AGENDA

City of Gig Harbor Hearing Examiner
Community Development Conference Room and Virtual Hearing
Tuesday, March 3, 2026 at 1:30 PM

This hearing will be accessible by using the information below:
Link to join Webinar https://us06web.zoom.us/j/89687328917
Call-in: (253) 215-8782 Hearing ID: 896 8732 8917

If you wish to submit a written public comment, please provide your comments to the Planning Division by **Monday, March 3, 2026 by 5:00 pm.** All written comments to be included in the record shall have the title: **FOR PUBLIC COMMENT** included. Send comments to: PlanningComments@gigharborwa.gov.

Please see the Public Comment & Decorum section at the end of this agenda for information on options to make public comment.

I. Open Public Hearing

II. Public Hearing

Items on this agenda will be reviewed according to the following format:

1. Open public hearing
2. Staff Report
3. Applicant's presentation
4. Public Comment
5. Close public hearing

New Business

CITY OF GIG HARBOR PUBLIC WORKS DEPARTMENT, GIG HARBOR, WA 98335:

Lift Station #5 Basin Improvements, **PL-SDP-25-0003**. Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 105 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and on private property (2825 Harborview Drive). The new lift station pump and

generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.

III. Adjournment

PUBLIC COMMENT & DECORUM

The city desires to allow a maximum opportunity for public comment. However, the business of the Hearing Examiner must proceed in an orderly, timely manner.

Public comment may be made remotely via Zoom or by phone during designated portions of the meeting. To speak during the meeting via Zoom, press the Raise Hand button near the bottom of your Zoom window or press *9 on your phone. Please refrain from raising your hand until the Hearing Examiner has announced that the public comment portion of the hearing has been opened. Your name or the last three digits of your phone number will be called out when it is your turn to speak. When using your phone to call in, you may need to press *6 to unmute yourself. Speakers will be allotted 3 minutes per individual. Comments shall be made, first giving the speaker's name and address. Anyone making "out of order" comments may be subject to removal from the meeting. Written comments may be submitted to the Hearing Examiner by email at PlanningComments@gigharborwa.gov.

All speakers shall be courteous in their language and deportment and shall not engage in or discuss or comment on personalities or indulge in derogatory remarks or insinuations with regard to the Hearing Examiner, or any member of the staff or the public.

There will be no demonstrations during or at the conclusion of any public comment. These guidelines are intended to promote an orderly system of holding public hearings to give every person an opportunity to be heard and to ensure that no individuals are embarrassed by voicing their opinions.

AMERICANS WITH DISABILITIES (ADA) ACCOMMODATIONS

ADA accommodations can be provided upon request. Those requiring special accommodations should contact the city clerk at cityclerk@gjgharborwa.gov or (253) 853-7613 at least 24 hours prior to the meeting.

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
STAFF REPORT

TO: Hearing Examiner
FROM: Katharine Shaffer, Principal Planner
DATE: February 24, 2026

RE: PL-SDP-25-0003: Shoreline Substantial Development Permit, General Variance, and Minor Site Plan Review

Lift Station #5
Public Hearing Date: March 3, 2026

I. GENERAL INFORMATION:

A. Owners:

Parcel #: 0221081151
Michael A. Sharp and Kathryn Anne DiMaggio, Trustees
2823 Harborview Dr
Gig Harbor, WA 98335-1908

Parcel #: 0221081149
Garnan Properties 2825 Harborview LLC
2130 Main St, Ste 255
Huntington Beach, CA 92648-7451

Parcel #: 0221081148 and 0221081150
City of Gig Harbor
3510 Grandview St
Gig Harbor, WA 98335-1214

B. Applicant:

City of Gig Harbor, Public Works
3510 Grandview St
Gig Harbor, WA 98335-1214

II. APPLICANT'S REQUEST:

The applicant is requesting approval of a Shoreline Substantial Development Permit, General Variance, and Minor Site Plan Review to replace the existing Lift Station #5 pump with a new pump located approximately 105 feet to the west, connecting to the existing wet well. The proposal also includes installation of a new generator and enclosure to provide emergency power, with facilities located partially within the Harborview Drive right-of-way and on private property at 2825 Harborview Drive. Portions of the project site are within a shoreline buffer designated Low Intensity in Shoreline Planning Segment C.

This application is being processed under Shoreline Substantial Development Permit PL-SDP-25-0003 and also includes a General Variance and Minor Site Plan Review. Pursuant to GHMC 19.01.002.B, the permits are consolidated for review under the highest-level procedure. The proposed site improvements are illustrated in the applicant's project plans, provided as Exhibit R to this report.

III. SITE DESCRIPTION:

A. Location: Includes four parcels**:** 2823 and 2825 Harborview Drive and with two City owned unaddressed parcels.

The subject parcels are located on the east side of Harborview Drive, adjacent to the shoreline of Gig Harbor Bay, with access provided by a shared driveway from Harborview Drive and are located in close proximity to existing public and private utility infrastructure.

Section 08 Township 21 Range 02 Quarter 12

Assessor's Parcel Numbers: 0221081148, 0221081149, 0221081150, and 0221081151

B. Site Area/Acreage: 0.7 acres

C. Existing Site Characteristics:

1. **Topography:** According to the City's GIS data, the project site slopes downward from Harborview Drive toward the shoreline of Gig Harbor Bay. Elevations are highest along the western portion of the site and gradually decrease to the east toward the beach.

2. **Vegetation:** Vegetation consists primarily of maintained lawn, ornamental shrubs, and planted trees typical of residential shoreline properties. Limited native shoreline vegetation is present closer to the beach area.

3. **Wetlands and Critical Areas:** The portions of 2823 and 2825 Harborview Drive that include tidelands are located within a mapped Fish and Wildlife Habitat Conservation Area. However, this designation does not extend onto the upland portions of either parcel. No other wetlands or streams are mapped on or adjacent to the site.

4. **Special Flood Hazard:** While a VE Flood Zone (Coastal High Hazard Area) exists in the subject properties, all proposed work is outside of the mapped VE zone and is not subject to flood hazard regulations.

D. Zoning:

1. **Subject parcels:** "WR" Waterfront Residential & Historic District Overlay

2. **Adjacent zoning and current use:**
   - **a. North:** WR, Single-family residential
   - **b. East:** Gig Harbor Bay
   - **c. South:** WR, Single-family residential
   - **d. West:** PI, Single-family residential

The Gig Harbor Shoreline Master Program (SMP) designates the subject site as a "Low Intensity" Shoreline Environment Designation. SMP subsection 5.2.4 addresses the purpose and management policies for that designation.

E. Utilities / Road Access: The site is accessed from Harborview Drive. The property is serviced by City of Gig Harbor sewer and water.

IV. APPLICABLE CODES AND POLICIES:

A. Comprehensive Plan: The site is designated as a "WF – Waterfront" area by the city's Comprehensive Plan. The purpose of this land use category is to provide for a variety of mixed uses along the waterfront which are allowed under the City of Gig Harbor Shoreline Master Program and as more particularly defined under the zoning code. Generally, the lower intensity waterfront areas would favor residential

and marinas while the more intense waterfront areas would provide for higher density residential and commercial/retail uses.

B. Gig Harbor Municipal Code (GHMC):
The subject parcel is zoned WR Waterfront Residential. The following code chapters apply to this proposal:

a) 17.50 Waterfront Residential (WR)
b) 17.66 Variances and Interpretations
c) 17.96.030 Site Plan Review
d) 17.99 Design Manual

C. Shoreline Master Program: Development upon the shorelines of Gig Harbor is regulated by the city of Gig Harbor Shoreline Master Program that was adopted on November 8, 2021, and became effective on January 28, 2022. The following sections/subsections of the Master Program apply to this project:

Section 5.2.4- Low Intensity Environment Shoreline Designation
Section 6.2.2-No Net Loss and Mitigation
Section 6.2.4 Regulations – Vegetation Conservation Strip
Section 7.21.2 Regulations - Utilities
Section 8.2.1-Shoreline Substantial Development Permit

D. Washington Administrative Code: The Shoreline Substantial Development Permit must be found consistent with the provisions of WAC 173-27-150.

V. BACKGROUND INFORMATION

Wastewater Basin 5 (WWB-5) is served by Lift Station No. 5 (LS-5). WWB-5 is a relatively small basin located along the waterfront of Harborview Drive, situated east of and downgradient from Wastewater Basin 4 (WWB-4). Wastewater collected within WWB-5 is conveyed by gravity to LS-5 and subsequently pumped to WWB-4. Existing sewer infrastructure generally provides full gravity collection coverage within the basin.

LS-5 is located within WWB-5 and within the shoreline jurisdiction of Gig Harbor Bay, adjacent to residential properties in the 2800 block of Harborview Drive. The lift station is situated on City-owned parcels 0221081148 and 0221081150, which are surrounded by privately owned parcel 0221081149 (2825 Harborview Drive) and parcels 0221081151 and 0221081113 (2823 Harborview Drive).

LS-5 is nearly 50 years old and consists largely of original equipment that has exceeded its service life, with replacement parts no longer available. In addition, portions of the existing lift station are vulnerable to inundation during seasonal high tides, as illustrated by projected tidal elevations shown on the project plans. For these reasons, the City proposes to decommission the existing LS-5 and replace it with a new below-grade, vacuum-prime duplex pump station located approximately 105 feet west of the existing facility, within the shared driveway in front of 2825 Harborview Drive. The proposed location is upslope of the existing lift station and provides improved accessibility for operations and maintenance.
To connect the new pump station to the existing beach sewer, dual 4-inch suction pipes will be installed in a common trench along the shared property line between parcels 0221081149 (2825 Harborview Drive) and 0221081151 and 0221081113 (2823 Harborview Drive), extending between the existing and proposed lift station locations. Installation will be as shallow as practicable to minimize disturbance.

The proposed new lift station will include an approximately 8-foot by 12-foot-8-inch Concrete Masonry Unit (CMU) generator enclosure located just outside the Harborview Drive right-of-way within an easement on parcel 0221081149 (2825 Harborview Drive). The pump control panel will replace the existing control panel and will be located south of the existing carport and adjacent to the existing utility pole on the same parcel.

VI. ENVIRONMENTAL REVIEW:

The proposal qualifies for a categorical exemption under WAC 197-11-800(23)(b) as the replacement of existing public utility infrastructure with no increase in capacity, service area, or intensity of use. The project involves replacement and relocation of an existing sewer lift station and associated appurtenances, with utility lines 12 inches or less in diameter. No expansion of service capacity or service area is proposed.

VII. PUBLIC NOTICE & INPUT:

The legal notice of the proposed action and scheduled hearing (Notice of Public Hearing, “NOPH”) was published in the Tacoma News Tribune and mailed to all property owners within 300 feet of the subject site on February 17, 2026. The NOPH was also posted on the subject site on February 17, 2026. No comments have been received at the time of this staff report. The Declaration of Mailing, Publishing and Posting are included with this staff report as Exhibit T.

A Notice of Application (NOA) was published in the Tacoma News Tribune, posted on the subject site, and mailed to owners of property

within 300 feet of the site on August 21, 2025 (Exhibit G). The Declaration of Mailing, Publishing and Posting are included with this staff report as Exhibit F and H.

The City received three comments in response to the Notice of Application. The Puyallup Tribe submitted a letter received September 4, 2025, requesting a cultural resources study (Exhibit K). The Squaxin Island Tribe also submitted a letter received on September 5, 2025, requesting completion of a cultural resources survey and report (Exhibit J). In addition, a representative for the property owner of 2825 Harborview Drive submitted comments regarding easement locations and the design of the proposed generator enclosure (Exhibit M).

IX. STAFF ANALYSIS AND FINDINGS:

A. Planning Staff

1. Comprehensive Plan

Land Use Designation:
The site is designated "Waterfront" in the City's Comprehensive Plan. This land use category allows for a range of mixed uses along the shoreline, consistent with the City of Gig Harbor Shoreline Master Program (SMP) and further defined in the zoning code. Lower-intensity waterfront areas generally support residential uses and marinas, while higher-intensity areas allow for higher-density residential and commercial/retail development.

The existing single-family residential use is classified as a non-water-dependent use under the SMP, and the subject parcels are located within a lower-intensity portion of the Waterfront designation.

Staff analysis: *With approval of the requested zoning variance and incorporation of the recommended conditions, the proposal would allow redevelopment that is consistent with the Shoreline Master Program (SMP) and aligned with the purpose and applicable goals and policies of the City's Comprehensive Plan.*

Relevant Comprehensive Plan Goals and Policies:

LU-1.4 Allocate urban uses to areas that can be effectively serviced by roads, sewer, water, storm drainage and other basic urban utilities and transportation facilities.

UT-1.4 Ensure compatibility between local utilities and nearby development.

UT-1.5 Encourage the underground installation of new utilities and undergrounding of existing utilities where possible.

UT-1.9 Ensure that all utility infrastructure is installed consistent with City policy and requirements for the protection of the public's health, safety and welfare.

UT-5 Provide adequate wastewater conveyance and treatment facilities to protect human and environmental health and meet applicable standards.

CF-1.2 Prioritize capital improvements based on the following criteria:

a) The investment is needed to correct existing deficiencies, replace needed facilities or to provide facilities required for future growth;

CF-3 Provide city infrastructure and facilities that are efficient and safe and enhance local quality of life and human and environmental health.

CF-3.5 Plan for the provision and extension of capital facilities in Shoreline Management Areas consistent with the goals, policies and objectives of the city's Shoreline Master Program.

Staff Analysis: *The goals and policies of the City's adopted 2024 Comprehensive Plan support the maintenance and upgrade of existing public utility infrastructure to ensure reliable service, protect public health and safety, and accommodate planned growth.*

2. Gig Harbor Municipal Code:

a. 17.46 Waterfront Residential (WR):

17.46.010 Intent.
The subject parcels are zoned Waterfront Residential (WR). The Waterfront Residential Zoning district "recognizes those areas of the shoreline that are characterized by single-family residences. It is intended that development occur that is respectful of the shoreline and surrounding properties while permitting a limited mix of residential structure types."

Staff Analysis: *As conditioned, and with compliance with applicable shoreline and zoning standards (including approval of the requested variance), the proposal is consistent with the purpose of the WR zoning district by supporting necessary infrastructure improvements while maintaining compatibility with the surrounding residential shoreline environment.*

17.46.090 Performance standards

In the WR district, performance standards are as follows:

A. Design. All development in the WR district shall conform to the design and development standards contained in Chapter 17.99 GHMC.

Staff Analysis: *Through approval of the General Variance and the Planning Director's Interpretation issued on January 26, 2026 (Exhibit S), the project is able to meet the applicable development standards of the Waterfront Residential (WR) zoning district and the requirements of the City's Design Manual. The approved departures and interpretations provide a clear regulatory pathway that allows the proposed improvements to remain consistent with the intent of the WR district and applicable design standards.*

B. Landscaping. Landscaping is required and shall be installed in conformance with Chapter 17.78 GHMC and/or by conditions of approval of discretionary applications required by this title; such landscaping shall be maintained for the life of the project. In no event shall such landscaped areas be used for storage of materials or parking of vehicles.

Staff Analysis: *Landscaping requirements under GHMC Chapter 17.78 apply where landscaped areas are required and can be reasonably installed and maintained. The proposed improvements are limited to an existing public utility facility and associated private property/right-of-way where installation of new landscaping is not feasible and would conflict with utility access and operational requirements. No required landscaped areas are proposed.*

C. Additional Performance Standards for Site Plan Review. Projects requiring site plan review under Chapter 17.96 GHMC shall also meet the following performance standards:

1. Exterior Mechanical Devices. Air conditioners, heating, cooling and ventilating equipment, pumps and heaters and all other mechanical devices shall be screened.

Staff Analysis: *The project includes a generator housed within an enclosed CMU structure. Because the generator is fully enclosed, no exterior mechanical equipment is exposed. Therefore, screening requirements are satisfied.*

2. Outdoor Lighting. Outdoor lighting shall conform to the standards of GHMC 17.99.350 and 17.99.460. Such lighting shall be shielded so that direct illumination shall be confined to the property boundaries of the light source. Ground-mounted floodlighting and light projection above the horizontal plane are prohibited between midnight and sunrise.

Staff Analysis: *The proposed project includes limited exterior lighting associated with the generator enclosure. All exterior lighting shall be downward-directed, fully shielded, and designed with a non-utilitarian appearance. Lighting will be confined to the project site and will not result in illumination beyond the property boundaries. No ground-mounted floodlighting or light projection above the horizontal plane is proposed or permitted, and exterior lighting will comply with applicable restrictions between midnight and sunrise. With these conditions, the proposal is consistent with the outdoor lighting standards of GHMC 17.99.350 and 17.99.460. Please see Condition 9.*

3. Outdoor Storage of Materials. Outdoor storage of materials and supplies shall be completely screened from adjacent properties and public rights-of-way.

Staff Analysis: *Project does not propose any outdoor storage of materials.*

4. Trash Receptacles. Trash receptacles shall be screened from view. Screening shall be complementary to building design and materials.

Staff Analysis: *No trash or refuse receptacles are proposed as part of the project.*

Staff Analysis:

b. 17.66.030 General variances

A. A general variance is a Type III application and shall be processed as set forth in GHMC Title 19. The hearing examiner shall have the authority to grant a variance from the requirements of this title, except as identified in GHMC 17.66.020(A), administrative variances, after considering the matter at a public hearing.

Staff Analysis: *Pursuant to GHMC 17.99.320 (Historic District Residential Setbacks), residential structures within the Historic District are subject to a minimum front yard setback of twenty feet for houses and accessory structures. The proposed generator enclosure is located at the front property line of 2825 Harborview Drive. As a result, a zoning variance is required to reduce the required twenty-foot front yard setback to zero feet.*

The proposed generator meets the required side yard setback standards. Side yard setbacks within the Historic District are regulated through a combined side yard setback/view corridor standard. For lots that are 50 feet in width or less, a total of twenty feet of combined side yard setback is required. This combined setback may be allocated between the two side yards at the applicant's discretion, provided that a minimum setback of five feet is maintained on each side.

B. Before any variance can be granted, the examiner shall make findings of fact setting forth and showing that the following circumstances exist:

1. The proposed variance will not amount to a rezone nor authorize any use not allowed in the district;

   Staff Analysis: *The proposed generator enclosure does not require a rezone of the subject parcels. The existing single-family residential use will remain, and the enclosure is considered an accessory structure. As such, it will not alter the established use or zoning designation of the property.*

2. Special conditions and circumstances exist which are peculiar to the land such as size, shape, topography or location, not applicable to other land in the same district and that literal interpretation of the provisions of this title would deprive the property owner of rights commonly enjoyed by other properties similarly situated in the same district under the terms of this title;

   Staff Analysis: *2825 Harborview Drive is unusually narrow, with a lot width of approximately 38.43 feet, and is located within the Historic District along Harborview Drive. The limited lot width, combined with required side yard setbacks and the need to maintain vehicular access and residential use of the property, significantly constrains placement options for the generator enclosure.*

The proposed location reflects the only feasible placement that accommodates required access to the public right-of-way, allows operational access for City maintenance staff, and enables the City to secure a necessary easement for construction and long-term operation of the lift station improvements from the property owner. Alternative locations were evaluated but were determined infeasible due to dimensional constraints, access limitations, and potential interference with existing residential needs.

Literal interpretation of the front yard setback requirement would preclude installation of essential public utility infrastructure necessary for continued operation of Lift Station #5.

3. The special conditions and circumstances do not result from the actions of the applicant;

   Staff Analysis: *The need for the variance stems from existing infrastructure limitations, the end of service life of equipment, site accessibility constraints, and the forecasted risk of tidal inundation. These conditions are not the result of actions by the applicant but rather reflect the long-standing location and aging condition of this essential public facility.*

4. Granting of the variance requested will not confer a special privilege that is denied other lands in the same district;

   Staff Analysis: *Approval of the variance will not grant special privilege. The project addresses the unique functional and locational needs of a public sewer lift station and is consistent with requirements imposed by the Washington Department of Ecology and City of Gig Harbor. The improvements are necessary to ensure public health and safety and would not provide the applicant with any additional development rights beyond those available to other properties in the district.*

5. The granting of the variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated;

   Staff Analysis: *Granting the variance will enhance public welfare by improving the reliability and safety of the sewer system. Relocation of the lift station out of the forecasted tidal inundation area and the addition of a permanent generator will reduce the risk of sanitary sewer overflows, backups into homes, and environmental contamination. These improvements will not*

negatively impact surrounding properties or neighborhood character and will instead protect the community from potential public health risks.

6. The hearing examiner shall further make a finding that the reasons set forth in the application justify the granting of the variance, and that the variance is the minimum variance that will make possible the reasonable use of the land.

   Staff Analysis: *The application demonstrates that the requested variances are the minimum necessary to achieve reasonable use of the property while maintaining essential utility service. Relocation of the station within Planning Segment C, combined with installation of a generator enclosure in the front setback provides the least intrusive solution that addresses infrastructure deficiencies and ensures compliance with state and local standards.*

c. 17.96.030.A. Minor Site Plan Review:

1. Applications for minor site plan review shall be processed in accordance with the procedures established under GHMC Title 19 for a Type I project permit application. A decision on a minor site plan review application shall be rendered prior to or concurrent with the issuance of any other applicable permit. The following are classified as minor site plan reviews:

   Staff Analysis: *Submitted Minor Site Plan Review application is being consolidated with the SDP and General Variance requests and will be processed collectively consistent with GHMC 19.01.002(B), unless the applicant elects to have each application processed separately.*

d. 17.96.035 Criteria for Site Plan Approval

The director shall approve applications for minor and major site plan review only if all of the following criteria are met:

A. The site plan is compatible with the surrounding uses; and

B. The site plan is compliant with all relevant statutory codes, regulations, and ordinances.

Staff Analysis: *The proposed site plan is compatible with surrounding uses, as the site is in the Waterfront Residential (WR) zoning district where development is primarily single-family residential, and the project involves upgrades to existing public*

utility infrastructure rather than a new or intensified land use. The proposal has been reviewed for consistency with applicable codes, regulations, and ordinances, including zoning and shoreline requirements, and any necessary modifications (such as setback relief) will be addressed through the requested variance and conditions of approval. With approval of the required permits and compliance with all conditions, the project meets the minor site plan review criteria.

e. 17.66.050 Interpretations:

A. Interpretations – Planning Director.

1. The planning director shall review and determine any questions involving the proper interpretation or application of the provisions of this title that may be requested by any property owner, tenant, government officer, department, board, council or commission. The planning director's decision shall be in keeping with the spirit and intent of this title and of the comprehensive plan. Prior to making interpretations of the requirements of the city's shoreline master program, the planning director shall consult with the Department of Ecology when issuing any formal written interpretation to insure consistency with the purpose and intent of Chapter 90.58 RCW and the applicable guidelines. Ecology shall be provided with 30 days from receipt of the city's "request for comments" to submit formal comments to the city on any interpretation.

Staff Analysis: *The applicant requested a Director's Interpretation to clarify whether the Design Manual applies in full to the proposed generator enclosure. On January 26, 2026, the Director issued a determination that the requested interpretation is that the generator enclosure should comply with those Design Manual standards that are applicable and feasible to achieve overall compatibility, such as height, roof form, materials, and colors, while allowing limited deviations from residential-oriented architectural elements that are not practicable due to the enclosure's essential mechanical function (Exhibit S). The Interpretation was sent out to interested parties and had 14-day appeal period which ended on February 2, 2026. No appeals were filed.*

f. 17.99 Design Manual

Staff Analysis: *Based on the Director's Interpretation (Exhibit S), the proposed generator enclosure is required to comply only with*

those Historic District design standards that are feasible and applicable to this type of structure.

3. Gig Harbor Shoreline Master Program (SMP):

Shoreline Jurisdiction Clarification
Shoreline jurisdiction for the site is based on the Ordinary High-Water Mark (OHWM) as defined by the Shoreline Management Act and the SMP. The project plans depict Mean Higher High Water (MHHW) elevations, including projected future King Tide conditions, to inform infrastructure design and resiliency given the lift station's vulnerability to tidal inundation. The Shoreline Master Program includes MHHW as a recognized tidal reference in its definitions (SMP Chapter 2, Definitions).

Consistency with Applicable Goals and Policies:

The following is an analysis of the applicable SMP policies and standards that apply to the proposal:

Relationship to Other Plans and Regulations (SMP 1.5)
Chapter 1.5 states, Uses, developments and activities regulated by this Master Program may also be subject to the provisions of the Gig Harbor Comprehensive Plan, the Washington State Environmental Policy Act ("SEPA," Chapter 43.21C RCW and Chapter 197-11 WAC), other provisions of the Gig Harbor Municipal Code (GHMC), including Title 17 Zoning and Title 18 Environment, and various other provisions of local, state and federal law, as may be amended. The specific provisions of GHMC Title 17 shall apply when not specifically addressed by the Master Program's development regulations.

Staff Analysis: *The proposed improvements to Lift Station #5 at 2825 Harborview Drive are subject to and consistent with the SMP as well as other applicable plans and regulations adopted by the City of Gig Harbor. The project has been reviewed for consistency with the Gig Harbor Comprehensive Plan, the State Environmental Policy Act (SEPA), applicable provisions of the Gig Harbor Municipal Code, including Title 17 (Zoning) and Title 18 (Environment).*

Low Intensity Shoreline Jurisdiction (SMP 5.2.4)
D. Management Policies
In addition to the other applicable policies and regulations of this Program, the following management policies should apply:

1) Priority should be given to residential and water-oriented commercial development where such development can be accommodated with no net loss of shoreline ecological functions.

Staff Analysis: *The proposal does not displace residential or water-oriented uses and is designed to maintain essential infrastructure with no net loss of shoreline ecological functions.*

2) Public or private recreation facilities should be encouraged if compatible with surrounding uses. Preferred recreational uses include water-dependent and water-enjoyment recreation facilities that provide opportunities for substantial numbers of people to access and enjoy the shoreline.

Staff Analysis: *The project does not include new public or private recreational facilities. As an essential public utility improvement, the proposal neither precludes nor conflicts with existing or future shoreline recreational opportunities.*

3) Development should be designed to preserve and enhance the visual quality of the shoreline, including views over and through the development from the upland side, and views of the development from the water.

Staff Analysis: *Potential visual impacts are limited to the generator enclosure, which is located outside the shoreline jurisdiction; all piping is underground and will not affect shoreline views.*

4) New commercial development should be limited to water-oriented uses. Expansion of existing non-water-oriented commercial uses may be permitted provided that, such uses should create a substantial benefit with respect to the goals and policies of this Program such as providing improved public access or restoring degraded shorelines.

Staff Analysis: *The proposal does not involve commercial development. Improvements are limited to a municipal wastewater lift station, which is a public utility use and not subject to shoreline commercial use limitations.*

5) New structures waterward of the ordinary high-water mark should only be permitted for water-dependent uses or public access. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use. To reduce the impacts of shoreline development and increase effective use of water resources, multiple uses of the same over-water facility should be encouraged.

Staff Analysis: *No new structures are proposed waterward of the ordinary high-water mark. Existing and proposed improvements are located landward of the ordinary high water mark as established for shoreline jurisdiction*

6) Standards for density, setbacks, lot coverage, buffers, shoreline stabilization, vegetation conservation, critical area protection, and water quality should be applied to assure no net loss of shoreline ecological functions, taking into

account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.

Staff Analysis: *Applicable standards for setbacks, buffers, vegetation conservation, critical areas, and water quality have been applied through the Shoreline Master Program and relevant provisions of the Gig Harbor Municipal Code. These standards ensure shoreline ecological functions are protected and that no net loss occurs.*

7) Shoreline uses and modifications located waterward of the ordinary high water mark should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

Staff Analysis: *The proposal is designed and conditioned to prevent degradation of water quality and does not alter natural hydrographic conditions. Construction best management practices and long-term operational controls will minimize potential impacts.*

8) All developments and uses waterward of the ordinary high water mark should be located and designed to minimize interference with surface navigation, to minimize adverse visual impacts, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.

Staff Analysis: *Because the project does not include over-water structures or work waterward of shoreline jurisdiction, it does not interfere with surface navigation, fish and wildlife passage, or shoreline ecological connectivity*

Regulations – No Net Loss and Mitigation (SMP 6.2.2).

1) Uses and developments that cause a net loss of ecological functions and processes shall be prohibited. All uses and development shall provide a report to the Shoreline Administrator that addresses no net loss of ecological function associated with a development proposal in a format approved by the City.

Staff Analysis: *The applicant submitted a No Net Loss Shoreline Ecological Functions Evaluation Form in the format approved by the City, concluding that the proposed project will not result in a net loss of shoreline ecological functions or processes. As shown on the approved project plans (Exhibit R) Restoration Plan (Sheet L1), all temporary construction disturbance associated with trenching, cured-in-place pipelining access points, and utility installation will be restored following construction. Restoration measures include replacement of existing asphalt and driveway surfaces, restoration of disturbed landscaping areas, and replacement of a removed Japanese maple with in-kind tree, shrub, and groundcover planting consistent with City standards. No net increase in impervious surface area is proposed, and no aquatic vegetation or shoreline*

stabilization is affected. With implementation of the identified restoration measures, the project will return disturbed areas to pre-project conditions and complies with the City's no-net-loss standard.

2) All shoreline use and development, including preferred uses and uses that are exempt from permit requirements, shall be located, designed, constructed, conducted, and maintained in a manner that maintains shoreline ecological processes and functions.

Staff Analysis: *The proposed improvements are designed to protect existing shoreline ecological processes by relocating key lift station components upslope and away from areas subject to tidal inundation, while retaining the existing wet well. Construction activities are limited in scope and use shallow trenching to minimize disturbance. All work within shoreline jurisdiction will comply with conditioned erosion and sediment control measures, and disturbed areas will be restored following construction.*

3) Mitigation measures shall be applied in the following sequence of steps listed in order of priority.

a) Avoiding the impact altogether by not taking a certain action or parts of an action, or altering the action to avoid impacts;
b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering or by taking affirmative steps to avoid or reduce impacts;
c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
(d) Reducing or eliminating the impact over time by preservation and maintenance operations; and
e) Compensating for the impact by replacing, enhancing, or providing similar substitute resources or environments and monitoring the impact and the mitigation project and taking appropriate corrective measures.

Staff Analysis: *The proposal demonstrates appropriate application of mitigation sequencing. Impacts are first avoided by retaining the existing wet well and locating new infrastructure within previously disturbed areas, including the shared driveway and existing utility corridors. Where impacts cannot be avoided, they are minimized through limited excavation and temporary disturbance only. Disturbed areas will be rectified through site restoration and replacement of landscaping in kind. Long-term impacts are reduced through ongoing maintenance of the upgraded lift station and sewer system, which improves system reliability and reduces the risk of sanitary sewer overflows. Because no permanent adverse impacts to shoreline ecological functions are anticipated, compensatory mitigation is not required.*

4) Mitigation actions shall not have a significant adverse impact on other shoreline ecological functions.

Staff Analysis: *The proposed mitigation and restoration measures are limited in scope and designed to return disturbed areas to existing conditions without creating new or secondary impacts to shoreline ecological functions. Restoration activities occur within previously disturbed upland and buffer areas. As a result, the mitigation actions themselves will not cause significant adverse impacts to shoreline ecological processes or functions.*

5) When compensatory mitigation measures are required, all of the following shall apply (a-f):

Staff Analysis: *Compensatory mitigation is not proposed for this project.*

6) When compensatory measures are appropriate pursuant to the mitigation priority sequence (Section 6.2.2 Regulation #3 above), preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, off-site compensatory mitigation provided within the same watershed or appropriate section of marine shoreline (e.g., reach or drift cell) is allowed when it provides greater and more sustainable benefits. When determining whether offsite 6-8 General Goals, Policies and Regulations mitigation provides greater and more sustainable benefits, the City shall consider limiting factors, critical habitat needs, and other factors identified by the Gig Harbor shoreline restoration plan, or an approved watershed or comprehensive resource management plan. Authorization of off-site compensatory mitigation measures may require appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions. Compliance with off-site mitigation requirements in Section 6.2.4 is required.

Staff Analysis: *Compensatory mitigation is not proposed for this project.*

(7) To encourage shoreline property owners to remove bulkheads and perform other beneficial shoreline restoration actions in advance of shoreline development or redevelopment, as of November 25, 2013, the City may give mitigation credit to any beneficial restoration action that occurred on a proposed development site within 5 years of the proposed development/redevelopment activity provided that (a-e):

Staff Analysis: *This provision is not applicable to the proposed project, and no mitigation credit is being applied or requested.*

Regulations – Vegetation Conservation Strip (SMP 6.2.4)
Areas containing existing native plant communities located within the marine vegetation conservation strip or critical area buffer shall be protected,

maintained, or enhanced. Invasive species shall be removed and replaced with native vegetation to maintain or enhance ecological functions on the property where practical.

Staff Analysis: *The project is designed to protect existing vegetation within the shoreline buffer and avoids disturbance to native plant communities to the extent practicable. Temporary construction impacts are limited to previously disturbed areas associated with existing utilities and access. Where disturbance does occur, affected areas will be restored following construction in accordance with the approved restoration plan, including replacement of removed vegetation with in-kind tree, shrub, and groundcover planting. No invasive species removal is proposed as part of this project, and no impacts to intact native plant communities are anticipated. As proposed, the project maintains existing ecological functions within the shoreline buffer.*

Regulations - Utilities (SMP 7.21.2)
1) Shoreline permit applications for installation of utility production and processing facilities shall include the following:
a) Demonstration why utility facility requires a shoreline location;
b) Alternative locations considered and reasons for their elimination;
c) Location of other utility facilities in the vicinity of the proposed project including facilities of other types of utilities;
d) Plans for reclamation of areas disturbed during construction;
e) Plans for control of erosion and turbidity during construction;
f) Possibility for consideration of the proposed facility within existing utility right-of-way.

Staff Analysis: *Lift Station #5 is an existing shoreline-dependent public utility serving adjacent development, and its shoreline location is justified by operational and service constraints. Evaluation of alternative locations is limited by the need to maintain continuity with the existing facility and service area. The project context includes existing utility infrastructure in the vicinity, and temporary construction disturbance will be addressed through conditioned site restoration and erosion and turbidity control measures. Please see Condition 8.*

2. The State of Washington Departments of Fish and Wildlife and Ecology shall be notified of any utility proposal which would require withdrawals of water from any body of water under shoreline management jurisdiction.

Staff Analysis: *The Lift Station #5 project does not involve water withdrawals from Gig Harbor Bay or any other shoreline water body. It moves wastewater through a closed system and does not extract water from a shoreline water body.*

3) Upon completion of utility projects, shorelines shall, at a minimum, be restored, replanted and provided with maintenance care until the newly planted

vegetation is fully established. Plantings shall be native species and/or be similar to vegetation in the surrounding area.

Staff Analysis: *Upon completion of construction, all temporarily disturbed shoreline areas will be restored in accordance with the approved restoration plan. Restoration includes replacement of disturbed landscaping and hard surfaces, with replanting using native or in-kind vegetation consistent with surrounding conditions. Maintenance will be provided until restored vegetation is fully established, ensuring shoreline ecological functions are maintained.*

4) Where utilities must be placed in a shoreline area, obstruction of scenic views shall be minimized to the greatest extent possible.

Staff Analysis: *The proposed utility improvements are primarily located below grade or within existing disturbed areas and do not introduce new above-water or visually prominent shoreline features. In addition, the generator enclosure has been sited within the Harborview Drive right-of-way and outside of the immediate shoreline view corridor to further reduce visual impacts when viewed from the shoreline and adjacent properties. As a result, obstruction of scenic shoreline views is minimized to the greatest extent practicable.*

5) Where overhead transmission lines must parallel the shoreline, they shall be outside of the shoreline jurisdiction unless topography or safety factors would make it unfeasible.

Staff Analysis: *The project does not propose new overhead transmission lines parallel to the shoreline. Accordingly, this criterion is not applicable.*

6) Accessory utility facilities, such as those typical and normal to support and serve a permitted shoreline use, shall be permitted in all environments. This will typically consist of distribution lines and individual service lines and associated meters and valves. Such utility facilities may be new or may be relocated facilities.

Staff Analysis: *The proposed lift station improvements and associated utility components constitute accessory utility facilities that are typical and necessary to support the existing residential shoreline use. These facilities are permitted within the shoreline environment and include relocated and upgraded infrastructure necessary to maintain reliable wastewater service.*

7) Storm water management facilities, limited to detention / retention / treatment ponds, media filtration facilities, and lagoons or infiltration basins, within the shoreline jurisdiction shall only be permitted when the following provisions are met:

a) Construction of the storm water facility does not displace or impact a critical

area;

b) There is no other feasible location for the storm water facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects to shoreline ecological functions;

c) The storm water facility is designed to resemble natural wetlands and meets applicable storm water management standards and the discharge water meets state water quality standards;

d) Low impact development approaches have been considered and implemented to the maximum extent feasible.

Staff Analysis: *The project does not propose new stormwater detention, retention, treatment, or infiltration facilities within shoreline jurisdiction. As such, this criterion is not applicable.*

8) Conveyance facilities, including storm water, wastewater, or water supply pump stations; and storm water discharge facilities such as dispersion trenches, level spreaders, and outfalls, may be located in the shoreline jurisdiction on a case by case basis when the Administrator determines that all of the following are met:

a) Due to topographic or other physical constraints there are no feasible locations for these facilities outside the shoreline;

b) The discharge outlet is sited in a manner that minimizes disturbance of soils and vegetation;

c) The discharge outlet is designed to prevent erosion and promote infiltration.

d) The conveyance facilities, including discharge outlets, shall be designed

consistently with the city's Storm Water Manual, GHMC Chapter 14.20.

Staff Analysis: *The proposed wastewater conveyance facilities, including the relocated lift station components, are located within shoreline jurisdiction due to existing site constraints and the need to connect to the existing shoreline sewer system. The facilities are sited to minimize disturbance to soils and vegetation and are designed to prevent erosion through conditioned construction methods and restoration measures. The project is consistent with applicable City stormwater standards, and no new shoreline discharge outlets are proposed.*

9) Construction of stormwater facilities in the shorelines shall be timed to avoid fish and wildlife migratory and spawning periods.

Staff Analysis: *No stormwater facilities are proposed within shoreline jurisdiction. This criterion is not applicable.*

10) Construction of underwater utilities or those crossing streams or wetlands shall be timed to avoid major fish migratory runs.

Staff Analysis: *The project does not involve underwater utilities or stream or wetland crossings. This criterion is not applicable.*

11) Proposal for all new storm water facilities shall include landscaping plans that enhance the aesthetic quality of the shoreline, utilize native vegetation, and provide for maintenance care until newly planted vegetation is established.

Staff Analysis: *No new stormwater facilities are proposed as part of this project. This criterion is not applicable.*

Shoreline Substantial Development Permit (SMP 8.2.1)/ WAC 173-27-150

A. Permit required

A permit is required for any development with a total cost or fair market value exceeding seven thousand forty-seven dollars ($7,047) (or the value as amended or adjusted for inflation per RCW 90.58.030 [3] [e]) or any development which materially interferes with the normal public use of the water or shorelines of the state, except those exempted developments set forth in WAC 173-27-040.

Staff Analysis: *The proposed Lift Station #5 improvements constitute shoreline development with a total project value that exceeds the statutory threshold established under RCW 90.58.030(3)(e). While the project does not materially interfere with normal public use of the water or shoreline, it does not qualify for a shoreline permit exemption under WAC 173-27-040 due to the scope and value of the proposed work. A Shoreline Substantial Development Permit is required and is the appropriate shoreline permit for the proposal.*

E. Hearing Examiner review criteria

A Substantial Development Permit shall be granted by the Hearing Examiner only when the development is consistent with the following, as established in WAC 173- 27-150:

1) The policies and procedures of the act;

2) The provisions of this regulation; and

3) The applicable master program adopted or approved for the area; provided, that where no master program has been approved for that area, the development shall be reviewed for consistency with the provisions of chapter 173-26 WAC, and to the extent feasible, any draft or approved master program which can be reasonably ascertained as representing the policy of the local government.

Local government may attach conditions to the approval of permits as necessary to assure consistency of the project with the act and the local master program.

Staff Analysis: *The proposed Lift Station #5 improvements are consistent with the policies and procedures of the Shoreline Management Act by prioritizing protection of shoreline ecological functions while allowing for the continued operation and maintenance of essential public infrastructure. The proposal complies with the applicable provisions of the City's shoreline regulations, including no-net-loss requirements, mitigation sequencing, and restoration standards, as demonstrated through the submitted plans, narrative, and no net loss evaluation.*

The project is also consistent with the City of Gig Harbor Shoreline Master Program, including policies applicable to utility facilities and development within the shoreline buffer. The proposal minimizes impacts through limited disturbance, use of trenchless construction methods, relocation of vulnerable infrastructure upslope, and restoration of all temporarily disturbed areas.

B. Operations and Engineering
The City Engineer has reviewed the subject request and has found the proposed development to be generally consistent with the applicable provisions of the Code.

C. Fire Marshal/Building Official
The Building Official has reviewed the subject request and has found the proposed development to be generally consistent with the applicable provisions of the Code with conditions.

X. CONCLUSIONS:

A. Shoreline Substantial Development Permit:

1. The existing residential use on the site, which is a use permitted by the Shoreline Management Act, is generally consistent with the policies and provisions of the Act.

2. The proposal complies with the requirements of WAC 173-27, including those set forth in WAC 173-27-150.

3. If properly conditioned, the requested Shoreline Substantial Development Permit is consistent with the applicable policies and development standards set forth in the city's Shoreline Master Program.

B. General Variance:

1. The subject property (2825 Harborview Drive) is unusually narrow, with a lot width of approximately 38.43 feet, and is located within the Historic District along Harborview Drive. These site characteristics create special circumstances and constraints not generally applicable to other properties in the same zoning district.

2. Literal interpretation and strict application of the front yard setback requirements would preclude placement of essential public infrastructure in a location that is functionally necessary to serve Lift Station #5 and would interfere with the City's ability to secure the required easement from the property owner.

3. The proposed variance is the minimum necessary to allow reasonable use of the property for the installation of essential public infrastructure and reflects site constraints, access considerations, and operational needs.

4. Granting the variance will not be materially detrimental to the public welfare, will not injure nearby property, and remains consistent with the Comprehensive Plan and applicable development standards when conditioned.

5. The variance does not constitute a special privilege inconsistent with limitations upon other properties in the vicinity and zoning district.

XI. RECOMMENDATIONS:

Should the requested Shoreline Substantial Development Permit be authorized by the Hearing Examiner, staff recommends the imposition of the following special conditions of approval:

Land Use Special Conditions:

1. The applicant shall obtain civil and building permits from the city prior to commencing construction on the proposed improvements, as needed. These must meet all applicable City code requirements.

2. Prior to final inspection by the City of Gig Harbor Planning staff, the applicant shall provide the Planning Division with any necessary documentation relating to final permit approvals from other agencies.

3. Development described herein shall be completed in substantial conformance with the approved site plan, construction drawings, and all materials submitted as part of the application.

4. Before construction begins, a cultural resources survey and report shall be completed and provided to applicable and interested parties. All project activities shall comply with the findings, recommendations, and conditions of the report.

5. Exterior lighting associated with the generator enclosure shall be fully shielded, downward-directed, and designed to be consistent with the Design Manual. Floodlights, cobra-head, or other industrial-style lighting fixtures are prohibited.

6. The project shall be restored in accordance with the approved Restoration Plan (Sheet L1 of the plan set).

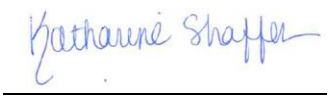
7. All restored and replanted areas shall be maintained by the applicant until the establishment of vegetation.

8. The project shall utilize appropriate Best Management Practices (BMPs) and all necessary erosion, sediment, and turbidity control measures consistent with the approved plans, the most recent version of the City of Gig Harbor Public Works Standards, and the most recent version of the Gig Harbor Stormwater Management and Site Development Manual.

9. Project shall follow the recommendations of the Geotechnical Report prepared by HWA Geosciences, Inc. dated December 19, 2025.

10. The authorization granted herein is subject to all applicable federal, state, and local laws, regulations, and ordinances. Compliance with such laws, regulations, and ordinances is a condition precedent to the approvals granted and is a continuing requirement of such approvals. By accepting these approvals, the applicant represents that the development and activities allowed will comply with such laws, regulations, and ordinances. If, during the term of the approval granted, the development and activities permitted do not comply with such laws, regulations, or ordinances, the applicant agrees to promptly bring such development or activities into compliance and acknowledges that bringing such development or activities into compliance may require new permit applications to be considered by staff or the Hearing Examiner.

Project Planner: Katharine Shaffer, Principal Planner



Date: February 23, 2026

The following exhibits are included for your review of the development application:

Exhibit A – Master Permitting Application dated May 13, 2025

Exhibit B – SEPA Exemption Request dated June 30, 2025

Exhibit C – Project Narrative dated June 30, 2025

Exhibit D – Administrative Interpretation Request dated August 1, 2025

Exhibit E – Determination of Complete Application dated August 7, 2025

Exhibit F – Declaration of Posting dated August 20, 2025

Exhibit G – Notice of Application dated August 21, 2025

Exhibit H – Notice of Application Declaration of Mailing dated August 21, 2025

Exhibit I – Notice of Publishing Declaration to the Tacoma Daily Index dated August 21, 2025

Exhibit J – Public Comments Squaxin Tribe dated September 3, 2025

Exhibit K – Public Comment from Puyallup Tribe dated September 4, 2025

Exhibit L – Public Comment received from Gartland dated September 19, 2025

Exhibit M – Comments from City Staff to Applicant dated September 23, 2025

Exhibit N – Geotechnical Report prepared by HWA Geoscience Inc dated December 19, 2025

Exhibit O – Justification for General Variance dated December 19, 2025

Exhibit P – Comment Response Letter from Applicant received January 13, 2026

Exhibit Q – No Net Loss Form received January 13, 2026

Exhibit R – Updated Project Plans received January 13, 2026

Exhibit S – Issued Planning Director's Interpretation dated January 26, 2026

Exhibit T – Declarations of Mailing, Posting, and Publishing, Notice of Public Hearing February 17, 2026

Duration of Permit Approval: The shoreline substantial development permit addressed by this decision shall expire two (2) years from the effective date of the decision, unless construction activities commence or, if no construction is proposed, the use or activity is commenced. If substantial progress is made within two years, the permit shall remain valid for five (5) years. If construction is not completed within 5 years, the administrator may grant an extension of time up to but not exceeding one (1) year for substantial progress and for completion of the project pursuant to section 4.08 E of the Gig Harbor Shoreline Master Program and WAC 173-27-090. The remaining land use permits addressed by this decision shall expire three (3) years from the date of the decision, unless a complete application for subsequent building permit or civil permit has been submitted and remained active, pursuant to GHMC 19.02.008. Upon written request by the property owner, prior to the date of land use permit expiration, the director may grant an extension of time up to but not exceeding one (1) year pursuant to GHMC 19.02.008(F). See GHMC 19.02.008 for complete regulations on the duration of permit approvals and expiration of permits.

Availability of Complete Project Permit File for Review:

The complete project permit file, including findings, conclusions and conditions of approval, if any, is available for review at the city of Gig Harbor Planning Department, 3510 Grandview Street, Gig Harbor, WA 98335. Please contact Katharine Shaffer, Principal Planner, at 253-853-7615 should you wish to review the file.

Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit A

GIG HARBOR
"THE MARITIME CITY"

OFFICE USE ONLY

SUBMITTED: RECEIVED By MThomas City of Gig Harbor at 3:50 pm, Jul 07, 2025

CASE NO.: _____

MASTER PLANNING PERMIT APPLICATION

Check all permits you are applying for in the boxes provided. Submit this application form, the applicable materials listed in the corresponding checklist and fee.

☐ Administrative Interpretation	☐ Critical Area Variance	☐ Major Site Plan Review	☐ Shoreline Exemption
☐ Administrative Design Review	☐ Design Review Exception	■ Minor Site Plan Review	☐ Shoreline Revision
☐ Alternative Design Review	☐ Final Plat	☐ Nonconforming Review	■ Shoreline Substantial Development
☐ Alternative Landscape Plan	☐ Final PRD/PUD	☐ Plat Alterations/Vacation	☐ Shoreline Variance
☐ Binding Site Plan	☐ Final PRD/PUD Amendment	☐ Perf. Based Height Exception	☐ Short Term Rental
☐ Boundary Line Adjustment	☐ Final Short Plat	☐ Preliminary Plat	☐ Temporary Trailer / Use
☐ Change in Use	☐ Flood Hazard	☐ Preliminary Plat Revision	☐ Tree Removal
☐ Comprehensive Plan Amendment	☐ Height Restriction Area Amendment	☐ Preliminary Short Plat	■ Variance
☐ Communication Facility	☐ Land Clearing	☐ Rezone	☐ Zoning Text Amendment
☐ Conditional Use Permit	☐ Master Sign Plan	☐ Reasonable Use Exception	☐ Zoning Verification
		☐ SEPA – Environmental Checklist	

Project Name:	LIFT STATION #5 BASIN IMPROVEMENTS
Project Address:	2825 HARBORVIEW DRIVE, GIG HARBOR, WA
Tax Assessor Parcel Number(s): *Attach full legal description*	

APPLICANT/AGENT ■ **Primary Contact for Application**			
Name:	STEVEN DEMMER	**Phone:**	253-530-7076
Street:	3510 GRANDVIEW ST	**Fax:**	
City/State/Zip:	GIG HARBOR, WA 98335	**Email:**	SDEMMER@GIGHARBORWA.GOV

PROPERTY OWNER(S) ■ **Applicant** ■ **Primary Contract for Application**			
Name:	CITY OF GIG HARBOR	**Phone:**	253-530-7076
Street:	3510 GRANDVIEW ST	**Fax:**	
City/State/Zip	GIG HARBOR, WA 98335	**Email:**	SDEMMER@GIGHARBORWA.GOV

Property Owner(s)

I do hereby affirm and certify, under penalty of perjury, that I am one (or more) of the owners or owner under contract of the herein described property and that the foregoing statements and answers are in all respects true and correct on my information and belief as to those matters, I believe it to be true.

or submit a completed Affidavit Agent Authority when applicable

Signature by Property Owner: _____ **Date**: 5/13/2025

PROJECT DESCRIPTION (PROVIDE DETAILED SUMMARY)

Project proposes to demolish existing lift station #5 pump, but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.

UTILITIES

Water Supply (name of utility provider) if applicable:	**Sewage Disposal (name of utility provider) if applicable:**
CITY OF GIG HARBOR	CITY OF GIG HARBOR

Access (Name of road or street from which access is or will be gained):

HARBORVIEW DRIVE

CRITICAL AREA INFORMATION

Wetlands on site ☐ Yes ☒ No	**Slopes exceeding 15%** ☒ Yes ☒ No	**Streams** ☐ Yes ☒ No

Existing Land Use: Describe (or illustrate separately) all existing use structures and all critical areas within 300 feet of property lines.

The existing lift station is located on parcel # 0221081148 and #0221081150. These parcels are owned by the City of Gig Harbor, but are wholly surrounded by parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081151 (2823 Harborview Drive). The existing lift station is located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C.

Fee Deposits:

"I acknowledge that I have applied for a permit which requires a deposit for future services to be rendered, as required by section F of the City's adopted Fee Schedule. I understand that, as the applicant, I (we) shall bear all of the costs of these services and will be billed the act costs in excess of the deposit. If the actual costs are below the deposit, I will be refunded the difference." SBD (Initials)

Consolidated Permit Processing:

"As the applicant, I (we) elect to have all planning permits submitted concurrently and associated with our project processed collectively under the highest numbered permit procedure per **GHMC 19.01.002(B)**." SBD (Initials)

RECEIVED
By MThomas City of Gig Harbor at 3:51 pm, Jul 07, 2025

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Memorandum

Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit B

DATE: June 30, 2025
SUBJECT: LS#5 SEPA Exemption Request
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

We are submitting this letter to formally request a categorical exemption from SEPA review for the proposed construction of sewer facilities associated with the Lift Station 5 project, generally located at 2825 Harborview Drive.

Project Description

Wastewater service to WWB-5 was originally constructed through the implementation of a Utility Local Improvement District (ULID No. 1) approved 51 years ago in April of 1973. The basin consists of 13 single-family homes along the east side of Harborview Drive and the four units that comprise the Ferry Landing Condominium Association on the west side of the street. The collection system is comprised primarily of 8-inch gravity main PVC sanitary sewer lines. Of the 13 single family homes, 11 are connected to a "beach" sewer main that is at risk of being inundated by seawater during seasonal high tides.

LS#5 is located within WWB-5 and along the shoreline of Gig Harbor Bay and provides the necessary energy to pump the wastewater out of the basin and to the treatment plant. The lift station is over 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. The facility is located on two small parcels of land centered on the common lot line separating 2823 Harborview Drive and 2825 Harborview Drive and encompassing approximately 875 square feet.

The known challenges and deficiencies of this station include:

- The risk of being inundated by seawater during seasonal high tides.
- Pumps within the station are beyond the end of their useful service life and replacement parts are no longer available.
- Concrete within the wet well has undergone moderate deterioration from being exposed to hydrogen sulfide gas.
- Accessing the station with parts and heavy equipment is challenging due to steep, slippery landscaping and the lack of a paved egress.
- Manholes and access cleanouts within the collection system that feed the lift station are also at risk of being inundated by seawater during seasonal high tides.

The project involves the installation of a new pump station and replacement of the 4-inch diameter sewer line. The work will occur within an easement. Under WAC 197-11-800(23)(b), utility facilities, construction of sewer lines twelve inches or less in diameter, are categorically exempt from SEPA review. Concurrently with this application, public works is also pursuing approval to perform this work within the shoreline. Provided that application is approved, the project is not part of any other larger non-exempt critical areas and does not trigger any exceptions under WAC 197-11-305.

RECEIVED
By MThomas City of Gig Harbor at 3:59 pm, Jul 07, 2025

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Memorandum
Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit C

DATE: June 30, 2025
SUBJECT: Minor Site Plan Review Checklist - Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Recorded owners of the land

Tax Parcel Number: 0221081149

Site Address 2825 HARBORVIEW DR

Taxpayer Name: GARNAN PROPERTIES 2825 HARBORVIEW LLC

Mailing Address: GARNAN HOLDING LTD

2130 MAIN ST STE 255

HUNTINGTN BCH, CA

Tax Parcel Number: 0221081113

Site Address: 2823 HARBORVIEW DR

Taxpayer Name: SHARP MICHAEL A TTEE & DIMAGGIO KATHRYN ANNE TTEE

Mailing Address: 2823 HARBORVIEW DR GIG HARBOR, WA

Recorded owners of the applicant

Tax Parcels #0221081148 and #0221081150

Site Address: 2825 HARBORVIEW DR

Taxpayer Name: GIG HARBOR TOWN OF

Mailing Address: 3510 GRANDVIEW ST GIG HARBOR, WA

Project Description - Scope

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5 and along the shoreline of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and #0221081150. These parcels are owned by the City of Gig Harbor, but are wholly surrounded by parcel #

0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below-grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive. The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible. The new lift station will be provided with a standby generator located just outside the right of way of Harborview Drive and within an easement on 2825 Harborview Drive. The control panel will be sited as a replacement to the existing control that is located directly south of the carport and adjacent the existing utility pole on the 2825 Harborview property.

Also, component to this project is the need to protect the beach sewers (pipes and structures) from inflow and infiltration. This will be accomplished using a trenchless form of construction called cured-in-place pipelining to seal the existing sewers from within and armoring the existing manholes with an epoxy resin.

Shoreline

The existing lift station is located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C.

Project Description - Nature and size in gross floor area

Generator Building – 101.33 SF Cinderblock building

Project Description - Total amount of square feet to be covered by hard surfaces

Generator Building, sidewalk and stairs – 249.11 SF

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Memorandum

DATE: June 27, 2025
SUBJECT: Variance Checklist – Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Variance Application (GHMC 17.66)

General Information

Project Title: Lift Station 5

Project Location: Parcels #0221081148 and #0221081150 owned by the City of Gig Harbor; 2825 Harborview Drive.

Engineer: Parametrix, 253-604-6600, 1019 39th Ave SE, Suite 100, Puyallup, WA 98374

Project Description

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5, within the shoreline buffer zone of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and #0221081150. These parcels are owned by the City of Gig Harbor but are wholly surrounded by parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive (105 feet west of the existing lift station). The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible.

The new lift station will be provided with an 8'-0" x 12'-8" CMU generator enclosure located just outside the right of way of Harborview Drive and within an easement on parcel # 0221081149 (2825 Harborview Drive). The pump control panel will be sited as a replacement to the existing control panel that is located directly south of the existing carport and adjacent the existing utility pole on the 2825 Harborview property.

Shoreline

The new and existing lift station are located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. The CMU generator enclosure will be sited outside the 200' Shoreline buffer zone. All new and existing structures are located above and outside the MHHW zone.

Zoning and Front Yard Setback

The project site is located within a Waterfront Residential (WR) zoning district. In accordance with 17.46.040 of the Gig Harbor Municipal Code (Development standards), The setbacks of GHMC 17.99.310 and 17.99.320 are applicable in the WR district.

General Variance (GHMC 17.66.030)

A variance is requested in order to construct a new wastewater lift station within the Shoreline Planning Segment C. Relocating the existing lift station 105 feet west will move the pumps and associated electrical components outside of the forecasted 2080 King Tide mean higher high water (MHHW). Adding a permanent backup generator as a power source within a building, but outside the shoreline Planning Segment C will provide a reliable source of permanent backup power. The known challenges and deficiencies of this station include:

- Special conditions and circumstances exist. This is a critical piece of the City's sewer infrastructure and provides wastewater service to the homes in and adjacent to Harborview Drive.
- Relocating the pump station away from the threat of sea water inundation is necessary, but moving the pump station outside of the Shoreline buffer zone is not possible without significant damage to the environs due to the substantially deep excavation and/or negative impact to adjacent private property. This would require substantial replumbing of the whole sewer system in this area, if at all possible, and is not cost effective.
- This variance will not compromise the intent of the comprehensive plan nor be inconsistent with the goals, policies and objectives of the comprehensive goals. Increasing the reliability of the lift station by moving it out of the forecasted future King Tide area advances the opportunities detailed in Section 9.2.3 of the 2024 Gig Harbor Comprehensive Plan.
- The risk of being inundated by seawater during seasonal high tides.
- Pumps within the station are beyond the end of their useful service life and replacement parts are no longer available.
- Concrete within the wet well has undergone moderate deterioration from being exposed to hydrogen sulfide gas.
- Accessing the station with parts and heavy equipment is challenging due to steep, slippery landscaping and the lack of a paved egress.
- The proposed variance will not amount to a rezone since the lift station will still be located within the Shoreline Planning Segment C.
- Special conditions and circumstances do not result from actions of the application. This is an existing lift station.
- Granting of this variance will not confer special privilege.
- The granting of the variance will not be materially detrimental to public welfare. Granting of this variance will increase the reliability of the lift station now and into the future.
- This variance is the minimum variance that will make possible the reasonable use of the land.



Setback Variance (GHMC 17.46.040, 17.99.310 & 17.99.320)

A variance is requested in order to construct an 8'-0" x 12'-8" generator enclosure to provide backup power for Lift Station 5 in the Front and side yard setbacks of parcel # 0221081149 (2825 Harborview Drive). This work is component to relocating the existing lift station 105 feet west will move the pumps and associated electrical components outside of the forecasted 2080 King Tide mean higher high water (MHHW). Adding a permanent backup generator as a power source within a building, but outside the shoreline Planning Segment C will provide a reliable source of permanent backup power.

- Special conditions and circumstances exist. A primary permanent backup power source is a Washington Department of Ecology and City of Gig Harbor requirement for projects of this nature.
- The property owner and the City have agreed that this location is ideal for the building because of its convenient access from Harborview Drive, its placement outside the shoreline buffer zone, and its consideration for preserving the overall character of the neighborhood.
- This variance will not compromise the intent of the comprehensive plan nor be inconsistent with the goals, policies and objectives of the comprehensive goals. Increasing the reliability of the lift station by providing backup power advances the opportunities detailed in Section 9.2.3 of the 2024 Gig Harbor Comprehensive Plan.
- Strict application of the standards would impose an unreasonable hardship on the applicant and the property owner. Loss of power at the lift station can lead to sanitary sewer overflows (SSOs) and backups into homes, and be in violation of local and state standards.
- The need for the variance is a result of higher tides, end of service life, adherence to local and state standards and not deliberate actions of the applicant.
- The variance does not create health and safety hazards.



Parametrix
let's create tomorrow, together

Memorandum

DATE: June 30, 2025
SUBJECT: Shoreline Permit Checklist - Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Recorded owners of the land

Tax Parcel Number: 0221081149

Site Address 2825 HARBORVIEW DR

Taxpayer Name: GARNAN PROPERTIES 2825 HARBORVIEW LLC

Mailing Address: GARNAN HOLDING LTD

2130 MAIN ST STE 255

HUNTINGTN BCH, CA

Tax Parcel Number: 0221081113

Site Address: 2823 HARBORVIEW DR

Taxpayer Name: SHARP MICHAEL A TTEE & DIMAGGIO KATHRYN ANNE TTEE

Mailing Address: 2823 HARBORVIEW DR GIG HARBOR, WA

Recorded owners of the applicant

Tax Parcels #0221081148 and #0221081150

Site Address: 2825 HARBORVIEW DR

Taxpayer Name: GIG HARBOR TOWN OF

Mailing Address: 3510 GRANDVIEW ST GIG HARBOR, WA

Project Description

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5 and along the shoreline of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and

#0221081150. These parcels are owned by the City of Gig Harbor but are wholly surrounded by parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below-grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive. The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible. The new lift station will be provided with a standby generator located just outside the right of way of Harborview Drive and within an easement on 2825 Harborview Drive. The control panel will be sited as a replacement to the existing control that is located directly south of the carport and adjacent the existing utility pole on the 2825 Harborview property.

Also, component to this project is the need to protect the beach sewers (pipes and structures) from inflow and infiltration. This will be accomplished using a trenchless form of construction called cured-in-place pipelining to seal the existing sewers from within and armoring the existing manholes with an epoxy resin.

Shoreline

The existing lift station is located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C.

Land Use

Parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) are both situated within the Waterfront Residential Zone (WR). A variety of zoning densities exist within a 1,000-foot radius. Immediately west of Harborview Drive is Medium Density Residential (R-2). Further west of Soundview Drive and within 1,000 feet is the Downtown Business District (DB). Directly south of the DB are Neighborhood Commercial and Single-Family Residential (R-1) and 1000 feet south of LS #5 is Medium Density Residential (R-2). Immediately to the north of WR is Waterfront Commercial (WC), and west of that is Residential and Business District (RB-1).

Plans for development within the shoreline boundary

In accordance with 6.2.1.B of the City of Gig Harbor Shoreline Master Program this project will create no net loss of shoreline ecological functions and processes. All work performed within the shoreline will be carried out in a manner that avoids adverse impacts so that the resulting ecological condition does not become worse than the current condition.

RECEIVED
By MThomas City of Gig Harbor at 9:54 am, Aug 04, 2025

GIG HARBOR
"THE MARITIME CITY"

PUBLIC WORKS / ENGINEERING DIVISION

Steven Demmer, PE
Associate Engineer
City of Gig Harbor Engineering
3510 Grandview Street
Gig Harbor, WA 98335

August 1, 2025

Katharine Shaffer
Principal Planner
City of Gig Harbor Planning
3510 Grandview Street
Gig Harbor, WA, 98335

SUBJECT: CIP#2313 – LIFT STATION #5 ADMINISTRATIVE INTERPRETATION

Dear Katharine Shaffer:

City of Gig Harbor Engineering Staff is requesting an Administrative Interpretation in for the Lift Station #5 Basin Improvements capital improvement project (CIP#2313).

BACKGROUND

The project proposes to demolish existing lift station #5 pump, but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). The site is zoned as Waterfront Residential (WR) and is located in a historic district.

REQUEST FOR ADMINISTRATIVE INTERPRETATION

While the generator enclosure may be classified as industrial/utility use, per section 17.99.040 – Industrial building exemption (IBE) of the Gig Harbor Design Manual, the building is not exempt from the design manual since it is located in the city's historic district. Therefore, requirements outlined in Section 17.99.510 apply to the enclosure.

The proceeding page outlines the historic district section requirements and how the generator enclosure will meet (or cannot meet) each requirement.

- **17.99.510 Building massing and height**
  - **Incorporate characteristic roof lines and massing into residential structures:** The generator enclosure is not a residential structure therefore these requirements do not apply.
  - **Confirm to height standards for nonresidential structures:** The generator enclosure is proposed to be approximately 10 feet high, therefore height requirements will be met.
  - **Avoid unusual or atypical roof forms:** Enclosure will avoid atypical roof forms.
  - **Respect scale of adjacent structures**: There are no adjacent structures to the generator enclosure.
- **17.99.520 Garage and front entry**
  - **De-emphasize residential garages**: The generator enclosure is not a residential garage, however the design intent is to appear as a garage so that it blends into the neighborhood. The structure cannot meet location requirements outlined in this section of the design manual. Location of the structure has been agreed upon with the property owner and will be abutting the front property line. Engineering staff has applied for a separate setback variance to address the enclosure location.
  - **Emphasize front entry**: This requirement is not applicable.
  - **Respect scale of adjacent structures**: There are no adjacent structures to the generator enclosure.
- **17.99.530 Window design**
  - The generator enclosure will house an emergency generator that will supply emergency power to a utility. Adding windows to the enclosure will pose safety and security issues; therefore, no windows are proposed. Slotted vents are proposed for generator ventilation.
- **17.99.540 Siding and trim**
  - Siding of the enclosure will be CMU, which meets section requirements.
- **17.99.545 Railings**
  - A stairwell is proposed in front of the generator enclosure. Since the structure is not listed nor eligible for listing on the city's Register of Historic Places, architecturally appropriate quality design will be used for railings.
- **17.99.550 Awning design**
  - No awnings are proposed for the generator enclosure.
- **17.99.560 Roofing materials**
  - Roofing materials will meet all requirements outlined in this section.
- **17.9.570 Colors**
  - Building colors will meet all requirements outlined in this section.
- **17.99.580 Preservation of historic structures**
  - This section does not apply to the generator enclosure.

Please reach out if you need any additional clarifications.

Sincerely,



Steven Demmer, PE, Associate Engineer
sdemmer@gigharborwa.gov
253-530-7076

GIG HARBOR
"THE MARITIME CITY"

COMMUNITY DEVELOPMENT
PLANNING DIVISION

DETERMINATION OF COMPLETE APPLICATION

Thursday, August 7, 2025

TO: Steven Demmer, City of Gig Harbor Engineering Division, 3510 Harborview Drive, Gig Harbor, WA 98335

RE: Application for Shoreline Substantial Development: Lift Station #5 Basin Improvements | PL-SDP-25-0003
Site Address: 2825 Harborview Drive | Parcels 0221081148 & 0221081150

Your application for the above referenced project has been reviewed by the Planning Division. Based on the required elements for a complete application (GHMC 19.02.002), the application is considered:

☒ **Complete.** ☐ **Incomplete.** See items below:

Your application is considered complete at this time.

If you have any questions on this matter, please contact: Michelle Thomas at (253) 851-6170 or MThomas@gigharborwa.gov

CERTIFICATION OF PUBLIC NOTICE

==========

DECLARATION OF POSTING

I, Steven Demmer (printed name), declare under penalty of perjury under the laws of the State of Washington and the United States of America that the foregoing is true and correct to the best of my knowledge:

On August 20, 2025 I caused to be posted the notice board provided by the City for the Notice of Application on the following:

Project Name: **Lift Station #5 Basin Improvements**

Project Location: **2825 Harborview Drive | 0221081148 & 0221081150**

Permit Number(s): **PL-SDP-25-0003**

at the locations indicated below meeting the requirements of GHMC 19.03.001(A).

- ☒ At the midpoint of the street fronting the site
- ☒ _____

SIGNED at Gig Harbor, Washington, this 20th day of August, 2025.

DECLARANT (signature)



"THE MARITIME CITY"

Project Information

City of Gig Harbor
Community Development
Planning Division

Notice of Application

GENERAL INFORMATION

- **Permit Number:** PL-SDP-25-0003
- **Permit Type:** Type III
- **Applicant Name:** Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335

APPLICATION DATES

- **Date of Initial Application Submission:** July 7, 2025
- **Date of Notice of Completion Application:** August 7, 2025
- **Date of Notice of Application:** August 21, 2025

PROJECT DETAILS

- **Project Title:** Lift Station #5 Basin Improvements
- **Project Location:** 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
- **Project Description:** Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.

PERMITS AND STUDIES

- **Requested Project Permits:** Shoreline Substantial Development, Minor Site Plan Review Administrative Interpretation and Variance
- **Studies Requested:** None at this time

- **Additional Permits Required (to the extent known):** Civils

ENVIROMENTAL REVIEW

- **Existing Environmental Documents:** No Net Loss Shoreline Ecological Functions Evaluation

PUBLIC COMMENT INFORMATION

- **Public Comment Period:** From August 21, 2025 to September 22, 2025 (All comments must be received by the Planning Division by 5:00 p.m. on the closing date)
- **Public Comments May Be Submitted in Writing By:**
  - Mail to or in person to: Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335
  - Email: PlanningComments@gigharborwa.gov
    *Comments should be as specific as possible

- **Rights of the Public:**
  - To comment on the application
  - To request notice of and participate in any hearings or public meetings
  - To request a copy of the final decision
  - To appeal the decision (subject to city code)

Public Hearing Information: A hearing date has not been scheduled for this application

Preliminary Determinations (if any):

- **Preliminary Determination of Consistency with GHMC 19.04.001:** None
- **Preliminary Determination of Development Regulations for Mitigation:** None

For questions or additional information, contact Katherine Shaffer, Principal Planner at (253)851-6170 or KShaffer@gigharborwa.gov

Documents pertinent to this application are available for review and inspection at the City of Gig Harbor Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335, during normal business hours, Monday through Friday. Documents are also available at www.gigharborwa.gov by clicking "Permit Portal" and entering the permit number.



CERTIFICATION OF PUBLIC NOTICE

==========

DECLARATION OF MAILING

I, Michelle Thomas (printed name), declare under penalty of perjury under the laws of the State of Washington and the United States of America that the foregoing is true and correct to the best of my knowledge:

On August 21, 2025 I mailed a true and correct copy of the **Notice of Application** for the following:

Project Name: **Lift Station #5 Basin Improvements**

Project Location: **2825 Harborview Drive | 0221081148 & 0221081150**

Permit Number(s): **PL-SDP-25-0003**

to the individuals/agencies identified on the attached transmittal form by United States Postal Service, inter-office routing, or electronic mail, as specified on the attached.

SIGNED at Gig Harbor, Washington, this 21st day of August 2025.

Michelle Thomas
DECLARANT (signature)

City of Gig Harbor
Transmittal Form

Routing for: **NOA** **SEPA** **NOPH** **NOPM** **NOD** **Notice Date:** 08.21.2025

Project: Lift Station #5 Basin Improvements **Planner:** Katharine

---

Routed to: City Depts.

- ■ Public Works–Operations
- ■ Public Works–Engineering
- ■ Building and Fire Safety
- ☐ Other_____

SEPA Agencies: (NOA, SEPA) Electronic Mail

- ■ Washington Department of Ecology, SEPA Register online
- ■ Washington Department of Commerce, attn: Review Team
- ■ Pierce Transit Land Use Review
- ■ Washington State Department of Fish & Wildlife, attn: SEPA Desk
- ■ Washington State Department of Natural Resources, attn: SEPA Center
- ■ Washington State DAHP
- ■ Puyallup Tribe of Indians Historic Preservation
- ■ Puyallup Tribe Cultural Resources
- ■ PenMet Parks
- ■ Pierce County Fire District Number 5
- ■ Suquamish Tribe
- ■ Peninsula School District
- ■ Pierce County Planning and Land Services
- ■ Washington State Department of Transportation, attn: OR-SEPA-REVIEW
- ■ Squaxin Island Tribe
- ■ Muckleshoot Tribe
- ■ Washington Department of Corrections
- ■ Puget Sound Partnership
- ■Nisqually Tribe

Other Parties: 1st Class Mail

- ■ Applicant/Owner/Agent (NOA, NOPH, NOPM, SEPA, NOD)
- ■ DRB (NOA for Non-residential, Multi-family, Subdivisions, Public Projects)
- ☐ Mayor & Council (NOD Hearing Examiner Decisions)
- ■ Property Owners within 300 feet of site: attached list (NOA, SEPA, NOPH, NOPM, NOD for Type II permits only)
- ☐ Parties of Record: attached list (NOPH, NOPM, NOD)
- ☐ Pierce County (NOA for Plats adjacent to City Limits)
- ☐ Pierce County Assessor-Treasurer (NOD)
- ☐ WA Transportation Secretary (NOA for Plats adj. to State ROW, or within 2 miles of Airport—approximately any plats south of Pioneer/Wollochet interchange)
- ☐ Tacoma Daily Index
- ☐ Other _____

"THE MARITIME CITY"

City of Gig Harbor
Community Development
Planning Division

Project Information

Notice of Application

GENERAL INFORMATION

- **Permit Number:** PL-SDP-25-0003
- **Permit Type:** Type III
- **Applicant Name:** Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335

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- **Date of Notice of Completion Application:** August 7, 2025
- **Date of Notice of Application:** August 21, 2025

PROJECT DETAILS

- **Project Title:** Lift Station #5 Basin Improvements
- **Project Location:** 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
- **Project Description:** Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.

PERMITS AND STUDIES

- **Requested Project Permits:** Shoreline Substantial Development, Minor Site Plan Review Administrative Interpretation and Variance
- **Studies Requested:** None at this time

- **Additional Permits Required (to the extent known):** Civils

ENVIROMENTAL REVIEW

- **Existing Environmental Documents:** No Net Loss Shoreline Ecological Functions Evaluation

PUBLIC COMMENT INFORMATION

- **Public Comment Period:** From August 21, 2025 to September 22, 2025 (All comments must be received by the Planning Division by 5:00 p.m. on the closing date)
- **Public Comments May Be Submitted in Writing By:**
  - Mail to or in person to: Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335
  - Email: PlanningComments@gigharborwa.gov
    *Comments should be as specific as possible

- **Rights of the Public:**
  - To comment on the application
  - To request notice of and participate in any hearings or public meetings
  - To request a copy of the final decision
  - To appeal the decision (subject to city code)

Public Hearing Information: A hearing date has not been scheduled for this application

Preliminary Determinations (if any):

- **Preliminary Determination of Consistency with GHMC 19.04.001:** None
- **Preliminary Determination of Development Regulations for Mitigation:** None

For questions or additional information, contact Katherine Shaffer, Principal Planner at (253)851-6170 or KShaffer@gigharborwa.gov

Documents pertinent to this application are available for review and inspection at the City of Gig Harbor Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335, during normal business hours, Monday through Friday. Documents are also available at www.gigharborwa.gov by clicking "Permit Portal" and entering the permit number.



From:	Michelle Thomas
Bcc:	Steven Demmer; Adonais Clark; Alec, Wrolson, Puyallup Tribe; Andrew Strobel, Puyallup Tribe; aosullivan@suquamish.nsn.us; Brad Beach, THPO Nisqually Tribe; Brandon Reynon, Puyallup Tribe; Carol ; Char Naylor, Puyallup Tribe; David Winfrey, Puyallup Tribe; Deana McCortney - DNR; Department of Natural Resources SEPA Center (sepacenter@dnr.wa.gov); Dept. of Ecology; dwilliams@suquamish.nsn.us; efheinitz@doc1.wa.gov; esorensen@penmetparks.org; Gig Harbor Fire; Lisa Anderson, Puyallup Tribe; Lois Boome, Puyallup Tribe; Michael Prentice; Muckleshoot Tribe - Laura Murphy (laura.murphy@muckleshoot.nsn.us); Nancy Games, Puyallup Tribe; Nicole Jones-Vogel, AICP PenMet Parks; Nisqually Tribe; OR-SEPA-REVIEW@wsdot.wa.gov; Peninsula School District; Pierce Transit; Puget Sound Partnership - Marsha Engel (marsha.engel@psp.wa.gov); Puyallup Tribe SEPA; reviewteam@commerce.wa.gov; Robert Barandon, Puyallup Tribe; Russ Ladley, Puyallup Tribe; sepa; Sharon Silver (sharons@penlight.org); Shaun Dinubilo; Suquamish Tribe - Dennis Lewarch (dlewarch@suquamish.nsn.us); Washington Dept. Fish & Wildlife
Subject:	Notice of Application Lift Station #5 Basin Improvements
Date:	Wednesday, August 20, 2025 1:29:00 PM
Attachments:	2025.08.21 NOA.pdf

Please see attached Notice of Application for your review and comment.

LOCATION: 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
PROPOSAL: Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.
COMMENT DEADLINE: Monday, September 22, 2025

The City of Gig Harbor will not act on this proposal for at least 14 days from the date of issuance of this notice. If you have any comments on this proposal, please send them to PlanningComments@gigharborwa.gov, City of Gig Harbor, Planning Division, 3510 Grandview Street, Gig Harbor, Washington, 98335; (253) 851-6170

Comments must be received by no later than 5 PM, Monday, **September 22, 2025** for consideration.

Michelle Thomas | Planning Technician
3510 Grandview St • Gig Harbor, WA 98335
253-851-6170 | 253-853-8255 (direct) | www.gigharborwa.gov

Stay Connected! Sign up for the city's weekly Gig-A-Byte email newsletter

221081076
CHATMAN STEVEN L TTEE &
CHATMAN ANNE M TTEE
2829 HARBORVIEW DR
GIG HARBOR, WA 98335

2987000010
GNEGY CHARLES R
& MAY KATHERINE J
2808 HARBORVIEW DR APT C
GIG HARBOR, WA 98335-1903

221081122
KATKE JEFFREY J TTEE
7521 SOUNDVIEW DR
GIG HARBOR, WA 98335-1950

221085006
NIESZ TIMOTHY J
PO BOX 2419
GIG HARBOR, WA 98335-4419

221081177
REFERENCE
REFERENCE
PIERCE COUNTY, WA

2987000030
RUSSI JOHN F & BARBARA
2808 HARBORVIEW DR UNIT A
GIG HARBOR, WA 98335-1903

221081156
TTEES OF STORSET FAMILY
LIVING TRUST
7507 SOUNDVIEW DR
GIG HARBOR, WA 98335-1950

221085007
TWETEN TIMOTHY & LORIE
2817 HARBORVIEW DR
GIG HARBOR, WA 98335-1908

221081149
GARNAN PROPERTIES 2825
HARBORVIEW LLC
2130 MAIN ST STE 255
HUNTINGTN BCH, CA 92648

221081138
HORSEHEAD INVESTMENTS
LLC
10809 32ND STREET CT NW
GIG HARBOR, WA 98335-5872

221081112
LIERMAN MICHAEL E &
DENISE R
2821 HARBORVIEW DR
GIG HARBOR, WA 98335-1908

0
NORDQUIST NORMA D TTEE
7515 SOUNDVIEW DR
GIG HARBOR, WA 98335-1950

221085017
REFERENCE
REFERENCE
PIERCE COUNTY, WA

221081121
SAMI'S HOUSE LLC
5726 34TH AVE NE
SEATTLE, WA 98105

221081168
STUART ROBERT
2813 HARBORVIEW DR
GIG HARBOR, WA 98335-1908

5573000020
TTEE OF NORDQUIST REVOC
LIVING TR
7515 SOUNDVIEW DR
GIG HARBOR, WA 98335-1950

221081116
GARNAN PROPERTIES LLC
2130 MAIN ST STE 255
HUNTINGTN BCH, CA 92648-

221081114
KAMMER JACK & MICHELLE
2819 HARBORVIEW DR
GIG HARBOR, WA 98335

221085018
MORRIS DAVID R &
MERRILLYN A
11505 BURNHAM DR STE 206
GIG HARBOR, WA 98332

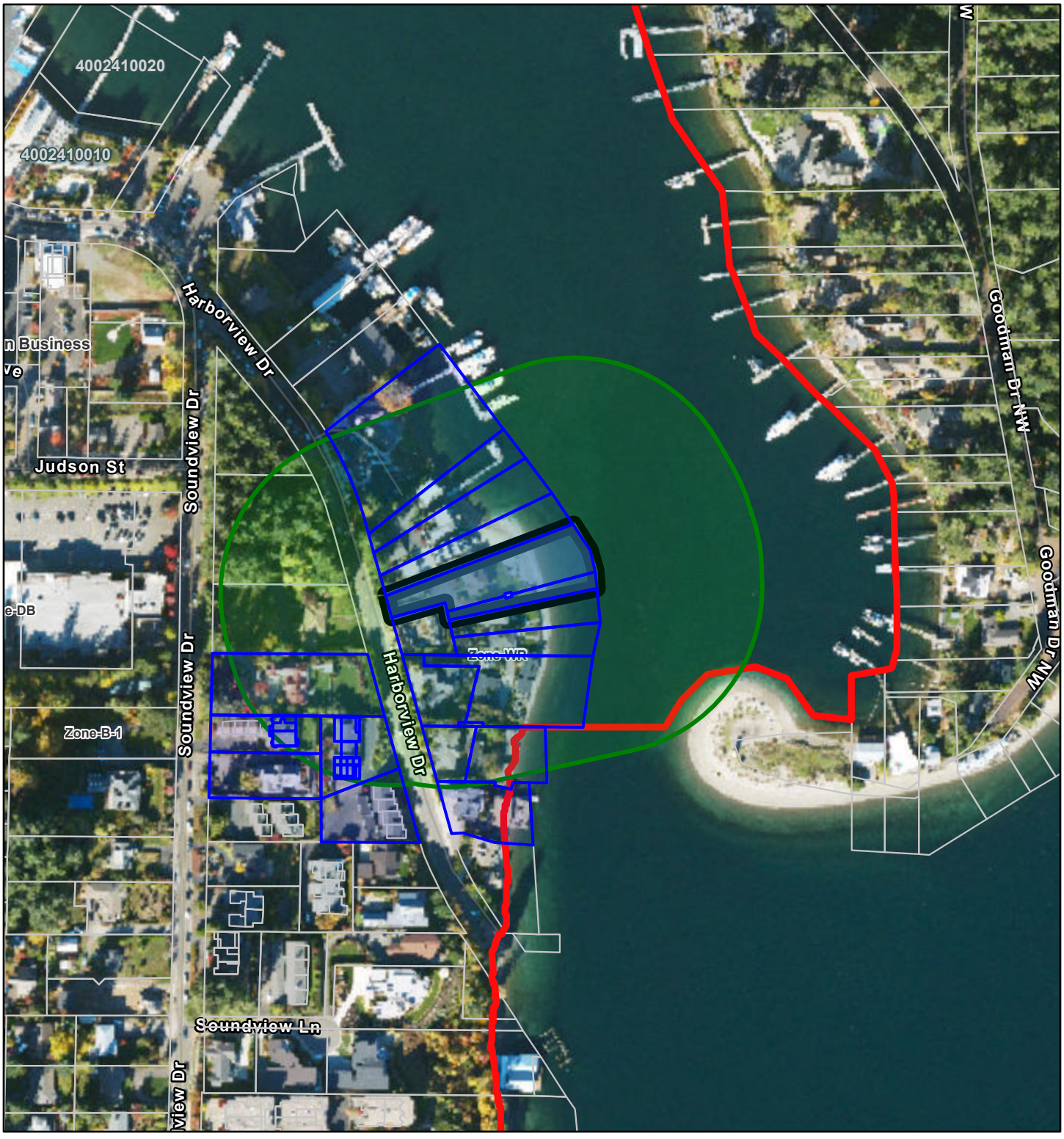
2987000020
POLLITT GEORGE L
& MARCIA B
2808 HARBORVIEW DR APT B
GIG HARBOR, WA 98335-1903

221085008
REFERENCE
REFERENCE
PIERCE COUNTY, WA

0
SHARP TTEE &
DIMAGGIO TTEE
2823 HARBORVIEW DR
GIG HARBOR, WA 98335-1908

0
STUART ROBERT E &
MELINDA K
2813 HARBORVIEW DR
GIG HARBOR, WA 98335-1908

Lift Station 5 NOA



8/13/2025, 11:35:24 AM

1:4,514

0 0.03 0.05 0.1 mi

0 0.04 0.08 0.16 km

Imagery © 2023 Hexagon and data partners., Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

City of Gig Harbor
The map features are approximate. All data is provided "as-is" and "with all faults." The City assumes no liability for variations ascertained by actual survey.

