DOWNTOWN WHITEFISH HIGHWAY STUDY

FEBRUARY 25, 2022

MONTANA
Department of Transportation

VISION ZERO

WHITEFISH URBAN STUDY
STPX 12099 (8)
UPN 9659000

Prepared for:

MONTANA Department of Transportation

MONTANA DEPARTMENT OF TRANSPORTATION

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ABBREVIATIONS & ACRONYMS

AADT	Annual Average Daily Traffic
CECRA	Comprehensive Environmental Cleanup and Responsibility Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
EIS	Environmental Impact Study
FHWA	Federal Highway Administration
LOS	Level of Service
MDT	Montana Department of Transportation
mph	Miles Per Hour
NHS	National Highway System
NRHP	National Register of Historic Places
PM-10	Particulate Matter - 10 Micrometers
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RP	Reference Post
RRFB	Rectangular Rapid Flashing Beacons
S.N.O.W.	Shuttle Network of Whitefish
SC	Steering Committee
SPF	Safety Performance Functions
SSAM	Surrogate Safety Assessment Model
SUP	Shared Use Path
TWLTL	Two Way Left Turn Lane

The Downtown Whitefish Highway Study aims to build on past planning efforts to identify a solution that improves traffic flow and safety of the highway while minimizing impacts and supporting community values.

01

INTRODUCTION AND BACKGROUND

The Whitefish community has become a popular tourist and recreational destination due to its proximity to Glacier National Park, the Whitefish Mountain Resort, and abundant public lands. These attractions have promoted tourism, which has resulted in continued growth within the community over the last two decades. With the growth and increased visitation, traffic volumes and congestion have continued to rise.

Highway 93 runs through the center of the community and serves as the primary travel route through the city for residents, visitors, and commercial traffic. When issues occur on the highway, the effects translate into delays and congestion on local cross streets, ultimately making it more difficult to travel through town. The lack of alternate and continuous routes in the community further contributes to the congestion.

Over the past several years, numerous design solutions have been proposed for the Highway 93 corridor through Downtown Whitefish in various planning documents. The intent of the *Downtown Whitefish Highway Study* is to analyze past design options, identify any new ideas, and ultimately identify a solution that best addresses safety and operational concerns for all users now and into the future.

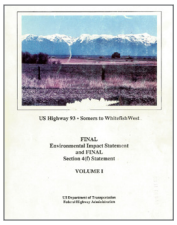
1.1. STUDY AREA

Highway 93 is a major north/south highway in the western US. It begins in Arizona and ends in Montana at the Canadian border where it continues north as a Canadian highway. Within Flathead County, Highway 93 follows the west bank of Flathead Lake and passes through Somers, Kalispell, and Whitefish. The *Downtown Whitefish Highway Study* includes the section of Highway 93 in Whitefish beginning at its intersection with 13th Street (Reference Post [RP] 126.9) continuing northward along Spokane Avenue to 2nd Street and westward on 2nd Street to Baker Avenue (RP 127.8). The study area also includes Baker Avenue between 2nd Street and 13th Street, and other existing or new street links between Spokane Avenue and Baker Avenue associated with Highway 93 improvement options proposed in previous studies. A map of the study area is shown in **Figure 1.**

1.2. PAST PLANNING

Multiple planning documents have been developed in past years which identified community values, evaluated transportation policies, and explored potential solutions for transportation issues in Downtown Whitefish. These documents were all developed based on varying perspectives and priorities, including traffic operations and safety, environmental concerns, non-motorized users, and Downtown businesses. The *Downtown Whitefish Highway Study* aims to build on these past efforts to identify a solution to improve traffic flow and safety of the highway while minimizing impacts and supporting community values.

US HIGHWAY 93 SOMERS TO WHITEFISH WEST ENVIRONMENTAL IMPACT STATEMENT (1994)[1]



The Montana Department of Transportation (MDT) in partnership with the Federal Highway Administration (FHWA) prepared an Environmental Impact Statement (EIS) and Record of Decision (ROD) to evaluate alternatives from Somers to Whitefish, to reduce congestion on Highway 93, improve safety, accommodate planned growth and development, improve intermodal connections, and provide visual enhancements. In the Whitefish area, the EIS considered six build alternatives, including a four-lane configuration, a bi-directional offset configuration with traffic split between Baker and Spokane Avenues, and four variations of a one-way couplet system using Spokane and Baker Avenues.

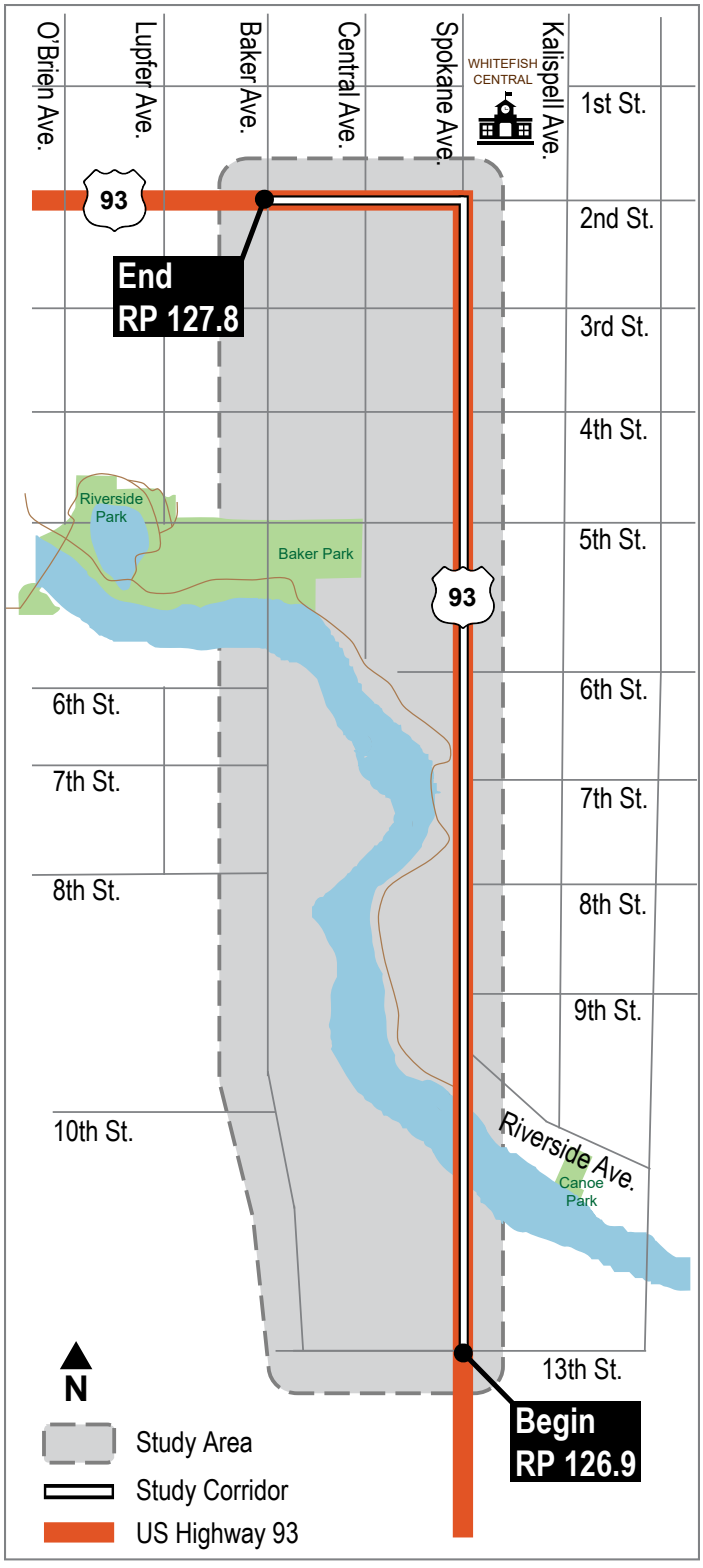
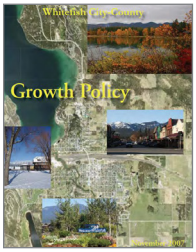


FIGURE 1: *Study Area*

The Preferred Alternative identified in EIS/ROD was Alternative C (Couplet-3), which involved a one-way couplet from 7th Street to 2nd Street on Spokane Avenue (for northbound traffic) and Baker Avenue (for southbound traffic) and construction of a new bridge accommodating two-way traffic on 7th Street between Spokane and Baker Avenues.

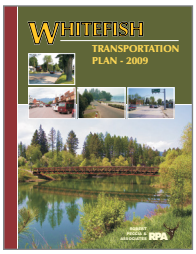
WHITEFISH CITY-COUNTY GROWTH POLICY (2007)[2]



The City of Whitefish developed a *Growth Policy* outlining a community vision addressing growth and development issues related to natural resources, economic development, land use, community facilities, housing, and transportation. In support of community values relating to sustainability, livability, conservation, safety, and preservation of Whitefish's character and aesthetic appeal, the *Growth Policy* outlined support for the following areas:

- Non-motorized transportation through provision of sidewalks, pathways, and other facilities.
- Carbon footprint reduction through efficiencies in the transportations system, reduction of vehicle miles traveled, and promoting non-motorized transportation.
- Consideration of the feasibility of a highway bypass to alleviate through traffic in the Downtown area.
- Coordination with MDT in developing corridor studies for state highways within the planning jurisdiction.

WHITEFISH TRANSPORTATION PLAN (2009)[3]



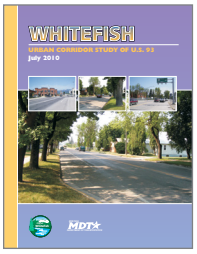
The City of Whitefish developed a transportation plan to help guide decisions about the future of the Whitefish area transportation system. The plan described the existing system and identified a range of transportation network improvements to serve all modes through 2030. Recommended projects within the *Downtown Whitefish Highway Study* area included the following:

- **MSN-1: 2nd Street Improvements and Signal Upgrades** (appropriate left turn and/or right turn lanes, signal coordination)
- **MSN 4: Baker Avenue Extension** (extend Baker Avenue to JP Road)
- **MSN 5: 7th Street Bridge** (two-way bridge across Whitefish River at 7th Street)
- **TSM 2: 13th Street/Highway 93 Intersection** (Dedicated left turn and shared thru/right turn lanes on east & westbound legs)
- **TSM 3: Intersection of Baker Avenue/13th Street** (traffic signal when warrants are met)

Additionally, the plan evaluated a potential bypass corridor to the existing Highway 93 facility through Whitefish. A bypass was not recommended because it was found to not adequately reduce traffic on Highway 93 to be considered feasible and warrant the time, expense, and environmental consequences of its development. The plan found that the community of Whitefish would be better served by strengthening the existing transportation grid system and providing additional east/west connectivity.

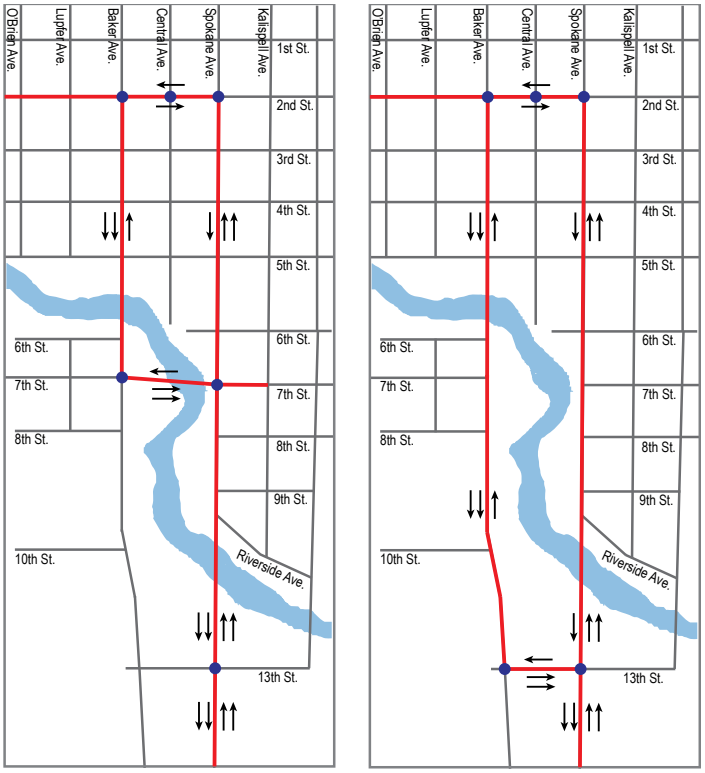
As of the date of this report, the City is currently updating the Transportation Plan to reflect growth and changed conditions.

WHITEFISH URBAN CORRIDOR STUDY (2010)[4]



In tandem with the 2009 *Whitefish Transportation Plan*, MDT, FHWA, and the City collaboratively prepared the *Whitefish Urban Corridor Study* to consider transportation needs in Downtown Whitefish based on new information and changed conditions since the 1994 EIS. The study considered all previously proposed options for the corridor considered in the EIS as well as new alternatives proposed after completion of the EIS. The four additional configurations—Modified ROD Configuration, Contra-Flow Configuration, Truck Route Configuration, and Downtown Business District Master Plan Configuration—were developed in response to identified capacity and geometric needs and changed conditions in the community. The Modified ROD Configuration included the addition of appropriate auxiliary turn lanes at major intersections in the corridor and design changes to accommodate truck movements at key intersections. The Contra-Flow and Truck Route Configurations were presented as ways to improve Downtown circulation by eliminating one-way streets, provide an alternate route for trucks on Baker Avenue. The Downtown Business District Master Plan Configuration included a couplet concept on Spokane and Baker Avenues with a northbound contra-flow lane on Baker Avenue north of a new bridge at 7th Street and a two-lane configuration on Spokane Avenue and 2nd Street.

Based on an evaluation of safety and operational considerations, potential environmental effects, feasibility, affordability, and compatibility with local plans and community ideals, the Contra-flow and Modified Alternative C (Offset) Configurations were identified as preferred alternatives for further consideration. While the Contra-flow configuration was found to result in fewer delays and more efficient travel through the corridor, it would also be more costly and more impactful compared to the Offset configuration due to construction of a new bridge on 7th Street between Spokane and Baker Avenues. Both alternatives were recommended for advancement and further consideration.



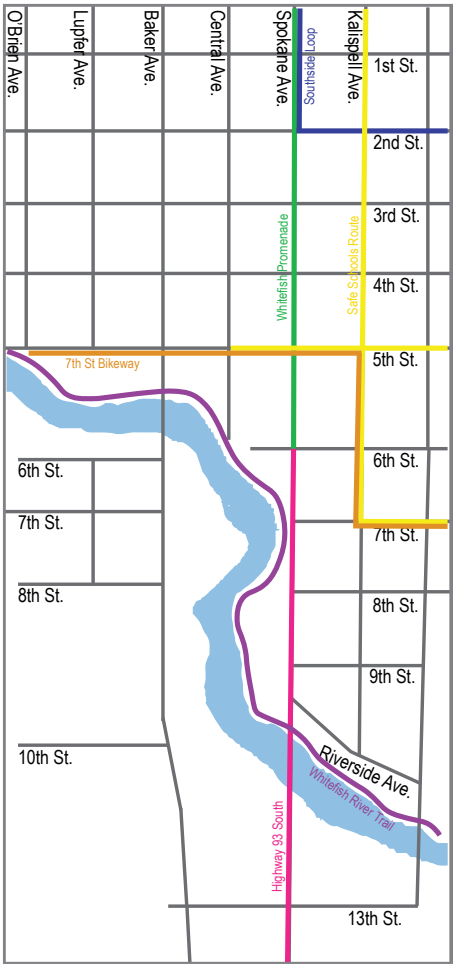
The Contra-flow [left] and Modified Alternate C (Offset) [right] configurations were identified as the preferred alternatives in the 2010 Corridor Study.

CONNECT WHITEFISH BICYCLE & PEDESTRIAN MASTER PLAN (2017)[5]

Connect Whitefish outlines the City's vision for a connected and continuous network of well-maintained bicycle and pedestrian facilities linking key destinations inside and outside of town that offer safe, convenient, and comfortable access for both recreation and active transportation.

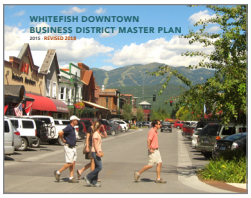
The plan outlines policies, actions, and projects relating to bicycle and pedestrian connectivity, safety, wayfinding, maintenance, programing, and funding. The following project recommendations are located within the *Downtown Whitefish Highway Study* area:

- **Whitefish River Trail:** Shared use path (SUP) along the Whitefish River.
- **Whitefish Promenade:** Cycle Track/SUP adjacent to Spokane Avenue, Railway Avenue, and Whitefish River.
- **Highway 93 South:** Bike route adjacent to Spokane Avenue from 6th Street – South.
- **Safe Schools Route:** "Neighborhood Greenways" on 1st Street, 5th Street, 7th Street, Kalispell Avenue, and Pine Avenue.
- **7th Street Bikeway:** Cycle Track/SUP connecting 7th Street from east to west using Riverside Bridge.
- **Southside Loop:** Recreational loop around Downtown Whitefish, uses Spokane Avenue and 2nd Street within study area.



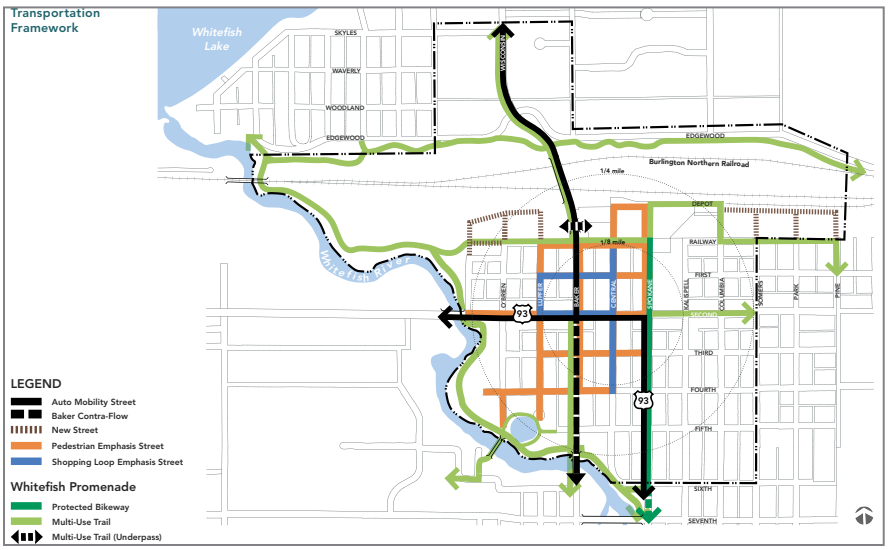
Recommended bicycle and pedestrian routes within the study area from the Connect Whitefish Bicycle & Pedestrian Master Plan.

WHITEFISH DOWNTOWN BUSINESS DISTRICT MASTER PLAN (2006/2015/2018)[6]



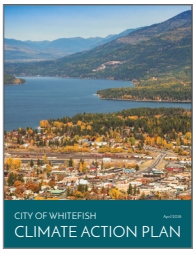
First approved in 2006 and updated in 2015 and 2018, the *Downtown Master Plan* outlines strategies for improving the appearance, function, and vitality of the Downtown Business District. Guiding principles relating to transportation include creating a pedestrian-friendly environment to encourage residents and visitors to access Downtown businesses, ensuring that Highway 93 roadway and intersection changes enhance and support Downtown businesses in addition to serving as a conduit for regional through-traffic, accommodating increasing traffic volumes without degrading Downtown livability and the retail environment, and accommodating alternative transportation modes (including pedestrian, bicycle, and transit) to reduce Downtown congestion. Key features of the transportation network proposed in the *Master Plan* include:

- Maintaining Spokane Avenue as a narrower two-lane, two-way roadway north of 7th Street and incorporating a bi-directional off-street protected bikeway (referenced as the Whitefish Promenade).
- Providing a SUP/bike lane crossing at 6th Street.
- Implementing a contra-flow design (two southbound lanes and one northbound lane) on Baker Avenue south of 2nd Street.
- Maintaining a two-lane configuration on 2nd Street between Spokane and Baker Avenues.
- Constructing a new 7th Street bridge across the Whitefish River connecting Spokane and Baker Avenues with two eastbound lanes and one westbound lane.
- Maintaining curbside retail parking.
- Preserving existing street trees wherever possible.



Desired transportation network for Downtown Whitefish.

CLIMATE ACTION PLAN (2018)[7]



The City of Whitefish developed the *Climate Action Plan* to protect its valued cultural, recreational, and economic opportunities by reducing its greenhouse gas emissions, identifying climate-related risks, and improving local resilience to climate change impacts. Strategies relating to transportation and land use include decreasing traffic congestion and idling at intersections, making Whitefish more bike- and pedestrian-friendly, and reducing impervious surfaces and increasing green infrastructure.

HIGHWAY 93 SOUTH CORRIDOR PLAN (2021)[8]

The purpose of the *Highway 93 South Corridor Plan* is to propose more specific policies for land use, development, and growth at the southern entrance to Whitefish. The plan addresses commercial growth, scale, architectural standards, landscaping/screening, utilities, trip generation, traffic, safety, circulation, access, and bike/pedestrian facilities on Highway 93 between 6th Street and about a mile and a half south of Whitefish city limits.

The corridor was divided into three segments, each with different zoning, land use, aesthetics, functions, and transportation systems. Transportation goals include improving safety and capacity, promoting multimodal facilities, and improving aesthetics. Objectives include accommodating future traffic volumes on Spokane and Baker Avenues, developing a median installation plan and consolidating driveways, designating Baker Avenue as a preferred truck route to reduce truck traffic through the Downtown core, extending 7th Street from Spokane Avenue to Kalispell Avenue, extending 7th Street across the Whitefish River, and facilitating development of pedestrian, bicycle, and transit facilities.

1.3. PUBLIC AND STAKEHOLDER INVOLVEMENT

A wide-ranging public and stakeholder involvement effort was conducted to share information and obtain feedback over the course of the *Downtown Whitefish Highway Study*. MDT hosted a website which provided an overview of the study, contact information, and links to the study area, schedule, public involvement materials, and study documents. Additionally, the team conducted multiple in-person and virtual meetings to engage key stakeholders and members of the public. Targeted outreach activities are described in the following sections, along with a summary of public feedback topics. Additional public involvement information can be found in **Appendix 1**.

1.3.1. STEERING COMMITTEE

A steering committee (SC) was established with local, state, and federal representatives from the following agencies and organizations:

- MDT Missoula District
- MDT Traffic & Safety Bureau
- MDT Consultant Design Bureau
- MDT Rail, Transit and Planning Division
- FHWA
- City of Whitefish Administration
- City of Whitefish Public Works
- City of Whitefish Planning & Building
- City of Whitefish Parks & Recreation
- Heart of Whitefish
- Whitefish Chamber of Commerce
- Pedestrian & Bicycle Committee

The committee met at key points to discuss existing and projected conditions, analysis methodologies and results, alternatives identification and concept screening, draft technical memorandums and reports, and other issues and concerns. Although not a decision making body, the committee advised the consulting team, provided feedback representing local perspectives, and reviewed materials and documentation before publication. The following SC meetings were held to discuss development of the study.

SC Meeting #1 – October 29, 2019: The purpose of the first meeting was to introduce the study process, review the work plan, and discuss the public involvement process. The SC provided feedback on the study area boundary, public involvement plan, and study schedule.

SC Meeting #2 – December 18, 2019: At the second meeting, the committee discussed the background and visioning for the study in preparation for initial public outreach. The SC reviewed relevant past planning documents and areas of focus for the study.

SC Meeting #3 – May 11, 2020: The committee met to discuss feedback received at public meeting #1, public survey results, and existing and projected conditions within the study area.

SC Meeting #4 – July 1, 2020: At the fourth meeting, the SC discussed preliminary lane configuration alternatives, the Level I screening process, committee support for further concept evaluation, and Level II screening criteria.

SC Workshops – October 2020: A series of separate small-group workshops were held with SC members from the City of Whitefish, Montana Department of Transportation, and business/tourism representatives. The purpose of the workshops was to review the Level II screening process in detail, review improvement concepts, and have detailed discussion on preliminary Level II scoring results. Steering committee members were asked to individually score concepts based on their understanding and perspectives on concept performance. These results were used to pinpoint areas for discussion with the group.

SC Meeting #5 – March 9, 2021: The committee met to discuss traffic modeling results for intersection, arterial, network, and safety performance as well as fuel consumption and emissions. Additionally, the group reviewed Level II screening assumptions, adjustments, and results.

