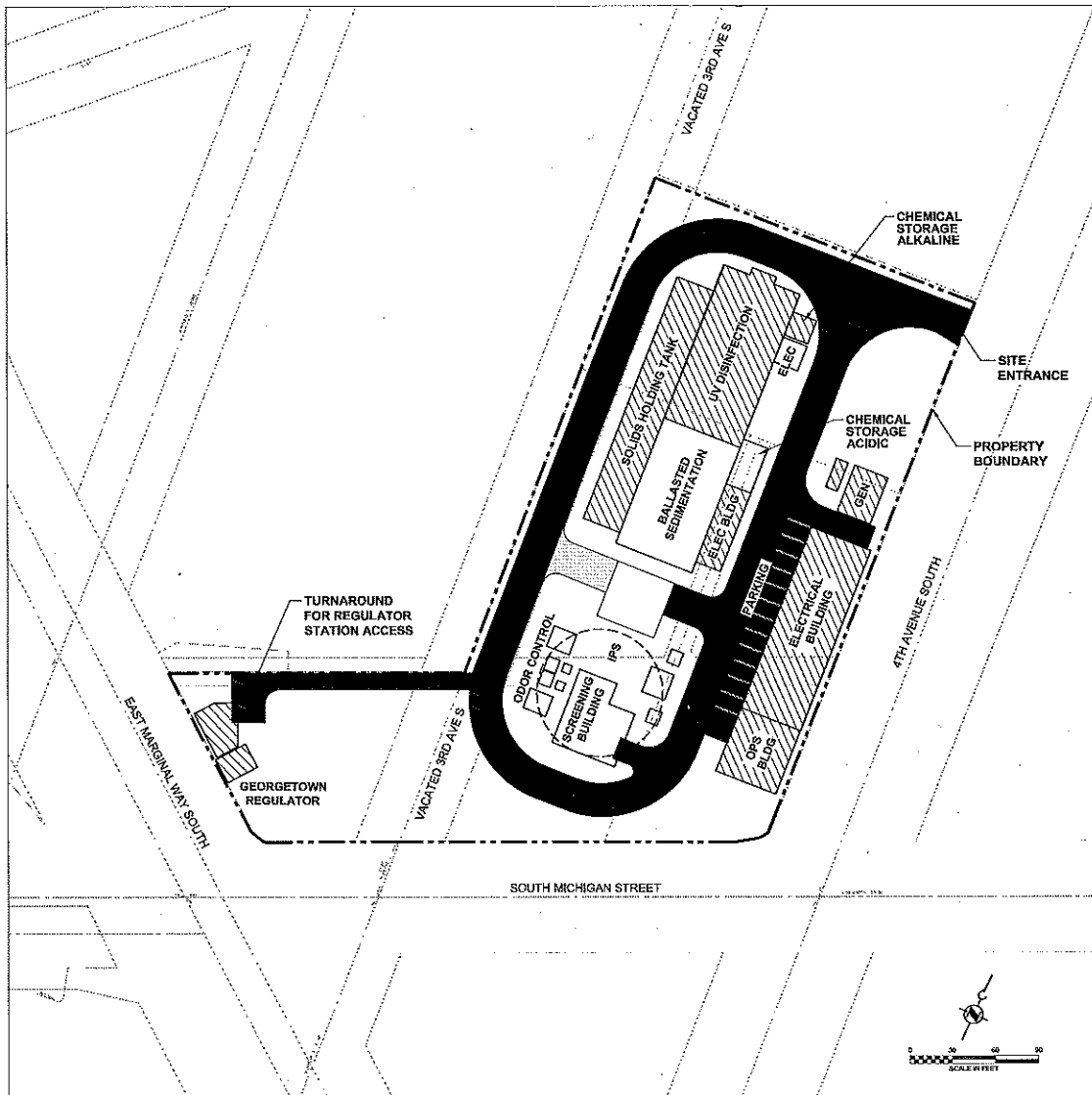




3021372  
6185 - 4TH AVE S  
King County



SDCI  
 700 5th Ave Ste 2000, PO Box 34019  
 Seattle, WA 98124-4019  
 (206) 684-8600

Report Date 02/08/2016 09:20 AM

Submitted By

Page 1

A/P # 3021372 DISCRETIONARY LAND USE ACTION

Application Information

Stages

	Date / Time	By	Date / Time	By
Processed	12/28/2015 09:21	MONTGOME	Temp COO	
Approved			COO Issued	
Final			Expires	

Associated Information

Associated Information				Valuation	
Type of Work	FULL C FULL REVIEW (COMPLEX)	# Plans	1	Declared Valuation	67000000.00
Dept of Commerce	CMRCL COMMERCIAL	# Plans	0	Calculated Valuation	0.00
Priority	3 PRIORITY 3 PROCESSING	Auto Reviews		Actual Valuation	0.00
		Bill Group			

Description of Work

Council Land Use Action to allow a new sewage treatment facility (King County Wastewater Treatment Division/Georgetown Wet Weather Treatment Station). The project includes installation of new conveyance piping, pump station, holding tanks, related buildings and equipment. Project includes grading of over 5,000 cu. yds. of material, remediation of over 1,000 cu. yds. of contaminated soil and removal of 3 underground storage tanks. All existing structures to be demolished (six buildings). Environmental Review includes the outfall facility at 6501 1st Ave S (Project 3022084). Determination of Non-Significance prepared by King County.

Parent A/P #

Project #	Size/Area	Proposed Start	% Complete Formula	Project/Phase Name	Size Description	Proposed Stop	Phase #	Subdivision Code	% Completed
3021372	0.00								0.00

Applicants/Contacts

Primary  N Capacity APPL Contact ID AC180960  Foreign

Effective  Expire

Name BONNIE LINDNER

Day Phone (425)450-6239 x Eve Phone Organization HDR ENGINEERING

Pager PIN # Position

Fax Mobile (206)920-1398 Profession

E-Mail

Address 500 108TH AVE NE, SUITE 1200  
 BELLEVUE, WA 98004

Comments No Comments

Special Inspections

Special Inspection Qualifications

Principal

SI Qualifications

SI Category	Suspended	Susp End Dt	Expired	Comments
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There are no items in this list

Primary  N Capacity OWNER Contact ID AC64860  Foreign

Effective  Expire

Name PORT OF SEATTLE

Day Phone (206)728-3252 x Eve Phone Organization

Pager PIN # Position

Fax Mobile Profession

E-Mail

Address 2711 ALASKAN WAY  
 SEATTLE, WA 98111

Comments No Comments

700 5th Ave Ste 2000, PO Box 34019  
Seattle, WA 98124-4019  
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Report Date 02/08/2016 09:20 AM

Submitted By

Page 2

Special Inspections

Special Inspection Qualifications

Principal

SI Qualifications SI Category	Suspended	Susp End Dt	Expired	Comments
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There are no items in this list

Primary N Capacity APPL Contact ID AC232663  Foreign  
 Effective Expire  
 Name KING COUNTY WASTEWATER TREATMENT DIVISION  
 Day Phone (206)477-5371 x Eve Phone Organization  
 Pager PIN # Position  
 Fax Mobile Profession  
 E-Mail  
 Address 201 SOUTH JACKSON ST, 5TH FLOOR  
 SEATTLE, WA 98104  
 Comments No Comments  
 Special Inspections

Special Inspection Qualifications

Principal

SI Qualifications SI Category	Suspended	Susp End Dt	Expired	Comments
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There are no items in this list

Primary Y Capacity OTHER Other FIN RESP Contact ID AC250924  Foreign  
 Effective Expire  
 Name JIM SUSSEX  
 Day Phone (206)477-3556 x Eve Phone Organization KING COUNTY  
 Pager PIN # Position  
 Fax Mobile Profession  
 E-Mail  
 Address 201 S. JACKSON ST., KSC-NR-0505  
 SEATTLE, WA 98104  
 Comments No Comments  
 Special Inspections

Special Inspection Qualifications

Principal

SI Qualifications SI Category	Suspended	Susp End Dt	Expired	Comments
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There are no items in this list

PROJECT NARRATIVE

**Purpose**

The King County Wastewater Treatment Division (WTD) proposes to build a new combined sewer overflow (CSO) wet weather treatment station referred to as the Georgetown Wet Weather Treatment Station (GWWTS). The GWWTS will include: construction of a treatment station on the southeast corner of South Michigan Street and 4th Avenue South, related conveyance pipelines, and a proposed outfall to discharge the treated water into the Lower Duwamish Waterway (LDW). When constructed, the GWWTS will treat up to 70 million gallons of combined rain and wastewater per day that would otherwise have discharged directly to the LDW without treatment during storm events.

The GWWTS project will be designed to comply with the following CSO control requirements:

- **Existing outfalls:** Control the existing Brandon Street and South Michigan Street CSOs to a long-term average of no more than one untreated discharge per year per outfall, based on a 20-year moving average.
- **Treated CSO discharge at the proposed outfall:** Comply with technology-based and water quality-based effluent limits that will ensure that the treated discharge does not cause or contribute to the exceedance of water or sediment quality standards.

**Location**

The GWWTS site is comprised of four existing properties, totaling approximately 2.8 acres and is bordered by 4th Avenue South, South Michigan Street, and East Marginal Way South (see the Project Overview Map included with this application). This location allows King County WTD to consolidate its facility on the smallest possible site. Table 1 lists the businesses that will be relocated due to the acquisition of these four parcels. The GWWTS site plan and treatment facility layout are shown on the attached plan set.

TABLE 1  
**Proposed Relocations**

Parcel No.	Displacee Name	Relocation Type
5367200300	East Marginal Way TT, LLC	Landlord
	Taco Time	Tenant
5367200445	Mallard Properties, LLC	Landlord
	Ducky's Office Furniture	Tenant
	Winters Investment LP	Tenant
	Stalk Market	Tenant
5367200446	Winters Investment LP	Landlord
	Tayag's Auto Repair	Tenant
	Grind Time Espresso	Tenant
	Omni Repair	Tenant
	Southside Allstars	Tenant
	Muy Muchos Taqueria	Tenant
5367200447	Winters Investment LP	Landlord
	McDonald's USA	Tenant
	Alia Abboud	Franchise Owner

## Project Description

### GWWS

The GWWS project includes the following major elements:

- Wet weather treatment station with:
  - Equalization basin incorporating integral influent pump station
  - Screening facilities
  - High-rate clarification, using ballasted sedimentation
  - Solids holding tank
  - Ultraviolet disinfection
  - Ancillary facilities, including an operations building, odor control, chemical storage, electrical buildings, and an emergency generator
- Regulator, electrical building, and conveyance pipelines to divert flows to the treatment station
- Modifications to the existing Brandon Street and South Michigan Street Regulator Stations, which will remain in operation
- Conveyance pipeline to convey treated discharges from the treatment station to the proposed outfall
- Outfall extending into the LDW (which is covered under DPD Project #3022084)

In addition, the project will also include removal of contaminated soils and underground storage tanks on the treatment station site.

### Conveyance

The proposed conveyance system includes the following:

- Approximate 72-inch-inside-diameter pipeline, and associated facilities, that connects to the existing Seattle Public Utilities (SPU) South Michigan Street Trunk (at the intersection of East Marginal Way South and South Michigan Street) and conveys flows to the new regulator station located on private property;
- Approximate 72-inch-inside-diameter pipeline, and associated facilities, that connects to the existing King County Elliott Bay Interceptor within the State Route (SR) 509 on ramp and crosses East Marginal Way South to convey flows to the new regulator station located on private property;
- Regulator station located on private property at the treatment station site;
- 96-inch-diameter pipeline that convey flows from the regulator station to the equalization basin;
- Dual 36-inch-diameter pipelines under East Marginal Way South that transition to a single 60-inch-diameter pipeline, and associated facilities, constructed primarily within the rights-of-way of East Marginal Way South, South Michigan Street, and 1st Avenue South that convey treated flows from the treatment station to the proposed outfall; and
- Utility relocations to accommodate the installation of new conveyance pipelines, including relocating SPU and Seattle City Light infrastructure on the east side of East Marginal Way South.

A Street Improvement Permit Application has been submitted to the Seattle Department of Transportation (SDOT #273237) for conveyance activities within City rights-of-way.

### Proposed Outfall

The proposed outfall will be located within and adjacent to the Washington State Department of Transportation (WSDOT) right-of-way area of the SR 99/SR 509 bridge, also referred to as the First Avenue South Bridge. The 54-inch-diameter high-density polyethylene outfall pipe will begin at an above-ground onshore air vent located upland (above the ordinary high water mark/mean higher high water) under the southbound span of the bridge near the shoreline, extending out to an eight-port diffuser that will terminate between the existing bridge pier structures near the 150-foot-wide navigation channel boundary.

