
Helena to Great Falls
Bicycle/Pedestrian Path
Feasibility Study
Workshop
July 9, 2008
Montana Department of Transportation
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Workshop Goals

- Share information
- Gather input
- Discuss next steps

Background

Corridor identification

Route segmentation

Implementation Strategies

Conclusions

Next Steps

Background

- **Study requested by Senate Highways and Transportation Committee**
- **Feasibility only----no funding commitments**
- **MDT will report to Committee prior to 2009 session.**
- **Project assisted by a Technical Advisory Group (TAG)**

Study Goal

Study the feasibility of a bicycle and pedestrian path between Helena and Great Falls within public road right-of-ways.

Study Timeline

Helena to Great Falls Bicycle/Pedestrian Path Feasibility Study Timeline

Task	Month																											
		Dec/Jan				Feb				Mar				Apr				May				June				July				Aug			
	Week	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Physical Conditions																																	
2. Operational Conditions																																	
3. Public Lands																																	
4. Develop Proposed Pathway Configuration Parameters																																	
5. Technical Advisory Group Scoping Meeting																																	
6. Safety Conditions																																	
7. Bicycle and Pedestrian Facilities																																	
8. Utilities Research																																	
9. Environmental Scan																																	
10. Establish Screening Criteria																																	
11. Identify Feasible Routes																																	
12. Technical Advisory Group and Agency Input																																	
13. Public Scoping Meeting																																	
14. Develop Preliminary Draft Study Report																																	
15. Obtain Public Input																																	
16. Develop Final Report																																	
17. Study Completion																																	

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Data-Driven Analysis

- **Spatial data**
  - **-Roadway**
  - **-Bridge**
  - **-Other spatial layers**
- **Environmental information**
- **Utility information**
- **Right-of-way (from construction plans)**
- **Hydrology**
- **Fish, Wildlife, and Parks fishing access sites & toilet facilities**
- **Aerial imagery**
- **Windshield surveys conducted to identify topographic constraints***

*Note: Not an engineering survey

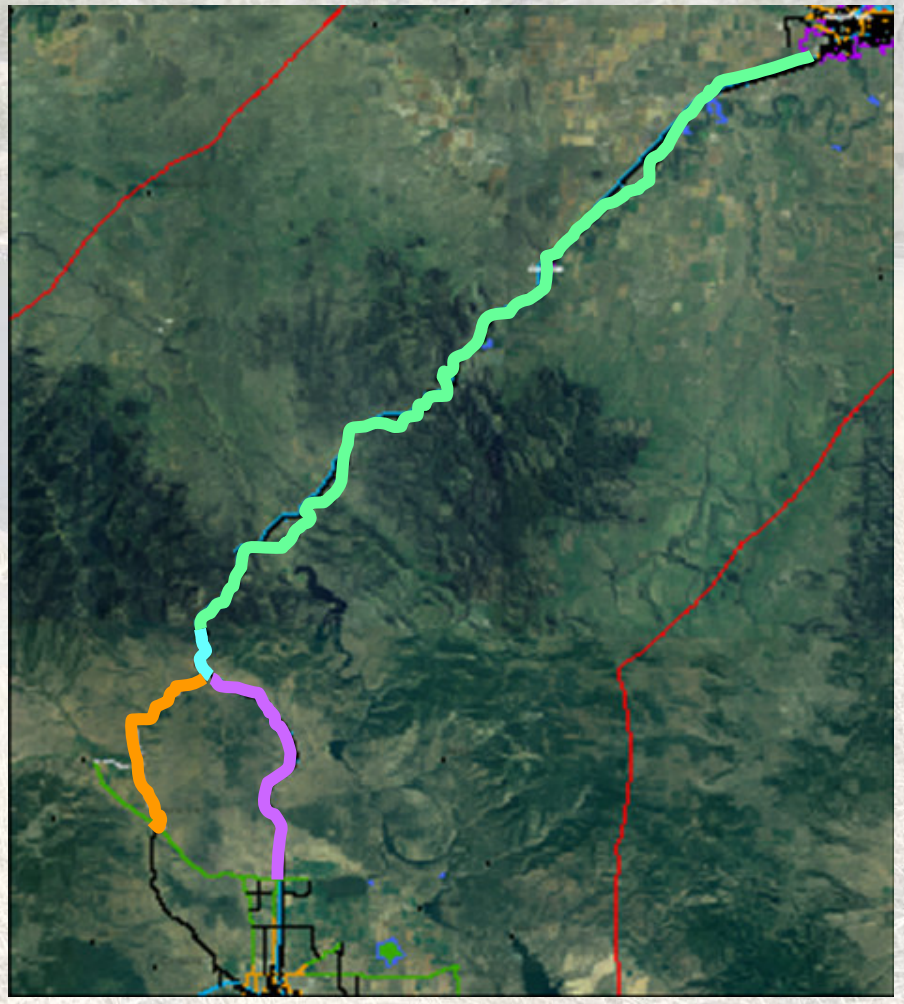
Corridor/Route Selection Criteria

Termini:	**Gore Hill and Lincoln Road**
Boundary:	**20 miles on either side of I-15**
Route:	**Public paved route**
Right-of-way:	**Public right of way along state and county roads**
Safety:	**Minimize crossovers**

