

Comprehensive Plan

~~ENTIAT MUNICIPAL CODE:~~ CHAPTER 7 TRANSPORTATION

7.1 Introduction

The transportation element is required by the Growth Management Act (GMA) to be consistent with the land use element. The transportation element is intended to encourage efficient multi-modal and inter-modal transportation systems that are based on regional priorities and coordinated between City and County Comprehensive Plans.

This element was revised in 2012 to be consistent with the *North Central Regional Transportation Plan* (RTP), the Chelan County Transportation Element, and the *Entiat US-97A Corridor Study*, all completed in 2009.

Concurrency requirement

Land use changes have a direct impact on transportation. As new development takes place it shall not negatively affect the current level of service defined by the community. If a negative impact is expected then mitigation measures should include transportation demand management (TDM) strategies, possible land use changes, and/or review of adopted level of service standards.

Coordination and Certification

Land use effects on transportation can impact neighboring jurisdictions. Therefore, large development or transportation changes made within the City are benefited by intergovernmental coordination efforts. The City is available to meet with the County as such issues emerge. Additionally, the North Central Regional Transportation Planning Organization (RTPO) works to ensure an effective transportation system for its region and state. The City of Entiat supports this effort by having its transportation plan certified by the RTPO. The GMA provides detailed guidance on what needs to be included in the transportation element including:

- Land use assumptions used in estimating travel
- Facility service needs including:
 - Inventory of facilities and services
 - Level of service standards for all arterials and transit routes
 - Identification of actions needed to bring substandard services and facilities into compliance with level of service standards
 - Forecasts of 10 year traffic needs
 - Identification of system expansion needs
- Financing
 - Analysis of probable funding sources
 - A multi-year financing plan
 - Monitoring program to assess funding versus needed improvements
- Intergovernmental coordination and impact assessment
- Strategies for reducing travel demand

Transportation Demand Management (TDM) Strategies

TDM strategies are a proven way to reduce traffic congestion in communities of all sizes. Individuals within the community currently work together to help provide ride or car sharing as needed. Additional TDM's that may work in Entiat include:

- Public education and promotion
- Custom transit services
- Non-motorized mode support
- Park & Ride lots

7.2 *Inventory*

Several transportation facilities of regional and statewide significance are located within (and traverse) the City of Entiat. Those facilities are addressed in this transportation element and also in the Chelan County Transportation Element (updated in 2009) and the RTP developed by the North Central RTPO in 2009.

As part of the Entiat US 97A Corridor Study conducted in 2009, an inventory of the existing transportation system was performed. This inventory included components of the street system, as well as general information associated with the pedestrian and bikeway systems. The inventory of the street system was based on a number of sources, including field data collection, Chelan County GIS data, City of Entiat GIS data, other jurisdictional planning documents, WSDOT/FHWA documents and accident data, assessor maps, and aerial imagery. The following aspects of the transportation system were inventoried:

- Roadway centerline
- Roadway and right-of-way width
- Existing functional classification
- Existing roadway function
- Crash data
- Turning movement counts
- Current and future land use
- Bicycle and pedestrian facilities
- Public transportation network

The complete inventory, tables, and maps of the system are available in the *Entiat US 97A Corridor Study*, Appendix A. Herein incorporated by reference.

Map 7.1 represents existing and proposed roads within Entiat and its UGA. Map 7.2 represents designated major transportation corridors.

Pedestrian and Bike (non-modal transportation)

The benefits of walking and bicycling go beyond an individual's enjoyment and health benefits; fewer vehicles on the road will result in less pollution and a healthier environment. There is also a positive economic impact seen in increased property values and marketability for property located near trails and open space. Beyond property values, businesses located in pedestrian-friendly downtowns or centers encourage visitors to stop and shop. Additionally, the City benefits from the lower cost and maintenance of bicycle and pedestrian facilities. Design standards for pedestrians and bicycles are available through the WSDOT.

