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ORDINANCE NO. 892

AN ORDINANCE OF THE CITY OF CARNATION, WASHINGTON, AMENDING THE CARNATION COMPREHENSIVE PLAN; AMENDING CHAPTER 6 PARKS AND RECREATION ELEMENT TO REFLECT CHANGED CIRCUMSTANCES, INCLUDING UPDATES TO THE PARKS INVENTORY AND PARKS IMPROVEMENT PLAN; AMENDING CHAPTER 7 TRANSPORTATION ELEMENT TO INCORPORATE AND REFLECT PRIORITIZATION CHANGES, IMPLEMENTATION SCHEDULES, AND OTHER REVISIONS TO THE CITY'S TRANSPORTATION IMPROVEMENT PLAN; AMENDING CHAPTER 8 UTILITIES ELEMENT TO REFLECT CHANGES RELATED TO UTILITY SERVICE AND INFRASTRUCTURE; AMENDING CHAPTER 9 CAPITAL FACILITIES ELEMENT TO ADOPT AND INCORPORATE BY REFERENCE THE 2017 RIVERVIEW SCHOOL DISTRICT CAPITAL FACILITIES PLAN AND TO REFLECT CAPITAL PLANNING CHANGES FROM OTHER COMPREHENSIVE PLAN ELEMENTS; MAKING VARIOUS OTHER HOUSEKEEPING AND ORGANIZATIONAL AMENDMENTS; 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, the City desires to amend Chapter 6 Parks and Recreation Element, Chapter 7 Transportation Element, Chapter 8 Utilities Element, and Chapter 9 Capital Facilities Element of the Comprehensive Plan for purposes of reorganizing, updating and revising various policies, provisions, estimates, facility inventories and references therein;

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 27, 2017, 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 September 26, 2017, and recommended adoption by the City Council. The City Council held a public hearing on this ordinance on October 17, 2017.

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. In adopting the Comprehensive Plan amendments set forth in this ordinance, the City Council has considered and has been guided by the applicable planning goals enumerated at RCW 36.70A.020.

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

H. 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 6. Chapter 6 Parks and Recreation 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 8. Chapter 8 Utilities 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 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 D, attached hereto and incorporated herein by this reference as if set forth in full.

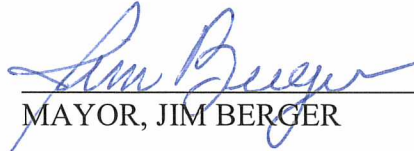
Section 6. Copy to Commerce. Pursuant to RCW 36.70A.106, the Planning Director is hereby authorized and directed to provide a copy of this ordinance to the Washington Department of Commerce within ten (10) days of adoption.

Section 7. 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 8. 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 17th day of October, 2017.

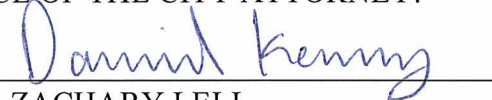
CITY OF CARNATION


MAYOR, JIM BERGER

ATTEST/AUTHENTICATED:


CITY CLERK, MARY MADOLE

APPROVED AS TO FORM:
OFFICE OF THE CITY ATTORNEY:

BY 
for J. ZACHARY LELL

FILED WITH THE CITY CLERK: 09/27/2017
PASSED BY THE CITY COUNCIL: 10/17/2017
PUBLISHED: 10/27/2017
EFFECTIVE DATE:..... 11/01/2017
ORDINANCE NO.892

EXHIBIT A

CHAPTER 6 – PARKS AND RECREATION ELEMENT

INTRODUCTION AND VISION

Carnation is a small city in a rich agricultural valley surrounded by forests, pastoral fields, rivers and mountains. Open space and recreational opportunities are abundant within and adjacent to the city limits. Carnation's character is derived from a variety of assets including the familiarity and care of community that comes with a small city, a verdant natural and historic landscape which includes two rivers that flow near the city limits, nearby forests, views of the neighboring Cascade foothills and a considerable amount of farmland near the city and within its Urban Growth Boundary. The City's vision statement reflects the importance of these characteristics to the residents of Carnation:

“Carnation is a friendly and safe family-oriented community where a vibrant small town benefits from the natural beauty, heritage and recreational opportunities of the Snoqualmie Valley.”

PURPOSE AND OUTLINE OF ELEMENT

The Parks and Recreation Element is a high-level planning document designed to guide the development of Carnation's future investments in parks, trails and open space over the next twenty years. A Parks and Recreation Element adopted in the Comprehensive Plan in accordance with the Growth Management Act (GMA) (RCW 36.70A) allows the City to impose a parks and recreation impact fee as part of the development process. Revenue from the impact fee is needed to fund parks capital projects including public facilities, land acquisition, site improvements, new park construction and park renovations.

The Parks and Recreation Element is organized as follows:

An **Introduction** section, which contains information on the City as a whole, the regulatory aspects of parks planning, and public participation in the element.

An **Inventory** of the existing parks and trails facilities owned by the City and by other entities. The inventory has a portion organized by park type, and a portion organized by recreational opportunity.

An **Analysis** of future needs for parks and recreation based on levels of service for park and recreation opportunities that is tied to both stated desires of the community as well as population forecasts for the City. The parks inventory is then examined in light of this level of service analysis and a Capital Improvements Plan is presented which is designed to address the deficiencies in the level of service that will result from new growth.

The **Goals** that will be used to guide the City on areas of long-term focus, and **Policies** that provide specific steps towards achieving the goal.

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The GMA requires that Comprehensive Plans meet the following goal:

"Encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities."

The GMA requires that a parks and recreation element implement and be consistent with the parks and recreation facilities identified in the Capital Facilities Element. The element must also include three components:

1. Estimates of park and recreation demand for at least a 10-year period;
2. An evaluation of facilities and service needs; and
3. An evaluation of intergovernmental coordination opportunities to provide regional approaches for meeting park and recreational demand.

This update of the Parks Element is based on the population projections derived from the update of the Land Use Element as well as public input as described below. In addition, the Carnation community has successfully undertaken several improvements to parks and recreation facilities since 2009 that are reflected in the Inventory section.

In addition to its requirements under the GMA, the City of Carnation is also subject to the requirements of the Countywide Planning Policies (CPPs) for King County as well as the Multi-county Planning Policies (MPPs) developed by the Puget Sound Regional Council (PSRC) and published in VISION 2040. Both the CPPs and MPPs require jurisdictions to identify, establish and protect recreational, open space and critical environmental areas. The CPPs encourage cities within King County to establish policies and programs that contribute to the protection and stewardship of open space lands and corridors within their Urban Growth Areas. Policy MPP-En-8 requires local governments within the four-county PSRC jurisdiction to "Identify, preserve and enhance significant regional open space networks and linkages across jurisdictional boundaries". Carnation's Parks and Recreation Element incorporates these policies in Framework Goal B, and in the Parks Improvement Plan, which calls for the City to work cooperatively with King County to expand trails and trail linkages along the Tolt and Snoqualmie Rivers.

Finally, the Parks and Recreation Element must meet the State of Washington Recreation and Conservation Office (RCO) requirements in order for the City to be eligible for RCO funding. This update reflects new guidance on determining parks levels of service developed by the RCO. The RCO administers 12 grant programs for a variety of open space, habitat and recreation efforts. To maintain eligibility for these grants, a city's parks plan must include: goals and objectives; inventory of parks and facilities, public process, needs assessment, capital improvement

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plan, and plan adoption.

PUBLIC PROCESS AND PARTNERSHIPS

An extensive public participation process was incorporated into the development of the Parks Element update in 2013. The process included an Open House held in March of 2012. Participants were given an opportunity to mark up aerial maps of Valley Memorial, Loutsis, Hockert, River's Edge and West Side Park to show desired improvements, and to leave comments about the City's trails, parks and recreation needs. The meeting was well attended, with 15 members of the public. Parks "stakeholders", including local parks groups and people who participated in the development of the Parks Master Plan in 2009, were invited to assist the Planning Board with the update. In addition to the public input sought during the drafting of the Parks Element, two public hearings were held prior to adoption.

Since King County is a significant public recreation and open space landowner in the Carnation area, we have coordinated this plan with King County land managers and planners. Non-motorized trail connections between the city and county parks, riverfront access and cooperative recreation planning were discussed.

COMMUNITY PROFILE AND CHARACTERISTICS

At slightly over one square mile in size, much of the City of Carnation is a great example of a walkable community with compact development and a pedestrian scale. However, the north-south state highway corridor (SR203) which bisects the city creates a barrier during high traffic portions of the day. Entwistle Street, which is the main east-west arterial, also bisects the city, resulting in relatively distinct Northwest, Southwest, Northeast and Southeast quadrants. Most residents live in the Northwest, Northeast, and Southeast zones. The Southwest zone has more commercial than residential development, but is adjacent to the extensive King County regional parklands. As many residents take advantage of the city's walkable scale, busy roadways tend to act as de facto barriers to park and recreation opportunities. In order to better understand Carnation's park, open space and recreation needs, these facilities should be assessed in terms of their locations within the four quadrants of the town.

The Northwest quadrant is bounded by the city limits on the north and west, by Entwistle on the south, and by SR203 on the east. In the Northwest quadrant, Carnation's oldest residential neighborhood has an early 1900's character. West Side, an undeveloped pocket park, is located in this quadrant. Further north, a large block of agricultural land currently produces fruits and vegetables. This area is within the City's Potential Annexation Area (PAA), and this area will be zoned for residential and mixed use development upon annexation. At the northern extent of the PAA, single family UR-7.5 zoning will provide in-fill housing opportunities for new residents, but no city parks exist in this neighborhood either. The northwestern corner of this neighborhood is also constrained by the Snoqualmie River floodway.

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The Southwest quadrant is bounded by Entwistle on the north, the city limits on the south and west, and SR203 on the east. This neighborhood is the smallest quadrant with the most commercial development and the least residential areas. No city parks exist in this neighborhood, although a regional King County facility, Tolt McDonald Park, is located partially within and bordering this quadrant. In 2011, local citizens worked with the City to establish an off-leash dog park on the City-owned parcel located south of the Wastewater Treatment Plant.

The Northeast quadrant is bounded by SR203 on the west, the city limits on the north and east, and Entwistle on the south. The 32 mile Snoqualmie Valley trail divides the newer residential area to the east from older residential area to the west. This sector is primarily residential and has a mix of housing developments, including a large portion of the original 1913 plat of the city, a mobile home park, and several modern subdivisions with a variety of neighborhood and lot sizes. Hockert Park is located in this quadrant.

The Southeast quadrant is bounded by Entwistle on the north, the Tolt River and city limits on the south and east, and SR203 on the west. The Snoqualmie Valley trail divides the newer residential area east from the older residential area to the west. This area has two significant suburban developments (River's Edge and Swiftwater) that contain larger lots and new homes, as well as older homes between the highway and the Snoqualmie Valley Trail. The Southeast quadrant contains many of the developed parks within city limits, such as Valley Memorial and Loutsis Park, as well as River's Edge Park, a portion of the Snoqualmie Valley trail, and portions of Tolt McDonald Park. A docket request was made for the 2015 Update of the Comprehensive Plan which would change the land use designation of approximately 34 acres from primarily industrial to high density residential use. The 34 acres are just north of a section of Tolt McDonald Park located between SR203 and the Snoqualmie Valley Trail. There is a trail along the Tolt River in that section of Tolt McDonald Park. The area is also in close proximity to Memorial Park, and so would be well served by nearby recreation opportunities in addition to trail linkages.

PARKS INVENTORY

The first portion of the inventory of parks facilities available to City of Carnation residents presented in this section is organized according to these categories, including city-owned parks and those owned by other public entities.

However, recent work done by the State of Washington Recreation and Conservation Office (RCO) has resulted in a new set of tools to evaluate parks and recreation levels of service (LOS), based on recreation function rather than classification of parks. To support Carnation's use of these new tools for evaluating LOS for parks, the inventory is also presented of the various types of recreational

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opportunities that serve the range of the community's needs, whether owned and operated by the City or by other public entities.

INVENTORY BY TYPES OF PARKS

Parks standards such as those developed by the National Recreation and Park Association have typically relied on the ratio of acres of developed parks per population for five different types of parks:

- Mini-parks
- Neighborhood Parks
- Community Parks
- Special Use Park
- Linear Parks

Mini-park

Mini-parks are generally small (less than one acre) and characterized by passive recreation or specialized facilities that serve a concentrated or limited population or specific group, such as children or senior citizens. Mini-parks are sometimes called "pocket parks". In general, mini-parks are designed to serve residents within a quarter mile radius. Especially where these parks provide facilities for young children, safe access is an important issue for mini-parks. The majority of the city is within one quarter mile of a mini-park, although some of the City's mini-parks are undeveloped.

Fred Hockert Park is a small (0.2 acre) park located in the NE quadrant between the commercial area and the older residential neighborhood. It is a well-loved and much used park with play equipment for younger children. The neighborhoods within a quarter mile radius of Hockert Park include most of the original plat of the Tolt Townsite, most of Regal Glen, and a small portion each of the Cascade View and Carnation Meadows neighborhoods. While Hockert Park is centrally located, SR203 creates a barrier to access for families west of SR203.

