

# **PUBLIC SERVICES AND UTILITIES TECHNICAL REPORT**

***SR 167 – 8<sup>th</sup> Street E Vic. to S 277<sup>th</sup> Street Vic.  
Southbound HOT Lane***

***July 2008***

***Prepared for:***

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## **EXECUTIVE SUMMARY**

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### **What is the proposed project and why is it needed?**

The Washington State Department of Transportation (WSDOT) plans to widen the State Route (SR) 167 roadway to construct a new southbound high-occupancy toll (HOT) lane from the vicinity of 8th Street E (MP 10.2) in Pierce County, Washington to the vicinity of S 277th Street in Kent (MP 18.24), King County, Washington. The construction of the HOT lane will require widening of the southbound bridge at the SR 18 interchange. Ramp meters will be installed at southbound on-ramps at the SR 167 interchanges with 15th Street SW, Ellingson Road, and 8th Street E. In addition, new signals will be installed at the SR 167 southbound ramp terminals with Ellingson Road and 8th Street E. SR 167 is an important thoroughfare for cars, trucks, and transit in the Green River Valley. This additional capacity will relieve congestion and improve safety for commuters traveling southbound on SR 167.

### **What areas and resources will be affected?**

Public services that may be affected within the area include fire protection, emergency medical service, police protection, schools, parks, social services, transit, solid waste and recycling collection. Public and private utilities that exist within the study area and may be affected include water, sanitary sewer, electricity, natural gas, telephone, cable, and fiber optic cable<sup>1</sup>.

Two different study areas were used for public services and utilities due to the nature of effects on these elements. Public services were identified within a 0.5-mile radius (approximately 2640 feet) of the project alignment and public services outside the study area that provide services within the study area were noted. A 0.19-mile (approximately 1,000 feet) radius around the project alignment was used to identify any utilities and/or service boundaries that could be affected by the proposed project.

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<sup>1</sup> Stormwater drainage utilities and the effects to stormwater drainage are addressed under a separate report.

**How were the effects on public services and utilities identified and evaluated?**

The analysis to determine what services, if any, could be affected by the project included the following steps:

- Determine the location of the existing public services and utilities within the proposed study area
- Analyze the effects of the proposed project on the existing public services and utilities (this can include effects during the construction as well as during the operation of the HOT lane facility)
- Provide a summary of the overall effects and potential mitigation strategies for the proposed project on the existing public services and utilities

**What effects will the project have on public services and utilities?**

No substantial effects to public services and utilities are anticipated due to proposed project.

During project construction, SR 167 will be kept open to traffic most of the time and access for emergency vehicles will be maintained. However, some lane closures will be necessary during non-peak hours. Also, a few complete late-night closures will likely be required which may include detouring traffic along local streets or merely detouring traffic off at an off-ramp and immediately back onto the highway via the on-ramp. This means that travel times for general traffic, fire, emergency medical, and police vehicles through the construction project area may increase slightly. During construction, there may be some short-period temporary utility interruptions when a utility is switched from an old line to a new, relocated line.

In the long-term, this project will help improve safety and travel times in the southbound lanes, thereby improving access for public services including (electricity) emergency response vehicles. The project will require utility usage for ramp metering, lighting, electronic variable message signs, new signals, and cameras. However, this is not expected to create a

negative effect on the availability of power to existing or future customers in the study area.

**What mitigation measures are proposed to avoid or minimize project effects on public services and utilities?**

A number of construction-related mitigation measures are identified in Chapter 3 of this report. Such measures include preparing a traffic control plans, providing adequate public notice of traffic disruptions during construction, and coordinating with emergency services, utility companies, and customers in a timely manner when the public service or utility will be temporarily impacted.

This project is expected to have minimal effects to public services and utilities during construction and no effects after construction.

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**CHAPTER 1 INTRODUCTION**

**What is the proposed project and why is it needed?**

The Washington State Department of Transportation (WSDOT) plans to widen the State Route (SR) 167 roadway to construct a new southbound high-occupancy toll (HOT) lane from the vicinity of 8th Street E (MP 10.2) in Pierce County, Washington to the vicinity of S 277th Street in Kent (MP 18.24), King County, Washington (Exhibit 1). This new HOT lane will be a continuation of a southbound HOT lane that was constructed for the HOT Lane Pilot Project, which extends from the I-405 interchange in Renton to S 277th Street in Kent.

High Occupancy Toll (HOT) lanes are managed lanes intended to increase mobility by allowing more vehicle use of the HOV lane. HOT lanes maintain free, priority status for transit and carpools, the same as a HOV lane, but also allow single occupancy vehicles to pay a toll to use the lane. Toll rates are variable, depending upon the level of congestion.

The construction of the HOT lane will require widening the roadway to the outside of the existing pavement between 6th Avenue N in Algona and 5th Avenue S in Pacific. In addition, it will require widening the southbound bridge at the SR 18 interchange. Ramp meters will be installed at southbound on-ramps at the SR 167 interchanges with 15th Street SW, Ellingson Road, and 8th Street E. In addition, new signals will be installed at the SR 167 southbound ramp terminals with Ellingson Road and 8th Street E. All of the proposed widening work will occur within the WSDOT right-of-way, with the exception of the stormwater site. The stormwater site will be purchased at the northwest quadrant of the SR 167 / SR 18 interchange area.

SR 167 is an important thoroughfare for cars, trucks, and transit in the Green River Valley. The additional capacity that this project will provide to SR 167 will relieve congestion and improve safety for commuters traveling southbound. This project, combined with other planned SR 167 projects, could make the highway a viable alternative to I-5.

**Exhibit 1  
Vicinity Map**



**What is the purpose of this public services and utilities study?**

This report describes the existing conditions and potential range of effects to public services and utilities that may be attributed to the construction and operation of a southbound HOT lane on SR 167, between 8th Street E Vicinity to S 277th Street Vicinity.

This report was prepared as part of a National Environmental Policy Act (NEPA) Documented Categorical Exclusion (DCE), which requires all actions sponsored or those with potential federal funding, permitted, or approved by a federal agency to consider the environmental effects of the proposed action. The Washington State Environmental Policy Act (SEPA) requires a similar evaluation of the environmental effects of proposed actions for state and local projects. This project is required to comply with both NEPA and SEPA, which includes a review of potential effects and possible mitigation measures. When there is a potential for public service or utility to be affected as a result of the proposed project, then a review of those potential effects and possible mitigation measures is required.

Public services that may be affected within the area include fire protection, emergency medical service, police protection, schools, parks, social services, transit, solid waste and recycling collection. Public and private utilities that exist within the study area and may be affected include water, sanitary sewer, electricity, natural gas, telephone, cable, and fiber optic cable<sup>2</sup>.

This project can have an effect on public services and utilities in a number of ways by temporarily disrupting service or displacing infrastructure and requiring improvements or upgrades to the infrastructure. If effects are identified, WSDOT will implement actions to mitigate for those effects, as described in Chapter 5.

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<sup>2</sup> Stormwater drainage utilities and effects to the stormwater drainage are addressed under a separate report.

**CHAPTER 2 EXISTING PUBLIC SERVICES AND UTILITIES**

**What is the study area for public services and utilities?**

Two different study areas were used for identifying public services and utilities due to the nature of effects on these elements. Public services were identified within a 0.5-mile (approximately 2640 feet) radius of the project alignment (see Exhibit 2). Public services outside of the study area that provide services within the study area were noted in the evaluation. A 0.19-mile (approximately 1,000 feet) radius around the project alignment was used to identify any utilities and/or service boundaries that could be affected by the proposed project.

**How was information on public services and utilities collected?**

The following steps were used in determining what services, if any, could be affected by the project:

- Determine the location of the existing public services and utilities within the proposed study area
- Analyze the effects of the proposed project on the existing public services and utilities
- Provide a summary of the overall effects and mitigation strategies for the proposed project on the existing public services and utilities

In addition, the following information was reviewed:

- The project’s geographical information systems (GIS) database
- GIS data from King County and Pierce County
- Local municipality and county Comprehensive Plans
- Local municipality, county, and utility websites
- Previously completed WSDOT base maps
- WSDOT Utility Permit Franchise Database

**Exhibit 2  
Study Area for Public Services and Utilities**



- Reports or studies prepared for this project, covering subjects such as transportation, environmental justice, Section 4(f), air, and noise
- Draft as-built plans for SR 167

**Where do public services exist within the study area?**

For this report, public services located within a 0.5-mile radius around the proposed project alignment were considered as part of this study. Exhibit 3 illustrates the location of public services and facilities within and outside of the identified study area.