The *US-97A Entiat Corridor Study* and *City of Entiat Waterfront Master Plan* include bicycle and pedestrian facilities linking the highway corridor and the waterfront development area to the rest of the city. The Chelan County PUD is in the process of building another trail system that will link the City's waterfront trail to a trail at Entiat Park and up the Entiat River. The City is also designing additional sidewalk and trail connections to US 97A.

Water Transportation

As of this writing (May, 2012), the City has plans to develop a 60-slip marina on the Columbia River waterfront. The marina site was selected through consultation with state and federal agencies. The marina is currently being designed; construction is expected in two to three years. There is more information about the marina in the *Entiat Waterfront Master Plan*.

The City anticipates development of water taxi services between Orondo, on the east bank of the Columbia River, and the new Entiat Waterfront Development.

Roadway Level of service (LOS)

The Level of Service (LOS) standards adopted in this plan will be maintained through upkeep of the existing circulation system, expansion of transportation services, and/or Transportation Demand Management (TDM) strategies. The City has adopted (A-F) LOS standards for its roadways. The standards are regionally coordinated through the North Central RTPO Certification process.

LOS standards provide measurable criteria to judge the adequacy of service. Future transit facilities must meet LOS standards established by the City. As specified in the GMA, new development will be prohibited unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. State Highways are exempt from LOS standards.

LOS A- Primarily free-flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delays at intersections are minimal.

LOS B- Reasonably unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tensions.

LOS C- Stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues and /or adverse signal coordination may contribute to lower average travel speeds. Motorists will experience appreciable tension while driving.

LOS D- Small increases in traffic flow may cause substantial increases in approach delays and, hence, decreases in speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these factors.

LOS E- Significant delays in traffic flow operations and lower operating speeds. Conditions are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.

LOS F- Traffic flow operations at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse signal progression is frequently a contributor to this condition.

The table below lists current operations at key *signalized* and *unsignalized* intersections within the City of Entiat. As shown in the table, most of the intersections are currently operating at an acceptable level of service. Because the non-stopping traffic at unsignalized (2-way stop control) intersections has zero delay, it is not realistic or meaningful to assign an LOS to the overall intersection as an indicator of its state of operation. Instead, it is typical to evaluate the LOS of the delayed approaches individually, leading to identification of mitigation. As shown in the table, all intersections are currently operating at LOS B or better.

INTERSECTION		PM Peak Hour		
		Existing (2009) Peak Hour Level of Service (LOS)		
(U) Unsignalized		Critical Movement By Approach	Delay	LOS
US 97A and Lakeview Drive	U	EB Right	9.1	A
US 97A and Pine Meadows Drive	U	WB Left	*	A
US 97A and Stoneridge Street	U	EB Left	11.3	B
US 97A and Wisdom Street	U	WB Left	11.1	B
US 97A and Howe Street	U	WB LTR	11.2	B
US 97A and Risk Avenue	U	WB Left	11.7	B
US 97A and Cammack Street	U	EB Left	11.8	B
US 97A and Lakeshore Drive	U	EB LTR	11.5	B
US 97A and Shearson Street	U	EB LTR	9.9	A
US 97A and Hagen Street	U	EB Left	11.5	B
US 97A and Entiat River Road	U	EB Left	12.2	B

Projected Travel

Projected travel in Entiat and its UGA is expected to grow at a rate commensurate with the population growth rate as forecast by the Office of Financial Management (OFM). Other factors that may contribute to increased traffic demands will be growth in the local and regional commercial, recreational, and industrial sectors. The 2009 update of the Chelan County Transportation Element included the preparation of travel projections for major roads in the planning area.

Priorities for regional improvements in the planning area transportation network have been developed through the Chelan County Transportation Element and the Regional Transportation Plan. City priorities, including system maps and capital facilities tables, are reflected in the Entiat US 97A Corridor Study. The Study identifies future roadway LOS based on projected full build-out of proposed facilities.

