



TOWN OF SKYKOMISH 2019

Transportation Plan

Adopted: January 21, 2019

Prepared by:

transpogroup 
WHAT TRANSPORTATION CAN BE.

12131 113th Ave NE, Ste. 203
Kirkland, WA 98034



Prepared by:





TABLE OF CONTENTS

- 1. Introduction** 1
 - 1.1. Purpose and Intent 1
- 2. Community Transportation Issues** 2
 - 2.1. Community Engagement 2
- 3. Existing Transportation Services and Facilities** 3
 - 3.1. Street and Highway Network 3
 - 3.2. Roadway Descriptions 3
 - 3.3. Existing Traffic Volumes 5
 - 3.4. Existing Traffic Operations 8
 - 3.5. Level of Service Standards 8
 - 3.6. Traffic Safety 8
 - 3.7. Active Non-Motorized Transportation 8
 - 3.7.1. Pedestrian Facilities 9
 - 3.7.2. Bicycle Facilities 10
 - 3.7.3. Trail Network 10
 - 3.8. Transit Services 12
 - 3.9. Airport 12
 - 3.10. Railroad 12
- 4. Forecast Transportation Conditions** 13
 - 4.1. Forecast Land Use 13
 - 4.1.1. Trails Development and Outdoor Recreation 13
 - 4.1.2. Hospitality Industry 14
 - 4.2. Forecast Transportation Conditions 14
 - 4.2.1. Population Traffic Growth 14
 - 4.2.2. Forecast Traffic Growth 15
 - 4.2.3. Forecast Traffic Volumes 16



5. Transportation Systems Plan 17

 5.1. Transportation System Planning 17

 5.2. Access Management..... 17

 5.2.1. Current Access to US 2 18

 5.2.2. Skykomish Access Management Plan for US 2..... 20

 5.2.3. Roadway Standards for US 2 20

 5.2.4. Future Development on US 2 21

 5.3. Active Transportation Systems Improvements..... 21

 5.3.1. Active Transportation Connectivity within Town 21

 5.3.2. Active Transportation Connectivity to Trails..... 23

 5.3.3. Wayfinding and Signage 23

 5.3.4. Miller River Washout Active Transportation Link 23

 5.4. Transportation System Improvements 25

 5.4.1. US 2 and 5th Street Roundabout..... 25

 5.4.2. Other US 2 Improvements 25

 5.4.3. Compact Roundabouts 26

 5.4.4. Wayfinding and Signage 26

 5.5. Complete Streets..... 27

 5.6. Railroad 28

 5.6.1. Railroad Quiet Zone..... 28

 5.6.2. Blocked Railroad Crossings..... 28

 5.7. Parking 29

 5.8. Transit 29

 5.9. Transportation Improvement Plan 29

6. Financing and Implementation Program..... 33

 6.1. Town of Skykomish Funding 33

 6.2. Funding Partners and Grant Opportunities 33

 6.3. Six-Year Transportation Improvement Plan 34

7. References..... 35



Appendix

Town of Skykomish Photos
 Skykomish Planning Study (WSDOT) – 2017
 Access Management Recommendation
 Roundabout Recommendation
 Signage Recommendation
 Draft Alternatives for Proposed Trail to Ballfield Park
 Roadway Standards Typical Section for US 2

List of Tables

Table 1.	Traffic Count Summary	5
Table 2.	Historical Population Growth	14
Table 3.	Projected Population Growth.....	15
Table 4.	Town of Skykomish Traffic Growth Rate	15
Table 5.	Estimated Daily Vehicle Trip Generations – Forecasted Land Uses.....	16
Table 6.	Town of Skykomish Forecast Traffic Volumes	16
Table 7.	Town of Skykomish Long Range Transportation Improvement Plan	30

List of Figures

Figure 1.	Roadway Functional Classification.....	6
Figure 2.	Weekday Daily Traffic Volumes	7
Figure 3.	Existing Active Transportation Network.....	11
Figure 4.	Existing US-2 Access Points	19
Figure 5.	Future Active Transportation Network.....	24
Figure 6.	Transportation Improvement Projects	32



Abbreviations

AADT: Average Annual Daily Traffic
ADA: Americans with Disabilities Act
ADT: Average Daily Traffic
BNSF: Burlington Northern Santa Fe Railway
CFR: Code of Federal Regulations
CPAT: Community Planning Assistance Team
DU: Dwelling Units
EB: Eastbound
FHWA: Federal Highway Administration
FLAP: Federal Lanes Access Program
FPG: Forecast Population Growth
FRA: Federal Railroad Administration
GMA: Growth Management Act
HPG: Historical Population Growth
HSIP: Highway Safety Improvement Program
HSS: Highways of Statewide Significance
HTG: Historical Traffic Growth
ITE: Institute of Transportation Engineers
ITS: Intelligent Transportation System
LOS: Level of Service
LU: Land Use
LUV: Land Use Vision
MIS: Motorist Information Sign
MUTCD: Manual of Uniform Traffic Control Devices
OFM: Office of Financial Management
PSE: Puget Sound Energy
PSRC: Puget Sound Regional Council
RCW: Revised Code of Washington
REET: Real Estate Excise Tax
ROW: Right of Way
RTCC: Rural Town Centers and Corridors
SQ FT: Square Feet
TIA: Traffic Impact Analysis
TIB: Transportation Improvement Board
TIF: Traffic Impact Fee
TIP: Transportation Improvement Plan
VMS: Variable Message Sign
WAC: Washington Administrative Code
WB: Westbound
WSDOT: Washington State Department of Transportation



1 Introduction

The Town of Skykomish's vision for the Town, including economic growth, development and maintenance of the Town's character and daily life for residents, depends on the health of its transportation system. The transportation system serves the residents, providing access to school, local recreation and local businesses, as well as visitors and tourists, providing access to regional recreational opportunities and hospitality businesses. This Transportation Plan is the technical background and companion document to the Transportation Element of the Town's Comprehensive Plan. This Plan will assist the Town in advancing its multi-modal transportation objectives to address existing needs and support the overall vision of the community.

1.1 Purpose and Intent

The purpose of this plan is to document the Town's vision for certain aspects of its transportation system, and to provide local, regional and state planning authorities and funding partners with a guide for the Town's intentions related to its transportation system. The plan focuses on two major goals for the Town of Skykomish;

- Integration of access management into the US 2 corridor, through a combination of short-term projects and a long-term vision for a roundabout at the 5th Street intersection to achieve a greater balance between local access, active transportation safety, and regional mobility.
- Implementation of an improved active transportation network to support emerging growth in the all-season recreational opportunities in and around Skykomish, and to increase modal choice and flexibility in mobility for Town residents.

The goals take into account a projection of future needs and demands on the Town's transportation system. As a companion document, the Transportation Plan implements the Transportation Element of the Comprehensive Plan. The Transportation Element establishes a goal and policy framework for making decisions consistent with other elements of the Comprehensive Plan to describe a strategy for accomplishing the City's vision over the 20-year planning horizon. Based on the goals and policies in the Transportation Element, the Transportation Plan is intended to serve as a guide for transportation decisions to address both short- and long-term needs. To meet Growth Management Act (GMA) requirements, the Transportation Element and Transportation Plan must identify existing transportation system characteristics, establish standards for levels of service, and identify existing and future deficiencies based on land use growth projections. The Transportation Plan also discusses roadway mobility and accessibility needs, identifies improvements necessary to enhance safety, bicycle and pedestrian travel.



2 Community Transportation Issues

The Town of Skykomish is focused on four issues related to transportation. Each of these issues is critical to meeting the Town's vision of improving connectivity and circulation around town for residents and visitors and offering a range of modal choices. These issues are:

1. Access Management on US 2 and improvement of the 5th Street intersection
2. Creation and implementation of a pedestrian and bicycle network
3. Connecting the ballfield and campground facilities to the Town over the South Fork Skykomish River
4. Management of the railroad crossings at 5th Street and Cascade Highway

Transportation will be vital to the Town's future growth, both within the downtown and along the US 2 corridor. Skykomish is positioned to greatly benefit from growth in all-season recreational opportunities, both in town and in the surrounding Federal and State forests and parks. Growth at the Stevens Pass Ski Resort will also affect the Town. Two transportation issues that will arise from this anticipated growth are:

- Wayfinding and circulation for visiting traffic
- Parking

These two issues are not currently the focus of Skykomish's Transportation Plan but are important future transportation issues to address. The following sections will focus on the primary four concerns while making improvements to these secondary issues where possible.

2.1 Community Engagement

The Town of Skykomish has been very engaged in developing the vision for the Town's transportation future and identifying the primary and secondary transportation concerns. The Town has engaged WSDOT in planning-level discussions related to the US 2 corridor, access management, the 5th Street intersection and signage improvements in 2012 and 2017. In 2018, the Town hosted an event sponsored by the American Planning Association's Washington Chapter, the Community Planning Assistance Team (CPAT). As a result of this coordination with WSDOT and the CPAT event, the Town has developed this Transportation Plan to provide a framework for future transportation improvements and communicate the Town's vision to regional planners and partner agencies.



3 Existing Transportation Services and Facilities

The assessment of existing transportation services and facilities allows the identification of transportation issues and needs. An inventory of these facilities provides a reference point of the operation of transportation facilities and services and allows identification of where needs exist. Establishing the operational baseline of the Town will help with prioritizing future improvements to handle projected increases in traffic from growth in hospitality and recreation.

3.1 Street and Highway Network

The Town of Skykomish has a street and highway network to provide for the movement of motorized traffic within the Town. The total area of the Town is 0.33 square miles, and the total roadway lane-mileage in town is approximately 24,000 linear feet. Many of the Town's streets are networked, but due to its rural character and topography, several are disconnected, with dead ends at the Skykomish River, mountainous areas south of the Town, and Maloney Creek.

Functional Classification

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. Skykomish has three streets which are Federally functionally classified, according to the definitions of FHWA:

- 5th Street between US 2 and Old Cascade Highway, Minor Collector
- Old Cascade Highway, within town limits, Minor Collector
- US 2, within town limits, Principal Arterial

The remainder of the Town's streets are local roadways, primarily providing access to residences and local businesses. No future changes in functional classification are anticipated. Functional classifications of roads in the Town of Skykomish are shown in Figure 1.

Highways of Statewide Significance

WSDOT designates interstate highways and other principal arterials that are needed to connect major communities in the state as Highways of Statewide Significance (HSS). This designation assists with the allocation of some state and federal funding. These roadways typically serve corridor movements having travel characteristics indicative of substantial statewide and interstate travel. US 2, within the Town of Skykomish, and extending east and west of the Town, is a designated HSS.

3.2 Roadway Descriptions

The following section describes the use and function of the three classified roadways in the Town of Skykomish and their relationship to the region surrounding the Town. Information is provided about the current features within the right of way (ROW) of each road. These current features may be the subject of future improvements noted in Section 5 of this Transportation Plan.

US 2

US 2 consists of two 12-foot lanes serving as a principal arterial highway running approximately 1.05 miles from the western to the eastern limit of the Town of Skykomish. US 2 has a 12-foot two way left turn lane present for approximately 750 feet on either side of the intersection with 5th Street. US 2, through Stevens Pass, is one of the primary passes through the Cascade Mountains for the Puget Sound region, connecting the Cities of Leavenworth, Wenatchee and points in central and eastern Washington to the Puget Sound. US 2 provides an alternative route to Interstate 90 for east-west long-distance travel across



the Cascade Mountains. Stevens Pass Ski Resort, a popular year-round recreation facility, is located approximately 16 miles east of Skykomish on US 2. Regional trucking traffic, for freight and logging, use US 2 to connect eastern and western Washington. Passenger vehicle traffic along US 2 has seasonal peaks, with summer and fall recreation increasing tourism in the national forests, hiking trails and natural areas along US 2 east and west of Stevens Pass.

There are no signals on US 2 through Skykomish. Two Town streets, 5th Street and Old Cascade Highway, intersect US 2 at stop-controlled (minor leg) intersections. The posted speed limit on US 2 through Skykomish is 50 mph. The ROW of US 2 varies from 60 to 100 feet in the Town. There are no existing active transportation facilities along US 2, and no marked crossings for pedestrians. The roadside typically consists of a 1-foot paved shoulder, dropping into a drainage ditch and then sloped, undeveloped land. There are several properties with full frontage access to US 2, with no designated driveways or access management.

5th Street

5th Street intersects with US 2 as a T-intersection with stop control for southbound vehicle left turns, and yield control for northbound right turns. An existing gas station is located on the southwest corner of the intersection, and Sky Deli is located at the southeast corner. Vehicles traveling on 5th Street cross over the 24-foot wide two-lane bridge over the South Fork of the Skykomish River before entering the downtown area. A 3 to 4-foot-wide concrete pedestrian path along the west side of the bridge connects the parking lot of the gas station to W Riverside Dr and the downtown sidewalk network. The bridge serves as a de facto gateway to the town and is often decorated with flowers. 5th Street is posted with a regulatory 25 mph speed limit.

5th Street jogs slightly across E Railroad Ave and the BNSF railroad crossing. Four railroad tracks are controlled with automated single gates with flashing lights. The Skykomish library, fire station, and Skykomish Depot Park abut 5th Street. 5th Street terminates at a T-intersection with Old Cascade Highway.

5th Street has a section that varies between US 2 and Old Cascade Highway. At US 2, 5th Street has two painted 12-foot lanes with right turn slip lanes in either direction connecting to US 2. The painted right turn slip lanes vary from 22 to 24 feet wide. There are two marked refuge islands between the slip lanes and the main lanes of 5th Street. No marked crossings are present in any direction at this intersection. At the bridge over the Skykomish River, two one-foot shoulders and two 11-foot lanes are striped. Near the intersection with West Riverside Drive, the section expands to two 22.5-foot lanes.

Old Cascade Highway

Old Cascade Highway runs east-west through the Town. This 30-foot wide section with a centerline stripe is a two-lane roadway with intermittent curb and gutter. Overhead power, and lighting is present off the shoulder of the roadway with guardrail at the crossing of Maloney Creek. Old Cascade Highway serves the majority of housing in Skykomish. The roadway is posted with a regulatory 25 mph speed limit within the Town.

The King County Fire District #50 station, Skykomish's School Bus garage, Pump Track and Mountain Bike Park, and a PSE substation (located outside of the Town limits) have driveways to Old Cascade Highway. Old Cascade Highway proceeds to Miller River to the west of Skykomish, and Skykomish State Airport to the east. Outside of the western Town limits, Old Cascade Highway ends at a dead-end where a previous flood washed out the roadway crossing of the Miller River. King County is installing a dead-end



roundabout at the washout, improving existing culverts, and does not intend on re-connecting Old Cascade Highway.

Other Town Roadways

In the downtown area, between the BNSF railroad and Skykomish River, most of the roads consist of two unmarked lanes, varying between 20 and 38 feet wide, curb-to-curb, with on-street parking in many locations. Many streets in the downtown area are fronted by curbs with sidewalks on at least one side of the road. Parking is a mixture of parallel and head-in spaces. Most of the head-in spaces are marked and the stalls are a typical 18 feet long by 9 feet wide. Head-in stalls are marked on Railroad Avenue and 6th Street, near the school. Much of the parallel on-street parking is oversized and could be an opportunity to increase bicycle space or traffic calming in the future.

3.3 Existing Traffic Volumes

Traffic volumes in the Town of Skykomish were obtained in 2018. Counts were obtained at three locations, two on classified collector roadways and one on the local road that connects these collectors to the Town school. Those counts are summarized in Table 1, below. Counts are shown at the locations obtained in Figure 2.

Table 1. Traffic Count Summary¹

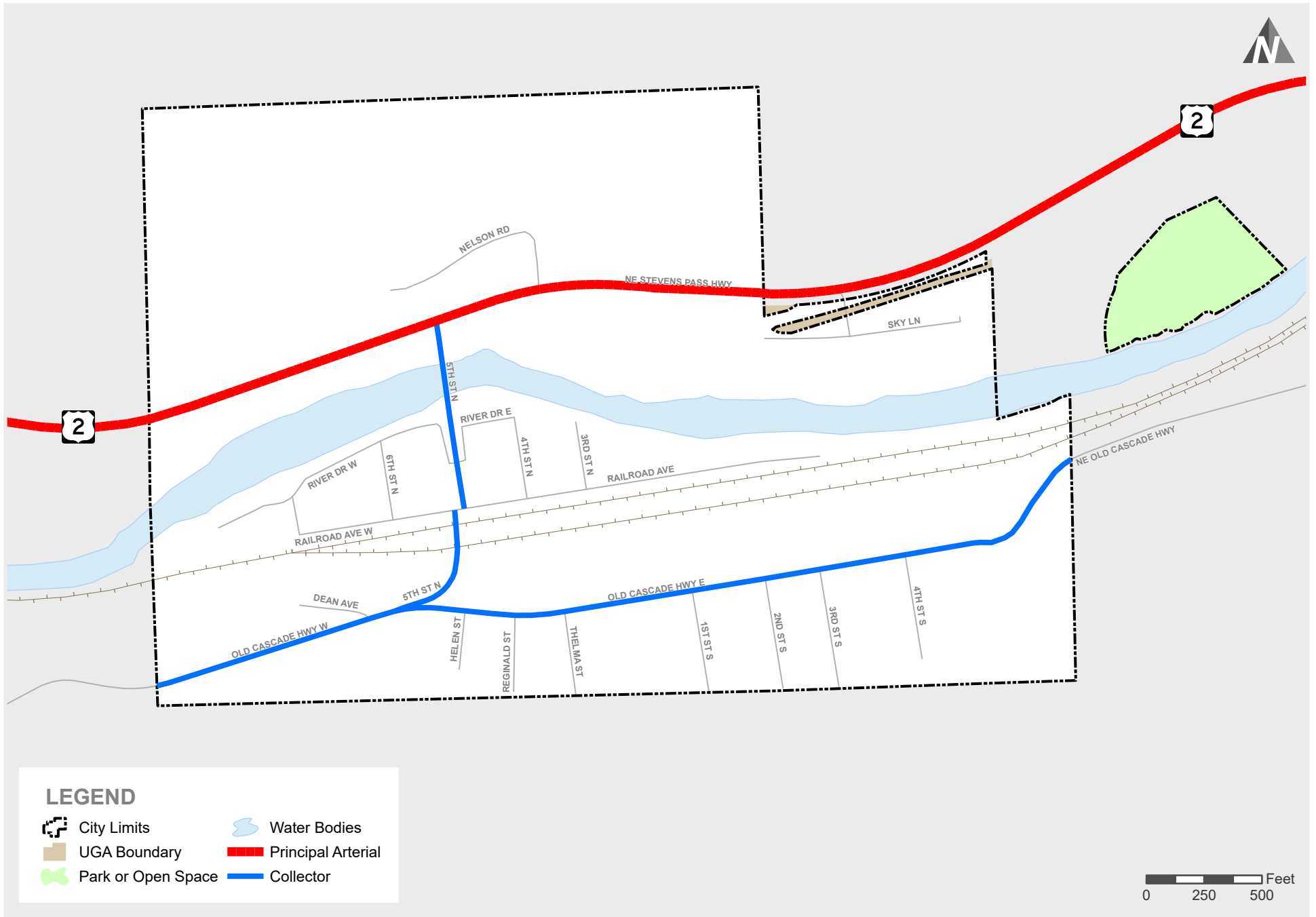
Location	Direction	Total Trips	% Trips	AM Peak Volume	PM Peak Volume	AADT ²
E Railroad Ave & N 6th St	EB	46	42.2	4	7	109
	WB	63	57.8	18	11	
5th St N & E Railroad Ave	NB	253	40.9	20	27	619
	SB	366	49.1	37	36	
E Old Cascade Highway & Reginald St	EB	184	184	24	23	366
	WB	182	182	16	23	

Source: All Traffic Data

1. Traffic data was collected on Wednesday, November 14, 2018.

2. Average Annual Daily Traffic.

WSDOT maintains records of traffic volumes on US 2. Historically those volumes have hovered around 6,100 AADT, in both directions. The peak hour report does not include data at Skykomish. Just east of Skykomish at milepost 50.12, 5,800 AADT was recorded, with 3.43% single unit trucks, 2.38% double unit trucks, and 0.27% triple unit trucks. West of Skykomish before milepost 43.32 in 2016, 6.22% single unit trucks, 4.93% double unit trucks, and 0.44% triple unit trucks were seen with 6,400 AADT.