Construction of the proposed outfall and diffuser in the LDW requires in-water work, including:

1) construction of a temporary over-water structure (work trestle) in the LDW, 2) installation of sheet pile isolation walls surrounding the in-water excavation area to install the new outfall pipe, 3) trench excavation predominantly within the sheet piles, 4) installation of the outfall pipe and diffuser using cranes based on the temporary work trestle and/or barges, 5) bedding and backfill of imported aggregate materials into the trench, and 6) restoration to final grade with fish habitat aggregates. More details are provided in the Shoreline Conditional Use Permit package, which is being submitted separately under DPD Project #3022084.

One or two existing boathouses and adjoining slip(s) directly adjacent to the outfall alignment may be temporarily moved or removed permanently due to construction of the proposed outfall, and the affected utilities will be either temporarily or permanently relocated.

There is a history of contaminated sediments at the proposed outfall site. The presence of contaminated sediments will be assessed along the alignment during soil investigations conducted prior to final design. Project related contaminated material management and disposal provisions will be established at the completion of that assessment in accordance with applicable regulatory requirements. No excavated materials from below the ordinary high water mark of the LDW will be re-used as fill material for the project.

If required, appropriate compensatory mitigation actions will be implemented prior to project completion. This could include removal of existing riprap, rocks, and other shoreline debris and placement of large woody debris. The shoreline will be stabilized with vegetation planting and native substrates.

### **Schedule**

Construction is anticipated to begin in December 2017, although demolition activities may begin by late fall of 2016. According to WTD policy, all permits must be obtained prior to going out to bid. In order to accomplish this, all permits must be obtained no later than May 4, 2017. The project must be completed in December 2022.

### **SEPA Compliance**

King County WTD is acting as SEPA Lead Agency for this project. A Draft SEPA Environmental Checklist is included with this submittal. The threshold determination will be provided when issued; currently anticipated for first quarter 2016.



**King County**

Department of Natural Resources and Parks  
**Wastewater Treatment Division**

# **Georgetown Wet Weather Treatment Station Project Criteria**

**Council Conditional Use (Type IV) Sewage  
Treatment Plants (SMC 23.50.014 and SMC  
23.50.014.D)**

**DPD Project # 3021372**

**November 24, 2015**



### **Project Description**

The King County Wastewater Treatment Division (WTD) proposes to build a new combined sewer overflow (CSO) wet weather treatment facility referred to as the Georgetown Wet Weather Treatment Station (GWWTS). The GWWTS will include: construction of a treatment station on the southeast corner of South Michigan Street and 4th Avenue South (see Attachment A for a vicinity map and project site map), related conveyance pipelines, and a proposed outfall to discharge the treated water into the Lower Duwamish Waterway (LDW). When constructed, the GWWTS will treat up to 70 million gallons of combined rain and wastewater per day that would otherwise have discharged directly to the LDW without treatment during storm events.

The project includes the following major elements:

- Regulator and conveyance pipelines to divert flows to the treatment station
- Modifications to the existing Brandon Street and South Michigan Street Regulator Stations, which will remain in operation
- Equalization basin incorporating integral influent pump station
- Screening facilities
- High-rate clarification, using ballasted sedimentation
- Solids holding tank
- Ultraviolet disinfection
- Ancillary facilities, including an operation and maintenance support building, odor control, chemical storage, and an emergency generator
- Conveyance pipelines to convey treated effluent from the treatment station to the proposed outfall
- Outfall extending into the LDW (covered under DPD Project #3022084)

In addition, the project will also include removal of contaminated soils and underground storage tanks on the treatment station site.

### **Purpose and Need**

This project is part of King County WTD's CSO Control Plan Amendment that will reduce combined sewer overflows into local water bodies and protect public health and the environment. In this plan, there are 14 current or approved projects left to complete to reduce overflows that occur in the regional wastewater system. Duwamish projects, including the GWWTS, were prioritized based on what King County heard from the community.

In Georgetown, King County will build the GWWTS to help protect the LDW from CSOs. During heavy rainstorms, the new station will clean excess sewage and stormwater before it enters the LDW. The new facility will reduce the amount of

untreated wastewater entering the LDW through the existing Brandon Street and South Michigan Street CSO outfalls by 95 percent.

**Conditions for Approval of Proposal (as per SMC 23.50.014)**

*1. The use shall be determined not to be materially detrimental to the public welfare or injurious to property in the zone or vicinity in which the property is located.*

The proposed GWWTS facility will not be materially detrimental to the public welfare or injurious to property in the zone or vicinity in which the property is located due to the following reasons:

**Public Welfare:**

CSO Reduction – King County WTD is constructing the GWWTS facility to protect public health and the environment during heavy rains when stormwater mixed with sewage can overflow into local waterways, including the LDW.

Washington Department of Ecology (Ecology) requires that CSO outfalls average no more than one untreated discharge per year, based on a 20-year moving average. Currently, King County WTD is unable to consistently meet the Ecology performance standard for CSO control at the existing South Michigan Street and Brandon Street CSO Outfalls which currently discharge on average approximately 7 times and 31 times per year, respectively. This project will control the existing South Michigan Street and Brandon Street CSOs to a long-term average of no more than one untreated discharge per year per outfall. The new facility will treat excess sewage and stormwater before it enters the LDW, reducing the amount of untreated wastewater entering the LDW from these CSO outfalls by 95 percent.

Contamination Removal – The treatment station site contains four parcels with different historical uses and potential for soil and groundwater contamination. The parcel located in the southeast corner of the site (Tayag's Auto Repair) is included on Ecology's cleanup lists, related to its use for automotive repair and as a gas station. Furthermore, older buildings on the site that would be demolished as part of the proposed project likely contain lead-based paint, asbestos, and potentially other hazardous materials. Removal of soil from one area that housed several underground storage tanks was completed in 2007; however, Ecology has documented that residual contaminated soil and groundwater remain at this location near and under the buildings. It is anticipated that during the GWWTS site preparation that this residual contaminated soil will be removed (currently estimated up to 1,000 cubic yards). In addition, on the Tayag's Auto Repair site, there are three documented underground storage tanks (USTs) still in place which will be removed during the GWWTS site preparation. According to Department of Ecology records, there are two 6,000 gallon capacity tanks and one 8,000 gallon capacity tank. It is assumed that there will be some level of contaminated soil removal

## Georgetown Wet Weather Treatment Station Project Council Conditional Use Criteria

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following the tank removals, similar to many gas station underground storage tank replacements (currently estimated at up to 150 cubic yards of soil).

The other three treatment station parcels do not have known soil or groundwater impacts documented by Ecology. However, given the current and past heavy industrial use of the area and Ecology's documented, area wide groundwater plumes to the north of the proposed treatment station parcels, these other properties may have contaminated soils and/or groundwater. For planning purposes, it is currently estimated that up to 1,200 cubic yards of soil with petroleum and metals contamination from past heavy industrial use may be encountered and removed during the GWWTS site preparation. King County WTD will be developing more detailed plans for the removal and disposal of contaminated and hazardous materials on the project site in accordance with applicable regulatory requirements.

### **Zone:**

The GWWTS site is located within the General Industrial 2 (IG2 U/85) zone. The intent of the IG2 zone is to allow a broad range of uses where the industrial function of an area is less established than in General Industrial 1 (IG1) zones, and where additional commercial activity could improve employment opportunities and the physical condition of the area, without conflicting with industrial activity. Pursuant to Seattle Municipal Code (SMC) 23.84A.010, the overall project meets the definition of an "essential public facility" as it is a sewage treatment plant (wet-weather treatment station). Within the IG2 U/85, essential public facilities are allowed through a Council Conditional Use (CCU).

### **Surrounding Land Uses:**

Land use in the area is primarily industrial and commercial, including water-dependent businesses, and the area also includes nearby residential and neighborhood business areas located in Georgetown and South Park. See Attachment B for photos of proposed site with current uses and adjacent businesses.

Four parcels will be acquired by King County WTD and used for the treatment station. This will include the displacement of 12 businesses (two landlord and 10 tenants) currently located on the parcels (see Table 1).

**Table 1: Proposed Relocations**

Parcel No.	Displacee Name	Relocation Type
5367200300	East Marginal Way TT, LLC	Landlord
	Taco Time	Tenant
5367200445	Mallard Properties, LLC	Landlord
	Ducky's Office Furniture	Tenant
	Winters Investment LP	Tenant

**Georgetown Wet Weather Treatment Station Project  
DPD Project # 3021372**

**Table 1: Proposed Relocations**

Parcel No.	Displacee Name	Relocation Type
	Stalk Market	Tenant
5367200446	Winters Investment LP	Landlord
	Tayag's Auto Repair	Tenant
	Barista's Coffee	Tenant
	Omni Repair	Tenant
	Southside Allstars	Tenant
	Muy Muchos Taqueria	Tenant
5367200447	Winters Investment LP	Landlord
	McDonald's USA	Tenant
	Alia Abboud	Franchise Owner

King County will follow federal, state, and local requirements for property acquisition, compensation, and relocation (SMC Chapter 20). All structures will be demolished on these four properties. The parcel on which Taco Time is currently located (Parcel 5367200300) could potentially be resold after construction is complete; however, there will be constraints on the property (such as easements) due to the location of conveyance facilities and the Georgetown Regulator Station.

The construction of the treatment station will not conflict with existing land use plans and policies for the properties or surrounding area. According to SMC 23.50.012, sewage treatment plants are permitted through a CCU process and other ancillary facilities onsite (utility service uses) are permitted outright. The GWWTS will require minimal staffing because it will only operate during heavy rains, on average approximately 20 times per year. During wet weather, there will be approximately 3 staff at the facility and during dry weather, approximately 1-2 staff that will check and maintain equipment on average one time per week.

***2. The benefits to the public that would be provided by the use shall outweigh the negative impacts of the use.***

This project is part of King County WTD's CSO Control Plan Amendment that will reduce combined sewer overflows into local water bodies and protect public health and the environment. In Georgetown, King County will build the GWWTS to help protect the LDW from CSOs. During heavy rainstorms, the new station will treat excess sewage and stormwater before it enters the LDW. The new facility will reduce the amount of untreated wastewater entering the LDW from the Brandon Street and South Michigan Street CSO outfalls by 95 percent.

As such, the public benefits of the project will outweigh negative impacts of the use.

**Georgetown Wet Weather Treatment Station Project**  
**Council Conditional Use Criteria**

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*3. Landscaping and screening, vehicular access controls and other measures shall insure the compatibility of the use with the surrounding area and mitigate adverse impacts.*

**Landscaping and Screening:**

King County WTD is currently working closely with its architectural consultant and City of Seattle staff to ensure that suitable landscaping and screening components are incorporated into the project to the maximum extent practicable.

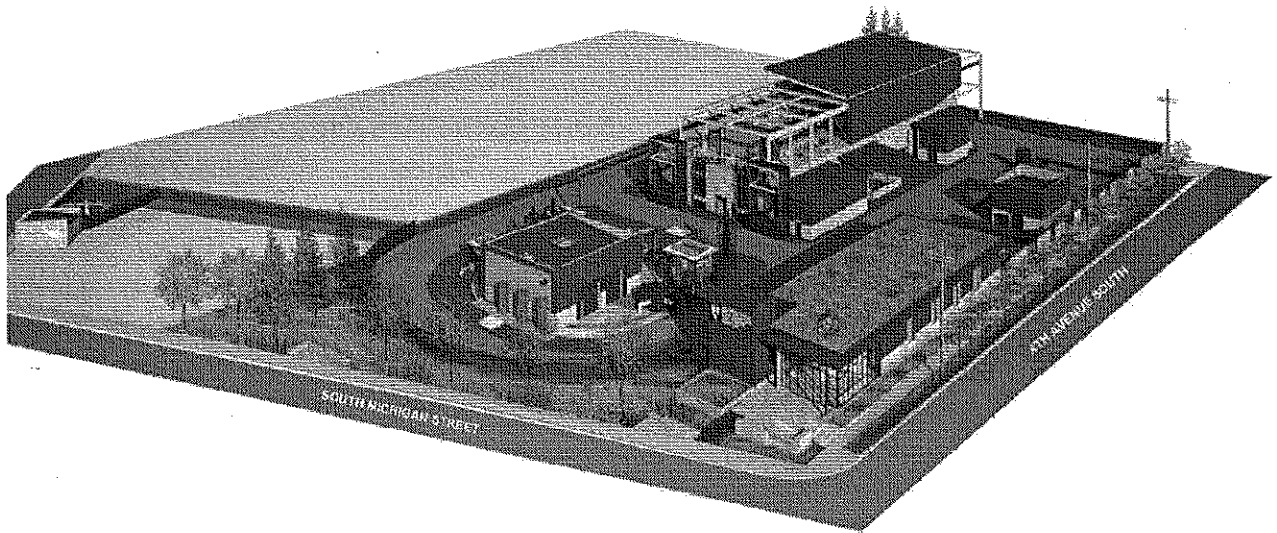
The GWWTS will pursue an Envision™ Platinum rating, in conjunction with the King County Sustainable Infrastructure Scorecard. Envision™ is the product of a joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design and the Institute for Sustainable Infrastructure. Envision™ provides a holistic framework for evaluating and rating the community, environmental, and economic benefits of all types and sizes of infrastructure projects. It evaluates, grades, and gives recognition to infrastructure projects that use transformational, collaborative approaches to assess the sustainability indicators over the course of the project's life cycle.

