

CHAPTER 7: BEYOND THE TSP





Introduction

Looking forward requires a comprehension of our past. Located on the western edge of the Portland metro region, Hillsboro has, in recent decades, seen rapid growth and drastic changes transforming from being a primarily agricultural community with a population of several thousand to a center of the high-tech research and manufacturing industry with over 100,000 people and 80,000 jobs. As such, it has become a hub for work-force commuter travel second only to central city Portland within the region.

The City is bordered on three sides by the UGB. In recent years, expansion of the UGB has occurred regularly on the north and south sides of Hillsboro. With each new expansion came the need for additional transportation facilities, as well as increased demand on the existing transportation system within and surrounding the City. The City's long-range land use plans anticipate its population expanding to over 150,000 residents and over 130,000 jobs by 2040.

The previous chapters of this TSP presented the goals and policies, existing system inventory, future needs, and system plans for the Hillsboro transportation system in accordance with the regulatory requirements outlined in the TPR (OAR Section 660 Division 12). These requirements are focused around the planning of transportation needs and demands within the currently adopted UGB and are based on the adopted population and employment projections for a 20-year planning horizon.

Working with regional partners, Hillsboro has long maintained the same approach to planning for growth by carefully analyzing and being prepared for different future growth potentials. At times, this required the City to look beyond the 20-year planning horizon and beyond the city limits. This chapter summarizes the different transportation topic areas that the City is actively engaged in. Some of these topics fall outside the traditional scope of the TSP. However, the goal of these exercises remain the same—to improve the quality of life for those who live and work in our community as well as promote economic vitality consistent with the community’s adopted goals and visions.

Regional Mobility

Hillsboro is home to the significant high-tech research and manufacturing industry in Oregon. At the same time, Hillsboro is a hub for the vibrant Tualatin Valley agricultural community. Goods and products manufactured and cultivated in and around Hillsboro are destined to markets across the US and the world.

Hillsboro also has the second largest imported workforce—those that live outside the community and commute into Hillsboro for their jobs—in the greater Portland region only after central city Portland. As such, mobility needs for the people and businesses in Hillsboro extend far beyond city limits. Regional mobility is critical to the future vitality of the people and economy, not just Hillsboro and Washington County, but also the Portland region and the State of Oregon. The following are recent and upcoming efforts that highlight the work that Hillsboro and regional partners are undertaking to ensure regional mobility in the future.

Washington County Transportation Futures Study

Washington County Transportation Futures Study (WCTFS) is a county-wide transportation analysis completed in 2017 to study the long-term (40- to 50-year) transportation needs and strategies in Washington County. The study provided an opportunity to “think big” and look beyond the typical 20-year planning horizon at a countywide level while taking into account the changing demographics and economic conditions in the county and the Portland region. The study forecast and quantified the amount of congestion the region can expect to experience in the future with the assumed land use scenarios and the corresponding increases in roadway and transit demand. To balance the range of community values and trade-offs that may be needed to best position the County for success in the long term, it modeled two different future land use growth scenarios and three different transportation infrastructure investment packages.

This study has led to a series of implementation studies including a County freight study, an upcoming County transit study, a north-south arterial “around-the-mountain” study of arterial connectivity through the Tualatin Valley, and a study focused on unlocking freight and commuter access between the north end of the Tualatin Valley and Portland.

Sunset Highway Corridor Study

The Sunset Highway Corridor is broadly defined as the east-west travel corridor connecting Hillsboro, Beaverton, and Columbia County to central city Portland. This corridor links the agricultural industries of western Washington County and the high tech and semiconductor industries of Silicon Forest to communities throughout the Portland region and the world market accessed through highway, port, and air facilities located east of the “East Hills”. It includes major facilities such as US 26, US 30, and OR 8 (Tualatin Valley Highway). The Sunset Highway Corridor is identified in Metro’s RTP as Mobility Corridors 13, 14 and 16.

US 26 is the only major east-west access-controlled facility connecting the Tualatin Valley to downtown Portland. The Vista Ridge Tunnel at the east end of the corridor and its interchange with I-405 create a bottleneck for traffic due to the terrain and the sorting of traffic into the different destinations. In addition, hazardous material is restricted from using the tunnel and must use other out-of-direction and often challenging routes such as OR 217 and OR 127 (Cornelius Pass Road). The regional light rail system serves this corridor via the MAX Blue and Red lines.