Roadway Functional Classification

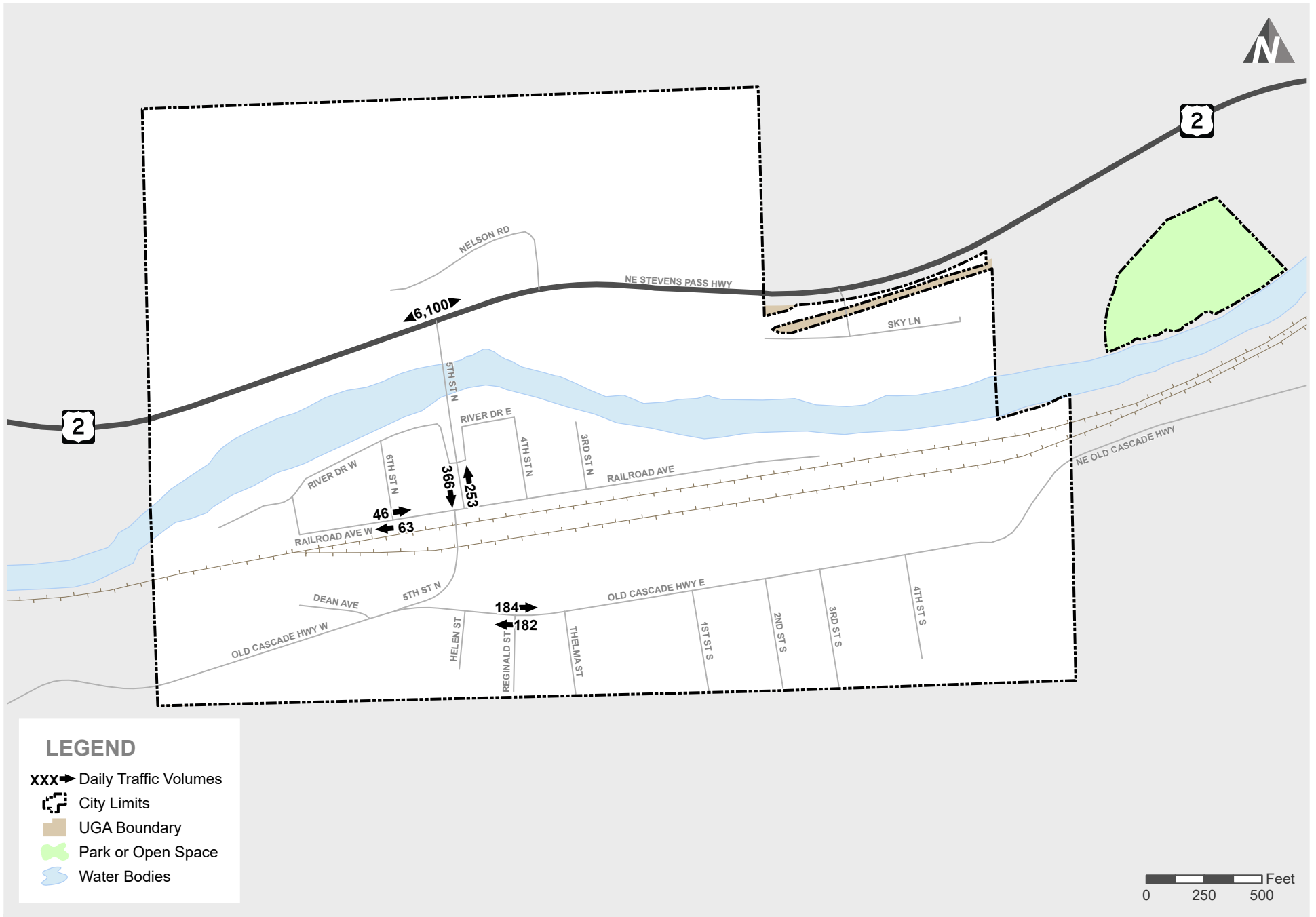
City of Skykomish On-Call 2018

M:\18\1.18278.00 - City of Skykomish On-Call 2018\GIS\ArcGISPro\Skykomish_Fig_Export\Skykomish_Fig_Export.aprx

FIGURE



1



Weekday Daily Traffic Volumes

City of Skykomish On-Call 2018

M:\18\1.18278.00 - City of Skykomish On-Call 2018\GIS\ArcGISPro\Skykomish_Fig_Export\Skykomish_Fig_Export.aprx

FIGURE



3.4 Existing Traffic Operations

On local and collector roads in the Town of Skykomish, traffic volumes are very low. The highest volume local roadway has an average daily traffic volume well under 1,000 vehicles per day. All Town roadways currently operate at a LOS A. Intersection operations were not evaluated for this transportation plan. The measured roadway traffic volumes in Table 1 and observed traffic operations have not identified any local roadway intersections that are a concern based on volume or delay.

The intersection of US 2 and 5th Street, which is outside of the Town's jurisdiction, does have more significant delay at certain times of day and year. Proposals to address this delay, partnered with WSDOT, is addressed in Section 5.

At the intersection of Old Cascade Highway and 5th Street, Town citizens have noted a concern with the number of U-turns to return to US 2. The concern with this traffic maneuver is based on safety, rather than impact on level of service or delay. This maneuver typically occurs during times when US 2 experiences congestion related to recreational opportunities, especially weekends. Improvements to safely accommodate these movements would need to accommodate ladder trucks and snow cleaning machines from King County Fire Station #50, located on the south side of the intersection.

3.5 Level of Service Standards

Level of Service (LOS) standard in the Town of Skykomish is defined in the Comprehensive Plan as LOS C, with the exception of US 2 (T-P35). The existing traffic volumes on Town roads, other than US 2, are very low. Forecasted land use growth in the Town, even with an expansion of recreational opportunities, is expected to fall below the level that would create level of service issues based on the Town's current LOS standard. To better reflect the manner in which the Town's transportation services its citizens and the public, a multi-characteristic roadway rating will be developed by 2020. Multi-characteristic level of service includes presence and comfort of active transportation facilities, networked connectivity (motorized and active), pavement quality and access to US 2, as well as traffic volume, in the assessment of service for local roadways. Qualitative ratings are converted to a points "score" and roads that meet the minimum points threshold are considered to be in compliance with LOS standards.

3.6 Traffic Safety

WSDOT collects annual crash data on all public roads in the state, including those within the Town of Skykomish. Within the last five years, seven crashes were reported within Town limits. Five of the reported crashes occurred on US 2 and two occurred at 5th Street. The crashes on 5th Street both occurred at intersections; West River Drive and Old Cascade Highway.

Two of the seven crashes resulted in reported minor injuries. One minor injury crash occurred on US 2, and the other at the intersection of Old Cascade Highway and 5th Street.

The crash rates on Skykomish streets do not require further examination, based on guidance in the MUTCD and AASHTO Highway Safety Manual. Development of a Local Road Safety Plan may be considered by the Town in the future as transportation demand grows.

3.7 Active Non-Motorized Transportation

The following describe the Town's existing bicycle and pedestrian infrastructure. The Town's roadways, except US 2, are posted with a regulatory 25 mph speed limit. These low volume, low speed residential roadways are conducive to an environment where pedestrians and bicycles can share the road with vehicles with appropriate markings and signage, as well as public awareness of the presence of mixed modes. The crossing of the BNSF railroad does not currently have pedestrian or bicycle facilities. Active transportation modes are only restricted from crossing by the automatic vehicle gates. Cyclists must



share the lane of 5th Street with vehicles and pedestrians have narrow shoulders on both sides of 5th Street, as narrow as 1-foot, on which to walk outside of the vehicle travel lane.

3.7.1 Pedestrian Facilities

Town of Skykomish includes approximately 6,500 ft of sidewalk. 5th Street is fronted by 5-foot wide sidewalks on both sides through the Town, from the south side of the Skykomish River to the intersection with Old Cascade Highway, except over the BNSF railroad. The 5th Street bridge has sidewalk only on the west side of the road which has a clear space of approximately 3 feet, with some wider sections in between bridge girders. Railroad Avenue has 5 to 6-foot wide sidewalks on at least one side, with some wider sections at businesses with sidewalk improvements and overhangs, between a point 500 feet east of 3rd Street to Skykomish school, near Riverside Drive. 6th Street, Riverside Drive (east and west) and 4th Street all have 4 to 5-foot sidewalks on at least one side. Intersections in Town with sidewalks have ADA ramps. The compliance of these ADA ramps with the latest standards was not evaluated for this report.

South of the BNSF railroad, Old Cascade Highway, from a point 500 feet west of the 5th Street intersection, crossing Maloney Creek, to the intersection with Thelma Street has a 5-foot sidewalk on the north side of the street. The Town post office is located on Thelma Street. Thelma Street has 5-foot sidewalks on the east side of the road. There is a 250-foot section of 4-foot sidewalk fronting some homes on the south side of Old Cascade Highway from a point 750 feet east of the 5th Street intersection.

Figure 3 depicts the existing pedestrian and trail facilities in Town.

Crosswalks

At 5th Street, just north of the Skykomish River bridge, the width of the roadway is approximately 32 feet. There is no marked crossing of 5th Street at this location, but this represents the narrowest pedestrian crossing north of the Skykomish River. There are no marked crossings of US 2 within the Town limits.

There is a marked crosswalk at West Riverside Drive and 5th Street, connecting sidewalks on Riverside and 5th to the pedestrian walkway on the west side of the 5th Street bridge. There is no marked crossing on the east side of this intersection, as there are no pedestrian facilities on the east side of the bridge or the east and north side of East Riverside Drive. There is no marked crossing of 5th Street at Riverside Drive.

The intersection of 5th Street and Railroad has marked crosswalks in all four directions. The marked crossings range from 40 to 55 feet in length, measured between curb ramps. Crosswalk markings consist of 4" white lines spaced 8-feet apart between curb ramps.

The crossing of the BNSF railroad does not have a designated pedestrian facility. The railroad crossing panels are 40 feet wide on the north side of the crossing, near Railroad Avenue, and 32 feet wide on the south side of the crossing, nearer to Old Cascade Highway.

There is no marked crossing on the south side of the BNSF railroad between the sidewalks that are present on both sides of 5th Street. The crossing is 30 feet just south of the railroad gate. A marked crosswalk is present in the east-west direction at the intersection of 5th Street and Old Cascade, and across the right turn slip lane to westbound Old Cascade. The crossing of 5th Street is 92 feet wide and the crossing of the slip lane is 34 feet wide. The refuge island between the slip lane and 5th Street is a marked island.

A marked, 30-foot crossing of Old Cascade is present at the intersection with Thelma Street, completing the pedestrian network to the Post Office. A marked crossing of Dean Avenue connects sidewalks along Old Cascade Highway.



3.7.2 Bicycle Facilities

The Town of Skykomish does not have designated on-road bicycle facilities. The Town has a Pump Track attraction for bicyclists on the south side of the BNSF railroad and is working with the US Forest Service on the development of a regionally significant mountain bicycle facility at the Maloney trailhead.

The Town's roads are all low-volume roadways with 25 mph posted speed limits. Roads with these characteristics are ideal for shared spaces and mixed traffic, although these mixed traffic facilities are not as comfortable for less confident riders, including older and younger riders.

3.7.3 Trail Network

A crushed rock trail measuring 650 feet in length follows the south of the South Fork of Skykomish River from 5th Street to the end of W Riverside Drive. This riverfront improvement is accessible for users of all ages and abilities via an accessible ramp with a three-foot width from West Riverside Drive near the 5th Street Bridge. The trail provides access to the Skykomish River near the 5th Street Bridge.

The trailhead for the Maloney Creek Interpretive Trail, which is the site for the proposed expanded Maloney Peak hiking and bicycle trail, is located on Thelma Street. This trail is a short trail within the Town limits, but is expected to see an increase in demand with the proposed expansions. The expanded trail would take the trail outside of the Town limits.

Several other trails exist in the vicinity but are not located within the Town limits. No other trailheads are located within the Town.



Existing Active Transportation Network

City of Skykomish On-Call 2018

M:\18\1.18278.00 - City of Skykomish On-Call 2018\GIS\ArcGISPro\Skykomish_Fig_Export\Skykomish_Fig_Export.aprx

FIGURE



3.8 Transit Services

There is no direct transit service to the Town of Skykomish. Community Transit has one bus line, Route 270/271, which provides service between Gold Bar and downtown Everett. This line terminates at the Gold Bar park and ride, located approximately 21 miles east of Skykomish on US 2. The Town of Skykomish is in King County, so extension of this transit line would likely require coordination with Community Transit and King County Metro. The nearest transit service east of the Town is in Leavenworth, provided by Link Transit, over 50 miles east along US 2 and through Stevens Pass.

King County Metro provides Community Van service to the Town. This Alternatives Services program relies on volunteer drivers and does not provide scheduled service or commuting service. Skykomish residents would be eligible for Vanpool services through King County Metro, but no established Vanpools currently exist in the Town. Access Transportation, provided by Metro for individuals with disabilities, is available for next-day shared rides or scheduled “subscription” rides. There are several other Human Services Transportation offerings through Metro and other providers that are available to individuals with disabilities and the elderly in Skykomish. These services provide a more “on demand” service, frequently door-to-door, for those without regular access to personal vehicle transportation or fixed route transit service.

Regional transit to and from Skykomish is available through Amtrak, although service is provided via Thruway bus. Busses transport Amtrak customers once a day from Seattle King Street station on the Empire Builder line to the intersection of US 2 and 5th Street.

3.9 Airport

The Town does have a nearby grass-runway airport, airport ID S88, with a runway length of over 2,000 feet. This airport is owned and operated by WSDOT and is open seasonally. There is no tower, and most traffic consists of helicopters for emergency services and firefighting activity. The airport is occasionally used by the town for recreational uses, as there is no perimeter fencing or restrictions on use of the runway area at present.

3.10 Railroad

The BNSF Railroad crosses the Town, paralleling US 2 and Old Cascade Highway. The main tracks of the railroad have one crossing at 5th Street that is controlled by automated gates with flashing lights and audible bells. The Town averages 17 trains per day on the active tracks through town. Because the 5th Street crossing lacks a center median or four quadrant gates, each train must sound its horn when passing through town.

Another crossing of Old Cascade Highway on the east side of town is for service tracks and is not controlled by automated gates. This crossing sees significantly less train traffic.

Trains occasionally stop just east of the town and blocking the nearby crossing of Old Cascade Highway (outside of the Town limits) for hours at a time. Trains do occasionally block the 5th Street intersection, but with less frequency and for shorter durations than the Old Cascade Highway crossing. Trains blocking these crossings is viewed by the Town as a safety concern for emergency access, especially to residential areas with no other direct connection to US 2 or the fire station on Old Cascade Highway.



4 Forecast Transportation Conditions

This section describes the expected impact of future development and region wide growth on the transportation system. Development within the Town of Skykomish is expected to be limited, with tourism and recreation, and the associated expansion of hospitality services, being the primary driver of growth. This forecast guides the prioritization of projects for the Town's six-year Transportation Improvement Plan (TIP).

4.1 Forecast Land Use

The number of residential units in the Town is forecast in the Comprehensive Plan to increase by 10 units by the year 2040. Growth in jobs in Town in official planning forecasts generated by the Puget Sound Regional Council does not account for the currently proposed recreational expansion. In this regional data set, few additional jobs will be created in the Town, keeping the overall traffic growth very low.