Proposed landscaping on the treatment station site (see Drawings 100-L501 through 100-L505 in the attached plan set) will include approximately 39,000 square feet of new landscaped area consisting of trees, shrubs, grasses, and a green roof. Approximately 10,000 square feet of the total will be reinforced turf permeable pavement.

Screening, such as fencing, screen walls, and landscaping will be placed around the GWWTS facility site along 4th Avenue South and South Michigan Street. A perimeter fence will be placed around the other sides of the facility.

An architectural rendering is provided on Figure 1. Architectural site plans are provided in the attached plan set (see Drawings 000-A101 through 000-A103).

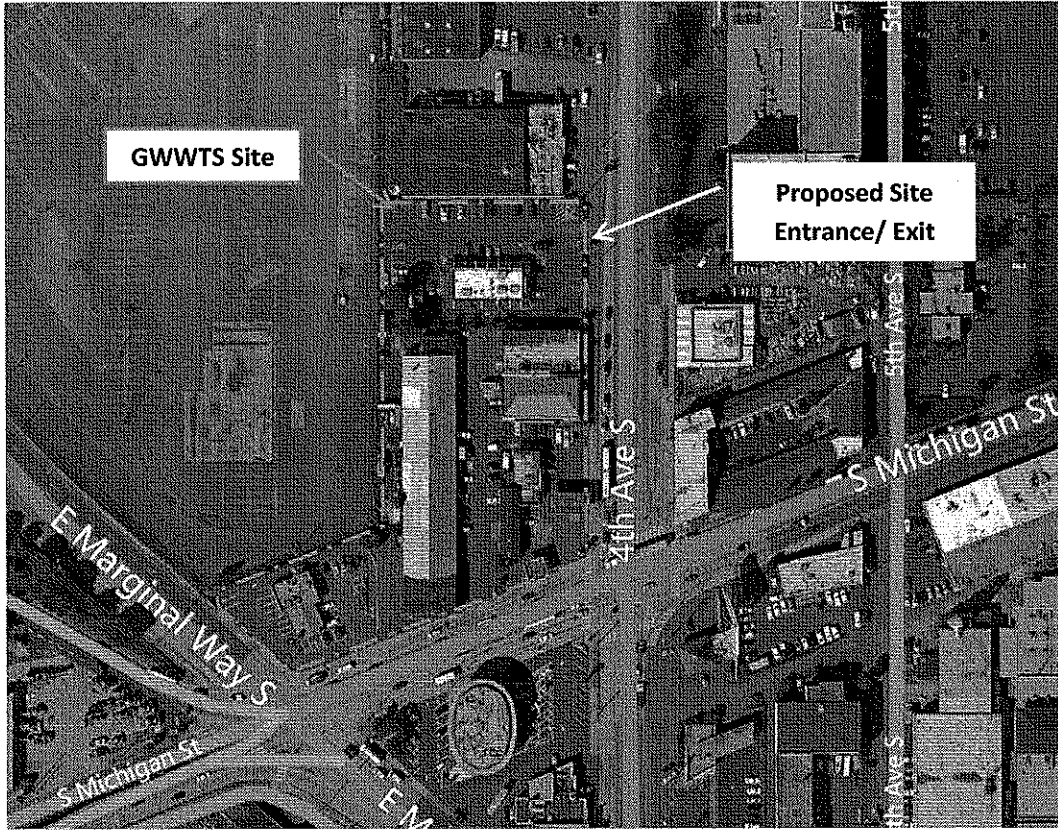
Figure 1: GWWTS Architectural Rendering



**Vehicular Access Controls:**

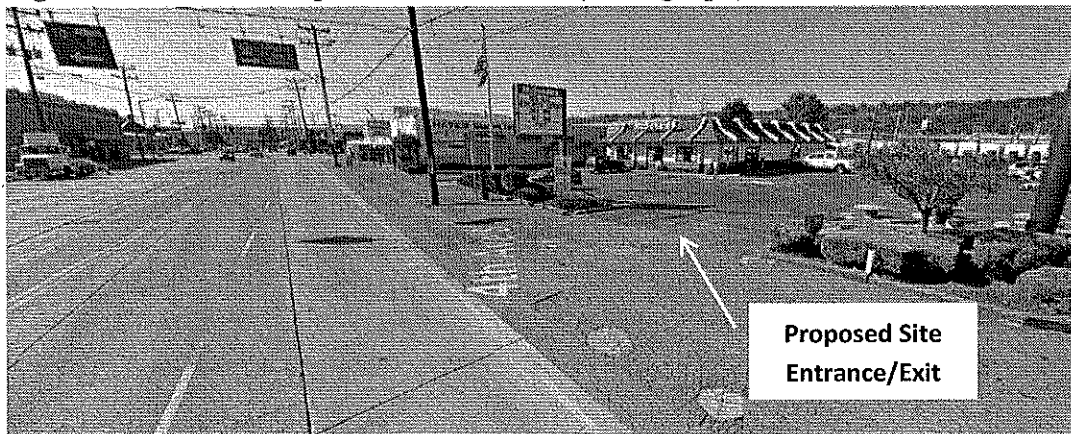
The site entrance/exit will be in the northeast corner of the site, off of 4th Avenue South (see Figure 2, Figure 3, and Figure 5).

**Figure 2: GWWTS Proposed Site Entrance (Aerial)**



Source: City of Seattle DPD GIS (<http://web6.seattle.gov/DPD/Maps/dpdgis.aspx>)

**Figure 3: GWWTS Proposed Site Entrance (Photograph)**



Source: Google Maps – Street View (<https://www.google.com/maps>)

**Georgetown Wet Weather Treatment Station Project**  
**DPD Project # 3021372**

Traffic patterns at nearby intersections (4th Avenue South/South Front Street and 4th Avenue South/South Michigan Street), as well as traffic volumes on 4th Avenue South north of South Michigan Street are presented in Attachment C.

As designed, the proposed GWWTS will generate very little traffic, approximately 3 vehicles on site during storm events, estimated to occur 20 times per year or less. Operations and maintenance would result in approximately 1 round-trip on a weekly basis. The GWWTS is proposing to have approximately 12 parking spaces on site for vehicles. The largest vehicle would be a 53-foot tank trailer for chemical deliveries (see Figure 4). Turning radius on-site is based on anticipated vehicles accessing the site; see Table 2 for more information.

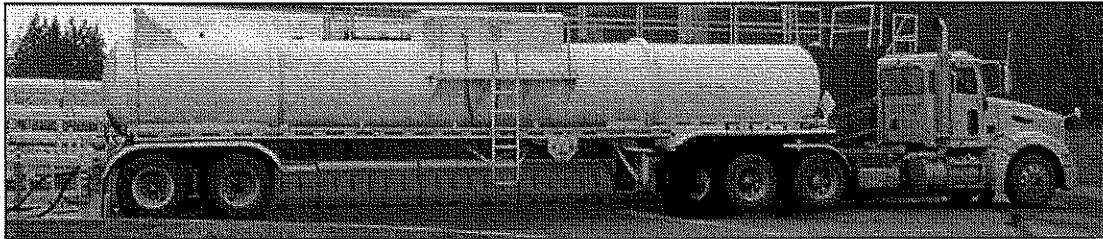
**Table 2: Vehicles Anticipated On-Site During Operations and Maintenance**

Vehicle	Access Area	Traffic Volume	Notes
Fire truck	Site roads	Emergency only.	Truck size and access requirements per Seattle Fire Code Section 503 and to be verified with input from the Seattle Fire Department.
O&M vehicle	Site roads	Infrequently for inspection and operations/maintenance. Estimated three times per week.	Ford F450 size or similar; 10 feet by 22 feet.
Refuse compactor	Screening building	Periodically after storm events/plant operation.	10 feet by 35 feet.
Vacuum truck	Carbon loading	Periodic for carbon changing events. Estimated once every 1 to 3 years.	Vacuum truck for removing spent carbon. Boom truck or maintenance truck with hoist for carbon super sacks.
WTD boom truck	Boom truck staging	Once every 10 years for main pumps, 5 years for drain pumps. Once every 5 years for screens.	Boom truck for removing pumps.
WB-67 Standard Semi-Tractor Trailer Combination with a 53-foot Trailer	Chemical truck deliveries	Periodic deliveries approximately once per year.	4-axle, 75-foot-long for Bioxide deliveries. 6,000-gallon tanker truck for remaining chemicals. Loading area will accommodate trucks that drain from the back or center.
Biosolids Tanker Truck	Solids truck loading area adjacent to the storage tank	Periodic removal of solids after storm events. Estimated 4 times per year.	WTD custom bio-solids dump truck with pump. (Solids truck loading provides a backup if solids cannot be returned to the system)
Fuel Truck	Above-grade fuel storage	Periodic filling of fuel tank. Estimated once per 5 years.	28 feet long by 8 feet wide. Stair access to top of tank would be provided.



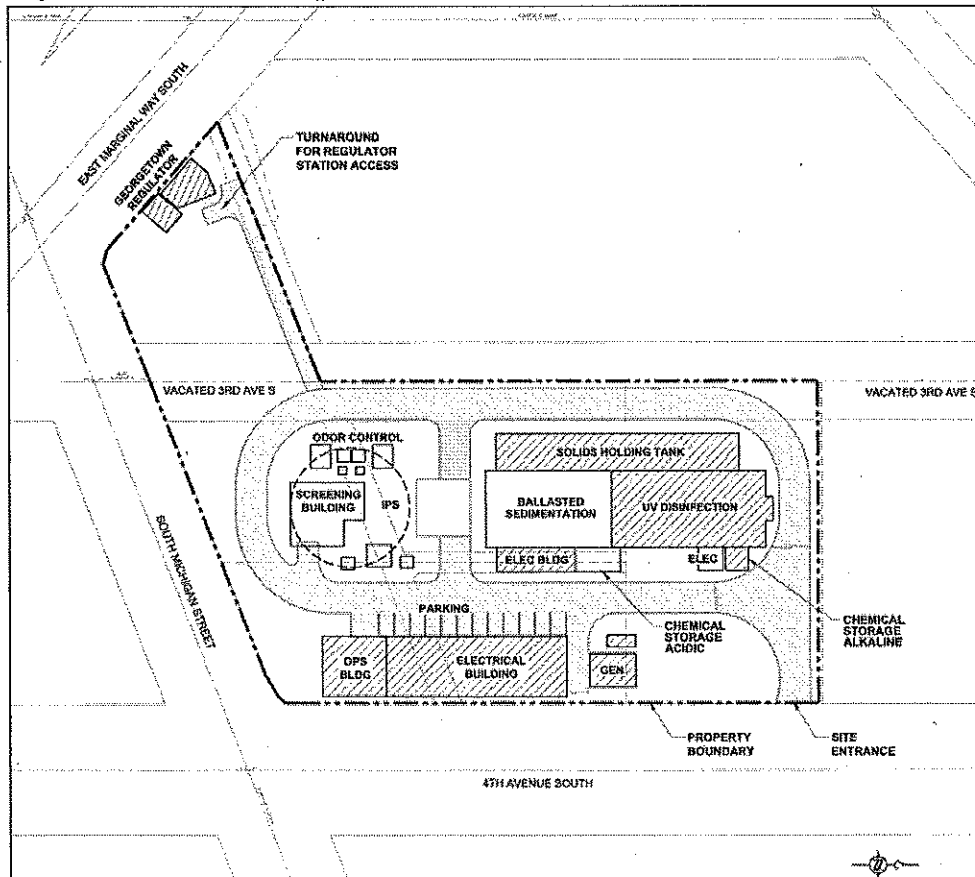
# Georgetown Wet Weather Treatment Station Project Council Conditional Use Criteria

**Figure 4: Example of Tank Trailer for Periodic Chemical Deliveries**



Vehicles would enter and exit the site at the northeast corner of the site (see Figures 2 and 3). Circulation through the site will consist of a 24-foot-wide perimeter access road/driveway loop for trucks and employee/visitor vehicles, as well as a smaller access road with turn-around on the southwest part of the site for regulator station access. The perimeter road will provide access to all buildings. Access to the Georgetown Regulator will be provided from a parking area immediately adjacent to the north side of the regulator station. A fence and gate will prevent public access at the regulator to avoid possible conflicts or safety concerns. Parking will be provided near the operations and electrical buildings. See Figure 5 for more information on proposed site circulation.

