MLM
7/19/18
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ORDINANCE NO. 906

AN ORDINANCE OF THE CITY OF CARNATION, WASHINGTON, AMENDING THE CITY'S OFFICIAL ZONING MAP AND THE FUTURE LAND USE MAP OF THE CARNATION COMPREHENSIVE PLAN TO PROVIDE AN AREA-WIDE RE-ZONE OF NUMEROUS PUBLICLY OWNED PARCELS WITHIN THE CITY LIMITS; AMENDING CHAPTER 3 LAND USE ELEMENT, CHAPTER 7 TRANSPORTATION ELEMENT, AND CHAPTER 9 CAPITAL FACILITIES ELEMENT OF THE CARNATION COMPREHENSIVE PLAN TO ADOPT AND INCORPORATE BY REFERENCE THE CITY'S 2019 TRANSPORTATION IMPROVEMENT PLAN AND THE 2018 RIVERVIEW SCHOOL DISTRICT CAPITAL FACILITIES PLAN; SETTING FORTH LEGISLATIVE FINDINGS; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, pursuant to Chapter 36.70A RCW, the City of Carnation has adopted a Comprehensive Plan for the purpose of guiding and informing future growth, development, and infrastructure planning within the City; and

WHEREAS, pursuant to Chapter 35A.63 RCW, the City has adopted development regulations, including an Official Zoning Map, designating the various zoning districts within the City and setting forth requirements regarding the use and development of property within each zone; and

WHEREAS, the City desires to amend Chapter 3 Land Use Element and the Future Land Use Map of the Comprehensive Plan related to publicly owned parcels, and further desires to amend the City's Official Zoning Map to designate underlying zoning for publicly owned

parcels and establish a Public Use Overlay District for public uses that serve the public service needs of the community, to be overlaid upon the underlying zoning districts which ensure consistency with the updated Comprehensive Plan; and

WHEREAS, the City desires to amend Chapter 7 Transportation Element of the Comprehensive Plan in order to adopt and incorporate by reference the City's Transportation Element Background Information and 2019 Transportation Improvement Plan as adopted by City Council Resolution No. 426; and

WHEREAS, the City further desires to amend Chapter 9 Capital Facilities Element of the Carnation Comprehensive Plan to incorporate by reference the 2018 Riverview School District Capital Facilities Plan and update the Capital Improvements Program to reflect the City's 2019 Transportation Improvement Plan; NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF CARNATION, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Findings. The City Council hereby adopts the above recitals as findings in support of the Comprehensive Plan amendments set forth in this ordinance. The City Council further adopts by reference the findings of the Planning Board dated September 14, 2018, together with the following:

A. The City is authorized by state law, including but not limited to Chapter 36.70A RCW, to adopt and periodically amend a local comprehensive plan.

B. The Planning Board conducted a public hearing on the substance of this ordinance on August 28, 2018, and recommended adoption by the City Council. The City Council held a public hearing on this ordinance on October 2, 2018.

C. The Comprehensive Plan amendments set forth in this ordinance have been processed and considered by the City in material compliance with all applicable procedural requirements, including but not limited to requirements related to public notice and comment.

D. All relevant requirements of SEPA have been satisfied with respect to this ordinance.

E. The City Council has carefully considered, and the Comprehensive Plan amendments set forth in this ordinance satisfy, the review criteria codified at CMC 15.100.030(E).

F. The Comprehensive Plan amendments set forth in this ordinance will advance the public health, safety, and welfare.

G. The Comprehensive Plan amendments set forth in this ordinance have been considered by the City Council concurrently to enable the cumulative effect of these amendments to be ascertained.

Section 2. Amendment of Comprehensive Plan Chapter 3. Chapter 3 Land Use Element of the Carnation Comprehensive Plan is hereby amended to provide in its entirety as contained in Exhibit A, attached hereto and incorporated herein by this reference as if set forth in full.

Section 3. Amendment of Comprehensive Plan Chapter 7. Chapter 7 Transportation Element of the Carnation Comprehensive Plan is hereby amended to provide in its entirety as contained in Exhibit B, attached hereto and incorporated herein by this reference as if set forth in full.

Section 4. Amendment of Comprehensive Plan Chapter 9. Chapter 9 Capital Facilities Element of the Carnation Comprehensive Plan is hereby amended to provide in its

entirety as contained in Exhibit C, attached hereto and incorporated herein by this reference as if set forth in full.

Section 5. Amendment of Future Land Use Map. The Future Land Use Map of the Carnation Comprehensive Plan is hereby amended to provide in its entirety as contained in Exhibit D, attached hereto and incorporated herein by this reference as if set forth in full.

Section 6. Amendment of Official Zoning Map. The City's Official Zoning Map is hereby amended as indicated in Exhibit E, attached hereto and incorporated herein by this reference as if set forth in full. Pursuant to CMC 15.36.110(B), the City Manager is authorized and directed to update the Official Zoning Map in accordance with this amendment.

Section 7. Copy to Commerce. Pursuant to RCW 36.70A.106, the Planning Director is hereby authorized and directed to provide a copy of this ordinance to the Washington Department of Commerce within ten (10) days of adoption.

Section 8. Severability. If any section, sentence, clause, or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this ordinance.

Section 9. Effective Date. This ordinance or a summary thereof consisting of the title shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after publication.

APPROVED by the Carnation City Council this 16th day of October, 2018.

CITY OF CARNATION

Kimberly Lisk

MAYOR, KIMBERLY LISK

ATTEST/AUTHENTICATED:

CITY CLERK, MARY MADOLE

APPROVED AS TO FORM:
OFFICE OF THE CITY ATTORNEY:

BY 

J. ZACHARY LELL

FILED WITH THE CITY CLERK: 09/14/2018
PASSED BY THE CITY COUNCIL: 10/16/2018
PUBLISHED: 10/26/2018
EFFECTIVE DATE:..... 10/31/2018
ORDINANCE NO. 906

CHAPTER 3 – LAND USE ELEMENT

I. INTRODUCTION

Carnation is located within the pastoral and scenic Snoqualmie River Valley. Established in 1912 as the Town of Tolt, the City historically provided services and housed workers for the surrounding logging and farming enterprises. Today, Carnation primarily provides housing for commuters to the larger employment centers west of the Snoqualmie Valley, and housing has expanded eastward from the original plat in more typical suburban density and style.

The historic downtown commercial area is located along State Route (SR) 203. This downtown core is approximately 4 blocks in size, located along both side of SR203. A small shopping center built in 1986 anchors the south end of the historic commercial center.

At slightly over one square mile in size, Carnation is compact. Geographic expansion of the City has been limited by its location at the confluence of the Tolt and Snoqualmie Rivers: development to the west and south are limited by these rivers and their associated areas of flood hazard. A steep hillside forms the eastern boundary of the City, and to the north, the floodplain of the Snoqualmie River widens considerably. Circulation within the City is dominated by two north-south facilities. State Route (SR) 203 provides highway access to Carnation from the rest of the Snoqualmie Valley, and the Snoqualmie Valley Trail bisects the City a few blocks to the east of SR203. Once a railway that provided access to Monroe and Everett for farm products, the Trail is now a popular regional recreational facility much used by hikers, bicyclists and equestrians.

The largest portion of the Potential Annexation Areas (PAA) is located to the north of the City. The area known as the “Garden Tracts” is located between NE 55th Street and NE 60th Street and between 316th Avenue and the Snoqualmie Valley Trail. The Garden Tracts were platted in the early twentieth century, at the same time as the original plat of Tolt. Although located within unincorporated King County, the land use is single family residential on suburban sized lots. While these homes are on private septic systems, public water service from the City of Carnation has allowed development at non-rural densities. Between the Garden Tracts and the current city boundary are several large tracts that are currently in agricultural uses such as U-Pick berry farms. Other portions of the PAA include a tree farm southwest of the City boundary, and a newly expanded portion of the PAA east of the City boundary along NE 45th Street (Entwistle Street) which is in rural residential use.

PURPOSE OF THE LAND USE ELEMENT

The Washington Growth Management Act (RCW 36.70A) requires cities to prepare a Land Use Element designating the proposed general distribution, location and extent of the uses of land within the Urban Growth Area. RCW 36.70A.070(1) specifies the requirements for this element, including projections of population densities, building intensities, and estimates of future population growth, as well as protection of the quality and quantity of ground water used for public water supplies, consideration of urban planning approaches that promote physical activity, and guidance for drainage, flooding, and storm water run-off to prevent degradation of waters of the state.

CONSISTENCY WITH VISION 2040 MULTI-COUNTY PLANNING POLICIES

The City of Carnation Comprehensive Plan Land Use Element is consistent with the Multi-county Planning Policies (MPPs) as described in VISION 2040 in that it promotes a compact urban form with the most intense land uses centered along SR203. The small size of the UGA (slightly more than 1 square mile) and a system of linked sidewalks and trails allows for a pedestrian oriented community. Development is focused to a large extent within areas already served or easily served with infrastructure and public services.

In keeping with the policies of VISION 2040, Carnation's Town Center consists of the commercial core and surrounding mixed use, higher density residential neighborhoods and industrial area. The Town Center is located between Rutherford and Blanche Streets along SR203, and from Stossel Avenue on the east to Stephens Avenue north of Entwistle and Larson Avenue south of Entwistle on the west. This area includes the existing and proposed highest intensity commercial development as well as the important civic centers such as City Hall, the Senior Center, Tolt Commons Park and the Community Shelter. The Town Center has an excellent pedestrian scale and orientation, and is walking distance to many of the City's established neighborhoods. While the scale of Carnation is conducive to a pedestrian environment, SR203 (Tolt Avenue) often acts as a barrier for pedestrians; capital improvements within the Town Center that promote pedestrian safety such as traffic calming and more clearly defined crosswalks will be important to achieve Carnation's goals. Future investments in this area that promote a vibrant local economy are a priority of the City.

II. LAND USE INVENTORY AND DESCRIPTION

The inventory presented in this Element provides information useful to the planning process. The inventory summarizes the general development of the city, and describes existing types of land use in the city.

PHYSICAL ENVIRONMENT

The following is summarized from a variety of sources, including the Environmental Assessment (EA) for the Carnation Sewer Collection and Conveyance System and Wastewater Treatment Facility, September 2005. The project area identified in the EA includes the Carnation UGA. The City adopted an Environment Element as part of the 2005 Comprehensive Plan Update. Information on the physical environment from the Element is incorporated into this Land Use Element

The City of Carnation and its UGA are approximately 800 acres (1.25 square miles) in size and roughly centered on State Route (SR) 203 (Tolt Avenue) and Entwistle Street/NE 45th Street in King County, northeast of the confluence of the Tolt and Snoqualmie Rivers. Approximate boundaries of the UGA are the Snoqualmie River to the west, NE 60th Street to the north, the Tolt River and NE 32nd Street to the south, and 338th Avenue NE to the east.

Climate. Maritime air masses from the Pacific Ocean influence the climate of the Carnation area and result in moderate temperatures. Carnation receives an average of 57 inches of rainfall annually, with ranges from less than 45 inches to more than 90 inches. Precipitation varies seasonally with approximately 75 percent of the annual precipitation falling between October and March.

Soils and topography. Carnation's location within the Snoqualmie River Valley and at the confluence of the Snoqualmie and Tolt Rivers determined the area's predominant flat topography and soil types. The King County Soil Survey (U.S. Soil Conservation Service, 1973) generally classifies soils in the Carnation UGA as part of a group of soils known as the Oridia-Seattle-Woodinville Association (American Engineering, 2000). This soil group occurs in major stream valleys or nearby level areas. Major soil types within this group include Oridia soils, Seattle soils, and Woodinville soils. In general, soils in the Oridia-Seattle-Woodinville Association are well suited for farming and pasture. However, poor drainage and a seasonal high water table in some parts of the UGA can result in moderate to severe limitations for urban development and make site preparation more costly.

City-wide studies of geological conditions determined that the geology underlying Carnation is composed mostly of relatively thick accumulations of post-glacial and glacial deposits over Tertiary, sedimentary, and igneous rocks (Kleinfelder, 2003; R.W. Beck and Associates, et al., 1991). Existing data on the City's geology indicate that the surface geology is composed of sand and gravel deposited during migration of rivers and streams. Flooding from the adjacent Tolt and Snoqualmie Rivers has left deposits of finer materials and alluvium on top of the sand and gravel. Surface soils were generally topsoil or forest duff, native silty sands, and gravels or gravel surface course. Subsurface conditions generally consisted of fill and alluvium, which was composed of sands, gravels, and silts with isolated clay

lenses.

The elevation of the heart of Carnation is approximately 67 feet above sea level. To the west of the City there are relatively steep slopes, and slopes over 15% (Class II/Moderate Hazard areas) are located outside the city limits to the northeast, adjacent to Tolt Highlands north of Entwistle/Tolt River Road Street. While much of the UGA is characterized by flat topography, there is a substantial hill to the northeast of the City that encroaches into the City limits, primarily affecting some residential areas and some public use.

Low liquefaction potential has been identified within the city limits based on anticipated depth to groundwater and field data collected. In the event of a seismic occurrence, it is anticipated that liquefaction settlement would be less than one inch.

Surface water. The major surface water body in the project area is the Snoqualmie River, which generally flows from the southeast to northwest and is located on the western edge of the City. The Snoqualmie River watershed drains more than 700 square miles in King and Snohomish Counties before joining the Skykomish River to form the Snohomish River.

The Tolt River, which drains a 101-square-mile basin, is the largest tributary to the lower Snoqualmie River. The Tolt River enters the Snoqualmie River just south of Carnation at RM 24.9 (Figure 5). The land in the upper reaches of the Tolt River watershed is forested.

Anadromous fish use the entire length of the Snoqualmie River below Snoqualmie Falls, as well as many tributaries including the Tolt River. See below for a discussion of endangered species in the subsection on Wildlife Habitat.

Floodplain. The City is located at the confluence of the Tolt and Snoqualmie Rivers, both of which have mapped floodplain areas. Floodplains and other areas subject to flooding, collectively referred to as “frequently flooded areas,” perform important hydrologic functions (WAC 365-190-080(3)). The Federal Emergency Management Agency (FEMA) designates and classifies frequently flooded areas on their Flood Insurance Rate Maps. The FEMA has recently developed new flood maps for the Snoqualmie River. These maps are still in the Preliminary stage and not yet officially adopted.

Land within the City of Carnation is located within the Federal Emergency Management Agency (FEMA) designated 100- and 500-year floodplains of the Snoqualmie and Tolt Rivers. Special Flood Hazard Area (SFHA) is defined as areas that are subject to inundation by the 1% annual chance flood (generally known as the 100 year flood event). The SFHA within the Carnation UGA are mapped as Zone AE, which are areas within the 100 year floodplain where the

Base Flood Elevation has been mapped. Floodway areas are identified within the SFHA as the channel of the stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood waters can be carried without substantial increases in flood heights. Within the Carnation UGA, there are areas within the floodway along the southern City boundary associated with the Tolt River, and along the western boundary associated with the Snoqualmie River.

Portions of the city that are not within the 100 year floodplain are within the 500 year flood zone, which is not considered a Special Flood Hazard Area.

In addition to flooding surrounding areas, river channels can move, or migrate, laterally across their floodplains. Channel migration can occur gradually, as a river erodes one bank and deposits sediment along the other. Channel migration can also occur as an abrupt shift of the channel to a new location, called an avulsion, which may happen during a single flood event. King County provides maps of channel migration zones (CMZs) which provide information on where the river has been and where it may go due to channel migration. Channel migration zones have been identified along the Tolt River primarily to the east of the Carnation UGA. There is a section of CMZ mapped along the Tolt River within the Carnation UGA, although most of the Tolt and Snoqualmie river channels bordering Carnation are fixed.

To address flood hazards, revetments and levees have been constructed along both rivers since the 1930's to protect surrounding farm and city lands. In more recent years, King County constructed a setback of the levee at the confluence of the two rivers, just outside of the City's UGA. King County is currently conducting a study of flood hazard reduction options on the Tolt River from its confluence with the Snoqualmie to approximately River Mile 6. The Carnation UGA abuts approximately River Mile 0.5 through River Mile 2. The study is investigating other opportunities for levee setbacks, as well as other methods of flood hazard reduction on the Tolt River.

Groundwater. The project area is located within the East King County Ground Water Management Area (East King County Ground Water Advisory Committee, 1998a). The UGA and most of the valley surrounding the City of Carnation is designated as a critical aquifer recharge area. The City operates a single drinking-water well inside the city limits (depth of about 110 feet) and a spring source that furnishes approximately 90 percent of the City's drinking water (East King County Ground Water Advisory Committee, 1998b). The City provides water to slightly less than 1,000 water customers both inside and outside current city limits.

The groundwater table is reported to be fairly shallow, generally within 5 to 10 feet below ground surface (bgs). The King County Soil Survey (U.S. Soil Conservation Service, 1973) indicates that seasonally high water tables in the floodplain in the

Carnation area are approximately 1 to 3 feet bgs. A geological study was conducted by Kleinfelder, Inc. in December 2003 for the *City of Carnation Sewer Comprehensive Plan.* The study reported that groundwater was encountered at only one test pit location, at 6 feet bgs. Groundwater was not encountered at other test sites throughout the project area at depths to 7 feet.

Critical areas and wildlife habitat. Landau Associates conducted a study in 2004 to investigate the presence of wetlands, streams, and sensitive areas in the vicinity of the proposed City sewer system alignment, which is generally located throughout the City limits. In general, wetlands have been preliminarily identified along the Tolt River within the mapped floodway, but have not been field delineated. Several areas of habitat were observed during the study, including the forested habitat of Loutsis Park and the forested corridor in the King County Snoqualmie Valley Trail Park. Although these areas are partially developed with walkways and are used regularly for recreation, the trees provide habitat for birds. Bird species observed in these parks include dark-eyed junco, rufous-sided towhee, common bushtit, golden-crowned kinglet, stellar jay, and American crow. Pacific tree frog vocalizations were also noted along the Snoqualmie Valley Trail. The Snoqualmie Valley Trail is expected to serve as a migration route for birds, small mammals, and deer traveling to and from the Tolt River and its adjacent riparian habitat.

A Biological Assessment prepared for the sewer system described Endangered Species Act (ESA)-regulated fish and wildlife that may be present in the Carnation UGA. Information provided by the National Oceanic and Atmospheric Administration (NOAA) Fisheries and U.S Fish and Wildlife Service indicated that the Carnation sewer project would occur within the general range of the species listed in Table 3-1.

Table 3-1. Threatened Species in Project Area

Common Name	Scientific Name	ESA Status*
Chinook salmon	*Onchorhynchus tshawytscha*	Threatened
Bald eagle	*Haliaeetus leucocephalus*	Threatened
Bull trout	*Salvelinus confluentus*	Threatened
Canada lynx	*Lynx canadensis*	Threatened
Gray wolf	*Canis lupus*	Threatened
Grizzly bear	*Ursus arctos*	Threatened
Marbled murrelet	*Brachyramphus marmoratus*	Threatened
Northern spotted owl	*Strix occidentalis caurina*	Threatened

Marsh sandwort	*Arenaria paludicola*	Threatened
Golden paintbrush	*Castilleja levisecta*	Threatened

*__Threatened:__ Species are likely to become endangered within the foreseeable future.

Wetlands are areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshy areas along shorelines, inland swamps, and seasonal watercourses. Wetlands are typified by a water table that usually is at or near the surface. Wetlands perform various habitat, erosion control, water quality and flood control functions. The extensive root systems of wetland vegetation stabilize streambanks. Water quality is improved by decreasing the velocity of water flow, resulting in the physical interception and filtering of waterborne sediments, excess nutrients, heavy metals, and other pollutants. Wetlands also provide food and shelter, essential breeding, spawning, nesting and wintering habitats for fish and wildlife, including migratory birds, anadromous fish, and other commercially and recreationally valuable species.

The City has undertaken mapping of wetlands within City limits as part of the environmental permitting for the sewer system, and subsequently with funds from King Conservation district. Maps of wetlands within the UGA indicate the presence of small water bodies at the north and south ends of the city, primarily within Tolt and Snoqualmie River riparian areas, drainage channels, depressions and low-lying drainage areas. In general, there is little evidence of wetlands in the upland portion of the UGA, although there may be additional wetlands within the UGA that have not been identified. If there is evidence of wetlands on property that is subject to development, a critical areas report is required as part of the permit application.

Summary. Carnation's physical environment has been determined in large part by its location at the confluence of the Snoqualmie and Tolt Rivers. Primarily flat in topography with the exception of the steep slopes that affect the northeastern area, the southern and western portions of the City contain areas of special flood hazard and some potential wetlands. The central portion of the City is relatively unconstrained by physical limitations. The physical environment limits the potential of the City to expand, and therefore creates impetus for a compact and walkable community

EXISTING LAND USE

The oldest and most intensive development within Carnation is concentrated along SR203 from NE 40th Street to Bagwell Street and between Stewart Avenue and the Snoqualmie Valley Trail. This area is the approximate location of the original early twentieth century plat of the City. Various public uses that serve the

community (schools, library, cemetery and fire station) are located both to the south and north. Industrial uses are located south and west of the original plat. To the east are residential developments at lower densities, as well as lands that are still in rural residential use. Another residential area that was platted in the early twentieth century is located in the northerly portion of the Potential Annexation Area. This area, known as the Garden Tracts, has not developed to same density as within City limits. Agricultural uses are located in the northern part of the UGA as well as in the southwestern portion of the UGA. Parks are located along the southern and western boundaries, including portions of a very large King County park, and several city-owned parks.

Figure 3-1 shows a map of existing land use within the City of Carnation UGA. Existing Land uses were grouped into the following categories:

- Agriculture
- Rural residential (generally densities of one unit or less per acre)
- Low density residential (densities of two or three units per acre)
- Medium density (single family residential at approximately 4 units per acre or greater)
- Mobile homes
- Multi-family, which includes apartments and duplexes
- Low intensity commercial, including offices, storage, and horticultural commercial uses
- Commercial
- Industrial
- Churches and houses of worship
- Park lands
- Other public lands
- Vacant (generally lands with no buildings or current uses)

Figure 3-1
Existing Land Use Map

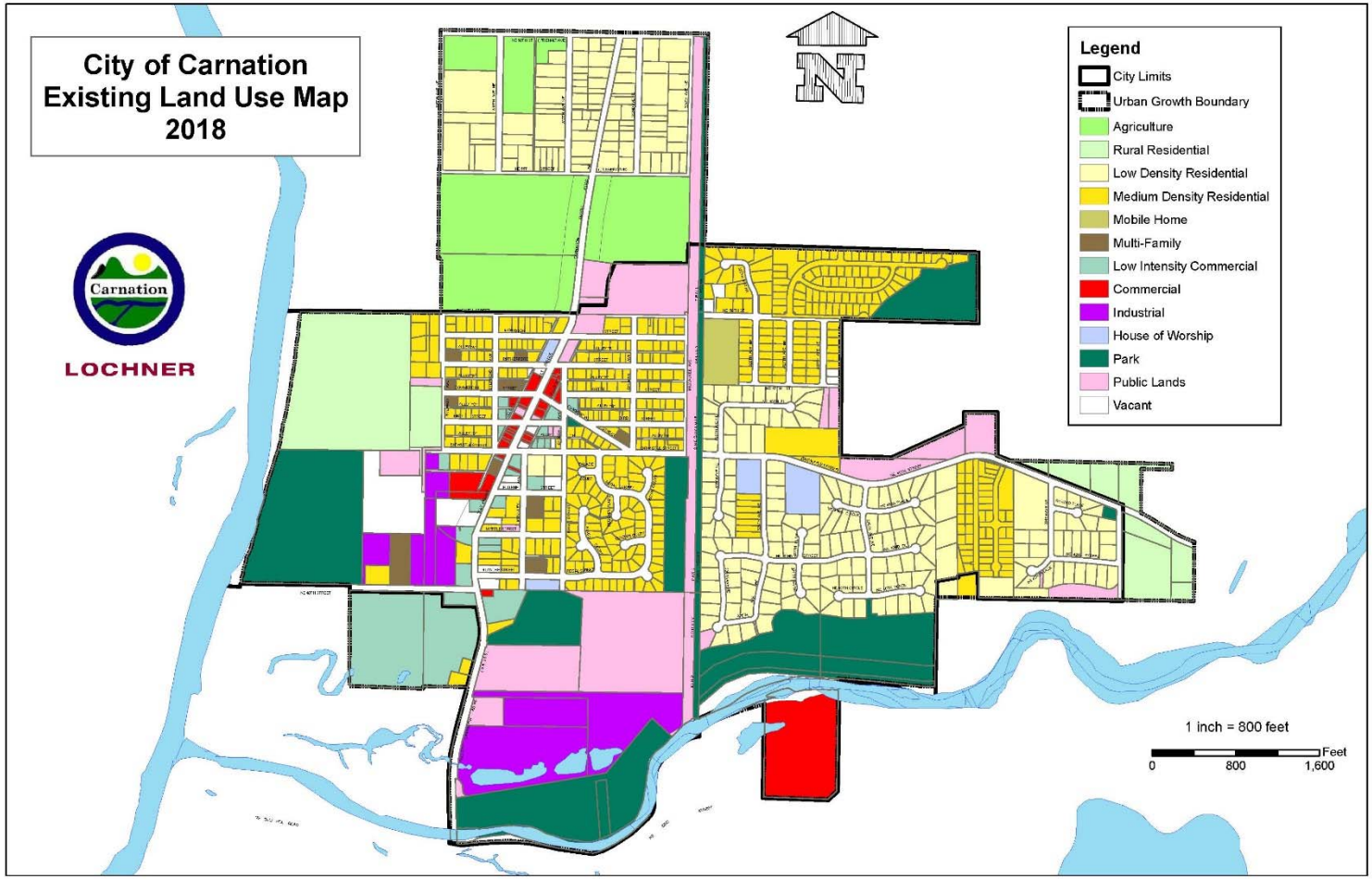


TABLE 3-2

(Reserved for future use)

~~EXISTING LAND USE - CARNATION AND POTENTIAL ANNEXATION AREA~~

~~LAND USE~~	~~ACREAGE~~			
	~~WITHIN CITY LIMITS~~	~~WITHIN PAA~~	~~TOTAL~~	~~% OF TOTAL AREA~~
~~Agriculture~~		~~69~~	~~69~~	~~9%~~
~~Rural Residential~~	~~80~~	~~19~~	~~99~~	~~14%~~
~~Low Density Residential~~	~~84~~	~~52~~	~~135~~	~~19%~~
~~Medium Density Residential~~	~~89~~	~~1~~	~~90~~	~~12%~~
~~Mobile Home Park~~	~~5~~		~~5~~	~~1%~~
~~Multi-family~~	~~5~~		~~5~~	~~1%~~
~~Low Intensity Commercial~~	~~10~~	~~24~~	~~48~~	~~5%~~
~~Commercial~~	~~23~~		~~6~~	~~3%~~
~~Industrial~~	~~43~~		~~43~~	~~6%~~
~~House of Worship~~	~~9~~		~~9~~	~~1%~~
~~Park~~	~~88~~		~~88~~	~~12%~~
~~Public Lands~~	~~77~~	~~2~~	~~79~~	~~11%~~
~~Vacant~~	~~51~~		~~51~~	~~7%~~
~~**TOTAL**~~	~~**561**~~	~~**166**~~	~~**727**~~	

~~*Note: The acreage shown in this table does not include the City's watershed, the landfill, street rights-of-way or lands under water.*~~

Residential Land Use. Approximately 47% of the land within the City and its PAA is devoted to residential use, although that number is reduced to 33% if rural residential lands are not included. The housing stock within the City and Potential Annexation Area is predominantly single-family with a small number of duplex and multi-family units as well as a mobile home park. Multi-family and the mobile home park account for 1% each of the total UGA land area.

Most of the homes built within the original city plat are on small lots of approximately 5,000 (two 25 X 100 sq. ft. lots) to 10,000 square feet (four 25 X 100 sq. ft. lots). The original plat consists of a grid street pattern with lots served by alleys. Two subdivisions were developed in the 1960's and 1970's, one of which is characterized by a grid pattern but without alleys, and the other a more typical pattern characterized by *cul de sacs*. Subdivisions built in the 1990's were typically built on larger lots, as required by Seattle and King County Public Health Department regulations for houses served by septic systems. These subdivisions are also typical of that period, with a street pattern that maximizes *cul de sacs*

rather than a grid system. The predominant land use east of the Snoqualmie Valley Trail is single family residential.