Recent events and trends are suggesting that jobs and seasonal housing will increase beyond what was forecast in the Comprehensive Plan. Increases in residential units, especially seasonal rentals, may occur with the future development of Stevens Pass Ski Resort following the sale of the facility to Vail Resorts in 2018. Regionally, several new recreational opportunities in and around the Town will increase the number of recreational visitors to the Town. Continued robust growth in the Puget Sound region will increase the number of recreational visitors along the US 2 corridor. The Town may see significant increases in the hospitality industry, supporting growth in recreation. Employment and land development will focus on restaurants, lodging and recreational equipment rental, repair and sales. This development is difficult to forecast at this time, as many recreational opportunities are still under construction or just beginning their development. As these recreational facilities, both in and outside of the Town, come online, the Town should revisit the forecasted land use and the effect on transportation.

4.1.1 Trails Development and Outdoor Recreation

The Town of Skykomish is anticipating significant growth in the number of trails for hiking and mountain biking, other all-season outdoor uses like river rafting, kayaking, day-use recreation on forest trails and river access points and sled riding. There will also be an increase in the number of users of new and existing facilities as the population of the Puget Sound region continues to grow.

Two new mountain biking trails, Alpine Baldy just outside of Town and Maloney Rock with a trailhead near the existing Maloney interpretive trail on the south end of the Town are anticipated to open by 2020. This trail development is likely to attract a regional and perhaps global audience with a 10-mile loop on Alpine Baldy and an anticipated 3,400 vertical foot drop on Maloney Rock. These trails will be accompanied by several new hiking trails, providing new opportunities to hikers as well. Users of these facilities will access them through the Town of Skykomish and will seek parking, food and beverage, accommodations and equipment purchase, repair and rental. These users will increase traffic in Town and affect future transportation priorities and projects.

In addition to in-Town offerings, nearby hiking trails, mountain biking at Stevens Pass Ski Resort, as well as the anticipated growth in skiing at Stevens Pass Ski Resort from the sale to Vail Resorts, will increase visitor traffic to Skykomish, as well as short-term rentals and lodging. Vehicle traffic related to these new land uses are accounted for in the general growth rate discussed below.



4.1.2 Hospitality Industry

To support existing and forecasted outdoor recreation in and around the Town, growth in the hospitality industry is anticipated. Several empty or under-utilized parcels could be ideal locations for recreation support businesses, such as:

- Restaurants and bars
- Small (under 20 room) commercial lodging businesses and short term online (AirBNB and VRBO) residential rental properties
- Recreational equipment rental and retail for river uses, mountain biking, skiing and hiking

Growth related to these businesses would have an impact on the Town’s transportation system, affecting short-term parking availability in certain areas of Town, access to US 2, movement of residents around Town and wayfinding, especially during peak seasons. The forecasts in this Chapter attempt to capture these effects for motor vehicle traffic with assumed new land uses. Growth in active transportation from these facilities may be higher, in terms of percentages, than that of motor vehicle traffic. These forecasts do not include active transportation, but future data collection and land use/traffic forecasting is recommended as new facilities are opened to the public. Vehicle traffic related to these new land uses are accounted for in specific trip generation estimates as discussed in the sections below.

4.2 Forecast Transportation Conditions

Traffic growth rates were calculated based on the historical traffic and population growth rates and forecasted land development. The growth rate was applied to the existing traffic volumes and forecasted traffic from land use distributed to the road segments within the study area.

4.2.1 Population Traffic Growth

To reflect the Town’s future population and traffic growth, a Blended Growth Rate was used to calculate the traffic growth rate. Blended Growth Rate is based on the historical traffic and population change as well as population projections, shown in the equation below:

$$\text{Traffic Growth Rate} = \frac{\text{Historical Traffic Growth Rate}}{\text{Historical Population Growth Rate}} * \text{Forecasted Population Growth Rate}$$

Historical Traffic Growth (HTG) Rate

Since the historical traffic counts are not available for the Town’s street segments, a conservative average annual growth rate of one quarter (0.25) percent was used in the analysis.

Historical Population Growth (HPG) Rate

The population trends from the State Office of Financial Management (OFM) were used to calculate the historical population growth rate in Skykomish. The OFM develops population forecasts for the whole state based on the U.S. Census. The population data is summarized in Table 2.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	Rate
Town of Skykomish	198	195	200	195	200	195	200	200	205	0.4%

1. Source: State Office of Financial Management

Table 2 shows a minimal population growth between 2010 and 2018 with the population decline in 2013 and 2015. Based on the data, the aggregated growth rate is 0.4 percent between 2010 and 2018.



Forecasted Population Growth (FPG) Rate

The population growth is forecasted using Land Use Vision (LUV), a growth projection product developed by Puget Sound Regional Council (PSRC). The model is consistent with VISION2040 growth projections for the region and estimates various socio-economic population indicators, including population change. Population projection data between 2015 and 2040 is used for the analysis. The projections are shown in the Table 3.

Table 3. Projected Population Growth

	2015	2020	2025	2030	2035	2040	Rate
Town of Skykomish	193	202	214	217	220	226	0.6%

1. Source: PSRC, Transpo Group

Based on the data, the Town’s population is projected to increase on average by 0.6 percent each year. This is consistent with the historical growth rate and the Town’s Comprehensive Plan projection of limited forecast population growth.

Blended Population Traffic Growth Rate

Combining the HTG, HPG and FPG, Table 4 shows the resulting forecasted traffic growth rates in the Town of Skykomish due to changes in the Town population. The forecasted traffic growth rate is estimated to be 0.36 percent, meaning that it is expected to be slightly higher in the future than historical rates much like the population rates.

Table 4. Town of Skykomish Traffic Growth Rate

	HTG	HPG	FPG	Blended Growth Rate
Town of Skykomish	0.25%	0.4%	0.6%	0.36%

4.2.2 Forecast Traffic Growth

The number of trips generated by potential future developments in the Town is estimated by calculating the trip generation of each of the developments based on Institute of Transportation Engineers (ITE) Trips Generation Manual. This manual provides research-based projections of trips for various land uses based on certain unit measures, compared to existing facilities. Table 5 summarizes the estimated daily trip generation for specific forecast land uses. These land uses were identified based on land use plan in the Town Comprehensive Plan, and the expected increase in hospitality serving recreational land uses in and around the Town. This forecast represents a mid-range forecast of new land uses in terms of housing units and new businesses. These figures represent the forecasted trips to and from these land uses. Trips may use more than one road segment in Town as part of their trip to and/or from these land uses.

Additional services, such as recreational equipment shops, rental shops, additional motel space and food service, such as fast food or bars, would likely increase the number of trips. This 2040 forecast should be revisited as confidence in forecast land development are identified by the Town. For this analysis, these trips are assumed in the general traffic growth rate.



Table 5. Estimated Daily Vehicle Trip Generations – Forecasted Land Uses

Land Use	New Units		Weekday Daily		Saturday		Sunday	
			Rate	Total	Rate	Total	Rate	Total
Single-Family Detached Housing ⁴	7	DU ¹	9.44	66	9.54	67	8.55	60
Recreational Homes ⁵	3	DU ¹	3.47	10	2.99	9	2.82	8
Motel ⁶	18 ³	Occupied Rooms	4.37	79	8.71	157	5.89	106
High-Turnover Sit-Down Restaurant ⁷	2500	sq ft ²	112.18	280	122.4	306	142.64	357
Total			435		539		531	

Source: ITE Trips Generation Manual (10th Edition, 2017), LU number given below

1. DU = Dwelling Units
2. Sq ft = square feet
3. Number of occupied rooms is based on number of existing and projected housing units
4. LU #210
5. LU #260
6. LU #320
7. LU #932

The forecast growth within the Town limits is estimated to generate approximately 435 trips during a weekday and approximately 540 on weekends. The maximum trip generation rate for each land use is used in the analysis is conservative. The typical traffic volume would likely be below the levels estimated.

4.2.3 Forecast Traffic Volumes

The forecast average daily roadway volumes were calculated for three road segments in the Town of Skykomish. The current traffic volumes were collected in 2018. Future forecasted traffic volumes were developed by applying the blended traffic growth rate (Table 4) to the 2018 volumes. Then, additional trips from the projected developments were added to the forecasted traffic volumes. Table 6 shows the average daily traffic volumes for the years between 2018 and 2040 in the Town of Skykomish. For each forecast year, the three roadway segments are projected to be at a LOS A.

Table 6. Town of Skykomish Forecast Traffic Volumes

Road Segment	Average Daily Traffic (ADT) ¹					
	2018 ²	2020	2025	2030	2035	2040
E Railroad Avenue ³	109	170	170	175	175	180
5th Street North ⁴	619	1,125	1,140	1,150	1,160	1,175
Old Cascade Highway ⁵	366	725	730	740	745	750

1. In vehicles per day
2. Source: All Traffic Data. Traffic data was collected on Wednesday, November 14, 2018.
3. 10% of forecasted land use growth trips were applied to E Railroad Ave, rounded to the nearest 5
4. 85% of forecasted land use growth trips were applied to 5th Street North, rounded to the nearest 5
5. 60% of forecasted land use growth trips were applied to Old Cascade Highway, rounded to the nearest 5



5 Transportation Systems Plan

The Town of Skykomish's current Comprehensive Plan does not include a detailed Transportation Element. The vision and policy goals outlined in this Transportation Plan provide the framework for future development and improvement of the Town's transportation system. This section of the Plan includes the details of improvements to implement access management in the US 2 corridor, improve the Town's pedestrian and bicycle active transportation network, address the missing connection to the ballfield and campground and address connectivity and quality of life concerns related to the railroad.

5.1 Transportation System Planning

Planning for a transportation system of any size requires input and alignment among several policy and planning documents to bring projects from planned, to designed, to reality. Those include:

- Comprehensive Plan: High-level (City Council and public) guiding goals and policies to guide transportation improvements with respect to development and other factors over a 20-year planning horizon.
- This Transportation Plan: analysis to develop strategies and development of a 20-year project list required to implement the high-level efforts of the Comprehensive Plan and other local, state, and federal requirements.
- Skykomish Municipal Code and Roadway Standards: Code and Standards are developed to implement the vision and direction from the Comprehensive Plan, this Transportation Plan, technical and regulatory updates such as Federal ADA guidelines, and other plans and policies. These documents can be the most important elements of ensuring that the Town's vision for its transportation future are implemented.
- Annual 6-year TIP project budgeting and planning to complete individual projects from the 20-year project list over the following 6-year planning period. Projects included in the 6-year TIP project list are selected based on priority, safety, grant potential, potential for developer-driven improvements, and other factors including the potential for consolidation with other projects (sewer, water, storm, etc.) to provide efficiencies and cost savings.
- Individual project planning, design, permitting, and construction: completion of projects in accordance with 6-year TIP and Transportation Plan.
- Day-to-day Operations and Maintenance of the Transportation System.

5.2 Access Management

Access management is the control of the number and location of access points, including driveways and intersecting streets, along a roadway. Access management provides a standardized and expected pattern of access to private property which increases safety for all roadway users, optimizes roadway operations, and protects the value of roadway investments. WSDOT has legislative responsibility granted by RCW 47.50 and WAC 468-51 and 468-52 for access management. Local agencies are partners in this responsibility through the comprehensive planning and design around state highway access in their jurisdictions.

US 2, a WSDOT state highway, borders the Town of Skykomish on the north side through the Town limits. US 2 serves as the primary ingress and egress for all modes of travel in Skykomish. Increasing accessibility and mobility along this roadway and improving the conditions for active modes is in the interest of citizens the Town, and critical for any future development along US 2. The Town of Skykomish has a desire to improve the designed and planned access management along US 2, to accomplish the following goals:

- Increase the reliability of access for Skykomish residents, especially during peak seasons of outdoor recreation, including hiking, mountain biking and skiing
- Improve pedestrian and bicycle safety, comfort and mobility through the US 2 corridor



- Provide the engineering environment to reduce the speed limit on US 2 through the Town of Skykomish, currently posted at 50 mph
- Improve the visibility and aesthetics of the intersection of 5th Street with US 2 as the entrance to the Town of Skykomish for wayfinding and economic interests

Skykomish seeks to coordinate with WSDOT, Puget Sound Regional Council (PSRC) and other transportation and funding partners to implement an access management strategy along the US 2 corridor and meet the goals and vision of the Town. The results of Skykomish and WSDOT's coordination on Access Management is included in the Appendix.

5.2.1 Current Access to US 2

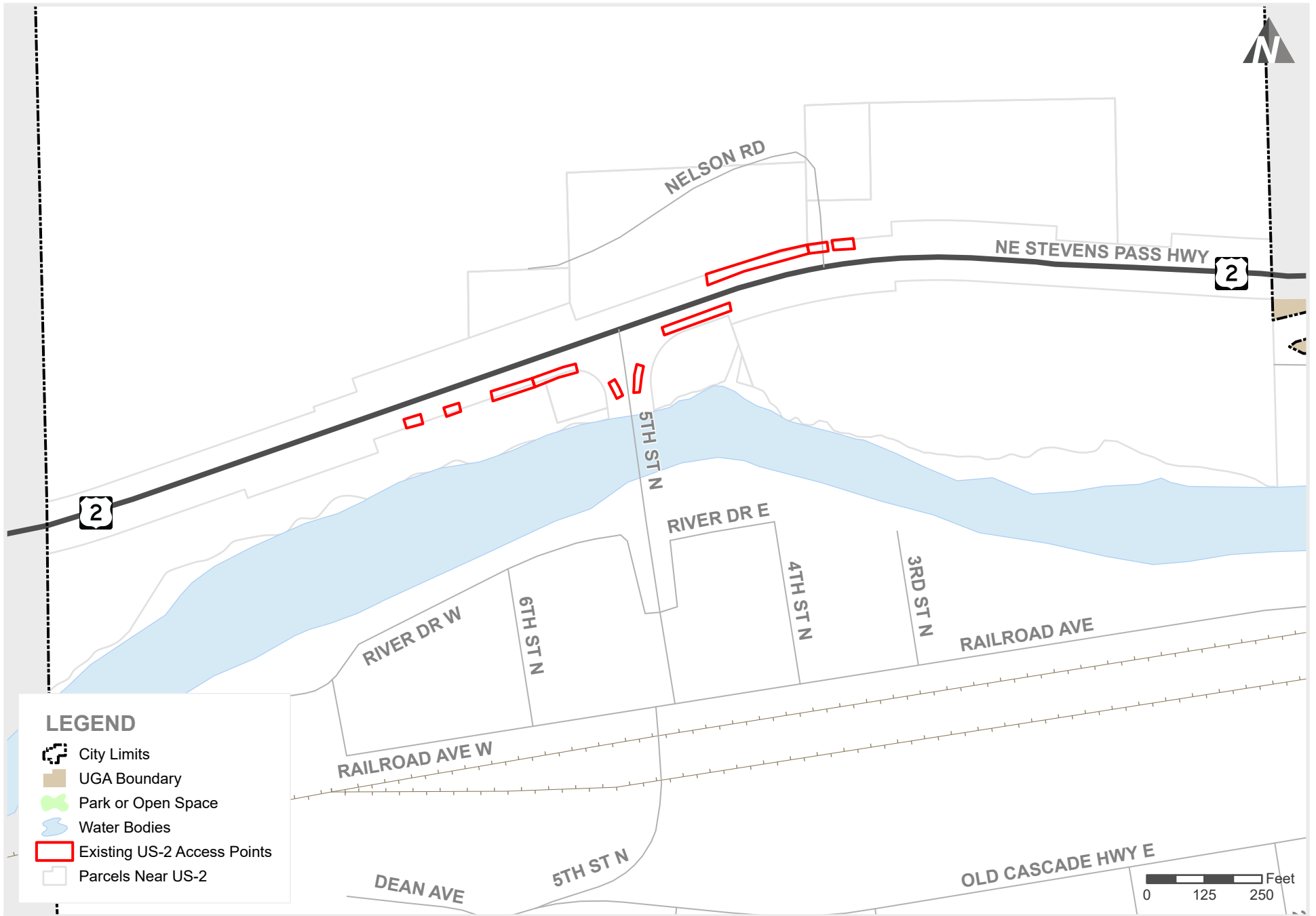
US 2 is currently classified as an Access Classification 1 Rural Principal Arterial within the limits of the Town. Based on this classification, the minimum access spacing is 1,320 feet. There is one intersecting roadway, 5th Street, providing access from the Town to US 2 within the limits. One other connection to US 2 east of the Town does provide alternative access, but this is located ½ mile outside the Town limits and 1 ½ miles from the intersection with 5th Street.

Three other roadways intersect US 2 within the Town of Skykomish:

- Nelson Road – 425 feet east of 5th Street
- Sky Lane – 1,320 feet east of Nelson Road
- Beckler Road/City Ballpark Road – 2,500 feet east of Sky Lane

Other driveways and access points exist within the Town limits. Four parcels with businesses near the intersection with 5th Street have undefined driveways and open access along their frontages with US 2 in excess of 100 feet per parcel. There are two driveways between Sky Lane and Beckler Road, one on each side of US 2, serving several residential properties.

A map of access points, with spacing, in the Town limits is shown in Figure 3. Photos of the current access and conditions fronting US 2 can be found in the Appendix.



Existing US-2 Access Points

City of Skykomish On-Call 2018

M:\18\1.18278.00 - City of Skykomish On-Call 2018\GIS\ArcGISPro\Skykomish_Fig_Export\Skykomish_Fig_Export.aprx

FIGURE



5.2.2 Skykomish Access Management Plan for US 2

To support the vision of the Town of Skykomish for transportation improvements, access management in the US 2 corridor will be a key component. The Town will utilize a three-step strategy to guide future improvements, projects and development in this corridor. Those steps are:

- Establish and enforce design standards for future development on US 2
- Construct a roundabout at the intersection of 5th Street with US 2
- Require future development to produce studies of the impact on traffic and US 2 access for vehicular and active transportation, as well as a plan for addressing impacts

The construction of a roundabout is the primary goal for the Town's access management of US 2. The Town will apply for grant funding from the Puget Sound Regional Council in 2019 for final design and construction of this roundabout. The roundabout would include median and roadside improvements, including driveway consolidation, which would provide the access management the Town and WSDOT desire in the US 2 corridor. The roundabout would reduce speeds through the Town, while maintaining regional mobility.

