

OREGON DEPARTMENT OF TRANSPORTATION
Urban Design Concurrence
DESIGN DECISION DOCUMENTATION

Date: 6/1/2021

Project/Corridor Title: US97: BEND NORTH CORRIDOR PROJECT

Key Number: K21229

EA: PE003210/011

Planning Document Summary	
List any applicable planning or environmental reports, plans or studies	
Original FEIS: https://www.oregon.gov/odot/Projects/Project%20Documents/BendNorthCorridor97bnc_feis_main_body_and_section_4f_evaluation.pdf	
FEIS Revaluation approval: https://www.oregon.gov/odot/Projects/Project%20Documents/EN_K21229_REEVAL_01.pdf EN_K21229_REEVAL_01	
Bend Transportation System Plan: https://www.bendoregon.gov/home/showpublisheddocument/47764/637381859539770000	
Cascades East Transit 2040 Transit Master Plan: https://cascadeseasttransit.com/wp-content/uploads/2020/10/CET-2040-Transit-Master-Plan_Final_Adopted_September-2020.pdf	
Deschutes County Transportation System Plan (2010-2030): https://www.oregon.gov/ODOT/Planning/TPOD/tsp/county/county_of_deschutes_tsp_2012.pdf	

Project Goals and Outcomes	
Brief Project Description	<p>US 97 Bend North Corridor project, will aim to improve safety and mobility for all modes of travel on two National Highway System (NHS) routes classified as critical urban freight corridors.</p> <p>The project will improve a section of US 97 and add upgrades to US 20 and local routes. The US 97 Bend North Corridor project includes a new travel corridor for US 97, improved intersections, traffic control improvements, new highway on-off ramps, curb ramps up to current ADA standards, auxiliary lanes, grade-separations, and pedestrian and bicycle facilities to aid with congestion and improve safety for all modes of travel.</p> <p>The project goals are to improve safety, system reliability, improve connectivity for all modes, and reduce congestion.</p>

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Community Engagement	
Describe Community Outreach Summarize Commitments, Expectations	Since the community outreach with the 2014 FEIS/ROD, ODOT has continued informing the community on the changes of the project. Adjacent property owners at each project element location are being contacted by both ODOT and the City of Bend for right of way discussions. ODOT has also continued to consult and coordinate with multiple agencies regarding the current proposed design since the ROD was issued. Commitments are consistent with the original FEIS except where the footprint is smaller and are summarized here: E K21229 Commitments Misc 01

US97 Existing Section - General Project Information										
Route Information	Rt. No.	Hwy No.	NHS	Functional Classification	State Classification	Reduction Review Rt	Truck %	Posted Speed	Current ADT	
	US97	004	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Urban Other Principal Arterial	Statewide Expressway	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	9.66	45	40,800 (2019)	
Project Information	Funding Category	City and County			Begin MP	End MP	Speed	Future ADT		
	Fed INFRA/ HB2017	City of Bend, Deschutes County			(TBD) 133.7	135.0	Design 45 Target 35	19,100 (2040)		
Defining Character	Building Setback	Adjacent Land Use			Pedestrian Crossings	On-Street Parking		# Accesses Per Block		
	None <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Medium <input checked="" type="checkbox"/> Large <input type="checkbox"/>	Comm/Industrial <input checked="" type="checkbox"/> Retail <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Mixed <input type="checkbox"/> Park/Rec <input type="checkbox"/> Other: <input type="checkbox"/>	Existing <input checked="" type="checkbox"/>	Future <input checked="" type="checkbox"/>	Spacing: ½ mi Type: Signal	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Type		Block Size	
					Bicycle Facility	Type		Block Size		
					None <input type="checkbox"/> Shared Lane <input type="checkbox"/> Std. Lane <input checked="" type="checkbox"/> Width __5'__ Other: <input type="checkbox"/>	Parallel <input type="checkbox"/> Diagonal <input type="checkbox"/> Back-in <input type="checkbox"/>		500-1000 ft		

Modal Integration		
Determine Modal Integration	Existing Modal Integration	
	Pedestrians <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	Pedestrians <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low
	Bicycles <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	Bicycles <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low
	Transit <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	Transit <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
	Freight/Motor Vehicles <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Freight/Motor Vehicles <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low

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Context
Traditional Downtown/CBD <input type="checkbox"/> Urban Mix <input type="checkbox"/> Commercial Corridor <input checked="" type="checkbox"/> Residential Corridor <input type="checkbox"/> Suburban Fringe <input type="checkbox"/> Rural Community <input type="checkbox"/>
Context Discussion
Additional information for determination of appropriate context: This corridor is fronted by mostly commercial and industrial uses with large building footprints and large parking lots set within large blocks and a disconnected or sparse roadway network.