The multi-family uses within the city are small apartment buildings and duplexes. These are located in small areas within the original plat, and on NE 40th Street. A mobile home park is located just east of the Trail along NE 50th Street.

Commercial/Retail Land Use. Approximately eight percent (8%) of the total land within the UGA is in commercial or low intensity commercial uses. Low intensity uses include offices, storage facilities, and horticultural commercial uses. Most of the city's retail development is located along SR 203 between Rutherford and Eugene Streets, and consists of specialty retail, office uses, restaurants, and a supermarket. Remlinger Farms south of the Tolt River is a mix of agri-tourism and related industries.

Light Industrial / Manufacturing. There are 43 acres (6% of the UGA) in light industrial land use within the current city limits, primarily in the southwest portion of the City. Major industrial activity in the city consists of machine works and an asphalt company.

Parks / Open Space Lands. Park lands account for 11% of the Carnation UGA. City owned parks include Valley Memorial, Loutsis, Fred Hockert and River's Edge Parks. In addition, portions of Tolt MacDonald Park, a regional park owned and operated by King County, are within the City limits. There are also areas of open space along the Tolt River south of the Swiftwater subdivision.

Agricultural Land Use. Existing agricultural lands are located within the Potential Annexation Area, and account for 9% of the UGA total land area. The Growth Management Act calls for urban land uses within urban areas; therefore it is to be expected that these lands will be developed for non-agricultural uses once they annex into the City. It should be noted that the surrounding Snoqualmie Valley is an agricultural production area characterized by many small farm operations. The City has significant establishments both within City limits and in the Potential Annexation Area that while commercial in nature, are based on horticulture and can be characterized as agri-tourism. Examples include a Christmas tree farm and Remlinger Farms. These uses were counted as "Low Intensity Commercial" for this analysis of existing land use.

Public / Community Facility. There are a number of public and community land uses in the City of Carnation. These uses comprise about 11% of the total land in the UGA. Public uses owned and operated by the City include City Hall, City maintenance shops, the Carnation cemetery, and utilities such as the sewer system Vacuum Station and water reservoir, as well as storm water facilities. The Riverview School District which serves the City as well as Duvall and the area of King County between the two cities owns and operates the Tolt Middle School, the

Carnation Elementary School, and a newly constructed Alternative Learning Center. The District offices are also within the City. Finally, Eastside Fire and Rescue owns and operates the Carnation Fire Station.

Vacant Lands. Currently approximately 7% of the total UGA is vacant. For the most part, this figure does not include vacant existing buildings or areas that could re-develop either upon annexation or as market forces make such development attractive.

Houses of Worship. There are several churches in Carnation, including several that have relatively large lots. This category of land use accounts for approximately 1% of the UGA.

III. FUTURE NEEDS AND ALTERNATIVES

Recent Population Trends and Growth Projections. Population data from the US Census and projections from the State of Washington Office of Financial Management provide data on population trends and projections. The US Census is performed every decade, and data from the 2010 Census has recently become available.

Table 3-3
POPULATION TRENDS - CARNATION AND KING COUNTY
1970 – 2010

	1970	1980	1990	2000	2010
Carnation	530	951	1,243	1,893	1,786
King County	1,159,587	1,269,898	1,507,319	1,737,034	1,931,249
Carnation as a % of County	0.05%	0.07%	0.08%	0.10%	0.09%

Source: U.S. Bureau of the Census

Carnation's population increased seventy-nine percent (79%) from 1970 to 1980. It grew 31% from 1980 to 1990, and 52.3% from 1990 to 2000. While a new public sewer system was completed in 2008 that would enable increased density of development, a downturn in the economy that began in 2009 decreased the demand for new housing and the projected growth did not occur. Population fell by 5.6% between 2000 and 2010, most likely due to the prevalence of housing foreclosures adding to increased vacancies within the City. In more recent years, development within the city has picked up considerably. As of the date of this Land Use Element adoption, there are approximately 130 new residential lots in formation, with housing starts expected to be spread over the next several years. The 2020 Census of population will show significant population growth within the

City.

The City's capacity for new households, population and employment were projected based on the proposed Future Land Use Map (see Figure 3-2 below). Capacity for new employment is a function of the capacity of the City's Future Land Use Map for those zones that allow for commercial and industrial lands. Capacity for new households is based on land that is zoned for residential use, and includes both parcels of land that can be subdivided for new growth and also opportunities for infill development in the older neighborhoods.

Projections were based on developable lands in each of the zones, with estimates made for lands that may be constrained by critical areas and/or regulatory floodplains. For new development, reduction in developable land was taken to account for infrastructure, such as new roadways, stormwater management, etc. In addition, not all lands will be built to the maximum density or intensity allowed, so a market factor was also applied based on local knowledge.

The projections of capacity for new households, population and employment were used to determine whether the City would have adequate infrastructure to serve the proposed growth without deterioration of service below adopted levels of service. As such, these projections form the basis for capital improvement plans identified in the Parks, Utilities, Transportation and Capital Facilities Elements.

Carnation's flexible approach to residential zoning allows multi-family, townhouse, cottage housing and single family in several zones. While this flexibility helps provide a range of housing products, it is more difficult to accurately project future households. In order to be conservative in evaluating infrastructure demand, projections of new households were based on higher densities than may actually be developed. Population growth projected in Carnation for the twenty year horizon is based on several factors, including demand for housing within the greater Seattle region, demand for new housing development in the rural cities to the east of the King County Urban Growth Area, the relative affordability of housing in Carnation, and the City's capacity for new growth as identified in the Future Land Use Map. Table 3-4 shows an estimate of population growth that is projected based on the Zoning Map. Population was projected based on the average persons per household of 2.83 in the 2010 US Census.

Table 3-4
Population Growth Potential 2010 – 2035

2010 Population (US Census)	
Carnation City Limits	1,786
PAA	173
Total	**1,959**
Estimated Population Potential	
Total in Carnation City Limits	3,218
Total in PAA	1,438
Total Maximum Population	**4,652**

ECONOMIC OUTLOOK

At its inception, Carnation's economic base was natural resource based, primarily logging and agricultural activities. As the national and regional economies shifted to high tech, retail and service sectors, Carnation's economic outlook also changed. Recent decades saw increased population growth within the rural cities of the Snoqualmie Valley to provide housing for employment centers within commute distance. While Carnation's population grew from approximately 500 to its present size of almost 2,000, Carnation's growth has not kept pace with its Valley neighbors, due to the lack of a public sewer system and less land capacity. Opportunities for local manufacturing and other value-added industries to locate within Carnation have also been limited by the lack of access to interstate highways. As retail and service sectors are in general tied to population growth, Carnation's relatively small population base has resulted in less new commercial development than experienced by its neighboring cities within the Valley. In general, employment opportunities in Carnation are limited, with the School District and a few local manufacturing establishments the primary employers.

The recent successful installation of a public sanitary sewer system has enabled new development as the economy bounces back from its recent downturn. An Economic Development Strategy was adopted by the City Council in 2007 to help the City make the most of its potential for economic development now that the infrastructure to support development is in place. The Strategy emphasizes actions the City and its partners can take to maximize its advantages. For example, there are successful agri-tourism establishments such as Remlinger Farms and the U-pick berry farms north of the City that draw many visitors to the Carnation area, as well as the regional draw of recreation opportunities afforded by Tolt McDonald Park and the Snoqualmie Valley Trail. Signage, visitor maps, advertising and community-sponsored events that are designed to draw visitors to Carnation's downtown are an important strategy for the City to take advantage of regional tourism. Similarly, the Strategy identifies efforts the City can take to retain existing businesses and attract new enterprises, such as making sure that

development regulations do not prevent business expansion or establishment.

The Strategy also calls for the City to provide on-going outreach to the business community to see how the local businesses can be supported. By enacting these and other strategies, the City of Carnation hopes to achieve its goals of increasing economic vitality and employment opportunities.

FUTURE LAND USE

Figure 3-2 shows the Future Land Use Map for the City of Carnation UGA. This Future Land Use Map reflects Carnation's land use goals for an attractive, human scale, pedestrian oriented Town Center, with retail, community and public services within a half mile of many of the city's residences. Residential development is proposed such that medium and higher density residential areas are located closest to these activities, in keeping with a small town center. Less dense residential development is not quite as close, but as the entire UGA is approximately 1.3 square miles in size, even the less densely zoned portions east of the Snoqualmie Valley Trail are still within relative proximity.

As required by the GMA, King County conducted a Buildable Lands analysis to determine the capacities of the cities within the County to accommodate projected new growth. The capacity was compared with adopted growth targets that stemmed from Washington State OFM forecasts and Vision 2040's Regional Growth Strategy. The targets for households and employment were adopted as part of the King County Countywide Planning Policies (CPPs). The City of Carnation must accommodate a 2006 to 2031 growth target of 330 additional households. Actual growth in the 20 year planning horizon to 2035 is projected to exceed the minimum established by the target by an estimated 587 households including projected households based on the docket request described below if it is approved.

The increased household capacity has been developed entirely within the City's UGA and results from density increases and changes in land use designations. Since the City's public sewer system became operational in 2008, zoning code amendments have increased allowed densities in several zones; this has promoted walkability as the increased density is within walking distance to the City's center. In addition, in recent years the City amended the Future Land Use and Zoning Maps to change some parcels from commercial to residential use. This change in the land use designations was based on a market analysis that indicated commercial capacity within the UGA was excessive, and far exceeded what could be supported by the City's market area. All of this potential housing capacity remains within the compact urban area of the UGA, and maintains the City's character as a walkable community anchored by a small but viable commercial center.

The primary goal of the increased household capacity within the UGA has been

for economic development and fiscal survival. While Carnation's setting in the Snoqualmie Valley certainly provides incentive for visitors, the City's location is not on a major highway such as I-90 or US Route 2. The viability of Carnation's commercial center depends on a customer base primarily supplied by the local population. As shown in Table 3-4 above, the existing population in the UGA is under 2,000, which is not adequate to support a local commercial center. Nearby rural population in some cases supports local businesses, but may be lured to larger commercial centers.

Recent subdivision activity will help provide new customers, and in fact some local businesses have shared that they are keeping their doors open in Carnation because of the new growth. Without the change proposed by the 2015 docket request (see below), Carnation's ability to provide enough new households to support its downtown would be limited in the short term, as there would be almost no new sub-dividable land within Carnation's current city boundaries. Much of the City's residential capacity is in the Potential Annexation Area in several large parcels owned by one family; annexation may well occur late in the twenty year horizon.

Any proposed expansion of the UGA is limited by Carnation's physical location. With rivers on the southerly and westerly boundaries, a large and steep hill to the east and expanded floodplain to the north, Carnation has very limited opportunity to expand geographically. Even with increased density and changes in land use designation from nonresidential to residential uses, the City's population will remain under 5,000 people, the smallest and most compact of the Snoqualmie Valley cities. Growth that is concentrated within Carnation reduces the pressure for growth within the rural unincorporated areas, in keeping with the Countywide Policies and with Vision 2040.

A docket request for a change in land use designation was received by the City in 2015 and is incorporated into this Update. The docket request would change the land use designation for three parcels, constituting approximately 34 acres in size, which consist of the Earth to Earth parcel and the now vacant Custom Concrete plant with two parcels. These parcels are located within city limits along the southern boundary east of SR203, and are zoned Service Commercial and Light Industrial/Manufacturing. The land use designation for the zoning district Service Commercial is "High Intensity Commercial" while the designation for the zone Light Industrial/Manufacturing is "Industrial". With the 2015 Update to the Comprehensive Plan, ~~The~~ the ~~proposed~~ currently adopted land use designation for the Earth to Earth and Custom Concrete parcels ~~would be~~is "High density residential"~~ with a desired zoning of R24~~. The property owners have indicated interest in developing these parcels for single family and/or multi-family residential development~~, both of which are allowed in the R24 zones~~.

The parcels named in the Docket request are located within proximity to the Tolt

River, and are constrained by areas of Special Flood Hazard, including both floodway and 100-year floodplain (Zone AE). For purposes of this Plan, it was assumed that approximately half of the area of the three parcels is within Special Flood Hazard Areas (SFHA) or buffers and would not be developed. As described below, a Biological Opinion has been issued by NOAA Fisheries that limits development sharply in Special Flood Hazard Areas in order to prevent harm to endangered species. Future development of these parcels will therefore be subject to a Habitat Assessment in order to prevent harm to endangered species. Projections of new households assume development of approximately 16 acres, or roughly half of the total area. The minimum lot size for single family development in the R24 zones is 2500 square feet; if 30% of the land area is assumed for infrastructure, the lot yield would be approximately 200 new dwelling units.

Granting of the Docket request to change the land use of these three parcels would create a residential area that is not as connected to the City Center and to the rest of the City's neighborhoods. However, this new neighborhood would still be within one-half mile of the City center, and could be connected to the City's looped trail system by providing trail connections to the Snoqualmie Valley Trail and the trail along the Tolt River in Tolt McDonald Park. Future plans for a Shared Path serving pedestrian and bicycle traffic along SR203, part of the Tolt Avenue Corridor project described in the Transportation Element, would provide safe and attractive non-motorized access between the proposed neighborhood and the City center. The land uses that would separate this new neighborhood from the rest of the City are a school and a park. Given its location along the Tolt River and abutting Tolt McDonald Park, the proposed neighborhood has potential to be an attractive place to live.

Figure 3-2:
Future Land Use Map

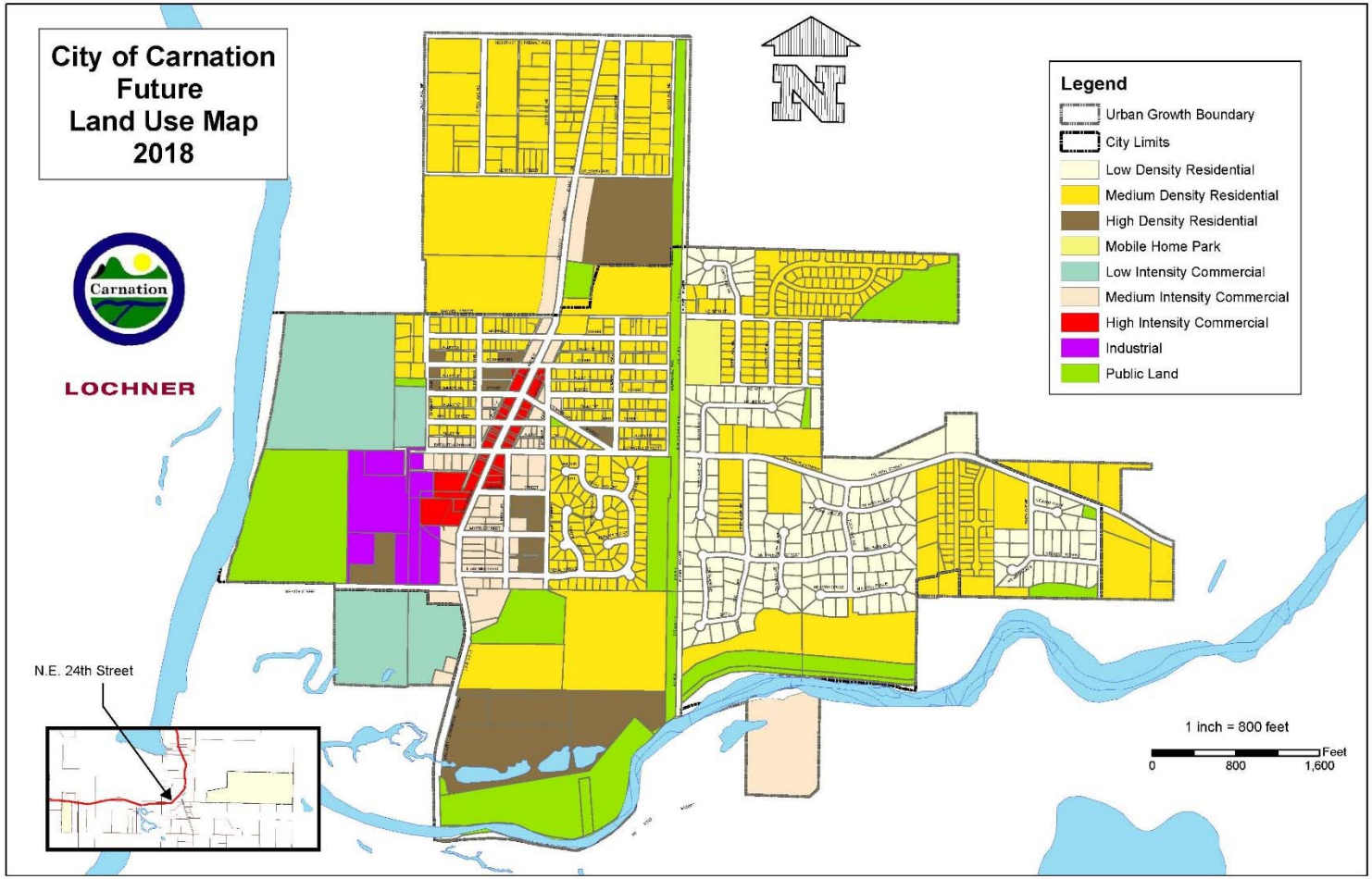


Table 3-5 shows the acreage and percentage of the UGA for the following categories of future land use:

- Low density residential (R2.5)
- Medium density residential (R3, R4 and R6)
- High density residential (RMHP, R12 and R24)
- Low Intensity commercial (Horticultural Commercial)
- Medium intensity commercial (Mixed Use and Agri-tourism and Industries)
- High intensity commercial (CBD and Service Commercial)
- Industrial (Light industrial/manufacturing)
- ~~Public Use~~Land
- ~~Parks~~

TABLE 3-5:
FUTURE LAND USE CAPACITY

LAND USE DESIGNATION	ZONES	ACREAGE			
		WITHIN CITY LIMITS	WITHIN PAA	TOTAL	% OF TOTAL AREA
Low Density Residential	R2.5	~~87~~109	0	~~87~~109	~~12~~15%
Medium Density Residential	R3, R4, R6	~~158~~189	129	~~287~~318	~~39~~44%
High Density Residential	RMHP, R12 R24	~~49~~51	16	~~65~~67	9%
Low Intensity Commercial	Horticultural Commercial	40	24	64	9%
Medium Intensity Commercial	Mixed Use and AGI	~~37~~38	7	~~45~~46	6%
High Intensity Commercial	CBD Service Commercial	9	0	9	1%
Industrial	Light Industrial/ Manufacturing	~~12~~23	0	~~12~~23	~~2~~3%
Public ~~Use~~Land	~~Public Use~~Parks	~~78~~89	2	~~80~~91	~~11~~13%
~~Parks~~	~~Parks~~	~~80~~	~~0~~	~~80~~	~~11%~~
TOTAL		**550**	**178**	**728**	

Note: The acreage shown in this table does not include the City's watershed, the landfill, the vacant fire district land adjacent to the landfill, street rights-of-way or lands under water.

Residential. Residential land uses are and would remain the predominant land use in terms of area, comprising ~~60~~68% of the UGA. This does not include the Mixed Use zone, which also allows residential uses. Low density residential uses consist of the existing lower density neighborhoods which were created in the 1990's when the requirements for septic system drainfields resulted in larger lots. These neighborhoods are almost completely built out, with very little capacity for more lots. The medium density single family zones encompass the most land area. These include both existing neighborhoods with relatively little new capacity, as well as existing neighborhoods where infill development has the potential to provide significant new development. ~~In the last few years, several new subdivisions have been permitted, and as of the date of adoption of this Comprehensive Plan Update, approximately 130 new lots are in the process of being created. Of these lots, all but 7 are in the R4 zone (approximately four units per acre accounting for infrastructure.)~~ High density residential land uses include a zone that would provide for high density single family development such as cottage housing at approximately 12 units per acre, and a zone that provides for multi-family developments (apartments/condominiums) but would also allow cottage or townhouse higher density single family residential development. In general, higher density zones are located within a half mile of the downtown and service areas, and less dense residential zones are located further away, primarily to the east. ~~A docket request has been made for a change in land use designation for three parcels that are designated high intensity commercial and industrial to high density residential. This would change the land uses allowed for approximately 34 acres; as noted above, a portion of these lots may be constrained by areas of flood hazard.~~

Medium Intensity Commercial. This would include both the Mixed Use and the Agri-tourism and Industries zones. The Mixed Use zones allow both residential and commercial uses, including office as well as retail. The purpose of the mixed use zone is to create a buffer between the commercial and residential areas. In the Potential Annexation Area, the mixed use provides a buffer between SR203 and residential development. South of Eugene and east of SR203, the Mixed Use parcels have enough depth from SR203 to provide adequate parking if these areas develop for retail use. The Agri-tourism and Industries zone would allow for a range of activities related to agri-tourism and supporting industries, including both the retail and tourist activities themselves and the industries that would support them, such as processing, wholesaling, etc. The Medium Intensity Commercial designation accounts for approximately 6% of the UGA.

Low Intensity Commercial. This land use is represented by the Horticultural Commercial Zone, which is a unique zone that reflects the economic potential of the agricultural heritage of Carnation in modern day agri-tourism. ~~Thirty-nine~~Forty acres or 9% of the UGA is zoned for this use.

Retail. Retail development is centered on SR203, centered on slightly less than 5 acres zoned Service Commercial located opposite Eugene Street, and including the Tolt Town Center and several properties abutting to the south. This area of Service Commercial allows for expansion of service oriented larger scale retail, including but not limited to a grocery store, pharmacy, etc. These uses are generally considered "anchors" for commercial development. The size and depth of the parcels allows for adequate parking, which is essential to the success of this type of retail.

The historic Central Business District (CBD) encompasses four blocks to the north of the anchor. This area is characterized by shallow (100' from SR203) parcels that are quite limited for parking. Many of the existing buildings are historic, and are well suited to restaurants, shops, and other retail uses.

The High Intensity Commercial designation, including both the CBD and Service Commercial zones, account for 9 acres or approximately 1% of the UGA.

Industrial. Without direct access to I-90, Carnation's potential for larger scale industrial development is somewhat limited. In recent years, several industrial uses that were tied to development have become vacant, and a docket request has been made to change their land use designation to allow a range of residential options as well as commercial uses. Despite the relatively poor access to the Interstate system, some smaller scale and specialized industries have located in Carnation, and public infrastructure and relatively inexpensive land values help create potential for more industrial development. Industrial lands are especially important in providing employment and help create a more sustainable local economy. ~~With the docket request, 12~~Twenty-three acres or ~~2~~3% of the UGA ~~would be~~is zoned for industrial use.

Public ~~Use and Parks~~Land. Future needs for public uses will be determined by the need for more infrastructure. Public and semi-public institutional uses are allowed in nearly all of the city's zoning districts on lands that are designated by the public use overlay district. ~~With the recent completion of the sewer system, the city is not expecting to acquire lands for public use.~~ While the City has substantial parklands within the UGA, future parks may be needed when new lands are annexed, in order to serve neighborhoods that will develop in the future. The Parks Element has more detail on the need for future parklands.

HOUSING AND EMPLOYMENT TARGETS

The King County Countywide Planning Policies (CPPs) as amended in February 2010 provide growth targets for housing and employment for all of the cities within King County through 2031. The target for the City of Carnation is to have enough land capacity to add 330 new households and 370 new jobs between the current year and 2031. With the docket request, the Zoning Map provides 437 acres of

residential uses, not counting Mixed Use which also allows residential development. The estimated capacity for residential development would provide for more than 900 new households. Employment capacity is provided primarily by industrial and high intensity commercial lands, although mixed use and low intensity commercial lands also can provide employment opportunities, as does Public Use (the Riverview School District is one of the City's major employers). The Zoning Map provides 12 acres for industrial use and 9 acres for high intensity commercial uses. Given that current employment in the City is fairly low (627 jobs reported in 2004 by the King County Annual Growth Report) the City should be able to meet the land capacity requirements for its employment target, even with the change in designation from high intensity commercial and industrial uses to residential uses that would allow residential development of 34 acres. Between the commercial and industrially zoned land, there is capacity for over 1,000 employees.

PROCESS FOR SITING ESSENTIAL PUBLIC FACILITIES

The City will adopt, through its land use development regulations, a process for identifying and siting essential public facilities as required by RCW 36.70A.200. The City's regulations shall ensure that the siting of essential public facilities will not be precluded in violation of applicable state law. The City's process for identifying essential public facilities shall consider whether and to what extent the facility in question: (i) provides, or is necessary to provide, a public service, and (ii) is objectively difficult to site. The City's process for review and siting essential public facilities shall utilize a conditional use permit procedure or similar approval mechanism that enables the relevant City decision-maker(s) to thoroughly evaluate and reasonably mitigate the community and environmental impacts of such facilities. However, such procedure shall be formatted to ensure that essential public facilities will not be unlawfully precluded, and shall further ensure that applications for state or regionally sponsored essential public facilities may not be denied. The review and evaluation process for essential public facilities shall include meaningful public notice and opportunity for public comment.

The City will use its website, social media such as Twitter© and Facebook© as well as timely press releases, public notices, and public meetings to notify citizens of a proposal and to solicit input. The city will also notify adjacent jurisdictions which may be affected, and invite their comment on the proposal.

GROUNDWATER PROTECTION AND STORMWATER MANAGEMENT

As described above in Section 2, Carnation and the surrounding area are located in a Critical Aquifer Recharge Area (CARA), so protection of groundwater is of the first importance. The City has adopted the 2005 Department of Ecology Manual for Stormwater Management in Western Washington. A recent amendment to Chapter 15.64 CMC Part II Drainage specifically allows low impact development techniques for stormwater management, as long as the minimum requirements of the Manual are met.

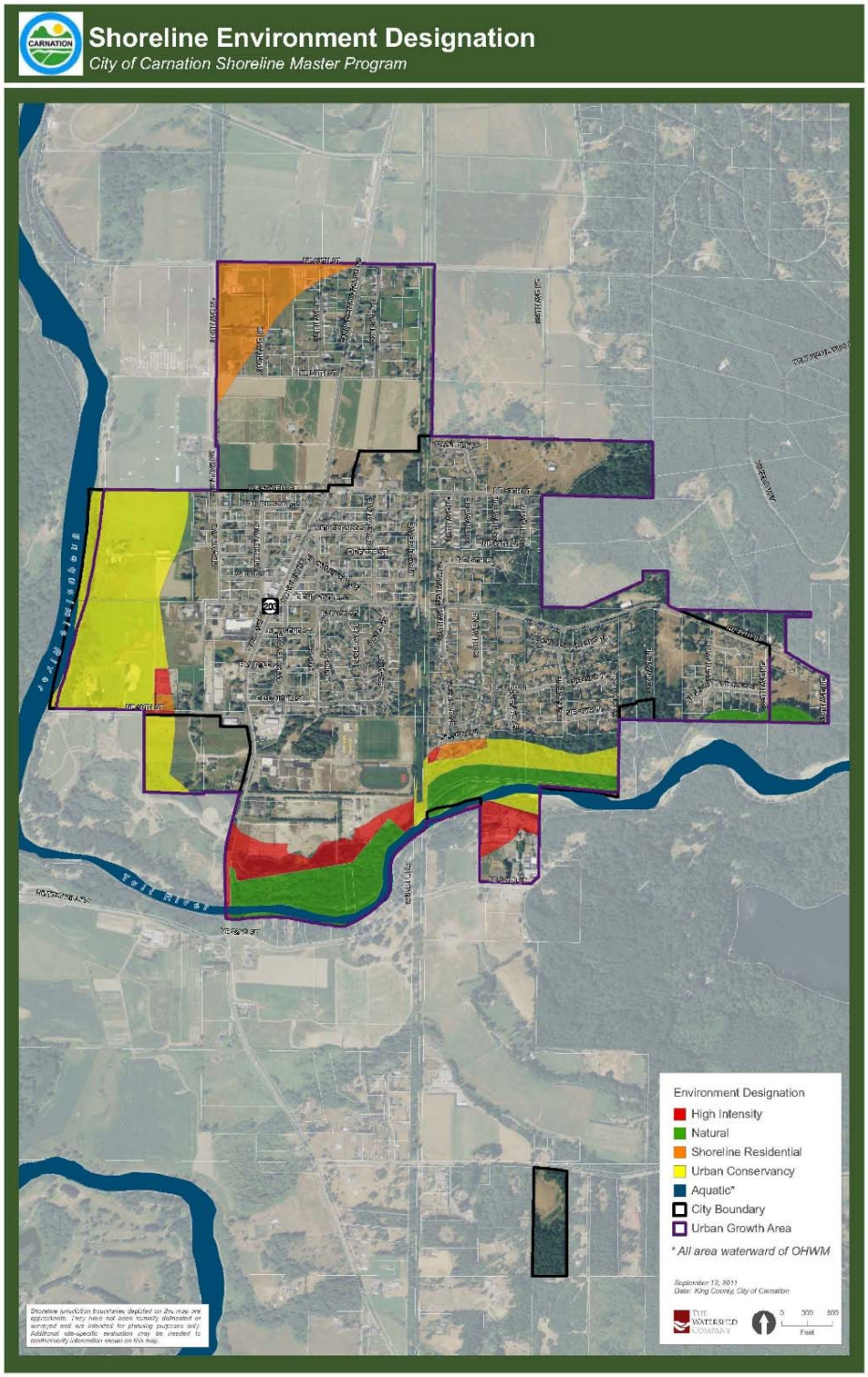
Unlike many other cities, Carnation does not have a public stormwater system. All new development is required to treat and infiltrate stormwater on-site. As parts of the City have poorly drained soils and may also experience seasonal high water table, stormwater management can be a very costly part of development, and in some cases has the potential to preclude development. This is especially a concern in the downtown, where soils with poor drainage and limited area have required recent developments to provide costly retention vaults.