CERTIFICATION OF PUBLIC NOTICE

==========

DECLARATION OF PUBLISHING

I, Michelle Thomas, declare under penalty of perjury under the laws of the State of Washington and the United States of America that the foregoing is true and correct to the best of my knowledge:

On **August 7, 2025,** I sent a true and correct copy of the **NOTICE OF APPLICATION** for publication in the **August 21, 2025,** edition of the Tacoma Daily Index for the following:

Project Name: **Lift Station #5 Basin Improvements**

Project Location: **2825 Harborview Drive | 0221081148 & 0221081150**

Permit Number(s): **PL-SDP-25-0003**

SIGNED at Gig Harbor, Washington, this 7th, Day of August 2025

Michelle Thomas
DECLARANT (signature)

City of Gig Harbor
Transmittal Form

Routing for: **NOA** **SEPA** **NOPH** **NOPM** **NOD** **Notice Date:** 08.21.2025

Project: Lift Station #5 Basin Improvements **Planner:** Katharine

---

Routed to: City Depts.
- ☒ Public Works–Operations
- ☒ Public Works–Engineering
- ☒ Building and Fire Safety
- ☐ Other_____

SEPA Agencies: (NOA, SEPA) Electronic Mail
- ☒ Washington Department of Ecology, SEPA Register online
- ☒ Washington Department of Commerce, attn: Review Team
- ☒ Pierce Transit Land Use Review
- ☒ Washington State Department of Fish & Wildlife, attn: SEPA Desk
- ☒ Washington State Department of Natural Resources, attn: SEPA Center
- ☒ Washington State DAHP
- ☒ Puyallup Tribe of Indians Historic Preservation
- ☒ Puyallup Tribe Cultural Resources
- ☒ PenMet Parks
- ☒ Pierce County Fire District Number 5
- ☒ Suquamish Tribe
- ☒ Peninsula School District
- ☒ Pierce County Planning and Land Services
- ☒ Washington State Department of Transportation, attn: OR-SEPA-REVIEW
- ☒ Squaxin Island Tribe
- ☒ Muckleshoot Tribe
- ☒ Washington Department of Corrections
- ☒ Puget Sound Partnership
- ☒ Nisqually Tribe

Other Parties: 1st Class Mail
- ☒ Applicant/Owner/Agent (NOA, NOPH, NOPM, SEPA, NOD)
- ☒ DRB (NOA for Non-residential, Multi-family, Subdivisions, Public Projects)
- ☐ Mayor & Council (NOD Hearing Examiner Decisions)
- ☒ Property Owners within 300 feet of site: attached list (NOA, SEPA, NOPH, NOPM, NOD for Type II permits only)
- ☐ Parties of Record: attached list (NOPH, NOPM, NOD)
- ☐ Pierce County (NOA for Plats adjacent to City Limits)
- ☐ Pierce County Assessor-Treasurer (NOD)
- ☐ WA Transportation Secretary (NOA for Plats adj. to State ROW, or within 2 miles of Airport—approximately any plats south of Pioneer/Wollochet interchange)
- ☐ Tacoma Daily Index
- ☐ Other _____

Tacoma Daily Index

Affidavit of Publication

State of Washington }
County of Pierce } ss

Amanda Kahlke being first duly sworn, upon oath deposes and says: that he/she is the legal representative of the Tacoma Daily Index a newspaper. The said newspaper is a legal newspaper by order of the superior court in the county in which it is published and is now and has been for more than six months prior to the date of the first publication of the Notice hereinafter referred to, published in the English language continually as a newspaper in Pierce County, Washington and is and always has been printed in whole or part in the Tacoma Daily Index and is of general circulation in said County, and is a legal newspaper, in accordance with the Chapter 99 of the Laws of 1921, as amended by Chapter 213, Laws of 1941, and approved as a legal newspaper by order of the Superior Court of Pierce County, State of Washington, by order dated June 16, 1941, and that the annexed is a true copy of IDX1018113 NOA as it was published in the regular and entire issue of said paper and not as a supplement form thereof for a period of 1 issue(s), such publication commencing on 08/21/2025 and ending on 08/21/2025 and that said newspaper was regularly distributed to its subscribers during all of said period.

The amount of the fee for such publication is $159.51.

Subscribed and sworn before me on this 21 day of August, 2025.

Notary Public in and for the State of Washington.

City of Gig Harbor | 09256156
MICHELLE THOMAS

JENNIFER TRIBBETT
NOTARY PUBLIC
STATE OF WASHINGTON
COMM # 160037
APPOINTMENT EXPIRES June 25, 2028

COMMUNITY DEVELOPMENT
DEPARTMENT
PLANNING DIVISION
CITY OF GIG HARBOR
NOTICE OF APPLICATION
August 21, 2025
Lift Station #5 Basin
Improvements

Permit Number: PL-SDP-25-0003
Name of Applicant: Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335
Project Location: 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
Description of Proposed Project: Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.
Project Permits Included with Application: Shoreline Substantial Development, Minor Site Plan Review Administrative Interpretation and Variance
Tentative Public Meeting or Public Hearing Date: A hearing date has not been scheduled for this applica-

tion.

Interested persons may comment on the above stated application or may request any notice of public hearing or a copy of the decision on this application or participate in any public hearings. Requests for notification or written comments must be submitted to the Planning Division by no later than September 22, 2025. All public comments or requests must be received at the Planning Division no later than 5:00pm on the last date of the comment period. Comments may be mailed to or delivered in person to the below address or emailed to **PlanningComments@gigharborwa.gov**.

For questions or additional information, contact Principal Planner, Katharine Shaffer at (253)851-6170 or KShaffer@gigharborwa.gov.

Documents pertinent to this application are available for review and inspection at the City of Gig Harbor Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335, during normal business hours, Monday through Friday. Documents are also available at www.gigharborwa.gov by clicking "Permit Portal" and entering the permit number.

IDX-1018113

August 21, 2025

From: Shaun Dinubilo
To: Planning Comments
Cc: Doyle Foster
Subject: RE: Notice of Application Lift Station #5 Basin Improvements
Date: Friday, September 5, 2025 10:13:32 AM

Hello,

Thank you for contacting the Squaxin Island Tribe Cultural Resources Department regarding the above listed project for our review and comment. The project area has a high potential for the location of cultural resources. We recommend a cultural resources survey and report be completed for this project. We would prefer to receive an electronic copy by email once completed.

Shaun Dinubilo
Archaeologist
FAA Certified (Section 107) sUAS Remote Pilot
Cultural Resource Department
Squaxin Island Tribe
200 S.E. Billy Frank Jr. Way
Shelton, WA 98584
Phone: 360-432-3998
Email: sdinubilo@squaxin.us
Office Hours: 7:30 am to 4:00 pm
Email is my preferred method of communication.

As per 43 CFR 7.18[a][1]) of the Archaeological Resource Protection Act, Section 304 of the National Historic Preservation Act, and RCW 42.56.300 of the Washington State Public Records Act-Archaeological Sites, all information concerning the location, character, and ownership of any cultural resource is exempt from public disclosure.

From: Michelle Thomas <MThomas@gigharborwa.gov>
Sent: Thursday, August 21, 2025 8:00 AM
Subject: Notice of Application Lift Station #5 Basin Improvements

Please see attached Notice of Application for your review and comment.

LOCATION: 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
PROPOSAL: Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to

the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.
COMMENT DEADLINE: Monday, September 22, 2025

The City of Gig Harbor will not act on this proposal for at least 14 days from the date of issuance of this notice. If you have any comments on this proposal, please send them to PlanningComments@gigharborwa.gov, City of Gig Harbor, Planning Division, 3510 Grandview Street, Gig Harbor, Washington, 98335; (253) 851-6170

Comments must be received by no later than 5 PM, Monday, **September 22, 2025** for consideration.

Michelle Thomas | Planning Technician
3510 Grandview St • Gig Harbor, WA 98335
253-851-6170 | 253-853-8255 (direct) | www.gigharborwa.gov

Stay Connected! Sign up for the city's weekly Gig-A-Byte email newsletter

From: Mike Shong
To: Michelle Thomas
Cc: Brandon Reynon
Subject: RE: Notice of Application Lift Station #5 Basin Improvements
Date: Thursday, September 4, 2025 4:27:25 PM

Hi Michelle,

This location is very high-risk for precontact cultural resources based on the shoreline setting and proximity to recorded archaeological sites. A cultural resource study should be conducted prior to any ground disturbance.

Let us know if you have any questions.

Best,

Mike
.

From: Michelle Thomas <MThomas@gigharborwa.gov>
Sent: Thursday, August 21, 2025 8:00 AM
Subject: Notice of Application Lift Station #5 Basin Improvements

Please see attached Notice of Application for your review and comment.

LOCATION: 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
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COMMENT DEADLINE: Monday, September 22, 2025

The City of Gig Harbor will not act on this proposal for at least 14 days from the date of issuance of this notice. If you have any comments on this proposal, please send them to PlanningComments@gigharborwa.gov, City of Gig Harbor, Planning Division, 3510 Grandview Street, Gig Harbor, Washington, 98335; (253) 851-6170

Comments must be received by no later than 5 PM, Monday, **September 22, 2025** for

consideration.

Michelle Thomas | Planning Technician
3510 Grandview St • Gig Harbor, WA 98335
253-851-6170 | 253-853-8255 (direct) | www.gigharborwa.gov

Stay Connected! Sign up for the city's weekly Gig-A-Byte email newsletter

From: PATRICK GARTLAND
To: Planning Comments
Subject: Permit Number: PL-SDP-25-0003
Date: Friday, September 19, 2025 12:04:27 PM
Attachments: Lift Station #5 - Page 5 (Exhibit D1).pdf
Lift Station #5 - Page 16 (Exhibit S4).pdf

Dear Planning Division,

My name is Patrick Gartland and I am the representative owner of 2825 Harborview Drive on which much of this proposed project (Permit Number PL-SDP-05-0003) takes place.

I am writing to you because I am concerned that the last plans available to anyone are the 90% completed plans and decisions by your division will be made using said plans. The problem is that they DO NOT REFLECT the subsequent conversations and agreements between Steven Demmer and the owners of 2825 Harborview Drive that were made since those plans were made available. Nor do they reflect some promises made to the entire neighborhood prior to their release.

To wit: .The plans show a proposed easement running from the new location of Lift Station #5 to the proposed site for the Generator Shed. Where this easement is shown in these plans is completely unacceptable to the owners of 2825 Harborview Drive and the agreement with Steven Demmer that has been reached on where the easement should actually go is not reflected in the plans that you are using.

Now if the exact location of this easement is not relevant to your permit process, then its location shown in the 90% completed plans may not be an issue. **But if the exact location of the easement is important to your decision process then we have a major problem and you will be basing your decision on the wrong location (**which is shown on page 5 of the "Lift Station 5 Final Design 90%.pdf). See attached Page 5 (Exhibit D1).

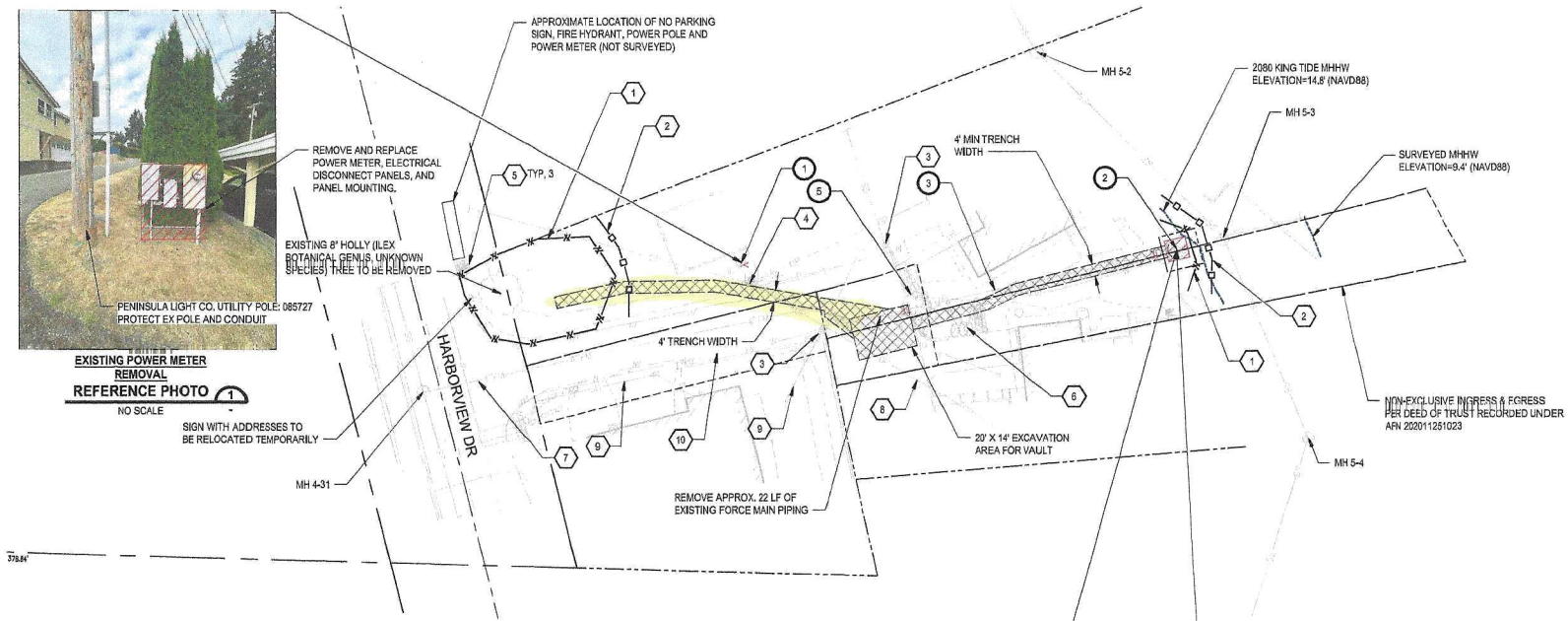
Also, the exterior of the Generator Shed was promised to blend in with the surrounding homes. It is currently shown as having a cinderblock exterior. Again, not acceptable. See attached Page 16 (Exhibit S4). Since this Generator Shed will be located in a residential waterfront zone, on a residential waterfront property, then its design needs to follow residential waterfront aesthetic codes.

If you have any question or comments, please let me know.

Sincerely,

Patrick Gartland
garnan@flash.net

EXISTING POWER METER REMOVAL
REFERENCE PHOTO 1
NO SCALE



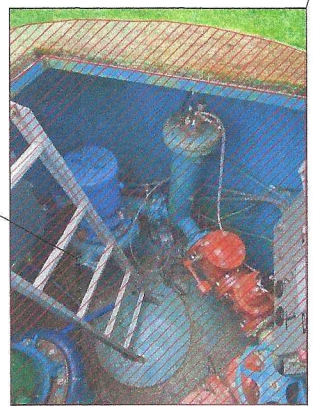
PLAN
SCALE IN FEET
0 20 40

LEGEND:

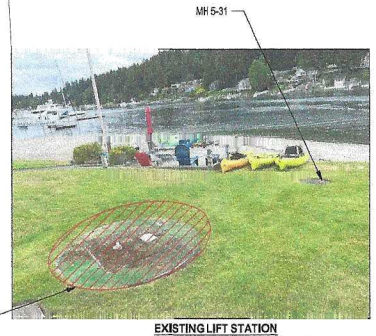
- DEMOLISH AND REMOVE EXISTING
- CUT AND CAP
- TRENCH EXTENTS



REFERENCE PHOTO 2
NO SCALE



REFERENCE PHOTO 3
NO SCALE



EXISTING LIFT STATION
REFERENCE PHOTO 4
NO SCALE

DEMOLITION NOTES:

1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
2. CONTRACTOR SHALL PROTECT ALL CATCH BASIN INLETS WITHIN 100' OF THE WORK AREA

DEMOLITION NOTES:

1. REMOVE EXISTING POWER METER. CONTRACTOR SHALL COORDINATE WITH PENINSULA LIGHT CO.
2. AFTER SUCCESSFUL COMMISSIONING OF NEW PUMP STATION, REMOVE & DECOMMISSION EXISTING LIFT STATION DRY WELL AND TOP SLAB. EXISTING LIFT STATION DRY WELL IS LOCATED BELOW GRADE AND ON TOP OF THE EXISTING WET WELL. EXISTING WET WELL SHALL REMAIN.
3. ABANDON APPROX 85 LF OF 4-INCH DUCTILE IRON FORCE MAIN IN PLACE BETWEEN CUT AND CAP.
4. CONTRACTOR SHALL COORDINATE WITH OWNER FOR EQUIPMENT TO BE SALVAGED.
5. JAPANESE MAPLE TO BE REPLACED IN KIND AFTER CONSTRUCTION.

TESC NOTES:

1. INSTALL HIGH VISIBILITY SILT FENCE PER WSDOT STANDARD PLAN I-10.10-01.
2. INSTALL SILT FENCE PER WSDOT STANDARD DETAIL I-30.10-02 OR I-30.15-02.
3. STORM DRAIN INLET PROTECTION. SEE WSDOT STANDARD PLAN I-40.20-00.
4. PROTECT EXISTING UTILITY POLE IN PLACE
5. TEMPORARILY RELOCATE EXISTING MAILBOXES IN PLACE
6. PROTECT EXISTING LANDSCAPING/ROCKERY AND REPLACE IN KIND AS NEEDED.
7. PROTECT EXISTING FORCEMAIN
8. PROTECT EXISTING POWER
9. PROTECT EXISTING STORM DRAIN
10. PROTECT EXISTING WATER

811 Know what's below. Call before you dig.

PERMIT SET

REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME: 216275004B-D
JLS No. 216-2750-048
DATE: JUNE 2025

BRIAN S. BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

FOR REFERENCE ONLY

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

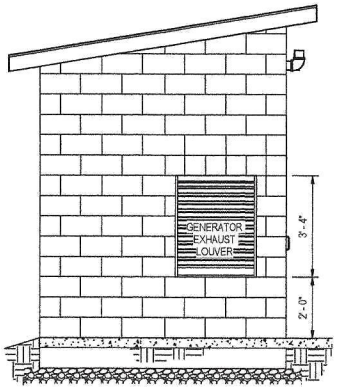
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

DEMOLITION AND TESC PLAN

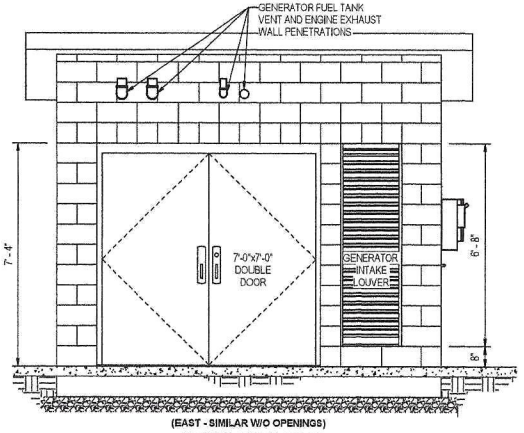
DRAWING NO. 4 OF XX
D1

PAGE 5

PATH: \\parametrix.com\ppw\PSO\Projects\Clients\2750-City of Gig Harbor\216-2750-048 Lift Station 5 Final Design\Wrk\Civil\DWG PLOTTED BY: bgallant DATE: Monday, June 30, 2025 1:05:05 PM

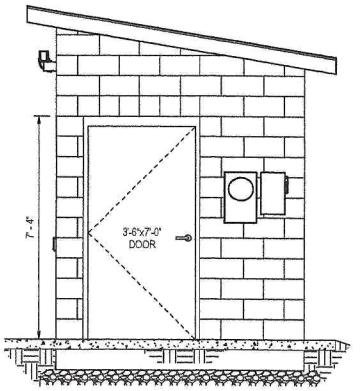


ARCHITECTURAL NORTH ELEVATION A
SCALE: 1/2" = 1'-0" S2

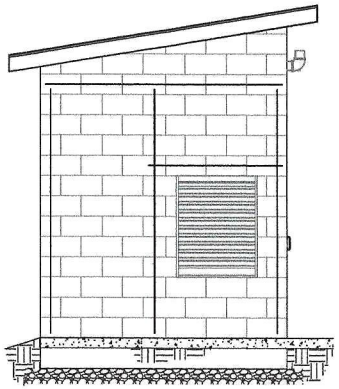


(EAST - SIMILAR W/O OPENINGS)

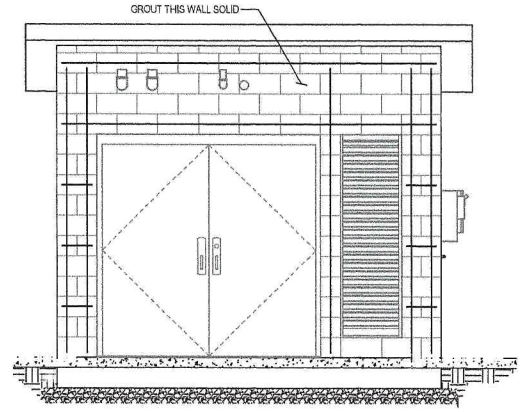
ARCHITECTURAL WEST ELEVATION B
SCALE: 1/2" = 1'-0" S2



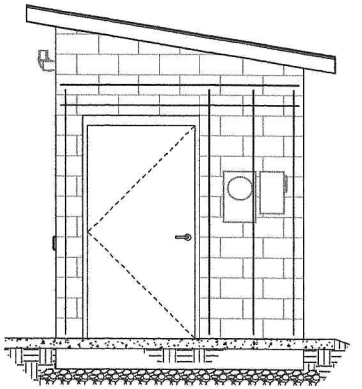
ARCHITECTURAL SOUTH ELEVATION C
SCALE: 1/2" = 1'-0" S2



STRUCTURAL NORTH ELEVATION D
SCALE: 1/2" = 1'-0" S2



STRUCTURAL WEST ELEVATION E
SCALE: 1/2" = 1'-0" S2



STRUCTURAL SOUTH ELEVATION F
SCALE: 1/2" = 1'-0" S2

REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED Checker
APPROVED Approver

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.046-COMP.rvt
JOB NO. 216-2750.046
DATE JUNE 2020

PRELIMINARY FOR REFERENCE ONLY

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

GENERATOR BUILDING ELEVATIONS

DRAWING NO. S4
OF 0

RECEIVED
By MThomas City of Gig Harbor at 3:59 pm, Jul 07, 2025

Parametrix
let's create tomorrow, together

Memorandum

DATE: June 30, 2025
SUBJECT: Minor Site Plan Review Checklist - Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Recorded owners of the land

Tax Parcel Number: 0221081149

Site Address 2825 HARBORVIEW DR

Taxpayer Name: GARNAN PROPERTIES 2825 HARBORVIEW LLC

Mailing Address: GARNAN HOLDING LTD

2130 MAIN ST STE 255

HUNTINGTN BCH, CA

Tax Parcel Number: 0221081113

Site Address: 2823 HARBORVIEW DR

Taxpayer Name: SHARP MICHAEL A TTEE & DIMAGGIO KATHRYN ANNE TTEE

Mailing Address: 2823 HARBORVIEW DR GIG HARBOR, WA

Recorded owners of the applicant

Tax Parcels #0221081148 and #0221081150

Site Address: 2825 HARBORVIEW DR

Taxpayer Name: GIG HARBOR TOWN OF

Mailing Address: 3510 GRANDVIEW ST GIG HARBOR, WA

Project Description - Scope

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5 and along the shoreline of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and #0221081150. These parcels are owned by the City of Gig Harbor, but are wholly surrounded by parcel #

0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below-grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive. The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible. The new lift station will be provided with a standby generator located just outside the right of way of Harborview Drive and within an easement on 2825 Harborview Drive. The control panel will be sited as a replacement to the existing control that is located directly south of the carport and adjacent the existing utility pole on the 2825 Harborview property.

Also, component to this project is the need to protect the beach sewers (pipes and structures) from inflow and infiltration. This will be accomplished using a trenchless form of construction called cured-in-place pipelining to seal the existing sewers from within and armoring the existing manholes with an epoxy resin.

Shoreline

The existing lift station is located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C.

Project Description - Nature and size in gross floor area

Generator Building – 101.33 SF Cinderblock building

Project Description - Total amount of square feet to be covered by hard surfaces

Generator Building, sidewalk and stairs – 249.11 SF

Parametrix
let's create tomorrow, together

Memorandum

DATE: June 27, 2025
SUBJECT: Variance Checklist – Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Variance Application (GHMC 17.66)

General Information

Project Title: Lift Station 5

Project Location: Parcels #0221081148 and #0221081150 owned by the City of Gig Harbor; 2825 Harborview Drive.

Engineer: Parametrix, 253-604-6600, 1019 39th Ave SE, Suite 100, Puyallup, WA 98374

Project Description

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5, within the shoreline buffer zone of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and #0221081150. These parcels are owned by the City of Gig Harbor but are wholly surrounded by parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive (105 feet west of the existing lift station). The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible.

The new lift station will be provided with an 8'-0" x 12'-8" CMU generator enclosure located just outside the right of way of Harborview Drive and within an easement on parcel # 0221081149 (2825 Harborview Drive). The pump control panel will be sited as a replacement to the existing control panel that is located directly south of the existing carport and adjacent the existing utility pole on the 2825 Harborview property.

Shoreline

The new and existing lift station are located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. The CMU generator enclosure will be sited outside the 200' Shoreline buffer zone. All new and existing structures are located above and outside the MHHW zone.

Zoning and Front Yard Setback

Update narrative to include standard setbacks and proposed reduced setbacks.

The project site is located within a Waterfront Residential (WR) zoning district. In accordance with 17.46.040 of the Gig Harbor Municipal Code (Development standards), The setbacks of GHMC 17.99.310 and 17.99.320 are applicable in the WR district.

General Variance (GHMC 17.66.030)

A variance is requested in order to construct a new wastewater lift station within the Shoreline Planning Segment C. Relocating the existing lift station 105 feet west will move the pumps and associated electrical components outside of the forecasted 2080 King Tide mean higher high water (MHHW). Adding a permanent backup generator as a power source within a building, but outside the shoreline Planning Segment C will provide a reliable source of permanent backup power. The known challenges and deficiencies of this station include:

- Special conditions and circumstances exist. This is a critical piece of the City's sewer infrastructure and provides wastewater service to the homes in and adjacent to Harborview Drive.
- Relocating the pump station away from the threat of sea water inundation is necessary, but moving the pump station outside of the Shoreline buffer zone is not possible without significant damage to the environs due to the substantially deep excavation and/or negative impact to adjacent private property. This would require substantial replumbing of the whole sewer system in this area, if at all possible, and is not cost effective.
- This variance will not compromise the intent of the comprehensive plan nor be inconsistent with the goals, policies and objectives of the comprehensive goals. Increasing the reliability of the lift station by moving it out of the forecasted future King Tide area advances the opportunities detailed in Section 9.2.3 of the 2024 Gig Harbor Comprehensive Plan.
- The risk of being inundated by seawater during seasonal high tides.
- Pumps within the station are beyond the end of their useful service life and replacement parts are no longer available.
- Concrete within the wet well has undergone moderate deterioration from being exposed to hydrogen sulfide gas.
- Accessing the station with parts and heavy equipment is challenging due to steep, slippery landscaping and the lack of a paved egress.
- The proposed variance will not amount to a rezone since the lift station will still be located within the Shoreline Planning Segment C.
- Special conditions and circumstances do not result from actions of the application. This is an existing lift station.
- Granting of this variance will not confer special privilege.
- The granting of the variance will not be materially detrimental to public welfare. Granting of this variance will increase the reliability of the lift station now and into the future.
- This variance is the minimum variance that will make possible the reasonable use of the land.



Setback Variance (GHMC 17.46.040, 17.99.310 & 17.99.320)

A variance is requested in order to construct an 8'-0" x 12'-8" generator enclosure to provide backup power for Lift Station 5 in the Front and side yard setbacks of parcel # 0221081149 (2825 Harborview Drive). This work is component to relocating the existing lift station 105 feet west will move the pumps and associated electrical components outside of the forecasted 2080 King Tide mean higher high water (MHHW). Adding a permanent backup generator as a power source within a building, but outside the shoreline Planning Segment C will provide a reliable source of permanent backup power.

- Special conditions and circumstances exist. A primary permanent backup power source is a Washington Department of Ecology and City of Gig Harbor requirement for projects of this nature.
- The property owner and the City have agreed that this location is ideal for the building because of its convenient access from Harborview Drive, its placement outside the shoreline buffer zone, and its consideration for preserving the overall character of the neighborhood.
- This variance will not compromise the intent of the comprehensive plan nor be inconsistent with the goals, policies and objectives of the comprehensive goals. Increasing the reliability of the lift station by providing backup power advances the opportunities detailed in Section 9.2.3 of the 2024 Gig Harbor Comprehensive Plan.
- Strict application of the standards would impose an unreasonable hardship on the applicant and the property owner. Loss of power at the lift station can lead to sanitary sewer overflows (SSOs) and backups into homes, and be in violation of local and state standards.
- The need for the variance is a result of higher tides, end of service life, adherence to local and state standards and not deliberate actions of the applicant.
- The variance does not create health and safety hazards.



Parametrix
let's create tomorrow, together

Memorandum

DATE: June 30, 2025
SUBJECT: Shoreline Permit Checklist - Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Recorded owners of the land

Tax Parcel Number: 0221081149

Site Address 2825 HARBORVIEW DR

Taxpayer Name: GARNAN PROPERTIES 2825 HARBORVIEW LLC

Mailing Address: GARNAN HOLDING LTD

2130 MAIN ST STE 255

HUNTINGTN BCH, CA

Tax Parcel Number: 0221081113

Site Address: 2823 HARBORVIEW DR

Taxpayer Name: SHARP MICHAEL A TTEE & DIMAGGIO KATHRYN ANNE TTEE

Mailing Address: 2823 HARBORVIEW DR GIG HARBOR, WA

Recorded owners of the applicant

Tax Parcels #0221081148 and #0221081150

Site Address: 2825 HARBORVIEW DR

Taxpayer Name: GIG HARBOR TOWN OF

Mailing Address: 3510 GRANDVIEW ST GIG HARBOR, WA

Project Description

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5 and along the shoreline of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and

#0221081150. These parcels are owned by the City of Gig Harbor but are wholly surrounded by parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below-grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive. The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible. The new lift station will be provided with a standby generator located just outside the right of way of Harborview Drive and within an easement on 2825 Harborview Drive. The control panel will be sited as a replacement to the existing control that is located directly south of the carport and adjacent the existing utility pole on the 2825 Harborview property.

Also, component to this project is the need to protect the beach sewers (pipes and structures) from inflow and infiltration. This will be accomplished using a trenchless form of construction called cured-in-place pipelining to seal the existing sewers from within and armoring the existing manholes with an epoxy resin.

Shoreline

The existing lift station is located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C.

Land Use

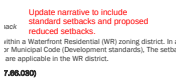
Parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) are both situated within the Waterfront Residential Zone (WR). A variety of zoning densities exist within a 1,000-foot radius. Immediately west of Harborview Drive is Medium Density Residential (R-2). Further west of Soundview Drive and within 1,000 feet is the Downtown Business District (DB). Directly south of the DB are Neighborhood Commercial and Single-Family Residential (R-1) and 1000 feet south of LS #5 is Medium Density Residential (R-2). Immediately to the north of WR is Waterfront Commercial (WC), and west of that is Residential and Business District (RB-1).

Plans for development within the shoreline boundary

In accordance with 6.2.1.B of the City of Gig Harbor Shoreline Master Program this project will create no net loss of shoreline ecological functions and processes. All work performed within the shoreline will be carried out in a manner that avoids adverse impacts so that the resulting ecological condition does not become worse than the current condition.

Narrative Staff Comments 09.23.2025.pdf Markup Summary

Text Box (1)



Subject: Text Box
Page Label: 4
Author: Katharine Shaffer
Date: 8/26/2025 10:08:42 AM
Status:
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Update narrative to include standard setbacks and proposed reduced setbacks.

RECEIVED
By MThomas City of Gig Harbor at 4:15 pm, Jul 07, 2025

No Net Loss Shoreline Ecological Functions Evaluation Form

1. Please provide a complete project description:

Project proposes to demolish existing lift station #5 pump, but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be

Instructions: Please provide the requested information for each of the project-related questions set forth below. If the project doesn't include one or more of the development activities, indicate "not applicable" next to the topic. **Please note that the completed form must be submitted with the required shoreline permit application or shoreline permit exemption request in order for the application to be deemed complete.**

Update to 35' vegetation conservation strip

Shoreline Setback/Impervious Coverage

1. Existing Shoreline Setback (from the Ordinary High-Water Mark): 200 Feet
2. Proposed Shoreline Setback: 200 Feet
3. Parcel Width (linear feet shoreline frontage): not applicable
4. Proposed Shoreline Setback Area (sq. ft.): not applicable
5. Number of existing accessory structures in setback area: 3
6. Number of accessory structures to be removed: 0
7. Net increase/decrease in impervious coverage: No Net Change

Native Vegetation (Areas in Sq. Ft.) within Shoreline Setback/Vegetation Conservation Area Buffer

1. Proposed Native Shrubs & Ground Cover: 0
2. Proposed Lawn: 1060
3. Amount of Existing Lawn Removed: 1060
4. Amount of Existing Ornamental Shrubs Removed: 0
5. Amount of Existing Invasive Species Removed: 0
6. Amount of Aquatic Vegetation Removed: not applicable
7. Amount of Aquatic Vegetation Added: not applicable

Update to reflect Japanese Maple Per Restoration Plan

No Net Loss Shoreline Ecological Functions Evaluation Form

Shoreline Stabilization (Linear Feet)

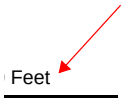
1. Hard Shoreline Stabilization Added (wood/concrete vertical bulkhead, rock bulkhead, or riprap): not applicable
2. Hard Shoreline Stabilization Removed: not applicable
3. Hard Shoreline Stabilization Repaired: not applicable
4. Hard Shoreline Stabilization Altered (setback landward): not applicable
5. Geotech Report Provided (yes/no): yes
6. Needs Assessment Required (yes/no): No
7. Soft Shoreline Stabilization Added: not applicable
8. Soft Shoreline Stabilization Removed: not applicable
9. Soft Shoreline Stabilization that replaced hard stabilization structure: not applicable
10. Soft Shoreline Stabilization Altered: not applicable

Overwater Coverage

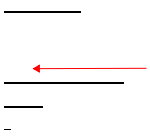
1. Change in height of overwater structure (pier/dock): not applicable
2. Amount of grating (sq. ft.): not applicable
3. Amount of solid boards (decking) removed: not applicable
4. Total length: not applicable
5. Total Width: not applicable
6. Skirting removed (linear ft.): not applicable
7. In-water structures removed: not applicable
8. Is a boat lift included in the proposal? not applicable
9. Is the proposed overwater structure a “joint pier” used by more than one property owner: No

No Net Loss Staff Comments 09.23.2025.pdf Markup Summary

Arrow (2)

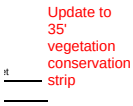


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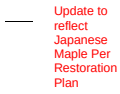
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Text Box (2)



Subject: Text Box
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Author: Katharine Shaffer
Date: 8/26/2025 9:55:39 AM
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Update to 35' vegetation conservation strip



Subject: Text Box
Page Label: 1
Author: Katharine Shaffer
Date: 8/26/2025 9:58:07 AM
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Update to reflect Japanese Maple Per Restoration Plan

RECEIVED
By MThomas City of Gig Harbor at 4:02 pm, Jul 07, 2025

LIFT STATION 5 FINAL DESIGN
CITY OF GIG HARBOR
CSP-2313

All markups provided with a blue asterisk (*) are to reference the Civil Land Use Checklist.

Provide project Information (Address, Parcel Numbers, Zoning, Flood Hazard, Description, etc.) *

Provide contact Information (Owners/Applicants, Engineer, Architect, Landscape Architect, Planner, etc.) *

Provide Site Utility and Service Contacts (Roads, Storm, Sewer, Fire, Gas, Water, Power, Cable) *

Provide the Section, Township, and Range. *

Identify Edition of Stormwater Design Manual in use (e.g. 2023) *

Identify Edition of Public Works Standards in use (e.g. 2018) *

Quantify total impervious surface area (use sq. ft.) *

Placeholder for City Construction Stamp (used at civil review) *

CITY ADMINISTRATOR
Katrina Knutson

PUBLIC WORKS DIRECTOR
Jeff Langhelm, P.E.

MAYOR
Mary Barber

CITY COUNCIL
Jeni Woock
Roger Henderson
Em Stone
Reid Ekberg
Seth Storset
Ben Coronado
Le Rodenberg

GIG HARBOR

"THE MARITIME CITY"

CITY OF GIG HARBOR
PUBLIC WORKS DEPARTMENT
3510 GRANDVIEW STREET
GIG HARBOR, WA 98335
(253) 851-6170



VICINITY MAP

DRAWING INDEX		
SHT NO.	DWG NO.	DESCRIPTION
1	G1	COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX
2	G2	GENERAL NOTES, LEGENDS AND ABBREVIATIONS
3	G3	STORMWATER, SEWER, AND LIFT STATION NOTES
4	AL1	ALIGNMENT PLAN
5	D1	DEMOLITION AND TESC PLAN
6	C1	SITE PLAN
7	C2	PIPE PROFILES
8	C3	COLLECTION SYSTEM CIPP PLAN
9	C4	CIVIL DETAILS
10	C5	CIVIL DETAILS
11	C6	CIVIL DETAILS
12	L1	RESTORATION PLAN
13	S1	STRUCTURAL NOTES
14	S2	GENERATOR BUILDING FLOOR PLAN AND SECTIONS
15	S3	GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS
16	S4	GENERATOR BUILDING ELEVATIONS
17	S5	STRUCTURAL DETAILS
18	M1	PUMP STATION DRY WELL MECHANICAL PLAN
19	M2	PUMP STATION WET WELL MECHANICAL PLAN
20	E1	ELECTRICAL LEGEND AND ABBREVIATIONS
21	E2	ELECTRICAL ONE-LINE AND SCHEDULES
22	E3	ELECTRICAL OVERALL SITE PLAN
23	E4	ELECTRICAL GENERATOR BUILDING PLAN
24	E5	INTERCONNECT DIAGRAM
25	E6	PUMP STATION DRY WELL & WET WELL ELECTRICAL PLANS AND SECTIONS

UTILITY SERVICE PROVIDERS:

ELECTRIC/GAS

PENINSULA LIGHT COMPANY
PHONE: 253-857-5950

PUGET SOUND ENERGY
PHONE: 888-225-5773

WATER/SEWER

CITY OF GIG HARBOR UTILITIES
PHONE: 253-847-7555

811 Know what's **below.** **Call** before you dig.

PERMIT SET

REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED S. AZAHARI
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-G
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX

DRAWING NO. 1 OF XX
G1

LAYOUT: G1 PATH: \\parametrix.com\pmx\PS0\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: taylokat DATE: Monday, June 30, 2025 1:30:29 PM

LEGEND:

DESCRIPTION:	EXISTING:	PROPOSED:
ALIGNMENT		
PROPERTY LINE		
MAJOR CONTOUR		
MINOR CONTOUR		
MEAN HIGHER HIGH WATER LINE		
EDGE OF ASPHALT		
EDGE OF GRAVEL		
CONCRETE		
DRAINAGE PIPING		D
COMMUNICATION LOCATES	T	
GAS LOCATES	G	
WATER LOCATES	W	6"W
STORM LOCATES	SD SD	
SEWER LOCATES	SS SS	
OVERHEAD POWER LINE	OP	
FORCEMAIN	FM FM	6"FM
APS POWER LOCATES	P	
EDGE OF VEGETATION/LANDSCAPE		
ROCKERY WALL		
BUILDING OUTLINE		
FOUND MAG NAIL		
SIGN		
BOLLARD		
POWER POLE W/ LIGHT AND TRANSFORMER		
GUY ANCHOR		
POWER JUNCTION BOX	P	
TELEPHONE RISER	TR	
TELEPHONE MANHOLE	T	
WATER METER		
HYDRANT		
GATE VALVE		
SEWER MANHOLE		
SEWER CLEAN OUT	CO	
CONIFER TREE		
DECIDUOUS TREE		
HEDGE		
RHODY		
SHRUB		
CAP/PLUG		
BLIND FLANGE		
FLANGE		
MECHANICAL		
CATCH BASIN		
CATCH BASIN ROUND		
WATER HOSE BIB		
IRRIGATION VALVE		
MAILBOX		
POWER JUNCTION BOX		
POWER METER		
FOUND SURFACE MONUMENT		
FOUND REBAR NO CAP		
FOUND REBAR & CAP		
SET SCRIBE X		
SET MAG NAIL		

ABBREVIATIONS:

AP	ANGLE POINT
APPROX	APPROXIMATE
AVE	AVENUE
BP	BEGINNING POINT
℄	CENTER LINE
CB	CATCH BASIN
CL	CLASS
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONST	CONSTRUCTION
CSTC	CRUSHED SURFACING TOP COURSE
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
E	EAST, EASTING
EA	EACH
EP	END POINT
EX	EXISTING
FH	FIRE HYDRANT
G	GAS
GRND	GROUND
GV	GATE VALVE
HMA	HOT MIX ASPHALT
HYD	HYDRANT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
L	LENGTH, LEFT
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
N	NORTH, NORTHING
NST	NO STEEPER THAN
NW	NORTHWEST
REQ'D	REQUIRED
RJ	RESTRAINED JOINT
R, RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH, SLOPE
SD	STORM DRAINAGE
SE	SOUTHEAST
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD
SW	SOUTHWEST
T	TELEPHONE
TYP	TYPICAL
W	WATER, WEST
W/	WITH

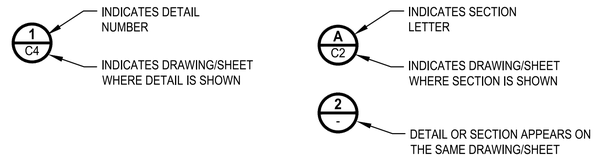
GENERAL NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF GIG HARBOR PUBLIC WORKS STANDARDS AND THE MOST CURRENT VERSION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL SAFETY STANDARDS AND REQUIREMENTS AS SET FORTH BY OSHA, WISHA AND THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE WSDOT STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL BY THE ENGINEER OF RECORD OR CITY'S REPRESENTATIVE. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
4. ALL CURB AND GUTTER, ROADWAY GRADES, SIDEWALK GRADES AND ANY OTHER VERTICAL AND/OR HORIZONTAL ALIGNMENTS SHALL BE STAKED BY A REGISTERED SURVEYOR LICENSED IN THE STATE OF WASHINGTON.
5. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF GIG HARBOR SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
6. IF CONSTRUCTION IS TO TAKE PLACE IN OTHER JURISDICTION'S RIGHT-OF-WAY (I.E., PIERCE COUNTY, THE STATE, OR OTHER ADJACENT MUNICIPALITIES), THE CONTRACTOR SHALL NOTIFY THE CITY. ALL THE REQUIRED APPROVALS AND PERMITS SHALL BE OBTAINED PRIOR TO STARTING WORK. THE CONTRACTOR SHALL REIMBURSE THE CITY FOR ASSOCIATED PERMIT FEES.
7. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR AND PUBLIC WORKS A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF AN APPROVED SET OF PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
10. ALL SURVEYING AND STAKING SHALL BE PERFORMED PER THE CORRESPONDING SECTION OF THE CITY OF GIG HARBOR PUBLIC WORKS STANDARDS.
11. WHERE NEW ASPHALT JOINS EXISTING, THE EXISTING ASPHALT SHALL BE CUT TO A NEAT VERTICAL EDGE AND TACKED WITH ASPHALT EMULSION TYPE CSS-1 IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE NEW ASPHALT SHALL BE FEATHERED BACK OVER THE EXISTING TO PROVIDE FOR A SEAL AT THE SAW CUT LOCATION AND THE JOINT IS TO BE SEALED WITH GRADE AR-4000W PAVING ASPHALT.
12. COMPACTION OF SUB-GRADE, ROCK, AND ASPHALT SHALL BE IN ACCORDANCE WITH THE MOST CURRENT ADOPTED VERSION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
13. FORM AND SUB-GRADE INSPECTION BY THE CITY IS REQUIRED BEFORE POURING CONCRETE. 24 HOURS' NOTICE TO THE CITY IS REQUIRED FOR FORM INSPECTION.
14. SEE THE CITY OF GIG HARBOR PUBLIC WORKS STANDARDS, SECTION 2B.200, FOR TESTING AND SAMPLING FREQUENCIES.
15. ALL SIGN SHEETING SHALL BE HIGH INTENSITY PRISMATIC RETROREFLECTIVE AND IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
16. UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. CALL UNDERGROUND LOCATE LINE AT 1-800-424-5555 (OR 811) A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS.
17. CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT / LIMIT ANY UNNECESSARY DAMAGE TO ALL PRIVATE AND PUBLIC EXISTING FEATURES
18. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO DRIVEWAYS AND LOCAL TRAFFIC AT ALL TIMES.
19. CONTRACTOR MUST FIELD VERIFY ALL SURVEY.

EROSION AND SEDIMENT CONTROL NOTES:

1. TEMPORARY EROSION CONTROL/WATER POLLUTION PREVENTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15 OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, THE DEPARTMENT OF ECOLOGY NPDES REQUIREMENTS AND THE CITY OF GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL. AT NO TIME WILL SILT AND DEBRIS BE ALLOWED TO DRAIN INTO AN EXISTING OR NEWLY INSTALLED FACILITY UNLESS SPECIAL PROVISIONS HAVE BEEN DESIGNED. PROJECTS THAT EXCEED ONE ACRE OR MORE IN SIZE ARE REQUIRED TO OBTAIN A GENERAL CONSTRUCTION STORM WATER PERMIT.
2. CONTRACTOR TO DEVELOP SOIL EROSION AND WATER POLLUTION/FLOOD CONTROL PLANS WHICH ARE TO BE SUBMITTED TO THE CITY. APPROVED BY THE CITY, AND IMPLEMENTED BY THE CONTRACTOR PRIOR TO DISTURBING ANY SOIL ON SITE. SUBMITTAL AND APPROVAL OF THESE PLANS SHALL PRECLUDE ANY CONSTRUCTION ACTIVITY ON THE SITE.
3. THE CONSTRUCTION, ADJUSTMENT, MAINTENANCE, AND UPGRADING OF THESE EROSION CONTROL MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE PROJECT.
4. SHOULD THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THESE DRAWINGS NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
5. INSTALL MEASURES WITHIN THE RIGHT OF WAY AND EASEMENTS UNLESS DIRECTED OTHERWISE.
6. PAVED AREAS ARE TO BE KEPT CLEAN DURING THE DURATION OF CONSTRUCTION.
7. PROTECT ALL INLETS DURING SURFACE GRINDING, PAVING, AND EARTHWORK OPERATIONS TO PREVENT POLLUTANTS FROM ENTERING STORM WATER SYSTEMS.
8. CONTRACTOR SHALL PROVIDE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT OR REDUCE THE MOVEMENT OF SEDIMENT FROM THE SITE DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO PROTECTION OF INLETS WITHIN 100 FEET OF THE WORK AREA.

DETAIL AND SECTION DESIGNATION



811 Know what's below. Call before you dig.

PERMIT SET

REVISIONS	DATE	BY

DESIGNED M.HARRIS
DRAWN M.HARRIS
CHECKED S. AZAHARI
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-G
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERAL NOTES, LEGENDS & ABBREVIATIONS

DRAWING NO. 2 OF XX

G2

PATH: \\parametrix.com\pmx\P50\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: G2
PLOTTED BY: taylakat DATE: Monday, June 30, 2025 1:31:11 PM

STORMWATER NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT CITY OF GIG HARBOR STANDARDS AND THE MOST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT.APWAO AND AS AMENDED BY THE CITY OR STATE.

2. TEMPORARY EROSION/WATER POLLUTION PREVENTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH THE CURRENT CITY OF GIG HARBOR STORMWATER MANAGEMENT & SITE DEVELOPMENT MANUAL AND THE DEPARTMENT OF ECOLOGY'S CONSTRUCTION STORMWATER GENERAL PERMIT.

   SHOULD THE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THIS DRAWING NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION, THE APPLICANT /CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSE, AND/OR STORM DRAINAGE SYSTEMS.

3. CALL THE UNDERGROUND LOCATE LINE 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS.

4. THE STORM DRAINAGE SHALL BE CONSTRUCTED ACCORDING TO APPROVED PLANS ON FILE WITH THE CITY. ANY SIGNIFICANT DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL FROM THE CITY.

5. A COPY OF THE APPROVED CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN AND STORMWATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS ALONG WITH THE TESC LEAD CONTACT INFORMATION.

6. ALL EROSION CONTROL AND STORMWATER FACILITIES SHALL BE REGULARLY INSPECTED AND MAINTAINED BY THE DESIGNATED CERTIFIED EROSION CONTROL AND SEDIMENT CONTROL LEAD (CESCL) DURING CONSTRUCTION.

7. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN ENCROACHMENT PERMIT AND OTHER RELATED OR REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY IN THE CITY'S RIGHT-OF-WAY. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL ABIDE BY ALL REQUIREMENTS FOR TRAFFIC CONTROL & SAFETY WHEN WORKING IN THE ROAD RIGHT-OF-WAY.

8. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN THE EVENT OR DISCOVERY OF POOR SOILS, STANDING GROUNDWATER, OR SEVERE DISCREPANCIES FROM SOIL LOG DESCRIPTIONS AS NOTED ON THE PLANS.

9. FOR PUBLIC SYSTEMS, THE CONTRACTOR SHALL CALL FOR INSPECTION 48 HOURS PRIOR TO COVERING ANY DRAINAGE STRUCTURE OR PIPE.

10. ALL DRAINAGE STRUCTURES NOT LOCATED WITHIN A TRAVELED ROADWAY, FLOW PATH, OR CURB, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS ALL CATCH BASIN STRUCTURES THAT COLLECT STORMWATER ON SLOPES 5% OR STEEPER OR ARE LOCATED WITHIN BICYCLE PATHWAYS SHALL HAVE VANED GRATE LIDS. ALL CATCH BASINS IN PEDESTRIAN TRAVEL WAYS SHALL HAVE SOLID LOCKING LIDS, UNLESS APPROVED BY THE CITY ENGINEER.

SANITARY SEWER NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF GIG HARBOR PUBLIC WORKS STANDARDS AND THE MOST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.

2. ALL SAFETY STANDARDS AND REQUIREMENTS SHALL BE COMPLIED WITH AS SET FORTH BY OSHA, WISHA AND WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.

3. THE PUBLISHED WSDOT DATUM SHALL BE USED FOR ALL VERTICAL CONTROL. A LIST OF BENCHMARKS IS AVAILABLE WITHIN THE PLANS.

4. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF GIG HARBOR SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

5. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY AND/OR WASHINGTON STATE DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE CITY. THE CITY WILL OBTAIN THE COUNTY AND/OR WSDOT PERMIT(S) AND PROVIDE A COPY TO THE CONTRACTOR. THE CONTRACTOR SHALL REIMBURSE THE CITY FOR ASSOCIATED PERMIT FEES.

6. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR PRIOR TO THE START OF CONSTRUCTION.

7. THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF A TAP CONNECTION TO AN EXISTING MAIN OR LATERAL. THE INSPECTOR SHALL BE PRESENT AT THE TIME OF THE TAP. ANY MATERIAL REMOVED IN THE TAP PROCESS MUST BE GIVEN TO THE CITY INSPECTOR AT THE TIME OF THE TAP.

8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

9. GRAVITY SEWER MAIN SHALL BE GREEN PVC, ASTM D 3034 SDR 35 OR ASTM F 589 WITH JOINTS AND RUBBER GASKETS CONFORMING TO ASTM D 3212 AND ASTM F 455, AND SHALL BE GREEN IN COLOR.

10. NEW MANHOLES WHERE A FORCE MAIN TERMINATES INTO, AND GRAVITY MANHOLES AS DETERMINED BY THE CITY AND AS INDICATED ON THE PLANS, MUST BE PROPERLY COATED INSIDE WITH A RAVEN LINER 405 WASTEWATER EPOXY OR APPROVED EQUAL TO PREVENT HYDROGEN SULFIDE CORROSION.

11. MANHOLE FRAMES AND COVERS SHALL HAVE A DUCTILE IRON CASTING MARKED "SEWER" AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 120,000 LBS. AND MEET AASHTO M 306 STANDARDS. COVERS SHALL BE ONE-MAN OPERABLE USING STANDARD TOOLS. COVERS SHALL BE HINGED AND INCORPORATE A 90 DEGREE BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE AND COME COMPLETE WITH HINGE INFILTRATION PLUG. FRAMES SHALL BE CIRCULAR AND SHALL INCORPORATE A SEALING RING AND PROVIDE A 24 IN. CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 4 IN. AND THE FLANGES SHALL INCORPORATE BEDDING SLOTS AND BOLT HOLES. ALL COMPONENTS SHALL BE BLACK COATED WITH A TOTAL WEIGHT NOT TO EXCEED 200 LBS. THE MANUFACTURER SHALL BE EAST JORDAN IRON WORKS, OLYMPIC FOUNDRY OR AN APPROVED EQUAL. LOCK-TYPE COVERS SHALL BE REQUIRED IN ALL MULTI-FAMILY COMPLEXES, ON SCHOOL GROUNDS, ON MANHOLES CONTAINING ODOR CONTROL DEVICES, AS INDICATED ON THE PLANS, OR AS DETERMINED BY THE CITY.

12. ALL SEWER MAINS SHALL BE FIELD STAKED FOR GRADES AND ALIGNMENT BY A LICENSED ENGINEERING OR SURVEYING FIRM QUALIFIED TO PERFORM SUCH WORK.

13. ALL PLASTIC PIPE AND SERVICES SHALL BE INSTALLED WITH CONTINUOUS TRACER TAPE INSTALLED 12" TO 18" UNDER THE PROPOSED FINISHED SUB GRADE. THE MARKER SHALL BE PLASTIC NON-BIODEGRADABLE, METAL CORE OR BACKING, MARKED "SEWER" WHICH CAN BE DETECTED BY A STANDARD METAL DETECTOR. IN ADDITION, FORCE MAINS SHALL BE INSTALLED WITH 14 GAUGE COATED COPPER WIRE WRAPPED AROUND ALL PLASTIC PIPE, BROUGHT UP AND TIED OFF AT VALVE BODY. TAPE SHALL BE TERRA TAPE "D" OR APPROVED EQUAL. THE TAPE AND WIRE SHALL BE FURNISHED BY THE CONTRACTOR. ALL SEWER PIPE SHALL BE GREEN IN COLOR. IF PIPE USED IS NOT GREEN IN COLOR A PVC SHEATHING OR 'POLYWRAP' SHALL BE INSTALLED ON PIPE DURING CONSTRUCTION.

14. COMPACTION OF THE BACKFILL MATERIAL SHALL BE REQUIRED IN ACCORDANCE WITH THE ABOVE MENTIONED SPECIFICATION (SEE NOTE #1). REFER TO THE APPLICABLE CITY OF GIG HARBOR STANDARD DETAILS 2-14 THROUGH 2-16 AND AS SHOWN ON THE PLANS. NO PEA GRAVEL WILL BE ALLOWED AS PIPE BEDDING.

15. TEMPORARY STREET PATCHING SHALL BE ALLOWED AS APPROVED BY THE CITY ENGINEER. TEMPORARY STREET PATCHING SHALL BE PROVIDED BY PLACEMENT AND COMPACTION OF 1 IN. MAXIMUM ASPHALT CONCRETE COLD MIX. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AS REQUIRED.

16. EROSION CONTROL MEASURES SHALL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO PREVENT INFILTRATION OF EXISTING AND PROPOSED STORM DRAINAGE FACILITIES AND ROADWAYS.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH SECTION 2B.126 OF THE GIG HARBOR PUBLIC WORKS STANDARDS, THE WSDOT STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ALL APPLICABLE "K" PLANS) AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK SHALL COMMERCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.

18. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF THE APPROVED PLANS ON CONSTRUCTION SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

19. ANY CHANGES TO THE DESIGN SHALL FIRST BE REVIEWED AND APPROVED BY THE PROJECT ENGINEER AND THE CITY OF GIG HARBOR.

20. ALL NEW FORCEMAINS SHALL BE HIGH VELOCITY CLEANED, PRESSURE TESTED, AND VIDEO INSPECTED PRIOR TO PAVING IN CONFORMANCE WITH THE ABOVE REFERENCED SPECIFICATIONS. HYDRANT FLUSHING OF LINES IS NOT AN ACCEPTABLE CLEANING METHOD TESTING OF THE SANITARY SEWER MAIN SHALL INCLUDE VIDEOTAPING OF THE MAIN BY THE CONTRACTOR. IMMEDIATELY PRIOR TO VIDEOTAPING, ENOUGH WATER SHALL BE RUN DOWN THE LINE SO IT COMES OUT THE LOWER MANHOLE. THE CONTRACTOR SHALL INSTALL A SCREEN AT THE LOWER MANHOLE TO CATCH ALL DEBRIS. A COPY OF THE VIDEO SHALL BE SUBMITTED TO THE CITY OF GIG HARBOR. ACCEPTANCE OF THE LINE WILL BE MADE AFTER THE VIDEO HAS BEEN REVIEWED AND APPROVED BY THE INSPECTOR. ANY BELLIES IN MAIN GREATER THAN 3/8" SHALL BE DUG UP AND REPAIRED PRIOR TO ACCEPTANCE. A RE-INSPECTION VIDEO WILL BE REQUIRED AFTER REPAIR HAS BEEN MADE. A WATER OR VACUUM TEST OF ALL MANHOLES IN ACCORDANCE WITH GIG HARBOR STANDARDS IS ALSO REQUIRED. TESTING SHALL TAKE PLACE AFTER ALL UNDERGROUND UTILITIES ARE INSTALLED AND COMPACTION OF THE ROADWAY SUB GRADE IS COMPLETED. AFTER THE PAVING AND RAISING OF MANHOLES IS COMPLETE, THE CONTRACTOR SHALL CLEAN THE SEWER CONVEYANCE SYSTEM AGAIN AT THE CONTRACTOR'S EXPENSE. THE METHOD OF CLEANING SHALL BE A HIGH VELOCITY WATER PRESSURE CLEANING. ALL ROCKS AND DEBRIS SHALL BE REMOVED AND BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

21. CONTRACTORS SHALL BE RESPONSIBLE FOR CLEANUP OF ANY DEBRIS IN NEW OR EXISTING MANHOLES AND MAINS ASSOCIATED WITH THE PROJECT AFTER THE NEW LINES ARE CLEANED AS OUTLINED ABOVE.

22. PRIOR TO BACKFILL, ALL MAINS AND APPURTENANCES SHALL BE INSPECTED AND APPROVED BY THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR. APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FOR CORRECTION OF ANY DEFICIENCIES AND/OR FAILURES AS DETERMINED BY SUBSEQUENT TESTING AND INSPECTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CITY OF GIG HARBOR FOR THE REQUIRED INSPECTIONS.

23. WHEN USING STEEL PLATES OVER THE TRENCH, "STEEL PLATES AHEAD" AND "MOTORCYCLES USERS EXTREME CAUTION" SIGNS SHALL BE REQUIRED.

LIFT STATION INSTALLATION NOTES:

1. ALL WORKMANSHIP, MATERIALS AND TESTING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, NATIONAL ELECTRICAL CODE AND CITY OF GIG HARBOR STANDARDS UNLESS OTHERWISE SPECIFIED BELOW. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY. WHEN THE MOST STRINGENT STANDARD IS NOT CLEAR, THE CITY ENGINEER WILL MAKE THE DETERMINATION. THE ELECTRICAL CONTRACTOR SHALL BE FAMILIAR WITH ALL ABOVE STATED PUBLICATIONS AND GUIDELINES AS THEY WILL BE STRICTLY ENFORCED BY THE CITY.

2. ANY CHANGES TO THE STATION DESIGN SHALL FIRST BE REVIEWED AND APPROVED BY THE PROJECT ENGINEER AND THE CITY OF GIG HARBOR.

3. CONTRACTORS SHALL BE RESPONSIBLE FOR CLEANUP OF ANY DEBRIS IN THE WET WELL, DRY PIT, AND SITE ASSOCIATED WITH THE PROJECT PRIOR TO START UP.

4. PRIOR TO BACKFILL, ALL MAINS, DRY PIT, WET WELLS AND VAULTS SHALL BE INSPECTED AND APPROVED BY THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR AND/OR SPECIAL INSPECTIONS BY APPROVED INSPECTION FIRM. APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FOR CORRECTION OF ANY DEFICIENCIES AND/OR FAILURES AS DETERMINED BY SUBSEQUENT TESTING AND INSPECTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CITY OF GIG HARBOR FOR THE REQUIRED INSPECTIONS.

5. ALL WORK SHALL BE DONE PER THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE CITY OF GIG HARBOR STANDARDS. THE CITY OF GIG HARBOR STANDARDS MAY EXCEED THE N.E.C.THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE INSPECTIONS.

6. THE CONTRACTOR SHALL COORDINATE POWER SERVICE WITH SERVING UTILITIES AND MAKE ARRANGEMENTS FOR POWER SERVICE CONNECTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN POWER SERVICE FOR PRIVATE LIFT STATIONS SERVING COMMERCIAL PROPERTIES OR DEVELOPMENTS.

7. PRIOR TO TESTING AND START-UP OF THE LIFT STATION, THREE HARD COPIES AND TWO ELECTRONIC COPIES OF THE OPERATION AND MAINTENANCE MANUAL, TOGETHER WITH THE NUMBER OF APPROVED COPIES REQUIRED BY THE CONTRACTOR, SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL. EQUIPMENT SPECIFIC MANUALS SHALL BE DELIVERED WITH EQUIPMENT OR PRIOR TO DELIVERY, BUT NO LATER THAN DELIVERY.

8. THE CONTRACTOR, AT ITS OWN EXPENSE WITH THE DESIGN ENGINEER AND ALL OTHER PARTIES INVOLVED IN THE LIFT STATION CONSTRUCTION, SHALL ARRANGE FOR AN AUTHORIZED FACTORY TRAINED REPRESENTATIVE OF THE COMPANY OR COMPANIES SUPPLYING THE VARIOUS ITEMS OF EQUIPMENT TO CHECK THE INSTALLATION, ADJUST AND TEST THE EQUIPMENT FURNISHED BEFORE THE ACCEPTANCE OF THE WORK BY THE CITY. THE FACTORY REPRESENTATIVE SHALL BE RESPONSIBLE TO CHECK AND RESOLVE ANY UNACCEPTABLE VIBRATION OF THE PUMP ASSEMBLIES. FURTHERMORE, THE CONTRACTOR SHALL ASSIST AND INSTRUCT THE CITY'S OPERATING STAFF IN ADJUSTING AND OPERATING THE EQUIPMENT DURING THE INITIAL START-UP PERIOD. THEY SHALL ALSO PROVIDE A FOLLOW UP TRAINING SESSION AFTER 6 MONTHS OF OPERATIONS. SAID REPRESENTATIVE SHALL BE EXPERIENCED AND KNOWLEDGEABLE OF THE EQUIPMENT BEING TESTED.

9. THE CONTRACTOR, AT ITS OWN EXPENSE, SHALL CONDUCT AN INSTRUCTION PROGRAM FOR UP TO FIVE PERSONNEL DESIGNATED BY THE CITY. THE CONTRACTOR SHALL FURNISH THE SERVICES OF QUALIFIED INSTRUCTORS FROM THE VARIOUS EQUIPMENT MANUFACTURERS. PROGRAM SHALL INCLUDE INSTRUCTION COVERING BASIC SYSTEM OPERATION THEORY, ROUTINE MAINTENANCE AND REPAIR, AND HANDS-ON OPERATION OF EQUIPMENT. TRAINING SHALL NOT PROCEED UNTIL ALL OPERATION MAINTENANCE MANUALS ARE COMPLETE AND ACCEPTED BY THE CITY.

10. ALL EQUIPMENT SHALL BE TESTED AND CONTRACTOR SHALL DEMONSTRATE TO CITY PERSONNEL THAT PROPER OPERATION AND CAPACITY HAVE BEEN FULLY OBTAINED. THE CITY WILL NOT ACCEPT ANY FACILITY UNTIL SUCCESSFUL FULL OPERATION OF ALL COMPONENTS HAS BEEN DEMONSTRATED BY THE CONTRACTOR.

11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT AND START-UP A COMPLETE AND TROUBLE-FREE SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ALL DESIGN ERRORS AND/OR CONSTRUCTION DEFECTS THAT ARE DISCOVERED IN THE START-UP OR DURING THE WARRANTY PERIOD OF THE AGREEMENT WITH THE CITY.

12. THE CONTRACTOR SHALL GIVE INITIAL LUBRICATION TO ALL EQUIPMENT AS REQUIRED BY THE PART OR COMPONENT MANUFACTURER.

13. LIFT STATION AND GENERATOR, SITE, DRIVEWAY, ACCESS, CONCRETE AREAS, LIGHTING AND WATER SERVICE SHALL ALL BE COMPLETED PRIOR TO START-UP REQUEST AND INSPECTION.

14. GENERATOR AND A 24-HOUR FUEL STORAGE TANK SHALL BE MOUNTED ON A CONCRETE PAD. THE GENERATOR SHALL HAVE WEATHER PROOF SOUND DAMPENING ENCLOSURE, BLOCK HEATER, BATTERY CHARGER, AUTO EXERCISER, RADIATOR LOUVERS OR PROTECTION AND SHALL COMPLY WITH ALL REQUIREMENTS IN SECTION 5C.070 OF THE CITY OF GIG HARBOR STANDARDS AND AS SHOWN ON THE PLANS AND SPECIFIED.

15. TELEMETRY SHALL BE SET UP COMPLETELY AND COORDINATED WITH THE MISSION INCLUDING REVISING TELEMETRY COMPUTER SCREENS AT GIG HARBOR WASTEWATER TREATMENT PLANT PRIOR TO START UP REQUEST AND ACCEPTANCE.

16. SPECIFIC SPARE PARTS SHALL BE PROVIDED FOR THE STATION AT TIME OF STARTUP ACCEPTANCE:

    16.1. ONE SET MECHANICAL SEALS
    16.2. ONE SET O-RINGS.
    16.3. ONE SET OF PUMP WEAR RINGS.

    ADDITIONALLY, ANY SPECIAL TOOLS SPECIFIC TO THE PUMP MANUFACTURER SHALL BE PROVIDED TO THE CITY OF GIG HARBOR AT START UP.

Know what's **below.**
Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M.HARRIS
DRAWN M.HARRIS
CHECKED S. AZAHARI
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-G
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

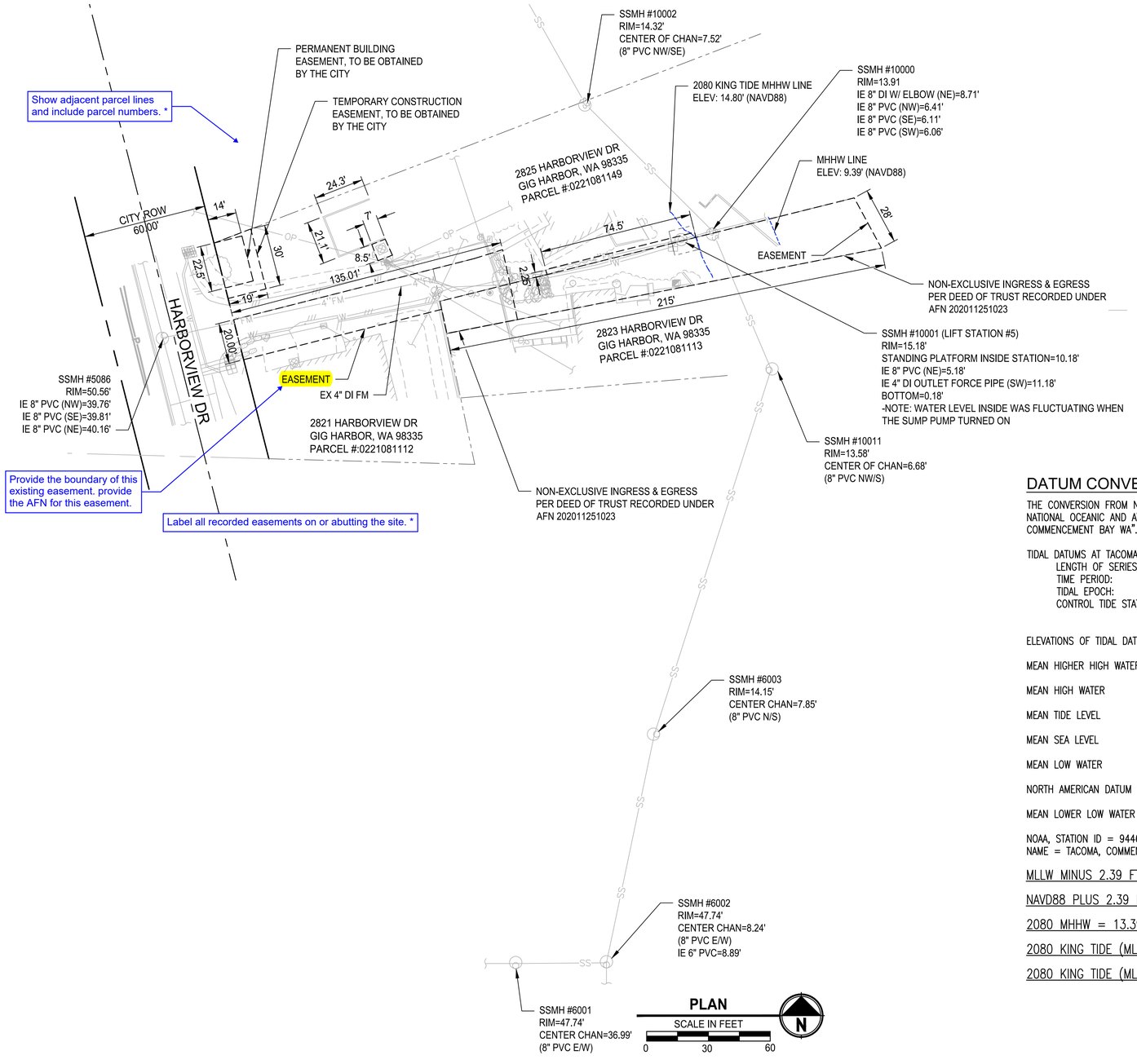
Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

STORMWATER, SEWER, AND LIFT STATION NOTES

DRAWING NO. 3 OF XX
G3

PLOTTED BY: taylakat DATE: Monday, June 30, 2025 1:31:42 PM
PATH: \\parametrix.com\pmx\P50\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: G3



HORIZONTAL DATUM:

HORIZONTAL DATUM FOR THIS SURVEY IS NAD 1983(11), WASHINGTON PLANE SOUTH ZONE COORDINATE SYSTEM, U.S. SURVEY FEET. THE HORIZONTAL DATUM IS BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATIONS GP27016–123 (PMX #1000) AND GP27016–131 (PMX #1001).

POINT DESIGNATION: GP27016–123 (PMX #1000)
NORTHING: 716504.430
EASTING: 1128920.652

POINT DESIGNATION: GP27016–131 (PMX #1001)
NORTHING: 725891.117
EASTING: 1125316.234

VERTICAL DATUM:

VERTICAL DATUM IS NAVD88 BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATIONS GP27016–123 (PMX #1000) & GP27016–12131 (PMX #1001)

POINT DESIGNATION: GP27016–123 (PMX #1000)
ELEVATION: 242.414

POINT DESIGNATION: GP27016–12131 (PMX #1001)
ELEVATION: 334.274

SURVEY NOTES:

1. THIS MAP CORRECTLY REPRESENTS CONDITIONS AND FEATURES EXISTING AT THE TIME OF THIS SURVEY IN AUGUST, 2024.

2. CONVENTIONAL AND GPS SURVEY EQUIPMENT WAS USED IN THE PERFORMANCE OF THIS SURVEY. ALL EQUIPMENT IS MAINTAINED IN CONFORMANCE WITH CURRENT STATE STATUTE.

3. THIS SURVEY WAS PREPARED BY FIELD TRAVERSE AS PER WAC 332–130–090, PART C. RELATIVE ACCURACY EXCEEDS 1 FOOT IN TEN THOUSAND.

4. ALL SURFACE FEATURES AND INVERT STRUCTURE ELEVATION SHOWN HEREON WERE FIELD LOCATED AND MEASURED BY PARAMETRIX FOR THIS SURVEY. UNDERGROUND UTILITY LINES ARE BASED UPON A COMBINATION OF ASBUILT PLANS, SURFACE FEATURE MEASUREMENTS AND ONSITE UNDERGROUND UTILITY MARKINGS PERFORMED BY OTHERS.

5. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

6. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON PUBLIC INFORMATION PROVIDED BY THE PIERCE COUNTY ASSESSOR'S OFFICE. BOUNDARY LINES ACCURATELY SHOWN AND CAN BE USED FOR DESIGN ACTIVITIES THAT WILL RELY ON AN ACCURATE REPRESENTATION OF BOUNDARY INFORMATION.

7. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT, WHICH MAY REVEAL RESTRICTIONS OR EASEMENTS OF RECORD. ACCORDINGLY, NONE ARE SHOWN HEREON.

8. ALL DISTANCES TO FENCES AND STRUCTURES ARE MEASURED AT RIGHT ANGLES TO THE PROPERTY LINES.

9. CONTOURS SHOWN USING NATIONAL MAPPING STANDARDS, ONE–HALF THE CONTOUR INTERVAL.

10. THE INTENDED PURPOSE OF THIS SURVEY IS FOR CIVIL ENGINEERING DESIGN OF LIFT STATION #5.

11. CONTOURS DERIVED FROM DIRECT FIELD OBSERVATIONS.

12. REFERENCE SURVEYS:
- –ROS AFN 200408125014
- –ROS AFN 200512155005
- –SP AFN 200702215003
- –ROS AFN 201611025007
- –BLA AFN 201712225004
- –SP AFN 201911255002

DATUM CONVERSION NOTE:

THE CONVERSION FROM NAVD88 TO MEAN LOWER LOW WATER (MLLW) DATUM WAS REFERENCED TO NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) TIDAL BENCHMARK "TACOMA, COMMENCEMENT BAY WA".

TIDAL DATUMS AT TACOMA, COMMENCEMENT BAY WA, BASED ON:

LENGTH OF SERIES:	18 YEARS
TIME PERIOD:	JANUARY 1999– DECEMBER 2016
TIDAL EPOCH:	1983–2001
CONTROL TIDE STATION:	9447130 SEATTLE, PUGET SOUND

ELEVATIONS OF TIDAL DATUMS REFERRED TO MEAN LOWER LOW WATER (MLLW), IN FEET.

MEAN HIGHER HIGH WATER	MHHW	11.78 FT
MEAN HIGH WATER	MHW	10.90FT
MEAN TIDE LEVEL	MTL	6.87 FT
MEAN SEA LEVEL	MS	6.84 FT
MEAN LOW WATER	MLW	2.84 FT
NORTH AMERICAN DATUM 1988	NAV88	2.39 FT
MEAN LOWER LOW WATER	MLLW	0.00 FT

NOAA, STATION ID = 9446484, NOAA CHART = 18453
NAME = TACOMA, COMMENCEMENT BAY WA

MLLW MINUS 2.39 FT = NAVD88 ELEVATION

NAVD88 PLUS 2.39 FT = MLLW ELEVATION

2080 MHHW = 13.39 FT = 11.00 FT NAVD88

2080 KING TIDE (ML) = 12.41 FT (TIDAL DATUM)

2080 KING TIDE (ML) = 14.8 FT NAVD88

Know what's **below.**
Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN J. BETZVOG
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 216750046–AL
JOB No. 216–2750–048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ALIGNMENT PLAN

DRAWING NO. 3 OF XX

AL1

PATH: U:\PSO\Projects\Clients\2750–CityOfGigHarbor\216–2750–048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: taylokat DATE: Monday, June 30, 2025 1:22:42 PM
LAYOUT: AL1



EXISTING POWER METER REMOVAL
REFERENCE PHOTO 1
NO SCALE -

APPROXIMATE LOCATION OF NO PARKING SIGN, FIRE HYDRANT, POWER POLE AND POWER METER (NOT SURVEYED)

REMOVE AND REPLACE POWER METER, ELECTRICAL DISCONNECT PANELS, AND PANEL MOUNTING.

EXISTING 8" HOLLY (ILEX BOTANICAL GENUS, UNKNOWN SPECIES) TREE TO BE REMOVED

SIGN WITH ADDRESSES TO BE RELOCATED TEMPORARILY

MH 4-31

HARBORVIEW DR

4' TRENCH WIDTH

4' MIN TRENCH WIDTH

REMOVE APPROX. 22 LF OF EXISTING FORCE MAIN PIPING

20' X 14' EXCAVATION AREA FOR VAULT

MH 5-2

2080 KING TIDE MHHW ELEVATION=14.8' (NAVD88)

MH 5-3

SURVEYED MHHW ELEVATION=9.4' (NAVD88)

NON-EXCLUSIVE INGRESS & EGRESS PER DEED OF TRUST RECORDED UNDER AFN 202011251023

MH 5-4

378.84'

PLAN
SCALE IN FEET
0 20 40
N

LEGEND:

- DEMOLISH AND REMOVE EXISTING
- CUT AND CAP
- TRENCH EXTENTS



REFERENCE PHOTO 2
NO SCALE -



REFERENCE PHOTO 3
NO SCALE -



EXISTING LIFT STATION
REFERENCE PHOTO 4
NO SCALE -

DEMOLITION NOTES:

1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
2. CONTRACTOR SHALL PROTECT ALL CATCH BASIN INLETS WITHIN 100' OF THE WORK AREA

DEMOLITION NOTES:

1. REMOVE EXISTING POWER METER. CONTRACTOR SHALL COORDINATE WITH PENINSULA LIGHT CO.
2. AFTER SUCCESSFUL COMMISSIONING OF NEW PUMP STATION, REMOVE & DECOMMISSION EXISTING LIFT STATION DRY WELL AND TOP SLAB. EXISTING LIFT STATION DRY WELL IS LOCATED BELOW GRADE AND ON TOP OF THE EXISTING WET WELL. EXISTING WET WELL SHALL REMAIN.
3. ABANDON APPROX 85 LF OF 4-INCH DUCTILE IRON FORCE MAIN IN PLACE BETWEEN CUT AND CAP.
4. CONTRACTOR SHALL COORDINATE WITH OWNER FOR EQUIPMENT TO BE SALVAGED.
5. JAPANESE MAPLE TO BE REPLACED IN KIND AFTER CONSTRUCTION.

TESC NOTES:

1. INSTALL HIGH VISIBILITY SILT FENCE PER WSDOT STANDARD PLAN I-10.10-01.
2. INSTALL SILT FENCE PER WSDOT STANDARD DETAIL I-30.10-02 OR I-30.15-02.
3. STORM DRAIN INLET PROTECTION, SEE WSDOT STANDARD PLAN I-40.20-00.
4. PROTECT EXISTING UTILITY POLE IN PLACE
5. TEMPORARILY RELOCATE EXISTING MAILBOXES IN PLACE
6. PROTECT EXISTING LANDSCAPING/ROCKERY AND REPLACE IN KIND AS NEEDED.
7. PROTECT EXISTING FORCEMAIN
8. PROTECT EXISTING POWER
9. PROTECT EXISTING STORM DRAIN
10. PROTECT EXISTING WATER

Know what's below. Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-D
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER STATE OF WASHINGTON 46055 REGISTERED PROFESSIONAL ENGINEER
6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

DEMOLITION AND TESC PLAN

DRAWING NO. 4 OF XX
D1

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
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LAYOUT: D1

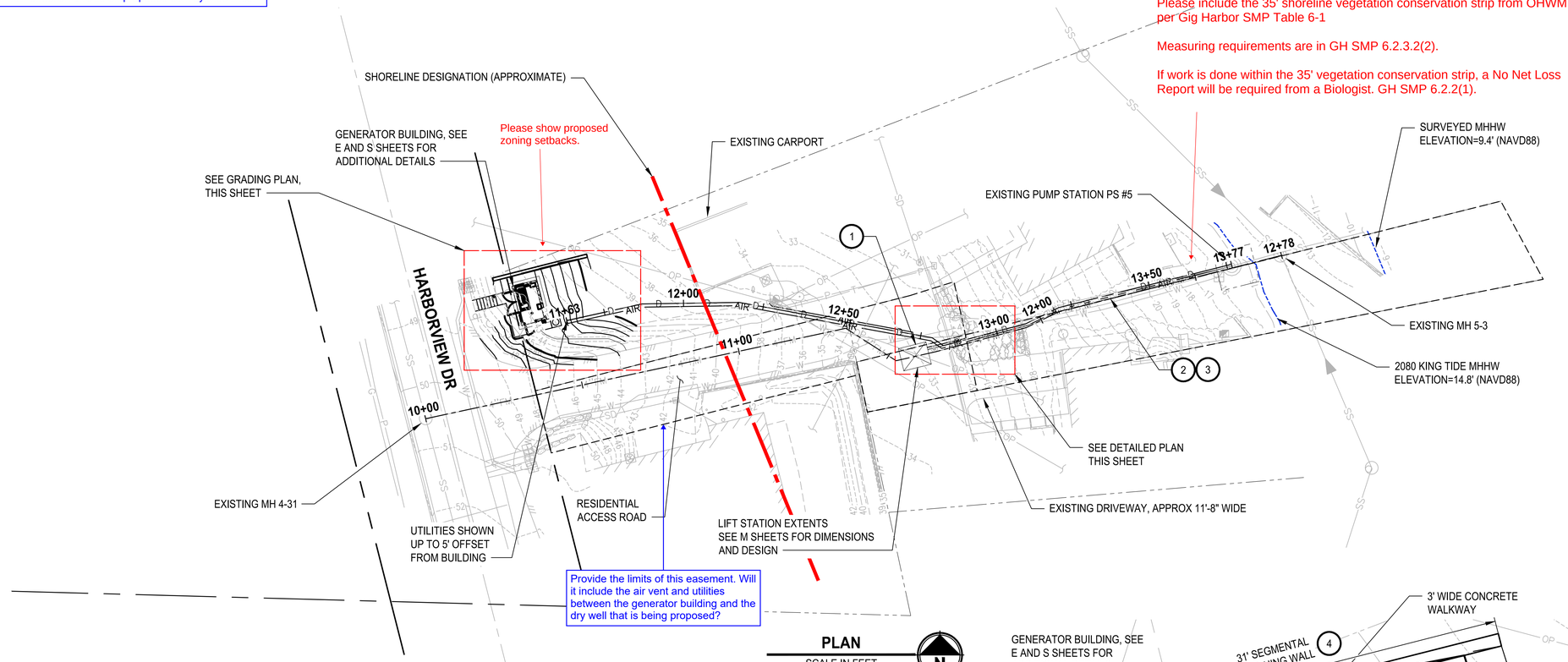
Provide a legend for this sheet. **

Show flow direction arrows on proposed conveyance lines. *

Please include the 35' shoreline vegetation conservation strip from OHWM per Gig Harbor SMP Table 6-1

Measuring requirements are in GH SMP 6.2.3.2(2).

If work is done within the 35' vegetation conservation strip, a No Net Loss Report will be required from a Biologist. GH SMP 6.2.2(1).



Provide the limits of this easement. Will it include the air vent and utilities between the generator building and the dry well that is being proposed?

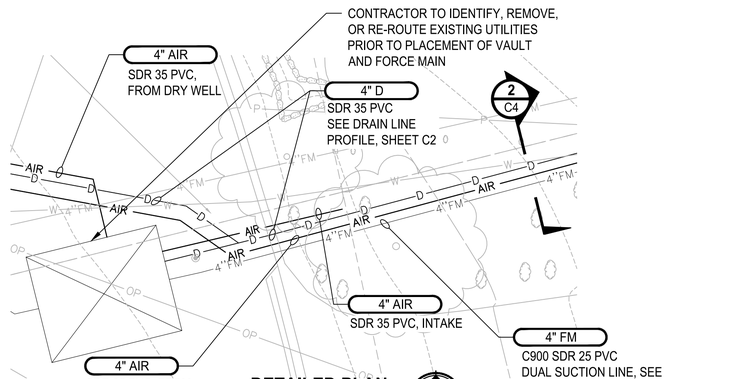
PLAN
SCALE IN FEET
0 20 40

NOTES:

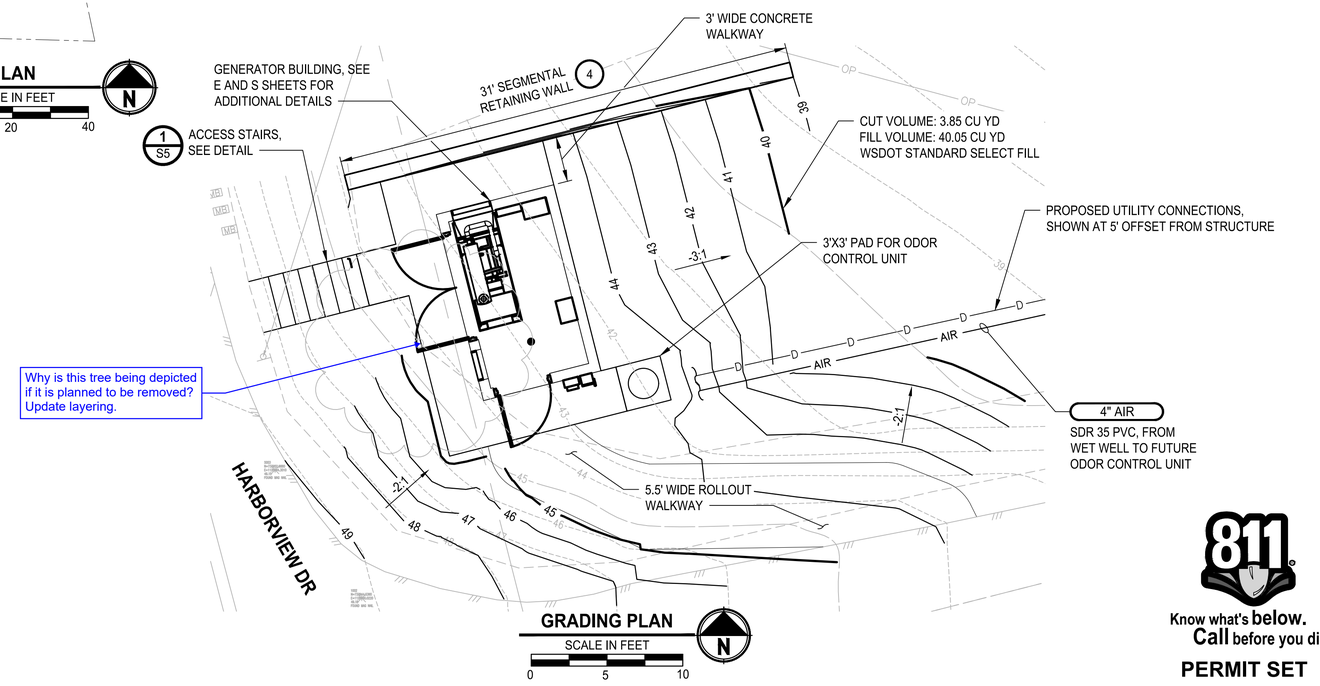
1. 4" DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPARATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED PER COGH STANDARD DETAILS 4-17 AND 4-18.
3. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.

