proposing to displace – how can we create projects that help create safer, more livable, more walk-able, more bicycle-able communities that help move traffic more safely, not only motored traffic but pedestrian traffic, in ways that build community not just traffic patterns. One of the things we were concerned about was what was going to happen to the people whose properties were going to be taken over. I asked specifically time after time how are they going to be able to afford, not just to move somewhere else, but to move somewhere else where they will have as good a quality of life or as good a quality of business as they have now? What kind of legal help are they going to get? What kind of rights do they have?

236-B What's going to be the compensation? And I would get general answers like "don't worry it will be fair." But nobody ever answered those questions and its eight years later and nobody is answering those questions and I want those questions answered.

236-A Please see Comment 19-B in Appendix H for a discussion of impacts in the corridor.

236-B The Preferred Alternative includes safety and capacity improvements for bicyclists, pedestrians, transit, and vehicular traffic through the inclusion of bike lanes, sidewalks, grade-separated crossings, and additional travel lanes.

236-C Necessary acquisitions will be made in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* and appropriate Sections of Montana Code.

Appendix I - Public Hearing Comments and Responses

236-D My concern is that this whole Alternative goes back and we do a new analysis based on something like the citizen initiated Three Plus Project has done to talk about how to create affective community building transportation that does not displace so many residents and so many businesses. In eight years you would think somebody could give us clear answers to that question and I call for that now!

Comment 237

Linda Smith: My name is Linda Smith and did call down to Public Works to find out how much time I'd have tonight and I was told approximately the same amount as at the City Council, so I have approximately three minutes. I'm a member of the Rose Park Neighborhood Council and on the Rose Park's Transportation Committee. I was the Rose Park Representative to the Advisory Committee for Rebuilding Russell and South 3rd. The Committee was created in November of 2000. It was a Committee made up of 24 citizens representing local businesses, corridor residents, bike/ped trail groups, Montana Rail Link, Missoula Chamber of Commerce, low income housing, and six neighborhood councils on both sides of Russell. There were also some city staff members on the Committee as non-voting members. In the partnering workshop held in November 2000, and here's the green document that lays all this out, the Advisory Committee duties included "the Advisory Committee is key to developing this project and assuring the public has full input into formulating the project." The Advisory Committee met monthly and sometimes twice monthly for six months from November 2000 to May 2001 learning transportation concepts and language and developed a Purpose and Need statement for the project including a sentence that said "develop a transportation facility that maintains or enhances a sense of the residential and

237-A

236-D

Please see response to Comment 27-B in Appendix H regarding the failure of options similar to the "Three Plus" project to meet Purpose and Need.

Thank you for your comment and interest in the project.

237-A

Please refer to Chapter 7 and Appendix D of the EIS for a summary of the Advisory Committee dates and meetings. This statement was retained as part of the Goals and Objectives. It is not part of the Purpose and Need statement because it does not inform the public or the decision-maker as to why the project is being proposed, which is the essential intent of a Purpose and Need statement.



Final Environmental Impact Statement

237-B commercial neighborhoods.” The Advisory Committee was abruptly disbanded in May 2001 without being able to make recommendations for a Preferred Alternative for Russell and South 3rd. The record needs to be corrected – Public Works Director, Steve King, said in last Sunday’s Missoulian article “that the committee fulfilled its role early on and the Preferred Alternative reflects its views”. The Committee was not given a chance to express its views or make recommendations for the Preferred Alternative and the DEIS in Section 7.1 under Project Advisory Committee says “having fulfilled their intended responsibilities to the proposed project, the Committee was disbanded in 2006.” Again the Advisory Committee was not allowed to fulfill its responsibilities, no further meetings were held after May 2001, no reason was given for ending the Committee meetings, and I never got a letter. In today’s op ed, Steve King also held up Stephens Avenue as the model for a neighborhood sensitive street. I lived right near it and Stephens was a dangerously wide street that neighbors could not safely cross. Some have been hit by cars. It was narrowed significantly with a very wide median and no homes or businesses were taken out, however, the speed limit remained 35 mph and you don’t see many bike riders or pedestrians on Stephens Avenue.

237-C Now I brought my show and tell here. The Preferred Alternative in the DEIS targets 11 homes and 10 businesses for full acquisition displacing the people from their homes and businesses. I decided to take pictures of some of those affordable homes and local businesses and a pocket park that will be removed along Russell Street. While taking pictures I met Dianna Sorrenson. She and her husband, Wes, have lived at 915 Kerns for 32 years raising their children on a block of smaller homes, mostly owner occupied. She said “we can live with three lanes; anything more than that we are really up against it.” If they are displaced from their home she doubts they can afford to buy a home in Missoula given house prices in the Missoula market and would probably have to live in their fifth wheel.

237-B Please see response to Comment 5-A for a discussion of the role of the Citizen’s Advisory Committee.

237-C Please see response to Comment 19-B regarding impacts among the various alternatives.

Necessary acquisitions will be made in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* and appropriate Sections of Montana Code.

Appendix I - Public Hearing Comments and Responses

237-D In the DEIS section of the Preferred Alternative that addresses social impacts there is a statement that says “sufficient housing is available in the community.” What the DEIS analysis does not acknowledge is that people displaced from affordable homes will likely not be compensated enough in a government buyout to be able to acquire equivalent housing because housing prices are so high and affordable housing is in such short supply in Missoula that the Mayor has created an affordable housing initiative. So I believe that the social impacts with financial implications have not been adequately addressed in the DEIS. I firmly believe that if the Citizens Advisory Committee had been allowed to participate in the selection of the Preferred Alternative for Russell and South 3rd that so much money and time would not have been spent on an alternative so unsuited to Missoula’s transportation needs at this time. That a different alternative would have been designed to create a blended alternative for the different sections of Russell that acknowledges the interest of business owners and home owners along Russell while providing safety and mobility for users of all forms of transportation.