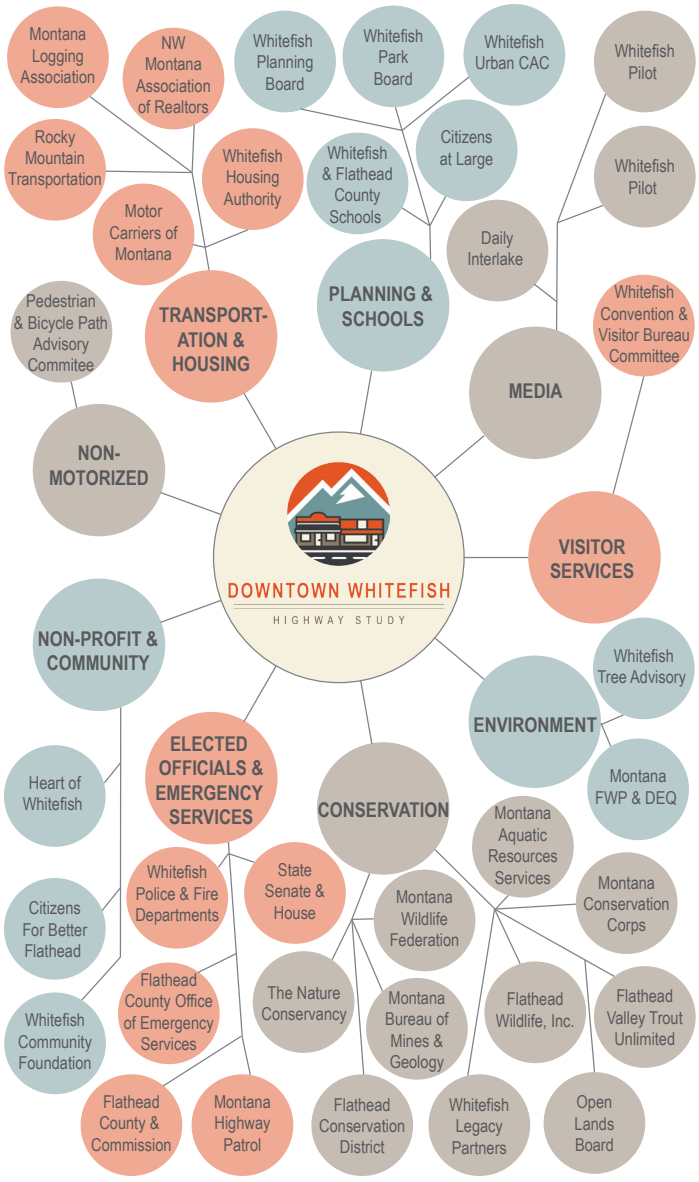
SC Member/City of Whitefish Meetings – April 2021: MDT met with individual members of the SC including local representatives and City of Whitefish officials. The purpose of the meetings was to provide an opportunity for focused discussions with smaller groups in an informal setting to answer individual questions and address concerns about the evaluation process and outcomes.

SC Meeting #6 – June 21, 2021: A steering committee meeting was held to summarize the study approach, steering committee role and feedback received, screening results, and to discuss upcoming public outreach activities.

City of Whitefish Meeting – November 15, 2021: Following receipt of a letter from the Mayor of Whitefish dated November 1, 2021 (provided in **Appendix 1**), MDT met with City officials to discuss local feedback and final steps for the study. The City of Whitefish expressed opposition to the preferred concept identified through the study process. At the meeting, MDT and the City agreed not to move forward with a reconstruction project following completion of the study.

1.3.2. STAKEHOLDER COORDINATION

Stakeholders were identified and contacted during outreach efforts to encourage their participation in the public meetings. Targeted stakeholder outreach meetings were also conducted in August and September 2021 to share study methods, findings, and recommendations. Representatives from the organizations illustrated below were invited to participate in small-group meetings scheduled according to interest area and jurisdiction. The meetings were held virtually using an informal discussion format. An initial presentation provided an overview of the study background and approach, concept identification and evaluation process, screening and refinement, and public involvement opportunities.

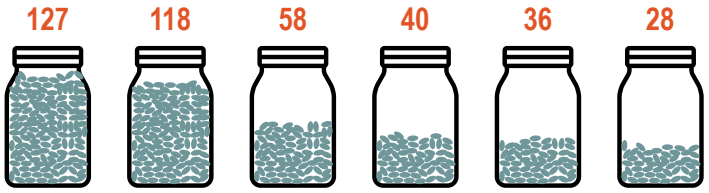


1.3.3. PUBLIC MEETING #1

MDT hosted an informational meeting in March 2020 to provide information to interested parties about the scope of the study, share existing conditions data, collect feedback, and answer questions. The meeting was formatted as an open house which enabled attendees to view exhibits, talk with study representatives, and submit comments. Approximately 120 members of the public signed in at the open house meeting.

A series of stations displayed exhibits with charts, maps, and facts about the study. At the Focus Areas station, participants were given four dot stickers and asked to attach them to the display boards which represented the focus areas most important to them. A total of 96 participants attached 384 total dots to the boards. The focus areas receiving the most dots included Pedestrian/ Bike Mobility (75 dots), Safety (58 dots), and Other Considerations (which addresses the City's character, viewsheds, the Whitefish River, pedestrian/bicycle trails, and open spaces/parks – 58 dots).

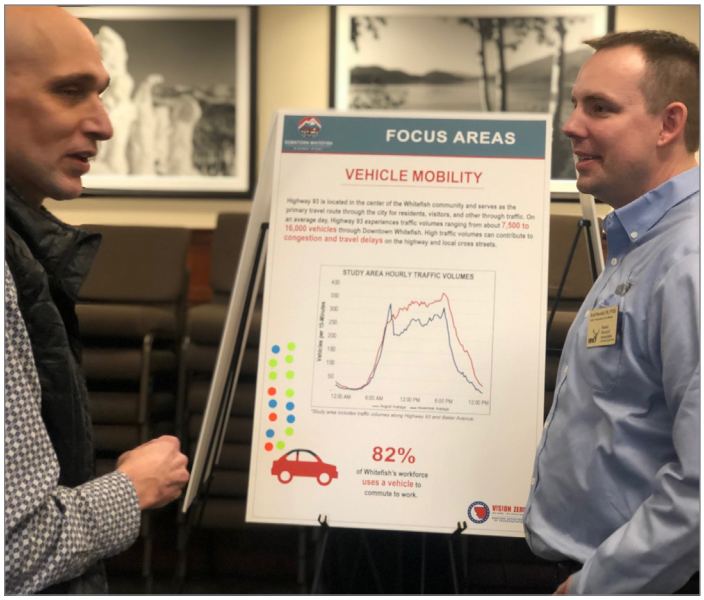
At the Constraints and Challenges station, exhibits displayed elements that may limit potential improvement opportunities. Participants were given five beads and asked to allocate their limited "resources" to improve Highway 93. A total of 95 participants allocated 475 resource beads to the jars. The areas receiving the most beads included Non-Motorized Users (127 beads) and Environment & Character (118 beads).



How would you allocate your limited resources to improve Highway 93?

The planning team collaborated with several stakeholders to discuss study recommendations and to understand the community's needs and desires.

Public comments were collected through conversations with individuals, written comments offered at the resource allocation station, and notes posted to the visioning boards. Topics included alternate routes, general character, intersection operations, lane configuration and roadway width, lighting, parking, pavement condition, pedestrians and bicyclists, previous planning studies, road conditions, speed, sustainability, tourists, transit, trees, trucks, and the Whitefish River. Summary notes from the meeting are provided in **Appendix 1**.



Public Meeting #1 participants attached colorful dots to the displays exhibiting the focus areas that they find most important.

1.3.4. PUBLIC MEETING #2

MDT held an informational meeting in September 2021, to share study findings and recommendations, present the preferred concept based on identified screening criteria, collect feedback, and answer questions. The meeting was held using an in-person open house format at the O'Shaughnessy Cultural Arts Center in Downtown Whitefish. A set of exhibits and interactive activities were placed throughout the meeting space, with study team members and MDT representatives available to answer questions, listen to feedback, and discuss study findings and recommendations. A map summarizing identified community need is shown in **Figure 2**.

The meetings were advertised through email notices, website announcements, social media posts, and an advertisement and press release distributed to print and radio media outlets.

A total of 112 visitors signed the meeting check-in sheet. A total of 67 written public comments were provided through email, the MDT comment form, and comment cards at the open house meeting. Although some members of the public expressed support for Concept C's ability to reduce congestion, the most common concerns were that the study's preferred concept would lead to a loss of Whitefish's unique character, increased traffic congestion in the downtown corridor, and a decrease in the city's walkability and bike-ability. Additional concerns included potential loss of trees and impacts to pedestrian safety. Most respondents did not indicate a preferred option. Of those that did, the most common suggestion was a bypass, followed by Option G. A detailed summary of Public Meeting #2 is provided in **Appendix 1**.

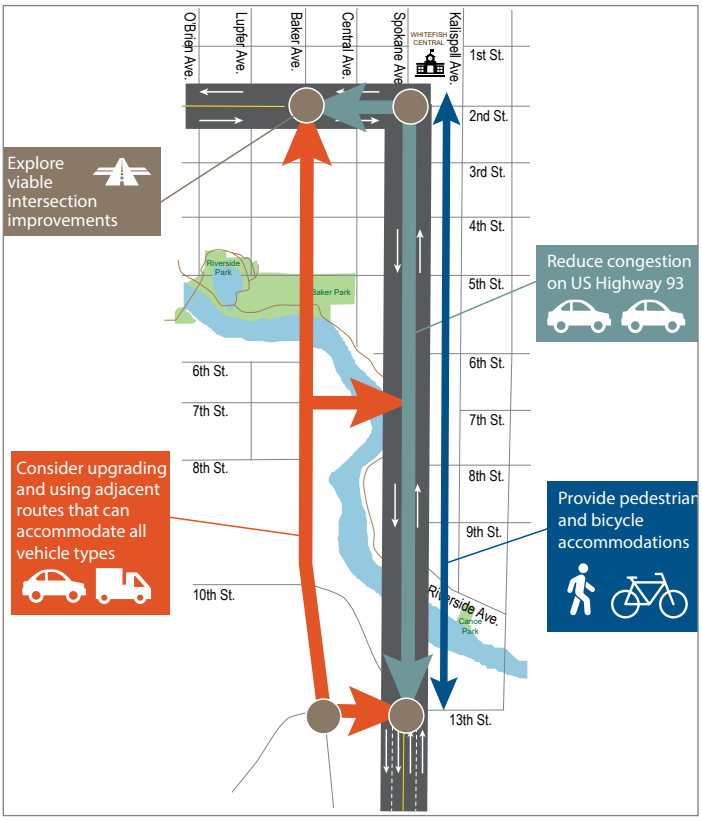


FIGURE 2: *Identified Community Needs*

1.3.5. PUBLIC AND STAKEHOLDER FEEDBACK

Public and stakeholder comments were collected and considered throughout the study process. A public survey was conducted during the first public open house timeframe to understand public priorities and travel characteristics. Results of the survey helped the study team identify areas of focus which are summarized in **Figure 3**. Overall, opinions about issues, needs, and preferred improvements often varied according to modal area of interest, with multiple instances of contradictory perspectives. Common themes relating to primary topics of interest are summarized in this section.

ENVIRONMENT, AESTHETICS, AND CHARACTER

The beauty, charm, and aesthetics of Downtown Whitefish are highly valued by the community, and there is a desire for Highway 93 to fit within that context. Street trees positively contribute to the character, with overhead tree canopy along Spokane Avenue and Baker Avenue providing shade and beauty. Community members recognize some of the old growth trees are in decline and nearing the end of their lifespan. The City of Whitefish Urban Forestry program is currently in the process of replacing green ash trees throughout town to preemptively protect against anticipated impacts from emerald ash borer. There is a desire to protect healthy specimens of other species. In addition to street trees, the community greatly values the Whitefish River. At river crossings, bridge structures are preferred over culverts to provide safe passage for kayakers.

TRANSIT

Feedback indicated additional transit is needed. Comments noted year-round, fixed-route county-wide service could reduce Downtown congestion by serving both visitors and residents and benefiting individuals with disabilities. Safe, sheltered bus stops are desired within the study area. Additionally, free or low-cost park-and-ride parking lots are needed to encourage people to use transit services.

PEDESTRIANS & BICYCLISTS

In general, safe pedestrian, bicycle, and school route accommodations are important to the community, and a multimodal entrance to Downtown is desired. Providing accommodations for children walking to school should be a top priority. Sidewalks need to be provided in all directions from the schools, and protected east-west crossings should be provided on Highway 93. Some believe pedestrian and bicyclist accommodations should be the first priority for Downtown improvements, while others feel non-motorized facilities should be secondary to vehicular mobility. Comments noted pedestrians commonly do not wait for a walk signal at the Spokane Avenue/2nd Street intersection due to the long cycle length. Instead, they may make risky crossing decisions in front of vehicles turning right from 2nd Street onto Highway 93. Specific recommendations for pedestrian and bicycle enhancements included crosswalks with flashing lights (such as rectangular rapid flashing beacons [RRFBs]) on Baker Avenue, a pedestrian bridge between Baker and Spokane Avenues at 7th Street, a "pedestrian scramble" at Downtown intersections to stop all vehicular traffic and allow pedestrians to cross in all directions at the same time, a pedestrian walking mall closed to vehicular traffic on Downtown corridors, and additional bike lanes or other dedicated bike facilities.

TRUCKS

Large trucks are difficult to accommodate in the Downtown area. Light poles, street furniture, and other obstructions make turning movements difficult for trucks within the constrained travel way. Additionally, truck movements often conflict with pedestrian crossings. An alternate truck route is desired away from areas heavily used by pedestrians. Despite challenges, community members recognize trucks need to be accommodated because they deliver goods to the Downtown and Mountain areas.

TRAFFIC OPERATIONS

Some individuals expressed desire for wider streets and increased vehicular capacity to improve traffic operations. Others noted widening Highway 93 will lead to induced demand and increasing congestion and expressed opposition to additional lanes in front of residences. Public and stakeholder comments noted that traffic often backs up at intersections and blocks access to turn bays, and that longer turn bays would be desirable. Comments also emphasized the need to optimize signal timings to adequately enable vehicles to clear intersections while still accommodating pedestrian crossings. Some comments suggested configuring a one-way couplet system with northbound traffic on Spokane Avenue and southbound traffic on Baker Avenue, whereas others noted two-way traffic is desired. Installation of additional traffic signals or roundabouts was also suggested at various intersections within the study area.

PARKING

On-street parking is highly prized in the Downtown core. Improvements should seek to avoid adverse impacts to parking. Additional parking is desired, with suggestions ranging from underground parking facilities, conversion of private lots to public parking, and shuttle service from off-site parking garage or surface parking lot.

PAVEMENT AND ROADWAY CONDITION

Comments noted that pavement is deteriorated on Spokane Avenue at 4th and 5th Streets. Heavy truck traffic has created rutting and potholes. Storm drainage is also a concern, and ice builds up at the intersection of Baker Avenue and 13th Street.

FIGURE 3: *Public Survey Priority Focus Areas*

An analysis of existing and projected traffic, safety, and environmental conditions helped identify areas of concern to be addressed with improvements.

02

EXISTING AND PROJECTED CONDITIONS

Highway 93 was officially recognized as a US highway in 1926. Since original construction, numerous road projects have improved and expanded many segments of Highway 93. Within the study area, the corridor serves as a major corridor for residents, visitors, regional travelers, and the commercial trucking industry. The highway provides primary access to highway-oriented businesses, professional offices, a traditional residential neighborhood, and a variety of uses in Downtown Whitefish.

In 2011, 2nd Street was reconstructed between Spokane Avenue and Baker Avenue to include new signals, left-turn lanes, pedestrian crossing improvements, on-street parking, and upgraded utilities. Between 13th Street and 2nd Street, the highway has seen minimal improvements other than periodic maintenance since being reconstructed in the 1960s.

Baker Avenue is one of the few parallel and continuous north-to-south roadways that provides an alternate route to Highway 93. Baker Avenue also connects to the only grade-separated crossing of the BNSF Railway in Whitefish and links Highway 93 with Wisconsin Avenue, the principal route used to access Whitefish Mountain Resort. The following sections provide a summary of existing conditions within the study area.

2.1. PHYSICAL FEATURES AND CHARACTERISTICS

Highway 93 is part of the Non-Interstate National Highway System (NHS) and is functionally classified as a primary arterial. The purpose of the NHS is to "provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major travel destinations."[9]

Baker Avenue is functionally classified as a minor arterial and is designated as an Urban Route (U-12002) between 2nd Street and 7th Street and as a local roadway south of 7th Street. 13th Street is an off-system urban collector roadway.

In addition to the study corridors, 2nd Street and 4th Street are designated as major collectors east of Highway 93 and 7th Street is a major collector west of Highway 93. All other roads within the study area are classified as off-system local roads.

2.1.1. ROADWAY CONFIGURATION

The existing roadway configuration within the study area is shown in **Figure 4**. South of 13th Street, Spokane Avenue is a five-lane highway with two 12-foot lanes in each direction, a 14-foot center two-way left turn lane (TWLTL), and 8-foot shoulders on each side. North of 13th Street, Spokane Avenue transitions to a two-lane highway with 12-foot lanes and an 8-foot shoulder/parking lane on each side. Five-foot-wide sidewalks are located on both sides of Highway 93 along Spokane Avenue. Between 6th Street and 2nd Street, the sidewalks are separated from the roadway by a landscaped boulevard. Along 2nd Street, Highway 93 consists of two 12-foot driving lanes with 10-foot parking lanes on each side. Sidewalks are located immediately adjacent to the roadway and are about 12 feet in width.

Between 2nd Street and 6th Street, Baker Avenue consists of two 12-foot travel lanes and 10-foot parking lanes. South of 6th Street, the parking lanes are eliminated to accommodate 4-foot bike lanes on each side of the road. Five-foot wide sidewalks are provided on each side of Baker Avenue, and in most places, the road and sidewalks are separated by a grassy boulevard.

Baker Avenue currently has signs indicating that trucks are not permitted on the roadway. However, if vehicles are of legal size and weight, legally they can travel on the roadway. Although trucks cannot be banned on Baker Avenue, the signs are used to discourage use.

Nine intersections are located along Spokane Avenue between 13th Street and 2nd Street. All of the intersections, except Spokane Avenue/13th Street, are stop controlled on the minor approach legs to allow for free-flow traffic on Spokane Avenue. Curb bulb-outs and marked crossings are provided at the intersections with 4th and 5th Streets. The Spokane Avenue/13th Street intersection is signalized.

The three intersections along 2nd Street (Spokane Avenue, Central Avenue, and Baker Avenue) are all signalized. Crosswalks are marked on all four legs of each intersection. Curb bulb-outs have been incorporated into the roadway design where possible with some locations where the curb is cut back to accommodate the wide turning movements of large trucks.

Eight intersections are located along Baker Avenue between 13th Street and 2nd Street. All but one of the intersections are stop controlled on the minor approach legs to allow for free flow traffic on Baker Avenue. The exception is the intersection of Baker Avenue/13th Street which is all-way stop controlled. A pedestrian crossing is provided south of 5th Street between Baker Park and River Trail Park.

Spokane Avenue is signed at 35 miles per hour (mph) from 13th Street north to 6th Street. From 6th Street to 2nd Street, the speed on Spokane Avenue is reduced to 25 mph. The speed limit along 2nd Street and Baker Avenue is 25 mph through the study area.

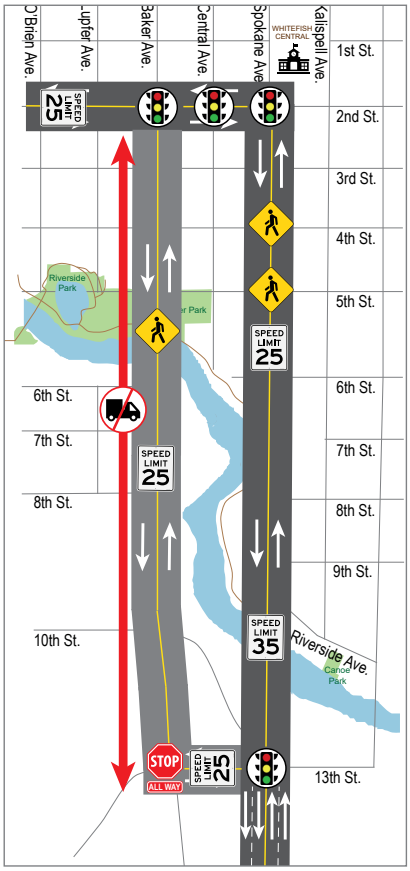


FIGURE 4: *Existing Roadway Configuration*

2.1.2. GEOTECHNICAL CONDITIONS

A preliminary geotechnical review was conducted to assess existing geology and soils, slopes, pavement and retaining wall condition, seismic considerations, and other geotechnical concerns. As detailed in the *Preliminary Geotechnical Review Report*[10], the combination of relatively deep weak soils, existing wetlands and rivers, seismic activity, and proposed structures will require significant geotechnical considering during design.

The site is bisected in a northwest to southeast direction by the Whitefish River. Embankments occur along Highway 93 where the roadway crosses over the Whitefish River with indications of potential future slope instability locations. Soils within the study area include varying depths and combinations of sand, gravel, silt, and clay, generally with soft to medium consistencies. Based on the loose to very loose silt and sand layers at the bridge over the Whitefish River along Baker Avenue, potentially liquefiable soils are likely present near the river.

The existing pavement on Spokane Avenue is in poor condition between 13th and 8th Streets and between 6th and 4th Streets. These areas have fairly deep ruts, with several areas of alligator cracking, longitudinal cracks, and visible deflection under loaded truck traffic, particularly near 6th Street. Between 3rd and 4th Streets and between 6th and 8th Streets, the pavement is in fair condition. The pavement on 2nd Street from Spokane to Baker Avenue is generally in fair to good condition with some rutting and alligator cracking observed.

Along Baker Avenue, the surfacing is generally in fair to good condition from its intersection with 2nd Street to 10th Street. Some rutting was observed, and cracking is primarily limited to longitudinal cracks located along the paving joint. Pavement condition is generally fair to poor between 10th Street and 13th Street, with some rutting and failed utility and pavement patches, particularly near the intersection with 13th Street. Pavement condition along 13th Street is generally in good condition with little cracking and minor rutting.

The pavement on Baker Avenue was not designed to carry heavy loads. Some rutting and cracking has been observed.

2.1.3. BRIDGE STRUCTURES AND HYDRAULIC FEATURES

Two structures cross the Whitefish River within the study area, including a single-span prestressed concrete beam bridge on Baker Avenue (RP 0.3) and three steel culverts on Spokane Avenue (RP 127.1).

SPOKANE AVENUE

The existing Spokane Avenue structure, built in 1959, consists of three round steel culverts each approximately 14 feet in diameter and spaced 8 feet apart. Each culvert is 312 feet long with about 28 to 39 feet of length extending out from the toe of the fill slope. The culverts are skewed 45 degrees from the roadway centerline. The fill height over the culverts varies between 22 and 24 feet. The culverts are generally in good condition.

BAKER AVENUE

The existing Baker Avenue structure was built in 1977. The structure is a 105-foot-long single span prestressed concrete beam bridge founded on treated timber piling. The superstructure includes concrete beams and a concrete deck, and the substructure consists of concrete backwall, cap abutments, and wingwalls.

The bridge deck is configured with two travel lanes and two sidewalks separated from the roadway by steel bridge rail on concrete curbs. Pedestrian rail is attached to the top surface of the concrete deck on the east side and attached to steel brackets on the west side. The sidewalk on the east side of the bridge is part of the original construction, with the concrete bridge deck serving as the walking surface. The sidewalk on the west side appears to have been added to the structure at an unknown date and is cantilevered off the bridge. The bridge deck and superstructure are generally in good condition. The steel railings and substructure are in fair condition due to rust, cracking, and concrete spalling.

2.1.4. RIGHT-OF-WAY

Based on a review of as-built drawings, certificates of survey, and subdivision plats, right-of-way within the study area is approximately 70 feet on Spokane Avenue from 13th to 2nd Street and on 2nd Street from Spokane to Baker Avenue. On Baker Avenue, right-of-way is 70 feet from 2nd to 8th Street before it narrows to 65 feet from 8th to 10th Street and returns to 70 feet from 10th to 13th Street. Right-of-way widths are unknown on 13th Street, although it likely varies from 52 feet to 56 feet.

2.2. TRAFFIC CONDITIONS

Over the last two decades, the Whitefish community has experienced many changes related to growth and development. There has been an influx of new residential and commercial re/development in the study area as well as significant growth in the tourism industry. Continued infill in the Downtown area and general urban expansion is expected over the next several years.