CONSTRUCTION NOTES:

1. INSTALL PROPOSED SMITH AND LOVELESS PACKAGE PUMP STATION, SEE DETAILS, SHEET M1.
2. INSTALL PROPOSED 4" PVC C900 SDR 25 DUAL PUMP SUCTION LINES. SEE SHEET C2 FOR PLAN AND PROFILE
3. ALL ELECTRICAL AND CONTROLS CONDUIT, 4" ODOR CONTROL AND DRAIN LINE SHALL BE INSTALLED IN SAME TRENCH AS DUAL 4" PUMP SUCTION LINE. FOR PIPELINE SPACING AND TRENCH CONFIGURATION SEE DETAIL 2/C4
4. SEGMENTAL EARTHWALL SHALL BE DEISIGNED PER WSDOT STANDARD SPECIFICATIONS SECTION 6-13. SEE DETAIL 3/C4



DETAILED PLAN
SCALE IN FEET
0 5 10



GRADING PLAN
SCALE IN FEET
0 5 10

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PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER STATE OF WASHINGTON 46055 REGISTERED PROFESSIONAL ENGINEER
6/30/2025

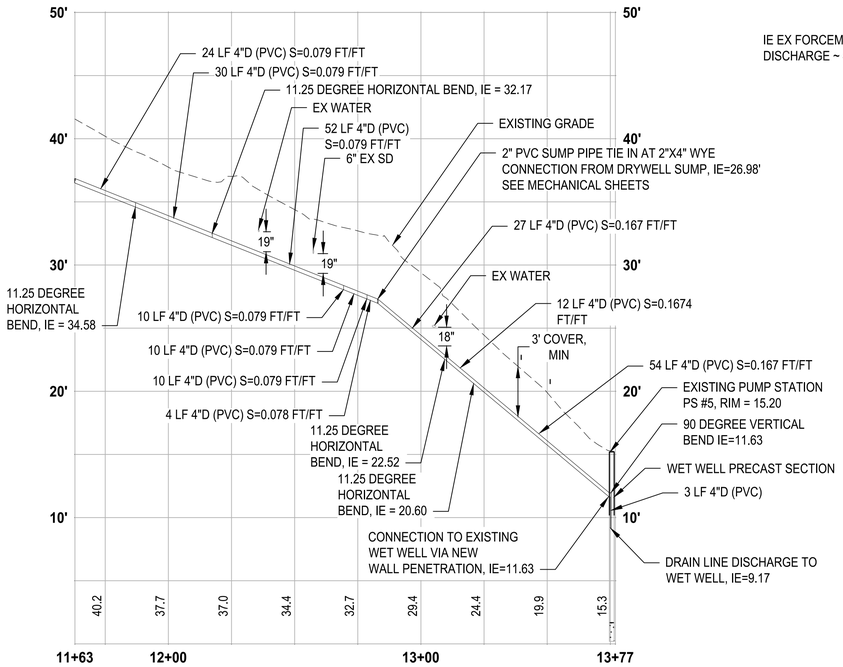
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

SITE PLAN

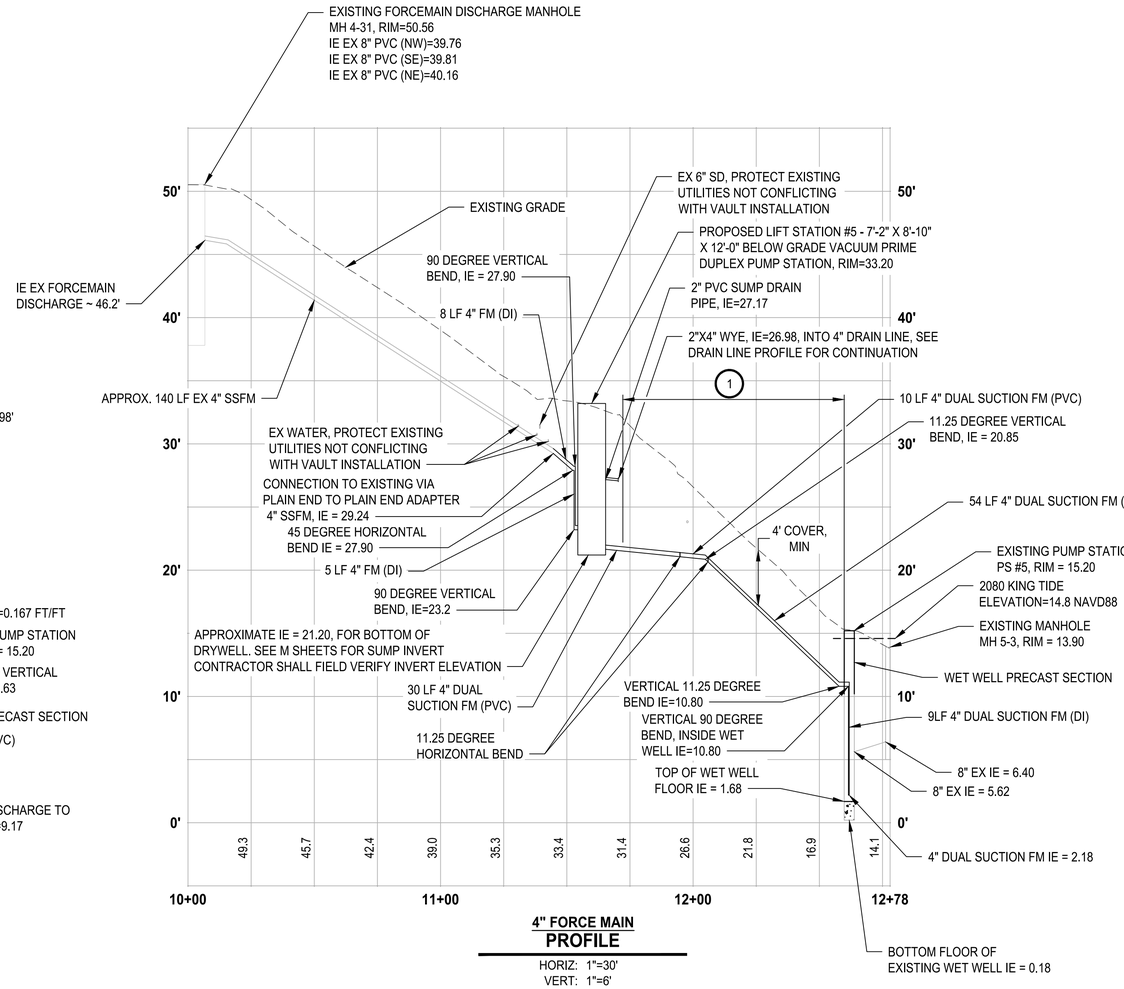
DRAWING NO. 5 OF XX
C1

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PLOTTED BY: taylokat DATE: Monday, June 30, 2025 2:04:10 PM
LAYOUT: C1



DRAIN LINE
PROFILE

HORIZ: 1"=30'
VERT: 1"=6'



4" FORCE MAIN
PROFILE

HORIZ: 1"=30'
VERT: 1"=6'

NOTES:

1. DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPARATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED PER COGH STANDARD DETAILS 4-17 AND 4-18.
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4. CONTRACTOR SHALL FOLLOW MANUFACTURER RECOMMENDATIONS FOR JOINT DEFLECTION AND CURVATURE OF THE INSTALLED PIPE LINE.
5. FOR PROPOSED UTILITY CROSS SECTION, SEE DETAIL 2/C4
6. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY CROSSING AND CONNECTION INVERT ELEVATIONS.

CONSTRUCTION NOTES:

(1) 4" DUAL SUCTION LINES AND 4" DRAIN LINE TO BE INSTALLED IN SAME TRENCH WHERE INDICATED.

Know what's **below.** **Call** before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER

6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PIPE PROFILES

DRAWING NO. 6 OF XX

C2

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PLOTTED BY: taylokat DATE: Monday, June 30, 2025 1:27:31 PM
LAYOUT: C2



NOTES:

1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
2. ALL LINING WORK SHOULD BE COMPLETED DURING DRY WEATHER DUE TO POTENTIAL INFLOW/INFILTRATION DURING WET WEATHER. NO LINING SHALL BE PERMITTED DURING RAIN EVENTS.
3. ALL EXISTING DRIVEWAY ACCESS MUST BE MAINTAINED AT ALL TIMES. IF ACCESS IS TO BE OBSTRUCTED, CONTRACTOR SHALL NOTIFY THE CITY AND AFFECTED PROPERTY OWNER AT LEAST 48 HOURS IN ADVANCE.
4. ALL CONTRACTOR LINING EQUIPMENT AND VEHICLES TO REMAIN ON ROADWAY UNLESS OTHERWISE NOTED ON PLANS. IF THE CONTRACTOR REQUIRES OFF ROAD ACCESS, THEY SHALL NOTIFY THE CITY AND OBTAIN ALL NECESSARY PERMITS AND INSTALL ALL NECESSARY EROSION AND SEDIMENT CONTROLS FOLLOWING THE CITY'S BMPS.

LEGEND:

CIPP LINER INSTALL DIRECTION

CONSTRUCTION NOTES:

1 MANHOLE TO BE COATED, SEE DETAIL 1/C4

SEWER MAINLINE LINING

SEWER SEGMENT*	LENGTH	PIPE DIAMETER	DESCRIPTION
CLEANOUT TO MH 5-2	122'	8"	CIPP MAINLINING
MH 5-3 TO MH 5-2	88'	8"	CIPP MAINLINING
MH 5-4 TO MH 5-3	72'	8"	CIPP MAINLINING
MH 5-5 TO MH 5-4	186'	8"	CIPP MAINLINING
MH 5-6 TO MH 5-5	114'	8"	CIPP MAINLINING
MH 5-3 TO WET WELL	16'	8"	CIPP MAINLINING

* ALL SEWER SEGMENTS ARE LISTED BY UPSTREAM MANHOLE TO DOWNSTREAM MANHOLE. SUGGESTED LINING DIRECTION IS AS SHOWN IN PLAN ON THIS SHEET.

PLAN
SCALE IN FEET
0 30 60

Know what's below. Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER STATE OF WASHINGTON 46055 REGISTERED PROFESSIONAL ENGINEER
6/30/2025

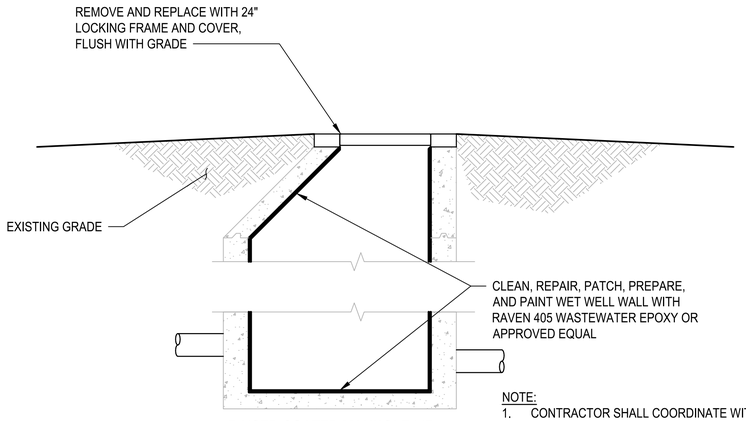
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CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

COLLECTION SYSTEM CIPP PLAN

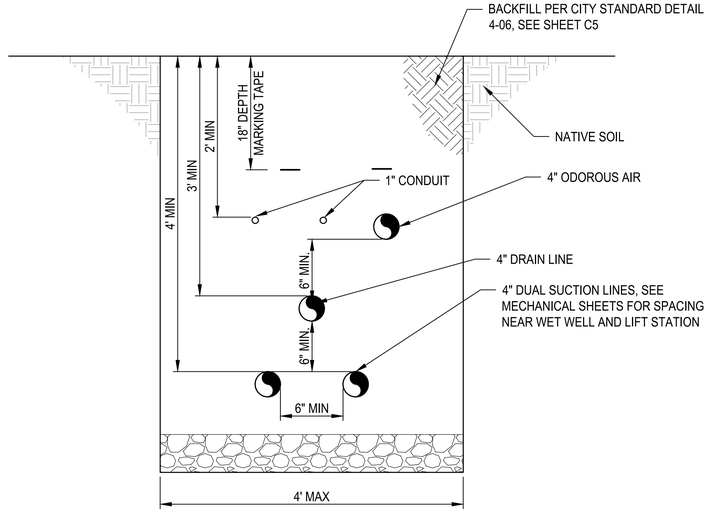
DRAWING NO. 7 OF XX
C3

LAYOUT: C3 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: taylakat DATE: Monday, June 30, 2025 2:08:38 PM

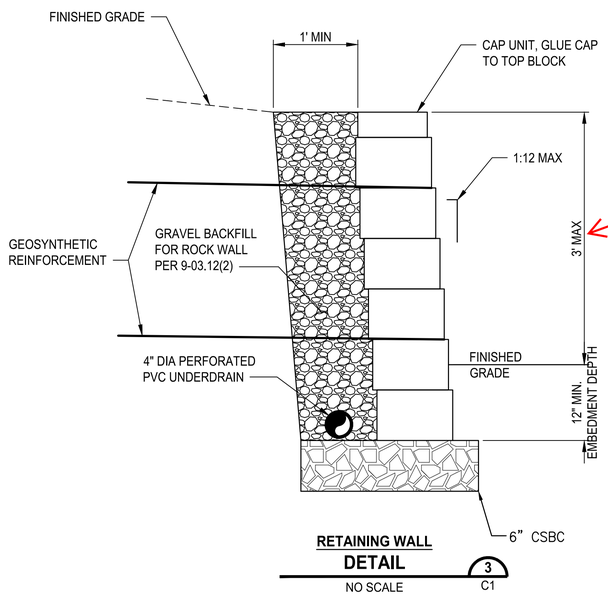


NOTE:
1. CONTRACTOR SHALL COORDINATE WITH THE CITY ON LOCATIONS WHERE MANHOLES CAN BE RAISED ABOVE GRADE. ALL OTHER MANHOLES SHALL REMAIN FLUSH WITH GRADE WITH NEW LOCKING FRAME AND COVER.

RAISED COATED MANHOLE LID AND SPECIAL BACKFILL
DETAIL 1 C3
NO SCALE



TYPICAL TRENCH SECTION
SECTION 2 C1
NO SCALE



Please provide specifications and details of construction for the required guard for any location that may be over 30" per Section 1015.2 WSBC-2021

RETAINING WALL
DETAIL 3 C1
NO SCALE

811 Know what's **below.** **Call** before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-DT
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

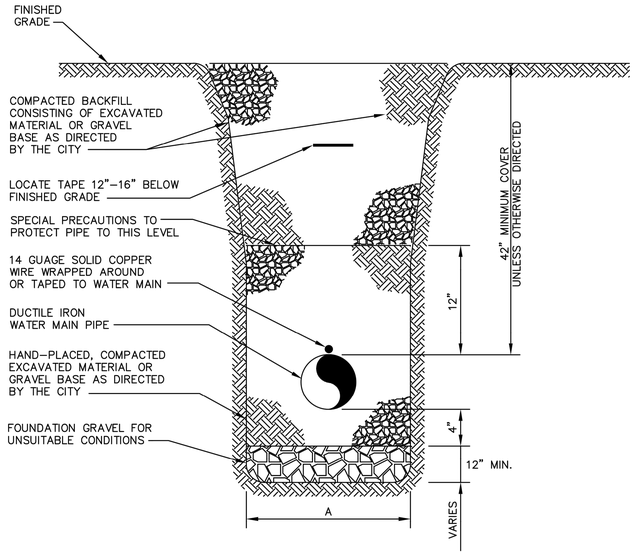
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

CIVIL DETAILS

DRAWING NO. 9 OF XX
C4

PLOTTED BY: taylakat DATE: Monday, June 30, 2025 1:08:23 PM
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LAYOUT: C4



WATER MAIN TRENCH SECTION

PIPE SIZE	A
6"	24"
8"	30"
10" & 12"	36"
16" AND 18"	42"

CITY OF GIG HARBOR ENGINEERING DIVISION

WATER MAIN TRENCH SECTION — DETAIL NO. 4-06

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016

THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE DIAMETER	90° BEND	45° BEND	22.5° BEND	11.25° BEND	DEAD END OR TEE
4"	3600	2000	1000	500	2600
6"	8000	4400	2300	1200	5700
8"	14300	7700	4000	2000	10100
10"	22300	12100	6200	3100	15800
12"	32000	17400	8900	4500	22700
14"	43600	23600	12100	6100	30800
16"	57000	30800	15700	7900	40300

NOTES:

1. BLOCKING SHALL BE COMMERCIAL CONCRETE POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTING SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH PLASTIC OR SIMILAR MATERIAL.
2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):
   EXAMPLE: 12" – 90° BEND IN SAND AND GRAVEL
   32000 LBS/3000 LB/SF = 10.7 SF OF AREA
3. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES, AND SOIL CONDITIONS.
4. BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

SAFE SOIL BEARING LOADS

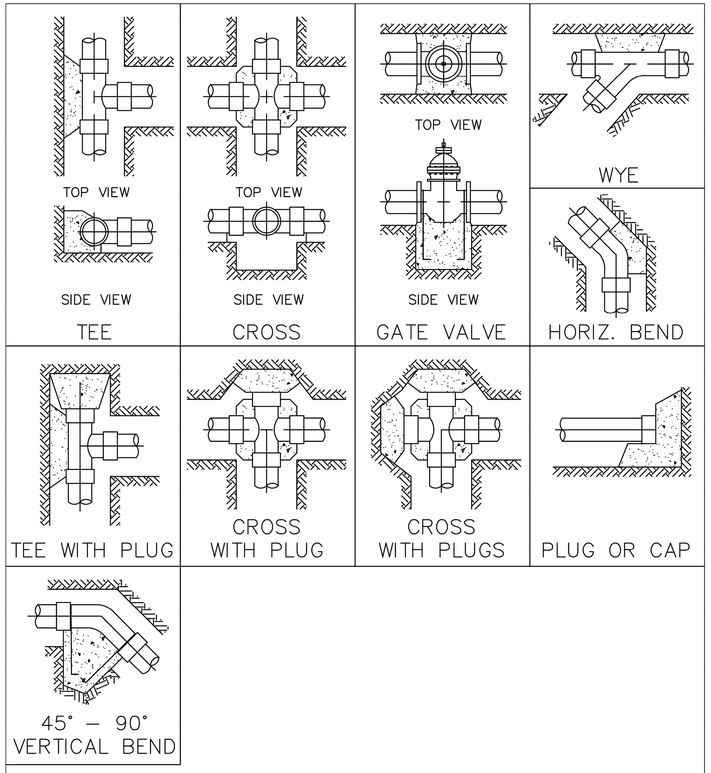
FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

CITY OF GIG HARBOR ENGINEERING DIVISION

THRUST LOADS — DETAIL NO. 4-17

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



NOTES:

1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. PLASTIC BARRIER SHALL BE PLACED BETWEEN ALL THRUST BLOCKS AND FITTINGS.
3. ANCHOR REBAR SHALL BE ⅝" MINIMUM DIAMETER.

CITY OF GIG HARBOR ENGINEERING DIVISION

STANDARD BLOCKING DETAILS — DETAIL NO. 4-18

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016

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DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

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JOB No. 216–2750–048
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BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER

6/30/2025

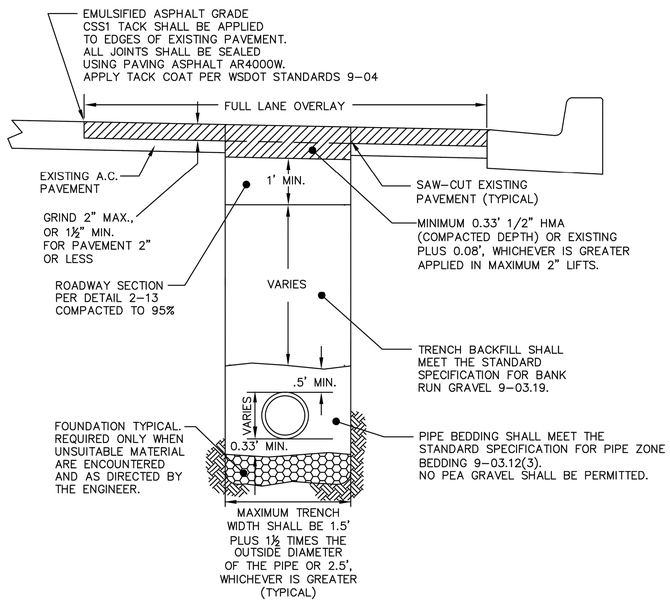
Parametrix
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
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GIG HARBOR, WASHINGTON

CIVIL DETAILS

DRAWING NO. OF XX
C5

LAYOUT: C5 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750–CityOfGigHarbor\216–2750–048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: taylakat DATE: Monday, June 30, 2025 1:09:08 PM



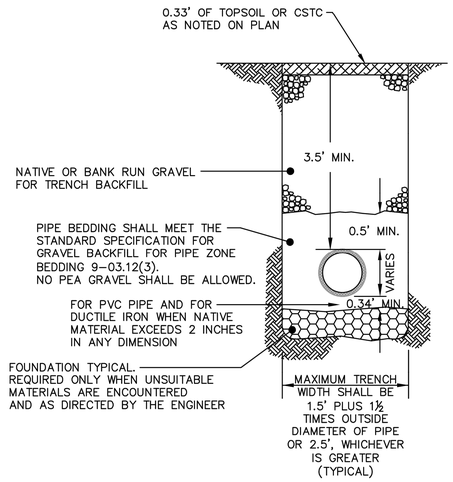
NOTES:

1. ALL MATERIALS EXCEPT A.C.P. AND BEDDING MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALL-ATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF GIG HARBOR STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
4. SAW-CUT PAVEMENT TO MAX. TRENCH WIDTH. BACKFILL AND PAVE TO TOP OF EXISTING PAVEMENT FOR TRENCH WIDTH.
5. CDF BACKFILL WILL BE REQUIRED AROUND DUCT BANKS THAT ARE STACKED VERTICALLY.

CITY OF GIG HARBOR ENGINEERING DIVISION

PARALLEL TRENCH RESTORATION FOR PAVED AREAS — DETAIL NO. 2-15

APPROVED FOR PUBLICATION
CITY ENGINEER _____ DATE JULY, 2018



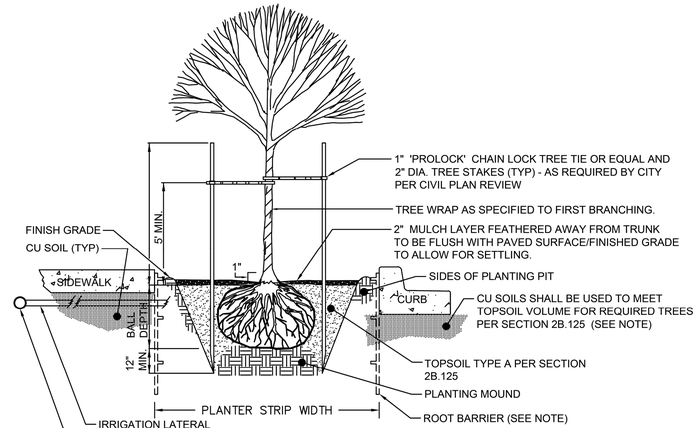
NOTES:

1. BEDDING SHALL CONFORM TO SECTION 9-03.12(3) OF STANDARD SPECIFICATIONS.
2. COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MIN. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 85% MIN. IN UNPAVED AREA, AND 95% MIN. IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
3. ALL MATERIALS, WORKMANSHIP, AND INSTALL-ATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS AMENDED BYCITY OF GIG HARBOR STANDARDS.
4. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

CITY OF GIG HARBOR ENGINEERING DIVISION

TRENCH RESTORATION FOR UNPAVED AREAS — DETAIL NO. 2-16

APPROVED FOR PUBLICATION
CITY ENGINEER _____ DATE MAY 16, 2016



NOTES:

1. TREES MUST BE IN GOOD HEALTH, NOT SHOW ANY FORM OF DISEASE, AND CONFORM TO CURRENT ANSI Z60 AMERICAN STANDARDS FOR NURSERY STOCK, OR TREE WILL BE REJECTED ON SITE.

2. TOPSOIL VOLUME PER APPENDIX A OF CHAPTER 2 SHALL BE DIMENSIONED AS FOLLOWS:
   DEPTH (MIN.) = 4 FT.
   WIDTH (MIN.) = PLANTER STRIP WIDTH (MEASURED FROM BACK OF CURB TO FACE OF SIDEWALK)
   LENGTH (MAX.) = 2 x WIDTH
   TOPSOIL VOLUME SHALL INCLUDE TOTAL VOLUME OF TOPSOIL TYPE A AND CU SOILS.

3. ROOT BARRIER SHALL BE DEEP ROOT 24-2 BY DEEP ROOT, TREE ROOT GUIDE RS-40 BY ROOT SOLUTIONS, ROOT BARRIER PANEL EP-1250 BY NDS, OR APPROVED EQUAL. ROOT BARRIER SHALL BE 15 FT. LONG CENTER ON THE TREE, 2' DEEP, AND ON BOTH SIDES OF THE TREE (TYP).

4. TREES SHALL BE LOCATED OUTSIDE ANY INTERSECTION SIGHT DISTANCE TRIANGLE. SEE SECTION 2B.150.

PLANTING DIRECTIONS:

1. THOROUGHLY SCARIFY SIDES AND BOTTOM OF PLANTING PIT. REMOVE ANY DEBRIS AND STONES LARGER THAN 1" IN ANY DIRECTION AND AMEND NATIVE SOIL AT BOTTOM WITH 10% COMPOST TO CREATE PLANTING MOUND. LIGHTLY COMPACT SOIL AND WATER BACKFILL TO PREVENT SETTLING.

2. AFTER THE PROPER DEPTH OF THE PLANT MATERIAL HAS BEEN ESTABLISHED, PLACE THE ROOT BALL IN THE CENTER OF THE HOLE WITH ROOT BALL 1 INCH HIGHER THAN DEPTH GROWN IN NURSERY.

3. RELEASE AND COMPLETELY REMOVE TREE FROM CONTAINER (BURLAP, WIRE, GROW BAG ETC.) AND DISCARD OFF-SITE.

4. SPREAD ROOTS TO A NATURAL SPREAD AND DISTRIBUTION. BACKFILL, WORKING THE SOIL AROUND THE ROOTS WITH TOPSOIL TYPE A.

5. PLACE FERTILIZER TABLETS AS SPECIFIED.

6. TAMP TO COMPACT THE BACKFILL AND PROVIDE A SLIGHT DEPRESSION AND WATERING SAUCER, TAKING CARE TO NOT INJURE THE ROOT SYSTEM WHILE BACKFILLING.

7. STREET TREES SHALL NOT BE LOCATED IN THE SIGHT DISTANCE TRIANGLE EXCEPT AS PROVIDED IN SECTION 2B.150.

CITY OF GIG HARBOR ENGINEERING DIVISION

TREE PLANTER AND BARRIER IN PLANTER STRIP — DETAIL NO. 2-26

APPROVED FOR PUBLICATION
CITY ENGINEER _____ DATE MAY 16, 2016

811 Know what's below. Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-DT
JOB No. 216-2750-048
DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER
6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

CIVIL DETAILS

DRAWING NO. OF XX
C6

LAYOUT: C6 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: taylakat DATE: Monday, June 30, 2025 1:09:37 PM

RESTORATION NOTES

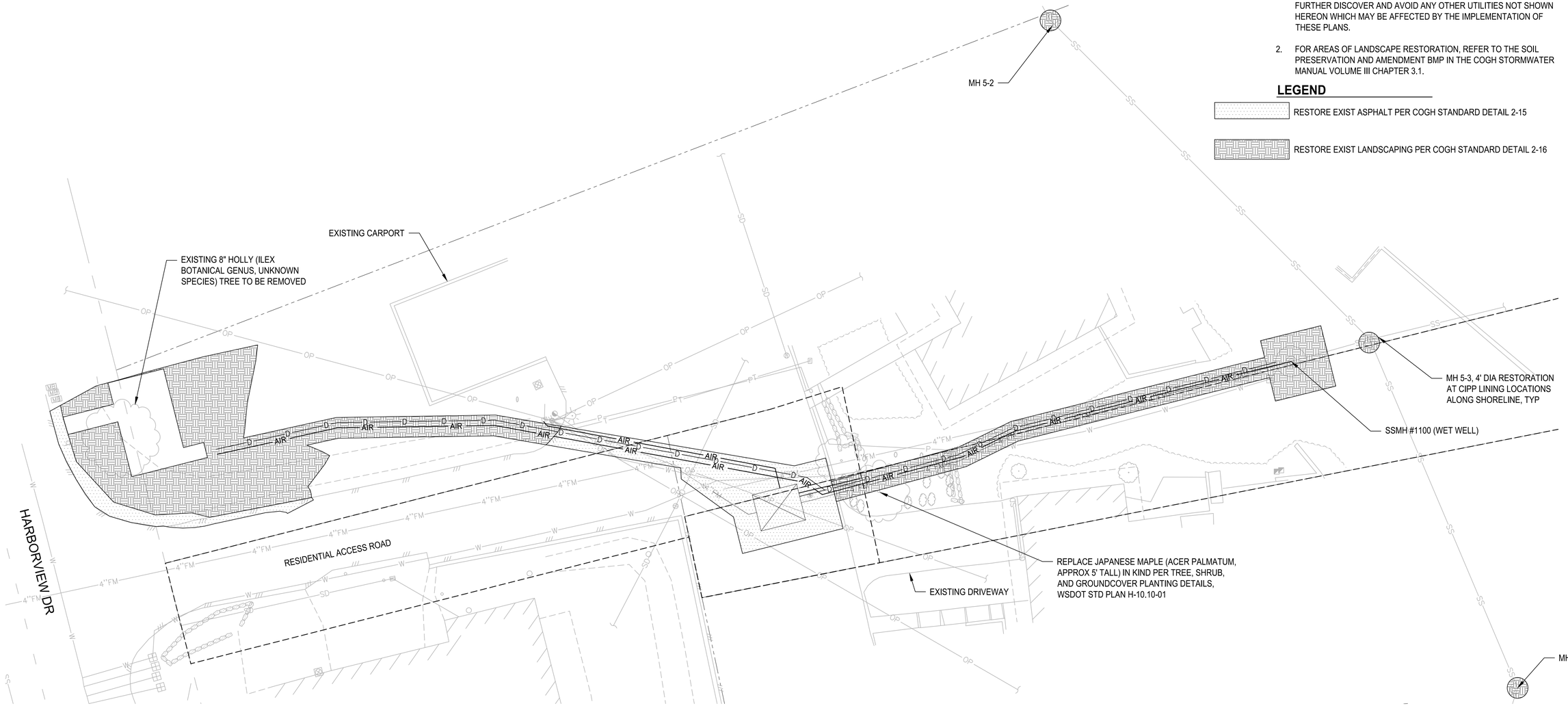
1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.

2. FOR AREAS OF LANDSCAPE RESTORATION, REFER TO THE SOIL PRESERVATION AND AMENDMENT BMP IN THE COGH STORMWATER MANUAL VOLUME III CHAPTER 3.1.

LEGEND

RESTORE EXIST ASPHALT PER COGH STANDARD DETAIL 2-15

RESTORE EXIST LANDSCAPING PER COGH STANDARD DETAIL 2-16



PLAN
SCALE IN FEET
0 10 20

Know what's below. Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-L
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DATE JUNE 2025

BRIAN E BUNKER — STATE OF WASHINGTON — 46055 — REGISTERED PROFESSIONAL ENGINEER

6/30/2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

RESTORATION PLAN

DRAWING NO.
8 OF XX

L1

PATH: \\parametrix.com\gmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: taylokat DATE: Monday, June 30, 2025 1:47:35 PM
LAYOUT: L1

GENERAL STRUCTURAL NOTES:

DESIGN CRITERIA

APPLICABLE BUILDING CODES:
2021 INTERNATIONAL BUILDING CODE, WASHINGTON STATE AMENDMENTS.

OCCUPANCY U, RISK CATEGORY III ESSENTIAL FACILITY.

DESIGN LOADS:
IMPORTANCE FACTORS: Is = 1.10, Iw = 1.00, Ie = 1.25.

LOADS:
ROOF LIVE OR SNOW LOAD . . . . . 40 psf
CONCRETE GROUND FLOOR . . . . . 100 psf
WALKING & STAIRS . . . . . 100 psf

WIND LOADS:
BASIC WIND SPEED = 104 MPH, EXPOSURE = C

SEISMIC LOADS:
GIG HARBOR, WA
SITE CLASS D
Sds = 1.23
Sd1 = 0.17
BUILDING SEISMIC FORCE RESISTING SYSTEM:
SPECIAL REINFORCED MASONRY SHEAR WALLS WITH WOOD STRUCTURAL PANEL

FOUNDATIONS

BASED ON HWA GEOSCIENCES DRAFT REPORT, DATED FEB 15, 2025 AND PRESUMPTIVE VALUES GIVEN IN IBC TABLE 1806.2

SOIL BEARING PRESSURE . . . . . 2000 psf
LATERAL PASSIVE BEARING PRESSURE . . . . . 150 pcf
SOIL ACTIVE PRESSURE, YIELDING WALLS . . . . . 35 pcf
SOIL FRICTION FACTOR, SLIDING 0.25

CONTINUOUS INSPECTION OF FILL PLACED AND COMPACTED UNDER BUILDING SLAB AND FOOTINGS REQUIRED BY AN APPROVED, INDEPENDENT TESTING AGENCY. FILL SHALL MEET SPECIFICATIONS AND SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. FILL SHALL BE PLACED IN MAX. 8" LIFTS. DENSITY TESTS SHALL BE TAKEN AT 5-FOOT INTERVALS AROUND THE PERIMETER OF THE PROPOSED STRUCTURE AND 4 EVENLY SPACED LOCATIONS UNDER THE SLAB.

INSPECTIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING AND COORDINATING REQUIRED BUILDING DEPARTMENT INSPECTIONS. IN ADDITION, SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE TABLE ON THIS SHEET, THESE INSPECTIONS SHALL BE PERFORMED BY A CURRENTLY WABO CERTIFIED INSPECTOR UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. THEN IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE REPORTED TO THE DESIGN PROFESSIONAL AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A SEALED FINAL REPORT BY A RESISTER PROFESSIONAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

MISCELLANEOUS

REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF RECESSES, DUCT OPENINGS, PIPING, CONDUITS, EQUIPMENT LOCATION AND ANCHORAGES, ETC., NOT SHOWN.

SUBMIT ALL REQUIRED SHOP DRAWINGS AND RECEIVE THEIR SATISFACTORY REVIEW FROM THE OWNER'S REPRESENTATIVE, PRIOR TO FABRICATION.

COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWINGS AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.

REFER TO SPECIFICATIONS FOR INFORMATION NOT CONTAINED IN THESE GENERAL NOTES.

CONCRETE

ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILS REINFORCED CONCRETE STRUCTURES ACI 315, LATEST EDITION.

CONCRETE CONSTRUCTION SHALL CONFORM TO ACE 318 BUILDING CODE, LATEST EDITION.

DESIGN STRENGTH:
CAST-IN-PLACE CONCRETE, UNLESS OTHERWISE NOTED:
f'c = 4000psi AT 28 DAYS
REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER TABLE SHOWN ON THIS SHEET.

CONCRETE COVER:
CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, BUT NOT LESS THAN ONE BAR DIAMETER:

FOOTINGS AND MATS FORMED AGAINST SOIL . . . . . 3"
CONCRETE IN CONTACT WITH SOIL, WEATHER OR WATER . . . . . 2"
CONCRETE NOT EXPOSED TO SOIL, WEATHER OR WATER. . . . . 1-1/2"
BEAMS AND COLUMNS (TO STIRRUPS) . . . . . 1-1/2"

SLAB ON GRADE
UNDER 6" THICK . . . . . AT SLAB CENTER
6" AND OVER . . . . . AS SHOWN

ANCHOR BOLTS

ANCHOR BOLTS FOR BUILDING STRUCTURE SHALL CONFORM TO ASTM A307 HOT DIPPED GALVANIZED. SET ALL BOLTS BY TEMPLATE.

DRILLED-IN EXPANSION BOLTS

SHALL BE STAINLESS STEEL "KWIK BOLTS" BY HILTI CORP., OR APPROVED EQUAL. ICBO CERTIFICATION AND SPECIAL INSPECTION IS REQUIRED. MINIMUM SPACING SHALL BE 12 BOLT DIAMETERS AND MINIMUM EDGE DISTANCE 6 BOLT DIAMETERS UNLESS NOTED OTHERWISE.

BOLT DIAMETER (IN.)	1/2	5/8	3/4	7/8	1
MIN. EMBEDMENT IN STRUCTURAL CONCRETE (IN.)	4	4	5	6	7

ADHESIVE / EPOXY ANCHORING SYSTEM

ANCHORS SHALL BE STAINLESS STEEL RODS COMPLYING TO AISI 304. REBAR SHALL CONFORM TO NOTES ABOVE.

REINFORCING BARS AND RODS ANCHORED INTO EXISTING CONCRETE SHALL BE IN DRILLED HOLE WITH THREADED, CODE APPROVED, ADHESIVE ANCHORING MATERIALS. ICC-ES REPORTS ARE REQUIRED FOR USE IN CRACKED CONCRETE FOR WIND OR SEISMIC LOADING.

MINIMUM EMBEDMENT IN STRUCTURAL CONCRETE SHALL BE 8 ROD DIAMETERS.

MINIMUM EDGE DISTANCE 6 ROD DIAMETERS.

REINFORCED CONCRETE MASONRY

CONCRETE MASONRY UNITS (CMU):
MASONRY UNITS SHALL BE HOLLOW LOAD-BEARING, GRADE N-1 CONFORMING TO ASTM SPECIFICATION C90 WITH f 'm = 1500 psi.
SPECIAL INSPECTION IS REQUIRED.

MORTAR AND GROUT:
MORTAR AND GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270, TYPE S.

MORTAR SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1800 psi AT 28 DAYS.

GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2500 psi AT 28 DAYS. MAXIMUM AGGREGATE SIZE SHALL BE 3/8", WITH SLUMP BETWEEN 6" TO 9".

GROUT ALL BOND BEAMS, LINTELS AND VERTICAL CELLS CONTAINING REINFORCING STEEL. INSULATE ALL OTHER NON-REINFORCED CELLS OF EXTERIOR WALLS, UNLESS NOTED OTHERWISE.

REINFORCING & EMBEDDED METALS:
REINFORCING STEEL SHALL BE PER ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER LAP SPLICE TABLE.

TYPICAL WALL REINFORCING, UNLESS NOTED OTHERWISE:
VERTICAL: #6 @ 32" AND AT CORNERS, @ CENTERLINE OF WALL
HORIZONTAL: #9 WIRE JOINT REINF (GALVANIZED) @ 16" OC
OPENINGS: JAMBS- (1) #5 FULL HEIGHT OF WALL
HEAD & SILL- (1) #5 EXTEND 2'-0" PAST OPENING

SEE DRAWINGS FOR TOP OF WALL BOND BEAM & OTHER REINFORCING.
ALL BARS & WIRES SHALL LAP AT CORNERS AND INTERSECTIONS.
DO NOT WELD MASONRY REINFORCING STEEL.

WOOD

LUMBER: DOUGLAS FIR LARCH #2 OR BETTER GRADE

FASTENERS / CONNECTIONS NOT SPECIFICALLY CALLED OUT SHALL BE PER IBC TABLE 2304.9.1
CONNECTOR HARDWARE CALLOUTS ARE SIMPSON STRONG-TIE CO.
(CONNECTORS OF OTHER MANUFACTURES ARE ACCEPTABLE WITH ICC APPROVALS)

ROOF NAILING: 10d @ 6" O.C. AT EDGES & SUPPORTS
NAILS SHALL BE HOT-DIP GALVANIZED

STRUCTURAL ABBREVIATIONS

@	AT	MAX	MAXIMUM
AB	ANCHOR BOLT	MB	MACHINE BOLT
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
CDF	CONTROLLED DENSITY FILL	MO	MASONRY OPENING
CLR	CLEAR	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	PL	PLATE
CONC	CONCRETE	PT	PRESSURE TREATED
CSBC	CRUSHED SURFACING BASE COURSE	PWD	PLYWOOD
		RO	ROUGH OPENING
d	PENNY WT (NAIL)	SST	STAINLESS STEEL
⌀	DIAMETER	T&B	TOP AND BOTTOM
DS	DOWNSPOUT	TJI	TRUSS JOIST I BEAM OR EQUIVALENT
EA	EACH		
EF	EACH FACE	TOC	TOP OF CONCRETE
EW	EACH WAY	TOW	TOP OF WALL
FDN	FOUNDATION	TYP	TYPICAL
F/G	FIBERGLASS	U/S	UNDERSIDE
FS	FAR SIDE	WS	WATERSTOP
GA	GAUGE		
GLB	GLUE LAMINATED BEAM		
GWB	GYPSUM WALL BOARD		

ROLLED STEEL SHAPES

C	CHANNEL	P_L	PLATE
HP	H PILE SHAPE	S	S SHAPE
HSS	HOLLOW STRUCTURAL SHAPE	SCH	PIPE SCHEDULE
L	ANGLE	ST, WT	TEES CUT FROM S OR W SHAPES
M	MISCELLANEOUS SHAPE	W	WIDE FLANGE
MC	MISCELLANEOUS COLUMN		

LAP SPLICE TABLE

BAR SIZE	CONCRETE f 'c = 4,000 OR 5,000 psi	MASONRY f 'm = 1,500 psi
#3	19"	13"
#4	25"	22"
#5	31"	35"
#6	37"	54"
#7	48"	63"
#8	55"	72"
#9	62"	NA
#10	69"	NA

MINIMUM LAP SPLICES UNLESS OTHERWISE DETAILED ON DRAWINGS

SPECIAL INSPECTION SCHEDULE

ITEM	CI	PI	REMARKS/REFERENCES
GENERAL:			
PREFABRICATED ITEMS		X	
SITE PREPARATION, FILL PLACEMENT, SOIL COMPACTION	X		BY GEOTECHNICAL ENGINEER OR AN APPROVED TESTING AGENCY
CONCRETE:			IBC TABLE 1705.3, ACI 318-2015
REINFORCING MATERIALS & PLACEMENT		X	ASTM AS NOTED, ACI 318 CHAPTER 20.25 & 26.6
WELDING - REINFORCING		X	AWS D1.4
ANCHOR RODS, EMBEDDED BOLTS & INSERTS	X		PRIOR TO AND DURING CONCRETE PLACEMENT
POST-INSTALLED ANCHORS			ACI 318 26.7
ADHESIVE ANCHORS	X		ACI 318 17.8.2.4
MECHANICAL ANCHORS		X	ACI 318 17.8.2
USE OF REQUIRED MIX DESIGN		X	ACI 318 26.4
CONCRETE SLUMP, AIR CONTENT, TEMPERATURE & TEST SPECIMENS	X		WHILE MAKING SPECIMENS FOR STRENGTH TESTS, ACI 318 5.6
CONCRETE PLACEMENT	X		ACI 318 5.9, 5.10
CONCRETE CURING		X	ACI 318 5.11, 5.13
MASONRY:			TMS 402/602-2013 TABLE 3.1.3 LEVEL 3
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X	TMS 602 ART 1.5
2. VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. PROPORTIONS OF SITE-MIXED MORTAR AND GROUT		X	TMS 602 ART 2.1, 2.6
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS.		X	TMS 602 ART 2.4, 3.4
c. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X	TMS 602 ART 3.3 B
d. PLACEMENT OF REINFORCEMENT AND CONNECTORS	X		TMS 602 ART 3.2 E, 3.4
e. GROUT SPACE PRIOR TO GROUTING	X		TMS 602 ART 3.2D, 3.2 F
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	X		TMS 602 ART 3.5
g. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X	TMS 602 ART 3.3 F
h. TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	X		TMS 402 SEC. 1.2.1(e), 6.1.4.3, 6.2.1
i. WELDING OF REINFORCEMENT (NOT ALLOWED UNLESS ASTM A706 BARS)	X		AWS D1.4
j. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER OR HOT WEATHER		X	TMS 602 ART 1.8 C, 1.8 D
3. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/ OR PRISMS. (NOT REQUIRED IF UNIT STRENGTH METHOD IS SUBMITTED PER TMS 602 ART 1.4.B)	X		TMS 602 ART 1.4 B
WOOD:			
SPECIES & GRADE OF WOOD MATERIALS		X	
NAILING OF FRAMING & CONNECTORS	X		PER IBC TABLE 2304.10 & MANUFACTURERS REQUIREMENTS
TYPE & SPACING OF STRUCTURAL PANEL NAILING	X		

INSPECTION SCHEDULE NOTES

1. ITEMS MARKED WITH AN "X" REQUIRE INSPECTION BY A SPECIAL INSPECTOR APPROVED BY THE BUILDING OFFICIAL.
2. ITEMS MARKED "NA" ARE NOT APPLICABLE TO THIS PROJECT.
3. CI = CONTINUOUS INSPECTION DURING PROGRESS OF WORK BY SPECIAL INSPECTOR.
4. PI = PERIODIC INSPECTION BY SPECIAL INSPECTOR AS REQUIRED TO CONFIRM CONFORMANCE OF WORK.
5. TESTING AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER, BUILDING OFFICIAL AND CONTRACTOR.

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED S.WAGNER
DRAWN D.PETERSON
CHECKED Checker
APPROVED Approver

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE JUNE 2025

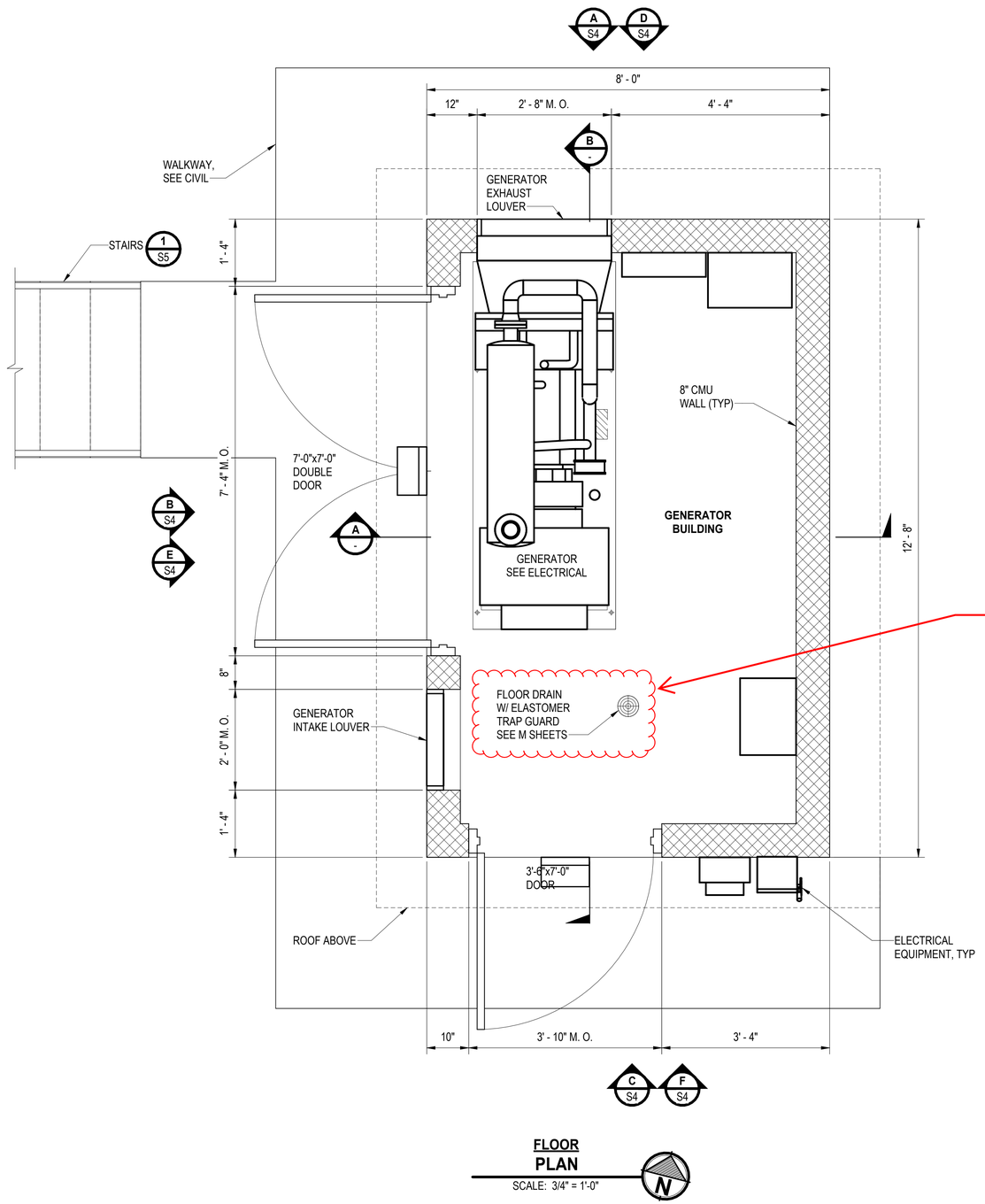
STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
PRELIMINARY

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

STRUCTURAL NOTES

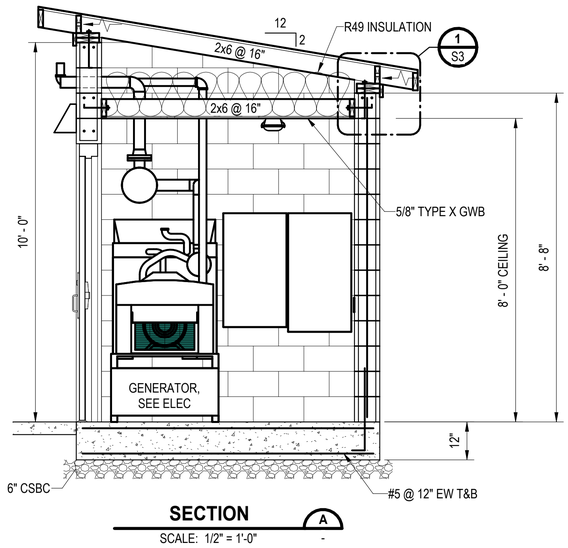
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OF 0
S1



FLOOR PLAN

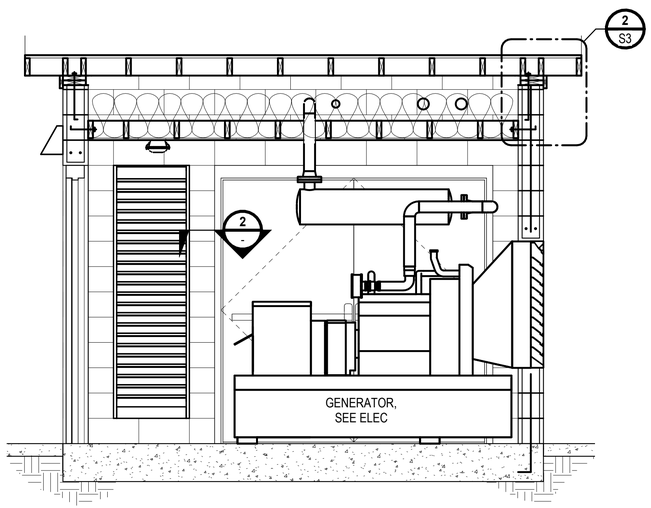
SCALE: 3/4" = 1'-0"

A trap seal primer is required per Section 1007.1 WSPC - 2021. Please revise specification. Additionally, we we unable to locate any applicable information on the provided "M Sheets" as noted.



SECTION A

SCALE: 1/2" = 1'-0"



SECTION B

SCALE: 1/2" = 1'-0"

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED S.WAGNER
DRAWN D.PETERSON
CHECKED Checker
APPROVED Approver

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE JUNE 2025

STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PRELIMINARY

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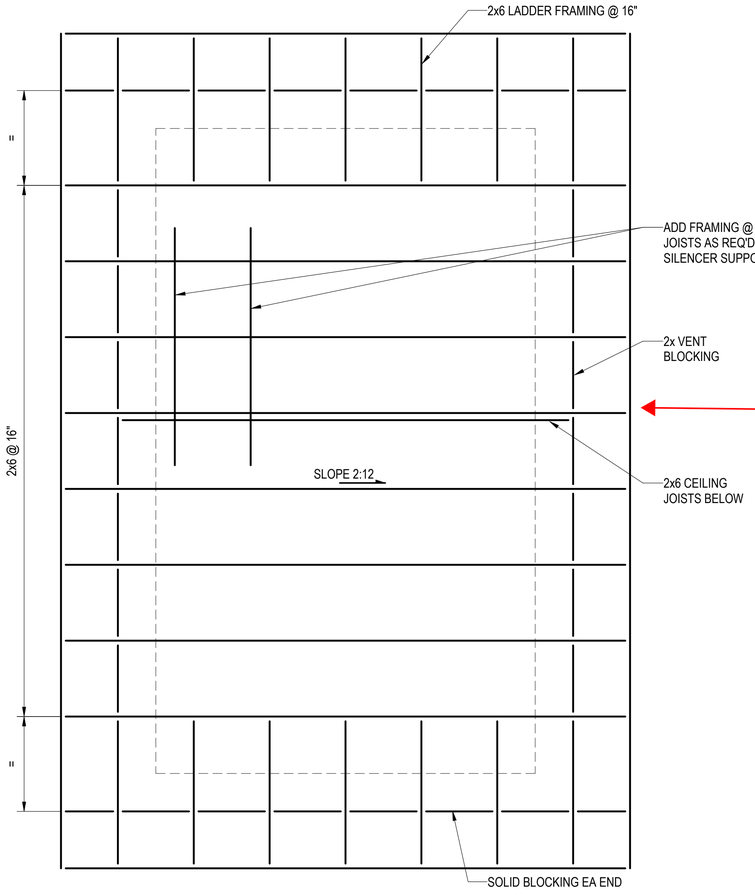
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

GENERATOR BUILDING FLOOR PLAN AND SECTIONS

DRAWING NO. OF 0

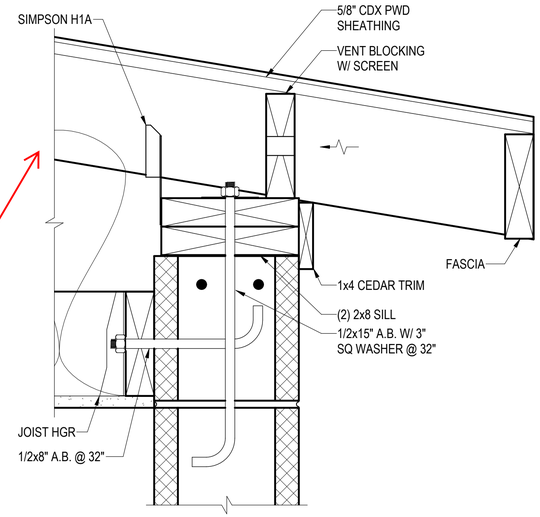
S2



ROOF FRAMING PLAN

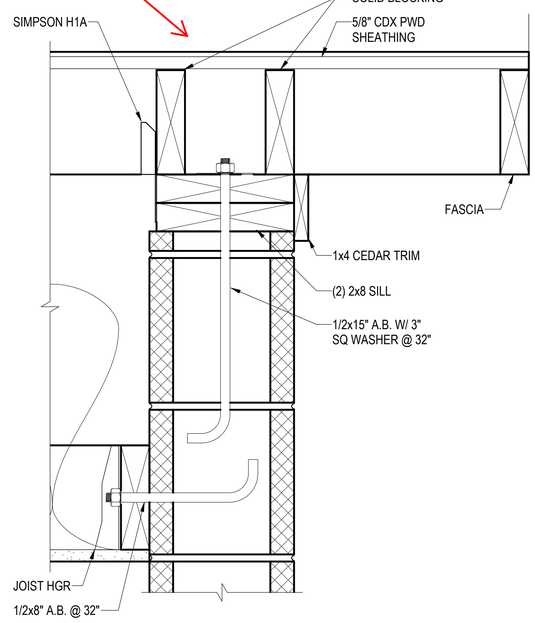
SCALE: 3/4" = 1'-0"

Dedicated detached structures containing combustion engines shall be of noncombustible or fire-resistive construction per 4.1.2.2.1 NFPA 37-2018 Please revise.



DETAIL 1 — S2

SCALE: 3" = 1'-0"



DETAIL 2 — S2

SCALE: 3" = 1'-0"

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED Designer
DRAWN Author
CHECKED Checker
APPROVED Approver

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
JOB NO. 216-2750-048
DATE JUNE 2025

STEVEN A. WILCOX — STATE OF WASHINGTON — 18711 — REGISTERED PROFESSIONAL ENGINEER

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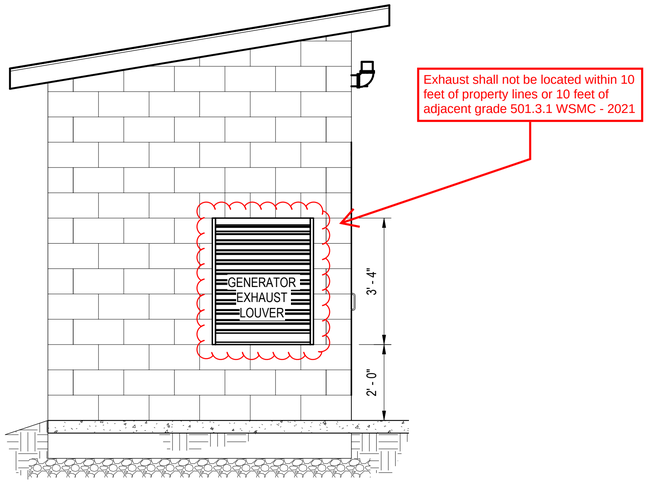
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS

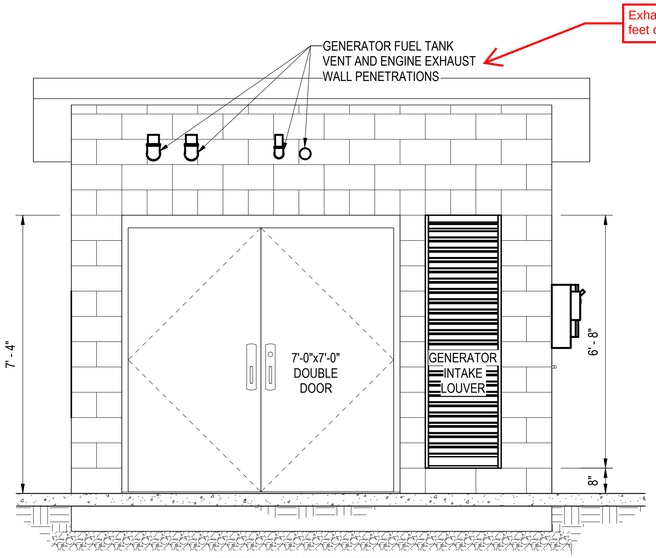
DRAWING NO. OF 0

S3



ARCHITECTURAL NORTH ELEVATION A S2

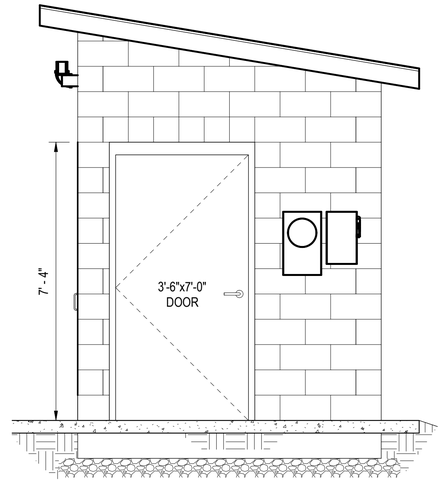
SCALE: 1/2" = 1'-0"



(EAST - SIMILAR W/O OPENINGS)

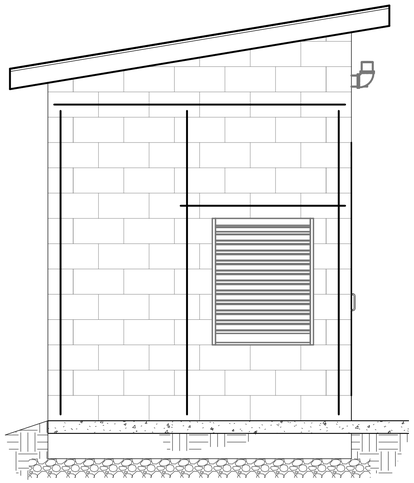
ARCHITECTURAL WEST ELEVATION B S2

SCALE: 1/2" = 1'-0"



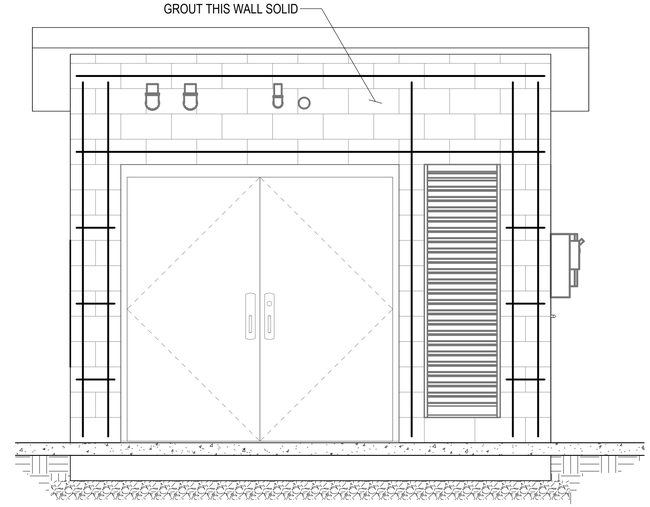
ARCHITECTURAL SOUTH ELEVATION C S2

SCALE: 1/2" = 1'-0"



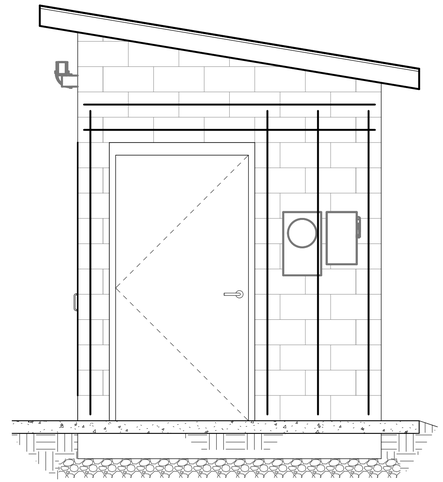
STRUCTURAL NORTH ELEVATION D S2

SCALE: 1/2" = 1'-0"



STRUCTURAL WEST ELEVATION E S2

SCALE: 1/2" = 1'-0"



STRUCTURAL SOUTH ELEVATION F S2

SCALE: 1/2" = 1'-0"

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NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED Checker
APPROVED Approver

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE JUNE 2025

PRELIMINARY

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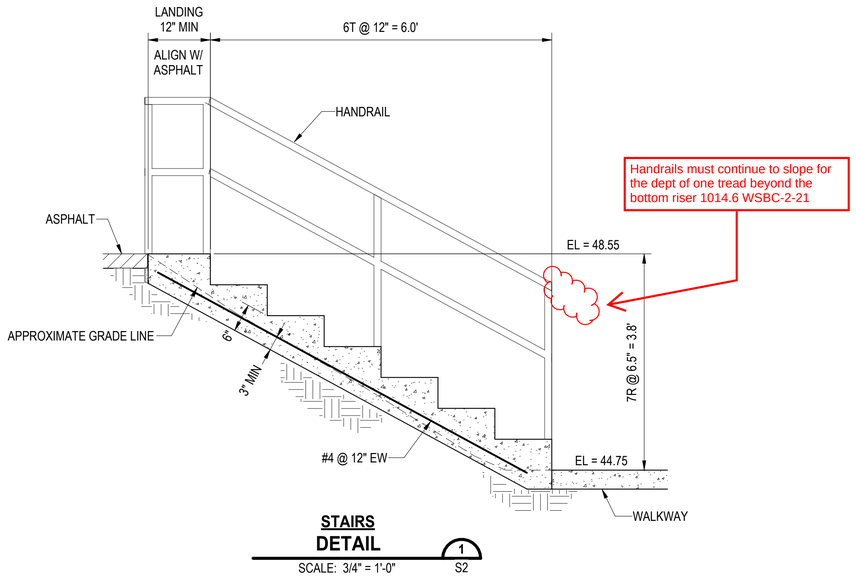
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

GENERATOR BUILDING ELEVATIONS

DRAWING NO.
OF 0

S4



STAIRS DETAIL 1 S2

SCALE: 3/4" = 1'-0"



PIER DETAIL 2 S2

SCALE: 1 1/2" = 1'-0"

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NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED Checker
APPROVED Approver

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB NO. 216-2750-048
DATE JUNE 2025

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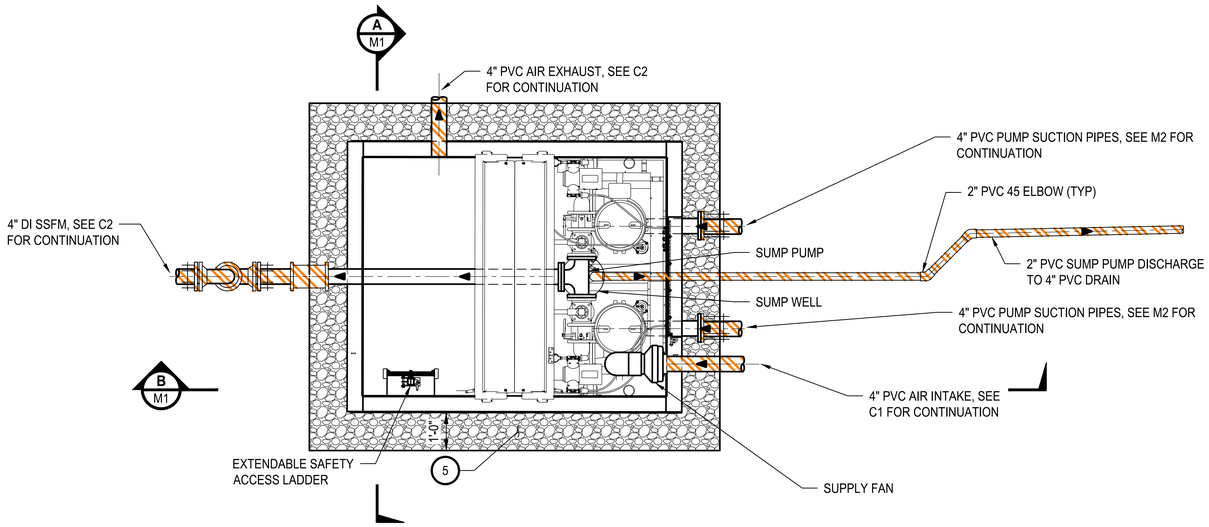
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

STRUCTURAL DETAILS

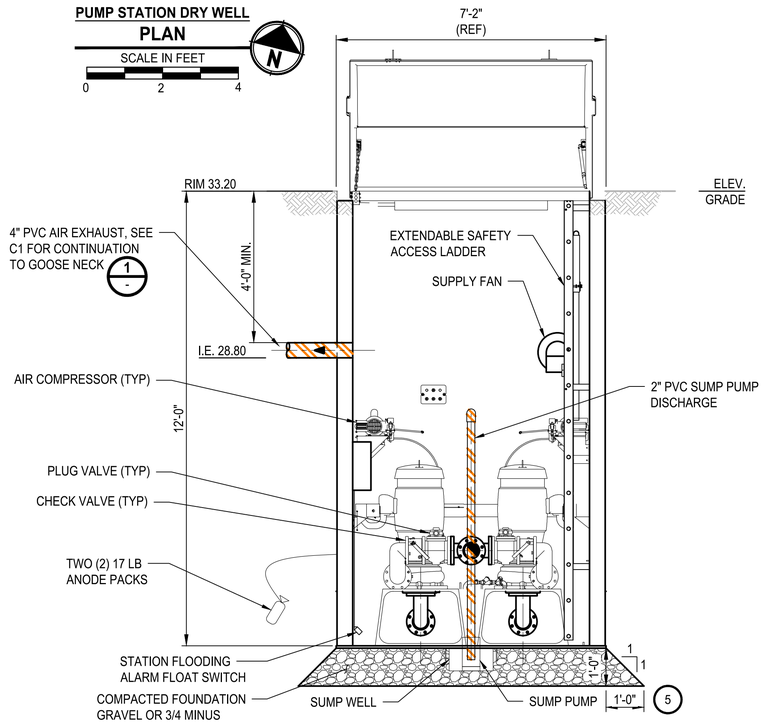
DRAWING NO. OF 0

S5

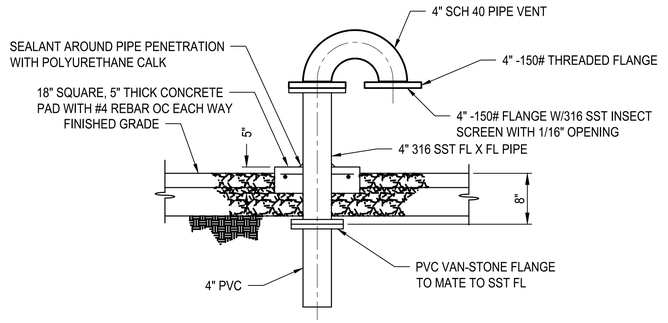


PUMP STATION DRY WELL
PLAN
SCALE IN FEET
0 2 4

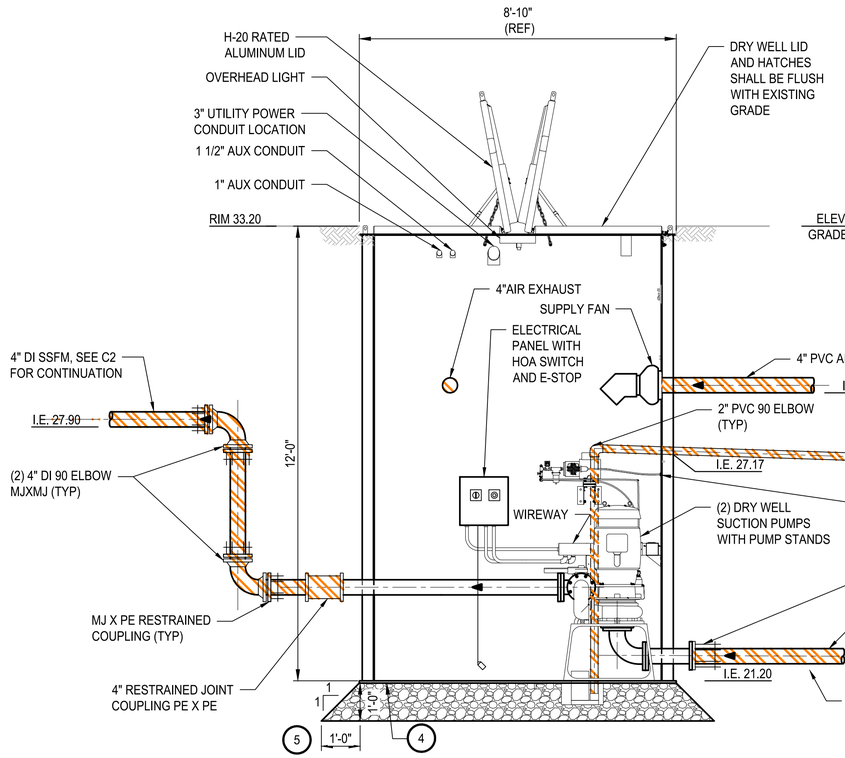
LEGEND
CONTRACTOR RESPONSIBILITY



PUMP STATION DRY WELL
SECTION
SCALE IN FEET
0 2 4
A
M1



GOOSE NECK INTAKE/EXHAUST
DETAIL
N.T.S.
1
M1



PUMP STATION DRY WELL
SECTION
SCALE IN FEET
0 2 4
B
M1

NOTES

1. INFORMATION SHOWN ON THIS DRAWING IS PRODUCED FROM EXISTING REFERENCE DRAWINGS, FIELD MEASUREMENTS, AND PHOTOGRAPHS. ALL INFORMATION SHALL BE FIELD VERIFIED AND LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR'S DEMOLITION PLAN SHALL BE REVIEWED AND COMMENTED BY OWNER PRIOR TO BEGINNING WORK.
2. FIELD VERIFY LOCATIONS, SIZES, AND CONNECTIONS MATERIALS OF ALL EXISTING PIPING AND EQUIPMENT BEFORE FABRICATING NEW PIPE OR RETROFITTING FOR NEW EQUIPMENT.
3. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS AND LOCATIONS PRIOR TO CONSTRUCTION.
4. SUBGRADE UNDER STATION BASE PLATE SHALL BE COMPACTED TO 95% COMPACTION ACCORDING TO ASTM D1557 AND PROVIDE UNIFORM SUPPORT UNDER ENTIRE BASE PLATE.
5. CRUSHED ROCK BEDDING SHALL EXTEND 1'-0" BEYOND THE PERIMETER OF THE DRY WELL AS SHOWN.
6. ALL PENETRATIONS THROUGH THE DRY WELL AND WET WELL THAT ARE 4" IN DIAMETER AND LARGER SHALL USE LINK SEALS.
7. ALL MOUNTING HARDWARE IN DRY WELL SHALL BE 304 SST AND THE WET WELL SHALL BE 316 SST.
8. THE DRY WELL SHALL BE A RECTANGULAR RWWMPS W/ QUICKMART MANUFACTURED BY SMITH & LOVELESS.
9. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED.

Know what's **below.**
Call before you dig.

90 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

PRELIMINARY

SARAYA MALINI ASHLEY
STATE OF WASHINGTON
23009570
REGISTERED
PROFESSIONAL ENGINEER

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046–M
JOB No. 216–2750–048
DATE JUNE 2025

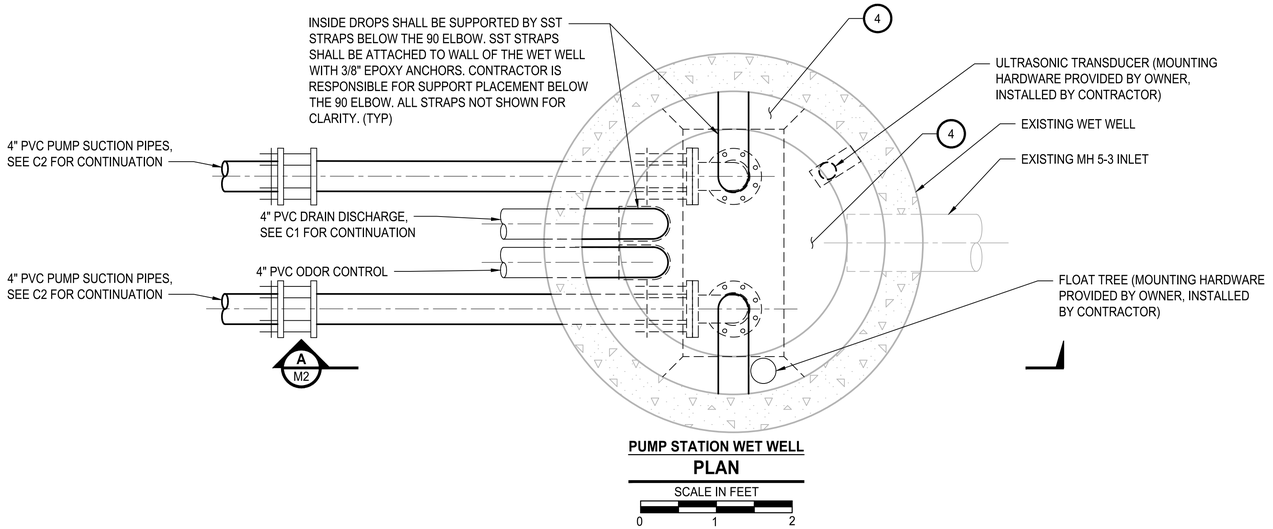
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PUMP STATION DRY WELL MECHANICAL PLAN

DRAWING NO.
10 OF XX
M1

PATH: U:\PSO\Projects\Clients\2750–CityOfGigHarbor\216–2750–048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: ChrisNoa DATE: Wednesday, June 11, 2025 2:03:15 PM
LAYOUT: M1

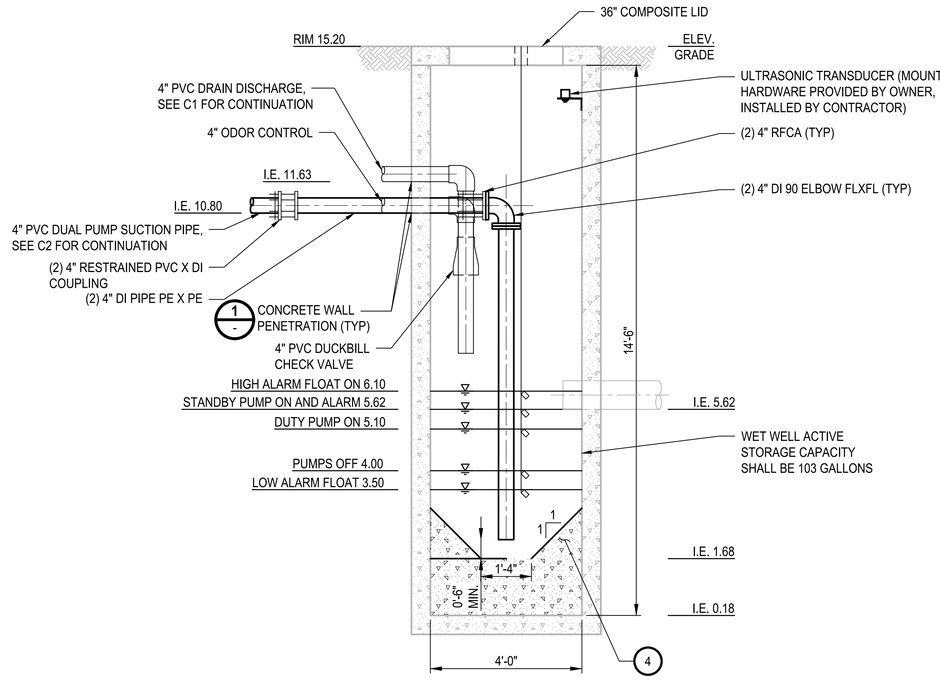


PUMP STATION WET WELL

PLAN

SCALE IN FEET

0 1 2

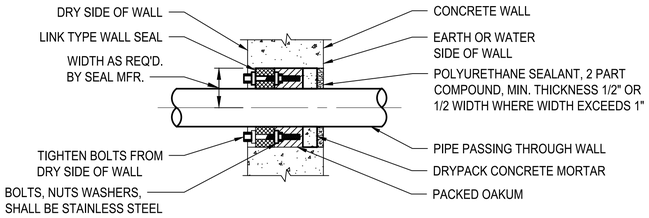


PUMP STATION WET WELL

SECTION A

SCALE IN FEET M2

0 2 4



CONCRETE WALL PENTRATION

DETAIL 1

N.T.S. M2

NOTES

1. INFORMATION SHOWN ON THIS DRAWING IS PRODUCED FROM EXISTING REFERENCE DRAWINGS, FIELD MEASUREMENTS, AND PHOTOGRAPHS. ALL INFORMATION SHALL BE FIELD VERIFIED AND LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR'S DEMOLITION PLAN SHALL BE REVIEWED AND COMMENTED BY OWNER PRIOR TO BEGINNING WORK.
2. FIELD VERIFY LOCATIONS, SIZES, AND CONNECTIONS MATERIALS OF ALL EXISTING PIPING AND EQUIPMENT BEFORE FABRICATING NEW PIPE OR RETROFITTING FOR NEW EQUIPMENT.
3. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS AND LOCATIONS PRIOR TO CONSTRUCTION.
4. BOTTOM OF WET WELL SHALL BE SLOPED WITH GROUT TO THE PUMP SUCTION PIPES AS SHOWN ON THE PLAN AND SECTION. A MINIMUM OF 1:1 SLOPE SHALL BE USED.
5. ALL PENETRATIONS THROUGH THE DRY WELL AND WET WELL THAT ARE 4" IN DIAMETER AND LARGER SHALL USE LINK SEALS.
6. ALL MOUNTING HARDWARE IN DRY WELL SHALL BE 304 SST AND THE WET WELL SHALL BE 316 SST.

Know what's **below.** **Call** before you dig.

90 % REVIEW SUBMITTAL

NOT FOR CONSTRUCTION

PATH: U:\PS0\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: ChrisNoo DATE: Wednesday, June 11, 2025 2:04:33 PM LAYOUT: M2

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-M
JOB No. 216-2750-048
DATE JUNE 2025

PRELIMINARY

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PROJECT NAME

CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PUMP STATION WET WELL MECHANICAL PLAN

DRAWING NO. 11 OF XX

M2

PLAN SYMBOLS

CONDUIT SYMBOLS

- X-### — CONDUIT ID TAG. P = POWER C = CONTROL S = SIGNAL X = SPARE
- 3/4"C-(3)#12 — CALLOUT INDICATING CONDUIT SIZE, NUMBER OF WIRES, AND WIRE SIZE.
- X-### — CALLOUT INDICATING CONDUIT NUMBER AND WIRE PER SCHEDULE.
- EXPOSED CONDUIT
- CONCEALED CONDUIT
- CAP ON CONDUIT STUB
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT WITH SEAL FITTING
- UNDERGROUND DIRECT BURIAL CONDUITS
- FLEXIBLE CONDUIT
- INDICATES REMOVAL
- GROUND CONDUCTOR
- HEAT TRACE
- CONDUIT RUN, BROKEN AND CONTINUED ON SAME SHEET OR AS NOTED
- HOME RUN TO PANELBOARD OR AS INDICATED
- CABLE TRAY
- J — JUNCTION BOX LOCATION

EQUIPMENT AND INSTRUMENT SYMBOLS

- XXX## ### — EQUIPMENT ID TAG
- G / xxKW — GENERATOR xxKW = SIZE
- xx — MOTOR xx = HORSEPOWER
- EQUIPMENT CONNECTION
- INSTRUMENT LOCATION
- T — THERMOSTAT LOCATION
- xxA — DISCONNECT SWITCH, UNFUSED xxA = AMPERAGE RATING
- xxAF / xxAT F — DISCONNECT SWITCH, FUSED xxAF = FRAME RATING xxAT = TRIP RATING
- xxAF / xxAT CB — ENCLOSED CIRCUIT BREAKER xxAF = FRAME RATING xxAT = TRIP RATING
- MH — MANHOLE
- HH — HANDHOLE
- GROUND ROD
- GROUND ROD AND BOX
- WALL-MOUNTED CONTROL PANEL, PANELBOARD, OR TERMINAL CABINET. SHOWN WITH EQUIPMENT ID TAG. (PNL-100)
- FLOOR-STANDING DISTRIBUTION ASSEMBLY, SUCH AS MCC, SWITCHBOARD, OR XFMR. SHOWN WITH EQUIPMENT ID TAG. (PNL-100)

UTILITIES SYMBOLS

- M — ELECTRICITY UTILITY METER AND SOCKET
- PLYWOOD BACKBOARD

RECEPTACLE AND SWITCH SYMBOLS

- CKT / TYPE — DUPLEX WALL RECEPTACLE, 120V. CKT = CIRCUIT NUMBER. TYPE: WP = WEATHERPROOF, G = GROUNDED, IG = ISOLATED GROUND, GF = GROUND FAULT CIRCUIT INTERRUPTOR
- DUPLEX RECEPTACLE, EMERGENCY/STAND-BY
- SINGLE RECEPTACLE, 120V
- SINGLE RECEPTACLE, EMERGENCY/STAND-BY
- DOUBLE DUPLEX RECEPTACLE, 120V
- DOUBLE DUPLEX RECEPTACLE, EMERGENCY/STAND-BY
- SPECIAL PURPOSE WALL RECEPTACLE, RATING AS NOTED.
- $(a,b) — SINGLE POLE SWITCH (SEE NOTE S1). * = SINGLE POLE, 2 = 2 POLE, 3 = 3 WAY, 4 = 4 WAY, M = HP RATED, LOCKABLE, OS = OCCUPANCY SENSOR, P = SWITCH WITH PILOT LIGHT, WP = WEATHERPROOF

NOTES:

S1 LOWER CASE LETTERS IN PARENTHESIS ADJACENT TO A SWITCH OR LIGHT FIXTURE INDICATE A SWITCHED CIRCUIT AND IDENTIFY THE FIXTURE/SWITCH COMBINATIONS. FOR FOUR LAMP FLUORESCENT FIXTURES WIRED IN PAIRS WITHIN EACH FIXTURE, THE "a" SWITCH CONTROLS THE OUTER LAMPS AND THE "b" SWITCH CONTROLS THE INNER LAMPS. WIRE 3 LAMP FIXTURES SIMILARLY.

S2 NUMBERS IN PARENTHESIS ADJACENT TO A LIGHT FIXTURE OR RECEPTACLE INDICATE THE LIGHTING PANEL BRANCH CIRCUIT FEEDING THE DEVICE.