**Figure 5: GWWTS Proposed Site Circulation**



The land uses currently on-site generate a substantial amount of traffic; the proposed project will remove much of that traffic from the surrounding street system.

**Other Measures to Ensure Compatibility:**

Final design of landscaping, screening, and vehicular access will be developed in accordance with City of Seattle regulations and will ensure compatibility with the surrounding area. For example, the tallest building at the proposed GWWTS will be approximately 46 feet tall. This is compatible with other buildings in the area that range from approximately 20 to 55 feet tall. According to SMC 25.50.022 there is no maximum allowable building height for this use in the IG2 zone; there is an 85-foot height limit associated only with commercial uses other than spectator sports facilities, food processing, and craft work uses.

***4. The conditional use shall be denied if it is determined that the negative impacts cannot be mitigated satisfactorily. However, adverse negative impacts may be mitigated by imposing requirements or conditions deemed necessary for the protection of other properties in the zone or vicinity and the public interest.***

The GWWTS will not generate significant vehicular traffic, odors, or air pollution. As discussed above, operational traffic will be minimal because of the seasonal and intermittent operation of the facility. Potential impacts from noise, odors, and air pollution are discussed in detail in the following sections. The presence and operation of the GWWTS will not preclude or impair continued operation of existing adjacent uses (industrial, commercial, or residential). There is a Memorandum of Understanding in place for this project with King County, the City of Seattle, and Prologis, L.P. for the adjacent Georgetown Crossings Project proposed by Prologis. The Georgetown Crossings Project includes construction of a two-story light industrial facility. King County WTD will be working with the City of Seattle and Prologis during development of the GWWTS to ensure that these proposed uses are compatible. Likewise, the GWWTS will not preclude the development or redevelopment of currently underdeveloped properties in the area.

Land use impacts include displacement of 12 businesses (two landlord businesses and ten tenants) currently located on the four parcels that King County is acquiring for the GWWTS site (see Table 3). These types of services are not unique to the Georgetown neighborhood, and similar businesses are located in the surrounding area. Based on ongoing discussions with the displacees, many tenants would like to relocate elsewhere in the South Park/Georgetown area or to the SoDo District.

**Georgetown Wet Weather Treatment Station Project  
Council Conditional Use Criteria**

**Table 3: Proposed Tenant Relocations**

<b>Parcel No.</b>	<b>Displaced Business</b>	<b>Services Provided by Business</b>
5367200300	Taco Time	Fast food restaurant.
5367200445	Mallard Properties, LLC	Landlord Business
	Ducky's Office Furniture	Retail sales of new and used furniture
	Stalk Market	Retail sales of silk plants and crafts
	Clay Malmstrom	Personal property storage
	Mike Winters	Personal property storage
5367200446	Tayag's Auto Repair	Auto repair shop
	Barista's Coffee	Drive-through coffee stand and personal property storage
	Omni Luggage Repair	Luggage repair shop
	Southside Allstars	Artist Studio
	Muy Muchos Taqueria	Food truck
	Mike Winters	Landlord Business office and personal property storage
5367200447	Mike Winters	Landlord Business
	McDonald's USA	Restaurant (Fast Food)

King County will follow applicable federal, state, and local requirements for property acquisition, compensation, and relocation (SMC Chapter 20). All structures will be demolished on these four properties. The parcel on which Taco Time is currently located (Parcel 5367200300) could potentially be resold after construction is complete; however, there will be constraints on the property (such as easements) due to the location of conveyance facilities (below-grade) and the Georgetown Regulator Station (above-grade).

King County WTD will work with the City of Seattle to ensure negative impacts will be avoided or reduced within the vicinity of the project.

***5. In areas covered by Council-adopted Neighborhood Plans that were adopted after 1983, uses shall be consistent with the recommendations of the plans.***

The GWWTS project is located within the Greater Duwamish Manufacturing/Industrial (M/I) Center. A Neighborhood Plan for the Greater Duwamish M/I Center was developed in 1999 and passed by the City Council in 2000.

Per Table 3-2: Proposed Land Use Matrix of the Neighborhood Plan, utilities such as sewage treatment plants (including wet-weather treatment stations) should be considered a Council Conditional Use in the IG2 zone, as is consistent with current regulations.

Compliance with the following recommendations of the plan is presented below:

- Policy EC 1.6: Preserve land in the Duwamish M/I Center for industrial activities such as manufacturing, warehousing, marine uses, transportation, utilities, construction and other related industrial sectors.

*Response: The GWWTS is a utility use (wet weather treatment station), and will operate with a similar “look and feel” as these listed industrial activities. See Figure 1 for an architectural rendering of the station.*

- Policy EC 3.5: Separate industrial processes and functions from residences and the general public.

*Response: The GWWTS will be effectively screened from the residences at Martin Court Apartments, which is located on the northeast corner of 4th Avenue South and South Michigan Street across the street from the proposed building façade shown in Figure 1. There will be street trees and landscaping planted along 4th Avenue South, which currently has none, and the operations and maintenance building may have a green roof. Design of the facility will be compatible with surrounding uses. See Figure 1 and Drawings 000-A101 through 100-L505 in the attached plan set for more information on screening and landscaping.*

**Conditions for Approval of Proposal (as per SMC 23.50.014.D)**

***1.A. The plant shall be located so that adverse impacts would not affect large concentrations of people, particularly in residential and commercial areas.***

**Residential Areas:**

Criteria were developed and refined throughout the GWWTS siting process to evaluate and narrow the number of treatment station sites under consideration. Criteria included those related to community and social justice, including minimizing construction impacts and minimizing potential negative long-term community impacts.

The Environmental Protection Agency has directed the Washington State Department of Ecology to identify and address any “disproportionally high and adverse human health or environmental effects” on minority, tribal, or low-income populations resulting from projects funded through the Water Pollution Control Revolving Fund (SRF) program. As such, all SRF recipients with wastewater construction projects, including King County WTD for this project, must identify steps they are taking to ensure environmental justice issues are addressed. A technical memorandum has been prepared addressing environmental justice, which concluded that there would be no disproportionate high and adverse impacts on environmental justice populations. Most of the adverse effects associated with this project will occur during construction and will be minor and temporary.

## **Georgetown Wet Weather Treatment Station Project Council Conditional Use Criteria**

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Given the presence of minority and low-income populations in the surrounding area, enhanced public outreach has been initiated to meet King County's Equity and Social Justice (ESJ) Ordinance. The ordinance calls for King County to consider ESJ impacts in all decision-making so that decisions increase fairness and opportunity for all people, particularly people of color, low-income communities and people with limited English proficiency. An ESJ Action Plan is under development to consider how the project affects (both negatively and positively) the determinants of equity for near neighbors. The plan makes recommendations to mitigate negative impacts and expand the positive. A robust public involvement effort for the project began in early 2014, based on King County's Community Engagement Guide. A variety of targeted outreach approaches have since been employed, and will continue to be implemented, throughout the life of the project.

Surrounding properties are largely industrial or commercial, with the exception of the Martin Court Apartments, which contains 41 subsidized housing units and is located on the northwest corner of 4th Avenue South and South Michigan Street. To ensure the local community is full engaged with this proposal, King County WTD has formed a Design Advisory Group (DAG) that meets regularly to discuss what WTD will be doing at the site and to voice comments on the design of the GWWTS. The DAG is comprised of interested Georgetown stakeholders who represent the diverse interests of the neighborhood. The group met regularly at the start of the design process to ensure that the architecture and landscaping would reflect the community's values. As design proceeds, the DAG will meet at major milestones to ensure that the design continues to align with those values.

### **Commercial Areas:**

Four parcels will be acquired by King County and used for the treatment station (see Tables 1 and 3). This will include the displacement of 12 businesses (2 landlord and 10 tenants) currently located on the parcels. King County will follow federal, state, and local requirements for property acquisition, compensation, and relocation (SMC Chapter 20).

Property owners or businesses displaced by the proposed project will receive relocation assistance from King County, if eligible for relocation benefits, in accordance with the provisions of the King County Real Property Acquisition and Relocation Policy, Procedures, and Guidelines.

King County will acquire necessary property at fair market value and provide relocation assistance to qualified property owners and qualified tenants. The County will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act (49 Code of Federal Regulations Part 24) and the Washington State law covering property acquisition (Chapter 8.26 Revise Code of Washington, Title 468-100 Washington Administrative Code [WAC]) to provide consistent treatment, to minimize hardship of persons displaced as a direct

result of the proposed project, and to seek cooperative settlements of property acquisitions and relocation claims.

***1.B. The negative impacts of the use can be satisfactorily mitigated by imposing conditions to protect other property in the zone or vicinity and to protect the environment. Appropriate mitigation measures shall include but are not limited to:***

***1.B.(1). A facility management and transportation plan shall be required. The level and kind of detail to be disclosed in the plan shall be based on the probable impacts and/or scale of the proposed facility, and shall at a minimum include discussion of sludge transportation, noise control and hours of operation, and shall be incorporated into the design and operation of the facility;***

**Biosolids:**

Conveyance of biosolids generated by the GWWTS will rely on pipelines conveying the solids to the Elliot Bay Interceptor and then onto the West Point Treatment Plant; no trucking of biosolids is proposed.

**Noise Control:**

Operation of the proposed treatment station will produce minor levels of noise, localized to the treatment station site, but will result in an overall reduction in noise currently produced on the site. The treatment station will be operated intermittently, only approximately 20 times per year, which minimizes the periods when noise is produced. During operation, the station will use six vertical turbine electric pumps and ventilation fans, which are not anticipated to approach or exceed maximum permissible environmental noise levels of 70 dBA for the surrounding industrial district. All regularly operated noise generating equipment will be housed within the structures. Motors for the influent pumps will be located outside. If determined necessary, based on actual facility design, technologies and insulation strategies could be used to further reduce noise from operational equipment.

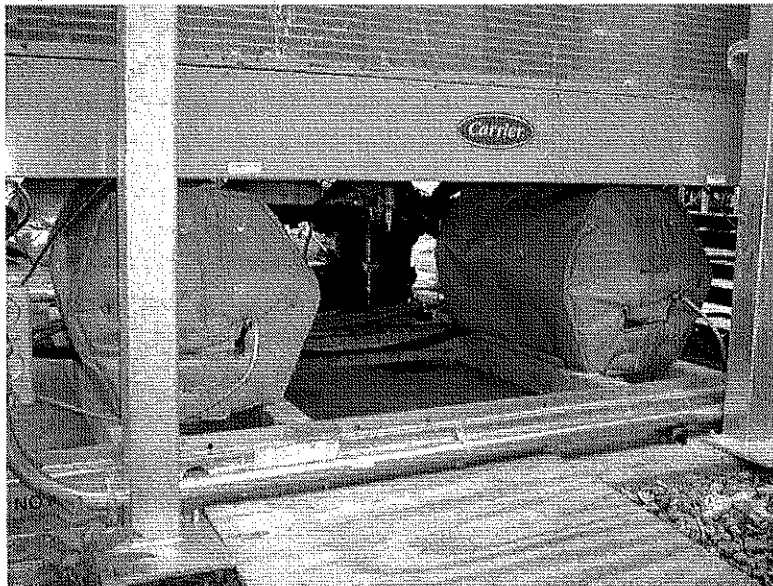
Noise from vehicular traffic created by operation and maintenance of the proposed treatment station will be incidental in relation to the existing traffic use of surrounding arterial roadways. These trips are estimated at 3 round trips per event (20 events per year) and one round trip per week, for an estimated 112 total round trips per year.

All regularly operated noise generating equipment will be housed within structures. The backup generator will be housed in a noise-attenuation enclosure as well. If determined necessary, based on actual facility design, technologies and insulation strategies could be used to further reduce noise from operational equipment.

Noise associated with the odor control system will come from two primary sources: exhaust fans and the treated air discharge. The exhaust fans will radiate noise from the main fan housing as well as the motor assembly. A portion of the radiated noise will travel down the ductwork to the discharge outlet.

As the fans will be located outside, noise mitigation will require either sound-attenuating wraps around the fan housing (see Figure 6) or a prefabricated walk-in enclosure. A full walk-in enclosure for each exhaust fan is assumed, and will be designed to reduce noise emissions as necessary to meet the site conditions required by the Seattle Municipal Code. In addition, silencers will be included on each treated air discharge to mitigate noise at the exhaust outlet.

**Figure 6: Example Sound-Attenuating Wrap**



Source: <sup>e</sup>Noise Control (<http://www.enoisecontrol.com/products/sound-blankets/>)

**Hours of Operation:**

During wet weather, the treatment station will be operated intermittently until the event subsides, approximately 20 times per year, during rain events which are significant enough to create the overflow conditions requiring this facility.