Comment 238

238-A **Tom Facey:** I’m Tom Facey. I was lucky enough to represent this neighborhood in the Legislature from 1999 to 2005. When we started this process in 2000, the consistent message was please keep my neighborhood character; keep it narrow, keep it so the strollers and bikes could be safe, and the kids could be crossing safely. In all honesty they don’t want a Berlin wall built down the middle of Russell Street; they need a place that lets them have their community.

238-B I would suggest that if you build something like the Three Plus that the motorists will vote with their steering wheel; if it doesn’t work they’ll find somewhere else. Please respect the character of the neighborhood by keeping this road the correct proportion for the size of the neighborhood so people can live here.

237-D See response above regarding the acquisition process.

Thank you for your comment and interest in the project.

238-A Please refer to response to Comment 120-X for a discussion of neighborhood impacts.

238-B Options similar to the “Three Plus” concept were analyzed and fail to satisfy the Purpose and Need. This project has been identified in the Long Range Transportation Plan as an important link in the overall transportation network. While the No-Build is a viable alternative, failure to provide improvements on Russell Street increases the transportation deficiencies on other routes in the network.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



Comment 239

Nancy McCort: I live at 621 Blaine. I'm going to quickly try to cover my comments under two different hats. The first hat, I'm on the leadership team for the Rose Park Neighborhood Council and I'm here to read the resolution that was passed on 9/17/08 at a special Rose Park Neighborhood meeting held specific to discuss the Russell Street Plan.

- 239-A** • Whereas improving Russell Street has been under discussion for many years in Missoula and a Preferred Alternative has been selected with a width of five lanes that removes 11 homes and may remove an additional 13 single family homes due to right-of-way acquisition and possibly 10 businesses;
- 239-B** • Whereas Russell Street currently travels through both business areas and neighborhoods;
- 239-C** • Whereas improving a street through a neighborhood should mean maintaining or enhancing businesses and homes along side it while accommodating all forms of transportation;
- 239-D** • Whereas a blended lane option, more lanes in business areas, fewer lanes in neighborhoods, does not require eliminating existing businesses and homes;
- 239-E** • Whereas the citizens plans for Russell expands roadway capacity for bikes, pedestrians busses, and cars without having to widen the existing street; We members of the Rose Park Neighborhood Council resolve to support adoption of an alternative for reconstructing Russell Street, the citizens plan for Russell that provides enhanced safety and mobility for pedestrians, bikes, busses, and cars while keeping in tact the businesses and residential neighborhoods along Russell. We direct our leadership team to take action by writing letters to the Mayor, City Council Representatives, and other public officials in support of the only existing alternative that addresses the above concerns, the citizens' plan for Russell a/k/a Three Plus Russell, and encourage individual members to join in supporting this alternative for Russell.

- 239-A** Please see response to Comment 19-B and Table 4.1 in the FEIS for a discussion of impacts to the corridor.
- 239-B** Please see response to Comment 120-X in Appendix H for regarding the character of the corridor.
- 239-C** The Preferred Alternative has been developed to provide safety and capacity improvements for all modes of travel.
- 239-D** Please see Comment 19-B and Table 4.1 for a comparison of impacts between various alternatives.
- 239-E** No alternative analyzed as part of this process is able to satisfy Purpose and Need and avoid impacts to homes and businesses. Please refer to response to Comment 27-B for a discussion of analysis of options similar to the "Three Plus" plan.

Appendix I - Public Hearing Comments and Responses

The vote was 11 Rose Park residents in favor of the Three Plus Russell alternative, 9 non-residents were attending the meetings also voted to adopt this Resolution and two non-Rose Park residents were opposed to this Resolution. So clearly the Preferred Alternative is not preferred by Rose Park neighborhood.

My second hat is as a Rose Park neighborhood member. I've lived in the Rose Park neighborhood for almost 15 years. I'm a University of Montana graduate a couple of times and I want to address something that doesn't get talked about and maybe it's that elephant under the carpet in our community, but there is a disconnect between the east end of town and the west end of town. There is a perceived disconnect between University and the rest of Missoula and it's my feeling that this road, a five-lane road down Russell, will only serve as a geographical boundary in addition to this cultural boundary that so many of us are trying to overcome. Secondly, I'm going to be moving my business to Russell Street and I don't feel like the five-lane alternative is going to be conducive to the types of customers and the type of transportation that my customers utilize. I also just don't think it is the kind of place that I want to be with my business next to something that would look more like Reserve Street. I think, is it 24 lanes, I'm pretty sure it is going to be the biggest intersection in the whole State of Montana.

So very briefly I want to thank everybody here for coming because it would be a real bummer if I were here sharing these comments to just a handful of people, so thank you to everyone who stuck it out tonight. The federal money is our money; it's not their money, it's our money. So we should be directing what happens to federal money and not sit and say they get to tell us what to do with their money – it's our money. And I do have ultimate respect and gratitude for the work you guys have done unfortunately it usually gets to this point in most projects before you get this kind of public involvement.

239-F Please refer to response to Comment 120-X regarding the character of the corridor, and the role of Russell Street.

239-G Please refer to responses to Comments 37-A and 64-B regarding the potential impacts of a project including raised medians on business access and activity.

239-H The City of Missoula, Montana Department of Transportation, and Federal Highway Administration are partners in the development of this project. The public monies spent on this project are subject to rules and regulations to ensure that they money is spent wisely, but no state or federal authority has dictated an outcome for this project.



Final Environmental Impact Statement

239-I

Bigger streets don't equal cars that move faster. Reserve Street is an example of that. Roundabouts do work. Roundabouts are not dangerous and scary, you just need to understand them and be familiar with them. Portland, Oregon, is a beautiful city that has made effective use of roundabouts on very busy streets. I want to challenge you gentlemen and Mr. Lynch, thank you for coming, but this is an innovative time. We're on the cusp of big changes with transportation and Missoula embraces change, Missoula embraces innovation. I challenge you, Mr. Lynch, and I challenge you gentlemen to go back to the drawing board and come up with something new and different. If the Three Plus for Russell won't work find something like it that will work please. Thank you.

239-J

239-I

Please refer to response to Comment 3-B regarding roundabouts.

