

# 5 Transportation and Infrastructure

## TRANSPORTATION AND INFRASTRUCTURE GUIDING PRINCIPLES

**GUIDING PRINCIPLE 8:** The Subarea Plan ensures reasonably efficient freight access to the Seaport Core districts through identified freight corridors.

**GUIDING PRINCIPLE 9:** The Subarea Plan supports completing a multimodal network and shifting commute modes away from single-occupancy vehicles.

**GUIDING PRINCIPLE 10:** The Subarea Plan identifies steps to achieve decarbonization of Port and industrial activity and to accelerate emission reductions.

**GUIDING PRINCIPLE 11:** Climate science and greenhouse gas impacts are integrated into plans, programs, and investments. The subarea is more climate resilient by identifying and protecting vital infrastructure subject to future impact to climate change.

**GUIDING PRINCIPLE 12:** Coordinated and proactive investment in infrastructure supports mobility, economic development, environmental protection, and climate resiliency.

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## 5.1 INTRODUCTION

The purpose of this chapter is to provide policy guidance and priority implementation actions and regulatory recommendations, in order to develop a transportation network and public infrastructure that supports the vision for the Tacoma Tideflats Subarea.

Sea level rise and coastal flooding has the potential to endanger communities, damage infrastructure and facilities, and disrupt operations. While sea level rise and coast flooding does not present an immediate threat to the facilities, assets, and activities found within the Tideflats, sea levels will increase, and risks will increase in the coming decades. The chapter also includes potential policies and actions<sup>13</sup> that could mitigate and adapt to the sea level rise projections for the Tideflats.

## 5.2 POLICIES

**GUIDING PRINCIPLE 22:** The Subarea Plan ensures reasonably efficient freight access to the Seaport Core districts through identified freight corridors.

**Policy TI-35:** Establish and implement design standards for new roadway infrastructure in the Seaport Core districts. Design should prioritize safety, support multimodal transportation, and accommodate and acknowledge semi-truck traffic and the industrial uses of the Tideflats Subarea. All new developments should be required to be consistent with these standards.

**Policy TI-36:** Identify, protect and preserve the transportation infrastructure and services needed for efficient multimodal movement of freight and people within and between the Seaport Core districts, Transition Areas, and the regional transportation system.

**Policy TI-37:** Support improvements to Heavy Haul Routes that support safe and efficient movement of trucks, as they are intended for and critical to efficient movement of freight.

**Policy TI-38:** Support and encourage intermodal facilities and the transport of cargo via rail to help minimize the roadway traffic impacts and to minimize overall travel delays.

**Policy TI-39:** Prioritize freight truck mobility on Heavy Haul Routes and ensure roads and bridges can handle the heavy loads.

**Policy TI-40:** Place high priority on maintenance and preservation of existing roads and bridges that serve freight movement within and to the Seaport Core districts and

Transition Areas; and encourage the use of reinforced Portland Cement Concrete pavement along Heavy Haul Routes to maintain improved roadway conditions over longer periods of time.

**Policy TI-41:** Identify and prioritize improvements in efficiency to the roadway system, such as traffic signal timing and phasing improvements, which will improve roadway freight operations without requiring major capital investment.

**GUIDING PRINCIPLE 23: The Subarea Plan supports completing a multimodal network and shifting commute modes away from single-occupancy-vehicles.**

**Policy TI-42:** Collaborate with Pierce Transit and Sound Transit to expand rail and bus service to the Tideflats Subarea and major employment destinations. Coordinate system expansion with future investments in high capacity transit and station area improvements.

**Policy TI-43:** Support an integrated system of public transportation, active transportation, and demand management programs, to provide mobility alternatives.

**Policy TI-44:** Support construction of first and last mile connections with local and regional transit service. Work to identify appropriate locations for future transit stops and shelters.

**Policy TI-45:** Provide an integrated system of shared use facilities that connect nearby residential areas with centers of high employment density with the subarea.

**Policy TI-46:** Design active transportation networks and facilities to minimize potential conflicts with trucks and trains to allow for the safe and efficient movement of both freight and people.