During dry weather, maintenance staff will access the site approximately once per week to check and maintain the equipment.

**Transportation – Operations:**

A Traffic and Transportation Technical Memorandum has been prepared for this project, and is summarized in this and the following section.

As mentioned above, the proposed GWWTS facility will generate very little vehicular traffic unless there is a treatment event (estimated to occur 20 times per year or less). However, the parking, storage, and small office facilities could result in approximately 3 round-trips on a weekly basis. The land uses currently on-site generate a substantial amount of traffic, and the proposed project will remove much of that traffic from the surrounding street system.

**Transportation – Construction:**

Construction impacts will result from vehicles carrying workers and materials (including supplies and equipment) to the project area and off-haul of excess spoils generated during construction. These impacts will be temporary.

Workers and materials are expected to travel to and from the site primarily via SR 99 and I-5. Smaller amounts of traffic could use 1st Avenue South, 4th Avenue South (north of the site), or East Marginal Way South (south of the site). Trucks are expected to use either: (1) the First Avenue South Bridge (SR 99/SR 509) to go to and from the south, or (2) South Michigan Street between the site and I-5 to go to/from either north or south.

The preliminary construction schedule indicates about four years worth of activities (2018-2021). This period is divided into four phases for the purpose of estimating construction traffic by type. Construction traffic estimates are shown in Table 4 by type—concrete trucks, other trucks, and employees.

**Table 4: Construction Traffic Estimates (Trips/Day) by Type and Construction Phase**

Phase	By Concrete Trucks	By Other Trucks	Employee Trips	Total
1: Demolition and Site Preparation	-	20	80	100
2: GWWTS Structure and Conveyances	40	10	160	210
3: GWWTS Finish and Outfall	10	10	160	180
4: Startup/Testing	-	-	20	20

*Assumption: A vehicle makes two trips: one to the site and one to leave the site. Forty employees make 80 site trips per day.*

For approximately the first year, site demolition and grading at the treatment station site will be the only major activities conducted for the project. This work is expected to generate up to 20 truck trips per day, with one quarter of those in the morning peak hour. Additional truck trips may be required to conduct site remediation, which will be determined during final design of the project. Employee traffic during this phase will consist of approximately 40 on-site employees making 80 trips (40 in in the morning, 40 out in the afternoon). Employees could include construction workers, supervisors working



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for the construction company or its subcontractors, as well as inspectors working for the project's engineers, King County, or its designees.

Following site demolition and grading, major activities will include treatment station construction and construction of the diversion and conveyance structures. These activities will occur concurrently over a year and a half (early 2019 through approximately mid-2020). During this time, concrete construction will occur on various parts of the treatment station site, including the below-grade Influent Pump Station and Equalization Basin, and at the conveyance structures. Because the building is small and relatively specialized, concrete truck traffic is expected to remain low, with an estimated volume of 20 trucks (40 trips) on typical construction days, though individual activities of short duration could result in more intensive truck count levels. Delivery of materials and equipment is expected to generate up to 10 trucks per day. Construction employee traffic is expected to be double that of the demolition phase, at up to 80 employees making 160 trips per day (80 in, 80 out).

GWWTs building construction and site improvements are expected to occur at the same time as proposed outfall construction, for a period of approximately 8 months (late 2020 through mid-2021). Construction is anticipated to generate fewer concrete truck trips than the previous phase (10 trips per day), but the same level of other delivery truck traffic and employee activity.

The final construction period (mid- to late 2021) is reserved for GWWTs start-up and testing. With no construction activities during this period, traffic will generally be restricted to employees. Ten on-site employees making 20 trips per day (10 in, 10 out) are anticipated during this period.

The GWWTs site is expected to be large enough to handle most material storage/handling requirements on-site, with minimal need for lane closures. Employee parking is expected to be negotiated between King County and the construction contractor, but could involve some employees using existing on-street parking.

***1.B.(2). Measures to minimize potential odor emission and airborne pollutants including methane shall meet standards of and be consistent with best available technology as determined in consultation with the Puget Sound Clean Air Agency (PSCAA), and shall be incorporated into the design and operation of the facility;***

**Air Quality/Emissions During Operation:**

The facility will be used only during rain events significant enough to create the overflow conditions requiring this facility. During such events a few staff may be needed for operations at the facility. In between such events, there may be occasional visits to the

facility by maintenance staff. Both operational and maintenance staff will generate a very small number of vehicle trips for these operational phase activities.

The nominal 500 kilowatt (kW) emergency generator is expected to operate only up to 500 hours per year, considering both maintenance and testing use (probably an hour or two per month) and emergency use. Estimated emissions are far below major source thresholds for criteria air pollutants (i.e., 250 tons/year) and are not expected to significantly impact air quality locally or regionally. Based on expected emission amounts and types, the only permit action anticipated is the filing of a Registration with the Puget Sound Clean Air Agency (PSCAA), per Regulation 1, Article 5 of the PSCAA regulations.

*Greenhouse Gas Emissions:*

Operation of the project will generate greenhouse gas (GHG) emissions from the operation of gasoline fueled personnel vehicles. For analysis purposes, it was assumed that 2 full time employees will require 0.5 round trips/day (one trip every other day) over the lifespan of the facility. This will require about 138,200 gallons of fuel, which will result in GHG emissions of about 1,520 metric tons (MT) of carbon dioxide equivalent (CO<sub>2</sub>e).

Annualized, this will equate to about 31 MT of CO<sub>2</sub>e per year. The embodied energy required for the project will add an additional 84 MT of CO<sub>2</sub>e per year during operations. Facility process operations will create another 23,000 MT of CO<sub>2</sub>e, annualized to about 460 MT of CO<sub>2</sub>e per year. The total annual GHG emissions during operations will represent about 0.006 percent of the total CO<sub>2</sub>e emissions in the state of Washington (that is, 9.58 million MT of CO<sub>2</sub>e per year).

There is no standard significance threshold for greenhouse gas emissions in the SEPA rules (WAC 197-11-330). However, Chapter 173-441 WAC – Reporting of Emissions of Greenhouse Gas, as adopted by Ecology, requires mandatory greenhouse gas reporting for facilities that emit at least 10,000 MT of GHG per year in Washington. Over the lifecycle of the project (approximately 55 years, including both construction, operations, and embodied energy), the project will be expected to emit approximately 44,700 MT of CO<sub>2</sub>e. On an annual basis during construction, the project will emit about 3,200 MT of CO<sub>2</sub>e. During operations, annual emissions are estimated as about 574 MT of CO<sub>2</sub>e.

For operation, the appropriate mitigation measure for emissions will be as follows:

- Observe diesel generator exhaust during periodic testing, and if there is visible smoke even after the unit has warmed up, then initiate repairs as needed.

**Nuisance Odors:**

Given the facility will treat wastewater during and after rain events that cause CSO conditions, there is a potential for odors from the water/solids storage and treatment processes. The facility will be designed to minimize such odors by enclosing nuisance odor

## **Georgetown Wet Weather Treatment Station Project Council Conditional Use Criteria**

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sources and treating foul air by carbon absorption, and such that additional emission control devices (e.g., covers) could be added if any open-air processes are found to cause odors that migrate off-site. Dispersion modeling is currently being done to confirm any potential odor impacts the facility may create at the fence line, allowing for validation of the mitigation measures included in the design. Once the modeling is finalized, it will be forwarded to the City of Seattle for review.

For operation, the appropriate mitigation measures related to nuisance odors will be as follows:

- During CSO operations, make site boundary surveys to note whether any objectionable odors are leaving the site, and if so, initiate investigation of the source(s) and application of additional control measures (such as covers and gas treatment/scrubbing) as needed to eliminate off-site migration of odors.

### **Air Quality/Emissions During Construction:**

The emissions due to project construction will consist of mobile equipment exhaust emissions and fugitive dust from excavation and other earthmoving activities. The exhaust emissions will be intermittent and spread across the site, and are not expected to affect attainment status of the project area. The fugitive dust emissions, if not properly managed, could cause significant local impacts during high wind episodes. However, proper mitigation of such emissions, including application of water or other dust suppressants, can keep fugitive dust from being a threat to the National Ambient Air Quality Standards (NAAQS) attainment for this area.

A modest workforce will be needed for construction, but the vehicle-related emissions from these workers traveling to the job site daily will not be a significant portion of metro-wide commuting emissions and impacts will be temporary.

Odors are not anticipated to be a significant concern during construction. The primary issue could be if the construction equipment engines are not properly maintained and/or are burning excessive oil, this could create a visible and odorous plume. Mitigation will be to repair or replace any equipment that is constantly smoking due to oil consumption.

Construction of the project will generate GHG emissions from the operation of diesel fueled construction equipment and gasoline fueled personnel vehicles—see discussion beginning on Page 19 of this document for more information.

For construction, the appropriate mitigation measures will be as follows:

- Repair/replace any continuously smoking engines (i.e., not including startup and transient load conditions)

- Apply water or other approved dust suppressants as needed to minimize fugitive dust during earthmoving operations.
- Conduct street sweeping of any dirt tracked onto adjoining paved areas.

**Noise During Construction:**

Typical construction noises will be created from engine-powered construction equipment such as dump trucks, excavators, concrete mixer, and flatbed trucks (see Table 5). Other noise sources will include impact tools, which should be limited to hoe-rams (concrete breaker mounted on heavy equipment) and jackhammers (human-operated) at the proposed treatment station site.

At a distance of 50 feet, the noise level generated by construction activities would range from approximately 80 “A-weighted” decibels (dBA) to 90 dBA. These represent anticipated levels without implementation of any noise control and reduction strategies.

**Table 5: Approximate Sound Levels from Construction Equipment<sup>1</sup>**

Equipment <sup>2</sup>	Sound Level, dBA (at 50 feet)	Acoustical Usage Factor <sup>3</sup> , %	Impact Device <sup>4</sup> ?
Hoe-ram (concrete breaker)	90	20	Yes
Jackhammer	85	20	Yes
Dozer	85	40	No
Excavator	85	40	No
Crane, mobile	81	16	No
Concrete mixer truck	85	40	No
Concrete pump truck	82	20	No
Flatbed truck / dump truck	84	40	No
Backup warning alarm	85	5	No

1: “Slow” time weighting at a distance of 50 feet.

2: Generic equipment titles are listed.

3: Percent of time in each hour equipment generates sound.

4: Creates impact sound subject to additional Code limits delineated in SMC 25.08.425

Source: FHWA Specification 721.560 and FHWA Construction Noise Model Database

Construction noise will be intermittent, occurring at different times and at various locations in the treatment station site and along the conveyance / outfall corridor during the approximately 5-year construction period. The maximum noise levels of construction equipment will be similar to the typical maximum noise levels from construction equipment shown in Table 5, and during most periods of construction the noise level will likely be lower. The project will comply with any SDOT requirements for noise impacts within rights-of-way; noise within the shoreline environment can be found in the project

**Georgetown Wet Weather Treatment Station Project**  
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Shoreline Conditional Use Permit package being submitted separately under DPD Project #3022084.

Construction of the proposed project at the GWWTS will result in a short-term increase in noise. However, almost all noise generating construction activity would occur during normal construction hours (between 7 a.m. and 10 p.m., per SMC 25.08.425.A). Sounds at or below 95 dBA (as measured at 50 feet or the adjacent property line, whichever is greater) resulting from construction activity are allowed within industrial districts. In addition, sounds originating from temporary construction sites as a result of construction activity are exempt from the requirements of WAC 173-60 as long as they occur during normal construction hours.

All construction activities will occur in an existing loud to very loud noise environment. While proposed construction will generate noise, the perceived impact of construction noise will be reduced by the existing noisy environment.

In general, noise generated by construction of the project will occur between 8 a.m. and 5 p.m., further limiting potential short-term impacts to the adjacent residential receptor at 6188 4th Avenue South (Martin Court Apartments) and commercial receptors surrounding the project site. In addition, noise generated from project construction will generally be at or below 85 dBA (based on maximum expected construction sound levels specified in Table 5).

Several measures to reduce or control noise impacts may be utilized during construction, including requiring that equipment engines not be allowed to idle for longer than 5 minutes at the construction site.

Before and during the entire construction period, King County WTD's community relations staff will assist citizens by providing up-to-date information on proposed construction activities and responding to noise complaints. WTD staff will work in close coordination with the contractor to ensure that the public is kept aware of any changes to the work environment that may affect construction noise levels, and that all complaints are addressed in a timely and effective manner.