An analysis of future conditions comparing no-build and full-build out follows:

INTERSECTION		PM Peak Hour					
		No Build (2029) Peak hour Level of Service (LOS)			Build (2029) Peak hour Level of Service (LOS)		
		Critical Movement By Approach	Delay	LOS	Critical Movement By Approach	Delay	LOS
(U) Unsignalized							
US 97A and Lakeview Drive	U	EB Right	9.9	A	EB Right	13.4	B
US 97A and Pine Meadows Drive	U	WB Left	*	A	WB Left	29.4	D
US 97A and Stoneridge Street	U	EB Left	14.3	B	EB Left	29.4	D
US 97A and Wisdom Street	U	WB Left	12.0	B	WB Left	24.4	C
US 97A and Howe Street	U	WB LTR	14.1	B	EB LTR	41.6	E
US 97A and Risk Avenue	U	WB Left	15.3	C	WB Left	91.6	F
US 97A and Cammack Street	U	EB Left	15.8	C	EB Left	48.4	E
US 97A and Lakeshore Drive	U	EB LTR	16.3	C	EB LTR	60.3	F
US 97A and Shearson Street	U	EB LTR	11.2	B	EB LTR	43.5	E
US 97A and Hagen Street	U	EB Left	14.5	B	EB Left	42.0	E
US 97A and Entiat River Road	U	EB Left	16.8	C	EB Left	59.6	F

7.3 Goals and Policies

Vision: An efficient multi-modal transportation system based on local priorities, coordinated with Regional and County Comprehensive Plans and balancing access, mobility, and safety.

Goal T1: Improved safety for all modes of travel.

Rationale: The people of Entiat value public safety. In addition, the community has chosen to integrate bicycle and pedestrian travel throughout the city. Both motorized and non-motorized transportation facilities straddle the Cascade & Columbia River Railroad (CSCD) rail line, so safety related to the rail line is a local concern.

Policy T1.1: Implement the safety recommendations in the *Entiat US-97A Corridor Plan*, including access management, pedestrian crossing, and Hagan Street intersection improvements and including Goal #4 strategies. In particular, pursue the restriction/elimination of US 97A access points.

Policy T1.2: Identify and work to reduce safety deficiencies for all modes of transportation including motor vehicles, bicycles, pedestrians, and rail.

Policy T1.3: When developing new transportation facilities or making changes to existing ones, plan for the safety of all users.

Policy T1.4: Work closely with other transportation providers to ensure that all transportation facilities are safe. Coordination with others is particularly relevant in

the US 97A and railroad corridors. Speed restrictions and enforcement for US 97A should be a priority

Goal T2: A transportation system that supports a vibrant, healthy community

Rationale: Entiat's economy relies on efficient transportation, both within and through the community. In addition, trails and other bicycle and pedestrian facilities are important to Entiat's economic development strategy. Transportation facilities also have impacts on the environment and on overall quality of life. Citizen involvement and thoughtful planning can help to create a community in which residents thrive.

Policy T2.1: Use Transportation Demand Management (TDM) strategies where feasible to maximize the use of City roads while minimizing the need for additional roads with long-term maintenance costs, and to protect the environment.

Policy T2.2: Encourage public participation in transportation-related decisions and provide forums to help citizens understand transportation issues.

Policy T2.3: Balance development on state and regional facilities with improvements to local streets so that the whole community is well served.

Goal T3: Efficient movement of people and goods.

Rationale: An efficient transportation system is a cost-effective way to meet the needs of Entiat's growing population (year-round and seasonal) and of travelers passing through the city. Because facilities of regional and statewide significance pass through Entiat, efficient facilities will improve freight mobility and benefit the region and the state.

Policy T3.1: Maintain and improve Entiat's transportation system to serve present and future residential, commercial, and industrial land uses and to meet community and visitor recreational needs.

Policy T3.2: Ensure efficient ingress and egress between US 97A and businesses in the Highway Commercial Zone to encourage commercial development and sustain businesses.

Policy T3.3: Accommodate traffic volumes with minimal impact to residential neighborhoods.

Policy T3.4: Land development should be consistent with arterial street plans.