**Policy TI-47:** Ensure that all future bridge replacements or widenings incorporate space to accommodate future transit and shared use facilities.

**Policy TI-48:** All street vacation requests within the subarea should perform safety, multimodal level of service and emergency access analysis prior to approval of vacation.

**GUIDING PRINCIPLE 24: The Subarea Plan identifies steps to achieve decarbonization of Port and industrial activity and to accelerate emission reductions.**

**Policy TI-49:** Consider development of measures, such as Low Impact Development (LID) standards, energy efficient lighting technologies, and transportation design features, to reduce greenhouse gas emissions in the port area to help meet state and regional goals for emissions reductions.

**Policy TI-50:** For new development on private and public properties, encourage expansion of electric and/or lower carbon emission transportation infrastructure such as charging/fueling infrastructure for heavy duty equipment, trucks, and autos.

**Policy TI-51:** Identify strategies that aim to increase alternatives to driving alone and achieve a mode split goal that advances a more sustainable mix of auto, transit, and active transportation trips. This should include reducing commute impacts through Transportation Demand Management (TDM) strategies consistent with the Tacoma Transportation Master Plan and Regional Transportation Plan.

**Policy TI-52:** Consider the use of pilot programs and innovative technologies aimed at reducing the carbon emissions from short distance drayage vehicles used to move freight around the port and to other communities within the region.

**Policy TI-53:** Prioritize habitat preservation and restoration to maximize potential hazard mitigation co-benefits.

**Policy TI-54:** Support safety and a resilient workforce in the Tideflats.

**Policy TI-55:** Use nature-based solutions to reduce vulnerability to hazards.

**Policy TI-56:** Align emissions reductions targets with City and Regional goals and targets.

**GUIDING PRINCIPLE 25:** Climate science and greenhouse gas impacts are integrated into plans, programs, and investments. The subarea is more climate resilient by identifying and protecting vital infrastructure subject to future impact to climate change.

**Policy TI-57:** Monitor and evaluate flood protection infrastructure and flood projections at the City of Tacoma's Central Wastewater Treatment Plant, due to this facility's high vulnerability to flood impacts and the risks posed by projected flooding under short-term Relative Sea Level Rise (RSLR) scenarios.

**Policy TI-58:** Employ a subarea-wide phased RSLR adaptation approach, working to put in place short-term mitigation strategies while at the same time planning for longer-term resilience and mitigation to address anticipated future higher hazards. Monitor and re-evaluate sea level rise and flooding hazards on a regular basis and adapt the phased approach as needed.

**Policy TI-59:** Coordinate regional adaptation efforts that will improve hazard resilience both in the subarea and throughout the greater area. For instance, strategies related to upstream flooding impacts.

**Policy TI-60:** Work with property owners to develop a system of flood barriers that mitigates short-term flood impacts such as property damage and operations disruptions.

**Policy TI-61:** For any redevelopment or new development in the subarea, apply measures early in the design process that will provide resiliency for projected future sea level rise and flooding conditions, such as increased elevation and improved drainage patterns.

- > Developments that could result in water contamination, such as wastewater treatment plant and liquid chemical processing, should be designed for 10% probability RSLR for any project designed to last more than 50 years.
- > Essential public facilities, such as utilities, transportation infrastructure, should be designed for 10% probability RSLR for any project designed to last more than 50 years.
- > Essential public facilities should be discouraged in being sited within the 10% RSLR probability area unless needed for a waterborne purpose.
- > Other project types should consider designing to 50% probability RSLR.
- > Use design approaches that maintain adaptive flexibility and allow for implementation of future adaptation strategies geared toward more severe RSLR scenarios.

**Policy TI-62:** Maximize the flood mitigation potential of wetlands, working to maintain and restore wetlands in the subarea where possible as sea level rise occurs.

**GUIDING PRINCIPLE 26:** Coordinated and proactive investment in infrastructure supports mobility, economic development, environmental protection, and climate resiliency.

**Policy TI-63:** Provide, protect, and preserve the capital facilities and essential public services needed to support activities within and beyond the subarea, consistent with targeted growth.