2.2.1. DATA COLLECTION

A detailed traffic data collection effort was conducted in 2019 during peak season (August) and off-peak (November) conditions. The data collected included intersection turning movement counts, field observations, and vehicle classification counts. A detailed analysis was conducted using the data to assess existing and projected vehicular traffic conditions, non-motorized usage, and safety conditions. The following sections discuss key findings from the *Preliminary Traffic Engineering Report*.[11]

ROADWAY TRAFFIC VOLUMES

MDT's Data and Statistics Bureau provided exiting and historic Average Annual Daily Traffic (AADT) counts for the study area. The counts are typically conducted annually and adjusted to represent average daily traffic conditions. There are three count sites along Highway 93 and one site on Baker Avenue within the study area. The information was used to understand existing traffic conditions and the historic counts provided information on historic growth trends.

Figure 5 provides a graphic of the historic AADT within the study area. As shown in the figure, traffic volumes have fluctuated greatly over the past 20 years. Some of the variation is a result when the data is collected and fluctuations in tourism and seasonal traffic. When aggregated over the past 20 years, the study corridors have experienced an average annual growth rate of 0.61 percent per year. Growth was slowed by a general decline in traffic in 2018 and 2019 due to lower tourism traffic resulting from wildfires in the area. Still, the Highway 93 corridor has continued to experience growth due to redevelopment in the commercial core, population increases and residential development, growth at Whitefish Mountain Resort, and increased tourism associated with Glacier National Park and other surrounding areas. These conditions have resulted in traffic volumes which are near, or exceed, existing roadway capacity levels.

Projected Traffic Growth

It is expected that the corridor will continue to experience traffic growth into the future due to planned and anticipated future development along with continued increases in tourism and recreation activities. When projecting future traffic conditions within the study area, a 1.4 percent growth rate was assumed for Highway 93 and a 1.0 percent growth rate was assumed for Baker Avenue. These rates were derived based on future travel demand modeling and analysis of historic growth trends. The growth rates used are considered to be practical yet conservative.

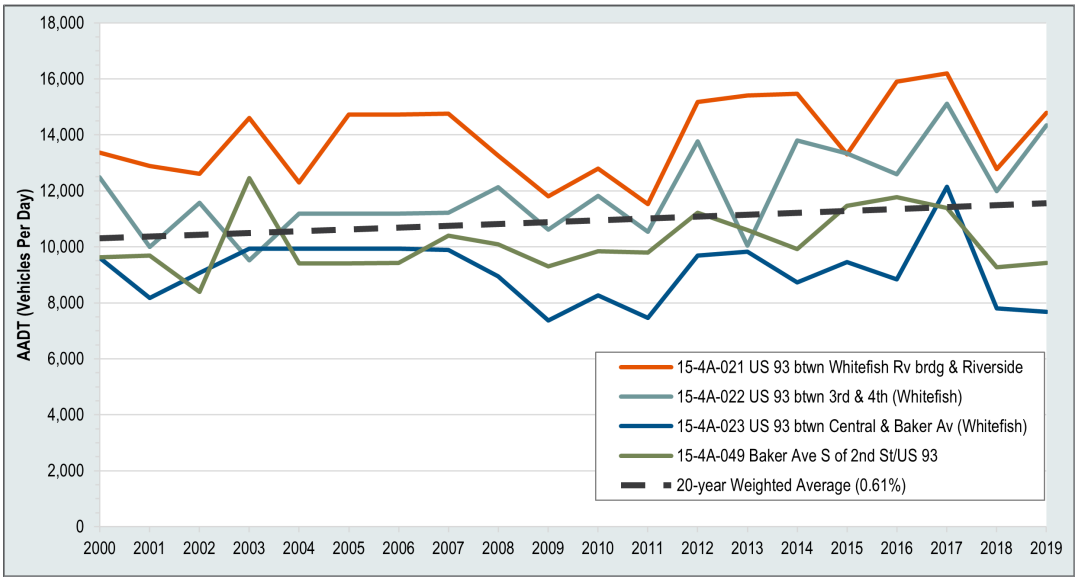


FIGURE 5: *Study Area Historic AADT*

TURNING MOVEMENT COUNTS

Turning movement count data were evaluated to define peaks in traffic volumes during both the summer and off-peak periods. The number of vehicles traveling through each intersection was summed for 15-minute intervals throughout the 24-hour collection period and then averaged across all intersections. Based on the traffic volumes and corridor conditions throughout the day, three peak periods were identified. For the August time period, the peaks were evaluated during the AM (7:00 AM – 9:00 AM), midday (11:00 AM – 1:00 PM), and PM (4:00 PM – 6:00 PM) time periods. For November, the AM and PM evaluation periods remained the same while the midday was shifted to 2:00 PM – 4:00 PM to include school-related traffic The distribution of traffic through the intersections is shown in **Figure 6**.

As can be seen in the figure, traffic volumes were typically higher throughout the day during August than November, with the exception of the AM peak. When measured across the entire day, August traffic volumes were approximately 35 percent higher than November. In August, volumes are fairly steady between 10:00 AM and 6:00 PM. These data, paired with field observations, indicate that the study area is essentially at capacity throughout most of the day during the peak season. Conversely, distinct peaks during November align with morning and evening commute times, along with minor peaks at midday lunch and school release.

ORIGIN-DESTINATION DATA

StreetLight data were collected as part of the 2021 update to the *Whitefish Transportation Plan*. The data utilized smart phones and navigation devices to track vehicle movements and routing. For the *Downtown Whitefish Highway Study*, origin-destination data were provided for the study area. The data included traffic routing information for trips internal to the study area, south of the study area along Highway 93, west of the study area along Highway 93, and to the north along Wisconsin Avenue. The data shows that the highway serves a variety of uses. Of the trips originating outside of the study area, approximately 50 percent have a destination in the Downtown while the remaining 50 percent continue outside the area. For trips originating inside the study area, the majority (79 percent) have a destination outside the Downtown. This evaluation shows that it is important to consider all uses on the highway including regional and local trips.

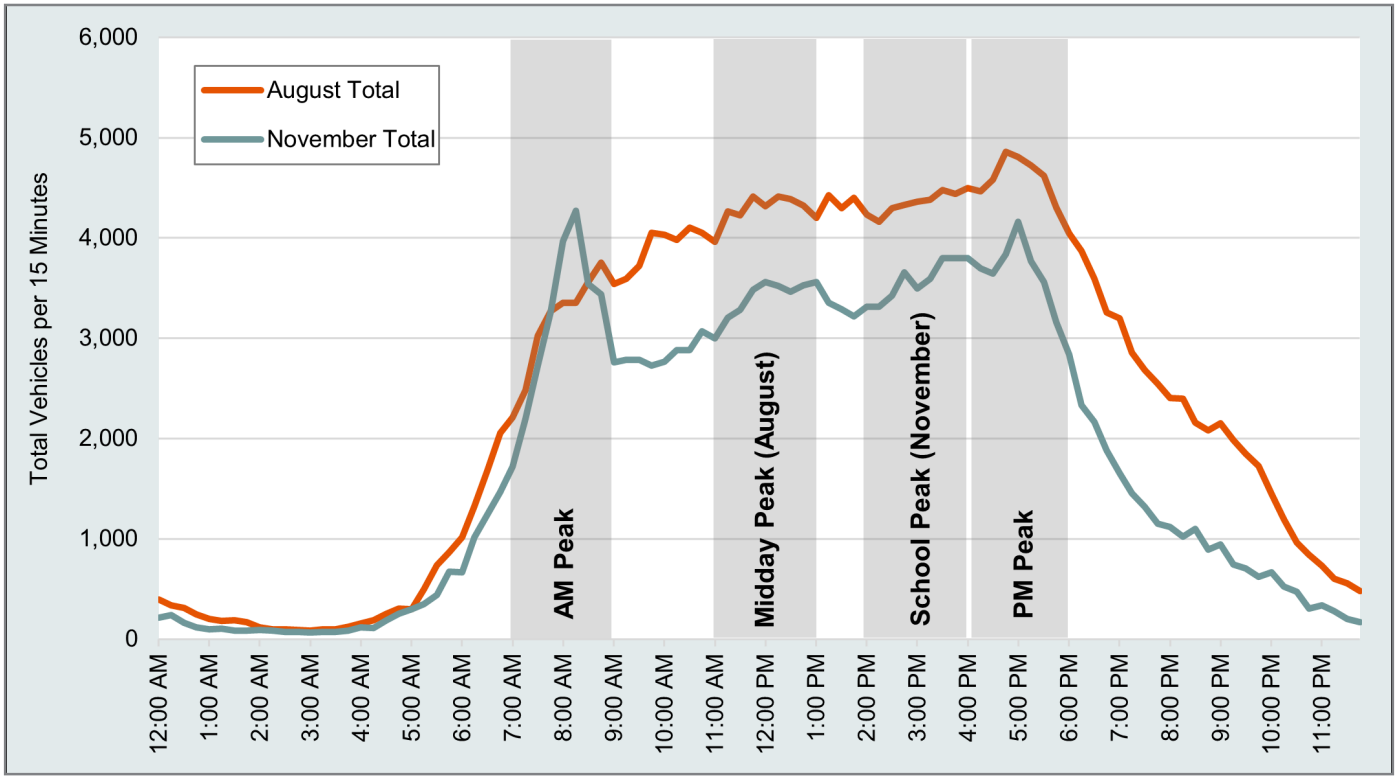


FIGURE 6: *Daily Traffic Volume Distribution (2019)*

NON-MOTORIZED ACTIVITY

A distribution of total crossings within the crosswalks by time along with on-street bicycle counts for both August and November are shown in **Figure 4**. Most non-motorized activity in November occurred during the workday with a large peak in the middle of the day corresponding to the lunch hour. During the summer, there were no distinct peaks with non-motorized activity observed throughout the entire day, mainly between 9:00 AM and 9:00 PM. A high concentration of crossing activity occurs in the Downtown core along 2nd Street. The most pedestrian activity occurs at the 2nd Street and Central Avenue intersection where the high volumes of pedestrians control the intersection and impedes vehicle traffic flow. In total, pedestrian traffic in August was over 350 percent higher than in November while bicycle traffic was 825 percent higher in the summer.

FREIGHT AND HEAVY VEHICLES

The number of heavy vehicles traveling through each of the study intersections is shown in **Figure 7**. Heavy vehicle traffic volumes are slightly higher in August than November on both Highway 93 and Baker Avenue. Heavy vehicle traffic accounted for approximately 4.3 percent of traffic along Highway 93 and 1.3 percent of traffic along Baker Avenue during the summer weekday time period. Similar percentages were documented in November with 4.5 percent on Highway 93 and 1.0 percent on Baker Avenue. Although truck traffic is discouraged on Baker Avenue, trucks make up a notable percentage of the vehicle mix within the study area.

OBSERVED TRAFFIC PATTERNS

During the summer observation period, the Highway 93 corridor generally operated at or near capacity between approximately 10:00 AM and 6:00 PM. During this time, the corridor became gridlocked with mostly stop-and-go traffic. High traffic volumes and conflicting turn movements caused queuing through intersections, particularly the northbound left-turn movement from Spokane Avenue/ Highway 93. Heavy vehicles, including construction and logging trucks, further worsened congested conditions by blocking intersections due to lack of storage space between intersections. The 2nd Street/Central Avenue intersection was dominated by pedestrian movements. Nearly 8,500 pedestrians were counted during a typical summer day and were observed accessing Downtown retail storefronts and restaurants located along Central Avenue. Queues at the Baker Avenue/2nd Street intersection were observed backing up over the viaduct during the summer evening hours.

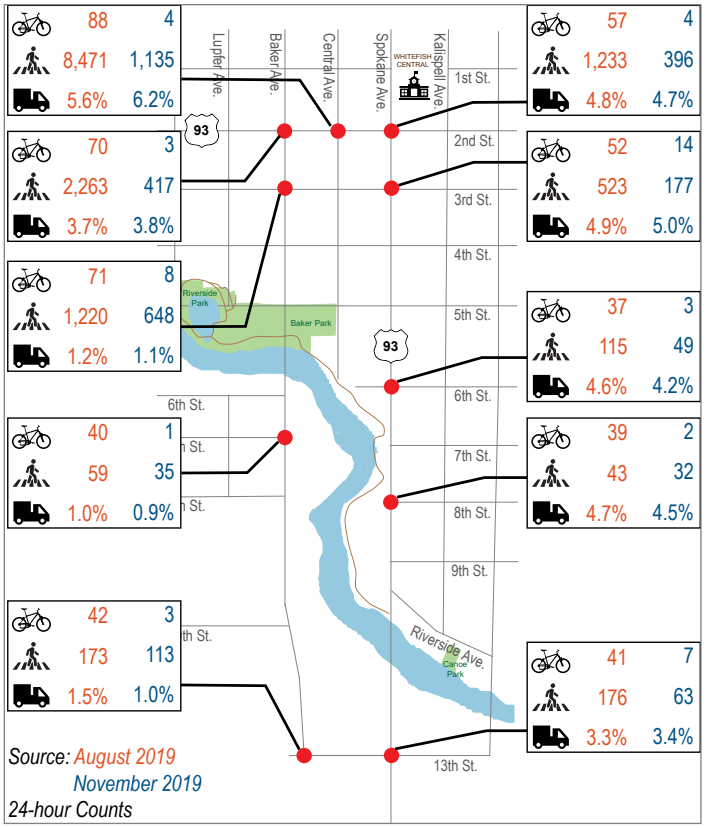
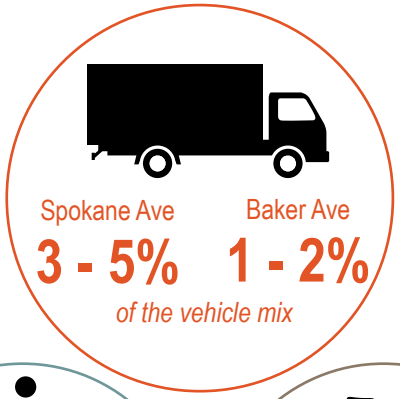
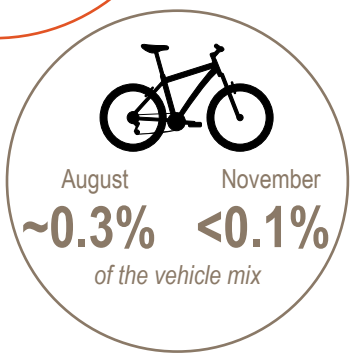


FIGURE 7: *Multimodal Traffic Volumes*





During school drop off times in November, the eastbound right-turn bay at the Spokane Avenue/2nd Street intersection was poorly utilized because through traffic backed up and blocked access to right turning vehicles. A crossing guard was positioned midblock on 2nd Street between Spokane and Kalispell Avenues to help direct traffic during school start and release periods. Following school release, traffic volumes were observed funneling southbound on Spokane and Columbia Avenues, causing congestion at the Spokane Avenue/13th Street intersection that backed up to 9th Street on both Spokane and Columbia Avenues. The Baker Avenue/13th Street intersection intermittently backed up to 10th Street.

At the Baker Avenue/2nd Street intersection, congestion in the southbound direction was observed backing up to Railway Street from approximately 3:00-4:00PM in November. Anecdotal information suggests that the southbound queues are greater in the winter months due to ski traffic departing from Whitefish Mountain Resort. Queues in the eastbound direction consistently backed up to Obrien Avenue during the November AM peak hour.

In general, stop-and-go traffic was observed on Highway 93 during the November PM peak. It was common for drivers to stop mid-block to enable oncoming left turns during peak periods. Poor road and weather conditions may have contributed to slower speeds and more cautious driving behaviors during the observation periods.

2.2.2. TRAFFIC OPERATIONS

Traffic conditions were primarily assessed using two methods: an intersection operational analysis and a corridor-wide microsimulation analysis. The intersection level analysis was conducted to gain an understanding of the operational conditions at each primary intersection within the study area. This evaluation was conducted on an individual intersection basis and parameters were adjusted to calibrate to existing field-measured conditions. The corridor-wide microsimulation evaluation uses a variety of data to simulate the driver behavior for every vehicle in the corridor during a “typical day”. The microsimulation model takes into account network effects such as queuing from adjacent intersections.

MODEL DEVELOPMENT AND CALIBRATION

In order to evaluate concepts, a base model was created to represent existing conditions and to aid in calibrating the model to reflect actual operating conditions. A variety of data were used to accurately develop and calibrate the model. Turning movement counts were used to define vehicle inputs and routing decisions. Travel time and queue lengths were used in the model calibration step and were ultimately used to adjust driver behavior parameters. Roadway and intersection geometrics were collected from as-builts, aerial photography, and field review. Traffic signal timing data was supplied by MDT to allow for the proper coding of traffic signals.

CORRIDOR OPERATIONAL ANALYSIS

The microsimulation model was used to assess the operations of the entire study corridor including average delay per vehicle, average number of stops per vehicle, average vehicle speed, total fuel used, and travel times.

The existing conditions modeling shows that the highest amount of vehicle delay occurs during the August Midday and PM peak periods. The August AM and all November peak periods perform similarly with total delay between 50 and 55 seconds/vehicle and average speeds near 20 mph. During the August PM period, delay per vehicle is more than double the other periods while average speed slows to 15 mph. When evaluated for corridor travel times, less variation is shown between the peak periods. The total travel times in the northbound and southbound directions vary by less than 15 percent between periods.

By 2045, traffic volumes were projected to increase by about 40 percent and travel times were shown to increase by about 175 percent. The August midday and PM peaks saw the largest decrease in performance with 2.5 to 3.5 times the amount of vehicle delay compared to existing conditions. This indicates that the corridor is currently at, or near capacity, and that the projected increase in traffic will result in failing operations during peak periods.

INTERSECTION OPERATIONAL ANALYSIS

The operational conditions of the study intersections are characterized by Level of Service (LOS), with LOS A representing the best operating conditions and LOS F indicating failing conditions. Existing and projected LOS for each intersection are shown in **Figure 8**. Under existing conditions, five of the ten intersections experience LOS D or worse during at least one peak hour in August. In November, only the two intersections along 13th Street are shown to operate at a LOS D or worse with existing traffic volumes.

When projected out to the year 2045, all intersections except 2nd Street/Central Avenue are expected to fail during at least one peak hour in August. Similar results are shown in November under projected conditions with 7 of the 10 intersections experiencing a LOS D or worse during at least one peak hour.

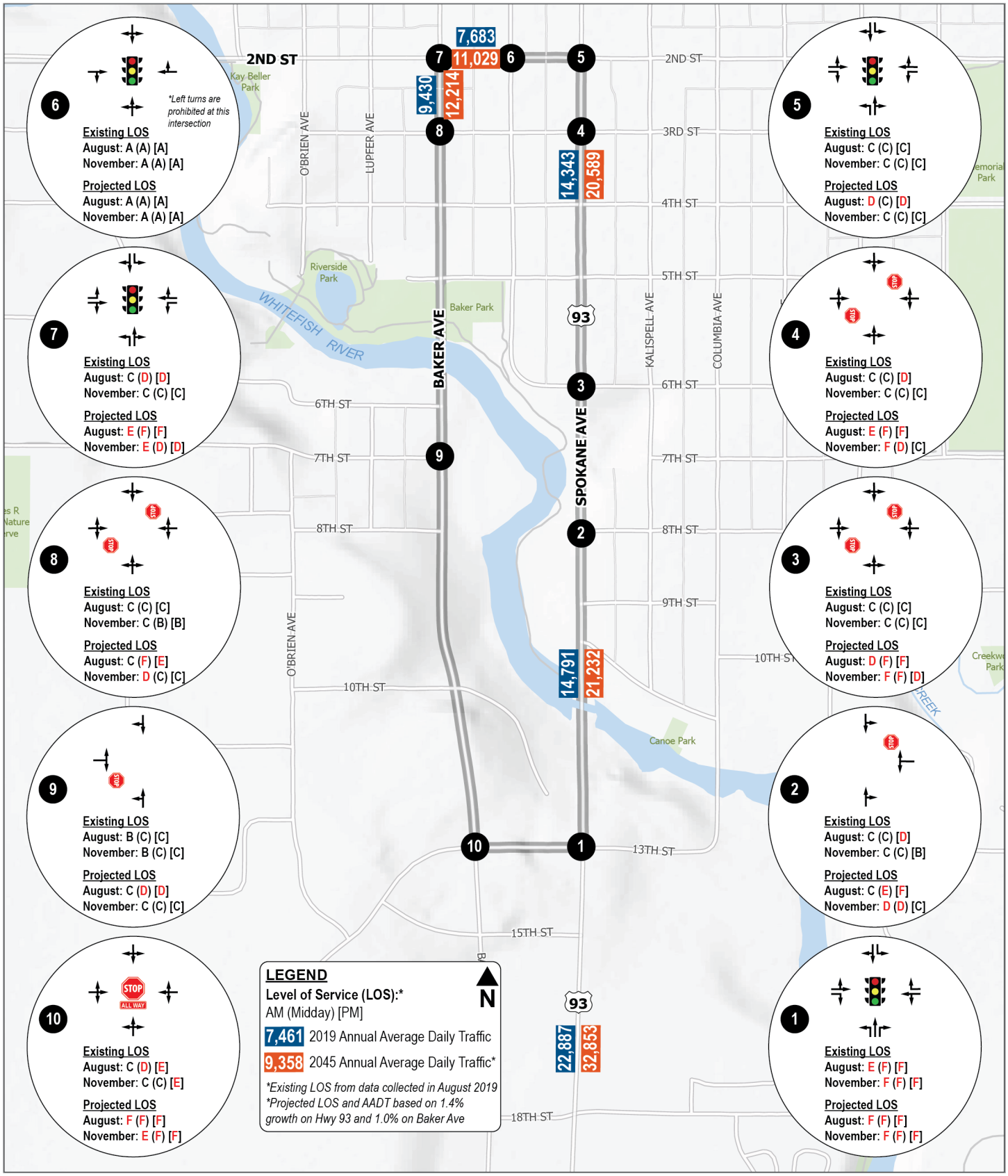


FIGURE 8: *Existing and Projected Traffic Conditions*

2.3. SAFETY

MDT provided crash data for the study area for the five-year period between January 1, 2014, through December 31, 2018. A total of 99 crashes were reported within the study area during this time period. Of the 99 crashes, 2 crashes resulted in suspected minor injury, 16 crashes resulted in possible injury, and 81 crashes were recorded as no apparent injury. No fatalities or incapacitating injuries occurred as a result of crashes during the analysis period.

Crash locations were plotted using latitude and longitude assigned to each crash record. Of the 99 total crashes, 76 crashes occurred at an intersection or driveway access. The remaining 23 crashes were not related to an intersection. This distribution of crashes is typical of a congested urban environment. Crash density and location along the corridor are illustrated in **Figure 9**.

Multiple vehicle crashes involving two or more vehicles accounted for 90 percent of all crashes. The most common multiple vehicle crash types were rear end crashes (48) followed by right angle crashes (14). Single vehicle crashes involving only one vehicle accounted for 10 percent of all reported crashes. Of the single vehicle crashes, fixed object crashes (5) were the most common type.

Two bicycle crashes and two pedestrian crashes occurred within the study limits during the five-year analysis period. The bicycle crashes occurred along Spokane Avenue at the intersections with 8th Street and with 6th Street. The pedestrian crashes occurred at the intersection of Spokane Avenue/2nd Street and at Baker Avenue/8th Street. One bicycle crash and one pedestrian crash resulted in a possible injury.

MDT conducted an intersection analysis using safety performance functions (SPFs) for urban two-lane divided and undivided signalized four-leg intersections. SPFs are equations used to predict the average number of crashes per year as a function of corridor length, traffic volumes, and roadway or intersection characteristics, among other factors. From this analysis, MDT identified moderate to high potential for crash reduction at the intersections of Spokane Avenue/13th Street (for severe crashes), 2nd Street/Baker Avenue (for total crashes), and Baker Avenue/13th Street (for total crashes) based on a comparison of actual crash performance to predicted crash performance according to the SPF.