River's Edge Park is located in the SE quadrant within the Rivers' Edge neighborhood. River's Edge Park is 0.35 acres in size, and located at the very northeast of the River's Edge neighborhood. Most of River's Edge Park is open space and there is a picnic area with tables and grills. Neighborhoods within a quarter mile of this park include the River's Edge community and the parcels located west of River's Edge, the City's eastern Potential Annexation Area and portions of King County. As this park does not have many facilities, it does not get a great deal of use. Should this park be developed, families within the quarter mile should be able to access this park with few barriers for pedestrians or bicyclists.

West Side Park, which is currently undeveloped, is the City's only park west of SR203, and is located in the NW quadrant. West Side Park is 0.56 acres in size.

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Neighborhoods within a quarter mile radius of West Side Park include the original plat west of SR203, a small portion of the Potential Annexation Area north of the City, and some King County residents. As these areas are all west of SR203, there are few barriers to pedestrian or bicycle access to West Side Park from the adjoining neighborhoods.

There are no mini-parks owned by other entities that serve City residents, although facilities owned by the Riverview School District and the Swiftwater Homeowner's Association also provide children's play equipment, and children's play equipment is also located in Tolt McDonald Park.

Neighborhood Park

Neighborhood Parks are designed to serve the nearby residential population or employment base; the service area typically includes adjoining neighborhoods within a half mile. Generally several acres in size, they often include areas for active recreational activities, such as ball fields and courts, as well as passive recreation areas. In addition to play apparatus for pre-school and school age children, facilities are likely to include open lawn and paved court areas, shelters, wading pools, outdoor ice rinks, and some off-street parking. Trees, open fields, and undeveloped natural areas are also desirable components of this type of park. Ideally a Neighborhood Park should be suitable for intense development and easily accessible to the neighborhood population that it serves. If possible, Neighborhood Parks should be geographically centered within the neighborhood and safe walking and bike access should be provided. Such parks may be developed as a school- park facility.

The service area for neighborhood parks is generally 1/4 to 1/2 mile radius to serve a population of 1,000 to 5,000 persons. The desirable size is considered 5 to 10 acres. The standard for this type of park facility is generally 1 to 2 acres per 1,000 people.

The City has two parks that fit at least some of the definition of a Neighborhood Park, Valley Memorial Park and Loutsis Park.

Valley Memorial Park ("Memorial" or "Skatebowl" Park), which is located in the Southeast quadrant, is 7 acres in size. Memorial Park provides recreation for a variety of users, including a skatebowl, tennis courts, picnic area with grills, BMX Track and also a World War II Memorial. There is an off-street parking lot which is in poor shape with many potholes. The City was able to construct the skatebowl with funds from a grant received in 2004. While the location of Memorial Park is not central within the City, the types of recreation provided and the location next to the Tolt Middle School make Memorial Park a significant facility to much of the population within the City.

A citizens group, the Friends of Valley Memorial Park, undertook extensive

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cleanup of this park and raised funds to put in children's play structure. Future plans for the Friends include a covered picnic area. In addition to the skate bowl, tennis courts, BMX track and the new play structure, much of Valley Memorial is well-treed open space with a trail through it. RCO standards typically cite a half mile as the service area for Neighborhood Parks. Most of the existing City is located within a half mile of Valley Memorial Park; with the exception of River's Edge, some portions of Swiftwater Carnation Meadows, and the Brumbaugh neighborhoods. Pedestrian and bicycle access to Memorial Park are excellent for residents east of SR203, but the state highway does create a barrier to access for residents west of SR203. This is somewhat ameliorated by the new signal at Entwistle and SR203.

Loutsis Park is the other City-owned park that, to some extent, fits the definition of a Neighborhood Park. Located centrally to the City and adjacent to the Snoqualmie Valley Trail, Loutsis Park is within ½ mile of most of the City's population with the exception of the River's Edge neighborhood. Loutsis Park is very heavily treed, and there are trails through the trees providing passive recreation. An off-street parking lot provides parking both for the park and for the Snoqualmie Valley Trail. The City's well-head is located near the parking lot in the northerly section of Loutsis Park. A 100-foot sanitary control area is required around the well-head, which must be considered when improvements are planned for Loutsis Park.

While the location and size (Loutsis Park is 6 acres) match the definition of a Neighborhood Park, Loutsis Park does not currently have the range of opportunities for active recreation that are generally associated with a Neighborhood Park. However, a Disc Golf course was developed at Loutsis Park recently, which brings many people to Carnation. Other than the Disc Golf, Loutsis Park primarily provides passive recreation.

There are no neighborhood parks owned by other entities that serve City residents, although one of the new subdivisions includes plans for a small park.

Community Park

Community Parks are designed to serve the surrounding community. Such parks are often larger in size and often consist of significant natural features, such as large tracts of open space or natural areas, and areas of diverse environmental quality. Community parks may contain special amenities attractive to visitors throughout the area, including intense recreational facilities such as athletic complexes and large swimming pools. Community Parks may include an area of natural quality for outdoor recreation, such as walking, viewing, sitting, and picnicking, and may include bodies of water. Depending on the site and community need, Community Parks may provide a combination of passive and active recreational opportunities and may also contain special amenities attractive to visitors throughout the area. Desirable facilities in Community Parks include

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those listed above in the section on Neighborhood Parks, along with swimming facilities, lighted ball fields, and tennis courts, a community center, and adequate off- street parking. It is important that Community Parks be located on or near major thoroughfares, and also be easily accessible by foot.

Community Parks typically have a service area consisting of several neighborhoods, and a 1 to 2 mile radius. The desirable size is over 10 acres, with 15 to 40 acres being most common. The National Standard for acres per 1,000 people is generally 5 to 8 acres.

While it would appear that Carnation lacks a Community park, it is worth noting that Tolt McDonald Park, a Regional park owned by King County, is located adjacent to the City and provides much of the function of a Community Park. Tolt McDonald Park is over 500 acres in size, with approximately 50 acres located within the city's boundaries and another 88 acres located immediately adjacent to the City. Tolt McDonald offers a wide variety of active and passive recreation, including ball fields, play equipment, picnic shelters, as well as hiking, mountain biking, camping, river access and fishing, and many Carnation residents as well as visitors take advantage of these recreation opportunities.

In general, to be counted as a park, a facility needs to meet the following criteria:

1. Is this land a dedicated park?
2. Is this land a developed park, or developable?
3. Can the parkland provide active recreation?
4. Can the city control the use, scheduling, level of maintenance of the recreational land or facility?

Tolt McDonald does meet the first three criteria, and does function both as a Community Park for the City, as well as a Regional Park for households outside the City. While the City does not control the use or scheduling at Tolt McDonald Park, the recreational opportunities it affords city residents do meet many of the functions of a Community Park. See discussion of Levels of Service in Section III below.

Special Use Park

Special use parks are devoted to specialized or single purpose activities, such as golf courses, arenas, plazas, squares, boulevards, etc.

Tolt Commons is a Special Use Park owned by the City. Located in the Northeast quadrant, within the downtown area, Tolt Commons is landscaped in xeric (low water use) plants, with a pathway and benches. Two other city owned parcels located on Bird Street in the Northeast Quadrant contain a picnic shelter and lawn that is used for the Carnation Farmer's Market as well as other events and community celebrations.

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There are no Special Use Parks owned by other entities that serve City residents.

Linear Parks

Linear Parks are developed for different modes of recreational transportation such as hiking, biking, horseback riding, etc.

The Tolt River Trail along the river levee south of the Swiftwater neighborhood in the SW quadrant is an example of a linear park. The King County owned Snoqualmie Valley Trail is a significant linear park that serves not only the Carnation area but the entire Snoqualmie Valley. Once a railroad track for the Milwaukee railroad, the trail is now a popular regional facility much used by runners, hikers, bikers and equestrians.

OTHER RECREATION OPPORTUNITIES IN THE COMMUNITY

Publicly Owned Park Land. Facilities owned by the Riverview School District and King County offer area residents sports fields, bicycling trails, walking trails, playgrounds, campgrounds, and picnic sites. There is public access to both the Tolt and Snoqualmie Rivers as well as Lake Langlois offering substantial opportunity for swimming, boating and fishing.

King County owns much of the open space and parklands accessible to Carnation residents, such as Tolt McDonald Park (see description of Tolt McDonald Park above).

The Riverview School District and the King County Parks Department have entered into a variety of fee based, cooperative agreements with youth organizations for use of park and school facilities within Carnation. There is a charge for the use of some of these facilities.

At present, the City operates no recreation programs. However, it does provide limited support to the King County Library and non-profit groups including the Sno-Valley Senior Center and Friends of Youth. Other recreation programs are sponsored through youth sports organizations.

In addition to these non-city owned parks and programs, indoor community gathering places include the Senior Center, churches, school facilities and the King County Library System.

Private & Non-Profit Recreation. There are privately held farms within and adjacent to the city that offer You-pick opportunities, family activities, a petting zoo, amusement rides, additional picnicking and fresh, locally grown produce. In addition, there are three private youth camps within a few miles of town which take

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good advantage of the area lakes, rivers and forests.

INVENTORY BY RECREATION OPPORTUNITY

In 2010, the Washington State Recreation and Conservation Office (RCO) published a new Level of Service (LOS) tool for local communities to use in developing parks and recreation plans as an alternative to the acres per 1,000 population standard (see Section III below for more discussion of Levels of Service). This new tool looks at quantity, quality and accessibility of recreation opportunities and places an emphasis on recreation needs that are specific to the local jurisdiction. To support the City's use of this new tool for parks planning, an inventory is presented on types of recreation needs specific to Carnation.

Population and Categories of Recreation

The Parks Element provides the planning context for future parks improvements to serve the existing city residents as well as new residents expected over the next twenty years. Carnation's small-town scale and beautiful setting make it a great place for families with children, and the 2010 Census indicates that 45% of Carnation's households include children less than 18 years of age. Senior citizens are another important component of Carnation's population; households with individuals 65 years of age and over constitute 13.9 percent of Carnation's households. Future growth patterns of the City as determined by the Future Land Use Map will provide continued opportunities for both elders and families with children to live in and enjoy Carnation. As the baby boomers continue to age, seniors will be a growing segment of the population, and the City's amenities and walkability will be attractive to seniors.

The new Level of Service standards provide for a more in-depth evaluation of different recreation functions that are specific to the different segments of the community. Under this method of evaluating levels of service, the demographic make-up of Carnation's households and the range of activities that the community supports form the basis for the categories of recreation to be evaluated. For example, families with elementary school and younger children benefit from play structures, swing sets, etc., and ideally these are both within walking distance (one-quarter mile) and are safely accessible by foot or bicycle. Many older children participate in organized sporting activities such as little league and soccer; play fields and places to practice will be important to serve these needs. Recreation opportunities geared to teens include the skatebowl and BMX track. Many teens and adults as well enjoy a variety of specialized recreation that the city offers or could offer, including tennis, disc golf, basketball, etc. Picnic areas can be enjoyed by all ages, and provide great places for families and friends to gather. Overhead shelters at picnic areas and grills are amenities that enhance enjoyment and usefulness of these areas. Finally, trails that provide opportunities for walking, biking and equestrians are a valued amenity in the community and provide

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opportunities to all segments of the population. Taken together, these recreation opportunities are essential to quality of life and a healthy community, and for purposes of this analysis, are classified into the following types of recreation:

- Children's play structures
- Sports fields including baseball, soccer, football, etc.
- Specialized recreation, including tennis, skatebowl, BMX Tracks, etc.
- Picnic areas, including grills and/or covered structures
- Trails, natural areas and open space

Children's play structures. Whether in a city-owned park or located in a facility owned and operated by others, play structures provide recreation for families with young children within close proximity. Generally a quarter mile is assumed to be a reasonable walking distance. There are six play structures within City limits, two of which are within city-owned parks (Hockert Park and Memorial Park). The remaining four are located in King County's Tolt McDonald Park near the ball-fields, at the Carnation Elementary School, and in individual neighborhoods. (The Homeowner's Associations for Swiftwater and The Estates at Snoqualmie Valley Trail own and maintain play structures for residents and their guests) Most residents of the city are within a quarter mile of a play structure, with the exception of the River's Edge neighborhood, portions of Carnation Meadows and Brumbaugh neighborhoods, and the location of future development in the northeast of the City. The play structure at Hockert Park which is centrally located and very popular is in poor condition and out of date. The play structure at Valley Memorial was recently added by the Friends of Memorial Park. The play structures not owned by the City appear to be in good shape.

Sports fields including baseball, soccer, football, etc. There are a total of nine ball-fields within Carnation, three located at Tolt Middle School, one at Carnation Elementary School and five located in Tolt McDonald Park. Of these nine fields, five are baseball diamonds, one is a football field which can also be used for field hockey, and the remaining are open fields which can be used for soccer or for practice. Ball-fields are generally used by organized sports such as Little League and by older kids, and they do not tend to serve specific neighborhoods. All of the ball-fields are located west of the Snoqualmie Valley Trail.

Specialized recreation, such as Tennis, skatebowl, BMX Tracks and other activities. Carnation offers a variety of specialized recreation, much of it centered on activities that are enjoyed by teenagers and adults alike. Carnation's teen centered recreation opportunities include a skatebowl and BMX track, both of which are also located within Valley Memorial Park. There are two tennis courts also located in Valley Memorial Park. There is a disc golf course set up at Loutsis Park, and an off-leash dog park on city-owned property south of the Wastewater Treatment Plant. Tolt McDonald Park includes extensive off-road bicycling opportunities that draw both local and visiting off-road bicycle enthusiasts.

