CHAPTER FOUR
TRANSPORTATION ELEMENT

What you will find in this chapter:

• A description of the existing transportation network in Kent;
• A discussion of how transportation planning, economic development and land use are entwined;
• A discussion of how demands made of the transportation network is managed; and
• Goals and policies for providing adequate transportation levels of service.

Purpose Statement:
Provide a safe, reliable and balanced multimodal transportation system for all users that will support current and projected growth using context-sensitive design.
CHAPTER FOUR TRANSPORTATION ELEMENT

Purpose
The Transportation Element (TE) establishes Kent’s transportation goals and policies for the 20-year planning horizon to 2035. It provides direction for transportation decisions regarding plan updates, including:

- The Six-Year Transportation Improvement Program (TIP);
- The Six-Year Capital Improvement Program (CIP);
- The biennial budget; and
- The Design and Construction Standards.

The TE is key to achieving Kent’s overall goal of providing a balanced, multimodal transportation system that supports current and projected land use and provides an adequate level of transportation service. It also provides guidance for development review and approval, land use and zoning decisions and continuing transportation and maintenance programs.

The TE establishes a basis for decision-making that is consistent with the Growth Management Act (GMA), King County’s Countywide Planning Policies (CPP) and the Puget Sound Regional Council’s (PSRC) Transportation 2040. The requirements of each of these plans are fulfilled by the City of Kent Transportation Master Plan (TMP) and the TE Technical Report.

The TMP is the City’s blueprint for long-range transportation planning in Kent. It functions as the overarching guide for the continued development of the City’s transportation system. The plan identifies key assets and improvement needs. The TE Technical Report includes a detailed update to the TMP of current land use assumptions, travel demand forecasts, and project list to inform the Comprehensive Plan. The TMP, Midway Subarea Plan, Downtown Subarea Action Plan (DSAP) Update, Commute Trip Reduction Plan, the annually-updated six-year TIP, six-year CIP and the budget are all adopted by reference in the Kent Comprehensive Plan.

The TE is multimodal; it addresses all forms of transportation in Kent. This includes the street network, truck and rail traffic, non-motorized travel and transit. Evaluating all modes uniformly has enabled the City to address future network needs in a comprehensive and balanced manner.

The TE also supports community livability and economic vitality by addressing connections for people and places, and streetscape design that complements surrounding land uses. Furthermore, transportation facilities are an essential part of the City’s public realm and as such need to balance a variety of goals and objectives. The goals and policies in this element generally pertain to moving people and goods.

Issues

Physical and Geographic Features
Steep hills, a river valley, two national rail lines and multiple regional highways are crucial, if not determinative, features of our landscape that profoundly influence our transportation system.

Coordination of Transportation Systems
The City is heavily reliant upon regional transportation providers including the State, Ports, Sound Transit and King County Metro. This integration with regional systems means levels of service for the City’s transportation system are affected by levels of service in adjacent jurisdictions.

Encouraging Multimodality
Land use policies encourage development patterns of mixed use activity centers and high residential densities downtown. This supports a shift in travel modes from single occupant vehicles to transit and non-motorized travel.

Quality of Life
Quality of life for residents in Kent is significantly impacted by how well the transportation system functions for cyclists, pedestrians, transit users, motorists, truck and rail traffic. Businesses, like residents, also make locational choices in response to the nature of public environments, such as roads and streetscapes.

1Contents of the City of Kent Non-motorized Transportation Study and Transit Master Plan are summarized in the TMP.
System Rehabilitation, Replacement and Retrofit
To provide adequate safety and efficiency of the transportation system, ongoing maintenance is required in addition to expanding infrastructure.

Balance of Scarce Resources
There is limited funding at the local, state and federal level to satisfy competing priorities. Public streets serve many functions in our communities, and levels of service and maintenance of roads must be balanced in full consideration of the City’s many interests.