**Policy TI-64:** Coordinate projects and planning efforts with adjacent jurisdictions to ensure safe and efficient movement of freight traffic, both road and rail, through these communities.

**Policy TI-65:** Partner with the Port to identify required new infrastructure, facilities and services needed to support port activities within the Core Areas, as well as priorities for maintenance and preservation of existing infrastructure, facilities and services. By partnering with the Port, the City can make sure that future infrastructure investments are targeted and prioritized to meet the needs of the Port and the Core Area.

**Policy TI-66:** Coordinate with Tribal, state, regional and adjacent local jurisdictions to seek joint funding opportunities for projects that enhance freight mobility in the region.

**Policy TI-67:** Prioritize local investments in the subarea and in corridors leading to the subarea, including a list of specific transportation and other public infrastructure investments and programs.

**Policy TI-68:** Identify strategies, including funding options, to address deficiencies in the subarea's transportation network, including freight, transit, pedestrian, and bicycle facilities and linkages to adjacent neighborhoods and districts. These funding opportunities could include impact fees, industrial revenue bonds, etc.

**Policy TI-69:** Coordinate with the Port to identify the location and jurisdiction of major utility easements that are located in the Core Area; and develop and implement a utility access plan to ensure that utility providers have access at all times to all major utilities.

**Policy TI-70:** Coordinate with state and local agencies to emphasize the importance of regional freight truck corridors to state and local economic health, and support improvements planned on these corridors that enhance freight mobility. These corridors are those designated with a T-1 tonnage classification (carrying over 10 million tons of freight per year) by the Washington State Department of Transportation (WSDOT) as well as the roads that connect the Port to the regional road System, i.e., first/last mile connector routes.

**Policy TI-71:** Coordinate with the Port to develop strategies to minimize truck queues, work to resolve long duration truck parking within the right-of-way, minimize truck traffic dispersing into prohibited streets, and other traffic elements that could interfere with mobility along these routes and impact adjacent residential communities.

**Policy TI-72:** Lead coordination of emergency response and evacuation planning for the subarea and surrounding areas to protect people, essential infrastructure, and the role of the seaport for strategic national defense.

**Policy TI-73:** Monitor and re-evaluate RSLR hazards on a regular basis to maintain flexibility in RSLR adaptation strategies.

**Policy TI-74:** Utilize lower RSLR scenarios (1ft-3ft) to guide short-term mitigation and adaptation response.

**Policy TI-75:** Account for 5ft RSLR in long-term planning.

**Policy TI-76:** Adopt responsive design standards and thresholds to address projected climate change impacts including SLR, coastal flooding, riverine flooding, extreme rainfall, and storm surges.

**Policy TI-77:** Coordinate RSLR adaptation efforts across jurisdictions and with regional initiatives.

## 5.3 PRIORITY ACTIONS AND REGULATORY RECOMMENDATIONS

**Action A-62:** For archaeological resources, conduct a thorough review under the existing regulatory framework to avoid, minimize, or mitigate impacts on these resources within the study area.

**Action A-63:** Map, monitor, and analyze coastal flood events.

**Action A-64:** Conduct a Sea Level Rise Risk Assessment or add sea level rise into other hazard assessments such as wave runup, storm surge, and tsunami hazard assessments.

**Action A-65:** Conduct a review of current science focusing on flooding impacts to critical roads, infrastructure, and steep slopes due to increasing intense rainfall events, sea level rise, flooding, and landslides. Integrate findings into City development codes, emergency management, and capital planning.

**Action A-66:** Explore smart technologies to monitor changing conditions and identify potential threats. Smart technology applications may be especially useful in monitoring sites and areas that are hard to reach. For example, installing water-detection sensors in underground utility vaults may help identify water intrusion from events like groundwater flooding that may otherwise go unnoticed.

**Action A-67:** Maintain up-to-date floodplain maps. Collaborate with FEMA and regional partners to develop a systematic way to regularly update the maps as projects affecting the floodplain are completed.

**Action A-68:** Develop a local floodplain definition to help revise mitigation and adaptation strategies.

**Action A-69:** Implement flood mitigation measures in low-lying areas such as in surrounding drainage canals within the MIC, the southern portion of the Thea Foss Waterway at the Route 509 bridge, and Near I5 south of the Blair Waterway.