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Picnic areas, especially those with grills and/or covered structures. There are seven places with picnic tables within or close by the City, all but one of which are located west of the Snoqualmie Valley Trail. Most of these only include picnic tables, with just a few of these offering nearby grills (at River's Edge Park and Valley Memorial). The covered picnic structure in Memorial Park was donated by the Friends of Valley Memorial Park. The shelter at Tolt Commons on East Bird Street could be used for this purpose.

Trails, natural areas and open space. Carnation residents through-out the City are within close proximity (half mile or less) to trails and natural areas. The Snoqualmie Valley Trail bisects the City, and there are trails along the Tolt River on the City's southern boundary which connects to a trail along the Snoqualmie River in Tolt McDonald Park. Northeast of the City is the Evacuation Trail in Lot 'W', a city-owned parcel just outside city limits. Carnation has many natural areas in open space or park designations, along both rivers, on the hillside along the city's eastern boundary including Lot 'W', as well as in City parks (Loutsis and Memorial Parks both have treed areas with trails through them). The trails are especially popular and well-used by local and visiting pedestrians and bicyclists, and even equestrians. While the trail system forms a loop through-out the City, there are some missing segments in the trail system: Entwistle/NE 45th Street between Swiftwater and River's Edge; along SR203 between the Tolt Levee Trail and just south of NE 40th; and along the Tolt Levee Trail in King County. Where these missing links are within King County, the City must look for opportunities to work with the County. Other links to trails that are outside the City would also require cooperation with King County, for example, a trail along the Snoqualmie River in city limits could be linked to the north to access the recreation area at Chinook Bend.

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**Table P-1
City Owned Parks and Recreational Facilities**

Park facility	Owner	Gross acres	Developed acres	Undeveloped acres	Open space	Features	Park Type	Recreation Categories	Comments/needs
Carnation Meadows	City	1.63			1.63	Undeveloped, Open Space, Recreation Area/Facility	Mini Park	Trails & Open Space	Steep forested hillside
Evacuation Hill	City	20.4			20.4	Evacuation Trail through property with Conservation Easement	Open Space	Trails & Open Space	City has TDR's to sell in return from Conservation Easement from KC
Hockert Park	City	0.20	0.20	0		Children's Play Equipment	Mini-Park	Children's Play Structure	Popular 2-5 yr. old play area Not ADA or safety compliant Needs play equipment for toddlers
Loutsis Park	City	6.10	1	5.10		Open Fields, Forested Area, Direct Access to Sno Valley Trail	Neighborhood Park	Specialized Recreation Trails & Open Space	Wooded area needs forest management.
Off-Leash Dog Park	City	8.17			8.17	Undeveloped, Open Space	Open Space	Trails & Open Space	Sewage vacuum station site, long-term

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Rivers Edge Park	City	0.35	0.15	0.2		Picnic Area	Mini Park	Picnic Area	use undetermined
Swiftwater Open Space along the Tolt River	City	0.06			0.06	Open Space, Undeveloped	Open Space	Trails & Open Space	
Tolt Commons Plaza	City	0.37	0.37			Farmer's Market Site, landscaping, benches	Special use		0.11 acre lawn area acquired in 2017. Landscaping on north side of Bird St needs follow-up maintenance
Tolt River Levee Trail	City	1.43	1.43			existing crushed rock trail along Tolt River	Linear park	Trails & Open Space	
Valley Memorial Park	City	7.15	3	4.15		2 Tennis Courts, Picnic Area, Skateboard bowl, BMX Track, Children's Play Equipment, World War II Valley Memorial	Neighborhood Park	Children's Play Structure Specialized Recreation (4)	Parking area potholed and not ADA. Improvements needed to trail access, BMX paths, BMX

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West Side Park	City	0.56	0	0.56	10.11	14.91 ac/1000	NRPA Standard = 10 acres of developed parkland per 1000	Undeveloped	Mini Park	Picnic Area Trails & Open Space	track, and play areas/structu res. Needs Picnic tables, signage, landscaping improvement s, play equipment
Total Acreage		46.41	6.13	10.11	30.26						
Level of Service: Ac/1000 pop. (2017 population estimated at 2,030)		22.86 ac/1000	3.02 ac/1000	4.98 ac/1000							Demonstrate sufficient supply of total parkland, deficient supply of developed parks

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**Table P-2
Non-City owned Parks and Recreational Facilities Within the Carnation Area**

Park Facility	Ownership	Acreage	Features	Classification	Categories	Comments/Needs
Tolt Middle School	Riverview School District	19	Football Field, Track, Baseball Field, Softball Fields, Soccer Fields, Indoor Facilities	Public School Facilities	Children's Play Structure Sport Fields (3)	
Carnation Elementary School	Riverview School District	5	Multi-use Field, Baseball diamond, Toddlers & Youth Play Equipment, 1 full & ½ size basketball court, outdoor shelter, Indoor Facilities	Public School Facilities	Children's Play Structure Sport Fields	
King County Library System	County		Library Facility	Library		
Snoqualmie River Boat Launch	State		Boat Launching, Public Fishing	Boat Launch		
Lake Langlois Boat Launch	State		Boat Launch, Public Fishing	Boat Launch		
Mariners Field	County	3.5	Baseball Field	Regional Park	Sport Fields	
Orme's Hill Park	County	10	Open Space	Open Space, Undeveloped, Future Trail System planned.	Trails & Open Space	Future trail system planned. Adjacent to City's Evacuation Hill.
Tolt MacDonald Park	County	48.8 within City limits 500 acres overall	Campsites, Soccer Field, Baseball Field, Softball Field, Picnic Shelter,	Regional Park	Sport Fields (5) Specialized Recreation Picnic Area	

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				River Access, Wetland & Wildlife, Hiking & Mountain Biking Trails, Suspension Bridge, Public Fishing		Trails & Open Space	
Snoqualmie Valley Trail	County			Walking, bicycling, Equestrian, Wetlands & Wildlife	Linear Park	Trails & Open Space	
Swiftwater Open Space	Home Owners Association	1.5		Potential trail connections	Open Space, Undeveloped, Future Connection to River		
Tolt River Beach site	Seattle City Light	20.38		Riparian/wetland site along Tolt River	River access, beach site		Very constrained for development potential

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DETERMINING FUTURE PARKS NEEDS

The Washington State Growth Management Act requires plans to forecast future needs for capital facilities, including parks. To this end, a guideline must be developed for the level of service a community desires and can be reasonably expected to fund.

NATIONAL RECREATION AND PARK ASSOCIATION STANDARDS.

The National Recreation and Park Association provides service standards for each type of park. This set of standards has traditionally been used to evaluate whether the existing supply of recreational facilities and land is adequate to meet the demands of the residents of Carnation. Figure P-3 describes the park categories, and the recommended park standards per 1,000 population.

Table P-3
Park Categories and Service Standards

CATEGORY	DESCRIPTION	SERVICE AREA	DESIRABLE SIZE	SERVICE STANDARD
Mini-Park	A mini-park is characterized by passive recreation or specialized facilities that serve a concentrated or limited population or specific group, such as children or senior citizens	Approximately 1/4 mile radius	No minimum to approximately one acre	Approximately 0.5 acres per 1,000 population
Neighborhood Park.	Neighborhood parks are designed to serve nearby residential population or employment base. They often include areas for active recreational activities, such as ball fields and courts, as well as passive recreation areas.	Approximately 1/4 - 1/2 mile radius	2 - 7 acres	1 to 2 acres per 1,000 population
Community Park	Community parks are designed to serve the surrounding community. Community parks may contain special amenities attractive to visitors throughout the area. Such parks often consist of significant natural features, such as large tracts of open space or natural areas.	Approximately 1 - 2 mile radius	15 acres	8 acres per 1,000 population
Special Use Park	Special use parks are devoted to specialized or single purpose activities, such as golf courses, arenas, plazas, squares, boulevards, and parkways.	No applicable standard	Variable	No applicable standard
Linear Park	Linear Parks are developed for varying modes of recreational transportation such as hiking, biking, cross-country skiing, horseback riding, etc.	No applicable standard	Sufficient width to provide maximum use and protect the resource	No applicable standard

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Another standard for parks facilities is often expressed as a ratio of total parklands to 1,000 people. The National Recreation and Park Association standard is 6 to 10 acres of developed parklands per 1,000.

As the National Recreation and Park Association standards (National Standards) is given in acres of improved parklands per 1,000, jurisdictions can choose the amount of parklands that they wish to provide for their current and projected populations. As described above, to be counted as parklands, properties must meet the following criteria:

1. Is this land a dedicated park?
2. Is this land a developed park, or developable?
3. Can the parkland provide active recreation?
4. Can the city control the use, scheduling, level of maintenance of the recreational land or facility?

While Tolt McDonald Park clearly meets the first 3 criteria, there is some debate as to whether it can be counted as it is owned and operated by King County and is not under city control. However, the County has worked collaboratively with the City on parks planning, and much of Tolt McDonald Park's recreation development is well-established. Given these circumstances, it is credible to count at least the portion of Tolt McDonald Park that is within City limits as part of the park acreage that serves the City's population. While Tolt McDonald Park is a regional park, it makes most sense to count the 48.8 acres that are within City limits as a Community Park. These acres can be counted as developed (useful) parklands as they include established ball fields, a play structure, park offices, parking, etc. as well as access along the Snoqualmie and Tolt Rivers.

Figure P-4 below shows the number of acres of park land per 1,000 population within the planning area for the years 2015, 2018 and 2031 using the 10 acres of developed parklands per 1,000 standard. The existing and forecasted populations for 2015 population and 2031 respectively are based on the Land use Element. The 2015 population is 1,786 (source: 2010 US Census) and the forecasted build-out population for 2035 is 4,656. An interim year of 2018 is used for planning purposes, with an estimated population of 3,500. The needs for parklands for the existing and projected population were compared to the existing park acreage, including parklands owned by the city in 2012 along with the portion of Tolt McDonald Park that is within City jurisdiction, in order to determine the surplus or deficit of parklands for each type of park.

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Table P-4
Carnation Recreational Land Needs
Years 2015-2035

	Mini-Park	Neighborhood Parks	Community Park	Total Acres	Acres per 2015 Pop	2012 Surplus /Deficit	Acres per 2018 Pop	2018 Surplus /Deficit	Acres per 2035 Pop	2035 Surplus /Deficit
Total Acres	2.74	13.25	48.8	64.79	36	26	19	9	14	4
Developed	0.34	4.00	48.8	53.14	30	20	15	5	11	1
Undeveloped	2.40	14.36	0	16.76						

As can be seen from Table P-4, based on this standard, the City has adequate parklands to meet the standard of 10 acres of developed parkland per 1,000 population, through build-out of the City projected to occur by 2035.

LEVEL OF SERVICE AND IMPACT FEES

The Washington Recreation and Conservation Office (RCO) has developed a new tool for parks and recreation planning that replaced the “one size fits all” standard of park acreage per population, and now uses an “investment per capita” model. The level of service for parks and recreation is measured based on three categories of criteria: 1) quantity (number of parks and recreation facilities compared with the population served), 2) quality of recreation facilities, measured both by an agency assessment and by public satisfaction with the facilities, and 3) distribution and access, which looks at the ability of people to access park and recreation facilities by foot, bicycle or public transit. This model allows the City to be flexible and responsive to changing needs and priorities in the community. This calculation also serves as the basis for the park impact fee rate. Only new residential development incurs impact fees. Impact fee revenue is used for the cost of new capital facilities, including land acquisition, site improvements, equipment, construction and any necessary off-site improvements. The fee also pays for planning, design, engineering, permits, financing, fees, and administrative expenses.

RECREATION TYPES

To help determine Carnation’s parks and recreation needs, the following recreation types were evaluated:

- Children’s play structures
- Sports fields including baseball, soccer, football, etc.
- Specialized recreation such as Tennis, skatebowl, BMX Tracks, etc.
- Picnic areas
- Trails, natural areas and open space

Children’s play structures. Carnation’s population includes many families with young children, and access to a play structure within a quarter mile is a typical

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standard for this type of facility. Carnation's five play structures are within a quarter mile of most residential areas, with the exception of the eastern and northeastern portions of the City, such as River's Edge and portions of the Brumbaugh and Carnation Meadow's neighborhoods.

Quantity – there are adequate numbers to serve most of the city's population except for the eastern (River's Edge) and northeastern (Brumbaugh, portions of Carnation Meadows, and potential new development) neighborhoods. However, larger backyards and privately owned play structures in the eastern portion of the City may be an adequate substitution. Future development of the Potential Annexation Area (PAA) to the north would also be further than a quarter mile from any existing play structures.

Quality – Hockert Park has play equipment that is out of date and in very poor condition, according to both City staff and public input. The play structure at Memorial Park is new. Comments at the Open House from the public included the need for play equipment designed for toddlers and younger children. Most of the other play structures within the City appear to be in good repair.

Distribution and access – Hockert Park which is the most centrally located and most widely used of these facilities is easily accessed by pedestrians or bicyclists originating east of SR203, primarily due to the low average daily traffic on local streets. However, SR203 creates a barrier for pedestrians, especially with young children, impedes access for families who live to the west of the highway. Access across SR203 has recently improved with completion of the new signal at Entwistle and the lighted cross-walk at Morrison, but is still not optimal. While there is one play structure west of SR203 located in Tolt McDonald Park, it is further than a quarter mile from most of the residents west of SR203. Development of West Side Park to provide play structures would ameliorate this deficiency as West Side Park is very accessible for most residents west of SR203.