Transportation and Land Use
The TE supports the City’s Land Use Element. It demonstrates how the City will improve upon the existing transportation network, as well as address deficiencies, maintenance and accommodate projected growth over the next 20 years. The City’s land use forecasts for the year 2035 are based on regional forecasts from the Office of Financial Management (OFM) and the Puget Sound Regional Council (PSRC). By 2035, the City of Kent is projected to have 81,900 jobs and 53,500 households. To plan for the transportation needs associated with this growth, the new households and jobs are assigned to more than 300 traffic analysis zones based on the availability of vacant and re-developable land. The City’s travel demand model uses that growth distribution to forecast traffic volumes throughout the City. Details of this analysis can be found in the TE Technical Report.

Transportation and Land Use Goals and Policies

Goal T-1
Coordinate land use and transportation planning to meet forecasted demand and policies of the City consistent with the Growth Management Act.

Policy T-1.1: Locate commercial, industrial, multifamily and other uses that generate high levels of traffic in designated activity centers around intersections of principal or minor arterials, or around freeway interchanges.

Policy T-1.2: Coordinate new commercial and residential development in Kent with transportation projects to assure that transportation facility capacity is sufficient to accommodate the new development, or a financial commitment is in place to meet the adopted standard within six years.

Policy T-1.3: Balance travel efficiency, safety and quality of life in residential areas through context-sensitive design.

Policy T-1.4: Adopt and maintain policies, codes and land use patterns that promote walking, biking, public transportation and social interaction to increase public health and sense of place.

Policy T-1.5: Incorporate street trees in transportation facility planning to enhance neighborhood aesthetics, improve air quality and provide traffic calming.

Policy T-1.6: Beautify Kent streetscapes to reflect quality and integrated design supportive of businesses and a livable, vibrant community.

Policy T-1.7: Coordinate with BNSF Railroad, UP Railroad, Washington Utilities and Trade Commission (WUTC) and Sound Transit to ensure maximum transportation utility on both roads and rails.

Policy T-1.8: Coordinate transportation operations, planning and improvements with the State, the County, neighboring jurisdictions and all transportation planning agencies to ensure the City’s interests are well represented in regional planning strategies, policies and projects.
**Policy T-1.9:** Coordinate with the County and neighboring jurisdictions to implement concurrency strategies and provide for mitigation of shared traffic impacts through street improvements, signal improvements, intelligent transportation systems improvements, transit system improvements or transportation demand management strategies.

**Policy T-1.10:** Consider incorporating multiple modes into the City’s concurrency program during the next update of the Transportation Master Plan.

**Policy T-1.11:** Establish minimum and maximum parking ratio requirements consistent with the transportation and land use objectives of the Comprehensive Plan. Allow for a reduction in Parking of up to 20 percent of the minimum standard of off-street parking stalls for businesses which have an approved CTR program filed with the City.

**Policy T-1.12:** Plan for land use patterns and transportation systems that minimize air pollution and greenhouse gas emissions. Furthermore, ensure that transportation-related improvement projects comply with state and federal guidelines for air and water quality.

**Street System**

The City of Kent is served by an extensive street network that provides the primary means of transportation for all modes of travel within the City – personal vehicle, freight, public transit, walking and biking. Streets are also part of the public realm used for parking, festivals, marches and other events. To develop a citywide plan and policies that will guide the maintenance and improvement of this vital infrastructure system, Kent analyzed existing street conditions. The findings from this analysis may be found in the 2008 TMP and the TE Technical Report. Key components of the analysis include:

- Examining the infrastructure of the street network and determining the role of each street in that network; the inter-relationship with adjacent state highways and regional arterials; and local land use context,
- Evaluating how well the existing street network operates,
- Evaluating the forecasted traffic conditions for the future street network and
- Identifying the preferred future street network and the improvement projects for that network.