SHORELINE MASTER PLAN

In 2012, the City updated its Shoreline Master Program (SMP) in accordance with WAC 173-26 and with a grant from the Department of Ecology. A map of shoreline jurisdiction is shown in Figure 3-3.

The City's Shoreline Master Program codified at Chapter 14.06 CMC addresses floodplain lands along the Snoqualmie and Tolt Rivers, and protects those shorelines and floodplains from inappropriate development. Pursuant to RCW 36.70A.480, the Goals and Policies set forth in Sections I through IV of the City's Shoreline Master Program, including any future amendments thereto, are hereby adopted and incorporated by reference into the Carnation Comprehensive Plan as if set forth in full.

Figure 3-3
Shoreline Environmental Designations



The National Flood Insurance Program (NFIP). As described above, Carnation has areas of special flood hazard as designated by the Flood Insurance Rate Maps (FIRMs) for both the Tolt and Snoqualmie Rivers. The City participates in the National Flood Insurance Program (NFIP) and therefore must meet NFIP criteria for regulating development within these areas. The City's floodplain regulations are found in Chapter 15.64 CMC Part I Floodways and Floodplain. Development within the floodway portions of the special flood hazard areas is restricted, and some development, such as residential construction, is prohibited within the floodway. New construction or substantial improvements of structures within the remainder of the special flood hazard areas (typically called as the "100 year floodplain") have specific standards to insure that they are not subject to damage from flooding, such as elevating the lowest floor above the base flood elevation. No filling, grading, dredging or other actions that would increase flood damage for other properties within the flood hazard area are allowed under the City's regulations. Participation in the NFIP allows Carnation residents located within areas of special flood hazard to purchase floodplain insurance that is subsidized by the federal government.

In 2008, the National Marine Fisheries Service (NMFS) issued a Biological Opinion (BiOp) that implementation of the NFIP in the Puget Sound area adversely affects endangered salmon species. As a result of the BiOp, local jurisdictions must meet the requirements of the Endangered Species Act (ESA) as well as the existing NFIP regulations for any development in the floodplain or floodway. There are 3 ways that local jurisdictions can meet all of their requirements under both NFIP and ESA:

1. Adopt a Model Ordinance developed by FEMA that meets or exceeds all of the requirements of both the NFIP and the ESA;
2. Show how existing local regulations provide the minimum protections of both federal regulations (local regulations may require amendments to meet these minimum protections); or
3. Enforce the requirements on a permit by permit basis, which will generally entail that applicants for a floodplain development permit evaluate the habitat of the project area, and may in some cases require that they submit the permit for review to the National Marine Fisheries Service.

Summary of the Biological Opinion (BiOp). According to the BiOp, the areas of special flood hazard, called the *Regulatory Floodplain*, consist of the following:

- *Special Flood Hazard Area (SFHA)* – the land subject to inundation by the base flood, which is the flood that has a 1% chance of being equaled or exceeded in any given year (commonly referred to as the "100 year floodplain")

- *Riparian Buffer Zone* (called the *Protected Area* by FEMA) – lands that are within the furthest reach from Ordinary High Water Mark (OHWM) of the river for any of these 3 areas:
    1. Floodway – the channel of a watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a minimum of 1 foot at any point.
    2. Riparian habitat zone – the water body and adjacent land areas that are likely to support aquatic and riparian habitat. For Type S streams (shorelines of the state) this is 250' from OHWM. A smaller riparian habitat zone may be established based on Best Available Science.
    3. Channel migration zone – the area within the lateral extent of the likely stream channel movement due to stream bank destabilization and erosion, rapid stream incision, aggradation, avulsions and shifts in location of stream channels, plus 50'.

The BiOp sets forth "Minimum Criteria for Development" within the Regulatory Floodplain. Development is restricted within the Riparian Buffer Zone (or "Protected Area"). This area is a "no disturbance zone" other than for activities that will not adversely affect habitat function. For many if not all of the floodway areas within Carnation, existing regulations such as the Critical Areas regulations (Chapter 15.88 CMC) already prohibit development.

Prior to the issuance of the BiOp, the City's regulations allowed development within the 100 year floodplain outside the floodway or identified critical areas, as long as the development met the standards for flood hazard reduction. The BiOp allows some development within the 100 year floodplain, but any development must protect fish habitat and flood storage as well as meeting requirements that reduce flood hazard to buildings. Local jurisdictions have the option to prohibit development within this area, or if development is allowed, it is subject to the following restrictions:

- Zoning is to be low density (5 acre lots or greater)
- New impervious surface shall be no more than 10% of the surface area of the lot in floodplain unless mitigation is provided.
- Removal of native vegetation must leave 65% of the surface area of the lot in floodplain in an undeveloped state.
- If a lot is partially within the floodplain, structures must be located on the portion of the lot located outside the floodplain. If lot is fully in floodplain, structures must be located as far from the river as possible, on the highest land and oriented parallel to flow rather than perpendicular.
- All structures must be setback at least 15' from the RBZ and as close to the 100 year floodplain boundary as possible.

- Cluster development, density transfer, and other techniques to reduce development within the regulatory floodplain are to be employed wherever possible
- Expansion of existing buildings is limited to no more than 10% of the existing footprint unless mitigation of any adverse effects to floodplain habitat is provided.

City of Carnation response to the BiOp. In order to assist jurisdictions in evaluating the habitat value of areas within the regulatory floodplain, the Federal Emergency Management Agency (FEMA) has developed a guidance document on how to prepare a Habitat Assessment. The City will require any development in the regulatory floodplain to provide a Habitat Assessment prepared by qualified professionals as part of the development permitting process.

URBAN FORM AND PROMOTING PHYSICAL ACTIVITY

Carnation's urban form and small size promote non-motorized access within the City. The UGA is approximately 1.3 square miles in size. Carnation's Town Center includes retail uses in the Central Business District along the spine of SR203, and anchored by Service Commercial retail zoning where the grocery store is located. The Town Center includes the City's most dense residential areas, which are within ½ mile of SR203. Many City residents are within walking or bicycling distance of the grocery store and other shops and restaurants, schools, the library, City Hall and the Senior Center. While many goods and services are within walking distance for many residents, options for non-motorized trips to work are somewhat limited by Carnation's small industrial base and distance from employment opportunities. Many residents commute to employment centers to the west, but the most realistic transit options for commuting currently are to travel to Park and Ride facilities to the west or elsewhere in the Valley.

While City morphology is conducive to physical activity, and there are pedestrian facilities including sidewalks on most arterials and collectors, not all neighborhoods have pedestrian facilities that link to the downtown. For example, Entwistle Street, the major east-west arterial, has a sidewalk and curb that do not reach all the way to the River's Edge neighborhood. The completion of a pedestrian access for River's Edge is included in the Six-Year Transportation Improvement Plan (STIP). Recent subdivision activity will be required to construct frontage improvements along NE 45th street which will reduce the gap somewhat.

Carnation's oldest neighborhoods do not tend to have curb, gutter and sidewalk within their rights-of-way. As these are established neighborhoods, requiring in-fill development to provide frontage improvements would not result in a cohesive system of sidewalk improvements. In addition, there is some concern that grade separated sidewalks would not be in keeping with the "small town" feel of these areas. The City has developed a street standard for the old part of town that include non-grade separated pathways or trails.

SR203 can be a major barrier to pedestrian access between residential neighborhoods and the Town Center In recent years a traffic signal was completed at the intersection of Entwistle and SR203. In addition, there is a cross-walk at SR203 and Morrison Avenue that was developed as part of a Safe Routes to School grant. The City completed a Rural Corridors Study for Tolt Avenue that is specifically designed to enhance pedestrian and bicycle safety. The Tolt Avenue Action Plan includes corridor improvements for pedestrian access, especially across SR203, as well as facilities for bicyclists, provisions for signage, street furniture, lighting, storm drainage, etc. The city is currently undertaking the engineering design of the Central Business District segment of the Tolt Avenue Action Plan. The Tolt Avenue Action Plan is described in more detail in the Transportation Element.

Recreation based physical activity is well provided for in Carnation by park and trail facilities owned by the City and by others. The King County-owned Snoqualmie Valley Trail bisects the UGA, and links Carnation to the rest of the Snoqualmie Valley. Access to the Trail for Carnation's residents is excellent - all of Carnation's neighborhoods are within one-half mile of the trail, and many are closer still. This trail is well used by pedestrians, bicyclists and equestrians, both residents and visitors to the City. King County owned Tolt McDonald Park provides scenic trails well used by hikers and mountain bikers, as well as ballfields and play structures. Other parks and facilities in or near the City provide play structures for young children, as well as a skateboard bowl, a BMX track, disc golf course and tennis courts.

SUSTAINABILITY

Sustainable land use relates to how a community can "meet the needs of the present without compromising the ability of future generations to meet their own needs" (Puget Sound Regional Council Multi-county Planning Policies). Sustainable development minimizes its impact on the natural environment while also minimizing use of resources through efficient use of water, energy, etc. At the request of city residents, the City Council created a Sustainable Carnation Committee in 2008. The Committee looked at ways that the City could be more sustainable, and made a recommendation for policy changes that have allowed more effective recycling for the business community. The dialogue on how Carnation can respond to the needs for a more sustainable future are reflected in Goal LU6 and in nine policies to promote sustainable land use development.

Minimizing impacts on the Natural Environment. Carnation is a small city located within an area designated as rural under the GMA. Geographically the City is a very small proportion of the Snoqualmie Watershed, which is primarily rural and is forested or in agricultural use, and also a small proportion of the Tolt Watershed which is forested and mostly undeveloped. Nonetheless, the City's location at the confluence of these river systems requires that land use policies and development regulations provide protection of water resources and habitat for

endangered species. The current and proposed future pattern of development locates higher density land uses upland from the shorelines of the two rivers, but some areas of existing and permitted development are located within close proximity to the shorelines. Through its regulations of stormwater, critical areas, management of shoreline resources and the requirements to comply with the Endangered Species Act in areas of special flood hazard, the City is committed to providing protection of environmental resources as it develops in the future. As better science and more knowledge of effective techniques become available, the City will amend its regulations as necessary to maximize environmental protection.

Promoting development that minimizes use of scarce resources. As discussed above, Carnation's urban form promotes sustainable development by encouraging compact development within a Town Center that includes retail, industrial, mixed use and higher density residential development. This land use pattern encourages non-motorized trips, thereby reducing greenhouse gas emissions from vehicles. The City is committed to increasing the availability of local goods and services as well as creating local employment through economic development. However, as the majority of the city's workers are commuting outside the City and often outside the Valley, better transit service would go far in reducing vehicle miles traveled by City residents.

As reflected in Policies 6.3 and 6.9, the City can encourage new developments to utilize some of the programs that encourage building practices to minimize impacts to the environment and resource use, such as the Leadership in Energy & Environmental Design (LEED) and Built Green certification of new construction, and the use of Low Impact Development (LID) techniques to reduce storm water impacts. While the City cannot require that new development use these techniques and programs, the City can commit to evaluating its land use codes and permitting processes to make sure they are encouraging the use of sustainable building practices. For example, all of the recent residential developments within the city have committed to utilizing low impact techniques for stormwater management.

Finally, Carnation is located within a food production area that is of growing importance to the region. Land use codes that allow for food production in residential areas as accessory uses can be evaluated, keeping in mind that protection from potential nuisance odors and noise will be important as well. Finally, the City hosts a very popular Farmer's Market where nearby farms can sell their produce to city residents and visitors alike, and many of the local retail establishments make a point of selling locally produced goods.

IV. GOALS AND POLICIES

This section discusses Carnation's land use goals and policies. An analysis of existing conditions and projected needs in the previous section highlights the areas of concern and opportunities for Carnation. The community's needs and desires combined with the inventory and analysis contained in this Element were used to create a strategy to achieve the city's goals in light of the existing conditions in the city. The following goals and policies provide guidelines and positive actions.

GOAL LU1

To create a balanced community by providing for growth in a responsible manner that enhances community quality and values and protects the rights of property owners.

Policy LU1.1 In its long range land use management, the City will guide future growth in order to achieve the goals of the Comprehensive Plan.

Policy LU1.2 The City will enact development regulations that mitigate adverse impacts on the community.

Policy LU1.3 The City may select inter-jurisdictional programs which are consistent with the Comprehensive Plan to address problems or issues that affect the City and larger geographic areas.

Policy LU1.4 The City will adopt zoning designations and an official Zoning Map to establish the distribution, extent, and location of land uses.

Policy LU1.5 The City will strive to assure that basic community values and aspirations are reflected in the City's land use decisions, while recognizing the rights of individuals to use and develop private property in a manner consistent with City regulations.

GOAL LU2

To enhance the character of existing neighborhoods and encourage the development of new residential neighborhoods consistent with the values and goals contained in this plan.

Policy LU2.1 Encourage new development that provides a variety of housing densities, types, sizes, costs, and locations to meet future demand for a full range of housing options, including housing that is affordable to all segments of the population.

Policy LU2.2 Where appropriate, require new residential development to connect with adjacent existing neighborhoods through the use of streets, sidewalks, trails, or alleys. Where appropriate, encourage residential

development that utilizes alleys for parking and access.

Policy LU2.3 Coordinate new residential development with the provision of an adequate level of services and facilities, such as schools, water, streets and parks, as established in the Capital Facilities Element.

Policy LU2.4 Protect existing and proposed residential areas from intrusion of incompatible land uses.

GOAL LU3

To promote an active, diverse, integrated, and pedestrian oriented town center including the central business district and mixed use zone along the SR203 corridor that provides goods and services attractive to local residents and visitors alike.

Policy LU3.1 Land use regulations and decisions should support the business community's ability to provide the types of economic activities which best meet the needs and desires of the community.

Policy LU3.2 Promote the establishment of diverse and compatible mixed uses, i.e. retail, office, and multi-family and high density single family residential development, within and around a walkable downtown area, as part of Carnation's Town Center.

Policy LU3.3 Encourage shared parking opportunities to increase available parking spaces to serve downtown activities.

Policy LU3.4 Encourage activities on the part of the business community and provide infrastructure that supports an appealing downtown corridor that expresses Carnation's unique sense of place. To the extent possible, public infrastructure should support attractive gathering places within the downtown area.

Policy LU3.5 Ensure the safety and free flow of pedestrian movement by providing non-motorized pathways throughout the City that connect neighborhoods to the downtown area.

Policy LU3.6 Encourage appropriate levels of landscaping for all development in the service commercial, central business district and mixed use zones to buffer parking areas from the street, buffer incompatible uses and/or to provide shade and shelter along the street for pedestrians.

Policy LU3.7 Establish development regulations that, to the extent possible, encourage an attractive mix of commercial uses within the

downtown and provide for residential uses within walking distance.

Policy LU3.8 Promote compatibility of future development with adjacent land uses.

GOAL LU4

To enhance and maintain the character of the City by guiding land uses, development, services and facilities consistent with this plan and to promote orderly and efficient land use.

Policy LU4.1 Ensure that new development does not outpace the City's ability to provide and maintain adequate public facilities and services by allowing new development to occur only when and where adequate facilities exist or will be provided.

Policy LU4.2 The City shall evaluate proposed development plans to determine whether existing public facilities have capacity to serve the development, or whether the developer will need to provide for additional public facilities.

Policy LU4.3 Ensure buffering between uses whenever new commercial or industrial uses abut residential neighborhoods.

Policy LU4.4 Coordinate future land uses with the other elements of the Comprehensive Plan.

Policy LU4.5 Encourage growth through infill and subdivision in accordance with the provision of urban services including a public wastewater treatment system.

Policy LU4.6 Use population projections based on land use to plan for adequate public services and infrastructure to serve the city in the future.

Policy LU4.7 The City shall take reasonable measures to ensure that new development within the PAA is consistent with the zoning and other development standards of the City. Measures to ensure consistency may include, but are not limited to:

A. Conditioning water and/or sewer service on development compliance with City development standards as determined by the City; and
B. Joint land use planning with King County within the PAA; and
C. Coordinated permit review with King County for development within the PAA; and
D. Requests to modify PAA boundaries as necessary to include compatible development and exclude incompatible

development.

Policy LU4.8 The City shall promote and pursue annexation of lands within the PAA at the earliest opportunity, to the extent the King County Boundary Review Board would not deny annexation. In order to facilitate annexation the City shall require developers to sign annexation no protest agreements as a condition of the extension of sewer or water service.

Policy LU4.9 The City shall take all reasonable and legal measures available to encourage and/or require connection to the City's sewer system at the earliest opportunity, to the extent that the connection serves to reduce the financial burden of service to other system users. To facilitate sewer connection, the City shall condition the extension of water service to development within the PAA on future sewer connection.

Policy LU4.10 The planning area shall include all lands within the current city limits and sufficient land contiguous to the city limits as established by King County to be able to support Carnation's growth through the year 2034 without major adverse environmental impacts.

Policy LU4.11 Annexations of property within the Potential Annexation Area shall take place only using methods permitted by state law.

Policy LU4.12 Participate with King County in the Planned Annexation Agreement (PAA) process to come to agreement with the County on the annexation, financing, public improvement, and development issues in Carnation's PAA.

Policy LU4.13 The City will process land use permits in a consistent and timely manner, in accordance with state and local laws and regulations.

GOAL LU5

To preserve and promote Carnation's historical small town character.

Policy LU5.1 Coordinate with the County to control and mitigate development impacts outside of the designated PAA. Support the County-wide planning policies that limit or prevent development of forests, farms, and mineral resources areas in adjacent areas of unincorporated King County.

Policy LU5.2 Promote commercial uses such as agri-tourism that are enhanced by the horticultural heritage of the city.

Policy LU5.3 Promote architecture that is pedestrian friendly and conducive to human interaction.

Policy LU5.4 Provide for subdivision design that is pedestrian friendly and promotes connectivity throughout the City via through-streets, walkways and pathways that connect neighborhoods.

Policy LU5.5 Continue to develop and update land use regulations that preserve and promote Carnation's historical small town character.

GOAL LU6

To promote land use that minimizes impacts to the natural environment and maximizes efficient use of resources through energy and water conservation.

Policy LU6.1 Promote commercial and industrial districts that allow for the growth of employment opportunities while maintaining the small town character of Carnation. More employment opportunities for local residents can reduce the need for commuting to employment centers outside of the city.

Policy LU6.2 Promote a compact and walkable city form by concentrating dense residential land uses in and around the business center, promoting pedestrian and bicycle access from neighborhoods to businesses and services, and working towards a system of linked pedestrian and bicycle trails through-out the City.

Policy LU6.3 As City resources allow, promote green building practices and policies that are sensitive to environmental impacts and promote effective use of resources, including but not limited to Leadership in Energy & Environmental Design (LEED) and Built Green certification of new construction, and the use of Low Impact Development (LID) techniques to reduce storm water impacts.

Policy LU6.4 Assess the feasibility of using City permit processes to encourage sustainable development projects. For example, evaluate the option to give permit review priority for projects that achieve a specified level of environmental protection and energy efficiency. The City may utilize systems such as LEED or Built Green certification to ascertain the level of environmental protection and energy efficiency achieved.

Policy LU6.5 Development regulations should allow for food production as accessory uses while protecting neighboring properties from noise, odors or other impacts.

Policy LU6.6 To promote land use decisions that will reduce the production of greenhouse gases by reducing vehicular miles traveled, retaining and expanding tree canopy, and reducing energy use.

Policy LU6.7 Development regulations shall protect both the quality and quantity of groundwater used for public water supplies, and shall prevent discharges of pollutants into the waters of the state.

Policy LU 6.8 Evaluate the feasibility of adopting a Night Sky initiative to reduce light pollution and reduce energy use. Examples include LED lights and fixtures that prevent light spill and discouraging the use of up-lighting in non-essential areas.

GOAL LU7

Protect, preserve and enhance those features of the natural environment which are most sensitive to human activities

Policy LU7.1 The City of Carnation shall map and designate critical areas as defined in the city's development regulations, and shall require new development to delineate critical areas on properties to be developed, to evaluate potential impacts and to provide mitigation of impacts of development to critical areas, in accordance with the city's development regulations.

Policy LU7.2 Provide incentives such as density credits for preservation of open space for habitat protection, hazard reduction and recreation.

Policy LU7.3 The City shall, in cooperation with appropriate county, state and federal agencies, participate in restoration practices in critical areas when possible.

Policy LU7.4 Any development in the floodplain or floodway shall meet the requirements of the National Flood Insurance Program (NFIP) regulations to ensure projects do not negatively impact or increase flood hazards or impact species listed under the Endangered Species Act (ESA).

GOAL LU8

To promote a healthy community through land use development that allows residents to walk or bicycle for recreation and to access goods and services.

Policy LU8.1 The City's land use decisions shall create a built environment that promotes and encourages physical activity through compact development and a looped system of safe and attractive pedestrian

and bicycle accessways that link neighborhoods to each other and to the business district.

Policy LU8.2 As part of its economic development strategy, the City will promote retention and expansion of existing businesses, and establishment of new businesses, in order to provide employment, goods and services within walking or bicycling distance to many City residents.

CHAPTER 7 – TRANSPORTATION ELEMENT

INTRODUCTION

The purpose of the Transportation Element is to establish goals and policies that will guide the development of surface transportation in the City of Carnation in a manner consistent with the overall goals of the Comprehensive Plan. The Transportation Element is supported by and inter-connected with many other elements of the Comprehensive Plan. In particular, the transportation system needs to be designed to support the planned densities described in the Land Use Element. Based upon existing and projected land use and travel patterns, the Transportation Element addresses roadway classifications, levels of service, transit and non-motorized modes, future travel projections, transportation system improvements, financing strategies, and concurrency management. It establishes the technical basis for transportation system development, and for existing and future transportation improvement programs and facilities guided by the transportation goals and polices of the Comprehensive Plan.

As required by the Growth Management Act, the Transportation Element must demonstrate that there is enough transportation system capacity to serve the land uses that are planned, and to serve them at a level of service established in the goals and policies. This element also needs to include a financing plan to show how planned transportation improvements will be funded. The Transportation Element Background Information and 2019 Transportation Improvement Plan contains the background data and analysis to satisfy these requirements, and is adopted by reference into this Element.

~~The Transportation Element was updated in 2015 and amended in 2017. The 2015 Comprehensive Plan Update included new traffic modeling which reflected the proposed land use changes from a 2015 docket request to reclassify approximately 35 acres of light industrial land to mixed use. The Transportation modeling was based on a 2035 projection of traffic, based on build-out assumptions for land use within the city of Carnation. The transportation modeling was funded by a grant from the Department of Commerce and reflects land use development that was underway as well as projected changes in land use.~~

~~IDENTIFICATION OF STATE HIGHWAY~~

~~State Route 203 (SR 203) runs north-south through the city limits, providing the primary means of access into and out of the city. Improvements on this facility will highly impact traffic conditions in Carnation and in turn, conditions on the highway will be impacted by transportation conditions and improvements in Carnation.~~

~~SR 203 (also called Tolt Avenue within city limits, and the Carnation-Duvall Road or the Carnation-Fall City Road to the north and south outside city limits) connects~~

to SR 202 south of the city, and US 2 north of the city. The highway consists of one lane in each direction. The SR 203 corridor provides connection to the cities of Duvall and Monroe to the north, and to the communities of Fall City, Snoqualmie and North Bend to the south.

SR 203/TOLT AVENUE CORRIDOR IMPROVEMENTS

In 2013, the City completed a conceptual planning effort for a streetscape redevelopment project on SR 203 (Tolt Avenue) funded in part by a Rural Town Centers and Corridors grant from the Puget Sound Regional Council. The planning effort incorporated an extensive public process that included public workshops as well as input from several stakeholders groups including local businesses, community members and partners such as the Riverview School District, the Washington State Department of Transportation, Puget Sound Energy, the Snoqualmie Tribe, and others. This extensive public process resulted in a Tolt Avenue Action Plan for redevelopment of the Tolt Avenue corridor from the bridge over the Tolt River to NE 60th Street.

The Tolt Avenue Action Plan divides the improvements into various projects, and calls for the improvements to be made incrementally, depending upon the availability of grant funding. Implementation of the Tolt Avenue Action Plan over future years will move Carnation towards fulfilling its goals for integrated pedestrian and bicycle access and safety, improved downtown streetscape, and creating a more inviting and integrated use of the City's primary arterial. The final concept of the Tolt Avenue Action Plan includes:

- Full street improvements to the Central Business District (CBD) from Eugene Street to Rutherford Street, including placing the overhead power lines underground, providing wider sidewalks, street furnishings, landscaping and wayfinding to provide an enhanced pedestrian experience.
- Improvements to Bird Street to support its role as a central civic space
- A Greenway which provides a shared use path along the eastern portion of the right-of-way from the Tolt River Bridge to Entwistle Street. The Greenway would bring pedestrians and bicyclists into the downtown from the south.
- Continuation of the Greenway north of the CBD from just south of Rutherford Street to NE 55th, providing a link for pedestrians and bicyclists from the north of the City to the downtown.
- Retrofits to the pedestrian facilities along the west side of Tolt Avenue from the Tolt River Bridge to Eugene Street
- A pedestrian walkway from the eastside of Tolt Avenue from NE 55th to NE 60th to serve existing and future residential development.

In addition, the Tolt Avenue Action Plan provides for wayfinding throughout the Tolt corridor, and connections to looped pedestrian paths just outside the Tolt corridor. Signage is proposed to prevent conflicts between bicyclists and pedestrians within the greenways, and will assist the transitions for bicyclists between the greenways and the downtown. Other projects called for include identification of the need for a traffic signal at Tolt Hill Road, and for aesthetic improvements to the Tolt River Bridge.

The projects that comprise the Tolt Avenue Action Plan are included in the Transportation Improvement Plan of this Transportation Element. The Plan meets many of the City's goals for non-motorized transportation, recognizing and promoting pedestrian and bicycle movement as a basic means of circulation, and assuring adequate and safe accommodation of pedestrians, bicycles and handicapped persons' needs.

CONSISTENCY WITH VISION 2040

The Puget Sound Regional Council (PSRC) is tasked with developing Multi-countywide Planning Policies (MPPs) for the four counties of King, Snohomish, Pierce and Kitsap, plus all of the cities within those counties. The PSRC has developed its MPPs in VISION 2040. Carnation's Comprehensive Plan must show its consistency with the goals and policies of VISION 2040. The Transportation Element is consistent with VISION 2040 in that it advances cleaner and more sustainable mobility by promoting non-motorized trips through its compact urban form. The City's goals for safe and attractive pedestrian and bicycle linkages to the designated City center (the downtown area along SR203) are also consistent with VISION 2040. The Transportation Element encourages the development of a street system that provides adequate levels of service while also minimizing environmental impacts of roadway development. While transit service is provided by regional entities, citizens, City staff and elected officials have worked to promote transit service to serve Carnation residents and others within the Snoqualmie Valley. In general, Carnation seeks to coordinate its planning efforts with neighboring jurisdictions, such as King County, as well as with the other Valley cities, the Snoqualmie Tribe, and any other service providers. The PSRC reviews local plans for consistency with VISION 2040, and must certify the Transportation Element in order for the City to be eligible for transportation funding.