If a roundabout is not feasible in the 3- to 5-year planning horizon, due to an unsuccessful grant application or other complications with the project, the Town will seek to make phased improvements to US 2 that are forward compatible with a future roundabout. These improvements are required to begin to proactively manage access within the Town of Skykomish. These phased improvements would include medians, vegetated amenity zones and driveway consolidation along US 2. Vegetated areas, in the median and on the roadside, can serve as aesthetic improvements, drainage facilities, snow management areas, afford opportunities for increased wayfinding and signage and provide a buffer to increase comfort of active transportation improvements. Additional information on these phased improvements can be found in Section 5.4.2 of this Transportation Plan.

5.2.3 Roadway Standards for US 2

The Town of Skykomish has developed and adopted Roadway Standards for future improvements in the US 2 corridor as of November 2018. Roadway standards for US 2 are consistent with the Town Comprehensive Plan Policies T-P11 and T-P12. These Standards will apply to public and private projects that affect the right of way and the transportation facilities in the US 2 corridor. The Roadway Standards establish requirements for sidewalks and other bicycle and pedestrian accommodations in the corridor. The Standards require development setbacks from US 2 to provide space for active transportation, vegetated strips for aesthetics and drainage, snow management and a roadway environment that encourages a reduced speed. The Standards enforce a minimum spacing from 5th Street to accommodate the future roundabout and enforce the guidelines of WSDOT's access management for other driveways and access points to US 2. The typical section from the Roadway Standards that guides these improvements is included in the Appendix.

Future development will be reviewed against the requirements of these standards. Project evaluations will consider the potential impact of a project to active transportation crossings of US 2. A fee-in-lieu program and design requirements for development could include a future high comfort US 2 crossing for active transportation modes. These design standards will provide the Town with a passive process to enforce the access management requirements for US 2, rather than a resource-intensive process that requires active enforcement by police officers.

The Town intends on expanding these Roadway Standards to the entire Town. Roadway Standards applied to local roads, as well as US 2, will help to expand the Town's active transportation network through developer frontage improvements and mitigation, as residential and commercial properties are improved upon and change use within the Town.



5.2.4 Future Development on US 2

The Town of Skykomish will be reviewing the potential impacts to traffic, both in town and on US 2, from future development. A traffic impact analysis (TIA) will be required, especially for any additional proposed access points to US 2.

Skykomish may elect to develop a traffic impact fee (TIF) for development which can be used to construct future transportation improvements with multi-modal benefits. These may include in-town improvements, such as additional roundabouts and other intersection controls or pedestrian and bicycle improvements to complete the active transportation network. Improvements constructed with TIF funds may also improve the Town's US 2 corridor, helping to complete the projects that will facilitate the Town's vision for a US 2 corridor with lower speed, improved accessibility for residents and visitors and improved comfort for active transportation along and across US 2.

5.3 Active Transportation Systems Improvements

Active transportation in and around the Town of Skykomish represents a significant opportunity for improvement, giving residents and visitors a modal choice to get around town, access year-round recreational opportunities, facilitate development of a hospitality industry, and allow the Town to effectively manage parking for recreational tourism and hospitality patrons. The Town's downtown reconstruction effort, through environmental remediation, has given the Town a core of sidewalks and bike-friendly streets as a starting point to develop an active transportation network. This network will need to address three important barriers to comfortable active transportation circulation around the Town:

- The 5th Street crossing of the railroad tracks
- Connecting the Ballpark and campground to Town
- Crossing US 2 to hospitality businesses and future development sites

The Town's future development will be dependent on the recreational tourism and associated hospitality supporting active uses; hiking, river rafting and kayaking, mountain biking, sled riding and skiing. Improvement of the active transportation network will allow the Town to accommodate this increased demand with less capital investment and a more feasible level of future maintenance commitment. The development of the Town's active transportation network will help to facilitate other long-range goals, such as access management on US 2 and construction of a roundabout at the intersection of US 2 and 5th Street. The Town of Skykomish envisions an active transportation network that provides a comfortable bicycle and/or pedestrian facility within ½ mile of all areas of the Town.

The vision of the future active transportation network for the Town of Skykomish is mapped out in Figure 4. This bicycle and pedestrian vision is based on ideal circumstances and the final routing or form of active transportation facilities may differ based on the availability of resources for capital improvements and environmental complexities of projects such as a crossing of the South Fork Skykomish River.

5.3.1 Active Transportation Connectivity within Town

There are several opportunities to increase the active transportation connectivity within the Town of Skykomish, which are identified in Figure 4. These routes are those that improve the network connectivity for day-to-day activities in the Town, such as access to school, connecting residential areas to the downtown across the railroad at 5th Street, access to the ballfield and campground for recreation and youth sports, and access to the library. There are opportunities for improvements which can be made with Town resources or grant funding to begin addressing missing connections in the network. Other active transportation projects will require identification of new funding sources, such as grant funding, and coordination with other agencies for permitting of river crossings and railroad crossings. The following describes three candidate active transportation projects within the Town.



5th Street/Railroad Pedestrian and Bike Crossing and Safe Route to School

The 2005 Vision for the Town of Skykomish included a trail connecting the north and south sides of 5th Street across the BNSF railroad, with the goal of increasing pedestrian access to the school. The Town Comprehensive Plan also states a policy goal of addressing this crossing in Policy T-P26. This remains a goal of the Town, and this crossing is identified as one of the major barriers in Section 5.3, as well as a priority project within the pedestrian and bicycle master plan, Figure 4. A project to connect the areas south of the railroad with the school would serve the school and the wider Skykomish community. A grade-separated crossing is likely beyond the capital resources of the Town, but an at-grade crossing with significant, modern safety measures can facilitate a comfortable crossing for all modes, ages and abilities and increase the connectivity and accessibility for all.

A crossing of the railroad tracks, with pedestrian facilities that connect to the Skykomish school, and connect the library and residential areas south of the railroad tracks, would be eligible for Safe Routes to School funding through WSDOT's biannual program. There are already some sidewalks existing along this route, which would allow completion of the route by filling gaps.

Ballfield and Campground Access

The Town of Skykomish owns and operates a ballfield and campground on the east side of Town. The ballfield, campground and adjacent playground were improved in 2017 and 2018 and are the site of several Town events and festivals throughout the year. Currently, the only access to the ballfield and campground is via a road, City Ballpark Road, that intersects US 2, just over $\frac{3}{4}$ of a mile east (along US 2) of the 5th Street intersection. There is no designated active transportation link to the ballfield and campground. The shoulder of US 2 is narrow between 5th Street and City Ballpark Road and vegetation encroaches on the shoulder in several places. The speed limit on US 2 between the two roads is 50 mph.

The Town would like to have a new active transportation crossing of the South Fork Skykomish River that would allow access for active modes to the ballfield and campground from Cascade Highway or a trail that would extend from Railroad Avenue along the South Fork Skykomish River. Conceptual plans have been developed for this crossing in 2016, but environmental assessment and preliminary engineering design have not been advanced. The crossing would encourage more use of active transportation in Town, reduce the number of required vehicle trips for citizens accessing the ballpark, increase the economic opportunities for hospitality services in Town to campground users and help to complete the Town's active transportation network. A schematic of the draft conceptual crossing and trail alternatives, developed in 2016, is included in the Appendix.

An alternative access to the ballfield and campground would be to extend a walkway, sidewalk or side-path, along the south side of US 2, through Sky Lane and to the ballfield and campground. This path would require a pedestrian connection to cross several properties that are currently not within the Town limits. This pathway would be a less complex access than adding a crossing of the South Fork Skykomish but will require the Town to work with King County and property owners that are not currently within the Town. Annexation of these properties is a possibility to complete this pedestrian connection between Town amenities. This concept is shown in Figure 4.

Old Cascade Highway Bike Lane

The Town's Comprehensive Plan includes a project to install bike lanes on Old Cascade Highway. Bike lanes could be implemented through narrowing of lane widths, restricting on-street parking and painting of designated facilities. The existing lanes of Old Cascade Highway are wider than the current practice for roadway lanes, but bike lanes in both directions may not be feasible with the current paved width. Other options could include a bi-directional bike path on one side of the road or bike lanes on one side of the road serving the primary access routes to the Maloney trailhead, and shared space markings in the other direction. This concept is shown on Figure 4.



5.3.2 Active Transportation Connectivity to Trails

The Town's recreational facilities on the south side of the tracks, including the in-development mountain biking and hiking trails around Maloney Rock, are separated by the railroad from the parking, hospitality businesses and parks on the north side of Town. The improvement of the crossing of the BNSF railroad at 5th Street will be a key component of the active network connection to trails.

Future development of the active transportation network will need to provide access to these in-development facilities. As several of these facilities are conceptual, specific projects providing access to new trailheads and new sites have not been identified for this Transportation Plan. As these projects become more detailed, new projects will be added to this Plan and the Town's TIP which support the overall active transportation network and connectivity to trails.

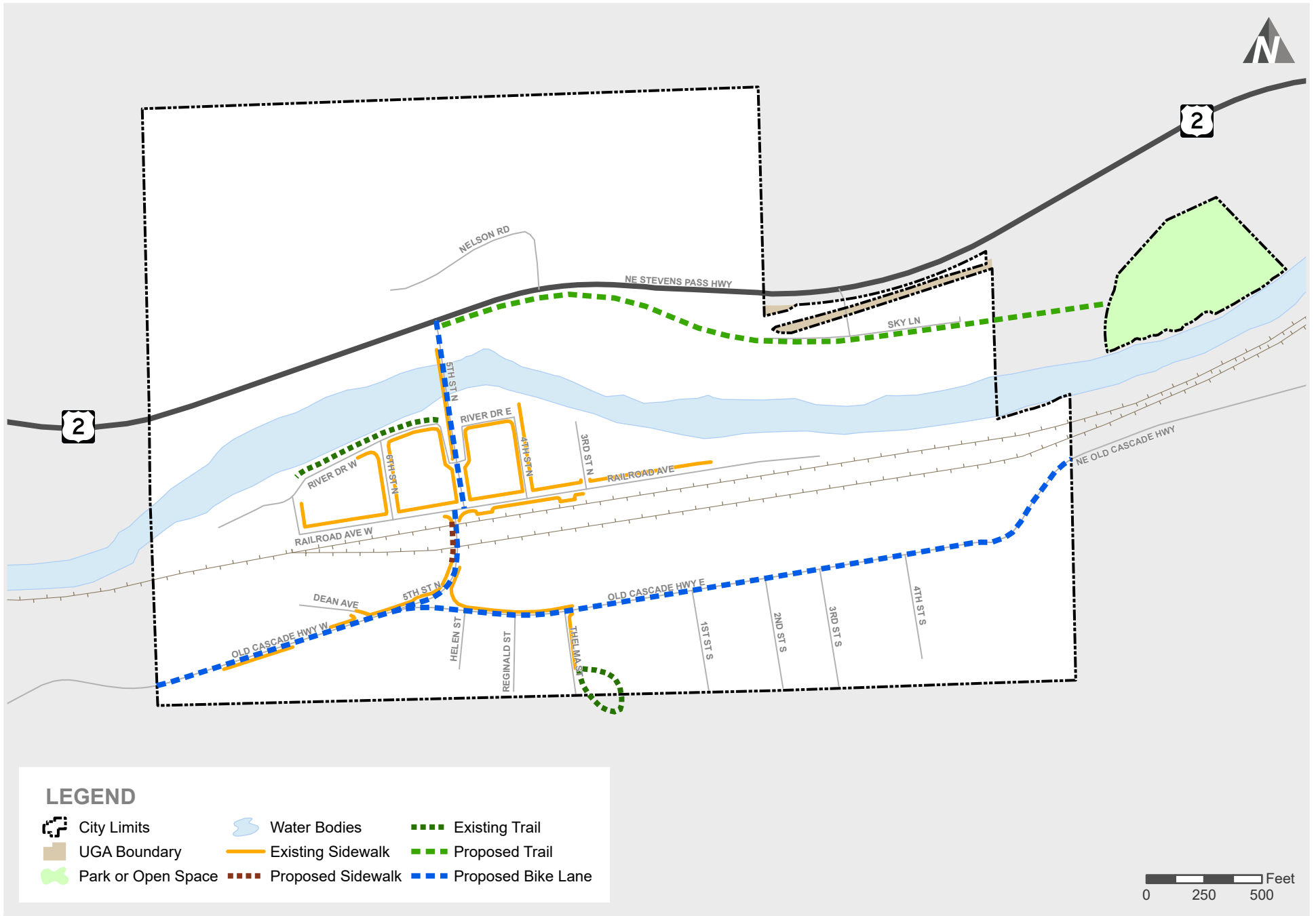
5.3.3 Wayfinding and Signage

As the Town's bicycle and pedestrian network expands, and the in-town and nearby recreational facilities improve, wayfinding will become a critical element of the Town's active transportation network. Consistent signage that directs residents as well as visitors to Town facilities, parks, trailheads, business districts and parking will be a significant component in support of the network. As part of a larger effort to improve signage throughout the Town, a conceptual plan for wayfinding signage related to active transportation facilities will be developed. This is included in the improvements described in Section 5.4.4.

5.3.4 Miller River Washout Active Transportation Link

In 2011, a flood event on the East Fork Miller River destroyed the bridge over the river, cutting off the eastern and western portions of Old Cascade Highway. Although this road and the residential community to the west of the washout are outside of the Town of Skykomish, the residents of that community would, prior to the flood, frequent the businesses and activities in Skykomish. King County currently does not have plans to restore the bridge and is installing turn-arounds at either end of the former bridge on Old Cascade Highway.

It is in the interest of the Town of Skykomish to restore a crossing, even just for active transportation modes, of the East Fork Miller River at this location. The Town will continue to work with King County to develop a strategy for funding this improvement and restoring the connection to the residential areas west of the Town.



Future Active Transportation Network

City of Skykomish On-Call 2018

FIGURE



5.4 Transportation System Improvements

The most significant transportation system improvement for the Town of Skykomish is to address the intersection of US 2 and 5th Street. This is consistent with the Town's Comprehensive Plan goals and policies, specifically T-P36.

5.4.1 US 2 and 5th Street Roundabout

The Town of Skykomish's vision for the intersection of US 2 and 5th Street is a roundabout. A roundabout is preferred by both the Town of Skykomish and WSDOT to a signalized intersection at 5th Street. A roundabout balances several objectives for the corridor, including safety, local access, traffic operations and regional impact to US 2. Other benefits of a roundabout include reduced long-term maintenance costs, increased mobility and corridor reliability, and potential for speed limit reduction and increased active mode safety. The splitter islands required for the roundabout would provide much of the desired access management through the Town's limits on US 2. The roundabout would also allow the Town to improve the aesthetics of the Town entry point, install gateway signage and improve visibility of the Town to improve the economic viability of hospitality businesses in Town.

A roundabout would help the Town with addressing the pedestrian and bicycle crossing and connectivity barrier created by US 2. Roundabouts have shorter crossings and single-directional approaches of vehicles, limiting conflict points, increasing comfort for active transportation modes and limiting exposure to traffic. Roundabouts are also locations where drivers are more expectant of other modes, as opposed to a mid-block crossing in an environment that has a more rural highway design, as is the existing conditions on US 2.

The Town approached WSDOT in 2012 to discuss a roundabout, and again in 2017. Through these conversations, and a FLAP grant in 2017, WSDOT developed a conceptual layout of this roundabout and determine the feasibility of its construction. The capital cost and associated with this roundabout will require the Town to work with funding partners to be selected for grants to complete final design and construction of the roundabout. The WSDOT conceptual design and results of the 2017 coordination with the Town of Skykomish are included in the Appendix to this Transportation Plan.

5.4.2 Other US 2 Improvements

Because the Town of Skykomish is reliant on funding partners to construct a roundabout at 5th Street and US 2, the following are alternative projects which represent a phased approach to improving US 2. These projects allow the Town to be working towards the same goals as the roundabout, and remaining forward-compatible, while carrying a lower capital cost to the Town and funding partners.

US 2 Medians

A median, constructed of a curbed section and filled with vegetation, would replace the existing two way left turn lane through the Town. At 5th Street, the medians would become the splitter islands that provide access into the roundabout at this intersection. Medians provide a calming effect on traffic and an opportunity for the Town to establish an aesthetic that raises awareness of the presence of the Town. Gateway signage can be installed in the median, as long as clear zones, breakaway foundations and other requirements for highway median signage are observed.

Medians on US 2 will restrict left turns, making all driveways to properties that front on US 2 right-in-right-out only. To ensure these properties have access to both directions of US 2, while retaining the access control that the Town desires, left turn pockets may be required in the medians. These left turn pockets will establish predictable and controlled locations for these turns and limit their impact on the highway traffic operations and safety.



US 2 Pedestrian Crossing

The implementation of pedestrian facilities in the US 2 corridor, and the future development of parcels that have frontage on US 2 will increase the need and warrant for a pedestrian and bicycle crossing of US 2. There are no current marked crossings of US 2 within the Town or within ¼ mile of the Town limits. Because of the high posted speed limit on US 2 and the volume of traffic, an enhanced crossing is desirable, with flashing beacons, increased signage, high visibility markings and possibly curbed extensions or other median treatments. The design of this crossing will be determined once other pedestrian facilities are implemented.

A pedestrian crossing could be incorporated into the design of the roundabout at 5th Street. Implementing high visibility crossings at the roundabout will limit the directions that pedestrians must watch for traffic at each crossing, reduce the crossing distance for each leg of the crossing, and provide refuge medians to make the crossing more comfortable.

5.4.3 Compact Roundabouts

At the intersections of 5th Street with Railroad Avenue and Old Cascade Highway, existing stop signs and yield signs control traffic operations. Marked crossings at each of these intersections are present, but are very long. The intersection with Old Cascade Highway has painted, but not curbed, refuge islands for pedestrians. At each of these intersections, several considerations would make these potential candidates for compact roundabouts. Roundabouts would address:

- Reducing crossing distances for pedestrians, especially across 5th Street at Old Cascade Highway and on the walk route to the Skykomish school
- Improve safety of U-turns from traffic coming from US 2 during high congestion
- Potentially improve safety of railroad crossing of 5th Street and contribute to quiet zone

Compact roundabouts would need to be analyzed for potential impacts to the emergency response equipment and school busses present at the south side of the intersection with Old Cascade Highway. Right of way considerations would be significant at the Railroad Avenue crossing, as any expansion of the right of way would impact recently constructed sidewalks, City parks and may affect the character of the downtown area. A feasibility analysis of roundabout control at these two intersections is included in the Town's planned improvements.