The street network operates as a system and handles a wide variety of modal users including those with special transportation needs (e.g., persons with disabilities, the elderly, youth and low-income populations). It is important to define the role(s) that any particular road should play in serving the flow of traffic through the network and accommodating other modes as needed. Street functional classifications are established in the 2008 TMP to balance and recognize differing needs of vehicles, businesses, residents and non-motorized travelers. Functional classification also defines the character of service that a road is intended to provide. Specific standards for streets and roadways are detailed in Kent’s Construction Standards – Section 6, Standards for Streets and Roadways.

The Transportation Element Technical Report illustrates the City’s recommended project list through 2035 which includes four types of improvements: intersection improvements, new streets, street widening and railroad grade separations. The list includes 40 projects totaling nearly $509 million.
Right-Size Parking Policy Pilot Project

In August, 2013, the City of Kent was approved for a pilot project under the King County Metro Right Size Parking (RSP) Project. The RSP is a three-year grant project funded by the Federal Highway Administration’s Value Pricing Pilot Program. The overarching goal of the RSP project is to foster livable communities by optimizing the allocation of parking resources. More specifically, the purpose is to impart data and strategies to help developers, jurisdictions and neighborhoods accurately project the optimum amount of parking for new multifamily developments. The amount of parking is optimized (“right-sized”) when it strikes a balance between supply and demand.

Kent’s pilot project had several deliverables consistent with implementation of Downtown Subarea Action Plan objectives:

- Inventory of on- and off-street parking supply and utilization in Downtown
- Recommendations for parking management
- Recommendations for parking code alternatives

Kent began implementing some of the recommendations in 2014, including shared parking, consistent parking signage and striping and new parking hours. These strategies and other future implementation measures should help improve traffic management within the downtown area.

Street Goals and Policies

Goal T-2

Provide a balanced transportation system that recognizes the need for major road improvements to accommodate multiple travel modes. Create a comprehensive street system that provides reasonable and safe circulation for all users throughout the City.

Policy T-2.1: Assign a functional classification to each street in the City based on factors including travel demand of motorized and non-motorized traffic, access to adjacent land use and connectivity of the transportation network.

Policy T-2.2: Coordinate implementation of street construction standards for each functional classification with policies in the Transportation Element to provide attractive, safe facilities that complement the adjacent land use and support emergency response and operation.

Policy T-2.3: Prepare for, respond to, mitigate and recover from disasters as provided for in the City of Kent Comprehensive Emergency Management Plan.

Level of Service (LOS)

There are a variety of ways to determine transportation level of service and the City may decide to adopt a different measurement with the next update of the Transportation Master Plan. Currently, the City’s roadway level of service (LOS) is a measure of the traffic operational performance of a transportation facility. In general, LOS A and B indicate minimal delay, LOS C and D indicate moderate delay, LOS E indicates that traffic volumes are approaching capacity and LOS F indicates congested conditions where demand exceeds capacity. The City of Kent analyzes intersections along 16 corridors and within a separate zone covering Downtown—this analysis includes a total of 71 intersections. The City of Kent calculates the LOS operation for key corridor intersections (in seconds of delay) during the PM peak period and then calculates an average based on a weighting of the corridor intersection volumes. This method provides a corridor-wide result, allowing some intersections to operate at a congested LOS as long as the overall corridor operation is maintained. The City’s adopted LOS standard requires that nearly all corridors operate at LOS E or better during the PM peak hour. The only exceptions are the Pacific Highway S corridor and the Downtown zone, which are allowed to operate at LOS F.

The City works closely with multiple stakeholders to ensure that state and regional projects that benefit Kent continue to be a priority. Because state and regional transportation facilities are not within the City’s control, construction of projects to mitigate impacts of development cannot be guaranteed. Furthermore, further widening of SR 99, a Highway of Statewide Significance, is unlikely. The operation of SR 99 is highly dependent upon travel conditions along I-5, the effects of the SR 509 project, and the Link Light Rail project. The City will do more detailed analysis of Pacific Highway South during the next major update of the Transportation Master Plan.
The existing LOS analysis was recently updated using 2014 traffic volumes. The evaluation found that all corridors meet Kent’s LOS standard. An evaluation of projected 2035 traffic volumes was also conducted. Traffic operations are expected to be very similar to the forecasts developed for the year 2031 during the 2008 TMP process. Details may be found in the TE Technical Report.