Section Name:	US97: BEND NORTH CORRIDOR PROJECT			Route No.:	US97
Highway Name:	The Dalles-California			Highway No.:	004
County Name:	Deschutes	Region:	4	Key No.:	21229
EA No.:	PE003210-011				
Begin MP:	(TBD) 133.7	RDWY ID:	1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/>	Mileage Type:	0 <input checked="" type="checkbox"/> Z <input type="checkbox"/>
End MP:	135.0	Mileage Overlap Code:	0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/>		

PROJECT DATA

Functional Classification:	Urban Other Principal Arterial	State Classification:	Statewide Expressway		
Current ADT (Year):	40,800 (2019)	Design ADT (Year):	19,100 (2040)		
% Trucks:	9.66	Vertical Clearance / Reduction Review Route:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Posted Speed:	45	Design Speed:	45	Target Speed:	35
Funding:	INFRA Grant, House Bill 2017, local agency contribution, and private developer dollars				
Current Estimate:	\$133M	Context	Urban Commercial Corridor		
Federal Highway Approval (PODI) Required:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Design Category	3R <input type="checkbox"/> 1R <input checked="" type="checkbox"/> 4R <input type="checkbox"/> SF <input type="checkbox"/>	NHS:	<input checked="" type="checkbox"/>
			Non NHS:	<input type="checkbox"/>	Top 10% SPIS Site:
					Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Design Element Summary Table		Width (ft.) **
Pedestrian Realm	Frontage Zone	Maintain existing
	Pedestrian Zone	Maintain existing
	Buffer Zone	Maintain existing
	Curb/Gutter	Maintain existing
Transition Realm	Separated Bicycle Lane (Curb Constrained Facility)	-
	On-Street Bicycle Lane (Not Including Buffer)	5' to 6'
	Bicycle/Street Buffer	4' to 2'

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	Right Side Shoulder (If Travel Lane Directly Adjacent to Curb	-
	On-street Parking	-
Travelway Realm	Travel Lane	11' to 12'
	Right Turn Lane (Including Shy)	12' to 13'
	Left Turn Lane	existing or 12'
	Left Side/Right Side Shy Distance	1' to 0'
	Two-Way Left Turn Lane	-
	Raised Median – No Turn Lane (Including Shy Distances)	Maintain existing
	Left-Turn Lane with Raised Curbed Median/Separator (Includes 16" Separator and Shy Distance	Maintain existing

**For dimensions less than range defined in the Blueprint for Urban Design, a design exception is required

Modal Integration	
Appropriate Modal Integration	Pedestrians <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low Bicycles <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low Transit <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low Freight/Motor Vehicles <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
Briefly Discuss Final Modal Integration Decisions	This is a freight critical route pair segment and reduction review route so freight/motor vehicle stays high. Enhanced crossings and bicycle and pedestrian infrastructure is anticipated. An updated transit stop is in process on this corridor, this project will maintain that stop.

Pedestrian Realm	
Discuss final Dimensions of Pedestrian Realm Elements	The project is for the most part maintaining the existing pedestrian facilities, which will continue to be buffered from travel lanes by bike lanes. If the design-builder chooses to do the low-stress connection, required by the project, adjacent to this corridor, bike lanes will be maintained to match existing and the path can replace the sidewalk. The path will be 12 feet (unless otherwise approved) with the buffer to get 5 feet or more from edge of curb (unless otherwise approved).

Transition Realm	
Discuss final Dimensions of Transition Realm Elements	The transition realm will include a widened bicycle facility to a minimum of 6' bike lane and a stripped buffer of at least 2' (unless otherwise approved).

