

Element 04 – Transportation

Table of Contents

1. Introduction
2. Major Issues, Concerns, and Citizen Input
3. Transportation Goals & Policies
4. Existing Conditions Analysis
 - Motorized
 - Non-Motorized
5. Future 2035 Needs Assessment
 - Traffic Growth Forecast
 - Traffic Operational Needs
 - Non-Motorized Needs
 - Recommended Network
6. Recommended Improvements
7. Funding
8. Implementation

List of Tables:

- Table 1 – Street Classification Types
- Table 2 – Inventory of Major Streets
- Table 3 – Intersection Level of Service Definitions
- Table 4 – Intersection Level of Service Results – Existing Conditions PM Peak Hour
- Table 5 – 2014 and 2035 Population, Households and Employment
- Table 6 – Intersection Level of Service Results – Future 2035 Baseline Conditions PM Peak Hour
- Table 7 – Recommended Improvement Projects
- Table 8 – Intersection Level of Service Results – Future 2035 Conditions PM Peak Hour with Recommended Improvements

List of Maps:

- Map T-1 – Functional Street Classification
- Map T-2 – Existing PM Peak Hour LOS
- Map T-3 – Existing Transit Service
- Map T-4 – Pedestrian Facilities
- Map T-5 – Future 2035 Baseline Conditions PM Peak Hour LOS
- Map T-6 – Planned Bicycle Network
- Map T-7 – Recommended Improvements
- Map T-8 – Future Conditions PM Peak Hour LOS with Improvements

1. Introduction

This element will cover issues related to transportation in the City of Milton. This includes a review of the existing transportation system, analysis of transportation needs, and an identification of future transportation system improvements. The Transportation Element includes all modes of travel — auto, truck, bicycle, bus, and pedestrian.

In 2002, the City adopted its initial Transportation Element, which covered the 2001-2021 planning horizon. This update to the Transportation Element documents the changes that have occurred since 2001 and updates the analysis to create a transportation plan for the City growth over the next 20 years (2014-2035). This update analyzes the existing operation of the transportation systems, forecasts the future travel demand, and identifies the transportation improvements needed to address safety and accommodate future growth, and to create a transportation system that meets the needs and expectations of the community.

The Transportation Element is a required element under the State's Growth Management Act (GMA). The GMA outlines specific requirements for the Transportation Element of a city's comprehensive plan. It calls for a balanced approach to land use and transportation planning to ensure that a city's transportation system can support expected growth and development. In addition, it mandates that capital facilities funds be adequate to pay for any necessary improvements to the transportation system. Finally, the City must adopt specific standards for the acceptable levels of congestion on its streets; these standards are called level of service (LOS) standards.

Other legislative requirements addressed by the Transportation Element include the Pierce County and King County Countywide Planning Policies, the 1991 Commute Trip Reduction Act, the Americans with Disabilities Act (ADA) and the 1990 federal Clean Air Act Amendments. Each of these laws emphasizes closer coordination between a jurisdiction's land use planning and its approach to transportation planning.

2. Major Issues, Concerns, and Citizen Input

In creating the future plans and policies identified in this element the following list of issues were identified through a visioning process, online surveys, public participation events, and public meetings;

- How can the City make its adopted community Vision a reality?
- How will the proposed regional projects, including the extension of SR 167 connecting to I-5 along Milton's border, affect traffic in the City of Milton?
- How and where should the City provide new pedestrian facilities and encourage the development of walkable, pedestrian engaging environments?
- How can we improve conditions of the existing transportation infrastructure?
- How can local and regional transit services be improved?
- What can the City do to encourage transit agencies to provide increased service within the City?
- What can the City do to encourage transit agencies to provide increased service within the City?
- How can we support bicycle travel and what kind of bicycle facilities will best serve the needs within Milton?
- The recent widening of Meridian Avenue E has changed the street to a 5-lane highway. How will this change travel patterns and land use in the City, and how can the City utilize this change in a positive way?

All of these issues are part of the challenge in planning the transportation system for the City of Milton over the next 20 years.

3. Transportation Goals & Policies

The transportation goals and policies direct the development of the transportation system by establishing the transportation vision for Milton, identifying the priority of transportation improvements, providing guidance for decision-making, and ensuring consistency with regional planning goals.

TRANSPORTATION GOALS

Goal TR 1 The City shall ensure that transportation facilities and services, needed to support development, are available concurrently with the impacts of such development in order to protect investments in existing transportation facilities and services, maximize the use of the facilities and services, and promote orderly compact growth.

Pol. TR 1.1 To maintain its existing rural and small-town character and to maintain the performance of arterial and transit routes, Milton adopts a Level of Service D for intersections inside the City.

Pol. TR 1.2 The City shall not issue development permits where the project requires transportation improvements beyond the scope of the City's 6-year Transportation Improvement Plan to maintain the adopted level of service standards. A developer may provide for needed improvements in transportation facilities and/or services. A developer may also provide strategies to mitigate impacts of their development provided that these strategies are consistent with the City's goals and objectives.

Pol. TR 1.3 The City shall produce a financially feasible plan in the Capital Facilities Element demonstrating its ability to achieve and maintain adopted levels of service. The City shall adopt its Six-Year Transportation Improvement Program (TIP) as a part of this plan and annually update it in accordance with the policies of this plan and GMA.

Pol. TR 1.4 The City, consistent with its Municipal Code, shall apply a functional street classification system to its entire roadway network. The classification system should reflect federal, state, and regional classification system designations as appropriate.

Pol. TR 1.5 The City will coordinate with the appropriate agencies to ensure the efficient movement of goods to serve local and regional markets.

Pol. TR 1.6 New development shall be allowed 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 that will mitigate the development's impacts within six years.

Pol. TR 1.7 The City shall require developers to construct streets directly serving new development, and frontage improvements including street widening, landscape buffers, sidewalks, and

bicycle facilities as defined by the City's Comprehensive Plan. Developers will be required to conduct traffic studies to determine the impacts of their developments on traffic in the City and pay a fair-share fee for specific off-site improvements needed to mitigate the impacts of their development.