Identified Routes

3rd Iteration

- Recreation Road
- I-15 (three miles between exits 216 and 219)-this segment is a chokepoint that has safety implications and is included in this study only to preserve corridor continuity
- Chevallier Drive from Lincoln Rd. to Sieben (gravel road, low AADT of 40)
- Note: For purposes of this study, I-15 from Lincoln Road to Sieben is not being considered due to high AADT and high speeds



Recreation Road

- **63.6 mile route along the Little Prickly Pear Creek and Missouri River between Spring Creek Interchange (exit 219) and Gore Hill in Great Falls**
- **The entire route is paved and existing shoulders are generally under 1 foot the entire length**
- **Right-of-way (generally 30-60 feet each direction from centerline) varies along the route and owned by the State**
- **Rural speeds from 55-70 mph and annual average daily traffic is 320-750**

Recreation Road

I-15 (3 miles: exit 216 - exit 219)

Example of Chokepoint Not feasible due to safety

- **3 mile route connecting exit 216 (Sieben and Chevallier Drive) to exit 219 (Recreation Road)**
- **Paved route with an 8-10 foot shoulder except for a 526 foot bridge segment chokepoint with a 2 foot wide shoulder**
- **Right-of-way is state owned**
- **Annual average daily traffic is 4,190**

Chevallier Drive

- 12.9 mile route along Little Prickly Pear Creek connecting I-15 with Secondary 279 (Lincoln Rd)
- The first 2 miles on north end by Sieben Interchange are paved. The remaining 10.9 miles are gravel
- Right-of-way (generally 20-25 feet each direction from centerline) is owned by Lewis and Clark County
- Annual average daily traffic is 40

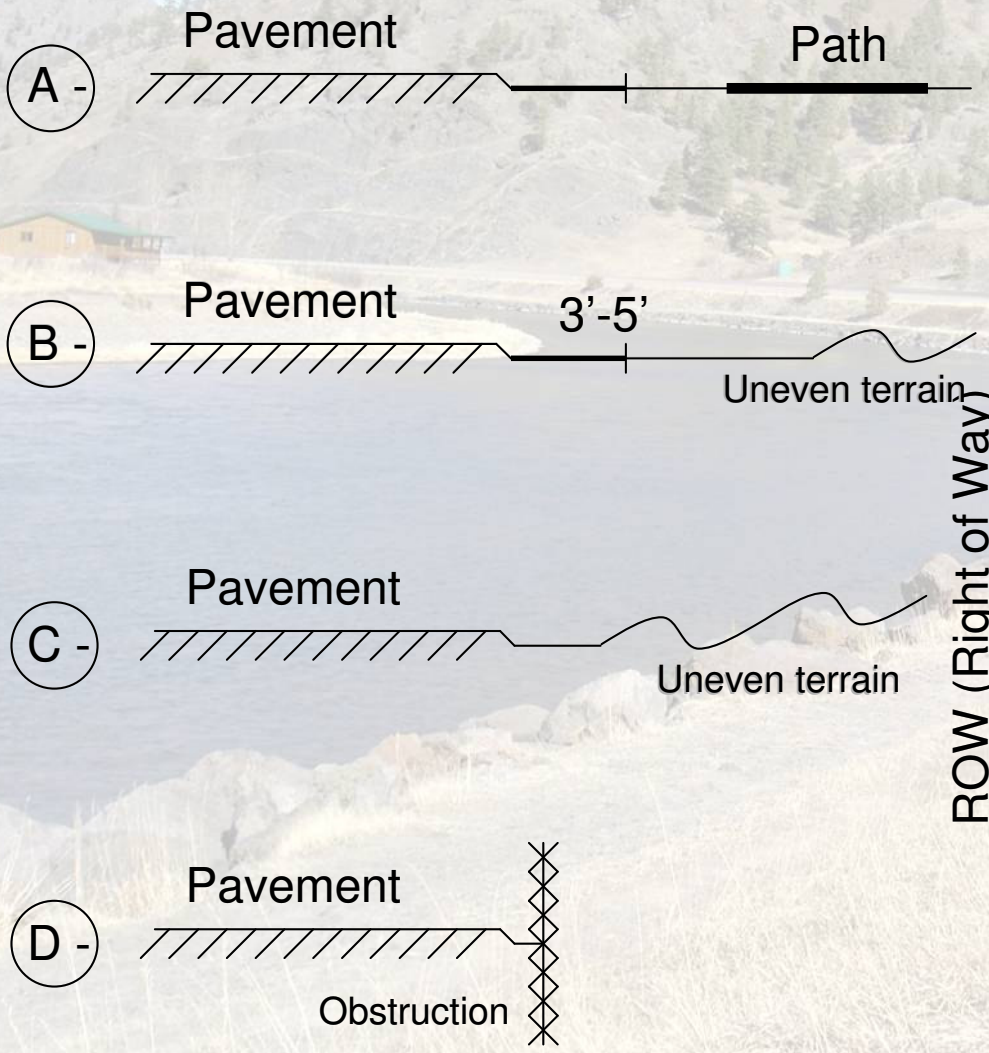
Route Segmentation

- **Segment:** **A continuous section of road with similar properties (i.e. shoulder widths, right-of-way, topography).**