Travelway Realm

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Discuss final Dimensions of Travelway Realm Elements	<p>The project is being designed to encourage slower speeds than exists today. To encourage slower speeds, reduced travel lane widths are proposed where feasible. Where possible without adjusting medians, travel lanes will be reduced to 11', right turn lanes 12-13' (including shy), and left turn lanes shall be existing or a minimum of 12'.</p> <p>Current roadway configuration do not meet BUD recommendations, where design-builder cannot meet these standards due to existing constraints, they are limited to making things no worse than existing.</p> <p>The project may also maintain non-standard median widths where they are not impacted.</p>
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Design Element Less Than Approved Range	
Final Design Elements Less Than Approved Range Dimension	<p>Are Any Final Design Elements Less Than the Approved Dimension Range? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If yes, list the elements below and attach an approved design exception for each</p> <p>Existing left-turn and median widths have portions less than standard. Because there are no curb or median changes and this is a 1R project, we do not anticipate any design exceptions to be required for this.</p>

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US 20 Section - General Project Information										
Route Information	Rt. No.	Hwy No.	NHS	Functional Classification	State Classification	Reduction Review Rt	Truck %	Posted Speed	Current ADT	
	US20	017	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Urban Other Principal Arterial	Statewide Ex- pressway	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	18.55	45-55	19,800 (2019)	
Project Information	Funding Category		City and County			Begin MP	End MP	Speed	Future ADT	
	Fed INFRA/ HB2017		City of Bend, Deschutes County			17.3	18.4	Design 45 Target 35	34,900 (2040)	
Defining Character	Building Setback		Adjacent Land Use			Pedestrian Crossings	On-Street Parking		# Accesses Per Block	
	None <input type="checkbox"/>	Shallow <input type="checkbox"/>	Medium <input checked="" type="checkbox"/>	Large <input checked="" type="checkbox"/>	Existing	Future	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	0	
			Comm/Industrial <input checked="" type="checkbox"/>	Retail <input checked="" type="checkbox"/>	Residential <input type="checkbox"/>	Mixed <input type="checkbox"/>	Park/Rec <input checked="" type="checkbox"/>			
			Other: <input type="checkbox"/>	_____ Library _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
					Spacing: 2000'± Type: Intersec- tion, unmarked	Bicycle Facility		Type	Block Size	
					None <input type="checkbox"/>	Shared Lane <input checked="" type="checkbox"/>	Std. Lane <input type="checkbox"/>	Parallel <input type="checkbox"/>	Diagonal <input type="checkbox"/>	500-1500 ft
					Width _____	Other: <input type="checkbox"/>	Back-in <input type="checkbox"/>			

Modal Integration		
Determine Modal Integration	Existing Modal Integration	
	Pedestrians <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	Pedestrians <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low
	Bicycles <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	Bicycles <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low
	Transit <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	Transit <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low
	Freight/Motor Vehicles <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Freight/Motor Vehicles <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low

Context
Traditional Downtown/CBD <input type="checkbox"/> Urban Mix <input type="checkbox"/> Commercial Corridor <input checked="" type="checkbox"/> Residential Corridor <input type="checkbox"/> Suburban Fringe <input checked="" type="checkbox"/> Rural Community <input type="checkbox"/>
Context Discussion

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Additional information for determination of appropriate context:

This corridor is on the fringe of suburban land uses and is supported by a reduced target speed, separated uses, access control, and building setbacks. However, vacant adjacent land is planned as commercial. Therefore, the corridor is considered both Suburban Fringe and Commercial Corridor.

Section Name:	US97: BEND NORTH CORRIDOR PROJECT			Route No.:	US20
Highway Name:	McKenzie-Bend			Highway No.:	017
County Name:	Deschutes	Region:	4	Key No.:	21229
EA No.:	PE003210-011				
Begin MP:	17.3	RDWY ID:	1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/>	Mileage Type:	0 <input checked="" type="checkbox"/> Z <input type="checkbox"/>
End MP:	TBD (18.2)	Mileage Overlap Code:	0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/>		