Pol. TR 1.8 The City shall coordinate land use and public works planning activities with an ongoing program of long-range financial planning, in order to conserve the fiscal resources available to implement the TIP.

Pol. TR 1.9 The City shall prioritize the funding of maintenance and safety improvements for existing streets and the completion of the existing grid system above the creation of new roads.

Pol. TR 1.10 The City shall implement a level of service reassessment strategy in the event of a funding shortfall. This strategy will (in the following order):

- (1) seek additional methods of funding,
- (2) explore alternative, lower-cost methods to meet level-of-service standards (e.g., transportation demand management, public transit or another project),
- (3) reduce the types or size of development, and
- (4) reevaluate the established level of service standards to determine how they might be adjusted.

Pol. TR 1.11 The City's Street Design Standards should be revised to establish and designate appropriate street sections consistent with the Comprehensive Plan, Uptown District Design Standards and Guidelines, the City Vision, and other planning documents.

Goal TR 2 Coordinate with regional transportation entities to ensure maximum connectivity between regional transportation systems and the City of Milton.

Pol. TR 2.1 The City shall coordinate with Pierce and King Counties and adjacent cities regarding vehicle level of service standards.

Pol. TR 2.2 The City shall follow WSDOT the level of service standards for SR 99 and I-5 facilities as per RCW 47.06.140(2).

Pol. TR 2.3 The City should actively solicit action by the State and Pierce and King Counties to program and construct those improvements to State and County arterial systems that are needed to maintain the level of service standards adopted by the City of Milton.

Goal TR 3 Maintain an environmentally sustainable transportation system that preserves sensitive habitat, protects natural resources and meets air quality requirements.

Pol. TR 3.1 Ensure that the City's transportation system preserves existing habitats and requires enhancement of disrupted habitats.

- Pol. TR 3.2 The City shall explore ways to encourage vanpooling, carpooling, public transit use, and other alternatives and strategies to reduce single occupant vehicle travel. The City shall work with developers in establishing Transportation Demand strategies where possible to alleviate and reduce traffic congestion.
- Pol. TR 3.3 City shall design its transportation facilities to meet air quality goals, reduce greenhouse gas emissions, promote energy-efficiency, and support clean transportation technologies.
- Pol. TR 3.4 New transportation facilities should be designed in a manner that minimizes impacts on natural drainage patterns and soil profiles.
- Pol. TR 3.5 The City should encourage all major employers to implement programs to reduce the number of employees commuting by single occupancy vehicles through transportation demand management strategies including but not limited to preferential parking for carpools/vanpools, alternative work hours, bicycle parking, and distribution of transit and ridesharing information.
- Pol. TR 3.6 Transportation facilities and services should be sited, designed, and buffered (through extensive 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 environmental, noise, light, and glare impacts.

MULTI-MODAL GOALS AND POLICIES

Goal MM 1 The City shall strive to develop, maintain, and operate a balanced, flexible, safe, and efficient multi-modal transportation system to serve all persons, special needs populations and activities in the community.

Pol. MM 1.1 The City's Street Design Standards should facilitate the development of a multi-modal transportation system on city streets. Future revisions to these standards should support the development of pedestrian and bicycle facilities.

Pol. MM 1.2 The City shall encourage the implementation of measures that will relieve pressures on the existing transportation infrastructure, including:

- a. multi-modal transportation alternatives;
- b. land use coordination;
- c. prioritized improvements;
- d. park-and-ride lots.

Pol. MM 1.3 The City shall encourage the integration, coordination, and linkage of the connections and transfer points between all modes of transportation.

- Pol. MM 1.4 The City shall work with local and regional transit agencies to provide transit service that links Milton with surrounding communities, regional rail transit, and major employment and commercial centers in the region.
- Pol. MM 1.5 The City shall minimize potential conflicts between bicycle and automobile traffic by providing signage, signals and other appropriate treatments at the intersections of bicycle trails and roadways.
- Pol. MM 1.6 The City shall encourage the location of bicycle racks at appropriate destination points, such as outside of commercial businesses, City Hall, parks, schools, and transit facilities.
- Pol. MM 1.7 The City shall provide and promote the development of a comprehensive network of pedestrian and bicycle facilities that link neighborhoods with activity centers (e.g. schools, parks, transit, trails, and commercial uses) and adjacent jurisdictions.
- Pol. MM 1.8 The City shall coordinate the development of its non-motorized facilities with adjacent jurisdictions to ensure an efficient, continuous, regional network.
- Pol. MM 1.9 The City shall include the need to accommodate safe transportation by bicycles in its management and design of the City street network, including designating bicycle routes throughout the City.
- Pol. MM 1.10 The City shall support coordination with King County and Pierce County for the continued development, enhancement and completion of the Interurban Trail.
- Pol. MM 1.11 The City shall support coordination with transit agencies such as Pierce Transit, Sound Transit, and King County Metro in developing connecting and complementary transit service.
- Pol. MM 1.12 The City should support the improvement of paratransit services.
- Pol. MM 1.13 The City should support the development of non-motorized connections and marked roadways that link the Interurban Trail with the City's other resources such as schools and commercial areas.
- Pol. MM 1.14 Milton Way should be designed and developed to create an east-west bike/pedestrian corridor and draw traffic into the Town Center Special Planning Area.
- Pol. MM 1.15 The City shall establish distinct gateways along Milton Way, Meridian Avenue E, and Pacific Highway E.

PEDESTRIAN GOALS AND POLICIES

Goal PED 1 The City should recognize pedestrian movement as a basic means of circulation and assure adequate accommodation of pedestrian and handicapped persons needs in all transportation policies and facilities.

Pol. PED 1.1 The City shall require developers to include pedestrian sidewalks, and encourage walking trails and paths, in new plats either by constructing the improvements or paying a fee-in-lieu when construction of frontage improvements are not practical at time of development.