239-J

The Traffic Analysis Update confirms that the Preferred Alternative best satisfies the Purpose and Need while minimizing impacts.

Thank you for your comment and interest in the project.

Comment 240

240-A

John Wolverton: My name is John Wolverton and I'm a resident of this neighborhood right there. I live on 8th Street about two blocks from Russell Street. I'm also on the leadership team for the Neighborhood Council. I'm also an active member of Bike/Walk Alliance for Missoula. Speaking specifically about Russell Street and this Preferred Alternative, not so much for 3rd Street, I've had occasion to hear about this interesting test that we can put to development or any kind of development activity to see if it's really positive for a community and if it will pass these five tests. The Popsicle Test – can you go to the store buy a Popsicle and walk home without it melting all over your hand? I think when you have to cross huge roadways with lots of complicated problems for pedestrians, it fails. The Smooch Test – is this somewhere you are going to want to walk next to your honey hand-in-hand and you might stop at a corner or behind a tree and smooch instead of sitting there worried about what the traffic is doing or getting diesel fumes thrown into your face, so there's a fail. The Kid Test – are parents going to be comfortable letting their kids cross this roadway or go to school anywhere near this thing, I think that's a failure.

240-A

Please see response to Comment 63-B regarding these five tests.

Appendix I - Public Hearing Comments and Responses

The Senior Test – are people who have limited mobility going to be able to cross this big wide alternative like this Preferred Alternative wide roadway? That is a no; they are not going to be able to and it's not fair. The Commons Test – is the development going to give back to the community in a way that does not harm it, and I think it fails that. Those are the five tests.

I want to talk a little bit more about our Montana values. What are our Montana values? Think about the things you cherish or that are important to you. One of the things I think is important is fairness.

240-B We've heard a lot from other people about the issue of housing. Is it right for us to knock down homes and businesses to impact neighborhoods in such a profound way just so motor vehicles can move through an area faster? I don't think that's fair. Another one of our

240-C Montana values is family. Montana's safe and friendly spaces and places for their neighborhoods so they can raise their kids and live and work and play in a safe manner. I don't think this is going to be safe. Freedom in choice – we are a progressive, intelligent community and we have the right to decide what our community will look like and I don't think this is being fair to the community. Thrift – a \$40 million project, we are in dire need of transportation funds to fix all sorts of

240-D roads all over our community. Just think if we could save some money on this with a community friendly modest alternative and a human scale roadway, what we can do with the rest of that money to make our roadways better in the rest of our community. So I want to ask all of you and particularly our leadership and especially our city leadership and our public servants to reflect on our Montana community values. Does this Preferred Alternative truly reflect the will of our community? Does it honor our intelligence and the flexibility of our citizens? I don't think it does. Thank you.

240-B Please see response to Comment 19-B regarding impacts of the various Build alternatives.

240-C Please see Appendix G regarding the safety of the Preferred Alternative as compared to other alternatives/options analyzed.

240-D Please see response to Comment 31-G regarding the similarity of cost among the various alternatives.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement



(Darryl James) How many more people would like to speak this evening? A handful. Okay, good. I just want to reiterate that if you don't want to wait, feel free to leave comments, take advantage of the Court Reporter if you want to leave a verbal comment before you leave, and there are other opportunities to leave comments. You've got until October 20th, so please take any avenue you can to leave us some comments.

Comment 241

Ethel McDonald: I'm Ethel McDonald, 316 West Central. You've heard a lot of people talk about community, the concern about dividing the community. You've also heard a lot of people angry at feeling they haven't been heard. The Citizens Advisory Committee was not properly paid attention to. I want to acknowledge that we're all in a hurry to see Russell improved. I don't think any of us think it is a good street for anybody; I avoid it on my bike completely, the traffic moves. It's not that bad in a car but it's terrible for bikes and peds. We do all want to see it improved and I understand Steve King's frustration, we all have it after eight years of nothing happening. But it will happen faster if you do listen and if you recognize the amount of public opposition to this and come back with a three lane proposal between 3rd and Mount particularly, with roundabouts. I appreciate your attempt to include roundabouts; I absolutely think they keep traffic moving and they increase the capacity because the traffic keeps moving and you don't get the jams, you have slow traffic. My concern with the four-lane is that it divides the community – no matter if you have good bike lanes, if you can't get across the street easily it doesn't do you much good to have that bike lane. I think that it is extremely important that we not have another street that divides the community. We were told by Steve King at Rose Park meeting or some meeting that you had to do the whole corridor, 3rd and Russell all the way, and you had to do that in this statement. Even though we know we don't have funding for the rest of Russell forever, you have to do that now in this statement. My understanding is that then you are tied to it. And that is the concern of some of us, many of us. It is at this point that I beg you to not ignore all of this comment and come back with five lanes again. We'll never get it done because we will go on fighting about forever, I'm afraid.

241-A Please see the response to Comment 5-A in Appendix H for a discussion of the role of the Citizen's Advisory Committee.

241-B Please refer to response to Comment 185-B regarding potential phased implementation of the Preferred Alternative, which would allow for an evaluation of the traffic volumes and the need for improvements south of South 3rd Street. Also refer to the analysis of Option 7 in the Traffic Analysis Update in Appendix G.

241-C Please refer to response to Comment 120-X regarding Russell Street in the context of the adjacent neighborhoods, and responses to Comments 36-A and 120-G regarding opportunities for pedestrian and bicycle crossings throughout the corridor.

241-D The Preferred Alternative(s) in the EIS must address the Purpose and Need for both corridors, but as noted above, project construction will likely be phased over time.