The eastern and northeastern neighborhoods of the City are underserved for this type of recreation. However, in general these neighborhoods have larger backyards, and many families have their own play structures. Public outreach to these neighborhoods would help determine local needs for more play structures in River's Edge Park or in a new mini-park.

Summary of needs for play structures:

- Replace play equipment at Hockert Park
- More play equipment designed for younger children at Hockert and Memorial Parks
- Develop West Side Park with a play structure
- Provide for a pocket park with play equipment in the PAA west of SR203
- Provide for a pocket park with play equipment at River's Edge Park and/or

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a new park in the northeast of the City.

Sports fields. None of the ball-fields that serve the City's residents are provided by the City, but are owned and operated by King County (Tolt McDonald Park) or by the Riverview School District. Primarily used by organized leagues, ball-fields are accessible on an as available basis for residents.

Quantity – The nine ballfields appear to meet most needs for the community. However, a local soccer association has identified the need for more soccer fields to meet demand within Carnation and vicinity. This association has approached the City to study the feasibility of leasing an 8 acre city-owned parcel to develop two regulation soccer fields for use by the soccer league. When not in use by the soccer league, the fields would be open to the public. The City Council has agreed in principal to lease the property to the association and the City is assisting with the feasibility study.

Quality – The fields at Tolt McDonald Park have been well maintained, and the School District has recently improved the ball-fields at Tolt Middle School. In general, the ballfields used by City residents are in good repair.

Distribution and Access – Pedestrian and bicycle access to the ball-fields at Tolt Middle School are adequate via the sidewalks along SR203. Pedestrian access to Carnation Elementary School is provided by local streets, some of which have sidewalks. Improved access to Carnation Elementary School via Spilman Avenue is addressed in the City's Six-Year Transportation Plan (STIP). Pedestrian and bicycle access to the fields at Tolt McDonald are not as good, and the City will need to address these shortfalls by improving pedestrian access along SR203 between NE 40th and the new trail at Tolt McDonald park, and by improvements to NE 40th.

There are currently no ball-fields east of the Snoqualmie Trail. There have been some suggestions of adding waffle ball, kickball or soccer goals to River's Edge Park.

Summary of needs for ball-fields

- Work with organized leagues to examine possible new ball-fields on city-owned property
- Reach out to the River's Edge community to determine if a small ballfield would be desirable at River's Edge Park.

Specialized recreation such as tennis, skatebowl, BMX tracks, etc. Carnation residents can enjoy a variety of recreational opportunities, including tennis courts, skatebowl, and a BMX Track at Valley Memorial, Disc golf at Loutsis Park, an off-leash dog-park on city-owned land, and off-road trails for bicyclists at Tolt

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McDonald Park.

Quantity – While there are a good variety of recreation opportunities already present, several more ideas have been suggested by the public, including:

- A basketball court at Valley Memorial park
- Fitness track at Loutsis Park
- Horseshoes
- Climbing wall

Quality – The tennis courts in Memorial Park are in poor shape and need re-finishing. Another comment was to add a deck and rails to enhance the skatebowl.

Distribution and Access – Most of these special recreational activities are accessible to pedestrians and bicyclists, although the entrance to Valley Memorial Park off of SR203 is small and difficult to find. Residents west of SR203 have the barrier of the state highway to access many of these facilities.

Summary of needs for recreation opportunities:

- Repair tennis courts in Memorial Park
- Add a half basketball court in Memorial Park
- Add a Fitness Course to Loutsis Park
- Improvements to Skatebowl

Picnic areas. Picnic tables are located in various parks, but as there is only one east of the Snoqualmie Valley Trail at River's Edge Park. In addition to picnic tables, grills and an overhead structure make these facilities most useful.

Quantity – While there are picnic tables in many areas, it was felt that more picnic tables centrally located in the Bird Street/Hockert Park area would be welcome as well as also west of SR203.

Quality – Adding grills and especially overhead structures in various places would make these amenities more useful. The Friends of Valley Memorial Park are planning to build a shelter for the picnic tables, and a shelter for the picnic tables was also suggested for River's Edge Park.

Distribution and Access – Most of these amenities are accessible to pedestrians and bicyclists, although the entrance to Valley Memorial Park off of SR203 is small and difficult to find.

Summary of Needs for Picnic areas:

- Build shelter for picnic tables in Memorial park

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- Add picnic tables and barbecue to Community Shelter on Bird Street
- Provide a shelter for the picnic tables in River's Edge park
- Add another picnic table at Hockert Park
- Provide picnic table(s) with shelter and grills at West Side Park

Trails, natural areas and open space. Carnation residents enjoy excellent regional and local trails and open space. Most residents are within close proximity (half mile) of trails and/or open space.

Quantity – Between the Snoqualmie Valley Trail, the trails along the Tolt River and some portions of the Snoqualmie River, as well as Evacuation Trail, and the trails and open space within Loutsis Park and Valley Memorial Park, Carnation residents are well-served by trails and open space.

Quality – Most of the trails are well-maintained. Pedestrian improvements as part of City street improvements would help improve the overall quality of pedestrian environment in the City. Improvements are also needed to complete the missing links as described below. The trails within City parks are in some cases not well developed or could be improved.

Distribution and Access – As noted above, most City residents are within walking distance of the City's looped trail system and/or open space. Access improvements to the trails for equestrians have also been requested.

Summary of needs for Trails, natural areas and open space:

- Create a paved trail in the eastern treed portion of Valley Memorial park. The trail should be ADA compliant and designed for stroller and tricycles, with benches at strategic locations.
- Develop a pedestrian pathway along Entwistle/NE 45th Street between River's Edge and 329th Ave NE
- Improve the pedestrian access along the western side of SR203 between NE 40th Street and the pathway in Tolt McDonald Park in front of Mariner's Field.
- Work with cooperatively with the property owners and King County to close the gap in access along the Tolt Levee
- Work with King County to complete a trail system along the Snoqualmie River to link to the Chinook Bend natural area.
- Signage to show horse trailer parking along Milwaukee would also improve access to the trails for equestrians.

SUMMARY OF NEEDS BY PARK TYPE

General descriptions are provided of required improvements for each type of park facility that would be necessary to meet the parks and recreation needs to serve

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future development, as determined in the above Level of Service analysis.

Mini-parks

Fred Hockert Park: Hockert Park is in the center of town, adjacent to the Farmer's Market and near Tolt Commons, and is the most popular play area in the city. The play equipment is designed for toddlers as the city's demographic profile shows a significant presence of families with young children. While Hockert Park is located within the Northeast Quadrant, its central location maximizes access for the community as a whole. However, SR203 provides a significant barrier to pedestrians, especially for families with small children, which makes the requirement for a mini-park to serve the western quadrants more important. The City began design and engineering for redevelopment of Hockert Park in 2017 with construction complete in 2018.

West Side Park: This small undeveloped site is ideal for a small pocket play and picnic park within the western side of the city. Minimal grading would be required on this flat site. This is the only mini-park west of SR203; play structures for toddlers would provide families with small children an opportunity for recreation without crossing SR203. As West Side Park is also close to the Senior Center, recreation opportunities attractive to seniors was also a consideration.

Planned improvements:

- fence
- small shelter with picnic tables, barbeque grill
- toddler play structure
- horseshoe play area

River's Edge Park: This mini-park primarily serves the River's Edge neighborhood. A small picnic shelter could be added to the picnic tables and grills.

Planned improvements:

- shelter for picnic tables
- new fence
- other as desired by the neighborhood

Future Parks in the PAA and Northeastern part of the city: These parks will become necessary as new areas of the City are developed.

Planned improvements:

- play structures
- picnic tables

Neighborhood parks

Valley Memorial Park: This 7 acre park is beautifully forested, and has a strong historic character including a memorial to veterans. Recent improvements by a

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citizens group, the Friends of Valley Memorial Park, include a major cleanup and a new play structure. The Friends also plan to build a shelter over the picnic tables. Further improvements include re-surfacing the tennis courts, adding a basketball court, adding some improvements to the skatebowl, adding play structures for toddlers, adding a swing set, providing a more formal treatment of the Memorial, with a paved area and landscaping, and improving the access way and reconfiguring and paving the parking lot. Plans for the treed area to the south include some selective clearing of trees and adding a 5' asphalt pathway with pull-outs and benches. The loop would be ADA compliant and would be easily used by families with strollers and kids on tricycles.

Planned improvements:

- Shelter for picnic tables
- Re-finish tennis courts
- Add a basketball court
- Toddler structure
- Looped trail
- Reconfigure and pave parking lot
- Skatebowl improvements

Nick Loutsis Park: Loutsis Park will require substantial thinning of the trees, as well as improvements to the parking area and landscaping along the western boundary to provide better screening for abutting residences. A fitness Course could be added along the Snoqualmie Trail.

Planned improvements:

- Pave parking lot
- Landscaping along western property line
- Fitness course

Special Use Parks

Tolt Commons (Bird Street “Festival Street”). Tolt Commons began as a small public garden across from City Hall at the intersection of Bird Street and Tolt Ave which was renovated by volunteers. Further planting improvements for this park should continue to model water wise gardening by using xeriscape. In 2010, the City partnered with the USDA and the Sno-Valley Tilth to develop the city-owned 7,500 square foot parcel on the other end of the block at the corner of Bird Street and Stossel Avenue as a community shelter. The structure is used by the Farmer's Market to extend later into the fall, and could perhaps be used in the winter. The shelter is open to the public on non-market days and could provide picnic and outdoor cooking opportunities. In 2017, the City acquired the parcel between the shelter and the American Legion and expanded the grassy area on the west side of the shelter.

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With important community facilities anchoring it (the Senior Center at one end and Hockert Park at the other) and its central location downtown, Bird Street has been identified as an ideal corridor for town center type facilities. The Farmer's Market, July 4th celebration and Christmas in Carnation make use of Bird Street as the city's festival location. The American Legion, Hopelink, and City Hall are also located on or near Bird Street, further strengthening its public corridor character. City acquisition of vacant land in the area would support the town center concept.

Planned improvements:

- Add picnic tables and grill at community shelter
- Acquire land along Bird Street between Tolt Commons and the Community Shelter

Linear Parks and Trail System

Tolt River Levee Trail. Carnation has an opportunity to create an outstanding river trail with a continuous connected trail along King County parklands to the Snoqualmie River and all along the City UGA and connecting to the Entwistle trail on the east. Acquisition or an easement crossing 2 private parcels of land (where the levee is currently gated) would be required. It is noted that the current landowner's are not interested in selling or allowing an easement for public access, but public access across this blockage has been supported by the public. The Tolt River Corridor Study undertaken by King County is evaluating possible levee setbacks along the Tolt River within City jurisdiction. If these proposals move forward, the City should work cooperatively with the property owners and with King County to incorporate trails into the new levees.

Snoqualmie River Trails. The existing King County parks provide great trails that should be better connected to the City's existing and proposed non-motorized trail system. Recently the City completed the connection to the public pathway along the northern boundary of the wastewater treatment plant. This existing trail meets a recently completed trail on property owned by the City of Carnation that connects to Tolt MacDonald Park.

Planned Trail improvements:

- Pedestrian pathway on Entwistle/NE 45th
- Sidewalk on SR203 south of NE 40th
- Signage
- Bicycle parking
- Work with King County to complete access along the Rivers

PARKS CAPITAL IMPROVEMENT PLAN (CIP)

This Parks and Recreation Element establishes a framework for recreation development by identifying priorities and setting policies for implementation of

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goals. These elements are then incorporated into a funding plan, the Parks and Recreation Capital Improvement Plan (CIP), which is incorporated into the Capital Facilities Element as Table CF-5. The Parks and Recreation CIP is developed with input from the community regarding what recreational and parks facilities are wanted, coupled with the levels of service deficiencies that were in evidence based on the RCO Standards and the analysis of the parks inventory. The CIP provides preliminary costs of needed parks improvements to provide adequate parklands and facilities to serve the City's projected growth of the next twenty years. The CIP is used by the City Council for short- and long-term budget planning, and also serves as a guide for competitive grant applications.

GOALS AND POLICIES

FRAMEWORK GOALS

The following broad themes were described by the community, Park Board, and City Council as priorities to guide this plan:

- Promote community interaction by supporting gathering places, open spaces, and parks and recreation.
- Expand trail linkages to further connect neighborhoods to regional public open spaces, farms, rivers and lakes.
- Explore creation of a Park & Recreation District with neighboring municipalities to enable funding mechanisms for park, trail and open space system enhancement.

Based on the information provided above, a series of goals and policies have been identified for the parks system. These goals represent milestones to be achieved in the next six years or longer.

GOAL P1

Assure that park and recreation land and improvements are provided to accommodate the demand of the future

Policy P1.1 The City will protect and conserve its existing park lands to assure that there is an adequate supply of park and recreation facilities to meet current and future park needs.

Policy P1.2 The City will continue to implement a park impact fee ordinance. Emphasis should be placed on payment in lieu of receipt of undeveloped land.

Policy P1.3 The City will apply for appropriate, available grants to develop needed park, recreational and trail facilities, and park programs.