PROJECT DATA

Functional Classification:	Urban Other Principal Arterial		State Classification:	Statewide Expressway	
Current ADT (Year):	19,800 (2019)		Design ADT (Year):	34,900 (2040)	
% Trucks:	18.55	Vertical Clearance / Reduction Review Route:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Posted Speed:	45	Design Speed:	45	Target Speed:	35
Funding:	INFRA Grant, House Bill 2017, local agency contribution, and private developer dollars				
Current Estimate:	\$133M	Context	Suburban Fringe/Commercial Corridor		
Federal Highway Approval (PODI) Required:	Yes <input type="checkbox"/> No <input type="checkbox"/>	Design Category	3R <input type="checkbox"/> 1R <input type="checkbox"/> 4R <input checked="" type="checkbox"/> SF <input type="checkbox"/>	NHS:	<input checked="" type="checkbox"/>
			Non NHS:	<input type="checkbox"/>	Top 10% SPIS Site:
					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Design Element Summary Table		Width (ft.) **
Pedestrian Realm	Frontage Zone	1'
	Pedestrian Zone – multi-use path	12'
	Buffer Zone	4'-5'
	Curb/Gutter	-
Transition Realm	Separated Bicycle Lane (Curb Constrained Facility)	-
	On-Street Bicycle Lane (Not Including Buffer)	-
	Bicycle/Street Buffer	-
	Right Side Shoulder (If Travel Lane Directly Adjacent to Curb)	8' per maintenance request
	On-street Parking	-
Travelway Realm	Travel Lane	11'
	Right Turn Lane (Including Shy)	-
	Left Turn Lane	-
	Left Side/Right Side Shy Distance	0'

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	Two-Way Left Turn Lane	-
	Raised Median – No Turn Lane (Including Shy Distances)	8'
	Left-Turn Lane with Raised Curbed Median/Separator (Includes 16" Separator and Shy Distance)	-

**For dimensions less than range defined in the Blueprint for Urban Design, a design exception is required

Modal Integration	
Appropriate Modal Integration	<p>Pedestrians <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low</p> <p>Bicycles <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low</p> <p>Transit <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low</p> <p>Freight/Motor Vehicles <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low</p>
Briefly Discuss Final Modal Integration Decisions	<p>The primary mode of travel along the corridor is currently freight/motor vehicles. The project will provide enhanced pedestrian and bicycle crossings and facilities to accommodate future growth patterns.</p> <p>There are no bus stops on this section of corridor, but improvements to freight and motor vehicles will support faster travel times for transit routes that use this corridor.</p>

Pedestrian Realm	
Discuss final Dimensions of Pedestrian Realm Elements	<p>The project will provide a multi-use path on the east side north of Cooley to tie into the planned path with the K20011 project. South of Cooley Road, the multi-use path will be on the west side of US 20 to Robal Lane, to support connectivity from the school and neighborhoods. The path will be built in compliance with this document. The buffer space will be maximized where possible. The path on the eastside of the highway in this section of roadway is anticipated to be built shortly after this project with private development.</p> <p>The 12' multi-use path is planned to support bi-directional walking and biking, and to encourage bicyclists to use the path instead of the shoulder.</p>

Transition Realm	
Discuss final Dimensions of Transition Realm Elements	<p>The project will provide an 8' right side shoulder to accommodate emergency vehicles, maintenance crews, and inoperable vehicles, which meets the BUD guidance.</p> <p>While bicyclists are encouraged to use the two-way, multi-use path on the west side of the corridor, the project will also provide ramps where appropriate from the shoulder to the roundabout pedestrian/bicycle paths to accommodate bicyclists that choose to ride in the shoulder.</p>

Travelway Realm	
Discuss final Dimensions of Travelway	<p>The travel way will include two travel lanes in each direction with multi-lane roundabouts at the two intersections (US 20/Robal Lane and US 20/Cooley Road). Given the roundabout intersection control, no right turn or left turn lanes will be provided along the corridor.</p>

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Realm Elements	<p>An 8' raised median between the Robal and Cooley roundabouts is planned, which will increase in width near the roundabouts.</p> <p>The project aims to set a target speed of 35mph along the corridor, which will be supported by the roundabouts. 11' travel lanes are also proposed to support the reduced target speed as well.</p>
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Design Element Less Than Approved Range	
Final Design Elements Less Than Approved Range Dimension	<p>Are Any Final Design Elements Less Than the Approved Dimension Range?</p> <p>No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> If yes, list the elements below and attach an approved design exception for each</p>

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Signatures

Prepared By: Miranda Wells **Date:** 6/30/2021
Prepare By

Company Name:	ODOT
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**Concurred
By:**

Date: _____
(ODOT Region Maintenance Manager or Region Maintenance
Operations Manager)

(Print Name)

**Approved
By:**

Date: _____
(Region Technical Center Manager)

(Print Name)