***Parks***

Three parks and a trail exist within the study area. They include: Gaines Park and Centennial View Park in Auburn, Algona Park in Algona, and the Interurban Trail, which traverses most of the study area. Emerald Downs, a private racing facility, is located in this study area. In addition, the City of Auburn proposed to build an Environmental Park within the study area. These public park facilities are discussed below.

**Interurban Trail**

The 14-mile Interurban Trail runs between I-405 in Renton and 3rd Avenue SW in Pacific. This trail is paved with asphalt and has gravel shoulders. The trail serves pedestrian and bicycle riders. The trail runs parallel to SR 167 and is generally 0.5-mile to 1.0 mile east of the project from Renton to Auburn. The trail veers to the southwest near 15th Street SW. Near the trail's end, at 3rd Avenue SW, the trail is approximately 300 feet east of SR 167.

**Gaines Park**

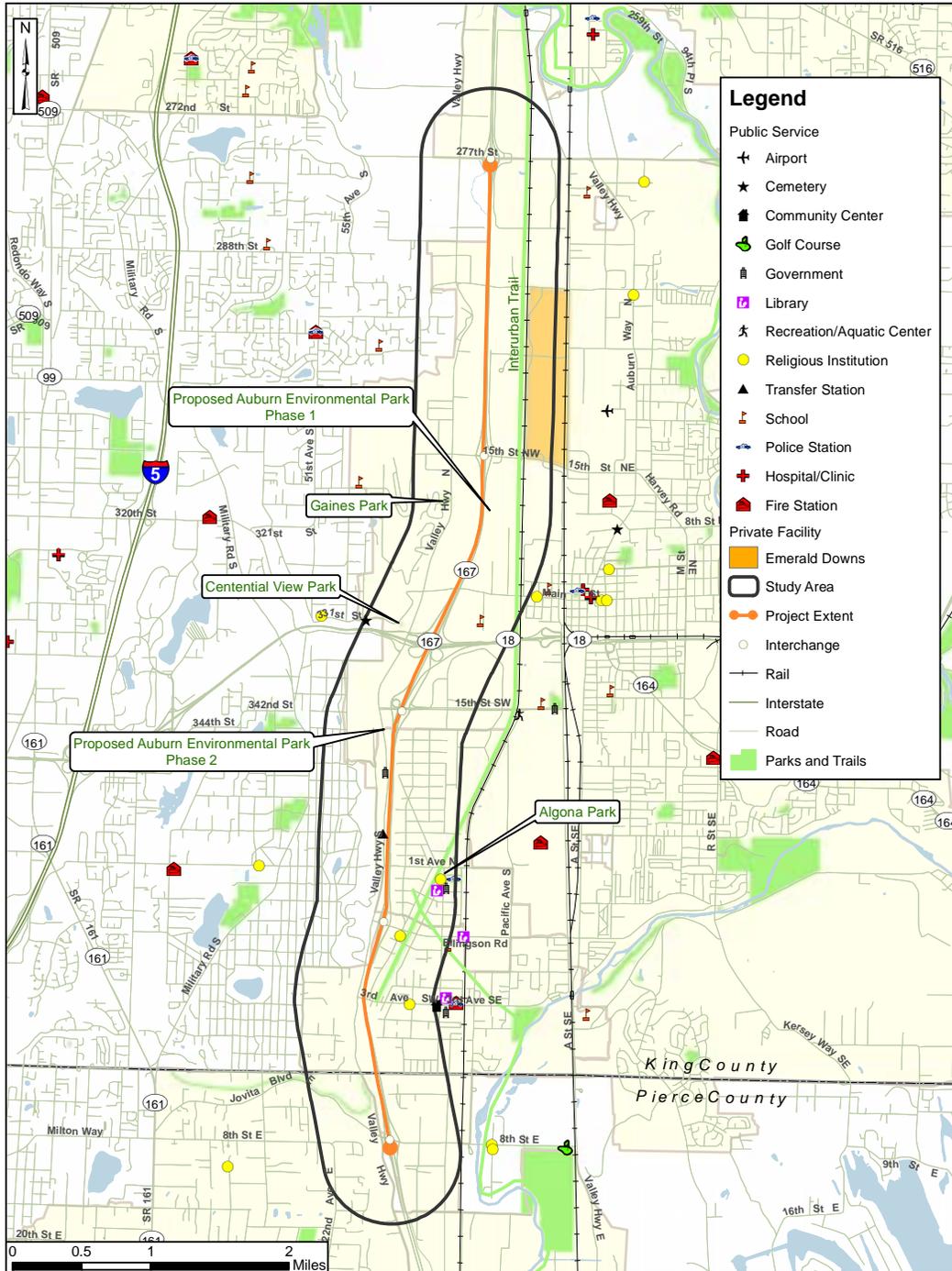
Gaines Park is located at the intersection of 11th NW and West Valley Highway in Auburn. It is a neighborhood park located in a residential area that has a boardwalk along a wetland area on the east edge of the park and includes a picnic area, play area, and a basketball half-court.

Centennial View Park

This park is located on Mountain View Drive in Auburn, across the road from Mountain View Cemetery. It has eastern views of the Green River Valley, the Cascade Range, and Mount Rainier beyond. This small park functions primarily as a scenic overlook.

**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 3  
Location of Public Services**



### Algona Park

Algona Park is located on 402 Warde Street in Algona. It has athletic fields. Recently the City of Algona received a grant to help with the creation of a wetlands park in Algona and the city hopes these improvements will allow Algona Park to become a destination park.

### Auburn Environmental Park

The City of Auburn is planning an environmental park adjacent to the SR 167 right-of-way. Phase 1 of the proposed park will be approximately 120 acres and border along SR 167 to the west, 15th Street NW to the north, the Interurban Trail to the east, and West Main Street to the south. In addition, a 130-acre area immediately west of the SR 167 right-of-way, which encompasses a segment of Mill Creek, is being studied for inclusion in Phase 2 of the environmental park project.

The Auburn Environmental Park will provide public education and recreation opportunities and offer hiking trails, and bird viewing. The park is intended to create open space in an urbanized area while offering opportunities for economic development, water quality improvement, stormwater detention and flood control, as well as fish and wildlife enhancement.

Auburn has begun the process of restoring the natural habitat for Phase 1 of the environmental park. Two sites along Western Avenue in Auburn have already been cleared of invasive, non-native plants, and planted with native plants. These sites will serve as the trailhead to the park. Also, a small gravel parking area is located here.

Auburn is currently developing a master plan for the park while seeking grants and other funding resources.

### **Government Buildings**

There are three government buildings within the study area: a WSDOT maintenance facility in Kent, the Algona City Hall, and the Algona Library. No public medical facilities, recreational facilities, senior centers, or museums exist within the study area.

***Solid Waste and Recycling Facilities***

Roadways in the study area are used for solid waste hauling and to reach local transfer facilities. A King County transfer station, shown in Exhibit 4, is located at 35315 West Valley Highway, just to the west of SR 167, half way between 15th Street SW and Ellingson Road. Nearly all of the study area is served by the King County Solid Waste facility in Algona, and waste collection services are through King County, which contracts with Waste Management. DM Disposal handles Edgewood and Sumner’s garbage and recycling. These solid waste contracts only include recycling for residential pick-up and do not cover recycling services for commercial firms; therefore, several private recycling companies serve businesses within the study area.

**Exhibit 4  
King County’s Algona Transfer Station**



***Emergency Services***

Emergency services include fire, police, ambulance, and emergency medical facilities. The Algona Police Department is the only emergency service facility located within the study area. Other stations also respond to emergency calls for fire or police assistance within the study area, as needed. All cities in the SR 167 study area have their own police and fire departments, with the exception of the City of Edgewood, which contracts with the Pierce County Sheriff’s Department and Fire District No. 8. All these emergency services use SR 167 as a major transportation thoroughfare.