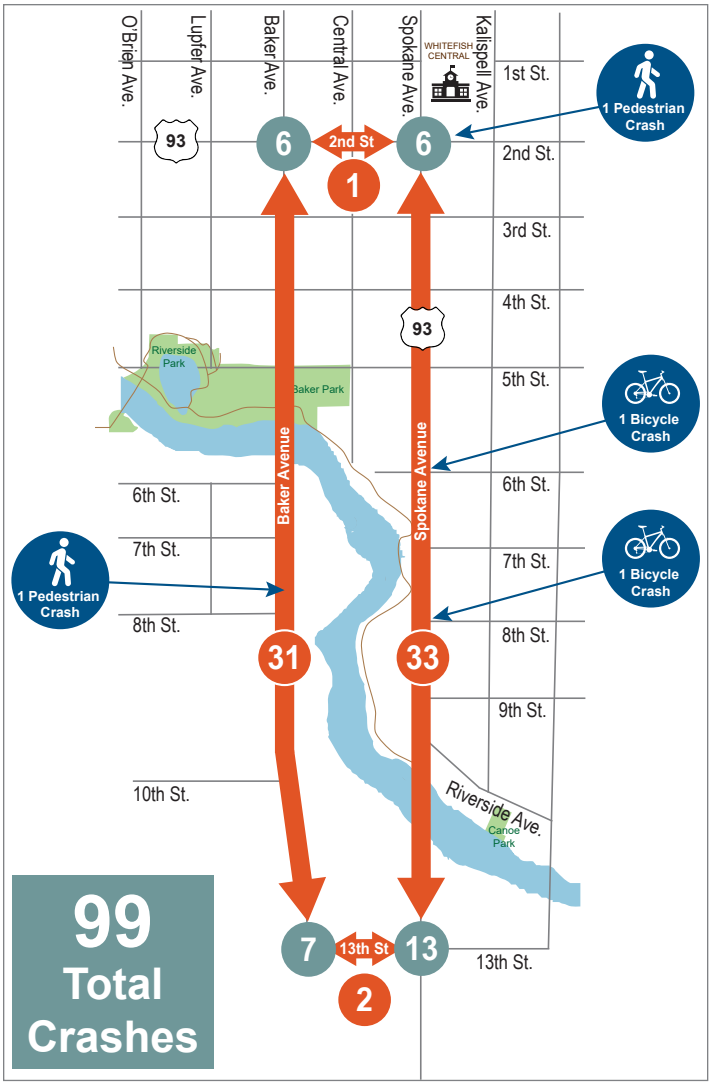


FIGURE 9: *Crash Location*

76 crashes occurred at an **INTERSECTION** or **DRIVEWAY ACCESS**

48 were **REAR END** crashes

14 were **RIGHT ANGLE** crashes

**Five year crash period: January 1, 2014 - December 31, 2018*

2.4. ENVIRONMENTAL CONDITIONS

Detailed studies were conducted to evaluate environmental conditions within the study area. The following sections summarize areas of potential concern. Additional information is provided in the *Environmental Engineering Analysis Report,*[12] *Class I Cultural Resource Inventory of Whitefish Urban Project Area,*[13] *Air Quality Conformity Determination,*[14] and the *Hazardous Materials/Substances Review*.[15]

2.4.1. LAND USE

Highway 93 serves as an important north/south transportation route in western Montana. The roadway also functions as one of Whitefish's main arterials accommodating access to commercial, residential, and recreational areas within the community. Along Spokane Avenue, commercial uses dominate the area between 13th and 6th Streets including various retail establishments, professional offices, auto services, hotels, a supermarket, and gas stations. Between 6th and 4th Streets, private residences are interspersed with commercial and office uses that occupy several former residences along both sides of Spokane Avenue. The Downtown core of Whitefish includes Highway 93 north of 4th Street and west along 2nd Street to Baker Avenue. The Downtown includes retail commercial uses, professional and government offices, financial institutions, restaurants, art galleries, and hotels.

Land uses along Baker Avenue include commercial and professional businesses, churches, banks, a fitness center, post office, parkland, as well as some private residences between 6th and 10th Streets.

The intersection of 2nd Street and Baker Avenue provides access to the northern part of the city, Whitefish Lake, and Whitefish Mountain.

The Whitefish River runs through the middle of Whitefish between Spokane and Baker Avenues from about 10th Street to 5th Street. Pedestrian and bicycle trails are provided along the river waterfront. Commercial, residential, and transportation-related development are the dominant visual features along Highway 93 and associated streets, although wetlands, parks, and open space are also found in the area.

2.4.2. SOCIOECONOMIC CONDITIONS

The percentage of minority populations, individuals with disabilities, and individuals living below the poverty line within the City of Whitefish were lower than the share of these populations in Flathead County and the State of Montana.

2.4.3. AIR QUALITY

The City of Whitefish was designated as a nonattainment area for PM-10 (particulate matter ranging in size from 2.5 to 10 micrometers) in 1992 and this designation remains in place. Air quality control regulations have been established by Flathead County specifically for the Whitefish Air Pollution Control District to control PM-10 emissions within the community. The regulations address rules for the Whitefish Air Pollution Control District and outline a variety of control strategies associated with road cleaning/sweeping, paving of roads and parking lots, winter de-icing, and burning solid fuels.

2.4.4. CULTURAL RESOURCES / SECTION 4(F) RESOURCES

Within the study area, previous cultural resource surveys identified 62 historic-period properties. Of these properties, 35 were deemed eligible for listing in the National Register of Historic Places (NRHP), and one is listed in the NRHP. Of the eligible properties, 8 were determined to be individually eligible, and 26 were recommended eligible as contributing resources to a proposed Whitefish Residential Historic District, which was never nominated to the NRHP. An additional 13 properties appear to contain historic-period structures that have never been surveyed. If a feasible project is advanced, a Class III (Intensive) cultural resource inventory of the area of potential effect will be required.

Two City-owned parks (Riverside Park and Baker Park) are located adjacent to Baker Avenue.

2.4.5. WATER RESOURCES

The study area lies within the Whitefish River sub-basin of the Stillwater River Watershed. The Stillwater River is a tributary to the Flathead River. The Whitefish River is the only surface water crossed by roadways in the study area. Highway 93 currently crosses the river on Spokane Avenue between 13th Street and Riverside Avenue and on Baker Avenue between 6th and 5th Streets. The Whitefish River is considered commercially navigable from Whitefish Lake to its confluence with the Stillwater River. No irrigation features occur in the study area.

Wetlands occur along the Whitefish River, including within the existing highway corridor along the banks of the Whitefish River and some side-channel and backwater areas vegetated by emergent and scrub-shrub species.

Delineated floodplains occur along the Whitefish River. Highway 93 encroaches on the floodplain of the Whitefish River at the existing crossings on Spokane Avenue and Baker Avenue. The floodplain stretches almost the entire distance between Baker and Spokane Avenues at 7th Street.

There are 16 wells located within 200 feet of Spokane Avenue, 2nd Street, Baker Avenue, and 13th Street. Of these, 13 are used for monitoring purposes, one is abandoned, and the remaining two are used for domestic water supply.

2.4.6. HAZARDOUS MATERIALS

No *Comprehensive Environmental Response, Compensation and Liability Act* (CERCLA) sites, *Resource Conservation and Recovery Act* (RCRA) permitted facilities, gas transmission pipelines, hazardous liquid pipelines, or at-grade rail crossings are located in the study area.

The BNSF Facility is a *Montana Comprehensive Environmental Cleanup and Responsibility Act* (CECRA) site located approximately two blocks north of the study area. Spills and leaks at the locomotive fueling and repair facility have resulted in soil and shallow groundwater contamination north of the study area and contaminated sediment along the Whitefish River.

One brownfield site is located two blocks northeast of the intersection of Spokane Avenue and 2nd Street. The property is used by the City of Whitefish for snow storage during the winter months and also contains community recycling bins. Improvements on the Highway 93 corridor would be unlikely to affect or be affected by this site.

Of the identified leaking underground storage tank petroleum release sites located in the study area, ten incidents remain unresolved. Additionally, one hazardous waste handler site is located within the Highway 93 corridor.

A shared use path is located adjacent to the Whitefish River and passes through Riverside Park. Any improvements should consider impacts to trails, parks, and water resources in the study area.

2.5. SUMMARY OF KEY FINDINGS

TRAFFIC CONDITIONS

EXISTING
5 of 10

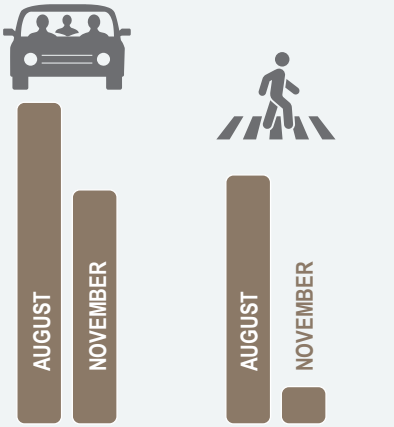
PROJECTED
9 of 10

intersections operate at **LOS D OR WORSE** during at least one peak hour in August

7,500 to 15,000
VEHICLES PER DAY
on Hwy 93 (in 2019)

<0.5%
of traffic on Hwy 93 is
BICYCLES

3% to 5%
of traffic on Hwy 93 is
HEAVY VEHICLES



35%
more vehicles

355%
more pedestrians

counted in August than November

SAFETY

99 TOTAL CRASHES (2014 - 2018)*

2 MINOR INJURIES

25 POSSIBLE INJURIES

76 crashes occurred at an INTERSECTION or DRIVEWAY ACCESS

48 were REAR END crashes

14 were RIGHT ANGLE crashes

2 crashes involved a PEDESTRIAN

2 crashes involved a BICYCLE

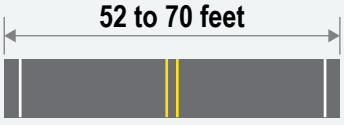
** Crashes reported in the study area between January 1, 2014, and December 31, 2018*

PHYSICAL FEATURES & ENVIRONMENT

COMMERCIAL, GOVERNMENT, and RESIDENTIAL buildings and land uses are located adjacent to the study corridors

TREES and GRASSY BOULEVARDS line Spokane and Baker Avenues

2 WHITEFISH RIVER crossings (1 bridge, 1 culvert)



RIGHT-OF-WAY WIDTHS VARY
Typical Width of Highway 93 = **70 feet**

A sequential approach was used to identify, screen, and select a preferred alternative for improvements to Highway 93 to address identified needs and areas of concern.

03

CONCEPT IDENTIFICATION AND EVALUATION

This study identified and evaluated a range of potential options to improve traffic flow and safety of the highway through Downtown Whitefish while enabling feasible implementation, accommodating all modes, considering the community vision, and minimizing impacts to businesses, residents, and the environment. This effort attempted to best address the primary areas of concern identified through public and stakeholder outreach, discussions with the study steering committee, review of past and current planning documents, and technical analysis of physical features, traffic, safety, and environmental conditions while also meeting the purpose and need of the highway.

A sequential approach was used to identify, screen, and select the preferred alternative. The evaluation process involved the following four steps:

1. Lane Configuration Alternative Identification: Identify all possible alternatives that may address needs within the Downtown Whitefish study area.
2. Level I Screening: Evaluate each configuration to determine support from past plans, changed conditions warranting re-evaluation, and support from steering committee members to further evaluate. Ultimately, seven configurations (renamed as Concepts A-G) were advanced for in-depth analysis.
3. Level II Screening: Conduct detailed analysis based on criteria for operations, safety, implementation (Part A) and multimodal accommodations, environmental and character, and economic vitality (Part B).
4. Identification of Preferred Concept: Identify a preferred lane configuration concept that best meets screening criteria and enables future refinement to include desired elements and features.

The evaluation process and results are discussed in more detail in the following sections.

3.1. LANE CONFIGURATION ALTERNATIVES IDENTIFICATION

In coordination with the steering committee, an exhaustive list of lane configuration alternatives was identified for the Downtown Whitefish study area. The list contained all alternatives previously proposed, including those identified in the *1994 EIS* (**EIS-1 through EIS-7**), *2010 Corridor Study* (**CS-1 through CS-4**), and *2006-2018 Downtown Master Plan* (**MP-1 through MP-3**). Additionally, a new configuration (**DWH-1**) was proposed by the steering committee. In total, 15 lane configuration alternatives were identified, including the No Action/ Rehabilitation alternative, 13 previously identified alternatives, and one new alternative.

Appendix 2 contains schematic figures and a description of features for identified lane configuration alternatives. In several cases, the concepts represent variations on a similar configuration with modifications to one or more corridor segments.

3.2. LEVEL I SCREENING

An initial evaluation was conducted to screen the identified lane configuration alternatives and narrow the list forwarded for detailed evaluation. Level I screening involved assessment of the following three questions. To advance to Level II screening, an alternative must affirmatively answer Question 1A or 1B and Question 2.

Question 1A: Was the alternative preferred in the past?

Recognizing the substantial effort and investigation involved in past environmental documentation and traffic analyses, this question considers if the alternative was preferred or supported for further analysis either when it was first proposed or when it was subsequently reevaluated in a planning document. The highest-ranking past status indicated that the alternative was thought to provide a superior benefit at the time it was previously evaluated in terms of desired qualities and performance. Building on these past efforts, preferred status provided a starting point for additional investigations under the current study.

Question 1B: Is reevaluation warranted?

Since past environmental documentation and planning studies were completed, the Downtown Whitefish area has continued to see increased traffic growth, tourism pressures, non-motorized activity, and economic development. This element considered if these changed conditions warranted reevaluating an alternative even if it was not identified as preferred in past analyses.

Question 2: Is the alternative supported by the steering committee?

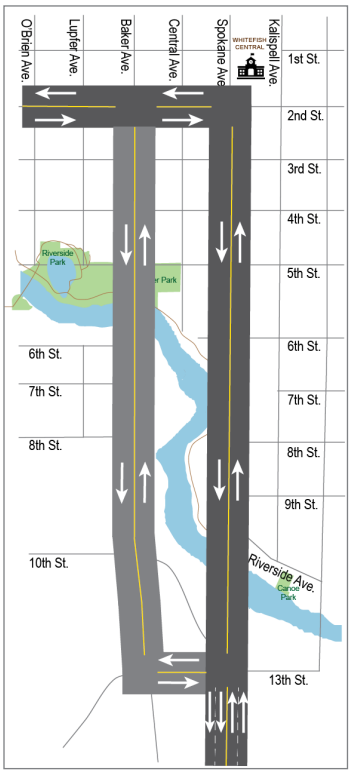
Support from the steering committee was required for an alternative to advance for detailed analysis. An affirmative response to this question indicated support to further consider the alternative through the Level II screening process and did not necessarily indicate preference or support for implementation.

Table 1 presents the 15 identified lane configuration alternatives and Level I screening results. The following sections describe alternatives advanced for further consideration, which were renamed Concepts A through G for simplicity.

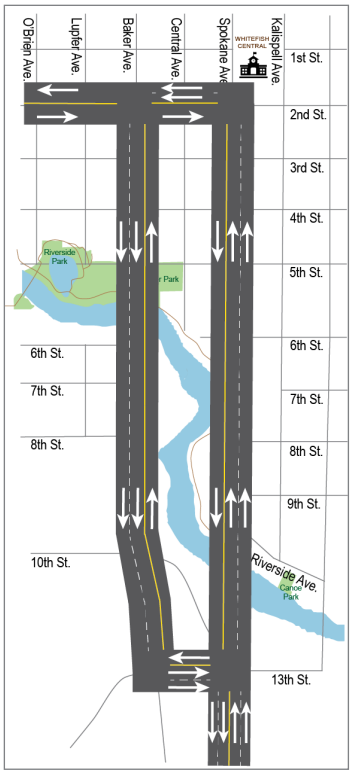
TABLE 1: *Level I Screening Criteria and Results*

Original Source	Lane Configuration Alternatives		Level I Screening Criteria*				Level 1 Screening Result	Rationale
			1A: Preferred in Past?		1B: Reevaluate?	2: Support from SC?		
1994 EIS/ROD Whitefish Area Alternatives	**EIS-1**	No Action	--	Baseline Configuration (1994)	--	--	**ADVANCE** *(Concept A)*	Use for baseline comparison. Updated to reflect 2020 existing conditions.
	EIS-2	Alternative A (Four Lane)	No	Advanced But Not Preferred (1994) Not Advanced to Second-Level Screening (2010)	No	--	**Do Not Advance**	Physical constraints make 4-lane expansion unrealistic.
	EIS-3	Alternative C (Offset)	No	Advanced But Not Preferred (1994) Advanced to Second-Level Screening with Modifications - see CS-2 (2010)	**Yes**	**Yes**	**ADVANCE** *(Concept B)*	Reevaluation of 3-lane configuration on 2nd Street warranted due to increased traffic volumes.
	EIS-4	Alternative C (Couplet-1)	No	Advanced But Not Preferred (1994) Not Advanced to Second-Level Screening (2010)	No	--	**Do Not Advance**	One-way system not consistent with local plans.
	EIS-5	Alternative C (Couplet-2)	No	Advanced But Not Preferred (1994) Not Advanced to Second-Level Screening (2010)	No	--	**Do Not Advance**	One-way system not consistent with local plans.
	EIS-6	Alternative C (Couplet-3)	**Yes**	**Preferred Alternative** (1994) Not Advanced to Second-Level Screening (2010)	--	No	**Do Not Advance**	One-way system not consistent with local plans.
	EIS-7	Alternative C (Couplet-4)	No	Advanced But Not Preferred (1994) Not Advanced to Second-Level Screening (2010)	No	--	**Do Not Advance**	One-way system not consistent with local plans.
2010 Corridor Study	**CS-1**	Modified ROD Configuration	No	Not Advanced to Second-Level Screening (2010)	No	--	**Do Not Advance**	One-way system not consistent with local plans.
	CS-2	Modified Alt C (Offset)	**Yes**	**Advanced to Second-Level Screening** (2010) Not Supported (2018)	--	**Yes**	**ADVANCE** *(Concept C)*	Advanced option from 2010 Corridor Study.
	CS-3	Contra-Flow Configuration	**Yes**	**Advanced to Second-Level Screening** (2010) Not Supported (2018)	--	**Yes**	**ADVANCE** *(Concept D)*	Advanced option from 2010 Corridor Study.
	CS-4	Truck Route Configuration	No	Not Advanced to Second-Level Screening (2010)	No	--	**Do Not Advance**	Inadequate future traffic performance.
2006 – 2018 Downtown Master Plan	**MP-1**	2006 MP Configuration	No	**Supported** (2006) Not Advanced to Second-Level Screening (2010)	--	No	**Do Not Advance**	One-way system not consistent with local plans.
	MP-2	2018 MP Configuration – Contra-Flow	**Yes**	**Supported** (2018)	--	**Yes**	**ADVANCE** *(Concept E)*	Supported in Downtown Master Plan.
	MP-3	2018 MP Configuration – Modified Alt C (Offset)	**Yes**	**Supported** (2018)	--	**Yes**	**ADVANCE** *(Concept F)*	Supported in Downtown Master Plan.
New Configurations	**DWH-1**	2-Lane/3-Lane Hybrid	--	Developed by Steering Committee	**Yes**	**Yes**	**ADVANCE** *(Concept G)*	Developed by steering committee.

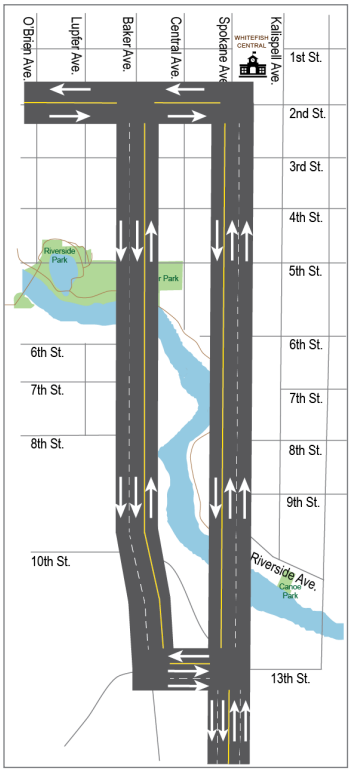
*Must respond Yes to 1A or 1B and 2 to advance to the Level 2 Screening.



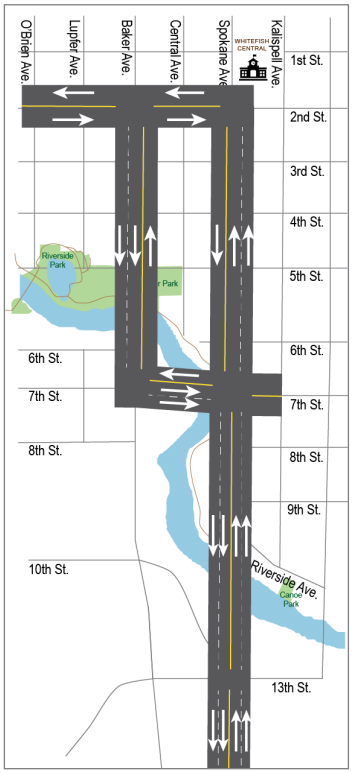
CONCEPT A:
NO ACTION



CONCEPT B:
ALTERNATIVE C (OFFSET)



CONCEPT C:
MODIFIED ALT C (OFFSET)



CONCEPT D:
CONTRA-FLOW CONFIGURATION

1994 EIS/ROD ALTERNATIVES

Of the seven alternatives identified in the 1994 EIS/ROD, two were advanced for further consideration.

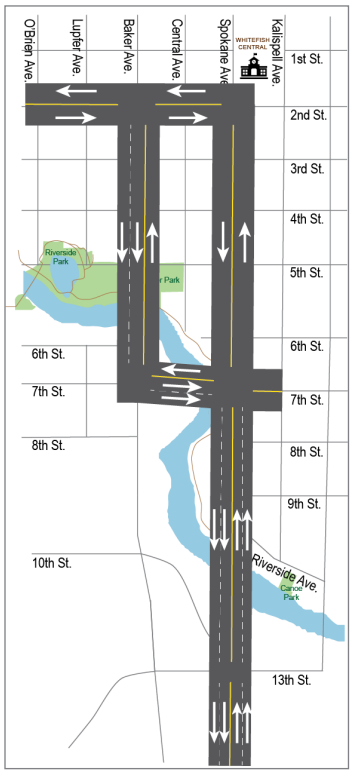
The No Action alternative (EIS-1/**Concept A**) was advanced for baseline consideration. Although this alternative is not expected to address identified needs, it was included to serve as a comparison against alternatives involving reconstruction. The lane configuration would remain the same under this alternative, and periodic rehabilitation and maintenance would still be required to preserve existing facilities.

Although the Offset alternative (EIS-3/**Concept B**) performed acceptably in terms of future traffic operations, ultimately it was not identified as preferred in the 1994 EIS/ROD or in the 2010 Corridor Study. However, due to increased traffic volumes in the Downtown core since 2010, it was determined that reevaluation of this alternative was warranted based on its proposal to add a second westbound lane on 2nd Street in an attempt to better serve growing Downtown traffic demands. The steering committee supported further evaluation of this alternative.

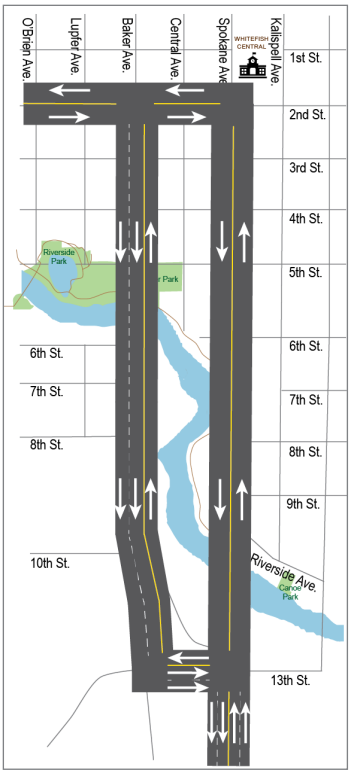
All other alternatives originally proposed in the 1994 EIS were eliminated from further consideration based on failure to meet the Level I screening criteria. Of particular note, the Couplet-3 alternative (EIS-6) was identified as preferred in the 1994 EIS but was not advanced for further consideration because it involved a one-way couplet system, with northbound traffic on Spokane Avenue and southbound traffic on Baker Avenue from 6th Street to 2nd Street. Opposition to a one-way configuration has been documented in local planning documents, and the steering committee did not support further evaluation of this alternative.

2010 CORRIDOR STUDY ALTERNATIVES

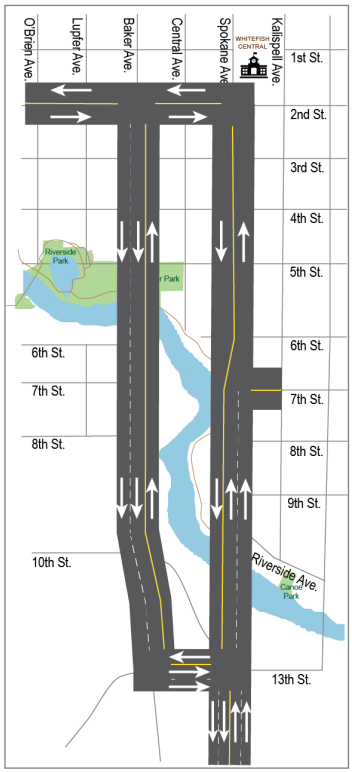
Of the four alternatives considered in the 2010 Corridor Study, the Modified Offset (CS-2/**Concept C**) and Contra-Flow (CS-3/**Concept D**) configurations were identified for advancement based on acceptable future traffic operations and consistency with local plans. The steering committee supported these alternatives for additional analysis.