Pol. PED 1.2 The City shall strive to improve pedestrian facilities along high-priority pedestrian routes. Efforts should include additional or improved sidewalks and pedestrian paths where appropriate and feasible.

Pol. PED 1.3 The City shall establish public facilities and amenities such as sidewalks, trails, and streetlights to provide a healthy family environment within the community.

Pol. PED 1.4 The City will improve pedestrian amenities through public improvements, street standards, and development standards. Within the Uptown District, this includes the development of a district-wide integrated walking system that provides frontage improvements, through-block connections, and pedestrian walkways meeting the Uptown Design Standards and Guidelines.

Pol. PED 1.5 The design and management of the street network shall seek to improve the appearance and safety of existing street corridors and shall incorporate high standards of design when developing new streets, including the construction of sidewalks. Where appropriate, landscape measures should be implemented to enhance the appearance of city street corridors.

Pol. PED 1.6 Whenever the City contemplates reconstruction or major maintenance work on a City street lacking pedestrian facilities, the ability to provide pedestrian facilities at that time should be fully explored.

PARKING GOALS AND POLICIES

Goal PK 1 The City shall ensure adequate parking in commercial areas in order to support economic growth, while maintaining consistency with roadway design and pedestrian circulation goals.

Pol. PK 1.1 On-street parking shall be encouraged in the Town Center, consistent with the City Vision, in order to form a buffer between pedestrians and street traffic, reduce the speed of traffic, and provide for short-term parking needs.

- Pol. PK 1.2 The City will explore alternative methods to ensure the presence of adequate parking for new and existing commercial and residential development in the Town Center Special Planning Area, while seeking to reduce the amount of parking provided by individual developments. This includes a mix of on-street and shared parking areas and the designation of short-term and long-term parking controls that support adjacent development.
- Pol. PK 1.3 The Uptown District should emphasize parking behind storefronts, on-street parking, and landscaped buffering, consistent with the City's vision.

TRANSPORTATION GOALS AND POLICIES RELATED TO LAND USE

- Goal TL 1 The City shall actively influence its future character by managing land use change and by developing City facilities and services in a manner that directs and controls land use patterns and intensities.**
- Pol. TL 1.1 The City shall coordinate land use planning with the development of transportation facilities and services. The City shall adopt procedures that encourage the use of the Land Use Element of this Plan and other planning documents in planning future facilities.
- Pol. TL 1.2 The City shall evaluate the impact of land use decisions on the transportation system. Likewise, transportation improvements should support the adjacent land uses and proposed land use densities.

4. Existing Conditions Analysis

This section presents an assessment of the existing transportation conditions in the City of Milton. The existing conditions analysis describes the transportation system and conditions as it exists today.

Under existing conditions, the transportation system is divided into two main categories: Motorized Transportation, which includes automobile, freight and transit travel and Non-Motorized Transportation, which includes pedestrian, bicycle and equestrian travel. These two transportation systems are not exclusive, and often motorized and non-motorized facilities are built within the same right-of-way or share the paved width of a roadway.

Existing Motorized Transportation

The City of Milton’s roadway system is made up of a collection of public and private streets, along with state and federal highways. Interstate 5 runs north-south through the city, separating commercial areas along Pacific Highway E (SR 99) from primarily residential areas to the east. Meridian Avenue E (SR 161) forms the east boundary of the city limits, separating the City of Milton and the City of Edgewood. Milton Way and Taylor Street are the primary east-west connections through the city.

Street Classification

The City of Milton uses a functional street classification system to describe its street network as shown in Table 1 and Map T-1. The functional classification ranks each of the streets based on the facility’s speed, volume, and access to adjacent property. For example, Principal Arterials, such as Meridian Avenue E and Pacific Highway E serve all types of local and regional traffic including freight, have less access to adjacent land uses, and typically allow higher speeds. Minor Arterials, such as Milton Way and Porter Way, provide both local connections and serve through traffic. Collector Streets, such as 23rd Avenue and Taylor Street, provide connections between neighborhoods. Finally, Local Streets provide direct access to adjacent properties.

Table 1. Functional Street Classification Types and Examples

Street Classification	Description	Examples
Principal Arterials	Carry high volume of traffic and provide for regional and local mobility. These facilities are typically designed for higher speeds with reduced access to adjacent property.	Meridian Avenue E (SR 161) Pacific Highway E (SR 99)
Minor Arterials	Accommodate both local and through traffic, connecting between principal and collector streets. Minor arterials typically have a moderate degree of access, and lower travel speeds.	Milton Way (Porter Way to Meridian Ave E) Porter Way (Pacific Hwy E to Milton Way)
Collector Streets	Provide for movement through neighborhoods, connecting arterials to local streets. Collector streets typically have low volumes, low speeds and carry little through traffic.	23rd Avenue (Milton Way to Taylor Street) Porter Way (Milton Way to Taylor Street)
Local Streets	Are all roads not defined as arterials or collectors. Their primary role is to provide direct access to adjacent property, and	Alder Street Juniper Street 10th Avenue

	these are the lowest volume and the lowest speed facilities.	
--	--	--

State Highways

There are three state-owned facilities that run within the City of Milton’s boundaries. These include the following:

- Interstate 5 is a limited-access highway connecting major centers.
- SR 99 (Pacific Highway E) runs along the west side of the City
- SR 161 (Meridian Avenue E) runs north-south along the east side of the City.

SR 99 and I-5 are classified by the State as Highways of Statewide Significance. SR 161 (Meridian Avenue E) is classified by the Puget Sound Regional Council (PSRC) as a Highway of Regional Significance. For SR 99 and I-5, WSDOT has set a LOS D standard, and for SR 161, PSRC - in consultation with WSDOT - has set a LOS D standard.