- **Segment Types:**
  - **Separated path (A)**
  - **Widened shoulders (both directions) (B)**
  - **Less viable separated path (C1)**
  - **Less viable widened shoulders (C2)**
  - **Chokepoints: bridges, cliffs, guardrails (D)**

Note: Smoothing has been used to determine segment lengths

Segment Types



- ROW exists
- **Terrain level beyond pavement**
- **Path viable***

- ROW exists
- **Terrain level 3 feet beyond pavement**
- **Terrain contoured >3 feet**
- **Path less viable***
- **Shoulder viable***

- ROW exists
- **Terrain contoured beyond pavement**
- **Path less viable***
- **Shoulder less viable***

- ROW exists
- **Terrain obstructed beyond pavement**
- **Path not viable***
- **Shoulder not viable***

*Viable: A rough gauge of path or shoulder constructability based on right-of-way, topography, and physical obstructions.

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Route Segmentation Type D

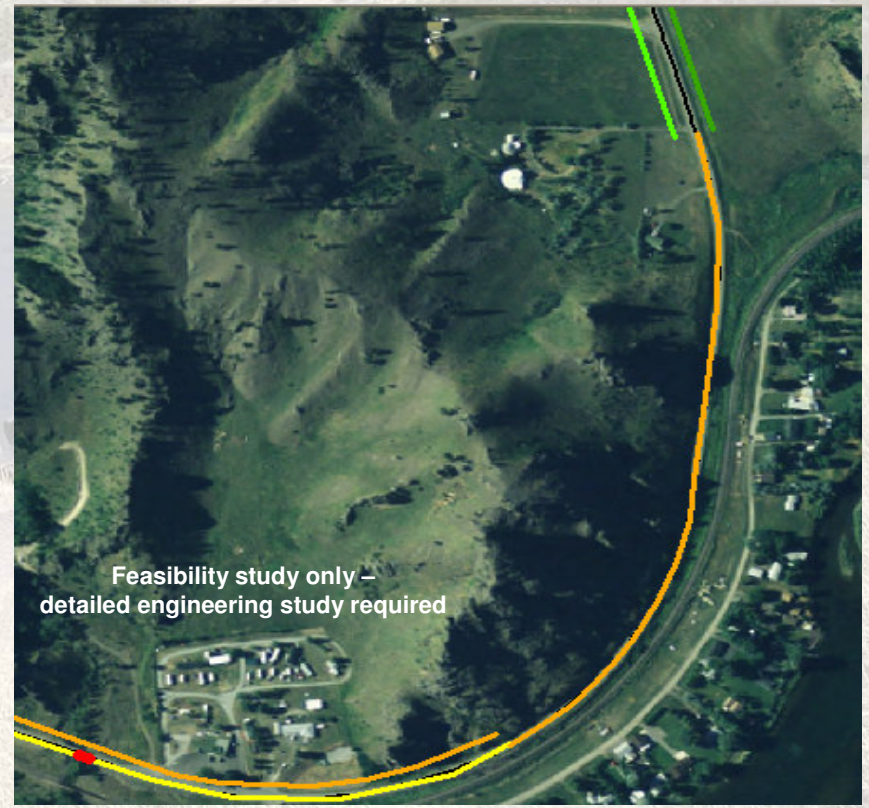
D - Chokepoints: Bridges, Cliffs, Guardrails

Areas where physical barriers prevent at least three feet of paved shoulder on both sides or any addition of shoulder width or a separated path. Sufficient right-of-way may or may not exist.

Route Segmentation Types

Recreation Road

- Separated path
- Less Viable separated path
- Widened shoulders
- Less Viable widened shoulders
- Chokepoint