Policy T3.5: Provide for adequate off-street parking in development standards.

Policy T3.6: The design, construction, improvement, and maintenance of roads should consider safe, year-round access for all modes. In particular, design roads to enhance safety under winter driving conditions and to minimize wintertime maintenance needs and costs where feasible.

Policy T3.7: Implement a transportation concurrency program to deny approval of any development proposal that would cause a roadway segment to fall below the adopted minimum level of service (except for highways of statewide significance) unless transportation improvements or strategies to accommodate the impacts of the proposed development are made concurrent with the development.

Policy T3.8: Ensure that all facilities or services continue to meet the established LOS standards. In the case of state- and county-controlled facilities, the City will not be able to fulfill this policy alone; collaboration with and cooperation by the controlling agency will be required. Consider Transportation Demand Management (TDM) strategies as a means of mitigating some or all impacts.

Goal T4: Coordinate local transportation planning with statewide and regional transportation planning efforts.

Rationale: The study area is served by a major State highway, County arterials, local streets, and rail transportation systems. Coordination among agencies and other organizations involved in managing the transportation system serves safety, mobility, and efficiency interests and is important to the regional economy and the welfare of the community.

Policy T4.1: The City of Entiat recognizes the following facilities and levels of service within the city:

	State-owned transportation facility	Transportation facility of state-wide significance	Regionally significant transportation facility	Local transportation facility	LOS
US 97A *	X		X		C
CSCD*		X			
Entiat River Road*			X		C
All collectors				X	C
All other roadways				X	D

*Shown on the transportation map included in this Comprehensive Plan.

Policy T4.2: Participate in the RTPO and in development of the Regional Transportation Plan (RTP) and the Regional Program of Transportation Projects.

Policy T4.3: In planning transportation improvements, obtain input and work collaboratively with Chelan County, the RTPO, LINK Transit, the Washington State Department of Transportation (WSDOT), CSCD, and other relevant organizations.

Policy T4.4: Coordinate maintenance activities and annual maintenance programs with Chelan County and WSDOT, CSCD, and other relevant organizations.

Policy T4.5: The current Chelan County Transportation Element (December 2009 or as amended) may be used as guidance in identifying estimated traffic impacts to state-owned transportation facilities resulting from the land use assumptions and designations found within this plan.

Goal T5: Implement the *Entiat US-97A Corridor Study*.

Rationale: The *Entiat US-97A Corridor Study* represents the City's vision for the US 97A corridor. It was developed in collaboration with regional stakeholders and provides for improvements to all modes of travel, including safety improvements. Implementing the plan will serve the community, the region, and the state.

Policy T5.1: Adopt the *Entiat US-97A Corridor Study* as a conceptual plan to guide development in the US 97A corridor and linkages between the corridor and the rest of the city.

Policy T5.2: Plan for implementation of the *Entiat US-97A Corridor Study* and for otherwise meeting the goals and implementing the strategies in the plan. In particular, plan for integration of the *Entiat US-97A Corridor Study* and the *City of Entiat Waterfront Master Plan*.

Policy T5.3: Ensure that planned corridor improvements meet adopted LOS standards. Chelan County's Transportation "Concurrency Management Program", Appendix F to the Transportation Element of the Chelan County Comprehensive Plan, may provide guidance.

Policy T5.4: Coordinate implementation of the *Entiat US-97A Corridor Study* with regional stakeholders such as Chelan County, the RTPO, WSDOT, Link Transit, and CSCD.

Policy T5.5: Develop a funding plan for projects in the *Entiat US-97A Corridor Study*. In the funding plan, establish priorities and identify funding sources so that the projects (estimated to cost approximately \$8.8 million in 2009 dollars) can be completed in a logical sequence without compromising the City's other goals. The "Corridor Investment Strategy" section of the *Entiat US-97A Corridor Study* can be used to provide guidance.

Goal T6: A safe and efficient system of non-motorized facilities throughout Entiat.