LIGHTING SYMBOLS

- ID / NL / (a) / (LPXX/X) — LUMINAIRE WITH IDENTIFICATION TAG. ID = TYPE, PER LIGHTING SCHEDULE. NL = UNSWITCHED NIGHT LIGHT. a = SWITCH CONTROL. LPXX/X = POWER SOURCE PANEL AND CIRCUIT NUMBER
- SURFACE MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE
- POLE MOUNTED LUMINAIRE
- WALL/CEILING MOUNTED EXIT LIGHT - DIRECTIONAL ARROW WHERE INDICATED, SHADED AREA INDICATES ILLUMINATED FACE.
- PHOTOELECTRIC CELL
- EMERGENCY LIGHT WITH SELF-CONTAINED BATTERY

FIRE ALARM SYMBOLS

- FACP — FIRE ALARM CONTROL PANEL
- SH — COMBINATION SMOKE/HEAT DETECTOR
- F — HORN AND STROBE
- F — MANUAL PULL STATION

ONE-LINE SYMBOLS

- XXX## ### — EQUIPMENT ID TAG
- X-### — CONDUIT ID TAG. P = POWER C = CONTROL S = SIGNAL X = SPARE
- G / xxKW — GENERATOR xxKW = SIZE
- xx — MOTOR xx = HORSEPOWER
- xxAF / xxAT — POWER CIRCUIT BREAKER, 3 POLE, ABOVE 1500V. xxAF = FRAME SIZE xxAT = TRIP RATING
- WITH DRAWOUT / NO DRAWOUT
- CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED. xxAF = FRAME SIZE xxAT = TRIP RATING
- WITH DRAWOUT / NO DRAWOUT
- xxKVA / xxV-yyV — POWER OR DISTRIBUTION TRANSFORMER, 3 PHASE UNLESS OTHERWISE NOTED. xxKVA = SIZE xxV = PRIMARY VOLTAGE yyV = SECONDARY VOLTAGE
- ATS — TRANSFER SWITCH, ATS OR MTS AS INDICATED. 3 POLE UNLESS OTHERWISE NOTED. xxAF = RATING
- * — MOTOR STARTER WITH THERMAL OVERLOAD. 3 PHASE UNLESS OTHERWISE NOTED. * = NEMA SIZE
- VFD ### — VARIABLE FREQUENCY DRIVE. 3 PHASE UNLESS OTHERWISE NOTED. ### = DEVICE ID NUMBER
- SS ### — ELECTRONIC SOFT STARTER WITH BYPASS. 3 PHASE UNLESS OTHERWISE NOTED. ### = DEVICE ID NUMBER
- LINE OR LOAD REACTOR
- K — KIRK KEY INTERLOCK
- ST — SHUNT TRIP
- FUSE
- CURRENT TRANSFORMER
- VOLTAGE TRANSFORMER
- SURGE ARRESTOR
- X — SENSOR. X INDICATES DEVICE TYPE: A = AMMETER, AS = CURRENT SWITCH, V = VOLTMETER, VS = VOLT SWITCH, WH = WATTHOUR METER, PM = POWER QUALITY METER
- POWER RECEPTACLE
- CAPACITOR
- VACUUM BREAK SWITCH
- TERMINATOR OR POTHEAD
- GROUND CONNECTION

SCHEMATIC SYMBOLS

- M — MOTOR, 3 PHASE. VOLTAGE AND HORSEPOWER AS INDICATED.
- M — MOTOR, SINGLE PHASE. VOLTAGE AND HORSEPOWER AS INDICATED.
- M OL — MOTOR STARTER WITH THERMAL OVERLOAD, 3 POLE.
- TAG / xxVA / xxV-yyV — CONTROL POWER TRANSFORMER. TAG = DEVICE TAG ID. xxxVA = SIZE. xxV = PRIMARY VOLTAGE. yyV = SECONDARY VOLTAGE
- TAG / xxAF — DISCONNECT OR TOGGLE SWITCH. TAG = DEVICE TAG ID. xxAF = SWITCH RATING IN AMPERES
- TAG / xxA — CIRCUIT BREAKER. TAG = DEVICE TAG ID. xxA = TRIP RATING IN AMPERES
- TAG / xxA — FUSE. TAG = DEVICE TAG ID. xxA = TRIP RATING, IN AMPERES

COVER CONTROL DEVICES

- H O A / XOO / OXO / OOX — SELECTOR SWITCH ASSEMBLY, 3-POSITION. TYPICAL CONFIGURATIONS: H O A - HAND/OFF/AUTO, L O R - LOCAL/OFF/REMOTE
- PUSHBUTTON, NORMALLY OPEN AND NORMALLY CLOSED
- X — INDICATING LIGHT, X INDICATES COLOR: A = AMBER, B = BLUE, C = CLEAR, G = GREEN, R = RED, W = WHITE, Y = YELLOW
- X — INDICATING LIGHT, PUSH-TO-TEST
- ETM — ELAPSED TIME METER/ HOURMETER

CONTROL RELAYS AND CONTACTORS

- XXX ### — CONTROL DEVICE COIL. XXX INDICATES TYPE: ALT = ALTERNATING RELAY, CR = CONTROL RELAY, LR = LATCHING RELAY, TR/TDR = TIMING RELAY/ TIME-DELAY RELAY, M = MOTOR STARTER CONTACTOR. ### = DEVICE ID NUMBER
- TAG / TAG — CONTACTS, NORMALLY OPEN AND NORMALLY CLOSED. TAG = CONTROL DEVICE COIL ID NUMBER

TIMING RELAY CONTACTS

- TAG — NORMALLY OPEN, CLOSES AFTER TIME DELAY (NOTC). TAG = DEVICE TAG ID
- NORMALLY CLOSED, OPENS AFTER TIME DELAY (NCTO).
- NORMALLY CLOSED, INSTANTANEOUS OPEN, CLOSES AFTER TIME DELAY (NCTC).
- NORMALLY OPEN, INSTANTANEOUS CLOSE, OPENS AFTER TIME DELAY (NOTO).

SENSING DEVICE CONTACTS

CLOSES RISING	CLOSES FALLING	DEVICE TYPE
		FLOW SWITCH
		LEVEL/FLOAT SWITCH
		PRESSURE SWITCH
		TEMPERATURE SWITCH

LIMIT SWITCH CONTACTS

- NORMALLY OPEN, CLOSES ON REACHING LIMIT
- NORMALLY CLOSED, OPENS ON REACHING LIMIT

WIRE, CABLE, AND TERMINAL SYMBOLS

- WIRING INSIDE ENCLOSURE
- FIELD WIRING
- CONDUCTORS CONNECTED
- CONDUCTORS NOT CONNECTED
- SPLICE OR TERMINATION
- FEED-THROUGH TERMINAL
- DEVICE TERMINAL
- SHORTING BLOCK

MISCELLANEOUS DEVICES

- SOLENOID
- H — HORN
- B — BELL
- BUZZER
- RESISTOR OR HEATER ELEMENT
- BUS STAB ON MCC OR SWITCHGEAR, OR CORD AND PLUG CONNECTION.

ABBREVIATIONS

A	AMPERES
AC	ALTERNATING CURRENT
A/D	ANALOG TO DIGITAL
ADJ	ADJUSTABLE
AF	AMPERE FRAME
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AMP	AMPERES
ANN	ANNUNCIATOR
AS	AMMETER SWITCH
AT	AMMETER TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
BCG	BARE COPPER GROUND
C	CONDUIT
CAB	CABINET
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CC	CONTROL CABLE, CLOSING COIL
CHH	COMMUNICATION HANDHOLE
CKT	CIRCUIT
CMH	COMMUNICATION MANHOLE
CO	CONDUIT ONLY
COMM	COMMUNICATION
COND	CONDUCTOR
CPT	CONTROL POWER TRANSFORMER
CP	CONTROL PANEL
CR	CONTROL RELAY
CS	CONTROL STATION
CT	CURRENT TRANSFORMER
DB	DIRECT BURIAL
DC	DIRECT CURRENT
DIAG	DIAGRAM
DISC	DISCONNECT
DISTR	DISTRIBUTION
DIV	DIVISION
DP	DISTRIBUTION PANEL
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
(E)	EXISTING
EE	ELECTRICAL ENCLOSURE
EHH	ELECTRICAL HANDHOLE
ELEM	ELEMENTARY
EMERG	EMERGENCY
ENCL	ENCLOSURE
EFFL	EFFLUENT
EGC	EQUIPMENT GROUND CONDUCTOR
EQPT	EQUIPMENT
ETM	ELAPSED TIME METER
FDR	FEEDER
FE	FLOW ELEMENT
FIT	FLOW INDICATION TRANSMITTER
FLEX	FLEXIBLE
FLUOR	FLUORESCENT
FO	FIBER OPTIC
FREQ	FREQUENCY
FSH	FLOAT SWITCH HIGH
FSO	FLOAT SWITCH OVERFLOW
FU	FUSE
FUT,(F)	FUTURE
FVNR	FULL VOLTAGE, NON-REVERSING
FVR	FULL VOLTAGE, REVERSING
FWD	FORWARD
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
H	HYDROGEN PYROXIDE
HH	HANDHOLE
HOA	HAND-OFF-AUTOMATIC
HOR	HAND-OFF-REMOTE
HPS	HIGH PRESSURE SODIUM
HT	HEAT TAPE
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ (CYCLES PER SECOND)
IND LT	INDICATING LIGHT
INCAND	INCANDESCENT
INSTR	INSTRUMENT, INSTRUMENTATION
I/O	INPUT/OUTPUT
ISB	INTRINSICALLY SAFE BARRIER
ISR	INTRINSICALLY SAFE RELAY
JB	JUNCTION BOX
KA	KILOAMPERES
KCMIL	THOUSANDS OF CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KWH	KILOWATT HOURS
LCP	LOCAL CONTROL PANEL
LCS	LOCAL CONTROL STATION
LTG	LIGHTING
LTS	LIGHTS
LP	LIGHTING PANEL
(M)	MODIFIED
mA	MILLIAMPERES
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION OR MAIN CONTROL PANEL
MCM	THOUSAND CIRCULAR MILS (KCMIL)
MON	MONITOR
MOV	MOTOR OPERATED VALVE
MS	MOTOR STARTER
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
(N)	NEW
NC	NORMALLY CLOSED
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NEUT	NEUTRAL
NO	NORMALLY OPEN, NUMBER
OL	OVERLOAD
OT	OVER TEMPERATURE
OIT	OPERATOR INTERFACE TERMINAL
P	POLE, PUMP
PB	PULLBOX
PBSW	PUSHBUTTON SWITCH
PEC	PHOTOELECTRIC CELL
PF	POWER FACTOR
PGRS	PVC COATED GALVANIZED RIGID STEEL
pH	MEASURE OF ACIDITY OR ALKALINITY
PH	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PNLBD	PANELBOARD
POS	POSITION, POSITIVE
POT	POTENTIOMETER
PPS	PACKAGED POWER SUPPLY
PRI	PRIMARY
PWR	POWER
(R)	RELOCATED
RCPT	RECEPTACLE
RCT	REPEAT CYCLE TIMER
RT	RESET TIMER
SCCR	SHORT CIRCUIT CURRENT RATING
SCHD80	SCHEDULE 80 PVC
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SIG	SIGNAL
SN	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SPDT	SINGLE POLE, DOUBLE THROW
SST	STAINLESS STEEL
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYNC	SYNCHRONIZING
TB	TERMINAL BOX
TC	TIMED CLOSING
TEL	TELEPHONE
TERM	TERMINAL
TO	TIMED OPENING
TSP	TWISTED SHIELDED PAIR
TST	TWISTED SHIELDED TRIAD
UGND	UNDERGROUND
UV	ULTRAVIOLET
VA	VOLT-AMPERES
VAR	VOLT-AMPERES REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VH	VAR-HOUR
VS	VOLTMETER SWITCH
W	WIRE, WATTS
WH	WATTHOUR METER
WHDM	WATTHOUR DEMAND METER
WP	WEATHERPROOF
WR	WEATHER RESISTANT
WT	WATER TIGHT
XFMR	TRANSFORMER

GENERAL NOTES

1. THE INSTALLATION OF ALL EQUIPMENT SHOWN ON THESE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITIONS OF ALL APPLICABLE CODES AND UTILITY COMPANY STANDARDS. CONTACT THE UTILITY COMPANY REPRESENTATIVES AND VERIFY THEIR REQUIREMENTS.
2. THIS IS A GENERALIZED LEGEND SHEET. THIS CONTRACT MAY NOT USE ALL INFORMATION SHOWN.
3. NOTIFY THE ENGINEER IMMEDIATELY IF CONFLICTS IN EQUIPMENT LOCATIONS ARE DISCOVERED, OR IF PROBLEMS ARISE DUE TO FIELD CONDITIONS, LACK OF INFORMATION, OR ANY OTHER REASON.
4. INFORMATION SHOWN MAY NOT BE ALL INCLUSIVE. SEE ALSO ANSI C37.3, Y1.1, Y32.2, AND Y32.9.
5. REFER TO THE MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND FOR CERTAIN CONNECTIONS TO BE MADE TO ELECTRICAL CIRCUITS.
6. EQUIPMENT SHOWN IN HALF TONE OR GREY TONE ARE EXISTING OR BY OTHERS.
7. VERIFY ALL COLOR REQUIREMENTS BEFORE ORDERING MATERIALS.
8. CONDUIT SIZE AND FILL SHALL BE AS INDICATED. WHERE NO SIZE IS SHOWN, THE CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE EDITION OF THE NATIONAL ELECTRIC CODE ADOPTED BY THE AUTHORITY HAVING CODE ENFORCEMENT JURISDICTION. WHERE NO FILL IS INDICATED, PROVIDE (3) #12 WIRES. PROVIDE 3/16" INCH NYLON PULL ROPE IN EACH EMPTY CONDUIT.

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED D.SPENCER
DRAWN D.PETERSON
CHECKED C. WITTMAN
APPROVED Approver

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB NO. 216-2750-048
DATE JUNE 2025

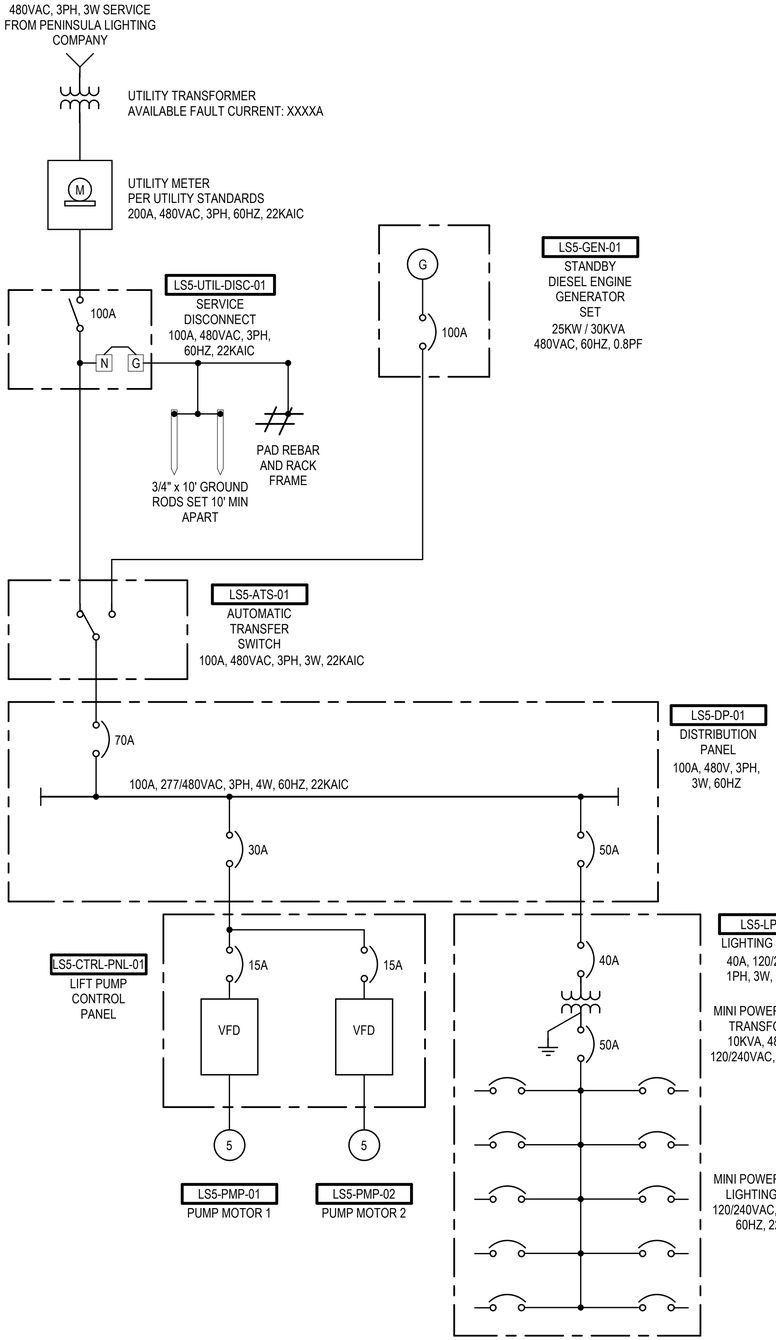
DEREK STEVEN SPENCER — STATE OF WASHINGTON — 13024 — REGISTERED PROFESSIONAL ENGINEER
PRELIMINARY

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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ELECTRICAL LEGEND AND ABBREVIATIONS

DRAWING NO. OF 0
E1



ONE-LINE DIAGRAM

v 6.0

PANELBOARD SCHEDULE

NAME: LIGHTING PANEL (LS5-LP-01)

VOLTAGE RATING: **120/240 VOLTS, 1 PHASE, 3 WIRE**
BUS RATING: **50** AMPS
MAIN BREAKER: **40** AMPS
FEED: **BOTTOM**
MOUNTING: **SURFACE**
SPECIAL FEATURES: **SECONDARY BREAKER - 50A**

LOCATION: **LS#5 GENERATOR BUILDING**
FED FROM: **LS5-ATS-01**
NOTES: **22kAIC**

LOAD TYPE	CIRCUIT DESCRIPTION	VA	CKT	BRKR	L1	L2	BRKR	CKT	VA	CIRCUIT DESCRIPTION	LOAD TYPE
L	INTERIOR LIGHTING	52	1	20 / 1	-A-		20 / 1	2	100	EXTERIOR LIGHTING	L
R	INTERIOR RECEPTACLES	540	3	20 / 1		-B-	20 / 1	4	792	GENERATOR BATTERY CHARGER	X
X	GENERATOR BLOCK HEATER	1,500	5	20 / 1	-A-		20 / 1	6		SPARE	
			7	/ 1		-B-	/ 1	8			
			9	/ 1	-A-		/ 1	10			
			11	/ 1		-B-	/ 1	12			
			13	/ 1	-A-		/ 1	14			
			15	/ 1		-B-	/ 1	16			
			17	/ 1	-A-		/ 1	18			
			19	/ 1		-B-	/ 1	20			
	LINE LOADS:	**1,652**	**VA(L1)**						**1,332**	**VA(L2)**	
	TOTAL LOAD:	**2.98**	**KVA**				**12.4**	**AMPS**			

LIGHTING PANEL (LS5-LP-01) LOAD CALCULATION:

		CONNECTED VA	METHOD	NEC DEMAND	CALC. VA
TOTAL EXISTING (E) LOAD FROM 30 DAY					
METER RECORDING, PER NEC (2023) 220.87:	E	0	ALL @	125%	0
TOTAL LIGHTING (L) LOAD:	L	152	ALL @	125%	190
TOTAL RECEPTACLE (R) LOAD:	R	540	FIRST 10KVA @	125%	675
			REMAINDER OVER 10KVA	50%	0
TOTAL MOTOR (M) LOAD:	M	0	ALL @	100%	0
	LM	0	125% OF LARGEST	125%	0
TOTAL HVAC (H) LOAD:	H	0	ALL @	125%	0
TOTAL MISCELLANEOUS (X) LOAD:	X	2292	ALL @	125%	2865
TOTAL VA:		2984 VA			3730 VA

v 6.0

PANELBOARD SCHEDULE

NAME: DISTRIBUTION PANEL (LS5-DP-01)

VOLTAGE RATING: **480Y/277 VOLTS, 3 PHASE, 3 WIRE**
BUS RATING: **100** AMPS
MAIN BREAKER: **70** AMPS
FEED: **BOTTOM**
MOUNTING: **SURFACE**
SPECIAL FEATURES:

LOCATION: **LS#5 GENERATOR BUILDING**
FED FROM: **LS5-ATS-01**
NOTES:

LOAD TYPE	CIRCUIT DESCRIPTION	VA	CKT	BRKR	L1 L2 L3	BRKR	CKT	VA	CIRCUIT DESCRIPTION	LOAD TYPE
X	SMITH AND LOVELESS PUMP SYSTEM CONTROL PANEL (LS5-CTRL-PNL-01)	5,750	1	30 / 3	-A-	40 / 1	2	440	LS5-LP-01	X
X		5,750	3		-B-		4	440		X
X		5,750	5		-C-	/ 1	6			
			7	/ 1	-A-	/ 1	8			
			9	/ 1	-B-	/ 1	10			
			11	/ 1	-C-	/ 1	12			
			13	/ 1	-A-	/ 1	14			
			15	/ 1	-B-	/ 1	16			
			17	/ 1	-C-	/ 1	18			
	LINE LOADS:	**6,190**	**VA(L1)**		**6,190**	**VA(L2)**		**5,750**	**VA(L3)**	
	TOTAL LOAD:	**18.13**	**KVA**		**21.8**	**AMPS**				

DISTRIBUTION PANEL (LS5-DP-01)
LOAD CALCULATION:

		CONNECTED VA	METHOD	NEC DEMAND	CALC. VA
TOTAL EXISTING (E) LOAD FROM 30 DAY					
METER RECORDING, PER NEC (2023) 220.87:	E	0	ALL @	125%	0
TOTAL LIGHTING (L) LOAD:	L	0	ALL @	125%	0
TOTAL RECEPTACLE (R) LOAD:	R	0	FIRST 10KVA @	125%	0
			REMAINDER OVER 10KVA	50%	0
TOTAL MOTOR (M) LOAD:	M	0	ALL @	100%	0
	LM	0	125% OF LARGEST	125%	0
TOTAL HVAC (H) LOAD:	H	0	ALL @	125%	0
TOTAL MISCELLANEOUS (X) LOAD:	X	18130	ALL @	125%	22663
TOTAL VA:		18130 VA			22663 VA
AVERAGE AMPS @		22 AMPS			27 AMPS
VOLTAGE PHASE TO PHASE=	480				

90% REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED D.SPENCER
DRAWN D.PETERSON
CHECKED C. WITTMAN
APPROVED Approver

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FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE JUNE 2025

DEREK STEVEN SHEMA — STATE OF WASHINGTON — 22016 — REGISTERED PROFESSIONAL ENGINEER

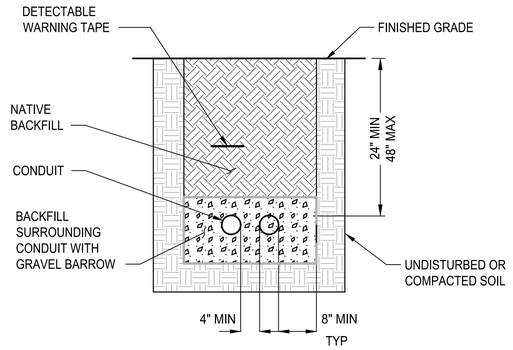
PRELIMINARY

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PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ELECTRICAL ONE-LINE AND SCHEDULES

DRAWING NO. OF 0
E2

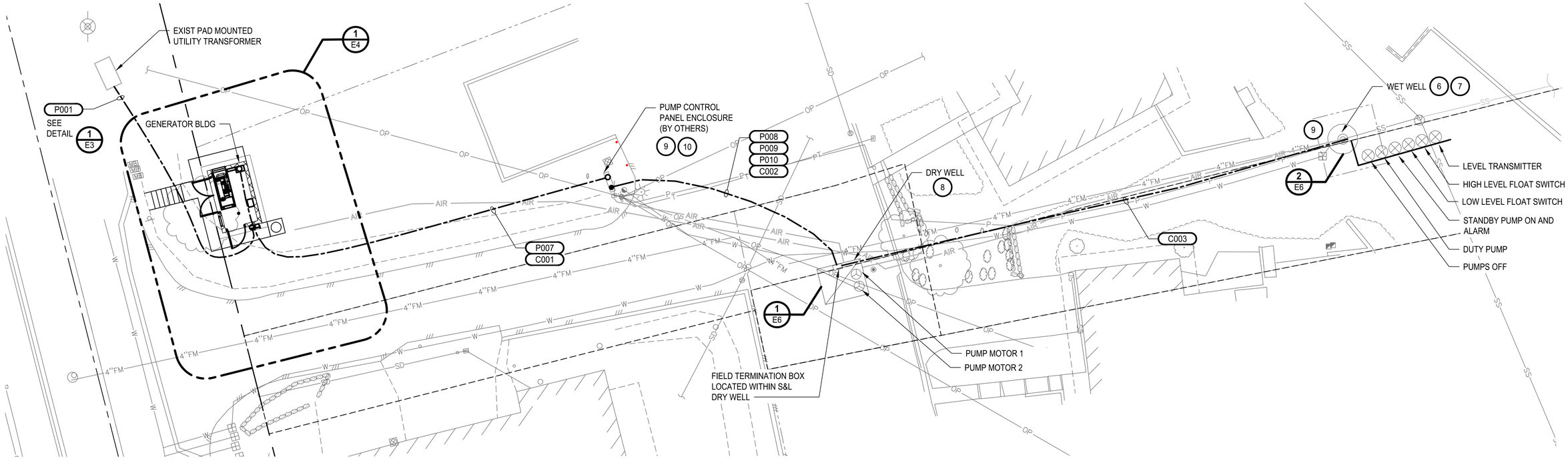


DUCT BANK TYPICAL DETAIL 1

SCALE: NONE

NOTES:

1. REFER TO "PENINSULA LIGHT COMPANY - COMMERCIAL METER GUIDELINES AND STANDARDS FOR ELECTRIC SERVICE HOOKUPS" FOR UTILITY CONNECTION INFORMATION.
2. REFER TO CIVIL DRAWINGS FOR COMBINED UNDERGROUND UTILITY TRENCHING DETAILS.
3. CONTRACTOR SHALL COORDINATE WITH PENINSULA LIGHT COMPANY FOR NEW 480V SERVICE. CONFIRM TRANSFORMER LOCATION AND COORDINATE WITH UTILITY PRIOR TO TRENCHING.
4. SECONDARY SERVICE CONDUIT ROUTING IS DIAGRAMMATIC. CONTRACTOR SHALL CONFIRM FINAL CONDUIT ROUTING WITH PENINSULA LIGHT COMPANY. FULL SURVEY WAS NOT COMPLETED. CONTRACTOR SHALL PERFORM ALL UNDERGROUND UTILITY LOCATES PRIOR TO WORK AND FINALIZING CONDUIT ROUTING WITH PENINSULA LIGHT COMPANY.
5. SECONDARY SERVICE CONDUIT SHALL BE INSTALLED PER PENINSULA LIGHT COMPANY REQUIREMENTS.
6. THE ENTIRE SPACE INSIDE THE WET WELL IS CLASS I, DIVISION 1, GROUP D. PLUS AN ENVELOPE EXTENDING 3'-0" IN ALL DIRECTIONS AROUND VENTS PER NFPA 820 TABLE 4.2.2, ROW 14(a).
7. THE ENVELOP EXTENDING FROM 3'-0" TO 5'-0" AROUND VENTS IS CLASS I, DIVISION 2, GROUP D, PER NFPA 820, TABLE 4.2.2, ROW 14(b).
8. THE ENTIRE SPACE INSIDE THE DRY WELL IS UNCLASSIFIED PER NFPA 820 TABLE 4.2, ROW 15(a).
9. PROVIDE SEAL FITTINGS FOR CONDUIT LEAVING THE WET WELL IN ACCORDANCE WITH THE NEC. PROVIDE SEAL FITTINGS BELOW ENTRY TO PUMP CONTROL PANEL TO PROVIDE PROTECTION TO COMPONENTS HOUSED WITHIN.
10. PUMP CONTROL PANEL PROVIDED BY OTHERS. CONTRACTOR TO INSTALL MISSION RTU IN PANEL. INSTALL IN LOCATION AND UTILIZE ELECTRICAL PROVISIONS AS SHOWN IN MANUFACTURER'S SUBMITTAL.



PLAN

SCALE IN FEET 0 10 20

N

90 % REVIEW SUBMITTAL

NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED D. SPENCER
DRAWN A. PETERSON
CHECKED C. WITTMAN
APPROVED ----

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-E-3
JOB No. 216-2750-048
DATE JUNE 2025

DEREK STEVEN SPENCER STATE OF WASHINGTON 24944 REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY

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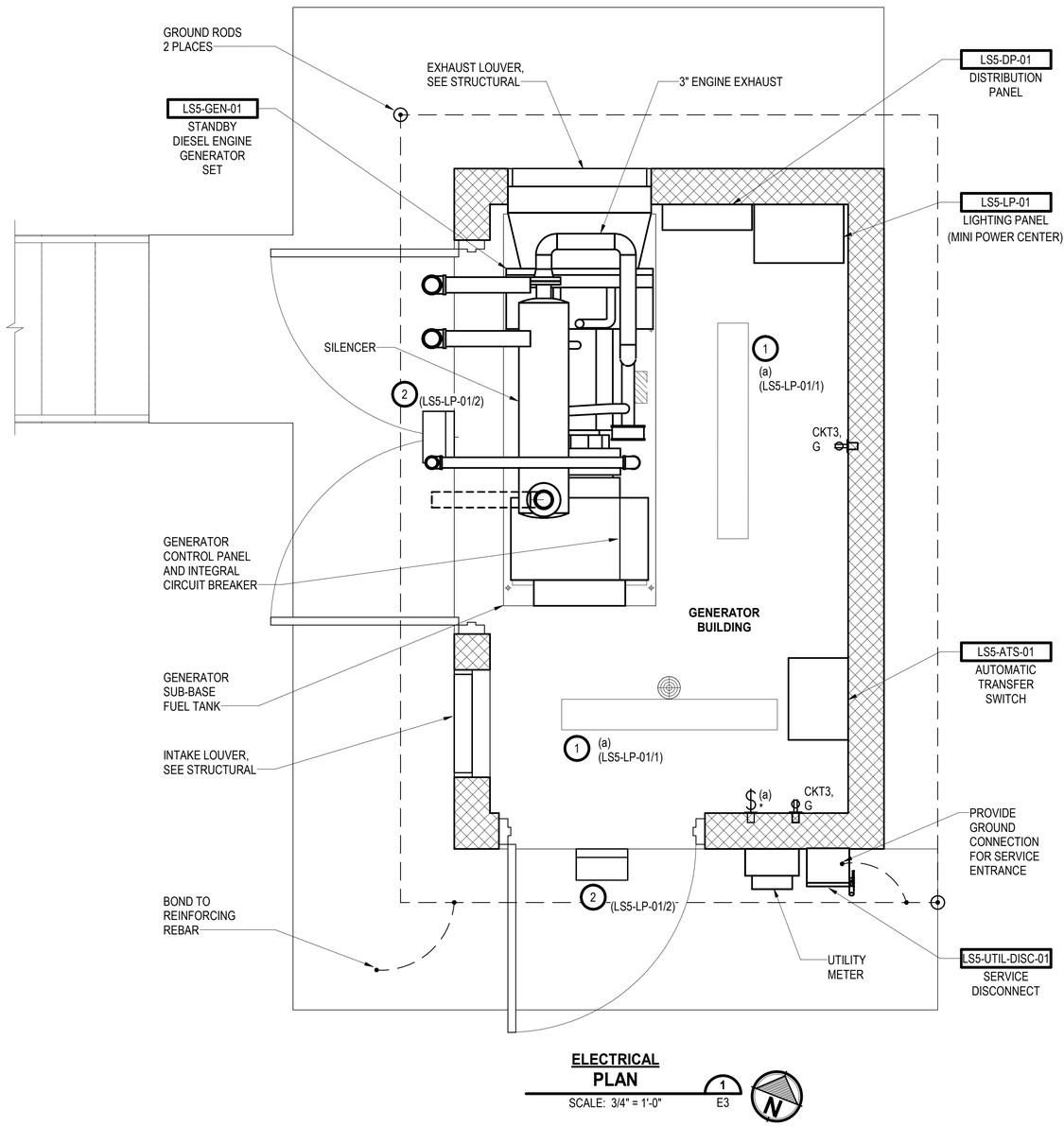
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ELECTRICAL OVERALL SITE PLAN

DRAWING NO. ---- OF XX

E3

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: peterden DATE: Thursday, June 12, 2025 1:55:18 PM LAYOUT: E4



ELECTRICAL PLAN
SCALE: 3/4" = 1'-0" (1 / E3)

NOTES:

1. LIGHT FIXTURE, LITHONIA, FEM L48 8000LM IMACD MD MVOLT 50K 90CRI, LITHONIA FEM 4', 8000 LUMEN, ACRYLIC, CLEAR DIFFUSED, MEDIUM DISTRIBUTION MULTIVOLT, 5000K COLOR TEMPERATURE, 90CRI, SURFACE MOUNT TO CEILING.
2. LITHONIA WDGE2 LED SERIES EXTERIOR WALL SCONCE LIGHT WITH SMALL WINDOW FOR PHOTOCELL USE. LIGHTING HAS A COLOR TEMPERATURE OF 5000K AND A CRI OF 90. VISUAL COMFORT WIDE DISTRIBUTION WITH SURFACE MOUNTED BACK BOX FOR USE AS JUNCTION BOX.

CONDUIT AND CABLE SCHEDULE

v2.0

NUMBER	CONDUIT QUAN & SIZE	CONDUIT TYPE	WIRE FILL	WIRE TYPE	FROM	TO	VIA	REMARKS
P001	(1) 1 1/2"	PVC	(3) 2#, (1) #6	XHHW	XFMR VAULT	METER		TERMINATE CONDUIT 2 FEET FROM XFMR VAULT AND 2 FEET FROM THE METER BASE RISER, LEAVE 10' TAIL AT BOTH ENDS. COORDINATE WITH PEN LIGHT FOR TERMINATIONS. INSTALL RIGID RISER 18" BELOW GRADE FOR ENTRY TO METER BASE CABINET.
P002	(1) 1 1/2"	RGS	(3) #2, (1) #6, (1) #10G	XHHW	METER	SERVICE ENTRANCE SWITCH		
P003	(1) 1 1/2"	RGS	(3) #2, (1) #6, (1) #10G	XHHW	SERVICE ENTRANCE SWITCH	ATS		
P004	(1) 1 1/2"	RGS	(3) #2, (1) #6, (1) #10G	XHHW	GENERATOR	ATS		
P005	(1) 1"	RGS	(4) #10, (1) #10G	XHHW	ATS	POWER PANEL		
P006	(1) 1"	RGS	(4) #10, (1) #10G	XHHW	POWER PANEL	LIGHTING PANEL		
P007	(1) 1"	RGS	(3) #10, (1) #10G	XHHW	POWER PANEL	PUMP CONTROL PANEL ENCLOSURE		
P008	(1) 1"	PVC	(3) #10, (1) #10G	XHHW	PUMP CONTROL PANEL ENCLOSURE	DRY WELL	FIELD TERMINATION BOX WITHIN DRY WELL	PUMP MOTOR 1 CONDUCTORS
P009	(1) 1"	PVC	(3) #10, (1) #10G	XHHW	PUMP CONTROL PANEL ENCLOSURE	DRY WELL	FIELD TERMINATION BOX WITHIN DRY WELL	PUMP MOTOR 2 CONDUCTORS
P010	(1) 1.5"	PVC	(18) #12, (7) #12G	XHHW	PUMP CONTROL PANEL ENCLOSURE	DRY WELL	FIELD TERMINATION BOX WITHIN DRY WELL	GFI RECEPTACLE HEATER LIGHT VAC PUMP 1 PRIMING SOLENOID 1 VAC PUMP 2 PRIMING SOLENOID 2 EXHAUST FAN SUMP PUMP
C001	(1) 1"	PVC	(3) #16TSP	TSP	GENERATOR BLDG	MISSION RTU	PUMP CONTROL PANEL	TERMINATE AT S&L PLC FIELD CONNECTIONS INSIDE PUMP CONTROL PANEL
C002	(1) 1"	PVC	(6) #16TSP	TSP	PUMP CONTROL PANEL ENCLOSURE	WET WELL		LEVEL TRANSMITTER LOW LEVEL FLOAT SWITCH HIGH LEVEL FLOAT SWITCH STANDBY PUMP ON AND ALARM DUTY PUMP PUMPS OFF
C003	(1) 3/4"	RGS	(3) #16TSP	TSP	ATS	GENERATOR CONTROL PANEL		GENERATOR START GENERATOR RUNNING GENERATOR FAULT

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NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED D.SPENCER
DRAWN D.PETERSON
CHECKED C. WITTMAN
APPROVED Approver

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FILE NAME 2750.048-COMP.rvt
JOB NO. 216-2750-048
DATE JUNE 2025

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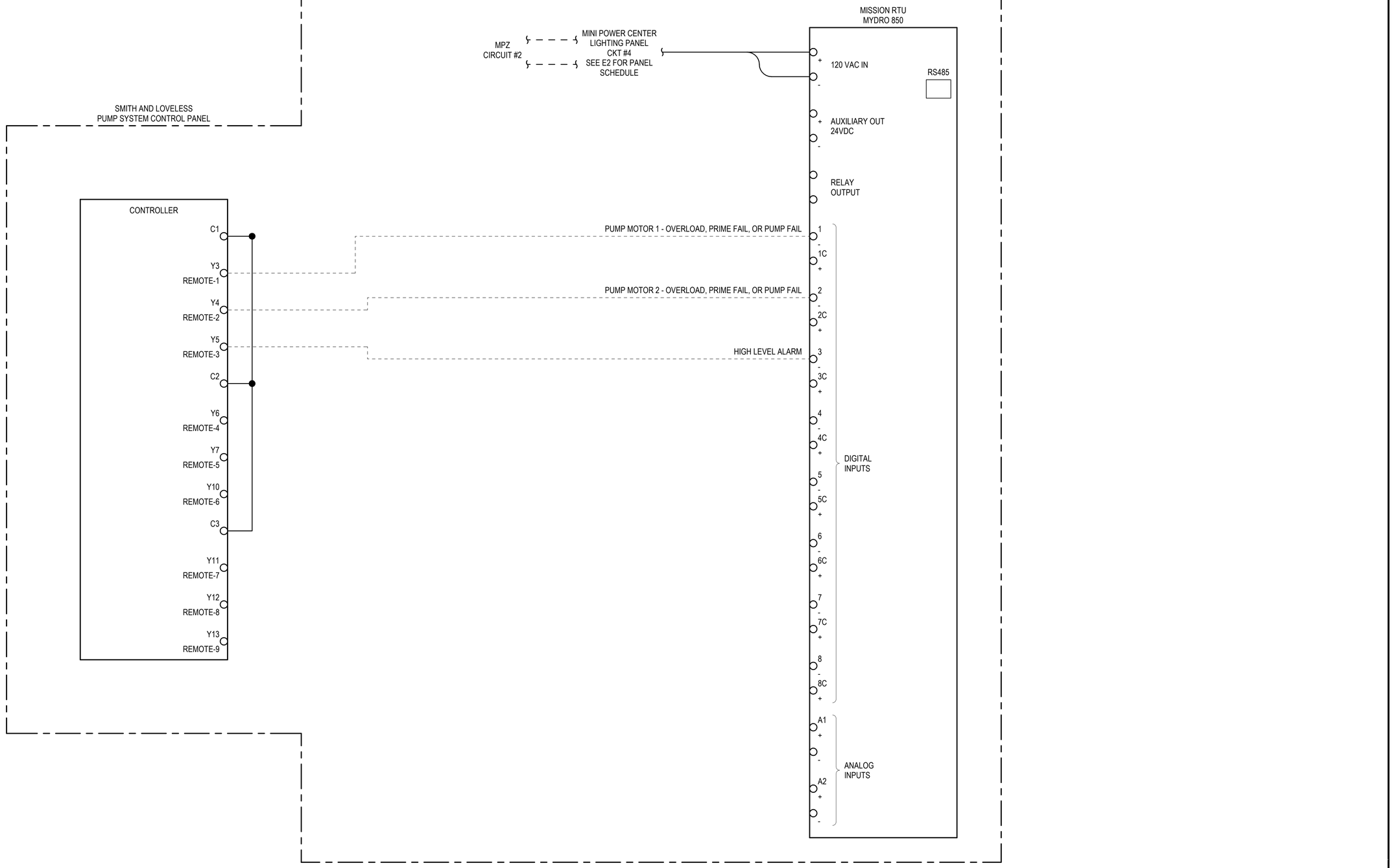
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PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ELECTRICAL GENERATOR BUILDING PLAN

DRAWING NO. OF 0
E4



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	REVISIONS	DATE	BY

DESIGNED D. SPENCER
DRAWN A. PETERSON
CHECKED C. WITTMAN
APPROVED Approver

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FILE NAME 2750.048-COMP.rvt
JOB NO. 216-2750-048
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21644
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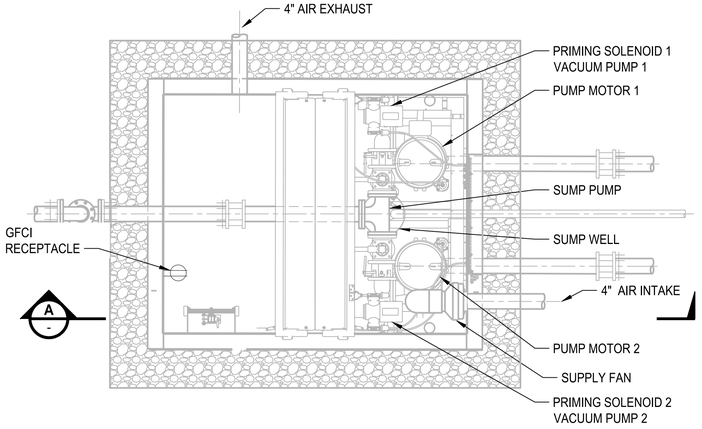
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

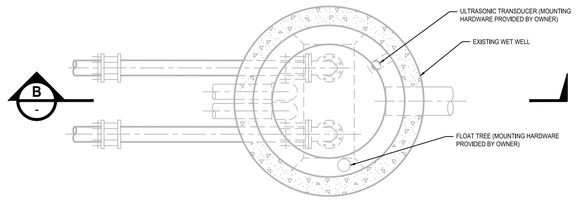
INTERCONNECT DIAGRAM

DRAWING NO.
OF 0

E5



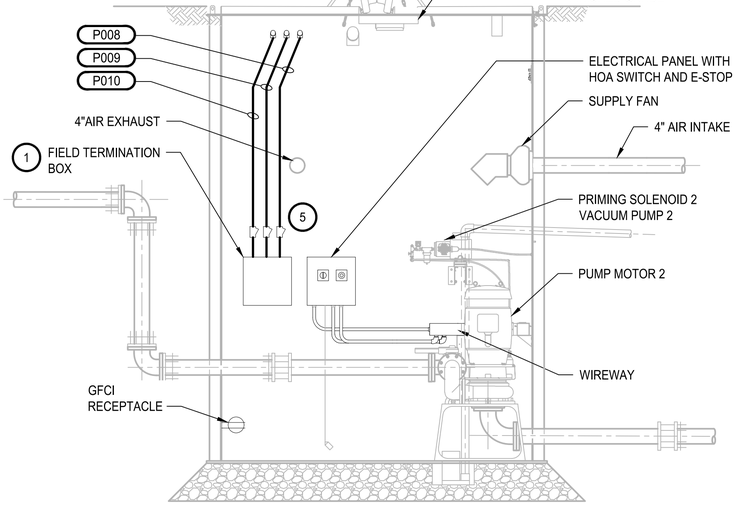
PUMP STATION DRY WELL
ELECTRICAL PLAN 1 E3
SCALE: 1/2" = 1'-0"



PUMP STATION WET WELL
ELECTRICAL PLAN 2 E3
SCALE: 1/2" = 1'-0"

NOTES

1. TERMINATE WIRES IN FIELD TERMINATION BOX PER MANUFACTURER'S SUBMITTAL.
2. CONDUIT AND WIRES WITHIN DRY WELL INSTALLED BY THE MANUFACTURER. CONTRACTOR TO BRING IN CONDUIT AND WIRES AND TERMINATE IN FIELD TERMINATION BOX.
3. THE ENTIRE SPACE INSIDE THE WET WELL IS CLASS I, DIVISION 1, GROUP D. PLUS AN ENVELOPE EXTENDING 3'-0" IN ALL DIRECTIONS AROUND VENTS PER NFPA 820 TABLE 4.2.2, ROW 14(a).
4. THE ENVELOP EXTENDING FROM 3'-0" TO 5'-0" AROUND VENTS IS CLASS I, DIVISION 2, GROUP D, PER NFPA 820, TABLE 4.2.2, ROW 12(b).
5. PROVIDE SEAL FITTINGS FOR CONDUIT LEAVING THE WET AND DRY WELLS IN ACCORDANCE WITH THE NEC.



PUMP STATION DRY WELL
SECTION A -
SCALE: 1/2" = 1' - 0"

PUMP STATION WET WELL
SECTION B -
SCALE: 1/2" = 1' - 0"

90 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED D. SPENCER
DRAWN D. PETERSON
CHECKED C. WITTMAN
APPROVED ----

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JOB No. 216-2750-048
DATE JUNE 2025

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PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PUMP STATION DRY WELL & WET WELL ELECTRICAL PLANS AND SECTIONS

DRAWING NO. ---- OF XX
E6

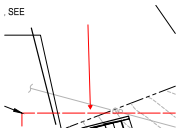
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Plans Staff Comments 09.23.2025.pdf Markup Summary

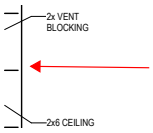
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Date: 8/26/2025 9:32:12 AM
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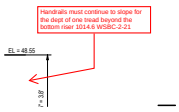


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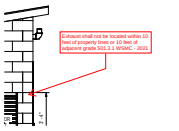
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Page Label: S3 - GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS
Author: Paul
Date: 8/26/2025 2:49:27 PM
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Callout (9)



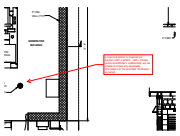
Subject: Callout
Page Label: S5 - STRUCTURAL DETAILS
Author: Paul
Date: 8/26/2025 2:11:12 PM
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Handrails must continue to slope for the dept of one tread beyond the bottom riser 1014.6 WSBC-2-21



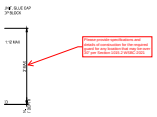
Subject: Callout
Page Label: S4 - GENERATOR BUILDING ELEVATIONS
Author: Paul
Date: 8/26/2025 2:22:53 PM
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Exhaust shall not be located within 10 feet of property lines or 10 feet of adjacent grade 501.3.1 WSMC - 2021



Subject: Callout
Page Label: S2 - GENERATOR BUILDING FLOOR PLAN AND SECTIONS
Author: Paul
Date: 8/28/2025 3:53:28 PM
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A trap seal primer is required per Section 1007.1 WSPC - 2021. Please revise specification. Additionally, we we unable to locate any applicable information on the provided "M Sheets" as noted.



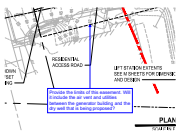
Subject: Callout
Page Label: C4
Author: Paul
Date: 8/26/2025 4:37:02 PM
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Please provide specifications and details of construction for the required guard for any location that may be over 30" per Section 1015.2 WSBC-2021



Subject: Callout
Page Label: S4 - GENERATOR BUILDING ELEVATIONS
Author: Paul
Date: 8/26/2025 4:44:21 PM
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Exhaust shall not be located within 3 feet of a roof 501.3.1 WSMC - 2021



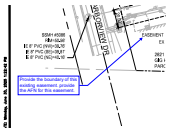
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Author: JBradley
Date: 8/27/2025 1:47:39 PM
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Provide the limits of this easement. Will it include the air vent and utilities between the generator building and the dry well that is being proposed?



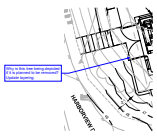
Subject: Callout
Page Label: AL1
Author: JBradley
Date: 8/27/2025 2:21:32 PM
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Show adjacent parcel lines and include parcel numbers. *



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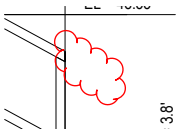
Provide the boundary of this existing easement. provide the AFN for this easement.



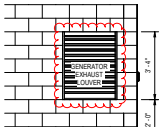
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Date: 8/27/2025 2:26:36 PM
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Why is this tree being depicted if it is planned to be removed? Update layering.

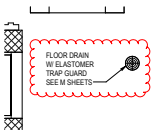
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Author: Paul
Date: 8/26/2025 2:09:06 PM
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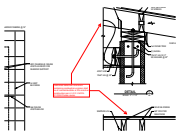


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Author: Paul
Date: 8/26/2025 2:17:19 PM
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Subject: Cloud
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Author: Paul
Date: 8/26/2025 3:51:32 PM
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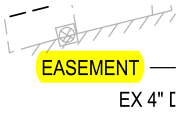
Engineer (1)



Subject: Engineer
Page Label: S3 - GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS
Author: Paul
Date: 8/26/2025 3:32:12 PM
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Dedicated detached structures containing combustion engines shall be of noncombustible or fire-resistive construction per 4.1.2.2.1 NFPA 37-2018 Please revise.

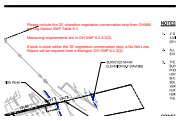
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EASEMEN

Text Box (14)



Subject: Text Box
Page Label: C1
Author: Katharine Shaffer
Date: 8/26/2025 9:51:40 AM
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Please include the 35' shoreline vegetation conservation strip from OHWM per Gig Harbor SMP Table 6-1

Measuring requirements are in GH SMP 6.2.3.3.2(2).

If work is done within the 35' vegetation conservation strip, a No Net Loss Report will be required from a Biologist. GH SMP 6.2.2(1).



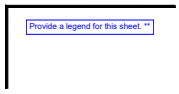
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Date: 8/26/2025 11:14:22 AM
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Please show proposed zoning setbacks.



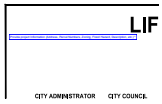
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Author: JBradley
Date: 8/27/2025 11:56:56 AM
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All markups provided with a blue asterisk (*) are to reference the Civil Land Use Checklist.



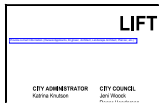
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Provide a legend for this sheet. **



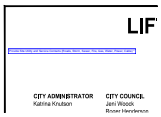
Subject: Text Box
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Author: JBradley
Date: 8/27/2025 11:56:59 AM
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Provide project Information (Address, Parcel Numbers, Zoning, Flood Hazard, Description, etc.) *



Subject: Text Box
Page Label: G1
Author: JBradley
Date: 8/27/2025 11:56:59 AM
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Provide contact Information (Owners/Applicants, Engineer, Architect, Landscape Architect, Planner, etc.) *



Subject: Text Box
Page Label: G1
Author: JBradley
Date: 8/27/2025 11:56:59 AM
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Provide Site Utility and Service Contacts (Roads, Storm, Sewer, Fire, Gas, Water, Power, Cable) *



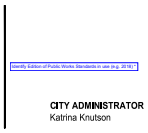
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Provide the Section, Township, and Range. *



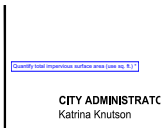
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Author: JBradley
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Identify Edition of Stormwater Design Manual in use (e.g. 2023) *



Subject: Text Box
Page Label: G1
Author: JBradley
Date: 8/27/2025 11:56:59 AM
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Identify Edition of Public Works Standards in use (e.g. 2018) *



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Page Label: G1
Author: JBradley
Date: 8/27/2025 11:56:59 AM
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Quantify total impervious surface area (use sq. ft.) *



Subject: Text Box
Page Label: G1
Author: JBradley
Date: 8/27/2025 11:56:56 AM
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Placeholder for City Construction Stamp (used at civil review) *



Subject: Text Box
Page Label: AL1
Author: JBradley
Date: 8/27/2025 2:21:42 PM
Status:
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Label all recorded easements on or abutting the site. *



Subject: Text Box
Page Label: C1
Author: JBradley
Date: 8/27/2025 3:54:00 PM
Status:
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Show flow direction arrows on proposed conveyance lines. *

RECEIVED
By MThomas City of Gig Harbor at 10:22 am, Aug 21, 2025

DRAFT GEOTECHNICAL ALTERNATIVES REPORT
GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

HWA Project No. 2024-219-21

Prepared for:

Parametrix

February 15, 2025

"Draft is misleading". Use Final or Preliminary per Washington Administrative Code 196-23-020[2].

The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Preliminary documents are those documents not considered final as defined herein, but are released or distributed by the licensee. Preliminary documents must be clearly identified as "preliminary" or contain such wording so it may be differentiated from a final document. Preliminary documents must be stamped, but need not be signed or dated by the licensee.

HWA | GeoSciences Inc.
DBE/MWBE

Geotechnical Engineering
Pavement Engineering
Geoenvironmental Hydrogeology
Inspection & Testing

HWA GeoSciences Inc.
DBE/MWBE

Provide a seal/stamp for each P.E. responsible per Washington Administrative Code 196-23-020[3][a].

The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Plans/plats containing work prepared by or under the direct supervision of more than one licensee should be sealed/stamped and dated by each licensee and shall clearly note the extent of each licensee's responsibility.

February 15, 2025
HWA Project No. 2024-219-21

Parametrix
1019 38th Avenue, Suite 100
Puyallup, Washington 98374

Attention: Brian E. Bunker, P.E.

Subject: **DRAFT GEOTECHNICAL ALTERNATIVES REPORT**
Gig Harbor Lift Station No. 5
Gig Harbor, Washington

Dear Brian:

As requested, HWA GeoSciences Inc. (HWA) conducted geotechnical site investigations and related geotechnical evaluations for the Gig Harbor Lift Station No. 5 project in Gig Harbor, Washington. This report outlines the findings from our field explorations, laboratory testing, and geotechnical evaluation. It also presents various alternatives for installing the suction piping between the proposed lift station and the existing station, considering the site-specific constraints and project requirements.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact us at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

JoLyn Gillie, P.E.
Geotechnical Engineer, Principal

Ahmed Mahmoud, P.E, PMP.
Geotechnical Engineer

Provide a seal/stamp. Washington Administrative Code 196-23-020[1]. The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Final documents are those documents that are prepared and distributed for filing with public officials, use for construction, final agency approvals or use by clients. Any final document must contain the seal/stamp, signature and date of signature of the licensee who prepared or directly supervised the work. For the purpose of this section "document" is defined as plans, specifications, plats, surveys, land descriptions as defined in WAC 332-130-020, reports, and as-built documents prepared by the licensee.

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Appendix A: Field Explorations

Figure A-1 Legend of Terms and Symbols Used on Exploration Logs
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Appendix B: Geotechnical Laboratory Testing Program

Figures B-1 Summary of Material Properties
Figures B-2 and B-3 Particle Size Analysis of Soils

Appendix C: 30 Percent Plan – Twin Suction Sanitary Sewer Plan Sheet

DRAFT GEOTECHNICAL ALTERNATIVES REPORT
GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

1.0 INTRODUCTION

1.1 GENERAL

This report presents the results of a geotechnical study performed by HWA GeoSciences Inc. (HWA) in support of the proposed Gig Harbor Lift Station No. 5 project. The approximate location of the project site is shown on the Site and Vicinity Map, Figure 1, and on the Site and Exploration Plan, Figure 2. The purpose of this report is to evaluate various alternatives for installing the suction piping between the proposed lift station and the existing lift station.

1.2 PROJECT UNDERSTANDING

Wastewater Basin 5 (WWB-5) is served by Lift Station No. 5 (LS#5). WWB-5 is a relatively small basin adjacent to Harborview Drive and Gig Harbor Bay. LS#5 is located adjacent to residential houses in the 2800 block of Harborview Drive. LS#5 is located east and down gradient of WWB-4 and flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station, and it appears that the basin boundaries cannot be expanded to provide additional areas by gravity.

LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life and replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The City of Gig Harbor (City) desires to undertake an improvement project to decommission the existing lift station and either rebuild/refurbish it or to construct a new pressurized collection system consisting of individual grinder pump stations.

Parametrix evaluated options to either replace LS#5 with a new similarly sized lift station or find an alternate method of providing wastewater collection services to the residents within WWB-5. After consideration, the City has selected Alternative 5 – Relocate Lift Station – Vacuum-Prime Pumps as the preferred alternative. Alternative 5 consists of decommissioning LS#5 and replacing it with an upgradient below-grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive. The new pump station would be sited approximately 105 feet west of the existing pump station. In order to connect the pump station to the beach sewer, dual 4-inch diameter suction pipes would be installed within a common trench. However, in order to not exceed the suction capacity of the pumps, the static head cannot exceed 17 feet. Therefore, the piping cannot be installed above an elevation of 21.6 feet NAVD88, making the pump well approximately 13.5 feet deep in the driveway. This results in the new suction lines being on the order of 9 feet deep near their closest point to the adjacent house

foundations. As shown on the 30 percent Plans provided to us by Parametrix, the proposed lines would be installed about 6 feet away from the outline of the existing structure at 2825 Harborview Drive. Note this does not account for the dimensions of the building foundations which likely extend outside the footprint of the house itself.

2.0 FIELD INVESTIGATION AND LABORATORY TESTING

2.1 GEOTECHNICAL SUBSURFACE EXPLORATIONS

HWA's geotechnical exploration program for the alternatives assessment included advancing one boring, designated BH-01, to a depth of approximately 31½ feet below ground surface (bgs). The boring was advanced using the hollow-stem auger drilling method. The field exploration was conducted on September 18, 2024, by Holocene Drilling, using a Mobile B-50 track rig. A groundwater monitoring well was installed in boring BH-01. The approximate borehole location is shown on the Site and Exploration Plan, Figure 2.

Soil samples were collected within the exploratory boring at approximate 2.5- and 5-foot depth intervals using Standard Penetration Test (SPT) sampling methods, which consisted of using a 2-inch-outside-diameter split-spoon sampler driven with a 140-pound auto-hammer. During the test, each sample was obtained by driving the sampler up to 18 inches into the soil with the hammer free-falling 30 inches per stroke. The number of blows required for each 6 inches of penetration was recorded. The standard penetration resistance of the soil was calculated as the number of blows required for the final 12 inches of penetration. If a total of 50 blows was recorded within a single 6-inch interval, the test was terminated, and the blow count was recorded as 50 blows/number of inches of penetration. This resistance provides an indication of the relative density of granular soils and the relative consistency of fine-grained cohesive soils. At the completion of the borehole, a standpipe piezometer was installed.

The boring was completed under the full-time observation of an HWA geotechnical engineer, who collected pertinent information as the exploration was advanced, including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence. Soils were classified in general accordance with the classification system described on Figure A-1, which also provides a key to the exploration log symbols. The boring log is presented on Figure A-2.

The stratigraphic contacts shown on the individual logs represent the approximate boundaries between soil types. Actual soil type transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific date and location reported, and therefore, are not necessarily representative of other locations and times.

2.2 GEOTECHNICAL LABORATORY TESTING PROGRAM

Laboratory tests were conducted on selected samples from the exploration to characterize relevant engineering and index properties of the soils encountered at the site. The tests included visual classification, natural moisture content determination, and grain size distribution. The soil tests were conducted in HWA's laboratory in general accordance with appropriate ASTM International (ASTM) standards and are discussed in further detail in Appendix B. The test results are presented in Appendix B, and/or displayed on the exploration log in Appendix A, as appropriate.

3.0 SITE CONDITIONS

3.1 SURFACE CONDITIONS

The site is located along the shoreline of Gig Harbor Bay and adjacent to residential houses in the 2800 block of Harborview Drive in Gig Harbor, Washington. The site extends about 250 feet east past Harborview Drive where it grades downwards toward Gig Harbor Bay. The project area includes many residential properties, driveways, and associated infrastructure. Along the alignment of the proposed suction piping, passes between the two closely spaced residential houses. At its closest point the centerline of the pipeline appears to be about 6 feet from the northern house. Also, it is understood that the foundations for these two houses are not embedded more than about 2 feet.

3.2 SITE GEOLOGY

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland.

According to the *Geologic Map of the Tacoma 1:100,000-scale Quadrangle, Washington* (Schuster et al., 2015), surficial soils at the site are primarily Pre-Vashon continental glacial drift and nonglacial deposits and Vashon Till. Pre-Vashon continental glacial drift is generally compact to loose, laminated to poorly bedded, locally oxidized, and moderately rounded sand, and gravel with clay and silt. The glacial drift is widespread in bluffs near the Puget Sound and Hood Canal and in valley walls of major rivers. Vashon Till is generally described as clay, silt, sand, and gravel; gray to brown and yellowish brown where oxidized; unstratified and highly

compact; angular to subrounded and includes low permeability and low porosity properties. Vashon Till includes moraines, drumlins, striations, and flutes.

3.3 SUBSURFACE CONDITIONS

HWA's interpretations of subsurface conditions are based on the results of field explorations, review of readily available geologic and geotechnical data, and experience with similar geologic settings. The soils encountered in HWA's geotechnical exploration was interpreted to consist of ice-contact deposits. The exploration log in Appendix A provides more detail of subsurface conditions observed at specific depths.

Pavement: Although not observed directly in our boring, the uppermost layer of material at the location of the proposed new lift station consists of hot-mix asphalt (HMA) pavement. No data regarding the thickness of the pavement section could be obtained at the time of completion of BH-01, which was conducted following the removal of the pavement section by City personnel.

Ice-Contact Deposits: Ice-contact deposits were encountered beginning at the ground surface of BH-01 and this boring was terminated in this deposit. The ice-contact deposits consisted of dense to very dense, slightly gravelly to gravelly, slightly silty to silty sand and very sandy gravel. Though not observed, cobbly drilling was noted that would indicate that cobbles are likely present within this unit. Ice-contact deposits are typically characterized by interbedded layers that are compact and unstratified (till-like) and layers that are stratified like outwash soils.

3.4 GROUNDWATER CONDITIONS

Groundwater was observed in boring BH-01 during drilling at approximately 20 feet bgs. After completing the exploration, a 2-inch diameter PVC standpipe piezometer was installed in boring BH-01 to monitor fluctuations in groundwater levels over time. The monitoring well was screened from approximately 15 to 25 feet bgs. Groundwater measurements are being collected in 1-hour intervals using a pressure transducer and data logger. Groundwater elevations from September 18 through November 20, 2024, obtained from the pressure transducer are included on Figure 3. During this time period, groundwater levels have generally been observed to be between 18 to 19 feet below the ground surface; however, the groundwater level in the well was rising at the time of the last groundwater reading and we would expect it to continue to rise during wetter month in winter and spring. Groundwater levels will vary depending on location, season, and the relative abundance of precipitation.

4.0 ALTERNATIVES ANALYSIS

Installation of the proposed suction piping will be a primary geotechnical challenge for this project. That is because the proposed piping needs to be installed between two houses on a steep slope, requiring an excavation depth of up to approximately 14 to 15 feet on the upper portion of the slope. The 30 percent plan provided to HWA showing the proposed alignment and profile is provided in Appendix C for reference.

The following installation methods are currently being considered for the installation of the proposed suction piping:

- Open-trench construction
- Horizontal directional drilling (HDD)
- Jack and bore installation

The following sections provided a description of each installation method, along with a discussion of their respective advantages and disadvantages.

4.1 OPEN-TRENCH CONSTRUCTION

The open-trench construction method consists of excavating a trench, installing the pipe, and backfilling the trench. Primary advantages of this installation method include:

- Generally it is less expensive compared to trenchless methods.
- Open-trench methods typically require less specialized equipment and construction personnel when compared with trenchless methods.
- It is a conventional pipe installation technique that many contractors are familiar with.

Primary project-specific disadvantages of the open-trench construction method include:

- Installation of the suction piping along the proposed alignment using the open-trench method is expected to be challenging due to the limited workspace and proximity to existing structures.
- The close spacing between the two houses along the pipe alignment (the pipeline is shown to be about 6 feet from the house at 2825 Harborview Drive) presents several risks:

- Excavating the soil between the houses could reduce the bearing capacity of the soil supporting their foundations, especially if the foundations are only embedded a few feet.
- The deeper portions of the trench could undermine the foundations, potentially leading to settlement.
- Open excavation may also cause settlement of existing utilities located between the houses.
- Properly designed temporary shoring that provides support for the soil prior to excavation will be required to prevent settlement due to the close proximity of the structures.
- As currently shown on the 30 percent plans, it appears there is insufficient space between the pipe and the house to the north to install temporary shoring and still provide installation of the pipeline at its proposed alignment.

Conclusion and Recommendation:

Given the high risk of foundation instability associated with the open-trench construction method, HWA does not recommend utilizing this method to install the deeper portion of the suction piping. However, if necessary, open trenching may be considered for sections where the piping will be installed within 4 feet of the ground surface.

4.2 HORIZONTAL DIRECTIONAL DRILLING

Horizontal directional drilling (HDD) involves three main stages:

1. **Pilot Hole Drilling:** A small-diameter borehole is drilled along a -designed directional path.
2. **Reaming:** The pilot hole is enlarged to a diameter suitable for pipeline installation.
3. **Pullback:** The pipeline is pulled into the enlarged hole.

Primary advantages of the HDD installation method include:

- It reduces disturbance to the ground surface and vegetation along the alignment.
- Generally, it is more cost-effective than other trenchless methods.
- It requires a smaller equipment footprint compared to the jack-and-bore method.

- It reduces the risk of adverse impacts to nearby houses.

Primary project-specific disadvantages of the HDD installation method include:

- The method requires specialized equipment and expertise.
- Maintaining a specific line and grade can be challenging, though this is generally not a concern for pressurized pipelines.
- The relatively short distance between the existing and proposed lift stations could make it challenging to design a bore path that meets the requirements of the project and accounts for the limitations of the drilling equipment (e.g., the bend radius of the bore path is constrained by the bend radius of the drill steel).
- Depending on the size of drill rig needed, it could be challenging to get the drill rig to the bottom of the slope (drilling from the bottom of the slope is preferred to prevent the need to stage the pipeline in Gig Harbor Bay prior to pullback).
- Ground heave and inadvertent returns of drilling fluids to the ground surface could be problematic, particularly if drilling fluids make their way into Gig Harbor Bay.
- Although not encountered in prior explorations, cobbles and boulders within the ice-contact deposits could obstruct borehole advancement if present.

Conclusion and Recommendation:

While the HDD method offers several advantages, including reduced surface disturbance and a smaller equipment footprint, it also presents challenges such as specialized equipment requirements, potential ground heave, and difficulties in maintaining the bore path. Given these factors, if HDD is selected for the installation of the suction piping, additional soil explorations along the alignment will be necessary to better assess subsurface conditions near the existing LS#5. This will help evaluate the feasibility of achieving a suitable bore path and to mitigate potential construction risks.

The report concluded that horizontal directional drilling appears to be the more suitable option for installing the suction piping. However, additional geotechnical analysis is required to confirm feasibility. Please provide a final report with further subsurface investigation results to ensure the selected construction method is appropriate and will not compromise adjacent structures or site stability.

4.3 JACK AND BORE INSTALLATION

The jack and bore method is a trenchless method that is used to install steel casing from a launching pit to a receiving pit. As the casing is advanced, an auger that originates from the launching pit is used to excavate the soil from within the casing. The jack and bore method is typically used to install casing that is oriented horizontally.

Primary advantages of the jack and bore installation method include:

- It reduces disturbance to the ground surface and vegetation along the alignment.
- It allows better control of line and grade along the pipeline compared to the HDD option.
- There is reduced risk of adverse impacts to the nearby houses.

Primary project-specific disadvantages of the jack and bore installation method include:

- The method requires specialized equipment and expertise.
- It has a larger footprint for equipment compared to the HDD installation method.
- The jacking process can generate vibrations, which could potentially affect existing utilities and nearby structures. This would require vibration monitoring during construction to avoid damage.

4.4 SUCTION PIPING INSTALLATION CONSIDERATIONS

Based on the site constraints and the advantages and disadvantages of the three installation methods evaluated, it appears that the HDD method of installation is the most feasible method for installing the suction piping. This consideration is based on input from a local HDD contractor and the assumption that it would be possible to get the drill rig to the bottom of the slope. As currently envisioned, the installation process would consist of the following steps:

1. Develop a bore path that begins immediately west of LS#5 which intersects the proposed new lift station location at a depth of approximately 13.5 feet and continues westward until it emerges at the ground surface. Extending the bore path west of the new lift station is necessary to facilitate pipe pullback from west to east, as the pipe cannot enter the ground at a sharp angle. Given the anticipated limited amount of ground cover over the pipe along the lower portion of the slope, the bore path should be designed to prevent ground heave and inadvertent returns of drilling fluids to the ground surface. Additionally, since drilling fluids will be under high pressure, bore path alignment should consider the presence of existing underground utilities and potential impacts. To mitigate

settlement risk, the HDD design should evaluate whether installing two 4-inch diameter pipes in a single borehole or in separate boreholes is more suitable for site conditions.

2. Situate the drill rig over LS#5 and drill a pilot hole upslope along the above-described bore path.

3. Ream the pilot hole.

4. Pull the suction piping into the enlarged hole from west to east.

5. Cut the suction piping at the location of the new lift station.

6. Abandon the unused, upper portion of the suction piping by completely backfilling it with cement grout.

As previously noted, additional explorations along the alignment will be necessary to better understand soil conditions near existing LS#5 and assess the suitability of using HDD. Additionally, if it is determined that it is not possible to get an HDD drill rig down to existing LS#5, a combination of the jack and bore method (for the upper portion), and open trench construction techniques (for the lower portion) could be considered; however, it should be noted that this method is anticipated to be significantly more costly compared to HDD.

A jack and bore operation would consist of excavating a launching pit just west of the new lift station and then using the jack and bore method to horizontally install a casing that starts at the bottom of the new lift station and intersects the existing slope to the east. From the eastern end of the horizontal casing, the open trench construction technique could be used to install the remainder of the suction piping, provided the depth of the trench does not exceed 4 feet.

If considering the jack and bore method, it should be recognized that the dimensions of the launching pit may be on the order of about 24 feet long by 8 feet wide with a depth of at least 14 feet. Given that it would be installed within the existing driveway as well as its proximity to other existing improvements, temporary shoring will likely be required when installing the launching pit. Additionally, because two 4-inch dimeter pipes are needed, it is anticipated that the jack and bore method would consist of installing the upper portion of the suction piping in a single horizontally aligned casing pipe that is large enough to accommodate two 4-inch diameter pipes. Beyond the eastern end of the casing pipe, the suction piping could be installed in a single shallow (i.e., 4 feet or less in depth) common trench.

5.0 CONDITIONS AND LIMITATIONS

We have prepared this report for use by Parametrix and the City of Gig Harbor in the evaluation of alternative installation for the suction piping associated with the proposed Gig Harbor Lift

Station No. 5 project. The conclusions and interpretations presented in this report should not be construed as our warranty of subsurface conditions at the site. Experience has shown that soil and groundwater conditions can vary significantly over small distances and with time. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study of this scope and nature. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made.

HWA does not practice or consult in the field of safety engineering. We do not direct the contractor's operations and cannot be responsible for the safety of personnel other than our own on the site. As such, the safety of others is the responsibility of the contractor. The contractor should notify the owner if any of the recommended actions presented herein are considered unsafe.

We appreciate the opportunity to have provided geotechnical services for this project, and trust this report meets with your requirements. Should you have any questions, or require further assistance please call at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

JoLyn Gillie, P.E.
Geotechnical Engineer, Principal

Ahmed Mahmoud, P.E, PMP.
Geotechnical Engineer

6.0 REFERENCES

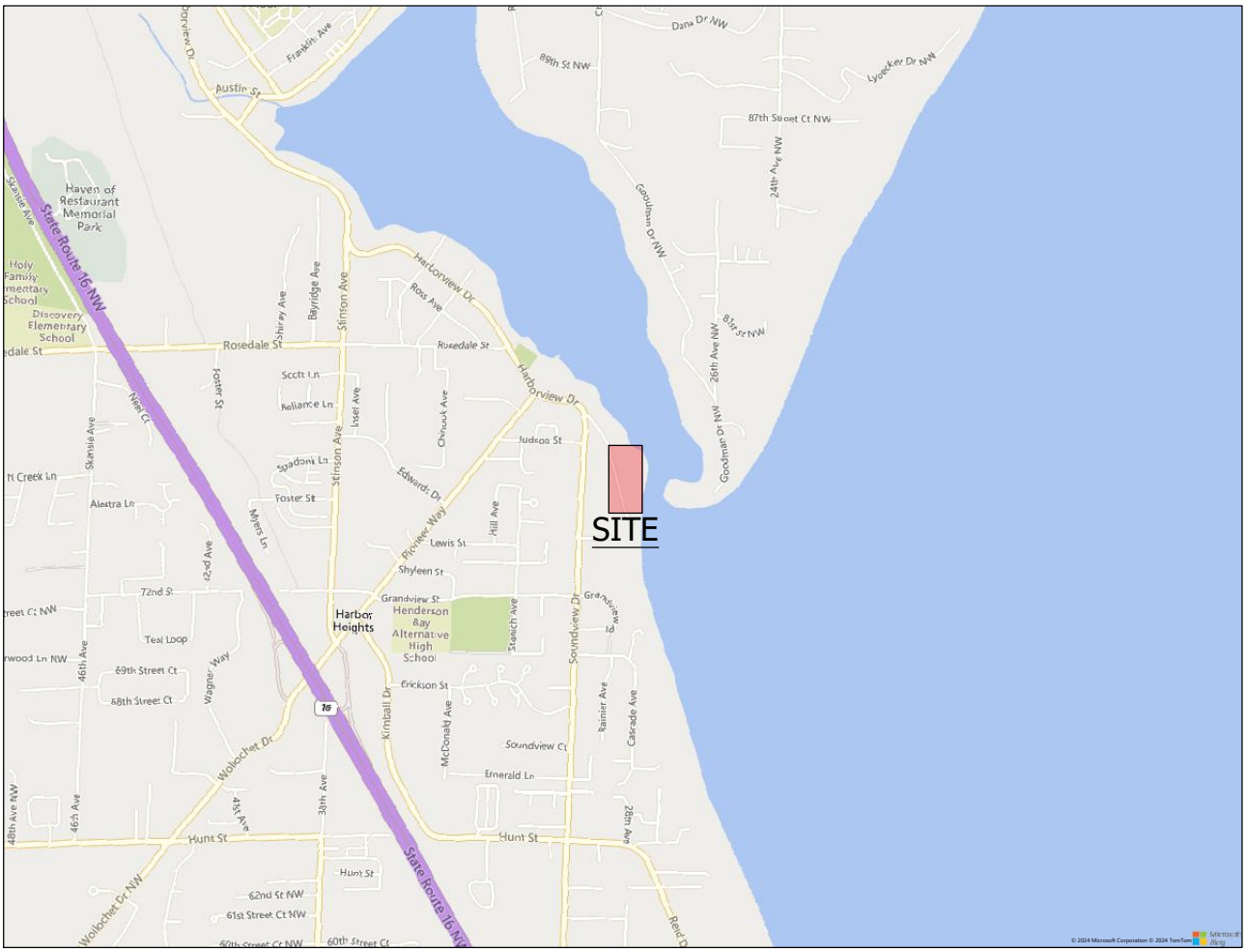
Schuster, J.E., Cabibbo, A.A., Schilter, J.F., Hubert, I.J., 2015, Geologic Map of the Tacoma 1:100,000-scale Quadrangle, Washington, Washington Division of Geology and Earth Resources, Map Series 2015-03.



SITE MAP

0 200' 400' 600' 800'

SCALE: 1" = 400'



VICINITY MAP

0 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

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SITE AND VICINITY MAP

GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

FIGURE NO.: 1

DRAWN BY: CF
CHECK BY: SC/AM

PROJECT # 2024-219-21

C:\USERS\CFRY\DESKTOP\2024-219-21 GIG HARBOR LIFT STATION NO. 5\2024-219-21 GIG HARBOR LIFT STATION NO. 5.DWG <1> Plotted: 11/22/2024 9:16 AM



HARBORVIEW DR
Scale: 1" = 50'-0"

EXPLORATION LEGEND

BH-1 BOREHOLE DESIGNATION AND APPROXIMATE LOCATION (HWA, 2024)

AERIAL IMAGERY REFERENCE IS APPROXIMATE AND MAY APPEAR OFFSET FROM SURVEYED DATA AND BASEMAPS.

0 25 50 75 100
SCALE: 1" = 50'

HWA GEOSCIENCES INC. DBE/MWBE

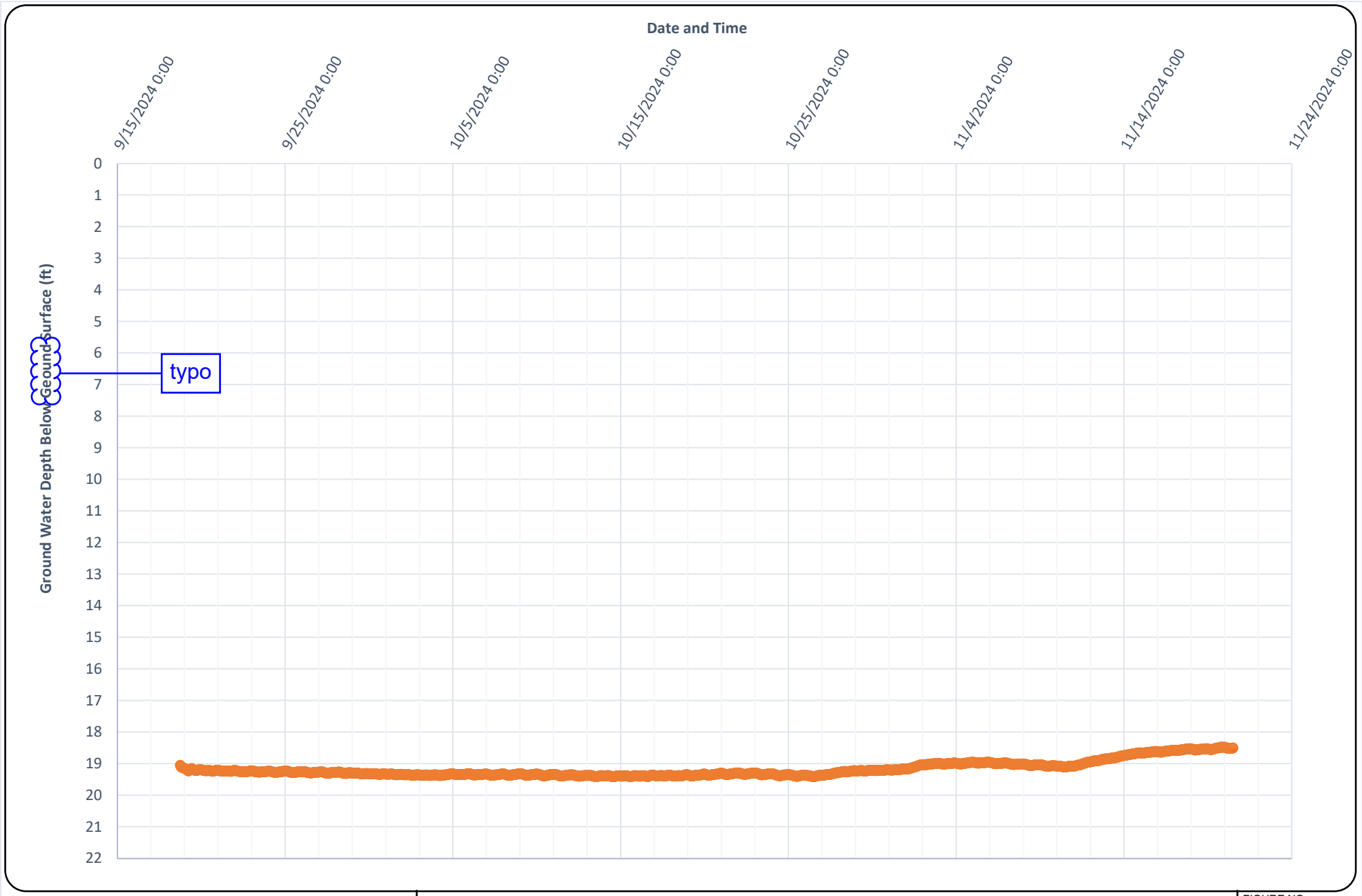
GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

SITE AND EXPLORATION PLAN

DRAWN BY:	FIGURE NO.:
CF	2
CHECK BY:	PROJECT NO.:
SC/AM	2024-219-21

BASE MAP PROVIDED BY: BING

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BH-01 WATER LEVEL DATA

Gig Harbor Lift Station No. 5
Gig Harbor, Washington

FIGURE NO.
3

PROJECT NO.
2024-219-21

APPENDIX A

FIELD EXPLORATIONS

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)	GW	Well-graded GRAVEL
			GP	Poorly-graded GRAVEL
	More than 50% of Coarse Fraction Retained on No. 4 Sieve	Gravel with Fines (appreciable amount of fines)	GM	Silty GRAVEL
			GC	Clayey GRAVEL
More than 50% Retained on No. 200 Sieve Size	Sand and Sandy Soils	Clean Sand (little or no fines)	SW	Well-graded SAND
			SP	Poorly-graded SAND
	50% or More of Coarse Fraction Passing No. 4 Sieve	Sand with Fines (appreciable amount of fines)	SM	Silty SAND
			SC	Clayey SAND
Fine Grained Soils	Silt and Clay	Liquid Limit Less than 50%	ML	SILT
			CL	Lean CLAY
			OL	Organic SILT/Organic CLAY
50% or More Passing No. 200 Sieve Size	Silt and Clay	Liquid Limit 50% or More	MH	Elastic SILT
			CH	Fat CLAY
			OH	Organic SILT/Organic CLAY
Highly Organic Soils			PT	PEAT

TEST SYMBOLS

%F	Percent Fines
AL	Atterberg Limits: PL = Plastic Limit, LL = Liquid Limit
CBR	California Bearing Ratio
CN	Consolidation
DD	Dry Density (pcf)
DS	Direct Shear
GS	Grain Size Distribution
K	Permeability
MD	Moisture/Density Relationship (Proctor)
MR	Resilient Modulus
OC	Organic Content
pH	pH of Soils
PID	Photoionization Device Reading
PP	Pocket Penetrometer (Approx. Comp. Strength, tsf)
Res.	Resistivity
SG	Specific Gravity
CD	Consolidated Drained Triaxial
CU	Consolidated Undrained Triaxial
UU	Unconsolidated Undrained Triaxial
TV	Torvane (Approx. Shear Strength, tsf)
UC	Unconfined Compression

SAMPLE TYPE SYMBOLS

- 2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
- Shelby Tube
- Non-standard Penetration Test (3.0" OD Split Spoon with Brass Rings)
- Small Bag Sample
- Large Bag (Bulk) Sample
- Core Run
- 3-1/4" OD Split Spoon

GROUNDWATER SYMBOLS

- Groundwater Level (measured at time of drilling)
- Groundwater Level (measured in well or open hole after water level stabilized)

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS
< 5%	Clean
5 - 12%	Slightly (Clayey, Silty, Sandy)
12 - 30%	Clayey, Silty, Sandy, Gravelly
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)
Components are arranged in order of increasing quantities.	

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.

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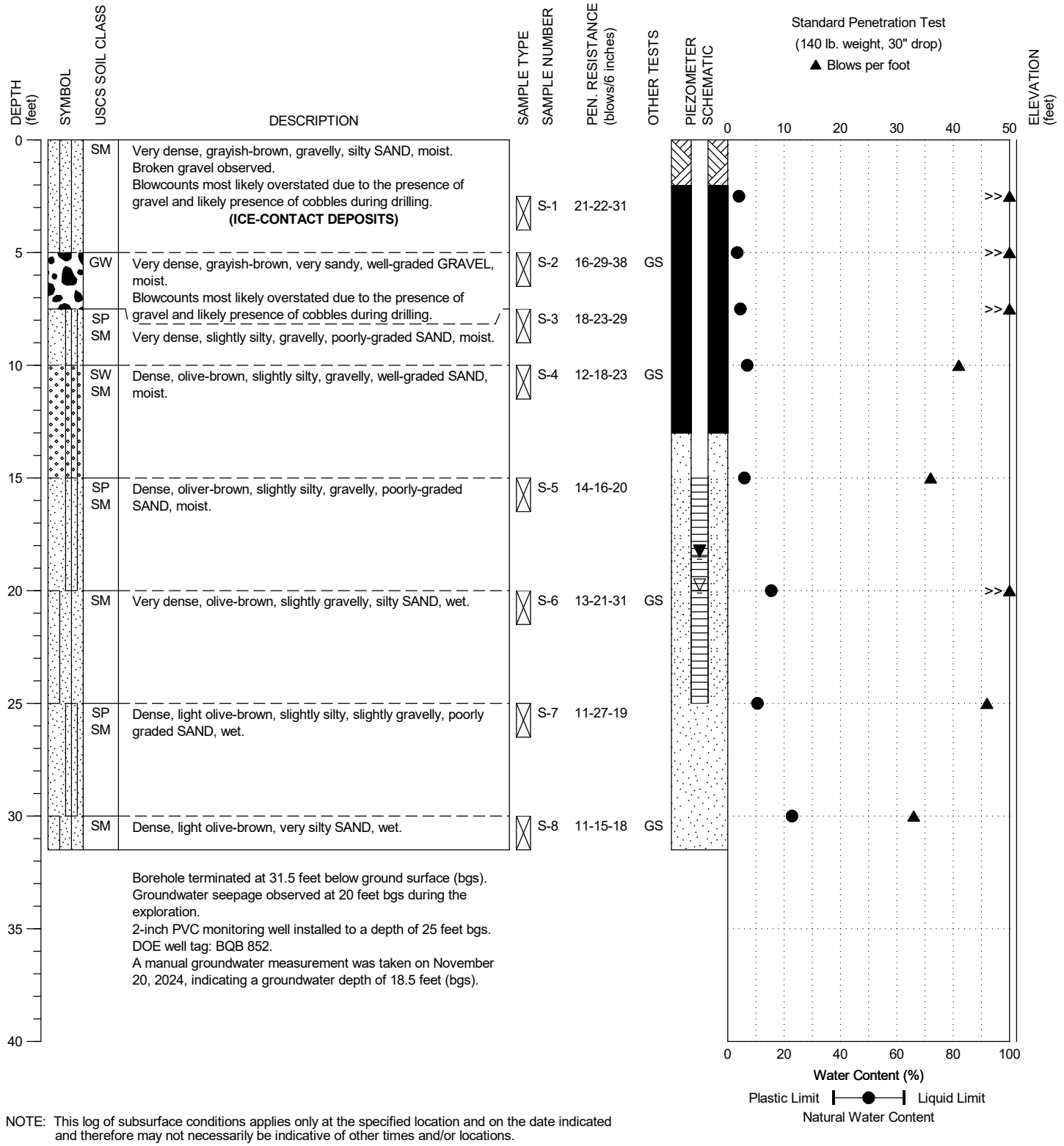
Gig Harbor Lift Station No. 5
Gig Harbor, Washington

LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

PROJECT NO.: 2024-219-21 FIGURE: A-1

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Hollow-stem Auger, Mobile B-50
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: See Figure 2

DATE STARTED: 9/18/2024
DATE COMPLETED: 9/18/2024
LOGGED BY: A.Mahmoud



Borehole terminated at 31.5 feet below ground surface (bgs).
Groundwater seepage observed at 20 feet bgs during the exploration.
2-inch PVC monitoring well installed to a depth of 25 feet bgs.
DOE well tag: BQB 852.
A manual groundwater measurement was taken on November 20, 2024, indicating a groundwater depth of 18.5 feet (bgs).