**Operation Noise:**

Operation of the proposed treatment station will produce minor levels of noise, localized to the treatment station site, but will result in an overall reduction in noise currently produced on the site. The treatment station will be operated intermittently, only approximately 20 times per year, which minimizes the periods when noise is produced. During operation, the station will use six vertical turbine electric pumps and ventilation fans, which are not anticipated to approach or exceed maximum permissible

environmental noise levels of 70 dBA for the surrounding industrial district. All regularly operated noise generating equipment will be housed within the structures. Motors for the influent pumps will be located outside. If determined necessary, based on actual facility design, technologies and insulation strategies could be used to further reduce noise from operational equipment.

Noise from vehicular traffic created by operation and maintenance of the proposed treatment station will be incidental in relation to the existing traffic use of surrounding arterial roadways. These trips are estimated at 3 round trips per event (20 events per year) and one round trip per week, for an estimated 112 total round trips per year.

All regularly operated noise generating equipment will be housed within structures. The backup generator will be housed in a noise-attenuation enclosure as well. If determined necessary, based on actual facility design, technologies and insulation strategies could be used to further reduce noise from operational equipment.

Noise associated with the odor control system will come from two primary sources: exhaust fans and the treated air discharge. The exhaust fans will radiate noise from the main fan housing as well as the motor assembly. A portion of the radiated noise will travel down the ductwork to the discharge outlet.

As the fans will be located outside, noise mitigation will require either sound-attenuating wraps around the fan housing (see Figure 6) or a prefabricated walk-in enclosure. A full walk-in enclosure for each exhaust fan is assumed, and will be designed to reduce noise emissions as necessary to meet the site conditions required by the Seattle Municipal Code. In addition, silencers will be included on each treated air discharge to mitigate noise at the exhaust outlet.

***1.B.(3). Methods of storing and transporting chlorine and other hazardous and potentially hazardous chemicals shall be determined in consultation with the Seattle Fire Department and incorporated into the design and operation of the facility;***

Chlorine will not be used at the GWWTS for disinfection; rather, ultraviolet disinfection will be used.

The treatment station will use caustic soda (sodium hydroxide) as a chemical additive to support the treatment process. Caustic soda is used in many industries, mostly as a strong chemical base in manufacturing and as a cleaning agent.

**Georgetown Wet Weather Treatment Station Project  
Council Conditional Use Criteria**

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Small quantities of sodium hypochlorite (bleach) will be used in the treatment station between CSO events to reduce undesirable biological growth in process tanks and reduce odors. Sodium hypochlorite will not be discharged into the LDW.

Both caustic soda and sodium hypochlorite are classified as hazardous substances.

Small amounts of fuels and other similar materials could also be used and stored on site. Access to chemicals will be controlled to ensure safety, and appropriate secondary containment for treatment chemicals will be provided as required by the National Fire Protection Association (NFPA) standards, and King County requirements and standards of practice. Accordingly, reasonably foreseeable upset and accident conditions are not expected to result in a significant hazard to the public or environment.

Potential safety concerns for the public and workers operating the facility were integrated into the design for the facilities. Federal, state, and local safety requirements for the operation of the facility will be met.

***1.B.(4). Vehicular access suitable for trucks shall be available or provided from the plant to a designated arterial improved to City standards; and***

Workers and materials are expected to travel to and from the site primarily via SR 99 and I-5. Smaller amounts of traffic could use 1st Avenue South, 4th Avenue South (north of the site), or East Marginal Way South (south of the site). Trucks are expected to use either (1) the First Avenue South Bridge (SR 99/SR 509) to go to and from the south, or (2) South Michigan Street between the site and I-5 to go to/from either north or south.

Streets surrounding the GWWTS site, including South Michigan Street, 4th Avenue South, and East Marginal Way South are all classified as Principal Arterials by the City of Seattle. Such arterials are suitable for trucks and other vehicular access.

***1.B.(5). Landscaping and screening, separation from less-intensive zones, noise, light and glare controls, and other measures to insure the compatibility of the use with the surrounding area and to mitigate adverse impacts shall be incorporated into the design and operation of the facility.***

Proposed landscaping on the treatment station site will include approximately 39,000 square feet of new landscaped area consisting of trees, shrubs, grasses, and a green roof. Approximately 10,000 square feet of the total will be reinforced turf permeable pavement. See Drawings 100-L501 through 100-L505 of the attached plan set for landscaping information.

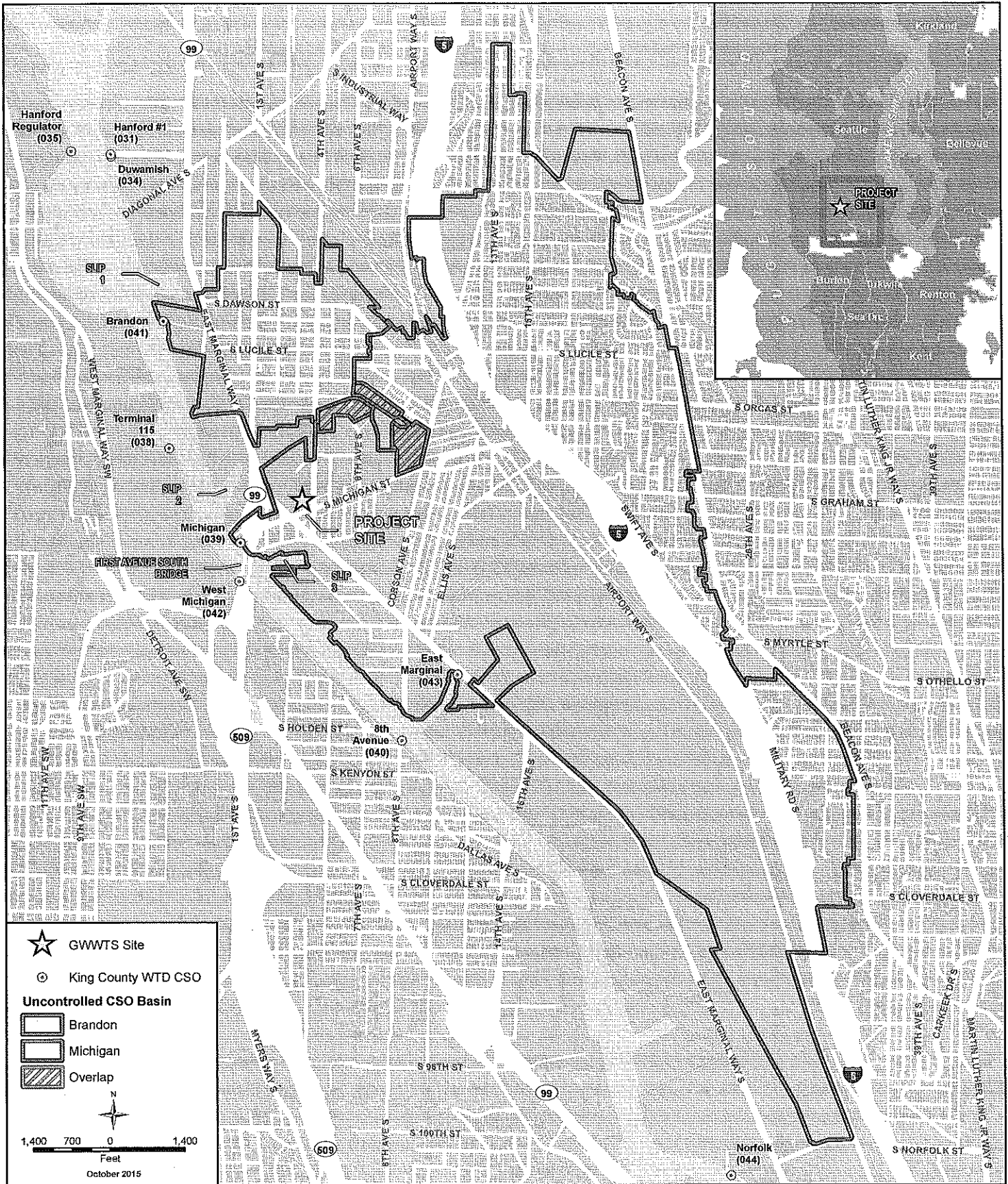
The GWWTS will pursue an Envision™ Platinum rating, in conjunction with the King County Sustainable Infrastructure Scorecard. Envision™ is the product of a joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design and the Institute for Sustainable Infrastructure. Envision™ provides a holistic framework for evaluating and rating the community, environmental, and economic benefits of all types and sizes of infrastructure projects. It evaluates, grades, and gives recognition to infrastructure projects that use transformational, collaborative approaches to assess the sustainability indicators over the course of the project's life cycle.

An eco-charrette for this project was conducted on December 16, 2014, in accordance with County requirements for all capital projects. Attendees included members from King County WTD, King County GreenTools Program, and the project design team. Strategies identified at the eco-charrette serve as a starting point for achieving project goals, satisfying certain credits in the Envision™ rating system, and identifying opportunities to achieve exemplary sustainability performance within the existing project schedule and budget. The eco-charrette was focused on the following areas: Community and Equity/Social Justice, Natural World and Resilience, and Resource Use and Emissions. Screening, such as fencing, screen walls, and landscaping will be placed around the GWWTS facility site along 4th Avenue South and South Michigan Street. A perimeter fence will be placed around the other sides of the facility.

An architectural rendering is provided on Figure 1. Architectural site plans are provided in the attached plan set (see Drawings 000-A101 through 000-A103).

Exterior lighting will be installed around the facility over building entrances and along the outside walls. Lighting will be directed downward and otherwise mitigated so as not to increase glare from the GWWTS facility.

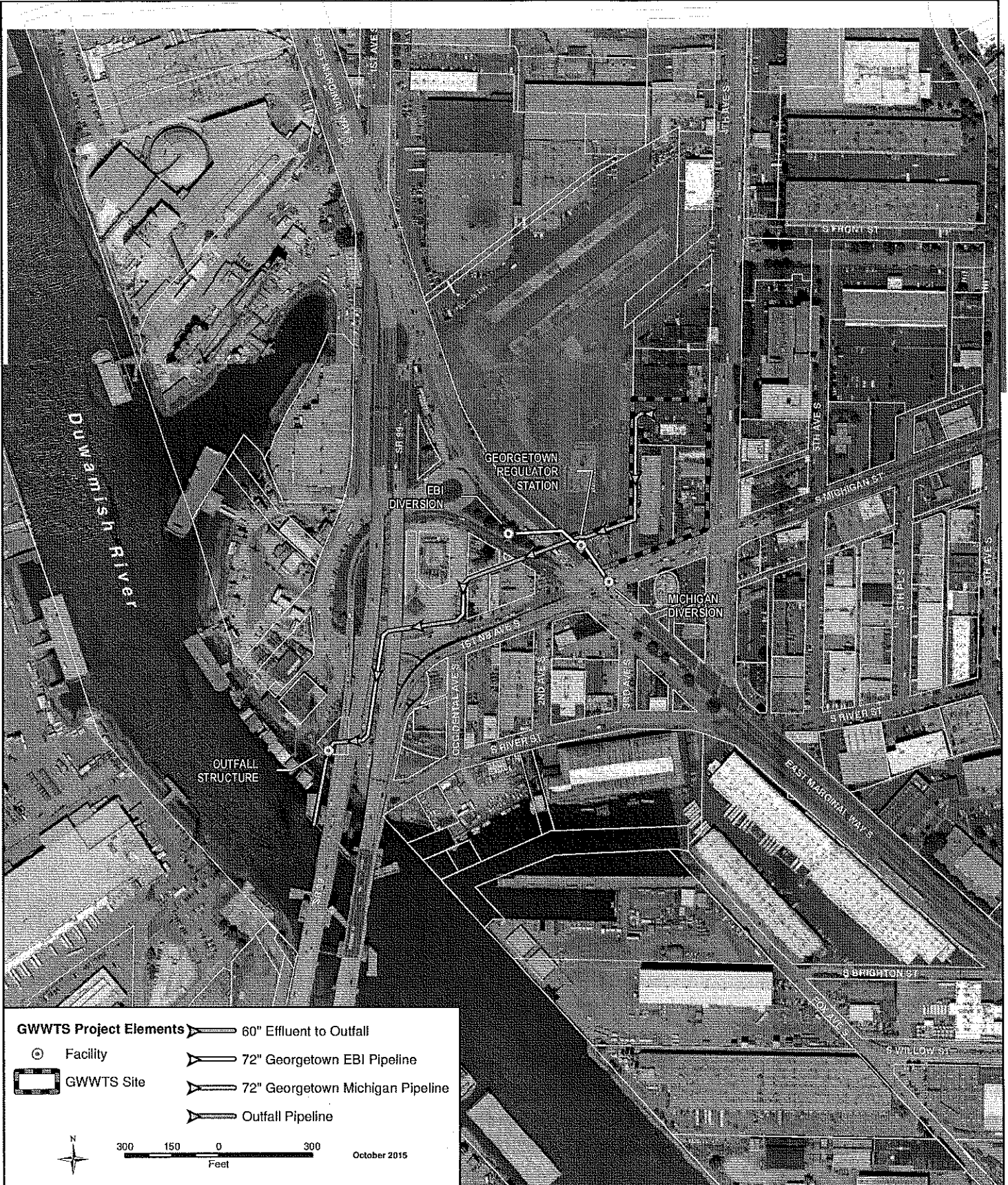




Attachment A, Figure 1

Site/Vicinity Map

Georgetown Wet Weather Treatment Station



- GWWTS Project Elements**
- 60" Effluent to Outfall
  - Facility
  - GWWTS Site
  - 72" Georgetown EBI Pipeline
  - 72" Georgetown Michigan Pipeline
  - Outfall Pipeline