Roadway Characteristics

Within the City, the highest volume streets are principal arterials such as Pacific Highway E and Meridian Avenue E. These corridors serve both local and regional needs and have average weekday traffic volumes greater than 15,000 vehicles. Other high-volume corridors include the minor arterials, such as Milton Way, that feed the principal arterials or provide connections to adjacent cities. Table 2 summarizes the characteristics of the major streets in Milton. The table lists the functional classification, number and width of the lanes, as well as descriptions of the road’s shoulder treatment, speed limit and average weekday traffic volumes.

Table 2. Inventory of Major Streets

Street Name	Section	Functional Classification	# of Lanes	Lane Width (ft)	Shoulder Treatment	Speed Limit	Daily Traffic
Pacific Highway E (SR 99)	70th Ave E to King/Pierce County Line	Principal	4 or 5	12	Paved	45	19,000
Meridian Ave E (SR 161)	36th Street to Meridian Ave E	Principal	2 or 3	12	Sidewalk / Paved	40	24,000
Milton Way	20th Street to Meridian Ave E	Minor	2 or 3	12	Sidewalk / Paved	35	11,000
Military Road	Meridian Ave E to City Limits	Minor	2	12	Minimal / Paved	35	8,000
Porter Way	Pacific Hwy E to 5th Avenue	Minor	2	12	Minimal / Paved	35	4,600
Emerald Street	11th Ave to 23rd Avenue	Collector	2	11	Minimal / Gravel	25	900
11th Avenue	Emerald Street to Oak Street	Collector	2	11	None	25	750
15th Avenue	Alder Street to Yuma Street	Collector	2	12	Some Paved East Shoulder, Other Minimal Gravel	25	650
19th Avenue	Alder Street to Milton Way	Collector	2	11	Minimal Gravel	25	2,100
23rd Avenue	Alder Street to Taylor Street	Collector	2	8-11	Sidewalk / None	25	1,000

27th Avenue	Alder Street to Milton Way	Collector	2	8-10	None	25	1,800
-------------	----------------------------	-----------	---	------	------	----	-------

Existing Operations

Traffic operations are typically analyzed during the busiest hour of the street system, when traffic volumes are at peak levels. In Milton, the PM peak hour of traffic operations corresponds with the evening commute, which typically falls between 4:00 and 6:00 in the afternoon.

The analysis evaluates the PM peak hour traffic operations using intersection level of service (LOS), which is a measure of the average delay experienced by vehicles traveling through an intersection. Table 3 defines the level of standards for intersections. The City of Milton has adopted a standard of LOS D or better for evaluating its transportation system. Intersections that fail to meet the standard are considered deficient and require improvements or modifications to meet the standard.

Table 3. Intersection Level of Service Definitions

LOS	Signalized Intersection	Unsignalized Intersection	Definitions
A	≤10 seconds	≤10 seconds	Free-flow conditions with minimal delays at intersection.
B	10–20 seconds	10–15 seconds	Stable operating conditions with minor delays at intersection.
C	20–35 seconds	15–25 seconds	Stable operating conditions with moderate delays at intersections.
D	35–55 seconds	25–35 seconds	Stable traffic flow with increased delays at intersections.
E	55–80 seconds	35–50 seconds	Near capacity with longer delays at intersections.
F	≥80 seconds	≥50 seconds	Over capacity with long delays at intersections.

The analysis shows that during the PM peak hour, all intersections operate at LOS D or better for existing conditions. The existing traffic analysis includes the completion of the Meridian Avenue E widening and traffic signals at Emerald Street and Taylor Street. Table 4 and Map T-2 summarize the existing LOS at key intersections within Milton.

Table 4. Intersection Level of Service – Existing PM Peak Hour Conditions

North/South Street	East/West Street	Traffic Control	Existing LOS
70th Avenue E	Pacific Highway E	Signal	C
Pacific Highway E (SR 99)	Porter Way	Signal	C
5th Avenue	Porter Way	Stop-Controlled	C
Porter Way	Kent Street	Stop-Controlled	B
Porter Way	Fife Way	Stop-Controlled	B
Milton Way	20th Street E	Signal	C
Milton Way	Fife Way	Stop-Controlled	C
Porter Way	Milton Way	Signal	C
11th Avenue	Milton Way	Stop-Controlled	C
15th Avenue	Milton Way	Stop-Controlled	C
15th Avenue	Taylor Street	Stop-Controlled	B
19th Avenue	Emerald Street	All-Way Stop	A
19th Avenue	Milton Way	Signal	B
23rd Avenue	Emerald Street	All-Way Stop	A
23rd Avenue	Milton Way	Signal	B
23rd Avenue	Taylor Street	Stop-Controlled	B
27th Avenue	Alder Street	Stop-Controlled	A
27th Avenue	Milton Way	Signal	C
28th Avenue	Meridian Avenue E	Signal	B
28th Avenue	Alder Street	Stop-Controlled	A
28th Avenue	Milton Way	Signal	B
Meridian Avenue E (SR 161)	Military Road S	Signal	B
Meridian Avenue E (SR 161)	Emerald Street	Signal	C
Meridian Avenue E (SR 161)	Jovita Boulevard	Stop-Controlled	B
Meridian Avenue E (SR 161)	Milton Way	Signal	C
Meridian Avenue E (SR 161)	Taylor Street	Signal	A

While the analysis focused on the PM peak hour, congestion can occur during other times of day. During the AM peak hour, the intersection of Pacific Highway E/Porter Way experiences long delays associated with westbound queuing.

Transit Service

Pierce Transit provides a variety of transit services that connect Milton to nearby communities and regional destinations. Map T-3 shows the transit services in Milton, which include:

Route 501 runs along Milton Way connecting the City of Milton to the Commerce Street Transit Center in Downtown Tacoma, Tacoma Dome Station, City of Fife, and Federal Way Transit Center. Service is provided hourly on weekdays and is limited to a few morning and evening runs on weekends.

Route 402 runs along Meridian Avenue E from 171st Street E in Puyallup to the Federal Way transit center. Route 402 provides service once an hour from early morning until late evening, in both north and southbound directions. This route connects between Milton and the Puyallup Sounder Commuter Rail Station.