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- Policy P1.4 The City will endeavor to develop multi-use parks to serve a broad range of interests and demands.
- Policy P1.5 The City will continue cooperation with King County and other public and private entities to encourage and promote the development of needed park facilities and open space. The City will work to secure cooperative agreements with King County if they elect to surplus major regional facilities or real property.
- Policy P1.6 The City shall facilitate and encourage public input for park development.
- Policy P1.7 The City shall pursue a network of paths, trails, and sidewalks to connect public spaces.
- Policy P1.8 To meet the needs for current and future residents, emphasize the need to develop existing undeveloped parkland rather than obtaining new small parcels, unless these are used appropriately for pocket parks to serve new or underserved residential areas.

GOAL P2

To assure that parks are adequately maintained and operated to meet the interests and needs of Carnation residents.

- Policy P2.1 The City will endeavor to maintain the City's park system to assure that parks remain clean, safe, inviting and usable.
- Policy P2.2 The City will encourage the use of volunteers and community support in the care and development of city parks.

GOAL P3

Encourage the development of parklands that reflect and promote the vision for Carnation which values its natural environment, rural heritage and sense of community.

- Policy P3.1 Encourage the use of design and landscaping that mimics the historic natural environment, and utilizes Best Conservation Practices (BMPs).
- Policy P3.2 Promote a strong sense of community through the development of pedestrian trails and paths that link neighborhoods to each other and to parks and open spaces.
- Policy P3.3. Offer a destination for visitors to Carnation to bike, walk and enjoy a

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respite from more urbanized areas.

- Policy P3.4 Pursue funding to acquire additional land for civic functions especially along Bird Street.
- Policy P3.5 Establish gateways into town at south (Tolt River Bridge) and north edge of UGA.
- Policy P3.6 Pursue enhanced public access from neighborhoods to existing parks, especially the Tolt MacDonald Park, the Snoqualmie Valley Trail, and Tolt and Snoqualmie Rivers.
- Policy P3.7 Seek partnerships to develop other recreation opportunities, possibly at the City owned parcel south of the new sewer plant.

ACTION POLICIES

- Policy PA.1 Review and modify the park & recreation mitigation program as necessary to comply with state law.
- Policy PA.2 Establish parks and recreational level of service guidelines based on total population, usage patterns, growth predictions and population densities.
- Policy PA.3 Update fees or charges for specialized services or programs and/or certain facilities on an annual basis.
- Policy PA.4 Develop maintenance guidelines for use as a planning and budgetary tool to efficiently allocate resources (both labor and equipment).
- Policy PA.5 Work with local citizen groups that have come together to improve Carnation's parks. Encourage the private sector and semi-public organizations to increase their expenditures for public recreation facilities and opportunities in Carnation.
- Policy PA.6 Continue efforts to fund renovation and development of existing parkland.

EXHIBIT B

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. 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 Policies of the Comprehensive Plan.

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,

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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.

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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

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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.

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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-

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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-of-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 than 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.

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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.

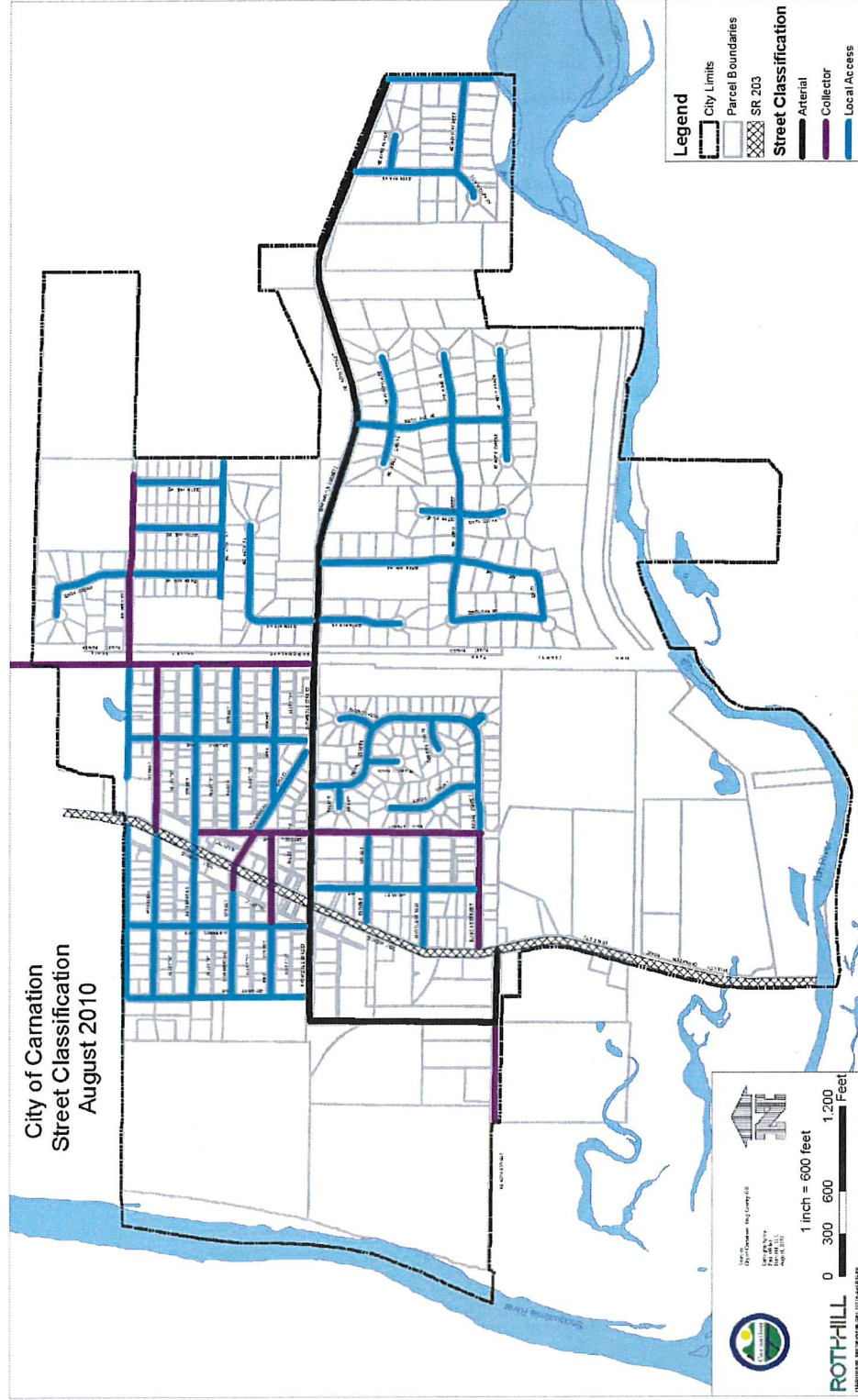
Alley: A local access street, generally undeveloped and consisting of a 1-lane 16-foot wide right of way that provides access to such amenities or services as rear yards, garages, or refuse collection.

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.

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Figure T-1
Street Classification Map



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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 Arterial	Termini	Segment Data				Roadway Surface	PCR Score	Rating Status	Date Rated
		Segment Length (mi)	Travel Lanes	Pavement Width (ft)	Small City Street Inventory - Segment Data				
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	ENTWISTLE ST to CUL-DE-SAC	0.213	2	28	ACP	81	Good	4/10/2014	
46TH PL									
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	

<http://www.tib.wa.gov/TIBDashboard/>

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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	2	26	ACP	72	Good	4/10/2014
	ENTWISTLE ST	SPILMAN AVE to 326TH AVE	2	36	ACP	72	Good	4/10/2014
	ENTWISTLE ST	STOSSEL AVE to SPILMAN AVE	2	36	ACP	54	Fair	4/10/2014
	ENTWISTLE ST	TOLT AVE to LARSON AVE	2	38	ACP	100	Excellent	4/10/2014
	ENTWISTLE ST	TOLT AVE to STOSSEL AVE	2	36	ACP	100	Excellent	4/10/2014
	EUGENE ST	MCKINLEY AVE to STOSSEL AVE	2	24	ACP	100	Excellent	4/10/2014
	EUGENE ST	TOLT AVE to MCKINLEY AVENUE	2	38	ACP	100	Excellent	4/11/2014
	KING CT	REGAL ST to CUL-DE-SAC	2	34	ACP	72	Good	4/10/2014
	LARSON AVE	W ENTWISTLE ST to SOUTH END	2	30	ACP	100	Excellent	4/10/2014
	MCKINLEY AVE	BLANCHE ST to MYRTLE ST	2	22	ACP	100	Excellent	4/10/2014
	MCKINLEY AVE	EUGENE ST to ENTWISTLE ST	2	38	ACP	100	Excellent	4/10/2014
	MCKINLEY AVE	MYRTLE ST to EUGENE ST	2	22	ACP	100	Excellent	4/10/2014
	MILWAUKEE AVE	ENTWISTLE ST to NE 50TH ST	2	33	ACP	85	Good	4/10/2014
	MORRISON ST	SPILMAN AVE to MILWAUKEE AVE	2	36	ACP	63	Fair	4/10/2014
	MORRISON ST	TOLT AVE to SPILMAN AVE	2	36	ACP	63	Fair	4/10/2014
	MORRISON ST	TOLT AVE to STEWART AVE	2	17	ACP	39	Poor	4/10/2014
	MYRTLE ST	TOLT AVE to STOSSEL ST	2	21	ACP	68	Fair	4/10/2014
	NE 40TH CIRCLE	329TH AVE NE to CUL-DE-SAC	2	28	ACP	81	Good	4/10/2014
	NE 40TH PLACE	329TH AVE NE to CUL-DE-SAC	2	28	ACP	81	Good	4/10/2014
	NE 40TH ST	325TH AVE NE to 326TH AVE NE	2	28	ACP	81	Good	4/10/2014
	NE 40TH ST	PAVEMENT CHANGE to PARK ENTRANCE	2	20	ACP	44	Poor	4/10/2014
	NE 40TH ST	TOLT AVE to PAVEMENT CHANGE	2	20	ACP	48	Poor	4/10/2014
	NE 42ND PLACE	329TH AVE NE to CUL-DE-SAC	2	28	ACP	81	Good	4/10/2014
	NE 42ND ST	325TH AVE NE to 329TH AVE NE	2	28	ACP	81	Good	4/10/2014
	NE 42ND ST	334TH AVE NE to 336TH AVE NE	2	28	ACP	81	Good	4/10/2014
	NE 43RD CIRCLE	329TH AVE NE to CUL-DE-SAC	2	28	ACP	81	Good	4/10/2014
	NE 43RD PLACE	329TH AVE NE to CUL-DE-SAC	2	28	ACP	81	Good	4/10/2014
	NE 43RD PLACE	334TH AVE NE to CUL-DE-SAC	2	28	ACP	81	Good	4/10/2014
	NE 47TH ST	326TH AVE NE to 327TH AVE NE	2	16	ACP	59	Fair	4/10/2014
	NE 47TH ST	328TH AVE NE to 327TH AVE NE	2	16	Gravel	0	Not Rated	4/10/2014
	NE 50TH ST	326TH AVE NE to MILWAUKEE AVE	2	36	ACP	0	Good	2015
	NE 50TH ST	326TH AVE NE to 328TH AVE NE	2	22	ACP	0	Good	2015
	PALACE CT	REGAL ST to CUL-DE-SAC	2	34	ACP	59	Fair	4/10/2014
	QUEEN CT	REGAL ST to CUL-DE-SAC	2	34	ACP	54	Fair	4/10/2014
	REGAL ST	STOSSEL ST to ENTWISTLE ST	2	34	ACP	100	Excellent	4/10/2014
	REGENCY PLACE	REGAL ST to CUL-DE-SAC	2	34	ACP	59	Fair	4/10/2014
	REITZE ST	MILWAUKEE AVE to STOSSEL ST	2	18	ACP	48	Poor	4/10/2014
	ROYAL CT	REGAL ST to CUL-DE-SAC	2	34	ACP	50	Poor	4/10/2014
	RUTHERFORD ST	SPILMAN AVE to MILWAUKEE AVENUE	2	26	ACP	100	Excellent	4/10/2014

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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 inspection 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

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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

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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

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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

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(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

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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

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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

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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.

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**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.

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**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.

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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

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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**

Intersection	Existing Channelization				With Transportation Improvements				Comments
	Traffic Control	L O S	Delay	WM	Traffic Control	L O S	Delay	WM	
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

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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 40 th to Entwistle	Construct two lane road with parking, curb & gutter, sidewalk, new storm drainage, illumination, and signing/stripping. Allows traffic to access the lands zoned for industrial use west of SR203 and south of the wastewater treatment plant.
Milwaukee Avenue Connector 50 th to 55 th	Construct two lane road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/stripping. 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 55 th	Construct two lane road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/stripping. 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/stripping.

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Project Name	Project Description
	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/stripping.
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 participant to a WSDOT and/or King County lead project. 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%

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Year	Project Name	Total Cost	Grant Funds	City Funds
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%
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

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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

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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 through 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.

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- 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.

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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

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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

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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.

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- 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

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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

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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

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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.

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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.

EXHIBIT C

CHAPTER 8 – UTILITIES ELEMENT

INTRODUCTION

This Utilities Element presents basic information about the utility systems in the city of Carnation, including solid waste, water, wastewater, stormwater, natural gas, electricity, and telecommunications. The City of Carnation manages its own water system and sewage collection system, but all other utilities are owned and managed by others. Utility services and the provider of these services are shown in Table U-1.