NOTE: Entire route shown on posters

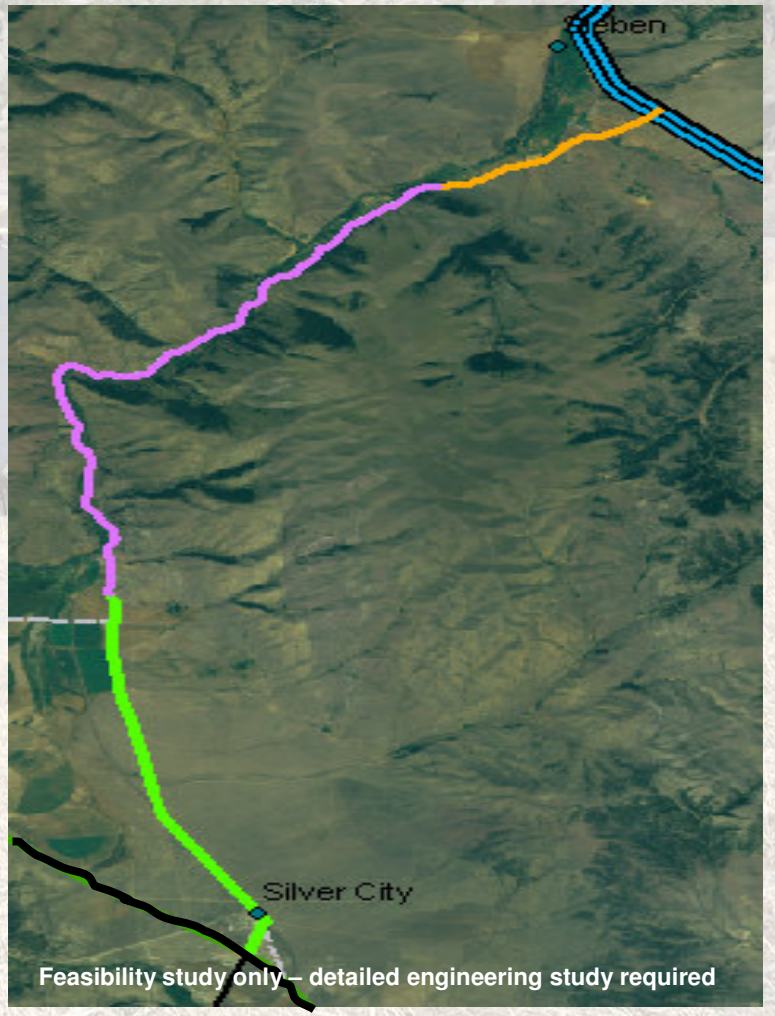
Route Segmentation Type

Chevallier Drive

Separated Path

Less viable widened shoulders

Not viable for either path or shoulders



Segment & Path Continuity

- **A separated path the entire length is not possible due to chokepoints***
- **Continuity can be maintained with a mix of segment types (separated paths and widened shoulders) but will require multiple roadway crossings**

* The analysis did not include the cost or viability of removing chokepoints

Recreation Road Safety Issues

Number of Roadway Crossings & Segment Lengths

All Possible Separated paths
53 Segments
52 Roadway crossings
35.6 miles - separated
27 miles - 3 feet

Separated paths > 0.5 mile
35 Segments
34 Roadway crossings
33.5 miles - separated
29.1 miles - 3 feet

Separated paths > 1 mile
12 Segments
11 Roadway crossings
26.5 miles - separated
36.1 miles - 3 feet

Widened shoulders entire length
1 Segment
0 Roadway crossings
62.6 miles - 3 feet

Not possible due to chokepoints

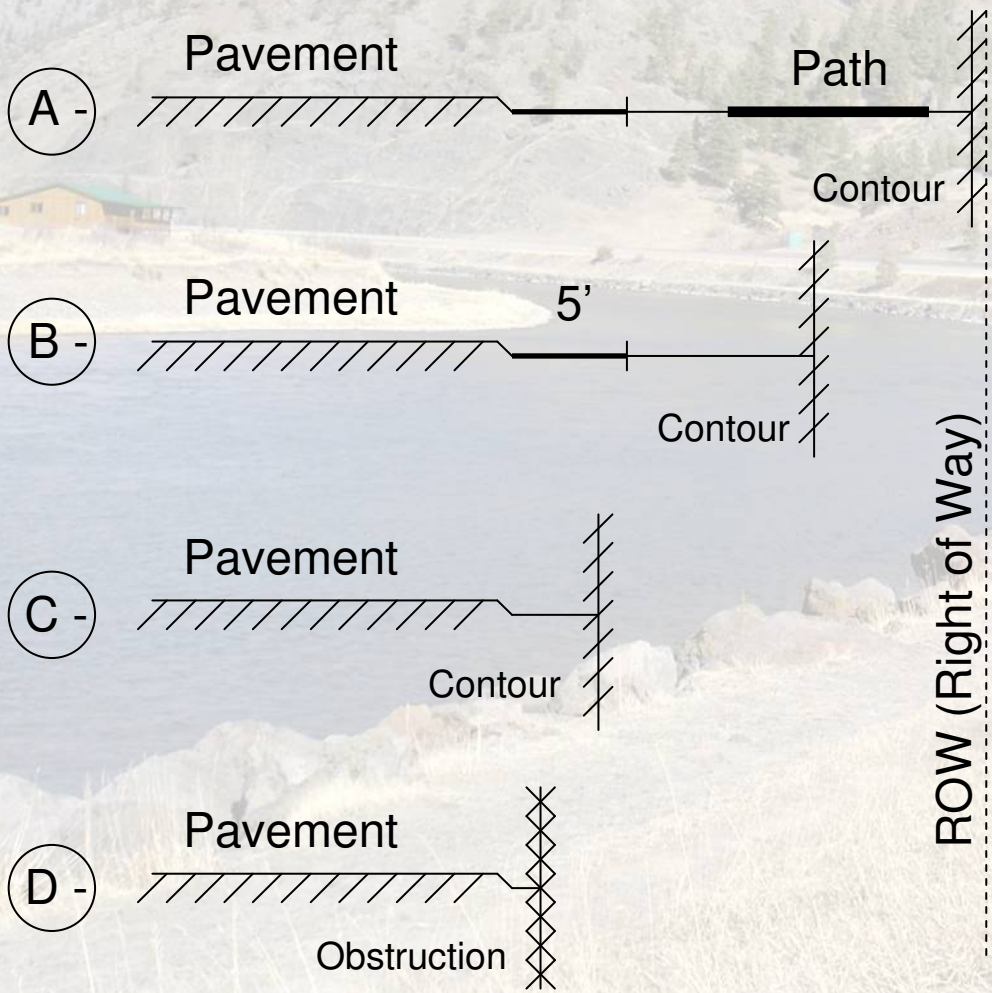
Additional Conflict Points

Chokepoints
(cliff, wetland, guardrail, bridge)