Rationale: Trails and other walking and bicycling facilities are important components of the *Entiat US-97A Corridor Study*, the *City of Entiat Waterfront Master Plan*, and the regional transportation system. Non-motorized facilities enhance both mobility and recreation throughout the community and contribute to health and overall quality of life.

Policy T6.1: Provide for bicycle and pedestrian facilities in development standards.

Policy T6.2: Plan for a coordinated non-motorized transportation system that provides for neighborhood bicycle and pedestrian facilities and access to schools (Safe Routes to School Program), parks, transit services, employment and service centers, and shorelines as well as facilities in the US 97A corridor and the waterfront development area. Recognize that the non-motorized system serves both mobility and recreational needs, and plan for both types of use as appropriate and feasible.

Policy T6.3: Develop a land-use strategy, as described in the *Entiat US-97A Corridor Study*, to provide for "reorienting the design of developments to promote multimodal use and efficient access management." The strategy should include any amendments to development regulations (including parking standards and parking lot design allowing protected access to storefronts that are needed to provide for the safety and convenience of bicyclists and pedestrians).

Policy T6.4: Encourage development to include pedestrian-friendly design, such as lighting, trees, and low shrubs, and to increase connections within the community by adding trails and sidewalks beyond those required by the City's development standards.

Policy T6.5: Promote use of existing trails and the development of new trails within the City and neighboring jurisdictions.

Policy T6.6: Coordinate trail development with neighboring jurisdictions and interested parties to support regional trails and connectivity between Entiat's non-motorized facilities (sidewalks, bike lanes, trails, etc.) and the regional transportation system.

Goal T7: Prioritize transportation projects and plan realistically for funding and implementation.

Rationale: Transportation projects are expensive and typically require multiple funding sources. Funding availability and timing of improvements are related, so careful planning is required to make sure funds are available to complete projects in a logical sequence. Because it may take many years to secure funding for all of the projects in the City's Capital Facilities Plan, it is important to prioritize in order to meet the needs that are most important to the community.

Policy T7.1: Give a high priority to projects that help to create a comprehensive, integrated and connected network of roads, trails, and other transportation services to meet needs throughout the community.