Valley Regional Fire Authority provides regional fire and emergency medical treatment services throughout most of the study area. King County Medic One, of Kent, provides ambulatory service to the study area. The major medical facility in the area with emergency care is the Valley Medical Center, located at the interchange of SR 167 and S 180th Street in Renton.

**Religious Institutions and Cemeteries**

There are two religious institutions located in the study area, both located in Pacific.

Auburn has one cemetery, the Mountain View Cemetery, located at 2020 Mountain View Drive, which is within the study area.

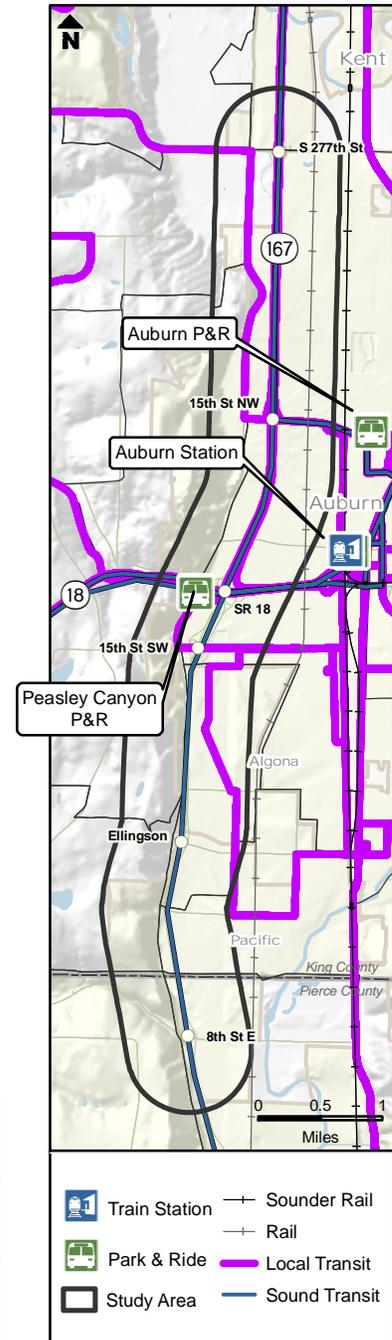
**Transit Services**

A number of transit agencies currently serve communities along SR 167. Specific transit operators include Sound Transit, King County Metro, and Pierce Transit. Sound Transit provides regional bus express service and Sounder commuter rail. The Sounder train serves Auburn Station which is located just outside the study area. King County Metro provides local and express buses and vanpools.

In the study area, bus transit routes run between and within all cities. While local service is available, routes are predominantly geared towards morning commuters traveling northbound to Seattle, Bellevue, and Renton; and southbound to Kent, Auburn and Puyallup in the evenings. The commuter rail service runs between Tacoma and Seattle, with new limited bi-directional service. In addition, there is one park and ride facility within the study area on Peasley Canyon Road.

Exhibit 5 illustrates the location of the transit facilities and routes within the study area; Exhibit 6, lists primary bus routes.

**Exhibit 5  
Transit Services**



**Exhibit 6  
Primary Bus Routes within the Study Area**

Route Number	Type of Service	Destinations
Sound Transit 564	Commuter	Puyallup, Sumner, Auburn, Kent, Renton, Bellevue
Sound Transit 565	Commuter	Federal Way, Auburn, Kent, Renton, Bellevue
Metro Transit 152	Commuter	Auburn, Seattle
Metro Transit 154	Commuter	Auburn, Kent, Tukwila, Seattle
Metro Transit 180	Commuter and Local	Auburn, Kent, SeaTac, Burien
Metro Transit 181	Local	Federal Way, Auburn, Green River Community College
Metro Transit 919	Local and DART <sup>3</sup>	Auburn
Metro Transit 917	Local and DART	Auburn, Algona, Pacific

<sup>3</sup> King County Metro's Dial-a-Ride Transit (DART) offers variable routing in some areas within King County. By using vans that can go off regular routes to pick up and drop off passengers within a defined service area, DART service may allow a person to arrange for transit service closer to a location. DART does not go door-to-door. It operates on a fixed schedule, but one that has more flexibility than regular Metro Transit buses. The cost for DART service is the same as [regular bus rides](#) on Metro and is available to everyone.

**Schools**

Within the study area, seven school districts serve the population, including the Kent, Federal Way, Auburn, Fife, Dieringer, Puyallup, and Sumner school districts. There is one school in the study area, Alpac Elementary in Algona. Exhibit 7 illustrates the location of the school district boundaries.

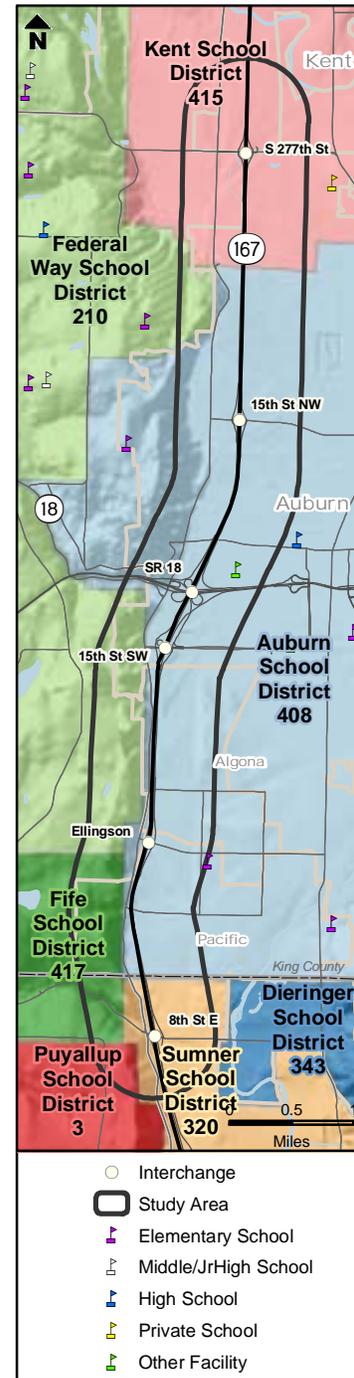
**What utilities are within the study area?**

The public utilities within the study area include those provided by local governments or utility districts — water, sanitary sewer, and storm water. Several private utilities also exist within the study area and include telephone, cable, electricity, gas, and fiber optic cable. Private utilities are typically not included on local government maps; they are available usually by written inquiry or through a utility locating service.

Utilities within or close to the project alignment will be reviewed by WSDOT’s design team to determine whether they will be unaffected, temporarily relocated, permanently relocated, or modified in some manner as part of the proposed project.

Exhibit 8 lists all of the known utility service providers within the study area.

**Exhibit 7  
School District Map**



**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 8  
Public and Private Utilities Serving the Study Area**

Type of Service	Organization Name
Electricity	Puget Sound Energy Bonneville Power
Natural Gas	Puget Sound Energy
Telephone/Internet	Qwest®, AT&T®
Fiber Optic Line	WSDOT, Above Net, 360 Networks USA
Cable/Internet	Comcast Cable
Water	Auburn: City of Auburn Utilities Algona: City of Algona Public Works Edgewood: Mountain View-Edgewood Water Company, City of Milton, Lakehaven Utility District, DeChaux Water Company, City of Sumner Public Works Kent: City of Kent Public Works King County: Lakehaven Utility District Pacific: City of Pacific Public Works Puyallup: City of Puyallup Public Works Sumner: City of Sumner Public Works
Sanitary Sewer	Auburn: City of Auburn Utilities Algona: City of Algona Public Works Edgewood: City of Edgewood Public Works Kent: City of Kent Public Works King County: Lakehaven Utility District Pacific: City of Pacific Public Works Puyallup: City of Puyallup Public Works Sumner: City of Sumner Public Works
Solid Waste Collection & Recycling	Rabanco, Waste Management, and DM Muttey's Disposal