Route 500 travels along Pacific Highway E at the western edge of the City, providing transit service from downtown Tacoma to the SeaTac Mall in Federal Way. This route runs approximately every 30 minutes, from early morning until late evening in both north and southbound directions

The City of Milton’s planning area does not have any designated park and ride lots. The nearest park and ride lots are located at the Tacoma Dome Station and at the South Federal Way Park and Ride lot.

In addition, Pierce Transit provides paratransit service for those with special physical needs as a dial-a-ride program for destinations within three-quarters of a mile of regular routes. The service requires pre-certification of a disability to be eligible.

Freight Network

The City has designated Milton Way as a truck route from 20th Street E to Meridian Avenue E. Pacific Highway E and Meridian Avenue E serve as Milton’s north-south freight corridors. Trucks also use arterial roadways that connect to industrial and commercial areas.

WSDOT classifies streets based on the tonnage of freight carried annually from T1 to T5. According to the WSDOT 2013 *Freight and Goods Transportation System* report, Pacific Highway E is classified as a T-2 roadway (4 million to 10 million annual tons). Meridian Avenue S, Porter Way (north of Milton Way) and Milton Way (west of Porter Way) are classified as T-3 roadways (300,000 to 4 million annual tons). Milton Way (east of Porter Way) is classified as a T-4 roadway (100,000 to 300,000 annual tons). The City designs these streets to meet the expected levels of freight traffic.

Existing Non-Motorized Transportation

Non-motorized transportation is most commonly defined by the bicycle and pedestrian network, but can consider the needs of equestrians, wheelchairs, strollers, and other non-motorized users. Most facilities are located within the roadway right-of-way, but can also include separated trails, pathways and other facilities.

Pedestrian Network

The City of Milton roadway network has developed over time, resulting in a variety of pedestrian facilities. In the older neighborhoods of the city, pedestrians walk on the shoulder or even share the travel way with vehicle traffic. In newer residential areas, there are often stretches of sidewalk as a result of frontage improvements installed as part of a housing or commercial development. Sidewalks and crosswalks are most often found in the city’s commercial areas, and near parks, community facilities and schools. The Interurban Trail runs through the west and north sections of the city and provides a connection between neighborhood areas and will become part of the regional non-motorized trail system.

Map T-4 shows the location of pedestrian sidewalks and walkways.

Bicycle Network

The City of Milton’s Interurban Trail provides a multi-use trail through the city, connecting Milton’s neighborhoods together and improving connections to Fife and Edgewood. Throughout Milton, bicyclists today share the roadway with vehicle traffic, favoring lower volume streets to connect between destinations.

King County and Pierce County have developed regional non-motorized maps to encourage bicycle activity and use. The *King County Bike Map* (2010) identifies the type of bicycle facility, ranging from regional trails to shared roadways. Similarly, the *Pierce County Bike Map* (2013) provides information about potential routes for bicycling within Pierce County. These maps provide information about commonly used routes that connect between communities and destinations.

These regional maps, the existing and planned bicycle facilities for the cities of Edgewood, Fife and Federal Way, and the location of bicycle destinations (schools, trails, parks and retail areas) were used as inputs into the planning for bicycle travel in the City of Milton.

5. Future Conditions Analysis (2035)

This section identifies the future transportation needs for the City of Milton in order to accommodate increased travel demands resulting from population and employment growth, retail development and regional traffic. The analysis provides a forecast of 2035 traffic growth, characterizes future traffic operations, identifies non-motorized needs, and recommends a list of transportation system improvements.

Population, Households and Employment Changes

The City's future transportation system will be affected by population and employment growth, both at the local and regional level.

The City of Milton has a role in the regional growth strategy identified by the Puget Sound Regional Council (PSRC) to accommodate its share of growth as a Small City envisioned in the PSRC's *VISION 2040 Regional Growth Strategy*. The city also has the responsibility under the GMA to plan for land use and transportation consistent with growth targets adopted in King and Pierce counties. Table 5 shows the 2014 and 2035 population, housing and employment forecasts used in the transportation analysis. The population and housing data can be found in Table LU-3 of the Land Use Element, and the employment data can be found in Table LU-7 of the Land Use Element. Estimated future conditions are derived from the PSRC Land Use Baseline forecast. Growth in households and jobs, the most important determinant of travel demand, as reflected in this forecast, is generally consistent with the housing and employment targets for the 20-year planning period.

Table 5. 2014 and 2035 Population, Households and Employment

Category	2014	2035
Population	7,265 ¹	9,747 ²
Households	3,041 ¹	3,553 ³
Employment	2,413 ³	3,312 ³

¹ Washington Office of Financial Management (OFM) Estimate

² City of Milton Population Projection

³ Puget Sound Regional Council (PSRC) – Land Use Vision dataset, Fall 2017

Planned Regional Projects

Forecasted region-wide population and employment growth will increase traffic volumes throughout the region. The City has worked with the Washington State Department of Transportation (WSDOT), Sound Transit, Pierce County, King County and adjacent cities to plan for future regional improvements to the transportation system. The analysis of the future transportation system assumes the development of the regional transportation network.

SR 167 Extension – WSDOT plans to extend SR 167 from the City of Sumner to SR 509 near the Port of Tacoma. The SR 167 Extension would include new interchanges at Valley Avenue E/Freeman Road E, I-5 (near 70th Avenue E), and a half interchange at 54th Avenue E (south of 4th Street E). This project is expected to improve congestion and to reduce cut-through and truck traffic from Milton's roadways.

Meridian Avenue E (SR 161) Widening – The second phase of the WSDOT-planned improvements would widen and improve Meridian Avenue E between 24th Street E and 36th Street E, providing additional capacity along the corridor.

Interstate 5 HOV Lanes – WSDOT plans to extend the high occupancy vehicles (HOV) lanes from Port of Tacoma Road to SR 16, creating an additional lane in each direction to efficiently move transit, carpools and vanpools through the corridor.