CONCURRENCY

The Levels of Service (LOS) Standards that are adopted in the Transportation Element are maintained through upkeep of the existing circulation system and expansion of transportation services where needed. The City has adopted Link (A-F) Level of Service standards for the arterials that handle the most significant volume of local traffic in the city. These standards provide measurable criteria to judge the adequacy of roadway service provision. General design standards for all road classifications within the City, including local streets, collectors and arterials are adopted in the City of Carnation Street and Storm Sewer System

Standards.

TRANSPORTATION PLAN ISSUES AND CHALLENGES

Fortunately, Carnation has few traffic congestion problems when compared to other King County cities. There are, however, a number of unique issues and challenges that must be considered in order to achieve a viable transportation system that is consistent with the other system needs. Some of these issues include the following:

1. Carnation is bisected by State Route 203 which carries a substantial amount of fast moving through traffic. SR203 is also Carnation's main street, passing through the downtown commercial area. It is a challenge to develop a more pedestrian oriented downtown while at the same time providing for efficient traffic flows through town. Large volumes of traffic passing through town on SR203 decrease local traffic mobility within town and are a hazard for pedestrians and bicyclists.

2. A City of Carnation goal is to create an attractive pedestrian environment within the downtown commercial area by promoting non-motorized access. Improvements such as clearly defined and safe crosswalks, bicycle racks as well as signage, lighting and street furniture are necessary to achieve this goal. Long term planning for the downtown also needs to incorporate sufficient parking to support economic development.

3. There is currently limited public transit service linking Carnation to the rest of the Snoqualmie Valley. Service to other Valley cities that are connected by regional transit and to population and employment centers to the west is the only access to transit service that links Carnation residents to the regional transit system.

4. Many of Carnation's existing streets are narrow and without sidewalks or pathways. Improved access and safety for pedestrians and bicyclists is an important goal for the City of Carnation. Additional pathways as well as amenities for pedestrians and bicycles are needed in order to achieve Carnation's goal of providing substantial opportunity for non-motorized travel throughout the City.

INVENTORY AND EXISTING CONDITIONS

This section of the Transportation Element presents an inventory and description of the existing transportation system, and begins to analyze current and projected needs based on estimates of projected land use and growth in Carnation.

GENERAL DESCRIPTION OF EXISTING TRANSPORTATION SYSTEM

The pavement condition of Carnation streets are generally substandard in the older

portions of the City. The original plat of the City included 60 foot rights-of-way as well as 16 foot alleys. However, on the local access streets pavement width varies from 12 feet to 40 feet, with 18 feet being the average which is substandard for two lanes of traffic and does not permit structured on-street parking. Very few residential streets in the older portions of the City have curb, gutter and sidewalk. A few of the alleys which receive heavy use are paved.

The Brumbaugh Addition and Regal Glen are subdivisions that were completed in the 1970s and 1980s, respectively. The streets in the Brumbaugh neighborhood do not have curb, gutter or sidewalk, and pavement is in poor condition. Regal Glen has curb and gutter on both sides and sidewalk on one side. In general, the pavements of the streets in Regal Glen are in fair or good condition. The newer subdivisions which were completed in the 1990s and later generally have streets with curb, gutter and sidewalk on both sides.

Blanche Street between SR203 and Stossel Avenue, and Stossel Avenue (King Street) between Entwistle and Blanche Street are improved with curb, gutter and sidewalk on both sides and parking on one or both sides. Street lights and landscaping are also provided. Entwistle Street, the city's east-west arterial, has curb, gutter and sidewalk on the south side from Larson Avenue to 329th Ave NE. The north side of the street has curb, gutter and sidewalk from Larson Avenue to 326th Ave NE. Carnation's transportation network and an inventory of street conditions are depicted in more detail below.

ROADWAY CLASSIFICATIONS

Public streets are classified according to their function in terms of mobility and land access. Carnation's functional street classifications are defined below:

State Highway: State Route (SR) 203, or Tolt Avenue, is the City's principle arterial and connection to the rest of the Snoqualmie Valley. Running north-south, SR 203 connects Carnation with Duvall to the north and Fall City to the south. Maintained by WSDOT, this two lane rural highway has a general speed limit of 50 mph. As SR 203 passes through Carnation it is known as Tolt Avenue. Tolt Avenue is Carnation's main business street in the downtown area, with a speed limit of 30 mph. Due to the large volume of local and through traffic carried through the center of town, residents are concerned with pedestrian and bicycle safety, especially pedestrians and bicycles crossing SR203, as well as local automobile mobility. Roads surrounding the downtown business district are east-west oriented streets which are typically paved, have gravel shoulders or no shoulder, and are without road markings. Stop signs regulate traffic flow at intersections. A traffic signal is located at the intersection of SR203 and Entwistle; this is Carnation's only signalized intersection.

SR203 has two travel lanes, curb, gutter and sidewalk on both sides and parking on one or both sides from Bagwell Street on the north, to approximately Tolt Middle

School on the south. A Transportation Improvement Board (TIB) funded project added bulb-outs and ADA ramps at key intersections in the downtown. The pavement condition of SR203 varies from good to fair in some areas. The Washington State Department of Transportation (WSDOT) is responsible for maintenance of the roadway from the curb inwards; the City is responsible for the area between curbing and the property lines.

***Arterial*:** A highway or roadway connecting neighborhoods and facilities within the community and providing some access to abutting properties. The facility stresses mobility and circulation needs over providing specific access to properties. Arterials include:

Tolt Avenue (SR203 within the City of Carnation). Tolt Avenue acts as both the City's Main Street and also as a state highway that links Carnation to the rest of the Snoqualmie Valley. Tolt Avenue consists of a 70 foot right-of-way starting at the City limits at Bagwell Street to Entwistle Street. From Entwistle Street southward, the right of way is 60 feet. There are two travel lanes, shoulder, and sidewalk on both sides for most of Tolt Avenue.

Entwistle Street. Entwistle Street provides east-west access from Larson Avenue to the easterly extent of the City. Entwistle has a 60 foot right-or-way, which carries 2 lanes of traffic and curb, gutter and sidewalk from Larson Avenue to 329th Avenue NE in Swiftwater on the south side, and to opposite 326th Street on the north side.

Larson Avenue. Larson Avenue is designed to be a north-south arterial that provides access to the industrial area west of SR203. Currently only the northern 380 feet of Larson Avenue has been improved to serve the wastewater treatment plant and sewer vacuum station; the remainder of the corridor identified for Larson Avenue would link Entwistle to NE 40th with the purpose of providing access for industrial development.

NE 40th Street (segment). The segment of NE 40th from SR203 westerly to Larson Avenue (extended) is also classified as an arterial; its purpose is to link Larson Avenue to SR203 to serve existing and potential industrial development.

***Collector*:** A street connecting two or more neighborhoods as well as carrying traffic within neighborhoods. Collectors also channel traffic onto the arterials. Typically, they carry moderate traffic volumes, have relatively shorter trips then arterials, and carry very little through traffic. Collectors include:

NE 40th Street from its intersection with the Larson Avenue (extended) corridor westerly to Tolt-MacDonald Park;

Blanche Street and Stossel Avenue, which serve the area of intense development (Mixed Use and/or high density residential) east of SR203;

Commercial Street between Alley 'J' and Stossel, which provide east west access in the commercial core;

Milwaukee Avenue, which provides north south access between Entwistle and NE 50th Street. Future development of the Potential Annexation Area north of the Carnation Elementary School would also be served by an extension of Milwaukee Avenue, to link residential development of that portion of the UGA to the rest of the city's street grid; and

East Morrison Street between Milwaukee and SR203 and NE 50th east of Milwaukee Avenue provides access for existing and future development of the northeastern part of the City.

Some of these collector streets such as Blanche and a portion of Stossel Avenue have recently been improved, but other collectors are substandard.

***Local Access Street*:** This category comprises all local roadways and streets not otherwise classified. Their main function is providing direct access to abutting properties, sometimes at the expense of traffic movements. Traffic generally moves slowly on these streets and delays are caused by turning vehicles. Current conditions and rights-of-way for these roadways vary widely throughout the city. In most of the older portions of the city, 60 foot rights-of-way are typical, but by and large the streets consist of minimal pavement, in many cases less than twenty feet in width and only a few inches in depth, with no paved parking, and no sidewalk or pathway for pedestrians. Some of these roads are in very poor condition. Newer subdivisions generally have 50 foot rights-of-way, and have newer roadway, with pedestrian amenities that include curbs and sidewalks. The City's goal is to provide pedestrian and bicycle access, but there is some concern that improvements to pedestrian amenities in the older portions of the City should be consistent with the design and scale of these areas. The City has developed alternative roadway sections that seek to provide pedestrian and bicycle pathways but do not detract from the aesthetic appeal of older neighborhoods.

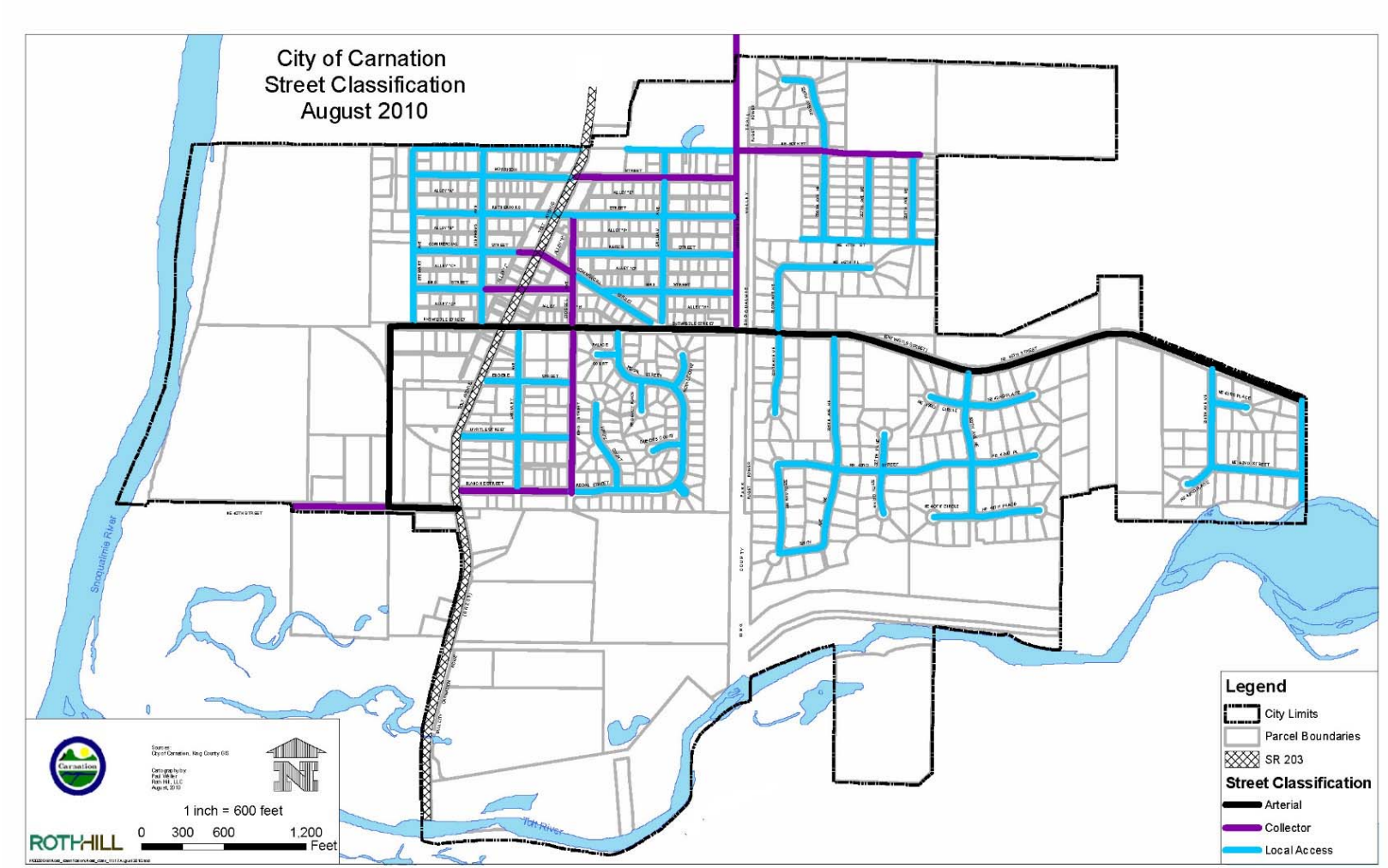
***Alley*:** A local access street, generally undeveloped and consisting of a 1-lane 16-foot wide right of way that provides access to such amenities or services as rear yards, garages, or refuse collection.

As development occurs within the City, the existing street system should be reviewed for the primary purpose of the roadway, the future volumes, and the spacing between similar use roadways. The review would be used to identify and designate the roadways which will carry the higher volumes for through traffic and the gateway corridors into the city. The designation of these roadways will provide the City with the framework to guide city and developer capacity improvements to accommodate the future traffic demands. The designated roadways would then be monitored for accessibility from adjacent properties and levels of service to ensure the capacity, efficiency, and safety of the regional arterial system within the City. Recognizing the corridors that will carry the majority of traffic in and out of

~~the city will allow the City to start planning for the preservation of right-of-way and management of the access locations to these corridors to maintain higher capacity conditions.~~

~~Figure T-1 shows a Street Classification Map for the City of Carnation.~~

~~Figure T-1~~
~~Street Classification Map~~



STREET INVENTORY & EXISTING CONDITIONS

Table T-1 below contains an inventory of street conditions through-out the City. Note that street names with east or west refer to east or west of SR203. The inventory uses the Transportation Improvement Board (TIB) Small City Maintenance Street Inventory.

Table T-1:
Carnation Street Inventory and Condition Analysis

City of Carnation — Small City Street Inventory - Segment Data — http://www.tib.wa.gov/TIBDashboard/

Arterial	Termini	Segment Length (mi)	Travel Lanes	Pavement Width (ft)	Roadway Surface	PCR Score	Rating Status	Date Rated
325TH AVE NE	ENTWISTLE ST to CUL-DE-SAC	0.111	2	28	ACP	81	Good	4/10/2014
325TH AVE NE	NE 42ND ST to NE 40TH ST	0.12	2	28	ACP	81	Good	4/10/2014
325TH AVE NE/NE 46TH PL	ENTWISTLE ST to CUL-DE-SAC	0.213	2	28	ACP	81	Good	4/10/2014
326TH AVE NE	ENTWISTLE ST to NE 40TH ST	0.364	2	28	ACP	90	Good	4/10/2014
326TH AVE NE	NE 47TH ST to NE 50TH ST	0.118	2	21	ACP	100	Excellent	4/10/2014
326TH AVE NE	NE 50TH STREET to CUL-DE-SAC	0.12	2	28	ACP	72	Good	4/10/2014
327TH AVE NE	NE 47TH ST to NE 50TH ST	0.118	2	21	ACP	100	Excellent	4/10/2014
327TH PL NE	CUL-DE-SAC to CUL-DE-SAC	0.109	2	28	ACP	81	Good	4/10/2014
328TH AVE NE	NE 47TH ST to NE 50TH ST	0.118	2	34	ACP	100	Excellent	4/10/2014
329TH AVE NE	ENTWISTLE ST to NE 40TH PLACE	0.202	2	28	ACP	77	Good	4/10/2014
334TH AVE NE	ENTWISTLE ST to NE 42ND ST	0.138	2	21	ACP	81	Good	4/10/2014
336TH AVE NE	ENTWISTLE ST to NE 42ND ST	0.167	2	32	ACP	81	Good	4/10/2014
BAGWELL ST	MILWAUKEE AVE to SPILMAN AVE	0.09	2	22	ACP	100	Excellent	4/10/2014
BAGWELL ST	TOLT AVE to MORRISON ST	0.235	1	13	Gravel	0	Not Rated	4/11/2014
BIRD ST	MILWAUKEE AVE to COMMERCIAL ST	0.18	2	16	ACP	44	Poor	4/10/2014
BIRD ST	STEPHENS AVE to STEWART AVE	0.101	2	21	ACP	86	Good	4/10/2014
BIRD ST	STOSSEL ST to TOLT AVE	0.06	2	50	ACP	81	Good	4/10/2014
BIRD ST	TOLT AVE to STEPHENS AVE	0.047	2	35	ACP	63	Fair	4/10/2014
BLANCHE ST	STOSSEL ST to TOLT AVE	0.158	2	40	ACP	100	Excellent	4/10/2014
COMMERCIAL ST	ENTWISTLE ST to STOSSEL ST	0.13	2	30	ACP	77	Good	4/10/2014
COMMERCIAL ST	STEPHENS AVE to STEWART AVE	0.11	2	30	ACP	77	Good	4/10/2014
COMMERCIAL ST	TOLT AVE to STEPHENS ST	0.063	2	34	ACP	68	Fair	4/10/2014
COMMERCIAL ST	TOLT AVE to STOSSEL ST	0.05	2	30	ACP	77	Good	4/10/2014
COMMERCIAL ST	WEST END OF ROAD to STEWART AVE	0.04	2	12	ACP	63	Fair	4/10/2014
ENTWISTLE ST	326TH ST to 329TH AVE NE	0.19	2	26	ACP	72	Good	4/10/2014
ENTWISTLE ST	329TH ST to 334TH AVE NE	0.676	2	26	ACP	72	Good	4/10/2014

Arterial	Termini	Segment Length (mi)	Travel Lanes	Pavement Width (ft)	Roadway Surface	PCR Score	Rating Status	Date Rated
ENTWISTLE ST	334TH ST to 336TH AVE NE	0.11	2	26	ACP	72	Good	4/10/2014
ENTWISTLE ST	SPILMAN AVE to 326TH AVE	0.25	2	36	ACP	72	Good	4/10/2014
ENTWISTLE ST	STOSSEL AVE to SPILMAN AVE	0.11	2	36	ACP	54	Fair	4/10/2014
ENTWISTLE ST	TOLT AVE to LARSON AVE	0.124	2	38	ACP	100	Excellent	4/10/2014
ENTWISTLE ST	TOLT AVE to STOSSEL AVE	0.21	2	36	ACP	100	Excellent	4/10/2014
EUGENE ST	MCKINLEY AVE to STOSSEL AVE	0.07	2	24	ACP	100	Excellent	4/10/2014
EUGENE ST	TOLT AVE to MCKINLEY AVENUE	0.06	2	38	ACP	100	Excellent	4/11/2014
KING CT	REGAL ST to CUL-DE-SAC	0.128	2	34	ACP	72	Good	4/10/2014
LARSON AVE	W ENTWISTLE ST to SOUTH END	0.05	2	30	ACP	100	Excellent	4/10/2014
MCKINLEY AVE	BLANCHE ST to MYRTLE ST	0.09	2	22	ACP	100	Excellent	4/10/2014
MCKINLEY AVE	EUGENE ST to ENTWISTLE ST	0.066	2	38	ACP	100	Excellent	4/10/2014
MCKINLEY AVE	MYRTLE ST to EUGENE ST	0.09	2	22	ACP	100	Excellent	4/10/2014
MILWAUKEE AVE	ENTWISTLE ST to NE 50TH ST	0.249	2	33	ACP	85	Good	4/10/2014
MORRISON ST	SPILMAN AVE to MILWAUKEE AVE	0.1	2	36	ACP	63	Fair	4/10/2014
MORRISON ST	TOLT AVE to SPILMAN AVE	0.12	2	36	ACP	63	Fair	4/10/2014
MORRISON ST	TOLT AVE to STEWART AVE	0.219	2	17	ACP	39	Poor	4/10/2014
MYRTLE ST	TOLT AVE to STOSSEL ST	0.159	2	21	ACP	68	Fair	4/10/2014
NE 40TH CIRCLE	329TH AVE NE to CUL-DE-SAC	0.055	2	28	ACP	81	Good	4/10/2014
NE 40TH PLACE	329TH AVE NE to CUL-DE-SAC	0.093	2	28	ACP	81	Good	4/10/2014
NE 40TH ST	325TH AVE NE to 326TH AVE NE	0.06	2	28	ACP	81	Good	4/10/2014
NE 40TH ST	PAVEMENT CHANGE to PARK ENTRANCE	0.13	2	20	ACP	44	Poor	4/10/2014
NE 40TH ST	TOLT AVE to PAVEMENT CHANGE	0.07	2	20	ACP	48	Poor	4/10/2014
NE 42ND PLACE	329TH AVE NE to CUL-DE-SAC	0.086	2	28	ACP	81	Good	4/10/2014
NE 42ND ST	325TH AVE NE to 329TH AVE NE	0.27	2	28	ACP	81	Good	4/10/2014
NE 42ND ST	334TH AVE NE to 336TH AVE NE	0.126	2	28	ACP	81	Good	4/10/2014
NE 43RD CIRCLE	329TH AVE NE to CUL-DE-SAC	0.05	2	28	ACP	81	Good	4/10/2014
NE 43RD PLACE	329TH AVE NE to CUL-DE-SAC	0.095	2	28	ACP	81	Good	4/10/2014
NE 43RD PLACE	334TH AVE NE to CUL-DE-SAC	0.048	2	28	ACP	81	Good	4/10/2014
NE 47TH ST	326TH AVE NE to 327TH AVE NE	0.059	2	16	ACP	59	Fair	4/10/2014
NE 47TH ST	328TH AVE NE to 327TH AVE NE	0.057	2	16	Gravel	0	Not Rated	4/10/2014
NE 50TH ST	326TH AVE NE to MILWAUKEE AVE	0.12	2	36	ACP		Good	2015
NE 50TH ST	326TH AVE NE to 328TH AVE NE	0.123	2	22	ACP		Good	2015
PALACE CT	REGAL ST to CUL-DE-SAC	0.029	2	34	ACP	59	Fair	4/10/2014
QUEEN CT	REGAL ST to CUL-DE-SAC	0.042	2	34	ACP	54	Fair	4/10/2014
REGAL ST	STOSSEL ST to ENTWISTLE ST	0.357	2	34	ACP	100	Excellent	4/10/2014
REGENCY PLACE	REGAL ST to CUL-DE-SAC	0.041	2	34	ACP	59	Fair	4/10/2014
REITZE ST	MILWAUKEE AVE to STOSSEL ST	0.219	2	18	ACP	48	Poor	4/10/2014
ROYAL CT	REGAL ST to CUL-DE-SAC	0.05	2	34	ACP	50	Poor	4/10/2014
RUTHERFORD ST	SPILMAN AVE to MILWAUKEE AVENUE	0.09	2	26	ACP	100	Excellent	4/10/2014

Arterial	Termini	Segment Length (mi)	Travel Lanes	Pavement Width (ft)	Roadway Surface	PCR Score	Rating Status	Date Rated
RUTHERFORD ST	STOSSEL ST to SPILMAN AVE	0.12	2	18	ACP	100	Excellent	1/12/2017
RUTHERFORD ST	TOLT AVE to STOSSEL ST	0.01	2	34	ACP	100	Excellent	1/12/2017
RUTHERFORD ST	TOLT AVE to STEWART AVE	0.2	2	19	ACP	59	Fair	4/10/2014
SPILMAN AVE	E BIRD ST to MORRISON STREET	0.17	2	18	ACP		Excellent	2016
SPILMAN AVE	ENTWISTLE ST to E BIRD ST	0.247	2	18	ACP		Excellent	2016
SPILMAN AVE	MORRISON STREET to SCHOOL ADMINISTRATION	0.04	2	25	ACP	72	Good	4/10/2014
STEPHENS AVE	BIRD ST to COMMERCIAL ST	0.05	2	23	ACP	77	Good	4/10/2014
STEPHENS AVE	COMMERCIAL ST to MORRISON ST	0.245	2	23	ACP	100	Excellent	4/10/2014
STEPHENS AVE	WEST ENTWISTLE to BIRD ST	0.05	2	23	ACP	72	Good	4/10/2014
STEWART ST	COMMERCIAL ST to MORRISON ST	0.134	2	30	ACP	100	Excellent	4/10/2014
STEWART ST	COMMERCIAL ST to WEST ENTWISTLE	0.111	2	16	ACP	100	Excellent	4/10/2014
STOSSEL ST	COMMERCIAL ST to RUTHERFORD ST	0.07	2	18	ACP	63	Fair	4/10/2014
STOSSEL ST	ENTWISTLE ST to COMMERCIAL ST	0.155	2	42	ACP	59	Fair	4/10/2014
STOSSEL ST	MYRTLE ST to EAST ENTWISTLE ST	0.15	2	32	ACP	100	Excellent	4/10/2014
STOSSEL ST	MYRTLE ST to BLANCHE ST	0.08	2	32	ACP	100	Excellent	4/10/2014
TOLT AVE	BLANCHE ST to JUNIOR HIGH ENTRANCE	0.2	2	30	ACP	State Route	State Route	4/10/2014
TOLT AVE	JUNIOR HIGH ENTRANCE to SOUTH C/L	0.13	2	30	ACP	State Route	State Route	4/10/2014
TOLT AVE	MORRISON ST to NORTH C/L	0.16	2	36	ACP	State Route	State Route	4/10/2014
TOLT AVE	RUTHERFORD ST to BLANCHE ST	0.41	2	42	ACP	State Route	State Route	4/10/2014
TOLT AVE	RUTHERFORD ST to MORRISON ST	0.05	2	36	ACP	State Route	State Route	4/10/2014

Notes:

Except for roadways in the PAA, ratings reflect the Transportation Improvement Board (TIB) Small City Maintenance Street Inventory, with some adjustments. The inventory consists of a Pavement Conditions Rating (PCR) as provided for in the WSDOT Pavement Surface Condition Rating Manual and based on a visual inspected by a TIB region engineer. The Pavement Condition Ratings system and recommended treatment is as follows:

Greater than 90	Excellent Condition	No treatment needed
Between 70 and 90	Good Condition	No treatment needed
Between 50 and 70	Fair Condition	Chip Seal
Between 25 and 50	Poor Condition	Overlay or FDR
Less than 25	Needs reconstruction	Reconstruction or FDR

The existing poor quality of many roadways within the City is a community concern. Unlike improvements that add capacity to the roadway network, funding for improvements to pavement are not eligible for impact fees. Revenues for road maintenance come from the city's proportionate share of the State's motor vehicle fuel tax, supplemented by real property taxes. Given the city's small population and relatively small assessed value, revenues for street maintenance have been insufficient to address deficient roadway conditions. The Transportation Improvement Board (TIB) has recently initiated the Small City Preservation Program, which is well designed to help preserve and improve local street conditions. A Recommended Treatment program provided by the TIB indicates approximately 10,765 feet of roadway would be eligible for pavement overlays, and approximately 22,329 feet would be eligible for seal coat. However, funding at the state level for this program is not certain.

INFLUENCE OF REGIONAL TRAFFIC

Regional traffic influences traffic volumes within the City, especially along SR203. The Puget Sound Regional Council (PSRC) Rural Town Centers and Corridors Program studied overall corridor improvement concepts. Key corridor "hot spots" have been identified as strategic areas needing additional study to address short and long-term safety, development and mobility needs along the corridor. No immediate changes in regional traffic flow through the city are expected, although the PSRC has projected a 1% increase per year in through traffic on SR203. The City's Tolt Avenue Action Plan described in more detail elsewhere in the Element was funded through the PSRC.

NATURAL TRAFFIC BARRIERS

A number of rivers and steep hills create natural barriers to efficient traffic access to and circulation within Carnation. Motorized traffic originating in the eastern portion of the City, wanting to move in a southerly direction must proceed west to SR203, proceed south on SR203 across the Tolt River bridge. Traffic desiring to move in a westerly direction must proceed either north to NE 60th Street or Carnation Farm road, or proceed south to the Tolt River Bridge, and then turn west on NE Tolt Hill Road. The only Carnation street providing eastern access to unincorporated King County is Tolt River Road (NE 45th Street). SR203 forms a barrier for non-motorized traffic.

PARKING

Parking has been an issue raised by the community during the planning process. The principal concern is adequate parking in the downtown commercial core. Increases in development will create added pressures on parking availability. In addition, some community members feel that existing public parking should be better identified and located more conveniently for shops.