Using the LOS analysis, the 2008 TMP street project list was reviewed and revised for this TE update. Since the TMP was adopted in 2008, ten projects have been completed in full and two have been partially completed. Other projects are identified for potential revisions during the next full TMP update. The revised project list includes 17 intersection improvements, 4 new street connections, 14 street widenings and 5 railroad grade separations. In total, these 40 projects are estimated to cost $509 million (in 2007 dollars). Of that total, roughly $413 million are expected to be the City’s responsibility. A complete discussion is included in the TE Technical Report.

LOS Goals and Policies

Goal T-3
Develop strategies to improve smooth traffic flows in areas experiencing extreme congestion by employing strategies that better accommodate various modes of travel including automobiles, freight, transit, trains, pedestrian and bicycle modes.

Street LOS

Policy T-3.1: Develop a system of level-of-service standards that promote growth where appropriate while preserving and maintaining the existing transportation system.

Policy T-3.2: Establish a network of heavy commercial freight routes to ensure the mobility of goods and services, as well as of people, and to improve the reliability of freight mobility.

Policy T-3.3: Ensure reliable traffic flow and mobility on arterial roads, especially on regional through routes, while protecting local neighborhood roads from increased traffic volumes.

Policy T-3.4: For Highways of Statewide Significance, monitor performance, evaluate improvement strategies and facilitate coordination between the State, neighboring jurisdictions and the City when establishing LOS standards. Furthermore, ensure that land use policies and regulations are consistent with the controlled-access requirements of the Washington State Department of Transportation (WSDOT).

Pedestrian LOS

Policy T-3.5: Establish ‘pedestrian priority areas’ based on the ‘highest’ and ‘high’ Pedestrian Priority Index (PPI) scores as defined in the Kent Transportation Master Plan (TMP) (Figure 6-6).

Policy T-3.6: Within the designated pedestrian priority areas, provide sidewalks or upgrade sidewalk conditions on both sides of streets as designated in the plan.

Policy T-3.7: Along designated ‘medium’ priority pedestrian streets (Figure 6-7): provide sidewalks or upgrade sidewalk conditions on at least one side of streets as designated in the plan.

Bicycle LOS

Policy T-3.8: Provide bicycle facilities consistent with the bicycle routes called for in the TMP (Figure 6-11). Bicycle facilities include roadway restriping to create bicycle lanes and designation of shared bicycle routes.

Policy T-3.9: Provide adequate bicycle crossing of arterial or collector streets.
Transit LOS

Policy T-3.10: Along designated Regional and Local Primary Transit Network (PTN) routes identified in the TMP (Figures 7-5 and 7-6), work with King County Metro and Sound Transit to:

a. Increase or maintain high peak and all-day service frequencies (specified by route in Table 7-5).

b. Provide high level of transit stop amenities, including pads, bus shelters, pedestrian access and transit speed and reliability.

Non-Motorized Transportation

The City of Kent is committed to providing the benefits of walking and cycling to all residents by supporting pedestrian and bicycle travel as a safe, efficient, desirable and accessible mode throughout the City’s neighborhoods. In 2007, the City prepared the Non-Motorized Transportation Study (NMTS) to identify critical gaps in the City’s pedestrian and bicycle transportation system. The contents of the NMTS were then integrated into the Non-Motorized System Chapter of the TMP.