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

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Gig Harbor Lift Station No. 5
Gig Harbor, Washington

BORING:
BH-01

PAGE: 1 of 1

PROJECT NO.: 2024-219-21 FIGURE: A-2

PZO-DSM 2024-219-21.GPJ 2/15/25
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APPENDIX B

GEOTECHNICAL LABORATORY TESTING PROGRAM

APPENDIX B

GEOTECHNICAL LABORATORY TESTING PROGRAM

Representative soil samples obtained from the explorations were placed in plastic bags to prevent loss of moisture and transported to our Bothell, Washington, laboratory for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. Laboratory testing was conducted as described below.

MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary log in Appendix A.

PARTICLE SIZE ANALYSIS OF SOILS: Selected samples were tested to determine the particle (grain) size distribution of material in general accordance with ASTM D 6913. The results are summarized on the attached Particle Size Analysis of Soils reports, Figures B-2 and B-3, which also provide information regarding the classification of the sample, and the moisture content at the time of testing.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-01,S-1	2.5	4.0	3.9									SM	Grayish-brown, silty SAND with gravel
BH-01,S-2	5.0	6.5	3.3	0.9					59.6	36.7	3.7	GW	Grayish-brown, well-graded GRAVEL with sand
BH-01,S-3	7.5	9.0	4.5									SP-SM	Grayish-brown, poorly graded SAND with silt and gravel
BH-01,S-4	10.0	11.5	6.9						22.6	69.6	7.8	SW-SM	Olive-brown, well-graded SAND with silt and gravel
BH-01,S-5	15.0	16.5	5.9									SP-SM	Olive-brown, poorly graded SAND with silt and gravel
BH-01,S-6	20.0	21.5	15.4						8.2	78.9	12.9	SM	Light olive-brown, silty SAND
BH-01,S-7	25.0	26.5	10.5									SP-SM	Light olive-brown, poorly graded SAND with silt and gravel
BH-01,S-8	30.0	31.5	22.8							67.4	32.6	SM	Light olive-brown, silty SAND

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.

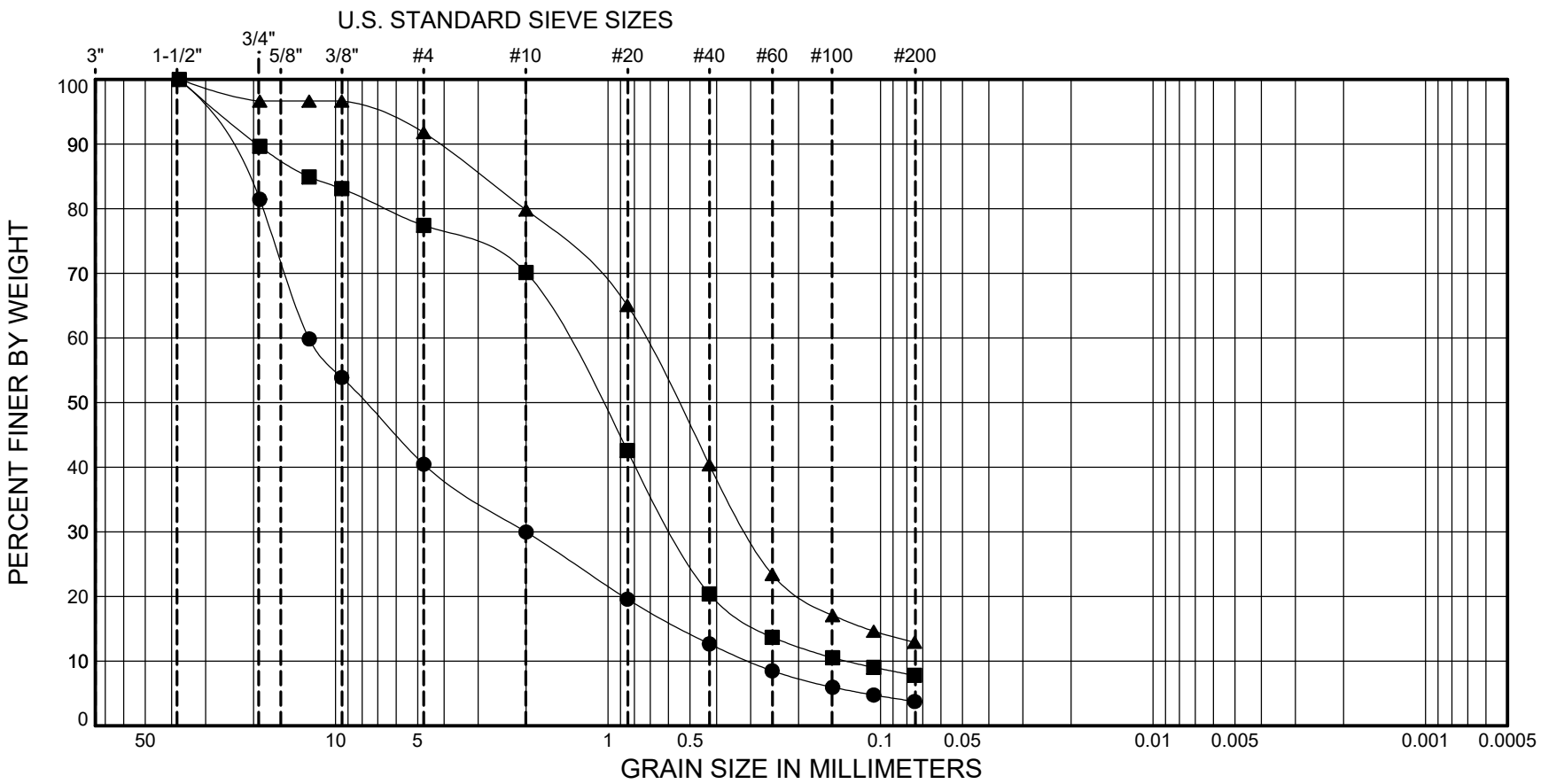
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Gig Harbor Lift Station No. 5
Gig Harbor, Washington

SUMMARY OF MATERIAL PROPERTIES

PROJECT NO.: 2024-219-21 FIGURE: B-1

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-01	S-2	5.0 - 6.5	(GW) Grayish-brown, well-graded GRAVEL with sand	3				59.6	36.7	3.7
■	BH-01	S-4	10.0 - 11.5	(SW-SM) Olive-brown, well-graded SAND with silt and gravel	7				22.6	69.6	7.8
▲	BH-01	S-6	20.0 - 21.5	(SM) Light olive-brown, silty SAND	15				8.2	78.9	12.9

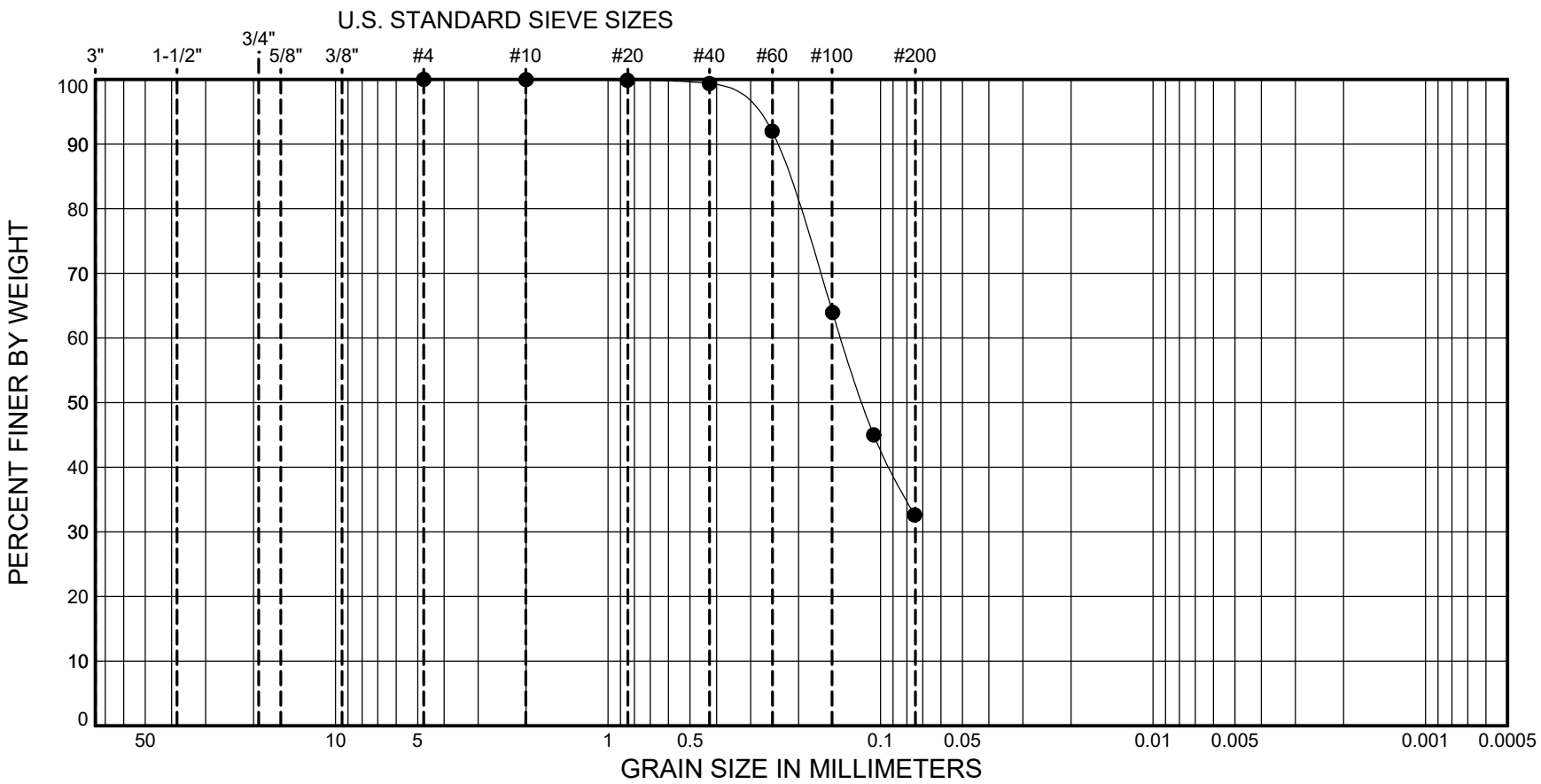
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Gig Harbor Lift Station No. 5
Gig Harbor, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2024-219-21 FIGURE: B-2

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-01	S-8	30.0 - 31.5	(SM) Light olive-brown, silty SAND	23					67.4	32.6

HWA GeoSciences Inc.

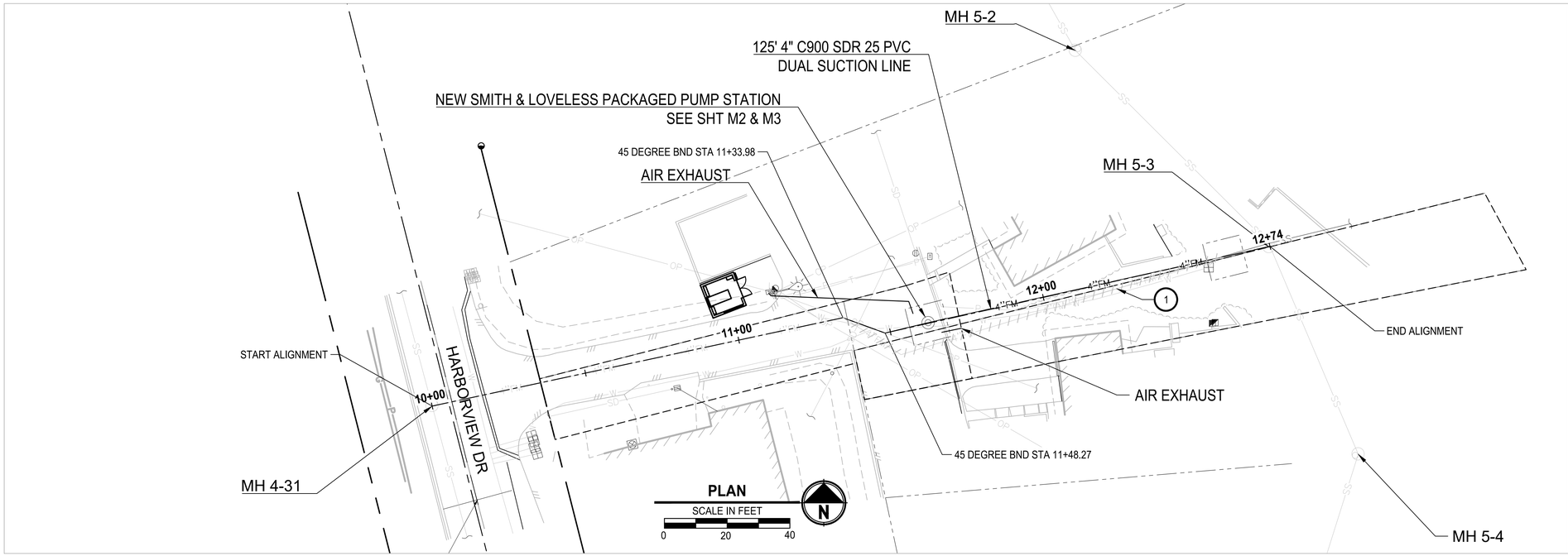
Gig Harbor Lift Station No. 5
Gig Harbor, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2024-219-21 FIGURE: B-3

APPENDIX C

30 PERCENT PLAN
TWIN SUCTION SANITARY SEWER PLAN SHEET



NOTES:

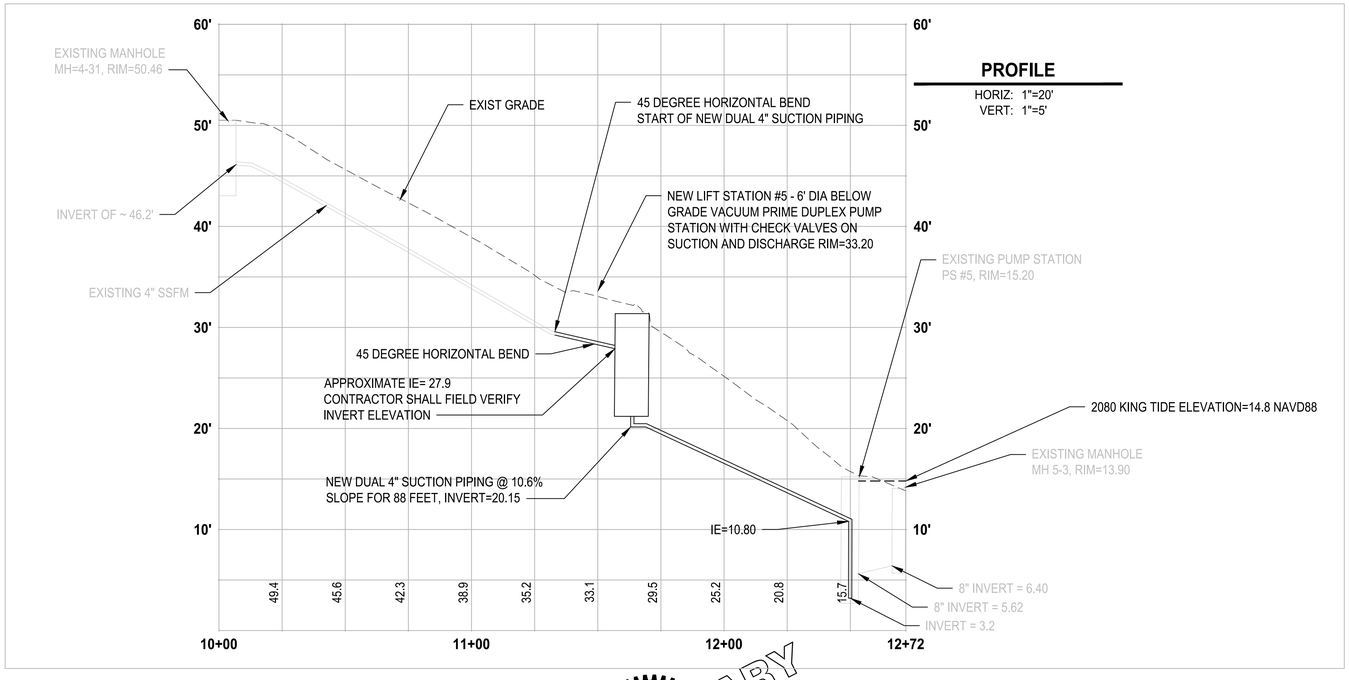
1. DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPERATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL BURIED PIPES SHALL BE RESTRAINED JOINT.
3. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPELTED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EISTING UTILITIES SDHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPORIIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILTIY LOCAATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
4. CONTRACTOR SHALL PROTECT ALL INLETS WITHIN 100' OF THE WORK AREA.

LEGEND:

ABANDON IN PLACE

CONSTRUCTION NOTES:

(1) WET WELL INSTRUMENTATION, CONTROLS, ELECTRICAL, AND FUTURE 6" ODOR CONTROL. LINE TO BE INSTALLED IN SAME TRENCH AS DUAL 4" SUCTION LINES.



Know what's **below.**
Call before you dig.

30 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED
APPROVED

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE OCTOBER 2024

PRELIMINARY
DRAW WILLIAM MCGEE
STATE OF WASHINGTON
21021925
REGISTERED
PROFESSIONAL ENGINEER

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
LIFT STATION 5 FINAL DESIGN
CITY OF GIG HARBOR
GIG HARBOR WASHINGTON

TWIN SUCTION SANITARY SEWER PLAN

DRAWING NO. 6 OF XX

C2

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: HarriMae DATE: Friday, October 4, 2024 4:05:32 PM
LAYOUT: C2

Rpt Geotech Staff Comments 09.23.2025.pdf Markup Summary

Callout (1)

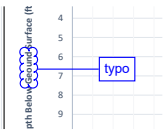


Subject: Callout
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"Draft is misleading". Use Final or Preliminary per Washington Administrative Code 196-23-020[2].

The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Preliminary documents are those documents not considered final as defined herein, but are released or distributed by the licensee. Preliminary documents must be clearly identified as "preliminary" or contain such wording so it may be differentiated from a final document. Preliminary documents must be stamped, but need not be signed or dated by the licensee.

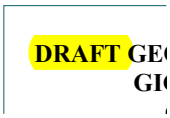
Cloud+ (1)



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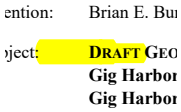
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Highlight (2)



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RAFT GEOT

Text Box (3)



Subject: Text Box
Page Label: 10
Author: Katharine Shaffer
Date: 8/26/2025 11:13:49 AM
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The report concluded that horizontal directional drilling appears to be the more suitable option for installing the suction piping. However, additional geotechnical analysis is required to confirm feasibility. Please provide a final report with further subsurface investigation results to ensure the selected construction method is appropriate and will not compromise adjacent structures or site stability.



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Author: JBradley
Date: 8/27/2025 3:38:01 PM
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RECEIVED
By MThomas City of Gig Harbor at 3:35 pm, Jan 13, 2026

GEOTECHNICAL REPORT
GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

HWA Project No. 2024-219-21

Prepared for:

Parametrix

December19, 2025

HWA | GeoSciences Inc.
DBE/MWBE

Geotechnical Engineering
Pavement Engineering
Geoenvironmental Hydrogeology
Inspection & Testing

HWA GeoSciences Inc.
DBE/MWBE

December 19, 2025
HWA Project No. 2024-219-21

Parametrix
1019 38th Avenue, Suite 100
Puyallup, Washington 98374

Attention: Brian E. Bunker, P.E.

Subject: **GEOTECHNICAL REPORT**
Gig Harbor Lift Station No. 5
Gig Harbor, Washington

Dear Brian:

As requested, HWA GeoSciences Inc. (HWA) conducted geotechnical site investigations and related geotechnical evaluations for the Gig Harbor Lift Station No. 5 project in Gig Harbor, Washington. This report outlines the findings from our field explorations, laboratory testing, and geotechnical evaluation.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact us at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

Steven R. Wright, P.E.
Geotechnical Engineer, Vice President

Ahmed Mahmoud, P.E.
Geotechnical Engineer

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GEOTECHNICAL REPORT
GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

1.0 INTRODUCTION

1.1 GENERAL

This report presents the results of a geotechnical study performed by HWA GeoSciences Inc. (HWA) in support of the proposed Gig Harbor Lift Station No. 5 project. The approximate location of the project site is shown on the Site and Vicinity Map, Figure 1, and on the Site and Exploration Plan, Figure 2.

The purpose of this report is to update and revise HWA's previously issued draft geotechnical installation alternatives analysis Report dated February 15, 2025, based on the 100 percent design plans provided by Parametrix in December 2025. The revisions focus on reevaluating alternatives for installing the proposed suction piping between the new and existing lift stations in light of the updated design information. This report also provides geotechnical recommendation related to the proposed new lift station and generator building.

1.2 PROJECT UNDERSTANDING

Wastewater Basin 5 (WWB-5) is served by Lift Station No. 5 (LS#5). WWB-5 is a relatively small basin adjacent to Harborview Drive and Gig Harbor Bay. LS#5 is located adjacent to residential houses in the 2800 block of Harborview Drive. LS#5 is located east and down gradient of WWB-4 and flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station, and it appears that the basin boundaries cannot be expanded to provide additional area by gravity.

LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life and replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The City of Gig Harbor (City) desires to undertake an improvement project to decommission the existing lift station and either rebuild/refurbish it or to construct a new pressurized collection system consisting of individual grinder pump stations.

Parametrix evaluated options to either replace LS#5 with a new similarly sized lift station or find an alternate method of providing wastewater collection services to the residents within WWB-5. After consideration, the City has selected Alternative 5 – Relocate Lift Station – Vacuum-Prime Pumps as the preferred alternative. Alternative 5 consists of decommissioning LS#5 and replacing it with an upgradient below-grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive. The new pump station would be sited approximately 105 feet west of the existing pump station.

The proposed system includes installation of dual 4-inch diameter suction pipes within a trench to connect the new lift station to the existing beach sewer. Due to pump performance limitations, the static head within the suction piping must not exceed 17 feet, which constrains the allowable installation elevations. Earlier design plans indicated that portions of the suction piping could require a relatively deep excavation near adjacent residential structures. However, the updated 100 percent design plans provided by Parametrix indicate that the proposed suction piping can be installed at significantly shallower depths along the alignment. These revised design details affect the constructability considerations presented in HWA's draft geotechnical installation alternatives analysis Report, dated February 15, 2025.

2.0 FIELD INVESTIGATION AND LABORATORY TESTING

2.1 GEOTECHNICAL SUBSURFACE EXPLORATIONS

HWA's geotechnical exploration program for this project included advancing one boring, designated BH-01, to a depth of approximately 31½ feet below ground surface (bgs). The boring was advanced using the hollow-stem auger drilling method. The field exploration was conducted on September 18, 2024, by Holocene Drilling, using a Mobile B-50 track rig. A groundwater monitoring well was installed in boring BH-01. The approximate borehole location is shown on the Site and Exploration Plan, Figure 2.

Soil samples were collected from the exploratory boring at approximate 2.5- and 5-foot depth intervals using Standard Penetration Test (SPT) sampling methods, which consisted of using a 2-inch-outside-diameter split-spoon sampler driven with a 140-pound auto-hammer. During the test, each sample was obtained by driving the sampler up to 18 inches into the soil with the hammer free-falling 30 inches per stroke. The number of blows required for each 6 inches of penetration was recorded. The standard penetration resistance of the soil was calculated as the number of blows required for the final 12 inches of penetration. If a total of 50 blows was recorded within a single 6-inch interval, the test was terminated, and the blow count was recorded as 50 blows/number of inches of penetration. This resistance provides an indication of the relative density of granular soils and the relative consistency of fine-grained cohesive soils. At the completion of the borehole, a standpipe piezometer was installed.

The boring was completed under the full-time observation of an HWA geotechnical engineer, who collected pertinent information as the exploration was advanced, including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence. Soils were classified in general accordance with the classification system described on Figure A-1, which also provides a key to the exploration log symbols. The boring log is presented on Figure A-2. The stratigraphic contacts shown on the boring log represent the approximate boundaries between soil types. Actual soil type transitions may be more gradual. The soil and groundwater

conditions depicted are only for the specific date and location reported, and therefore, are not necessarily representative of other locations and times.

2.2 GEOTECHNICAL LABORATORY TESTING PROGRAM

Laboratory tests were conducted on selected samples from the exploration to characterize relevant engineering and index properties of the soils encountered at the site. The tests included visual classification and determination of natural moisture content determination and grain size distribution. The soil tests were conducted in HWA's laboratory in general accordance with appropriate ASTM International (ASTM) standards and are discussed in further detail in Appendix B. The test results are presented in Appendix B, and/or displayed on the exploration log in Appendix A, as appropriate.

3.0 SITE CONDITIONS

3.1 SURFACE CONDITIONS

The site is located along the shoreline of Gig Harbor Bay and adjacent to residential houses in the 2800 block of Harborview Drive in Gig Harbor, Washington. The site extends about 250 feet east past Harborview Drive where the ground surface slopes downward toward Gig Harbor Bay. The project area includes many residential properties, driveways, and associated infrastructure. The alignment of the proposed suction piping passes between two closely spaced residential houses. At its closest point, the centerline of the pipeline appears to be about 6 feet from the northern house. Also, it is understood that the foundations for these two houses are not embedded more than about 2 feet.

3.2 SITE GEOLOGY

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland.

According to the *Geologic Map of the Tacoma 1:100,000-scale Quadrangle, Washington* (Schuster et al., 2015), surficial soils at the project site are primarily Pre-Vashon continental glacial drift and nonglacial deposits and Vashon Till. Pre-Vashon continental glacial drift is generally compact to loose, laminated to poorly bedded, locally oxidized, moderately rounded

sand and gravel with clay and silt. The glacial drift is widespread in coastal bluffs near Puget Sound and Hood Canal, as well as along the valley walls of major rivers. Vashon Till is generally described as clay, silt, sand, and gravel; gray to brown and yellowish brown where oxidized; unstratified and highly compact; angular to subrounded and includes low permeability and low porosity properties. Vashon Till includes moraines, drumlins, striations, and flutes.

3.3 SUBSURFACE CONDITIONS

HWA's interpretations of subsurface conditions are based on the results of field explorations, review of readily available geologic and geotechnical data, and experience with similar geologic settings. The soils encountered in HWA's geotechnical exploration were interpreted to consist of ice-contact deposits. The exploration log in Appendix A provides more detail of subsurface conditions observed at specific depths.

Pavement: Although not observed directly in our boring, the uppermost layer of material at the location of the proposed new lift station consists of hot-mix asphalt (HMA) pavement. No data regarding the thickness of the pavement section could be obtained at the time of completion of BH-01, which was conducted following the removal of the pavement section by City personnel.

Ice-Contact Deposits: Ice-contact deposits were encountered beginning at the ground surface of BH-01 and this boring was terminated in this deposit. The ice-contact deposits consisted of dense to very dense, slightly gravelly to gravelly, slightly silty to silty sand and very sandy gravel. Though not observed, the action of the drill rig during advancement of the borehole suggests that cobbles are likely present within this unit. Ice-contact deposits are typically characterized by interbedded layers that are compact and unstratified (till-like) and stratified like outwash soils.

3.4 GROUNDWATER CONDITIONS

Groundwater was observed in boring BH-01 during drilling at approximately 20 feet bgs. After completing the exploration, a 2-inch diameter PVC standpipe piezometer was installed in boring BH-01 to monitor fluctuations in groundwater levels over time. The monitoring well was screened from approximately 15 to 25 feet bgs. Groundwater measurements are being collected in 1-hour intervals using a pressure transducer and data logger. Groundwater elevations from September 18, 2024 through December 21, 2025, obtained from the pressure transducer are included on Figure 3. During this time period, groundwater levels have generally been observed to be between about 17 and 19 feet below the ground surface.

The groundwater conditions reported herein are for the specific location and dates indicated and may not be representative of other locations and/or times. Groundwater conditions will vary depending on local subsurface conditions, weather conditions, and other factors. The depth to

groundwater at the site is expected to vary seasonally and within the limits of the site. The highest levels of groundwater are expected during the wet winter months and the lowest levels are expected during the dry summer months.

4.0 SUCTION PIPING INSTALLATION ALTERNATIVES ANALYSIS

During the project's initial design phase, the plan was to connect the new lift station to the existing beach sewer using suction piping installed between two houses on a steep slope, requiring excavation depths of up to approximately 14 to 15 feet at the upper portion of the slope. At that time, installation of the proposed suction piping was considered the primary geotechnical challenge for the project.

To assist the design team in selecting an appropriate installation method for the initially proposed suction piping, HWA conducted a geotechnical installation alternatives analysis. The results are summarized in a draft report dated February 15, 2025. Installation methods evaluated included open-trench construction, horizontal directional drilling (HDD), and the jack-and-bore method. Based on the site constraints and the advantages and disadvantages of the three installation methods evaluated, HWA recommended using the HDD method to install the deep, initially proposed suction piping.

Following HWA's submission of its draft installation alternatives analysis report, Parametrix revised the proposed suction piping depth to approximately 4 feet or less below the existing ground surface. The currently proposed alignment and profile of the suction piping are shown on the 100-percent plans, included in Appendix C for reference.

It is understood that the excavation for the currently proposed suction piping will not extend deeper than the foundations of the two houses along the pipe alignment. Given this condition, combined with the shallow proposed trench depth, open-trench construction is considered geotechnically feasible, provided appropriate construction techniques and excavation support systems are implemented.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the subsurface conditions observed in HWA's exploration, site soils will provide adequate support for the proposed improvements, provided the following recommendations are incorporated into the project design. The following report sections provide conclusions and recommendations related to utility installation, site seismicity, lift station vault design, and generator building design.

5.1 UTILITY INSTALLATION

5.1.1 Subsurface Conditions and Trench Excavation

One geotechnical boring (BH-01) was advanced as part of this study; however, the boring is not located directly along the proposed trench alignment. Based on conditions observed in boring BH-01, subsurface materials generally consist of dense to very dense sand and gravelly sand associated with ice-contact glacial deposits. Similar soil types are anticipated along the trench alignment; however, some variability should be expected, particularly within near-surface materials.

The soils encountered in boring BH-01 are generally suitable for support of shallow utility installations. Localized areas of loose, disturbed, or moisture-sensitive material could be encountered near the ground surface and should be evaluated during construction. If unsuitable materials are encountered at the pipe invert elevation, localized over-excavation and replacement with suitable bedding material may be required.

5.1.2 Groundwater and Dewatering Considerations

Between September 18, 2024 and December 21, 2025, groundwater was measured at depths of approximately 17 to 19 feet below ground surface in boring BH-01. Based on this information, groundwater is not expected to affect shallow open-trench excavations for the proposed suction piping, which will be 4 feet deep or less. However, contractors should be aware that localized perched water may be encountered during construction, particularly above relatively impermeable soil layers. If encountered, minor dewatering using localized sumps and pumps is anticipated to be adequate.

Surface runoff should be directed away from open excavations during construction, and collected water should be discharged at appropriate locations in accordance with applicable regulations.

5.1.3 Temporary Excavation Support

Near-surface sandy soils may be susceptible to sloughing if unsupported. Based on this and given the proximity of existing residential structures and the limited workspace, the use of temporary excavation support is recommended during open-trench construction. The design, installation, maintenance, and removal of temporary excavation support systems should be the responsibility of the contractor.

Temporary excavation support systems should be designed to resist lateral earth pressures, and any applicable surcharge loads from construction equipment or stockpiled materials. Temporary excavation support system submittals, including shop drawings and supporting calculations, should be prepared by the contractor and provided to the City of Gig Harbor for review by HWA.

The purpose of HWA's review will be to evaluate if the contractor's submittal is consistent with the recommendations provided herein.

Conventional trench boxes are anticipated to be suitable for worker safety; however, contractors should recognize that trench boxes are primarily intended for life safety and may not fully prevent ground movement adjacent to the excavation. Additional protective measures should be used in areas where pavements, utilities, or structures are located within a horizontal distance of the trench that is approximately equal or less than to the trench depth.

5.1.4 Utility Trench Subgrade and Bedding

Trench bottoms should be free of debris, loose material, and standing water. If the trench subgrade is disturbed, the affected material should be removed and replaced with suitable bedding material placed on firm, undisturbed soil.

Pipe bedding should consist of crushed surfacing base course meeting the requirements of Section 9-03.9(3) of the 2025 WSDOT Standard Specifications (WSDOT, 2025) or equivalent City standards. A minimum bedding thickness of 6 inches beneath the pipe should be provided, and bedding should be shaped to provide uniform support along the pipe length.

5.1.5 Trench Backfill and Compaction

Excavated on-site soils may be moisture sensitive and difficult to properly moisture condition and compact within the limited workspace available. Accordingly, imported structural fill is recommended for trench backfill. Backfill materials should meet the requirements of Section 9-03.9(3) of the 2025 WSDOT Standard Specifications (WSDOT, 2025) unless otherwise approved.

Trench backfill should be placed in lifts and compacted to at least 95 percent of the maximum dry density as determined by ASTM D1557. Backfill placement and compaction should be performed in a controlled manner to minimize post-construction settlement. Heavy construction equipment should not operate directly over the pipe until sufficient cover has been placed.

5.2 SEISMIC DESIGN PARAMETERS

5.2.1 Seismic Design Parameters

Seismic design parameters for the design of the proposed project were developed in accordance with the 2021 International Building Code, (IBC; ICC, 2021), as well as relevant sections of *ASCE 7-16* that are referenced in the IBC. The design of structures must consider dynamic forces resulting from seismic events, which are dependent upon the magnitude and proximity of the earthquake to the site as well as the properties of the soils that underlie the site. The IBC requires

design for the dynamic forces associated with a "Maximum Considered Earthquake" (MCE), which corresponds to an earthquake with a 2 percent probability of exceedance in 50 years (approximately 2,475-year return period), as developed by the USGS for their United States National Seismic Hazard Maps. The probabilistic ground acceleration values (S_S, S_1, and PGA) developed for the 2021 IBC were obtained from the ASCE Hazard Tool website and were used as a basis for determining the site modified and design response accelerations for this site.

As part of the procedure to evaluate seismic forces, the 2021 IBC (which implements ASCE 7-16) requires the evaluation of the Seismic Site Class, which categorizes the site based upon the characteristics of the subsurface profile 100 feet below the proposed foundation. Based on the obtained SPT blow counts noted in our boring log and extrapolated to a depth of 100 feet, the site classifies as a Site Class "D".

Section 11.4.8 of ASCE 7-16, Supplement 3, states that a site-specific ground motion hazard analysis is required for Site Class D where values of S_1 are greater than or equal to 0.2. The value of S_1 for the project site is 0.511. Based on the determined value of S_1 for this site, this would necessitate performing a site-specific ground motion hazard analysis for this site. However, the exception in Section 11.4.8 of ASCE 7-16, Supplement 3, allows for the determination of seismic design parameters without performing a site-specific ground motion hazard analysis, provided the value of parameter S_{M1} determined by Equation 11.4-2, of ASCE 7-16, is increased by 50 percent for all applications of S_{D1} in the standard. Based on this, the values of S_{M1} and S_{D1} presented below in Table 1 have been increased by 50 percent. Risk targeted seismic values and coefficient are also presented in Table 1.

Table 1: Ground Motion Values, Site Class D*

Period (sec)	Mapped MCE Spectral Response Acceleration (g)		Site Coefficients		Adjusted MCE Spectral Response Acceleration (g)		Design Spectral Response Acceleration (g)	
0.0	PGA	0.621	F_{PGA}	1.100	PGA_M	0.683	-	-
0.2	S_s	1.468	F_a	1.000	S_{Ms}	1.468	S_{Ds}	0.979
1.0	S_1	0.511	F_v	1.789	S_{M1}	1.371	S_{D1}	0.914

Transition Point	Period (sec)
T_0	0.187
T_s	0.934
T_L	6

Notes: **2% Probability of Exceedance in 50 years for Latitude 47.3273° and Longitude -122. 576782°*
PGA = Peak ground acceleration
F_{PGA} = PGA site coefficient
PGA_M = Maximum considered earthquake geometric mean peak ground acceleration adjusted for Site Class effects
S_S = Short period (0.2 second) Mapped Spectral Acceleration
S_1 = 1.0 second period Mapped Spectral Acceleration
S_{MS} = Spectral Response adjusted for site class effects for short period = $F_a \bullet S_S$
S_{M1} = Spectral Response adjusted for site class effects for 1-second period = Fv • S_1 (increased by 50 percent per the exception in Section 11.4.8 of ASCE 7-16, Supplement 3)
S_{DS} = Design Spectral Response Acceleration for short period =2/3 • S_{MS}

S_{D1} = Design Spectral Response Acceleration for 1-second period =2/3 • S_{M1}
F_a = Short Period Site Coefficients
F_v = Long Period Site Coefficients
$T_0 = 0.2 \bullet S_{D1}/S_{DS}$
$T_S = S_{D1}/S_{DS}$
T_L = Long Period Transition period

5.2.2 Liquefaction Susceptibility

Liquefaction is a temporary loss of soil shear strength that occurs in response to ground motions during a strong earthquake. Loose, saturated cohesionless soils are most susceptible to earthquake-induced liquefaction; however, research has shown that certain silts and low-plasticity clays are also susceptible. Primary factors controlling the development of liquefaction include the intensity and duration of ground motions, the characteristics of subsurface soils, in-situ stress conditions and the depth to groundwater.

Based on our subsurface explorations, groundwater appears to be present within the ice-contact deposits, which consist of dense to very dense slightly gravelly to gravelly, slightly silty to silty sand and very sandy gravel. Our analysis indicates that the potential for liquefaction-induced settlements in these soils is minor. Therefore, the site's susceptibility to liquefaction is considered low.

5.3 LIFT STATION VAULT DESIGN

5.3.1 Foundation Recommendations

The proposed LS#5 will be founded on a slab-on-grade foundation at an approximate elevation of 20 feet (approximately 10 feet bgs). For this structure, HWA recommends an allowable bearing pressure of 3,000 pounds per square foot (psf) for foundations that bear directly on firm and unyielding native soils. For short-term wind and seismic loading conditions, this allowable bearing pressure may be increased by 33 percent to resist increased pressures on the edge of the foundation due to over-turning moments.

5.3.2 Resistance to Lateral Loading

Earthquake and unbalanced earth loads will likely subject the proposed LS#5 to lateral forces. Lateral forces will be resisted by a combination of base sliding friction and passive earth pressure against the buried portions of the structure. As the footings are anticipated to be founded on dense to very dense granular soil, an ultimate coefficient of friction of 0.5 may be used to resist lateral movement. An ultimate passive earth pressure of 500 pounds per cubic foot (pcf) may be utilized for areas where properly compacted structural fill will be placed directly against the walls of the lift station.

5.4 GENERATOR BUILDING DESIGN

As part of the proposed LS#5 improvements, the City of Gig Harbor is planning to construct a new generator building approximately 200 feet away from the proposed lift station. The general location and configuration of the proposed generator building are shown on the structural plans included in Appendix C.

HWA GeoSciences Inc. did not perform geotechnical subsurface explorations at the proposed generator building location, and no site-specific subsurface information is currently available for that structure. Accordingly, HWA has not developed site-specific geotechnical design parameters for the generator building foundations.

In the absence of site-specific subsurface data, presumptive soil parameters in accordance with the 2021 IBC, Washington State Amendments, may be used for foundation design. An allowable bearing pressure of 1,500 psf may be assumed for shallow foundation design in accordance with IBC Table 1806.2.

If subsurface conditions encountered during construction differ from those assumed for presumptive design, or if required by the building official, additional geotechnical evaluation may be necessary to confirm foundation support conditions and to provide site-specific recommendations.

6.0 CONDITIONS AND LIMITATIONS

We have prepared this report for use by Parametrix and the City of Gig Harbor for the proposed Gig Harbor Lift Station No. 5 project. The conclusions and interpretations presented in this report should not be construed as our warranty of subsurface conditions at the site. Experience has shown that soil and groundwater conditions can vary significantly over small distances and with time. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study of this scope and nature. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made.

HWA does not practice or consult in the field of safety engineering. We do not direct the contractor's operations and cannot be responsible for the safety of personnel other than our own on the site. As such, the safety of others is the responsibility of the contractor. The contractor should notify the owner if any of the recommended actions presented herein are considered unsafe.

December 19, 2025
HWA Project No. 2024-219-21

We appreciate the opportunity to have provided geotechnical services for this project, and trust this report meets with your requirements. Should you have any questions, or require further assistance please call at your convenience.

Sincerely,

HWA GEOSCIENCES INC.



Steven R. Wright, P.E.
Geotechnical Engineer, Vice President

Ahmed Mahmoud, P.E.
Geotechnical Engineer

7.0 REFERENCES

Schuster, J.E., Cabibbo, A.A., Schilter, J.F., Hubert, I.J., 2015, Geologic Map of the Tacoma 1:100,000-scale Quadrangle, Washington, Washington Division of Geology and Earth Resources, Map Series 2015-03.

WSDOT, 2025*, Standard Specifications for Road, Bridge, and Municipal Construction, 2025* Washington State Department of Transportation. M 41-10

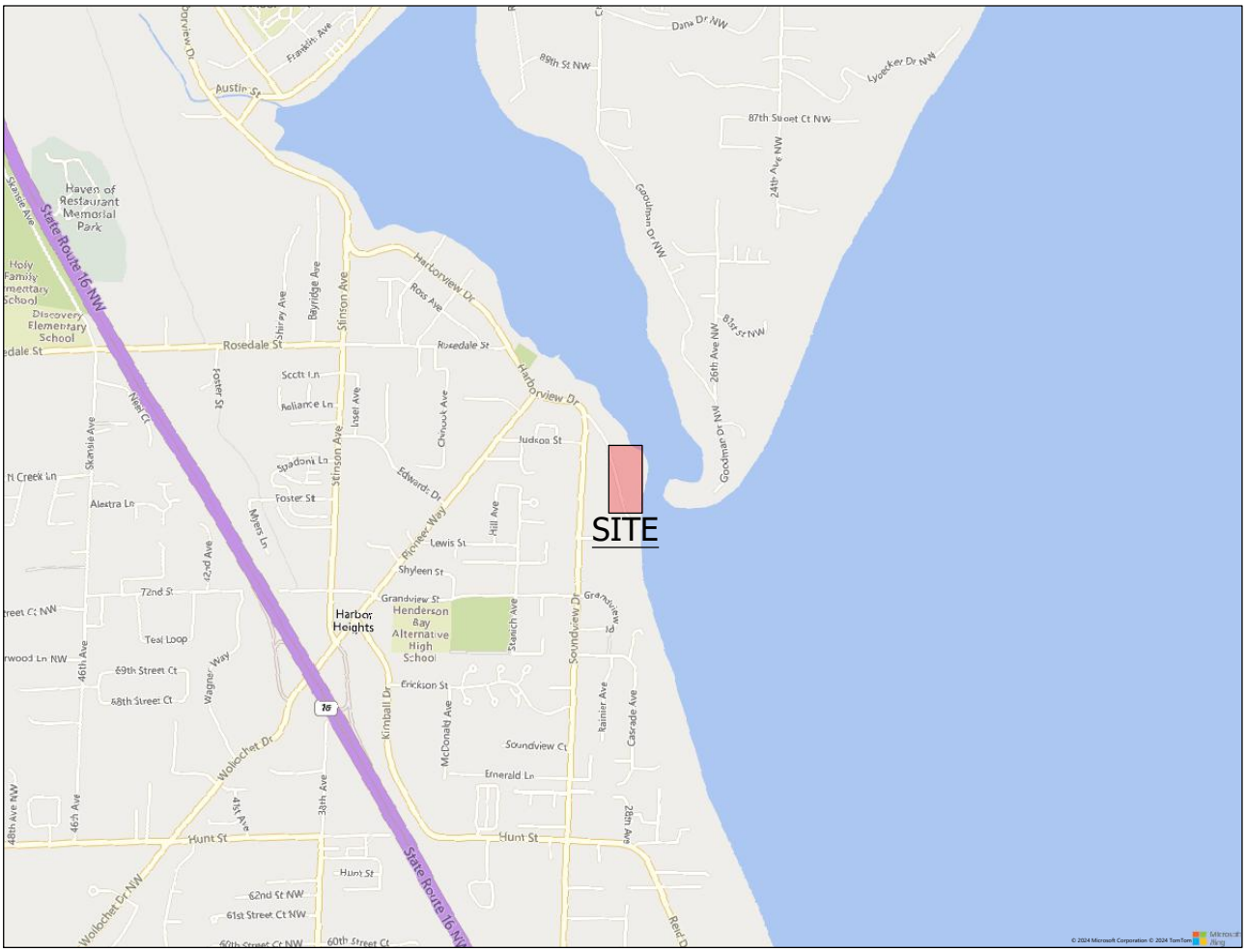
International Code Council (ICC), 2021, *International Building Code*.



SITE MAP

0 200' 400' 600' 800'

SCALE: 1" = 400'



VICINITY MAP

0 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

GEOSCIENCES INC.
DBE/MWBE

SITE AND VICINITY MAP

GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

FIGURE NO.: 1

DRAWN BY: CF
CHECK BY: SC/AM

PROJECT # 2024-219-21



HARBORVIEW DR
Scale: 1" = 50'-0"

EXPLORATION LEGEND

BH-1 BOREHOLE DESIGNATION AND APPROXIMATE LOCATION (HWA, 2024)

AERIAL IMAGERY REFERENCE IS APPROXIMATE AND MAY APPEAR OFFSET FROM SURVEYED DATA AND BASEMAPS.

0 25 50 75 100
SCALE: 1" = 50'

HWA GEOSCIENCES INC. DBE/MWBE

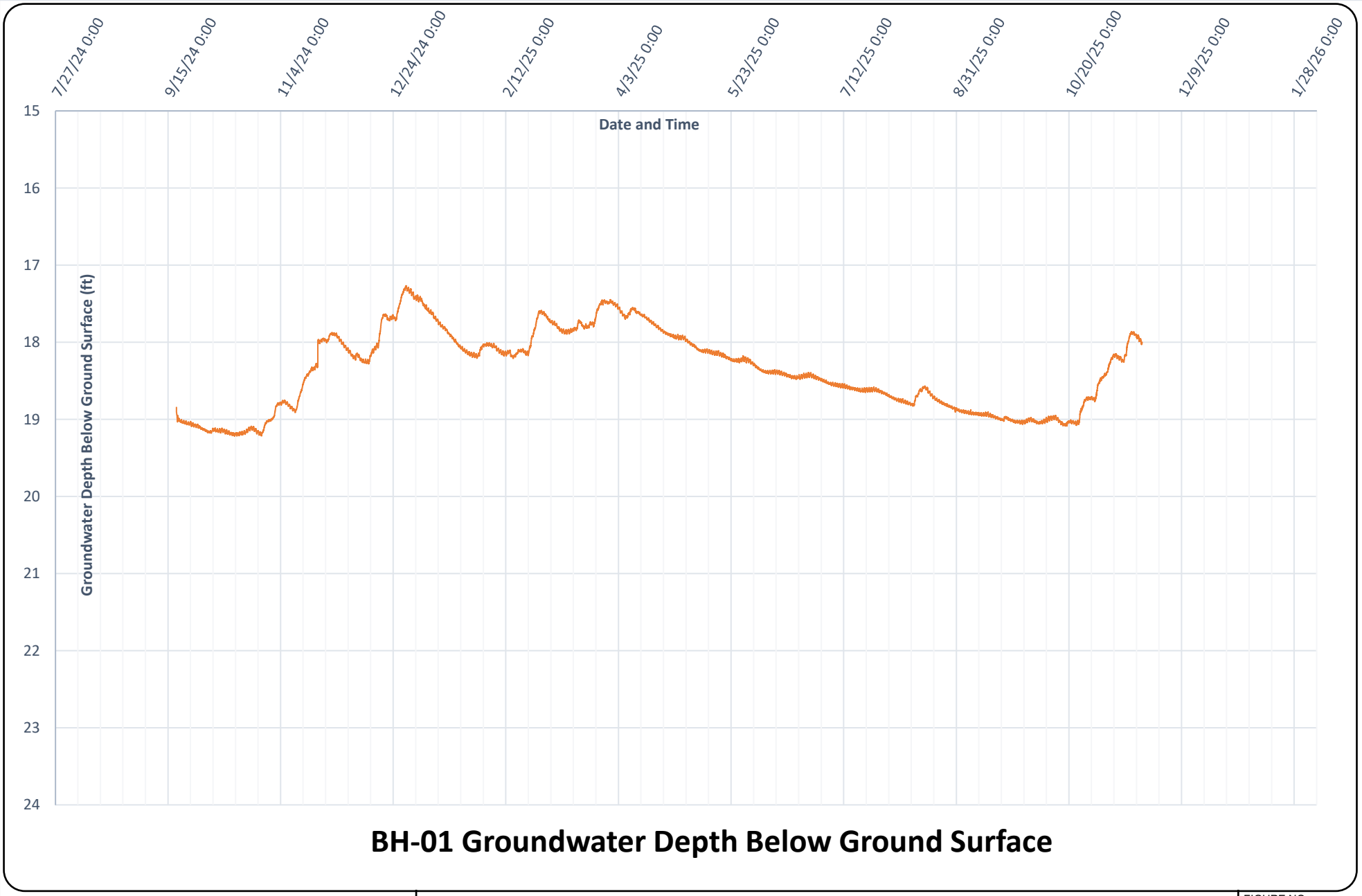
GIG HARBOR LIFT STATION NO. 5
GIG HARBOR, WASHINGTON

SITE AND EXPLORATION PLAN

DRAWN BY:	FIGURE NO.:
CF	2
CHECK BY:	PROJECT NO.:
SC/AM	2024-219-21

BASE MAP PROVIDED BY: BING

C:\USERS\CFRY\DESKTOP\2024-219-21 GIG HARBOR LIFT STATION NO. 5\2024-219-21 GIG HARBOR LIFT STATION NO. 5.DWG <2> Plotted: 12/1/2024 11:28 AM



BH-01 Groundwater Depth Below Ground Surface

GeoSciences Inc. DBE/MWBE

BH-01 GROUNDWATER LEVEL DATA

Gig Harbor Lift Station No. 5
Gig Harbor, Washington

FIGURE NO.
3

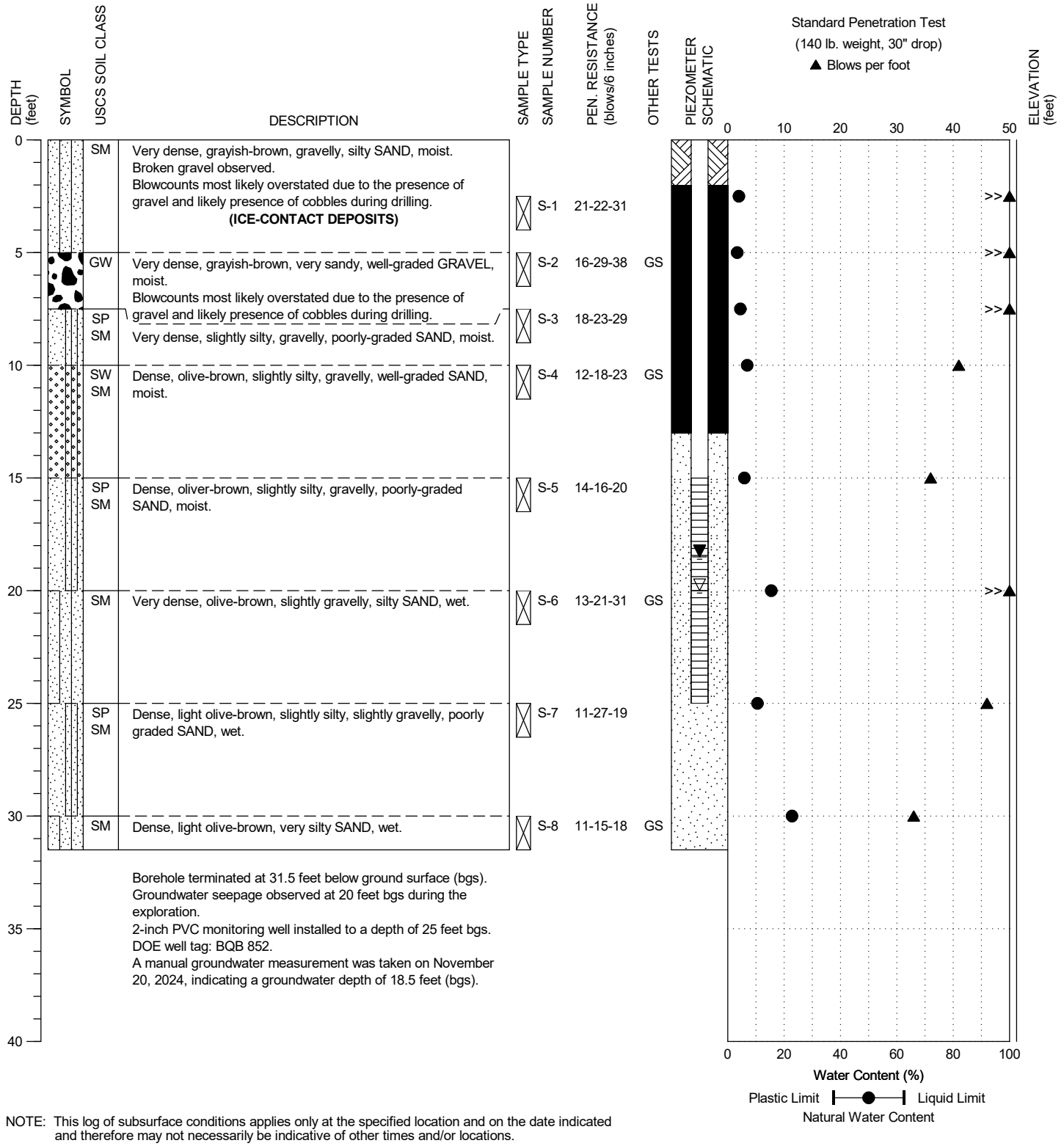
PROJECT NO.
2024-219-21

APPENDIX A

FIELD EXPLORATIONS

DRILLING COMPANY: Holocene Drilling
DRILLING METHOD: Hollow-stem Auger, Mobile B-50
SAMPLING METHOD: SPT w/ Autohammer
LOCATION: See Figure 2

DATE STARTED: 9/18/2024
DATE COMPLETED: 9/18/2024
LOGGED BY: A.Mahmoud



Borehole terminated at 31.5 feet below ground surface (bgs).
Groundwater seepage observed at 20 feet bgs during the exploration.
2-inch PVC monitoring well installed to a depth of 25 feet bgs.
DOE well tag: BQB 852.
A manual groundwater measurement was taken on November 20, 2024, indicating a groundwater depth of 18.5 feet (bgs).

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

GeoSciences Inc.

Gig Harbor Lift Station No. 5
Gig Harbor, Washington

BORING:
BH-01

PAGE: 1 of 1

PROJECT NO.: 2024-219-21 FIGURE: A-2

PZO-DSM 2024-219-21.GPJ 2/15/25
Library: Q:\LIBRARY\LIBRARY - 2019 LAB.GLB

APPENDIX B

GEOTECHNICAL LABORATORY TESTING PROGRAM

APPENDIX B

GEOTECHNICAL LABORATORY TESTING PROGRAM

Representative soil samples obtained from the explorations were placed in plastic bags to prevent loss of moisture and transported to our Bothell, Washington, laboratory for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. Laboratory testing was conducted as described below.

MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary log in Appendix A.

PARTICLE SIZE ANALYSIS OF SOILS: Selected samples were tested to determine the particle (grain) size distribution of material in general accordance with ASTM D 6913. The results are summarized on the attached Particle Size Analysis of Soils reports, Figures B-2 and B-3, which also provide information regarding the classification of the sample, and the moisture content at the time of testing.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-01,S-1	2.5	4.0	3.9									SM	Grayish-brown, silty SAND with gravel
BH-01,S-2	5.0	6.5	3.3	0.9					59.6	36.7	3.7	GW	Grayish-brown, well-graded GRAVEL with sand
BH-01,S-3	7.5	9.0	4.5									SP-SM	Grayish-brown, poorly graded SAND with silt and gravel
BH-01,S-4	10.0	11.5	6.9						22.6	69.6	7.8	SW-SM	Olive-brown, well-graded SAND with silt and gravel
BH-01,S-5	15.0	16.5	5.9									SP-SM	Olive-brown, poorly graded SAND with silt and gravel
BH-01,S-6	20.0	21.5	15.4						8.2	78.9	12.9	SM	Light olive-brown, silty SAND
BH-01,S-7	25.0	26.5	10.5									SP-SM	Light olive-brown, poorly graded SAND with silt and gravel
BH-01,S-8	30.0	31.5	22.8							67.4	32.6	SM	Light olive-brown, silty SAND

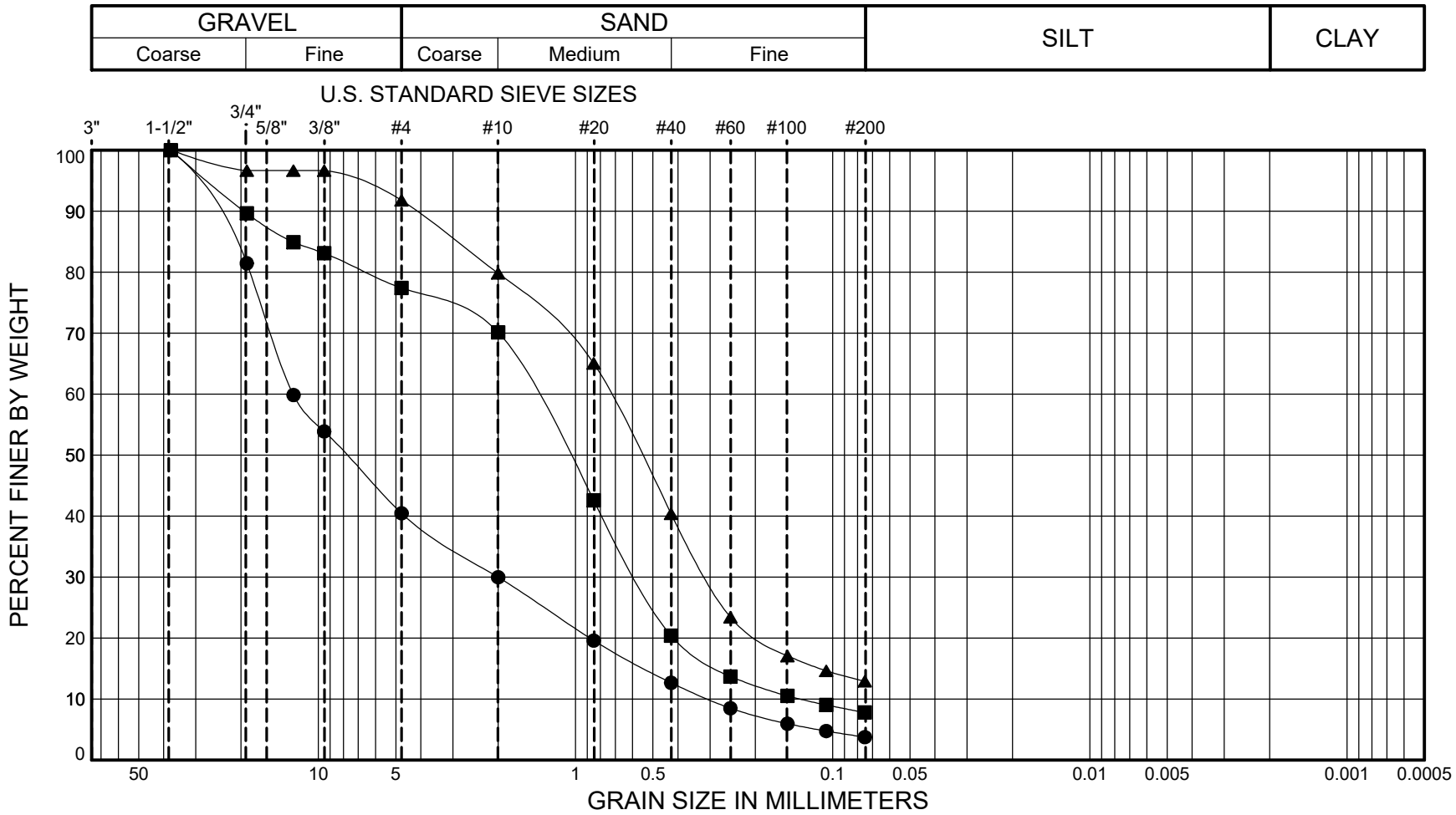
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.

GeoSciences Inc.

Gig Harbor Lift Station No. 5
Gig Harbor, Washington

SUMMARY OF MATERIAL PROPERTIES

PROJECT NO.: 2024-219-21 FIGURE: B-1



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-01	S-2	5.0 - 6.5	(GW) Grayish-brown, well-graded GRAVEL with sand	3				59.6	36.7	3.7
■	BH-01	S-4	10.0 - 11.5	(SW-SM) Olive-brown, well-graded SAND with silt and gravel	7				22.6	69.6	7.8
▲	BH-01	S-6	20.0 - 21.5	(SM) Light olive-brown, silty SAND	15				8.2	78.9	12.9

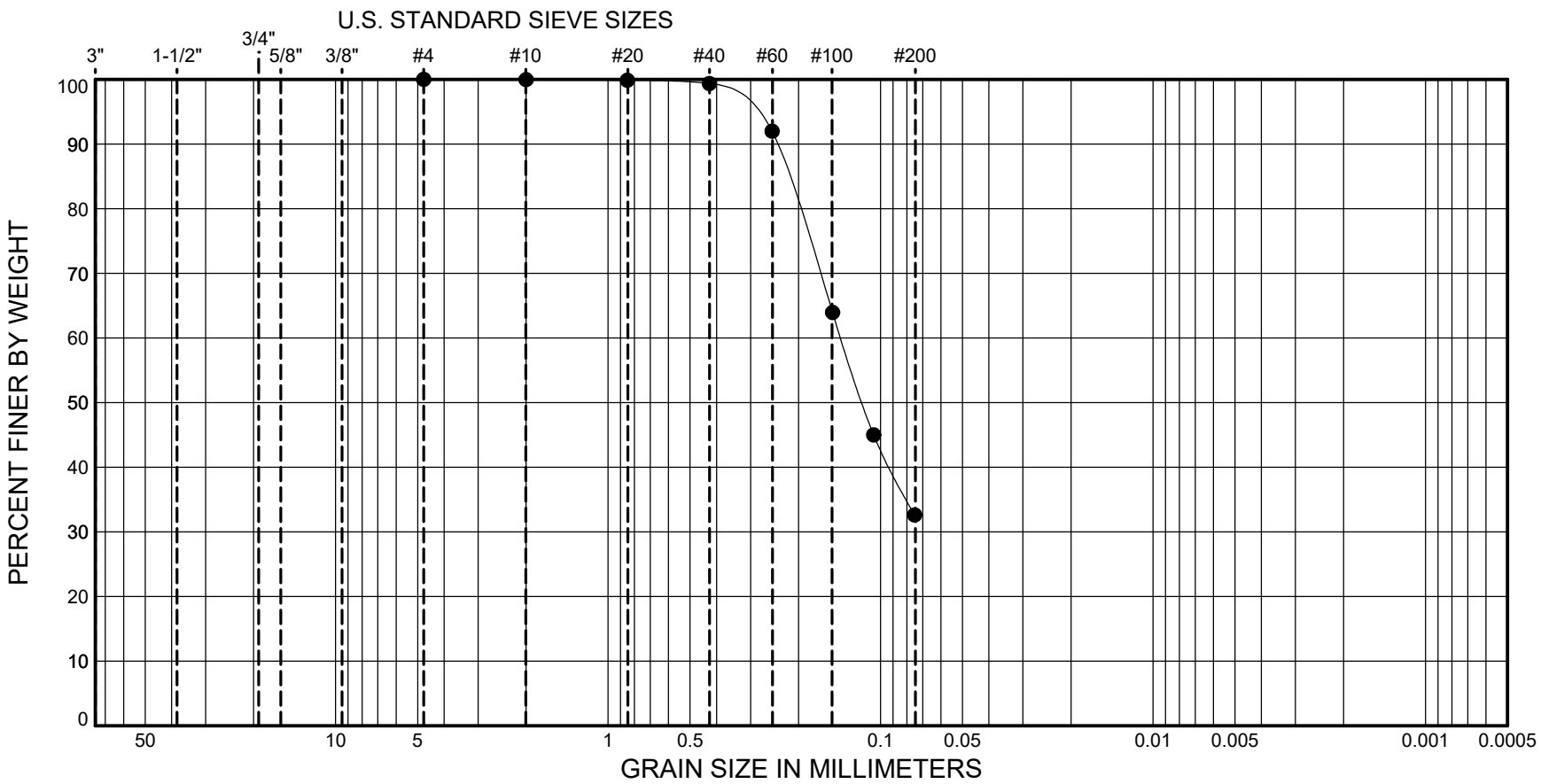
HWA GeoSciences Inc.

Gig Harbor Lift Station No. 5
Gig Harbor, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2024-219-21 FIGURE: B-2

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-01	S-8	30.0 - 31.5	(SM) Light olive-brown, silty SAND	23					67.4	32.6

HWA GeoSciences Inc.

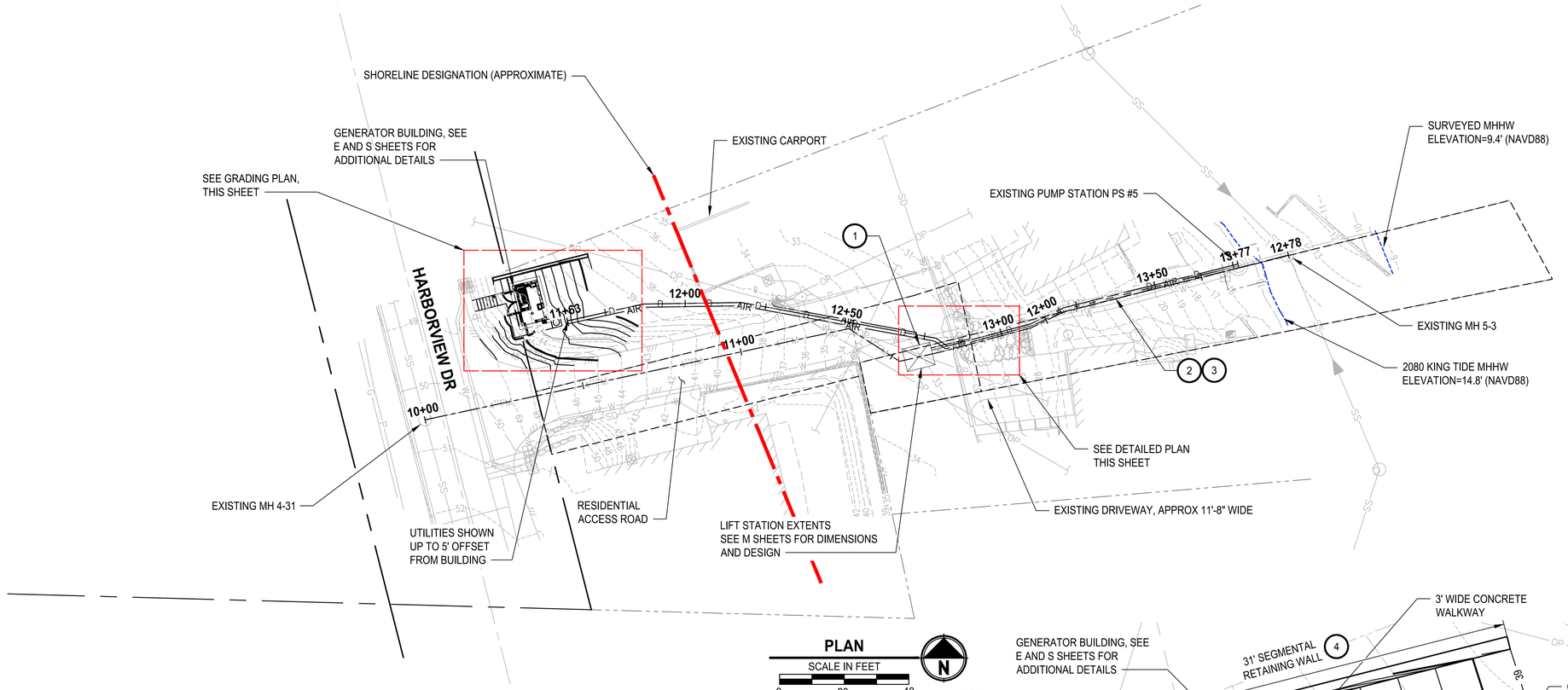
Gig Harbor Lift Station No. 5
Gig Harbor, Washington

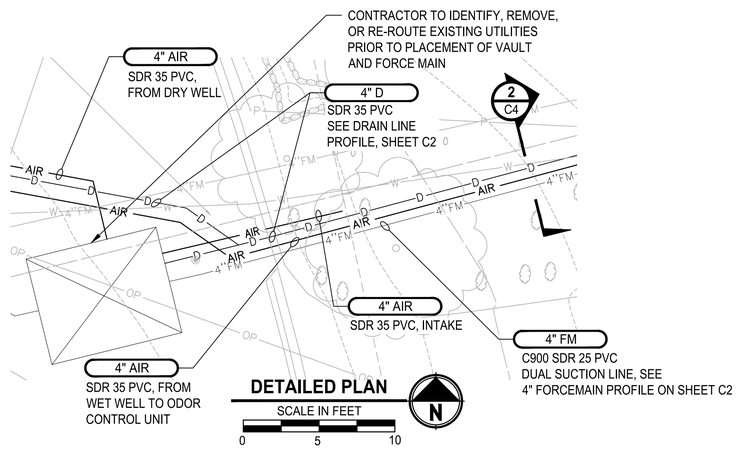
PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

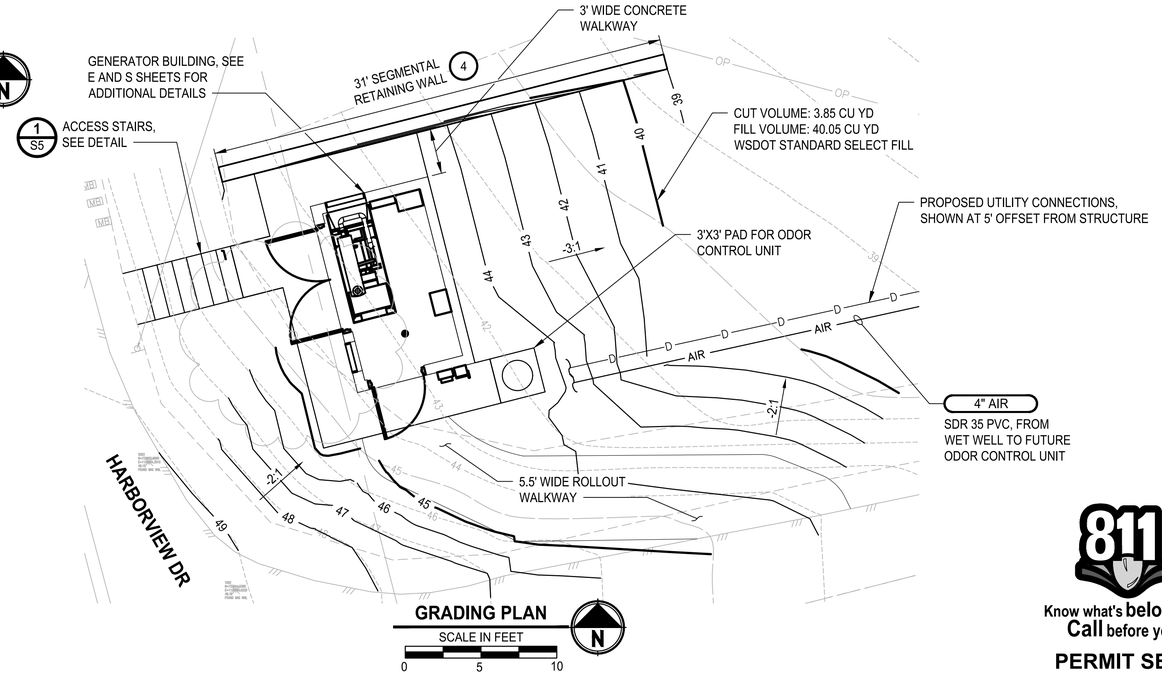
PROJECT NO.: 2024-219-21 FIGURE: B-3

APPENDIX C

100 PERCENT PLANS
TWIN SUCTION SANITARY SEWER PLAN AND GENERATOR BUILDING SHEETS







NOTES:

1. 4" DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPARATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED PER COGH STANDARD DETAILS 4-17 AND 4-18.
3. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.

CONSTRUCTION NOTES:

1. INSTALL PROPOSED SMITH AND LOVELESS PACKAGE PUMP STATION, SEE DETAILS, SHEET M1.
2. INSTALL PROPOSED 4" PVC C900 SDR 25 DUAL PUMP SUCTION LINES. SEE SHEET C2 FOR PLAN AND PROFILE
3. ALL ELECTRICAL AND CONTROLS CONDUIT, 4" ODOR CONTROL AND DRAIN LINE SHALL BE INSTALLED IN SAME TRENCH AS DUAL 4" PUMP SUCTION LINE. FOR PIPELINE SPACING AND TRENCH CONFIGURATION SEE DETAIL 2/C4
4. SEGMENTAL EARTHWALL SHALL BE DEISIGNED PER WSDOT STANDARD SPECIFICATIONS SECTION 6-13. SEE DETAIL 3/C4

Know what's below. Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE JUNE 2025

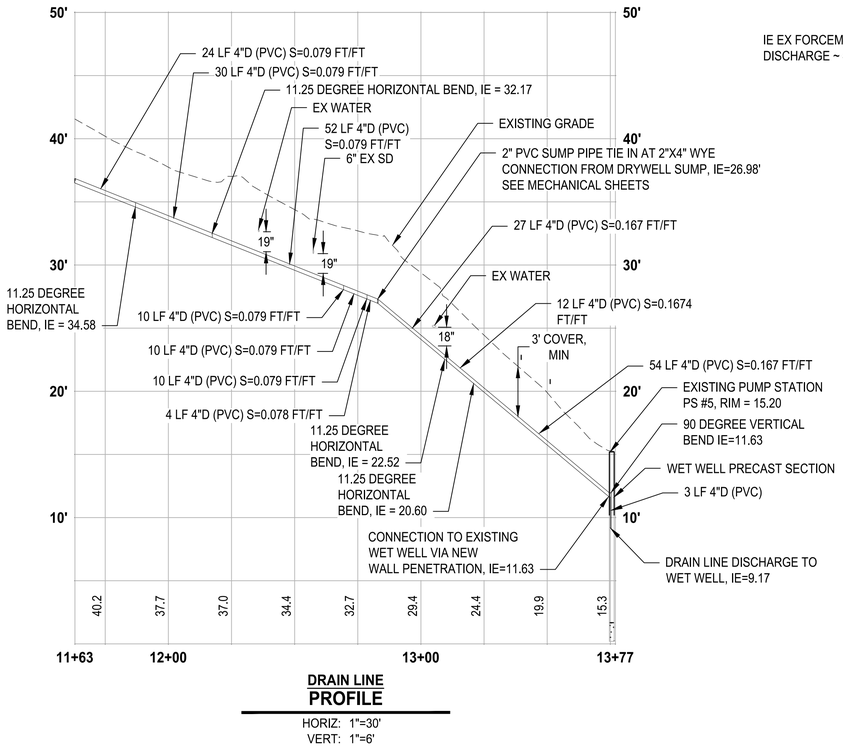
Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

SITE PLAN

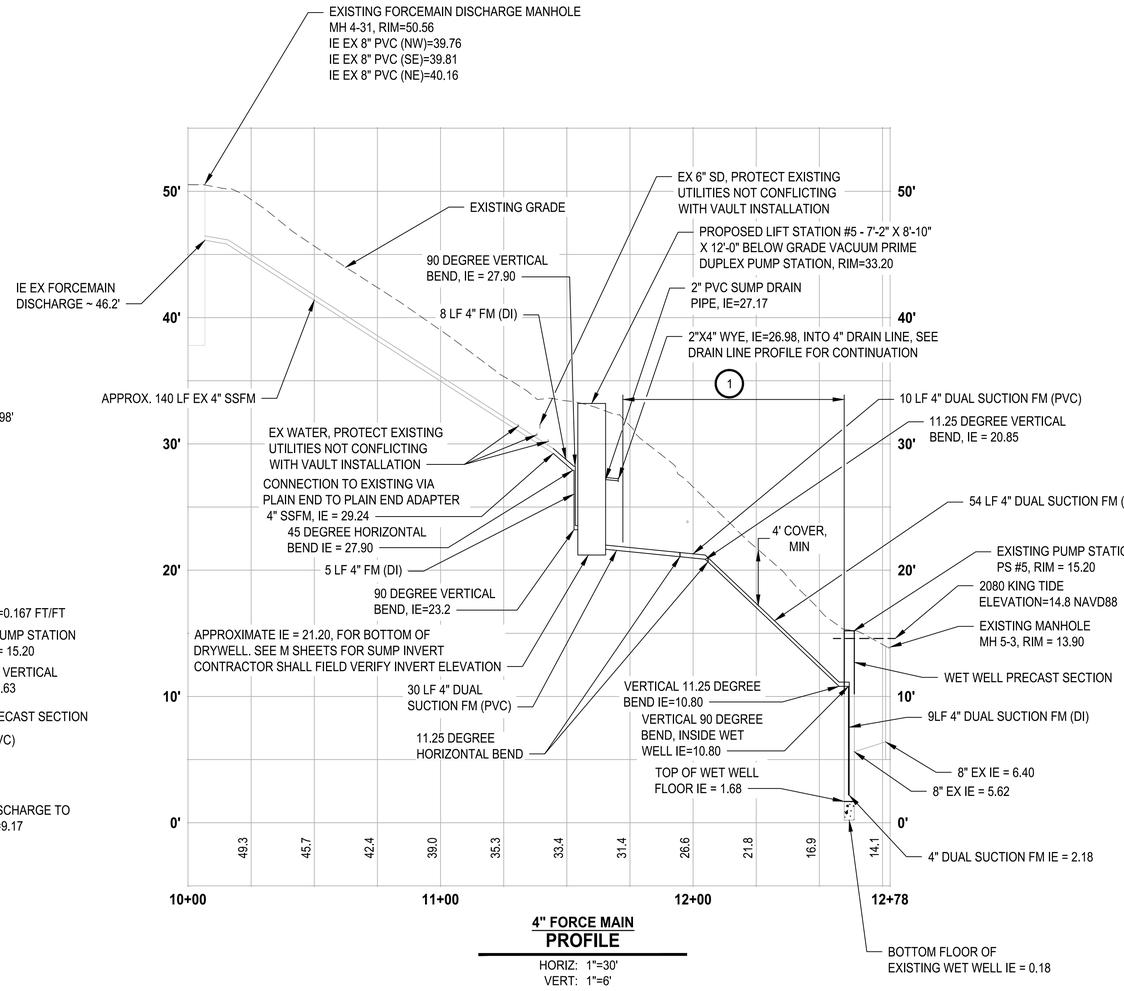
DRAWING NO. 5 OF XX
C1

LAYOUT: C1 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CAD\DWG PLOTTED BY: taylokat DATE: Monday, June 30, 2025 2:04:10 PM



DRAIN LINE
PROFILE

HORIZ: 1"=30'
VERT: 1"=6'



4" FORCE MAIN
PROFILE

HORIZ: 1"=30'
VERT: 1"=6'

NOTES:

1. DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPARATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED PER COGH STANDARD DETAILS 4-17 AND 4-18.
3. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
4. CONTRACTOR SHALL FOLLOW MANUFACTURER RECOMMENDATIONS FOR JOINT DEFLECTION AND CURVATURE OF THE INSTALLED PIPE LINE.
5. FOR PROPOSED UTILITY CROSS SECTION, SEE DETAIL 2/C4
6. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY CROSSING AND CONNECTION INVERT ELEVATIONS.

CONSTRUCTION NOTES:

(1) 4" DUAL SUCTION LINES AND 4" DRAIN LINE TO BE INSTALLED IN SAME TRENCH WHERE INDICATED.

Know what's **below.**
Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY

DESIGNED M. HARRIS
DRAWN M. HARRIS
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE JUNE 2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PIPE PROFILES

DRAWING NO. 6 OF XX

C2

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
PLOTTED BY: taylokat DATE: Monday, June 30, 2025 1:27:31 PM
LAYOUT: C2

GENERAL STRUCTURAL NOTES:

DESIGN CRITERIA

APPLICABLE BUILDING CODES:
2021 INTERNATIONAL BUILDING CODE, WASHINGTON STATE AMENDMENTS.

OCCUPANCY U, RISK CATEGORY III ESSENTIAL FACILITY.

DESIGN LOADS:
IMPORTANCE FACTORS: Is = 1.10, Iw = 1.00, Ie = 1.25.

LOADS:
ROOF LIVE OR SNOW LOAD . . . . . 40 psf
CONCRETE GROUND FLOOR . . . . . 100 psf
WALKING & STAIRS . . . . . 100 psf

WIND LOADS:
BASIC WIND SPEED = 104 MPH, EXPOSURE = C

SEISMIC LOADS:
GIG HARBOR, WA
SITE CLASS D
Sds = 1.23
Sd1 = 0.17
BUILDING SEISMIC FORCE RESISTING SYSTEM:
SPECIAL REINFORCED MASONRY SHEAR WALLS WITH WOOD STRUCTURAL PANEL

FOUNDATIONS

BASED ON HWA GEOSCIENCES DRAFT REPORT, DATED FEB 15, 2025 AND PRESUMPTIVE VALUES GIVEN IN IBC TABLE 1806.2

SOIL BEARING PRESSURE . . . . . 2000 psf
LATERAL PASSIVE BEARING PRESSURE . . . . . 150 pcf
SOIL ACTIVE PRESSURE, YIELDING WALLS . . . . . 35 pcf
SOIL FRICTION FACTOR, SLIDING 0.25

CONTINUOUS INSPECTION OF FILL PLACED AND COMPACTED UNDER BUILDING SLAB AND FOOTINGS REQUIRED BY AN APPROVED, INDEPENDENT TESTING AGENCY. FILL SHALL MEET SPECIFICATIONS AND SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. FILL SHALL BE PLACED IN MAX. 8" LIFTS. DENSITY TESTS SHALL BE TAKEN AT 5-FOOT INTERVALS AROUND THE PERIMETER OF THE PROPOSED STRUCTURE AND 4 EVENLY SPACED LOCATIONS UNDER THE SLAB.

INSPECTIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING AND COORDINATING REQUIRED BUILDING DEPARTMENT INSPECTIONS. IN ADDITION, SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE TABLE ON THIS SHEET, THESE INSPECTIONS SHALL BE PERFORMED BY A CURRENTLY WABO CERTIFIED INSPECTOR UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. THEN IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE REPORTED TO THE DESIGN PROFESSIONAL AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A SEALED FINAL REPORT BY A RESISTER PROFESSIONAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

MISCELLANEOUS

REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF RECESSES, DUCT OPENINGS, PIPING, CONDUITS, EQUIPMENT LOCATION AND ANCHORAGES, ETC., NOT SHOWN.

SUBMIT ALL REQUIRED SHOP DRAWINGS AND RECEIVE THEIR SATISFACTORY REVIEW FROM THE OWNER'S REPRESENTATIVE, PRIOR TO FABRICATION.

COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWINGS AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.

REFER TO SPECIFICATIONS FOR INFORMATION NOT CONTAINED IN THESE GENERAL NOTES.

CONCRETE

ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILS REINFORCED CONCRETE STRUCTURES ACI 315, LATEST EDITION.

CONCRETE CONSTRUCTION SHALL CONFORM TO ACE 318 BUILDING CODE, LATEST EDITION.

DESIGN STRENGTH:
CAST-IN-PLACE CONCRETE, UNLESS OTHERWISE NOTED:
f'c = 4000psi AT 28 DAYS
REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER TABLE SHOWN ON THIS SHEET.

CONCRETE COVER:
CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, BUT NOT LESS THAN ONE BAR DIAMETER:

FOOTINGS AND MATS FORMED AGAINST SOIL . . . . . 3"
CONCRETE IN CONTACT WITH SOIL, WEATHER OR WATER . . . . . 2"
CONCRETE NOT EXPOSED TO SOIL, WEATHER OR WATER. . . . . 1-1/2"
BEAMS AND COLUMNS (TO STIRRUPS) . . . . . 1-1/2"

SLAB ON GRADE
UNDER 6" THICK . . . . . AT SLAB CENTER
6" AND OVER . . . . . AS SHOWN

ANCHOR BOLTS

ANCHOR BOLTS FOR BUILDING STRUCTURE SHALL CONFORM TO ASTM A307 HOT DIPPED GALVANIZED. SET ALL BOLTS BY TEMPLATE.

DRILLED-IN EXPANSION BOLTS

SHALL BE STAINLESS STEEL "KWIK BOLTS" BY HILTI CORP., OR APPROVED EQUAL. ICBO CERTIFICATION AND SPECIAL INSPECTION IS REQUIRED. MINIMUM SPACING SHALL BE 12 BOLT DIAMETERS AND MINIMUM EDGE DISTANCE 6 BOLT DIAMETERS UNLESS NOTED OTHERWISE.

BOLT DIAMETER (IN.)	1/2	5/8	3/4	7/8	1
MIN. EMBEDMENT IN STRUCTURAL CONCRETE (IN.)	4	4	5	6	7

ADHESIVE / EPOXY ANCHORING SYSTEM

ANCHORS SHALL BE STAINLESS STEEL RODS COMPLYING TO AISI 304. REBAR SHALL CONFORM TO NOTES ABOVE.

REINFORCING BARS AND RODS ANCHORED INTO EXISTING CONCRETE SHALL BE IN DRILLED HOLE WITH THREADED, CODE APPROVED, ADHESIVE ANCHORING MATERIALS. ICC-ES REPORTS ARE REQUIRED FOR USE IN CRACKED CONCRETE FOR WIND OR SEISMIC LOADING.