A City of Carnation goal for the downtown commercial area is to create an attractive pedestrian environment and to link Carnation's parks and neighborhoods with the downtown area through trails and pathways. The goal is to encourage people to use alternative modes of transportation to access the downtown

~~commercial area.~~

~~TRANSIT SERVICE~~

~~There is limited public transit service to Carnation which is currently limited to service within the Snoqualmie Valley. Recent cutbacks to METRO Transit service have resulted in a partnership with other transit providers in the Snoqualmie Valley. The Valley Shuttle provides bus service between the Valley cities from morning to evening on a 90 minute headway. Connections at other Valley cities such as Duvall can provide connections to transit service to employment centers such as Redmond and Seattle. However, transit service linking Carnation to centers outside the Valley is far from convenient.~~

~~Carnation's transit stop is located at SR203 (Tolt Avenue) and Bird Street. In recent years the transit stop has been enhanced through artwork provided by the students from Carnation Elementary School and the Snoqualmie Tribe. Other improvements such as an informational kiosk, or newspaper and bicycle racks should also be considered. City goals to promote a pedestrian friendly environment and land use policies that channel denser land uses within walking distance of the downtown also work to make transit use more attractive for City residents.~~

~~In addition to fixed route transit provided within Snoqualmie Valley by the Shuttle, bus service is available for senior citizens through the Sno-Valley Senior Center Shuttle bus. Service is limited to the Snoqualmie Valley.~~

~~PEDESTRIAN CIRCULATION~~

~~Carnation's compact urban form and centralized business district (the Town Center) create an opportunity for excellent pedestrian access, both within the downtown and linking the nearby neighborhoods to the downtown area. The Carnation Urban Growth Area is just over a square mile in size. Most goods, services and public facilities within the City are located along SR203. Higher density residential development is concentrated within a half mile of SR203. In addition, important regional activities are located in the southern portion of the City, such as Remlinger Farms and Tolt-MacDonald Park, and in the northern portion of the Potential Annexation Area, such as the u-pick berry farms. These activities draw an estimated half million people to the Carnation area over the course of a year. Encouraging these visitors to shop in Carnation's downtown is integral to the City's economic development strategy.~~

~~Sidewalks are present on both sides of Tolt Avenue (SR203) within City limits and both sides of Entwistle (with one gap between the River's Edge and Swiftwater neighborhoods). Sidewalks are present on one or both sides of most of the City's collectors, including NE 50th, Milwaukee Avenue, East Morrison, Stossel/King Streets, and the portions of Commercial and Bird Streets that are in the City center. Sidewalks are also present in the newer neighborhoods, while much of the older portions of the City do not have sidewalks. However, given the very low average daily traffic, pedestrians and bicyclists are still able to access the City even where~~

~~there are no sidewalks present. Plans for improved non-motorized access are discussed in the Future Needs and Alternatives section below.~~

~~As described above, curbs and sidewalks are present throughout most of the SR203 corridor, and bulb-outs and ADA ramps were recently added to the curbs in the Central Business District. However, traffic on SR203 works as a barrier to pedestrians, especially in the afternoon peak traffic hour. The signalization of the intersection at Entwistle and the cross-walk improvements at Morrison have provided two improved pedestrian crossings, but improved pedestrian safety through-out the SR203 corridor is necessary to promote pedestrian access to the downtown core. Continued attention to preventing speeding and other traffic violations on SR203 as well as better identified crosswalks will be important to maintaining pedestrian safety. The Tolt Avenue Action Plan provides the blue-print for future investments in Carnation's downtown.~~

~~In addition to pedestrian safety, the visual experience for pedestrians is also a consideration. Concerns about how the downtown would develop once public sewers became available lead the City to adopt commercial Design Standards and Guidelines for new development along SR203 in 2005. The Guidelines promote an attractive pedestrian experience through attention to facades and amenities at the sidewalk. Public improvements to SR203 will also be crucial to achieving the goal of an attractive and lively downtown. The recently completed Tolt Action Plan includes full street improvements of Tolt Avenue through Carnation's downtown, including street re-grading and paving, landscaping, undergrounding power, street and pedestrian lighting, storm drainage improvements and street furnishings. These improvements will greatly improve the pedestrian experience in Carnation's downtown and will promote economic development.~~

~~Non-motorized access for students to the Carnation Elementary School and the Tolt Middle School, both located along SR203, has been identified as a concern. The proposed Tolt Action Plan, if implemented, would greatly improve safety for school children walking to these facilities. Currently there is no sidewalk north of Morrison on the east side of SR203, and there is a non-standard pedestrian extruded curb walkway on the west side between Morrison and NE 55th Street. Two projects identified in the Tolt Action Plan would improve pedestrian safety in this area: the North Entry project would retrofit the west side from Rutherford Street to NE 55th Street with a new curb, sidewalk and planting strip, while on the east side, the North Greenway project provides a pedestrian and bicycle shared use pathway with a five foot separation from the roadway. The shared path Greenway meets the American Association of State Highway and Transportation Officials (AASHTO) definition of a "sidepath": a facility that provides pedestrian and bicycle access adjacent to a roadway segment where high volume motor vehicle traffic discourages bicyclists and pedestrians. Further north, another project between NE 55th Street and NE 60th would provide a pedestrian walkway along the east side of Tolt Avenue. The recommended walkway is an at-grade facility separated~~

~~from the roadway by a landscape buffer. A traffic median would be retrofitted into the existing road in this portion of the Potential Annexation Area. These proposed improvements would work together to calm traffic coming from the rural roadway to the north, providing ample indication to south-bound traffic that they are entering a more urbanized area and should reduce speed.~~

~~Current access to Carnation Elementary School for pedestrians on the west side of SR 203 is provided at Morrison Street. Spilman Avenue is used by students walking to Carnation Elementary School from neighborhoods to the south. It should be noted that the entry to the Elementary School is located on Morrison Street, not on Tolt Avenue. The City will coordinate with the Riverview School District if other crossings are necessary to serve Elementary School students.~~

~~Similar to the improved access to Carnation Elementary School, the Tolt Avenue Action Plan includes projects to the south of the downtown that will improve pedestrian and bicycle access to Tolt Middle School. The South Greenway is a shared pathway for walking and biking planned for the east side of SR203 between the Tolt River Bridge and Eugene Street, where the downtown improvements begin. Similar to the North Greenway, the South Greenway improvement meets the AASHTO definition of a "sidepath", and the plan includes a buffer from the road by a traffic curb and a 4.5 foot planting strip. On the west side of SR203, the South Entry project provides a new curb, gutter, sidewalk and planting strip from the existing pedestrian crossing at the Fire Station northward to opposite Eugene Street. This retrofit of Tolt Avenue south of the downtown replaces the existing sidewalk and provides plantings and street trees to buffer pedestrians from vehicular traffic and create a more welcoming street environment. In general these and other projects in the Tolt Action Plan, such as improvements at the bridge, would calm north-bound traffic on SR203. The South Greenway and Entrance segments of the Tolt Avenue Action Plan would provide pedestrian access from the proposed residential development of the former Earth to Earth and Custom Concrete parcels that were included in the 2015 Docket request. The proposed new development would be linked to the downtown through the improvements on Tolt Avenue. In addition, the Snoqualmie Valley Trail would provide pedestrian connections to the City's system of trails from the new development.~~

~~Much of Carnation's existing and proposed residential development is east of SR203. Entwistle Street is the arterial which connects many of the City's neighborhoods to the downtown. The signalization of the intersection of SR203 and Entwistle has significantly improved pedestrian safety in the downtown. Pedestrian access via Entwistle Street is provided for much of the City, but the River's Edge neighborhood does not have adequate pedestrian access, as there is no sidewalk between their neighborhood and Swiftwater. Development of several subdivisions that are in process will include frontage improvements on NE 45th Street/Entwistle that incorporate a pedestrian facility, but a gap will remain. As Entwistle serves through traffic, traffic and speeds can be significantly higher~~

than on other City streets.

Recent improvements to Blanche Street and Stossel Avenue as far north as Entwistle Street provide an attractive pedestrian environment, although the wider improved roadways appear to have created some temptation for speeding. Other collectors, such as East Morrison and NE 50th, provide curbs and sidewalks.

The condition and presence of pedestrian amenities on the local access streets within Carnation are quite varied, as described above. In general, traffic on many of the local streets is limited. However, certain roadways that are well used by school children to access Carnation Elementary School are in poor condition, and the City used a Safe Routes to School grant to address Spilman Avenue. Concern that curb, gutter and sidewalk improvements would not be consistent with the small town feel of the older portions of the City resulted in a local street standard that provides pedestrian pathways that are not grade separated from the roadway but are separated by drainage swales or parking.

In general, pedestrian amenities are present in most of the newer subdivisions. Pedestrian linkages between neighborhoods and access to the downtown remain a concern.

In addition to the linkages provided by sidewalks and roadways, Carnation has excellent trails for recreation. The Snoqualmie Valley Trail, which uses the abandoned Chicago, Milwaukee & Saint Paul Railroad right-of-way from Duvall to North Bend, is a 315 mile regional trail serving all of the Snoqualmie Valley. This trail provides a north-south "spine" through Carnation. Trail connections include the trail north of the Wastewater Treatment Plant which links Entwistle Street to trails along the Snoqualmie River that connect in Tolt-MacDonald Park with a new trail system along the Tolt Levee Setback project. The trail system continues along the Tolt levee system, crossing under SR203 and connecting with the Snoqualmie Valley Trail, as well as continuing upriver. The linkage is lost between the Swiftwater and River's Edge communities, where the levee does not include public access across several properties that are located in unincorporated King County. While these trails are within King County jurisdiction, they help form the linked trail system and are well used by local residents. With the exception of the lost connection along the Tolt River and another area just south of NE 40th west of SR203, Carnation's trail system links the Carnation's residents to both recreational access and pedestrian access to the downtown when combined with Entwistle Street. Other pedestrian amenities include a pedestrian path through Memorial Park that continues through the Regal Glen neighborhood to connect to Loutsis Park and the Snoqualmie Valley Trail, and the Evacuation Trail, through a city-owned parcel east of the City.

BICYCLE ROUTES

The scenic roads in the Carnation area are frequently utilized by bicycle touring groups and clubs. However, some of these routes are potentially dangerous due

to traffic, winding roadways and poor visibility, particularly during peak weekday commuting periods. The Tolt Avenue Action Plan, when implemented, will greatly improve bicycle access and safety through the City. The Greenway shared paths would be available for bicyclists who desire separation from motorized traffic, while the overall effect of the Plan would slow vehicular traffic, thus improving safety for bicyclists who use the travel lanes. The Action Plan provides for bicycle racks in the Central Business District.

The Snoqualmie Valley Trail described above is also a very popular facility for bicyclists. Other mountain biking trails that bring visitors to the Carnation area include the off-road biking at Tolt-MacDonald Park. A survey of bicyclists taken in March 2010 showed that Carnation is a popular destination for both mountain and road biking, with many respondents citing the "rural/serene/scenic" qualities and good trails as unique. Most respondents bike in the Carnation area one to five times a month. When asked how Carnation could better serve their needs, many called for more and improved trails, as well as adding a shoulder to SR203.

Bicycle access for residents is very good overall, despite the lack of bicycle lanes. The average daily traffic within the city neighborhoods is low and the terrain is flat. The Tolt Action Plan would address bicycle access on SR203. Plans for improved non-motorized access are discussed in the Future Needs and Alternatives section below.

ALLEYS

Carnation has an extensive system of alleys in the older parts of town. Sixteen foot alleys were dedicated and developed as part of the original plat of Tolt. A few of the alleys which receive heavy use have been paved but most are not paved.

TRAFFIC LEVEL OF SERVICE ANALYSIS

Traffic Volumes

Traffic volume data were collected for the City arterial system as part of the Tolt Corridor Action Plan in 2012 and the data were utilized for transportation modeling performed for this update of the Transportation Element. Hourly traffic data were collected on Tolt Avenue, south of Eugene Street, for five days beginning June 18, 2012. The counts indicated that Average Weekday Daily Traffic (AWDT) on Tolt Avenue was 10,300 vehicles per day. The hourly data were compiled to confirm the times of day in which the peak traffic occurs. The data indicate typical daily traffic pattern with distinct peaks in the AM and PM. The highest volumes of the day were the PM peak, with 870 vehicles per hour.

In addition to AWDT, turning movement counts were conducted at Morrison Street, Commercial Street, Eugene Street and NE 40th Street/Blanche Streets. Turning movement volumes at Entwistle Street were estimated based on 2007 traffic count data provided by the WSDOT and field observations, and were balanced against adjacent intersection counts. Four of these intersections (Morrison, Commercial, Entwistle and NE 40th Street/Blanche) are defined as key intersections in this Transportation Element. The analysis of Eugene Street was included because it

~~provides access to and from the Tolt Town Center, which is Carnation's anchor shopping center. The west leg of this intersection is not a public street but is an access driveway to the shopping center. (Tolt Corridor Action Plan Technical Memorandum dated September 17, 2012 prepared by Heffron Transportation).~~

~~Level of Service~~

~~Levels of service provide a measurement of the quality of service provided by the transportation system. The Growth Management Act (GMA) requires the establishment of a Level of Service (LOS) Standard as a guideline for evaluating the performance of the existing transportation system. It is also used to determine whether transportation improvements or services will be available to serve proposed development at the time of development or within six years of the development. This requirement is called Concurrency. If services which will operate at the adopted LOS standard will not be concurrent with a proposed development, then either funding for the improvements must be identified or the development cannot be granted approval as proposed.~~

~~The level of service standard may also be used to identify transportation funding priorities of planned improvements.~~

~~Evaluating the transportation arterial system, particularly at intersections, is typically described in terms of congestion, which can be measured by average vehicle delay or travel speed, vehicular density, or volume-to-capacity ratio. The volume-to-capacity ratio (V/C) is the ratio of existing or forecasted traffic volumes to the traffic capacity of the roadway or intersection. The level of service analysis conducted for existing and future conditions at the City's critical intersections were based on average vehicle delay and the methodology outlined in the 2010 Updated Highway Capacity Manual (2010 HCM), Third Edition, Special Report 209, Transportation Research Board. A summarized description for the various levels of service as outlined in the (1998 HCM) is shown in Table T-2.~~

Table T-2
Level of Service Description

Level of Service	General Description	Average Delay at Intersections*	
		Signalized	Unsignalized
A	Free flow conditions. Vehicles have minimal or no delay at the intersection. V/C = 0.0 to 0.60	≤10	≤10
B	Stable traffic flow. Some minor delay may be experienced at intersections. V/C = 0.61 to 0.70	>10 and ≤20	>10 and ≤15
C	Stable traffic flow. Average delay can be expected at intersections with occasional signal cycle failure. V/C = 0.71 to 0.80	>20 and ≤35	>15 and ≤25
D	Traffic flow becoming unstable with noticeable traffic congestion. Delay is longer than average but generally tolerable. Cycle failure becoming noticeable. V/C = 0.81 to 0.90	>35 and ≤55	>25 and ≤35
E	Unstable traffic flow conditions. High delay can be expected with frequent cycle failure occurrence. Many agencies view this as the limit of tolerable or acceptable delay. V/C = 0.91 to 1.0	>55 and ≤80	>35 and ≤50
F	Forced traffic flow conditions. Delay is unacceptable to most drivers due to exceeded intersection capacity. V/C = 1.0 or greater	>80	>50
*Delay is measured in terms of seconds per vehicle.			

The Puget Sound Regional Council (PSRC) adopted LOS standards for all Highways of Regional Significance in 2003, which included SR203. To be consistent with the PSRC, the City of Carnation has adopted LOS D for SR203. This means in effect that all of the intersections along SR203 must meet or exceed LOS D, including all turning movements.

The levels of service (LOS) for intersections along SR203 was determined as part of the 2012 traffic study performed as part of the Tolt Corridor Action Plan. Table T-3 provides the 2012 levels of service. Only delays for the stop controlled approaches are presented.

Table T-3
2012 Level of Service Summary – PM Peak Hour

Intersection	LOS	Delay
Signalized Intersection		
Tolt Avenue/Entwistle Street	A	8.3
Two-Way Stop Controlled Intersections		
Tolt Avenue/Morrison Street		
Eastbound movement (stop control)	C	22.2
Westbound movement (stop control)	C	20.1
Tolt Avenue/Commercial Street		
Eastbound movement (stop control)	C	21.1
Westbound movement (stop control)	C	18.5
Tolt Avenue/Eugene Street		
Eastbound left-through (stop control)	F	54.0
Eastbound right (stop control)	B	11.1
Westbound left (stop control)	E	44.8
Westbound right-through (stop control)	C	16.4
Tolt Avenue/NE 40th Street/Blanche Street		
Eastbound movement (stop control)	C	23.1
Westbound movement (stop control)	C	19.9

(Source: Tolt Corridor Action Plan Technical Memorandum dated September 17, 2012 prepared by Heffron Transportation)

With the exception of the SR203/Eugene intersection, which as described above was counted because it is the access to Carnation's shopping center, all of the key intersections currently function above the adopted level of service D.

FUTURE NEEDS AND ALTERNATIVES

LAND USE AND TRAFFIC VOLUME FORECASTS

In order to evaluate future transportation needs, forecasts must be made of future travel demand. Developing traffic forecasts for existing streets based on future land use allows the adequacy of the street system to be evaluated.

Land Use Assessment and Trip Generation Projections.

The land use assumptions used to determine the 2035 traffic volumes within the City were based on the City's proposed Land Use Map including the docket request to change the land use designation for 34 acres from commercial and industrial to high density residential development. These land use assumptions include a commercial core located between Rutherford and Myrtle Streets, with mixed use development allowed to the north and south along SR203; higher density residential development allowed between the Mixed Use Zone and Stossel Avenue and east of SR203 in the Potential Annexation Area; single family development in the Potential Annexation Area west of SR203 and in lands not yet platted east of the Snoqualmie Valley Trail. In addition substantial infill residential development may occur in the original platted areas; plus continued and expanded industrial uses west of the SR203 corridor.

The City is subdivided into 30 traffic analysis zones (TAZ) for determining trip generation and distribution. Trip generation calculations for projected land use

development within each TAZ were then conducted based on trip rates or regression equations published in the Institute of Transportation Engineers (ITE) *Trip Generation* manual, 9th Edition. The trip generation assumes full build out of the City by the forecast year 2035.

A total of approximately 19,160 average daily trips (ADT) and 1,613 PM peak hour trips (approximately 858 inbound and 755 outbound trips) were estimated from new development for the buildout of the study area. It should be noted that this reduces the number of both average daily and peak hour trips from the last traffic model that was performed as previous retail space was modified by the docket request to reflect residential uses which have a lower trip generation.

Transportation Network and Trip Distribution Assumptions

Trip distribution of the projected year 2035 trip generation was based on the existing transportation system and projected infrastructure improvements to determine intersection and corridor deficiencies. The transportation network improvements included the following roadway connection projects to provide additional north-south access and capacity through the city arterial system. The extension of 316th Avenue west of SR203 and the extension of Milwaukee Avenue east of SR203 are designed to connect projected development in the Potential Annexation Area to the existing roadway grid system. The extension of Larson Avenue improves north-south connectivity within the city, to serve the industrial area west of SR203. These three improvements are summarized below:

1. 316th Avenue NE Connector from NE 55th Street to Morrison Street to tie into Stewart Avenue
2. Larson Avenue Connector NE from Entwistle Street to NE 40th Street
3. Milwaukee Avenue Connector from NE 50th Street to NE 55th Street, to tie into 324th Avenue NE.

No other network or significant capacity improvements other than intersection improvements are currently planned by the city. The distribution methodology used to assign future trips assumed just under seven percent of all trips would be captured internally between the residential and commercial land uses within city limits. The trips external to the city were assigned along SR203 per existing traffic patterns, with 40 percent heading north of the city and 60 percent heading south of the city.

FUTURE TRAFFIC CONDITIONS – YEAR 2035

Traffic Forecasts and Impacts

A level of service analysis was conducted to forecast traffic conditions in the year 2035 at peak afternoon hours. Existing traffic control and signalization, including proposed link connections on Milwaukee Avenue, Larson Avenue and 316th Avenue NE, was used to determine the build-out scenario traffic growth impacts and needed capacity improvements. It should be noted that these transportation projects are specifically designed to improve the capacity of the city's transportation network. Construction of these projects will ensure that traffic

generated by new development will not result in deterioration below adopted levels of service for transportation. The results of the LOS analysis are summarized in Table T-4.

Table T-4
Year 2035 Level of Service Summary

	Existing Channelization				With Transportation Improvements				
Intersection	**Traffic Control**	**LOS**	**Delay**	**WM**	**Traffic Control**	**LOS**	**Delay**	**WM**	**Comments**
East Morrison	Side-street stop	F	299	WB	Signalized	A	6		
East Commercial	Side-street stop	F	269	EB	Side-street stop	F	281	WB	Rely on local circulation and traffic shift
Entwistle	Signalized	B	13		Signalized	B	15		Project completed
East Eugene	Side-street stop	F	>300		Side-street stop	F	>300	EB	Rely on local circulation and traffic shift
Blanche	Side-street stop	F	>300	WB	Roundabout	D	35		

The level of service analysis indicates that all of the concurrency study intersections would deteriorate to LOS F conditions under existing infrastructure conditions, with the exception of the Entwistle Street and SR203 due to the signalization project that has been completed. Implementation of improvements at the East Morrison and Blanche Street intersections with SR203 will improve their service grades to LOS D or better.

Transit Needs

Level of Service for Transit is projected to be poor due to Carnation's small population in comparison with other cities in King County. At this time, transit service within Snoqualmie Valley is the only service available. Connections to employment and services located in population centers to the west is only through connections to Duvall, where Metro service is available to Redmond and Bellevue. Given that the regional employment base will likely continue to be located west of the Snoqualmie Valley, feeder service to transit and employment centers such as Redmond or Issaquah may have the most potential to improve transit availability for Carnation citizens. Long-range planning for regional transit service includes high capacity transit to Redmond; feeder service to Redmond may be the most crucial service for Carnation policy makers to pursue.

TRANSPORTATION IMPROVEMENT PLAN (TIP)

The Transportation Element provides an evaluation of existing conditions, future

needs, and the concurrency standards and priorities stated by the City to establish a list of recommended transportation improvement projects. Planning level cost estimates (in current dollars) were prepared for each of the projects under consideration and are included in the funding plan, the Transportation Improvement Plan (TIP), which is incorporated into the Capital Facilities Element as Table CF-4.

Table T-5
Transportation Improvement Projects

Project Name	Project Description
Tolt Ave (SR 203) **Central Business District (CBD) Improvements** Eugene to Rutherford	Construction of full street and hardscape improvements. Widen to three lanes for left turns.
Tolt Avenue (SR 203) **South Greenway** (east side) Tolt Bridge to Entwistle	Curbs, gutters, planting strip, and paved pathway; storm drainage improvements; partial aerial-to-underground utility conversion; illumination; crosswalk; parking and site furnishing. Widen to three lanes for left turns.
Tolt Avenue (SR 203) **South Entry** (west side) Tolt-MacDonald Park to Eugene	Widen roadway for left turns and on-street parking; new curb, gutter, planting strip, and sidewalk; storm drainage improvements; and street trees and site furnishings.
Larson Avenue Connector 40th to Entwistle	Construct two lane road with parking, curb & gutter, sidewalk, new storm drainage, illumination, and signing/striping. Allows traffic to access the lands zoned for industrial use west of SR203 and south of the wastewater treatment plant.
Milwaukee Avenue Connector 50th to 55th	Construct two lane road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/striping. Accommodates future north-south travel with a parallel route to the State highway on the east side of the SR-203.
316th Avenue Connector Morrison to 55th	Construct two land road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/striping. Connect future development of the Potential Annexation Area to the existing roadway network.
Tolt Ave at Morrison Intersection Improvements	Install traffic signal and reconstruct pavement with curbs, gutters, and ADA compliant sidewalk ramps; illumination upgrades; drainage modifications; and signing/striping. Pedestrian improvements were completed in 2011. The signalization of this intersection is proposed to primarily serve the future growth and build out of the north part of Carnation.
Tolt Ave at Blanche Intersection Improvements	Construct a traffic circle and reconstruct pavement with curbs, gutters, and ADA compliant sidewalk ramps; illumination upgrades; drainage modifications; and signing/striping.
Tolt Hill Road/SR 203 Intersection Improvements	This project is outside the UGA boundary. This is a partnership-project in which the City, if desired, could be a financial participate to a WSDOT and/or King County lead project.

Project Name	Project Description
	Requires WSDOT warrant justification for signalization of the intersection.

Funding for the Transportation Improvement Plan

The GMA allows local governments to impose a Transportation Impact Fee to raise the revenues for transportation improvements in order to meet concurrency standards. The transportation improvements necessary to meet concurrency standards as required by the GMA are identified in the Transportation Improvement Plan. In 2006, the City adopted a Transportation Impact Fee Program (codified under Chapter 3.50 CMC) to fund improvements to the transportation system that will be needed to serve new development. **Through the imposition of impact fees, new development pays its proportionate share of traffic impacts based on the amount of traffic generated.**

Carnation relies on grant programs to fund transportation improvements. Capital funding is available through a variety of programs that utilize state and/or federal funds. These programs may provide grants and/or low interest loans. The City must compete for these funding sources, and state revenue shortfalls and state budgeting processes are variables that determine funding levels for these programs. It is not possible to predict grant funding revenues with certainty.

Each of the grant funding sources will require some local match, which may vary from 5% up to 20%. For projects that will add capacity to the City's roadway network, local match can be provided by the Transportation Impact Fee (see Table CF-4). For non-capacity projects, Real Estate Excise Tax (REET) is a revenue source for the local match.

Carnation has completed several transportation improvements between 2007 and 2017. Transportation capital projects completed in that time-frame include:

Year	Project Name	Total Cost	Grant Funds			City Funds	
2007	Morrison Street	$266,453		$218,254	81.91%	$48,199	18.09%
2007	Blanche Street Reconstruction	$757,611	TIB	$695,350	91.78%	$62,261	8.22%
2008	Tolt Corridor Redevelopment Study	$200,000	PSRC /RTCC	$177,000	88.50%	$23,000	11.50%
2008	Stossel Avenue Reconstruction	$1,029,350	TIB	$850,000	82.58%	$179,350	17.42%
2008	School Routes Safety Improvements	$150,651		$140,141	93.02%	$10,510	6.98%

Year	Project Name	Total Cost	Grant Funds			City Funds	
2010	Entwistle Traffic Signal	$721,519	TIB PSRC BIA Tribe	$704,000	97.57%	$17,519	2.43%
2014	Spilman Ave Safe Route to School	$330,286	WSDOT /SRTS	$290,000	87.80%	$40,286	12.20%
2015	East Entwistle Overlay	$144,753		$133,709	92.37%	$11,044	7.63%
2015-2016	East Rutherford Reconstruction	$316,948		$285,170	89.97%	$31,778	10.03%
2015-2018	Tolt Avenue CBD Design Phase	$850,000	PSRC /TAP	$735,250	86.50%	$114,750	13.50%
	TOTAL	$4,767,571		$4,228,874	**88.70%**	$583,697	**11.30%**

Bicycle and Pedestrian Access

Carnation enjoys an integrated system for non-motorized access that links the city's neighborhoods to each other, to public facilities such as parks and schools, to the downtown center and to open space and natural areas. The compact urban form and flat topography of the City create an excellent opportunity to enjoy non-motorized travel. Most local streets have low average daily traffic, and even if there are no sidewalks or bicycle lanes present, in general local residents can safely walk or bicycle.

Figure T-2 shows a Map of Trails and Sidewalks, including a system of linked access for pedestrians, bicyclists and equestrians. There are two components of the linked system, sidewalks within rights-of-way that also serve vehicular traffic, and non-motorized trails such as the Snoqualmie Valley Trail and the trail along the Tolt River. This trail and sidewalk system links Carnation to the region, through the state highway and through the Snoqualmie Valley Trail. Within the local area, the sidewalk/trail system links neighborhoods to each other and the rest of the City. Most neighborhoods are within a half-mile walk of Tolt Avenue with access to parks, schools, the library, etc. With its planned improvements, this system will provide ample opportunity for physical activity and connection within the community, to be enjoyed by the young, the elderly, those with disabilities, and those who do not or prefer not to drive.