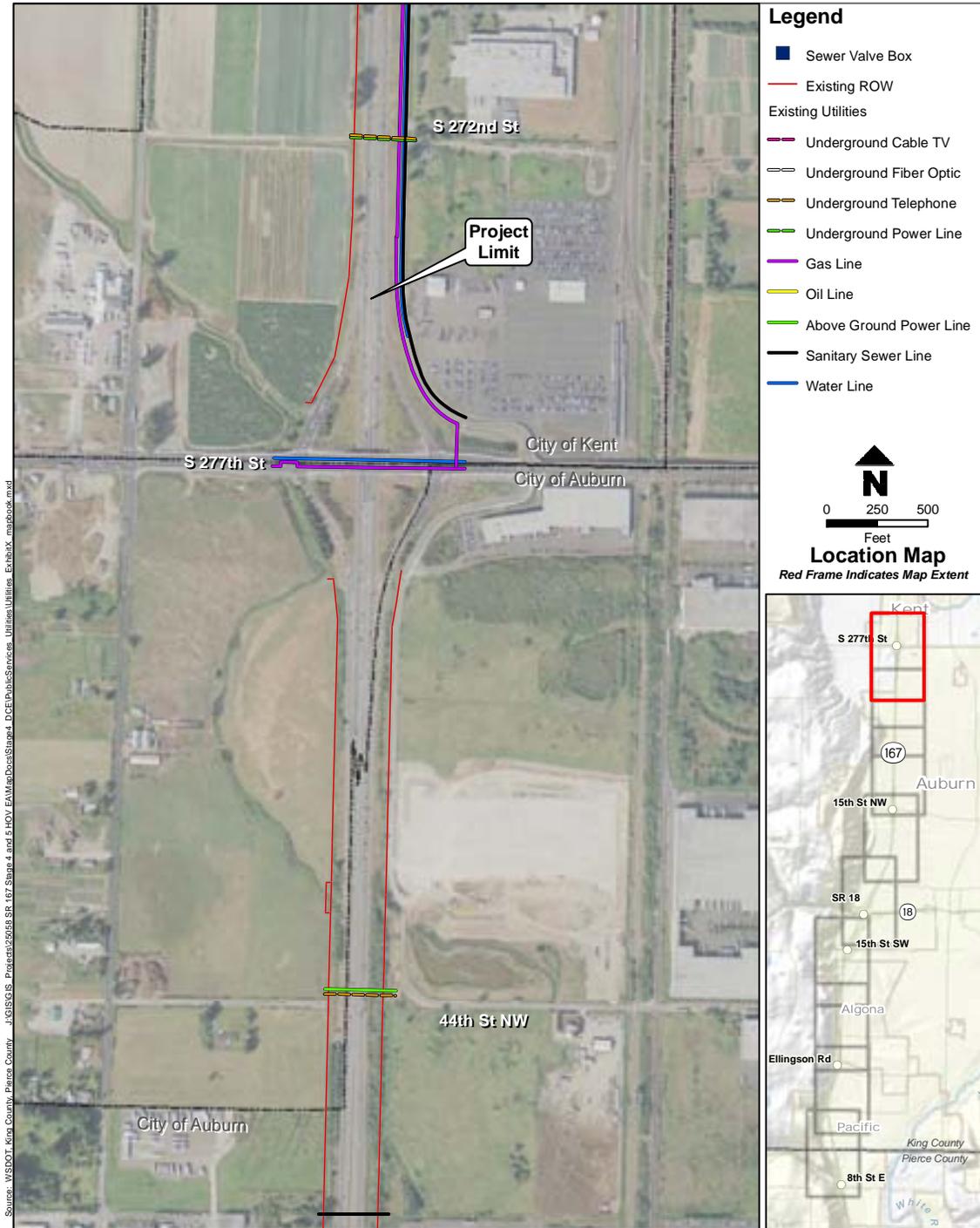
**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

Some utilities are located on the outside of the existing highway alignment, some are located within the median, and several utilities cross the highway perpendicularly. Utilities can be either underground or above ground. The largest groupings of utilities within the study area are at crossings located at 37th Street NW, 29th Street NW, and Mount View Drive.

Exhibits 9 through 17, starting at the northern terminus of the project, show the locations of public and private utilities on aerial maps. This is followed by a listing of the major crossing points by utilities or services that cross the highway.

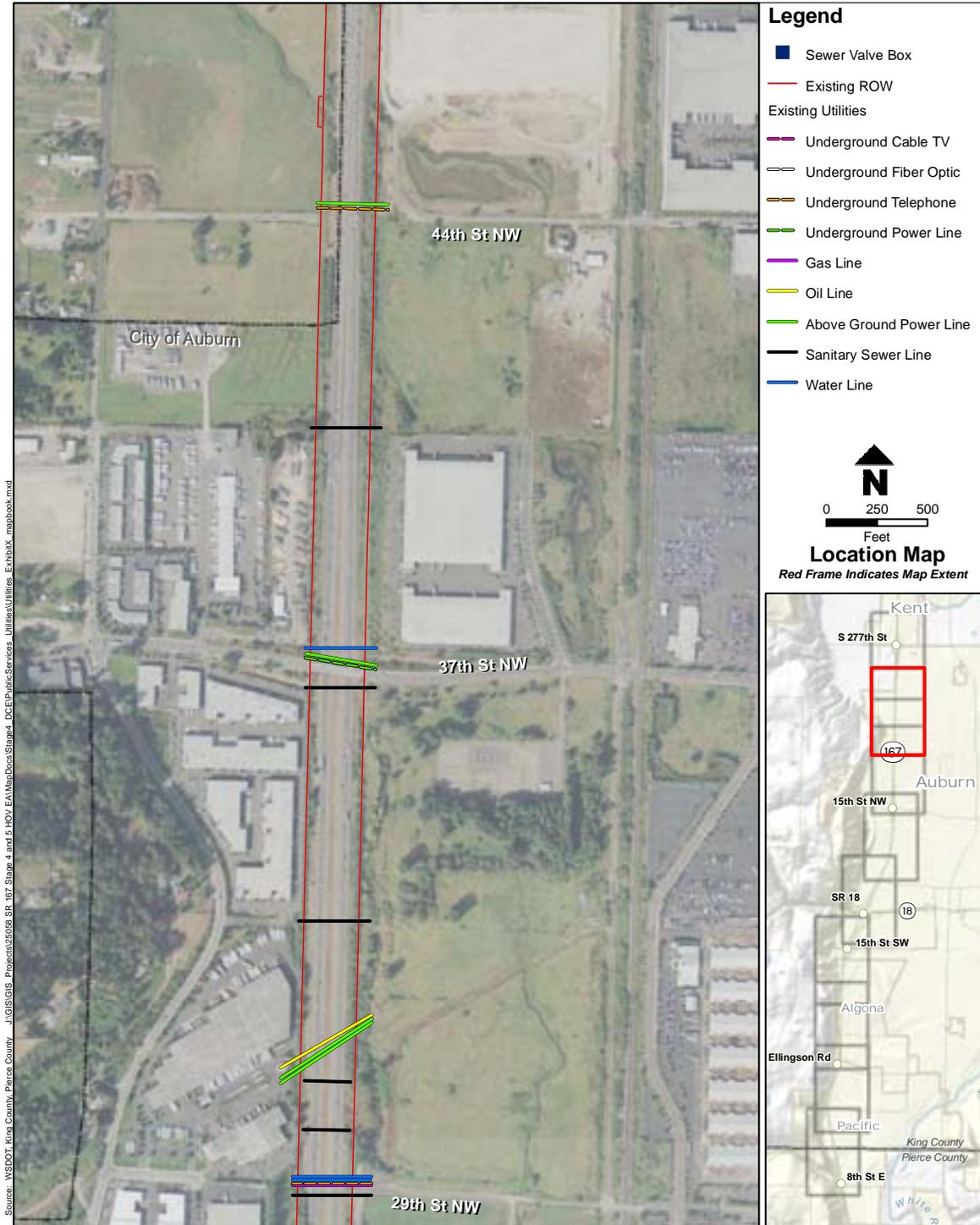
**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 9  
Location of Public and Private Utilities Serving the Study Area**



