

Bend Safety Implementation Plan

Preliminary Engineering Assessment

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Introduction

This report briefly summarizes the findings of initial engineering evaluations conducted for selected locations of the City of Bend Safety Implementation Project. Topographic survey will be performed in the near future, after which preliminary engineering design will continue. These summary sheets are present what is known about each location and what issues may be expected once topographic survey is available.

The locations presented within this report are:

- Brosterhous Road at the BNSF Rail Bridge
- 27th Street and Conners Road
- 3rd Street and Franklin Avenue
- 3rd Street and Reed Market Road

Suggested next steps are presented with each of the four locations.

Construction costs shown are preliminary and do not include stormwater or utility elements. A contingency cost of approximately 30% has been assigned to each project.

Location: Brosterhous Road at BNSF Bridge

Sign improvements are depicted on sheet SS3.0. Approximately 200 feet of guardrail construction is conceptually depicted within the February 2015 Roadway Departures Memo.

North shoulder, west side

Existing trees and a steep rock outcrop are adjacent bike lane. This will require rock excavation for construction of proposed guardrail improvements.

South shoulder, west side

A utility vault immediately outside of existing guard rail limits will require utility coordination and could conflict with construction of proposed guardrail.

North shoulder, east side

Guard rail extension would likely require relocation of BNSF access gravel road.

South shoulder, east side

Communications pedestal and storm drain inlet within area of proposed guardrail improvement may require relocation/reconstruction. Proposed guardrail may block existing gravel access.

Site issues and next steps

Early coordination with adjacent property owner at southeast corner and BNSF is required as access roads will likely be affected by the proposed guardrail improvement. Once survey is in place and design layout of new guardrail is determined, utility conflicts can be identified and addressed through coordination with utilities. Next steps include coordination with affected stakeholders.



Preliminary construction cost estimate =
\$29,000

1: At north shoulder, east side

Location: 27th Street and Conners Avenue (Option 1)

Sheet SS2.0 presents the preliminary signing and striping plan for this location. The proposed median refuge island within 27th Street and two associated ADA-ramps will improve east-west connectivity across 27th Street near existing COIC bus stops.

West sidewalk, proposed ramp location

Existing sidewalk is curb-tight, and there appears to be ample space available for the construction of the proposed perpendicular ADA ramp.

East sidewalk, proposed ramp location

Existing sidewalk appears to be property-tight, and there appears to be ample space available for the proposed ADA ramp landing. The grade required to connect the proposed ADA ramp and the existing sidewalk will need to be evaluated for slope compliance.

Site issues and next steps

Prior to evaluation of the topographic survey, no significant issues are anticipated. Traffic control and utility coordination will be required. Next steps include early coordination with utilities and continued coordination with COIC for Cascades East Transit considerations.



Preliminary construction cost estimate =
\$115,000

2: At SE corner of 27th and Conners, facing north along 27th

Location: 3rd Street and Franklin Avenue

Site Issues

The preliminary signing and striping improvements for this intersection are presented on Sheet SS5.0.

The ongoing City of Bend South 3rd Street Improvement project includes the sidewalk and ramp reconstruction of this intersection. In the project’s first phase, this intersection design will be completed to the ODOT Design Acceptance Package (DAP) stage. However, the phased funding requires that further design of the 3rd and Franklin intersection be performed at a later date.

The design and construction proposed by the Bend Safety Improvement Project includes only pavement marking and sign installation for bicycle and pedestrian safety. The decision must be made to either construct the signing and marking improvements within the existing sidewalk and ramp geometry, or schedule the construction of signing and marking improvements to occur once the intersection sidewalk and ramp construction is complete.

Sidewalk, ramp, and bicycle lane improvements currently exist along the southwest side of Franklin with limited pavement marking along the southeast side of Franklin. It is unknown at this time how these existing improvements correspond with the proposed Bend Safety Implementation Project.

Further design of the signing and marking improvements could be completed using the DAP-stage design of this intersection, though the sidewalk geometry would be subject to change in later design stages.

Next steps

Decide if signing and striping design should proceed based on DAP-stage design of the intersection through the City’s South 3rd Street Improvement project. Additionally, the improvements in place associated with the Walgreens construction can be compared to proposed improvements for the location.



Preliminary construction cost estimate = \$100,000

3: At southwest side of Franklin, looking east toward 3rd Street.

Location: 3rd Street and Reed Market Road

Site Issues

The preliminary signing and striping improvements for this intersection are presented on Sheet SS4.0.

The current City of Bend South 3rd Street Improvement project includes the sidewalk and ramp reconstruction of the west half of this intersection. In the project's current phase, this intersection design will be completed to the ODOT Design Acceptance Package (DAP) stage. Pending approval of that phase, design of this intersection's sidewalk and ramp improvements will proceed toward final design.

The sidewalks infrastructure of the east half of the intersection is currently under construction as part of the City's G.O. Bond project along the Reed Market Road corridor.

The design and construction proposed by the Bend Safety Improvement Project includes only pavement marking and sign installation for bicycle and pedestrian safety. Consequently, the proposed signing and striping must agree with the design and construction of two separate City of Bend improvement projects.

Further design of the signing and marking improvements could be completed using the DAP-stage design of this intersection, though the sidewalk geometry would be subject to change in later design stages.

Next steps

Decide if signing and striping design should proceed based on DAP-stage design of the western half of the intersection through the City's South 3rd Street Improvement project. Additionally, the as-built sidewalk and ramp documentation for the eastern half of the intersection could be obtained from the G.O. project to verify consistency across the several projects.



Preliminary construction cost estimate = \$102,000

4: At NW corner, facing south across Reed Market