Link Light Rail Extension – Sound Transit plans to extend light rail between the City of SeaTac and the City of Tacoma. The current light rail alignment is planned along either SR 99 or Interstate 5.

2035 Transportation Forecast

The 2035 traffic forecasts were developed using current and future land use projections. The forecasting analysis was based on the following:

- City’s buildable lands estimates;
- Land use and zoning;
- Regional growth forecasts;
- Roadway improvements; and
- Vision for the Uptown District, Town Center, West Milton Commercial District, and the Quarry Site.

The results of this analysis found that PM peak hour traffic growth on the City’s arterial roadways is forecast to increase between 20 percent and 45 percent between 2014 and 2035. The greatest levels of traffic growth are anticipated on arterial streets, such as Meridian Avenue E and Pacific Highway E.

Traffic Operations

The future year analysis assessed 2035 traffic operations by calculating the level of service at each of the study intersections. The 2035 results assume the forecasted growth in land use and traffic volumes and includes regionally-planned transportation improvements likely to be completed by 2035. Table 6 and Map T-5 show the Baseline 2035 PM peak hour LOS for the 26 study intersections within the city, assuming no improvements to the Milton street system. Three of the study intersections are forecast to operate below the City’s LOS D standard:

- 5th Avenue and Porter Way (LOS F)
- 11th Avenue and Milton Way (LOS E)
- 15th Avenue and Milton Way (LOS E)

In addition, the City has identified the need to address intersection operations at Pacific Highway E/Porter Way during the AM peak hour, where a lack of capacity results in poor operations and extensive vehicle queues.

Table 6. Intersection Level of Service – Future 2035 Baseline Conditions PM Peak Hour

North/South Street	East/West Street	Traffic Control	Existing LOS	2035 LOS
70th Avenue E	Pacific Highway E	Signal	C	D
Pacific Highway E	Porter Way	Signal	C	D
5th Avenue	Porter Way	Stop-Controlled	C	F
Porter Way	Kent Street	Stop-Controlled	B	B
Porter Way	Fife Way	Stop-Controlled	B	C
Milton Way	20th Street E	Signal	C	D
Milton Way	Fife Way	Stop-Controlled	C	C
Porter Way	Milton Way	Signal	C	C
11th Avenue	Milton Way	Stop-Controlled	C	E
15th Avenue	Milton Way	Stop-Controlled	C	E
15th Avenue	Taylor Street	Stop-Controlled	B	B
19th Avenue	Emerald Street	All-Way Stop	A	A
19th Avenue	Milton Way	Signal	B	B
23rd Avenue	Emerald Street	All-Way Stop	A	A
23rd Avenue	Milton Way	Signal	B	B
23rd Avenue	Taylor Street	Stop-Controlled	B	B
27th Avenue	Alder Street	Stop-Controlled	A	B
27th Avenue	Milton Way	Signal	C	D
28th Avenue	Meridian Avenue E	Signal	B	C
28th Avenue	Alder Street	Stop-Controlled	A	B
28th Avenue	Milton Way	Signal	B	C
Meridian Avenue E	Military Road S	Signal	B	C
Meridian Avenue E	Emerald Street	Signal	C	D
Meridian Avenue E	Jovita Boulevard	Stop-Controlled	B	C
Meridian Avenue E	Milton Way	Signal	C	D
Meridian Avenue E	Taylor Street	Signal	A	B

Street Maintenance

One of the primary responsibilities of the City is to maintain and improve existing streets in order to prevent degradation. The City has established a pavement management system to monitor the condition of the roadway system and to identify priority of locations where roadway maintenance and restoration is necessary. These deficiencies are prioritized, and repairs are funded as part of the City's Six-Year Transportation Improvement Program (TIP). The 2014-2019 TIP allocated approximately \$1.6 million for roadway restoration projects over the six-year funding period.

Transit Needs

As described previously, Pierce Transit Routes 402, 500 and 501 connect Milton to the Federal Way, Puyallup, and Tacoma transit centers that have access to regional connections such as Sounder Commuter Rail, Sound

Transit light rail, and the King County Metro system. Residents within walking distance to Pacific Highway E (Route 500), Milton Way (Route 501) or Meridian Avenue E (Route 402) can connect to these regional services.

Meeting future transit needs for Milton's residents will require maintaining and expanding existing transit services, developing potential park and ride locations, and improving bicycle and pedestrian access to transit. The City will continue to support transit by developing connections to transit, and working with Pierce Transit to locate bus stops, shelters and turnouts. In addition, the City will continue to advocate for additional transit services and routes to the underserved areas of the community.

Non-Motorized Network

A non-motorized network that promotes connectivity between parks, neighborhoods, and public amenities will improve the quality of life for Milton residents. In addition to sidewalks and bike lanes, non-motorized facilities include a variety of options that can improve bicycle and pedestrian mobility, such as developing shoulder areas to allow pedestrian activity or widening pavement widths to supporting a designated bike route. Applying the correct type of facility often requires understanding the expectation of users, available right-of-way, volumes of vehicle traffic, character of the street and adjacent land uses, and the presence of existing facilities. The envisioned non-motorized network emphasizes the connections between schools, parks, business areas, transit, and community centers. In addition, the network supports the creation of new access points to the Interurban Trail, which will allow the trail to serve as a circulation element for the city. Pedestrian improvements, such as sidewalks, are expected to occur throughout the city as part of development and redevelopment of land, and as part of major street improvement projects. Bicycle facilities will be focused on streets identified as bicycle corridors. Map T-3 shows the recommended bicycle network for the City of Milton.

Intersection Crosswalks

A marked crosswalk has three primary functions:

- To create reasonable expectations where pedestrians may cross a roadway.
- To improve predictability of pedestrian actions and movement.
- To channelize pedestrians to designated crossing locations (often selected for their optimal sight distance and shortest crossing distance).

The City desires improving the crossing at key locations where traffic signals do not exist by adding signage and crossing beacons to notify drivers of pedestrian and bicycle activity at the crossing. Other potential treatments may include raised crosswalks, different paving materials and other improvements appropriate to the specific needs of the crossing location. Recommended crossing locations are included in the recommended improvements section.