The Non-Motorized System Chapter of the TMP evaluates how well the existing pedestrian and bicycle systems operate, identifies pedestrian and bicycle needs and a future non-motorized network and provides a prioritized list of projects to achieve the future network. The projects consist of:

1. missing sidewalk segments, curb ramps and infrastructure repairs, prioritized by need and funding feasibility;
2. bike network improvements assumed to occur with roadway improvements described in the Street System Chapter;
3. new bike lanes, shared-lane routes and shared-use paths that would expand the existing system of non-motorized neighborhood connections;
4. future studies to determine how to connect various corridors that are important for bike network completion but physically constrained; and
5. traffic control recommendations to facilitate biking in Downtown Kent.

Additional non-motorized projects and strategies were identified in the Midway Subarea Plan and the Downtown Subarea Action Plan (DSAP) update and will be incorporated into the next TMP update.

Non-Motorized Goals and Policies

Goal T-4

Improve the non-motorized transportation system for both internal circulation and linkages to regional travel, and promote the use of non-motorized transportation.

Policy T-4.1: Provide non-motorized facilities within all areas of the City.

Policy T-4.2: Establish a network of bicycle routes within the City to connect those land uses likely to produce significant concentrations of bicycle usage. Work with interested parties in the planning of such a network.

Policy T-4.3: Create a Non-Motorized Transportation Plan for the City of Kent to define specific goals and priorities for the non-motorized transportation system.

Transit

The City of Kent collaborates with the region’s transit providers to ensure convenient transit service for its residents and workers. New capital investments in transit-focused projects and improved transit service are integral in meeting the City’s land use goals and reducing the cost of maintaining roadway level of service.

The Transit System Chapter of the TMP describes existing transit service and facilities, identifies community needs and observed gaps in service and recommends service improvements to local circulation within Kent and that connect Kent residents to other communities. Also included in the chapter is a discussion of transit-supportive goals and policies related to land use designations, parking policies and the then-existing Downtown Strategic Action Plan.

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2 The Kent TMP was originally published in June 2008. Transit service summarized in this document (Transportation Element) reflects the September 2014 KC Metro service revisions and the most recent round of Sound Transit service changes (2013).
King County Metro (KC Metro) provides regional, South County-specific routes and local Dial-a-Ride (DART) bus service within the City of Kent. Eight different KC Metro routes provide regional services to destinations within King, Snohomish and Pierce Counties. There are ten local and South County routes providing connections within the City of Kent and to other South King County communities such as Renton, Auburn, Tukwila, Des Moines, Covington and Federal Way. Additionally, Sound Transit operates three regional express bus routes through Kent that connect to SeaTac and Redmond. The Sounder commuter rail serves the Kent Transit Center with connections to communities between Seattle and Tacoma. The Kent Transit Center provides 994 park-and-ride spaces for transit riders.

During the TMP process, community input and a technical gaps analysis identified recommendations for transit service and infrastructure improvements. Service recommendations are categorized by one of three route types:

- **Primary Transit Network (PTN)** – provides frequent service (typically 15 minutes or better) over a long service span in markets where there is high demand for travel throughout the day. It is narrowly focused on the densest corridors in the region where potential ridership is highest. It can also be used as a policy tool to help focus transit-oriented development around corridors where transit can be provided cost-effectively.

- **Local Urban Service** – provides all-day service at lower frequencies (20 to 60 minutes) in lower density areas. These services should provide connections from moderately dense areas to PTN services as well as local destinations.

- **Specialized Commute Service** – runs at very specific high-demand times and only operates at times of day and in the direction of peak demand. Most Sound Transit service within Kent is included in this category.

The TMP transit recommendations focus on near- and long-term improvements for PTN and Local Urban Services. In some cases, recommendations would enhance existing Specialized Commuter Services, creating all-day PTN service to address the need for reverse-commute travel and off-peak connections. Short-term recommendations include infrastructure improvements to bus shelters and sidewalk connections.