22 locations
2.8 miles

Chokepoint Locations

Estimated Cost Ranges



8 foot path: $150,000/mile +
10 foot path: $170,000/mile +

Two 5 foot shoulders: $200,000/mile +

10 foot path: $200,000/mile ++

$$$ = very expensive & probable environmental issues

Note: All estimated costs are in today’s dollars

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Independent Utility

- **<u>Independent utility</u>: A segment of the corridor where a separated path (or widened shoulders) can be developed as a stand-alone amenity with areas that allow for vehicle parking.**

- **This strategy supports:**
  - **a phased implementation of path segments within the corridor by "picking low-hanging fruit first"**
  - **a recreational travel focus**

Segment Criteria & Identification

Criteria

- **Segments have vehicle parking areas on either end**

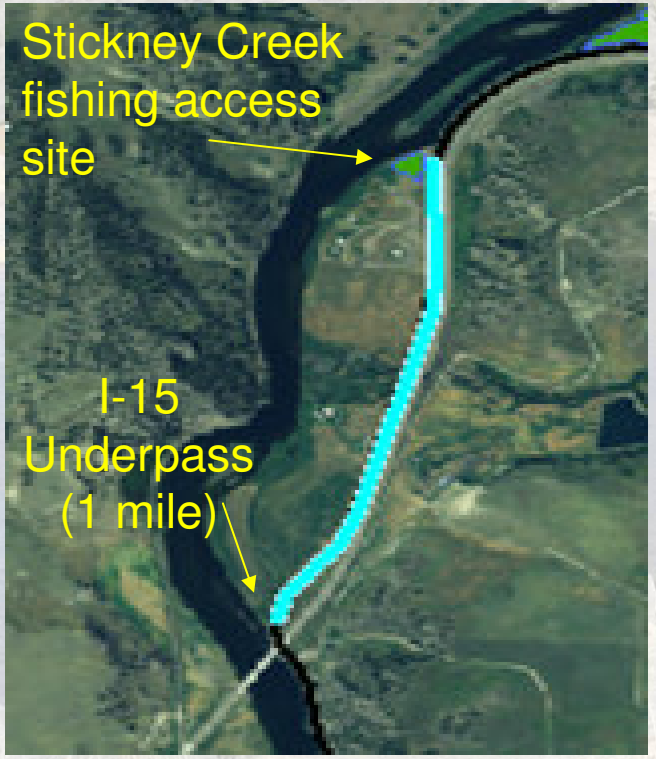
- **Segment lengths are greater than 1 mile**

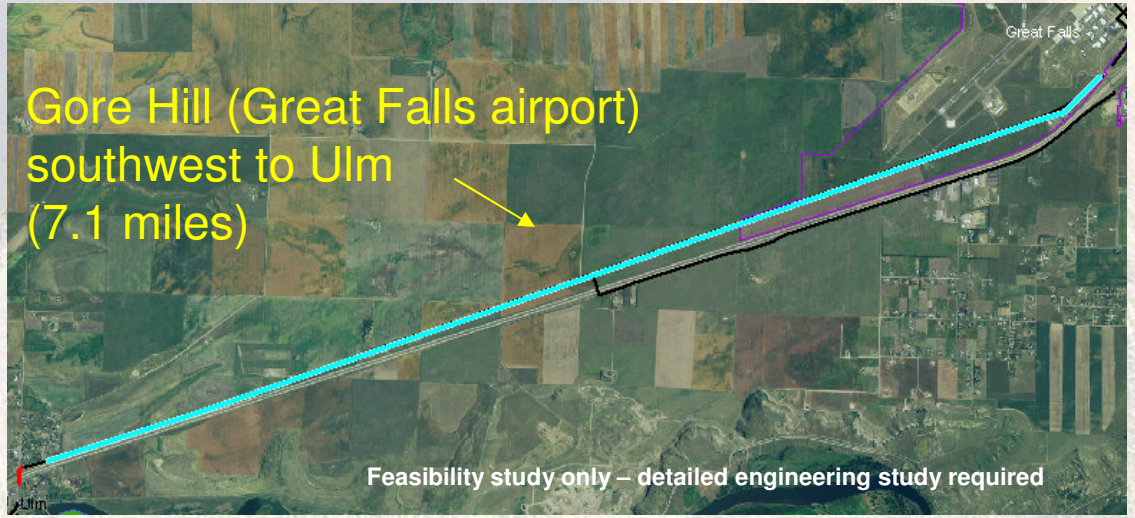
The process of identifying independent utility segments uses two segment types A and B (previously identified) against independent utility criteria