Table U-1: Utility Service Providers

PROVIDER	UTILITY SERVICE
Recology Cleanscapes	Solid waste collection
City of Carnation	Water service, sewage collection, stormwater
Puget Sound Energy	Natural gas distribution and electrical power
Comcast	Telecommunications
CenturyLink	Telecommunications

INVENTORY AND ANALYSIS

This is an inventory and analysis of the following utilities: solid waste, water, wastewater, storm water, natural gas, electricity, and telecommunications.

SOLID WASTE

The King County Solid Waste Management Plan was first adopted in 1975 and has been updated a number of times. The City, by state law, is either required to develop its own solid waste management plan, or to participate in a regional plan. Carnation has adopted and is party to the King County plan. The Plan guides solid waste disposal and future needs in King County.

Landfill. Until the late 1970s the City of Carnation operated its own municipal Landfill to serve city residents. The landfill is located approximately one mile south of the city. Beginning in 1992, the City undertook a project to officially close the landfill. This was financed through a surcharge on solid waste utility bills and a grant from the Washington Department of Ecology. The landfill site entered into a 20-year post-closure period in 1995. Landfill post-closure utility charges continue to be levied on property owners within the city limits to provide financial assurance for ongoing water quality monitoring and maintenance of the site. Monitoring of the closed landfill site will be an ongoing financial responsibility of the City until the end of the post closure period. The City hopes to eliminate billing of the post-closure fees as soon as possible.

The City has entered into a Solid Waste Interlocal Agreement (ILA) with King

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County which provides for cooperative management of solid waste and allows the City's waste collector to utilize the Cedar Hills Regional Landfill. The ILA expires in 2028.

The primary planning tool for the King County solid waste system is the 20-year Comprehensive Solid Waste Management Plan. The long range goal of the King County Solid Waste Management Plan is to coordinate regional energy and resource recovery in King County. The current adopted plan was published in November 2001. The 2001 Plan is currently undergoing a 2019 Update which began in June of 2017.

Solid Waste Collection. The City's service provider for solid waste collection is responsible for the collection and disposal of Carnation's solid waste, and all customer support. The City's only involvement with solid waste collection is to monitor the contract. The City contracts with Recology Cleanscapes for solid waste collection and recycling services.

Recycling. The City's service provider also provides curbside recycling and yard/food waste collection services to the City. The City has a goal to achieve a 75% residential waste reduction and recycling rate. Carnation currently averages a 45% residential recycling rate, exclusive of special collection days, which would increase the percentage.

WATER

Introduction. The City of Carnation owns and operates a municipal "Group A" water system with 968 service connections within the Water Service Area, which includes all of the corporate limits of the City plus portions of King County. The water system includes three storage reservoirs, a spring source, a well source and a distribution network. The water system is managed by the Carnation Public Works Department which is responsible for day to day operations and for the implementation of the Comprehensive Water System Plan. The City's Comprehensive Water System Plan (Water System Plan) was developed in 2015 and 2016, and submitted to the Department of Health and King County for agency review in 2017. The next update of the Comprehensive Water System Plan will be due in 2023. Detailed information about the water system and its operating and capital plans can be found in the Comprehensive Water System Plan. This section includes pertinent information from the Water System Plan.

Existing Service Area and CWSP Planning Area. The City of Carnation Planning Area lies within the critical water supply area as outlined in the East King County Coordinated Water System Plan (CWSP). In 2009, the City reduced its water system planning area from 21 square miles to 9 square miles. The City made this reduction because much of the previous planning area was not feasible to serve due to the presence of steep slopes and rivers, and tracts of forest resources which do not require water service. The rest of the planning area was

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not economically feasible to serve. See figure 8-1 for the City's designated potable water service area in the Water System Plan. The City currently has a franchise agreement with King County to construct, operate and maintain a water system outside the current City limits. This franchise has been granted until 2039.

Adjacent Purveyors. The only adjacent water purveyor is Ames Lake Water District to the west of the city; however the Snoqualmie River separates the service areas and is a significant geographic impediment. Nearby water purveyors include Water District 119 to the north and Fall City to the south. There are no municipal water purveyors in the vicinity east of the city. No municipal water purveyor is close enough to consider interties.

Water System Development History. The original source of water was a spring located in a 16-acre tract of the Weyerhaeuser Timber Company. Later, the City purchased the original 16-acres plus an additional 64-acres from Weyerhaeuser. This 80 acre area currently constitutes the spring site and watershed. The original water distribution system was developed by extending water mains as needed to serve the City's growth. The City gradually replaced the old wood stave pipes with steel and asbestos cement pipe. The City is now replacing these steel and asbestos cement pipes with ductile iron pipes, as necessary. Over time, the City's water system has grown to include 968 service connections within the city limits and in the neighboring unincorporated King County. The majority of the connections are residential (89%), but the system also has commercial, industrial and institutional connections (11%). In 2015, the city received an award for the best tasting water in a competition held by the King County Subsection of the Pacific Northwest Section of the American Water Works Association (PNWS-AWWA). Water system improvements in recent years have included two new reservoirs, water main replacements and efforts to improve water use efficiency.

Water Source. The City has a multiple source system with springs as the primary source and a well as the secondary source.

The Springs: The springs are the primary source of water supply for the City of Carnation's system. The springs are situated within an 80-acre tract owned by the City located about 2.5 miles southeast of the city center. The springs watershed is in the City's jurisdiction, but is surrounded by unincorporated King County. The source of the springs is water fed by an unnamed aquifer flowing through pre-Frasier deposits of sand and gravel. The water from the aquifer surfaces from the ground to form a natural spring at the location of the intake manifolds near the center of the property. In the early 1980s the City constructed a 3-manifold intake system to increase water capacity. The spring source can provide 350 gpm.

In 1998 the City developed two horizontal wells near the springs to supplement the aging spring intake system. The wells are tied into the

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existing system and are producing approximately 55 gpm.

The springs have been determined to be not under the direct influence of surface water and are not a groundwater source under the influence of surface water (GWI).

Currently the spring source has the capacity to supply most of the city's daily demands.

The Well. The well is located in Loutsis Park near the intersection of Entwistle Street and Milwaukee Avenue and was constructed in April 1978. The well's pump has a rated capacity of 700 gpm and is activated by pressure drops within the system. The well has historically only been activated during peak usage periods, to replenish low reservoir levels, or to provide fire flow.

Source Protection. Protection of the water source is required under WAC 246-290-135. Both of the City's water sources produce excellent quality drinking water. Both the well and springs have protection programs in place to minimize any potential contamination:

Well Head Protection. The well is located in Loutsis Park near the intersection of Entwistle Street and Milwaukee Avenue. The 6-acre park is owned by the City. The well site is continually monitored by the City and inspected by the Health Department for possible source contamination.

Spring Source Protection. The springs are located in a 51-acre tract of land owned by the City. A portion of the site, including the 200 foot protective radius surrounding the springs, is fenced to prevent intrusion from large animals and to detour people from trespassing onto this area of the site. As with the well site, the springs are continually monitored by the City and inspected by the Health Department for possible source contamination. No source of contamination is allowed to be constructed, stored, disposed of, or applied within the sanitary control area of either the well or springs.

Watershed Control Requirements. The source of the springs is water fed by an aquifer flowing through pre-Frasier deposits of sand and gravel. The water from the aquifer surfaces from the ground to form a natural spring. The springs are not under the direct influence of Surface Water and are not a GWI (Ground Water Under the Influence of Surface Water) source. Continuous sampling and testing has shown no significant occurrence of insects, or other macro organisms, algae, or large diameter pathogens. Also, there has been no indication of rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH correlating to climatological or surface water conditions. Because the source of the

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springs is ground water and is neither Surface Water nor Ground Water Under the Influence of Surface Water (GWI), the City is not required to implement Section 4 Watershed Control Program of WAC 246-290-135.

Water Rights. The City of Carnation holds two water rights: a groundwater certificate for the City's water well, and a water right claim for the City's spring source. The claim for the spring source authorizes the City to annually withdraw (Qa) a total of 1,000 acre-feet (325m gpy) with a maximum instantaneous (Qi) withdrawal of 628 gpm. The certificated water right for the well authorizes the City to annually withdraw (Qa) 538 acre-feet (175m gpy) with a maximum instantaneous (Qi) withdrawal (Qi) of 800 gpm. The Washington State Department of Ecology interprets the City's water rights for the well as additive to the springs for instantaneous (Qi) withdrawal, but supplementary to the springs for annual withdrawal (Qa).

Table U-2 Water Rights

Source	WR Document	Ecology ID	Priority Date	Qi (gpm)	Qa (AF/Y)
Spring	Claim	S1-117902CL	Dec. 1916	628	1,000
Well	Certificate	G1-22827C	April 4, 1977	800	538
Total				1,428	1,000

For water planning purposes the City will plan and forecast based on the authorized 1,428 gpm and an annual limitation of 1,000 af/y. Nothing in the City's Plans are intended to accept Ecology's interpretation, or waive any rights or arguments as to Ecology's interpretation of G1-22827C.

Storage. The City of Carnation's water system includes three above ground tank reservoirs, one located at the spring site in the watershed and two located at the city-owned parcel on Entwistle Street. The water system is a multiple source system, which reduces the amount of storage required. The total volume of storage capacity in the three reservoirs is 938,200 gallons. Filling the reservoirs is accomplished by pressure within the city's system.

Table U-3: Existing Water Storage Facilities

Year Constructed	Name/Location	Capacity (gal)	Type	Comments
1990	Entwistle Tank 1	222,000	Reinforced Concrete Standpipe	Offline beginning 2013
2012	Entwistle Tank 2	605,000	Steel Standpipe	In service
2012	Watershed	109,000	Low Level Steel Reservoir	In service, inline with transmission main

The reservoir at the spring site insures continued water service to customers in the southern pressure zone in the event of disruption of the spring source. The second reservoir on Entwistle Street improved fireflow and system redundancy. Currently the city's storage capacity is sized to meet future projected demand.

Existing Distribution System. An in-line pressure reducing valve (PRV) is

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located just east of the bridge on the south side of Tolt River and divides the system into two pressure zones. One pressure zone is north of the Tolt River, and the other south. The City's system has one primary transmission main that runs from the springs through the PRV/PSV to the north zone. The water mains include newer 12- and 8-inch mains and older 6- and 4-inch piping, and some very old, small diameter pipes. Most of the 8-inch main is ductile iron pipe and all of the 4-inch piping material is steel. In 2011, the City installed approximately 2,400 linear feet of new ductile iron transmission main from the spring site to 344th Street NE.

Water Quality & Treatment. The water quality within Carnation's water system is excellent from both the well and springs sources. The water from the springs source is chemically treated by a chlorinator installed on an 8-inch pipeline.

The well is a non-chlorinated water source. Since the well and springs are tied into the same piping network, the well water system has a residual chlorine content. However, one of the system deficiencies that was identified in the Water System Plan was the lack of chlorination at the well. In addition, a power outage would prevent the well pump from functioning, which reduces system reliability by taking one of the sources off-line. Future projects to add chlorination and a back-up generator at the well should address these problems.

Testing of both sources for bacteria count is done on a monthly basis. Testing for inorganic, regulated compounds and unregulated compounds is done on a three-year basis. Lead and copper testing is also performed on a three year basis. In general, the quality of water from both the springs and the well water is excellent.

Water System Standards. All improvements to the water system, whether accomplished by Developer Extension Agreements, Utility Local Improvement Districts (ULID's), or other methods, are required to meet minimum design and construction standards established by the City. The standards contained in the City of Carnation "Water-Sewer Technical Standards" manual conform to the requirements of the Washington State Department of Health, City Design Standards and American Public Works Association.

Service Connections. The City serves water customers both inside and outside the city limits and all customers are on metered services. Approximately 81% of the connections are located in the City, and the remaining 19% are located in the PAA and other parts of the City's water service area that are outside City limits. The percentage, types and category of use for these service connections are shown in Table U-1.

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Table U-4: Water Service Connections by Account Type

Inside City Limits = 786 connections	Single Family Residential	672	69%
	Multi Family Residential	24	2%
	Non-residential	91	9%
Outside City Limits = 182 connections	Single Family Residential	170	18%
	Multi Family Residential	1	0%
	Non-residential	11	1%
Total Connections		969	(100%)

Source: City of Carnation Utility Billing System, August 2017

Water Demand and Water Use Efficiency. Carnation’s water distribution system is old, and as recently as 2008, unaccounted for water was estimated to be as high as 40% within the system. Over the last decade, efforts to reduce unaccounted for water through aggressive leak detection, water main improvements and meter replacement have reduced unaccounted for water to less than 10% of the system’s water use. Efforts to increase water efficiency have reduced average total daily demand (ADD) on the system for single family residential customers from approximately 190,000 gallons per day to approximately 172,000 gallons per day, averaged over the last six years.

Water System Capacity. The source, storage, treatment and distribution system must demonstrate the capacity to serve future populations within the water service area. New improvements will be required to address any existing or projected deficiencies; these are listed in the Water Capital Improvements Plan as adopted in the Water System Plan.