**Action A-70:** Implement flood mitigation efforts at the Central Wastewater Treatment Plant.

**Action A-71:** Restrict hazardous uses in the 500-year floodplain.

**Action A-72:** Develop a retrofit plan for public infrastructure in coastal flood hazard areas. Assess conditions of seawalls, piers, revetments, shoreline

infrastructure, open spaces, parks, and habitat to identify length of service, repair, and maintenance.

**Action A-73:** Evaluate flooding impacts on existing habitat areas such as areas at the mouth of the Puyallup River, Blair Waterway, Hylebos Waterway, and Wapato Creek. Implement additional modifications to mitigate flooding impacts on surrounding areas.

1. Identify places where infrastructure can be set back as part of capital improvement project implementation.
2. Conduct a shoreline inventory and characterization to establish a baseline and repository of data that can be used to inform:
  - > Appropriate changes to existing setback and buffers distances around marine shoreline that are responsive to sea level rise and flooding impacts
  - > Sea level monitoring locations
  - > Area widths for transitional zones around the nearshore.
3. Ensure that stormwater infrastructure protects against flooding hazards such as coastal flooding, riverine flooding, urban flooding, and groundwater flooding. With rising sea levels and increasing extreme precipitation events, it is especially important to maintain stormwater infrastructure in good condition and adapt stormwater systems to changing conditions.
4. Establish a coastal hazard working group to continue solving coastal flooding issues as they relate to zoning and land use. The group should have representatives from Port/NWSA, Pierce County, City of Tacoma, Puyallup Tribe, and City of Fife.
5. Coordinate with climate change planners to anticipate infrastructure improvements or adaptation techniques to minimize damage to infrastructure or disruption to services related to future sea level rise or other climate-related effects to the community.
6. Collaborate with regional partners to implement the programmatic and project recommendations outlined in the Pierce County 2023 Comprehensive Flood Hazard Management Plan.
7. Develop a Sea Level Rise Flood Damage Ordinance or Flood Damage Protection Ordinance. The ordinance would reduce losses due to flooding by restricting or prohibiting uses that are dangerous to health, safety, and property due to water related hazards, requiring uses vulnerable to floods to be protected, controlling the alteration of natural habitat, and/or regulating development that may increase flooding.
8. Collaborate with regional partners to develop and implement a Commencement Bay Restoration and Resiliency Plan.
9. Collaborate with regional partners to develop uniform flood control standards to prevent riverine flooding due to coastal flooding and tidal influence of Hylebos and Wapato Creeks and the Puyallup River.
10. Collaborate with the City of Fife to maintain functionality and legal compliance of stormwater systems that rely on discharge into Commencement Bay, namely the Erdahl Ditch and Fife Ditch.
11. Where applicable, remove bulkheads and shore defense works to restore shoreline, preserve natural processes, and help adapt to sea level rise.



12. Develop additional habitat sites along the Puyallup River, the Hylebos Creek, and Wapato Creek that support the ecosystem and increase flood storage capacity.

**Action A-74:** Prioritize protecting existing habitat sites to avoid decrease in ecological function due to coastal flooding impacts.

1. Use green infrastructure to capture stormwater and reduce urban flooding issues.
2. Increase tree and vegetative cover where appropriate to reduce urban heat island effect.
3. Protect shorelines from coastal flooding and erosion using natural hardening methods that help reduce wave action, decrease water velocity, or prevent waters from overtopping the shoreline and getting on terminals.
4. Employ vegetative planting techniques to avoid coastal erosion while avoiding outright armoring of coastal areas.

**Action A-75:** Maintain Port of Tacoma's status and capabilities as a Strategic Seaport. The Port of Tacoma is a Commercial Strategic Seaport and part of the National Port Readiness Network and must be ready to make the port and its facilities available to support the deployment of military forces.

1. Develop and maintain emergency response plans for various hazards and hazardous working conditions. Allow for coordination and collaboration with stakeholders.
2. Encourage the use of emergency response plans to include worker safety plans in the event of hazards or evacuation.
3. Support development of and collaboration on Continuity of Operations Plans in the Tideflats for continuation or quick recovery after an event.