Figure T-2 indicates several "missing links" in the sidewalk/trail system. Sidewalks on Entwistle Street are missing between 329th Avenue and 334th Avenue, effectively isolating the River's Edge neighborhood. Frontage improvements will be provided by two subdivisions located between River's Edge and Swiftwater which will reduce the gap. However, these improvements do not provide

~~pedestrian access for the full length of the gap. The East Entwistle Pedestrian Improvements project has been identified to complete the missing link in this segment. This project is identified in the Transportation Improvement Plan in Table CF-4 in the Capital Facilities Element. The project cost has been estimated at $126,000, and the City will pursue a Complete Streets grant for funding.~~

~~Figure T-2~~
~~Map of Trails and Sidewalks~~

~~There is a section of trail along the Tolt River levee between the open space south of Swiftwater and the River's Edge neighborhood where the access along the levee is lost. The Tolt River levee is a King County flood control facility which has access for the public. However, this portion of the Tolt levee trail does not have an access easement, and property owners have not been willing to provide access. This segment of the trail is outside City jurisdiction in rural King County. The City should work cooperatively with the property owners and with King County to try to close this missing link.~~

~~Another segment of the sidewalk/trail system that is missing is the link between the trail in Tolt-MacDonald Park west of Tolt Avenue and the western side of Tolt Avenue across from the Tolt Middle School. While there is a pedestrian crossing to the sidewalk in front of the Middle School on the eastern side of SR203, there is no sidewalk on SR203 from the edge of the park to the sidewalk in front of the storage facility. This highway frontage is in the Potential Annexation Area, and sidewalks have not been provided as part of any development.~~

~~In general, the pedestrian and bicycle experience of SR203/Tolt Avenue could be improved. While SR203 has sidewalks on both sides through most the City's jurisdiction, sidewalks are relatively narrow. At the north end of the corridor, pedestrian facilities are limited to a walkway separated from the travel lanes by an extruded curb. There is no separate bicycle lane in the corridor; bicyclists share the travel lanes with vehicular traffic. The speed limit on SR203/Tolt Avenue is 30 mph in City jurisdiction and 40 mph through the Potential Annexation Area to the north. Speed limits north and south of the UGA are 50 mph. Accident data for pedestrian facilities is not available, although one automobile/bicycle accident has been recorded along Tolt Avenue/SR203 in front of the Tolt Middle School. Pedestrian access has been improved with the signalization at Entwistle and the school crossing at Morrison. However, the highway still feels like a barrier for pedestrians. The steep grade of the highway that is the result of many years of overlays exceeds the standard for accessibility. ADA crosswalks that have been installed in the downtown in the last decade create barriers for bicyclists.~~

~~The City received a Rural Corridors grant though the PSRC to develop a plan for Tolt Avenue/SR203 including improved non-motorized safety and access. The Tolt Avenue Action Plan addressed ways to create safe, convenient and welcoming pedestrian and bicycle access within the entire Tolt Avenue corridor from the Tolt River Bridge at the south end to NE 60th on the north. The Tolt Avenue Action Plan includes the following improvements:~~

- ~~Retrofits to the pedestrian facilities along the west side of Tolt Avenue from the Tolt River Bridge to Eugene Street~~
- ~~A Greenway which provides a shared use path along the eastern portion of the right-of-way from the Tolt River Bridge to Entwistle Street. The Greenway would bring pedestrians and bicyclists into the downtown from the south. A pedestrian pathway on the western side of SR203 is also part of the "south entryway" segment.~~
- ~~Full street improvements to the Central Business District (CBD) from Eugene Street to Rutherford Street, including placing the overhead power lines underground, providing wider sidewalks, street furnishings, landscaping and wayfinding to enhance the pedestrian experience.~~
- ~~Continuation of the Greenway north of the CBD from just south of Rutherford Street to NE 55th, providing a link for pedestrians and bicyclists from the north of the City to the downtown.~~
- ~~A pedestrian walkway from the eastside of Tolt Avenue from NE 55th to NE 60th to serve existing and future residential development.~~
- ~~A system of wayfinding signage throughout the Tolt corridor to prevent conflicts between bicyclists and pedestrians within the Greenways. Signage will also assist the transitions for bicyclists between the Greenways and the downtown.~~
- ~~Connections to looped pedestrian paths just outside the Tolt corridor.~~

~~The Tolt Avenue Action Plan presented the improvements to SR203 as a series of discrete segments to assist the City in its implementation efforts. The first segment undertaken by the City is engineering design of the Central Business District segment. This project has been funded by a Transportation Alternatives grant from the PSRC and is now underway. Engineering is expected to be complete in 2016, and the City will pursue grant funding in 2016. If adequate project funding can be obtained in 2016, construction of the Central Business District improvements will begin in 2017. The City expects to pursue grants from a variety of agencies, such as the Transportation Improvement Board (TIB) Small City Arterial or Small City Sidewalk programs, the PSRC Transportation Alternatives or Rural Town Center and Corridors grants, the Washington State Department of Transportation (WSDOT) H+LP Pedestrian and Bicycle Program, the Washington State Department of Ecology State Revolving Fund (SRF) for stormwater facilities, the Puget Sound Energy Overhead to Underground Conversion grant for undergrounding utilities, and the Washington State Department of Commerce CERB grant. Construction of the Central Business District is listed in Table CF-4 in the Capital Facilities Element.~~

~~With the planned improvements to East Entwistle and the Tolt Avenue corridor, the City will provide a connected system for pedestrian and bicycle traffic that serves each neighborhood of the City and connects to the wider Snoqualmie Valley. Carnation's flat topography and compact urban form allow access within a square mile that is safe and convenient for residents, including the elderly, persons with disabilities, youth and low income populations. The linked sidewalk/trail system promotes physical activity, connects neighborhoods to each other and to schools, libraries and the Senior Center, and to goods and services available in the commercial center, and to the natural areas along the rivers and hillsides to the east and west. As such it is one of Carnation's most valuable amenities.~~

TRANSPORTATION GOALS AND POLICIES

City of Carnation Transportation Goals and Policies incorporate the Countywide Planning Policies as well as the Multi-county Planning Policies expressed in VISION 2040.

GOAL T1

To ensure that transportation facilities and services needed to support development are available concurrent with the impacts of such development, which protects investments in existing transportation facilities and services, maximizes the use of these facilities and services, and promotes orderly compact growth.

Policy T1.1 A minimum level of service standard D for arterial intersections, and a level of service standard D for State highway intersections, .76 to 1.0 passengers per seat for vanpool services.

Policy T1.2 Development permits will only be issued when projects which require transportation improvements do not exceed the City's ability to provide these in accordance with the adopted level of service standards. However, these necessary improvements in transportation facilities and services, or development of strategies to accommodate the impacts of development may be provided by the developer.

Policy T1.4 The City will design and improve its transportation system to accommodate not only existing conditions, but projected growth based on adopted City, County and state planning policies and projections.

Policy T1.5 The City will allow new development only when and where all transportation facilities are adequate at the time of development, or unless a financial commitment is in place to complete the necessary improvements or strategies which will accommodate the impacts within six years; and only when and where such development can be adequately served by essential transportation facilities without reducing the adopted level of service elsewhere.

Policy T1.6 The City will actively solicit action by the State and King County to program and construct those improvements to State and County arterial systems which may be needed to maintain the level of service standards adopted in Carnation.

Policy T1.7 The City will adopt development regulations which will require developers to construct streets directly serving new development, and pay a fair-share fee for specific off-site improvements needed to mitigate the impacts of the development. This fee may be in the form of a Transportation Impact Fee adopted by the City.

Policy T1.8 The City will coordinate land use and public works planning activities with an ongoing program of long range financial planning, in order to conserve fiscal resources available to implement the Transportation Impact Plan (TIP).

Policy T1.9 The City will base the timing of implementing actions under the Comprehensive Plans and elements on the financial resources available to fund the necessary public facilities.

Policy T1.10 The City will grant high priority for funding to projects which are consistent with the goals and objectives adopted by the City Council and as specified in the Comprehensive Plan. Improvements that will

serve the Town Center and that promote economic viability for the community will be given highest priority.

Policy T1.11 The City will fund projects only when incorporated into the City budget, as adopted by the City Council.

Policy T1.12 The City will encourage the maintenance and safety improvements of Carnation's existing roads as a priority over the creation of new roads.

GOAL T2

To develop, maintain and operate a balanced, safe, and efficient multi-modal transportation system to serve all persons, special needs populations and activities in the community.

Policy T2.1 The City will develop a future transportation system which encourages flexible, adaptive and multiple uses of transportation facilities and services.

Policy T2.2 The City will implement measures that will relieve pressures on the existing transportation infrastructure by approaches that include, but are not limited to:

a. Multi-modal transportation alternatives
b. Land use coordination
c. Prioritized improvements

Policy T2.3 The City will integrate, coordinate and link the connections and transfer points between all modes of transportation.

Policy T2.4 The City will work with King County, WSDOT, the Snoqualmie Tribe, and other local jurisdictions in improving transit service and adequately siting park and ride and park and pool lots in the Carnation area.

Policy T2.5 The City will minimize potential conflicts between bicycle and automobile traffic by providing signage at intersections of bike trails with roadways.

Policy T2.6 The City will encourage the location of bicycle racks at appropriate destination points, such as within the downtown, parks, schools, transit, and park and ride lots.

Policy T2.7 The City will provide and promote the development of pedestrian and bicycle paths to schools, parks, transit and activity centers, as well as linkages between these paths.

Policy T2.8 The City will include the need to accommodate bicycle safely in its management and design of the City street network, including designating bicycle routes throughout the city.

Policy T2.9 The City will encourage the siting of bicycle-related commercial activities in the Central Business District and Mixed Use areas.

Policy T2-10 The City will implement the adopted Comprehensive Emergency Management Plan in the event of an emergency that impacts transportation facilities.

GOAL T3

To recognize and promote pedestrian and bicycle movement as a basic means of circulation and to assure adequate accommodation of pedestrians, bicycles and handicapped persons' needs in all transportation policies and facilities. New development will be encouraged or in some cases required to implement Pedestrian Oriented Development design features that have been incorporated into City codes and standards, such as providing sidewalks or pathways and amenities such as street trees and street lighting, and site design that encompasses connectivity with existing transportation facilities and between uses.

Policy T3.1 Require developers to include pedestrian facilities such as sidewalks or pathways within formal subdivisions, and to provide links to existing walking trails and pathways that form the City's looped trails system.

Policy T3.2 Carnation will strive to reduce the pedestrian barrier created by Tolt Avenue (SR 203) by:

- Providing pedestrian crossings at key points along SR203, including on the northern, central and southern ends of the roadway corridor through the City.
- Promote accessibility by reducing travel distance on busy cross streets.
- As allowed by the WSDOT, enhance the visibility of the pedestrian crosswalk by using different materials, textures or patterns, and adding landscaping or installing sidewalk design elements such as color or art.
- Coordinate access management on SR203 with WSDOT to promote alternative access and/or shared access points for developments that front this street.

Policy T3.3 Carnation will promote the creation of a pedestrian oriented downtown commercial area by:

- Implementing design standards for commercial development along SR203 which encourage a pedestrian environment by requiring parking at the side or rear of building.
- Modifying the placement of new buildings in ways that encourage pedestrian activities by making streets more attractive routes for walking.

Policy T3.4 Improve pedestrian amenities in the downtown through public improvements, sign regulations, and development standards. The maintenance of public and private improvements should be given priority commensurate with downtown's role as the focal point of the community.

Policy T3.5 Work with WSDOT to develop mechanisms to reduce traffic speed on SR203 through the city to increase public safety and enhance local mobility, yet maintain the regional movement of traffic through the city.

Policy T3.6 Work with WSDOT to evaluate potential pedestrian improvements along SR203, as well as coordinate implementation strategies for such improvements.

Policy T3.7 Seek to improve the appearance of existing street corridors and incorporate high standards of design when developing new streets, including construction of sidewalks. Where appropriate landscaping, street furniture, lighting and other measures should be implemented to enhance the appearance of city street corridors. Existing trees along street rights-of-way should be preserved when trees are healthy and can be maintained, while at the same time introducing new trees where appropriate.

Policy T3.8 Include construction of pedestrian amenities such as pathways, trails, sidewalks whenever significant development or major maintenance work occurs on city streets. This may include the identification of potential funding sources such as concomitant agreements, Local Improvement Districts, and including sidewalks as an "alternate" in construction bid documents.

Policy T3.9 Where these are feasible and will promote public safety, the City will consider traffic calming techniques especially on non-arterial roadways that carry significant traffic.

Policy T3.10 The City will support and promote bicycle use as an alternative to motorized transportation through improvements such as designated bicycle paths, signage, bicycle parking, etc. Improvements to the

transportation system must balance the needs of motorists, pedestrians and bicyclists.

GOAL T4

To ensure adequate parking in the downtown commercial area which is consistent with downtown design and pedestrian circulation goals.

Policy T4.1 Allow on-street parking in the downtown area to form a buffer between pedestrians and street traffic, reduce the speed of traffic, and provide for short term parking needs.

Policy T4.2 Explore alternative methods of ensuring the adequate provision of parking for new and existing commercial and residential development in the downtown commercial area, while reducing the amount of parking provided by individual developments and influencing the location and type of parking in ways that promote pedestrian mobility and minimize pedestrian/vehicular conflicts. This includes, but is not limited to:

- Installing directional signage to public parking areas.
- Encouraging the use of joint-use parking opportunities utilizing existing parking for churches, public buildings and stores.
    - Separating short (< 2 hrs), intermediate (2-5 hrs) and long term (> 5 hrs) parking uses; on street parking reserved for short term, and long term parking provided in lots on the periphery of the downtown commercial area.

GOAL T5

To manage, conserve and protect Carnation's natural resources through a balance of development activities complemented with sound environmental practices. Where consistent with mobility goals, encourage green streetscapes that incorporate natural drainage, reduced impervious surface, and vegetation. Incorporate non-motorized transportation facilities into roadway improvements and new roadways.

Policy T5.1 New transportation facilities should be designed in a manner which minimizes impacts on natural drainage patterns, soil profiles and habitat.

Policy T5.2 Promote the use and development of routes and methods of alternative modes of transportation, such as transit, bicycling and walking, which reduce Carnation's consumption of non-renewable energy sources and reduce emission of greenhouse gases.

Policy T5.3 Assist all major employers in complying with current federal and state policies aimed at reducing auto-related air pollution by implementing

programs to reduce the number of employees commuting in single occupancy vehicles. This compliance can be realized through such transportation demand strategies as preferential parking for carpools/vanpools, alternative work hours, bicycle parking, and distribution of transit and ridesharing information. Cooperate with major employers located outside the City with their ridesharing or van pooling resources that serve Carnation residents.

Policy T5.4 Carnation will seek to reduce levels of air pollutants and greenhouse gas emissions in an effort to maintain or do better than existing state and federal air quality goals and standards, by: providing a compact urban form that promotes non-motorized trips within the City; promoting economic development to increase local employment opportunities and to maximize the goods and services that are locally available; by working with partners such as King County, the Snoqualmie Tribe and the other Snoqualmie Valley cities to create transit service that provides real options for commuting to reduce trips to work; and by cooperating with regional employers to promote ride-share options.

Policy T5.5 Site, design, and buffer (through extensive screening and/or landscaping) transportation facilities and services to fit in harmoniously with their surroundings. When sited within or adjacent to residential areas, special attention should be given to minimizing noise, light and glare impacts.

GOAL T6

To actively influence the future character of the City by managing land use change and by developing City facilities and services in a manner that directs and controls land use patterns and intensities.

Policy T6.1 Coordinate Land Use with the facility/utility planning activities of agencies and utilities identified in this Comprehensive Plan element. Adopt procedures that encourage providers of public services and private utilities to utilize the Land Use Element of this Plan in planning future facilities.

Policy T6.2 The cities and counties in the region should coordinate transportation planning and infrastructure development in order to:

- Ensure a supply of buildable land sufficient in area and services to meet the region's housing, commercial and employment needs; located so as to be efficiently provided with public facilities and services.
- Ensure protection of important natural resources.
- Avoid unnecessary duplication of services.

- Avoid overbuilding of public infrastructure in relation to future needs.

Policy T6.3 Recognize the important role that public facilities and programs such as sidewalks, bike lanes, walking trails and street lights play in providing a healthy family environment within the community.

Policy T6.4 Work with local, regional and state jurisdictions to craft land use development strategies that will support public transportation.

Policy T6.5 Consider the impacts of land use decisions on adjacent roads. Likewise, road improvements should be consistent with proposed land use densities.

Policy T6.6 Regional traffic should be discouraged in Carnation's residential areas.

GOAL T7

To encourage pedestrian and bicycle transportation modes by providing a comprehensive system of walkways and trails that links residential areas to each other and to needed services. In addition to promoting non-motorized trips within the City, the trail system should be designed to provide for the recreational, cultural, environmental and aesthetic needs of City residents. As resources allow, the City will update the map of pedestrian and bicycle trails that serve Carnation.

Policy T7.1 Coordinate with King County Parks to support continued improvement of the Snoqualmie Valley Trail through Carnation as part of a regional trail system.

Policy T7.2 Support the development of paths, signage, and marked roadways which link the Snoqualmie Valley Trail with Carnation's other trails and resources such as the rivers, parks and downtown commercial areas.

Policy T7.3 Coordinate with land owners to develop a community trail system along the banks of the Tolt and Snoqualmie Rivers which is linked to the downtown commercial district, parks and the Snoqualmie Valley Trail.

CHAPTER 9 – CAPITAL FACILITIES ELEMENT

INTRODUCTION

The Capital Facilities Element has been developed in accordance with Section 36.70A of the Growth Management Act to address the financing of Capital Facilities in the City of Carnation Urban Growth Area (UGA). It represents the community's policy plan for the financing of the public facilities for the next 20 years, and includes a financing plan for Capital Facilities over the next six years. The policies and objectives in this plan will be used to guide public decisions on the use of capital funds. They will also indirectly guide private development decisions by providing a strategy of planned public capital expenditures.

The Element has also been developed in accordance with the King County County-wide Planning Policies, and has been integrated with all other planning elements to ensure consistency throughout the Comprehensive Plan. The Element specifically evaluates the city's fiscal capability to provide the public facilities necessary to support the other Comprehensive Plan elements. The Capital Facilities Element includes:

- Inventory and Analysis
- Future Needs and Alternatives
- Six-Year Capital Improvement Plan
- Monitoring and Evaluation
- Goals and Policies

LEVEL OF SERVICE (LOS) STANDARDS

Where LOS standards are established, they are also discussed in the subject element of this Comprehensive Plan (e.g. Transportation, Parks, etc.) A detailed listing of those standards is provided in those chapters.

MAJOR CAPITAL FACILITIES CONSIDERATIONS AND GOALS

The Capital Facilities Element is the mechanism the City uses to coordinate its physical and fiscal planning. This planning effort requires ongoing communication between various disciplines, including engineering, finance, and planning. The Comprehensive Plan is realistic and achievable as a result of integrating the concerns of various local administrators and coordinating all of the Comprehensive Plan Elements.

The Capital Facilities Element promotes efficiency by requiring the City to prioritize capital improvements for a longer period of time than the single budget year.

Long-range financial planning presents the opportunity to schedule projects so that the various steps in development logically follow one another, with regard to relative urgency, economic desirability, and community benefit. In addition, the identification of adequate

funding sources results in the prioritization of needs, and allows the trade-off between projects to be evaluated explicitly.

INVENTORY AND ANALYSIS

The inventory presented in this Element provides information useful to the planning process as well as summarizing new capital improvement projects for the growth projected from 2015 and beyond, and major repair, renovation, or replacement of existing facilities.

EXISTING CAPITAL FACILITIES

This section includes a brief summary of existing city facilities. Additional information can be in each respective Comprehensive Plan Element under which the facility would be considered.

City Hall. The facilities for general government consist of a 6,700 square-foot two-story City Hall building located at 4621 Tolt Avenue. The building is comprised of three separate attached structures, built in different decades. General government is administered from the ground floor, which underwent partial interior renovation and finish work in 2001 and 2002. The general government facility provides meeting space, office space, and ADA accessible public spaces. Office space consists of a front office with capacity for three employees, and five private offices. City Hall office space is currently at maximum capacity.

In December 2016, the City conducted a structural inspection of City Hall. The northern structure of the building has masonry walls which are likely backfilled with unreinforced concrete, and will not serve as a lateral resisting system for meeting current codes such as loadings for wind and seismic forces. Hence, remodel work will likely be limited to only cosmetic changes or non-structural modifications. If a future remodel design includes structural changes, it could trigger bringing applicable areas or the entire building up to current codes. Trying to work with the existing building may prove to be too costly, so demolition and replacement of City Hall is being contemplated.

Public Works Maintenance Shop. A 5,000 square foot public works maintenance building was constructed in 1995, and is located at NE 45th and 330th Avenue NE. The building consists of two heated bays, three storage bays, and office/parts area. This facility should be adequate to meet public works maintenance needs throughout the planning period.

Water System. Principal water facilities include a spring fed water supply supplemented by a groundwater well located in Loutsis Park, and three above-ground storage reservoirs providing a total of 938,000 gallons. The city water distribution mains consist of pipes ranging in size from 2" to 12". The quality of the water provided by the City is good. The capacity is adequate to serve current needs, and the City anticipates having enough capacity to serve the projected population. Provision of water to future development not

only depends on capacity, but also on design considerations. See the Utilities Element for more information on the water system.

Sanitary Sewer System. The City has an operational public sewer system. The City constructed and operates the collection system, and King County provides wastewater treatment at a facility located at 4405 Larson Avenue. The outfall is approximately one mile to the north of the City at Chinook Bend, where it is used for enhancement of a wetland.

Stormwater. The stormwater drainage system consists of two major drainage basins draining to the Tolt and Snoqualmie Rivers. The majority of the city's planning area drains to the Snoqualmie River, with only approximately 33.1 acres draining to the Tolt River.

The City of Carnation does not have a public storm sewer system. Stormwater from impervious surfaces must be infiltrated on-site, which can sometimes be difficult to achieve given localized areas of poorly drained soils and/or seasonal high water tables. Local drainage facilities that collect and convey surface water runoff consist of open channels and roadside ditches, wetlands, infiltration systems and detention ponds. The Snoqualmie and Tolt rivers ultimately serve as receiving waters, but there are no direct outfalls to the rivers. See the Utilities Element for additional information.

Solid Waste Disposal. Garbage collection is mandatory throughout the City of Carnation. Curbside recycling and yard waste collection is also available to all residents. The City previously operated a landfill which stopped receiving refuse in 1990, and entered a post-closure period in 1995. See the Utilities Element for additional information.

Transportation Facilities. City streets consist of various street pavement, alleys, sidewalks, street lighting, ~~signals~~ traffic control devices and surface water drainage facilities. The City street network consists of ~~5~~ 12 miles of paved streets, and 1.55 miles of alleys. ~~Approximately 1 mile~~Some of the paved street system features sidewalks either on one side or both. The remaining streets have gravel shoulders. A traffic signal ~~was recently completed~~is located at the intersection of SR 203 and Entwistle, and the intersection of SR 203 and Morrison has an improved pedestrian crossing~~; prior to completion of the signalization project, this intersection had been the City's only failure of its LOS standard~~. Transportation throughout the ~~rest of~~ the City is adequate to meet LOS standards through the planning period if the Transportation Improvement Plan identified in Chapter 7 and in this Element is implemented. See the Transportation Element for more information.

Parks and Recreation Facilities. City park land consists of three developed city parks: Valley Memorial Park, Fred Hockert Park, and Nick Loutsis Park.

Valley Memorial Park features two tennis courts, children's playground equipment, a skateboard bowl, BMX track, open space, and picnic areas. Hockert Park is a mini-park featuring a children's play structure and other playground equipment. Loutsis Park

consists of open spaces and dense, poorly spaced conifer trees. It also houses the city's well-site. Additionally, the City and a few Homeowners Associations own several acres of land which have been dedicated as open space. Park and recreation facilities that are enjoyed by Carnation residents and visitors but not owned by the City include Tolt McDonald Park, which is a 500-acre regional park located partially within and adjacent to the City, as well as facilities owned and operated by the Riverview School District, King County Library System, Sno-Valley Senior Center, etc.

The City has adequate park and recreation land to satisfy current demand although some of its park facilities are in poor condition, and some of its park lands are undeveloped or underdeveloped. More information about park and recreation facilities and needs are listed in the Park and Recreation Element.

Library. The City of Carnation is part of the King County Library System (KCLS) which operates a 5,000 sq. ft. library on Tolt Avenue. Property owners pay a property tax assessment for operations and maintenance of the library plus levy assessments for any voter approved library bond levies.

Cemetery. The City operates a 2.1-acre cemetery located at 5110 Carnation-Duvall Road. The Carnation Cemetery consists of two sections, the north section which was founded by the Masonic Cemetery Association in 1905, and the south section which was founded by the Tolt Lodge International Order of Odd Fellows (IOOF) in 1906. The cemetery was deeded to the City in 1993.

Emergency Preparedness Evacuation Site. In 2001 with funds provided by Seattle Public Utilities and the King County Council the City purchased Tolt Highlands Lot 'W' from Weyerhaeuser, a 20.4-acre site adjacent to the north-eastern portion of the city limits. The site was purchased for the purpose of providing an elevated evacuation site for the community in the event of catastrophic failure of the South Fork Tolt River Reservoir and Dam. The site includes an abandoned gravel pit. Three large metal storage containers which are owned by Riverview School District and house emergency preparedness supplies are presently located at the gravel pit. In 2004, the City and American Red Cross entered into an agreement and the Red Cross paid for and constructed the first King County Disaster Relief Shelter, which is located at the gravel pit. In 2005, a pedestrian trail was constructed from NE 50th Street to the evacuation site which serves as an evacuation route in the event of a dam failure. The City intends to improve the pedestrian evacuation trail so that it can accommodate more people by making it wider, and adding treads and handrails. In addition to the pedestrian trail, the parcel can also be accessed by vehicles from Tolt Highlands Drive.

In addition to its function as an evacuation site, Lot 'W' can also be used for limited passive recreation.

Medical, Emergency, and Fire Protection Facilities. The City of Carnation has annexed to both the Snoqualmie Valley Hospital District and Fire District #10. Fire District

#10 entered into a joint operation inter-local agreement with Fire District #38 and the cities of Issaquah, North Bend and Sammamish in 1999.

This agreement formed a new agency called Eastside Fire and Rescue. The total Fire District service area, including Carnation, is 165 square miles. The Carnation fire station is located at 3600 Tolt Avenue and is operational 24 hours a day, seven days a week. The Station is adequate to meet current and future needs through the planning period. Staff and equipment at the Carnation Fire Station consists of twelve career firefighters, ten reserve firefighters, two fire engines, one aid car, and one tender. The average response time within the Carnation city limits is approximately two minutes. The fire district has three major sources of funding -- property tax revenues, a share of the King County Emergency Management Services (EMS) funding, and fees charged for services.

Public Education Facilities. Riverview School District No. 407 serves the lower Snoqualmie Valley area, particularly Carnation and Duvall. The District annually issues a Capital Facilities Plan that describes the facilities needed to accommodate projected student enrollment over the following six-year period. The Riverview School District's ~~2017~~ 2018 Capital Facilities Plan is hereby adopted by reference.

The District has four elementary schools (Carnation, Cherry Valley, Stillwater Elementary and the Eagle Rock Multi-Age Program), one middle school (Tolt) in Carnation, and one senior high school (Cedarcrest) in Duvall. In addition, the District has an alternative Learning Center located near the Carnation Elementary School. An inventory of existing school facilities, including locations and capacities of those facilities at various grade levels, is provided below:

Table CF-1
Riverview School District Public School Facility Inventory 2017

FACILITY	LOCATION	BUILDING AREA (sf)	PERMANENT STUDENT CAPACITY
Carnation Elementary (K-5)	4950 Tolt Avenue, Carnation	50,567	308
Stillwater Elementary (K-5)	11530 320th Avenue NE,	49,588	~~315~~363
Cherry Valley Elementary (K-5)	26701 N.E. Cherry Valley Road, Duvall	56,252	462
Multi-Age Program (K-5)	29300 NE 150th Street, Duvall	0 *(@CHS site)*	~~72~~96
SUBTOTAL (K-5)			~~1,157~~1,229
Tolt Middle School (6-8)	3740 Tolt Avenue, Carnation	85,157	750
Cedarcrest High School (9-12)	29000 NE 150th Street, Duvall	108,946	966
Riverview Learning Center (K-12)	32240 NE 50th St, Carnation	14,545	168

Source: Riverview School District ~~2017~~ 2018 Capital Facilities Plan, Table 4.1

Table CF-2
Riverview School District Projected School Enrollment
~~2017~~2018-~~18~~ 19 through ~~2022~~2023-~~23~~24

Grade Level	Actual ~~2016~~201 7-~~17~~18	~~2017~~201 8-~~18~~19	~~2018~~201 9-~~19~~20	~~2019~~202 0-~~20~~21	~~2020~~202 1-~~21~~22	~~2021~~202 2-~~22~~23	~~2022~~202 3-~~23~~24
K-5	1,~~478~~511	1,~~488~~511	1,~~505~~501	1,~~525~~531	1,~~579~~528	1,~~610~~532	1,~~660~~558
6-8	~~783~~775	~~789~~828	~~831~~833	~~803~~824	~~780~~831	~~774~~822	~~755~~834
9-12	~~1,007~~991	1,~~009~~018	1,~~002~~096	1,~~047~~127	1,~~056~~133	1,~~070~~202	1,~~111~~167
Total	3,~~268~~277	3,~~286~~357	3,~~338~~430	3,~~375~~482	3,~~415~~492	3,~~454~~556	3,~~526~~559

Source: Riverview School District ~~2017~~ 2018 Capital Facilities Plan, Table 5.1.