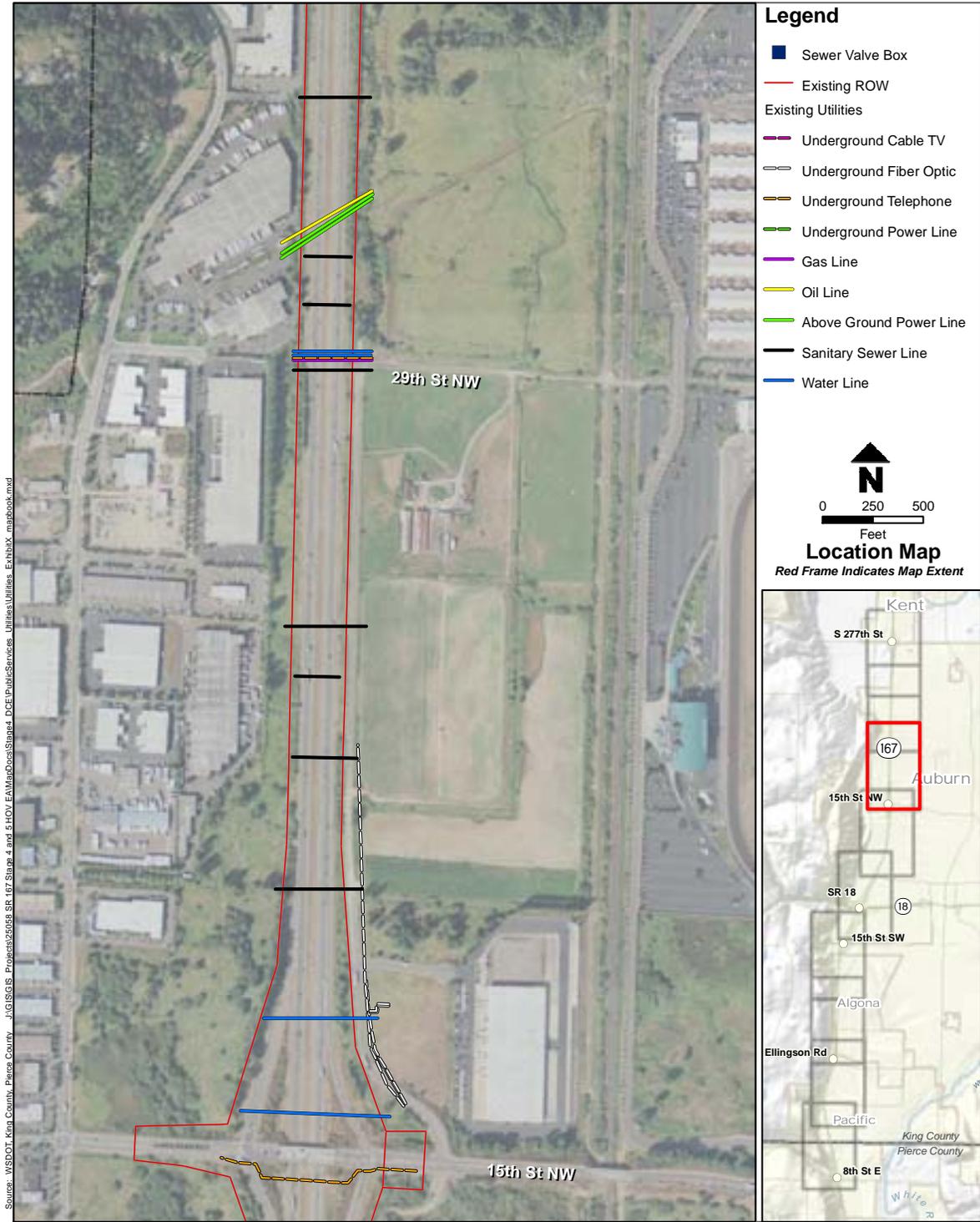
**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 10  
Location of Public and Private Utilities Serving the Study Area**



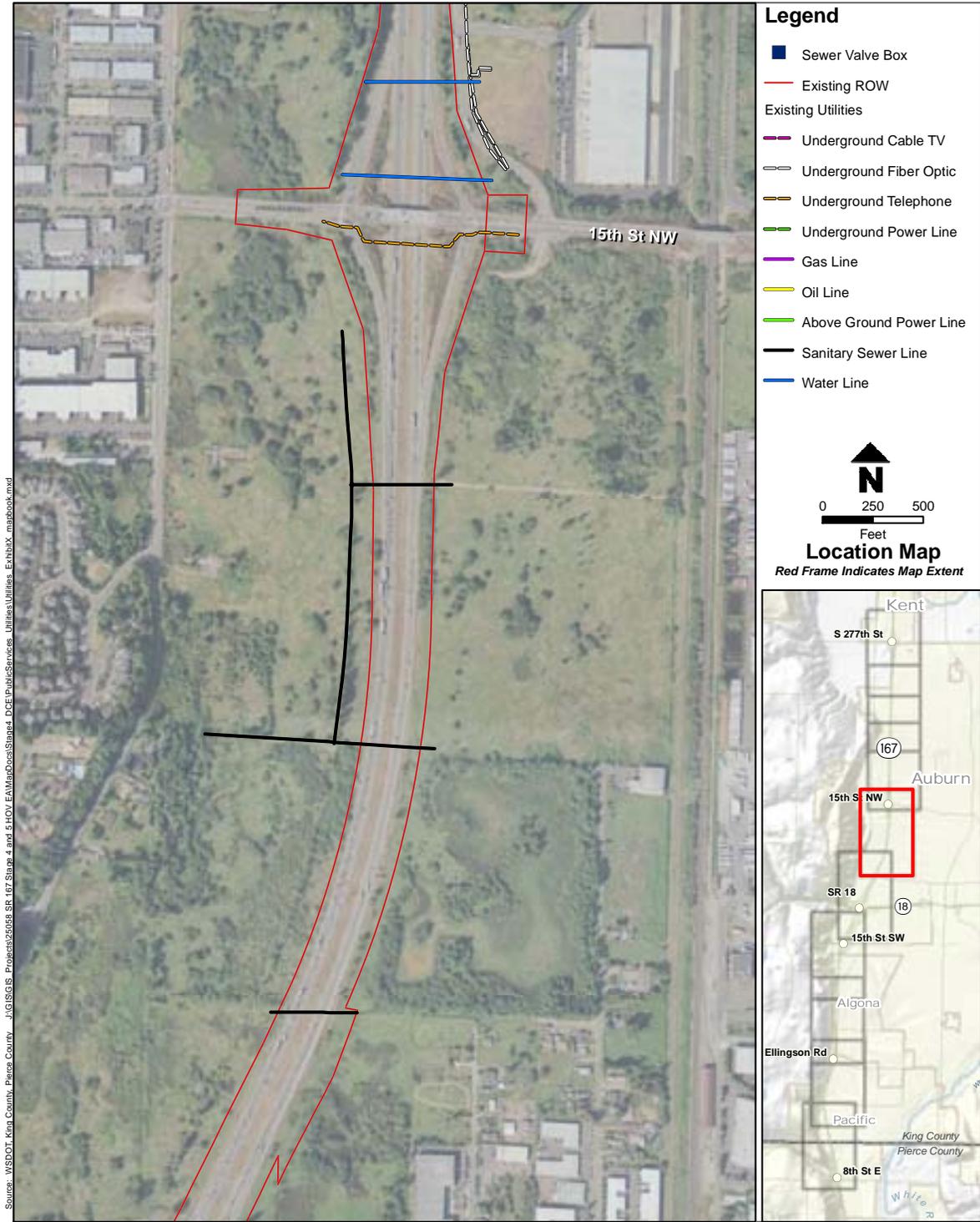
**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 11  
Location of Public and Private Utilities Serving the Study Area**