MINIMUM EMBEDMENT IN STRUCTURAL CONCRETE SHALL BE 8 ROD DIAMETERS.

MINIMUM EDGE DISTANCE 6 ROD DIAMETERS.

REINFORCED CONCRETE MASONRY

CONCRETE MASONRY UNITS (CMU):
MASONRY UNITS SHALL BE HOLLOW LOAD-BEARING, CONFORMING TO ASTM SPECIFICATION C90 WITH f'm = 2000 psi.
SPECIAL INSPECTION IS REQUIRED.

MORTAR AND GROUT:
MORTAR AND GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270, TYPE S.

MORTAR SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1800 psi AT 28 DAYS.

GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2500 psi AT 28 DAYS. MAXIMUM AGGREGATE SIZE SHALL BE 3/8", WITH SLUMP BETWEEN 6" TO 9".

GROUT ALL BOND BEAMS, LINTELS AND VERTICAL CELLS CONTAINING REINFORCING STEEL. INSULATE ALL OTHER NON-REINFORCED CELLS OF EXTERIOR WALLS, UNLESS NOTED OTHERWISE.

REINFORCING & EMBEDDED METALS:
REINFORCING STEEL SHALL BE PER ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER LAP SPLICE TABLE.

TYPICAL WALL REINFORCING, UNLESS NOTED OTHERWISE:
VERTICAL: #5 @ 32" AND AT CORNERS, @ CENTERLINE OF WALL
HORIZONTAL: #9 WIRE JOINT REINF (GALVANIZED) @ 16" OC
OPENINGS: JAMBS- (1) #5 FULL HEIGHT OF WALL
HEAD & SILL- (1) #5 EXTEND 2'-0" PAST OPENING

SEE DRAWINGS FOR TOP OF WALL BOND BEAM & OTHER REINFORCING.
ALL BARS & WIRES SHALL LAP AT CORNERS AND INTERSECTIONS.
DO NOT WELD MASONRY REINFORCING STEEL.

WOOD

LUMBER: DOUGLAS FIR LARCH #2 OR BETTER GRADE

WOOD IN CONTACT W/ CONCRETE OR MASONRY TO BE TREATED TO AWPA STD UC2 ABOVE GROUND CONTACT REQUIREMENTS.

FASTENERS / CONNECTIONS NOT SPECIFICALLY CALLED OUT SHALL BE PER IBC TABLE 2304.9.1
CONNECTOR HARDWARE CALLOUTS ARE SIMPSON STRONG-TIE CO.
(CONNECTORS OF OTHER MANUFACTURES ARE ACCEPTABLE WITH ICC APPROVALS)

ROOF NAILING: 10d @ 6" O.C. AT EDGES & SUPPORTS
NAILS SHALL BE HOT-DIP GALVANIZED

STRUCTURAL ABBREVIATIONS

@	AT	MAX	MAXIMUM
AB	ANCHOR BOLT	MB	MACHINE BOLT
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
CDF	CONTROLLED DENSITY FILL	MO	MASONRY OPENING
CLR	CLEAR	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OTO	OUT TO OUT
CONC	CONCRETE	PL	PLATE
CSBC	CRUSHED SURFACING BASE COURSE	PT	PRESSURE TREATED
		PWD	PLYWOOD
d	PENNY WT (NAIL)	RO	ROUGH OPENING
⌀	DIAMETER	SST	STAINLESS STEEL
DS	DOWNSPOUT	T&B	TOP AND BOTTOM
EA	EACH	TJI	TRUSS JOIST I BEAM OR EQUIVALENT
EF	EACH FACE		
EW	EACH WAY	TOC	TOP OF CONCRETE
FDN	FOUNDATION	TOW	TOP OF WALL
F/G	FIBERGLASS	TYP	TYPICAL
FS	FAR SIDE	U/S	UNDERSIDE
GA	GAUGE	WS	WATERSTOP
GLB	GLUE LAMINATED BEAM		
GWB	GYPSUM WALL BOARD		

ROLLED STEEL SHAPES

C	CHANNEL	P_L	PLATE
HP	H PILE SHAPE	S	S SHAPE
HSS	HOLLOW STRUCTURAL SHAPE	SCH	PIPE SCHEDULE
L	ANGLE	ST, WT	TEES CUT FROM S OR W SHAPES
M	MISCELLANEOUS SHAPE	W	WIDE FLANGE
MC	MISCELLANEOUS COLUMN		

LAP SPLICE TABLE

BAR SIZE	CONCRETE f 'c = 4,000 OR 5,000 psi	MASONRY f 'm = 1,500 psi
#3	19"	13"
#4	25"	22"
#5	31"	35"
#6	37"	54"
#7	48"	63"
#8	55"	72"
#9	62"	NA
#10	69"	NA

MINIMUM LAP SPLICES UNLESS OTHERWISE DETAILED ON DRAWINGS

SPECIAL INSPECTION SCHEDULE

ITEM	CI	PI	REMARKS/REFERENCES
GENERAL:			
PREFABRICATED ITEMS		X	
SITE PREPARATION, FILL PLACEMENT, SOIL COMPACTION	X		BY GEOTECHNICAL ENGINEER OR AN APPROVED TESTING AGENCY
CONCRETE:			IBC TABLE 1705.3, ACI 318-2015
REINFORCING MATERIALS & PLACEMENT		X	ASTM AS NOTED, ACI 318 CHAPTER 20.25 & 26.6
WELDING - REINFORCING		X	AWS D1.4
ANCHOR RODS, EMBEDDED BOLTS & INSERTS	X		PRIOR TO AND DURING CONCRETE PLACEMENT
POST-INSTALLED ANCHORS			ACI 318 26.7
ADHESIVE ANCHORS	X		ACI 318 17.8.2.4
MECHANICAL ANCHORS		X	ACI 318 17.8.2
USE OF REQUIRED MIX DESIGN		X	ACI 318 26.4
CONCRETE SLUMP, AIR CONTENT, TEMPERATURE & TEST SPECIMENS	X		WHILE MAKING SPECIMENS FOR STRENGTH TESTS, ACI 318 5.6
CONCRETE PLACEMENT	X		ACI 318 5.9, 5.10
CONCRETE CURING		X	ACI 318 5.11, 5.13
MASONRY:			TMS 402/602-2013 TABLE 3.1.3 LEVEL 3
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X	TMS 602 ART 1.5
2. VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. PROPORTIONS OF SITE-MIXED MORTAR AND GROUT		X	TMS 602 ART 2.1, 2.6
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS.		X	TMS 602 ART 2.4, 3.4
c. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X	TMS 602 ART 3.3 B
d. PLACEMENT OF REINFORCEMENT AND CONNECTORS	X		TMS 602 ART 3.2 E, 3.4
e. GROUT SPACE PRIOR TO GROUTING	X		TMS 602 ART 3.2D, 3.2 F
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	X		TMS 602 ART 3.5
g. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X	TMS 602 ART 3.3 F
h. TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	X		TMS 402 SEC. 1.2.1(e), 6.1.4.3, 6.2.1
i. WELDING OF REINFORCEMENT (NOT ALLOWED UNLESS ASTM A706 BARS)	X		AWS D1.4
j. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER OR HOT WEATHER		X	TMS 602 ART 1.8 C, 1.8 D
3. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/ OR PRISMS. (NOT REQUIRED IF UNIT STRENGTH METHOD IS SUBMITTED PER TMS 602 ART 1.4.B)	X		TMS 602 ART 1.4 B
WOOD:			
SPECIES & GRADE OF WOOD MATERIALS		X	
NAILING OF FRAMING & CONNECTORS	X		PER IBC TABLE 2304.10 & MANUFACTURERS REQUIREMENTS
TYPE & SPACING OF STRUCTURAL PANEL NAILING	X		

INSPECTION SCHEDULE NOTES

1. ITEMS MARKED WITH AN "X" REQUIRE INSPECTION BY A SPECIAL INSPECTOR APPROVED BY THE BUILDING OFFICIAL.
2. ITEMS MARKED "NA" ARE NOT APPLICABLE TO THIS PROJECT.
3. CI = CONTINUOUS INSPECTION DURING PROGRESS OF WORK BY SPECIAL INSPECTOR.
4. PI = PERIODIC INSPECTION BY SPECIAL INSPECTOR AS REQUIRED TO CONFIRM CONFORMANCE OF WORK.
5. TESTING AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER, BUILDING OFFICIAL AND CONTRACTOR.

	REVISIONS	DATE	BY

DESIGNED S.WAGNER
DRAWN D.PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE NOVEMBER 2025

STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

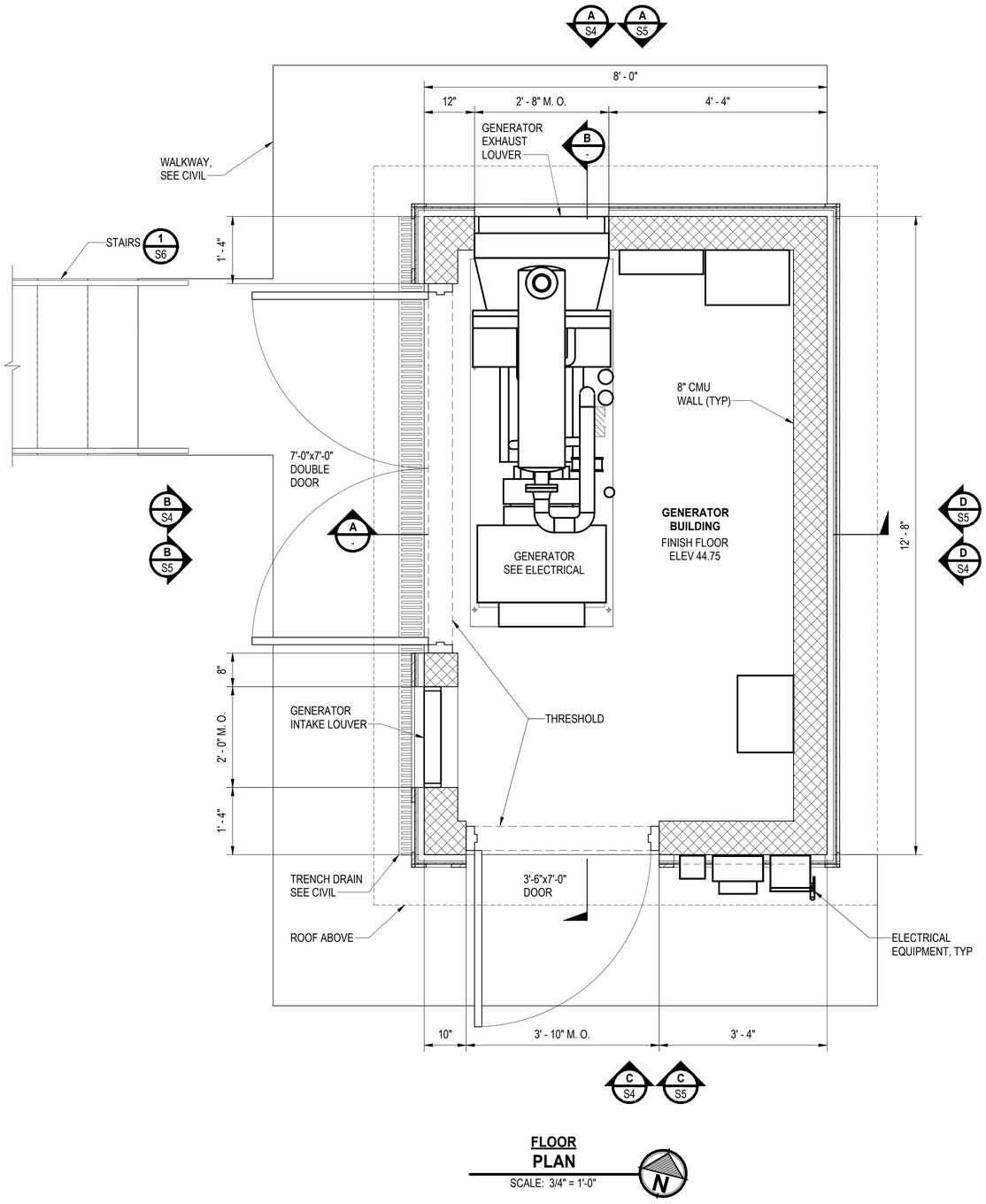
11-26-2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

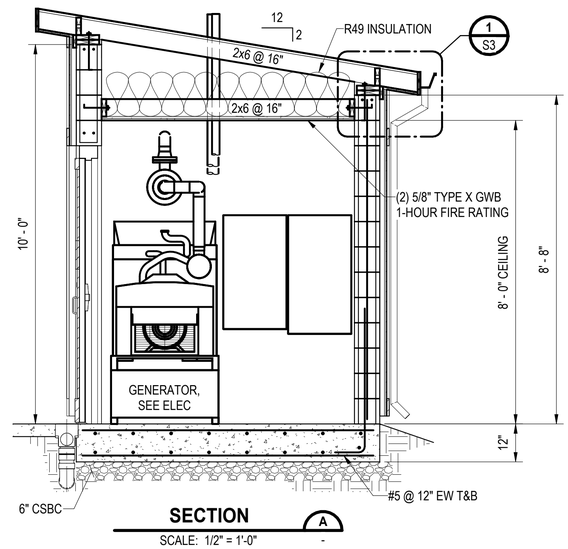
STRUCTURAL NOTES

DRAWING NO. OF 0
S1



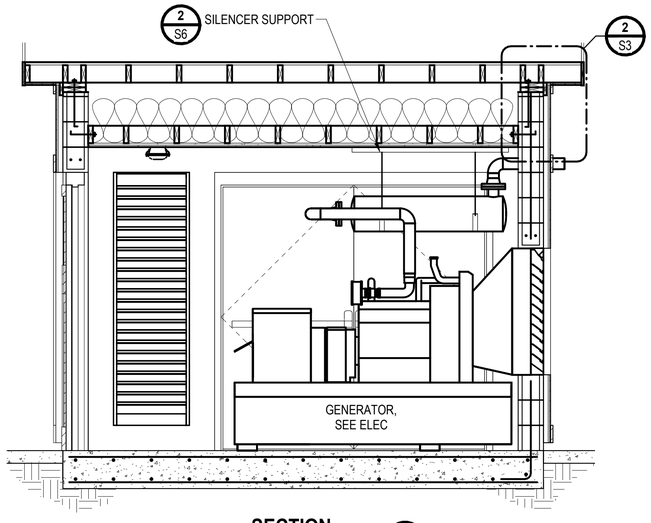
FLOOR PLAN

SCALE: 3/4" = 1'-0"



SECTION A

SCALE: 1/2" = 1'-0"



SECTION B

SCALE: 1/2" = 1'-0"

	REVISIONS	DATE	BY

DESIGNED S.WAGNER
DRAWN D.PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

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STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — PROFESSIONAL ENGINEER

11-26-2025

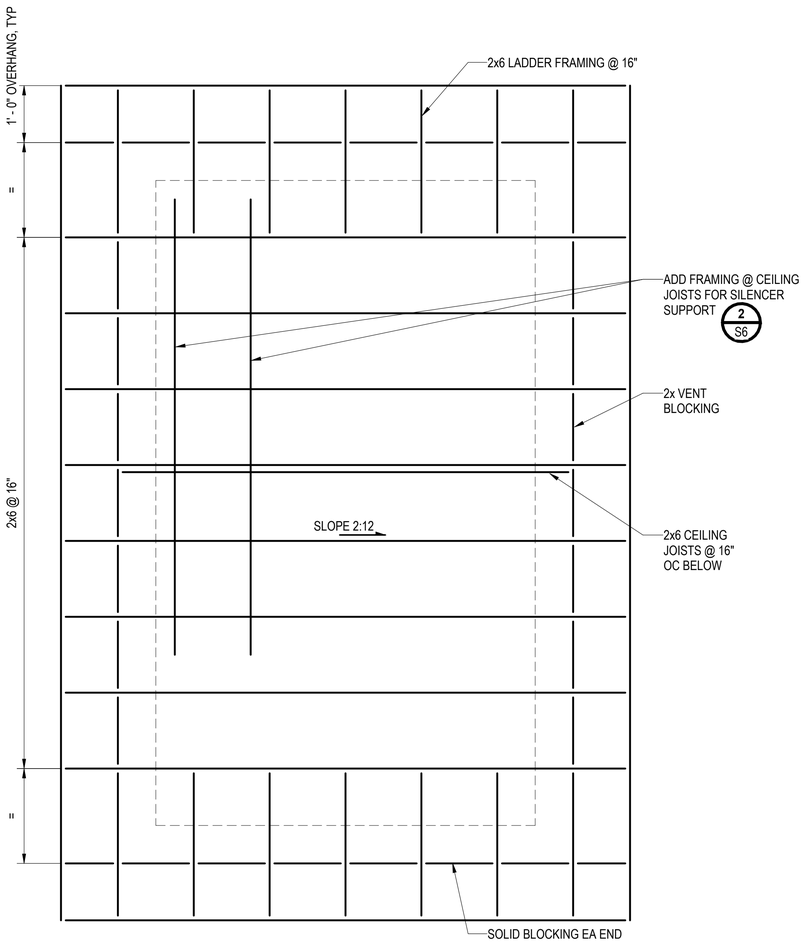
Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERATOR BUILDING FLOOR PLAN AND SECTIONS

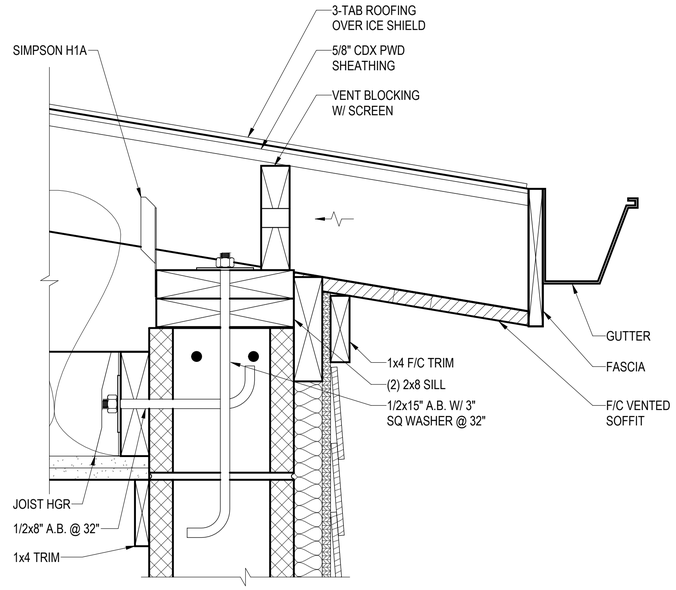
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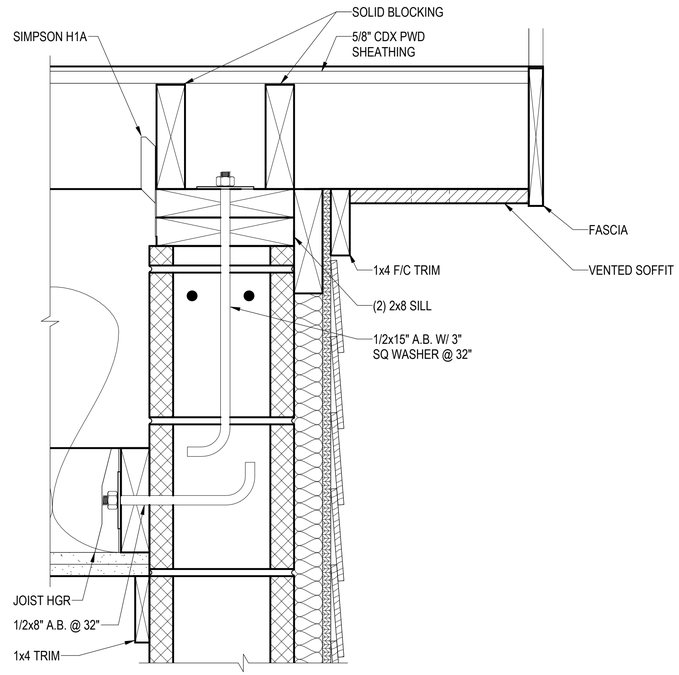
ROOF FRAMING PLAN

SCALE: 3/4" = 1'-0"



DETAIL 1 — S2

SCALE: 3" = 1'-0"



DETAIL 2 — S2

SCALE: 3" = 1'-0"

	REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE NOVEMBER 2025

STEVEN A. BUNKER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

11-26-2025

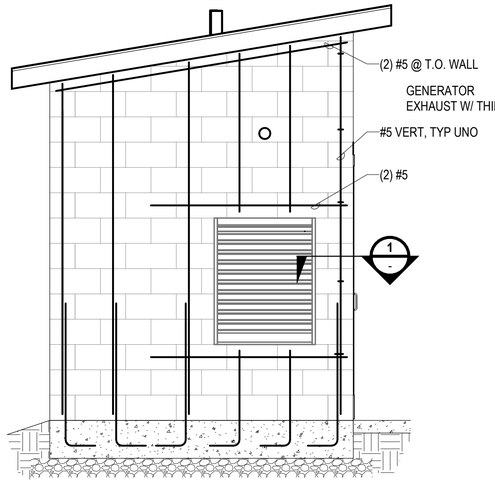
Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

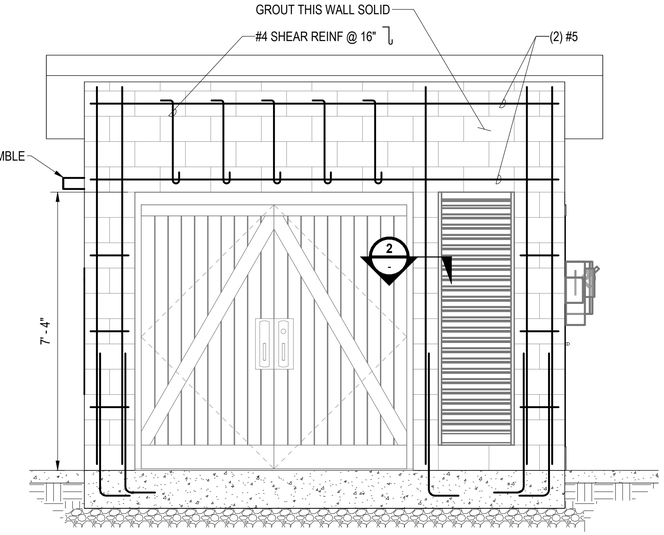
GIG HARBOR, WASHINGTON

GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS

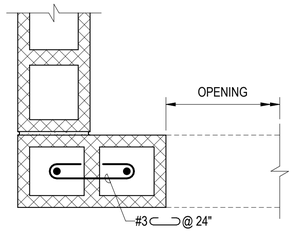
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STRUCTURAL NORTH
ELEVATION A
SCALE: 1/2" = 1'-0" S2



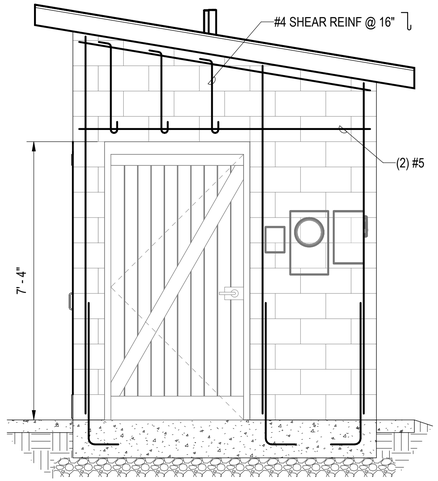
STRUCTURAL WEST
ELEVATION B
SCALE: 1/2" = 1'-0" S2



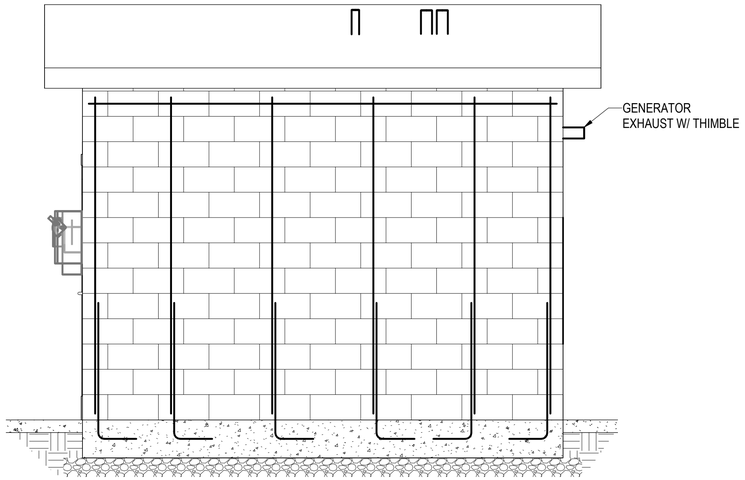
CORNER
DETAIL 1
SCALE: 1 1/2" = 1'-0" -



PIER
DETAIL 2
SCALE: 1 1/2" = 1'-0" -



STRUCTURAL SOUTH
ELEVATION C
SCALE: 1/2" = 1'-0" S2



STRUCTURAL EAST
ELEVATION D
SCALE: 1/2" = 1'-0" S2

	REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB NO. 216-2750-048
DATE NOVEMBER 2025

STEVEN A. WAGNER — STATE OF WASHINGTON — 19711 — PROFESSIONAL ENGINEER
11-26-2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
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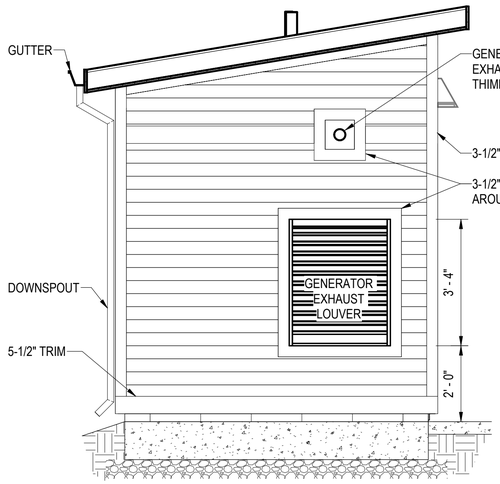
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERATOR BUILDING STRUCTURAL ELEVATIONS AND DETAILS

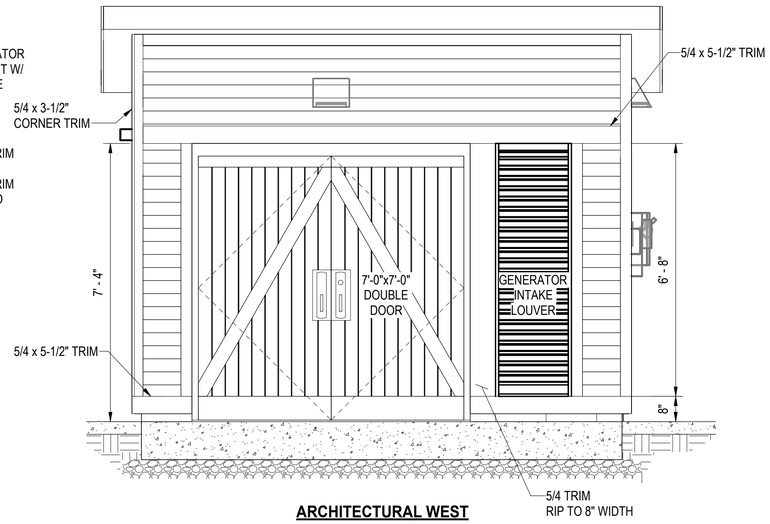
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OF 0
S4

NOTES:

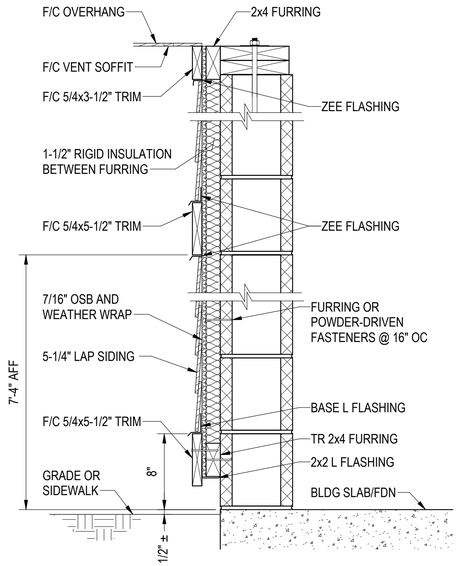
1. FIBER CEMENT (F/C) PANELS AND SIDING SHALL BE AS PRODUCED BY JAMES HARDIE OR APPROVED EQUAL.
2. SIDING F/C W/ 5" EXPOSURE.



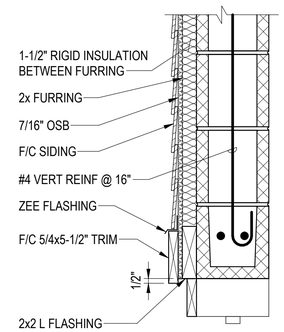
ARCHITECTURAL NORTH ELEVATION A — SCALE: 1/2" = 1'-0" S2



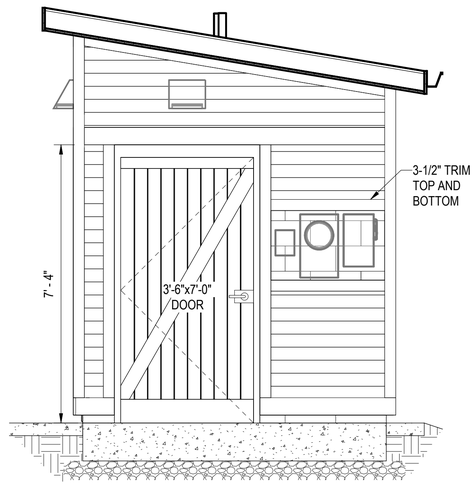
ARCHITECTURAL WEST ELEVATION B — SCALE: 1/2" = 1'-0" S2



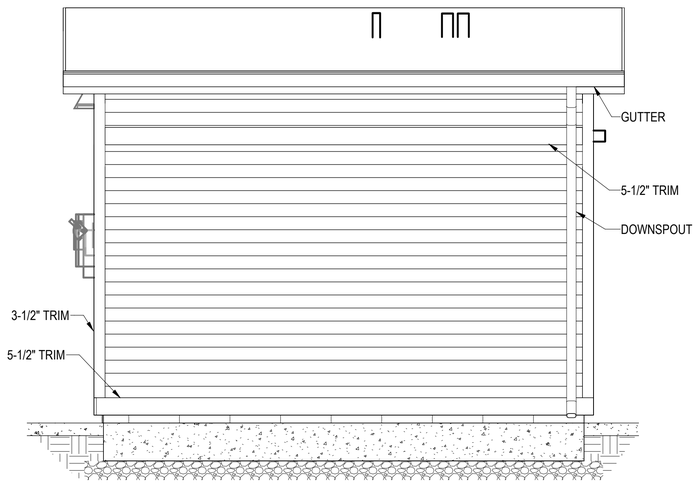
WALL SECTION DETAIL 1 — SCALE: 1 1/2" = 1'-0" TYP



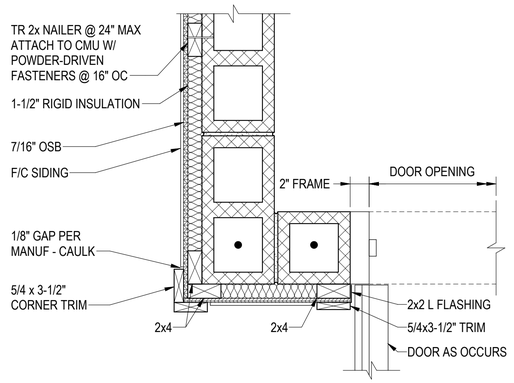
DOOR/HEAD OPENING DETAIL 3 — SCALE: 1 1/2" = 1'-0" TYP



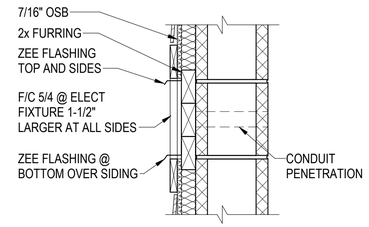
ARCHITECTURAL SOUTH ELEVATION C — SCALE: 1/2" = 1'-0" S2



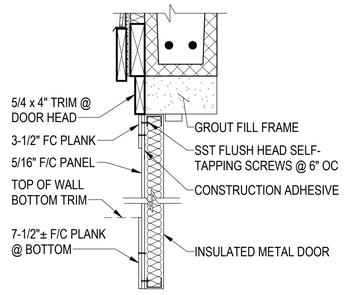
ARCHITECTURAL EAST ELEVATION D — SCALE: 1/2" = 1'-0" S2



CORNER DETAIL 2 — SCALE: 1 1/2" = 1'-0" TYP



ELECTRICAL PENETRATION @ METER, SWITCH, AND LIGHTING DETAIL 4 — SCALE: 1 1/2" = 1'-0" TYP



DOOR SECTION DETAIL 5 — SCALE: 1 1/2" = 1'-0" TYP

	REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE NOVEMBER 2025

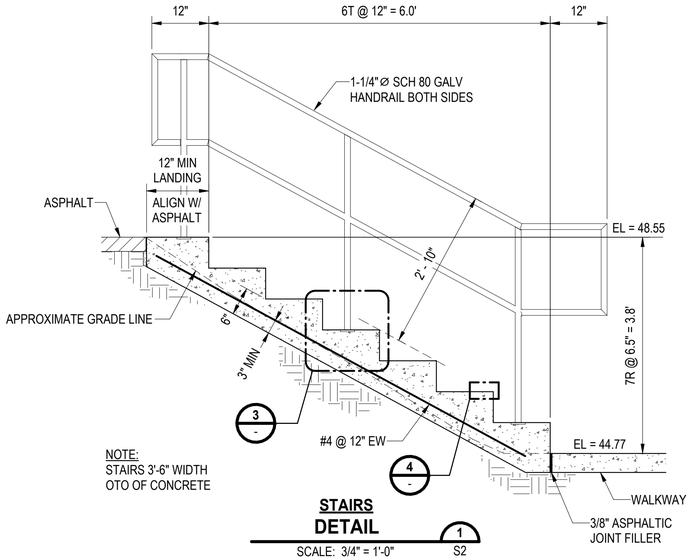
STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
11-26-2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

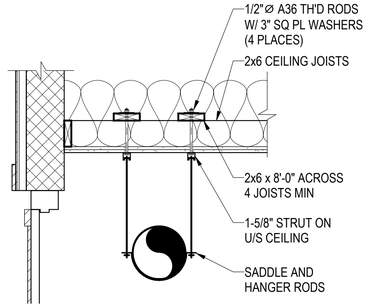
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERATOR BUILDING ARCHITECTURAL ELEVATIONS AND DETAILS

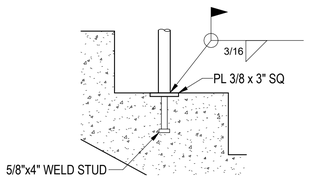
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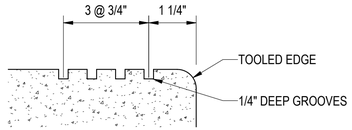
STAIRS
DETAIL 1
SCALE: 3/4" = 1'-0" S2



SILENCER SUPPORT
DETAIL 2
SCALE: 3/4" = 1'-0" S2



STAIRS
DETAIL 3
SCALE: 1 1/2" = 1'-0" -



NOTE:
CONTRACTOR SHALL USE KRAFT TOOL
CO SAFETY STEP EDGER/GROOVER OR
APPROVED EQUAL FOR TREAD GROOVES
AND EDGE, TYP ALL TREADS

TREAD
DETAIL 4
SCALE: 6" = 1'-0" -

	REVISIONS	DATE	BY

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
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11-26-2025

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PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

STRUCTURAL DETAILS

DRAWING NO.
OF 0

S6

RECEIVED
By MThomas City of Gig Harbor at 2:42 pm, Jan 13, 2026

Parametrix
let's create tomorrow, together

Memorandum

Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit O

DATE: December 19, 2025
SUBJECT: Variance Checklist – Supplemental Information
PROJECT NUMBER: 216-2750-048
PROJECT NAME: Lift Station 5 Final Design

Variance Application (GHMC 17.66)

General Information

Project Title: Lift Station 5

Project Location: Parcels #0221081148 and #0221081150 owned by the City of Gig Harbor; 2825 Harborview Drive.

Engineer: Parametrix, 253-604-6600, 1019 39th Ave SE, Suite 100, Puyallup, WA 98374

Project Description

Wastewater basin 5 (WWB-5) is served by LS#5. It is a relatively small basin adjacent to the waterfront of Harborview Drive and is east and down gradient of WWB-4. Flows from LS#5 are discharged to WWB-4. Existing sewer piping generally covers the existing basin area to provide gravity collection to the existing lift station.

LS#5 is located within WWB-5, within the shoreline buffer zone of Gig Harbor Bay adjacent to residential houses in the 2800 block of Harborview Drive. The existing lift station is located on parcel #0221081148 and #0221081150. These parcels are owned by the City of Gig Harbor but are wholly surrounded by parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive). LS#5 is almost 50 years old and consists mostly of original equipment that is beyond its service life; replacement parts are no longer available. During seasonal high tides, a portion of LS#5 is at risk of being inundated by sea water. The city desires the decommissioning of existing LS#5 and replacement with an upgradient below grade vacuum-prime duplex pump station located within the shared driveway in front of 2825 Harborview Drive (105 feet west of the existing lift station). The station will be sited upgradient from the existing pump station and easily accessible for maintenance. To connect the pump station to the beach sewer, dual 4-inch suction piping will be installed along the shared property line of parcel # 0221081149 (2825 Harborview Drive) and parcel # 0221081113 (2823 Harborview Drive) between the existing pump station and the new one within a common trench, as shallow as possible.

The new lift station will be provided with an 8'-0" x 12'-8" CMU generator enclosure located just outside the right of way of Harborview Drive and within an easement on parcel # 0221081149 (2825 Harborview Drive). The pump control panel will be sited as a replacement to the existing control panel that is located directly south of the existing carport and adjacent the existing utility pole on the 2825 Harborview property.

Shoreline

The new and existing lift station are located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. The CMU generator enclosure will be sited outside the 200' Shoreline buffer zone. All new and existing structures are located above and outside the MHHW zone.

Zoning and Front Yard Setback

The project site is located within a Waterfront Residential (WR) zoning district. In accordance with 17.46.040 of the Gig Harbor Municipal Code (Development standards), The setbacks of GHMC 17.99.310 and 17.99.320 are applicable in the WR district.

Per 17.99.320 (Historic district residential setbacks), The FRONT SETBACK MINIMUM House/Accessory Structures is 20 feet. The SIDE SETBACK/VIEW CORRIDOR MINIMUM on a 50-foot-wide lot is 20 feet of combined side yard setback/view corridor are required and may be allotted as desired except that a minimum of five feet on any one side is required.

Based on the above the Front yard setback of 2825 Harborview is twenty-feet (20-feeet).

2825 Harborview is 38.43' wide; therefore, the side yard setback total equals 20-feet and will be divided as follows:

- The minimum of five feet (5-feet) shall be provided on the north side as required.
- The remainder of fifteen feet (15-feet) shall be provided on the south side.

General Variance (GHMC 17.66.030)

A variance is requested in order to construct a new wastewater lift station within the Shoreline Planning Segment C. Relocating the existing lift station 105 feet west will move the pumps and associated electrical components outside of the forecasted 2080 King Tide mean higher high water (MHHW). Adding a permanent backup generator as a power source within a building, but outside the shoreline Planning Segment C will provide a reliable source of permanent backup power. The known challenges and deficiencies of this station include:

- Special conditions and circumstances exist. This is a critical piece of the City's sewer infrastructure and provides wastewater service to the homes in and adjacent to Harborview Drive.
- Relocating the pump station away from the threat of sea water inundation is necessary, but moving the pump station outside of the Shoreline buffer zone is not possible without significant damage to the environs due to the substantially deep excavation and/or negative impact to adjacent private property. This would require substantial replumbing of the whole sewer system in this area, if at all possible, and is not cost effective.
- This variance will not compromise the intent of the comprehensive plan nor be inconsistent with the goals, policies and objectives of the comprehensive goals. Increasing the reliability of the lift station by moving it out of the forecasted future King Tide area advances the opportunities detailed in Section 9.2.3 of the 2024 Gig Harbor Comprehensive Plan.
- The risk of being inundated by seawater during seasonal high tides.
- Pumps within the station are beyond the end of their useful service life and replacement parts are no longer available.
- Concrete within the wet well has undergone moderate deterioration from being exposed to hydrogen sulfide gas.
- Accessing the station with parts and heavy equipment is challenging due to steep, slippery landscaping and the lack of a paved egress.
- The proposed variance will not amount to a rezone since the lift station will still be located within the Shoreline Planning Segment C.



- Special conditions and circumstances do not result from actions of the application. This is an existing lift station.
- Granting of this variance will not confer special privilege.
- The granting of the variance will not be materially detrimental to public welfare. Granting of this variance will increase the reliability of the lift station now and into the future.
- This variance is the minimum variance that will make possible the reasonable use of the land.

Setback Variance (GHMC 17.46.040, 17.99.310 & 17.99.320)

A variance is requested in order to construct an 8'-0" x 12'-8" generator enclosure to provide a backup power source (the "Generator Building") for Lift Station 5 within the front yard setback of parcel # 0221081149 (2825 Harborview Drive). This work is component to relocating the existing lift station 105 feet west will move the pumps and associated electrical components outside of the forecasted 2080 King Tide mean higher high water (MHHW). Adding a permanent backup generator as a power source within a building, but outside the shoreline Planning Segment C will provide a reliable source of permanent backup power.

- Special conditions and circumstances exist. A primary permanent backup power source is a Washington Department of Ecology and City of Gig Harbor requirement for projects of this nature.
- The property owner and the City have agreed that this location is ideal for the building because of its convenient access from Harborview Drive, its placement outside the shoreline buffer zone, Its' location being 1-foot offset to the right of way line, and its consideration for preserving the overall character of the neighborhood.
- This variance will not compromise the intent of the comprehensive plan nor be inconsistent with the goals, policies and objectives of the comprehensive goals. Increasing the reliability of the lift station by providing backup power advances the opportunities detailed in Section 9.2.3 of the 2024 Gig Harbor Comprehensive Plan.
- Strict application of the standards would impose an unreasonable hardship on the applicant and the property owner. Loss of power at the lift station can lead to sanitary sewer overflows (SSOs) and backups into homes, and be in violation of local and state standards.
- The need for the variance is a result of higher tides, end of service life, adherence to local and state standards and not deliberate actions of the applicant.
- The variance does not create health and safety hazards.



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By MThomas City of Gig Harbor at 2:41 pm, Jan 13, 2026

Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit P

Project: Lift Station 5 Basin Improvements

Permit Number: PL-SDP-25-0003

Comment Responses

Page	Comments	Author	Date	Response
PLAN COMMENTS				
AL1 - ALIGNMENT PLAN	Label all recorded easements on or abutting the site. *	JBradley	8/27/2025 14:21	**AL1 sheet updated to better show all exisitng easements with AFN numbers.**
AL1 - ALIGNMENT PLAN	Show adjacent parcel lines and include parcel numbers. *	JBradley	8/27/2025 14:21	**Information for 2827 Harborview Drive shown.**
AL1 - ALIGNMENT PLAN	Provide the boundary of this existing easement. provide the AFN for this easement.	JBradley	8/27/2025 14:22	**AL1 sheet updated to better show all exisitng easements with AFN numbers.**
C1 - SITE PLAN	Please include the 35' shoreline vegetation conservation strip from OHWM per Gig Harbor SMP Table 6-1 Measuring requirements are in GH SMP 6.2.3.2(2). If work is done within the 35' vegetation conservation strip, a No Net Loss Report will be required from a Biologist. GH SMP 6.2.2(1).	Katharine Shaffer	8/26/2025 9:51	**35' Vegetative Conservation Area shown clearly starting from the MHHW line.**
C1 - SITE PLAN	Please show proposed zoning setbacks.	Katharine Shaffer	8/26/2025 11:14	**Setback are shown on Sheet C1 in both the Plan and Grading Plan views of the sheet.**
C1 - SITE PLAN	Provide a legend for this sheet. **	JBradley	8/27/2025 11:42	**Legend and abbreviations updated to include all line styles. Sheet is very crowded to added a full legend / abbreviations**
C1 - SITE PLAN	Provide the limits of this easement. Will it include the air vent and utilities between the generator building and the dry well that is being proposed?	JBradley	8/27/2025 13:47	**Easement extents shown on AL1. Vent and other utility lines to the generator building have had routing adjusted.**
C1 - SITE PLAN	Why is this tree being depicted if it is planned to be removed? Update layering.	JBradley	8/27/2025 14:26	**Layering adjusted to no longer show removed tree.**
C1 - SITE PLAN	Show flow direction arrows on proposed conveyance lines. *	JBradley	8/27/2025 15:54	**Flow arrows shown as able in the zoomed in plan views. Flow areas on the overall Plan view on C1 as it conflicts with other line.**
C4 - CIVIL DETAILS (NOW SHEET C5)	Please provide specifications and details of construction for the required guard for any location that may be over 30" per Section 1015.2 WSBC-2021	Paul	8/26/2025 16:37	**Pedestrian guard detail provided on C7 and rework of wall location on C1 completed to allow for installation of pedestrian guard and to maintain 3' walkway.**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	All markups provided with a blue asterisk (*) are to reference the Civil Land Use Checklist.	JBradley	8/27/2025 11:56	**Acknowledged**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Provide project Information (Address, Parcel Numbers, Zoning, Flood Hazard, Description, etc.) *	JBradley	8/27/2025 11:56	**Information provided on G1**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Provide contact Information (Owners/Applicants, Engineer, Architect, Landscape Architect, Planner, etc.) *	JBradley	8/27/2025 11:56	**Information provided on G1**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Provide Site Utility and Service Contacts (Roads, Storm, Sewer, Fire, Gas, Water, Power, Cable) *	JBradley	8/27/2025 11:56	**Information provided on G1**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Provide the Section, Township, and Range. *	JBradley	8/27/2025 11:56	**Information provided on G1**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Identify Edition of Stormwater Design Manual in use (e.g. 2023) *	JBradley	8/27/2025 11:56	**Identified on G3**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Identify Edition of Public Works Standards in use (e.g. 2018) *	JBradley	8/27/2025 11:56	**Identified on G3**
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Quantify total impervious surface area (use sq. ft.) *	JBradley	8/27/2025 11:56	**Shown on C1**

Page	Comments	Author	Date	Response
PLAN COMMENTS CONT.				
G1 - COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX	Placeholder for City Construction Stamp (used at civil review) *	JBradley	8/27/2025 11:56	**Provided on G1**
S2 - GENERATOR BUILDING FLOOR PLAN AND SECTIONS		Paul	8/26/2025 15:51	**N/A**
S2 - GENERATOR BUILDING FLOOR PLAN AND SECTIONS	A trap seal primer is required per Section 1007.1 WSPC - 2021. Please revise specification. Additionally, we we unable to locate any applicable information on the provided "M Sheets" as noted.	Paul	8/28/2025 15:53	**Floor drain eliminated, not needed.**
S3 - GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS	Dedicated detached structures containing combustion engines shall be of noncombustible or fire-resistive construction per 4.1.2.2.1 NFPA 37-2018 Please revise.	Paul	8/26/2025 15:32	**NFPA 37 requires 1 Hr. rating. Ceiling changed to 2 layers of 5/8" Type X Gypsumboard.**
S3 - GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS		Paul	8/26/2025 14:49	**Gutter and downspout added. Roofing asphalt shingles.**
S4 - GENERATOR BUILDING ELEVATIONS		Paul	8/26/2025 14:17	**N/A**
S4 - GENERATOR BUILDING ELEVATIONS	Exhaust shall not be located within 10 feet of property lines or 10 feet of adjacent grade 501.3.1 WSMC - 2021	Paul	8/26/2025 14:22	**Exhaust moved to be through roof.**
S4 - GENERATOR BUILDING ELEVATIONS	Exhaust shall not be located within 3 feet of a roof 501.3.1 WSMC - 2021	Paul	8/26/2025 16:44	**Exhaust moved to be through roof.**
S5 - STRUCTURAL DETAILS		Paul	8/26/2025 14:09	**N/A**
S5 - STRUCTURAL DETAILS	Handrails must continue to slope for the dept of one tread beyond the bottom riser 1014.6 WSBC-2-21	Paul	8/26/2025 14:11	**Handrailing changed to comply with requirements.**
NARRATIVE COMMENTS				
4	Update narrative to include standard setbacks and proposed reduced setbacks.	Katharine Shaffer	8/26/2025 10:08	**Narrative has been revised to include setbacks and proposed reduced setbacks.**
NO NET LOSS FORM COMMENTS				
1	Update to 35' vegetation conservation strip	Katharine Shaffer	8/26/2025 9:55	**Form has been updated accordingly.**
1	Update to reflect Japanese Maple Per Restoration Plan	Katharine Shaffer	8/26/2025 9:58	**Form has been updated accordingly.**
GEOTECHNICAL REPORT COMMENTS				
1	DRAFT	JBradley	8/27/2025 15:43	**Draft has been removed.**
1	"Draft is misleading". Use Final or Preliminary per Washington Administrative Code 196-23-020[2]. The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Preliminary documents are those documents not considered final as defined herein, but are released or distributed by the licensee. Preliminary documents must be clearly identified as "preliminary" or contain such wording so it may be differentiated from a final document. Preliminary documents must be stamped, but need not be signed or dated by the licensee.	JBradley	8/27/2025 15:45	**Draft has been removed.**

Page	Comments	Author	Date	Response
GEOTECHNICAL REPORT COMMENTS CONT.				
2	Provide a seal/stamp for each P.E. responsible per Washington Administrative Code 196-23-020[3][a]. The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Plans/plats containing work prepared by or under the direct supervision of more than one licensee should be sealed/stamped and dated by each licensee and shall clearly note the extent of each licensee's responsibility.	JBradley	8/27/2025 15:38	**Stamp and signature provided on page 11 of the report.**
2	Provide a seal/stamp. Washington Administrative Code 196-23-020[1]. The use of the seal/stamp must be in accordance with chapter 18.43 RCW or as otherwise described herein: Final documents are those documents that are prepared and distributed for filing with public officials, use for construction, final agency approvals or use by clients. Any final document must contain the seal/stamp, signature and date of signature of the licensee who prepared or directly supervised the work. For the purpose of this section "document" is defined as plans, specifications, plats, surveys, land descriptions as defined in WAC 332-130-020, reports, and as-built documents prepared by the licensee.	JBradley	8/27/2025 15:37	**Stamp and signature provided on page 11 of the report.**
10	The report concluded that horizontal directional drilling appears to be the more suitable option for installing the suction piping. However, additional geotechnical analysis is required to confirm feasibility. Please provide a final report with further subsurface investigation results to ensure the selected construction method is appropriate and will not compromise adjacent structures or site stability.	Katharine Shaffer	8/26/2025 11:13	**Report has been revised to discuss shallow utility installations. Refer to Section 5.1.1.**
17	typo	JBradley	8/27/2025 15:53	**Revised accordingly.**

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By MThomas City of Gig Harbor at 2:42 pm, Jan 13, 2026

No Net Loss Shoreline Ecological Functions Evaluation Form

Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit Q

1. Please provide a complete project description:

Project proposes to demolish existing lift station #5 pump, but retain the existing lift station wet well. A new lift station pump will be installed approximately 215 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and also on private property (2825 Harborview Drive). Water service, including a hose bib, will be provided to the generator enclosure. The new lift station pump and generator enclosure will be

Instructions: Please provide the requested information for each of the project-related questions set forth below. If the project doesn't include one or more of the development activities, indicate "not applicable" next to the topic. **Please note that the completed form must be submitted with the required shoreline permit application or shoreline permit exemption request in order for the application to be deemed complete.**

Shoreline Setback/Impervious Coverage

1. vegetation conservation strip (from the Ordinary High-Water Mark): 35 Feet
2. Proposed Shoreline Setback: 200 Feet
3. Parcel Width (linear feet shoreline frontage): not applicable
4. Proposed Shoreline Setback Area (sq. ft.): not applicable
5. Number of existing accessory structures in setback area: 3
6. Number of accessory structures to be removed: 0
7. Net increase/decrease in impervious coverage: No Net Change

Native Vegetation (Areas in Sq. Ft.) within Shoreline Setback/Vegetation Conservation Area Buffer

1. Proposed Native Shrubs & Ground Cover: 0
2. Proposed Lawn: 1060
3. Amount of Existing Lawn Removed: 1060
4. Amount of Existing Ornamental Shrubs Removed: 1 Japanese maple
5. Amount of Existing Invasive Species Removed: 0
6. Amount of Aquatic Vegetation Removed: not applicable
7. Amount of Aquatic Vegetation Added: not applicable

No Net Loss Shoreline Ecological Functions Evaluation Form

Shoreline Stabilization (Linear Feet)

1. Hard Shoreline Stabilization Added (wood/concrete vertical bulkhead, rock bulkhead, or riprap): not applicable
2. Hard Shoreline Stabilization Removed: not applicable
3. Hard Shoreline Stabilization Repaired: not applicable
4. Hard Shoreline Stabilization Altered (setback landward): not applicable
5. Geotech Report Provided (yes/no): yes
6. Needs Assessment Required (yes/no): No
7. Soft Shoreline Stabilization Added: not applicable
8. Soft Shoreline Stabilization Removed: not applicable
9. Soft Shoreline Stabilization that replaced hard stabilization structure: not applicable
10. Soft Shoreline Stabilization Altered: not applicable

Overwater Coverage

1. Change in height of overwater structure (pier/dock): not applicable
2. Amount of grating (sq. ft.): not applicable
3. Amount of solid boards (decking) removed: not applicable
4. Total length: not applicable
5. Total Width: not applicable
6. Skirting removed (linear ft.): not applicable
7. In-water structures removed: not applicable
8. Is a boat lift included in the proposal? not applicable
9. Is the proposed overwater structure a “joint pier” used by more than one property owner: No

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By MThomas City of Gig Harbor at 2:49 pm, Jan 13, 2026

Lift Station #5 Basin Improvements
PL-SDP-25-0003 et al
Hearing Examiner 03.03.2026
Exhibit R

LIFT STATION 5 FINAL DESIGN

CITY OF GIG HARBOR

CSP-2313

CITY ADMINISTRATOR
Katrina Knutson

PUBLIC WORKS DIRECTOR
Jeff Langhelm, P.E.

MAYOR
Mary Barber

CITY COUNCIL
Loreto Tessicini
Patrick Ammann
Emily Stone
Reid Ekberg
Julie Martin
Ben Coronado
Le Rodenberg

GIG HARBOR
"THE MARITIME CITY"

CITY OF GIG HARBOR
PUBLIC WORKS DEPARTMENT
3510 GRANDVIEW STREET
GIG HARBOR, WA 98335
(253) 851-6170

2825 HARBORVIEW DR, GIG HARBOR, WA 98335
SECTION 8, TOWNSHIP 21 NORTH, RANGE 02 EAST



VICINITY MAP

N

PROJECT DESCRIPTION

THE INSTALLATION OF A NEW DRY PIT LIFT STATION, A NEW GENERATOR ENCLOSURE BUILDING WITH A NEW GENERATOR, NEW ELECTRICAL AND CONTROL PANELS, NEW UTILITY LINES INCLUDING SANITARY SEWER, INTAKE AND EXHAUST AIR, CONDUITS, AND DRAIN LINES, THE INSTALLATION OF CURED-IN-PLACE PIPE LINERS WITHIN EXISTING GRAVITY SANITARY SEWER PIPES, EPOXY COATING EXISTING SANITARY SEWER MANHOLES, NEW CONCRETE SIDEWALK AND STAIRS, AND SITE RESTORATION.

GIG HARBOR
"THE MARITIME CITY"

APPROVED FOR CONSTRUCTION
FOR THE CITY OF GIG HARBOR

BY: _____ DATE: _____
AARON HULST, P.E.,
CITY ENGINEER

Approval Expires 180 Days from Above Date

BY: _____ DATE: _____
JEFF LANGHELM,
PUBLIC WORKS DIRECTOR

DRAWING INDEX

SHT NO.	DWG NO.	DESCRIPTION
1	G1	COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX
2	G2	GENERAL NOTES, LEGENDS AND ABBREVIATIONS
3	G3	STORMWATER, SEWER, AND LIFT STATION NOTES
4	AL1	ALIGNMENT PLAN
5	D1	DEMOLITION AND TESC PLAN
6	C1	SITE PLAN
7	C2	CONTROL POINTS
8	C3	PIPE PROFILES
9	C4	COLLECTION SYSTEM CIPP PLAN
10	C5	CIVIL DETAILS
11	C6	CIVIL DETAILS
12	C7	CIVIL DETAILS
13	L1	RESTORATION PLAN
14	S1	STRUCTURAL NOTES
15	S2	GENERATOR BUILDING FLOOR PLAN AND SECTIONS
16	S3	GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS
17	S4	GENERATOR BUILDING STRUCTURAL ELEVATIONS AND DETAILS
18	S5	GENERATOR BUILDING ARCHITECTURAL ELEVATIONS AND DETAILS
19	S6	STRUCTURAL DETAILS
20	M1	PUMP STATION DRY WELL MECHANICAL PLAN
21	M2	PUMP STATION WET WELL MECHANICAL PLAN
22	E1	ELECTRICAL LEGEND AND ABBREVIATIONS
23	E2	ELECTRICAL ONE-LINE AND SCHEDULES
24	E3	ELECTRICAL OVERALL SITE PLAN
25	E4	ELECTRICAL GENERATOR BUILDING PLAN
26	E5	GENERATOR GROUNDING DETAIL
27	E6	PUMP STATION DRY WELL & WET WELL ELECTRICAL PLANS AND SECTIONS

UTILITY SERVICE PROVIDERS:

ELECTRIC/GAS:
PENINSULA LIGHT COMPANY
PHONE: 253-857-5950

PUGET SOUND ENERGY,
PHONE: 888-225-5773

WATER/SEWER:
CITY OF GIG HARBOR UTILITIES,
PHONE: 253-847-7555

STORM/ROADS:
CITY OF GIG HARBOR PUBLIC WORKS DEPT.,
PHONE:(253) 853-7637

CABLE:
XFINITY,
PHONE:(800) 934-6489

CENTURYLINK,
PHONE: (877) 837-5738

FLOOD HAZARD:
AREA OF MINIMAL FLOOD HAZARD - T21 R2E S8

SPECIAL FLOOD HAZARD AREA - ZONE VE (EL 16 FT)

OWNER
STEVE DEMMER, P.E.
PHONE: (253) 530-7076

ENGINEER OF RECORD
BRIAN BUNKER, P.E.
PHONE;(253) 604-6798

LANDSCAPE ARCHITECT
DYLAN BAILEY, PLA
PHONE:(253) 501-5169

811
Know what's **below.**
Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED B. BUNKER
DRAWN B. ANTOINE
CHECKED S. AZAHARI
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-G
JOB No. 216-2750-048
DATE JANUARY 2026

BRIAN E BUNKER
STATE OF WASHINGTON
46055
REGISTERED PROFESSIONAL ENGINEER

01-09-2026

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

COVER SHEET, PROJECT VICINITY MAP, & DRAWING INDEX

DRAWING NO.
1 OF 27
G1

PATH: U:\PS0\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
PLOTTED BY: SteveAnd DATE: Friday, January 9, 2026 12:53:29 PM
LAYOUT: G1

LEGEND:

DESCRIPTION:	EXISTING:	PROPOSED:
ALIGNMENT		
PROPERTY LINE		
MAJOR CONTOUR		
MINOR CONTOUR		
MEAN HIGHER HIGH WATER LINE		
EDGE OF ASPHALT		
EDGE OF GRAVEL		
CLEARING AND GRUBBING		CG CG CG CG CG CG
LIMITS OF DISTURBANCE		LOD LOD
AIR INTAKE/EXHAUST		AIR
ODOROUS AIR		OA OA
CONCRETE		
DRAINAGE PIPING		D
COMMUNICATION LOCATES	T	
GAS LOCATES	G	
WATER LOCATES	W	6"W
STORM LOCATES	SD SD	
SEWER LOCATES	SS SS	
OVERHEAD POWER LINE	OP	
FORCEMAIN	4"FM	4"FM
APS POWER LOCATES	P	
EDGE OF VEGETATION/LANDSCAPE		
ROCKERY WALL		
BUILDING OUTLINE		
FOUND MAG NAIL		
SIGN	P	
BOLLARD		
POWER POLE W/ LIGHT AND TRANSFORMER		
GUY ANCHOR		
POWER JUNCTION BOX	P	
TELEPHONE RISER	TR	
TELEPHONE MANHOLE	T	
WATER METER		
HYDRANT		
GATE VALVE		
SEWER MANHOLE		
SEWER CLEAN OUT	CO	
CONIFER TREE		
DECIDUOUS TREE		
HEDGE		
RHODY		
SHRUB		
CAP/PLUG		
BLIND FLANGE		
FLANGE		
MECHANICAL		
CATCH BASIN		
CATCH BASIN ROUND		
WATER HOSE BIB		
IRRIGATION VALVE		
MAILBOX		
POWER JUNCTION BOX		
POWER METER		

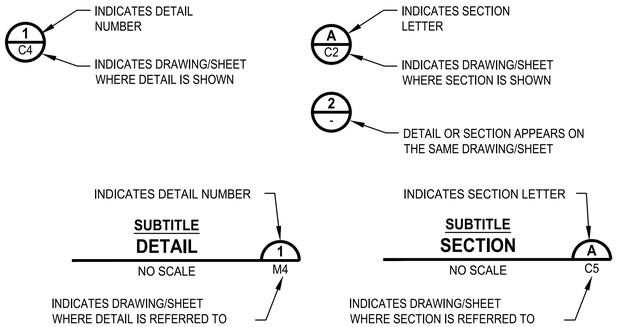
ABBREVIATIONS:

AP	ANGLE POINT
APPROX	APPROXIMATE
AVE	AVENUE
BP	BEGINNING POINT
℄	CENTER LINE
CB	CATCH BASIN
CL	CLASS
COGH	CITY OF GIG HARBOR
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONST	CONSTRUCTION
CSTC	CRUSHED SURFACING TOP COURSE
DBH	DIAMETER BREAST HEIGHT
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
E	EAST, EASTING
EA	EACH
EP	END POINT
EX	EXISTING
FH	FIRE HYDRANT
FM	FORCE MAIN
G	GAS
GRND	GROUND
GV	GATE VALVE
HMA	HOT MIX ASPHALT
HYD	HYDRANT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
L	LENGTH, LEFT
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MHHW	MEAN HIGHER HIGH WATER
MIN	MINIMUM
MJ	MECHANICAL JOINT
N	NORTH, NORTHING
NST	NO STEEPER THAN
NW	NORTHWEST
OA	ODOROUS AIR
OP	OVERHEAD POWER
REQ'D	REQUIRED
RJ	RESTRAINED JOINT
R, RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH, SLOPE
SD	STORM DRAINAGE
SE	SOUTHEAST
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD
SW	SOUTHWEST
T	TELEPHONE
TYP	TYPICAL
W	WATER, WEST
W/	WITH

EROSION AND SEDIMENT CONTROL NOTES:

1. TEMPORARY EROSION CONTROL/WATER POLLUTION PREVENTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15 OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, THE DEPARTMENT OF ECOLOGY NPDES REQUIREMENTS AND THE CITY OF GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL. AT NO TIME WILL SILT AND DEBRIS BE ALLOWED TO DRAIN INTO AN EXISTING OR NEWLY INSTALLED FACILITY UNLESS SPECIAL PROVISIONS HAVE BEEN DESIGNED. PROJECTS THAT EXCEED ONE ACRE OR MORE IN SIZE ARE REQUIRED TO OBTAIN A GENERAL CONSTRUCTION STORM WATER PERMIT.
2. CONTRACTOR TO DEVELOP SOIL EROSION AND WATER POLLUTION/FLOOD CONTROL PLANS WHICH ARE TO BE SUBMITTED TO THE CITY, APPROVED BY THE CITY, AND IMPLEMENTED BY THE CONTRACTOR PRIOR TO DISTURBING ANY SOIL ON SITE. SUBMITTAL AND APPROVAL OF THESE PLANS SHALL PRECLUDE ANY CONSTRUCTION ACTIVITY ON THE SITE.
3. THE CONSTRUCTION, ADJUSTMENT, MAINTENANCE, AND UPGRADING OF THESE EROSION CONTROL MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE PROJECT.
4. SHOULD THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THESE DRAWINGS NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
5. INSTALL MEASURES WITHIN THE RIGHT OF WAY AND EASEMENTS UNLESS DIRECTED OTHERWISE.
6. PAVED AREAS ARE TO BE KEPT CLEAN DURING THE DURATION OF CONSTRUCTION.
7. PROTECT ALL INLETS DURING SURFACE GRINDING, PAVING, AND EARTHWORK OPERATIONS TO PREVENT POLLUTANTS FROM ENTERING STORM WATER SYSTEMS.
8. CONTRACTOR SHALL PROVIDE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT OR REDUCE THE MOVEMENT OF SEDIMENT FROM THE SITE DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO PROTECTION OF INLETS WITHIN 100 FEET OF THE WORK AREA.

DETAIL AND SECTION DESIGNATION



GENERAL NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF GIG HARBOR PUBLIC WORKS STANDARDS AND THE MOST CURRENT VERSION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL SAFETY STANDARDS AND REQUIREMENTS AS SET FORTH BY OSHA, WISHA AND THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE WSDOT STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL BY THE ENGINEER OF RECORD OR CITY'S REPRESENTATIVE. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
4. ALL CURB AND GUTTER, ROADWAY GRADES, SIDEWALK GRADES AND ANY OTHER VERTICAL AND/OR HORIZONTAL ALIGNMENTS SHALL BE STAKED BY A REGISTERED SURVEYOR LICENSED IN THE STATE OF WASHINGTON.
5. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF GIG HARBOR SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
6. IF CONSTRUCTION IS TO TAKE PLACE IN OTHER JURISDICTION'S RIGHT-OF-WAY (I.E., PIERCE COUNTY, THE STATE, OR OTHER ADJACENT MUNICIPALITIES), THE CONTRACTOR SHALL NOTIFY THE CITY. ALL THE REQUIRED APPROVALS AND PERMITS SHALL BE OBTAINED PRIOR TO STARTING WORK. THE CONTRACTOR SHALL REIMBURSE THE CITY FOR ASSOCIATED PERMIT FEES.
7. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR AND PUBLIC WORKS A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF AN APPROVED SET OF PLANS ON THE CONSTRUCTION SITE AT ALL TIMES.
10. ALL SURVEYING AND STAKING SHALL BE PERFORMED PER THE CORRESPONDING SECTION OF THE CITY OF GIG HARBOR PUBLIC WORKS STANDARDS.
11. WHERE NEW ASPHALT JOINS EXISTING, THE EXISTING ASPHALT SHALL BE CUT TO A NEAT VERTICAL EDGE AND TACKED WITH ASPHALT EMULSION TYPE CSS-1 IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE NEW ASPHALT SHALL BE FEATHERED BACK OVER THE EXISTING TO PROVIDE FOR A SEAL AT THE SAW CUT LOCATION AND THE JOINT IS TO BE SEALED WITH GRADE AR-4000W PAVING ASPHALT.
12. COMPACTION OF SUB-GRADE, ROCK, AND ASPHALT SHALL BE IN ACCORDANCE WITH THE MOST CURRENT ADOPTED VERSION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
13. FORM AND SUB-GRADE INSPECTION BY THE CITY IS REQUIRED BEFORE POURING CONCRETE. 24 HOURS' NOTICE TO THE CITY IS REQUIRED FOR FORM INSPECTION.
14. SEE THE CITY OF GIG HARBOR PUBLIC WORKS STANDARDS, SECTION 2B.200, FOR TESTING AND SAMPLING FREQUENCIES.
15. ALL SIGN SHEETING SHALL BE HIGH INTENSITY PRISMATIC RETROREFLECTIVE AND IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
16. UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. CALL UNDERGROUND LOCATE LINE AT 1-800-424-5555 (OR 811) A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS.
17. CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT / LIMIT ANY UNNECESSARY DAMAGE TO ALL PRIVATE AND PUBLIC EXISTING FEATURES
18. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO DRIVEWAYS AND LOCAL TRAFFIC AT ALL TIMES.
19. CONTRACTOR MUST FIELD VERIFY ALL SURVEY.

LEGEND:

DESCRIPTION:	EXISTING:
FOUND SURFACE MONUMENT	
FOUND REBAR NO CAP	
FOUND REBAR & CAP	
SET SCRIBE X	
SET MAG NAIL	

Know what's **below.**
Call before you dig.

100 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED B. BUNKER
DRAWN B.ANTOINE
CHECKED S. AZAHARI
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-G
JOB No. 216-2750-048
DATE NOVEMEBER 2025

BRIAN E BUNKER STATE OF WASHINGTON 46055 REGISTERED PROFESSIONAL ENGINEER
01-09-2026

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERAL NOTES, LEGENDS & ABBREVIATIONS

DRAWING NO. 2 OF 27
G2

PLOTTED BY: AntoiBru DATE: Tuesday, November 25, 2025 1:19:34 PM
PATH: \\parametrix.com\gmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: G2

STORMWATER NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2018 CITY OF GIG HARBOR PUBLIC WORKS STANDARDS, 2023 CITY OF GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND THE 2025 STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT.APWA) AND AS AMENDED BY THE CITY OR STATE.
2. TEMPORARY EROSION/WATER POLLUTION PREVENTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH THE CURRENT CITY OF GIG HARBOR STORMWATER MANAGEMENT & SITE DEVELOPMENT MANUAL AND THE DEPARTMENT OF ECOLOGY'S CONSTRUCTION STORMWATER GENERAL PERMIT.

   SHOULD THE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THIS DRAWING NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION, THE APPLICANT /CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSE, AND/OR STORM DRAINAGE SYSTEMS.
3. CALL THE UNDERGROUND LOCATE LINE 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS.
4. THE STORM DRAINAGE SHALL BE CONSTRUCTED ACCORDING TO APPROVED PLANS ON FILE WITH THE CITY. ANY SIGNIFICANT DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL FROM THE CITY.
5. A COPY OF THE APPROVED CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN AND STORMWATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS ALONG WITH THE TESC LEAD CONTACT INFORMATION.
6. ALL EROSION CONTROL AND STORMWATER FACILITIES SHALL BE REGULARLY INSPECTED AND MAINTAINED BY THE DESIGNATED CERTIFIED EROSION CONTROL AND SEDIMENT CONTROL LEAD (CESCL) DURING CONSTRUCTION.
7. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN ENCROACHMENT PERMIT AND OTHER RELATED OR REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY IN THE CITY'S RIGHT-OF-WAY. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL ABIDE BY ALL REQUIREMENTS FOR TRAFFIC CONTROL & SAFETY WHEN WORKING IN THE ROAD RIGHT-OF-WAY.
8. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN THE EVENT OR DISCOVERY OF POOR SOILS, STANDING GROUNDWATER, OR SEVERE DISCREPANCIES FROM SOIL LOG DESCRIPTIONS AS NOTED ON THE PLANS.
9. FOR PUBLIC SYSTEMS, THE CONTRACTOR SHALL CALL FOR INSPECTION 48 HOURS PRIOR TO COVERING ANY DRAINAGE STRUCTURE OR PIPE.
10. ALL DRAINAGE STRUCTURES NOT LOCATED WITHIN A TRAVELED ROADWAY, FLOW PATH, OR CURB, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS ALL CATCH BASIN STRUCTURES THAT COLLECT STORMWATER ON SLOPES 5% OR STEEPER OR ARE LOCATED WITHIN BICYCLE PATHWAYS SHALL HAVE VANED GRATE LIDS. ALL CATCH BASINS IN PEDESTRIAN TRAVEL WAYS SHALL HAVE SOLID LOCKING LIDS, UNLESS APPROVED BY THE CITY ENGINEER.

SANITARY SEWER NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF GIG HARBOR PUBLIC WORKS STANDARDS AND THE MOST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. ALL SAFETY STANDARDS AND REQUIREMENTS SHALL BE COMPLIED WITH AS SET FORTH BY OSHA, WISHA AND WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES.
3. THE PUBLISHED WSDOT DATUM SHALL BE USED FOR ALL VERTICAL CONTROL. A LIST OF BENCHMARKS IS AVAILABLE WITHIN THE PLANS.
4. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF GIG HARBOR SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
5. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY AND/OR WASHINGTON STATE DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE CITY. THE CITY WILL OBTAIN THE COUNTY AND/OR WSDOT PERMIT(S) AND PROVIDE A COPY TO THE CONTRACTOR. THE CONTRACTOR SHALL REIMBURSE THE CITY FOR ASSOCIATED PERMIT FEES.
6. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
7. THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF A TAP CONNECTION TO AN EXISTING MAIN OR LATERAL. THE INSPECTOR SHALL BE PRESENT AT THE TIME OF THE TAP. ANY MATERIAL REMOVED IN THE TAP PROCESS MUST BE GIVEN TO THE CITY INSPECTOR AT THE TIME OF THE TAP.
8. THE CITY INSPECTOR SHALL INSPECT THE PREPARATION OF THE GRAVITY MAIN LINE AND INSTALLATION OF CIPP
9. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.
10. GRAVITY SEWER MAIN SHALL BE GREEN PVC, ASTM D 3034 SDR 35 OR ASTM F 589 WITH JOINTS AND RUBBER GASKETS CONFORMING TO ASTM D 3212 AND ASTM F 455, AND SHALL BE GREEN IN COLOR.
11. NEW MANHOLES WHERE A FORCE MAIN TERMINATES INTO, AND GRAVITY MANHOLES AS DETERMINED BY THE CITY AND AS INDICATED ON THE PLANS, MUST BE PROPERLY COATED INSIDE WITH A RAVEN LINER 405 WASTEWATER EPOXY OR APPROVED EQUAL TO PREVENT HYDROGEN SULFIDE CORROSION. CONTRACTOR SHALL BE RESPONSIBLE FOR THIRD PARTY INSPECTOR OF RAVEN LINER 405 COATING APPLICATION.
12. MANHOLE FRAMES AND COVERS SHALL HAVE A DUCTILE IRON CASTING MARKED "SEWER" AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 120,000 LBS. AND MEET AASHTO M 306 STANDARDS. COVERS SHALL BE ONE-MAN OPERABLE USING STANDARD TOOLS. COVERS SHALL BE HINGED AND INCORPORATE A 90 DEGREE BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE AND COME COMPLETE WITH HINGE INFILTRATION PLUG. FRAMES SHALL BE CIRCULAR AND SHALL INCORPORATE A SEALING RING AND PROVIDE A 24 IN. CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 4 IN. AND THE FLANGES SHALL INCORPORATE BEDDING SLOTS AND BOLT HOLES. ALL COMPONENTS SHALL BE BLACK COATED WITH A TOTAL WEIGHT NOT TO EXCEED 200 LBS. THE MANUFACTURER SHALL BE EAST JORDAN IRON WORKS, OLYMPIC FOUNDRY OR AN APPROVED EQUAL. LOCK-TYPE COVERS SHALL BE REQUIRED IN ALL MULTI-FAMILY COMPLEXES, ON SCHOOL GROUNDS, ON MANHOLES CONTAINING ODOR CONTROL DEVICES, AS INDICATED ON THE PLANS, OR AS DETERMINED BY THE CITY.
13. ALL SEWER MAINS SHALL BE FIELD STAKED FOR GRADES AND ALIGNMENT BY A LICENSED ENGINEERING OR SURVEYING FIRM QUALIFIED TO PERFORM SUCH WORK.
14. ALL PLASTIC PIPE AND SERVICES SHALL BE INSTALLED WITH CONTINUOUS TRACER TAPE INSTALLED 12" TO 18" UNDER THE PROPOSED FINISHED SUB GRADE. THE MARKER SHALL BE PLASTIC NON-BIODEGRADABLE, METAL CORE OR BACKING, MARKED "SEWER" WHICH CAN BE DETECTED BY A STANDARD METAL DETECTOR. IN ADDITION, FORCE MAINS SHALL BE INSTALLED WITH 14 GAUGE COATED COPPER WIRE WRAPPED AROUND ALL PLASTIC PIPE, BROUGHT UP AND TIED OFF AT VALVE BODY. TAPE SHALL BE TERRA TAPE "D" OR APPROVED EQUAL. THE TAPE AND WIRE SHALL BE FURNISHED BY THE CONTRACTOR. ALL SEWER PIPE SHALL BE GREEN IN COLOR. IF PIPE USED IS NOT GREEN IN COLOR A PVC SHEATHING OR 'POLYWRAP' SHALL BE INSTALLED ON PIPE DURING CONSTRUCTION.
15. COMPACTION OF THE BACKFILL MATERIAL SHALL BE REQUIRED IN ACCORDANCE WITH THE ABOVE MENTIONED SPECIFICATION (SEE NOTE #1). REFER TO THE APPLICABLE CITY OF GIG HARBOR STANDARD DETAILS 2-14 THROUGH 2-16 AND AS SHOWN ON THE PLANS. NO PEA GRAVEL WILL BE ALLOWED AS PIPE BEDDING.
16. TEMPORARY STREET PATCHING SHALL BE ALLOWED AS APPROVED BY THE CITY ENGINEER. TEMPORARY STREET PATCHING SHALL BE PROVIDED BY PLACEMENT AND COMPACTION OF 1 IN. MAXIMUM ASPHALT CONCRETE COLD MIX. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AS REQUIRED.
17. EROSION CONTROL MEASURES SHALL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO PREVENT INFILTRATION OF EXISTING AND PROPOSED STORM DRAINAGE FACILITIES AND ROADWAYS.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH SECTION 2B.126 OF THE GIG HARBOR PUBLIC WORKS STANDARDS, THE WSDOT STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ALL APPLICABLE "K" PLANS) AND/OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, A TRAFFIC CONTROL PLAN SHALL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK SHALL COMMERCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF THE APPROVED PLANS ON CONSTRUCTION SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
20. ANY CHANGES TO THE DESIGN SHALL FIRST BE REVIEWED AND APPROVED BY THE PROJECT ENGINEER AND THE CITY OF GIG HARBOR.
21. ALL NEW FORCEMAINS SHALL BE HIGH VELOCITY CLEANED, PRESSURE TESTED, AND VIDEO INSPECTED PRIOR TO PAVING IN CONFORMANCE WITH THE ABOVE REFERENCED SPECIFICATIONS. HYDRANT FLUSHING OF LINES IS NOT AN ACCEPTABLE CLEANING METHOD TESTING OF THE SANITARY SEWER MAIN SHALL INCLUDE VIDEOTAPING OF THE MAIN BY THE CONTRACTOR. IMMEDIATELY PRIOR TO VIDEOTAPING, ENOUGH WATER SHALL BE RUN DOWN THE LINE SO IT COMES OUT THE LOWER MANHOLE. THE CONTRACTOR SHALL INSTALL A SCREEN AT THE LOWER MANHOLE TO CATCH ALL DEBRIS. A COPY OF THE VIDEO SHALL BE SUBMITTED TO THE CITY OF GIG HARBOR. ACCEPTANCE OF THE LINE WILL BE MADE AFTER THE VIDEO HAS BEEN REVIEWED AND APPROVED BY THE INSPECTOR. ANY BELLIES IN MAIN GREATER THAN 3/8" SHALL BE DUG UP AND REPAIRED PRIOR TO ACCEPTANCE. A RE-INSPECTION VIDEO WILL BE REQUIRED AFTER REPAIR HAS BEEN MADE. A WATER OR VACUUM TEST OF ALL MANHOLES IN ACCORDANCE WITH GIG HARBOR STANDARDS IS ALSO REQUIRED. TESTING SHALL TAKE PLACE AFTER ALL UNDERGROUND UTILITIES ARE INSTALLED AND COMPACTION OF THE ROADWAY SUB GRADE IS COMPLETED. AFTER THE PAVING AND RAISING OF MANHOLES IS COMPLETE, THE CONTRACTOR SHALL CLEAN THE SEWER CONVEYANCE SYSTEM AGAIN AT THE CONTRACTOR'S EXPENSE. THE METHOD OF CLEANING SHALL BE A HIGH VELOCITY WATER PRESSURE CLEANING. ALL ROCKS AND DEBRIS SHALL BE REMOVED AND BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
22. CONTRACTORS SHALL BE RESPONSIBLE FOR CLEANUP OF ANY DEBRIS IN NEW OR EXISTING MANHOLES AND MAINS ASSOCIATED WITH THE PROJECT AFTER THE NEW LINES ARE CLEANED AS OUTLINED ABOVE.
23. PRIOR TO BACKFILL, ALL MAINS AND APPURTENANCES SHALL BE INSPECTED AND APPROVED BY THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR. APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FOR CORRECTION OF ANY DEFICIENCIES AND/OR FAILURES AS DETERMINED BY SUBSEQUENT TESTING AND INSPECTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CITY OF GIG HARBOR FOR THE REQUIRED INSPECTIONS.
24. WHEN USING STEEL PLATES OVER THE TRENCH, "STEEL PLATES AHEAD" AND "MOTORCYCLES USERS EXTREME CAUTION" SIGNS SHALL BE REQUIRED.

LIFT STATION INSTALLATION NOTES:

1. ALL WORKMANSHIP, MATERIALS AND TESTING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, NATIONAL ELECTRICAL CODE AND CITY OF GIG HARBOR STANDARDS UNLESS OTHERWISE SPECIFIED BELOW. IN CASES OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY. WHEN THE MOST STRINGENT STANDARD IS NOT CLEAR, THE CITY ENGINEER WILL MAKE THE DETERMINATION. THE ELECTRICAL CONTRACTOR SHALL BE FAMILIAR WITH ALL ABOVE STATED PUBLICATIONS AND GUIDELINES AS THEY WILL BE STRICTLY ENFORCED BY THE CITY.
2. ANY CHANGES TO THE STATION DESIGN SHALL FIRST BE REVIEWED AND APPROVED BY THE PROJECT ENGINEER AND THE CITY OF GIG HARBOR.
3. CONTRACTORS SHALL BE RESPONSIBLE FOR CLEANUP OF ANY DEBRIS IN THE WET WELL, DRY PIT, AND SITE ASSOCIATED WITH THE PROJECT PRIOR TO START UP.
4. PRIOR TO BACKFILL, ALL MAINS, DRY PIT, WET WELLS AND VAULTS SHALL BE INSPECTED AND APPROVED BY THE CITY OF GIG HARBOR CONSTRUCTION INSPECTOR AND/OR SPECIAL INSPECTIONS BY APPROVED INSPECTION FIRM. APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FOR CORRECTION OF ANY DEFICIENCIES AND/OR FAILURES AS DETERMINED BY SUBSEQUENT TESTING AND INSPECTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CITY OF GIG HARBOR FOR THE REQUIRED INSPECTIONS.
5. ALL WORK SHALL BE DONE PER THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE CITY OF GIG HARBOR STANDARDS. THE CITY OF GIG HARBOR STANDARDS MAY EXCEED THE N.E.C.THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE INSPECTIONS.
6. THE CONTRACTOR SHALL COORDINATE POWER SERVICE WITH SERVING UTILITIES AND MAKE ARRANGEMENTS FOR POWER SERVICE CONNECTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN POWER SERVICE FOR PRIVATE LIFT STATIONS SERVING COMMERCIAL PROPERTIES OR DEVELOPMENTS.
7. PRIOR TO TESTING AND START-UP OF THE LIFT STATION, THREE HARD COPIES AND TWO ELECTRONIC COPIES OF THE OPERATION AND MAINTENANCE MANUAL, TOGETHER WITH THE NUMBER OF APPROVED COPIES REQUIRED BY THE CONTRACTOR, SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL. EQUIPMENT SPECIFIC MANUALS SHALL BE DELIVERED WITH EQUIPMENT OR PRIOR TO DELIVERY, BUT NO LATER THAN DELIVERY.
8. THE CONTRACTOR, AT ITS OWN EXPENSE WITH THE DESIGN ENGINEER AND ALL OTHER PARTIES INVOLVED IN THE LIFT STATION CONSTRUCTION, SHALL ARRANGE FOR AN AUTHORIZED FACTORY TRAINED REPRESENTATIVE OF THE COMPANY OR COMPANIES SUPPLYING THE VARIOUS ITEMS OF EQUIPMENT TO CHECK THE INSTALLATION, ADJUST AND TEST THE EQUIPMENT FURNISHED BEFORE THE ACCEPTANCE OF THE WORK BY THE CITY. THE FACTORY REPRESENTATIVE SHALL BE RESPONSIBLE TO CHECK AND RESOLVE ANY UNACCEPTABLE VIBRATION OF THE PUMP ASSEMBLIES. FURTHERMORE, THE CONTRACTOR SHALL ASSIST AND INSTRUCT THE CITY'S OPERATING STAFF IN ADJUSTING AND OPERATING THE EQUIPMENT DURING THE INITIAL START-UP PERIOD. THEY SHALL ALSO PROVIDE A FOLLOW UP TRAINING SESSION AFTER 6 MONTHS OF OPERATIONS. SAID REPRESENTATIVE SHALL BE EXPERIENCED AND KNOWLEDGEABLE OF THE EQUIPMENT BEING TESTED.
9. THE CONTRACTOR, AT ITS OWN EXPENSE, SHALL CONDUCT AN INSTRUCTION PROGRAM FOR UP TO FIVE PERSONNEL DESIGNATED BY THE CITY. THE CONTRACTOR SHALL FURNISH THE SERVICES OF QUALIFIED INSTRUCTORS FROM THE VARIOUS EQUIPMENT MANUFACTURERS. PROGRAM SHALL INCLUDE INSTRUCTION COVERING BASIC SYSTEM OPERATION THEORY, ROUTINE MAINTENANCE AND REPAIR, AND HANDS-ON OPERATION OF EQUIPMENT. TRAINING SHALL NOT PROCEED UNTIL ALL OPERATION MAINTENANCE MANUALS ARE COMPLETE AND ACCEPTED BY THE CITY.
10. ALL EQUIPMENT SHALL BE TESTED AND CONTRACTOR SHALL DEMONSTRATE TO CITY PERSONNEL THAT PROPER OPERATION AND CAPACITY HAVE BEEN FULLY OBTAINED. THE CITY WILL NOT ACCEPT ANY FACILITY UNTIL SUCCESSFUL FULL OPERATION OF ALL COMPONENTS HAS BEEN DEMONSTRATED BY THE CONTRACTOR.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT AND START-UP A COMPLETE AND TROUBLE-FREE SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ALL DESIGN ERRORS AND/OR CONSTRUCTION DEFECTS THAT ARE DISCOVERED IN THE START-UP OR DURING THE WARRANTY PERIOD OF THE AGREEMENT WITH THE CITY.
12. THE CONTRACTOR SHALL GIVE INITIAL LUBRICATION TO ALL EQUIPMENT AS REQUIRED BY THE PART OR COMPONENT MANUFACTURER.
13. LIFT STATION AND GENERATOR, SITE, DRIVEWAY, ACCESS, CONCRETE AREAS, LIGHTING AND WATER SERVICE SHALL ALL BE COMPLETED PRIOR TO START-UP REQUEST AND INSPECTION.
14. GENERATOR AND A 24-HOUR FUEL STORAGE TANK SHALL BE MOUNTED ON A CONCRETE PAD. THE GENERATOR SHALL HAVE WEATHER PROOF SOUND DAMPENING ENCLOSURE, BLOCK HEATER, BATTERY CHARGER, AUTO EXERCISER, RADIATOR LOUVERS OR PROTECTION AND SHALL COMPLY WITH ALL REQUIREMENTS IN SECTION 5C.070 OF THE CITY OF GIG HARBOR STANDARDS AND AS SHOWN ON THE PLANS AND SPECIFIED.
15. TELEMETRY SHALL BE SET UP COMPLETELY AND COORDINATED WITH THE MISSION INCLUDING REVISING TELEMETRY COMPUTER SCREENS AT GIG HARBOR WASTEWATER TREATMENT PLANT PRIOR TO START UP REQUEST AND ACCEPTANCE.
16. SPECIFIC SPARE PARTS SHALL BE PROVIDED FOR THE STATION AT TIME OF STARTUP ACCEPTANCE:
    - 16.1. ONE SET MECHANICAL SEALS
    - 16.2. ONE SET O-RINGS.
    - 16.3. ONE SET OF PUMP WEAR RINGS.