6. Recommended Improvements

The recommended transportation improvements include projects identified in the City’s Six-Year Transportation Improvement Program (TIP) 2014-2019, projects that support the City of Milton’s Community Vision, and additional projects identified by the existing and future conditions analysis. The projects include \$77,270,000 in improvements to roadways, intersections, and bicycle and pedestrian facilities. Map T-7 identifies the recommended transportation projects for the next 20 years. Table 7 provides a map identification, describes the location and details for each of the projects, and estimates the project cost. The table is divided into three categories of project types:

Road Projects – Roadway projects are those that improve the safety, capacity, operations, connectivity or circulation of the roadways. Also included is the maintenance and reconstruction of existing roadway segments to ensure that the city’s current street system is maintained.

Intersection Projects – These projects improve safety and correct operational deficiencies of the transportation system that occur at intersections. These projects provide relief to vehicle congestion and can provide benefits to non-motorized users.

Non-Motorized Projects – The listed projects include sidewalks, new trail connections, crosswalk improvements and bicycle facilities. Some projects will complete missing segments of walking routes, while others will begin to build a city-wide non-motorized network that will connect residential areas to schools, trails and parks. Included are regional projects, which will connect the Milton segment of the Interurban Trail across Meridian Avenue E and Military Road to the Edgewood portion of the trail.

Table 7. Recommended Transportation Improvements 2015-2035

Map ID	Location	Project Description	Cost Estimate (in \$1,000s)
Roadway Projects			
R-1	5th Avenue Improvements - Porter Way to S 376th Street	Road rebuild, realignment, widening and install bridge over Hylebos Creek. Install signal at 5th Avenue/Porter Way intersection.	\$10,000
R-2	28th Avenue - Birch Street to Alder Street	28th Avenue Extension to Alder Street.	\$1,100
R-3	Taylor Street - Milton Way to Meridian Avenue E	Widen road to standards, include non-motorized facilities.	\$10,100
R-4	Pacific Highway E (SR 99) - Porter Way to northern City Limits	Widen road to 5-lane boulevard with sidewalks consistent with West Milton Commercial District vision.	\$12,700
R-5	Priority Overlay	Pavement overlay and maintenance at high-priority locations.	\$1,575
Intersection Projects			
I-6	Milton Way/28th Avenue	Intersection modifications to improve safety and operations.	\$230
I-7	Meridian Avenue E (SR 161)/28th Avenue	Realign intersection and signal modification.	\$500
I-8	Milton Way - 23rd Avenue to Meridian Avenue E (SR 161)	Interconnect signals along Milton Way to improve traffic flow.	\$30
I-9	Porter Way/Pacific Highway E	Extend westbound right turn lane for morning peak traffic.	\$1,300
Non-Motorized Projects			

Map ID	Location	Project Description	Cost Estimate (in \$1,000s)
NM-10	Milton Way - 17th Avenue to 22nd Avenue	Pedestrian facility on the north side of the street.	\$668
NM-11	Oak Street - 11th Avenue to 19 th Avenue	Non-motorized facilities to connect Milton Community Park to schools.	\$2,800
NM-12	Maine Street – 15 th Avenue to 17 th Avenue	Non-motorized facilities to connect Milton Way/15 th Avenue to schools.	\$800
NM-13	19th Avenue - Milton Way to Alder Street	Non-motorized facilities to connect neighborhood with schools and Milton Way.	\$3,800
NM-14	Juniper Street - 11th Avenue to 17 th Avenue/Milton Way	Pedestrian facility to connect neighborhood with Milton Way and schools.	\$2,500
NM-15	28th Avenue - Alder Street to S 380th Street	Pedestrian facility/bicycle climbing lane along west side of street.	\$2,400
NM-16	Interurban Trail Connections - Alder Street and Emerald Street	Connections to Interurban Trail at Emerald Street and at Alder Street.	\$2,000
NM-17	Alder Street - 27th Avenue to 28th Avenue	Complete sidewalks on the north side of the street.	\$85
NM-18	Milton Way - 20th Street E to Porter Way	Curb, gutter and sidewalks.	\$3,150
NM-19	Porter Way - 5th Avenue to Kent Street	Non-motorized facility along west side of the street.	\$324
NM-20	23rd Avenue - Emerald Street to Alder Street	Pedestrian facility.	\$100
NM-21	Emerald Street- 27th Avenue to 28th Avenue	Easement for non-motorized connection between 27th Avenue and 28th Avenue.	\$54
NM-22	Milton/Fife - Pedestrian Connection Partnership	Construct pedestrian improvements along Milton Way and 20th Street E to Fife High School. Partner with City of Fife.	\$4,000
NM-23	Pedestrian Crossings Improvements - 5 locations	Improve crossing safety and visibility with rectangular beacon signs, raised crosswalks or other appropriate treatments.	\$100
NM-24	Milton Way - 28th Avenue to Meridian Avenue E (SR 161)	Street improvements consistent with Uptown Vision.	\$580
NM-25	Interurban Trail Triangle	Build trail segment between S 380th Street and existing trail at Military Road.	\$1,043
NM-26	Interurban Trail – Meridian Avenue E (SR 161) crossing	Construct undercrossing of Meridian Avenue E with trail connections on each side.	\$1,761
NM-27	Emerald Street - Interurban Trail to 27th Avenue	Develop bike route.	\$7,200
NM-28	Kent Street - Porter Way to Interurban Trail	Pedestrian facility /uphill bicycle climbing lane.	\$660
NM-29	11th Avenue - Emerald Street to Milton Way	Non-motorized facilities.	\$3,100
NM-30	Kent Street - Interurban Trail to 10th Avenue	Develop bike route.	\$1,700
NM-31	Porter Way – Pacific Highway E (SR 99) to I-5 bridge	Construct sidewalk on north side of the street.	\$910
Total Project Costs			\$77,270

Traffic Operations – with Recommended Improvements

The recommended transportation improvements address the key operational deficiencies forecasted for 2035. Improvements include new signals, extending turn lanes, street widening, changes to signal timing, and other improvements designed to improve the flow of traffic within and through Milton. With the recommended improvements, all but two of the 26 study intersections are forecasted to meet the City's LOS D standard. The two unsignalized intersections at 11th Avenue/Milton Way and 15th Avenue/Milton Way are forecasted to have stop-controlled movements that will operate at LOS E during the 2035 PM peak hour. The forecasted volumes on these north and south approaches were too low to justify an improvement. Therefore, the analysis recommends future monitoring of these locations.