**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

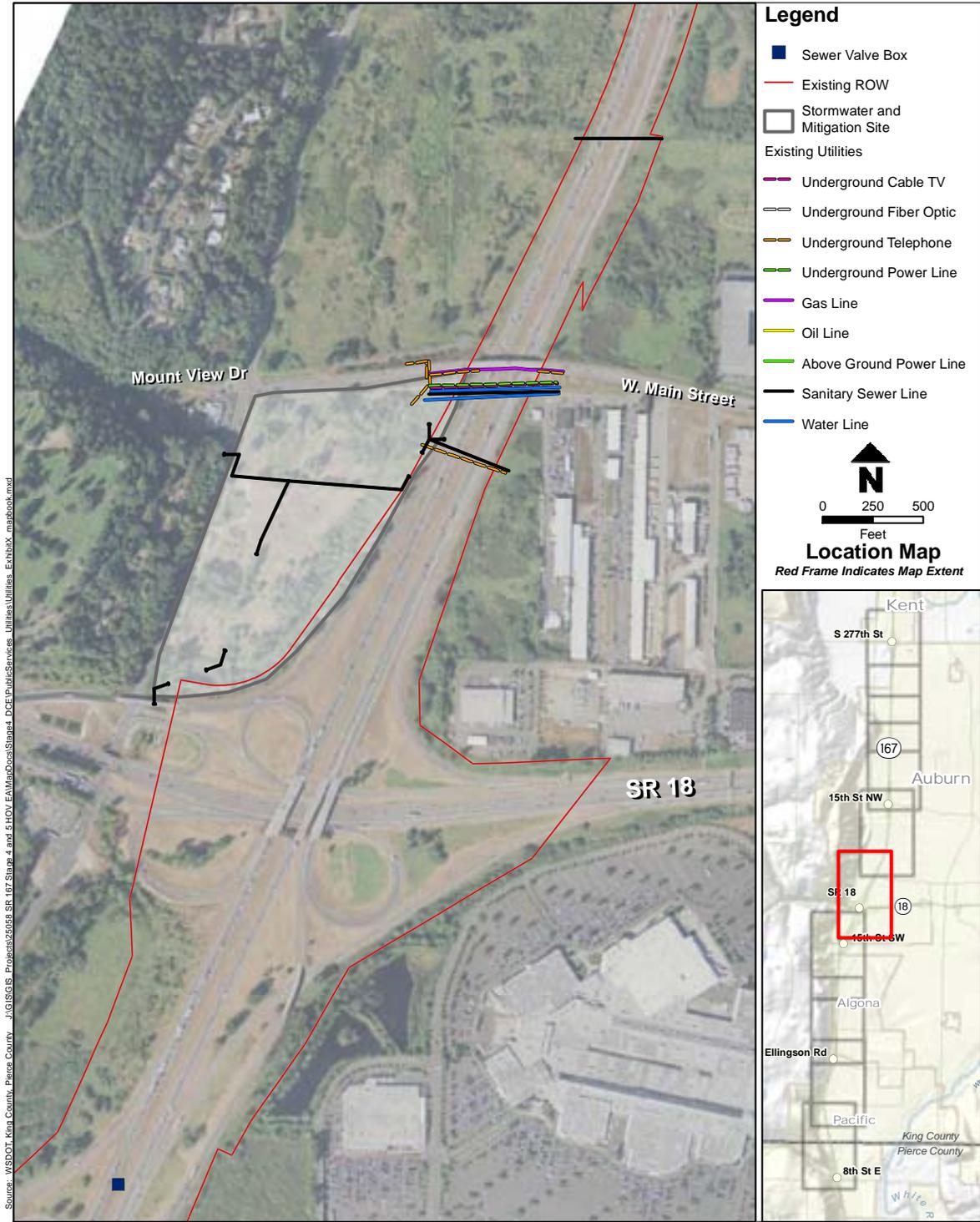
**Exhibit 12  
Location of Public and Private Utilities Serving the Study Area**



**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 13**

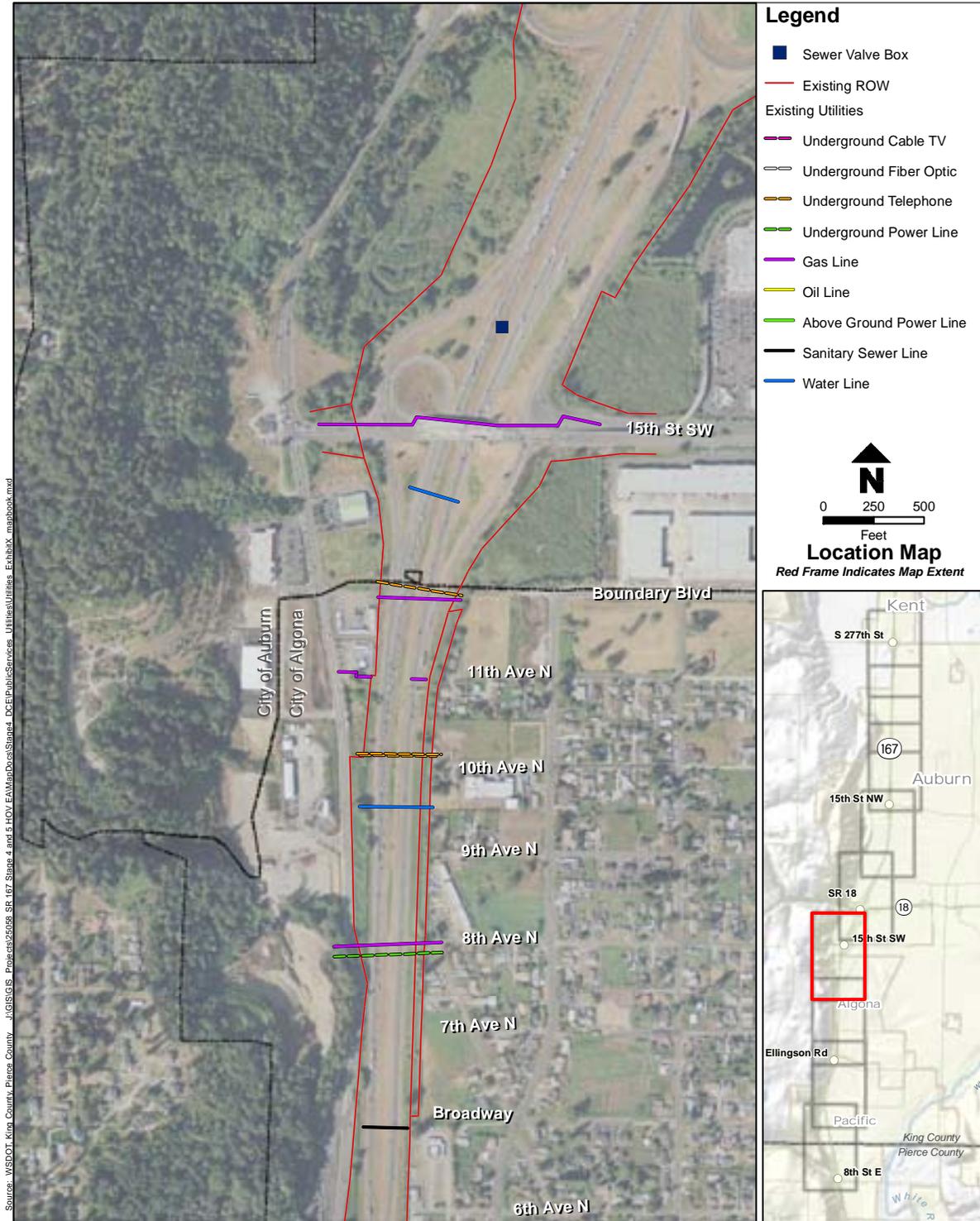
**Location of Public and Private Utilities Serving the Study Area**