**Action A-76:** In coordination with WSDOT, local jurisdictions, transit agencies, law enforcement and other emergency entities, identify high-priority locations to implement intelligent transportation systems (ITS) and other transportation systems management and operations (TSMO) improvements. High-priority investments within the subarea could include signal priority, wayfinding, and geometric improvements for freight, in addition to dynamic roadway messaging and warnings. An initial phase of this effort has already begun.

**Action A-77:** Recognize the Port of Tacoma MIC is dependent on adjacent transportation infrastructure owners and partner with WSDOT and the City of Fife to coordinate sequencing and construction of planned roadway projects to maintain freight fluidity as well as improve transit and multimodal access at a system level.

**Action A-78:** Coordinate with pertinent jurisdictions, entities, and private interests to implement a transportation management association (TMA) for the subarea. The purpose of this TMA would be to implement policies and supportive tools to improve travel demand management, such as establishing parking maximums/minimums, reducing spillover parking, unbundling parking costs, increasing parking taxes/fees, and reviewing/revising transit pass provision programs for employees within the subarea.

**Action A-79:** Partner with Pierce Transit (PT) to phase in transit service expansion over time, including:





**Figure 70. Existing Facilities and Planned Transit Improvements within the Subarea**  
*Note: The exact route and station locations for the Tacoma Dome Light Rail Link Extension is still being finalized; the routing on the map represents the most recent preferred alternative. Source: Pierce Transit and Sound Transit, 2024. Data compiled by Fehr & Peers, 2024*

- > Data sharing to support transit service planning (calls for service from PT and City sharing land use and employment data with PT) and identify opportunities to expand micro-transit within the Tideflats
- > Education and marketing to raise awareness of Runner service with major employers
- > Prioritize pedestrian and safety improvements around transit locations
- > Coordinate with the Port of Tacoma and Pierce Transit to determine potential long term fixed transit routes
- > Update roadway design standards to accommodate long-term transit improvements.
- > Consider funding options to expand micro transit service within the Tideflats and surrounding neighborhoods, especially in coordination with light rail service expansion and station area improvements.

**Action A-80:** Develop City-led and private partnerships to encourage the development of safe and accessible infrastructure for all modes within the MIC road network. This would include revising the City's transportation design standards to facilitate balancing multimodal and freight (truck and rail) needs by reflecting safety improvements within the subarea, and to require sidewalks at a minimum as part of future roadway improvements. Safety needs identified include pedestrian crossing and access improvements to facilitate access into and out of the subarea as well as along key corridors within the subarea itself.

**Action A-81:** Consider parking strategies that manage on-street parking demand and supply, including implementing time limits, restricted parking zones, and implementing additional off-street truck staging and processing facilities. To facilitate additional off-street truck staging, perform a siting study to determine feasible locations for potential staging areas.