CONCEPT E:
2018 MP CONFIGURATION - CONTRA-FLOW



CONCEPT F:
2018 MP CONFIGURATION - MODIFIED ALT C (OFFSET)



CONCEPT G:
2-LANE / 3-LANE HYBRID

2006 - 2018 DOWNTOWN MASTER PLAN ALTERNATIVES

Of the three alternatives considered in the Downtown Master Plan, the MP Contra-Flow (MP-2/**Concept E**) and the MP Offset (MP-3/**Concept F**) configurations were supported. These alternatives mirror the concepts considered in the 2010 Corridor Study except that they only provide two lanes on Spokane Avenue. The steering committee supported these alternatives for additional analysis.

NEW CONFIGURATION

Recognizing the need for additional vehicular capacity on Spokane Avenue coupled with desired multimodal accommodations and landscaping features, a new hybrid lane configuration (DWH-1/ **Concept G**) was proposed. In an effort to balance these needs within the existing right-of-way, this concept would provide three lanes on Spokane Avenue beginning at 13th Street and would transition to two lanes from 7th Street to 2nd Street. The steering committee supported this concept for additional analysis.

REFINEMENTS

At the request of the steering committee, all concepts except Concept B were defined to provide an identical two-lane configuration on 2nd Street to facilitate consistency and fairness in the evaluation process.

7 The following seven concepts were advanced to the Level II Screening for further analysis:

- **Concept A:** No Action [EIS-1]
- **Concept B:** Alternative C (Offset) [EIS-3]
- **Concept C:** Modified Alt C (Offset)[CS-2]
- **Concept D:** Contra-Flow [CS-3]
- **Concept E:** 2018 MP Configuration - Contra-Flow [MP-2]
- **Concept F:** 2018 MP Configuration - Modified Alt C (Offset) [MP-3]
- **Concept G:** 2-Lane / 3-Lane Hybrid [DWH-1]

3.3. LEVEL II SCREENING

To assess the seven concepts advanced from the Level I screening, an in-depth analysis was conducted based on performance according to a set of six screening criteria:

- Traffic Operations
- Safety
- Implementation
- Multimodal Accommodations
- Environmental and Character
- Economic Vitality

These screening criteria were identified from a review of goals, objectives, issues, and needs outlined in past environmental documentation and planning documents, in addition to areas of concern identified through public involvement activities and steering committee coordination. Elements were grouped by topic for comparison and synthesis, resulting in identification of the 6 criteria categories and 20 sub criteria used for the Level II analysis. The intent of this process was to comprehensively address past and current considerations and rationale for improvements within the study area and to represent the perspectives and desires of a range of stakeholders, including transportation decision makers, local government officials, businesses, freight haulers, commuters, residents, and visitors.

Screening criteria were split into two parts. Part A includes criteria relating to operations, safety, and implementation. To be eligible for NHS funding, a project on Highway 93 must support progress toward the achievement of national performance goals for "improving infrastructure condition, safety, congestion reduction, system reliability, or freight movement on the NHS."[16] Accordingly, Part A criteria recognize that concepts must meet the basic needs of the highway and be feasible to implement to advance for further consideration.

Part B criteria include multimodal accommodations, environment and character, and economic vitality, recognizing the specific Downtown context through which the Highway 93 facility traverses. Part B ensures consideration is given to the community's interests and needs, in addition to the requirements associated with an NHS facility. The Level II screening process is illustrated in **Figure 10** and the screening criteria are presented in **Table 2**.

Each concept was scored according to the Level II screening criteria. For each of the 20 sub criteria, scoring ranged from 0 points (failure to address criteria) to a maximum value of 5 points (fully addresses criteria), with a combined total of 100 possible points. The process relied on a mixture of quantitative and qualitative scoring. The methodology and results of the Level II analysis are discussed in the following sections. For more information about the technical analyses supporting the Level II scoring, refer to the *Preliminary Traffic Engineering Report.*[11]

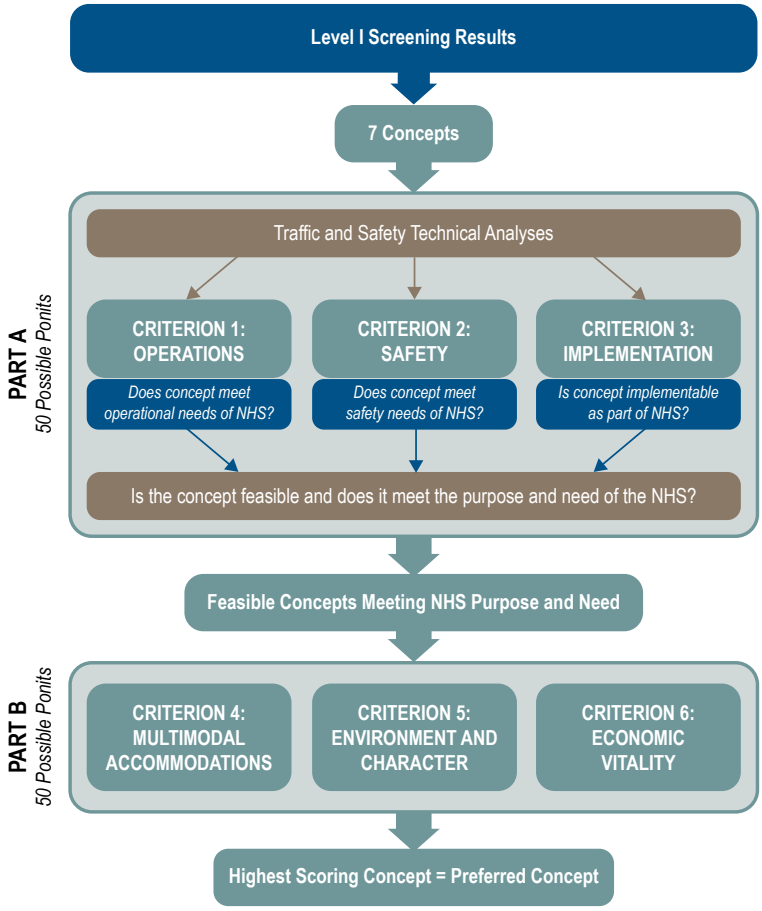


FIGURE 10: *Level II Screening Process*

TABLE 2: *Level II Screening Criteria*

PART A SCREENING

CRITERION 1: OPERATIONS

1a. Intersection Performance: Optimizes vehicular traffic operations at major intersections as measured by total intersection delay

1b. Travel Time: Minimizes average time required to travel between Spokane/13th and Baker/2nd as measured by combined north/south travel time

1c. Total Network Delay: Minimizes additional travel time experienced by network users beyond that required to travel at desired speed as measured by total network delay per vehicle

1d. Large Truck Accommodations: Optimizes ability for trucks to travel through Downtown Whitefish based on number of turns, overtracking, routing through Downtown

→ Does the concept meet the **OPERATIONAL NEEDS** of the National Highway System?

CRITERION 2: SAFETY

2a. Vehicle Conflicts: Minimizes potential conflicts between vehicles

2b. Pedestrian Exposure: Minimizes conflict exposure for pedestrians based on crossing distances, protection provided by buffer areas, conflicts with trucks, intersection treatments, and protected crossing movements

2c. Bicycle Exposure: Minimizes conflict exposure for bicyclists based on protection provided by buffer areas, conflicts with trucks, intersection treatments, and protected crossing movements

→ Does the concept meet the **SAFETY NEEDS** of the National Highway System?

CRITERION 3: IMPLEMENTATION

3a. Capital Cost: Minimizes total cost of construction

3b. Ongoing Maintenance: Minimizes maintenance performance relating to snow removal and storage, equipment and labor needs

3c. Funding Availability: Maximizes potential funding sources and funding ability

→ Is the concept **IMPLEMENTABLE** as part of the National Highway System?

Is the concept feasible and does it meet the purpose and need of the National Highway System?

The purpose of the National Highway System is to "provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major travel destinations." -Intermodal Surface Transportation Efficiency Act of 1991

Projects eligible to recieve NHS funds must support progress toward the achievement of national performance goals for "improving infrastructure condition, safety, congestion reduction, system reliability, or freight movement on the NHS". -23 U.S. Code § 119(d)(1)(A), National Highway Performance Program

PART B SCREENING

Complete Only For Concepts Advanced From Part A

CRITERION 4: MULTIMODAL ACCOMMODATIONS

4a. Pedestrian Comfort Level: Serves pedestrians based on presence of pedestrian facilities and crossing treatments

4b. Bicycle Comfort Level: Serves bicyclists based on presence of bike facilities and crossing treatments

4c. Multimodal Connectivity: Provides connections to planned pedestrian/bicycle facilities and destinations

CRITERION 5: ENVIRONMENT AND CHARACTER

5a. Natural Environment: Minimizes impacts at water body crossings to fisheries, habitat, and wetlands; ability to support street trees based on presence/width of landscaped boulevard

5b. Built Environment: Minimizes impacts to buildings/structures and adjacent right-of-way

5c. Context Sensitivity: Aligns with Downtown Whitefish's character and ability to accommodate all modes based on aesthetics, street trees and landscaped buffers, pedestrian/bicycle accommodations, and travel lanes

5d. Vehicle Emissions and Fuel Consumption: Reduces air pollutants and fuel consumption from vehicles as measured by total fuel used per vehicle

CRITERION 6: ECONOMIC VITALITY

6a. Business Access and Parking: Minimizes impacts to driveways and on-street parking spaces in the Downtown core

6b. Impacts to Adjacent Land Use: Minimizes impacts to property function based on comfort and noise associated with proximity of travel ways to residential and commercial frontages

6c. Economic Impacts During Construction: Minimizes disruption anticipated during construction based on delay, routing options, duration, road closures, and business access

3.3.1. LEVEL II PART A SCREENING

The purpose of the Part A screening was to determine whether a concept would meet the operational and safety needs of the NHS while also being feasible to implement. Part A screening involved operational and safety analyses as well as a planning-level qualitative evaluation of costs, maintenance requirements, and funding sources to determine implementation feasibility for each concept. The operations and safety analyses relied primarily on results of traffic simulations and modeling, as shown in **Figure 11**. Outputs from these modeling efforts yielded comparative information about how each concept would perform under future conditions.

A concept was considered to meet the minimum threshold for operations, safety, and implementation if the total score for each criteria category was equal to or greater than 50 percent of the total possible points. The 50 percent threshold does not imply that the concept fully addresses operational and safety needs, but was set to determine whether a concept would advance for further consideration in Part B.

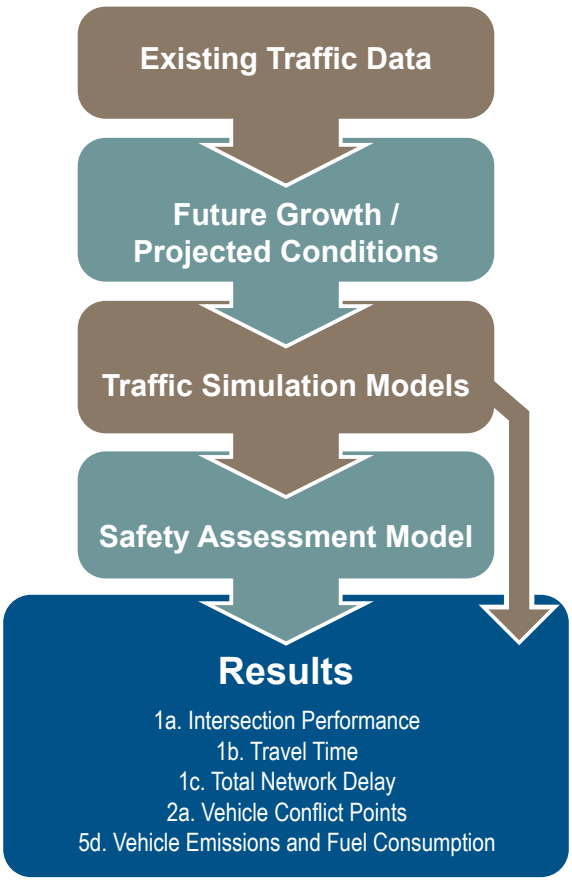


FIGURE 11: *Traffic and Safety Analysis Process*

Screening Criterion 1: Operations

Sub-criteria 1a through 1c were scored based on technical analyses conducted using traffic simulation models. Numerical output results from the models relating to intersection performance, travel time, and total network delay were used to compare the traffic operations of each concept. For sub-criterion 1d, a qualitative analysis was performed to understand how large trucks would be accommodated in each concept. This analysis included consideration of routing options (i.e., use of Spokane Avenue or Baker Avenue or both), available space at intersections for trucks to execute turning movements, and number of turns required to reach destination. Scoring was assigned based on individual concept performance in comparison to performance for other concepts.

Scores for the each of the operations sub-categories are shown in **Table 3**. Concepts B, C, D, E, and G demonstrated adequate traffic performance to meet the minimum scoring threshold for operations. Concept D received the highest score (17 out of 20 possible points) because it was projected to best accommodate future traffic demands with optimal performance. While Concept B shows slightly worse traffic performance, it better accommodates trucks, especially on 2nd Street, and still adequately accommodates future traffic volumes. Concepts A and F scored fewer than the 10 points required to demonstrate improved operations. These two concepts incur the most delay and demonstrate failing traffic operations during both the peak and off-peak seasons. By providing only one northbound lane on Spokane Avenue through the Downtown core, Concepts E, F, and G show reduced operational benefits.

Detailed traffic simulations were conducted to evaluate the operational performance of each concept under existing and anticipated future traffic conditions.

Screening Criterion 2: Safety

Sub-criterion 2a assessed vehicle conflicts using FHWA's Surrogate Safety Assessment Model (SSAM). Concepts were evaluated based on their ability to minimize potential conflicts between vehicles, thereby reducing the likelihood of crashes. The metric used to compare concepts was the summation of the path-crossing, rear-end, and lane-change vehicle conflict points. All concepts showed an improvement in safety over the existing configuration.

Sub-criteria 2b and 2c evaluated pedestrian and bicycle safety. Concepts were evaluated based on their ability to minimize conflict exposure based on elements such as pedestrian crossing distances, protection provided by buffer areas and dedicated non-motorized facilities, conflicts with trucks, intersection treatments, and protected crossing movements.

Safety analysis scores for each concept are shown in **Table 4**. All Concepts except A met the minimum threshold for safety performance. While there are inherently tradeoffs between the number of lanes needed to efficiently and safely move vehicles and the amount of space available to accommodate pedestrian and bicycle needs in a safe manner, Concepts B, C, F, and G best demonstrate an adequate balance of these needs. Concept A prioritizes vehicle travel and parking over bicycle accommodations and routes trucks through the Downtown core creating a less comfortable space for non-motorists. The poor operations of Concept A also contribute to greater likelihood of vehicle conflicts.

Criterion 2 assesses the safety performance of each concept by evaluating conflicts between vehicles, pedestrians, and bicyclists.

Screening Criterion 3: Implementation

Sub-criteria 3a, 3b, and 3c qualitatively evaluated the feasibility of implementation in terms of total construction costs, anticipated maintenance relating to labor and equipment needs, and potential funding availability based on type of improvements and likely funding sources.

Evaluation of concepts relied on order-of-magnitude cost estimates based on comparison of lane miles, number of intersections requiring reconstruction, and special features such as bridge structures.

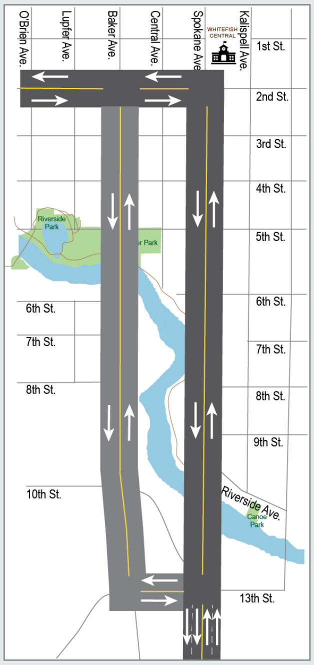
Results of the implementation analysis and the scores for each concept are shown in **Table 5**. Concepts D and E are not considered to be feasible to implement due to high capital cost, ongoing maintenance needs, and limited funding availability. These two concepts include a very costly 7th Street bridge without demonstrating exceptional operational and safety benefits to justify the cost. Concept F does not meet the operational needs of the NHS so it is unlikely to be funded with federal dollars. All other concepts have reasonable capital costs and do not have unreasonable maintenance needs. Concepts B and C are likely easier to fund since they demonstrate the best operational and safety benefits. Concept G meets the minimum screening criteria for operations and safety, but is shown to provide less benefit to the NHS than Concepts B and C and is therefore less likely to be prioritized for federal funding.

Additional lanes or dedicated pedestrian/bicycle facilities would require more maintenance including snow removal, sweeping, and repairs.

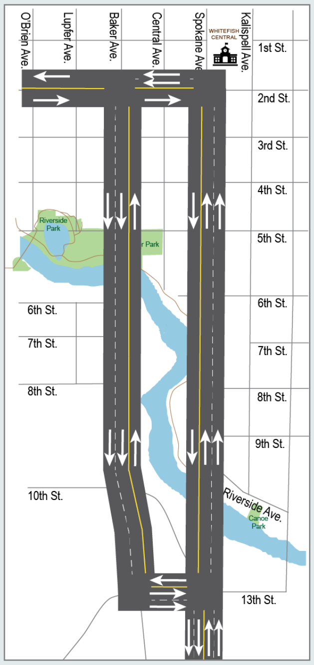
TABLE 3: *Operations Scoring Results*

CRITERION 1: OPERATIONS

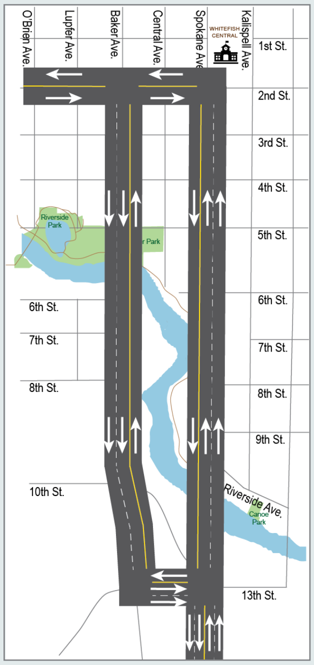
CONCEPT A



CONCEPT B

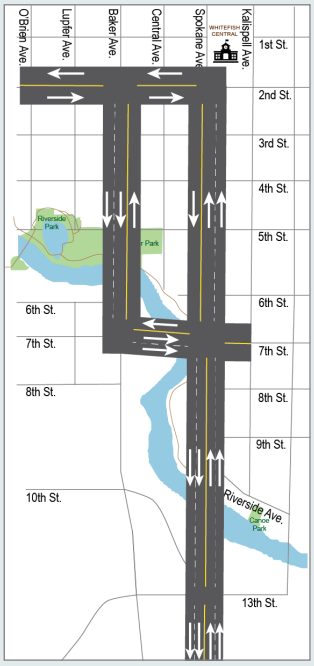


CONCEPT C



	CONCEPT A	CONCEPT B	CONCEPT C
1A. INTERSECTION PERFORMANCE	**0** Most delay during both seasons due to inadequate capacity to accommodate demand. About 2.75 times more delay in August than November.	**4** Similar operations to Concept C. About 15 percent more delay in August and 30 percent more in November compared to Concept D.	**4** 10-15 percent more delay compared to Concept D but comparable to Concept B in August and about 15 percent less delay in November.
1B.TRAVEL TIME	**1** Longest travel times during both peak hours due to inadequate capacity to accommodate future traffic demands.	**4** Slightly longer travel times than Concepts C and D. Similar north and southbound travel timesbut some fluctuation between seasons.	**4** Shortest travel times during August peak, third shortest during November. North and southbound times are relatively balanced.
1C. TOTAL NETWORK DELAY	**0** Most delay during both peak and off-peak seasons. About 3.5 times more delay in August than November.	**3** Similar delay to Concept C during August but about 25 percent more delay during November.	**4** About 20 percent more delay in August and 15 percent more delay in November compared to Concept D.
1D. LARGE TRUCK ACCOMMODATIONS	**1** Trucks are discouraged from Baker Avenue and have to travel through Downtown to reach destinations.	**4** Trucks may use Baker Avenue. Additional capacity is provided on 2nd Street. Longer turn bays are provided at the Baker Avenue/2nd Street intersection.	**3** Trucks may use Baker Avenue. Longer turn bays are provided on 2nd Street. Two northbound lanes provided on Spokane Avenue.
SUBTOTAL Does the concept meet the operational needs of the NHS? *(Minimum score: 10 of 20 points)*	**2** **NO**	**15** **YES**	**15** **YES**

CONCEPT D



5

Least amount of intersection delay during both peak and off-peak seasons.

4

Shortest travel times during November peak, second fastest during August. North and southbound times are relatively balanced.

5

Least amount of delay of all concepts during both peak and off-peak seasons.

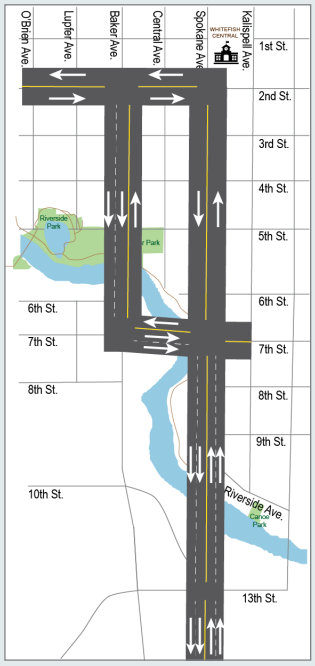
3

Trucks may use Baker Avenue between 2nd Street and 7th Street. Two or more northbound lanes provided on sections of Spokane Avenue.

17

YES

CONCEPT E



4

About 40 percent more delay in August and about 15 percent more delay in November compared to Concept D.

3

Long travel times during August peak season, shorter travel times in November. In August northbound travel time is greater than southbound travel time.

4

About 15 percent more delay experienced during November than Concept D and approximately 40 percent more delay during August.

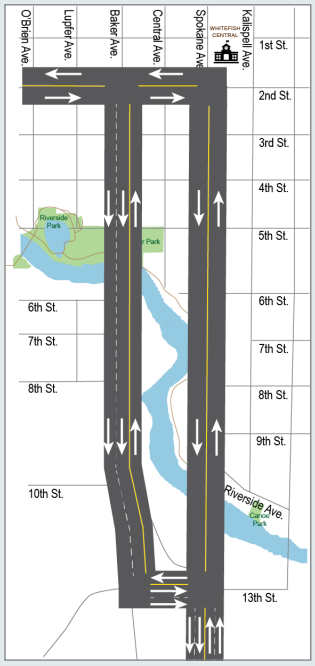
3

Trucks may use Baker Avenue but one lane on Spokane Avenue north of 7th Street can be restrictive to truck traffic. Longer turn bays are provided on 2nd Street.

14

YES

CONCEPT F



2

About 40 percent reduction in delay in August and half the delay in November compared to Concept A.

3

Longer travel times during both peak seasons compared to other concepts. Northbound travel times are greater than southbound due to lane imbalance.

2

About half the delay experienced during both peak season compared to the existing configuration (Concept A).

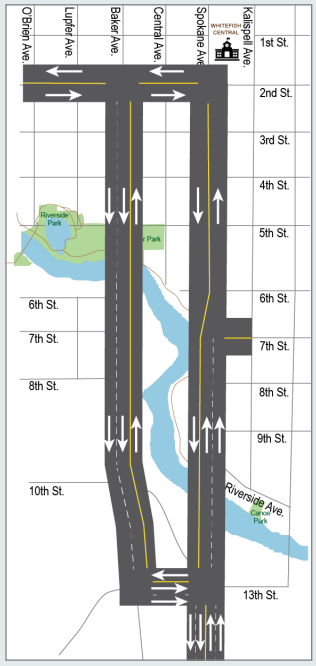
2

Trucks may use Baker Avenue but one lane on Spokane Avenue can be restrictive to truck traffic. Longer turn bays are provided on 2nd Street.

9

NO

CONCEPT G



3

Similar operations to Concept F in November and about 20 percent overall reduction in intersection delay in August.

2

Longer travel times during both peak seasons compared to other concepts. Northbound travel times are greater than southbound due to lane imbalance.

2

Similar delay to Concept F during November but about 20 percent less delay during August.