Scenario A1 - Path

Staging/parking areas exist

A1 Path Locations

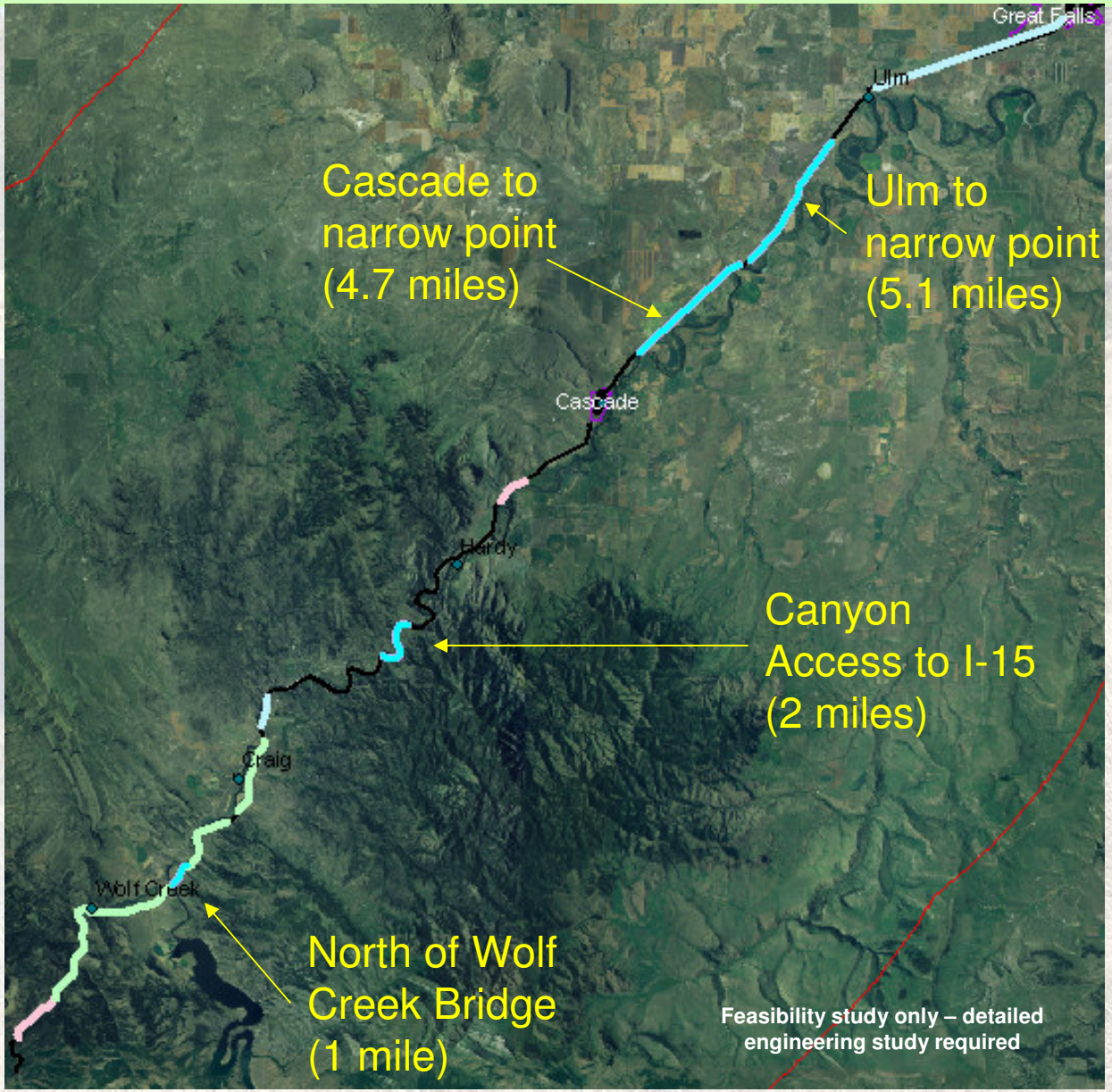




Scenario A2 – Path

Staging/parking area needed

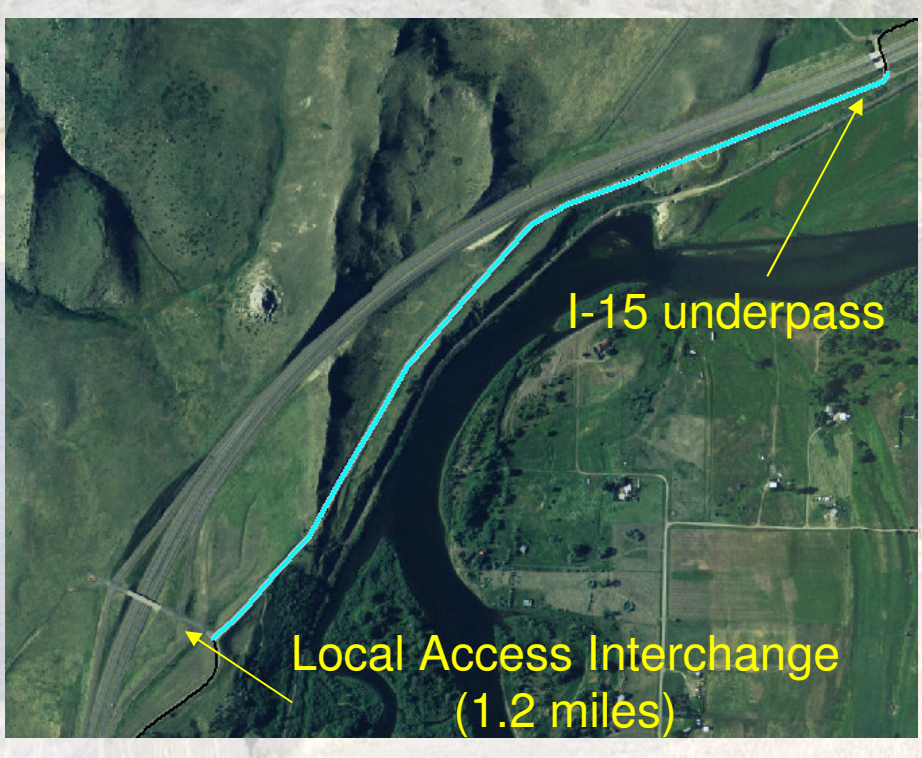
A2 Path Locations

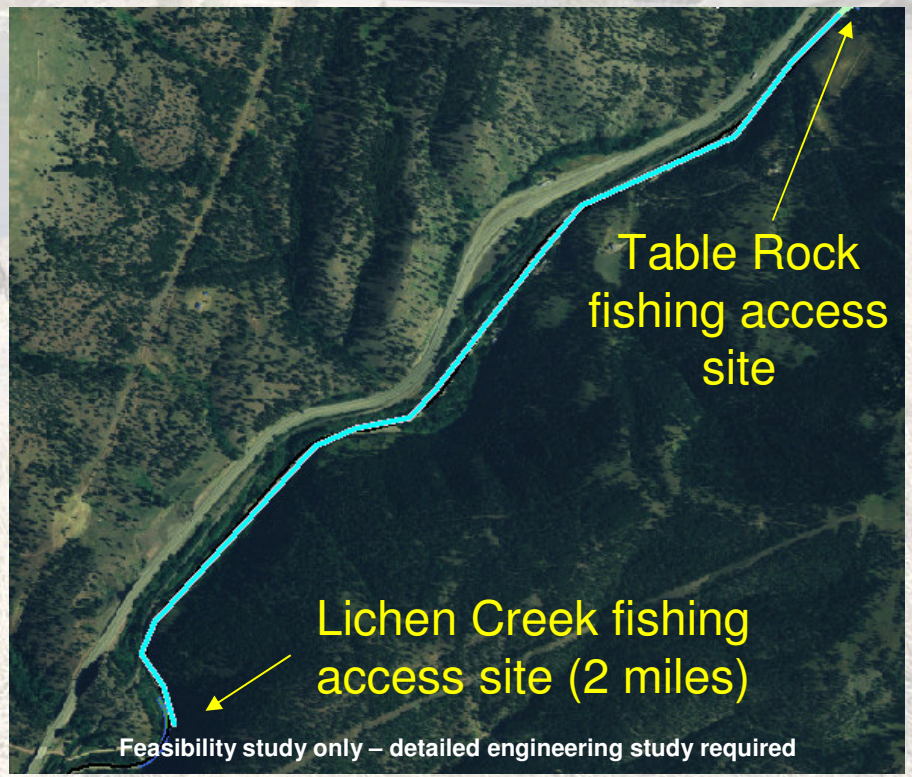


Scenario B1 - Shoulders

Staging/parking areas exist

B1 Shoulder Locations

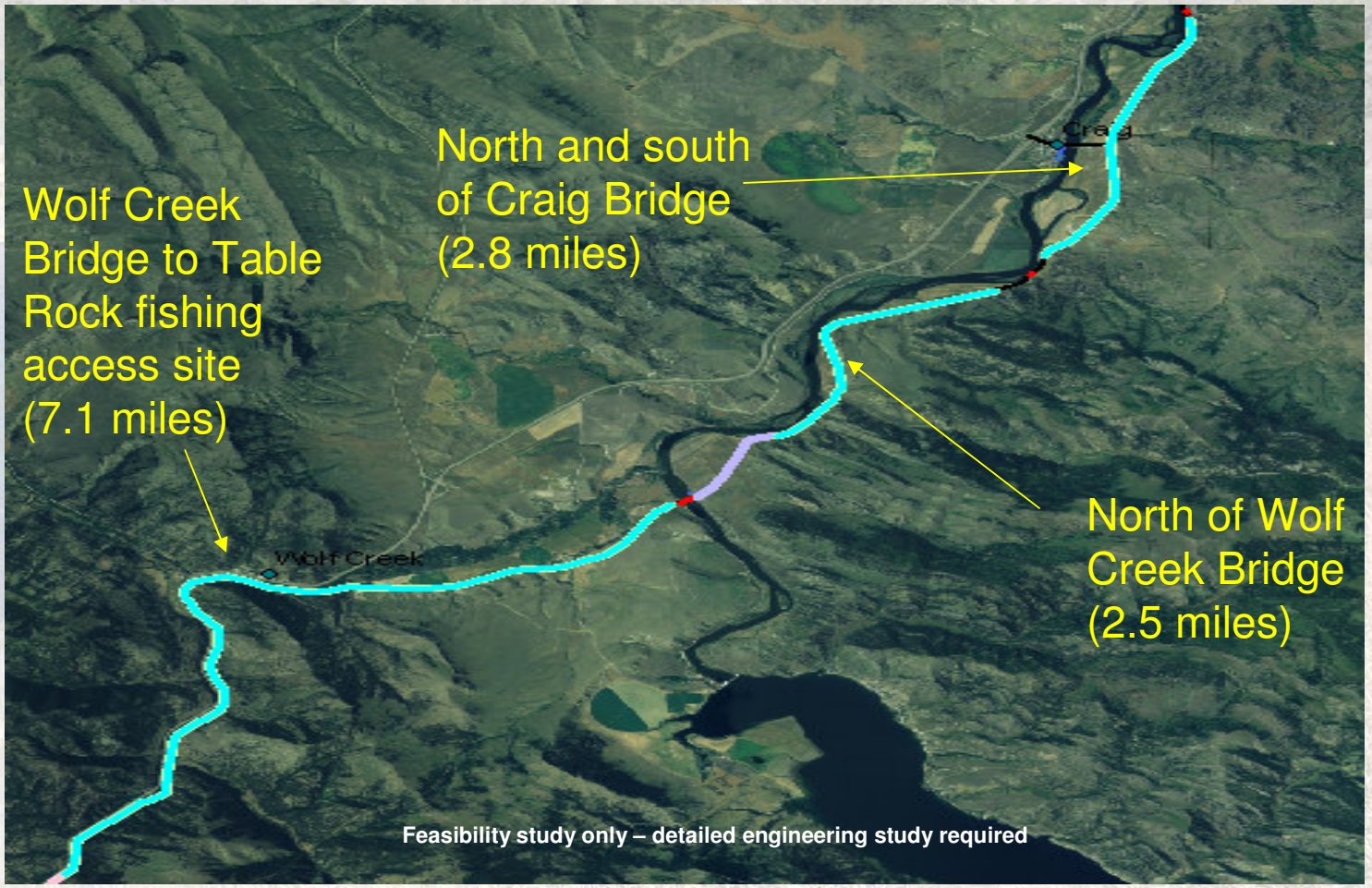




Scenario B2 - Shoulders

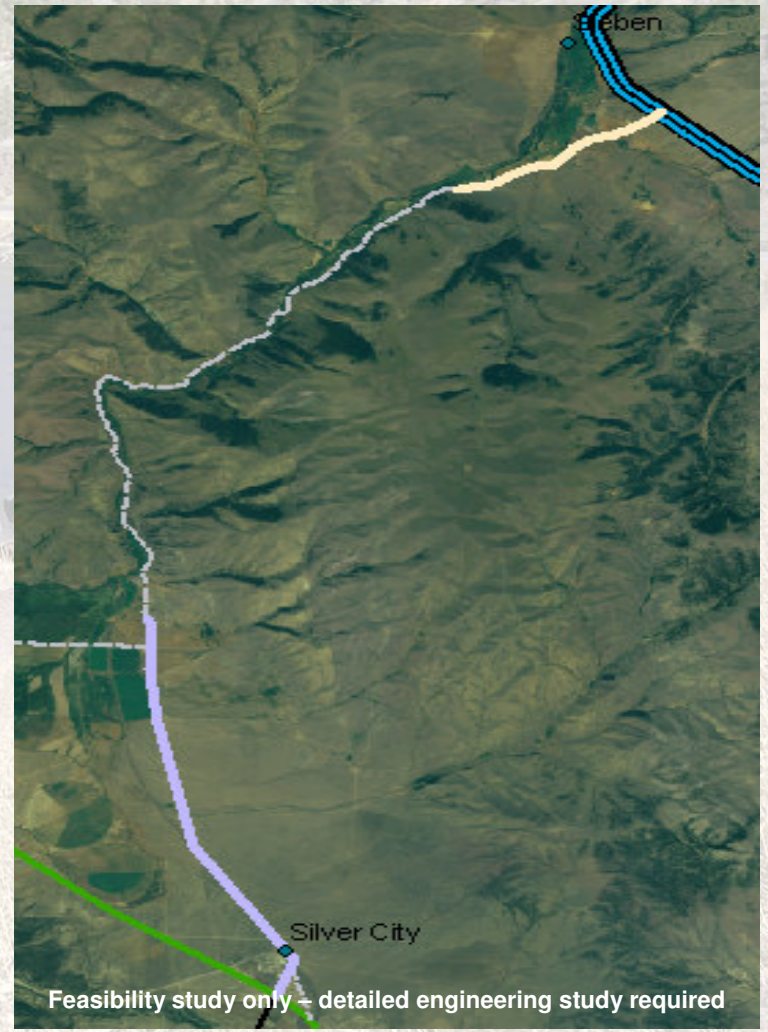
Staging/parking area needed.
(Segment may contain short & narrow bridges)

B2 Shoulder Locations



Scenarios & Locations for Chevallier Dr.

- **<u>Potential separated path:</u>**
  southern 4.4 miles (scenario A2)



Conclusions

•25 miles of additional separated path can be built with a minimal amount of complex engineering solutions

• 15 miles of widened shoulders along the existing roadway can be built with a minimal amount of complex engineering solutions

• There are multiple locations where chokepoints and obstacles exist that would limit a contiguous separated path

• A phased implementation of path segments as stand-alone amenities can be accomplished

Note: These assessments would need to be supported by additional engineering analysis

Next Steps

Incorporate Public Comments

Prepare Draft Report

Make Draft Report Available

Incorporate Additional Comments

Finalize and Publish Report

Questions & Comments ?

Comments may be submitted in writing at the meeting, or by mail to Zia Kazimi, Rail, Transit and Planning Division at PO Box 201001, Helena, MT 59629-1001, or online at www.mdt.mt.gov/mdt/comment_form.shtml by August 11, 2008

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