Future capacity of the system is limited due to a number of constraints in the system. These include a limited set of alternative routes over and under the “East Hills”, the practical inability to add travel lanes through the tunnel and canyon, the practical inability to address I-405 interchanges that spill congestion back onto US 26 eastbound, and the need for additional transit investments on the corridor including additional park-and-rides and bus-on-shoulder infrastructure. To ensure future economic prosperity and livability in the region, improvements are needed in this corridor to keep pace with the rapid growth in people, jobs, commerce, and freight.

Urban Reserves

The City of Hillsboro is located at the western edge of the Portland metropolitan region and bordered on three sides by the UGB. Immediately adjacent to the city limits are three different areas currently designated as Urban Reserves with plans for future inclusion into the UGB. In all, over a dozen areas designated as Urban Reserve are undergoing various planning efforts for future expansions of the UGB. Additional Urban Reserve areas also exist in nearby communities in western Washington County and Yamhill County that will bring growth and pressure on infrastructure in Hillsboro beyond the 20-year planning timing horizon.

Planning for the Urban Reserves provides insight into potential long-term infrastructure needs. This allows local jurisdictions, such as Hillsboro, to align current plans with potential long-term demand without sacrificing the opportunity for future growth or creating costly restrictions or barriers on future infrastructure. Hillsboro’s approach to Urban Reserves planning is to understand the potential needs to the greatest extent possible, based on current, adopted plans and designations and create plans that allow for flexibility for different long-term scenarios and outcomes. In the transportation sector, this largely takes the form of identifying future right of way needs and implementing protective measures to assure the ability for future generations to add multi-modal infrastructure to accommodate growth if and when they are determined to be needed.



Washington County Transit Study

TriMet is the regional agency responsible for the planning and operation of transit across the greater Portland region. Hillsboro and other cities in Washington County have been partnering with TriMet successfully over the years to plan and serve the changing needs of the community. A great example of this partnership is TriMet’s Westside Service Enhancement Plan (WSEP), completed in 2014, that has been the foundation of recent improvements in transit services in Hillsboro.

As the communities in Washington County continue to grow and evolve, Washington County is looking forward to working with TriMet and regional partners to continue planning for future transit services. In addition, Washington County is expecting to conduct a county-wide transit study to take a deeper look at the needs and opportunities unique to the County. The study will

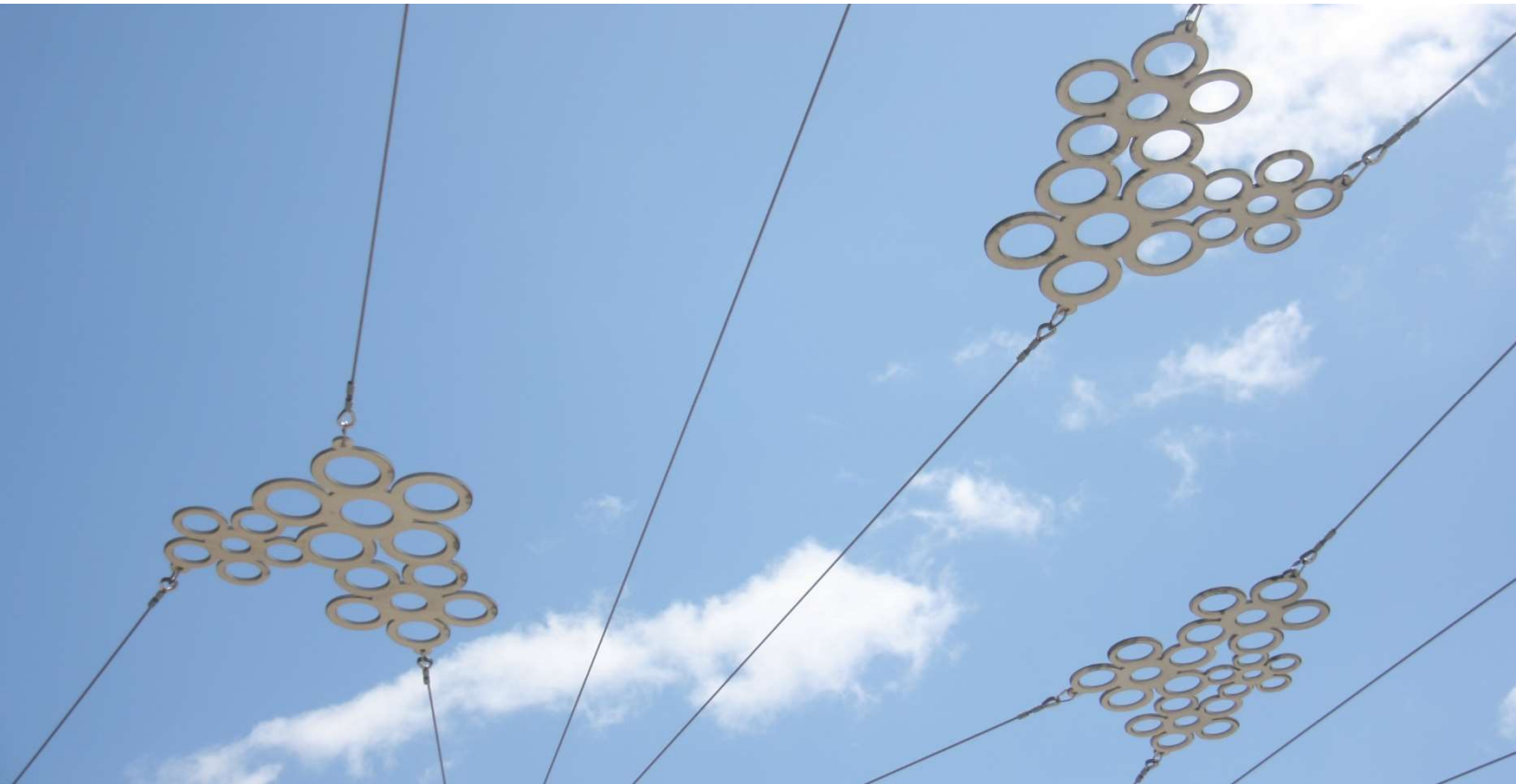
involve each of the jurisdictions in the County and will include extensive coordination with community employers and residents. The goal is to envision a transit system design that maximizes ease-of-use for commuters and those seeking alternative modes to driving, walking, or biking for access to work, community services, and recreation.