3

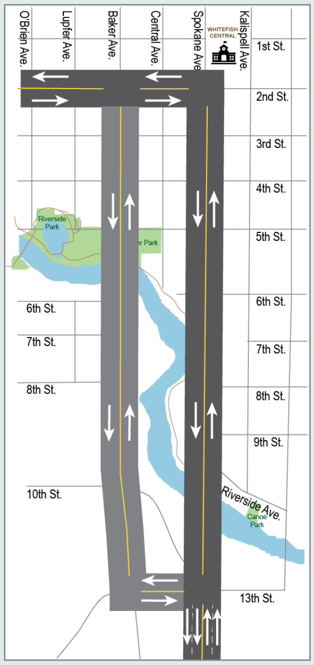
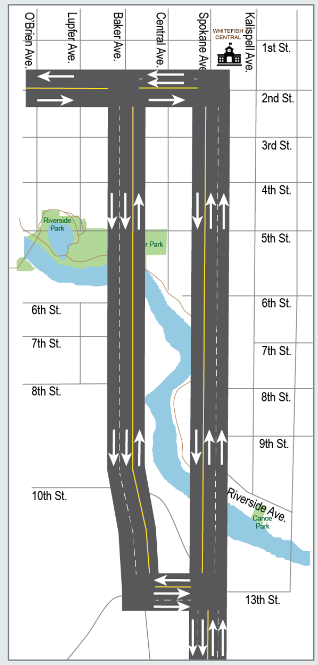
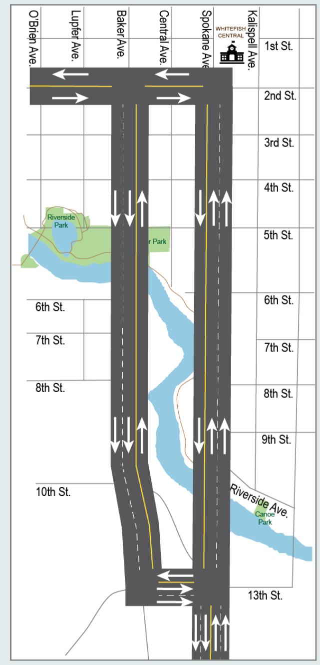
Trucks may use Baker Avenue but one lane on Spokane Avenue north of 7th Street can be restrictive to truck traffic. Longer turn bays are provided on 2nd Street.

10

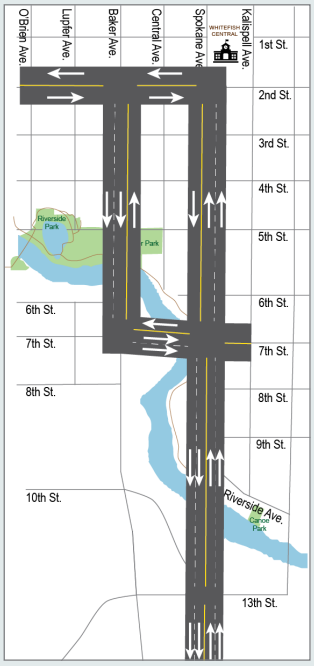
YES

TABLE 4: *Safety Scoring Results*

CRITERION 2: SAFETY

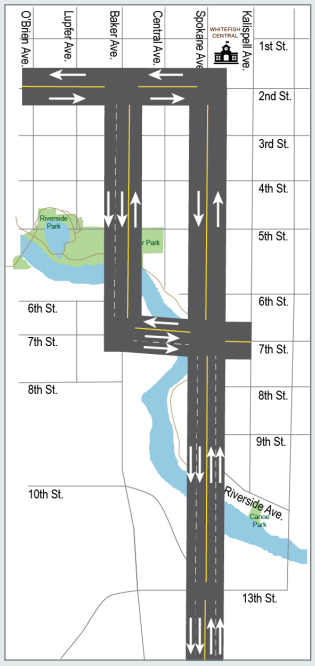
	CONCEPT A	CONCEPT B	CONCEPT C
			
2A. VEHICLE CONFLICTS	**0** Highest number of potential conflicts, especially rear-end conflicts likely related to congestion and all-way stop at Baker Avenue/13th Street.	**4** Similar safety performance to Concept F but with 6 more potential conflicts.	**4** Fewest number of potential conflicts, improved operations reduces congestion and likelihood of rear-end conflicts compared to other concepts.
2B. PEDESTRIAN EXPOSURE	**3** Trucks must travel through Downtown using Spokane Avenue and 2nd Street due to restrictions on Baker Avenue resulting in potential for pedestrian/truck conflicts.	**3** Greater number of lanes requires longer pedestrian crossing distances; some trucks diverted from Downtown corridors by allowing truck use on Baker Avenue; curb bulbouts are unlikely Downtown.	**3** Longer pedestrian crossing distances on three lane segments; 2nd Street/Baker Avenue intersection expanded to accommodate turn lanes increasing potential for pedestrian/truck conflict.
2C. BICYCLE EXPOSURE	**1** No change to existing conditions. Trucks must travel through Downtown using Spokane Avenue and 2nd Street due to restrictions on Baker Avenue. No bike accommodations on Spokane Avenue.	**4** Some trucks diverted from Downtown corridors by allowing truck use on Baker Avenue and space available for dedicated bicycle facilities.	**4** Some trucks diverted from Downtown corridors by allowing truck use on Baker Avenue and space available for dedicated bicycle facilities.
SUBTOTAL Does the concept meet the safety needs of the NHS? *(Minimum score: 8 of 15 points)*	**4** **NO**	**11** **YES**	**11** **YES**

CONCEPT D



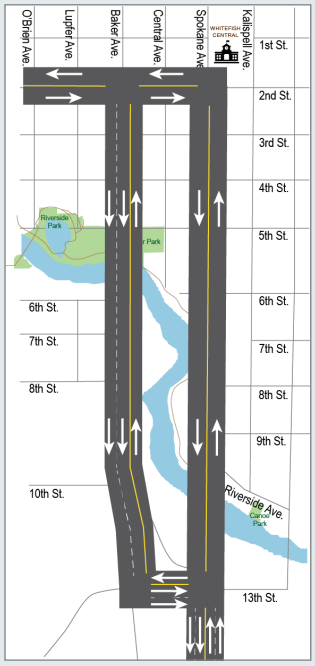
2	
Approximately double the number of potential conflicts compared to Concept G.	
3	
Longer pedestrian crossing distances required on four-lane segments of Spokane Avenue.	
3	
Four-lane segment of Spokane Avenue reduces available space for bike accommodations. Some trucks diverted from Downtown corridors by allowing truck use on Baker Avenue and space available for dedicated bicycle facilities.	
8	
YES	

CONCEPT E



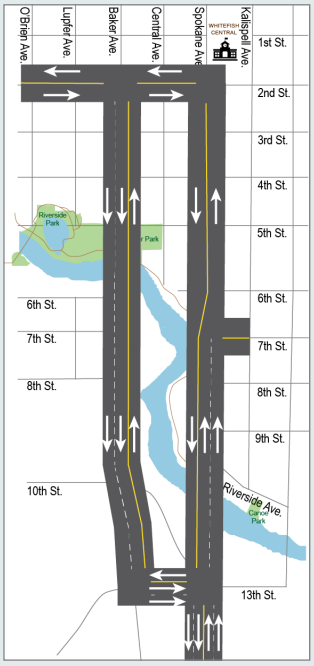
2	
Approximately 1/3 of the potential conflicts compared to Concept A. Slightly fewer lane-change and path-crossing conflicts than Concept D but about 100 more rear-end conflicts.	
3	
Longer pedestrian crossing distances required on four-lane segments of Spokane Avenue. More congestion Downtown increases exposure. Shorter crossing distances and curb bulbouts can be accommodated Downtown.	
3	
Four-lane segment of Spokane Avenue reduces available space for bike accommodations but fewer lanes on Spokane Avenue increases available space for bike accommodations. More congestion Downtown increases exposure.	
8	
YES	

CONCEPT F



4	
Second least number of potential conflicts. Fewest lane-change conflicts potentially due to two-lane configuration on Spokane Avenue.	
3	
Longer pedestrian crossing distances on three-lane segments; 2nd Street/Baker Avenue intersection expanded increasing potential for pedestrian/truck conflict. Moves trucks to Baker Avenue. Some concern that fewer lanes will increase congestion and pedestrian exposure.	
4	
Fewer lanes on Spokane Avenue increases available space for bike accommodations. Some concern that fewer lanes will increase congestion and bike exposure.	
11	
YES	

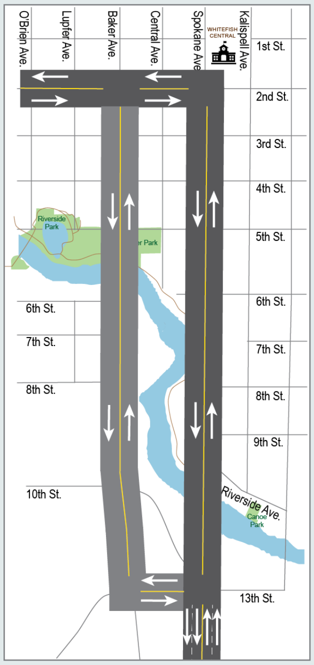
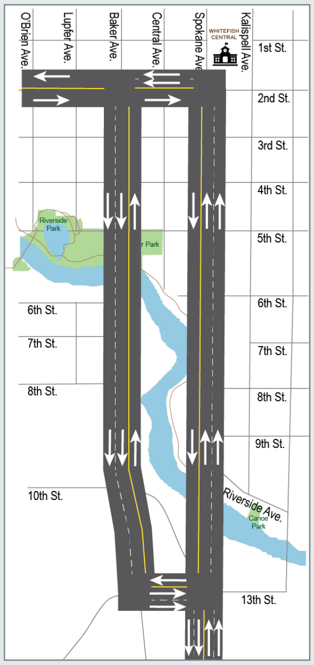
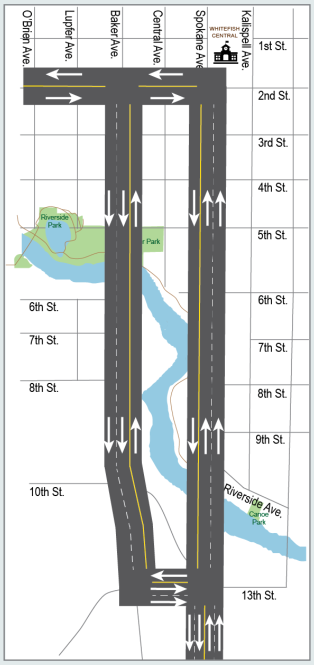
CONCEPT G



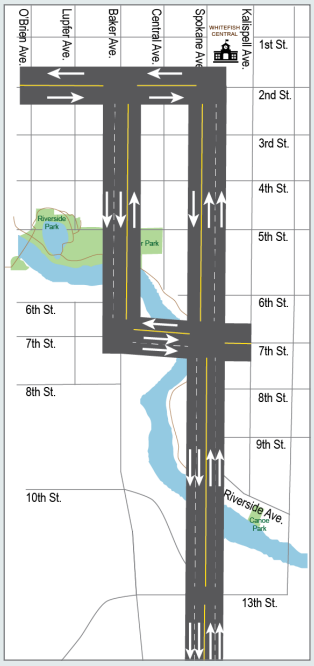
3	
More potential conflicts than Concepts B, C, and F with more rear-end conflicts potentially due to lane drop at Spokane Avenue/7th Street intersection. Fewest number of potential path-crossing conflicts.	
3	
Longer pedestrian crossing distances on three-lane segments; 2nd Street/Baker Avenue intersection expanded increasing potential for pedestrian/truck conflict. Some concern that fewer lanes will increase congestion and pedestrian exposure.	
4	
Fewer lanes on Spokane Avenue increases available space for bike accommodations. Some concern that fewer lanes will increase congestion and bike exposure.	
10	
YES	

TABLE 5: *Implementation Scoring Results*

CRITERION 3: IMPLEMENTATION

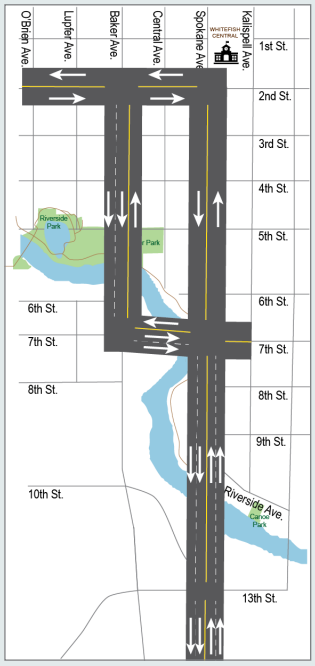
	CONCEPT A	CONCEPT B	CONCEPT C
			
3A. CAPITAL COST	**5** Least costly concept to implement, only requires resurfacing, no major construction.	**3** Concept requires full reconstruction of 2nd Street as well as full build out of Spokane Avenue, Baker Avenue, and 13th Street complete with bicycle and pedestrian facilities.	**3** Concept requires some reconstruction of 2nd Street to accommodate lengthened turn bays, as well as full build out of Spokane Avenue, Baker Avenue, and 13th Street complete with bicycle and pedestrian facilities.
3B. ONGOING MAINTENANCE	**4** Resurfacing extends life of pavement. Fewer lanes allows more room for buffers to accommodate snow storage, Downtown curb bulbouts complicate plowing; no new facilities requiring specialized equipment.	**3** Most NHS lane miles to maintain; some buffer provided for snow storage; shared use path (or similar facility) would require specialized equipment to maintain.	**3** Second most NHS lane miles to maintain; some buffer provided for snow storage; Downtown curb bulbouts complicate plowing; shared use path (or similar facility) would require specialized equipment to maintain.
3C. FUNDING AVAILABILITY	**3** Some maintenance funding may be available. Local funds would likely be required for any improvements to Baker Avenue as it would not be considered part of the NHS.	**4** Baker becomes part of the NHS. Concept meets the needs of the NHS and is likely eligible for federal funds.	**4** Baker becomes part of the NHS. Concept meets the needs of the NHS and is likely eligible for federal funds.
SUBTOTAL Is the concept implementable as part of the NHS? *(Minimum score: 8 of 15 points)*	**12** **YES**	**10** **YES**	**10** **YES**

CONCEPT D



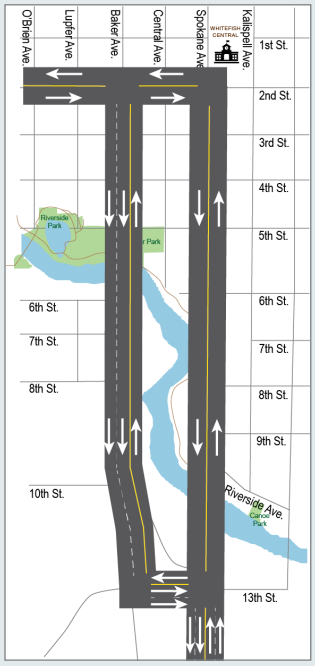
0	
7th Street bridge is very costly to implement. The concept also requires some reconstruction of 2nd Street as well as full build out of Spokane Avenue and some of Baker Avenue to accommodate desired bicycle and pedestrian facilities.	
1	
Significant maintenance required for 7th Street bridge; some buffer provided for snow storage; shared use path (or similar facility) would require specialized equipment to maintain.	
0	
7th Street bridge is expensive and is not viewed as necessary to meet the needs of the NHS. Concept is likely not fully fundable with federal funds.	
1	
NO	

CONCEPT E



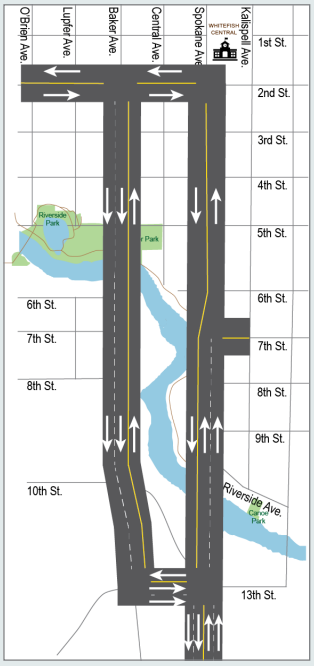
0	
7th Street bridge is very costly to implement. The concept also requires full build out of Spokane Avenue and some of Baker Avenue to accommodate desired bicycle and pedestrian facilities.	
1	
Significant maintenance required for 7th Street bridge; some buffer provided for snow storage; Downtown curb bulbouts complicate plowing; shared use path (or similar facility) would require specialized equipment to maintain.	
0	
7th Street bridge is expensive and is not viewed as necessary to meet the needs of the NHS. Concept is likely not fully fundable with federal funds.	
1	
NO	

CONCEPT F



4	
Concept requires some reconstruction of 2nd Street to accommodate lengthened turn bays, and requires less construction on Spokane Avenue. Full build out is required on Baker Avenue and 13th Street.	
3	
Some buffer provided for snow storage; Downtown curb bulbouts complicate plowing; shared use path (or similar facility) would require specialized equipment to maintain.	
0	
Does not meet the operational needs of the NHS and is therefore unlikely to be fully fundable with federal funds.	
7	
NO	

CONCEPT G



3	
Concept requires some reconstruction of 2nd Street to accommodate lengthened turn bays, as well as full build out is required on Baker Avenue, 13th Street, and some of Spokane Avenue.	
3	
Some buffer provided for snow storage; Downtown curb bulbouts complicate plowing; shared use path (or similar facility) would require specialized equipment to maintain.	
2	
Less costly than Concepts B and C but provides less benefit to the existing NHS and is therefore less likely to be prioritized for federal funding.	
8	
YES	

LEVEL II PART A SUMMARY

Based on screening of operational performance, safety, and implementation considerations, four of the seven concepts failed to meet minimum scoring thresholds.

- **Concept A and F** failed to address the primary operational needs of the highway. The configurations exhibit excessive delay and failing intersection operations during peak and off-peak seasons and do not provide adequate capacity to accommodate the anticipated volume of vehicles traveling to and through Downtown Whitefish. Additionally, Concept A does not meet safety needs by failing to reduce vehicle conflicts and provide a safe and comfortable space for non-motorists. Since Concept F doesn't meet the operational needs, it is unlikely to be funded with federal funds. There may be maintenance funds available for Concept A.
- **Concepts D and E** were not considered to be feasible to implement due to high capital cost, ongoing maintenance needs, and limited funding availability. These two concepts include a costly 7th Street bridge without demonstrating exceptional operational and safety benefits to justify the cost for both implementation and ongoing maintenance. For this reason, it is unlikely that these concepts can be fully funded with federal dollars.

Table 6 summarizes Part A screening results. Concepts B, C, and G met minimum scoring thresholds for all three screening categories and were advanced to Part B. All other concepts were eliminated from further consideration due to inadequate performance under one or more category.

3.3.2. LEVEL II PART B SCREENING

The intent of the Part B screening process was to evaluate how Concepts B, C, and G would address the community's interests and needs relating to multimodal accommodations, environment and character, and economic vitality. As in Part A, each criterion was further defined by three to four sub-criteria which could each receive a maximum score of 5 points. There is no minimum score required to advance, and the concept with the highest total score when combined with Part A results is considered the preferred concept. The criteria are summarized in the following sections.

To aid in the Part B evaluation, concept-level typical sections were identified for corridor segments. Schematic figures were developed to illustrate the type of features that could realistically fit within the available right-of-way for each concept. Typical sections included varying combinations of vehicle travel lanes, on-street parking, curb and gutter, bike facilities, pedestrian facilities, and landscaped boulevards in consideration of appropriate design criteria for urban principal arterial non-interstate NHS facilities. Schematic drawings are presented in **Appendix 2** and are intended as an aid to visualize how Concepts B, C, and G could address Part B screening criteria. Additionally, preliminary typical section ideas for the Preferred Concept C are provided to illustrate the types of features that may be accommodated within available right-of-way. Typical sections are conceptual and may require design variances or exceptions to current design standards. The typical sections would need to be refined during a future design process to determine final elements, configurations, and dimensions for implementation.

TABLE 6: *Part A Screening Summary*

Screening Category	SUBTOTAL Is the concept feasible to implement and does it meet the purpose and need of the NHS?						
	Concept A	Concept B	Concept C	Concept D	Concept E	Concept F	Concept G
1 Operations	*2* *No*	*15* *YES*	*15* *YES*	*17* *YES*	*14* *YES*	*9* *No*	*10* *YES*
2 Safety	*4* *No*	*11* *YES*	*11* *YES*	*8* *YES*	*8* *YES*	*11* *YES*	*10* *YES*
3 Implementation	*12* *YES*	*10* *YES*	*10* *YES*	*1* *No*	*1* *No*	*7* *No*	*8* *YES*
Part A Subtotal	**--**	**36**	**36**	**--**	**--**	**--**	**28**
Part A Result	**Eliminate** *from further consideration*	**ADVANCE to Part B**	**ADVANCE to Part B**	**Eliminate** *from further consideration*	**Eliminate** *from further consideration*	**Eliminate** *from further consideration*	**ADVANCE to Part B**

Screening Criterion 4: Multimodal Accommodations

Sub-criteria 4a and 4b qualitatively assessed pedestrian and bicycle comfort level as measured by the potential for pedestrian and bicycle facilities and crossing treatments to be provided within available right-of-way in the context of roadway segment and intersection configurations. Sub-criterion 4c considered multimodal connectivity in terms of the ability to provide connections to planned pedestrian/bicycle facilities and destinations as outlined in local planning documents.

The typical section analysis conducted for Part B screening included consideration of a range of pedestrian and bicycle facilities, including sidewalks reserved for pedestrian use, shared use paths accommodating both pedestrians and bicyclists, on-street bike lanes, and cycle tracks separated from both the roadway travel lanes and adjacent pedestrian facilities.

Scores for the each of the multimodal sub-categories are shown in **Table 7**. While these options are relatively similar in accommodating non-motorists, Concept G scored slightly higher than Concepts B and C because it does not include a third lane on Spokane Avenue north of 7th Street. Similar bicycle and pedestrian facilities could be provided with both Concepts C and G, but slightly longer crossing distances would be required on Spokane Avenue between 7th Street and 2nd Street with Concept C due to an additional travel lane. Concepts C and G both scored higher than Concept B because they do not include the third lane on 2nd Street which would preclude the ability to keep the existing curb bulbouts downtown, especially at the 2nd Street/Central Avenue intersection which is highly used by pedestrians.

Screening Criterion 5: Environment and Character

Sub-criteria 5a through 5c involved qualitative evaluation of the natural environment, built environment, and context sensitivity. Using the lane configurations and typical sections as a guide, these assessments considered each concept's ability to minimize impacts to environmental resources (such as fisheries, habitat, and wetlands at water body crossings), support street trees based on presence/width of landscaped boulevard, minimize impacts to buildings/structures and adjacent right-of-way, align with Downtown Whitefish's character, and overall ability to accommodate users based on aesthetics, street trees and landscaped buffers, bicycle/pedestrian accommodations, and travel lanes. Sub-criterion 5c relied on quantitative results from the traffic modeling process to evaluate the average fuel used by each vehicle, measured in ounces.

Scores for the each of the multimodal sub-categories are shown in **Table 8**. Concept B scored lower than Concepts C and G because of the third lane on 2nd Street. Inclusion of the third lane requires additional space at the intersections which pushes traffic closer to building frontages in the already constrained Downtown core. Concepts C and G both allow for landscaped buffers with trees on Baker Avenue. Environmentally and context sensitive designs can be accommodated on Spokane Avenue for both Concepts C and G. Concept G scored slightly higher because the single lane on Spokane Avenue between 7th Street and 2nd Street allows more space for landscaping within the 5-block segment.

Screening Criterion 6: Economic Vitality

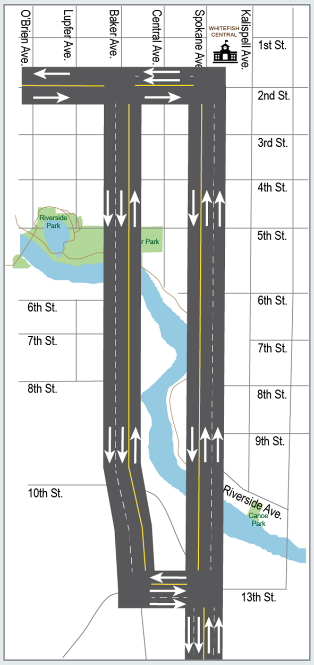
Criterion 6 qualitatively assessed the concepts' effects on a range of elements relating to Downtown Whitefish's continued economic success and vibrancy. The evaluation included business access and parking as measured by impacts to driveways and on-street parking spaces in the Downtown core, impacts to adjacent land use and property function based on comfort and noise associated with proximity of travel ways to residential and commercial frontages, and economic impacts during construction based on delay, routing options, duration, road closures, and business access.