241-E An EIS provides disclosure of impacts from a proposed project. As noted above, if the project is phased, there will be opportunities to assess if changes in traffic volumes and patterns would support changes in the Preferred Alternative in the future. Changes can be made in the Preferred Alternative so long as the Purpose and Need is still addressed, and the impacts do not exceed what has been disclosed in the FEIS and Record of Decision.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

Comment 242

Joe Loviske: My name is Joe Loviske. My address is 1702 Shy Bear Lane in Arlee. I'm a relatively new member of this community here in Missoula; I'm a transplant. I've been here for five years now and I'm mainly speaking because I believe it is important to be speaking and I think that everyone should line up and say why they're here and what they feel about this. I'm also speaking because I'm such an avid cyclist; I love to ride on the road. I'm also a vehicular cyclist which means I'm willing to ride on Russell whether it's a bad road or a good road. But boy do I love good roads and boy do I love good communities. So many of the improvements that a lot of you guys have been asking for, I have a feeling that these gentlemen think that their Preferred Alternative will solve that or at least address that. I think every alternative addresses that because if you throw a rock at Russell Street it will improve the road. But as a new community member, I look at Missoula and think I love this place, I love being a recreationalist here; I love being a commuter here. I'm from Seattle and I was a commuter there when I lived there; I ride on Aurora Avenue, I ride on Lake City Way – it's not very much fun but I do it. I think about spending large portions of my life here in Missoula, and I want to be proud of where I live and I want to have people come here and check out this place that we've built – it's new, it's progressive, it's fun to ride on and more people are riding their bikes in the city because of it. So maybe it doesn't work because of funding; I don't have all that technical stuff, but it should work, you should make it work, and if you drove here today, you should drive home and park your car in the garage, lock it up, and take your bike out next time!

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 243

Carla Green: I'm Carla Green. I live at 370 Strand. I own my house and do worry about my home value. When the gas prices went up I basically parked my car. I probably fill my gas tank once every two months or so. I would love to see more company out there; I still feel awfully lonely out there on the streets and I want to see more people on bikes. I want to make it as bike friendly as possible. I would not dream of every riding my bike out to ... I get in my car to get out to Costco, I won't ride my bike down Reserve Street. If it was an environment where I wanted to ride, I'd ride, but it's not. I use my bike as my main source of transportation, I have it parked outside. I also want to ask whose idea was this and why? Who is benefiting from this? That is what we need to know.

Comment 244

Alex Taft: I'm Alex Taft at 439 Conrad. I spent 30 years planning and designing transportation projects in my career and I think this project is on shaky legal grounds in two aspects. One is the property taking involved in the Preferred Alternative; and two is the treatment of the Citizens Advisory Committee and the public process that's been undertaken. I think the city, the state and the feds have an opportunity to develop a Supplemental EIS by examining the so called citizens plan, the Three Plus Plan. Unlike the Preferred Alternative which takes 21 properties and affects three 4(f) properties, the Three Plus Plan takes no properties and affects no 4(f) properties. In the area of citizen participation there is a petition of over 1,000 names so far in support of the Three Plus Plan which will be submitted before the close of public comments. So I think there is a real opportunity for the city and the other agencies to examine the Three Plus Plan and make adjustments to their Preferred Alternative based on that to avoid any kind of legal actions that might take place.

244-A

244-B

244-C

The Preferred Alternative provides for multimodal transportation by incorporating bike lanes, sidewalks, and grade separated crossings.

Thank you for your comment and interest in the project.

244-A

Please see response to Comment 19-B regarding impacts among the various Build alternatives.

244-B

Please refer to the response to Comment 5-A regarding the role of the Citizens Advisory Committee.

244-C

Please see Appendix G for a summary of the Traffic Analysis Update which analyzed options similar to the "Three Plus Plan." That analysis indicates that similar three-lane options fail to satisfy the Purpose and Need. Further, there is no analysis to suggest that such an alternative avoids impacts to homes, businesses, and Section 4(f) properties.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

Comment 245

- 245-A** **Jodi Allison-Burnell:** I'm here mostly to represent Sussex School. I'm not a member of the Board but the Board has authorized me to represent the school on this project in a couple of aspects. I'll be submitting my own personal comments in writing. What happens with Russell and 3rd has a huge impact on Sussex School. Sussex School has been located in its present location northwest of the Good Food Store on 1st Street since the mid-1980s. We own the property outright, we have 90 students K-8 and we will be expanding our student body significantly in the next few years to about 115. None of our students live in the neighborhood; they all have to come from other places around Missoula and a few out-of-town. How our students get to school is something that we care about quite a bit and we need to look carefully at our school's transportation impacts. The Board would like me to offer support to two aspects of just about all the designs that we've seen here. One is the below-grade crossings for Russell Street. There are three proposed right now. I realize those are in the plans; they don't seem to be particularly controversial. It is particularly important that those remain in the plan no matter what happens. The other aspect that we would like to support is improved pedestrian safety at 3rd and Catlin. Every afternoon a staff member from Sussex has to walk the students across the street to the bus. That's because we've lost bus service in the area and that is another matter that we are dealing with. Third Street, in its present configuration, of course is not safe. The city has made some improvements with signage but we still don't have anything like a school crossing sign even though we've been in our present location for this many years.
- 245-B** The Board cannot offer a comment at this time on three lanes versus five lanes versus anything else, because we don't yet have those detailed safety studies.

- 245-A** Please see the response to Comment 143 in Appendix H for information regarding Sussex School.

- 245-B** Please see Appendix G for the results of the safety analysis for the various alternatives and options on Russell Street.



Final Environmental Impact Statement

245-C I would like to see in the Final EIS please some acknowledgement that there is a permanently located private school very close to this intersection and to please address those detailed safety studies because we really can't make a decision as a school without that information. Thank you.

Comment 246

Ben Weiss: My name is Ben Weiss. I live at 700 Palmer Street on the north side, a neighborhood not directly affected but sort of. I'm a cyclist and driver. I can sort of see the benefits of all plans being considered but I'm curious why there aren't even more alternatives. I also understand the need to expedite this process as Russell is terrible. Why weren't segregated bike lanes considered? How does the EIS incorporate the potential development of the Brownfield just north of the Holiday or the potential development of the old sawmill district or the Downtown Master Plan that is being considered? Are all of those things being incorporated into what we're looking at? I think like other people have said we have a real potential to develop Missoula for the future and be very innovative and I think we need to look bigger than just this intersection at least for a little while.