Emerging Technology

The way we travel is constantly being transformed by technology. From the dirt trails, horses and wagons of the past to paved roads, motorized vehicles, and traffic signals today, technology has continued to improve the safety, efficiency, and reliability of travel. In recent years, the rapid change in technology has accelerated the advancement in the way we travel and how we define mobility. The internet and smart phones have become an integral part of our daily lives including how we travel and make transportation decisions.

Notably, recent emerging technology includes ride-hailing or ride-sharing transportation network companies (TNCs), micro-mobility services, such as shared bicycles and scooters, and the availability of assorted smart phone apps that improve the accessibility and efficiencies of our existing transportation infrastructure and transit services. The COVID-19 pandemic has rapidly accelerated technology allowing a significant portion of the workforce to telecommute effectively. This trend has reduced travel demand on roadways, but has also dramatically and negatively impacted use of transit due to personal health concerns. Both of these trends will be monitored into the future to determine their impacts on mobility and the aspirational multi-modal plans reflected in this Transportation System Plan.

Looking ahead, technologies such as electric vehicles, vehicle-to-vehicle and vehicle-to-infrastructure communications using 5G and wireless technology, autonomous vehicles, and aerial drones are likely to become more mainstream. Topics such as mobility as a service (MAAS) and curb management will continue to influence how we think of our existing travel behavior and infrastructure. All of these factors will have an impact on how we plan, implement and fund our future transportation investments. Future TSP updates and transportation plans should remain flexible and nimble in response to changes in technology in order to provide a safe, efficient, and reliable system for pedestrians, bicycles, motor vehicles, and freight.



Climate and Environment

Transportation is broadly recognized as one of the major factors that impact the climate and environment. Strategies to overcome this enormous challenge require solutions and cooperation at a global scale. Meanwhile, local governments and jurisdictions can take steps to move towards a transportation system that is healthier for users and more sustainable in the future.