    ADDITIONALLY, ANY SPECIAL TOOLS SPECIFIC TO THE PUMP MANUFACTURER SHALL BE PROVIDED TO THE CITY OF GIG HARBOR AT START UP.

Know what's **below.** **Call** before you dig.

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED B. BUNKER
DRAWN B. ANTOINE
CHECKED S. AZAHARI
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-G
JOB No. 216-2750-048
DATE JANUARY 2026

BRIAN E BUNKER — STATE OF WASHINGTON — 48056 — REGISTERED PROFESSIONAL ENGINEER
01-09-2026

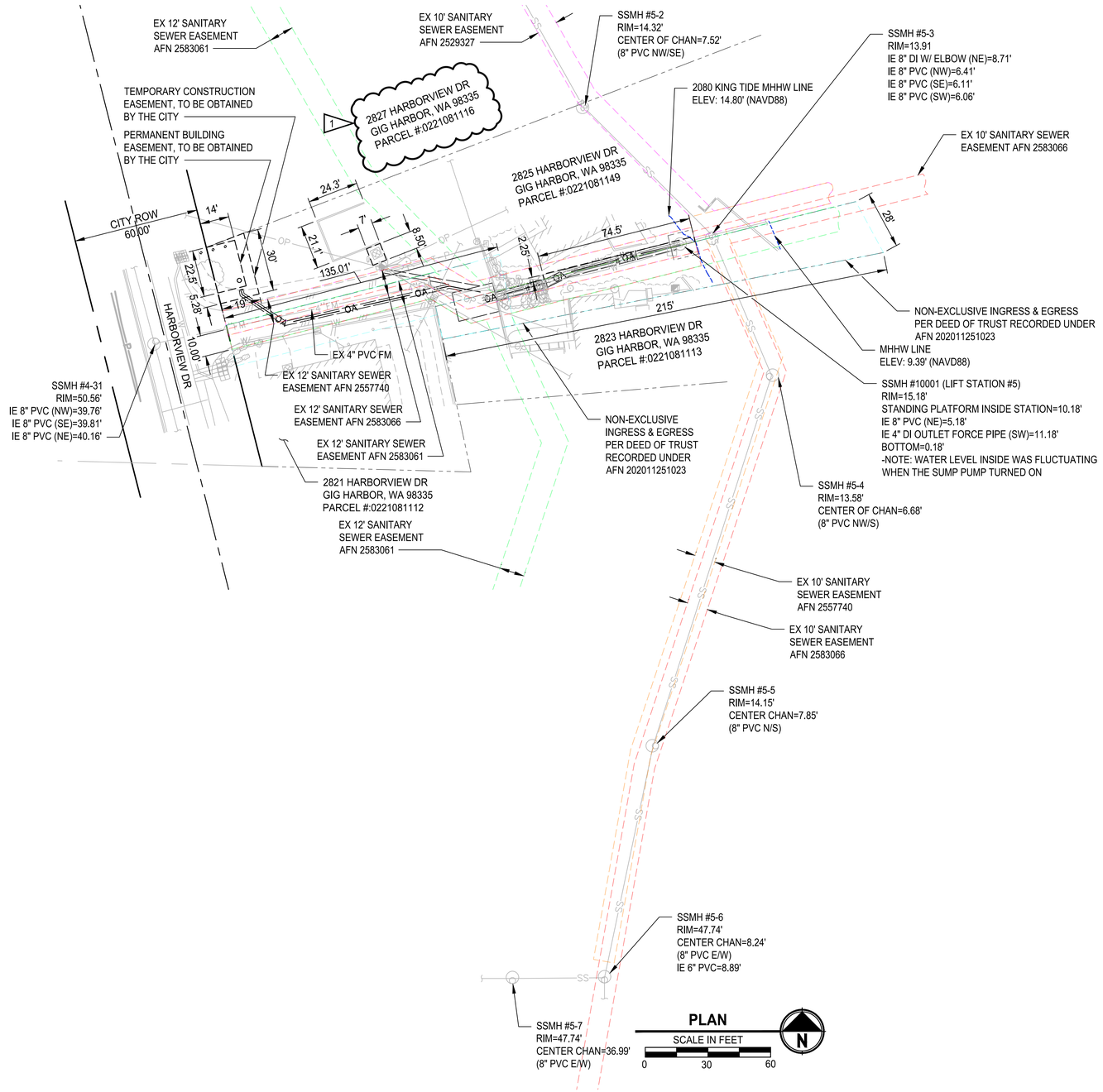
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

STORMWATER, SEWER, AND LIFT STATION NOTES

DRAWING NO. 3 OF 27
G3

PLOTTED BY: AntoiBru DATE: Wednesday, January 7, 2026 1:41:05 PM
PATH: \\parametrix.com\pmx\P50\Projects\Clients\2750--CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svca\CADD\DWG
LAYOUT: G3



DATUM CONVERSION NOTE:

THE CONVERSION FROM NAVD88 TO MEAN LOWER LOW WATER (MLLW) DATUM WAS REFERENCED TO NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) TIDAL BENCHMARK "TACOMA, COMMENCEMENT BAY WA".

TIDAL DATUMS AT TACOMA, COMMENCEMENT BAY WA, BASED ON:

LENGTH OF SERIES:	18 YEARS
TIME PERIOD:	JANUARY 1999– DECEMBER 2016
TIDAL EPOCH:	1983–2001
CONTROL TIDE STATION:	9447130 SEATTLE, PUGET SOUND

ELEVATIONS OF TIDAL DATUMS REFERRED TO MEAN LOWER LOW WATER (MLLW), IN FEET.

MEAN HIGHER HIGH WATER	MHHW	11.78 FT
MEAN HIGH WATER	MHW	10.90FT
MEAN TIDE LEVEL	MTL	6.87 FT
MEAN SEA LEVEL	MS	6.84 FT
MEAN LOW WATER	MLW	2.84 FT
NORTH AMERICAN DATUM 1988	NAV88	2.39 FT
MEAN LOWER LOW WATER	MLLW	0.00 FT

NOAA, STATION ID = 9446484, NOAA CHART = 18453
NAME = TACOMA, COMMENCEMENT BAY WA

MLLW MINUS 2.39 FT = NAVD88 ELEVATION

NAVD88 PLUS 2.39 FT = MLLW ELEVATION

PARAMETRIX CONTROL TABLE

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1002	733944.54	1125300.02	49.18	FOUND MAG NAIL
2003	733967.05	1125432.98	32.10	SET MAG NAIL (GPS 1003)
2004	733932.38	1125443.01	32.93	SET MAG NAIL (GPS 1004)
5419	733979.13	1125529.12	15.11	SET SCRIBE X

HORIZONTAL DATUM:

HORIZONTAL DATUM FOR THIS SURVEY IS NAD 1983(11), WASHINGTON PLANE SOUTH ZONE COORDINATE SYSTEM, U.S. SURVEY FEET. THE HORIZONTAL DATUM IS BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATIONS GP27016–123 (PMX #1000) AND GP27016–131 (PMX #1001).

POINT DESIGNATION: GP27016–123 (PMX #1000)
NORTHING: 716504.430
EASTING: 1128920.652

POINT DESIGNATION: GP27016–131 (PMX #1001)
NORTHING: 725891.117
EASTING: 1125316.234

VERTICAL DATUM:

VERTICAL DATUM IS NAVD88 BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATIONS GP27016–123 (PMX #1000) & GP27016–131 (PMX #1001)

POINT DESIGNATION: GP27016–123 (PMX #1000)
ELEVATION: 242.414

POINT DESIGNATION: GP27016–131 (PMX #1001)
ELEVATION: 334.274

SURVEY NOTES:

1. THIS MAP CORRECTLY REPRESENTS CONDITIONS AND FEATURES EXISTING AT THE TIME OF THIS SURVEY IN AUGUST, 2024.

2. CONVENTIONAL AND GPS SURVEY EQUIPMENT WAS USED IN THE PERFORMANCE OF THIS SURVEY. ALL EQUIPMENT IS MAINTAINED IN CONFORMANCE WITH CURRENT STATE STATUTE.

3. THIS SURVEY WAS PREPARED BY FIELD TRAVERSE AS PER WAC 332–130–090, PART C. RELATIVE ACCURACY EXCEEDS 1 FOOT IN TEN THOUSAND.

4. ALL SURFACE FEATURES AND INVERT STRUCTURE ELEVATION SHOWN HEREON WERE FIELD LOCATED AND MEASURED BY PARAMETRIX FOR THIS SURVEY. UNDERGROUND UTILITY LINES ARE BASED UPON A COMBINATION OF ASBUILT PLANS, SURFACE FEATURE MEASUREMENTS AND ONSITE UNDERGROUND UTILITY MARKINGS PERFORMED BY OTHERS.

5. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

6. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON PUBLIC INFORMATION PROVIDED BY THE PIERCE COUNTY AUDITOR'S OFFICE. BOUNDARY LINES ACCURATELY SHOWN AND CAN BE USED FOR DESIGN ACTIVITIES THAT WILL RELY ON AN ACCURATE REPRESENTATION OF BOUNDARY INFORMATION.

7. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT, EASEMENTS SHOWN ARE FROM A TITLE REPORT COMPLETED AFTER THE SURVEY..

8. ALL DISTANCES TO FENCES AND STRUCTURES ARE MEASURED AT RIGHT ANGLES TO THE PROPERTY LINES.

9. CONTOURS SHOWN USING NATIONAL MAPPING STANDARDS, ONE–HALF THE CONTOUR INTERVAL.

10. THE INTENDED PURPOSE OF THIS SURVEY IS FOR CIVIL ENGINEERING DESIGN OF LIFT STATION #5.

11. CONTOURS DERIVED FROM DIRECT FIELD OBSERVATIONS.

12. REFERENCE SURVEYS:
- –ROS AFN 200408125014
- –ROS AFN 200512155005
- –SP AFN 200702215003
- –ROS AFN 201611025007
- –BLA AFN 201712225004
- –SP AFN 201911255002

Know what's **below.** **Call** before you dig.

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED J. EMERY
DRAWN B. ANTOINE
CHECKED
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 216750046–AL
JOB No. 216–2750–048
DATE JANUARY 2026

ANDREW WILLIAMS STEVENS — STATE OF WASHINGTON — 21021925 — REGISTERED PROFESSIONAL ENGINEER
1/9/2026

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ALIGNMENT PLAN

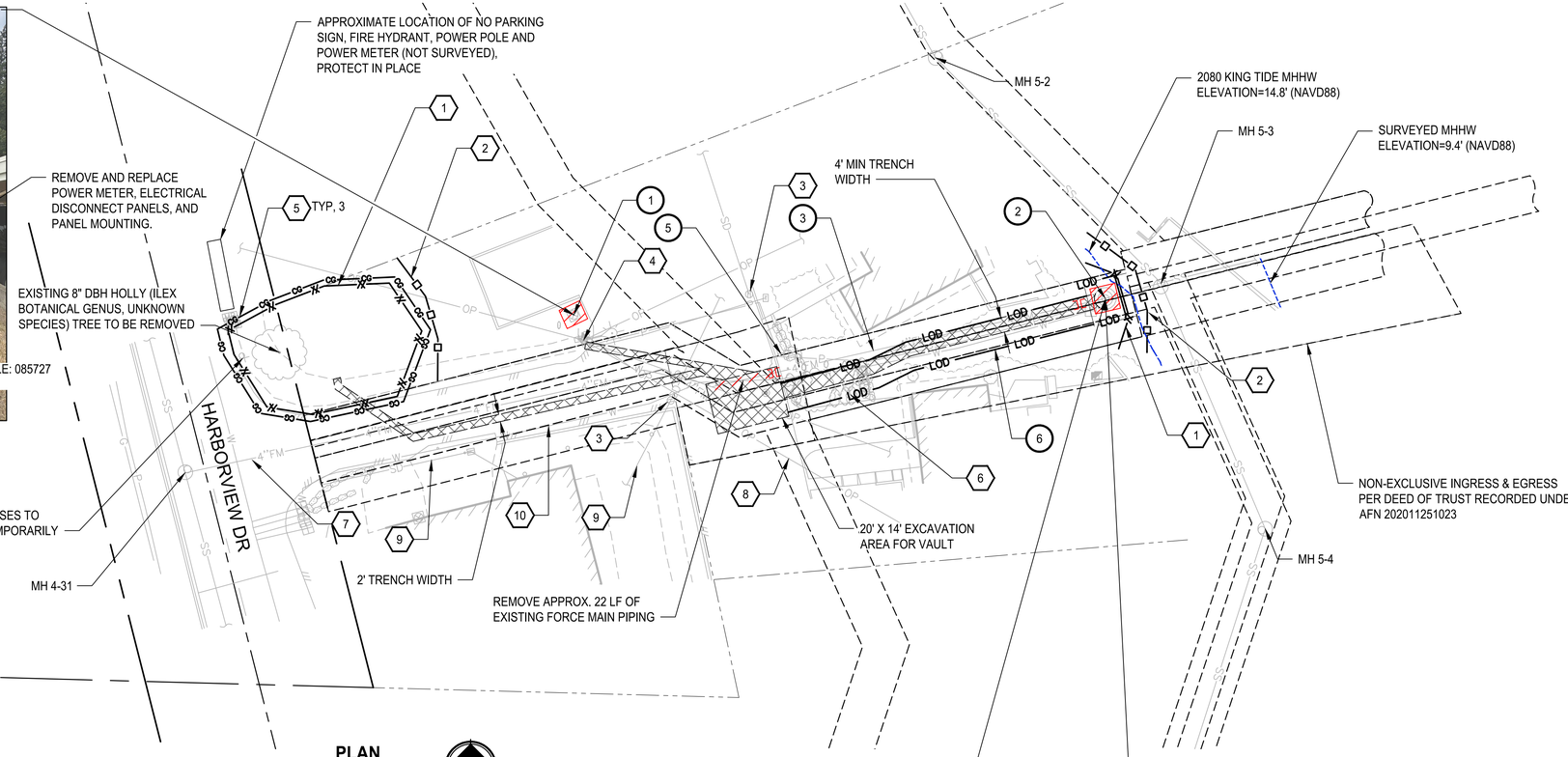
DRAWING NO. 4 OF 27

AL1

PATH: U:\PSO\Projects\Clients\2750–CityOfGigHarbor\216–2750–048 Lift Station 5 Final Design\99Sves\CADD\DWG
LAYOUT: AL1
PLOTTED BY: AntoiBru DATE: Wednesday, January 7, 2026 1:47:30 PM



EXISTING POWER METER REMOVAL
REFERENCE PHOTO 1
NO SCALE -



PLAN
SCALE IN FEET
0 20 40

LEGEND:

- DEMOLISH AND REMOVE EXISTING
- CUT AND CAP
- TRENCH EXTENTS



NORTHWARD VIEW OF HARBORVIEW DR FROM EXISTING RESIDENTIAL ACCESS ROAD
REFERENCE PHOTO 2
NO SCALE -



EXISTING LIFT STATION INTERIOR
REFERENCE PHOTO 3
NO SCALE -



EXISTING LIFT STATION
REFERENCE PHOTO 4
NO SCALE -

DEMOLITION NOTES:

1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
2. CONTRACTOR SHALL PROTECT ALL CATCH BASIN INLETS WITHIN 100' OF THE WORK AREA

DEMOLITION NOTES:

1. REMOVE EXISTING POWER METER. CONTRACTOR SHALL COORDINATE WITH PENINSULA LIGHT CO.
2. AFTER SUCCESSFUL COMMISSIONING OF NEW PUMP STATION, REMOVE & DECOMMISSION EXISTING LIFT STATION DRY WELL AND TOP SLAB. EXISTING LIFT STATION DRY WELL IS LOCATED BELOW GRADE AND ON TOP OF THE EXISTING WET WELL. EXISTING WET WELL SHALL REMAIN.
3. ABANDON APPROX 85 LF OF 4-INCH DUCTILE IRON FORCE MAIN IN PLACE BETWEEN CUT AND CAP.
4. CONTRACTOR SHALL COORDINATE WITH CITY OF GIG HARBOR FOR EQUIPMENT TO BE SALVAGED.
5. JAPANESE MAPLE TO BE REPLACED IN KIND AFTER CONSTRUCTION. SEE SHEET C6
6. CONTRACTOR SHALL ONLY CLEAR WITHIN THE LOD AREA.

TESC NOTES:

1. INSTALL HIGH VISIBILITY SILT FENCE PER WSDOT STANDARD PLAN I-30.17-01.
2. INSTALL SILT FENCE PER WSDOT STANDARD DETAIL I-30.10-02 OR I-30.15-02.
3. STORM DRAIN INLET PROTECTION, SEE WSDOT STANDARD PLAN I-40.20-00.
4. PROTECT EXISTING UTILITY POLE IN PLACE
5. TEMPORARILY RELOCATE EXISTING MAILBOXES IN PLACE
6. CONTRACTOR SHALL PROTECT THE EXISTING LANDSCAPING/ROCKERY TO THE EXTENT POSSIBLE. CONTRACTOR SHALL RESTORE THE SITE TO EXISTING CONDITIONS PER THE REQUIREMENTS IN THE LANDSCAPING PLANS.
7. PROTECT EXISTING FORCEMAIN
8. PROTECT EXISTING POWER
9. PROTECT EXISTING STORM DRAIN
10. PROTECT EXISTING WATER
11. SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE SUGGESTED BMPS. THE CONTRACTOR SHALL DEVELOP THEIR OWN PLAN FOR SUBMITTAL AND APPROVAL BY THE CITY AS REQUIRED BY NOTE 2 OF THE EROSION AND SEDIMENT CONTROL NOTES ON SHEET G2.

811 Know what's **below.** **Call** before you dig.

100 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-D
JOB No. 216-2750-048
DATE NOVEMEBER 2025



12/26/25

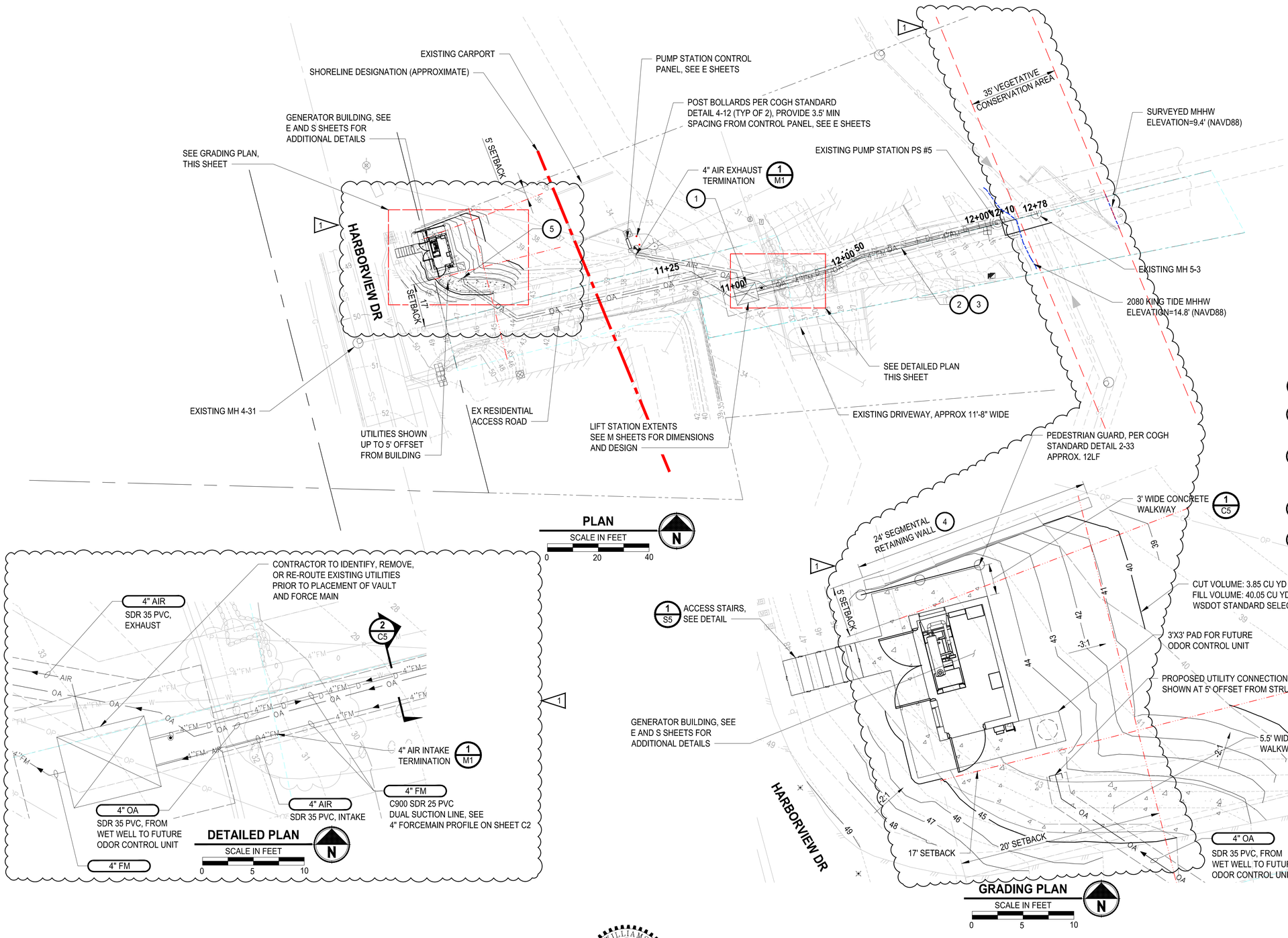
Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

DEMOLITION AND TESC PLAN

DRAWING NO. 5 OF 27
D1

LAYOUT: D1 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: AntoBru DATE: Tuesday, November 25, 2025 2:14:47 PM



NOTES:

1. 4" DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPARATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED PER COGH STANDARD DETAILS 4-17 AND 4-18.
3. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
4. OVERHEAD ELECTRICAL LINES NEAR THE PROPOSED DRYWELL ALONG HARBORVIEW DRIVE TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE CITY AND ELECTRICAL UTILITY ON RELOCATION AND REESTABLISHMENT OF CONNECTIONS.
5. ALL PIPE ALIGNMENTS ARE SHOWN TO 5 FEET FROM BUILDING OR STRUCTURE CONNECTIONS. SEE M AND E SHEETS FOR FINAL CONNECTION LOCATIONS.
6. SIDEWALK SHALL BE CONSTRUCTED PER COGH STANDARD DETAILS 2-18 AND 2-19, SEE SHEET C5.

CONSTRUCTION NOTES:

1. INSTALL PROPOSED SMITH AND LOVELESS PACKAGE PUMP STATION, SEE DETAILS, SHEET M1.
2. INSTALL PROPOSED 4" PVC C900 SDR 25 DUAL PUMP SUCTION LINES, SINGLE LINE SHOWN FOR CLARITY. SEE DETAILED PLAN FOR SPACING. SEE SHEET C2 FOR PLAN AND PROFILE.
3. ALL ELECTRICAL AND CONTROLS CONDUIT, 4" ODOR CONTROL AND DRAIN LINE SHALL BE INSTALLED IN SAME TRENCH AS DUAL 4" PUMP SUCTION LINE. FOR PIPELINE SPACING AND TRENCH CONFIGURATION SEE DETAIL 2, SHEET C5.
4. SEGMENTAL EARTHWALL SHALL BE DESIGNED PER WSDOT STANDARD SPECIFICATIONS SECTION 6-13. SEE DETAIL 3, SHEET C5.
5. OA LINE TO BE BURIED AND CAPPED FOR CONNECTION TO FUTURE ODOR CONTROL UNIT. SEE CIVIL DETAILS FOR ADDITIONAL INFORMATION.

IMPERVIOUS AREA:

EXISTING IMPERVIOUS SURFACE AREA: 577 SQ. FT.

REPLACED IMPERVIOUS SURFACE AREA: 577 SQ. FT.

NEW IMPERVIOUS SURFACE AREA: 253 SQ. FT.

811 Know what's below. Call before you dig.

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE JANUARY 2026



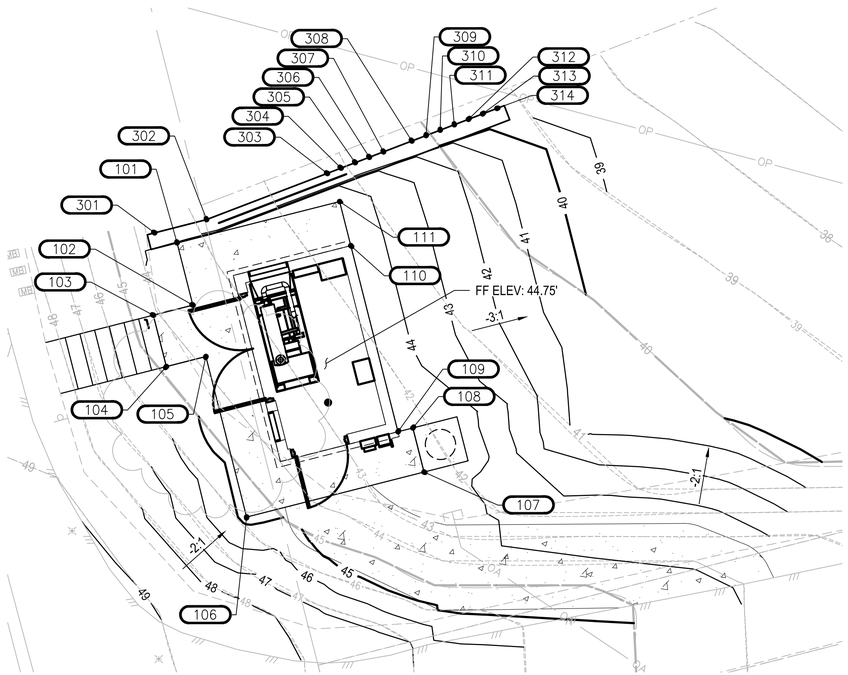
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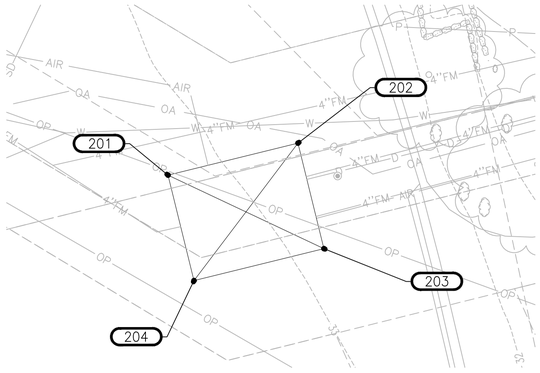
SITE PLAN

DRAWING NO. 6 OF 27
C1

LAYOUT: C1 PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: SteveAnd DATE: Friday, January 9, 2026 12:35:49 PM



GENERATOR BUILDING
PLAN
SCALE IN FEET
0 5 10



LIFT STATION
PLAN
SCALE IN FEET
0 5 10

POINT TABLE				
POINT # .	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	733972.00	1125301.23	44.722	EDGE OF SIDEWALK
102	733967.89	1125302.27	44.720	EDGE OF SIDEWALK
103	733967.22	1125299.66	44.770	EDGE OF SIDEWALK
104	733963.83	1125300.52	44.770	EDGE OF SIDEWALK
105	733964.49	1125303.13	44.718	EDGE OF SIDEWALK
106	733953.90	1125305.82	44.727	EDGE OF SIDEWALK
107	733956.87	1125317.53	44.690	EDGE OF SIDEWALK
108	733959.78	1125316.79	44.690	EDGE OF SIDEWALK
109	733959.53	1125315.81	44.750	EDGE OF SIDEWALK
110	733971.81	1125312.69	44.750	EDGE OF SIDEWALK
111	733974.72	1125311.95	44.690	EDGE OF SIDEWALK
201	733950.39	1125425.58	33.200	LIFT STATION RIM
202	733952.50	1125434.15	33.200	LIFT STATION RIM
203	733945.54	1125435.87	33.200	LIFT STATION RIM
204	733943.43	1125427.29	33.200	LIFT STATION RIM
301	733972.65	1125299.75	44.000	TOP OF WALL
302	733973.53	1125303.18	44.000	TOP OF WALL
303	733976.57	1125311.15	44.000	TOP OF WALL
304	733976.93	1125312.05	43.500	TOP OF WALL
305	733977.28	1125312.98	43.000	TOP OF WALL

POINT TABLE				
POINT # .	NORTHING	EASTING	ELEVATION	DESCRIPTION
306	733977.64	1125313.92	42.500	TOP OF WALL
307	733978.00	1125314.85	42.000	TOP OF WALL
308	733978.71	1125316.72	42.000	TOP OF WALL
309	733979.07	1125317.65	41.500	TOP OF WALL
310	733979.43	1125318.59	41.000	TOP OF WALL
311	733979.79	1125319.52	40.500	TOP OF WALL
312	733980.15	1125320.46	40.500	TOP OF WALL
313	733980.50	1125321.39	40.000	TOP OF WALL
314	733980.87	1125322.34	40.000	TOP OF WALL

NOTES:

1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
2. PAVEMENT RESTORATION SHALL SLOPE AWAY FROM LIFT STATION RIM AT A MINIMUM OF 2%.

Know what's **below.**
Call before you dig.

100 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE NOVEMEBER 2025

STATE OF WASHINGTON · MATTHEW WILLIAM STEVENS · 21021925 · REGISTERED PROFESSIONAL ENGINEER
12/26/25

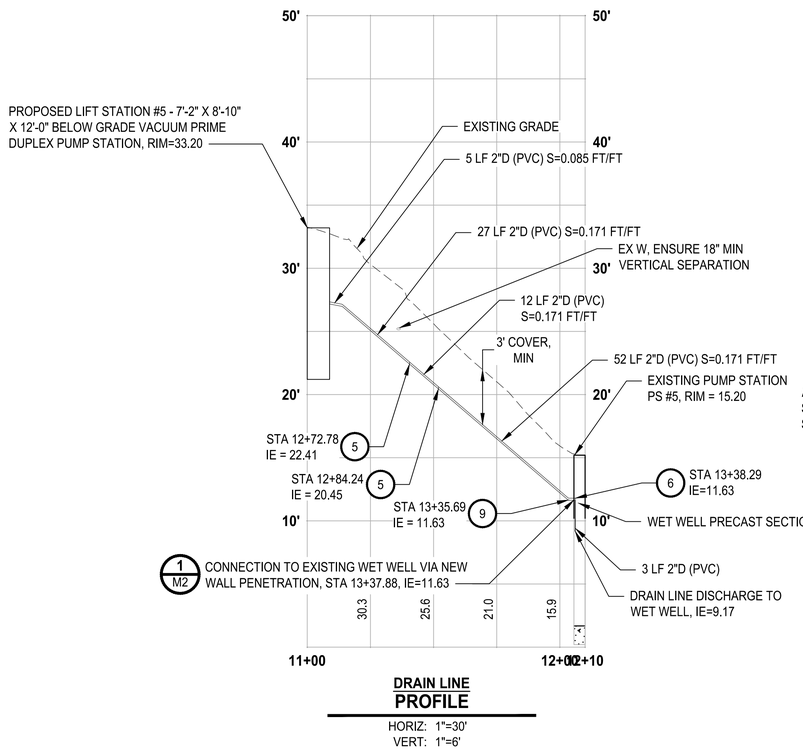
Parametrix
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

CONTROL POINTS

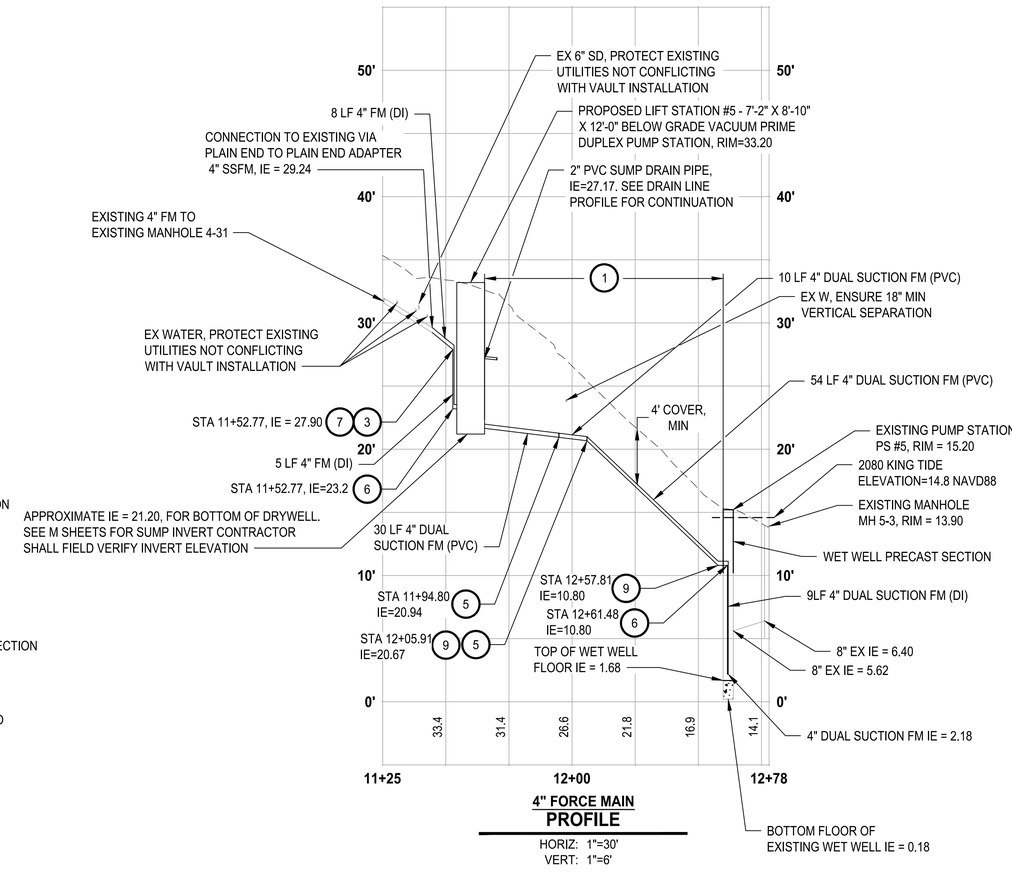
DRAWING NO. 7 OF 27
C2

LAYOUT: C2 PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Sveta\CADD\DWG PLOTTED BY: AntoiBru DATE: Tuesday, November 25, 2025 1:31:58 PM



DRAIN LINE
PROFILE

HORIZ: 1"=30'
VERT: 1"=6'



4" FORCE MAIN
PROFILE

HORIZ: 1"=30'
VERT: 1"=6'

NOTES:

1. DUAL SUCTION LINES SHALL BE SAME TRENCH INSTALLATION WITH A MINIMUM OF 9" SEPARATION BETWEEN EACH LINE. TRENCH SHALL OTHERWISE FOLLOW CITY STANDARD DETAIL NO. 4-06.
2. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED PER COGH STANDARD DETAILS 4-17 AND 4-18.
3. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
4. CONTRACTOR SHALL FOLLOW MANUFACTURER RECOMMENDATIONS FOR JOINT DEFLECTION AND CURVATURE OF THE INSTALLED PIPE LINE.
5. FOR PROPOSED UTILITY CROSS SECTION, SEE DETAIL 2/C5
6. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY CROSSING AND CONNECTION INVERT ELEVATIONS.

CONSTRUCTION NOTES:

1. 4" DUAL SUCTION LINES AND 2" DRAIN LINE TO BE INSTALLED IN SAME TRENCH WHERE INDICATED.
2. 90° HORIZONTAL BEND
3. 45° HORIZONTAL BEND
4. 22.5° HORIZONTAL BEND
5. 11.25° HORIZONTAL BEND
6. 90° VERTICAL BEND
7. 45° VERTICAL BEND
8. 22.5° VERTICAL BEND
9. 11.25° VERTICAL BEND

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DRAWN B. ANTOINE
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12/26/25

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PIPE PROFILES

DRAWING NO. 8 OF 27
C3

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: C3 PLOTTED BY: AntoiBru DATE: Tuesday, November 25, 2025 1:32:06 PM



NOTES:

1. THE BASEMAP FOR THIS PROJECT WAS CREATED FROM FIELD SURVEY COMPLETED IN AUGUST 2024, RECORD DRAWINGS, AND PHOTOGRAPHS. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE PLANS.
2. ALL LINING WORK SHOULD BE COMPLETED DURING DRY WEATHER DUE TO POTENTIAL INFLOW/INFILTRATION DURING WET WEATHER. NO LINING SHALL BE PERMITTED DURING RAIN EVENTS.
3. ALL EXISTING DRIVEWAY ACCESS MUST BE MAINTAINED AT ALL TIMES. IF ACCESS IS TO BE OBSTRUCTED, CONTRACTOR SHALL NOTIFY THE CITY AND AFFECTED PROPERTY OWNER AT LEAST 48 HOURS IN ADVANCE.
4. ALL CONTRACTOR LINING EQUIPMENT AND VEHICLES TO REMAIN ON ROADWAY UNLESS OTHERWISE NOTED ON PLANS. IF THE CONTRACTOR REQUIRES OFF ROAD ACCESS, THEY SHALL NOTIFY THE CITY AND OBTAIN ALL NECESSARY PERMITS AND INSTALL ALL NECESSARY EROSION AND SEDIMENT CONTROLS FOLLOWING THE CITY'S BMPS.

LEGEND:

CIPP LINER INSTALL DIRECTION

CONSTRUCTION NOTES:

1 MANHOLE TO BE COATED, SEE DETAIL 1/C5

SEWER MAINLINE LINING

SEWER SEGMENT*	LENGTH	PIPE DIAMETER	DESCRIPTION
CLEANOUT TO MH 5-2	122'	8"	CIPP MAINLINING
MH 5-3 TO MH 5-2	88'	8"	CIPP MAINLINING
MH 5-4 TO MH 5-3	72'	8"	CIPP MAINLINING
MH 5-5 TO MH 5-4	186'	8"	CIPP MAINLINING
MH 5-6 TO MH 5-5	114'	8"	CIPP MAINLINING
MH 5-3 TO WET WELL	16'	8"	CIPP MAINLINING

* ALL SEWER SEGMENTS ARE LISTED BY UPSTREAM MANHOLE TO DOWNSTREAM MANHOLE. SUGGESTED LINING DIRECTION IS AS SHOWN IN PLAN ON THIS SHEET.

PLAN
SCALE IN FEET
0 30 60

Know what's below. Call before you dig.

100 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-C
JOB No. 216-2750-048
DATE NOVEMEBER 2025

DREW WILLIAMS STEVENS — STATE OF WASHINGTON — 21021925 — REGISTERED PROFESSIONAL ENGINEER
12/26/25

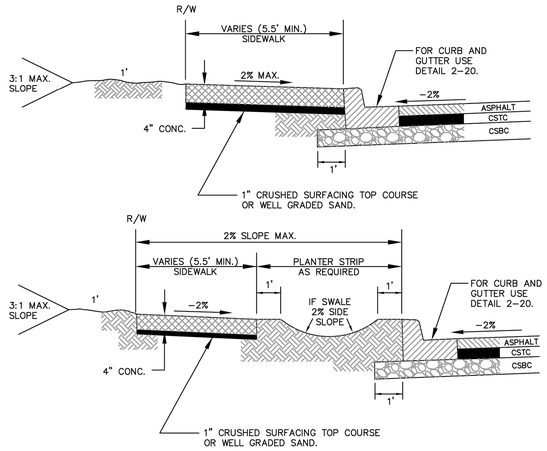
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Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

COLLECTION SYSTEM CIPP PLAN

DRAWING NO. 9 OF 27
C4

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: AntoiBru DATE: Tuesday, November 25, 2025 1:32:16 PM
LAYOUT: C4



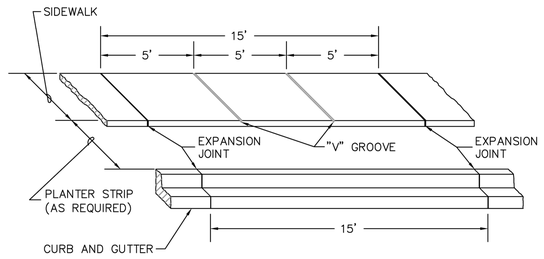
NOTES:

1. FOR JOINTS AND SCORINGS SEE DETAIL 2-30.
2. CONCRETE DRIVEWAYS REQUIRE A MINIMUM DEPTH OF 6" AT 4000 PSI 3 DAY.
3. SIDE SLOPES ON SWALES WITHIN PLANTERS SHALL START A MINIMUM OF 1' BACK FROM SIDEWALK AND CURB.
4. SEE ROADWAY SECTIONS FOR STREET TREE LOCATIONS.

CITY OF GIG HARBOR ENGINEERING DIVISION

SIDEWALK — DETAIL NO. 2-18

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



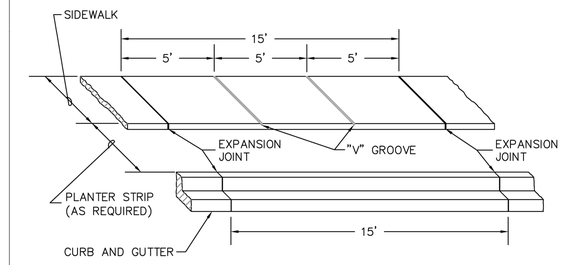
NOTES:

1. EXPANSION JOINT MATERIAL TO BE 3/8" THICK PRE-MOLDED JOINT FILLER TO FULL THICKNESS OF CONCRETE.
2. FORM AND SUBGRADE INSPECTION REQUIRED BEFORE POURING CONCRETE.
3. EXPANSION JOINTS SHALL BE INSTALLED IN CURB AND GUTTER AND IN SIDEWALK AT PC AND PT OF ALL CURB RETURNS. EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS ADJACENT TO CURB AND GUTTER. UNLESS OTHERWISE DIRECTED BY ENGINEER.
4. ALL CONCRETE EDGES AND JOINTS SHALL HAVE A 4" SHINED FINISH APPLIED TO THEM FOLLOWING BROOM FINISH.

CITY OF GIG HARBOR ENGINEERING DIVISION

SIDEWALK SPACING — DETAIL NO. 2-19

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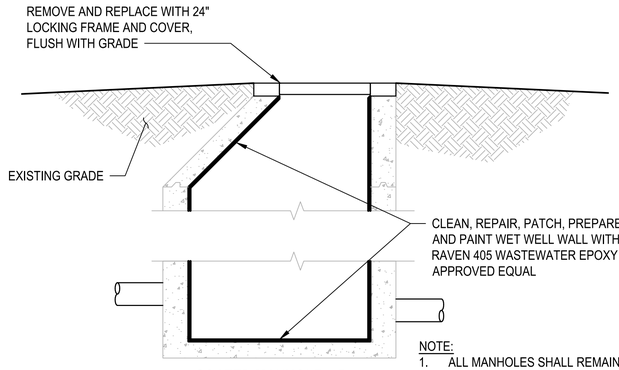
NOTES:

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CITY OF GIG HARBOR ENGINEERING DIVISION

SIDEWALK SPACING — DETAIL NO. 2-19

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



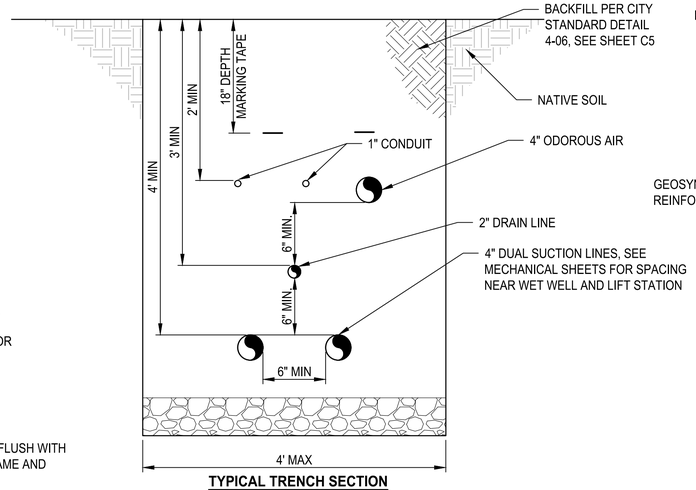
NOTE:

1. ALL MANHOLES SHALL REMAIN FLUSH WITH GRADE WITH NEW LOCKING FRAME AND COVER.

COATED MANHOLE LID AND SPECIAL BACKFILL

DETAIL 1 C3

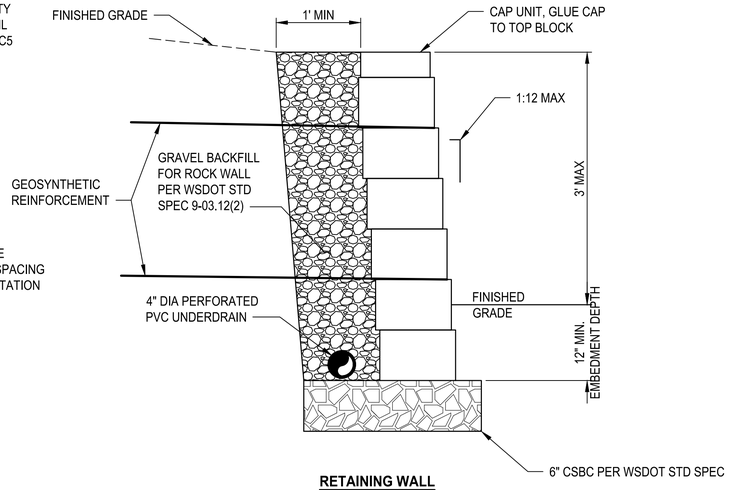
NO SCALE



TYPICAL TRENCH SECTION

SECTION 2 C1

NO SCALE



RETAINING WALL

DETAIL 3 C1

NO SCALE

Know what's **below.** **Call** before you dig.

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	REVISIONS	DATE	BY

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED J. LINKE
APPROVED B. BUNKER

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FILE NAME 2162750046-DT
JOB No. 216-2750-048
DATE NOVEMEBER 2025



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PROJECT NAME

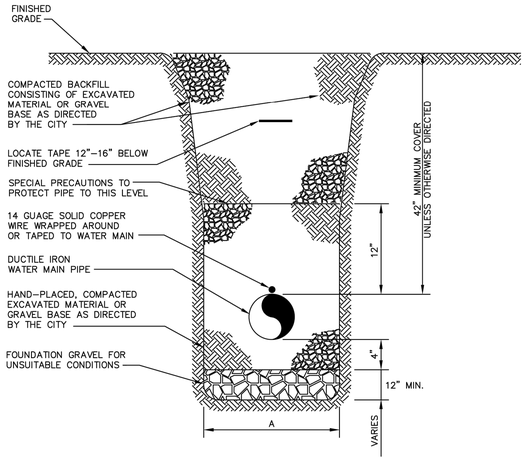
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

CIVIL DETAILS

DRAWING NO. 10 OF 27

C5

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: C5 PLOTTED BY: AntoiBru DATE: Tuesday, November 25, 2025 1:32:38 PM



WATER MAIN TRENCH SECTION

PIPE SIZE	A
6"	24"
8"	30"
10" & 12"	36"
16" AND 18"	42"

CITY OF GIG HARBOR ENGINEERING DIVISION

WATER MAIN TRENCH SECTION — DETAIL NO. 4-06

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016

THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE DIAMETER	90° BEND	45° BEND	22.5° BEND	11.25° BEND	DEAD END OR TEE
4"	3600	2000	1000	500	2600
6"	8000	4400	2300	1200	5700
8"	14300	7700	4000	2000	10100
10"	22300	12100	6200	3100	15800
12"	32000	17400	8900	4500	22700
14"	43600	23600	12100	6100	30800
16"	57000	30800	15700	7900	40300

NOTES:

1. BLOCKING SHALL BE COMMERCIAL CONCRETE POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTING SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH PLASTIC OR SIMILAR MATERIAL.
2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):
   EXAMPLE: 12" – 90° BEND IN SAND AND GRAVEL
   32000 LBS/3000 LB/SF = 10.7 SF OF AREA
3. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES, AND SOIL CONDITIONS.
4. BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

SAFE SOIL BEARING LOADS

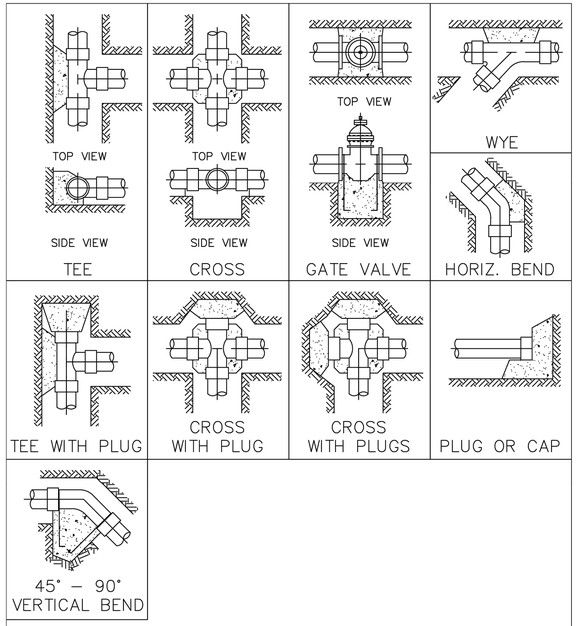
FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

CITY OF GIG HARBOR ENGINEERING DIVISION

THRUST LOADS — DETAIL NO. 4-17

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



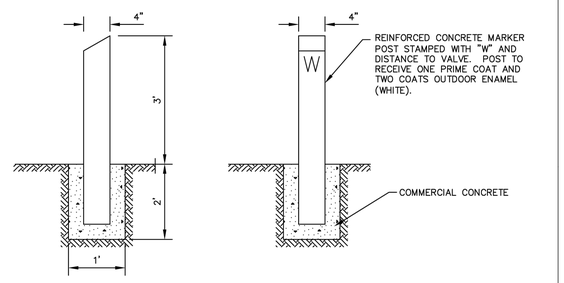
NOTES:

1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. PLASTIC BARRIER SHALL BE PLACED BETWEEN ALL THRUST BLOCKS AND FITTINGS.
3. ANCHOR REBAR SHALL BE ⅝" MINIMUM DIAMETER.

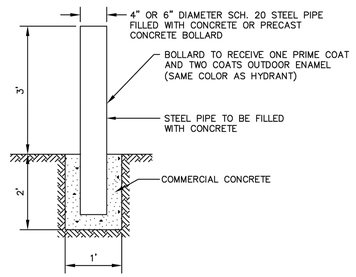
CITY OF GIG HARBOR ENGINEERING DIVISION

STANDARD BLOCKING DETAILS — DETAIL NO. 4-18

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



VALVE MARKER POST



HYDRANT BOLLARD

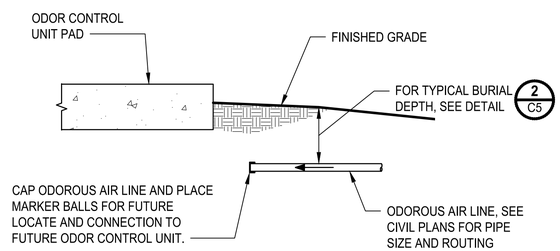
NOTE:

1. LOCATE BOLLARDS 3' FROM HYDRANT DO NOT BLOCK HYDRANT PORTS.

CITY OF GIG HARBOR ENGINEERING DIVISION

VALVE MARKER POST AND HYDRANT BOLLARD — DETAIL NO. 4-12

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



TYPICAL PIPE STUB DETAIL

NO SCALE — 1/C1

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▷	REVISIONS	DATE	BY

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046–DT
JOB No. 216–2750–048
DATE NOVEMEBER 2025



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Ph: 253.604.6600

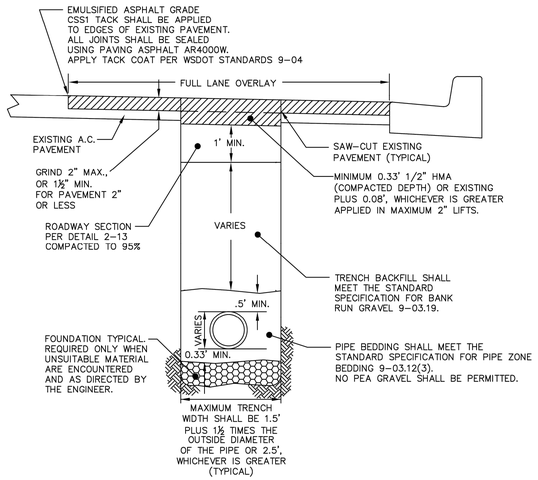
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

CIVIL DETAILS

DRAWING NO. 11 OF 27

C6

PLOTTED BY: AntoiBru DATE: Tuesday, November 25, 2025 1:32:49 PM
PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750–CityOfGigHarbor\216–2750–048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: C6



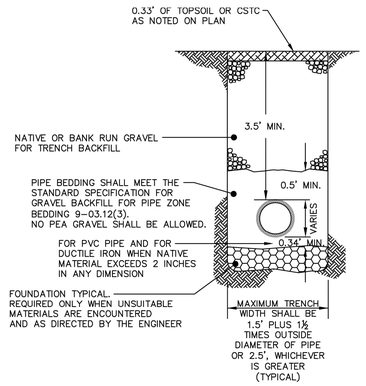
NOTES:

1. ALL MATERIALS EXCEPT A.C.P. AND BEDDING MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY AS DETERMINED BY ASTM D1557.
2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF GIG HARBOR STANDARDS.
3. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
4. SAW-CUT PAVEMENT TO MAX. TRENCH WIDTH. BACKFILL AND PAVE TO TOP OF EXISTING PAVEMENT FOR TRENCH WIDTH.
5. CDF BACKFILL WILL BE REQUIRED AROUND DUCT BANKS THAT ARE STACKED VERTICALLY.

CITY OF GIG HARBOR ENGINEERING DIVISION

PARALLEL TRENCH RESTORATION FOR PAVED AREAS — DETAIL NO. 2-15

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE JULY, 2018



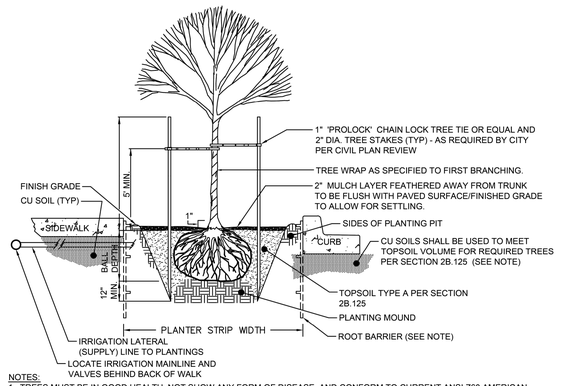
NOTES:

1. BEDDING SHALL CONFORM TO SECTION 9-03.12(3) OF STANDARD SPECIFICATIONS.
2. COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MIN. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 85% MIN. IN UNPAVED AREA, AND 95% MIN. IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
3. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS AMENDED BYCITY OF GIG HARBOR STANDARDS.
4. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

CITY OF GIG HARBOR ENGINEERING DIVISION

TRENCH RESTORATION FOR UNPAVED AREAS — DETAIL NO. 2-16

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



NOTES:

1. TREES MUST BE IN GOOD HEALTH, NOT SHOW ANY FORM OF DISEASE, AND CONFORM TO CURRENT ANSI Z60 AMERICAN STANDARDS FOR NURSERY STOCK, OR TREE WILL BE REJECTED ON SITE.
2. TOPSOIL VOLUME PER APPENDIX A OF CHAPTER 2 SHALL BE DIMENSIONED AS FOLLOWS:
   DEPTH (MIN.) = 4 FT.
   WIDTH (MIN.) = PLANTER STRIP WIDTH (MEASURED FROM BACK OF CURB TO FACE OF SIDEWALK)
   LENGTH (MAX.) = 2 x WIDTH
   TOPSOIL VOLUME SHALL INCLUDE TOTAL VOLUME OF TOPSOIL TYPE A AND CU SOILS.
3. ROOT BARRIER SHALL BE DEEP ROOT 24-2 BY DEEP ROOT, TREE ROOT GUIDE RS-40 BY ROOT SOLUTIONS, ROOT BARRIER PANEL EP-1250 BY NDS, OR APPROVED EQUAL. ROOT BARRIER SHALL BE 15 FT. LONG CENTER ON THE TREE, 2' DEEP, AND ON BOTH SIDES OF THE TREE (TYP).
4. TREES SHALL BE LOCATED OUTSIDE ANY INTERSECTION SIGHT DISTANCE TRIANGLE. SEE SECTION 2B.150.

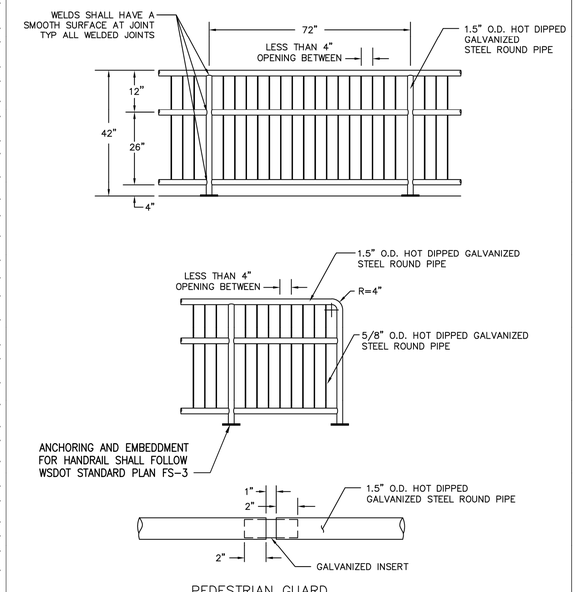
PLANTING DIRECTIONS:

1. THOROUGHLY SCARIFY SIDES AND BOTTOM OF PLANTING PIT. REMOVE ANY DEBRIS AND STONES LARGER THAN 1" IN ANY DIRECTION AND AMEND NATIVE SOIL AT BOTTOM WITH 10% COMPOST TO CREATE PLANTING MOUND. LIGHTLY COMPACT SOIL AND WATER BACKFILL TO PREVENT SETTLING.
2. AFTER THE PROPER DEPTH OF THE PLANT MATERIAL HAS BEEN ESTABLISHED, PLACE THE ROOT BALL IN THE CENTER OF THE HOLE WITH ROOT BALL 1 INCH HIGHER THAN DEPTH GROWN IN NURSERY.
3. RELEASE AND COMPLETELY REMOVE TREE FROM CONTAINER (BURLAP, WIRE, GROW BAG ETC.) AND DISCARD OFF-SITE.
4. SPREAD ROOTS TO A NATURAL SPREAD AND DISTRIBUTION. BACKFILL, WORKING THE SOIL AROUND THE ROOTS WITH TOPSOIL TYPE A.
5. PLACE FERTILIZER TABLETS AS SPECIFIED.
6. TAMP TO COMPACT THE BACKFILL AND PROVIDE A SLIGHT DEPRESSION AND WATERING SAUCER, TAKING CARE TO NOT INJURE THE ROOT SYSTEM WHILE BACKFILLING.
7. STREET TREES SHALL NOT BE LOCATED IN THE SIGHT DISTANCE TRIANGLE EXCEPT AS PROVIDED IN SECTION 2B.150.

CITY OF GIG HARBOR ENGINEERING DIVISION

TREE PLANTER AND BARRIER IN PLANTER STRIP — DETAIL NO. 2-26

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016



PEDESTRIAN GUARD COUPLED SECTION CONNECTION DETAIL

NOT TO SCALE

NOTES:

1. GALVANIZING 2 OUNCES PER SQUARE FOOT
2. NO FIELD WELDING OR COLD GALVANIZING PERMITTED.

CITY OF GIG HARBOR ENGINEERING DIVISION

PEDESTRIAN GUARD — DETAIL NO. 2-33

APPROVED FOR PUBLICATION CITY ENGINEER _____ DATE MAY 16, 2016

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1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED A. STEVENS
DRAWN B. ANTOINE
CHECKED
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-DT
JOB No. 216-2750-048
DATE JANUARY 2026

ANDREW WILLIAM STEVENS — STATE OF WASHINGTON — 21021925 — REGISTERED PROFESSIONAL ENGINEER — 1/9/2026

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Ph: 253.604.6600

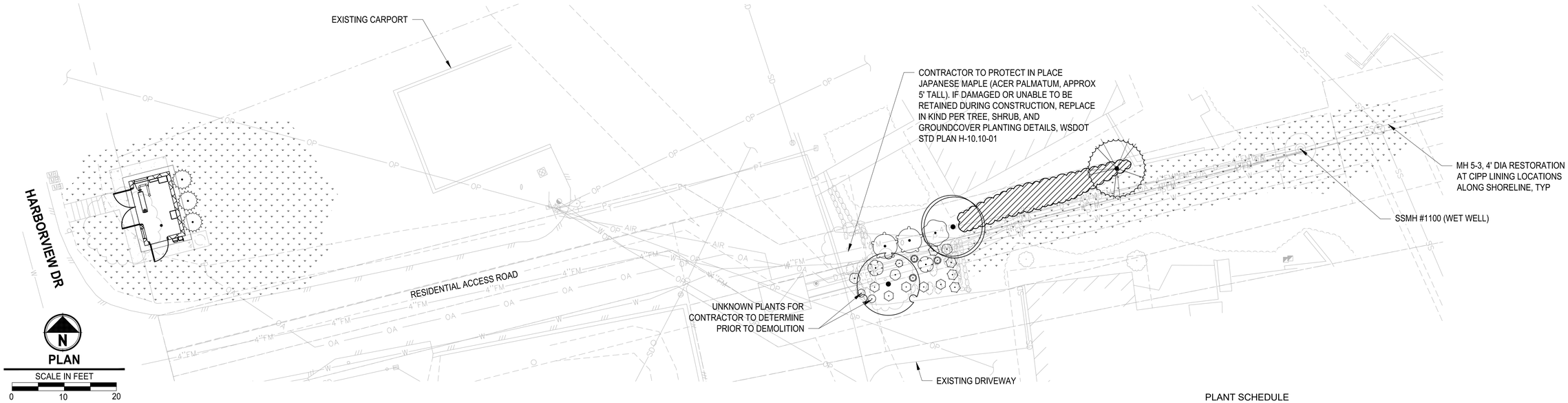
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

CIVIL DETAILS

DRAWING NO. 12 OF 27

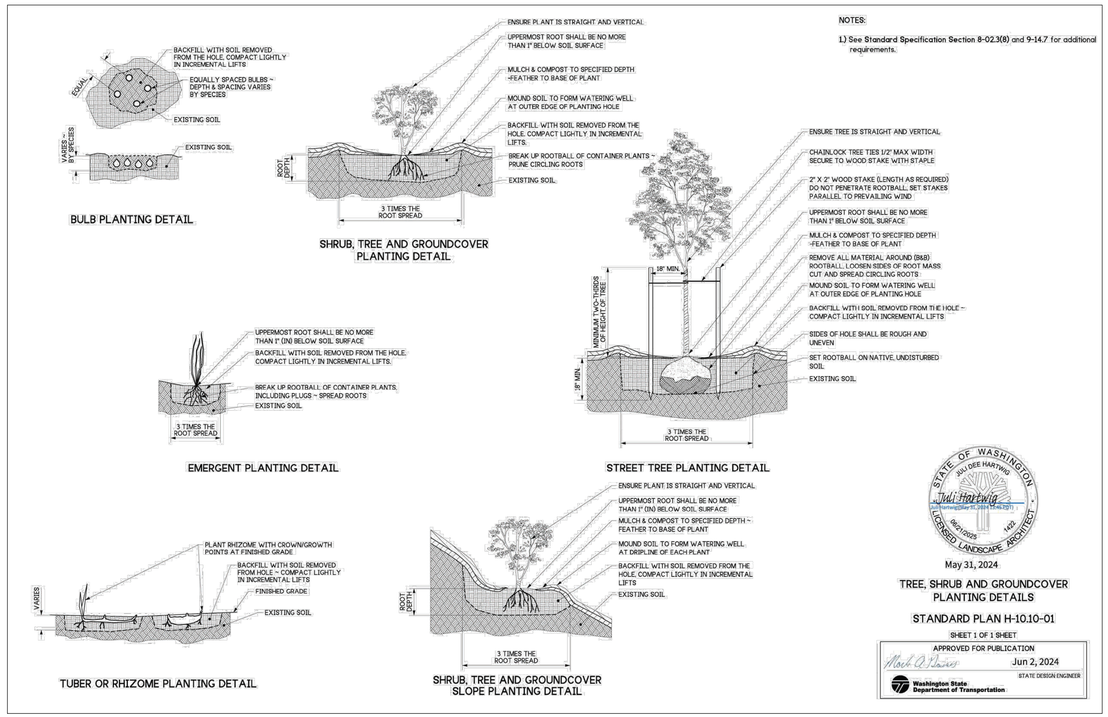
C7

PLOTTED BY: AntoiBru DATE: Wednesday, January 7, 2026 3:07:00 PM
PATH: \\parametrix.com\pmx\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
LAYOUT: C7



GENERAL LANDSCAPE NOTES

1. ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE PROJECT ENGINEER.
2. CONTRACTOR IS REQUIRED TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR A THOROUGH CLEAN-UP OF HIS/HER RESPECTIVE WORK, DAILY AND AT PROJECT CLOSE-OUT.
4. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING IMPROVEMENTS NOT NOTED FOR REMOVAL ON THESE PLANS. DAMAGE TO EXISTING IMPROVEMENTS BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AND/OR QUALIFIED INSTALLERS/TRADES ACCEPTABLE TO THE SOLE SATISFACTION OF THE PROJECT ENGINEER AND AT NO COST TO THE OWNER.
5. PLANT MATERIALS SHALL MEET STANDARDS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARD (ANSI Z60.1) AND WASHINGTON STATE STANDARDS FOR NURSERY STOCK ORDER NO. 1627. ALL PLANT MATERIALS SHALL HAVE SUFFICIENT ROOT DEVELOPMENT TO ASSURE SURVIVAL AND HEALTHY GROWTH. CONTAINER GROWN PLANT MATERIALS ARE REQUIRED TO HAVE SUFFICIENT ROOT GROWTH TO HOLD THE SOIL INTACT WHEN REMOVED FROM THE CONTAINER, BUT SHALL NOT BE ROOT BOUND.
6. PLANT LIST QUANTITIES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES IN LIST AND INSTALL PLANTINGS PER THE LANDSCAPE PLAN.
7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PLANT SPECIES IN FIELD PRIOR TO DEMOLITION. CONTRACTOR SHALL SUBMIT LIST OF ADDITIONAL PLANT MATERIAL UNABLE TO BE IDENTIFIED DURING PLANNING TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO DEMOLITION AND PROCUREMENT. ALL PLANTINGS SHALL BE REPLACED IN ACCORDANCE WITH WSDOT STD PLAN H-10.10-01 TREE SHRUB AND GROUNDCOVER PLANTING DETAILS.
8. NO SUBSTITUTIONS SHALL BE CONSIDERED FOR PLANTS OR OTHER MATERIALS DURING THE BIDDING PROCESS.
9. INSTALL SOIL AMENDMENT WITHIN ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES THAT ARE NOT OTHERWISE TREATED IN THESE PLANS.
10. HYDROSEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES THAT ARE NOT OTHERWISE TREATED IN THESE PLANS. HYDROSEED MIX TO MATCH ADJACENT EXISTING TURF GRASS.
11. ALL RESTORATION AREAS SHOWN DIAGRAMMATICALLY. FIELD ADJUST AS NECESSARY TO MATCH ADJACENT EXISTING CONDITIONS. ALL AREAS DISTURBED BY CONSTRUCTION TO BE RESTORED.
12. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE HAS BEEN GRANTED.
13. CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING IRRIGATION IN KIND DAMAGED DURING CONSTRUCTION TO PROVIDE FULL COVERAGE OF SHRUB BEDS AND TURF GRASS AREAS. IF IRRIGATION DOES NOT EXIST OR CANNOT PROVIDE FULL COVERAGE, CONTRACTOR SHALL PROVIDE WATER FOR ESTABLISHMENT DURING THE WARRANTY PERIOD.



NOTES:

1.) See Standard Specification Section 8-02.3(6) and 9-14.7 for additional requirements.

STATE OF WASHINGTON
JULI EE HARDWICK
Juli Hardwick
LICENSED LANDSCAPE ARCHITECT
06/12/2025
1425

May 31, 2024

TREE, SHRUB AND GROUNDCOVER PLANTING DETAILS

STANDARD PLAN H-10.10-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Jun 2, 2024
STATE DESIGN ENGINEER
Washington State Department of Transportation

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CAL.
TREES				
	CK	1	CORNUS KOUSA / KOUSA DOGWOOD	2" CAL / B&B
		1	UNKNOWN CONIFER NOTE: DEMO LIMITS UNCERTAIN. ONLY IF REMOVED.	
		1	UNKNOWN CHERRY TREE NOTE: DEMO LIMITS UNCERTAIN. ONLY IF REMOVED.	

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
SHRUBS				
	AM	5	AZALEA X 'MARASCHINO' / KIMONO™ MARASCHINO AZALEA	#2 CONT
	BX	3	BERBERIS X 'NCBX1' / SUNJOY TODO® BARBERRY	#2 CONT
	CA	4	CAREX MORROWII 'AUREA-VARIEGATA' / VARIEGATED JAPANESE SEDGE	#2 CONT
	HM	2	HYDRANGEA MACROPHYLLA / LARGELEAF HYDRANGEA	#5 CONT
	HO	3	HELLEBORUS ORIENTALIS / LENTEN ROSE	#2 CONT
	MA	3	MAHONIA AQUIFOLIUM / OREGON GRAPE	#5 CONT
	NJ	1	NANDINA DOMESTICA 'JAYTEE' / HARBOR BELLE HEAVENLY BAMBOO	#2 CONT
	RF	1	RHODODENDRON X 'SUPERFLIMMER' / SUPERFLIMMER RHODODENDRON	#5 CONT
	RM	2	RHODODENDRON MACROPHYLLUM / PACIFIC RHODODENDRON	#5 CONT
		2	UNKNOWN PLANT	

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONDITION	SPACING
SHRUB AREAS					
	JS	7	JUNIPERUS SABINA / SAVIN JUNIPER	#5	60" o.c.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING
GROUND COVERS					
		2,088 SF	HYDROSEED		

NOTE: CONTRACTOR TO VERIFY ALL PROPOSED SPECIES AND VARIETIES RELATIVE TO EXISTING PLANTS ON SITE PRIOR TO DEMOLITION. BEST EFFORTS WERE MADE TO MATCH. EXISTING PLANT VARIETIES SHALL SUPERCEDE PROPOSED PLANTS. CONTRACTOR TO COORDINATE ANY NECESSARY SUBSTITUTIONS AFTER BIDDING WITH LANDSCAPE ARCHITECT.

811
Know what's below.
Call before you dig.

100 % REVIEW SUBMITTAL
NOT FOR CONSTRUCTION

STATE OF WASHINGTON
DYLAN S. BAILEY
NO. 25603 EXP. 06/04/2027
LANDSCAPE ARCHITECT

REVISIONS	DATE	BY

DESIGNED D. BAILEY
DRAWN D. BAILEY
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-L
JOB No. 216-2750-048
DATE NOVEMBER 2025

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

RESTORATION PLAN

DRAWING NO. 13 OF 27

L1

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
PLOTTED BY: baileyd DATE: Tuesday, November 25, 2025 3:33:29 PM
LAYOUT: L1

GENERAL STRUCTURAL NOTES:

DESIGN CRITERIA

APPLICABLE BUILDING CODES:
2021 INTERNATIONAL BUILDING CODE, WASHINGTON STATE AMENDMENTS.

OCCUPANCY U, RISK CATEGORY III ESSENTIAL FACILITY.

DESIGN LOADS:
IMPORTANCE FACTORS: Is = 1.10, Iw = 1.00, Ie = 1.25.

LOADS:
ROOF LIVE OR SNOW LOAD . . . . . 40 psf
CONCRETE GROUND FLOOR . . . . . 100 psf
WALKING & STAIRS . . . . . 100 psf

WIND LOADS:
BASIC WIND SPEED = 104 MPH, EXPOSURE = C

SEISMIC LOADS:
GIG HARBOR, WA
SITE CLASS D
Sds = 1.23
Sd1 = 0.17
BUILDING SEISMIC FORCE RESISTING SYSTEM:
SPECIAL REINFORCED MASONRY SHEAR WALLS WITH WOOD STRUCTURAL PANEL

FOUNDATIONS

BASED ON HWA GEOSCIENCES DRAFT REPORT, DATED DEC 19, 2025 AND PRESUMPTIVE VALUES GIVEN IN IBC TABLE 1806.2

SOIL BEARING PRESSURE . . . . . 1500 psf
LATERAL PASSIVE BEARING PRESSURE . . . . . 100 pcf
SOIL ACTIVE PRESSURE, YIELDING WALLS . . . . . 35 pcf
SOIL FRICTION FACTOR, SLIDING 0.25

CONTINUOUS INSPECTION OF FILL PLACED AND COMPACTED UNDER BUILDING SLAB AND FOOTINGS REQUIRED BY AN APPROVED, INDEPENDENT TESTING AGENCY. FILL SHALL MEET SPECIFICATIONS AND SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. FILL SHALL BE PLACED IN MAX. 8" LIFTS. DENSITY TESTS SHALL BE TAKEN AT 5-FOOT INTERVALS AROUND THE PERIMETER OF THE PROPOSED STRUCTURE AND 4 EVENLY SPACED LOCATIONS UNDER THE SLAB.

INSPECTIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING AND COORDINATING REQUIRED BUILDING DEPARTMENT INSPECTIONS. IN ADDITION, SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE TABLE ON THIS SHEET, THESE INSPECTIONS SHALL BE PERFORMED BY A CURRENTLY WABO CERTIFIED INSPECTOR UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. THEN IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE REPORTED TO THE DESIGN PROFESSIONAL AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A SEALED FINAL REPORT BY A RESISTER PROFESSIONAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

MISCELLANEOUS

REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF RECESSES, DUCT OPENINGS, PIPING, CONDUITS, EQUIPMENT LOCATION AND ANCHORAGES, ETC., NOT SHOWN.

SUBMIT ALL REQUIRED SHOP DRAWINGS AND RECEIVE THEIR SATISFACTORY REVIEW FROM THE OWNER'S REPRESENTATIVE, PRIOR TO FABRICATION.

COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWINGS AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.

REFER TO SPECIFICATIONS FOR INFORMATION NOT CONTAINED IN THESE GENERAL NOTES.

CONCRETE

ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILS REINFORCED CONCRETE STRUCTURES ACI 315, LATEST EDITION.

CONCRETE CONSTRUCTION SHALL CONFORM TO ACE 318 BUILDING CODE, LATEST EDITION.

DESIGN STRENGTH:
CAST-IN-PLACE CONCRETE, UNLESS OTHERWISE NOTED:
f'c = 4000psi AT 28 DAYS
REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER TABLE SHOWN ON THIS SHEET.

CONCRETE COVER:
CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, BUT NOT LESS THAN ONE BAR DIAMETER:

FOOTINGS AND MATS FORMED AGAINST SOIL . . . . . 3"
CONCRETE IN CONTACT WITH SOIL, WEATHER OR WATER . . . . . 2"
CONCRETE NOT EXPOSED TO SOIL, WEATHER OR WATER. . . . . 1-1/2"
BEAMS AND COLUMNS (TO STIRRUPS) . . . . . 1-1/2"

SLAB ON GRADE
UNDER 6" THICK . . . . . AT SLAB CENTER
6" AND OVER . . . . . AS SHOWN

ANCHOR BOLTS

ANCHOR BOLTS FOR BUILDING STRUCTURE SHALL CONFORM TO ASTM A307 HOT DIPPED GALVANIZED. SET ALL BOLTS BY TEMPLATE.

DRILLED-IN EXPANSION BOLTS

SHALL BE STAINLESS STEEL "KWIK BOLTS" BY HILTI CORP., OR APPROVED EQUAL. ICBO CERTIFICATION AND SPECIAL INSPECTION IS REQUIRED. MINIMUM SPACING SHALL BE 12 BOLT DIAMETERS AND MINIMUM EDGE DISTANCE 6 BOLT DIAMETERS UNLESS NOTED OTHERWISE.

BOLT DIAMETER (IN.)	1/2	5/8	3/4	7/8	1
MIN. EMBEDMENT IN STRUCTURAL CONCRETE (IN.)	4	4	5	6	7

ADHESIVE / EPOXY ANCHORING SYSTEM

ANCHORS SHALL BE STAINLESS STEEL RODS COMPLYING TO AISI 304. REBAR SHALL CONFORM TO NOTES ABOVE.

REINFORCING BARS AND RODS ANCHORED INTO EXISTING CONCRETE SHALL BE IN DRILLED HOLE WITH THREADED, CODE APPROVED, ADHESIVE ANCHORING MATERIALS. ICC-ES REPORTS ARE REQUIRED FOR USE IN CRACKED CONCRETE FOR WIND OR SEISMIC LOADING.

MINIMUM EMBEDMENT IN STRUCTURAL CONCRETE SHALL BE 8 ROD DIAMETERS.

MINIMUM EDGE DISTANCE 6 ROD DIAMETERS.

REINFORCED CONCRETE MASONRY

CONCRETE MASONRY UNITS (CMU):
MASONRY UNITS SHALL BE HOLLOW LOAD-BEARING, CONFORMING TO ASTM SPECIFICATION C90 WITH f 'm = 2000 psi.
SPECIAL INSPECTION IS REQUIRED.

MORTAR AND GROUT:
MORTAR AND GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270, TYPE S.

MORTAR SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1800 psi AT 28 DAYS.

GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2500 psi AT 28 DAYS. MAXIMUM AGGREGATE SIZE SHALL BE 3/8", WITH SLUMP BETWEEN 6" TO 9".

GROUT ALL BOND BEAMS, LINTELS AND VERTICAL CELLS CONTAINING REINFORCING STEEL. INSULATE ALL OTHER NON-REINFORCED CELLS OF EXTERIOR WALLS, UNLESS NOTED OTHERWISE.

REINFORCING & EMBEDDED METALS:
REINFORCING STEEL SHALL BE PER ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER LAP SPLICE TABLE.

TYPICAL WALL REINFORCING, UNLESS NOTED OTHERWISE:
VERTICAL: #5 @ 32" AND AT CORNERS, @ CENTERLINE OF WALL
HORIZONTAL: #9 WIRE JOINT REINF (GALVANIZED) @ 16" OC
OPENINGS: JAMBS- (1) #5 FULL HEIGHT OF WALL
HEAD & SILL- (1) #5 EXTEND 2'-0" PAST OPENING

SEE DRAWINGS FOR TOP OF WALL BOND BEAM & OTHER REINFORCING.
ALL BARS & WIRES SHALL LAP AT CORNERS AND INTERSECTIONS.
DO NOT WELD MASONRY REINFORCING STEEL.

WOOD

LUMBER: DOUGLAS FIR LARCH #2 OR BETTER GRADE

WOOD IN CONTACT W/ CONCRETE OR MASONRY TO BE TREATED TO AWPA STD UC2 ABOVE GROUND CONTACT REQUIREMENTS.

FASTENERS / CONNECTIONS NOT SPECIFICALLY CALLED OUT SHALL BE PER IBC TABLE 2304.9.1
CONNECTOR HARDWARE CALLOUTS ARE SIMPSON STRONG-TIE CO.
(CONNECTORS OF OTHER MANUFACTURES ARE ACCEPTABLE WITH ICC APPROVALS)

ROOF NAILING: 10d @ 6" O.C. AT EDGES & SUPPORTS
NAILS SHALL BE HOT-DIP GALVANIZED

STRUCTURAL ABBREVIATIONS

@	AT	MAX	MAXIMUM
AB	ANCHOR BOLT	MB	MACHINE BOLT
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
CDF	CONTROLLED DENSITY FILL	MO	MASONRY OPENING
CLR	CLEAR	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OTO	OUT TO OUT
CONC	CONCRETE	PL	PLATE
CSBC	CRUSHED SURFACING BASE COURSE	PT	PRESSURE TREATED
		PWD	PLYWOOD
d	PENNY WT (NAIL)	RO	ROUGH OPENING
⌀	DIAMETER	SST	STAINLESS STEEL
DS	DOWNSPOUT	T&B	TOP AND BOTTOM
EA	EACH	TJI	TRUSS JOIST I BEAM OR EQUIVALENT
EF	EACH FACE		
EW	EACH WAY	TOC	TOP OF CONCRETE
FDN	FOUNDATION	TOW	TOP OF WALL
F/G	FIBERGLASS	TYP	TYPICAL
FS	FAR SIDE	U/S	UNDERSIDE
GA	GAUGE	WS	WATERSTOP
GLB	GLUE LAMINATED BEAM		
GWB	GYPSUM WALL BOARD		

ROLLED STEEL SHAPES

C	CHANNEL	P_L	PLATE
HP	H PILE SHAPE	S	S SHAPE
HSS	HOLLOW STRUCTURAL SHAPE	SCH	PIPE SCHEDULE
L	ANGLE	ST, WT	TEES CUT FROM S OR W SHAPES
M	MISCELLANEOUS SHAPE	W	WIDE FLANGE
MC	MISCELLANEOUS COLUMN		

LAP SPLICE TABLE

BAR SIZE	CONCRETE f 'c = 4,000 OR 5,000 psi	MASONRY f 'm = 1,500 psi
#3	19"	13"
#4	25"	22"
#5	31"	35"
#6	37"	54"
#7	48"	63"
#8	55"	72"
#9	62"	NA
#10	69"	NA

MINIMUM LAP SPLICES UNLESS OTHERWISE DETAILED ON DRAWINGS

SPECIAL INSPECTION SCHEDULE

ITEM	CI	PI	REMARKS/REFERENCES
GENERAL:			
PREFABRICATED ITEMS		X	
SITE PREPARATION, FILL PLACEMENT, SOIL COMPACTION	X		BY GEOTECHNICAL ENGINEER OR AN APPROVED TESTING AGENCY
CONCRETE:			IBC TABLE 1705.3, ACI 318-2015
REINFORCING MATERIALS & PLACEMENT		X	ASTM AS NOTED, ACI 318 CHAPTER 20.25 & 26.6
WELDING - REINFORCING		X	AWS D1.4
ANCHOR RODS, EMBEDDED BOLTS & INSERTS	X		PRIOR TO AND DURING CONCRETE PLACEMENT
POST-INSTALLED ANCHORS			ACI 318 26.7
ADHESIVE ANCHORS	X		ACI 318 17.8.2.4
MECHANICAL ANCHORS		X	ACI 318 17.8.2
USE OF REQUIRED MIX DESIGN		X	ACI 318 26.4
CONCRETE SLUMP, AIR CONTENT, TEMPERATURE & TEST SPECIMENS	X		WHILE MAKING SPECIMENS FOR STRENGTH TESTS, ACI 318 5.6
CONCRETE PLACEMENT	X		ACI 318 5.9, 5.10
CONCRETE CURING		X	ACI 318 5.11, 5.13
MASONRY:			TMS 402/602-2013 TABLE 3.1.3 LEVEL 3
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X	TMS 602 ART 1.5
2. VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. PROPORTIONS OF SITE-MIXED MORTAR AND GROUT		X	TMS 602 ART 2.1, 2.6
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS.		X	TMS 602 ART 2.4, 3.4
c. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X	TMS 602 ART 3.3 B
d. PLACEMENT OF REINFORCEMENT AND CONNECTORS	X		TMS 602 ART 3.2 E, 3.4
e. GROUT SPACE PRIOR TO GROUTING	X		TMS 602 ART 3.2D, 3.2 F
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	X		TMS 602 ART 3.5
g. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X	TMS 602 ART 3.3 F
h. TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	X		TMS 402 SEC. 1.2.1(e), 6.1.4.3, 6.2.1
i. WELDING OF REINFORCEMENT (NOT ALLOWED UNLESS ASTM A706 BARS)	X		AWS D1.4
j. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER OR HOT WEATHER		X	TMS 602 ART 1.8 C, 1.8 D
3. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/ OR PRISMS. (NOT REQUIRED IF UNIT STRENGTH METHOD IS SUBMITTED PER TMS 602 ART 1.4.B)	X		TMS 602 ART 1.4 B
WOOD:			
SPECIES & GRADE OF WOOD MATERIALS		X	
NAILING OF FRAMING & CONNECTORS	X		PER IBC TABLE 2304.10 & MANUFACTURERS REQUIREMENTS
TYPE & SPACING OF STRUCTURAL PANEL NAILING	X		

INSPECTION SCHEDULE NOTES

1. ITEMS MARKED WITH AN "X" REQUIRE INSPECTION BY A SPECIAL INSPECTOR APPROVED BY THE BUILDING OFFICIAL.
2. ITEMS MARKED "NA" ARE NOT APPLICABLE TO THIS PROJECT.
3. CI = CONTINUOUS INSPECTION DURING PROGRESS OF WORK BY SPECIAL INSPECTOR.
4. PI = PERIODIC INSPECTION BY SPECIAL INSPECTOR AS REQUIRED TO CONFIRM CONFORMANCE OF WORK.
5. TESTING AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER, BUILDING OFFICIAL AND CONTRACTOR.