Comment 247

Melissa Schmidt: I am a resident of the Riverfront neighborhood and I live really close to Russell Street. I want to say first of all that I'm totally opposed to this Preferred Alternative; I think it is a terrible idea. I want to address my comments to Steve King because as a resident of Riverfront neighborhood I'm involved with the Neighborhood Council and the Community Forum. In Community Forum we've had presentations from Schools-to-Schools and from the City Council Health Department encouraging us to encourage our neighbors to bicycle and walk.

245-C The location of the school is noted in Figure 3-3 of the FEIS.

Thank you for your comment and interest in the project.

246-A A "reasonable range" of alternatives was explored as required by the National Environmental Policy Act.

246-B See response to Comments 28-A and 55-B regarding bike lanes.

246-C These types of developments are considered at a macro-scale during the development of the Long Range Transportation Plan. The traffic projections are affected by these redevelopment opportunities and in turn the projections on Russell Street reflect the anticipated development of those sites over the next 20 years.

246-D The Preferred Alternative affects more than one intersection and in fact has implications for the entire network.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

I don't understand why Public Works isn't working in correlation with the City County Health Department for the same goals. I don't understand what benefit there is for this road for our community and for our neighborhood. It would create a huge deterrent from anybody who lives west of Russell to cross on bicycles or walking; it would be almost impossible during rush hour to get five lanes of traffic to stop so that somebody may cross the street. The tunnels that you've mentioned at 11th and Wyoming are way out of anybody's way. I would not recommend to my children, if I lived west of Russell, to travel all the way to Wyoming to cross it. I mean it just doesn't make any sense. I would not recommend to my children that they bicycle along Russell as a five lane road. The thought of it reminds me so much of Reserve Street. How many people bicycle on Reserve Street? Very few and those people probably don't have any other options. This is a bad idea.

Comment 248

Elizabeth Rose: I'm Elizabeth Rose. I'm a member of MIST and am a cyclist. I know from experience that my interactions with Reserve Street have not been pleasant. I do believe that building more lanes for traffic will just increase the traffic and will make people want to use that as a fast alternative. The few times I have driven on Reserve Street I have never been comfortable and find it very frustrating; it is just not a smooth operation. I think that Russell Street will echo that. I'm opposed to it because as it is, it is complicated enough. Definitely something needs to happen but as a cyclist I do not see four lanes being a positive thing. Thank you.

Please refer to responses to Comments 36-A and 120-G regarding the overall improvement in crossing opportunities provided by the Preferred Alternative. See also Appendix G for a summary of the bicycle and pedestrian safety analysis. These grade-separated crossings are connections to existing trails, thus the location of the crossings were not dictated by this project, but rather by the previous development of the trails.

Thank you for your comment and interest in the project.

Please see the response to Comment 23-B in Appendix H for a discussion of the idea of induced traffic or latent demand, and response to Comment 56-A regarding the comparison of the Preferred Alternative to Reserve Street.

Thank you for your comment and interest in the project.



Final Environmental Impact Statement

Comment 249

Patricia Hogan: I live on 12th Street two blocks off Russell. I would like to take issue with your answer, Darryl, to the fellow who asked who chose the Preferred Alternative. It's been my impression over the years attending these public meetings ever since the inception of this project, that public opinion has been more in favor of a human-scale Russell Street corridor and opposed to the increased number of lanes along Russell and that opposition is increasing.

Comment 250

Dan O'Neill: I'm a part-time resident of Missoula. I live in Butte and I maintain space here. I've been here since 2001 and what I'd like to remind people to look around at the other communities and look what has happened here in the last three years – you've got 39th Street, Russell Street, Orange Street, and this Russell Street project. I think you guys should be lucky to even have any of these considered and what it's going to do to improve that – there is no street trees, there's no pathways, no bike lanes at all. So whatever you do, I can't believe anyone is against any of it. I would just encourage you to look around the state at other cities that don't have this.

Comment 251

Gene Holture: Boy three minutes, here we go. I'm disappointed in the way this process has gone and how the Advisory Council was not included. I'm questioning an error I see on page 13 of the map of the overview – it shows a raised median on Russell on both the north and the south side where it should be a turn lane.

251-A

251-A

Please refer to responses to Comments 17-C and 74-A regarding the importance of public input, and the role of transportation officials.

Thank you for your comment and interest in the project.

Thank you for your comment and interest in the project.

Please see the response to Comment 5-A in Appendix H for information regarding the Citizen's Advisory Council.

Appendix I - Public Hearing Comments and Responses

251-B

So I'm wondering how the map is wrong, showing a black bar and not showing a turn lane to turn off of Russell to 3rd either direction. If that can be a deal stopper; I don't know where we're at to revise it or what we need to do? There were two articles in the Missoulian, you can find them now if you go to the archives, but it was just in there on Sunday. In the article it only focuses on Russell during the rush hour ... a quote from Administrative Officer Bruce Bender, "there's only enough money to rebuild from Russell Street to 3rd now; that leaves plenty of time to fine-tune this other portion" which runs through Moore's Adventuaria. Again it was said in the article "years in waiting, the Russell and 3rd project remains contentious." CAO Bender wants to wrap up the EIS as quickly as possible. He'd like the community to support the Preferred Alternative in the Draft EIS so the city can at least build from West Broadway to 3rd." Then he said, "the city can work with the neighbors on exactly what to build from 3rd Street on down, there isn't federal money on that portion anyway." When I read the

251-C

EIS on line I saw something to the effect of the only way to get out of the five lanes if we go with it now, at the time of phase build out, is if there is substantial decline. It's very vague and ambiguous wording and I'd like to see some hard numbers from the state so we can have a challenge for the Missoula community – what is that number and if we don't hit it by 2020, I don't want to hear "substantial" as your definition then instead of now. I'm upset

251-D

that Steve King said that this is not a popularity contest. If it's not then what am I doing here at this meeting and why is there a public process where you can comment on it until October 20th? Also in that article in the Missoulian ... the reporter said that some people feel that people who go to the meetings don't represent all of Missoula. Well if you're not here and you don't give public comment, then I don't understand how your opinion even matters because this is the process and you need to be here as part of it. I thank everybody for this.