Scores for the each of the multimodal sub-categories are shown in **Table 9**. Concepts C and G are considered less impactful to the Whitefish community than Concept B. All concepts include three lanes on Spokane Avenue (only south of 7th Street in Concept G), Baker Avenue, and 13th Street. However, Concept B also includes a third lane on 2nd Street which would be more impactful to Downtown businesses. The full reconstruction of 2nd Street required in Concept B would also likely be more disruptive to traffic than the 2nd Street intersection modifications required with Concepts C and G. Both Concepts C and G would require the same impacts on 2nd Street, and both concepts would allow the 2nd Street/Central Avenue curb bulbouts to remain, a key desire for the community.

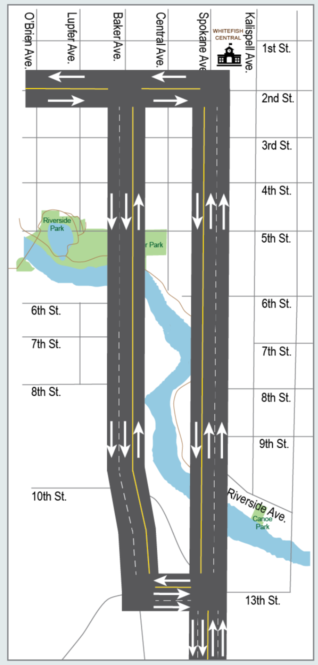
TABLE 7: *Multimodal Accommodations Scoring Results*

CRITERION 4: MULTIMODAL ACCOMMODATIONS

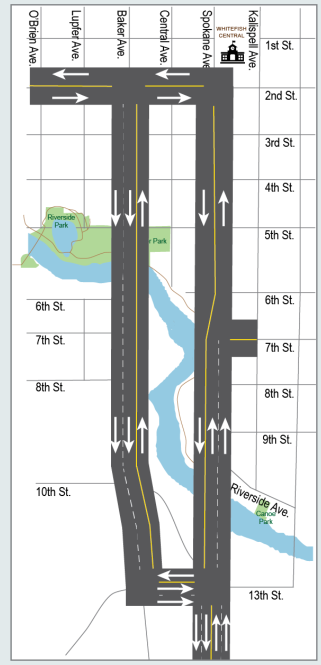
CONCEPT B



CONCEPT C



CONCEPT G

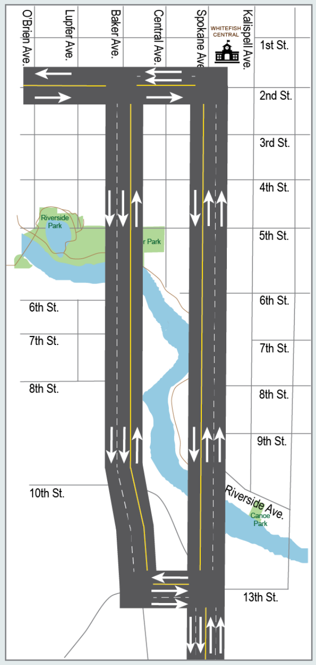


	CONCEPT B	CONCEPT C	CONCEPT G
4A. PEDESTRIAN COMFORT LEVEL	**2** Longer crossing distances due to more lanes, curb bulbouts are unlikely Downtown, and sidewalks with some buffers could be provided. Shared bicycle/pedestrian facility could be accommodated on 13th Street.	**3** Longer crossing distances due to more lanes, curb bulbouts remain at 2nd Street/ Central Avenue, and sidewalks with some buffers could be provided. Shared bicycle/ pedestrian facility could be accommodated on 13th Street.	**4** Longer crossing distances due to more lanes, curb bulbouts remain at 2nd Street/ Central Avenue, and sidewalks with some buffers could be provided. Slightly larger buffers can be provided on Spokane Avenue between 7th and 2nd Streets. Shared bicycle/ pedestrian facility could be accommodated on 13th Street.
4B. BICYCLE COMFORT LEVEL	**4** Bike lanes could be provided on Baker Avenue, space for a cycle track on Spokane Avenue, and shared bicycle/ pedestrian facility could be accommodated on 13th Street. There is some extra space that could be used to provide buffers.	**4** Bike lanes could be provided on Baker Avenue, space for a cycle track on Spokane Avenue, and shared bicycle/ pedestrian facility could be accommodated on 13th Street. There is some extra space that could be used to provide buffers.	**4** Bike lanes could be provided on Baker Avenue, space for a cycle track on Spokane Avenue, and shared bicycle/ pedestrian facility could be accommodated on 13th Street. There is some extra space that could be used to provide buffers.
4C. MULTIMODAL CONNECTIVITY	**4** Incorporating non-motorized facilities as shown in the typical sections would complete a segment of the Whitefish Promenade and Highway 93 South bike route. Would also provide a connection for the 13th Street Cutoff.	**4** Incorporating non-motorized facilities as shown in the typical sections would complete a segment of the Whitefish Promenade and Highway 93 South bike route. Would also provide a connection for the 13th Street Cutoff.	**4** Incorporating non-motorized facilities as shown in the typical sections would complete a segment of the Whitefish Promenade and Highway 93 South bike route. Would also provide a connection for the 13th Street Cutoff.
SUBTOTAL	**10**	**11**	**12**

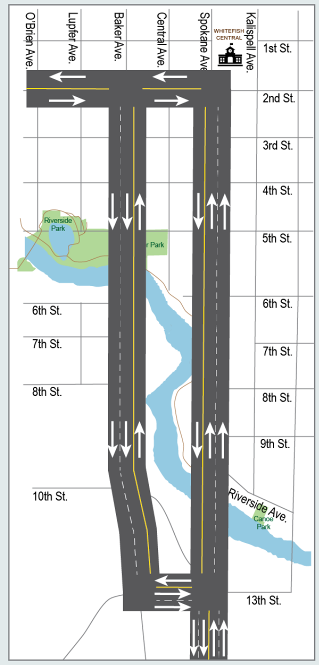
TABLE 8: *Environment and Character Scoring Results*

CRITERION 5: ENVIRONMENT AND CHARACTER

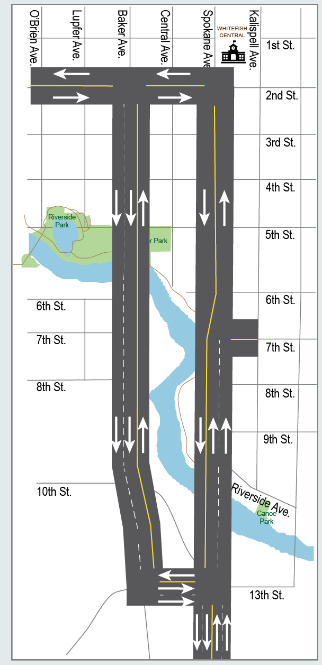
CONCEPT B



CONCEPT C



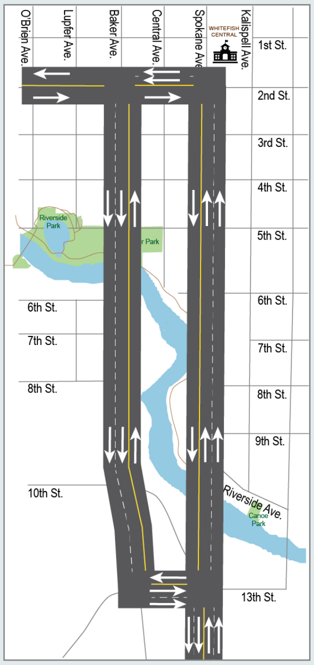
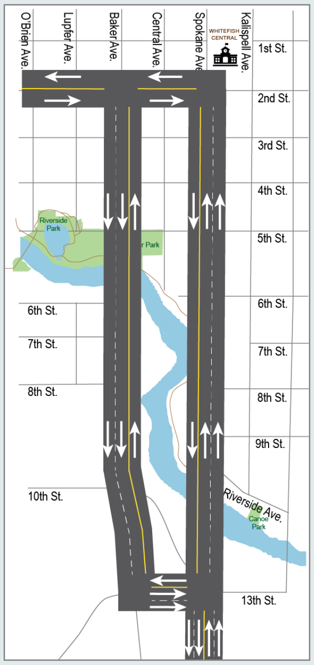
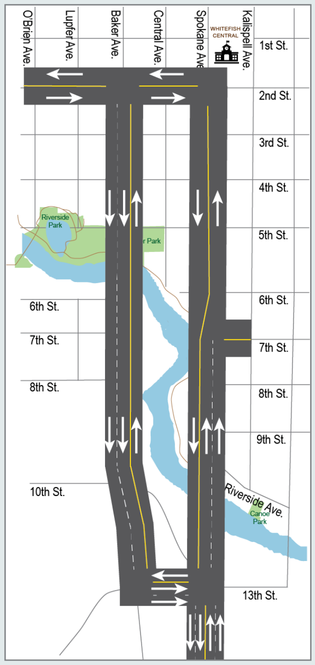
CONCEPT G



Criterion 5: Environment and Character	Concept B	Concept C	Concept G
5A. NATURAL ENVIRONMENT	**3**	**3**	**4**
	Concept requires two (2) three-lane Whitefish river crossings, allows enough space to provide landscaped boulevards with trees on Baker Avenue.	Concept requires two (2) three-lane Whitefish river crossings, allows enough space to provide landscaped boulevards with trees on Baker Avenue.	Concept requires two (2) three-lane Whitefish river crossings, allows enough space to provide landscaped boulevards with trees on Baker Avenue and on Spokane Avenue north of 7th Street.
5B. BUILT ENVIRONMENT	**3**	**4**	**4**
	Requires new right-of-way on 13th Street. Increased proximity of traffic to building frontages along 2nd Street.	Requires new right-of-way on 13th Street. Increased proximity of traffic to building frontages at the 2nd Street/Spokane Avenue and 2nd Street/Baker Avenue intersections.	Requires new right-of-way on 13th Street. Increased proximity of traffic to building frontages at the 2nd Street/Spokane Avenue and 2nd Street/Baker Avenue intersections
5C. CONTEXT SENSITIVITY	**2**	**3**	**4**
	Landscaped buffer with trees provided on Baker Avenue. Includes three lanes Downtown on Spokane Avenue and 2nd Street and full reconstruction of 2nd Street.	Landscaped buffer with trees provided on Baker Avenue. Includes three lanes Downtown on Spokane Avenue and some intersection reconstruction on 2nd Street.	Landscaped buffer with trees provided Spokane Avenue north of 7th Street and on Baker Avenue. Two lanes Downtown on Spokane Avenue and some intersection reconstruction on 2nd Street.
5D. VEHICLE EMISSIONS & FUEL CONSUMPTION	**4**	**4**	**3**
	Third best fuel efficiency. Concept performs well year-round with less fluctuation during peak seasons. Less time spent idling, less congestion causing stop/go movements.	Second best fuel efficiency. Concept performs well year-round with less fluctuation during peak seasons. Less time spent idling, less congestion causing stop/go movements.	Fifth best fuel efficiency of all concepts. Concept has more fluctuation between seasons, compared to Concepts B and C. Slightly better fuel efficiency than Concept B in November.
SUBTOTAL	**12**	**14**	**15**

TABLE 9: *Economic Vitality Scoring Results*

CRITERION 6: ECONOMIC VITALITY

	CONCEPT B	CONCEPT C	CONCEPT G
			
6A. BUSINESS ACCESS & PARKING	**1**	**3**	**3**
	All on-street parking on Spokane Avenue would be removed. One lane of parking would be removed on 2nd Street. May involve driveway consolidation, but access would be maintained to greatest extent possible.	All on-street parking on Spokane Avenue would be removed. Some parking would be removed on 2nd Street to accommodate westbound right-turn bay. May involve driveway consolidation, but access would be maintained to greatest extent possible.	All on-street parking on Spokane Avenue would be removed. Some parking would be removed on 2nd Street to accommodate westbound right-turn bay. May involve driveway consolidation, but access would be maintained to greatest extent possible.
6B. IMPACTS TO ADJACENT LAND USE	**2**	**3**	**3**
	Roadway expansion to include three lanes on all roads (Spokane Avenue, 2nd Street, Baker Avenue, and 13th Street) pushes traffic closer to building frontage. Remove Downtown curb bulbouts to accommodate additional lanes and turn-bays.	Roadway expansion to include three lanes on Spokane Avenue, Baker Avenue, and 13th Street pushes traffic closer to building frontage. Some intersection modifications to accommodate additional/longer turn-bays Downtown.	Roadway expansion to include three lanes on Spokane Avenue (13th to 7th Street), Baker Avenue, and 13th Street pushes traffic closer to building frontage. Some intersection modifications to accommodate additional/ longer turn-bays Downtown.
6C. ECONOMIC IMPACTS DURING CONSTRUCTION	**2**	**3**	**3**
	Significant traffic disruption Downtown for full reconstruction of 2nd Street. Extra lanes and tandem construction of Baker Avenue/Spokane Avenue allows traffic to move during construction. Greatest roadway width required.	Traffic disruption Downtown for reconstruction of 2nd Street intersections. Extra lanes and tandem construction of Baker Avenue/Spokane Avenue allows traffic to move during construction. Second most roadway width required.	Traffic disruption Downtown for reconstruction of 2nd Street intersections. Extra lanes and tandem construction of Baker Avenue/Spokane Avenue allows traffic to move during construction. Slightly less roadway width required on Spokane Avenue (7th to 2nd Street).
SUBTOTAL	**5**	**9**	**9**

LEVEL II PART B SUMMARY

Table 10 summarizes Part B screening results. Concept G scored the highest in all Part B screening categories, followed closely by Concept C.

TABLE 10: *Part B Screening Summary*

	Screening Category	Scoring		
		Concept B	Concept C	Concept G
4	Multimodal Accommodations	*10*	*11*	*12*
5	Environment and Character	*12*	*14*	*15*
6	Economic Vitality	*5*	*9*	*9*
	Part B Subtotal	**27**	**34**	**36**

3.4. IDENTIFICATION OF PREFERRED CONCEPT

Table 11 summarizes the Level II screening results. Based on the detailed evaluation conducted for the six screening criteria and in consideration of steering committee and public input, Concept C was identified as the preferred concept. The configuration is illustrated in **Figure 12** with more detail provided in **Appendix 1**.

Of the seven concepts evaluated under Level II, Concept C best meets the operational and safety needs of the National Highway System and is considered feasible to implement. The concept also provides the ability to accommodate multimodal users and minimize environmental and economic impacts to the community.

Concept C defines the preferred roadway corridor and intersection lane configurations for Spokane Avenue, 2nd Street, Baker Avenue, and 13th Street. If a project is advanced from this study, details such as the specific types, locations, and dimensions of pedestrian and bicycle facilities, on-street parking, landscaped buffers, and other streetscaping elements would need to be determined in coordination with the City of Whitefish and community stakeholders during the design process.

TABLE 11: *Level II Screening Summary*

Screening Category	Scoring		
	Concept B	Concept C	Concept G
Part A Subtotal	*36*	*36*	*28*
Part B Subtotal	*27*	*34*	*36*
Total Points	**63**	**70**	**64**

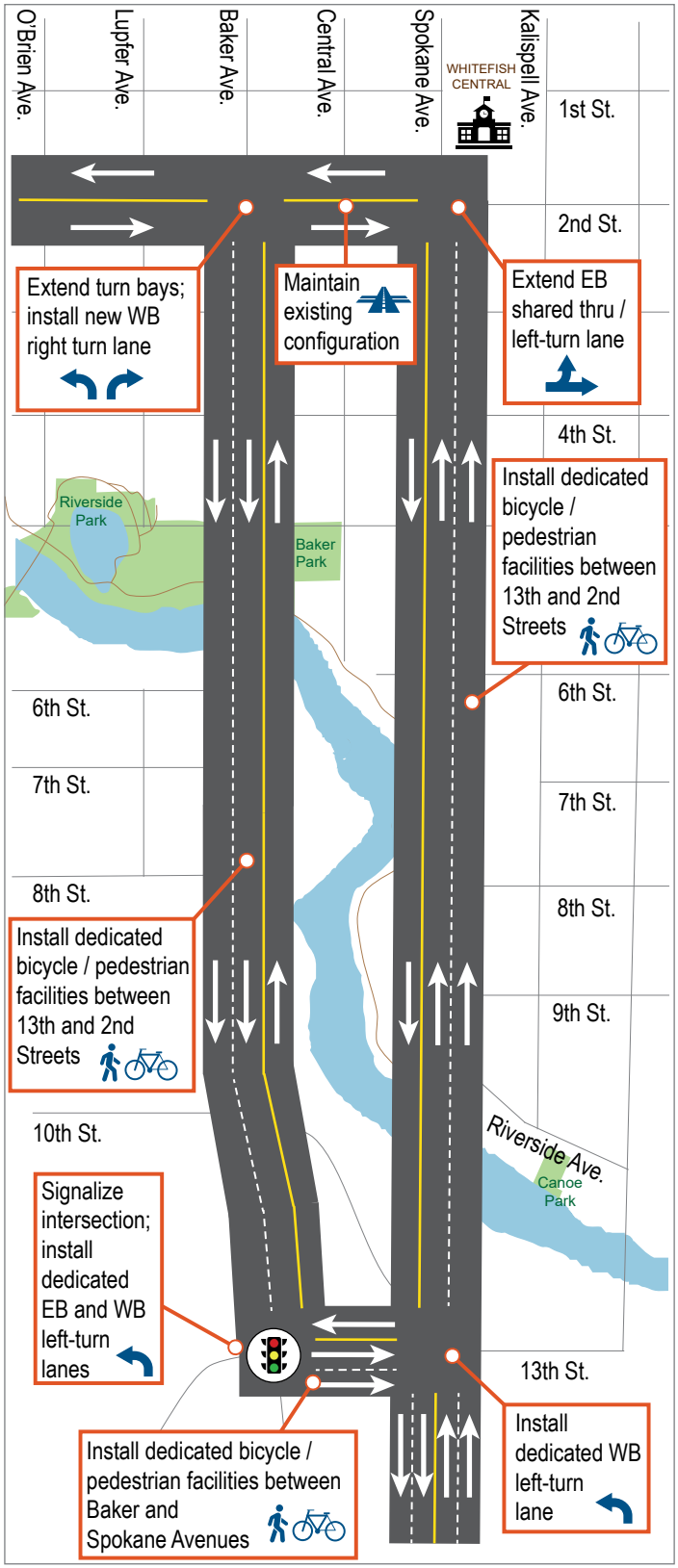


FIGURE 12: *Preferred Configuration (Concept C)*

DOWNTOWN WHITEFISH

HIGHWAY STUDY

If a project advances for further development, additional design details and other considerations will need to be evaluated in more detail.

04

ADDITIONAL CONSIDERATIONS AND CONCEPT REFINEMENT

If future project development phases proceed for improvements to the Highway 93 corridor, a variety of additional considerations will need to be addressed. These include design details and specific treatments for multimodal accommodations, visibility and speeds, access to adjacent properties, and impact mitigation. Final decisions on these elements will be made in future design phases if a project advances. In addition to lane configurations and typical section features, other considerations may also influence the final design of a preferred configuration. This section addresses additional considerations relevant to the development of improvements within the Highway 93 corridor.

4.1. FUTURE GROWTH AND TRANSPORTATION NETWORK CHANGES

A number of factors can influence how traffic is distributed on the transportation system. Assumptions in traffic growth and distribution were defined for the study area based on historic and anticipated future growth characteristics. The location, type, and design of land use developments ultimately impacts the existing and future transportation system. If growth occurs at the rates identified in this report, it is anticipated that the study corridor will experience severe operational issues in the near future. However, if growth in the area differs from the assumptions made in this report, the results of the traffic operational analysis may no longer hold true.

This report summarizes evaluations conducted during the peak hours, representing traffic conditions during time periods with the highest volumes of traffic during a typical weekday. Due to the proximity of the corridor with respect to Kalispell and nearby recreation areas, Whitefish has become a popular tourist and recreational destination. During peak seasons, the community experiences large influxes of visitors contributing to high traffic volumes that are sustained throughout the day. During the remainder of the year, traffic is typically compressed into shorter peak periods, in particular during the AM peak when school drop off occurs and in the PM during the evening commute. The operational issues identified during peak tourist seasons may only be experienced for a few months out of the year. Similarly, operational issues identified during off-season peak-hour periods may only exist during a short period and may not be a concern throughout most of the day.

The S.N.O.W Bus offers free transit services between the City of Whitefish and Whitefish Mountain Report. Limited fixed route transit services are provided by Eagle Transit.

4.2. SAFETY

A detailed discussion about existing safety and crash trends for the corridor is provided in the *Preliminary Traffic Engineering Report*.[11] Additional consideration should be given to the future impacts on safety should improvements be made. The trend of rear-end crashes suggests issues related to vehicle congestion. Additionally, a concentration of crashes was noted at the major intersections along the study corridor. There were also reported crashes at multiple locations involving bicyclists and pedestrians. These trends may be addressed to varying degrees through the recommended improvements, but new trends may emerge due to increases in capacity, traffic volumes, new traffic signals, and a wider roadway.

4.3. TRANSIT CONSIDERATIONS

Some transit services are offered in Whitefish although options are somewhat limited and ridership is low. Eagle Transit operates a fixed-route bus service in Whitefish. The bus currently travels through the study area on both Spokane Avenue and Baker Avenue between 19th Street and Railway Street and then continues south on Highway 93. The bus currently operates Monday through Friday between 10:00 AM and 3:00 PM. Eagle Transit also offers inter-city bus routes between Kalispell, Whitefish, and Colombia Falls. Paratransit Dial-A-Ride door-to-door options are also offered on an appointment basis for people with disabilities.

The Shuttle Network of Whitefish (S.N.O.W) Bus is a free transit service that currently travels between Whitefish Mountain Resort and the City of Whitefish using Spokane Avenue from Railway Street to 13th Street, then across 13th Street to Baker Avenue and then south to Commerce Street. In 2020, the bus ran daily June 13 - September 7, 2020, and then Friday through Sunday until September 20th. Winter service dates mirror those of Whitefish Mountain.

Expanding service options and increasing ridership may help reduce overall traffic volumes in Downtown Whitefish by reducing personal vehicle use. Providing park-and-ride facilities at city limits and busing visitors into the Downtown core has also been suggested by the public. This may help reduce the need for additional parking spaces in the Downtown area. Refinement of the preferred concept should include consideration of bus stops, shelters, and other transit features, in coordination with transit operators.

4.4. PARKING

On-street parking is provided within the study area along Spokane Avenue from 13th Street to 2nd Street, along 2nd Street between Spokane and Baker Avenues, and along Baker Avenue between 2nd Street and 6th Street. According to the City's website[17], on-street parking is limited to 2 hours and parking is prohibited between the hours of 2:30 AM and 6:00 AM to allow for snow removal or street sweeping, although signage indicating parking restrictions is limited. Additionally, marked yellow curbing does not always match signed no-parking zones. Appropriate signage and curb markings should be assessed during project development.

Several three-hour free public parking lots are offered within the study area, including a new parking garage which opened in 2017 on the corner of 1st Street and Baker Avenue. The three-floor parking structure has 77 free, three-hour parking spaces, 62 covered leased parking spaces, and 75 uncovered leased parking spaces. The facility is enforced from 6 AM to 6 PM, Monday through Friday (excluding City holidays). During other times, the entire parking garage is open to the public, free of charge. Better wayfinding may be beneficial to encourage use of parking lots, especially if on-street parking is removed with the preferred concept.

The City of Whitefish recently constructed a three story parking garage to provide additional parking for Downtown businesses and visitors.

In order to accommodate the preferred configuration within existing right-of-way, it may be necessary to eliminate one or both sides of parking within the study area on one or more corridors, depending on the final configuration advanced through future design and project development phases. It was noted during field reviews that some existing on-street parking spaces are underutilized, except during community events such as summer farmers' markets. The parking spaces on 2nd Street are often used to access Downtown restaurants, shops, and City Hall. However, 2nd Street only provides about 17 parking spots and they are difficult to access due to high traffic volumes on the roadway. Although removal of on-street parking on 2nd Street may be inconvenient, there are sufficient parking spaces provided elsewhere in the Downtown area.

4.5. NON-MOTORIZED CONSIDERATIONS

Pedestrians and bicyclists are commonly observed in Downtown Whitefish, as discussed previously. In August, over 14,000 pedestrians and nearly 500 bicyclists were recorded at the study intersections over a 24-hour period. In November, non-motorized volumes were considerably lower but still significant with over 3,000 pedestrians and 50 bicyclists counted over a 24-hour period. The close proximity of restaurants, shops, parks, and other amenities make Downtown Whitefish a desirable location to walk and bike. Sidewalks are provided on both sides of all the study roadways and bike lanes are provided on Baker Avenue south of 6th Street. Curb bulbouts are provided at several intersections within the study area to shorten pedestrian crossing distances and an RRFB is provided at the Spokane Avenue/5th Street intersection to facilitate safe crossings.