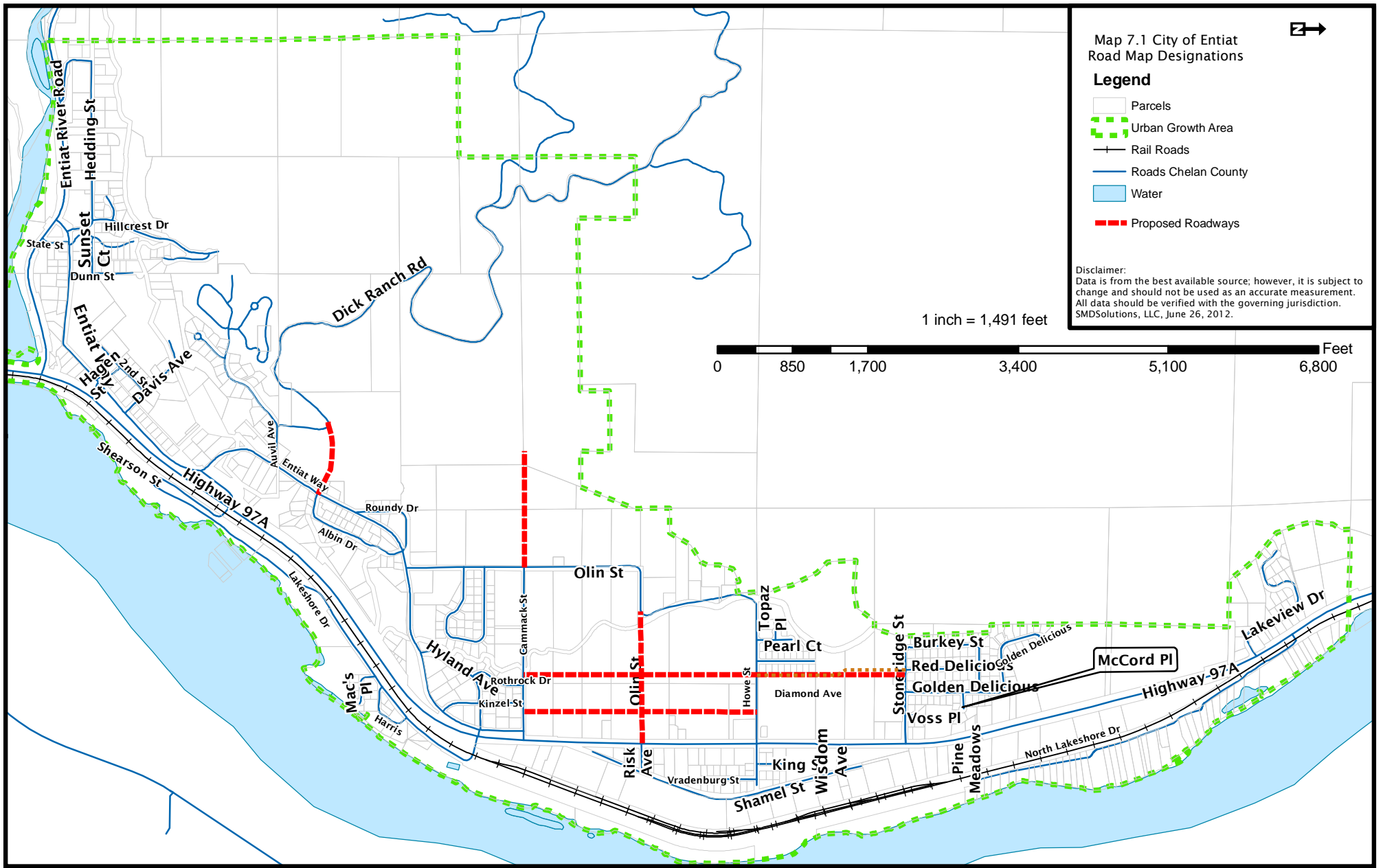
Policy T7.2: Ensure that transportation construction plans are consistent with capital improvement programs and the Comprehensive Plan.

Policy T7.3: Ensure that the annual Six-Year Transportation Improvement Program (TIP) is financially feasible, is consistent with the Comprehensive Plan, and reflects local priorities.

Policy T7.4: Ensure that new development mitigates its impacts on the transportation system.

Policy T7.5: Promote the equitable distribution of transportation system costs between public and private sectors.

Policy T7.6: Support a bicycle- and pedestrian-friendly community by seeking funding for a coordinated non-motorized transportation system that provides for neighborhood bicycle and pedestrian facilities and access to schools (Safe Routes to School Program), parks, transit services, employment and service centers, and shorelines as well as facilities in the US 97A corridor and the waterfront development area.



Entiat River Road
 Hedding St
 Hillcrest Dr
 State St
 Sunset Ct
 Dunn St
 Entiat River
 2nd St
 Davis Ave
 Auvil Ave
 Entiat Way
 Roundy Dr
 Albin Dr
 Shearson St
 Highway 97A
 Lakeshore Dr
 Mac's Pl
 Harris

Dick Ranch Rd
 Olin St
 Hyland Ave
 Rothrock Dr
 Kinzel St
 Gammack St
 Risk Ave
 Vradenburg St
 King