WASTEWATER

The City of Carnation sewer system became operational in 2008. Prior to that time, Carnation was one of the few cities that relied on private septic systems for wastewater treatment. The majority of the City’s septic systems had been built long before current septic system standards were developed, and incidences of septic system failure and high bacterial counts at local swimming areas led the King County and State Departments of Health to issue Severe Health Hazard Declarations in 1987, and reiterated in 2003 and 2005. Inadequate septic systems had also prevented economic development and an inability to accommodate residential growth at urban densities in accordance with the Growth Management Act.

In 2002, the City entered into an Inter-local Agreement with King County whereby the County’s Wastewater Treatment Division designed, constructed and operates a wastewater treatment plant using membrane bio-reactor (MBR) technology. The City designed, constructed and operates the collection and conveyance system.

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The City studied options for the collection and conveyance system, and, due to the flat topography combined with a high water table, a recommendation was made to construct a vacuum system.

The Wastewater Treatment Plant operated by King County uses an advanced treatment technology called a membrane bioreactor or MBR. The plant produces reclaimed water that can be used safely as a drought-proof water source for wetland enhancement and other beneficial uses. Reclaimed water from the Carnation Treatment Plant is discharged to a wetland in King County's Chinook Bend Natural Area, next to the plant's river outfall site at the Carnation Farm Road Bridge.

The Collection System is operated by the City of Carnation Public Works Department. The collection system consists of eleven miles of sewer collection pipe that are collected into in five main trunk lines that transport effluent under vacuum pressure to the vacuum station located at 4301 Larson Avenue. Trunk Lines A through D each serve one of the four quadrants of the City that are divided by the Snoqualmie Trail along the north-south axis and Entwistle Street along the east-west axis. Trunk Lines A through D begin as 4" diameter at the furthest upstream ends and increase in size to 6, 8 and 10 inch diameter as required by the amount of flow that is introduced into the system. A fifth Trunk Line, E, is routed northward from the vacuum station and terminates at the north end of the city limits at Stewart Avenue. Trunk Line E is intended to be extended to provide service to the annexation area north of the City for future development. In the meantime, it provides sewer service for existing customers located on Stewart Avenue.

The Vacuum pump station collects the city's sewage flow and subsequently transports it to the King County Wastewater Treatment Plant that abuts it to the north. The pump station is designed for a peak flow of 975 gallons per minute (gpm). Current usage is 57.8 gpm.

Wastewater Contributors and Characteristics. There are 728 sewer connections served by the City of Carnation sewer system: 634 single family customers, 21 multi-family meters (which provide service to 117 units) and 73 non-residential customers. The wastewater characteristics are typical of a residential community comprised largely of residences, schools, businesses and commercial establishments.

Table U-5: Sewer Service Connections by Account Type

Single-Family Residential Connections	634	87%
Multi Family Residential Connections	21	3%
Non-residential Connections	73	10%
Total Connections	728	100%

Source: City of Carnation Utility Billing System, August 2017

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System Capacity. Both the wastewater treatment plant and the collection and conveyance systems were designed to serve the City of Carnation's forecasted growth within the Urban Growth Area. Both the treatment plant and the collection/conveyance systems are designed to accommodate increases in capacity, including the increased population that would result from approval of the docket request to provide for high density residential development in a previously commercial and industrial use area.

STORMWATER

There are two major drainage basins considered in the 2003 Stormwater Comprehensive Plan. Basin A drains to the Snoqualmie River and covers a majority of area within the city limits as well as all three Potential Annexation Areas. Basin B drains to the Tolt River and is primarily limited to a narrow strip of land south of the levee and covers only 33.1 acres within the city limits.

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. The existing infrastructure is generally in poor to fair condition. New developments within the City have been utilizing Low Impact Demand techniques for stormwater management.

NATURAL GAS

Puget Sound Energy (PSE) supplies natural gas to six Western Washington counties: Snohomish, King, Kittitas, Pierce, Thurston, and Lewis. Puget Sound Energy provides natural gas service to more than 631,474 customers.

Natural gas is not an essential service, and, therefore, the service is not mandated. Extension of service is based on request and the results of a market analysis to determine if revenues from an extension will offset the cost of construction.

According to PSE rate department, the average house (using natural gas for both heat and hot water) consumes about 1,000 therms per year. Ten therms equals approximately one "mcf" (thousand cubic feet) of gas so 1,000 therms per house equals approximately 100,000 cubic feet of gas per household per year.

When planning the size of new gas mains, PSE uses a saturation model which assumes all new households will use natural gas since 99% of new homes constructed where builders have the choice are using natural gas. PSE forecasts customer additions using a forecast analysis calculation based on PSE's revenue report which is generated by town tax codes established in our Exception Billings

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Dept.

It is estimated that PSE currently serves approximately 277 customers in the Carnation area.

Existing Distribution System. The Pacific Northwest (Washington, Oregon, and Idaho) receives its natural gas from a wide range of sources in North America. Sixty percent (60%) of the region's natural gas supply comes from British Columbia and Alberta in the north; 40% comes from domestic sources including the San Juan Basin in New Mexico/Texas in the south. The Pacific Northwest consumes 380 billion cubic feet of natural gas per year.

Natural gas is supplied to the City of Carnation from Redmond City Gate Station. The back-bone feed is a 6" main coming from the Ames Lake area along NE Tolt Hill RD, located at southwest corner of the City. In 2009, PSE installed about 1.5 miles of 8" IP main (Notification 109027910) along Redmond- Fall City RD (from 292 AV SE northerly to SE 8 ST) to reinforcement this general area.

High pressure (HP) supply lines (measuring 16", 12", 8", 6", and 4" in diameter) transport gas from gate stations to district regulators. The pipe material is typically steel wrap (STW). No high pressure gas lines are located within the city limits of Carnation.

District regulators (DR) reduce high pressure to typical distribution operating pressures of 60 to 25 psi. Distribution pressures are typically called intermediate pressures (IP). There are no district regulators within the Carnation city limits.

Distribution mains are fed from the district regulators. These typically are 8", 6", 4", 2", and 1-1/4" diameter lines. The pipe material typically is polyethylene (PE) or steel wrapped (STW). Puget Sound Energy has approximately 6.5 miles of main serving the City of Carnation.

Individual residential service lines are fed by distribution mains and are typically 5/8" in diameter. Individual commercial and industrial service lines are typically 1-1/4" or 2" in diameter.

ELECTRICITY

Puget Sound Energy supplies electrical service to more than 982,000 customers throughout Western Washington and Kittitas County. Carnation is currently supplied with enough electricity to satisfy the demand for electrical power. The transmission and distribution of electricity to Carnation and other rural communities in the Snoqualmie Valley is delivered by Puget Sound Energy (PSE) and regulated by the Washington Utilities and Transportation Commission. Currently, the substation has the capability to provide 20 MVA (units of electrical demand), and can be upgraded to 25 MVA. The current load on the substation from Carnation

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and the surrounding area is approximately 10 MVA. According to PSE, 1 MVA can typically provide enough electrical power for approximately 230 households, based on normal usage. Carnation anticipates less than 2 MVA of additional electrical demand upon the Tolt substation over the next 20 years. However, the Tolt Substation's service area includes residents and businesses halfway between Carnation and substations located in Duvall and Fall City, as well as those in Carnation. Additional growth in the County along with Carnation's growth may eventually necessitate construction of a new facility.

Existing Transmission and Distribution System. Transmission of electrical power is supplied to the City of Carnation and the surrounding area from the Snoqualmie – Stillwater 115 kV transmission line. The 115 kV transmission line voltage is stepped down to 12.5 kV at the Tolt Substation where it is distributed to the City of Carnation and the surrounding area. The Tolt substation is located on Entwistle St in Carnation. The 12.5 kV distribution system consists of 3 circuits out of the Tolt substation. There are currently three different circuits coming out of Tolt substation. Two of them are running at about 75% their peak capacity and the third circuit is about 30% its capacity. There is room for growth on all of them.

TELECOMMUNICATIONS

Carnation is served by a variety of telecommunication companies. CenturyLink provides local calling services and DSL internet service, and is able to extend lines on demand. For calls to areas outside of the local area, residents may choose from a variety of long distance service providers. Cable television and broadband internet service is offered in Carnation through Comcast. Wireless telecommunications are supplied to Carnation residents by a variety of wireless services, including Sprint, AT&T and Verizon.

FUTURE NEEDS AND ALTERNATIVES

This is an inventory and analysis of the future capital needs for the following utilities: solid waste, water, wastewater, storm water, natural gas, electricity, and telecommunications.

SOLID WASTE

The solid waste collection and disposal system is adequate to meet Carnation's needs. The City will continue to monitor and contract with service providers throughout the planning period. King County is currently evaluating future solid waste alternatives beyond 2022. As discussed previously, the City currently contracts with Recology Cleanscapes.

WATER

The source, storage, treatment and distribution system must demonstrate the capacity to serve future populations within the water service area. New improvements will be required to address any existing or projected deficiencies;

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these are listed in the Water Capital Improvements Plan as adopted in the Water System Plan.

Table U-6 shows Carnation future water demands, based on Table 3.12 of the 2015 Comprehensive Water System Plan. It should be noted that these demands were forecast assuming that water use efficiency (WUE) goals would not be met.

Table U-6: Projected Average and Maximum Daily Demand (without WUE)

	2015	2020	2025	2035
ADD (<i>Average Daily Demand</i>) (<i>gpd</i>)	232,000	306,000	365,000	418,000
MDD (<i>Maximum Daily Demand</i>) (<i>gpd</i>)	582,000	765,000	912,000	1,045,000
Annual (MG)	84.8	111.7	133.2	152.4

The Supply Analysis found in Chapter 6 of the Water System Plan concludes that the City's available water rights and capacity of the two water sources are sufficient to serve future forecasted demand. The assumption is made that as demand grows, the supplemental well may be utilized more fully. However, given the reduction in overall water use that has recently been achieved, this may not occur as early as expected within the twenty year planning horizon.

WASTEWATER

The wastewater treatment plant owned and operated by King County and the collection and conveyance system owned and operated by the City of Carnation have both been sized to accommodate future build-out of the Carnation Urban Growth Area and according to the Wastewater Treatment Division, have adequate capacity to serve increased population that could result from approval of the 2015 amendment to the Future Land Use Map. The technologies utilized can be expanded beyond that capacity if needed. It should be noted that unlike water service that can be provided outside of the City's jurisdiction, sewer service is restricted to urban areas. There are a few exceptions to that rule. For example sewer service can be expanded outside the urban growth area to a public school system, or to a tribal reservation.

STORMWATER

The City is contemplating the formation of a stormwater utility to maintain stormwater facilities, and recover the existing and future costs of storm and surface water management within the city. A small scale community stormwater facility may be appropriate to provide for stormwater management within the commercial core, as this area has been found to have soils that are poorly drained and has limited area for stormwater facilities to be located. To form a new utility, it will be necessary to isolate the costs of stormwater system operations and capital needs, and forecast them over time. In order to have a defensible user fee, it is also important to charge customers proportionally based on their relative contribution

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to runoff. This objective is most often met by basing stormwater fees on impervious surface area, so the development of reliable customer information will be crucial to program success.

NATURAL GAS

Puget Sound Energy (PSE) maintains a minimum pressure delivery through intermediate pressure mains from a design standard of approximately 15 psi. If the pressure drops below 15 psi, there are several methods of increasing the pressure in the line, including:

- a. Looping the distribution and/or supply lines to provide an alternative route for the gas to travel to an area needing additional supply. This method often involves construction of high pressure lines, district regulators, and intermediate pressure lines.
- b. Installing lines parallel to existing lines to supplement supply of natural gas to a particular service area.
- c. Replacing existing pipelines to increase volume. (This includes efforts to replace low pressure cast iron systems with intermediate pressure plastic systems.)

There are three types of construction for maintenance or installation of new facilities:

- a. New or replacement of existing facilities due to increase capacity requirements due to new building construction and conversion from alternate fuel.
- b. Main replacement to facilitate improved maintenance of facility.
- c. Replacement or relocation of facilities due to municipal and state projects.
- d. PSE makes an effort to coordinate construction work with municipal projects in order to minimize cost and impacts to surrounding community. Due to franchise agreements, PSE is required to relocate existing facilities which is costly and usually unplanned. Improved coordination decreases this occurrence.

The average gas customer growth rate has been around 1.5% in the last five years. PSE anticipates the growth rate in this area to be the same (1.5%) in the next five years. Based on the 1.5% growth rate, there is no expectation to do system capacity improvements in the area in the next five years. The natural gas system improvements serving the Carnation area should operate without capacity issues for the next five years. There are no major natural gas projects currently

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anticipated to serve customers in the City of Carnation.

Puget Sound Energy will continue to review projects proposed by the City of Carnation and may choose to take advantage of an opportunity when projects are scheduled.

ELECTRICAL POWER

The existing Snoqualmie – Stillwater 115 kV transmission line consists of small copper wire, with many of the poles nearing the end of their useful life. The future plans include replacing the older poles and the small copper wire with larger aluminum wire. This will increase both the capacity and reliability of the line. Future plans include rerouting the Snoqualmie – Stillwater 115 kV transmission line into Puget Sound Energy's planned Novelty substation. The reroute of this line would take place approximately half way between Carnation and Duvall along the existing BPA right-of-way. The line would be renamed "Snoqualmie – Novelty 115 kV" line at that time. Future plans also include an expansion of the Tolt Substation when the demand on the Tolt substation reaches approximately 16 or 17 MVA. Puget Sound Energy will increase capacity by adding a second transformer at this location.