Table 8 shows the forecasted 2035 PM peak hour LOS for the Baseline Improvements and the Recommended Improvements. With the planned improvements, the transportation system will continue to meet the mobility needs of the citizens and businesses of Milton.

Table 8. Intersection Level of Service – Future 2035 PM Peak Hour with Baseline Improvements and Recommended Improvements

North/South Street	East/West Street	2035 LOS with Baseline Improvements	2035 LOS with Recommended Improvements	Improvement/Action
70th Avenue E	Pacific Highway E	D	D	
Pacific Highway E (SR 99)	Porter Way	D	D	Extend westbound right turn lane for morning peak traffic.
5th Avenue	Porter Way	F	A	Install traffic signal.
Porter Way	Kent Street	B	B	
Porter Way	Fife Way	C	C	
Milton Way	20th Street E	D	D	
Milton Way	Fife Way	C	C	
Porter Way	Milton Way	C	C	
11th Avenue	Milton Way	E	E	Low approach volumes - monitor
15th Avenue	Milton Way	E	E	Low approach volumes - monitor
15th Avenue	Taylor Street	B	B	
19th Avenue	Emerald Street	A	A	
19th Avenue	Milton Way	B	B	
23rd Avenue	Emerald Street	A	A	
23rd Avenue	Milton Way	B	B	
23rd Avenue	Taylor Street	B	B	
27th Avenue	Alder Street	B	B	
27th Avenue	Milton Way	D	A	Interconnect signals to improve traffic flow.
28th Avenue	Meridian Avenue E	C	C	
28th Avenue	Alder Street	B	B	
28th Avenue	Milton Way	C	C	
Meridian Avenue E (SR 161)	Military Road S	C	C	
Meridian Avenue E (SR 161)	Emerald Street	D	D	
Meridian Avenue E (SR 161)	Jovita Boulevard	C	C	
Meridian Avenue E (SR 161)	Milton Way	E	D	Interconnect signals to improve traffic flow.
Meridian Avenue E (SR 161)	Taylor Street	B	B	

7. FUNDING

The funding for transportation improvements in the city comes from a variety of local, state, federal and private sources. The amount of available funds from these sources depends on the state of the economy, level of development activity, success in obtaining grant funding, and the development of new taxes and fees. The plan also relies on the forecasted population and employment growth within the community as a portion of the transportation element recommendations rely on frontage improvements and mitigation measures from new development.

Local Funding

The City of Milton has relied on motor vehicle gas tax revenues (\$147,000 in 2014), real estate excise tax (\$95,000 in 2014), and general fund transfers (\$260,000 in 2014) to fund its local transportation projects. In addition, the City's traffic impact fee program contributes revenue to transportation improvements. Over the last few years, traffic impact fees contributed only small amounts of revenue, but with increased development, this source of transportation revenue will likely increase. Combined, the City anticipates approximately \$400,000 to \$900,000 in annual revenues available for transportation funding.

Improvements to Occur with Development or Redevelopment

New development or redevelopment will be required to construct portions of the Recommended Transportation Improvements, as part of their frontage improvements or as off-site transportation mitigation. For example, the 5th Avenue Improvements (Project R-1) is planned to be primarily constructed by the developer of the Quarry Site. Also, the majority of the 28th Avenue Extension (R-2), Taylor Street (R-3), and Pacific Highway E (R-4) will also be constructed as frontage improvements when properties along these projects are developed or redeveloped.

Assessment of Funding Capability

The City will depend on successful pursuit of grants and developer contributions to complete its 20-year transportation plan. The City has recently been successful in obtaining between \$800,000 and \$6 million in annual grants to fund its capital improvement program.

The combination of existing revenues, contributions from new development, and federal and state grant funds, will provide the City with the sufficient revenue to maintain and improve its transportation system over the next twenty years. The City will be able to accomplish the following:

- Maintain the City's arterial and residential street system;
- Maintain, improve and expand the City's pedestrian and bicycle systems; and
- Maintain and improve the transportation system to meet housing and employment growth.

8. IMPLEMENTATION

The following actions by the City of Milton will be necessary to effectively implement the transportation element:

Transportation System

- Work with new development to maintain intersection operations and City level of service standards.
- Monitor transportation system performance as part of the on-going updates to the City's Six-Year Transportation Improvement Program to assess how projections compare to actual conditions.

Planning Implementation

- Review and condition new development for easements and frontage improvements that support the non-motorized transportation network.
- Match the City's Street Sections standards to individual street segments, to provide a consistent vision for the street and to support the construction of bicycle and pedestrian facilities.
- Ensure that design standards comply with ADA requirements.
- Continue to involve the public in transportation planning and decisions.
- Develop policies, criteria and a process to determine when, and under what conditions, privately maintained roads in public rights of way or private roads should be accepted for public maintenance and improvement.

Financial Implementation Strategies

- Implement adopted Six-Year Transportation Improvement Program.
- Actively pursue outside funding sources to assist in paying for adopted transportation improvements and programs.
- Update the Transportation Impact Fee Program to reflect the revised list of transportation improvements and recent construction costs.

Transit Planning

- Work with Pierce Transit to provide routes that serve Milton residents.
- Explore with Pierce Transit how demand response service might support services.
- Work with Pierce Transit and other authorities to identify potential park and ride locations to better connect with regional transit routes.