5.4.4 Wayfinding and Signage

Skykomish will create a signing master plan, including proposed improvements in the downtown, in residential areas, and along the US 2 corridor. This signing plan will address the wayfinding and Town information needs of two key audiences;

- Visitors and tourists with Skykomish as their destination for all-season recreational opportunities seeking trailheads, river launches, recreation sites and parking
- Regional traffic on US 2 with a destination other than Skykomish

Wayfinding for external, regional traffic is a concern for the Town of Skykomish as it relates to access management on US 2. The Town's economy is primarily reliant on tourism and hospitality. Skykomish is expected to be increasingly reliant on these economic sectors in the future. Tourism and hospitality rely on visibility to regional, passing traffic. A welcoming, iconic aesthetic at the entrance to the Town is a key component of increasing this visibility. Motorist Information Signs (MIS) on US 2 will be an important component of the Town's signage master plan for regional audiences, providing information on services, restaurants and lodging in Skykomish. As regional recreational opportunities increase, and Stevens Pass Ski Resort improves under the ownership of Vail Resorts, Skykomish expects the hospitality offerings and development in Town to increase, and signage will be important to alerting drivers on US 2 of those businesses. The historical lack of these services in Skykomish also makes it more important to have signage, as users of US 2 may be conditioned to not look to Skykomish as a place for services. The Town



and WSDOT discussed signage as part of their 2017 conversation. The results of that conversation related to signage are included in the Appendix to this Transportation Plan. Wayfinding signage within the Town's local streets will allow passive management of parking for recreational tourism without significant enforcement resources. Signage on 5th Street and Cascade Highway which direct visitors to parking shortly after exiting US 2 will limit undesirable parking in residential areas and near businesses.

As the access management on US 2 increases and improvements are made which include medians, planting strips and other open areas within or adjacent to the right of way, Skykomish will add gateway signage, presenting a welcoming message to drivers and reinforcing the message that the part of US 2 that is within the Town's limits is a different environment than the rural highway east and west of the City. This could contribute to the justification for a reduced speed limit through Town, providing a further safety and mobility benefit to Skykomish residents.

The Town will work with WSDOT on other electronic and intelligent transportation system (ITS) signage within the Town limits and in nearby areas of Snohomish and King County. These signs include speed feedback signs and variable message signs (VMS). Speed feedback signs are an effective method of educating drivers about posted speed limits and increasing compliance with those posted limits. If improvements to US 2 for access management do result in WSDOT and the Town of Skykomish agreeing on a reduced speed limit within the town, speed feedback signs would provide passive enforcement that is aligned with the resources of the Town. The use of VMS to provide drivers with information about corridor congestion between Stevens Pass and Monroe, parking availability at Stevens Pass Ski Resort and other information critical to the emerging recreational economy of the US 2 corridor is of interest to the Town. VMS information can encourage drivers to stop in Skykomish for restaurant and retail offerings as an alternative to waiting in traffic when congestion levels are high. Skykomish-based parking with shuttle services to Stevens Pass Ski Resort and other recreational areas can be better managed using VMS, to the benefit of the Town, WSDOT and the US 2 corridor.

5.5 Complete Streets

The concept of Complete Streets is a vision for a roadway network which serves the needs of all users in appropriate networks and is not solely focused on the movement of motor vehicles. The Town of Skykomish will adopt a Complete Streets ordinance before 2020, in order to widen the potential funding partners available to the Town for transportation improvements. This Complete Streets ordinance will reinforce the goals and vision of this Transportation Plan and help to implement the pedestrian and bicycle active transportation network.

Complete Streets does not necessarily mean that all modes are present on all streets. The intent of a Complete Streets policy is to require the consideration of all modes which can be safely accommodated in a corridor, within reasonable means as far as right of way and topographical restrictions are concerned. A Complete Streets review would be part of the development and project review for all transportation-related projects, public and private.

The Complete Streets policy would acknowledge the Town's desire to use best practices and consider Complete Streets improvements as part of maintenance activity on the Town's roadways. This policy would also include provisions to require the maintenance of the character of the downtown area, including streetscaping and aesthetics, the use of specific signage and lighting, in addition to the incorporation of comfortable active transportation facilities for users of all ages and abilities.



5.6 Railroad

The railroad that runs through the Town of Skykomish is owned and operated by BNSF. The railroad consists of three active tracks and one maintenance spur. All four tracks cross 5th Street, just south of the downtown area. The crossing is approximately 130 linear feet along 5th Street and is located 30 feet south of the intersection of 5th Street with W Railroad Ave and 225 feet north of the intersection of 5th Street with Cascade Highway. The two primary tracks also cross Cascade Highway adjacent to its intersection with US 2, approximately 4,000 feet east of the Town limits.

Both crossings are currently managed by automatic gates with flashing lights and audible bells. Neither crossing has a center median, and the gates only manage a single lane of traffic in each direction approaching the crossing. By current Federal guidelines (49 CFR Part 222), trains operating on this track must use their horn when approaching the crossing, despite the presence of the gates. Federal guidelines mandate a minimum decibel level for this horn blow. The Federal guidelines require that this horn blow occur 24 hours a day.

The Town of Skykomish is heavily affected by the noise from the trains and the horn. The Town typically sees 17 to 20 trains per day, freight and passenger rail, occurring at all times of day, and each requiring a horn blast. Most of the existing hospitality businesses in the Town are currently less than one block away from the railroad tracks. Many of the parcels that are currently empty and could be developed into hospitality businesses are within five blocks of the railroad tracks and well within the noise-affected area. The railroad noise will have an impact on the future economic viability of hospitality businesses in Skykomish.

Stopped trains occasionally block one or both crossings. These stoppages are typically short, but have, in the past, extended to multiple hours and sometimes days. With the washout at the Miller River cutting off Cascade Highway to the west of the Town, the residential areas of Skykomish south of the railroad, as well as King County Fire District Station #50, which is located south of the railroad, are severely restricted by trains blocking the 5th Street and/or Cascade Highway crossings. This is a potential safety hazard, both for residents of Skykomish and the region which is served by Station #50.

5.6.1 Railroad Quiet Zone

The implementation of a Quiet Zone through the Town of Skykomish requires coordination with the Federal Railroad Administration (FRA) and the BNSF railroad. The FRA requires that all public crossings within a quiet zone meet minimum safety requirements that are in excess of the presence of automated gates and signals. These features may include medians to prevent vehicles from driving around lowered gates and four-quadrant gates, adding gates to wrong-way approaches to prevent those crossings. The Town will seek funding partners to develop these treatments and partner with the FRA to establish a quiet zone through downtown Skykomish.

Improving the safety of this crossing is consistent with the Town Comprehensive Plan, Policy T-P19. Implementation of safety measures for vehicles at the crossing should be coordinated with potential pedestrian and bicycle safety and access improvements described in Section 5.3 to limit the construction impact to the railroad and 5th Street.

5.6.2 Blocked Railroad Crossings

Both railroad crossings are occasionally blocked by trains, restricting vehicles' ability to pass. This is a concern for mobility and circulation and is a safety hazard for residential areas south of the railroad if both crossings are blocked. Blocking of both crossings is rare, but the Town will seek to coordinate with BNSF to ensure mobility and safety of access across the railroad.



5.7 Parking

Currently, the Town of Skykomish has ample parking for residents and day-to-day activities in the Town. Future expansion of hospitality offerings, all-season recreational opportunities at the South Fork Skykomish River, Maloney Peak and nearby Stevens Pass Ski Resort may increase parking demand in the Town from visitors and tourists. A parking master plan will be developed by the Town to preserve mobility for residents and limit the impact of parking traffic on the character of the Town. This parking master plan will include an inventory of existing parking, planned locations for potential parking expansions in Town and in nearby recreational areas, and operational and service plans such as parking shuttles. The Town's parking plan will be closely tied to the wayfinding and signage plan and the active transportation plan. With most of the parking demand related to the expansion of active modal recreation, directing these users to parking that requires a short walk or bike on trails or designated facilities to trailheads, river launches, and other recreational facilities is not seen as an undue burden. The Town has limited resources for enforcement, so a wayfinding signage plan that directs visitors that are unfamiliar with the Town and the location of both parking and recreational sites will be critical to maintaining mobility for residents and offering visitors a positive traffic and circulation experience that encourages them to return for future visits.

5.8 Transit

The Town of Skykomish currently does not have transit service. The Town would like to partner with King County Metro to determine the feasibility of a park and ride lot in town. The Town recognizes that extension of bus service would require intra-county agreements. The Town will continue to encourage the use of King County Metro's Alternative Services including Vanpool and Community Van.

Rail service provided by Amtrak on the BNSF railroad does not currently stop at Skykomish. While the Empire Builder line, which provides service from downtown Seattle, across the country to downtown Chicago, Illinois, passes through the Town, the nearest stop for the train is in Leavenworth, 50 miles to the east. Amtrak customers can get bus service to the Town of Skykomish as part of purchasing tickets on the Empire Builder line. The Town would like to partner with Amtrak to determine the feasibility of a train stop in Town, serving residents and the nearby tourism and recreational opportunities.

The Town would like to partner with WSDOT to investigate the feasibility of shuttle service on the railroad to Monroe. This shuttle service would provide accessibility to the retail businesses in Monroe, and allow Skykomish to be connected via connecting routes to the wider Puget Sound area.

5.9 Transportation Improvement Plan

Table 7 and Figure 6 provide a summary of the projects included in the Town's Transportation Improvement Plan. Prioritization of these projects is included in the 6-year TIP, described in Section 6.3.

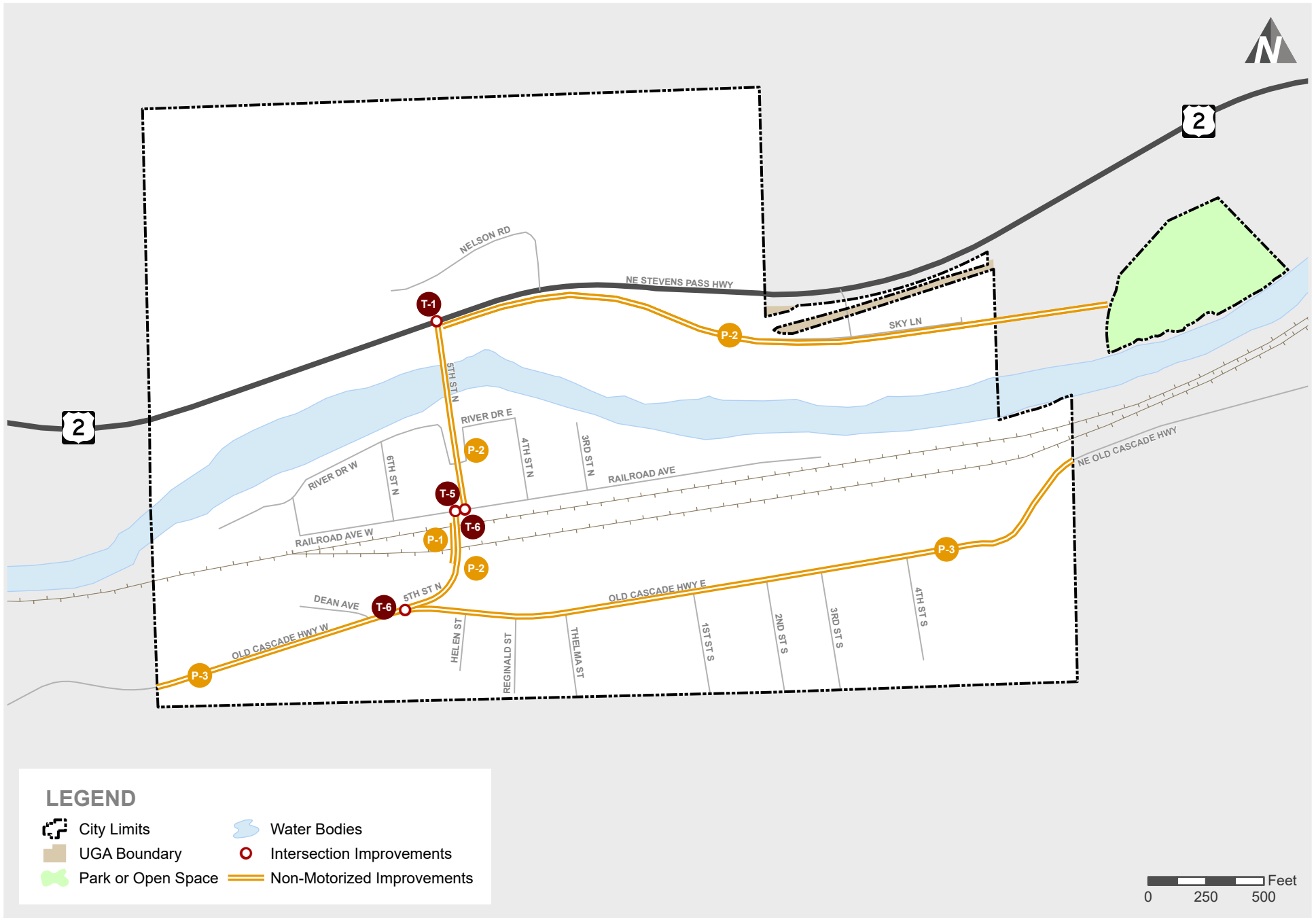
**Table 7. Town of Skykomish Long Range Transportation Plan**

Project	Project ID	Network	Limits	Description	Estimated Cost	Time Frame
US 2 Roundabout	T-1	Roadway	5th Street Intersection with US 2	Install a roundabout at the intersection of 5th Street and US 2	\$4,000,000	Short
US 2 Wayfinding Signage	T-2	Roadway	US 2 within Town limits	Develop a plan for and install gateway signage and improved MIS for Town business community	\$200,000	Medium
Local Road Wayfinding Signage	T-3	Roadway	Town local roads	Develop a plan for and install improved wayfinding signage in Town to guide visitors to businesses, trailheads, attractions and parking	\$100,000	Medium
Parking Study	T-4	Roadway	Town local roads	A parking study to determine the parking requirements for new recreation facilities and alternatives such as shuttle service	\$75,000	Medium
Railroad Quiet Zone	T-5	Roadway	5th Street from Railroad to Old Cascade	Install medians, four-quadrant gates and pedestrian gates to improve safety and implement a quiet zone at 5th Street/BNSF railroad crossing	\$2,000,000	Short
Compact Roundabouts	T-6	Roadway	5th Street from Railroad to Old Cascade	Investigate the feasibility of compact roundabouts at the intersections of 5th Street with Old Cascade Highway and Railroad Avenue	\$75,000	Long
5th Street/BNSF Railroad Pedestrian Crossing	P-1	Active	5th Street from Railroad to Old Cascade	Improve the active transportation crossing of the BNSF railroad at 5th Street, including pedestrian gates	\$1,000,000	Short
Ballfield Access	P-2	Active	City Ballfield Road to 5th Street	Provide active transportation access to the Town ballfield and campground, either through a new river crossing or parallel route to US 2	\$3,000,000	Long



Project	Project ID	Network	Limits	Description	Estimated Cost	Time Frame
Old Cascade Bike Facility	P-3	Active	Old Cascade Highway within Town limits	Provide a designated bicycle facility on Old Cascade Highway within the Town	\$100,000	Medium
US 2 Medians ¹	A-1 ¹	Roadway	US 2 within Town limits	If roundabout is not funded, implement an alternative center median on US 2 to control access, reduce speeds and improve aesthetics and signing opportunities	\$500,000	Short
US 2 Pedestrian Crossing ¹	A-2 ¹	Roadway	US 2 within Town limits	If roundabout is not funded, identify a location and implement a high visibility enhanced pedestrian crossing of US 2	\$150,000	Short

1. These projects are alternatives to Project T-1 and will only be implemented if Project T-1 is not funded



Transportation Improvement Projects

City of Skykomish On-Call 2018

FIGURE



6 Financing and Implementation Program

6.1 Town of Skykomish Funding

The Town of Skykomish has limited resources for public works improvements of the transportation system. The Town's existing economic base is small and has not experienced growth in the last 10+ years. The Town does collect Real Estate Excise Tax (REET) funds and local property taxes, but these funds are limited by the housing stock in Town. Voter approved bonds or levies could be implemented through future elections. WSDOT has indicated that they may partner with the Town for funding of improvements on US 2. Skykomish typically expends under \$50,000 per year for transportation maintenance and improvement.

6.2 Funding Partners and Grant Opportunities

Skykomish is expecting to be reliant on funding partners, including private developers, and grant opportunities to complete the transportation improvements described in this plan. There are many opportunities available for this funding, especially for agencies with populations under 5,000. The following are three of the many opportunities for grants that are available for the Town to implement this Transportation Plan. These funding opportunities typically require a local match of 5 to 20% of the project cost.

Puget Sound Regional Council (PSRC)

PSRC grants funding to Rural Town Centers and Corridors (RTCC program) on a biannual basis, in odd-numbered years. As a Town outside of the Urban Growth Area of the Puget Sound, Skykomish is eligible for this funding program. These grants can be used for project planning and project implementation. Both types of grant funding look to rank projects based on local and regional policy support, such as this Transportation Plan, mobility, accessibility and safety improvements, innovative solutions, and project readiness. Skykomish will look to PSRC's RTCC program to help implement both access management on US 2, including the roundabout at the intersection with 5th Street.