300 150 0 300  
Feet

October 2015



**King County**  
Department of  
Natural Resources and Parks  
**Wastewater Treatment  
Division**

The information included on this map has been compiled from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.  
File Name: Q:\WTD\Projects\Brandon-Michigan\projects\2\_ProjectSite.mxd - Sharl Cross

Attachment A, Figure 2  
**Project Site (Aerial)**  
*Georgetown Wet Weather  
Treatment Station*



MASTER USE PERMIT APPLICATION  
DPD PROJECT #3021372

Georgetown Wet Weather  
Treatment Station

ATTACHMENT B - PHOTOGRAPHS

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Photo 1: Parcel 5367200300; Taco Time

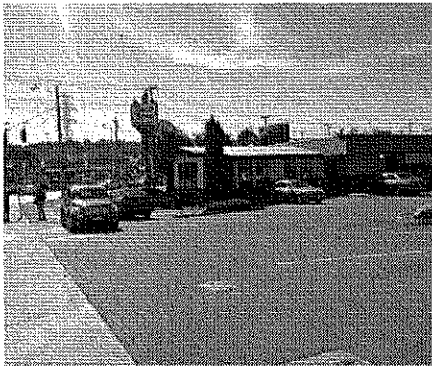


Photo 2: Parcel 5367200445; Mallard Properties



Photo 3: Parcel 5367200445; Ducky's Office Furniture

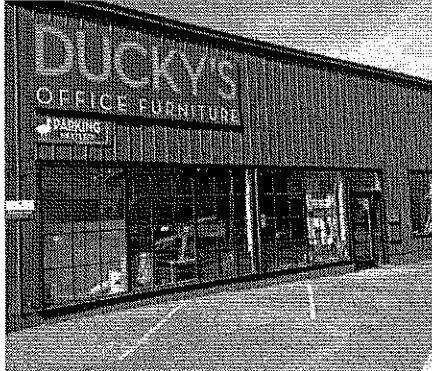


Photo 4: Parcel 5367200445; The Stalk Market



**Photo 5: Parcel 5367200446; Baristas Coffee**



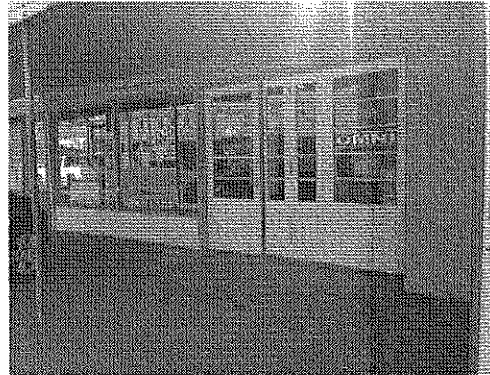
**Photo 6: Parcel 5367200446; Tayag's Auto Repair**



**Photo 7: Parcel 5367200446; Muy Macho Taqueria**



**Photo 8: Parcel 5367200446; Omni Luggage Repair**



**Photo 9: Parcel 5367200446; Southside Allstars**



**Photo 10: Parcel 5367200447; McDonald's**



**Photo 11: View of GWWTS Site (generally outlined in red) from 4th Avenue South/South Michigan Street Intersection, looking northwest**



Source: Google Maps – Street View ([www.google.com/maps](http://www.google.com/maps))

**ATTACHMENT C**  
**4th Ave S/S Front St - AM Peak Hr**

**CITY OF SEATTLE**  
**DEPARTMENT OF TRANSPORTATION**

Counted by : JH  
 Counter No : 1690  
 Weather : CLEAR  
 Comments :

File Name : S\_255a10  
 Site Code : 00100601  
 Start Date : 10/6/2010  
 Page No : 3

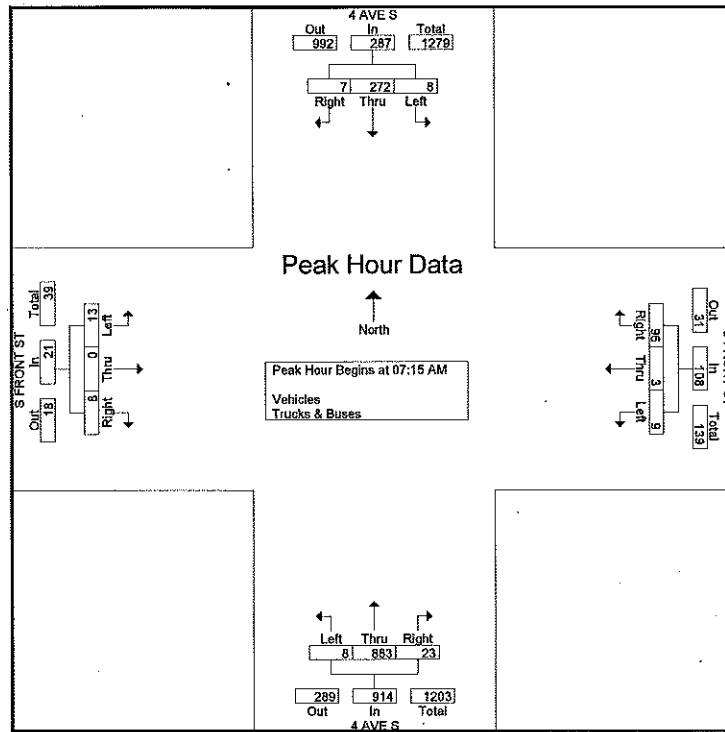
Start Time	4 AVE S From North				S FRONT ST From East				4 AVE S From South				S FRONT ST From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	59	1	63	2	1	17	20	3	229	6	238	3	0	0	3	324
07:30 AM	2	63	1	66	2	2	18	22	2	226	6	234	4	0	1	5	327
07:45 AM	1	71	0	72	3	0	31	34	2	204	8	214	2	0	5	7	327
08:00 AM	2	79	5	86	2	0	30	32	1	224	3	228	4	0	2	6	352
Total Volume	8	272	7	287	9	3	96	108	8	883	23	914	13	0	8	21	1330
% App. Total	2.8	94.8	2.4		8.3	2.8	88.9		0.9	96.6	2.5		61.9	0	38.1		
PHF	.667	.861	.350	.834	.750	.375	.774	.794	.667	.964	.719	.960	.813	.000	.400	.750	.945

**ATTACHMENT C**  
**4th Ave S/S Front St - AM Peak Hr**

**CITY OF SEATTLE**  
**DEPARTMENT OF TRANSPORTATION**

Counted by : JH  
 Counter No : 1690  
 Weather : CLEAR  
 Comments :

File Name : S\_255a10  
 Site Code : 00100601  
 Start Date : 10/6/2010  
 Page No : 4



**ATTACHMENT C**  
**4th Ave S/S Front St - PM Peak Hr**

**CITY OF SEATTLE**  
**DEPARTMENT OF TRANSPORTATION**

Counted by : BR  
 Counter No : 1023  
 Weather : SUNNY  
 Comments :

File Name : S\_255p10  
 Site Code : 00100603  
 Start Date : 10/6/2010  
 Page No : 3

Start Time	4 AVE S From North				S FRONT ST From East				4 AVE S From South				S FRONT ST From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	7	227	1	235	2	0	8	10	3	80	3	86	0	1	4	5	336
04:30 PM	12	251	4	267	3	0	15	18	1	126	4	131	2	0	1	3	419
04:45 PM	7	215	4	226	1	0	11	12	2	87	2	91	1	0	3	4	333
05:00 PM	9	214	4	227	2	0	16	18	3	105	3	111	1	1	6	8	364
Total Volume	35	907	13	955	8	0	50	58	9	398	12	419	4	2	14	20	1452
% App. Total	3.7	95	1.4		13.8	0	86.2		2.1	95	2.9		20	10	70		
PHF	.729	.903	.813	.894	.667	.000	.781	.806	.750	.790	.750	.800	.500	.500	.583	.625	.866

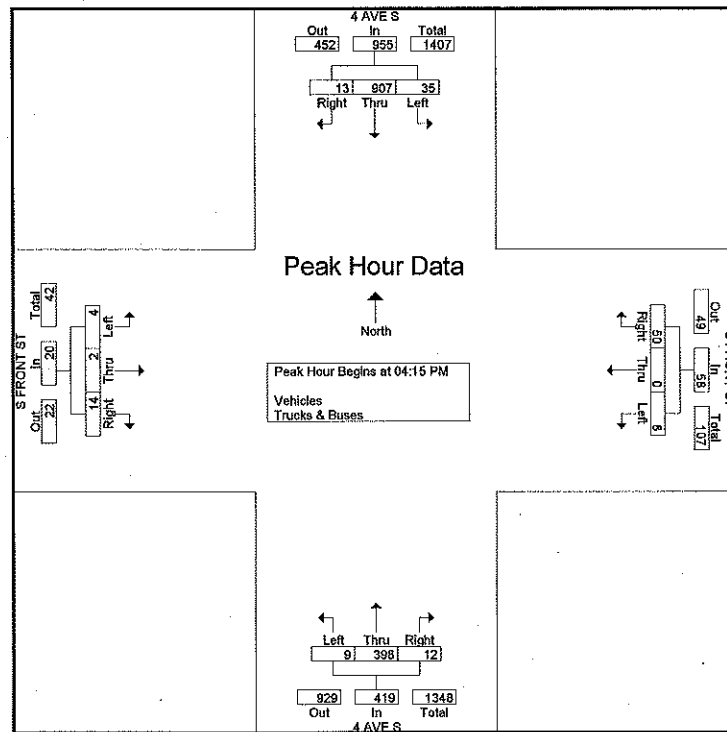


**ATTACHMENT C**  
**4th Ave S/S Front St - PM Peak Hr**

**CITY OF SEATTLE**  
**DEPARTMENT OF TRANSPORTATION**

Counted by : BR  
 Counter No : 1023  
 Weather : SUNNY  
 Comments :

File Name : S\_255p10  
 Site Code : 00100603  
 Start Date : 10/6/2010  
 Page No : 4