### Transit Goals and Policies

**Goal T-5**

Work with regional transit providers to provide frequent, coordinated and comprehensive public transit services and facilities in all residential and employment areas in the Kent Planning Area. (Public transit services and facilities include train service, bus service, vanpool services, vanshare services, Dial-A-Ride, Access, park-and-ride lots, car-sharing services, as well as marketing/promotional activities for all the above).

- **Policy T-5.1**: Emphasize transit investments that provide mobility and access within the community and make it possible for citizens to access local services and support local businesses while reducing auto-dependent travel.

- **Policy T-5.2**: Work with Washington State Department of Transportation and regional transit providers to identify appropriate sites for a network of park-and-ride lots that feed into the regional transit system.

- **Policy T-5.3**: Implement Kent’s Transit System Plan as identified in the Transportation Master Plan.

- **Policy T-5.4**: Foster transit-oriented development opportunities and leverage public and private funds to achieve other City objectives related to economic development and housing.

- **Policy T-5.5**: Work with regional transit providers to provide a high level of transit stop amenities, including pads, bus shelters, pedestrian access, safety and visibility features such as lighting, and transit speed and reliability.
Transportation Demand Management

Using the existing network of streets more efficiently is a fiscally sound way to improve traffic conditions and safety. Transportation demand management (TDM) policies and strategies are designed to reduce automobile travel and shift some vehicle trips to non-peak periods (before or after the commute hours). Transportation system management (TSM) is the practice of improving the flow of traffic without relying on major capacity expansions or new roadways. The City of Kent’s efforts in implementing TDM and TSM are detailed in the Managing Demand chapter of the TMP.

Kent’s TDM activities are directed at employers, workers, business owners, residents and visitors. In compliance with the Washington State Clean Air Act, Kent has enacted a local Commute Trip Reduction (CTR) ordinance, requiring that all employers in the City with more than 100 full-time employees traveling to work in the morning peak commute hours develop a CTR program. Kent’s CTR program provides information and connections for employees to a variety of alternative commute options including flex schedules, compressed work weeks, telecommuting, transit and ridesharing. The City also actively coordinates with transit organizations that administer marketing campaigns such as Wheel Options, Rideshare and the Commuter Challenge. Currently, 31 CTR worksites participate in the program, making Kent’s program the fourth largest in King County following Seattle, Bellevue and Redmond.

The TMP recommends the City:

- continue to promote alternative commute methods (particularly through ride-matching programs that link carpool, vanpool and van-share participants),
- encourage businesses in the community to voluntarily participate in the CTR program, and
- review and update the CTR Ordinance as appropriate to meet the needs of employers and the community.

TSM techniques, which make more efficient use of the existing transportation system, can reduce the need for costly system capacity expansion projects. These techniques can also be used to improve LOS when travel corridors approach the adopted LOS standard. TSM techniques identified in the TMP include the following:

- Rechannelization/restriping, adding turn lanes, adding/increasing number of intersection through lanes,
- Business Access and Transit (BAT) lanes,
- Signal interconnect and optimization,
- Turn movement restrictions,
- Access Management, and
- Intelligent Transportation Systems (ITS).

The City is incorporating appropriate TSM techniques as part of its ongoing transportation program.

Transportation Demand Management Goals and Policies

**Goal T-6**

Use Transportation Demand Management techniques to achieve efficient use of transportation infrastructure and to help meet the City’s land use objectives.

**Policy T-6.1:** Work with major institutions, Activity Centers and employers through the City’s Commute Trip Reduction Program and the promotion of alternatives to single occupancy vehicle (SOV) use to reduce congestion, improve air quality and enhance safety.

**Policy T-6.2:** Promote measures to increase the use of high-occupancy vehicles, public transit and non-motorized travel modes among employers located within the City who are not required to comply with commute trip reduction.

**Related Information:**

- TE Technical Report
- City of Kent 2008 Transportation Master Plan
- Right-Size Parking Pilot Project
- City of Kent Comprehensive Emergency Management Plan, May 2010
- 6-Year Transportation Improvement Program