Transportation Improvement Board (TIB)

TIB has multiple grant programs which are awarded competitively on an annual basis for which Skykomish would be eligible. TIB has programs for expanding sidewalks, pavement preservation and rural roadway corridor improvements. TIB awards funding to cities with less than 5,000 population from a separate source than cities with greater than 5,000 population, so Skykomish will not be competing against the larger cities in the Puget Sound, Central Washington or Eastern Washington for TIB funding. Much of the active transportation network improvement, and work in the US 2 corridor to manage access would be eligible for TIB funding and competitive for selection.

Washington Department of Transportation (WSDOT)

WSDOT has several grant programs which would be able to help the Town expand on its active transportation network. The Safe Routes to School program grants funding on a biannual basis to agencies for improvements which expand bicycle and pedestrian routes to schools. The crossing of the railroad at 5th Street, and extending to the school, would be an eligible project for this funding source. WSDOT also administers funding for safety improvements through the Federally-funded Highway Safety Improvement Program (HSIP). This funding is typically based on crash history but can also be obtained for "systemic" improvements if an agency has a Local Road Safety Plan. The Town will consider this funding for future years, but the use of Federal funds can be difficult for small towns.



6.3 Six-Year Transportation Improvement Plan

The Town of Skykomish has a six-year transportation improvement plan (TIP), which includes projects that advance the goals and vision of this transportation plan, and which are achievable given the Town's resources for public works and potential funding partners' anticipated grant award cycles. The TIP includes planning level cost estimates for identified projects to assist the town and partner funding agencies with planning for these capital expenditures. The Town may reduce the number of projects in the TIP or change the anticipated year of construction based on revenue shortfalls or increases or results of grant applications.

The TIP will be updated annually to reflect any completed projects, include new projects and incorporate changes in transportation priorities which may affect projects not yet completed. The focus of the TIP will be prioritized projects in Section 5.9. Annual updates to the TIP will include a review of funding, including grants, and an assessment of the funding impact on projects. The TIP will be presented to the Town Council for public comment, review and adoption by the Council on an annual basis. The TIP will be filed with the Washington State Secretary of Transportation not more than thirty days following its annual adoption by the Council.

Capital expenditures for these projects include costs for a design phase, a right-of-way acquisition phase (if applicable) and a construction phase. Each of these phases of the project can be funded separately, both by the Town and through funding partner agencies.



7 References

Town of Skykomish. *2015 Comprehensive Plan*. Not available online.

Town of Skykomish. *2018 Roadway Standards*. Not available online.

Town of Skykomish. *Town of Skykomish Revitalization, CPAT Roundtable Report*. October 2018. Not available online.

Town of Skykomish. *Vision for Skykomish*. August 2005. Not available online.

Washington State Department of Transportation. *Skykomish Planning Study*. August 24, 2017. Not available online.

Puget Sound Regional Council. *PSRC Plan Review Report & Certification Recommendation*. September 2015. Available: <https://www.psrc.org/sites/default/files/skykomish-compplan-2015-certification.pdf>

Washington OFM, Forecasting & Research Division. *2018 Population Trends*. Available: <https://www.ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/state-population-forecast>



Appendix

Town of Skykomish Photos
Skykomish Planning Study (WSDOT) – 2017
 Access Management Recommendation
 Roundabout Recommendation
 Signage Recommendation
Draft Alternatives for Proposed Trail to Ballfield Park
Roadway Standards Typical Section for US 2



5th Street in Skykomish, looking south from US 2



5th Street in Skykomish, looking north towards US 2



Marked Crosswalk at Old Cascade Highway and Thelma Street



East Railroad Avenue – Sidewalks and downtown businesses



Pedestrian Sidewalk on 5th Street Bridge to US 2



Riverfront Trail at Skykomish River



Skykomish State Airport – Grass Runway



5th Street crossing of BSNF Railroad



US 2 Existing Conditions at 5th Street, looking East



US 2 Existing Conditions at 5th Street, looking West



TRANSMITTAL LETTER TO: Tony Grider, Mayor Cc: Gene Egan Henry Sladek	DOCUMENT TO BE REVIEWED Draft Final Study Recommendations	TRANSMITTAL DATE: August 10, 2017
--	---	---

SUBJECT:
Skykomish Planning Study

COMMENTS DUE DATE:
August 24, 2017

DOCUMENT INFORMATION

The attached review package is the draft final report for the Skykomish Planning Study. The Skykomish Study was funded via a Western Federal Lands Access Program (FLAP) grant. This documentation serves as the final report for grant closeout.

DOCUMENT CONTENTS

1. Basis of Design (BOD) form
2. Recommendations addendum: Access Management, Roundabout, Signage
3. Traffic Memo

DOCUMENT SUMMARY

The attached Basis of Design (BOD) form was used to document the recommendations from a traffic operations study completed by NW Region using a \$100,000 FLAP planning grant. The use of the BOD (with addendum) was approved in draft by FLAP as an acceptable format for documentation to complete the study. In addition to the BOD form, the attached review package includes a three part addendum that provides more details on each of the recommendations made for signage, access management and a roundabout.

REVIEW INSTRUCTIONS

The following instructions are included to help expedite the review process. An electronic comment response form is attached to this review package. Please use the comment response form to convey your comments.

FOR QUESTIONS OR MORE INFORMATION

Brigid Dean
 (206) 464-1266
 deanb@wsdot.wa.gov

Basis of Design

Project Title: 2015 US 2 – Skykomish Planning Study

PIN:

Date: rev 08/01/2017

Basis of Design Phase

(Identify the current project phase)

Planning	X
----------	---

Scoping	
---------	--

Design	
--------	--

Planning BOD - Document Summary and Planning Background

Planning Document Summary

The following Basis of Design (BOD) documentation is the Draft Final Report closing out the Skykomish Planning Study. The Skykomish Study was funded by a FLAP grant. This BOD documentation closes out the grant and the study.

Key Results

- Traffic analysis of existing and future conditions did not reveal a baseline need for prioritized infrastructure improvements at this time.
- If the Town of Skykomish were to take the lead and update their comprehensive plan as well as the necessary steps to obtain community support and funding, then WSDOT would support plans for a roundabout at the 5th Street intersection.
- This project has established an ongoing enhanced collaboration between WSDOT and the Town. Planning staff are continuing to meet with the Town to discuss and build next steps.

Related Planning Background

WSDOT Northwest Region Traffic has been engaged in a dialogue with the Town of Skykomish for several years. Beginning in 2012, representatives from the Town asked if WSDOT (NW Region Traffic Operations) could find a means of slowing down traffic on US2 at the 5th street intersection entrance to the Town.

The Town has stated two primary goals for slowing traffic on US 2 at 5th Avenue:

- to promote economic vitality in the Town of Skykomish
- to promote active transportation and enable bicycle and pedestrian crossing of US 2

Working with the Town of Skykomish and the US Forest Service, WSDOT received a 2014 Washington [Federal Lands Access Program \(FLAP\)](#) grant for \$100,000. The resulting FLAP grant award paid for this 2015 Skykomish Planning Study.

The FLAP grant award includes the grant stipulated goal to improve access to federal lands. This is the third goal of the study.

Related Planning Documents

Town of Skykomish, Comprehensive Plan: 2015

Washington State Department of Transportation, US 2 Route Development plan: 2007

General Project Information

Route Information	SR	NHS (Y/N)	Functional Class	Current Posted Speed	Truck %	Current ADT
	US 2	Y Cascade Loop Stevens Pass Greenway	T2	50 MPH	10	5000
Project Information	Begin MP	End MP	Sub-Program	County	Within City?	Funding
	48.50	50.50		King County	Town of Skykomish	\$100,000.
Project Information	Existing Access Control	WSDOT Planned Access Control	Project Proposed Access Control	Project Delivery Method – Probable	Project Delivery Method - Final	
	Managed Access	Managed Access	Managed Access	Design Build		
Brief Project Description	<p>The Town of Skykomish is interested in promoting economic development for the community. WSDOT analysis of existing and future traffic conditions did not reveal a baseline need for prioritized traffic infrastructure improvements at this time.</p> <p>However, if the Town of Skykomish were to take steps to adopt an economic development plan and other related updates to their comprehensive plan, which when implemented could result in traffic impacts to US 2, WSDOT would then support the Town in possible implementation of a developer-led access management plan for US 2 in Skykomish which may include a roundabout at the 5th Street intersection. WSDOT support is contingent upon several steps to be taken by the Town in advance of any project. WSDOT staff are engaged with the Town of Skykomish in an ongoing discussion of those steps.</p>					
Important Project History or Background Information	<p>This section (Segment 4) of US 2 runs from east of Gold Bar to the Old Cascade Highway, past the eastern town limits of Skykomish (MP 30.28 – MP 50.00): The final segment of the study area climbs into the Cascades. This segment of US 2 is primarily rural, and is characterized by sharp curves, and reduced sight distance.</p> <p>This section (Segment 4) of US 2 is a rural two-lane highway throughout this segment, containing sharp curves and narrow shoulders. This stretch contains a number of left-turn pockets and a two-way turn lanes in the Skykomish vicinity. Shoulder widths range from 0 – 8 feet, with most being very narrow. WSDOT-owned right-of-way varies from approximately 70 to 200 feet in total width. There are no sidewalks, pedestrian paths, signalized intersections, nor interchanges in Segment 4.</p> <p>Source: US 2 Route Development Study, 2007: Segment 4.</p>					

Future and Related Projects	US 2 Safety Corridor (Everett to Stevens Pass) http://www.wsdot.wa.gov/Projects/US2/DriveSafe/
-----------------------------	---

Section 1) Project Needs	
<p>Note for I-2 Safety Projects: If a Crash Analysis Report already exists, some of the information required in this section may already be covered in the report. See the Bases of Design Instructions for more details.</p>	
<p>List the project's BASELINE NEED(S). Include the performance metrics that will be used to evaluate alternatives and the performance targets for those metrics.</p>	
<p>List the project's CONTEXTUAL NEED(S). Include the performance metrics that will be used to evaluate alternatives. List performance targets for the metrics, if applicable.</p>	<ol style="list-style-type: none"> 1. Economic vitality (economic development). Performance measures might include turn data (from US2 into Skykomish), permit applications, sewer connections, population growth, etc. 2. Active transportation (bicycle and pedestrian): Suggested performance measures could include active transportation vision and comprehensive plan element, miles of bike lanes and pedestrian paths, number of bike racks/bike parking, bicycle and pedestrian count data.
<p>Has a Contributing Factors Analysis been completed? If so, list any major findings that are useful in more specifically understanding the project need(s).</p>	<p>Contributing factors include:</p> <ol style="list-style-type: none"> 1. Economic vitality: Superfund site, economic recession, aging population, rural economy. 2. Active transportation: few facilities, low comfort/safety perception (poor sight distance visibility, high speed traffic).
<p>Has a crash diagnosis (i.e. Crash Analysis Report) been completed?</p>	<p>(If YES, enter the title and date here)</p> <p>Yes. Existing conditions traffic analysis summary attached.</p>

Section 2) Context

<p>Land Use Context (existing and future)</p>	<p>The Town of Skykomish has approximately 200 residents. The Town's population has not grown for some time and it is not projected to increase under existing conditions. Developer interest in building on vacant lands could eventually lead to population growth on a seasonal or permanent basis.</p> <p>The Town of Skykomish has a very basic comprehensive plan. There is no active transportation element or development guidance currently in place. For WSDOT to support a developer led roundabout as a possible strategy for economic development and improved bicycle pedestrian safety, the Town Council would need to take steps towards managing access and mitigating traffic impacts, as well as adopting an active transportation vision and policy within their comprehensive plan.</p>
<p>Community Engagement</p>	<p>WSDOT Northwest Region maintains a friendly and cooperative dialogue with the Town of Skykomish. For this study, a public meeting was held June 13, 2016 to discuss community concerns and issues related to US 2 and the context of the study. WSDOT planning staff also visited the Town of Skykomish Planning Commission with Puget Sound Regional Coordinating Council (PSRC) Bicycle and Pedestrian planning staff to discuss collaborative steps to integrating an active transportation vision into the Town comprehensive plan (September 19, 2016). WSDOT planning staff are continuing to meet with the Town to discuss next steps.</p>
<p>Transportation Context (existing and future)</p>	<p>US 2 is a rural two-lane highway throughout this segment (4), containing sharp curves and narrow shoulders. There are a number of left-turn pockets and a two-way turn lane in the Skykomish vicinity on US 2. Shoulder widths range from 0 – 8 feet, with most being very narrow.</p> <p>WSDOT-owned right-of-way varies from approximately 70 to 200 feet in total width. There are no sidewalks, pedestrian paths, signalized intersections, or interchanges in Segment 4.</p> <p>Source: US 2 Route Development Plan, 2007.</p>
<p>Major Environmental Considerations (See the Environmental Review Summary for details)</p>	<p>The Skykomish River is adjacent to the study area and to US 2. Federal forest lands surround the Town. The route of US 2 is through the foothills of the Cascade Mountains and is a designated part of the Cascade Loop Scenic Highway and the Stevens Pass Greenway.</p>

Section 3) Design Controls

Selected Design Years (and explanation for the selection)	The 20 year design horizon has been selected. The population of the Town of Skykomish is not projected to increase. A roundabout can easily accommodate the projected one-percent annual growth of traffic on US 2.			
Design Users				
Modal Compatibility	A roundabout with a pedestrian crossing can be designed for modal compatibility.			
Modal Priorities	Mode	To be prioritized in design decisions? (Yes or No)	Rank / Priority (1,2,3, etc.)	Notes
	Automobile	yes	1	
	Transit	no		
	Freight	yes		
	Pedestrian	yes	2	
	Bicycle	yes	3	
	Other			
Intersection Design Vehicle				
Terrain Classification	Rolling			
Selected Access Control (Given the current access density and intersection spacing, is a different access selection warranted? If designing for a future context vision, what is the appropriate level of access needed?)	<p>The study area has an Access Classification of Class 1. Mobility is the primary function. Minimum access spacing is 1320'. One access point is allowed to contiguous parcels under the same ownership. Private direct access is not allowed unless no other reasonable access exists. Must use county road if possible. The access connection shall continue until such time that other reasonable access to a highway with a less restrictive access control classification or acceptable access to the general street system becomes available and is permitted.</p> <p>No change in access classification is recommended. However, WSDOT does recommend that the Town of Skykomish adopt and enforce an access management plan that includes the construction of sidewalks, curbs and other pedestrian amenities for all future development.</p>			
Target Speed	TBD			

Section 4) Alternatives Analysis

Note for I-2 Safety Projects: If a Crash Analysis Report already exists, some of the information required in this section may already be covered in the report. See the Basis of Design Instructions for more details.

		Alternative Name or Description
Alternatives Considered	No Build	Existing capacity and infrastructure will provide adequate safety, capacity and mobility for area.
	A	Stop sign
	B	Traffic signal
	C	Roundabout
Preferred Alternative	Roundabout	
Attach copies or provide information (title, date, etc.) regarding alternatives analysis, trade-offs comparison, or similar exercises that have been completed for this project, such as an ALTERNATIVES COMPARISON TABLE.		Attachments: contextual needs evaluation table, recommendations addendum, existing conditions traffic analysis memo.

BOD Signatures

Lorena Eng, PE
Northwest Region Administrator

Date

Greg Lippincott, PE
Assistant State Design Engineer

Date

Jay Alexander, Director
Capital Programs Development and Management

Date

Kerri Woehler, Director
Multimodal Planning Division

Date

Skykomish Contextual Needs Evaluation Table

	Goal 1: Promote Economic Development/ Vitality	Goal 2: Promote Active Transportation and facilitate bike-ped crossing of US 2 at 5th St.	Goal 3: Improve Access to Federal Lands
Existing Conditions	Vacant land, undeveloped investment and recreational opportunities	Posted speed limit is 50 MPH through town, 60 MPH out of town	Federal lands surround the Town of Skykomish
Contextual Need – Performance Gap	There is little to no economic development in Town of Skykomish. Population growth is stagnant.	Uncomfortable for bicycles and pedestrians to cross US 2 at 5th Avenue entrance to Town of Skykomish.	Federal Lands in the area can accommodate additional visitors.
Contributing Causes	<ul style="list-style-type: none"> • EPA Superfund Site • Economic recession • Rural economy • Aging population 	<ul style="list-style-type: none"> • High speed traffic • Limited visibility • Mostly through traffic • Vacant land on north side of US 2 (economic development opportunity) 	<ul style="list-style-type: none"> • The study area is rural in nature • Limited advertising (marketing opportunity)
Strategies/ Recommendations	<ol style="list-style-type: none"> 1. Adopt signage plan concept to create Town gateway experience 2. Adopt access management plan and implement enforcement 3. Adopt comprehensive plan amendments as needed 4. Support roundabout proposal, with Town as lead agency, WSDOT in supporting role 	<ol style="list-style-type: none"> 1. Roundabout with pedestrian crossing 2. Active Transportation Plan (amendment to comp plan) 3. Access Management Plan 4. Bike/Ped wayfinding Signage Plan 	<ol style="list-style-type: none"> 1. Skykomish adopts wayfinding signage plan. 2. Social media promotion of Skykomish vicinity recreational opportunities
Performance Measures	<ul style="list-style-type: none"> • Permit applications • Sewer connections • Population growth • Housing units • Tourist visits/ turn data • Guest housing occupancy 	<ul style="list-style-type: none"> • Active Transportation Plan Element • Annual Bike/Ped counts • Miles of Bike lanes/ ped paths • Bike parking 	<ul style="list-style-type: none"> • USFS road use counts • Visitor counts • Parking lot capacity counts • Social media references



Access Management Recommendation

The purpose of this recommendation is to provide sufficient planning level information and language describing the strategy of access management for the Town of Skykomish to review and adopt into the Transportation Improvement Program (TIP) of the Skykomish Comprehensive Plan. Final language and enforcement policies should come only after a Town led community engagement process.

What is access management?