Financing School Facilities. ~~Voter approved bonds are typically used to fund construction of new schools and other capital improvement projects~~Funding of school facilities is typically secured from a number of sources including voter-approved bonds and levies, state matching funds, impact fees, and mitigation payments. ~~In addition, the~~ Riverview School District has an inter-local agreement with the cities of Duvall and Carnation as well as King County for the ~~implementation~~ assessment of ~~a~~ school impact fees. This permits the district to use the impact fee proceeds to partially fund needed capital facilities to ~~house and~~ accommodate new students generated by new residential development. Capital projects may also be funded through voter approved bonds and property tax levies, and state financial assistance from the Common School Construction Fund.

CAPITAL FACILITIES PROGRAM

Capital Facilities are characterized by long useful life and substantial cost. Capital Facilities Programs include the plan for financing these facilities but do not include the cost of operation or maintenance. The Capital Facilities Program includes facilities that are provided by the City of Carnation (i.e., city streets, parks, city hall, utilities, etc.) and facilities that are provided by other entities (i.e., state roads, public schools, County parks, utilities, etc.). These facilities require a policy for long-term financing rather than the annual budget cycle. Once future capital facility requirements are determined, the six-year Capital Facilities Plan will assist with annual budget decisions to incrementally fund these facilities. The six-year Capital Facilities Plan is not a substitute, but a budgetary tool for making budgetary decisions.

The Capital Facilities Program within this element is a six-year financing plan for capital expenditures. Because most Carnation projects are dependent of various grants, which may or may not be available or awarded, it is not realistic to put a year to the project. Thus, facilities may be listed by priority, with high priority projects being those to be undertaken first whenever possible, preferably the next budget year.

The capital project list sets forth each capital project which the City plans to undertake and presents estimates of the resources needed to finance the project. The Capital Facilities Program reflects the goals, objectives, and implementation strategy of the

Capital Facilities Element. The top priorities of the Capital Facilities Program will be converted to the annual capital budget whenever possible, while the remaining projects will be considered for future years. The Capital Facilities Program is a rolling plan that is periodically revised and extended to reflect changing circumstances.

The list of improvements contained in this Element has been limited to these major projects. Smaller scale improvements are addressed in the annual budget of the City as they occur over time. A capital project may include design, engineering efforts, permitting, environmental analysis, land acquisition, construction, major maintenance**,** site improvements, energy conservation projects, landscaping, initial furnishings, and equipment.

FINANCIAL INVENTORY AND ANALYSIS

The City has employed State authorized financing mechanisms to fund city services and capital improvements, and uses the Washington State Budgeting, Accounting, and Reporting System (BARS) as prescribed by the Washington State Auditor. The City currently funds capital projects from the following funds:

- Parks Development Fund 108
- Transportation Impact Fund 109
- Capital Improvement Fund 301 *(REET 2, Transportation Projects)*
- Capital Facilities Fund 302 *(REET 1, Parks & Government Facilities)*
- Water Capital Replacement Fund 402
- Landfill Post-Closure Financial Assurance Account 406
- Sewer Capital Improvements Fund 408

The only dedicated revenue source for the Capital Improvement Fund is the Real Estate Excise Tax. Other revenues consist of transfers from enterprise funds and other sources for capital improvements. During the 1990s and early 2000s, there was very little or no excess general revenue, after funding basic operations and maintenance activities, to transfer to the 301 Fund for capital improvements. The City's street and general government capital improvements are budgeted in this fund.

In 2004 the City conducted a water rate study and since that time, a capital replacement component has been incorporated into the water rate, providing for the availability of funds that are directly deposited into the 402 Fund for capital water system improvement projects. In addition to the capital replacement component of the utility rates, new development is charged a capital facilities charge (GFC) to connect to the water system. The GFCs for water are also deposited into the 402 Fund.

The 408 Fund is the Sewer Capital Improvement Fund. New development must pay GFCs to connect to the sewer system; the GFCs for sewer are directly deposited into the 408 Fund. Beginning in 2013, the sewer rate includes a capital replacement component

to be deposited directly into the 408 Fund. In addition to the GFCs to connect to the City's sewer collection and conveyance system, sewer customers also pay a Capacity Charge to King County.

The Landfill Post-Closure Financial Assurance Account receives its revenues through a flat rate charged to each property for landfill post-closure monitoring and maintenance activities. Revenues in this fund are restricted to financing costs associated with the post-closure maintenance and water quality monitoring at the closed Carnation landfill.

The City of Carnation has adopted a Transportation Impact Fee (TIF) on all new development within the City and a Parks Impact Fee on new residential development. Funds from Impact fees can be combined with other funding sources such as grants to pay for improvements to the City's transportation system and parks facilities. The transportation and parks improvements that may be funded in this way are identified in the Transportation and Parks and Recreation Elements of the Comprehensive Plan; these improvements ensure that levels of service for parks and transportation will remain at acceptable levels once new development occurs. The Riverview School District also imposes a School Impact Fee on new development which is collected for the District by the City in accordance with an Inter-local Agreement (ILA).

FUTURE CAPITAL NEEDS AND ALTERNATIVES

PROJECTION OF CAPITAL FACILITY NEEDS

Public facility needs have been identified in the other Elements of this plan. The other plan elements describe the location and capacity of facilities, and analyze the need for increased capacity from 2015 and beyond. Policy CF3.3 summarizes the current and adopted level-of-service standards. Capital improvement projects have been identified for parks and recreation, transportation, and utility facility improvements. Facilities for fire protection and schools are contained in district and agency plans. These have been coordinated with, but are independent of, the Comprehensive Plan. The Riverview School District's Capital Facilities Plan is adopted by reference in this Element.

Prioritization of Projected Needs. The identified capital improvement needs listed in the Table CF-4 were developed by City staff in view of the needs identified in this Plan. The projects contained in this plan undergo review by the Planning Board, City Council, and are subjected to a public hearing. The following criteria may be used to evaluate the priority of various capital projects.

Economic Considerations:
Potential for Financing
Impact on Future Operating Budgets
Timeliness of Opportunity
Benefit to Economy and Tax Base
Grant and or Loan Availability

Feasibility Considerations:
Legal Mandates
Community Support

Concurrency Considerations:
Goals and Objectives in Other Elements
Linkage to Other Planned Projects

Service Considerations:
Safety, Health, and Welfare Factors
Environmental Impact
Effect on Quality of Service
Level of Service (LOS)
Plans of Other Jurisdictions

Revenue Sources and Cost Estimates for Projected Needs. Cost estimates in this Element are presented in current year dollars for both the Transportation Improvement Plan and Parks Capital Improvement Plan. These cost estimates were derived from various federal, regional, local, and state documents, published cost estimates, records of past expenditures, information from private contractors, and general knowledge.

The Capital Facilities Plan for the City of Carnation is based upon:

- Current Revenue Sources
- Financial Resources
- Capital Facilities Policies
- Method for Addressing Shortfalls

The City has reviewed and identified various means to finance Capital Facilities. It should be noted that financial regulations and fund availability change over time. Furthermore, changing market conditions may influence the city's choice of financing mechanisms, and the timing of specific improvements may depend upon future development patterns. The following list of sources includes major financial resources available and is not limited to those sources which are currently in use or will be used in the six-year schedule of improvements. The list of financial resources that are available to cities for capital projects includes the following:

- Local Multi-Purpose Levies
- Local Single-Purpose Levies
- Local Non-Levy Financing Mechanisms
- Federal, State, Regional, County, and Local Grants and Loans

Federal, State, Regional, County, and Local Grants and Loans

The City of Carnation has used and continues to look to a variety of grants and loans to fund needed capital improvements. The following is a non-exhaustive list of grant and loan programs used by the City:

Centennial Clean Water Fund (CCWF): The Department of Ecology (DOE) provides grants and loans for the design, acquisition, construction, and improvement of water pollution control facilities and related activities to meet state and federal requirements to protect water quality. Funded projects must address water quality problems related to public health and environmental degradation. The City was awarded both grants and loans to help pay for the new sewer system through the Centennial Clean Water Fund.

Community Development Block Grant (CDBG): Funds are available annually statewide through the federal Department of Housing and Urban Development for public

facilities, economic development, housing, and infrastructure projects which benefit low- and moderate-income households.

Community Economic Revitalization Board (CERB): The state Department of Commerce provides low interest loans and occasional grants to finance infrastructure projects such as sewer, water, access roads, bridges and other facilities which support specific private developments or expansions in manufacturing and businesses that support the trading of goods and services outside of the state.

Public Works Trust Fund (PWTF): The Washington State Public Works Board provides low interest loans to finance capital facility planning; emergency planning; and construction of bridges, roads, domestic water, sanitary sewer, and storm sewer.

Recreation and Conservation Office: (formerly the Interagency Committee for Outdoor Recreation or IAC) provides grant-in-aid funding for the acquisition, development, and renovation of outdoor recreation facilities. Park grants require a 50% local match.

Transportation Improvement Board (TIB) Complete Streets Award Program: The Complete Streets Award is a new funding opportunity for local governments. The legislature provided funding in 2015 and the first awards were given in 2017. The Complete Streets Award is different from other TIB funding sources, and is flexible money given to any city or county in Washington state which has an adopted complete streets ordinance and shows an ethic of planning and building streets that use context sensitive solutions to accommodate all users, including pedestrians, transit users, cyclists, and motorists. Carnation adopted a complete streets ordinance in 2016 which has been codified under Chapter 12.02 CMC. Awards will typically range between $250,000 and $500,000.

Transportation Improvement Board (TIB) Small City Programs (SCP): The Washington State TIB provides funding for projects that reconstruct or maintain transportation infrastructure. Projects are selected based on the condition of the pavement, roadway geometrics and safety. Cities and towns with a population under 5,000, such as Carnation, are eligible for TIB's Small City Programs.

The Small City Arterial Program (SCAP) provides funding for improving safety and roadway conditions for classified arterial roadways located within federally designated urban areas. The City will pursue funding from the SCAP for West Morrison Street Reconstruction.

The Small City Sidewalk (SCSP) funds sidewalk projects.

The Small City Preservation Program (SCPP) funds pavement improvements to existing non-arterial streets. The City will apply for funding through this program for local street improvements.

State and Tribal Assistance Grants (STAG). The State and Tribal Assistance Grant is a special appropriation in the Congressional Budget. Projects to be funded through this special appropriation may include water, wastewater and groundwater infrastructure.

Transportation Alternatives (TAP) allocated through the PSRC: TAP provides funding for programs and projects defined as transportation alternatives, including:

- On- and off-road pedestrian and bicycle facilities
- Infrastructure projects for improving non-driver access to public transportation and improved mobility
- Community improvement activities
- Environmental remediation
- Recreational trail program projects
- Federally funded Safe Routes to School projects.

The PSRC TAP program has been identified as a significant potential funding source for construction of the CBD as well as other projects identified in the Tolt Corridor Action Plan.

U.S. Department of Transportation TIGER Grants: The United States Department of Transportation awards cycles of TIGER grants. The availability of funds through the TIGER program and TIGER Discretionary Grants varies with federal appropriations. The current grant program focus is on capital projects that generate economic development and improve access to reliable, safe and affordable transportation for disconnected communities both urban and rural, while emphasizing improved connection to employment, education, services and other opportunities, workforce development, or community revitalization.

This funding source could be pursued for the Larson Avenue Connector which has an economic development component.

USDA Rural Development: This federal agency provides assistance to rural areas through direct or guaranteed loans and grants. The Rural Development programs help rural communities build or improve community facilities.

Department of Health Water Drinking Water State Revolving Fund (DWSRF): Grants for upgrading existing water systems. The DWSRF is a federal/state partnership program whose purpose is to provide loans to public water systems for capital improvements aimed at increasing public health protection.

WSDOT Safe Routes to School: This program provides technical assistance and resources to cities, counties, schools, school districts and state agencies for improvements that get more children walking and bicycling to school safely, reduce congestion around schools, and improve air quality.

WSDOT Surface Transportation Program (STP): WSDOT allocates STP funds to Metropolitan Planning Organizations (MPOs) and County Lead Agencies for prioritizing and selecting projects that align with their regional priorities involving all entities eligible to participate in a public process. Projects eligible for STP funding includes highway and bridge construction and repair; transit capital projects; bicycle, pedestrian, and recreational trails; construction of ferry boats and terminals.

CAPITAL FACILITY STRATEGIES

The Growth Management Act (GMA) requires that Transportation and Capital Facilities Elements of the Comprehensive Plan contain finance plans that match future transportation and other Capital Facilities needs against projected revenue capacities. To project realistic available revenues and expected costs for Capital Facilities, the City needs to consider all current programs and policies that influence decisions about the funding mechanisms for public facilities. The most relevant of these are described below. These policies along with the goals and policies articulated in the Comprehensive Plan form the basis for the development of various funding scenarios.

MECHANISMS TO PROVIDE CAPITAL FACILITIES

Increase Local Government Appropriations. The City will investigate the impact of increasing current revenues, including any related tax rates, and will actively seek new revenue sources. In addition, on an annual basis at the time of budget preparation and adoption, the City will review the implications of the current revenue system as a whole.

The City has developed and adopted its Six-Year Capital Improvement Program within this chapter as required by the GMA. However, many funding sources are difficult to forecast and it is understood that many of the projects require grants which may not be approved in the timeframe desired by the City. The actual year of the project would depend on need and available funding. Also, a number of long range projects have been identified for the remaining fiscal years of the Comprehensive Planning period.

Analysis of Debt Capacity. Generally, Washington state law permits a city to ensure a general obligation (GO) bonded debt equal to 1.5% of its property valuation without voter approval. By a 60% majority vote of its citizens, a city may assume an additional general obligation bonded debt of 1%, bringing the total for general purposes up to 2.5% of the value of taxable property. The value of taxable property is defined by law as being equal to 100% of the value of assessed valuation. For the purpose of supplying municipally-owned electric, water, or sewer service and with voter approval, a city may incur another general obligation bonded debt equal to 2.5% of the value of taxable property. With voter approval, cities may also incur an additional general obligation bonded debt equal to 2.5% of the value of taxable property for parks and open space. Thus, under state law, the maximum general obligation bonded debt which a city may incur cannot exceed 7.5% of the assessed property valuation.

Municipal revenue bonds, such as water utility bonds, are not subject to a limitation on the maximum amount of debt which can be incurred. These bonds have no effect on the

city's tax revenues because they are repaid from revenues derived from the sale of service.

The "pay as you go" financing method is easy to administer and may be appropriate for certain capital projects, especially during periods of slow growth and when future tax receipts may be uncertain. However, the city will consider using debt financing if a significant level of growth occurs. This will shift some of the cost for Capital Facilities to future users, and the effects of inflation will allow the city to repay the debt in "cheaper" dollars.

User Charges and Connection Fees. User charges are designed to recoup the costs of public facilities or services by charging those who benefit from such services. As a tool for affecting the pace and pattern of development, user fees may be designed to vary for the quantity and location of the service provided. Thus, charges could be greater for providing services further distances from urban areas.

Mandatory Dedications or Fees in Lieu of. The City may require, as a condition of plat approval, that subdivision developers dedicate a certain portion of the land in the development to be used for public purposes, such as roads or parks. Dedication may be made to the local government or to a private group, such as a homeowners association. The provision of public services through subdivision dedications not only makes it more feasible to serve the subdivision, but may make it more feasible to provide public facilities and services to adjacent areas. This tool may be used to direct growth into certain areas.

Negotiated Agreement. This is an agreement whereby a developer studies the impact of development and proposes mitigation for the city's approval. These agreements rely on the expertise of the developer to assess the impacts and costs of development. Such agreements are enforceable by the jurisdiction. The negotiated agreement may require lower administrative and enforcement costs than impact fees.

Impact Fees. Impact fees may be used to affect the location and timing of infill development. Infill development usually occurs in areas with excess capacity of Capital Facilities. If the local government chooses not to recoup the costs of Capital Facilities in underutilized service areas, infill development may be encouraged by the absence of impact fees on development(s) proposed within such service areas. Impact fees may be particularly useful when a community is facing rapid growth and new residents desire a higher level of service than the community has traditionally provided.

OBLIGATION TO PROVIDE CAPITAL FACILITIES

Coordination with Other Public Service Providers: Local goals and policies as described in the other Comprehensive Plan Elements are used to guide the location and timing of development. However, many local decisions are influenced by state agencies, special service districts, and utilities that provide public facilities within the City. The planned capacity of public facilities operated by other jurisdictions must be considered when making development decisions. Coordination with other entities is essential not

only for the location and timing of public services, but also in the financing of such services. Such coordination would include financing for construction and operation of such facilities as fire stations, libraries, schools, state facilities, and river levees.

The City's plan for working with the natural gas, electric, and telecommunication providers is detailed in the Utilities Element. This Element includes policies for sharing information and a procedure for negotiating agreements for provision of new services in a timely manner.

Level of Service (LOS) Standards: Level of service standards are an indicator of the extent or quality of service provided by a facility related to the operational characteristics of the facility. They are a summary of existing or desired public service conditions. The process of establishing level of service standards requires the city to make quality of service decisions explicit. The types of public services for which the city has adopted level of service standards will be improved to accommodate the impacts of development and maintain existing service in a timely manner with new development.

Level of service standards will influence the timing and location of development, by clarifying which locations have excess capacity that may easily support new development, and by delaying new development until it is feasible to provide the needed public facilities. In addition, to avoid over extending public facilities, the provision of public services may be phased over time to ensure that new development and projected public revenues keep pace with public planning. The city has adopted level of service standards for a number of public services, as summarized in Policy CF3.3.

Potential Annexation Areas: The City's Potential Annexation Areas can adequately be served by the current City services when annexed. Prior to approval of new development within these areas, the City will review the Capital Facilities and other Elements of the Comprehensive Plan to ensure the resources will be available to provide the services necessary to support such new development at adopted or specified levels of service.

CAPITAL FACILITIES PROJECTS

Table CF-4 sets forth a six-year Capital Facilities project plan, based on the capital facility needs identified in this plan. Since the Comprehensive Planning process is dynamic and ongoing, the six-year plan will be periodically reviewed and updated. Given the uncertainties of funding sources, patterns of development, etc. it is sometimes impractical to identify in the plan a specific year in which a given capital facility project will be undertaken.

There are a number of financial assumptions upon which the Capital Facilities Element is based. The assumptions about current and future conditions include the following:

- The cost of running the City government will continue to increase due to inflation, state and federal mandates, and other factors, while state and federal shared revenues will continue to decrease.

- New revenue sources will be necessary to maintain and improve city services and facilities.
- In the General Fund, revenues are inadequate to meet operating and maintenance needs, let alone capital needs.

Significant capital investment is needed to maintain, repair, and rehabilitate the City's aging infrastructure and to accommodate future growth.

WATER UTILITY FACILITIES

The 2015 Comprehensive Water System Plan includes a Capital Improvements Plan for water improvements. Table CF-6 at the end of this Capital Facilities Element summarizes the Water System Capital Improvements Program at a high level. More detailed information about the specific projects can be found in the Water System Plan.

SEWER UTILITY FACILITIES

As the City's sewer collection and conveyance system was very recently built, there is no Capital Improvements Program developed for it as this time. The City is in the process of creating a program for the sewer system.

TRANSPORTATION FACILITIES

The Transportation Element was updated in 2015, and amended in 2017 and 2018. The 2015 Comprehensive Plan Update included new traffic modeling which reflects the proposed land use changes from a 2015 docket request to reclassify approximately 35 acres of light industrial land to ~~mixed use~~high-density residential. The 2018 amendment included a new traffic level of service analysis which was based on traffic count data reported from 2007, 2009, 2012, 2016, and 2017. The twenty-year Transportation Improvement Plan (TIP) is presented in Table CF-4 below. The TIP includes projects that are needed to increase the capacity of the City's roadways in order to accommodate new growth. The City's transportation impact fee is calculated from the cost of implementing the capacity/LOS related projects listed in the Transportation Improvement Plan.

Table CF-4
Transportation Improvement Plan 2015-2035

Project Name	Project Description	Cost in ~~2017~~ 2018 Dollars	Capacity (LOS) Related
***Tolt Ave (SR 203) Corridor* Central Business District (CBD) Improvements Eugene to Rutherford**	Construction of full street and hardscape improvements, including: street re-grading and paving; aerial-to-underground utility conversion; street and pedestrian lighting; storm drainage infrastructure; street trees and planting; and site furnishings. Widen to three lanes for left turns.	$~~5,450,000~~6,072,588	Yes

Project Name	Project Description	Cost in ~~2017~~ 2018 Dollars	Capacity (LOS) Related
***Tolt Ave (SR 203) Corridor* South Greenway (east side) Tolt Bridge to Entwistle**	New curbs, gutters, planting strip, and paved pathway; storm drainage improvements; partial aerial-to-underground utility conversion; illumination; crosswalk; parking and site furnishing. Widen to three lanes for left turns.	$4,450,000	Yes
***Tolt Ave (SR 203) Corridor* South Entry** (west side) Tolt MacDonald Park to Eugene	Widen roadway for on-street parking; new curb, gutter, planting strip, and sidewalk; storm drainage improvements; and street trees and site furnishings. Widen to three lanes for left turns.	$1,250,000	Yes
Larson Avenue Connector 40th to Entwistle	Construct 2 lane road with parking, curb & gutter, sidewalk, new storm drainage, illumination, and signing/striping.	$~~2,300,000~~1,798,500	Yes
Milwaukee Avenue Connector 50th to 55th	Construct 2 lane road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/striping.	$1,675,000	Yes
316th Avenue Connector Morrison to 55th	Construct 2 land road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/striping.	$2,000,000	Yes
Tolt Ave at Morrison Intersection Improvements	Install traffic signal or circle and reconstruct pavement with curbs, gutters, and ADA compliant sidewalk ramps; illumination upgrades; drainage modifications; and signing/striping.	$550,000	Yes
Tolt Ave at Blanche Intersection Improvements	Construct a traffic circle and reconstruct pavement with curbs, gutters, and ADA compliant sidewalk ramps; illumination upgrades; drainage modifications; and signing/striping.	$1,~~885,000~~884,969	Yes
Tolt Hill Road/SR 203 Intersection Improvements	This project is outside the UGA boundary. This is a partnership-project in which the City, if desired, could be a financial participate to a WSDOT and/or King County lead project. Requires WSDOT warrant justification for signalization of the intersection.	$670,000	Yes, but outside city limits
~~**West Morrison Street Reconstruction** Tolt to Stewart~~	~~Reconstruct and widen 2 lane road with asphalt travel lanes; gravel parking shoulder; stormwater infiltration landscaped rain gardens, 5' asphalt walkway on one side; and signing/striping.~~	~~$660,000~~	~~No~~
East Bird Street Reconstruction Commercial to Milwaukee	Reconstruct and widen 2 lane road with asphalt travel lanes; gravel parking shoulder; landscaped rain gardens and a five-foot asphalt walkway on one side and ADA compliant sidewalk ramps.	$522,500	No

Project Name	Project Description	Cost in ~~2017~~ 2018 Dollars	Capacity (LOS) Related
East Reitze Street Reconstruction Milwaukee to Stossel	Reconstruct and widen 2 lane road with asphalt travel lanes; gravel parking shoulder; landscaped rain gardens and a five-foot asphalt walkway on one side and ADA compliant sidewalk ramps.	$632,500	No
West Rutherford Street Reconstruction Tolt to Stewart	Reconstruct and widen 2 lane road with asphalt travel lanes; gravel parking shoulder; landscaped rain gardens and a five-foot asphalt walkway on one side and ADA compliant sidewalk ramps.	$~~577,500~~491,500	No
Tolt Ave (SR 203) Corridor North Greenway (east side) Rutherford to 55th	Improve east side of the existing travel lanes, including new curb, gutter, on-street parking; planting strip and paved pathway; storm drainage improvements; partial aerial-to-underground utility conversion; illumination; planting and site furnishings.	$2,400,000	No
Tolt Ave (SR 203) Corridor **North Entry** (west side) Rutherford to 55th	Improve west side with a new curb, gutter, planting strip, and sidewalk; storm drainage improvements; portions of street widening with a center landscaped median within the existing roadway; street trees and site furnishings.	$1,985,000	No
NE 40th St. "Arterial" Reconstruction Tolt to Larson	Reconstruct and widen approximately 500 LF of NE 40th Street to include 2-12' asphalt travel lanes with bike lane, curb & gutters, and sidewalk; new storm drainage facilities, illumination upgrades, and signing/striping.	$~~510,000~~825,200	No
Bird Street "Festival Street" Reconstruction Stossel to Stephens	Reconstruct approximately 575 LF of Bird Street between Stephens Ave and Stossel Ave as a "festival street" to include special paving and a "curb-less" facility accommodating two travel lanes, parking, and sidewalk/furnishing zone; underground stormwater facilities; planters, lighting, and other pedestrian amenities; and signing/striping.	$1,375,000	No
East Entwistle Pedestrian Improvements 329th to 332nd	Construct a 5-foot-wide asphalt path separated from the roadway by an improved stormwater ditch/infiltration swale, restore shoulder, install ADA compliant curb ramps, and add lighting to better illuminate the roadway and pedestrian path. Low Impact Development (LID) features will be incorporated where technically feasible to reduce runoff and provide water quality treatment.	$~~126,000~~260,800	No
McKinley Avenue Sidewalk Eugene to Blanche	Construct approximately 400 lineal feet of cement concrete sidewalk, curb, gutter and stormwater collection and infiltration facilities along the west side of the street. This project fills in sidewalk gaps along McKinley Avenue.	$259,100	No

Project Name	Project Description	Cost in ~~2017~~ 2018 Dollars	Capacity (LOS) Related
City Wayfinding Signage Improvements	Install wayfinding directional signs; en-route markers; information kiosks & gateways; and other signage to formalize and mark wayfinding for motorist and creating pedestrian-oriented walking routes within the City.	$190,000	No
Tolt Ave (SR 203) Corridor ~~**North**~~ **Garden Tracts Walkway** 55th to 60th	Construct approximately 1300 LF of 6-foot asphalt path along the east side of Tolt Ave (SR 203) with 10-foot wide landscaping/planting in a buffer strip between the path and roadway shoulder.	$135,000	No
Tolt River Bridge Painting and Walkway Improvements	This project consists of painting the bridge and installing accent lighting to enhance character in creating a "gateway" at the south end of the City. Additional improvements include modifying the existing channelization across the bridge structure to provide an additional sidewalk to the eastside of the bridge.	$1,540,000	No
	Local Street Improvements	$~~301,500~~321,100	No
	TOTAL	$31,~~185,000~~374,657	

PARKS FACILITIES

The Parks and Recreation Capital Improvement Plan (CIP) in Table CF-5 below is developed from the priorities, goals and policies established in the Parks and Recreation Element. Parks improvements that are identified in the Parks and Recreation Capital Improvement Plan are expected to adequately serve the population increase.