251-B

The locations of the center turn lanes and medians are conceptual at this stage of the process; however, the detailed drawings in Figure 4-1 illustrate a raised median all the way to the intersection at South 3rd Street, and include turn lane pockets. Final details will be resolved in the future design process.

251-C

Please see response to Comment 185-B with regard to the potential to phase the project.

251-D

Please see response to Comment 74-A regarding the role of the public and agencies in project decision-making.



Final Environmental Impact Statement

I live on Reserve out near 3rd and Reserve is nuts; you can't ride a bike on that. I've had a bicycle rider on my windshield at 10:00 at night. He hit my front fender because I pulled out in front of him. Why? Because his headlight wasn't working as best we could determine, the State couldn't determine it. He was wearing all black. Five lanes of traffic is nuts to cross. If you go from this bike lane and you're going to go over two lanes, a turn lane, and two more – wow it's not working. And bikes aren't an all year solution. Not all of us ride bikes in the winter here but some of us do. We need to look at all of it. Third Street being three lanes? I came here tonight at 5:45 and it was backed up going west bound from Reserve all the way to Curtis. So you're going to have a major super highway on Russell dumping all these cars onto 3rd Street – are you going to stack them all the way back up to Russell? That's not going to work. We need to look at the numbers. I didn't have time to read the complete EIS and I'll be giving more comments later but these are things that are on my mind right now. I encourage the Three Plus design. I encourage us saying "no, stop" – we're talking about a nationwide bailout.

251-E

Comment 252

Greg Leary: My name is Greg Leary and I live at a 1240 South 2nd Street West about a block from Russell. We just purchased a house about two years ago. I'm taking encouragement from the kid who said everybody should get up and talk. I'm pretty new to the problem and from what I've heard here tonight, I disapprove of the selected choice. I think my main observation and where I'm most discouraged is when I observe how you guys receive the comments. It seems like half the time you guys are really attentive, and half the time you might be in a different state and want to be home with your kids or with your wife. But in government in general I see the disconnect between what the public wants and how they want to move the society forward and then what really happens at the government level when things get implemented.

251-E

Please see Appendix G for a summary of the modeling efforts conducted as part of the Traffic Analysis Update, as well as the analysis of options similar to the "Three Plus" design.

Thank you for your comment and interest in the project.

Thank you for your comment and interest in the project.

Appendix I - Public Hearing Comments and Responses

You guys seem like, to me, you're the inter-face between us and what really happens and you have the power. You also are the experts and being the experts you should take what you know in terms of the field and what people tell you is the proper way to construct a road but then also incorporate a creative side that really progresses transportation. I just wanted to add that.

Comment 253

Melody Johnson: My name is Melody Johnson. I live at #11 Ada Lane, Mobile City Trailer Park. Now the proposal that you plan on doing at this point right now has me deeply offended and scared to death because they want to take River Road and put it down through the trailer court over Idaho Street and then up Catlin to Wyoming. That takes six trailers out of there, mine being one of them. My trailer is old, the city of Missoula has made it so that cannot even move into a trailer park unless it is a 1980 or newer and they may have even moved the stakes on that. So I'm basically stranded and told "hey we're going to do it anyways; we're going to put it right on down through the trailer court." We have a well in my yard; we have a well up in the front. Mobile City is on well water. It comes down through the court, it feeds the whole trailer court, it goes into my yard, it goes across the street and feeds the duplexes over there across the street. The house up on the corner that you propose to take out has its own well too. The City Gardens are down there on River Road. The man who owns the house there is on well water. They take the water out of the ditch next to the trailer park to water their gardens. We have 45-50 ducks down there; we have a little lady who feeds them down there. We have deer down there; we have a five-point down there and he's a big boy. He hangs around there and just loves the place. We have beavers down there. It's all natural down there. The court has been there over 50 years.

Please see responses to Comments 41, 19-vvv, and 219 regarding impacts to Mobile City Trailer Park. While some right-of-way will be required, no impacts to trailers are anticipated in this area.



Final Environmental Impact Statement

It's not fair – my trailer is too old and there are three of them there that are too old. They cannot move anywhere in the city of Missoula or into any trailer court because they are too old. And there is a gentleman who just moved there this summer hoping to God that he dies there or when he's ready, go into a retirement home. It cuts right down the middle of his house; he won't have a house. I'm two blocks away from Russell Street. Why should that impact me that greatly? That is not fair. That wasn't brought up – the houses on Russell Street and the businesses on Russell Street were brought up but nobody said nothing about the houses two blocks away that are in the back of the trailer court that are going to be impacted by this plan.

No! Three Plus, maybe. I've been there 20 years, I went to this school for eight years, I lived up on 9th Street for 30 years. I'm a native Missoula, Montanian that is going to be forced out of my home because of this project. You didn't think about think about that did you? Thank you.

Thank you for your comment and interest in the project.

CLOSING

Does anyone else want to speak this evening? Again this is not your last opportunity to speak. If you've already spoken this evening and have an additional comment and want to put that on the record please feel free to do that. The Court Reporter is still here. You have other opportunities to leave comments and you can go to the web page, you have until October 20th. Thank you all very much for coming, we appreciate your participation.