# VEHICLE VOLUME SUMMARY

CITY OF SEATTLE  
DEPARTMENT OF TRANSPORTATION

LOCATION 4 AVE S & S MICHIGAN ST TIME 7:15-8:15 AM

DATE 07-18-06

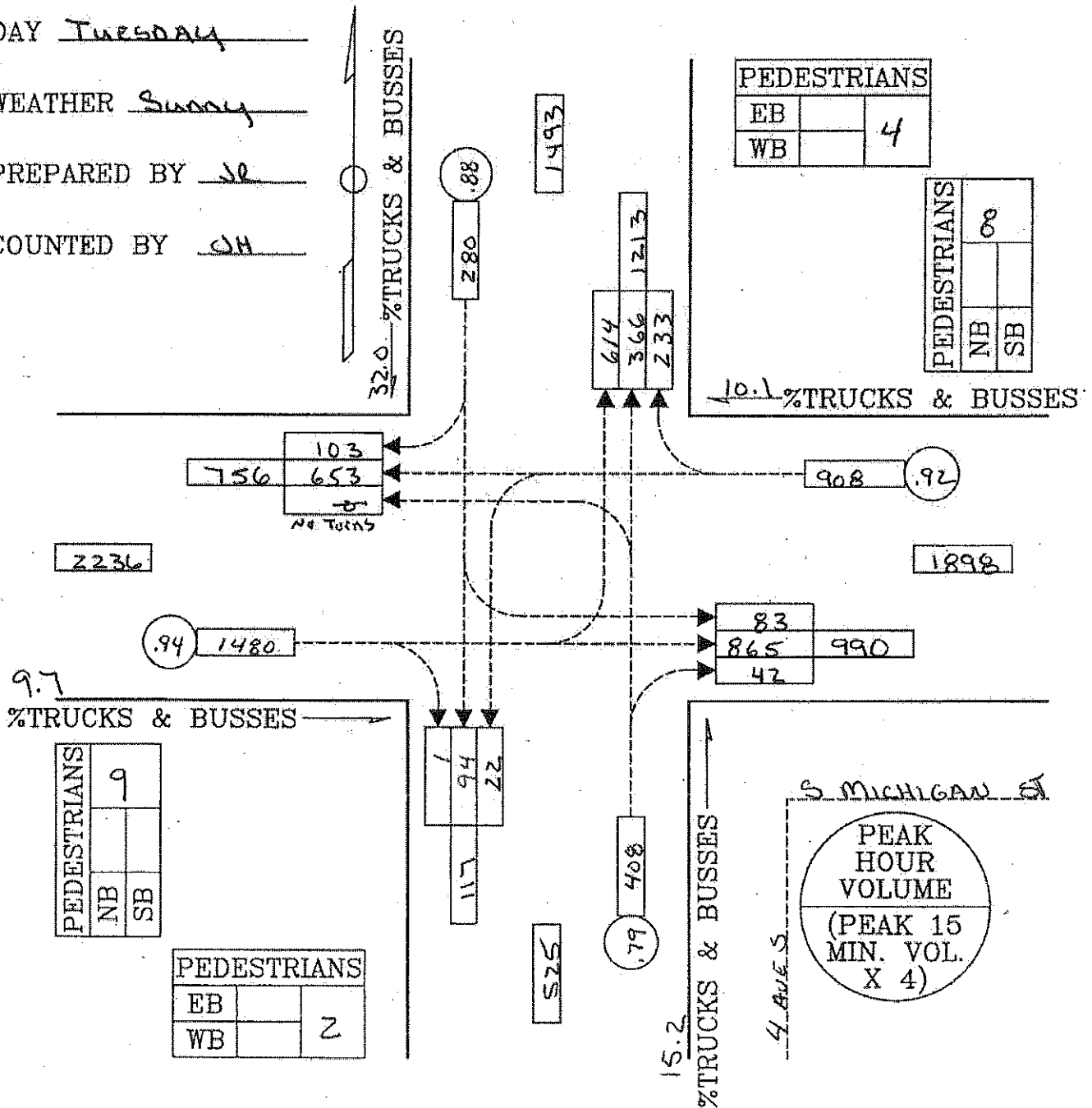
AM PEAK HR

DAY TUESDAY

WEATHER Sunny

PREPARED BY JE

COUNTED BY CH



# VEHICLE VOLUME SUMMARY

CITY OF SEATTLE  
DEPARTMENT OF TRANSPORTATION

LOCATION 4 AVE S & S MICHIGAN ST TIME 4:15-5:15

DATE 07-18-06

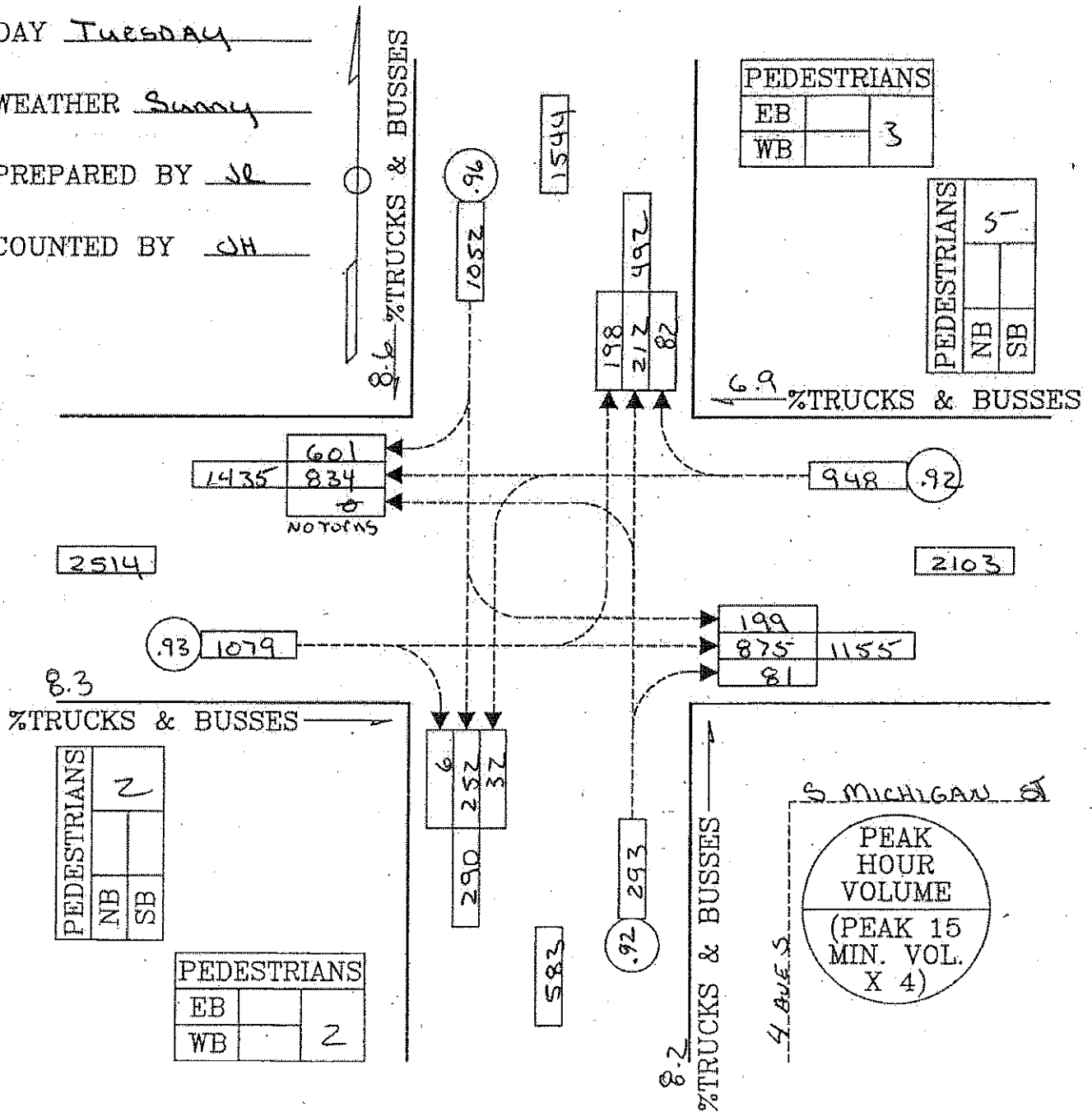
Pm PEAK HR

DAY TUESDAY

WEATHER Sunny

PREPARED BY JE

COUNTED BY CH



**ATTACHMENT C**  
**4th Ave S/S Michigan St - Peak Hr Summary**

**CITY OF SEATTLE**  
**DEPARTMENT OF TRANSPORTATION**

Counted by: JH  
 Counter No.: 1713  
 Weather: SUNNY  
 Comments:

File Name : S\_101076  
 Site Code : 00071801  
 Start Date : 7/18/2006  
 Page No : 1

Start Time	4 AVE S From North				S MICHIGAN ST From East				4 AVE S From South			S MICHIGAN ST From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 08:00 AM																
08:00 AM	9	1	6	16	3	19	8	30	15	2	17	13	21	0	34	97
08:15 AM	5	2	7	14	1	22	5	28	14	0	14	12	23	0	35	91
08:30 AM	5	8	16	29	2	39	6	47	13	3	16	14	28	0	42	134
08:45 AM	7	7	11	25	1	28	3	32	17	5	22	9	23	0	32	111
Total Volume	26	18	40	84	7	108	22	137	59	10	69	48	95	0	143	433
% App. Total	31	21.4	47.6		5.1	78.8	16.1		85.5	14.5		33.6	66.4	0		
PHF	.722	.663	.625	.724	.583	.692	.688	.729	.868	.500	.784	.857	.848	.000	.851	.808
Peak Hour Analysis From 01:00 PM to 01:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 01:00 PM																
01:00 PM	11	5	18	34	1	19	5	25	4	8	12	13	17	1	31	102
01:15 PM	13	3	14	30	3	18	4	25	13	0	13	15	21	1	37	105
01:30 PM	9	7	7	23	0	16	7	23	11	1	12	12	14	0	26	84
01:45 PM	8	8	6	22	3	15	4	22	9	5	14	16	20	0	36	94
Total Volume	41	23	45	109	7	68	20	95	37	14	51	56	72	2	130	385
% App. Total	37.6	21.1	41.3		7.4	71.6	21.1		72.5	27.5		43.1	55.4	1.5		
PHF	.788	.719	.625	.801	.583	.895	.714	.950	.712	.438	.911	.875	.857	.500	.878	.917
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:00 PM																
04:00 PM	8	7	9	24	2	12	0	14	6	1	7	10	14	0	24	69
04:15 PM	4	14	9	27	2	9	3	14	7	2	9	11	15	0	26	76
04:30 PM	6	10	11	27	1	15	3	19	4	2	6	1	13	0	14	66
04:45 PM	7	7	12	26	1	17	5	23	2	1	3	16	20	0	36	88
Total Volume	25	38	41	104	6	53	11	70	19	6	25	38	62	0	100	299
% App. Total	24	36.5	39.4		8.6	75.7	15.7		76	24		38	62	0		
PHF	.781	.879	.854	.963	.750	.779	.550	.761	.679	.750	.694	.594	.775	.000	.694	.849



# AUTOMATIC TRAFFIC COUNT - 1 Hour Detail Report

Seattle Department of Transportation

ATTACHMENT C

STUDY 315081		4TH AVE S, N/O S MICHIGAN ST; TOTAL FLOW; CH(AGG); 30Jul2014 12:00 7/30/14 12:00 pm THRU 8/6/14 12:00 pm					
COUNTER: 039		CHAN: (AGG)	FLOW: TOTAL	LANE CODE: STANDARD			
INTERVAL	03-Aug-2014 SUN	04-Aug-2014 MON	05-Aug-2014 TUE	30-Jul-2014 WED	31-Jul-2014 THU	01-Aug-2014 FRI	02-Aug-2014 SAT
1:00	128	95	117	112	315	162	139
2:00	156	90	134	104	161	124	158
3:00	81	74	100	106	133	97	107
4:00	73	106	100	120	125	117	112
5:00	55	184	200	194	216	205	94
6:00	90	429	456	493	483	614	176
7:00	146	972	985	1,029	975	1,251	267
8:00	149	1,272	1,420	1,390	1,384	1,461	329
9:00	221	1,218	1,339	1,309	1,329	1,327	408
10:00	308	1,104	1,325	1,196	1,287	1,159	528
11:00	496	1,174	1,153	1,250	1,456	1,163	689
12:00	626	1,393	1,299	1,445	1,810	1,543	852
13:00	707	1,390	1,442	1,484	1,809	1,471	891
14:00	733	1,300	1,347	1,382	1,510	1,396	897
15:00	703	1,302	1,344	1,324	1,534	1,518	806
16:00	682	1,286	1,437	1,535	1,641	1,539	831
17:00	593	1,253	1,515	1,569	1,562	1,731	770
18:00	573	1,379	1,459	1,450	1,431	1,620	636
19:00	446	969	1,007	986	1,084	1,000	483
20:00	268	559	639	677	649	662	310
21:00	208	369	382	490	439	458	240
22:00	174	235	276	254	268	317	189
23:00	146	180	362	233	220	280	202
24:00	112	140	154	257	176	227	160
Daily Total	7,874	18,473	19,992	20,389	21,997	21,342	10,254
AM Peak Vol	626	1,413	1,464	1,447	1,810	1,543	852
AM Peak Hr	11:00 - 12:00	07:30 - 08:30	07:30 - 08:30	07:15 - 08:15	11:00 - 12:00	11:00 - 12:00	11:00 - 12:00
AM Peak Fac	0.932	0.960	0.906	0.980	0.953	0.960	0.888
AM 15min Hi	12:00	08:30	08:00	08:00	11:30	11:45	11:30
PM Peak Vol	739	1,424	1,532	1,588	1,809	1,739	897
PM Peak Hr	12:30 - 13:30	16:30 - 17:30	16:15 - 17:15	15:45 - 16:45	12:00 - 13:00	16:15 - 17:15	13:00 - 14:00
PM Peak Fac	0.928	0.944	0.970	0.954	0.958	0.949	0.904
PM 15min Hi	12:45	17:30	16:45	16:00	12:15	17:00	14:00
Max8 Vol	4,896	10,691	11,343	11,639	12,851	12,139	6,061
Max8 %/DT	0.622	0.579	0.567	0.571	0.584	0.569	0.591

Average Daily Traffic (ADT) = 17,189 based on 7 days

Average Weekday Traffic (AWDT) = 20,439 based on 5 weekdays

AWDT Max8 Volume = 11,733 (57.4% of AWDT)

AWDT AM Peak Hour Volume = 1,535 based on 5 weekdays

AWDT PM Peak Hour Volume = 1,618 based on 5 weekdays