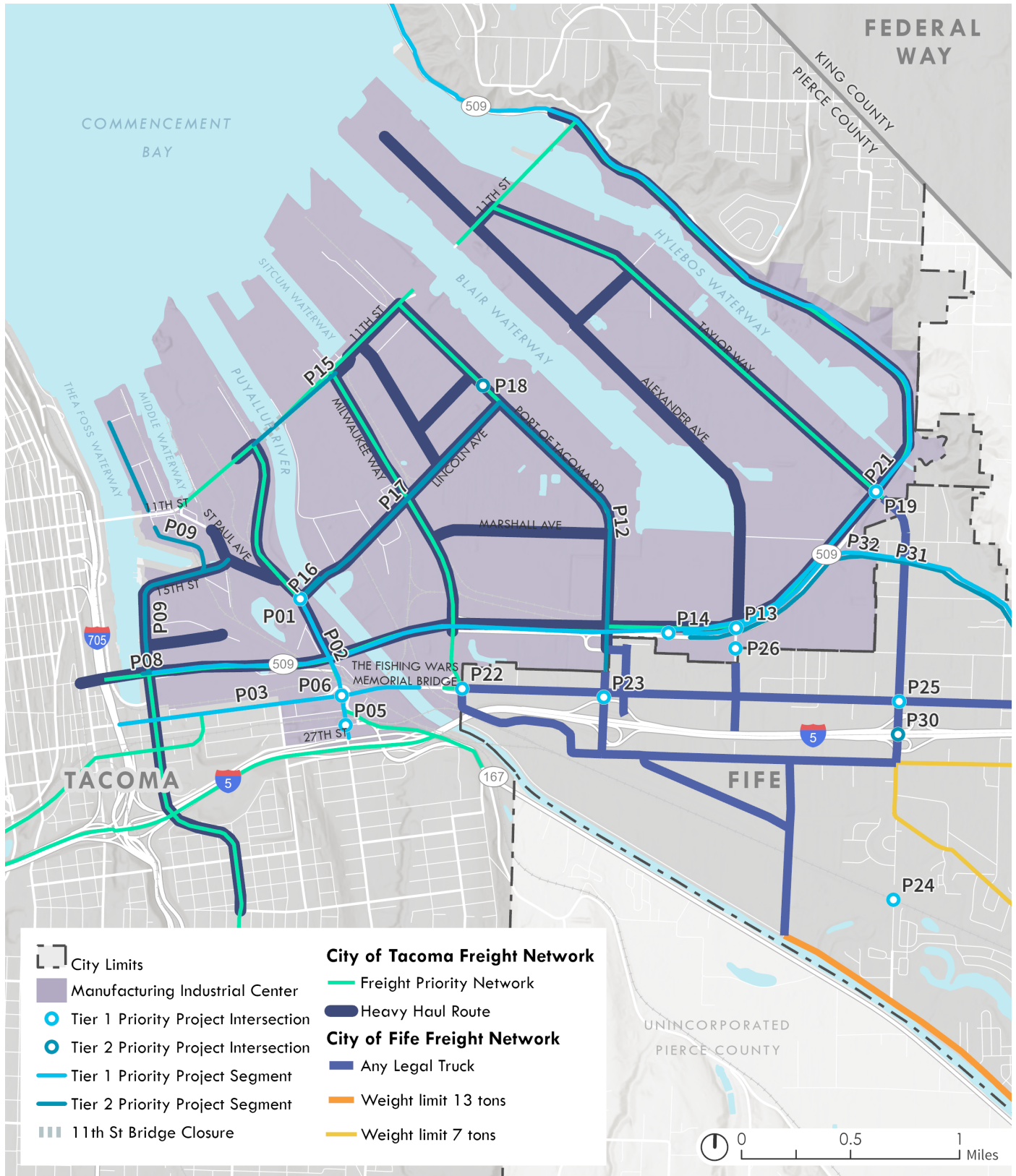
**Action A-82:** Coordinate with railroad owners on safety or grade separation projects to support movement of freight by rail and compatibility with the roadway network.

**Action A-83:** Identify opportunities to lower driver speed to reduce severity of crashes through redesign of roadway. This should include implementation of a safety countermeasure fee or fund that new developments within the subarea must pay into. Explore the use of automated speed enforcement cameras to improve traffic safety in the subarea.

**Action A-84:** For corridors identified as Heavy Haul Routes, update the Public Works Design Manual to prioritize safety, support multimodal transportation, and accommodate semi-truck traffic and the industrial uses of the Container Port.

**Action A-85:** Identify funding opportunities to fund projects and actions in the Subarea Plan, including:

- > City and County impact fees
- > SEPA mitigation where commensurate with the impacts of a new development.
- > Local Improvement District
- > Transportation Benefit District
- > Industrial Revenue Bonds
- > Federal Safety and Active Transportation Grants
- > State and Regional Grant funding



**Action A-86:** The regional partners will work collaboratively to implement the projects contained in the priority project list, shown in **Figure 71**. The near-term focus of this implementation would be on Tier 1 projects, with Tier 2 projects being considered longer-term and/or lower-priority investments for the subarea.

**Figure 71.** Existing Facilities and Planned Vehicle and Freight Improvements within the Subarea

Source: Fehr & Peers and Heffron Transportation, 2024