**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 14**

**Location of Public and Private Utilities Serving the Study Area**

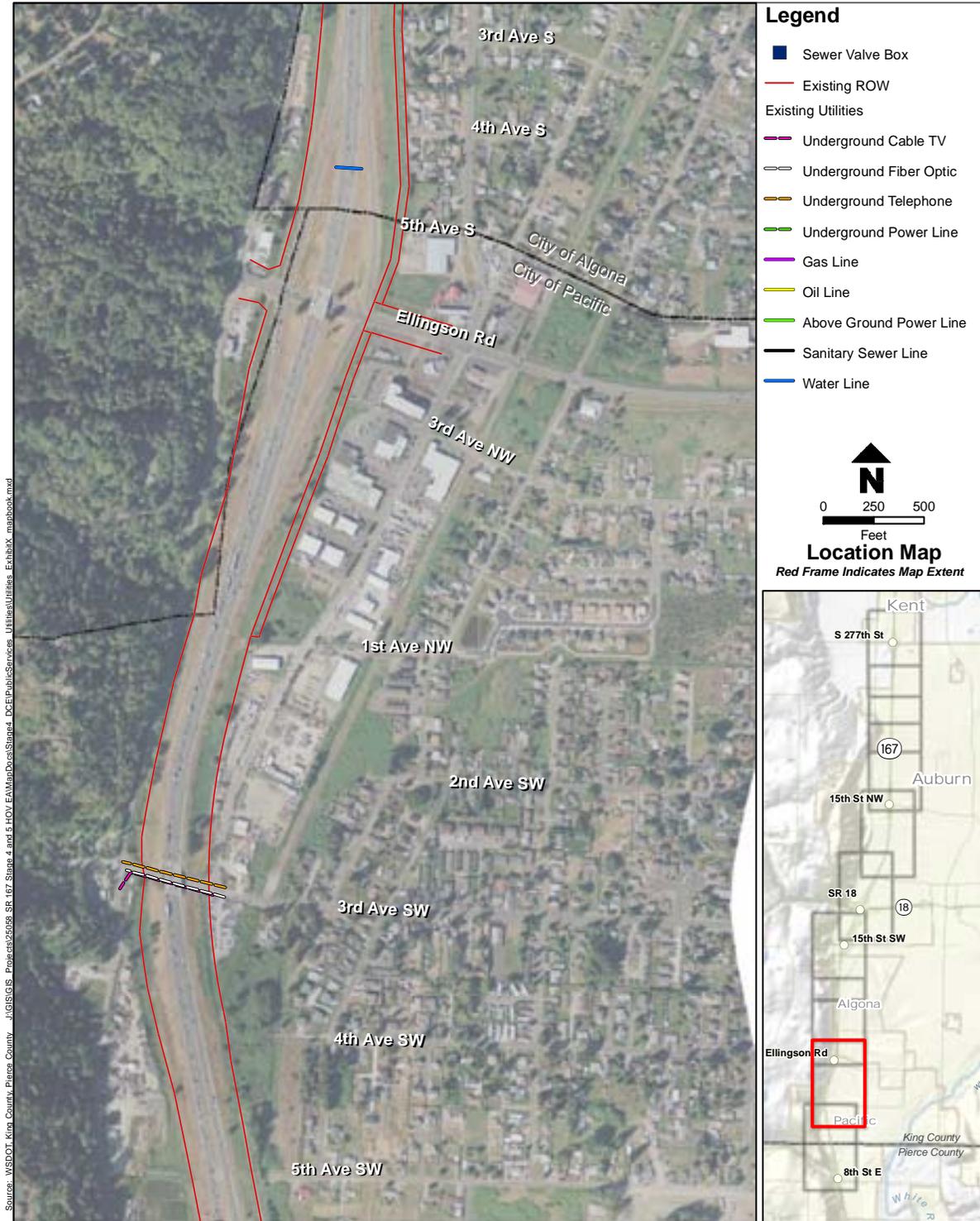




**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 16**

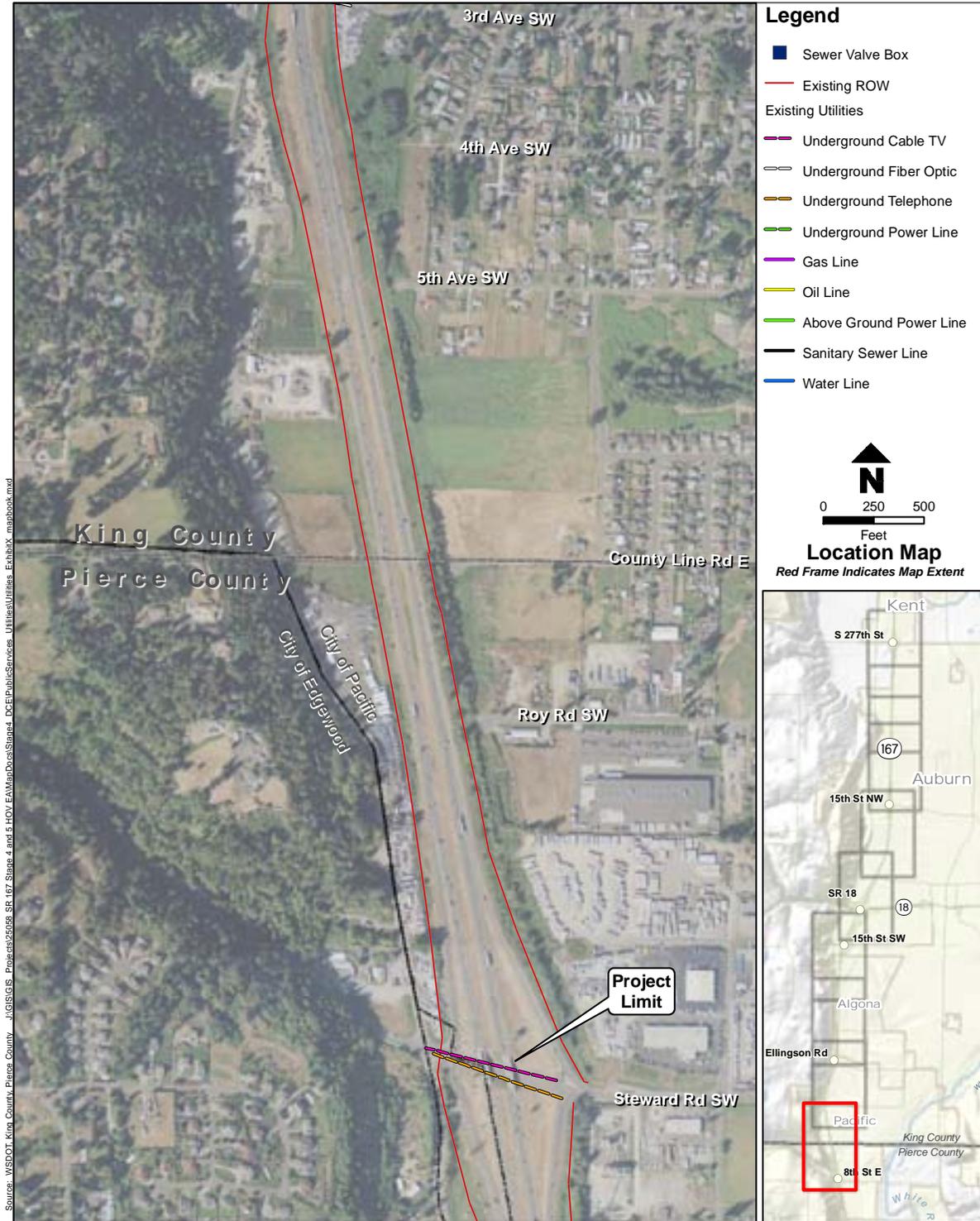
**Location of Public and Private Utilities Serving the Study Area**



**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

**Exhibit 17**

**Location of Public and Private Utilities Serving the Study Area**



### Electricity

Electrical power distribution lines for WSDOT illumination and Intelligent Transportation System (ITS) equipment run from approximately 218th Street to 15th Street SW in Auburn. These lines are placed in the middle of the roadway, between the northbound and southbound lanes. Private electrical power lines exist throughout the rest of the study area, both above and below ground. Three aboveground and three underground power line crossings are at the following general locations within the study area:

- 44th Street NW (above ground)
- 37th Street NW (above ground)
- North of 29th Street NW (two lines above ground)
- Mount View Drive (underground)
- 8th Avenue N (underground)
- 1st Avenue S (underground)

### Natural Gas/Oil

Natural gas lines run along the eastern edge of the roadway. Natural gas and an oil line cross the highway at the following general locations:

- South of S 277th Street,
- South of 37th Street NW (oil),
- 29th Street NW
- Mount View Drive
- 15th Street SW
- Boundary Boulevard
- 8th Avenue N

**Telephone/Internet**

There are underground telephone lines that cross the highway in several locations as listed here:

- 44th Street NW
- 37th Street NW
- 29th Street NW
- 15th Street NW
- South of Mount View Drive
- Boundary Boulevard area
- 10th Avenue N
- 1st Avenue
- 3rd Avenue SW
- Steward Road SW

**Fiber Optic Lines**

Fiber optic lines run along the eastern edge of the roadway north of 15th Street NW. WSDOT maintains a fiber optic trunk line from the SR 18 interchange area north to Renton. The line is within the median of SR 167. In addition, one fiber optic line crosses the highway near 3rd Avenue SW.