Locally, the Metro regional government adopted the Climate Smart Strategy in December 2014, with the goal to reduce greenhouse gas emissions from cars and small trucks. The Climate Smart Strategy identified ten policy areas to help achieve this goal. The ten policy areas are:

1. Implement adopted local and regional land use plans
2. Make transit convenient, frequent, accessible and affordable
3. Make biking and walking safe and convenient
4. Make streets and highways safe, reliable and connected
5. Use technology to actively manage the transportation system
6. Provide information and incentives to expand the use of travel options

7. Make efficient use of vehicle parking and land dedicated to parking
8. Support Oregon's transition to cleaner fuels and more fuel-efficient vehicles
9. Secure adequate funding for transportation investments
10. Demonstrate leadership on reducing greenhouse gas emissions

The Hillsboro TSP directly supports and implements many of these strategies by planning a complete, safe, and efficient multi-modal transportation system. For example, the Pedestrian Plan and Bicycle Plan of the TSP are focused on completing the sidewalk and bicycle network, and the Transit Plan envisions a service network that is convenient and efficient. Hillsboro and its partners are on the forefront in adapting to new technology and transition to cleaner energy, and the City continues to be a leader and partner in advocating for infrastructure investments.

In order to reduce greenhouse gas emissions from transportation, Hillsboro seeks to continue to improve operations and efficiencies in the transportation system. Inefficiencies in the system, such as bottlenecks and chokepoints, increase emissions and pollution, and waste valuable energy regardless of the fuel type. To understand how to improve efficiencies, Hillsboro partnered with regional institutions to better understand the science of emissions and pollution from vehicles and different traffic patterns in the local environment. The City will continue to work with local and regional partners to improve the transportation system with the goal of creating a sustainable and climate-friendly future for our community. Support of electric vehicle (EV) charging stations, both publicly and privately deployed, continue to be a key component of the City's sustainability plan to support a transition away from carbon-fueled vehicles.



Equity and Diversity

Equity in transportation has come into sharp focus in recent years. The intent of integrating equity into future transportation decisions is to apply fairness in infrastructure investments and actively consider how decisions may benefit and impact various users of the transportation system differently. Hillsboro is one of the most ethnically diverse communities in the region, with cultural integration geographically throughout the community. The community's diversity is one of Hillsboro's strongest assets and reflects the world-wide attractiveness of Hillsboro's job opportunities.

A new addition to the transportation analysis and decision-making process in recent years is an approach commonly referred to as an equity toolkit or equity lens. While this approach could take many different forms, a common method is a map-based analysis of where different communities are located and where transportation investments or accessibility gaps exist. Understanding the location of key destinations within and outside the community is essential to understanding where all community members need to travel daily in order to align multi-modal transportation investments with addressing barriers to mobility for all. Effective, accessible, affordable, and equitable transportation is foundational to affording all community members access to the wealth of jobs and training opportunities unique to the Hillsboro community. Ladders of opportunity affording all members the ability to benefit from this communities unique economic opportunity is essential to improving Hillsboro's quality of life.

This TSP includes a map-based tool in the form of a series of demographics maps founded on Census data and local understanding of both land use and community destinations. It is intended that this tool will be updated and improved based on new data and will be used to help inform future decisions on the prioritization and design of infrastructure investments. The demographic maps were previously discussed in Chapter 3 and are located in Appendix C.

As the City of Hillsboro continues to plan and build a complete, multi-modal transportation system, equity will continue to be a central part of the needs assessment and decision-making process to strive for a transportation system that benefits all users fairly and equally.

Changing Trends

Transportation trends change over time due to many factors. Changing land use, demographics, socioeconomic factors can all influence future transportation trends. The TSP is developed based on assumptions of past travel patterns and future forecast of population, socioeconomic conditions, and economic growth. It is important to understand the foundational assumptions of the TSP (which are described in more detail in chapter 4) and apply the TSP accordingly.

At the time of the development of this TSP, the Covid-19 pandemic created a once-in-a-lifetime public health crisis that led to enormous impacts globally. These impacts ranged from changes to the day-to-day travel and commute patterns of people to the unprecedented disruptions of the global supply chain.

The pandemic may have permanently altered our day-to-day travel patterns such as how and when we travel to school, work, and social and economic activities across the Portland region and the world. The adaptation of remote work and flexible schedules may see a boost that was previously projected to be years or decades away. Meanwhile, changes to people's housing choice and travel preferences may be different than the expectations before pandemic.

While the long-term impact of this pandemic is still unclear, it is likely that the Covid-19 pandemic will drive changes in the way we live, work, and travel in the future in some ways. And as our economies, lifestyles, and travel behavior continue to change in the years beyond, future transportation planning tools and methodologies, and the resulting local and regional transportation plans, will have to continue to adapt to and reflect the changing trends accordingly, just as they have in the past.