The Federal Highway Administration (FHWA) defines access management as “a set of techniques that State and local governments can use to control access to highways, major arterials, and other roadways. The benefits of access management include improved movement of traffic, reduced crashes, and fewer vehicle conflicts.” Access management includes the careful consideration of the location, type, and design of access to a roadway and adjacent land development and involves a range of strategies to reduce conflicts among the various facility users (TRB 2016: International Practice in Highway Access Management – A Primer). The informal definition of access management is controlling the number of access points that meet a highway. Research has shown that increasing the number of accesses to a highway increases vehicular crashes. H.S. Levinson, in his 2000 study titled “Access Spacing and Accidents: A Conceptual Analysis” found that an increase from 10 to 20 access points per mile translated to approximately a 41% increase in the crash rate.

Washington State codified the Highway Access Management Act in 1991, which gives WSDOT responsibility for controlling access to our state highways. Chapter 47.50 RCW and chapters 468-51 and 468-52 WAC detail this responsibility. However, as quoted in the FHWA/WSDOT authored 2012 Local Access Management Program Review Final Report, “local agencies are encouraged to implement appropriate access management strategies through a comprehensive program achieved by the systematic application of planning, regulatory and design strategies.”

Managed access is based on the premise that the access rights of a property owner are subordinate to the public’s right and interest in a safe and efficient highway system. A property owner’s direct access to a state highway may be restricted if reasonable access can be provided to another public road. State law splits the responsibility for state managed access highway permitting based on the location of the state highway. In unincorporated areas,

access permitting is the responsibility of the WSDOT region offices. Cities and towns are the permitting authorities for the state managed access highways within their boundaries. Cities and town are required by statute to adopt access permitting standards for the state managed access highways within their boundaries that meet or exceed WSDOT standards [RCW 47.50.030(3)].

The Federal Highway Administration (FHWA) further defines access management as a set of techniques that State and local governments can use to control access to highways, major arterials, and other roadways. The benefits of access management include improved movement of traffic, reduced crashes, and fewer vehicle conflicts. Several of the more common access management treatments include:

- Driveway closure, consolidation, or relocation,
- Restricted-movement designs for driveways (such as right-in/right-out only),
- Restricted-movement and alternative designs for intersections (such as J-turns, median U-turns and quadrant roadways),
- Raised medians that prevent cross-roadway movements and focus turns and/or U-turns to key intersections,
- Adding auxiliary turn lanes (including exclusive left or right and two-way left),
- Constructing parallel, lower speed one-way or two-way frontage roads for access, and
- Using roundabouts or mini roundabouts to provided needed or desired access.
- Corner Clearance – defines the minimum distance driveways are set back from any street intersection
- Signage and Visual Cues – Use signs and other control devices at median openings, driveways, and intersections to increase driver awareness of conflict points.

Source: FHWA Corridor Access Management

Existing Conditions: US 2 MP 48.50 to MP 50.50, Town of Skykomish

US 2 through the Town of Skykomish is Class 1 managed access. Typically this classification provides for high-speed and/or high-volume traffic movements for interregional and intercity travel needs. Intersecting streets and roads are planned with a minimum spacing of one mile. Spacing of one-half mile may be allowed, but only when no reasonable alternative access exists. Private access connections are not allowed, except when the property has no other reasonable access to the local street system. Such connections shall continue until such time that other reasonable access to a highway with a less restrictive access control classification or access to the general street system becomes available and is permitted.

Proposed Access Management Strategies:

1. Develop an access management policy and plan for the Town of Skykomish, and define strategies for integrating access management into the planning process as part of development review.
2. Improve access for the businesses that front US 2 in advance of any new development.
3. Develop a toolbox of access management techniques applicable to existing and new developments, including enforcement.
4. Develop a conceptual access management plan that supports and promotes active transportation through the Town, including setbacks, sidewalks, and other pedestrian friendly amenities.
5. Define development triggers for the need for traffic impact analysis.

Summary

There are many benefits to access management. Below are some of the benefits that have been realized in communities with effective access management policies:

- Delaying or preventing costly highway improvements,
- Improving roadway safety conditions (reduced crash rates),
- Reducing traffic delay and congestion,
- Promoting properly designed access and circulation systems for development,
- Improving the appearance of transportation corridors,
- increasing the area available for landscaping, which can help attract investment and enhance the image of an area,
- Providing property owners and customers with safe access to roadways,
- Reducing air pollution, and
- Making pedestrian and bicycle travel safer.

Another significant benefit is that access management requires a more coordinated, long-term approach to land use and transportation; therefore, effective access management promotes intergovernmental cooperation relating to land development and transportation decisions. (Source: Texas Department of Transportation, Online Manuals).

Access management preserves the integrity of the roadway system, improves safety and capacity, extends the functional life of roadways, preserve public investment in infrastructure, preserves private investment in properties, provides a more efficient and predictable motorist experience, improve travel times through a corridor; and improve aesthetics (less pavement, more green). Motorists, bicyclists and pedestrians benefit from access control, as do property owners, communities, and the environment. Everybody wins with good access management.

References and Resources

Everson Example: Town of Everson Access Management Policy

www.codepublishing.com/WA/Everson/html/Everson12/Everson1216.html

FHWA Access Management Webpage, electronically sourced 7.19.2017

https://ops.fhwa.dot.gov/access_mgmt/

FHWA/WSDOT. Local Access Management Program Review Final Report,

2012 FHWA Corridor Access Management

https://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_006.cfm

Highway Access Management Guidebook, Olympic Region - April 2002

www.wsdot.wa.gov/NR/rdonlyres/F1CB0918-81F7-4127-85D5-0689D08C95CA/0/HAMGFinalMasterWeb.pdf

Spiller, Neil (FHWA). Intro to Access Management Principles (PowerPoint)

https://ops.fhwa.dot.gov/access_mgmt/resources.htm

Texas DOT Online Manuals, sourced electronically 7.19.2017

onlinemanuals.txdot.gov/txdotmanuals/acm/the_benefits_of_access_management.htm

TRB 2014: Transportation Research Board (TRB) Access Management Manual

trrjournalonline.trb.org/doi/book/10.5555/9780309295413

TRB 2016: International Practice in Highway Access Management – A Primer

onlinepubs.trb.org/Onlinepubs/circulars/ec214.pdf

WSDOT Access Control Tracking System

www.wsdot.wa.gov/design/accessandhearings

WSDOT Design Manual, Access Control Chapter 520

www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/520.pdf

WSDOT Design Manual, Managed Access Control Chapter 540

www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/540.pdf

WSDOT Highway Classification Description Table

www.wsdot.wa.gov/NR/rdonlyres/960B3AAA-4F92-425E-BFDA-64B002D89E61/0/HighwayClassificationDescriptionTable.pdf

Americans with Disabilities Act (ADA) Information: This material can be made available in an alternate format by emailing the Office of Equal Opportunity at wsdotada@wsdot.wa.gov or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

Title VI Notice to Public: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7082.



Roundabout recommendation

The purpose of this recommendation is to provide sufficient planning level information and to provide the conceptual vision of a roundabout for the Town to review and adopt into the Transportation Improvement Program (TIP) of the Skykomish Comprehensive Plan. Final project design should come only after funding has been secured and a Town led community engagement process has been completed.

Background: The Town of Skykomish has an opportunity to meet much of the economic development goals in their Comprehensive Plan by virtue of a proposed development involving 50 acres of vacant land north of Town by the Sunriver Asset Management Corporation. The proposed development would add approximately two hundred housing units to the housing stock of Skykomish. Homes in this development would most likely be second homes or vacation rentals, though some owners/occupants could become year round residents of the Town of Skykomish. Since the development will abut and access US 2, the developer has expressed to the Town their concern that high travel speeds on US 2 will reduce interest for their development by potential clients. They are also concerned that high speeds would not make it safe for bicyclists and pedestrians to travel along US 2 or to cross it. On this basis, the Town has requested WSDOT to reduce the posted speed limits on US 2 in recent years or to implement measures that would compel US 2 drivers to drive more slowly.

In 2012, the Town of Skykomish asked WSDOT NW Region to reduce the speeds on US 2 within the Town limits. WSDOT analyzed the relevant traffic data, including vehicle speeds, traffic volumes and other traffic flow characteristics in the area and reduced the posted speed limit from 60 MPH to 50 MPH between MP 48.7 (5th Street) and MP 49.2 (Sky Lane). Representatives from the Town of Skykomish also requested WSDOT's assistance for envisioning a future traffic operations scenario that would support the Town's goals for economic development and active transportation while maintaining safety and efficiency on the US 2 mainline as well as at intersections and access points along US 2. A Federal Lands Access Program (FLAP) grant was received for this purpose, enabling the attached documentation of the traffic operations study recommendations.

Roundabout Conceptual Strategy

WSDOT's most recent evaluation of existing conditions through the area found that current traffic controls continue to deliver safe and efficient travel on the highway. Consequently, WSDOT has no identified need on this segment of US 2 based on applicable criteria under various WSDOT funding programs. And, therefore, WSDOT has no planned action in this area at this time. However, WSDOT could support future economic development initiatives that the Town may decide to pursue to enhance the economic viability of future developments and promote active transportation (identified contextual needs). Intersection improvements such as turn lanes or a roundabout could be supported with adequate justification.

If the Town's initiatives include consideration for a roundabout at the 5th Street intersection, then WSDOT's support for this undertaking would be justified because a roundabout would achieve the best operational and safety balance between US 2 traffic flow objectives and the needs of existing and future local activities that rely on left turns being made onto and off of US 2.

The Federal Highways Administration (FHWA) roundabout guide states: "A roundabout that operates within its capacity will generally produce lower delays than a signalized intersection operating with the same traffic volumes and right-of-way limitations." An acceptable daily vehicle volume for a single-lane roundabout ranges from between 20,000 and 26,000 vehicles per day, depending on the left-turn percentages and the distribution of traffic between the major and minor roads.

The intent of this documentation of WSDOT support for a roundabout, should Skykomish pursue it as an economic development initiative, is to provide sufficient planning level information that can be used to define a project scope of work that the Town can adopt into the Transportation Improvement Program (TIP) of its Comprehensive Plan.



Roundabout Design: Planning Level Project Description and Cost Estimate

Since conditions on US 2 warranted a speed reduction to the current 50 MPH only, on-going city and WS-DOT discussions have led to considering the feasibility of constructing a roundabout at the US 2/5th Street intersection, from among a number of design and traffic control concepts. Since the 5th Street intersection is a T-intersection with only a south leg today, there has been a separate interest in establishing a north leg at this intersection to serve as access to the proposed Sunriver development.

Note: A complete traffic impacts analysis would need to be completed by the developer as part of the permitting process, in advance of final project design. This permitting and development process has not yet been formally initiated.

Because active transportation is one of the goals of the Town, a compact roundabout with a maximum circulation design speed of 25 MPH is suggested as 25 MPH has been well documented as the top speed for safely accommodating bicycle and pedestrian traffic.

After the update of the TIP and Comprehensive Plan, the Town will be in a position to use this study documentation to seek and secure design and construction monies. Final project design should come only after funding has been secured and a Town led community engagement process has been completed.

COST:

Approximate cost for a compact roundabout at 5th avenue on US 2 in Skykomish depending on final design:
\$300,000 – \$1,500,000.

Approximate cost for full size roundabout at 5th avenue on US 2 in Skykomish depending on final design:
\$1,500,000. – \$4.5 million.

References:

WSDOT Design Manual, Chapter 1320, 2013. Sourced electronically on 2/28/2017.
www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/1320.pdf

City of Redmond, 2013: Roundabout Design Manual.
www.redmond.gov/common/pages/UserFile.aspx?fileId=22519

Modern Roundabout Practice in the United States: NCHRP 264, 1998
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_264.pdf

Ron Beitler Roundabout blog post sourced 02/28/2017.
www.ronbeitler.com/tag/roundabout/

FHWA Roundabout Guide. Sourced 2/28/2017
www.fhwa.dot.gov/publications/research/safety/00068/00068.pdf

Americans with Disabilities Act (ADA) Information: This material can be made available in an alternate format by emailing the Office of Equal Opportunity at wsdotada@wsdot.wa.gov or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

Title VI Notice to Public: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7082.

Signage Recommendation

The purpose of this recommendation is to provide sufficient planning level conceptual information and visioning language for the Town of Skykomish to review and adopt a wayfinding and signage plan for US 2 and the key destinations within the Town and immediate vicinity. Final language, design and sign locations should come only after a Town led community engagement process has been completed.

Background

Thousands of visitors travel annually by car past the Town of Skykomish on US 2. Once implemented, a wayfinding and signage plan will improve the visibility of the Town of Skykomish for travelers on US 2. This improved visibility and awareness of the Town and its resources can help visitors reach their desired destinations, increase community identity, support and enhance the community's sense of place and can form the basis for creating a unified signage system for the Town. A wayfinding and signage plan will help grow the Town of Skykomish brand and promote economic vitality. Wayfinding signs that advertise bicycle and pedestrian trails with regional connectivity can help support the Town's active transportation vision and goals.

Suggested types of signage:

1. Cascade Loop Scenic Byway route marker (figure 4)
2. Stevens Pass Greenway sign
3. National Scenic Byways sign
4. Welcome to Skykomish sign at Town limits (figure 1)
5. Informational kiosk/interpretive panel in Town center (figure 5)
6. Wayfinding and route signage for bicycle and pedestrian connectivity (figure 6)
7. Motorist information signs (gas, food, lodging) (Figure 3)

The role of WSDOT:

WSDOT manages the sign program along the state highway routes, and provides specific guidance for scenic byways. All requests for new signage along state routes like US 2 go through the WSDOT sign review process. For example:

- Motorist Information Signs (MIS) are placed along state highways to alert travelers about the services available at an interchange or intersection. MIS are blue or brown panels with individual business logo signs attached. Travelers searching for gas, food, lodging, camping, recreation, tourist activities, or 24 hour pharmacy will see your business sign.
- Cascade Loop Scenic Byway route markers designed by the Cascade Loop Foundation, Stevens Pass Greenway and National Scenic Byways. Once funding is secure, WSDOT can fabricate and install.



Example of motorist information sign



Examples of scenic byway route markers

Town of Skykomish US 2 , Cascade Loop Scenic Highway

<p>FIGURE 1 Example 1 Town Welcome Sign</p>	<p>FIGURE 2 Example 2 of Town Welcome Sign</p>
	
<p>FIGURE 3 Motorist information sign.</p>	<p>FIGURE 4 Example Cascade Loop route marker</p>
	
<p>FIGURE 5 Example Informational/ Interpretive Kiosk</p>	<p>FIGURE 6 Example Bicycle Wayfinding sign</p>
	

Suggested role of the Town of Skykomish:

Our recommendation is that the Town of Skykomish adopt a signage plan policy into the comprehensive plan, including implementation language detailing sign placement. Steps in the process might include the following recommended steps:

- inventory the Town's existing signage
- detail the Town's new signage needs
- identify destinations
- identify locations for specific sign types
- determine what sign types are a priority
- determine what design standards should be used to for consistent branding
- consider including a signage permit application process to guide uniform development
- lead community engagement process and adopt signage plan

Funding and resources for implementation

Potential funding sources and other resources that may be available to support the projects and actions are diverse. Projects/actions may be eligible for multiple sources of funding. Partners like the Cascade Loop Foundation may be interested in collaborating. The Town and byway partners will need to further research funding sources to determine eligibility.

Resources and references

American Planning Association (APA), Planning Advisory Service:Context Sensitive Signage Design. <https://www.planning.org/research/signs/>

Cascade Loop Management Plan <http://cascadeloop.wpengine.com/guide/>

Chinook Scenic Byway Corridor Management Plan, 2016. <http://www.chinookscenicbyway.com/corridormanagementplan.html>

FHWA. 2015. Manual of Uniform Traffic Control Devices. FHWA link: <https://mutcd.fhwa.dot.gov/>

NACTO Bike Signage Guidelines <http://nacto.org/publication/urban-bikeway-design-guide/bikeway-signing-%20marking/bike-route-wayfinding-signage-and-markings-system/>

National Scenic Byways <https://www.fhwa.dot.gov/byways/byways>
Chinook Scenic Byways Plan

Stevens Pass Greenway www.wsdot.wa.gov/LocalPrograms/ScenicByways/StevensPass.htm

WSDOT Motorist Information Sign Program www.wsdot.wa.gov/Operations/Traffic/Signs/mis.htm

WSDOT Scenic Byway Logo Signing Guidelines, 2007 www.wsdot.wa.gov/publications/manuals/fulltext/M3001/Contents.pdf

Skykomish Wayfinding Environment

Recreational, historical and interpretive

Overview

Approaching Skykomish from the west, US 2 crosses the south fork of the Skykomish River. Forest lands surround the Town.

Ecotype

Low elevation Douglas fir/hemlock forest.

Heritage

The heritage story in this section of the US 2 corridor includes the Burlington Northern Railroad and a rich history of logging.

Recreational access

This segment of US 2 and its continuation to the east provide access to some of the richest recreational opportunities along the byway along both sides of the summit of Stevens Pass.

Wayfinding needs for bicycles and pedestrians

1. Confirmation signs
2. Turn Signs
3. Decision Signs

For examples, see:

<http://nacto.org/publication/urban-bikeway-design-guide/bikeway-signing-marking/bike-route-wayfinding-signage-and-markings-system/>

Interpretive sites

An interpretive panel/kiosk is suggested for downtown Skykomish.

Visitor services

Several cabin rentals are available in the general area of Skykomish for lodging. Also, the historic Cascadia Inn offers 14 rooms and has been welcoming guests to the Skykomish Valley since 1922.

Goals and objectives focus

Forest lands are an important natural resource, providing recreational opportunities and wildlife habitat for numerous plant and animal species.

The Town of Skykomish has the potential to serve as a key year-round gateway community for the byway. Assuming they would be supported by the market, improved options for visitor services, including additional dining, retail, and possibly lodging, would be a benefit for byway travelers.

There is an opportunity to increase awareness of the backcountry recreational opportunities in this segment, and support byway travelers with improved wayfinding and trip planning information.

Primary land management partners

- US Forest Service
- King County

Americans with Disabilities Act (ADA) Information: This material can be made available in an alternate format by emailing the Office of Equal Opportunity at wsdotada@wsdot.wa.gov or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

Title VI Notice to Public: It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7082.