**Cable TV/Internet**

Underground cable television lines run along the edge of the roadway and cross SR 167 in the following general locations:

- Mount View Drive
- 3rd Avenue SW
- Steward Road SW

**Water**

Water lines run along the edge of the roadway and cross SR 167 highway at the following general locations:

- S 277th Street
- 37th Street NW
- 29th Street NW

**SR 167 8th Street East Vicinity to South 277th Street Vicinity Southbound HOT Lane**

- 15th Street NW
- Mount View Drive
- South of 15th Street SW to 11th Avenue N
- 10th Avenue N
- 1st Avenue S
- 4th Avenue S

**Sanitary Sewer**

Sanitary sewer lines run along the western and eastern edge of the roadway and cross SR 167 at the following general locations:

- 44th Street NW to 37th Street NW
- 37th Street NW to 29th Street NW
- South of 29th Street NW to 15th Street NW
- South of 15th Street NW
- Mount View Drive
- South of Mount View Drive
- Broadway
- 5th Avenue N to 4th Avenue N
- 1st Avenue S
- 3rd Avenue S

In addition, a portion of a sanitary sewer line that passes through the proposed floodplain storage area, Site “C” (as illustrated in Exhibit 18), will be abandoned and may be relocated for future development needs. No one is currently using the section of the sanitary sewer that is proposed for abandonment. The line will be plugged and abandoned in place. Site “C” is located in the northwest quadrant of the SR 167 and SR 18 interchange. WSDOT will work with the City of Auburn to abandon/relocate this line with little disruption to the public.

**Exhibit 18  
Site C**



## CHAPTER 3 POTENTIAL PROJECT EFFECTS

---

WSDOT reviewed existing data, project plan sets, and construction methods to identify the areas of potential effects. The expected direct, indirect, and cumulative effects of the proposed project were determined by the process recommended in the *WSDOT Environmental Procedures Handbook*, Chapter 412, and the Council of Environmental Quality regulations (40 CFR 1508.7). The following definitions guided the analysis of effects for public services and utilities:

*Direct effects* are defined as the immediate effects of the project. Direct effects include all negative and positive immediate effects from project-related actions. A common example of a direct effect on public services and utilities occurs when the project requires temporary or permanent access to a property to repair, upgrade, or change a public facility or utility.

*Indirect effects* are sometimes called secondary effects and usually occur later in time, after project construction. These effects can be negative or positive. Changes to transportation patterns and land uses serve as one example of an indirect effect on public services and utilities.

Both direct and indirect effects can be temporary or permanent.

*Cumulative effects* are those that “result from incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions.” The cumulative effects of a project may be undetectable when viewed in the individual context of direct or indirect effects. However, cumulative effects can add to other disturbances and eventually lead to a measurable environmental change.

**How will construction activities affect public services and utilities in the project area?**

**Direct Effects**

The construction of this project will have limited permanent, direct effects on the public services. There may be some temporary direct effects in temporary re-rerouting or disruption of utilities due to construction of the retaining wall footings or drainage systems. However, there are no major relocations required as a part of this project.

However, minor temporary, direct effects on public services could occur during construction. Access to some public services could be temporarily disrupted due to temporary lane closures and increased congestion during construction. Also, some complete nighttime closures will require shifting traffic between the Ellingson Road on- and off-ramps and the 15th Street SW on-ramp. This means that travel times for general traffic, fire, emergency medical, and police vehicles through the project area will increase during construction-related traffic slowdowns.

**Indirect Effects**

The proposed project includes stand alone transportation improvements that will have no anticipated indirect effects on public services and utilities during construction.

**Cumulative Effects**

No cumulative effects are expected during the construction of this project. As the construction of this project nears, WSDOT will need to work with the local agencies to identify if any other construction projects in the area could potentially conflict with the proposed detour routes. Conflicting detour routes from multiple construction projects could affect emergency response times.

**How will project operation affect public services and utilities in the project area?**

**Direct Effects**

Once the project is completed, congestion along the SR 167 corridor will be reduced, thereby improving emergency response times, reliability for transit services, and access to public services.

The project will require long-term utility (electricity) usage for ramp metering, lighting, electronic variable message signs, and cameras. However, this is not expected to create a negative effect on the availability of power to existing or future customers in the study area.

**Indirect Effects**

The proposed project will have no anticipated indirect effects on public services and utilities during operations. Permanent adverse effects to public services are not expected, because the project will not cause permanent road closures or diversions that would limit access to public services.

**Cumulative Effects**

This project will, in coordination with other transportation improvements along SR 167, improve traffic flow, speeds, and safety throughout the SR 167 corridor. The project will also improve access to public services and to urban and manufacturing centers within the study area. The improvement in traffic flow to this multi-modal and freight centers would be a cumulative benefit, not a negative effect, to public emergency services in improved response time, greater reliability to commuters and users of services and facilities in the area.

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## CHAPTER 4 MITIGATION MEASURES

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### **What measures are recommended to avoid or minimize the effects on public services and utilities during construction?**

#### Public Services

There are some potential temporary effects to public services such as detours, emergency vehicle access, and event traffic. Mitigation measures to address some temporary effects of the project could include:

- Develop and implement a traffic control plan that provides signal preemption through construction zones for emergency vehicles; post signs to show detour routes if temporary road closures are required.
- Provide the fire and police departments, and other service providers with advance notice of construction schedules to allow for coordination and to minimize the effects of road closures on response and travel times.
- If necessary, coordinate with staff at local events facilities and local police departments to minimize construction-related effects during events at Emerald Downs, the Puyallup Fairgrounds and during other special events such as Kent Cornucopia Days.
- Provide adequate public notice of construction activities, lane closures, and detour routes.
- Coordinate the construction of the proposed project with all applicable agencies to minimize effects on public services.
- Communicate with the SR 167 Corridor Working Group to assist in assessing and coordinating potential cumulative effects that can result from multiple construction projects in the area, as they arise.

## Utilities

However, there are some potential temporary effects on utilities such as relocation of some vaults, junction boxes, drainage structures, and the addition of new electrical components for the HOT lanes. Mitigation measures to address temporary effects of the project will include:

- Work directly with the utility companies and public agencies to ensure that any utility lines or other structures and facilities that may be affected by the installation of HOT lane infrastructure are disturbed as little as possible. A specific instance of a known utility change will be in Auburn. WSDOT will work with the City of Auburn to abandon and/or relocate the sanitary sewer line that passes through the proposed floodplain storage area, Site “C”, with little disruption to the public. Some unused portions of the sanitary sewer line that pass through Site “C” may be plugged and abandoned in place.
- Provide sufficient notice of utility interruptions to the public. When a utility is switched from an old line to a new relocated line, small interruptions may occur. Such interruptions normally last less than an hour. If a longer planned disruption becomes necessary, WSDOT and/or the utility provider will give sufficient notice to affected parties. It is possible that a longer unplanned service disruption may occur. In those cases the disruption is normally less than four hours. WSDOT and/or utility providers will work with the affected parties to minimize any effects from service disruptions. General measures to mitigate effects on utilities during construction could include:
  - Notify the fire department and power utilities, if power must be turned off. The utility companies will provide alternative sources of power to support emergency response systems within the construction zone and to replace power for any affected customers. If utility relocations become necessary the service provider will be responsible

for relocation costs and to sequence the relocations with the design and construction work.

- Notify the fire department and water utilities in the case of water utility relocation or temporary closure. Alternative sources of water will be identified for fire suppression for any affected customers.
- Verify the exact locations and depths of underground utilities prior to construction, including coordinating with the utility providers. On-site measures include techniques such as potholing near suspected utilities and using drilling or excavating techniques that will limit damage to utilities.

**What measures are proposed to avoid or minimize the effects on public services and utilities during project operation?**

WSDOT anticipates no negative effects to public services and utilities will occur as a result of the project once it is in operation. Therefore, no measures are proposed to avoid or minimize the effects on public services and utilities.

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**CHAPTER 5 REFERENCES**

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