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

Please Sign In:

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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Bruce Beah	City		
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Mike Kruse	420 W. Central	543-6547	
ELLEN BUCHANAN	MDA		
Roger Miller	OPG		
MATT HOPKINS	809 PRINCE	550-3420	
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Renée Mizzelle	City Council #5		
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Earl Sutton	18965 Appaloosa Ln Frenchtown	370 6827	
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Appendix I - Public Hearing Comments and Responses



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Jeff Johnson	100 S Row 11	721-7467	
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Al Price	110 N. Easy St, v2802	542-0484	
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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Appendix I - Public Hearing Comments and Responses



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Appendix I - Public Hearing Comments and Responses



Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

Please Sign In:

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Amy Carbin	902 Kern		
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Minette Glaser	1805 South 9th St. W. MSIA 59801	721-1706	
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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Appendix I - Public Hearing Comments and Responses



Russell Street / South 3rd Street - Missoula Environmental Impact Statement

**Public
Hearing**
September 24, 2008

Please Sign In:

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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

Please Sign In:

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Steve Schabel	2200 Applewood Ln	406-721-4686	
Megan Gyermeik	2216 S. Sixth St.	(650) 387-6437	
John Clark	1401 Cedar St #2	406 529 1841	
Jeff Lund	22 Leisure Ln	406-207-2017	
Pauline Sedoff	1013 Madison Ln	(406) 722-4973	
MICHAEL HUDSON	336 S. 6th W #4 MISSOULA MT 59801	(406) 529-5722	
Ryan Morton	1604 Greenough Dr W	406-546-0902	
Rum Line	2200 Garland #4	406-723-0560	



Appendix I - Public Hearing Comments and Responses



Russell Street / South 3rd Street - Missoula Environmental Impact Statement

**Public
Hearing**
September 24, 2008

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Jenny Gremer	620 Rollins St	805-448-7264	jennegremer@yahoo.com
Kathleen Irwin	303 Inez St	829 3392	kirwin@uci.edu
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Russell Street / South 3rd Street - Missoula

Environmental Impact Statement

**Public
Hearing**
September 24, 2008

Please Sign In:

Name and/or Agency	Address:	Phone:	E-mail:
Jim Salisbury	5221 Laree Ct	542-2676	
DEREK GOLDMAN	1759 S. 7 TH St.	370.6491	
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ERIK HARRIS	1910 S. 7 TH St.	207 0940	ü



Appendix I - Public Hearing Comments and Responses

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APPENDIX J - Court Reporter Transcript Comments and Responses

This appendix includes a transcript of verbal comments left with the court reporting service available at the Public Hearing on September 24, 2008. Responses are also included on the right side of the page.

Comment	Name	Page
212	Ireen Wetzel	J - 3
213	Wendy Ninteman	J - 3
214	Don Nicholson	J - 4
215	John Hendrickson	J - 5
216	Larry Brumback	J - 5
217	Mike Kruit	J - 5
218	Jeff Johnson	J - 6
219	Jeanne Johnson	J - 6
220	Nyla Sterner	J - 8

Appendix J - Court Reporter Transcript Comments and Responses

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Comment 212

Ireen Wetzel, 1631 River Road, No. 6

I'm a sign painter. I painted a sign for the road that they want to put through, and it says: 10 miles per hour; children, ducks at play. And I think that says it all about our neighborhood.

Thank you for your comment and interest in the project.

Comment 213

Wendy Ninteman, and my address is 435 Beverly Avenue, Missoula, 59801

213-A My comment is that I think this is going to be a defining feature of our community, and I don't think any of the alternatives are appropriate. I think we need to go back and do more design work. And I know there's alternatives that have been created by citizens in the community, and I don't think that's necessarily the answer anyway because we need professionals designing the roadway on Russell and Third. But I just think if you –

213-B Without looking at the August rendering, if you look at the facts about the setup, it's very similar to the setup on Reserve Street. And the reality is it's going to feel like Reserve Street. It's a total mess.

213-C And I particularly don't like the signals on Russell. And I think it's going to make us like any other place, so I really hope we go back and look at some fresh alternatives.

Thanks.

213-A While no detailed “design work” has been conducted to date, this multi-year process has developed and analyzed a reasonable range of alternatives to address the stated Purpose and Need to provide substantive safety and mobility improvements for all modes of travel within the Russell Street and South 3rd Street corridors.

213-B See response to Comment 56-A in Appendix H.

213-C During the project development process, both roundabouts and signals were explored as traffic control options. During the analysis of alternatives, it was determined that a signalized intersection at South 5th Street had a lesser impact on the historic Section 4(f) properties adjacent to the intersection. See also responses to Comments 3-B, 46-C, 75-F, and 146-G.

Thank you for your comment and interest in the project.

Appendix J - Court Reporter Transcript Comments and Responses

Comment 214

Don Nicholson

I'm a member of neighborhood councils, and of the city council. My comments:

- 214-A** According to Mike Kress, who is our traffic engineer, 85 percent of the people in Missoula get around in cars; 5 percent walk to work; 5 percent carpool; 2 percent ride a bus; 3 percent work at home. The majority of the traffic of people in this town is wrapped up in cars. Therefore, the emphasis needs to be on cars.
- 214-B** This is a project that has been studied by two engineering firms over eight years, and we have analyzed it all kinds of ways. The alternatives we're down to seem to me to make good sense, but I think further delay—which is what I'm afraid is going to happen—will cause the increase of the cost to go up.
- 214-C** It was \$40.8 million in 2000. I believe our estimate is 51 now. That's a 20 percent increase of my tax money, and I'm opposed to that. So my urging is to get through to October 20th, which is the cutoff date, and then get this in front of the city council so they can decide up or down whether to go for the D, or E modified, or alternative C on Thursday.
- 214-D** There's plenty of roundabouts here to satisfy the roundabout people. There's plenty of signal stuff here for the signal people. We have studied this thing to death and we need to get on with life.
- 214-A** There is no intent in the EIS to provide an emphasis on any single mode of travel, but rather a balanced design to provide improvement in all modes of travel in these two corridors.
- 214-B** The project team remains committed to moving this project along as expeditiously as possible while adhering to NEPA/MEPA procedures and providing an opportunity for valuable public input and a thorough evaluation of viable alternatives.
- 214-C** The public comment period was extended largely due to requests made by City Council members. See response to Comment 201-C.
- 214-D** Preliminary design recommendations were made based on sound scientific and engineering judgment.

Thanks for listening.

Thank you for your comment and interest in the project.



Comment 215

John Hendrickson
1365 Starwood, Missoula, 59808

I'm in favor of the preferred alternative, and I think it needs to be done as soon as possible and things can be tweaked, you know, later on. So that's it.

Thank you for your comment and interest in the project.

Comment 216

Larry Brumback
2326 South Third

Just a couple of comments: On page 24 of the summary, this business, here, right where this—this looks like Cedar Products at the intersection of Third and Schilling, is incorrectly identified as residential. It's commercial.