DATE: May 6, 2016

TO: Thomas Noyes, MS 240

FROM: Miguel Gavino, MS 120

SUBJECT: SR 2, MP 48.50 to MP 49.21
US 2 Skykomish—Subarea Study
Review of Traffic Volume and Crash Data

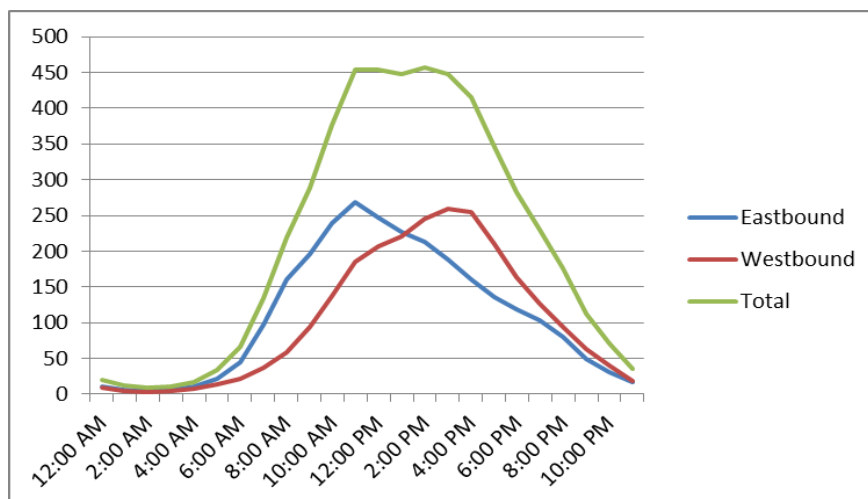
This memo was prepared in response to your request and provides our evaluation of the traffic data for the subject segment of SR 2.

TRAFFIC VOLUMES

The annual average daily traffic (AADT) for the segment of SR 2 in the Town of Skykomish has been relatively consistent over the last 20 years (see table below). It was 4,700 VPD in 1996, 4,500 VPD during the recession year of 2008 and 5,000 VPD in 2015.

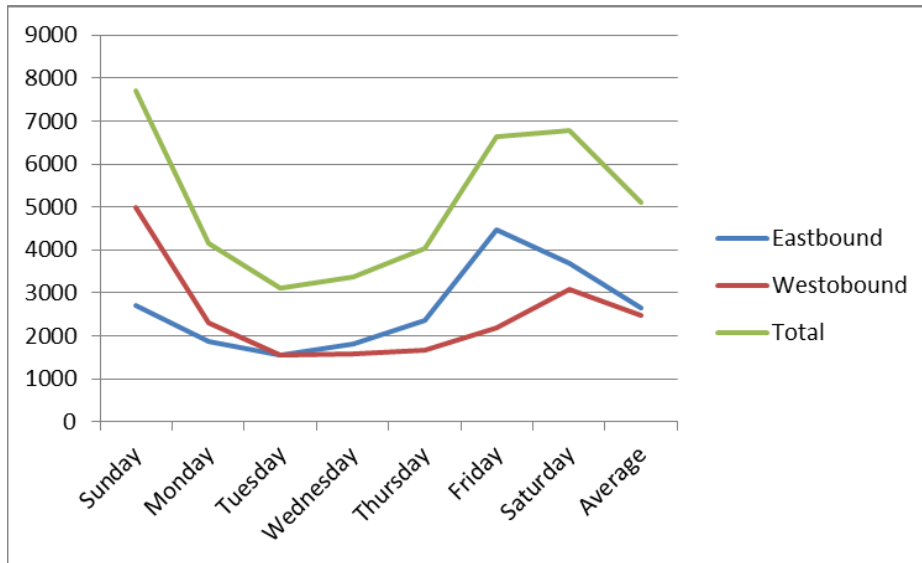
SR-2 in Skykomish, Annual Average Daily Traffic, AADT										
Year	ADT		Year	ADT		Year	ADT		Year	ADT
1996	4700		2001	4800		2006	4600		2011	5000
1997	4700		2002	4800		2007	5200		2012	4900
1998	4900		2003	4500		2008	4500		2013	5000
1999	4900		2004	4500		2009	4900		2014	4800
2000	4900		2005	4800		2010	4800		2015	5000

Traffic flow variations over 24 hours are shown for each travel direction in the graphic below. Two-way traffic is at a 2:00 AM low of 9 vehicles per hour (VPH) and a 2:00 PM high of 457 VPH.

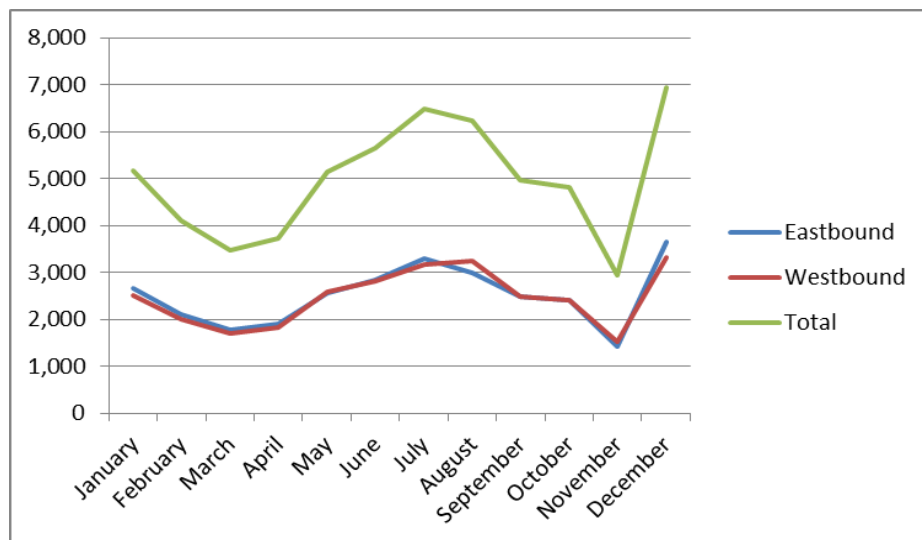


The peak demand of 457 VPH represents a LOS D traffic flow condition on the highway. Although not as favorable as the desirable guideline of LOS C for 2-lane highways in rural areas, this flow condition is acceptable given the fact that the subject highway segment is traversing through a local community with features such as no-passing lanes and a 2-way left turn lane. These circumstances do not reflect the typical 2-lane highway characteristics for which the LOS C guideline is based on, where passing of slower vehicles occurs and no special channelization for left turns is provided.

The AADT variation by day of week consists of a Tuesday low of 3,100 VPD and a Sunday high of 7,700 VPD as illustrated in the graph below:



The month-to-month comparison of AADTs shows a November low of 2947 VPD and a December high of 6950 VPD (see graph below). Note that the monthly variation of both eastbound and westbound is consistent with one another.



The average truck percentage is 6% per 2015 Annual Traffic Report. The light truck percentage is 3% and heavy trucks percentage is 3%.

CRASH EXPERIENCE

Collision records from MP 48.50 to MP 50.50 over the last five years are summarized by the following tables:

Collision Type by Year							
Year	Fixed Object	Rear-End	Opposite Left Turn	Enter at Angle	Other*	Ped/Cycle	Total Collision
2011	2	1	0	0	2	0	5
2012	1	1	0	0	1	0	3
2013	4	0	0	0	1	0	5
2014	2	1	1	0	2	0	6
2015	0	1	0	0	3	0	4
Total	9	4	1	0	9	0	23

* 4 overturned, 3 sideswipe, 1 parked car, 1 road debris

The data show one opposite direction and zero entering-at-angle collision, which are low for state highways of comparable characteristics such as numbers of intersections and driveways. The four rear-end type of collisions are typical for comparable highway sections however. The nine fixed object crashes, four overturns, and three sideswipes will be investigated further to identify possible contributing factors and associated corrective actions, as appropriate.

The collision severity for the highway segment, as presented in the table below is low, compared to state highways having similar characteristics. The 4 crashes in 2013 are a bit anomalous in light of the fact that the speed limit was reduced from 60 MPH to 50 MPH between MP 48.48 and MP 49.21 in February of that year. The speed reduction was undertaken in response to a local request that was prompted by land use changes along the north side of SR 2.

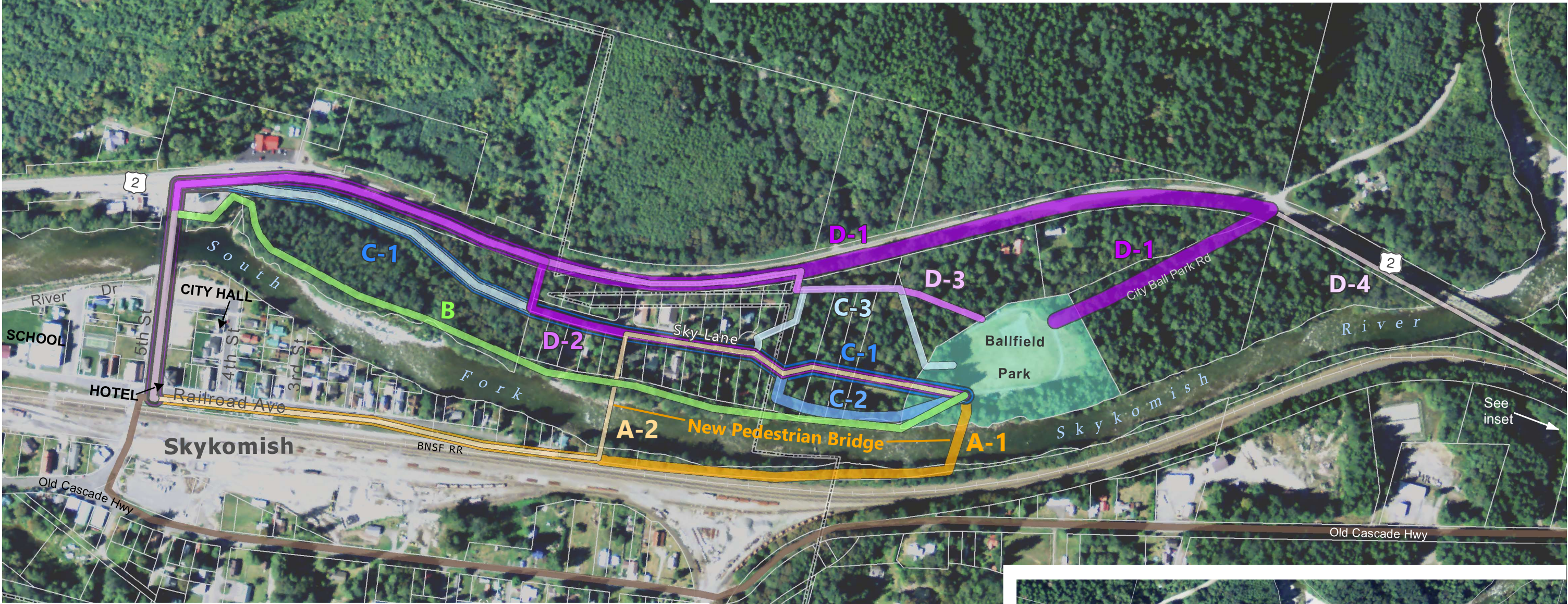
Collision Severity by Year						
YEAR	Prop Damage	Possible Injury	Evident Injury	Serious Injury	Total Fatal	Total Injury
2011	4	0	1	0	0	1
2012	2	1	0	0	0	1
2013	5	0	0	0	0	0
2014	4	1	1	0	0	2
2015	2	1	1	0	0	2
Total	17	3	3	0	0	6

DRAFT
for discussion only

Town of Skykomish - Proposed Trail to Ballfield Park

Upper Skykomish Valley, King County

Great Northern Corridor



Proposed Conceptual Trail Alignments

	Ped. Bridge Route A-1	0.6 mi		Highway 2 Route D-1	1.1 mi
	Ped. Bridge Route A-2	0.7 mi		Highway 2 Route D-2	0.8 mi
	Shoreline Route B	0.8 mi		Highway 2 Route D-3	0.8 mi
	Sky Lane Route C-1	0.8 mi		Highway 2 Route D-4	1.5 mi
	Sky Lane Route C-2	0.8 mi		Routes Along Local Roadways	
	Sky Lane Route C-3	0.8 mi		Land Ownership & Management	
				Ballfield Park (Skykomish)	
				Ownership Boundaries	
				Town of Skykomish	

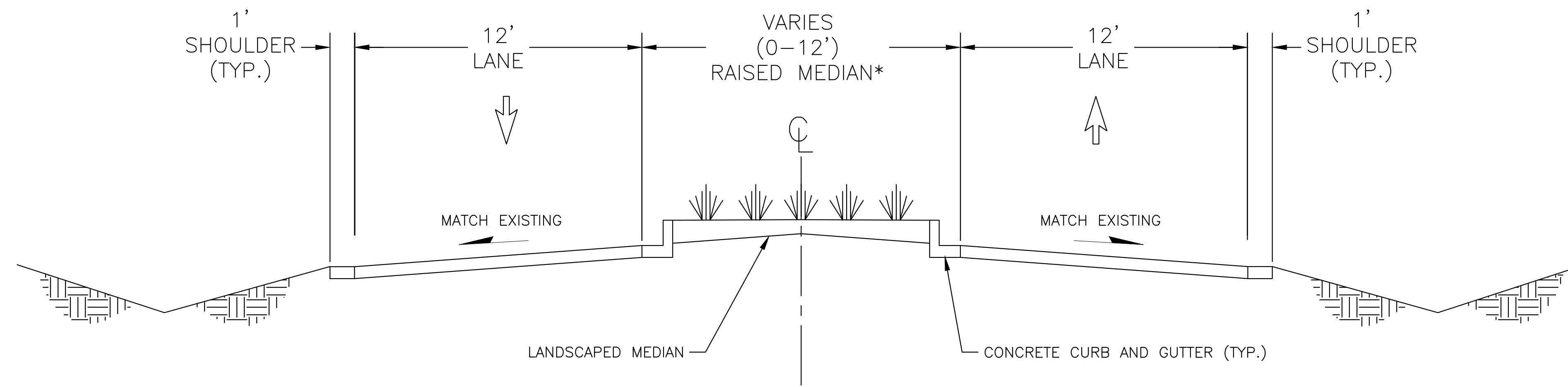


Map Date: March 10, 2016
Cartography by Chad Jacobson

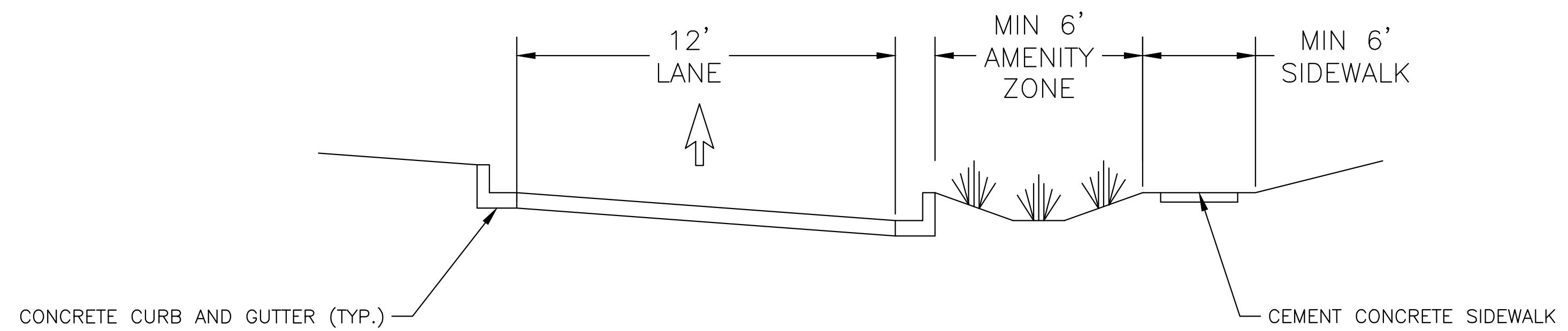


FORTERRA

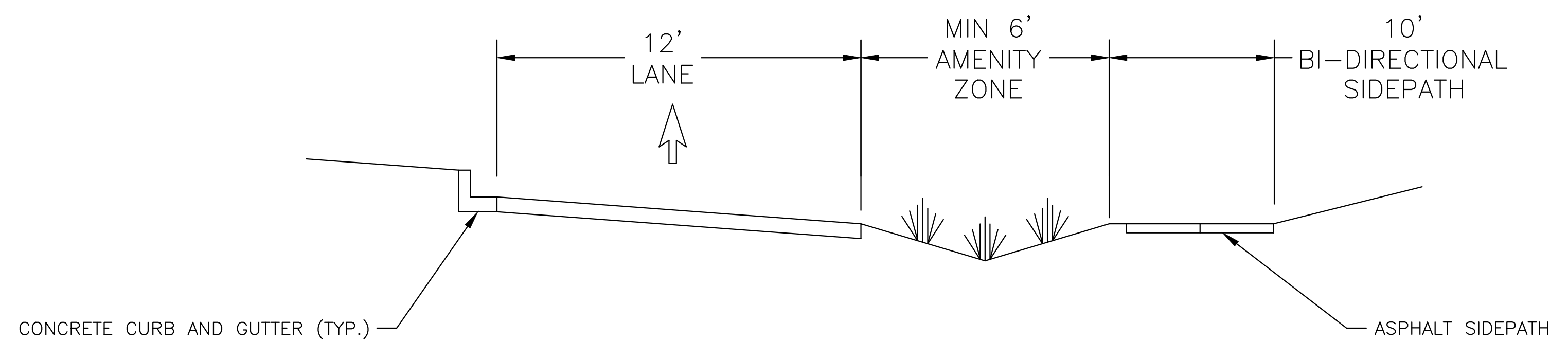




US 2 TYPICAL ROADWAY SECTION
*WITH LEFT TURN LANES



US 2 - SIDEWALK FRONTAGE IMPROVEMENTS



US 2 - SIDEPATH FRONTAGE IMPROVEMENTS