Connect Whitefish outlines the City's vision for a connected and continuous network of well-maintained bicycle and pedestrian facilities including several non-motorized routes within the *Downtown Whitefish Highway Study* area. This vision is echoed in the *Downtown Master Plan* with the inclusion of a bi-directional protected bikeway as part of the Whitefish Promenade along Spokane Avenue. The preferred concept attempts to address these non-motorized needs and community visions. Further consideration should be given during project development to integrate the preferred concept with locally desired non-motorized routes. This may include providing curb bulbouts, marked crossings, enhanced crossing treatments, wayfinding signage, and connections to other pedestrian and bicycle facilities where appropriate.

Adjustments to signal timings may also be considered. Over the five-year crash analysis period two pedestrian crashes and two bicycle crashes were reported. However, input from stakeholders indicates a trend of near misses relating to "right-hook" crashes where

right-turning vehicles interfere with crossing pedestrians. To increase pedestrian safety, leading pedestrian intervals or dedicated pedestrian crossing phases may be considered. Additionally, it was noted that the 2nd Street/Central Avenue intersection was dominated by pedestrian movements with nearly 8,500 pedestrians counted during a typical summer day. If signal timing modifications are pursued, it will be important to balance non-motorized safety and mobility with potential impacts to vehicular operations resulting from lengthened signal phases.

To improve safety at the 2nd Street/Central Avenue intersection, the signal timing could be modified to include leading pedestrian intervals or dedicated crossing phases.

4.6. TRUCKS

Trucks and other heavy vehicles make up about 2.5 percent of the total vehicle mix in August and about 3.5 percent of the vehicle mix in November within the study area. Logging trucks, construction vehicles, and freight carriers are often observed in Downtown Whitefish. The long lengths of these vehicles can sometimes impede traffic flow due to limited queue storage space at intersections leading to intersection blocking.

Baker Avenue is currently signed “No Trucks” to discourage truck use due to the pavement design and its inability to withstand heavy loads. Still, some trucks were observed traveling on Baker Avenue. Comments expressed by the public and stakeholders indicate a desire to remove trucks from the Downtown area either by providing an alternate route or by encouraging use of Baker Avenue. While it is unlawful to ban trucks from the national highway, it may be beneficial to encourage use of Baker Avenue, especially for heavy vehicles who plan to travel north via Wisconsin Avenue.

Trucks with long trailers frequently travel through Downtown Whitefish. Limited queue storage space can cause vehicles to block intersections and impede traffic flow.

Despite inherent challenges, trucks must be considered and accommodated during project development because they deliver goods to the Downtown and mountain areas. Project development considerations for trucks include placement of light poles, street furniture, and other obstructions; curb cuts and turning radii; and signal timing adjustments. Under existing conditions, the presence of street furniture near the roadway makes turning movements difficult for trucks to execute within the constrained travel way. Similarly, curb bulb outs and small turning radii at intersections also make turning movements difficult for trucks without off tracking into adjacent lanes. During project development, consideration should also be given to signal timing to accommodate trucks and allow enough time for them to clear intersections. Additionally, truck movements are often in conflict with pedestrian crossings. Providing dedicated pedestrian phases, leading pedestrian intervals, or other pedestrian treatments may be considered to limit potential conflicts.

4.7. SCHOOL TRAFFIC

Several public and private schools are located in Whitefish, primarily on the eastern side of the city. Whitefish Middle School is located within the study area on the northeastern corner of Spokane Avenue/2nd Street. Comments from the public indicate frustrations with traffic congestion during school drop-off and pick-up times. Within the study area, an increase in traffic volumes was observed during school drop-off times but no noticeable changes in traffic patterns or areas of concentrated congestion areas were observed.

During school release times, traffic volumes were observed funneling southbound on Spokane Avenue and Columbia Avenue, causing congestion at the Spokane Avenue/13th Street intersection that backed up to 9th Street on both on Spokane and Columbia Avenues. To alleviate traffic congestion near schools, it may be beneficial to encourage walking, biking, and bus ridership. To facilitate this shift in travel modes, refinement of the preferred concept should consider coordination with the schools to provide appropriate non-motorized facilities and/or connections to improve safety for school children. *Connect Whitefish* defines a Safe Schools Route as "Neighborhood Greenways" on 1st Street, 5th Street, 7th Street, Kalispell Avenue, and Pine Avenue. Other traffic management strategies may be beneficial and should be pursued by the schools as needed.

At school release, traffic backs up at the Spokane Avenue/13th Street intersection causing long delays.

4.8. ACCESS CONTROL

Access control can improve safety by directing drivers to use consolidated approaches placed at an appropriate distance from an intersection. During field review, approximately 70 access points were counted along the study roadways including residential and commercial driveways. The large number of closely spaced driveways increases the risk of crashes due to turning vehicles to and from these approaches. Driveways present a hazard to pedestrians who may have to cross several along their route.

During peak travel times when traffic volumes are high, it may also be challenging to turn onto or off of busy streets, creating delay for following vehicles. It was noted that drivers commonly stop mid-block to enable oncoming left-turns during peak traffic periods which contributes to delay and can be unsafe. Other vehicles were observed passing on the shoulder/parking lane when waiting for another vehicle to turn left.

Potential remedies to these situations include closure or consolidation of approaches or turning restrictions (such as right-in/right-out or enter only). Closure of driveways along Spokane and Baker Avenues may not be feasible for residences who rely on those driveways for access to their homes. However, several residences also have driveways that are accessible from the alleys. Consolidation of driveways should be explored during project development.

4.9. ENVIRONMENTAL CONSIDERATIONS

The proposed improvements will require full roadway reconstruction. Although improvements would be mostly constrained to existing right-of-way, there is potential for impacts to environmental resources within the study area. These impacts may include light pollution, increased noise, vegetation removal, water and biological resource impacts, or changes to visual resources. The beauty, charm, and aesthetics of Downtown Whitefish is valued by the community. This includes retaining existing homes and buildings, minimizing artificial lighting, protecting the Whitefish River, maintaining existing trees, planting new trees, and incorporating landscaped areas into the final design. Additional environmental investigations would need to be conducted during future project design phases to identify impacts and appropriate mitigation, and environmental permitting processes would need to be completed during project development. Additional consideration should also be given to protecting and enhancing the existing environment within the study area.

Preserving trees and landscaped boulevards are important to the community.

4.10. RIGHT-OF-WAY

The concept-level typical sections were developed to fit within existing right-of-way on Spokane Avenue, 2nd Street, and Baker Avenue, which are all 70 feet with the exception of a small segment of Baker Avenue between 8th Street to 10th Street where the right-of-way is reduced to 65 feet. During refinement of the preferred concept, modifications to the typical sections may be necessary to fit within available right-of-way or right-of-way negotiations may be required. Additionally, a detailed property record search and land survey may be required to determine the extents of existing right-of-way.

4.11. FUNDING

Primary funding for Highway 93 improvements would likely come from federal sources coupled with state matching funds as applicable. Projects eligible to receive NHS funds must support progress toward the achievement of national performance goals including improving infrastructure condition, improving safety, reducing congestion, increasing system reliability, and facilitating freight movement.

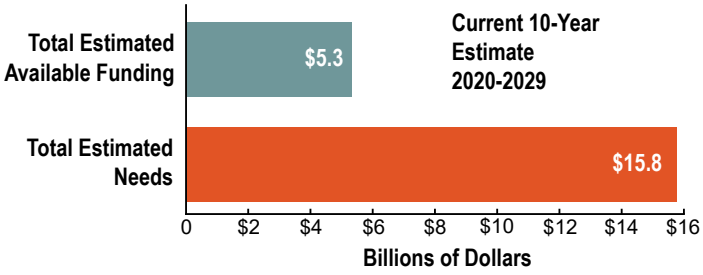
If a project is found eligible for federal or state funds, the Montana Transportation Commission and MDT will decide how to distribute the state's limited funding to address highway improvement needs. When funding has been identified, the project will be included in the annual *Statewide Transportation Improvement Program* which identifies proposed transportation projects programmed for the next five years. It may be several years before sufficient funds are identified for improvements.

Enhancements such as intersection improvements and non-motorized accommodations may be eligible for other federal funding sources, including the Transportation Alternatives Program and Congestion Mitigation and Air Quality Improvement Program. Additionally, discretionary federal grant funding through competitive programs such as Infrastructure for Rebuilding America (INFRA) and National Infrastructure Project Assistance (NIPA) may be available for projects meeting specific selection criteria. Additional information about funding opportunities under the Infrastructure Investment and Jobs Act (IIJA)/ Bipartisan Infrastructure Law (BIL) is provided by FHWA.[18]

In addition to federal and state funds, supplemental funds from local sources may be used to incorporate special treatments and amenities desired by the Whitefish community that would not normally be funded through MDT.

4.12. BYPASS

A bypass has been suggested as a potential solution to reduce traffic congestion and divert large trucks away from Whitefish's Downtown core. The concept of a bypass has historically been debated and analyzed. The 1994 *EIS/ROD* identified and analyzed five bypass alignments including Karrow Avenue, Farm to Market Road, Stella Lane, Blanchard Lake Road, and a new Powerline Road. These options were not advanced because they failed to divert substantial amounts of traffic off Spokane Avenue and 2nd Street, had the potential for substantial environmental impacts, and generated significant public opposition. The potential for development of a western bypass route was reevaluated in 2010 in conjunction with the *Whitefish Transportation* Plan and *Corridor Study.* Results of the evaluation showed that while some traffic would be removed from Downtown roads, it was not enough to significantly reduce congestion. Substantial social and environmental impacts as well as high costs make the bypass concept infeasible and unable to be funded through state and federal resources.



Combined increased costs, flat funding, an aging system, and increasing travel demands means needs are dramatically outpacing funding. Over ten years, available funds will cover just over $5 billion of the nearly $16 billion in projected transportation needs in Montana. (MDT 2020 Factbook[19])

Support from all implementing parties is needed before any reconstruction project is advanced.

05

SUMMARY AND NEXT STEPS

Highway 93 is located in the center of Whitefish community and serves as the primary travel route through the city for residents, visitors, and other through traffic. Congestion and poor levels of service on Highway 93 extend from the highway, translating into delays and congestion on local cross streets, ultimately affecting local traffic operations. The lack of alternate and continuous north-south or east-west routes in the community further contributes to the congestion.

5.1. SUMMARY

The existing conditions of the study area were defined through field review and data collection in August and November 2019, and future projections were made for the year 2045 based on historic traffic and future land use and growth projections. The study area currently experiences poor operations at 5 intersections, and 9 of 10 study intersections are expected to fail during at least one peak hour in August by 2045. High traffic volumes and conflicting turn movements cause queuing through intersections and congestion throughout the Downtown. Due to limited roadway capacity and increasing user demands, conflicts between vehicles, large trucks, pedestrians, and bicyclists pose safety concerns. Additionally, community members have identified the need for features to better accommodate non-motorist connectivity and comfort and to support the community's vision for Downtown.

Through a detailed screening process, as illustrated in **Figure 13**, the study team identified a preferred concept for improvements to address identified concerns on the Highway 93 corridor. The process began with a comprehensive review of available information on environmental resources, existing infrastructure, traffic and safety operations, and visionary plans, coupled with focused outreach with the public and key stakeholders, the *Downtown Whitefish Highway Study.* Through this effort, the study team catalogued a comprehensive list of alternatives from past and current planning efforts.

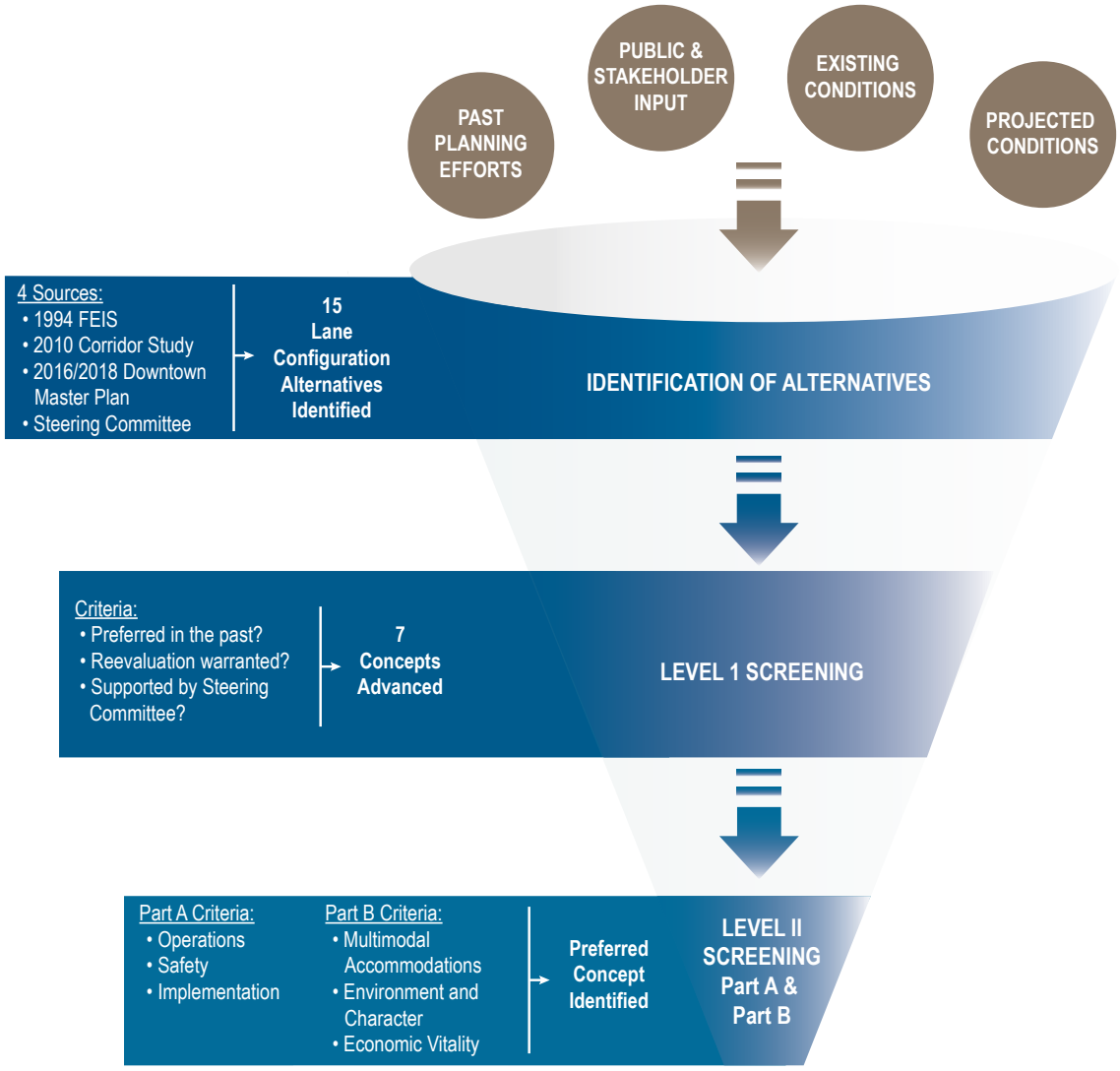


FIGURE 13: *Screening Process*

The range of lane configuration alternatives included maintaining the highway in its current configuration, consideration of a new east-west bridge connection at 7th Street, and varying combinations of additional lanes on Spokane Avenue, 2nd Street, Baker Avenue, and 13th Street to improve traffic flow through the Downtown.

Alternatives were initially evaluated under the Level I screening process according to preferred status in past evaluations, need for reevaluation, and support for further consideration. From this analysis, seven concepts emerged for advancement to Level II screening.

The Level II Part A screening evaluated the concepts' ability to meet operational, safety, and implementation thresholds, recognizing that a project must meet the basic needs of the NHS highway facility and be feasible to implement to advance for further consideration. Concepts B and C scored equally in meeting minimum operational, safety, and implementation requirements, while Concept G scored slightly lower but still met the minimum thresholds to warrant further evaluation. The four other concepts failed to provide adequate vehicular capacity and accommodate future traffic volumes or were not feasible to implement due to excessive costs, maintenance requirements, and impacts.

The final evaluation step involved consideration of multimodal accommodations, environment and character, and economic vitality under the Level II Part B screening process. While Concept G scored highest in Part B, it did not receive enough points to make up for the difference in operations and safety performance. By maintaining the existing two-lane configuration on 2nd Street, Concept C outperformed Concept B in the Part B categories due to its superior ability to accommodate non-motorists and minimize impacts to adjacent properties and businesses in terms of pedestrian bulbouts, travel lane proximity to building frontages, on-street parking, and temporary construction impacts. For these reasons, Concept C was identified as the preferred concept to improve the traffic flow and safety of the highway while minimizing impacts and providing an opportunity to address community desires to preserve the Downtown's vibrant character and promote active transportation. **Table 12** presents a summary of Level II scoring results.

TABLE 12: *Level II Scoring Summary*

		Screening Category	SUBTOTAL Is the concept feasible to implement and does it meet the purpose and need of the NHS?						
			Concept A	Concept B	Concept C	Concept D	Concept E	Concept F	Concept G
Part A	1	Operations	*2* No	*15* YES	*15* YES	*17* YES	*14* YES	*9* No	*10* YES
	2	Safety	*4* No	*11* YES	*11* YES	*8* YES	*8* YES	*11* YES	*10* YES
	3	Implementation	*12* YES	*10* YES	*10* YES	*1* No	*1* No	*7* No	*8* YES
		Part A Subtotal	--	**36**	**36**	--	--	--	**28**
		Part A Result	**Eliminate** *from further consideration*	**ADVANCE to Part B**	**ADVANCE to Part B**	**Eliminate** *from further consideration*	**Eliminate** *from further consideration*	**Eliminate** *from further consideration*	**ADVANCE to Part B**
Part B	4	Multimodal Accommodations	--	10	11	--	--	--	12
	5	Environment and Character	--	12	14	--	--	--	15
	6	Economic Vitality	--	5	9	--	--	--	9
		Part B Subtotal	--	**27**	**34**	--	--	--	**36**
		Total Points	--	**63**	**70**	--	--	--	**64**

PREFERRED CONCEPT

5.2. NEXT STEPS AND OTHER CONSIDERATIONS

MDT and the City of Whitefish were unable to reach agreement on the study's preferred Concept C due to different views on anticipated benefits and potential impacts. At the conclusion of the study, MDT and the City of Whitefish mutually decided not to move forward with a reconstruction project of the Highway 93 corridor through Downtown Whitefish.

Following completion of this study, MDT will continue to work collaboratively with the City of Whitefish to maintain the Highway 93 corridor. During the summer of 2022, MDT intends to construct a pavement preservation project to extend the life of the highway in its current configuration and complete ADA upgrades at intersections. This work will proceed independently from the outcome of the *Downtown Whitefish Highway Study*.

Should MDT and the City of Whitefish choose to revisit long-term plans for the Downtown corridor the following steps would be needed:

- **Reach agreement on the corridor configuration:** Any future projects to improve the highway are anticipated to be administered through MDT since Highway 93 is an MDT-maintained NHS facility. Through the *Downtown Whitefish Highway Study*, MDT identified Concept C as the preferred option that would best meet the operational and safety requirements of the NHS facility, while still minimizing impacts and providing an opportunity to address community desires to preserve the Downtown's vibrant character and promote active transportation. Agreement would need to be reached between MDT and the City of Whitefish on the corridor configuration before any reconstruction project could advance.

- **Identify and secure funding sources**: Primary funding for the preferred concept would likely need to be secured through the National Highway Performance Program, which provides funding for highway and bridge projects to rehabilitate, restore, resurface, and reconstruct NHS routes. Alternative federal or state funding sources would need to be obtained for corridor improvements other than the preferred concept identified in this study. Additionally, supplemental funding through local sources may be used for amenities and special treatments to address community desires. No funding has been secured at this time.

- **Follow MDT guidelines for project nomination and development**: MDT's project development process is shown in **Figure 14** on the following page. The process involves survey, engineering design, right-of-way acquisition, utility accommodations, a public involvement process, and environmental documentation and permitting. These steps would need to be completed before construction of federal-aid improvements. During the design process, details such as the specific types, locations, and dimensions of pedestrian and bicycle facilities, on-street parking, landscaped buffers, and other streetscaping elements would need to be determined in coordination with the City of Whitefish and community stakeholders. Full reconstruction of the corridor would likely need to be phased over multiple construction seasons to maintain traffic flow and accommodate timing restrictions for construction. Depending on the type of funding secured for improvements and any associated expenditure requirements, it may be possible to phase implementation over a longer period of time, with improved portions of the highway in service before completion of the final configuration.

For federally funded improvements, the purpose and need statement for any future project should be consistent with and address one or more of the screening elements contained in this study. Should this study lead to one or more projects, compliance with state and federal environmental regulations will be required. This study may be used as the basis for determining impacts and subsequent mitigation in future environmental documentation. Any future MDT project must comply with Code of Federal Regulations Title 23 Part 771 and Administrative Rules of Montana 18, sub-chapter 2, which outline the requirements for documenting environmental impacts on highway projects.

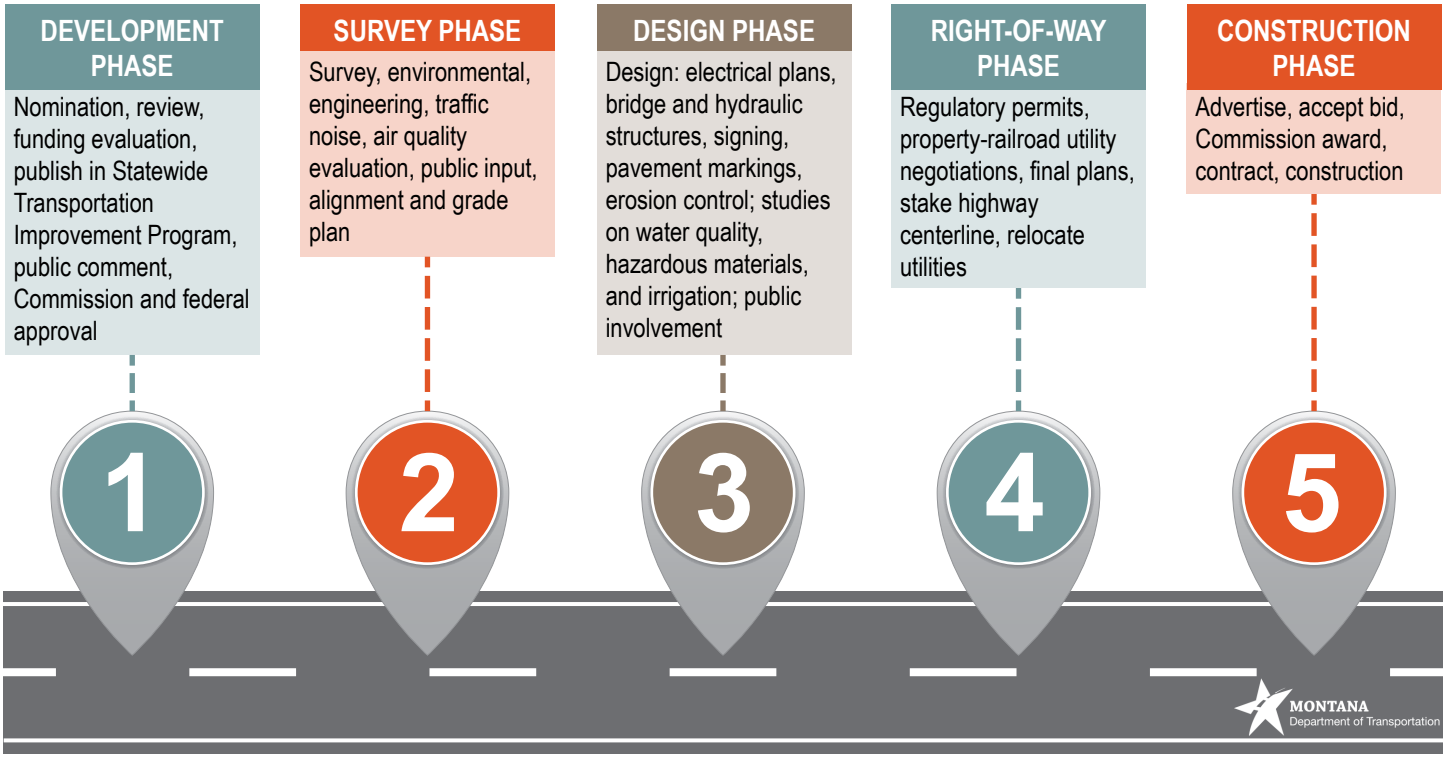


FIGURE 14: *MDT Project Development Process*

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DOWNTOWN WHITEFISH

HIGHWAY STUDY

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