Additional property will be required to accommodate this expansion. It is currently envisioned that the existing 115 kV transmission line would not be upgraded to 230 kV.

The 12.5 kV distribution system is expanded as additional customers are added, i.e. single family residences, platted developments, commercial businesses, etc.

At the winter peak load period the Tolt substation is currently running at about half its rated capacity so there's plenty of room for growth in the area.

There are no plans at this time to expand capacity in the Carnation area. PSE is confident it has enough capacity to handle future growth rates.

PSE continually monitor outages in the area and will generate projects to improve reliability should problems arise. Currently there are no reliability issues.

TELECOMMUNICATIONS

There are no shortages in the existing or future capacity of the telecommunication services for Carnation at this time. The existing network of telecommunication lines, including telephone, cable television, and broadband internet access has sufficient capacity to accommodate increases in development or subscription. The limitation in providing services would stem from lack of a direct hook-up from a specific residence to the television or telephone line. Some wireless telecommunications providers have sought to improve service within the Carnation area by constructing new wireless facilities, such as the recently permitted panel

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antennas to be constructed by Verizon on the roof of City Hall.

UNDER GROUNDING UTILITY WIRES.

Development Regulations currently require new utilities to be placed underground with some exceptions (CMC 15.60.350). The under grounding of existing above ground utilities is difficult and costly. The cost will vary greatly depending on site specific factors. The burden of the cost falls on the utility company and on the individual property owner. The utility's cost would involve burying the utility, while the property owner would be responsible for preparing the utility system within the building for conversion, as well as bearing a portion of the cost of extending the service utility from the primary distribution line to the property.

Under grounding power line along SR203 (Tolt Avenue) in the downtown was included in the Tolt Corridor Plan and is being undertaken as part of the SR 203 Tolt Avenue CBD Improvement Project.

GOALS AND POLICIES

GOAL U1

To ensure that the energy, communication, and solid waste disposal facilities and services needed to support current and future development are available when they are needed.

Policy U1.1 The City does not provide energy, communication or landfill disposal services. These facilities and services are currently provided by private companies and King County. To facilitate the coordination of these services, the City should discuss and exchange population forecasts, development plans and technical data with the agencies identified in this plan.

Policy U1.2 Carnation adopts the following Level of Service Standards for utility services:

A. Collection service for garbage, recyclable materials, and yard waste shall be available to all properties within the City. Level of service provisions shall be included in franchise/license agreements with solid waste haulers. Cooperatively work with King County and related agencies for an adequate system of collection and disposal of hazardous wastes, and public education regarding hazardous wastes.

B. For electrical service, coordinate land use and facility planning with Puget Sound Energy to allow for siting and construction of distribution facilities that provide sufficient amounts of

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electrical power with minimal periods of service interruption.

- C. For natural gas, promote the continued extension of distribution lines within the city by PSE. Coordinate land use and facility planning to allow for eventual siting and construction of natural gas distribution conduits along roadways which are undergoing construction.
- D. For telecommunications, including telephone, cellular telephone, cable television, and Internet services, advocate the development or maintenance of facilities necessary to provide services as needed to accommodate population growth and advancements in technology. Include level of service provisions in franchise/license agreements with providers of cable television services. For cellular telephone service, work with providers to enhance the range of the regional service area by encouraging the installation of a network of repeater towers in the Snoqualmie Valley.

Policy U1.3 New development shall be allowed only when and where all public utilities are adequate, and only when and where such development can be adequately served by essential public utilities without reducing level of service elsewhere.

Policy U1.4 Coordinate Carnation's Land Use Element with the facility/utility planning activities of the service providers, including Puget Sound Energy, CenturyLink, Comcast, solid waste collection provider, the King County Solid Waste Division and city operated utilities, by ensuring that these providers of public services and private utilities use the Land Use Element of this Plan in planning future facilities. Adopt procedures for the City's review of and comment on proposed actions and policies by these public and private providers of public services.

GOAL U2

To provide an adequate and effective recycling program to serve the needs of Carnation residents, which maintains public health, environmental and land use quality.

Policy U2.1 The City shall strive to educate public and private sector developments about on-site recycling options, and shall encourage the use of recycled products, and support ongoing special event recycling.

Policy U2.2 The City shall strive to decrease the amount of solid waste entering

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land fill sites, extend the useful life of regional landfills and transfer stations, and minimize natural resource depletion by continuing solid waste recycling programs and participating in the procurement of recycled products.

GOAL U3

To minimize impacts associated with the siting, development, and operation of utility services and facilities on adjacent properties and the natural environment.

Policy U3.1 Utility service providers should design utility infrastructure and facilities in a way that does not damage or destroy the functions or features of the impacted properties, by, for example, providing buffers between public and private uses.

Policy U3.2 Electric power substations and other essential public facilities should be sited, designed, and buffered (through screening and/or landscaping) 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. Visual and land use impacts resulting from electrical, communication and other above ground essential public facility system upgrades shall also be mitigated.

These mitigation measures shall apply to existing facilities when substantial improvements and/or upgrading are proposed in the future.

Policy U3.3 The City shall encourage or require implementation of resource conservation practices and best management practices during the construction, operation, and maintenance of utility structures and improvements.

Policy U3.4 Adopt regulations that establish a process for identifying and siting essential public facilities, such as solid waste or recycling handling facilities, waste water treatment plants and power substations. Cooperatively work with surrounding municipalities and King County during the siting and development of facilities of regional significance.

Policy U3.5 The impacts from utility lines on the visual and physical environment should be mitigated by requiring the under grounding of utility lines to minimize clutter and the obstruction of views in new developments.

Policy U3.6 Development Regulations will include requirements that all existing

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overhead utilities are to be relocated during street widening or changes in alignment and placed underground, except when enforcement would be overly burdensome due to economic or technological factors found to exist at a site; and if the terms of the franchise agreements conflict with the requirement for underground placement of utilities.

- Policy U3.7 Through the Land Use Code, the City shall ensure environmentally sensitive, safe, and reliable utility service that is aesthetically compatible with the surrounding land uses and results in reasonable economic costs.
- Policy U3.8 The City will recognize the difference between utility lines serving individual customers, distribution lines carrying power from a substation to the customer service line, and transmission lines carrying power from generating source to a substation. In recognition of these differences, the City will exempt the undergrounding of utility lines over a certain voltage from any undergrounding ordinance.

GOAL U4

To provide and maintain safe, reliable and cost-effective water and wastewater systems to serve the needs of Carnation residents.

- Policy U4.1 The City will continue to upgrade its water system to ensure efficient water use and good management of the water system, in accordance with federal and state regulations.
- Policy U4.2 The City will continue to manage and maintain its wastewater collection and conveyance system in accordance with Department of Ecology standards and regulations.
- Policy U4.3 Treated effluent from any wastewater system developed within Carnation should be discharged through available environmentally safe means, including reclaimed water where feasible and appropriate. The City shall continue to work cooperatively with King County as they maintain and operate the Carnation wastewater treatment plant.
- Policy U4.4 In the event the City wishes to sell surplus water to adjacent water utilities, the City shall negotiate an inter-local service agreement setting forth the terms and limitations of the sale of the surplus water.

GOAL U5

Promote and achieve reasonable levels of energy conservation and

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conversion throughout the Carnation community.

- Policy U5.1 Encourage planning and location of future facilities to accommodate future growth and to minimize incompatibility with surrounding land uses; joint use agreements among public and private utility providers for coordinated facility planning are also encouraged. The Utilities Element would be updated at least as required by the Growth Management Act to reflect changing regulatory conditions, load forecasts, and technology in cooperation with service providers.
- Policy U5.2 Conserve land, energy and natural resources by minimizing sprawl and encourage the replacement of energy and water saving appliances.
- Policy U5.3 Streets, water, and sewer extensions should be designed to provide service to the maximum area possible with the least length of extension.

GOAL U6

To process permits and approvals for utility facilities in a consistent, fair and timely manner and in accordance with Development Regulations and other pertinent standards and guidelines.

- Policy U6.1 The City shall promote, where feasible, the co-location of new public and private utility distribution facilities in shared trenches, and coordinate construction timing to minimize disruptions and cost.
- Policy U6.2 The City will provide timely effective notice to utilities to encourage coordination of public and private utility trenching activities for new construction and maintenance and repair of existing roads.
- Policy U6.3 The City will encourage provision of an efficient, cost effective and reliable utility service by ensuring land will be made available for the location of utility lines, including location within transportation corridors.
- Policy U6.4 The City will promote the extension of distribution lines to and within the Potential Annexation Area, and coordinate land use and facility planning to allow siting and construction of natural gas distribution lines within rights-of-way which are being dedicated or within roads which are being constructed or reconstructed.
- Policy U6.5 The City will ensure that all maintenance, repair, installation, and replacement activities by utilities are consistent with the city's critical areas ordinances.

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Policy U6.6 The City will encourage communication among the Washington Utilities and Transportation Commission (WUTC) and utilities regulated by the WUTC regarding the requirements of the Growth Management Act, especially the requirement that service be provided concurrently with or in advance of demand.

Policy U6.7 The City shall encourage system design practices intended to minimize the number and duration of interruptions to customer service.

GOAL U7

Surface water management activities should address quantity and quality of water entering the natural environment.

Policy U7.1 The City should minimize water quality degradation through education programs and implementation of Best Management Practices to reduce pollution entering surface waters.

Policy U7.2 Stormwater facilities required of new development should be designed and built in accordance with the City's adopted stormwater manual. Design should be conservative to allow for effective for low-cost, long term performance and maintenance. Low impact stormwater facilities should be encouraged where feasible and cost-effective.

EXHIBIT D

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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

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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

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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 and surface water drainage facilities. The City street network consists of 5 miles of paved streets, and 1.55 miles of alleys. Approximately 1 mile 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 at the intersection of SR 203 and Entwistle; 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

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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.

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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 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
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
SUBTOTAL (K-5)			1,157
Tolt Middle School (6-8)	3740 Tolt Avenue, Carnation	85,157	750
Cedarcrest High School (9-12)	29000 NE 150 th Street, Duvall	108,946	966
Riverview Learning Center	32240 NE 50 th St, Carnation	14,545	168

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

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**Table CF-2
Riverview School District Projected School Enrollment
2017-18 through 2022-23**

Grade Level	Actual 2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
K-5	1,478	1,488	1,505	1,525	1,579	1,610	1,660
6-8	783	789	831	803	780	774	755
9-12	1,007	1,009	1,002	1,047	1,056	1,070	1,111
Total	3,268	3,286	3,338	3,375	3,415	3,454	3,526

Source: Riverview School District 2017 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. 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 of a school impact fee. This permits the district to use the impact fee proceeds to partially fund needed Capital Facilities to house and accommodate new students generated by residential development. Capital projects may also be funded through voter approved 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.

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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.

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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

Service Considerations:

Safety, Health, and Welfare Factors
Environmental Impact
Effect on Quality of Service

Feasibility Considerations:

Legal Mandates
Community Support

Concurrency Considerations:

Goals and Objectives in Other Elements
Linkage to Other Planned Projects
Level of Service (LOS)
Plans of Other Jurisdictions

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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.

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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.

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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

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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.

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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.

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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.

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- 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. 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. 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 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	Yes
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

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Project Name	Project Description	Cost in 2017 Dollars	Capacity (LOS) Related
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 40 th to Entwistle	Construct 2 lane road with parking, curb & gutter, sidewalk, new storm drainage, illumination, and signing/stripping.	\$2,300,000	Yes
Milwaukee Avenue Connector 50 th to 55 th	Construct 2 lane road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/stripping.	\$1,675,000	Yes
316th Avenue Connector Morrison to 55 th	Construct 2 lane road with shoulders and sidewalk on one side; new storm drainage infiltration swales; illumination, and signing/stripping.	\$2,000,000	Yes
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/stripping.	\$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/stripping.	\$1,885,000	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 participant 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/stripping.	\$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
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	No

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Project Name	Project Description	Cost in 2017 Dollars	Capacity (LOS) Related
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/stripping.	\$510,000	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/stripping.	\$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	No
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 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

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Project Name	Project Description	Cost in 2017 Dollars	Capacity (LOS) Related
	Local Street Improvements	\$301,500	No
TOTAL		\$31,185,000	

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		
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				

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	2017 Cost Estimates	Phase 1 2015-2021	Phase 2 2022-2028	Phase 3 2029-2035
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.

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**TABLE CF-6
CAPITAL IMPROVEMENTS PROGRAM 2015-2035**

TRANSPORTATION IMPROVEMENT PROJECTS (see the Capital Street Repair and 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	
	*		Latson 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 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						\$170,000	\$1,071,000	\$491,500	\$2,392,500	\$1,375,000
			SUBTOTAL TIER III STREET IMPROVEMENTS			\$660,000				\$20,000	\$70,000	\$90,000	\$6,270,000
	WA-08873	7	Stossel Avenue Overlay										
	*		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
	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	
	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
	*		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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PARKS & RECREATION IMPROVEMENT PROJECTS											
Priority	Project Name	Actual Prior Years	Estimated 2017	2018	2019	2020	2021	2022	2023	Six-Year Period Total	Beyond 2023
1	Fred Hockett 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 Louisis 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
	East Entwistle Pedestrian Path										\$222,000
	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

(Project included in TIP)

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
	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

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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.

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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.

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- 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.

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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

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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.

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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.