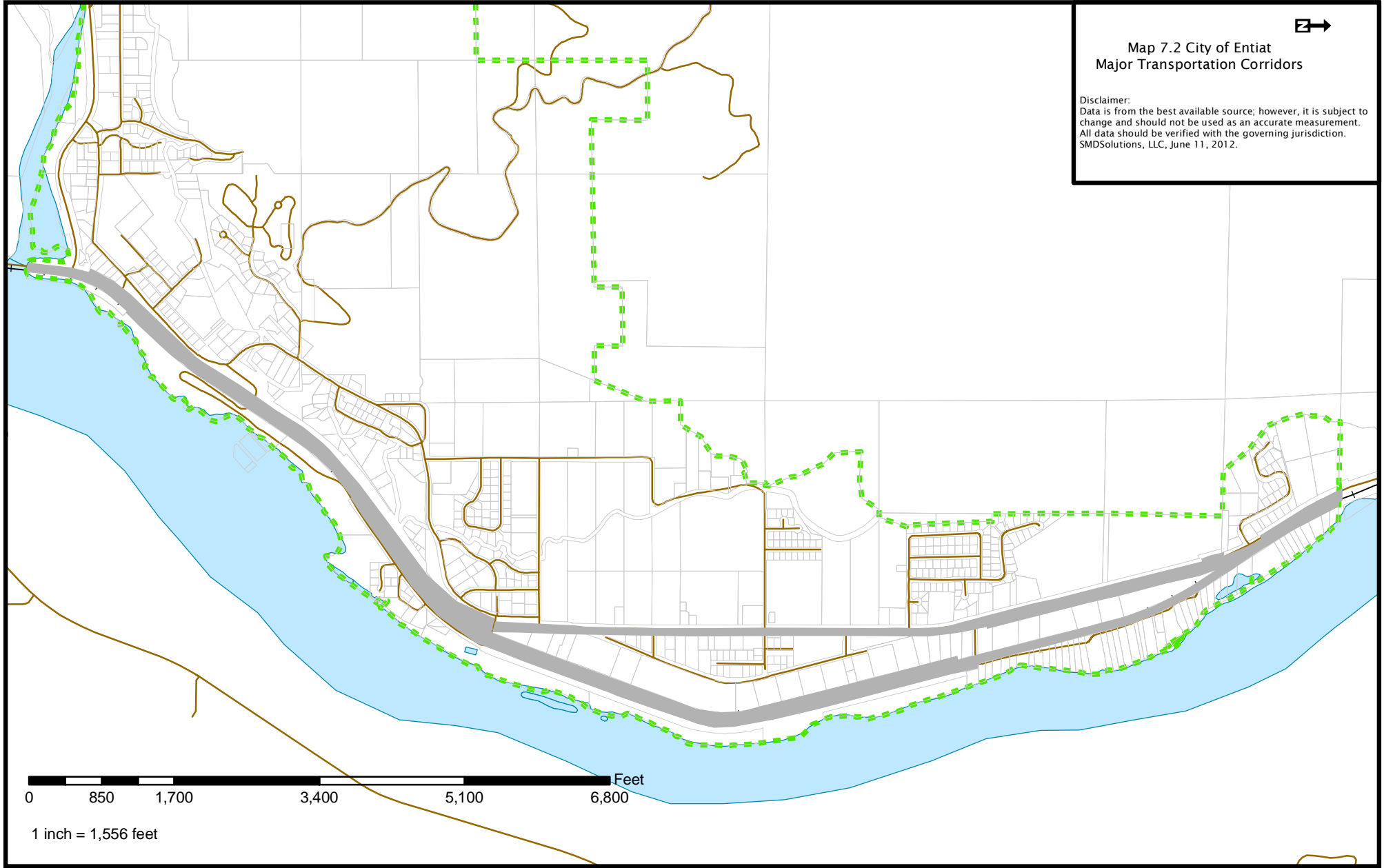
Topaz Pl
 Pearl Ct
 Diamond Ave
 Howe St
 Wisdom Ave
 Shamel St

Burkey St
 Golden Delicious
 Red Delicious
 Golden Delicious
 Voss Pl
 Pine Meadows
 North Lakeshore Dr
 Highway 97A
 Lakeview Dr
 McCord Pl



Map 7.2 City of Entiat Major Transportation Corridors

Disclaimer:
Data is from the best available source; however, it is subject to change and should not be used as an accurate measurement.
All data should be verified with the governing jurisdiction.
SMDSolutions, LLC, June 11, 2012.



0 850 1,700 3,400 5,100 6,800 Feet

1 inch = 1,556 feet