This error has been corrected in the FEIS.

Second, can I suggest on page 7 of the summary, a left—excuse me—a right-off/right-on from Russell Street to River Road, directly opposite the one indicated, which would eliminate the necessity for the dogleg access through Catlin Street.

Specific design details will be worked out in the design phase.

That's it.

Thank you for your comment and interest in the project.

Comment 217

Mike Kruit
420 West Central

I also own property, though, on Russell. And I just strongly oppose the preferred alternative, I feel that it totally disrupts what Missoula is, and they should—it should be smaller, three lanes, and bike and pedestrians should be number one priority.

Please see response to Comment 27-B in Appendix H for a discussion of the failure of three-lane alternatives to satisfy Purpose and Need.

That's it.

Thank you for your comment and interest in the project.

Appendix J - Court Reporter Transcript Comments and Responses

Comment 218

Jeff Johnson
100 South Russell

I say if they do Phase 1 from Broadway down to Third Street and they don't do the south section, it's just going to be a bottleneck in there. There's still going to be traffic jams.

That's it.

The EIS outlines a complete project from West Broadway Street to Mount Avenue/South 14th Street. The concept of phasing the project has been introduced largely due to funding constraints, but also as a means of ensuring that the improvements included in the Preferred Alternative are still responsive to the ground conditions in future years. Please see Section 2.7 of the EIS for a discussion of possible phasing opportunities for the project. (See also Comment 185-B in Appendix H.)

Thank you for your comment and interest in the project.

Comment 219

Jeanne Johnson
No. 11, Ada Lane

219-A It's Mobile City Trailer Park. It is the road that they want to take and make River Road down. And they would take my trailer and six other trailers out of there. We would be homeless.

219-B My trailer is an old trailer. It cannot be moved on any other trailer court here in town because the city council has figured that you have to have an '85 or newer; most of them are '90 or newer. So I would be homeless.

219-A There is no intention to acquire any of the mobile homes in the Mobile City Trailer Park as a result of the proposed project.

219-B See response to comment 219-A, above.

Final Environmental Impact Statement



219-C We have a well in the trailer court. It runs the whole trailer court; it runs the duplexes across the street. On the proposed plan that they have to take River Road down to Idaho Street up Catlin to Wyoming, they would annihilate the trailer court.

219-D It would take the whole character of the neighborhood and it would ruin it. The trailer court has been there for over 50 years.

219-E The duplexes across the street are fed by a well that is in my yard that they will remove me from, which goes clear down to Russell Street. And the big well, the pumps, are right there in the Mobile City Trailer Park well house. So they will devastate us with this proposal. They will take away everything that we have. They will take the second trailers in.

219-F We have Monroc down the road. Monroc is a gravel pit road. It comes right across and down River Road. It's going to come right through there. We're going to have trucks and we're going to have a kid killed on there. We already have problems with it being like a highway. It's private property. Both sides of it are owned by the same owner.

219-G Both sides are nothing but wells. We are on wells. There's no city water over there. They would have to totally pipe in city water and everything, plus self-destruct that one whole side of the trailer court and duplexes.

219-H I feel that's totally being unfair. They didn't bring it up on this, other than a little, tiny piece of it. They just kind of cut in there real quick, they said: This is what we're going to do.

But I don't even live that close to Russell. It's two blocks away from me, but that's how much it's going to devastate me, two blocks away.

219-C Potential disruption to water service it is anticipated to be short-term and temporary, and limited to impacts during construction.

219-D While a new roadway would be constructed adjacent to the trailer park, efforts will be made to minimize impacts to existing homes along this street.

219-E See response above regarding the lack of impacts to trailer homes.

219-F The road referred to in the comment is a public right-of-way and the anticipated traffic volumes on the improved roadway would not be substantially different than neighboring streets.

219-G See response above regarding the anticipated impact to wells and domestic water service.

219-H This element of the project has been included since the early stages of project development, and serves an important traffic operational need. The Council on Environmental Quality regulations implementing the National Environmental Policy Act state that "NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail." (40 CFR 1500.1(b)). Since there are no impacts anticipated, no detailed discussion was devoted to this site.

Appendix J - Court Reporter Transcript Comments and Responses

219-I The community gardens are over in the next field. When they put the road through, they will have to go over the ditch that they water that from. Also, the owner of that land is on wells. So they're totally planning on cutting all those people's wells off. They would have to, and put us on the city.

219-J I am against it. I'm totally against it. The three-pack plan for Russell Street sounds like a good idea. The roundabouts sound like a good idea. Make the bridge higher and take River Road down underneath the bridge like it used to be. They can go to California Street to Third Street if they want to that way.

219-K There's houses down there anyway. It's not going to impact them any because it's a two-lane road. There's just floodplain down in there. It's down lower. It would just be not going on that during the flooding part of the time. The houses are still there, so what's the difference?

Thank you.

Comment 220

Nyla Sterner
1509 South Fifth West

My neighbor is the one that's the big historical house that's going to be moved. Therefore, when I step outside my door, you know what I'm going to see? It's a roundabout. I don't want that. I just want to be on the record of knowing that.

219-I See response above regarding potential temporary disruption to water service.

219-J The three lane options with roundabouts on Russell Street have been eliminated due to a failure to satisfy the project Purpose and Need. (See also Comment 27-B in Appendix H.)

219-K Grade separation of this intersection would not be cost-effective in light of the volume of traffic carried on River Road. See also response to Comment 195-nn.

219-L Construction within the floodplain is not a desirable alternative in light of the fact that other viable alternatives exist that avoid significant impacts to the built and natural environment.

Thank you for your comment and interest in the project.

Only the alternatives that included roundabouts would have required the removal of the historic home at the corner of Russell and South 5th Street. The Preferred Alternative avoids impacts to the structure and does not include a roundabout intersection.

Thank you for your comment and interest in the project.

Final Environmental Impact Statement and Section 4(f) Evaluation

Russell Street / South 3rd Street - Missoula
STPU-M 8105(8)
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