Table CF-5
Parks and Recreation Capital Improvement Plan

	2017 Cost Estimates	Phase 1 2015-2021	Phase 2 2022-2028	Phase 3 2029-2035
Hockert Park				
Replace play structure	$187,500	$215,625		
Toddler structure	$25,000	$28,750		
New swing set	$12,500	$14,375		
New Climbing structure	$7,500	$8,625		
Merry go round	$12,500		$18,901	
Add a picnic table	$3,750		$5,670	
	$248,750			
Valley Memorial Park				
Re-finish tennis/basketball courts	$25,000	$28,750		
Picnic structure	$80,000	$92,000		
Looped trail	$46,875	$53,906		
Basketball hoop	$3,750	$4,313		
Toddler structure	$25,000	$28,750		

	2017 Cost Estimates	Phase 1 2015-2021	Phase 2 2022-2028	Phase 3 2029-2035
Reconfigure/pave parking lot 18 spaces	$50,750		$76,736	
Skatebowl improvements	$50,000		$75,602	
BMX viewing/picnic area	$5,000	$5,750		
	$286,375			
Tolt Commons/Community Shelter				
Picnic tables	$7,500	$8,625		
Grills	$2,500	$2,875		
Land acquisition between Commons + Shelter	$70,313	$80,859		
Land acquisition between Commons + Shelter	$178,313		$269,616	
	$258,625			
River's Edge Park				
New Fence	$15,625		$23,626	
Other improvements desired by neighborhood	$78,125		$118,128	
	$93,750			
Loutsis Park				
Landscape screen along western boundary	$18,750	$21,563		
Fitness course	$50,000		$75,602	
Pave parking lot	$55,000		$83,162	
	$123,750			
West Side Park				
Site work	$12,500		$18,901	
Fence:	$15,200		$22,983	
Play structure(s)	$62,500		$94,503	
Picnic table	$3,750			$6,400
Grill	$1,250			$2,155
Open sided structure	$20,000			$35,000
	$115,200			
Trails system				
Pathway on Entwistle/NE 45th				
Sidewalk on SR203 west side s. of NE 40th	$25,000	$28,750		
Work with King County on Tolt Levee Trail				
Work with King County on Snoqualmie River Trail				
Signage	$62,500	$71,875		
Bicycle racks 10 in CBD/SC zones	$15,000	$17,250		
	$102,500			
New Mini-parks				
In PAA west of SR203	$187,500			$222,000
Northeastern development	$187,500			$222,000
	$375,000			
		Phase 1	**Phase 2**	**Phase 3**
Total in 2017 Dollars	**$1,603,950**			
Totals	**$2,083,626**	**$712,641**	**$883,430**	**$487,555**

SIX YEAR CAPITAL IMPROVEMENTS PLAN

Table CF-6 contains a summary of the City's capital improvements for water, streets and parks over the next six-year period. Grants and loans will be used to pay for many of these improvements, although the City must carefully plan its resources to have adequate local match funds. It should be noted that the year of implementation for some of the projects may not fall within the next six-year period, if grant funding is not available. Other projects on the list may not occur within the six-year period, as development that would create the necessity for particular capital projects may not occur within that time period. For example, some of the projects listed in the CIP will not be initiated until annexation of Potential Annexation Areas to the north.

TABLE CF-6
CAPITAL IMPROVEMENTS PROGRAM 2015-2035

TRANSPORTATION IMPROVEMENT PROJECTS (see the ~~Capital Street Repair and~~ Transportation Improvement Plan for detailed project information)

~~Type~~	~~TIP~~	~~STIP Priority~~	~~Project Name~~	~~Actual Prior Years~~	~~Estimated 2017~~	~~2018~~	~~2019~~	~~2020~~	~~2021~~	~~2022~~	~~2023~~	~~Six-Year Period Total~~	~~Beyond 2023~~
~~Tier IV CAPACITY/LOS PROJECTS (CP)~~	~~WA-03830~~	~~1~~	~~Tolt Ave (SR203) Central Business District (CBD) Improvements~~	~~$451,258~~	~~$397,742~~	~~$126,000~~	~~$4,475,000~~					~~$4,601,000~~	
	~~*~~	~~-~~	~~Tolt Ave (SR203) South Greenway (east side)~~										~~$4,450,000~~
	~~*~~	~~-~~	~~Tolt Ave (SR 203) South Entry (west side)~~										~~$1,250,000~~
	~~*~~	~~-~~	~~Larson Avenue Connector~~										~~$2,300,000~~
	~~*~~	~~-~~	~~Milwaukee Avenue Connector~~										~~$1,675,000~~
	~~*~~	~~-~~	~~316th Avenue NE Connector~~										~~$2,000,000~~
	~~WA-06524~~	~~-~~	~~Tolt Ave (SR203) and Morrison Intersection Improvements~~										~~$550,000~~
	~~WA-08868~~	~~9~~	~~Tolt Ave (SR203) and Blanche Intersection Improvements~~										~~$1,884,969~~
	~~SUBTOTAL TIER IV CAPACITY PROJECTS~~			~~$451,258~~	~~$397,742~~	~~$126,000~~	~~$ 4,475,000~~					~~$4,601,000~~	~~$14,109,969~~
~~Tier III STREET IMPROVEMENT PROJECTS (SI)~~	~~WA-08869~~	~~2~~	~~West Morrison Reconstruction~~			~~$660,000~~						~~$660,000~~	
	~~WA-08870~~	~~4~~	~~East Bird Reconstruction~~							~~$447,500~~		~~$522,500~~	
	~~WA-08872~~	~~5~~	~~East Reitze Reconstruction~~							~~$537,500~~		~~$632,500~~	
	~~WA-08872~~	~~6~~	~~West Rutherford Reconstruction~~							~~$86,000~~	~~$491,500~~	~~$577,500~~	
	~~*~~	~~-~~	~~Tolt Ave (SR 203) North Greenway (east side)~~										~~$2,400,000~~
	~~*~~	~~-~~	~~Tolt Ave (SR 203) North Entry (west side)~~										~~$1,985,000~~
	~~*~~	~~-~~	~~NE 40th St. "Arterial" Reconstruction~~										~~$ 510,000~~

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TRANSPORTATION IMPROVEMENT PROJECTS (see the ~~Capital Street Repair and~~ Transportation Improvement Plan for detailed project information)

~~Type~~	~~TIP~~	~~STIP Priority~~	~~Project Name~~	~~Actual Prior Years~~	~~Estimated 2017~~	~~2018~~	~~2019~~	~~2020~~	~~2021~~	~~2022~~	~~2023~~	~~Six-Year Period Total~~	~~Beyond 2023~~
	~~*~~	~~-~~	~~Bird Street "Festival Street" Reconstruction~~										~~$1,375,000~~
	~~SUBTOTAL TIER III STREET IMPROVEMENTS~~					~~$660,000~~			~~$170,000~~	~~$1,071,000~~	~~$491,500~~	~~$2,392,500~~	~~$6,270,000~~
~~Tier II STREET PAVEMENT PRESERVATION~~	~~WA-08873~~	~~7~~	~~Stossel Avenue Overlay~~							~~$20,000~~	~~$70,000~~	~~$90,000~~	
	~~*~~	~~-~~	~~East Morrison Full Depth Reclamation~~						~~$10,000~~	~~$34,500~~		~~$44,500~~	
	~~*~~	~~-~~	~~West Commercial Full Depth Reclamation~~						~~$6,000~~	~~$12,000~~		~~$18,000~~	
	~~*~~	~~-~~	~~West Bird Full Depth Reclamation~~						~~$6,000~~	~~$10,400~~		~~$16,400~~	
	~~*~~	~~-~~	~~Myrtle Full Depth Reclamation~~						~~$10,000~~	~~$24,600~~		~~$34,600~~	
	~~*~~	~~-~~	~~NE 40th Full Depth Reclamation~~										~~$90,000~~
	~~SUBTOTAL TIER II PAVEMENT PROJECTS~~								~~$32,000~~	~~$101,500~~	~~$70,000~~	~~$203,500~~	~~$90,000~~
~~Tier I (SR)~~	~~WA-03837~~	~~8~~	~~Preventative Street Repair & Maintenance~~		~~$27,600~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$150,000~~	
	~~SUBTOTAL TIER I MAINTENANCE PROJECTS~~				~~$27,600~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$25,000~~	~~$150,000~~	
~~NON-MOTO PROJECTS (NM)~~	~~WA-03839~~	~~3~~	~~East Entwistle Pedestrian Path~~					~~$126,000~~				~~$126,000~~	
	~~*~~	~~-~~	~~City Wayfinding Signage Improvements~~										~~$190,000~~
	~~SUBTOTAL NON-MOTO PROJECTS~~							~~$126,000~~				~~$126,000~~	~~$190,000~~
~~JOINT AGENCY PROJECTS (JA)~~	~~*~~	~~-~~	~~Tolt Ave. (SR 203) North Walkway~~										~~$135,000~~
	~~*~~	~~-~~	~~Tolt Hill Road/SR 203 Intersection~~										~~$670,000~~
	~~*~~	~~-~~	~~Tolt River Bridge Painting and Walkway~~										~~$1,540,000~~
	~~SUBTOTAL JOINT AGENCY PROJECTS~~												~~$2,345,000~~
~~**TOTAL TRANSPORTATION PROJECTS**~~				~~$451,258~~	~~$425,342~~	~~$811,000~~	~~$4,500,000~~	~~$151,000~~	~~$227,000~~	~~$1,197,500~~	~~$586,500~~	~~$7,473,000~~	~~$23,004,969~~

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Type	Project No.	STIP Priority	Project Name	Actual Prior Years	Estimated 2018	2019	2020	2021	2022	2023	2024	Six-Year Period Total	Beyond 2024
Tier I CAPACITY/LOS (CP)	CP1	1	Tolt Ave (SR203) Central Business District (CBD) Improvements (Eugene to Rutherford)	$595,498	$454,502	$6,072,588	$ -	$ -	$ -	$ -	$ -	**$6,072,588**	$ -
	CP2	4	Larson Avenue Connector (NE 40th St. to Entwistle St.)	$ -	$ -	$ -	$ -	$ 668,900	$1,129,600	$ -	$ -	**$1,798,500**	$ -
	CP3	-	Tolt Ave (SR203) - South Greenway (East side: Tolt Ave bridge to Entwisle St.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 4,450,000
	CP4	-	Tolt Ave (SR 203) - South Entry (West side: Tolt McDonald Pk to Eugene)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,250,000
	CP5	-	Milwaukee Avenue Connector (NE 50th St. to 55th St.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,675,000
	CP6	-	316th Avenue NE Connector (NE 55th St. to Morrison St.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,000,000
	CP7	-	Tolt Ave (SR203) and Morrison Street Intersection Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 550,000
	CP8	-	Tolt Ave (SR203) and Blanche Street Intersection Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,884,969
	SUBTOTAL CAPACITY PROJECTS			**$595,498**	**$454,502**	**$6,072,588**	**$ -**	**$ 668,900**	**$1,129,600**	**$ -**	**$ -**	**$7,871,088**	**$11,809,969**
Tier II STREET IMPROVEMENTS	SI1	5	NE 40th Street Arterial Reconstruction (Tolt Ave to Larson Ave)	$ -	$ -	$ -	$ -	$ 190,400	$ 634,800	$ -	$ -	**$ 825,200**	$ -

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Type	Project No.	STIP Priority	Project Name	Actual Prior Years	Estimated 2018	2019	2020	2021	2022	2023	2024	Six-Year Period Total	Beyond 2024
	SI2	11	East Bird Street Reconstruction (Commercial to Milwaukee - 950 LF)	$ -	$ -	$ -	$ -	$ -	$ 75,000	$447,500	$ -	**$ 522,500**	$ -
	SI4	12	East Reitze Street Reconstruction (Milwaukee to Stossel - 1,150 LF)	$ -	$ -	$ -	$ -	$ -	$ -	$ 95,000	$ 537,500	**$ 632,500**	$ -
	SI4	13	West Rutherford Street Reconstruction (Tolt to Stewart - 1,050 LF)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 86,000	**$ 86,000**	$ 491,500
	SI5	-	Tolt Ave (SR 203) Corridor - North Greenway (East side: Rutherford to NE 55th)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,400,000
	SI6	-	Tolt Ave (SR 203) Corridor - North Entry (West side: Rutherford to NE 55th)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,985,000
	SI7	-	Bird Street "Festival Street" Reconstruction (Stossel to Stephens)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,375,000
	SUBTOTAL STREET IMPROVEMENT PROJECTS			**$ -**	**$ -**	**$ -**	**$ -**	**$ 190,400**	**$ 709,800**	**$542,500**	**$ 623,500**	**$2,066,200**	**$ 6,251,500**
Tier III STREET REPAIR (SR)	SR1	6	NE 40th Street Overlay (Larson Ave to Park Entry - 1,150 LF)	$ -	$ -	$ -	$ -	$ 20,000	$ 70,000	$ -	$ -	**$ 90,000**	$ -
	SR2	7	West Bird Street Chip Seal (Tolt Ave to Stephens Ave - 280 LF)	$ -	$ -	$ -	$ -	$ 6,000	$ 10,400	$ -	$ -	**$ 16,400**	$ -

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Type	Project No.	STIP Priority	Project Name	Actual Prior Years	Estimated 2018	2019	2020	2021	2022	2023	2024	Six-Year Period Total	Beyond 2024
	SR3	8	West Commercial Street Chip Seal (Tolt Ave to Stephens - 400 LF)	$ -	$ -	$ -	$ -	$ 6,000	$ 12,000	$ -	$ -	**$ 18,000**	$ -
	SR4	9	Myrtle Street Chip Seal (Tolt Ave to King/Stossel St - 820 LF)	$ -	$ -	$ -	$ -	$ 10,000	$ 24,600	$ -	$ -	**$ 34,600**	$ -
	SR5	10	Stossel Avenue Overlay (Entwistle to Rutherford - 1,180 LF)	$ -	$ -	$ -	$ -	$ 20,000	$ 70,000	$ -	$ -	**$ 90,000**	$ -
			SUBTOTAL STREET PAVEMENT PRESERVATION PROJECTS	**$ -**	**$ -**	**$ -**	**$ -**	**$ 62,000**	**$ 187,000**	**$ -**	**$ -**	**$ 249,000**	**$ -**
Tier IV MAINTENANCE (SM)	WA-03837	14	Preventative Street Repair & Maintenance (crack sealing, pothole filling)	$ -	$ 10,206	$ 12,000	$ 12,000	$ 12,000	$ 12,000	$ 12,000	$ 12,000	**$ 72,000**	$ -
			SUBTOTAL PREVENTATIVE STREET REPAIR & MAINTENANCE PROJECTS	**$ -**	**$ 10,206**	**$ 12,000**	**$ 12,000**	**$ 12,000**	**$ 12,000**	**$ 12,000**	**$ 12,000**	**$ 72,000**	**$ -**
NON-MOTO PROJECTS (NM)	NM1	2	East Entwistle Pedestrian Improvements (329th to 334th Ave)	$ -	$ -	$ -	$ -	$ 260,800	$ -	$ -	$ -	**$ 260,800**	$ -
	NM2	3	McKinley Avenue Sidewalk (Eugene Street to Blanche Street)	$ -	$ -	$ -	$ -	$ 259,100	$ -	$ -	$ -	**$ 259,100**	$ -
	*	-	City Wayfinding Signage Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 190,000
			SUBTOTAL NON-MOTORIZED IMPROVEMENT PROJECTS	**$ -**	**$ -**	**$ -**	**$ -**	**$ 519,900**	**$ -**	**$ -**	-	**$ 519,900**	**$ 190,000**
JOINT-AGENCY PROJECTS (JA)	JA1	-	Tolt Ave. (SR 203) - Garden Tracts	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 135,000

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Type	Project No.	STIP Priority	Project Name	Actual Prior Years	Estimated 2018	2019	2020	2021	2022	2023	2024	Six-Year Period Total	Beyond 2024
			Walkway (55th to 60th)										
	JA2	-	Tolt Hill Road/SR 203 Intersection Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 670,000
	JA3	-	Tolt River Bridge Painting and Walkway Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,540,000
	SUBTOTAL JOINT-AGENCY PROJECTS			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,345,000**
-	-	-	**TOTAL ALL PROJECTS**	**$595,498**	**$464,708**	**$6,084,588**	**$ 12,000**	**$1,453,200**	**$2,038,400**	**$554,500**	**$ 635,500**	**$10,778,188**	**$20,596,469**

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PARKS & RECREATION IMPROVEMENT PROJECTS

		Priority	Project Name	Actual Prior Years	Estimated 2017	2018	2019	2020	2021	2022	2023	Six-Year Period Total	Beyond 2023
PARKS IMPROVEMENT PROJECTS		1	Fred Hockert Park Redevelopment		$32,000	$218,000						$218,000	$41,946
			Valley Memorial Park Improvements	$4,506	$9,681								$351,621
		2	Tolt Commons	$4,351	$80,000			$11,500				$11,500	$266,125
			River's Edge Park										$141,754
			Nick Loutsis Park						$21,563			$21,563	$158,765
			West Side Park										$179,941
			New Mini-Park in PAA west of SR 203										$222,000
			New Mini-Park in Northeastern Development										$222,000
TRAILS SYSTEM PROJECTS			East Entwistle Pedestrian Path	(Project included in TIP)									
			Sidewalk on west side SR 203 south of 40th						$28,750			$28,750	
			Signage						$71,875			$71,875	
			Bicycle Racks in CBD/SC Zones						$17,250			$17,250	
TOTAL PARKS & RECREATION PROJECTS				$8,857	$121,681	$218,000		$11,500	$139,438			$368,938	$1,584,151

WATER SYSTEM IMPROVEMENT PROJECTS (see the 2015 Comprehensive Water System Plan for detailed project information)

		Priority	Project Name	Actual Prior Years	Estimated 2017	2018	2019	2020	2021	2022	2023	Six-Year Period Total	Beyond 2023
WATER SYSTEM PROJECTS			Spring Source Related Improvements										$5,310,000
			Well Source Related Improvements			$182,000						$182,000	$30,000
			Miscellaneous CIP Improvements	$305,347	$40,000	$40,000	$40,000	$140,000	$80,000	$70,000	$40,000	$410,000	$1,790,000
			Water Main Improvements		$812,500	$650,000	$532,500	$70,000		$402,500		$1,655,000	$5,328,000
TOTAL WATER SYSTEM PROJECTS				$305,347	$852,500	$872,000	$572,500	$210,000	$80,000	$472,500	$40,000	$2,247,000	$12,458,000

V. MONITORING AND EVALUATION

The Capital Facilities Element is the mechanism by which the City can stage the timing, location, projected cost, and revenue sources for the capital improvements identified for implementation. The planned expenditures and funding sources for each project from FY 2015 through FY 2021 are shown by priority. Top priority is generally given to projects which correct existing deficiencies, followed by those required for facility replacement, and those needed for future growth.

Monitoring and evaluation are essential in ensuring the effectiveness of the Capital Facilities Element. This Element will be reviewed and amended periodically to verify that fiscal resources are available to provide public facilities needed to support adopted level of service (LOS) standards and measurable objectives.

The review will include an examination of the following considerations in order to determine their continued appropriateness:

- Any corrections, updates, and modification concerning costs; revenue sources; acceptance of any dedications which are consistent with the element; or projected dates of construction of any proposed improvements;
- The Capital Facilities Element's continued consistency with the other elements and its support of the Land Use Element;
- The priority assignment of existing public facility deficiencies, especially those related to health and safety;
- The City's progress in addressing existing deficiencies;
- The criteria used to evaluate capital improvement projects in order to ensure that projects are being ranked in their appropriate order of priority;
- The City's effectiveness in maintaining the adopted LOS standards and achieving measurable objectives;
- The use and effectiveness of impact fees or mandatory dedications of property which may be required of a new development in order to provide new developments' *pro rata* share of Capital Facilities costs required to meet adopted LOS standards.
- The impacts of special districts or other regional service providers on the City's ability to maintain its adopted LOS standards;
- Efforts made to secure grants or private funds, whenever available, to finance the provision of capital improvements;
- The criteria used to evaluate proposed plan amendments.

VI. GOALS AND POLICIES

GOAL CF 1

To assure that capital improvements necessary to carry out the Comprehensive Plan are provided when they are needed.

Policy CF1.1 The City shall coordinate its land use and public works planning activities with an ongoing program of long-range financial planning, in order to conserve fiscal resources available to implement the Capital Facilities plan.

Policy CF1.2 Inter-local service agreements with water utilities serving rural and resource lands should specify limitations on the use of the surplus water consistent with Countywide planning policies. Surplus water may be sold to resolve immediate health or safety problems threatening existing residents but must not be in perpetuity unless the City can do so without risks to its current and future residents.

Policy CF1.3 Continue to upgrade the City water system to improve water use efficiency.

Policy CF1.4 Ensure the use of the sanitary sewer system in a manner consistent with the City's adopted Sewer Plan.

Policy CF1.5 The City adopts the School Impact Mitigation Fee Schedule from the Riverview School District Capital Facilities Plan to enable the district to collect impact mitigation fees in accordance with the Inter-local Agreement.

Policy CF1.6 The City will develop and adopt appropriate impact fees or related funding mechanisms to assess the developer's fair share contributions to other public facility improvements (such as parks and streets) required to serve new development.

Policy CF1.7 The City shall coordinate or provide needed Capital Facilities and utilities based on adopted levels-of-service and forecasted growth in accordance with the Land Use Element of this plan.

GOAL CF2

To ensure that the continued development and implementation of the Capital Facilities Plan (CFP) reflects the policy priorities of the City Council.

Policy CF2.1 High priority of funding shall be accorded projects which are consistent with the adopted goals and policies of the City Council.

Policy CF2.2 Projects shall be funded only when incorporated into the City budget, as adopted by the City Council.

Policy CF2.3 Capital projects that are not included in the six-year Capital Facilities Plan and which are potentially inconsistent with the Comprehensive Plan shall be evaluated through the Comprehensive Planning process prior to their inclusion into the City's annual budget, unless otherwise agreed upon by the City Council.

Policy CF2.4 The six-year Capital Facilities Plan should be updated annually prior to the City budget process.

Policy CF2.5 Any city capital activity with a cost of over $100,000 may require a financial impact analysis that contains sections dealing with sources and uses of funds, impacts on the overall city budget and on public debt, impact on taxes, impacts on users and non-users (e.g. regarding user fees, if any) and benefit-cost computations, if applicable.

Policy CF2.6 All City departments shall review changes to the CFP and shall participate in the annual review as deemed necessary by City Council and the City Manager.

Policy CF2.7 Large-scale capital improvement projects will be included in the Six-Year Schedule of Improvements of this element. Smaller capital improvements will be reviewed for inclusion in the annual budget.

Policy CF2.8 Proposed capital improvement projects will be evaluated using all the following criteria: a. whether the project is needed to correct existing deficiencies, replace needed facilities, or to provide facilities needed for future growth; b. elimination of public hazards; c. elimination of capacity deficits; d. financial feasibility; e. site needs based on projected growth patterns; f. new development and redevelopment; g. plans of state agencies; h. local budget impact; and i. location and effect upon natural and cultural resources.

GOAL CF 3

To actively influence the future character of the City by managing land use change and by developing City facilities and services in a manner that directs and controls land use patterns and intensities.

Policy CF3.1 Development shall be allowed only when and where all public facilities are adequate and only when and where such development can be adequately served by essential public services without reducing levels of service elsewhere.

Policy CF3.2 If adequate facilities are currently unavailable and public funds are not committed to provide such facilities, developers must provide such facilities at their own expense in order to develop.

Policy CF3.3 The following level of service guidelines should be used to evaluate whether existing public facilities are adequate to accommodate the demands of new development:

A. Water - Require that new development have adequate water supply for consumption and fire flow. Maintain the current level of service of 225 gallons per day per equivalent residential unit.

B. Wastewater - Residential flow planning value of 65 gallons per capita per day based on using a vacuum sewer system.

C. Solid Waste - Collection service for garbage, recyclable materials, and yard waste shall be available to all properties within the City.

D. Police Protection - Coordinate development review and police protection facility planning to ensure that: a) adequate police protection can be provided; and b) project designs discourage criminal activity.

E. Fire Protection - Coordinate development review and fire protection facility planning to ensure that: a) adequate fire protection and emergency medical service can be provided; and b) project designs minimize the potential for fire hazard.

F. Public Schools - Coordinate development review and school facility planning to ensure that adequate school facilities will be available to accommodate anticipated increases in students. Adequate school facilities are considered to be permanent school buildings.

G. Parks and Recreation - Maintain level of service standards as identified in the Parks and Recreation Element to provide adequate parks and recreation facilities to serve City residents.

H. Transportation - Maintain the following level of service standards as identified in the Transportation Element:

State Highway Intersections:	Level of Service “D”
Arterials:	Level of Service "D"
Transit:	As established by the Transit service provider
Collectors and Local:	Design Standards

I. Stormwater Management Systems – Stormwater shall be infiltrated on site. Development will be regulated to ensure that its post development run-off does not exceed the predeveloped discharge volume and/or rate. Stormwater management for new development shall comply with all relevant state and federal regulations,

Policy CF3.4 A development shall not be approved if it causes the level of service on a capital facility to decline below the standards set forth in Policy CF3.3, unless capital improvements or a strategy to accommodate the impacts are

made concurrent with the development for the purposes of this policy. "Concurrent with the development" shall mean that improvements or strategy are in place at the time of the development or that a financial commitment is in place to complete the improvements or strategies within six years, except in the case of public schools, whereby a financial commitment to complete the improvements within three years is required.

Policy CF3.6 Provide copies of development proposals to the various providers of services, such as the school district, fire district and utility providers, for comments on the available capacity to accommodate development and any needed system improvements.

Policy CF3.7 The community impacts of new or expanded Capital Facilities should be reviewed. They should be compatible with surrounding land uses; to the extent reasonably possible for a growing rural city, such facilities should have minimum impacts on natural and historic resources or built environment, and follow strict adherence to environmental regulations.

Policy CF3.8 City plans and Development Regulations should identify and allow for the siting of essential public facilities. Cooperatively work with surrounding municipalities and King County during the siting and development of facilities of regional significance.

GOAL CF4

To finance the city's needed Capital Facilities in as economic, efficient, and equitable a manner as possible.

Policy CF4.1 Provide needed public facilities that are within the ability of the City to fund or within the City's authority to require others to provide.

Policy CF4.2 Finance the six-year Capital Improvement Program within the City's financial capacity to achieve a balance between available revenue and needed public facilities. If the projected funding is inadequate to finance needed public facilities based on forecasted growth, the City could do one or more of the following:

- Change the land use element;
- Increase the amount of revenue from existing sources;
- Adopt new sources of revenue; and/or
- Adopt a lower level of service for public facilities.

Policy CF4.3 The ongoing operation and maintenance costs of a public facility should be financially feasible prior to constructing the facility.

Policy CF4.4 Base the financing plan for public facilities on realistic estimates of current local revenues and external revenues that are reasonably anticipated to be received by the City.

Policy CF4.5 The City will support and encourage the joint development and use of cultural and community facilities with other governmental or community organizations in areas of mutual concern and benefit.

EXHIBIT D

City of Carnation Future Land Use Map 2018

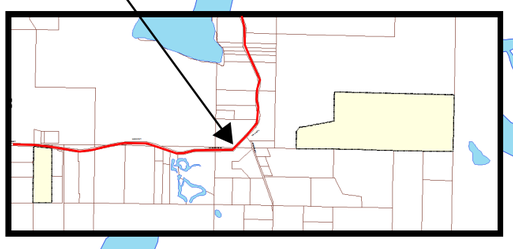
Carnation

LOCHNER

Legend

- Urban Growth Boundary
- City Limits
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mobile Home Park
- Low Intensity Commercial
- Medium Intensity Commercial
- High Intensity Commercial
- Industrial
- Public Land

N.E. 24th Street



1 inch = 800 feet

0 800 1,600 Feet

EXHIBIT E

City of Carnation Zoning Map 2018

Carnation

LOCHNER

Legend

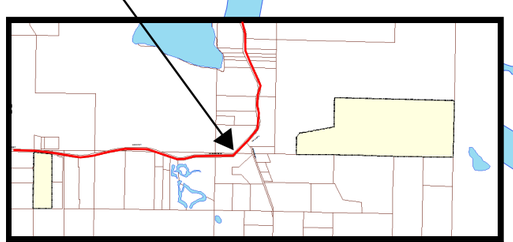
City Limits

Urban Growth Boundary

Zoning

- R2.5, RESIDENTIAL 2.5
- R3, RESIDENTIAL 3
- R4, RESIDENTIAL 4
- R6, RESIDENTIAL 6
- R12, RESIDENTIAL 12
- R24, RESIDENTIAL 24
- RMHP, RESIDENTIAL MOBILE HOME PARK
- CBD, CENTRAL BUSINESS DISTRICT
- SC, SERVICE COMMERCIAL
- MU, MIXED USE
- LI/M, LIGHT INDUSTRIAL / MANUFACTURING
- HC, HORTICULTURAL COMMERCIAL
- AGI, AGRI-TOURISM & INDUSTRIES
- PR, PARKS

N.E. 24th Street



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