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED S.WAGNER
DRAWN D.PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE JANUARY 2026

STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

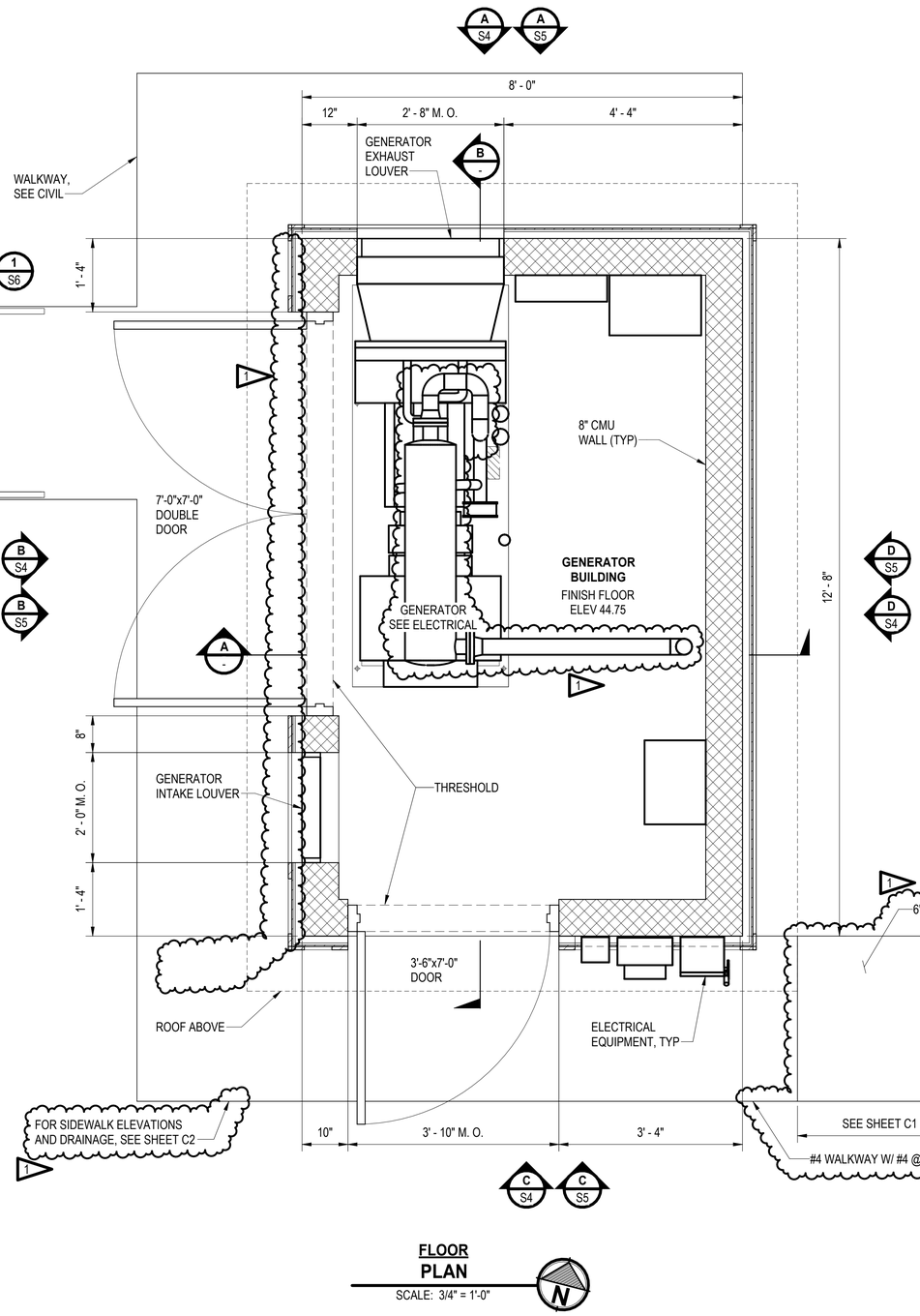
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Ph: 253.604.6600

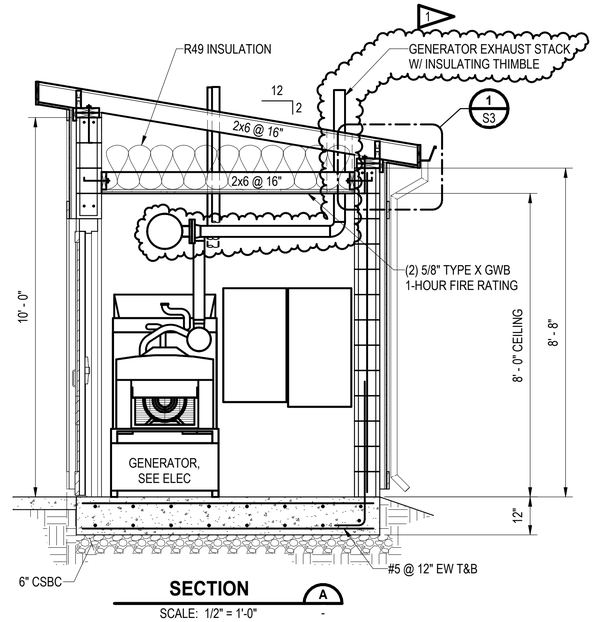
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

STRUCTURAL NOTES

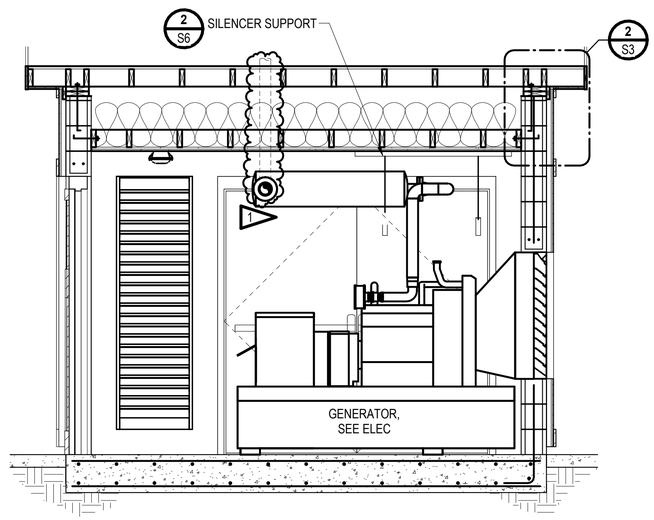
DRAWING NO. 14 OF 27
S1



FLOOR PLAN
SCALE: 3/4" = 1'-0"



SECTION A
SCALE: 1/2" = 1'-0"



SECTION B
SCALE: 1/2" = 1'-0"

PERMIT SET

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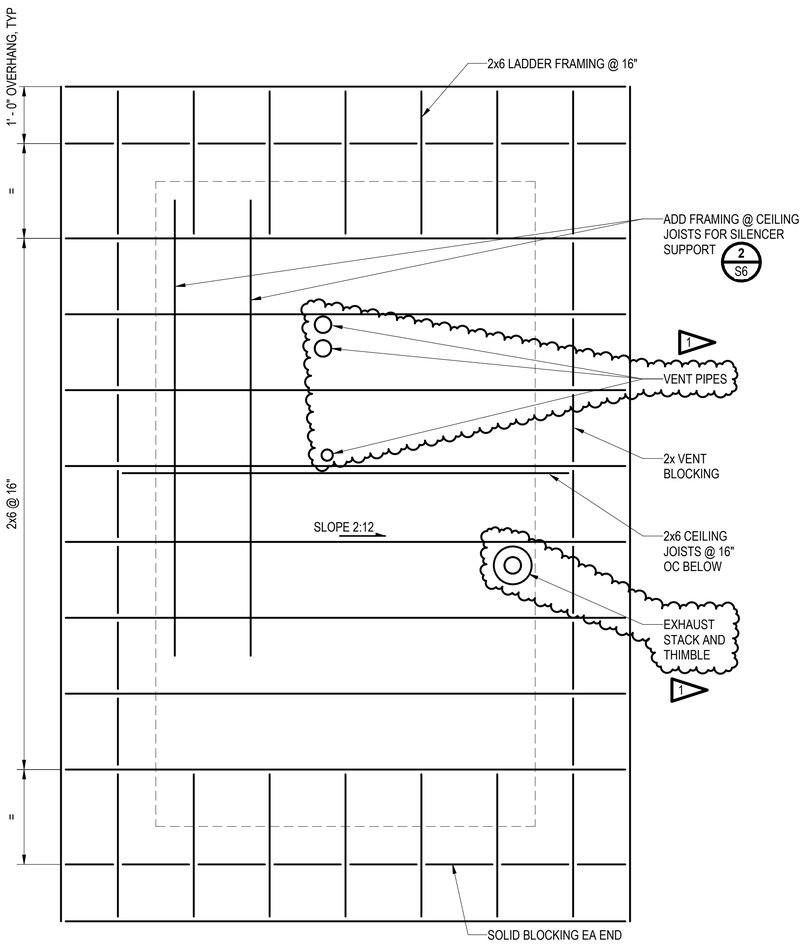
STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
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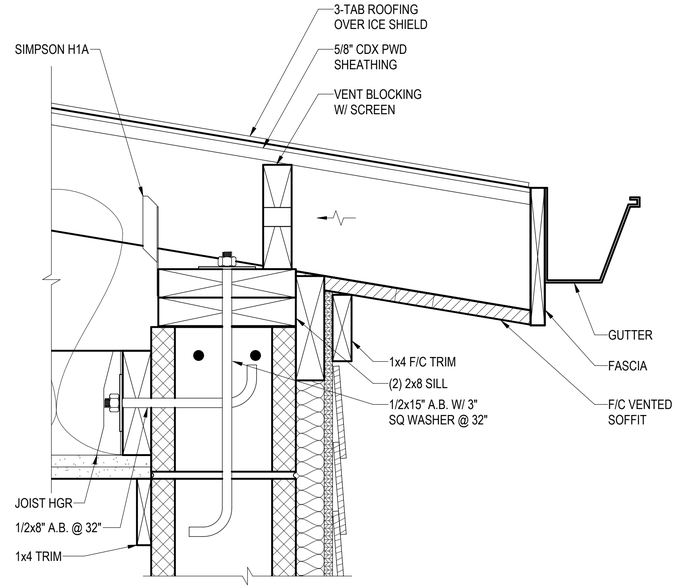
GENERATOR BUILDING FLOOR PLAN AND SECTIONS

DRAWING NO. 15 OF 27
S2



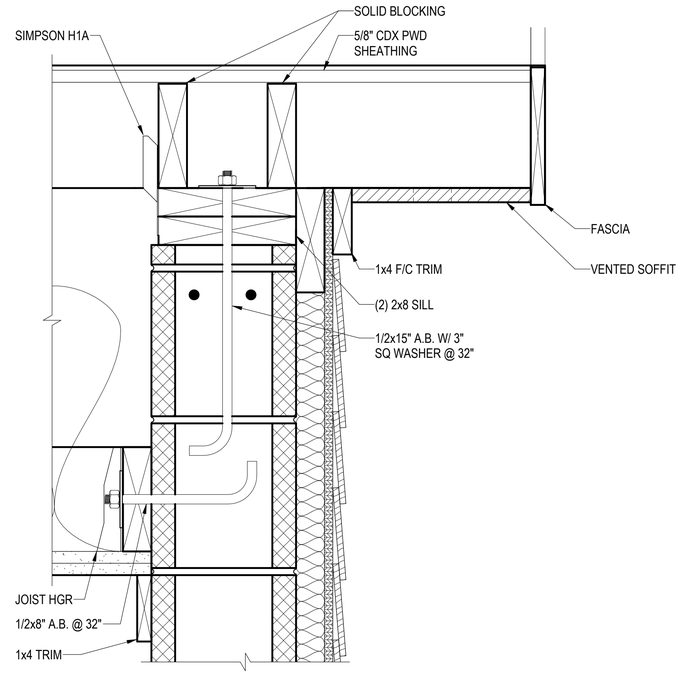
ROOF FRAMING PLAN

SCALE: 3/4" = 1'-0"



DETAIL 1 / S2

SCALE: 3" = 1'-0"



DETAIL 2 / S2

SCALE: 3" = 1'-0"

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

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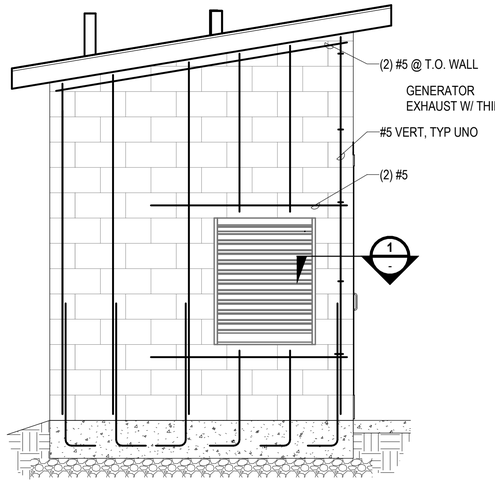
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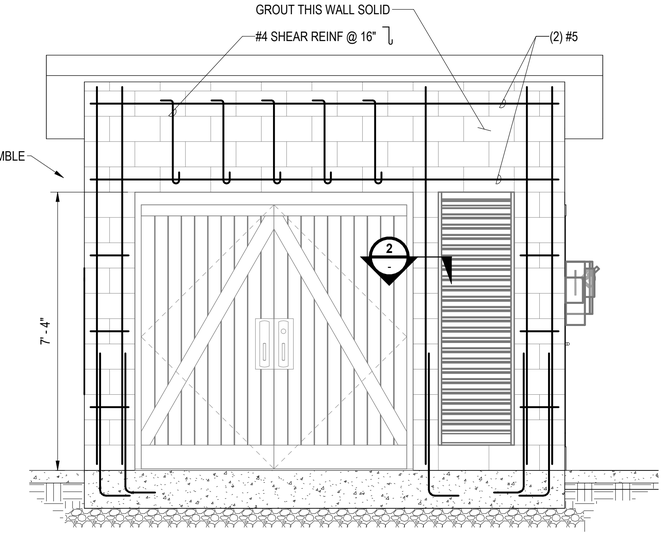
GENERATOR BUILDING ROOF FRAMING PLAN AND DETAILS

DRAWING NO. 16 OF 27

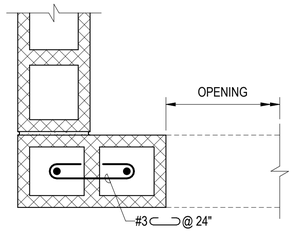
S3



STRUCTURAL NORTH
ELEVATION A
SCALE: 1/2" = 1'-0" S2



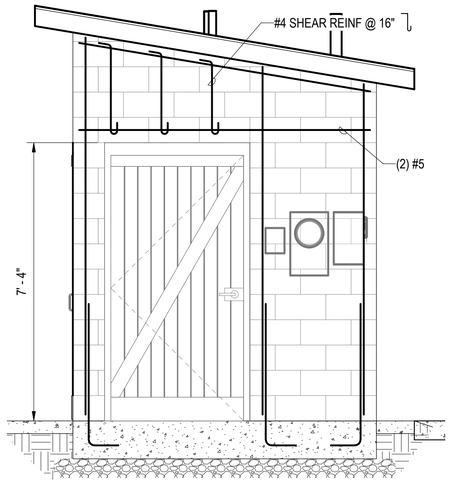
STRUCTURAL WEST
ELEVATION B
SCALE: 1/2" = 1'-0" S2



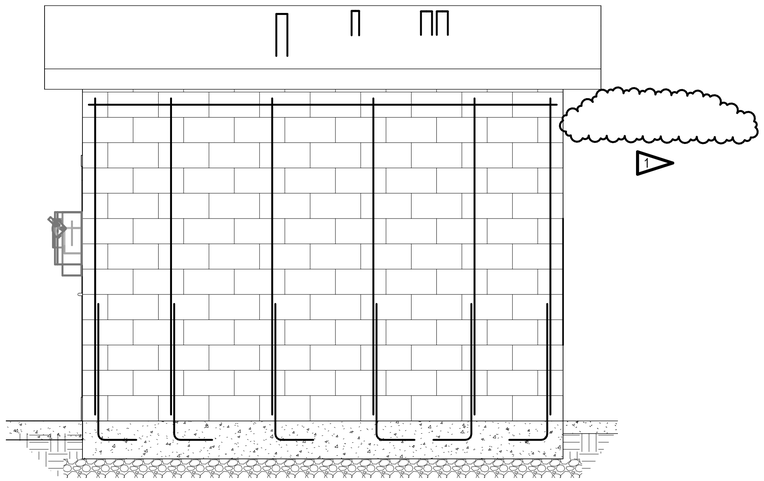
CORNER
DETAIL 1
SCALE: 1 1/2" = 1'-0" -



PIER
DETAIL 2
SCALE: 1 1/2" = 1'-0" -



STRUCTURAL SOUTH
ELEVATION C
SCALE: 1/2" = 1'-0" S2



STRUCTURAL EAST
ELEVATION D
SCALE: 1/2" = 1'-0" S2

PERMIT SET

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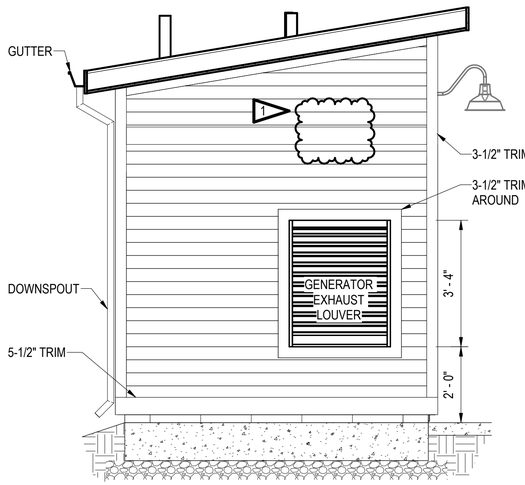
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CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERATOR BUILDING STRUCTURAL ELEVATIONS AND DETAILS

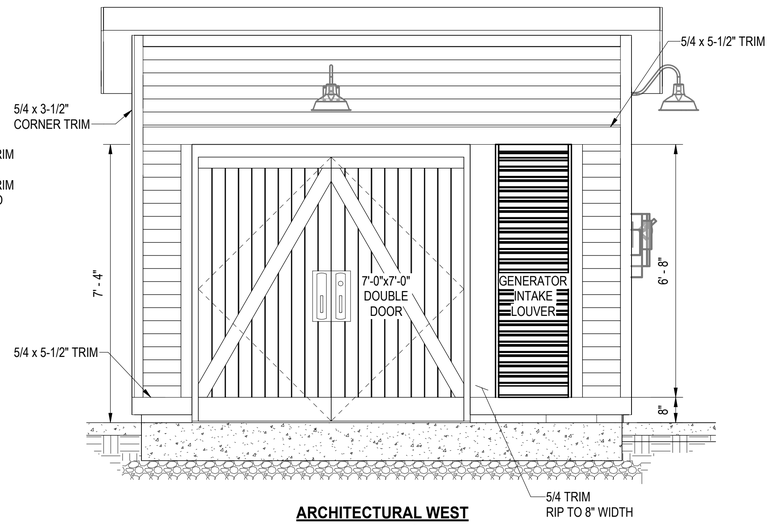
DRAWING NO. 17 OF 27
S4

NOTES:

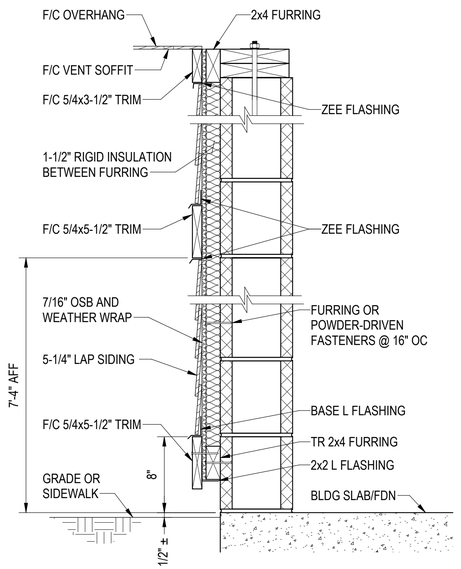
1. FIBER CEMENT (F/C) PANELS AND SIDING SHALL BE AS PRODUCED BY JAMES HARDIE OR APPROVED EQUAL.
2. SIDING F/C W/ 5" EXPOSURE.



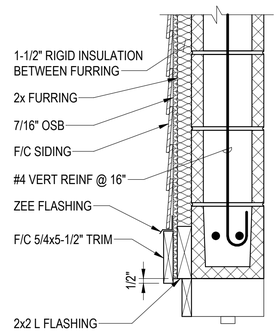
ARCHITECTURAL NORTH ELEVATION — A — SCALE: 1/2" = 1'-0" — S2



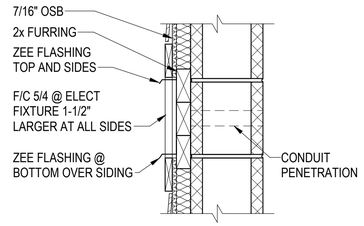
ARCHITECTURAL WEST ELEVATION — B — SCALE: 1/2" = 1'-0" — S2



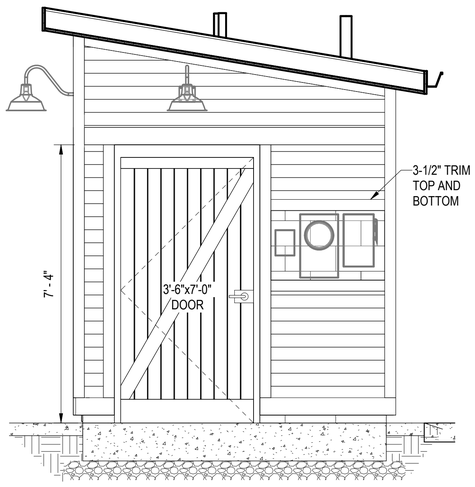
WALL SECTION DETAIL — 1 — SCALE: 1 1/2" = 1'-0" — TYP



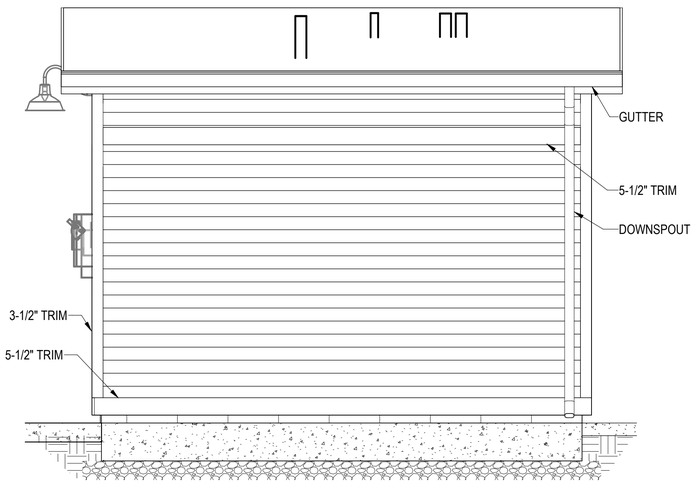
DOOR/HEAD OPENING DETAIL — 3 — SCALE: 1 1/2" = 1'-0" — TYP



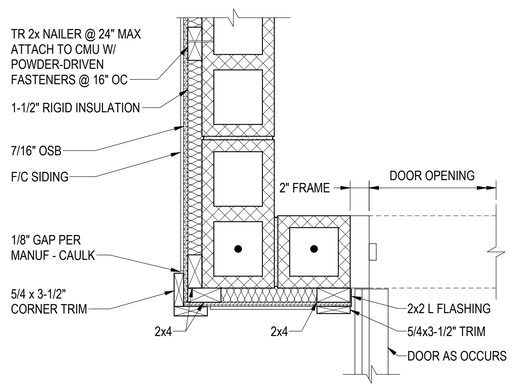
ELECTRICAL PENETRATION @ METER, SWITCH, AND LIGHTING DETAIL — 4 — SCALE: 1 1/2" = 1'-0" — TYP



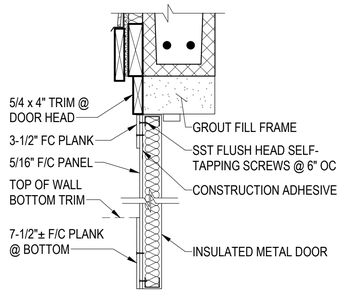
ARCHITECTURAL SOUTH ELEVATION — C — SCALE: 1/2" = 1'-0" — S2



ARCHITECTURAL EAST ELEVATION — D — SCALE: 1/2" = 1'-0" — S2



CORNER DETAIL — 2 — SCALE: 1 1/2" = 1'-0" — TYP



DOOR SECTION DETAIL — 5 — SCALE: 1 1/2" = 1'-0" — TYP

PERMIT SET

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE JANUARY 2026

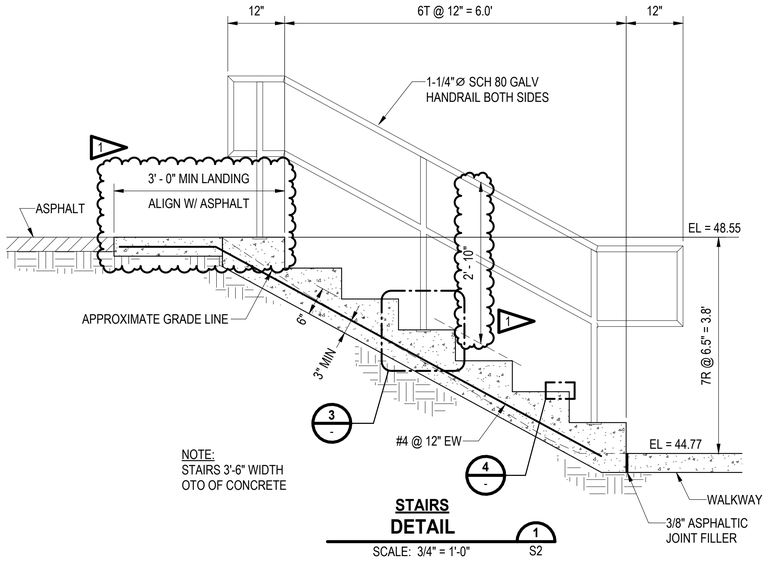
STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
1-09-2026

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

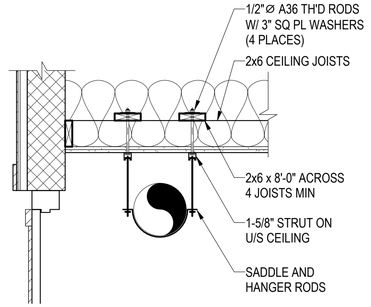
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERATOR BUILDING ARCHITECTURAL ELEVATIONS AND DETAILS

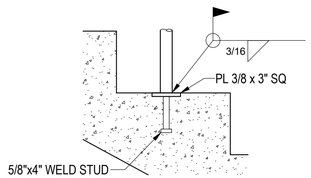
DRAWING NO. 18 OF 27
S5



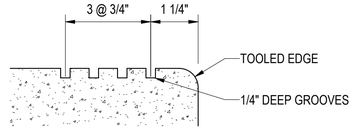
STAIRS
DETAIL 1
SCALE: 3/4" = 1'-0" S2



SILENCER SUPPORT
DETAIL 2
SCALE: 3/4" = 1'-0" S2



STAIRS
DETAIL 3
SCALE: 1 1/2" = 1'-0" -



NOTE:
CONTRACTOR SHALL USE KRAFT TOOL
CO SAFETY STEP EDGER/GROOVER OR
APPROVED EQUAL FOR TREAD GROOVES
AND EDGE, TYP ALL TREADS

TREAD
DETAIL 4
SCALE: 6" = 1'-0" -

	REVISIONS	DATE	BY
1	PERMIT RESUBMITTAL	01/09/26	BB

DESIGNED S. WAGNER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
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STEVEN A. WAGNER — STATE OF WASHINGTON — 18711 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

1-09-2026

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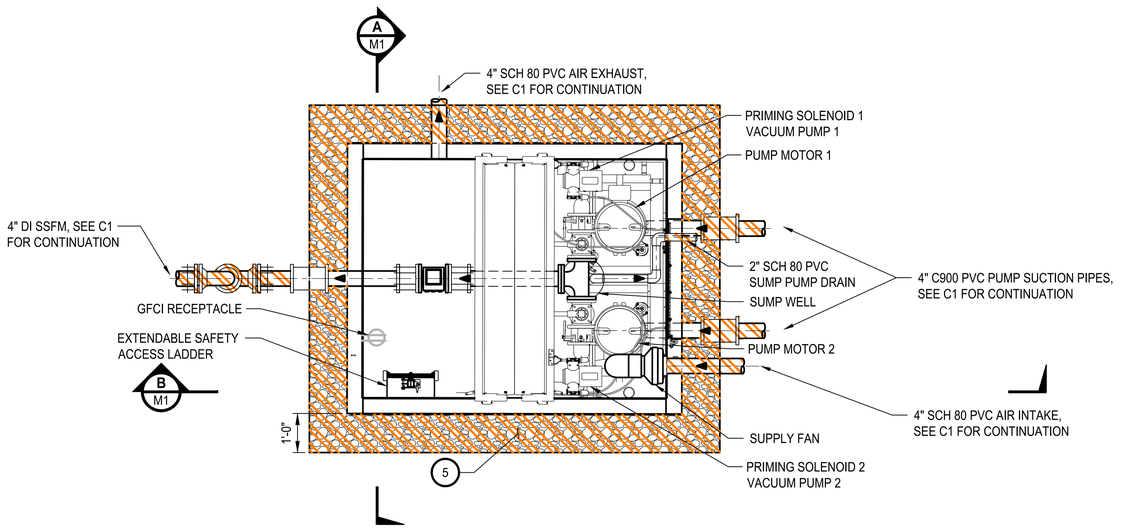
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

STRUCTURAL DETAILS

DRAWING NO.
19 OF 27

S6



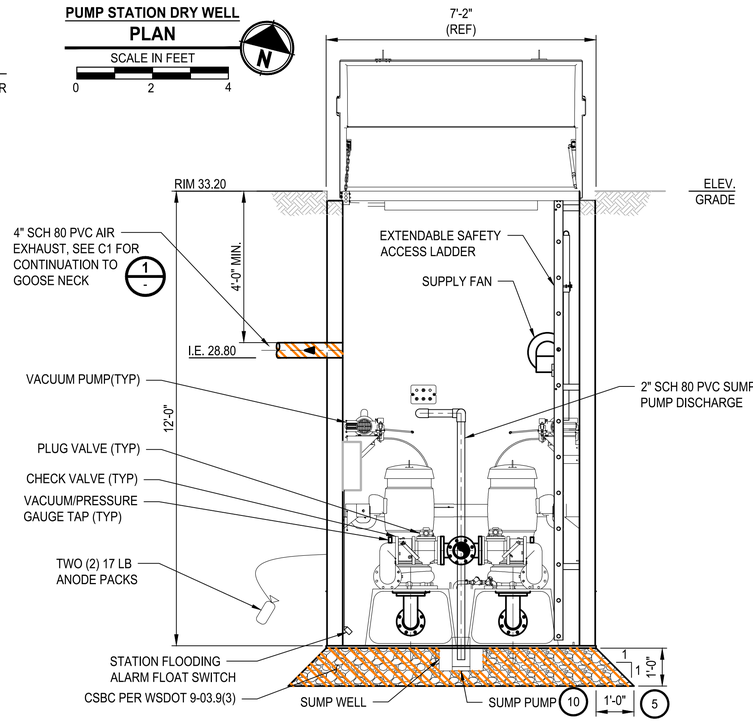
LEGEND

SUPPLIED AND INSTALLED BY CONTRACTOR

PUMP STATION DRY WELL PLAN

SCALE IN FEET

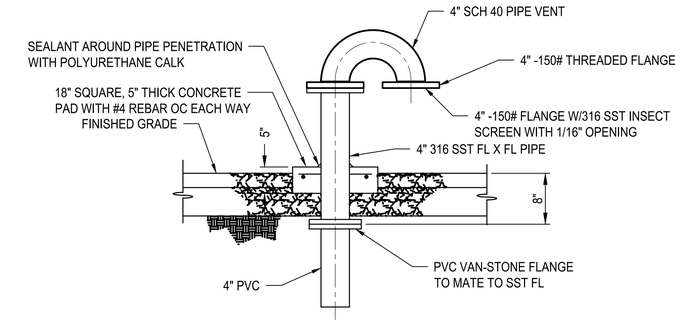
0 2 4



PUMP STATION DRY WELL SECTION A M1

SCALE IN FEET

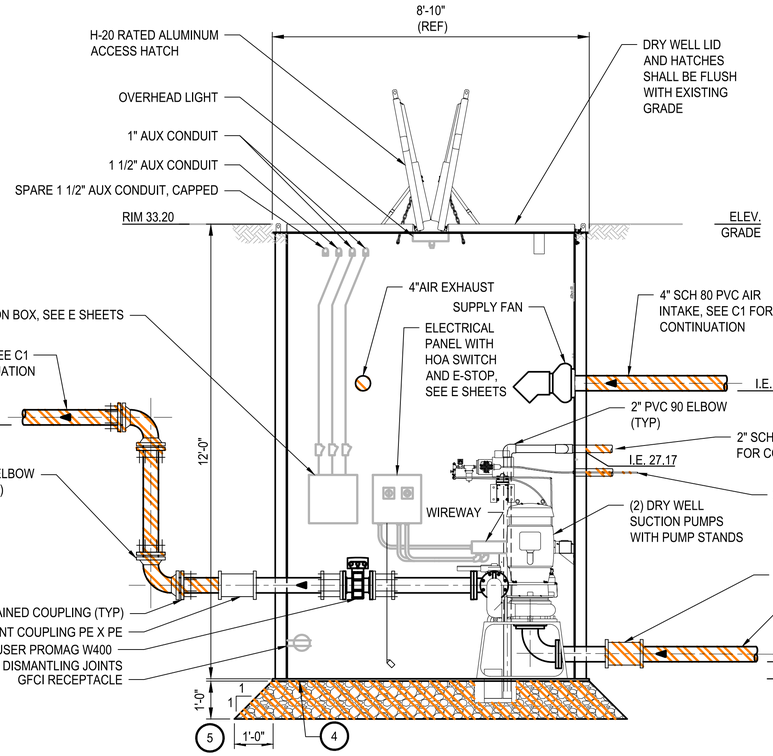
0 2 4



GOOSE NECK INTAKE/EXHAUST DETAIL

N.T.S.

1 C1



PUMP STATION DRY WELL SECTION B M1

SCALE IN FEET

0 2 4

NOTES

1. INFORMATION SHOWN ON THIS DRAWING IS PRODUCED FROM EXISTING REFERENCE DRAWINGS, FIELD MEASUREMENTS, AND PHOTOGRAPHS. ALL INFORMATION SHALL BE FIELD VERIFIED AND LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR'S DEMOLITION PLAN SHALL BE REVIEWED AND COMMENTED BY OWNER PRIOR TO BEGINNING WORK.
2. FIELD VERIFY LOCATIONS, SIZES, AND CONNECTIONS MATERIALS OF ALL EXISTING PIPING AND EQUIPMENT BEFORE FABRICATING NEW PIPE OR RETROFITTING FOR NEW EQUIPMENT.
3. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS AND LOCATIONS PRIOR TO CONSTRUCTION.
4. SUBGRADE UNDER STATION BASE PLATE SHALL BE COMPACTED TO 95% COMPACTION ACCORDING TO ASTM D1557 AND PROVIDE UNIFORM SUPPORT UNDER ENTIRE BASE PLATE.
5. CRUSHED ROCK BEDDING SHALL EXTEND 1'-0" BEYOND THE PERIMETER OF THE DRY WELL AS SHOWN.
6. ALL PENETRATIONS THROUGH THE DRY WELL WILL BE HANDLED BY THE STATION MANUFACTURER.
7. ALL MOUNTING HARDWARE IN DRY WELL SHALL BE 304 SST AND THE WET WELL SHALL BE 316 SST.
8. CONTRACTOR SHALL INSTALL OWNER-PURCHASED PACKAGED DRY WELL PUMP STATION. THE DRY WELL SHALL BE A MANUFACTURED BY SMITH & LOVELESS, INQUIRY NUMBER 37118.
9. ALL PRESSURE PIPE JOINTS SHALL BE RESTRAINED.
10. SUMP PUMP DISCHARGE SHALL INCLUDE CHECK VALVE, ISOLATION VALVE AND UNION. NOT SHOWN FOR CLARITY.

Know what's **below.** **Call** before you dig.

100 % REVIEW SUBMITTAL

NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED N. CHRISTENSEN
DRAWN N. CHRISTENSEN
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-M
JOB No. 216-2750-048
DATE NOVEMEBER 2025

TANYA MALINI AZARIAH — STATE OF WASHINGTON — 23009570 — REGISTERED PROFESSIONAL ENGINEER

11/26/25

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME

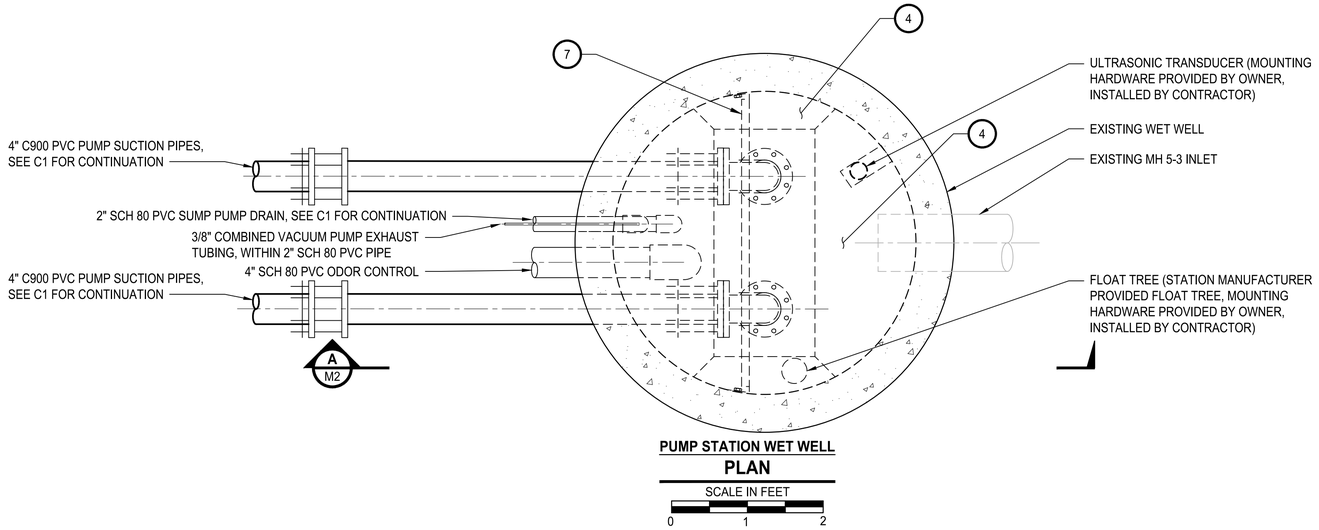
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PUMP STATION DRY WELL MECHANICAL PLAN

DRAWING NO. 20 OF 27

M1

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG
PLOTTED BY: ChrisNoa DATE: Wednesday, November 26, 2025 10:59:19 AM
LAYOUT: M1

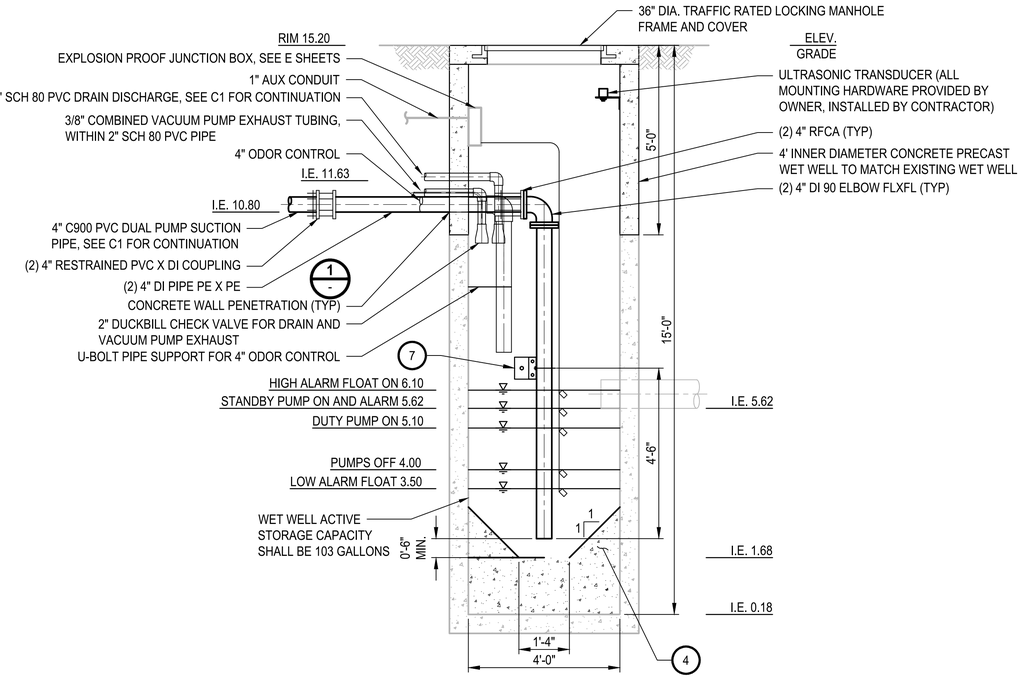


PUMP STATION WET WELL

PLAN

SCALE IN FEET

0 1 2



PUMP STATION WET WELL

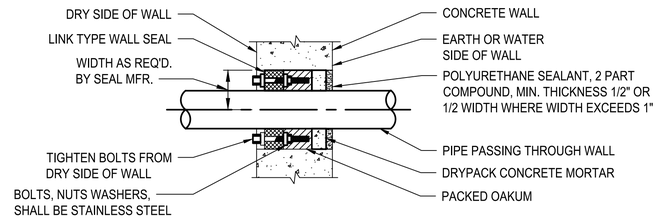
SECTION A M2

SCALE IN FEET

0 2 4

NOTES

1. INFORMATION SHOWN ON THIS DRAWING IS PRODUCED FROM EXISTING REFERENCE DRAWINGS, FIELD MEASUREMENTS, AND PHOTOGRAPHS. ALL INFORMATION SHALL BE FIELD VERIFIED AND LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR'S DEMOLITION PLAN SHALL BE REVIEWED AND COMMENTED BY OWNER PRIOR TO BEGINNING WORK.
2. FIELD VERIFY LOCATIONS, SIZES, AND CONNECTIONS MATERIALS OF ALL EXISTING PIPING AND EQUIPMENT BEFORE FABRICATING NEW PIPE OR RETROFITTING FOR NEW EQUIPMENT.
3. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS AND LOCATIONS PRIOR TO CONSTRUCTION.
4. BOTTOM OF WET WELL SHALL BE SLOPED WITH GROUT TO THE PUMP SUCTION PIPES AS SHOWN ON THE PLAN AND SECTION. A MINIMUM OF 1:1 SLOPE SHALL BE USED.
5. ALL PENETRATIONS THROUGH THE DRY WELL AND WET WELL THAT ARE 4" IN DIAMETER AND LARGER SHALL USE LINK SEALS.
6. ALL MOUNTING HARDWARE IN DRY WELL SHALL BE 304 SST AND THE WET WELL SHALL BE 316 SST.
7. PREFABRICATED WET WELL PIPE SUPPORT PROVIDED BY STATION MANUFACTURER, INSTALLED BY CONTRACTOR. HARDWARE PROVIDED AND INSTALLED BY CONTRACTOR.



CONCRETE WALL PENTRATION

DETAIL 1 M2

N.T.S.

Know what's **below.** **Call** before you dig.

100 % REVIEW SUBMITTAL

NOT FOR CONSTRUCTION

	REVISIONS	DATE	BY

DESIGNED N. CHRISTENSEN
DRAWN N. CHRISTENSEN
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-M
JOB No. 216-2750-048
DATE NOVEMEBER 2025



11/26/25

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PUMP STATION WET WELL MECHANICAL PLAN

DRAWING NO. 21 OF 27

M2

LAYOUT: M2 PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Sves\CADD\DWG PLOTTED BY: ChrisNoa DATE: Wednesday, November 19, 2025 11:32:37 AM

PLAN SYMBOLS

CONDUIT SYMBOLS

- X-### — CONDUIT ID TAG. P = POWER C = CONTROL S = SIGNAL X = SPARE
- 3/4"C-(3)#12 — CALLOUT INDICATING CONDUIT SIZE, NUMBER OF WIRES, AND WIRE SIZE.
- X-### — CALLOUT INDICATING CONDUIT NUMBER AND WIRE PER SCHEDULE.
- EXPOSED CONDUIT
- CONCEALED CONDUIT
- CAP ON CONDUIT STUB
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT WITH SEAL FITTING
- UNDERGROUND DIRECT BURIAL CONDUITS
- FLEXIBLE CONDUIT
- INDICATES REMOVAL
- GROUND CONDUCTOR
- HEAT TRACE
- CONDUIT RUN, BROKEN AND CONTINUED ON SAME SHEET OR AS NOTED
- HOME RUN TO PANELBOARD OR AS INDICATED
- CABLE TRAY
- (J) — JUNCTION BOX LOCATION

EQUIPMENT AND INSTRUMENT SYMBOLS

- XXX##-### — EQUIPMENT ID TAG
- G / xxKW — GENERATOR xxKW = SIZE
- xx — MOTOR xx = HORSEPOWER
- EQUIPMENT CONNECTION
- INSTRUMENT LOCATION
- T — THERMOSTAT LOCATION
- xxA — DISCONNECT SWITCH, UNFUSED xxA = AMPERAGE RATING
- xxAF / xxAT F — DISCONNECT SWITCH, FUSED xxAF = FRAME RATING xxAT = TRIP RATING
- xxAF / xxAT CB — ENCLOSED CIRCUIT BREAKER xxAF = FRAME RATING xxAT = TRIP RATING
- MH — MANHOLE
- HH — HANDHOLE
- GROUND ROD
- GROUND ROD AND BOX
- WALL-MOUNTED CONTROL PANEL, PANELBOARD, OR TERMINAL CABINET. SHOWN WITH EQUIPMENT ID TAG. (PNL-100)
- FLOOR-STANDING DISTRIBUTION ASSEMBLY, SUCH AS MCC, SWITCHBOARD, OR XFMR. SHOWN WITH EQUIPMENT ID TAG. (PNL-100)

UTILITIES SYMBOLS

- M — ELECTRICITY UTILITY METER AND SOCKET
- PLYWOOD BACKBOARD

RECEPTACLE AND SWITCH SYMBOLS

- CKT / TYPE — DUPLEX WALL RECEPTACLE, 120V. CKT = CIRCUIT NUMBER. TYPE: WP = WEATHERPROOF, G = GROUNDED, IG = ISOLATED GROUND, GF = GROUND FAULT CIRCUIT INTERRUPTOR
- DUPLEX RECEPTACLE, EMERGENCY/STAND-BY
- SINGLE RECEPTACLE, 120V
- SINGLE RECEPTACLE, EMERGENCY/STAND-BY
- DOUBLE DUPLEX RECEPTACLE, 120V
- DOUBLE DUPLEX RECEPTACLE, EMERGENCY/STAND-BY
- SPECIAL PURPOSE WALL RECEPTACLE, RATING AS NOTED.
- $(a,b) — SINGLE POLE SWITCH (SEE NOTE S1). * = SINGLE POLE, 2 = 2 POLE, 3 = 3 WAY, 4 = 4 WAY, M = HP RATED, LOCKABLE, OS = OCCUPANCY SENSOR, P = SWITCH WITH PILOT LIGHT, WP = WEATHERPROOF

NOTES:

S1 LOWER CASE LETTERS IN PARENTHESIS ADJACENT TO A SWITCH OR LIGHT FIXTURE INDICATE A SWITCHED CIRCUIT AND IDENTIFY THE FIXTURE/SWITCH COMBINATIONS. FOR FOUR LAMP FLUORESCENT FIXTURES WIRED IN PAIRS WITHIN EACH FIXTURE, THE "a" SWITCH CONTROLS THE OUTER LAMPS AND THE "b" SWITCH CONTROLS THE INNER LAMPS. WIRE 3 LAMP FIXTURES SIMILARLY.

S2 NUMBERS IN PARENTHESIS ADJACENT TO A LIGHT FIXTURE OR RECEPTACLE INDICATE THE LIGHTING PANEL BRANCH CIRCUIT FEEDING THE DEVICE.

LIGHTING SYMBOLS

- ID / NL / (a) / (LPXX/X) — LUMINAIRE WITH IDENTIFICATION TAG. ID = TYPE, PER LIGHTING SCHEDULE. NL = UNSWITCHED NIGHT LIGHT. a = SWITCH CONTROL. LPXX/X = POWER SOURCE PANEL AND CIRCUIT NUMBER
- SURFACE MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE
- POLE MOUNTED LUMINAIRE
- WALL/CEILING MOUNTED EXIT LIGHT - DIRECTIONAL ARROW WHERE INDICATED, SHADED AREA INDICATES ILLUMINATED FACE.
- PE — PHOTOELECTRIC CELL
- EMERGENCY LIGHT WITH SELF-CONTAINED BATTERY

FIRE ALARM SYMBOLS

- FACP — FIRE ALARM CONTROL PANEL
- SH — COMBINATION SMOKE/HEAT DETECTOR
- F — HORN AND STROBE
- F — MANUAL PULL STATION

ONE-LINE SYMBOLS

- XXX##-### — EQUIPMENT ID TAG
- X-### — CONDUIT ID TAG. P = POWER C = CONTROL S = SIGNAL X = SPARE
- G / xxKW — GENERATOR xxKW = SIZE
- xx — MOTOR xx = HORSEPOWER
- xxAF / xxAT — POWER CIRCUIT BREAKER, 3 POLE, ABOVE 1500V. xxAF = FRAME SIZE xxAT = TRIP RATING
- WITH DRAWOUT / NO DRAWOUT
- xxAF / xxAT — CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED. xxAF = FRAME SIZE xxAT = TRIP RATING
- WITH DRAWOUT / NO DRAWOUT
- xxKVA / xxV-yyV — POWER OR DISTRIBUTION TRANSFORMER, 3 PHASE UNLESS OTHERWISE NOTED. xxKVA = SIZE, xxV = PRIMARY VOLTAGE, yyV = SECONDARY VOLTAGE
- ATS — TRANSFER SWITCH, ATS OR MTS AS INDICATED. 3 POLE UNLESS OTHERWISE NOTED. xxAF = RATING
- * — MOTOR STARTER WITH THERMAL OVERLOAD. 3 PHASE UNLESS OTHERWISE NOTED. * = NEMA SIZE
- VFD ### — VARIABLE FREQUENCY DRIVE. 3 PHASE UNLESS OTHERWISE NOTED. ### = DEVICE ID NUMBER
- SS ### — ELECTRONIC SOFT STARTER WITH BYPASS. 3 PHASE UNLESS OTHERWISE NOTED. ### = DEVICE ID NUMBER
- LINE OR LOAD REACTOR
- K — KIRK KEY INTERLOCK
- ST — SHUNT TRIP
- FUSE
- CURRENT TRANSFORMER
- VOLTAGE TRANSFORMER
- SURGE ARRESTOR
- X — SENSOR. X INDICATES DEVICE TYPE: A = AMMETER, AS = CURRENT SWITCH, V = VOLTMETER, VS = VOLT SWITCH, WH = WATTHOUR METER, PM = POWER QUALITY METER
- POWER RECEPTACLE
- CAPACITOR
- VACUUM BREAK SWITCH
- TERMINATOR OR POTHEAD
- GROUND CONNECTION

SCHEMATIC SYMBOLS

- M — MOTOR, 3 PHASE. VOLTAGE AND HORSEPOWER AS INDICATED.
- M — MOTOR, SINGLE PHASE. VOLTAGE AND HORSEPOWER AS INDICATED.
- M OL — MOTOR STARTER WITH THERMAL OVERLOAD, 3 POLE.
- TAG / xxVA / xxV-yyV — CONTROL POWER TRANSFORMER. TAG = DEVICE TAG ID, xxxVA = SIZE, xxV = PRIMARY VOLTAGE, yyV = SECONDARY VOLTAGE
- TAG / xxAF — DISCONNECT OR TOGGLE SWITCH. TAG = DEVICE TAG ID, xxAF = SWITCH RATING IN AMPERES
- TAG / xxA — CIRCUIT BREAKER. TAG = DEVICE TAG ID, xxA = TRIP RATING IN AMPERES
- TAG / xxA — FUSE. TAG = DEVICE TAG ID, xxA = TRIP RATING, IN AMPERES

COVER CONTROL DEVICES

- H O A / XOO / OXO / OOX — SELECTOR SWITCH ASSEMBLY, 3-POSITION. TYPICAL CONFIGURATIONS: H O A - HAND/OFF/AUTO, L O R - LOCAL/OFF/REMOTE
- PUSHBUTTON, NORMALLY OPEN AND NORMALLY CLOSED
- X — INDICATING LIGHT, X INDICATES COLOR: A = AMBER, B = BLUE, C = CLEAR, G = GREEN, R = RED, W = WHITE, Y = YELLOW
- X — INDICATING LIGHT, PUSH-TO-TEST
- ETM — ELAPSED TIME METER/ HOURMETER

CONTROL RELAYS AND CONTACTORS

- XXX / ### — CONTROL DEVICE COIL. XXX INDICATES TYPE: ALT = ALTERNATING RELAY, CR = CONTROL RELAY, LR = LATCHING RELAY, TR/TDR = TIMING RELAY/ TIME-DELAY RELAY, M = MOTOR STARTER CONTACTOR. ### = DEVICE ID NUMBER
- TAG / TAG — CONTACTS, NORMALLY OPEN AND NORMALLY CLOSED. TAG = CONTROL DEVICE COIL ID NUMBER

TIMING RELAY CONTACTS

- TAG — NORMALLY OPEN, CLOSES AFTER TIME DELAY (NOTC). TAG = DEVICE TAG ID
- NORMALLY CLOSED, OPENS AFTER TIME DELAY (NCTO).
- NORMALLY CLOSED, INSTANTANEOUS OPEN, CLOSES AFTER TIME DELAY (NCTC).
- NORMALLY OPEN, INSTANTANEOUS CLOSE, OPENS AFTER TIME DELAY (NOTO).

SENSING DEVICE CONTACTS

CLOSES RISING	CLOSES FALLING	DEVICE TYPE
		FLOW SWITCH
		LEVEL/FLOAT SWITCH
		PRESSURE SWITCH
		TEMPERATURE SWITCH

LIMIT SWITCH CONTACTS

- NORMALLY OPEN, CLOSES ON REACHING LIMIT
- NORMALLY CLOSED, OPENS ON REACHING LIMIT

WIRE, CABLE, AND TERMINAL SYMBOLS

- WIRING INSIDE ENCLOSURE
- FIELD WIRING
- CONDUCTORS CONNECTED
- CONDUCTORS NOT CONNECTED
- SPLICE OR TERMINATION
- FEED-THROUGH TERMINAL
- DEVICE TERMINAL
- SHORTING BLOCK

MISCELLANEOUS DEVICES

- SOLENOID
- H — HORN
- B — BELL
- BUZZER
- RESISTOR OR HEATER ELEMENT
- BUS STAB ON MCC OR SWITCHGEAR, OR CORD AND PLUG CONNECTION.

ABBREVIATIONS

A	AMPERES
AC	ALTERNATING CURRENT
A/D	ANALOG TO DIGITAL
ADJ	ADJUSTABLE
AF	AMPERE FRAME
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AMP	AMPERES
ANN	ANNUNCIATOR
AS	AMMETER SWITCH
AT	AMMETER TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
BCG	BARE COPPER GROUND
C	CONDUIT
CAB	CABINET
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CC	CONTROL CABLE, CLOSING COIL
CHH	COMMUNICATION HANDHOLE
CKT	CIRCUIT
CMH	COMMUNICATION MANHOLE
CO	CONDUIT ONLY
COMM	COMMUNICATION
COND	CONDUCTOR
CPT	CONTROL POWER TRANSFORMER
CP	CONTROL PANEL
CR	CONTROL RELAY
CS	CONTROL STATION
CT	CURRENT TRANSFORMER
DB	DIRECT BURIAL
DC	DIRECT CURRENT
DIAG	DIAGRAM
DISC	DISCONNECT
DISTR	DISTRIBUTION
DIV	DIVISION
DP	DISTRIBUTION PANEL
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
(E)	EXISTING
EE	ELECTRICAL ENCLOSURE
EHH	ELECTRICAL HANDHOLE
ELEM	ELEMENTARY
EMERG	EMERGENCY
ENCL	ENCLOSURE
EFFL	EFFLUENT
EGC	EQUIPMENT GROUND CONDUCTOR
EQPT	EQUIPMENT
ETM	ELAPSED TIME METER
FDR	FEEDER
FE	FLOW ELEMENT
FIT	FLOW INDICATION TRANSMITTER
FLEX	FLEXIBLE
FLUOR	FLUORESCENT
FO	FIBER OPTIC
FREQ	FREQUENCY
FSH	FLOAT SWITCH HIGH
FSO	FLOAT SWITCH OVERFLOW
FU	FUSE
FUT,(F)	FUTURE
FVNR	FULL VOLTAGE, NON-REVERSING
FVR	FULL VOLTAGE, REVERSING
FWD	FORWARD
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
H	HYDROGEN PYROXIDE
HH	HANDHOLE
HOA	HAND-OFF-AUTOMATIC
HOR	HAND-OFF-REMOTE
HPS	HIGH PRESSURE SODIUM
HT	HEAT TAPE
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ (CYCLES PER SECOND)
IND LT	INDICATING LIGHT
INCAND	INCANDESCENT
INSTR	INSTRUMENT, INSTRUMENTATION
I/O	INPUT/OUTPUT
ISB	INTRINSICALLY SAFE BARRIER
ISR	INTRINSICALLY SAFE RELAY
JB	JUNCTION BOX
KA	KILOAMPERES
KCMIL	THOUSANDS OF CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KWH	KILOWATT HOURS
LCP	LOCAL CONTROL PANEL
LCS	LOCAL CONTROL STATION
LTG	LIGHTING
LTS	LIGHTS
LP	LIGHTING PANEL
(M)	MODIFIED
mA	MILLIAMPERES
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION OR MAIN CONTROL PANEL
MCM	THOUSAND CIRCULAR MILS (KCMIL)
MON	MONITOR
MOV	MOTOR OPERATED VALVE
MS	MOTOR STARTER
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
(N)	NEW
NC	NORMALLY CLOSED
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NEUT	NEUTRAL
NO	NORMALLY OPEN, NUMBER
OL	OVERLOAD
OT	OVER TEMPERATURE
OIT	OPERATOR INTERFACE TERMINAL
P	POLE, PUMP
PB	PULLBOX
PBSW	PUSHBUTTON SWITCH
PEC	PHOTOELECTRIC CELL
PF	POWER FACTOR
PGRS	PVC COATED GALVANIZED RIGID STEEL
pH	MEASURE OF ACIDITY OR ALKALINITY
PH	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PNLBD	PANELBOARD
POS	POSITION, POSITIVE
POT	POTENTIOMETER
PPS	PACKAGED POWER SUPPLY
PRI	PRIMARY
PWR	POWER
(R)	RELOCATED
RCPT	RECEPTACLE
RCT	REPEAT CYCLE TIMER
RT	RESET TIMER
SCCR	SHORT CIRCUIT CURRENT RATING
SCHD80	SCHEDULE 80 PVC
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SIG	SIGNAL
SN	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SPDT	SINGLE POLE, DOUBLE THROW
SST	STAINLESS STEEL
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYNC	SYNCHRONIZING
TB	TERMINAL BOX
TC	TIMED CLOSING
TEL	TELEPHONE
TERM	TERMINAL
TO	TIMED OPENING
TSP	TWISTED SHIELDED PAIR
TST	TWISTED SHIELDED TRIAD
UGND	UNDERGROUND
UV	ULTRAVIOLET
VA	VOLT-AMPERES
VAR	VOLT-AMPERES REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VH	VAR-HOUR
VS	VOLTMETER SWITCH
W	WIRE, WATTS
WH	WATTHOUR METER
WHDM	WATTHOUR DEMAND METER
WP	WEATHERPROOF
WR	WEATHER RESISTANT
WT	WATER TIGHT
XFMR	TRANSFORMER

GENERAL NOTES

1. THE INSTALLATION OF ALL EQUIPMENT SHOWN ON THESE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITIONS OF ALL APPLICABLE CODES AND UTILITY COMPANY STANDARDS. CONTACT THE UTILITY COMPANY REPRESENTATIVES AND VERIFY THEIR REQUIREMENTS.
2. THIS IS A GENERALIZED LEGEND SHEET. THIS CONTRACT MAY NOT USE ALL INFORMATION SHOWN.
3. NOTIFY THE ENGINEER IMMEDIATELY IF CONFLICTS IN EQUIPMENT LOCATIONS ARE DISCOVERED, OR IF PROBLEMS ARISE DUE TO FIELD CONDITIONS, LACK OF INFORMATION, OR ANY OTHER REASON.
4. INFORMATION SHOWN MAY NOT BE ALL INCLUSIVE. SEE ALSO ANSI C37.3, Y1.1, Y32.2, AND Y32.9.
5. REFER TO THE MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND FOR CERTAIN CONNECTIONS TO BE MADE TO ELECTRICAL CIRCUITS.
6. EQUIPMENT SHOWN IN HALF TONE OR GREY TONE ARE EXISTING OR BY OTHERS.
7. VERIFY ALL COLOR REQUIREMENTS BEFORE ORDERING MATERIALS.
8. CONDUIT SIZE AND FILL SHALL BE AS INDICATED. WHERE NO SIZE IS SHOWN, THE CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE EDITION OF THE NATIONAL ELECTRIC CODE ADOPTED BY THE AUTHORITY HAVING CODE ENFORCEMENT JURISDICTION. WHERE NO FILL IS INDICATED, PROVIDE (3) #12 WIRES. PROVIDE 3/16" INCH NYLON PULL ROPE IN EACH EMPTY CONDUIT.

	REVISIONS	DATE	BY

DESIGNED D.SPENCER
DRAWN D.PETERSON
CHECKED C. WITTMAN
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE NOVEMBER 2025

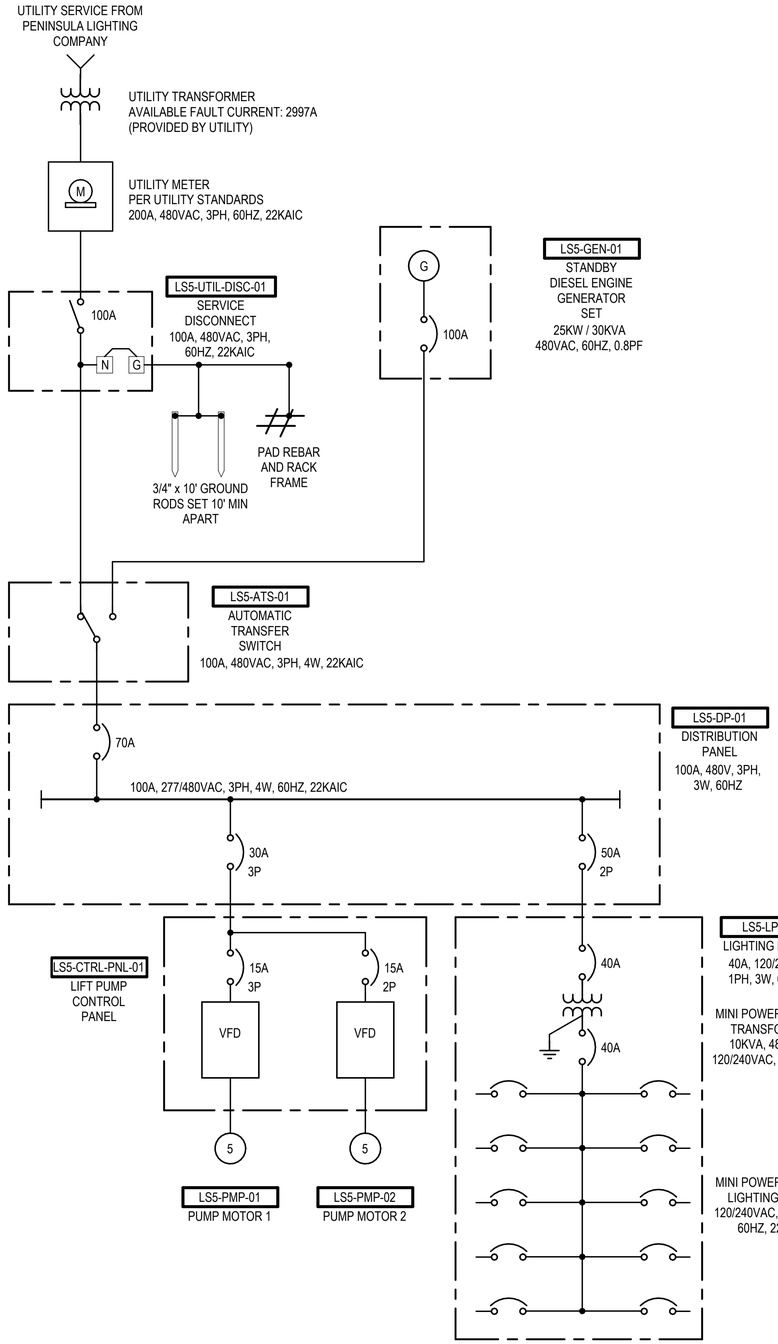
DEBRA STEVEN SPENCER — STATE OF WASHINGTON — 57078 — REGISTERED PROFESSIONAL ENGINEER — 11/26/25

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1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ELECTRICAL LEGEND AND ABBREVIATIONS

DRAWING NO. 22 OF 27
E1



ONE-LINE DIAGRAM

v 6.0

PANELBOARD SCHEDULE

NAME: DISTRIBUTION PANEL (LS5-DP-01)

VOLTAGE RATING: **480Y/277 VOLTS, 3 PHASE, 3 WIRE**
BUS RATING: **100** AMPS
MAIN BREAKER: **70** AMPS
FEED: **BOTTOM**
MOUNTING: **SURFACE**
SPECIAL FEATURES:

LOCATION: **LS#5 GENERATOR BUILDING**
FED FROM: **LS5-ATS-01**
NOTES:

LOAD TYPE	CIRCUIT DESCRIPTION	VA	CKT	BRKR	L1 L2 L3	BRKR	CKT	VA	CIRCUIT DESCRIPTION	LOAD TYPE
X	SMITH AND LOVELESS PUMP SYSTEM CONTROL PANEL (LS5-CTRL-PNL-01)	5,750	1		-A-	50 / 2	2	1,652	LS5-LP-01	X
X		5,750	3	30 / 3	-B-		4	1,332		X
X		5,750	5		-C-	/ 1	6		SPACE	
	SPACE		7	/ 1	-A-	/ 1	8		SPACE	
	SPACE		9	/ 1	-B-	/ 1	10		SPACE	
	SPACE		11	/ 1	-C-	/ 1	12		SPACE	
	SPACE		13	/ 1	-A-	/ 1	14		SPACE	
	SPACE		15	/ 1	-B-	/ 1	16		SPACE	
	SPACE		17	/ 1	-C-	/ 1	18		SPACE	
	LINE LOADS:	**7,402**	**VA(L1)**			**7,082**	**VA(L2)**	**5,750**	**VA(L3)**	
	TOTAL LOAD:	**20.23**	**KVA**			**24.3**	**AMPS**			

DISTRIBUTION PANEL (LS5-DP-01)
LOAD CALCULATION:

		CONNECTED VA	METHOD	NEC DEMAND	CALC. VA
TOTAL EXISTING (E) LOAD FROM 30 DAY					
METER RECORDING, PER NEC (2023) 220.87:	E	0	ALL @	125%	0
TOTAL LIGHTING (L) LOAD:	L	0	ALL @	125%	0
TOTAL RECEPTACLE (R) LOAD:	R	0	FIRST 10KVA @	125%	0
			REMAINDER OVER 10KVA	50%	0
TOTAL MOTOR (M) LOAD:	M	0	ALL @	100%	0
	LM	0	125% OF LARGEST	125%	0
TOTAL HVAC (H) LOAD:	H	0	ALL @	125%	0
TOTAL MISCELLANEOUS (X) LOAD:	X	20234	ALL @	125%	25293
TOTAL VA:		20234 VA			25293 VA
AVERAGE AMPS @		24 AMPS			30 AMPS
VOLTAGE PHASE TO PHASE=	480				

v 6.0

PANELBOARD SCHEDULE

NAME: LIGHTING PANEL (LS5-LP-01)

VOLTAGE RATING: **120/240 VOLTS, 1 PHASE, 3 WIRE**
BUS RATING: **50** AMPS
MAIN BREAKER: **40** AMPS
FEED: **BOTTOM**
MOUNTING: **SURFACE**
SPECIAL FEATURES: **MINI POWER CENTER, 10KVA XFMR, 40A SECONDARY BREAKER**

LOCATION: **LS#5 GENERATOR BUILDING**
FED FROM: **LS5-DP-01**
NOTES: **22kAIC**

LOAD TYPE	CIRCUIT DESCRIPTION	VA	CKT	BRKR	L1 L2	BRKR	CKT	VA	CIRCUIT DESCRIPTION	LOAD TYPE
L	INTERIOR LIGHTING	52	1	20 / 1	-A-	20 / 1	2	100	EXTERIOR LIGHTING	L
R	INTERIOR RECEPTACLES	540	3	20 / 1	-B-	20 / 1	4	792	GENERATOR BATTERY CHARGER	X
X	GENERATOR BLOCK HEATER	1,500	5	20 / 1	-A-	20 / 1	6		SPARE	
			7	/ 1	-B-	/ 1	8			
			9	/ 1	-A-	/ 1	10			
			11	/ 1	-B-	/ 1	12			
			13	/ 1	-A-	/ 1	14			
			15	/ 1	-B-	/ 1	16			
			17	/ 1	-A-	/ 1	18			
			19	/ 1	-B-	/ 1	20			
	LINE LOADS:	**1,652**	**VA(L1)**					**1,332**	**VA(L2)**	
	TOTAL LOAD:	**2.98**	**KVA**			**12.4**	**AMPS**			

LIGHTING PANEL (LS5-LP-01) LOAD CALCULATION:

		CONNECTED VA	METHOD	NEC DEMAND	CALC. VA
TOTAL EXISTING (E) LOAD FROM 30 DAY					
METER RECORDING, PER NEC (2023) 220.87:	E	0	ALL @	125%	0
TOTAL LIGHTING (L) LOAD:	L	152	ALL @	125%	190
TOTAL RECEPTACLE (R) LOAD:	R	540	FIRST 10KVA @	125%	675
			REMAINDER OVER 10KVA	50%	0
TOTAL MOTOR (M) LOAD:	M	0	ALL @	100%	0
	LM	0	125% OF LARGEST	125%	0
TOTAL HVAC (H) LOAD:	H	0	ALL @	125%	0
TOTAL MISCELLANEOUS (X) LOAD:	X	2292	ALL @	125%	2865
TOTAL VA:		2984 VA			3730 VA

	REVISIONS	DATE	BY

DESIGNED D.SPENCER
DRAWN D.PETERSON
CHECKED C. WITTMAN
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2750.048-COMP.rvt
JOB No. 216-2750-048
DATE NOVEMBER 2025

DEREK STEVEN SPENCER
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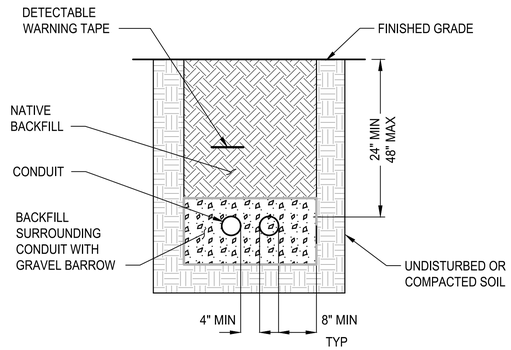
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

ELECTRICAL ONE-LINE AND SCHEDULES

DRAWING NO.
23 OF 27

E2

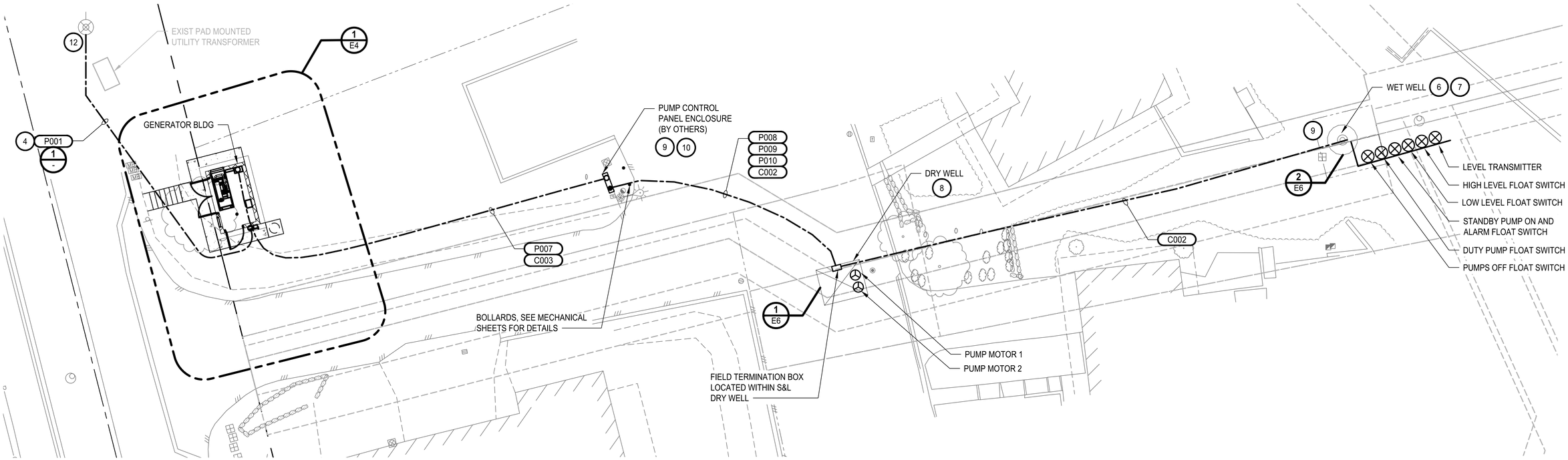


DUCT BANK TYPICAL DETAIL 1

SCALE: NONE -

NOTES:

1. REFER TO "PENINSULA LIGHT COMPANY - COMMERCIAL METER GUIDELINES AND STANDARDS FOR ELECTRIC SERVICE HOOKUPS" FOR UTILITY CONNECTION INFORMATION.
2. REFER TO CIVIL DRAWINGS FOR COMBINED UNDERGROUND UTILITY TRENCHING DETAILS.
3. CONTRACTOR SHALL COORDINATE WITH PENINSULA LIGHT COMPANY FOR NEW 480V SERVICE. CONFIRM TRANSFORMER LOCATION AND COORDINATE WITH UTILITY PRIOR TO TRENCHING.
4. SECONDARY SERVICE CONDUIT ROUTING IS DIAGRAMMATIC. CONTRACTOR SHALL CONFIRM FINAL CONDUIT ROUTING WITH PENINSULA LIGHT COMPANY. FULL SURVEY WAS NOT COMPLETED. CONTRACTOR SHALL PERFORM ALL UNDERGROUND UTILITY LOCATES PRIOR TO WORK AND FINALIZING CONDUIT ROUTING WITH PENINSULA LIGHT COMPANY.
5. SECONDARY SERVICE CONDUIT SHALL BE INSTALLED PER PENINSULA LIGHT COMPANY REQUIREMENTS.
6. THE ENTIRE SPACE INSIDE THE WET WELL IS CLASS I, DIVISION 1, GROUP D. PLUS AN ENVELOPE EXTENDING 3'-0" IN ALL DIRECTIONS AROUND HATCHES AND VENTS PER NFPA 820 TABLE 4.2.2, ROW 14(a).
7. THE ENVELOP EXTENDING FROM 3'-0" TO 5'-0" AROUND VENTS IS CLASS I, DIVISION 2, GROUP D, PER NFPA 820, TABLE 4.2.2, ROW 14(b).
8. THE ENTIRE SPACE INSIDE THE DRY WELL IS UNCLASSIFIED PER NFPA 820 TABLE 4.2, ROW 15(a).
9. PROVIDE SEAL FITTINGS FOR CONDUIT LEAVING THE WET WELL IN ACCORDANCE WITH THE NEC. PROVIDE SEAL FITTINGS BELOW ENTRY TO PUMP CONTROL PANEL TO PROVIDE PROTECTION TO COMPONENTS HOUSED WITHIN.
10. PUMP CONTROL PANEL PROVIDED BY OTHERS. CONTRACTOR TO INSTALL MISSION RTU IN PANEL. INSTALL IN LOCATION AND UTILIZE ELECTRICAL PROVISIONS AS SHOWN IN MANUFACTURER'S SUBMITTAL.
11. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS, AND LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IDENTIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING TRENCH WORK. ALL CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY, CONTRACTOR SHALL FIELD VERIFY ALL CONDUIT ROUTES FOR CLASHES PRIOR TO INSTALLATION.
12. TERMINATE CONDUIT 1 FOOT FROM POLE AND LEAVE TRENCH OPEN. LEAVE 45' TAIL FOR PENINSULA LIGHT CO TO INSTALL RISER AND MAKE FINAL CONNECTIONS TO NEW POLE MOUNT TRANSFORMERS.



PLAN

SCALE IN FEET

0 10 20

N

REVISIONS	DATE	BY

DESIGNED D. SPENCER
DRAWN A. PETERSON
CHECKED C. WITTMAN
APPROVED B. BUNKER

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-E-3
JOB No. 216-2750-048
DATE NOVEMEBER 2025

DEREK STEVEN SPENCER STATE OF WASHINGTON 57078 REGISTERED PROFESSIONAL ENGINEER
11/26/2025

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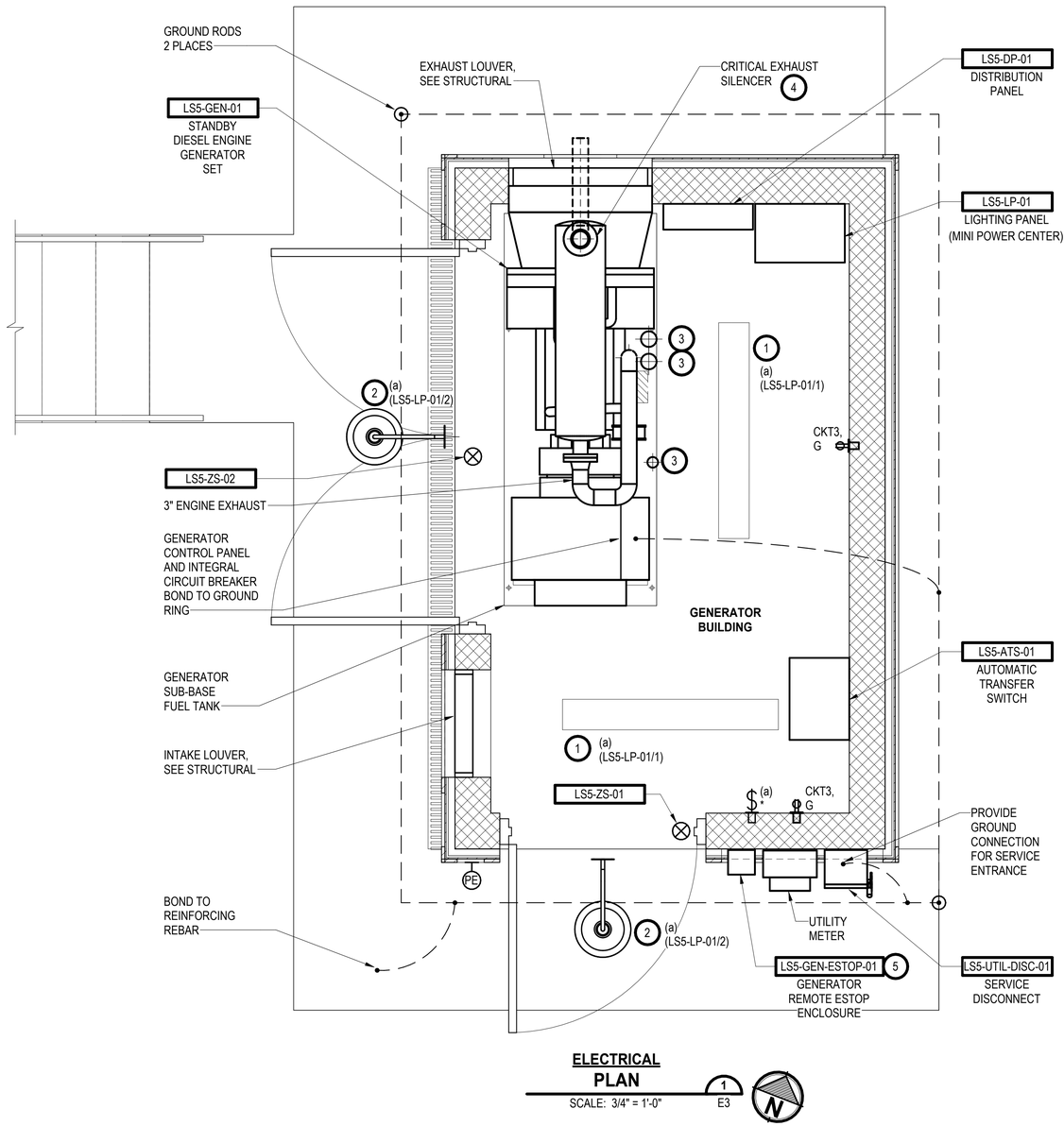
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

ELECTRICAL OVERALL SITE PLAN

DRAWING NO. 24 OF 27

E3

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CAD\DWG PLOTTED BY: peterand DATE: Wednesday, November 26, 2025 1:28:34 PM
LAYOUT: E3



ELECTRICAL PLAN

SCALE: 3/4" = 1'-0" (1 / E3)

NOTES:

1. LIGHT FIXTURE, LITHONIA, FEM L48 8000LM IMACD MD MVOLT 50K 90CRI, LITHONIA FEM 4', 8000 LUMEN, ACRYLIC, CLEAR DIFFUSED, MEDIUM DISTRIBUTION MULTIVOLT, 5000K COLOR TEMPERATURE, 90CRI, "24 HOUR BACKUP BATTERY," SURFACE MOUNT TO CEILING.
2. COASTAL LIGHTING, FORGE COASTAL OUTDOOR WALL LANTERN - MEDIUM - BLACK, SKU: 7412078BK. CIRCUITED USING PHOTOCELL. PROVIDE COMPATIBLE LED STYLE BULB FOR EACH FIXTURE, COLOR TEMPERATURE OF 2700K. SURFACE MOUNTED TO BACK BOX FOR USE AS JUNCTION BOX.
3. ROUTE SUBBASE TANK VENTILATION PIPES PER MANUFACTURER'S INSTRUCTIONS. VENTS SHALL EXIST THROUGH ROOF OF STRUCTURE. PROVIDE DRIP COVERS TO PREVENT RAIN INTRUSION.
4. ROUTE EXHAUST PIPING PER MANUFACTURER'S INSTRUCTIONS. SUSPEND CRITICAL EXHAUST SILENCER FROM CEILING OF BUILDING.
5. REMOTE GENERATOR ESTOP LOCATED WITHIN LOCKABLE NEMA 4X ENCLOSURE.

CONDUIT AND CABLE SCHEDULE

v2.0

NUMBER	CONDUIT QUAN & SIZE	CONDUIT TYPE	WIRE FILL	WIRE TYPE	FROM	TO	VIA	REMARKS
P001	(1) 1 1/2"	PVC	(3) #2, (1) #6	XHHW	UTILITY POLE	METER		TERMINATE CONDUIT 1 FOOT FROM POLE AND LEAVE TRENCH OPEN. LEAVE 45' TAIL FOR PENINSULA LIGHT CO TO INSTALL RISER AND MAKE FINAL CONNECTIONS TO NEW POLE MOUNT TRANSFORMERS. INSTALL RIGID RISER 18" BELOW GRADE FOR ENTRY TO METER BASE CABINET.
P002	(1) 1 1/2"	RGS	(3) #2, (1) #6, (1) #8G	XHHW	METER	LS5-UTIL-DISC-01		
P003	(1) 1 1/2"	RGS	(3) #2, (1) #6, (1) #8G	XHHW	LS5-UTIL-DISC-01	LS5-ATS-01		
P004	(1) 1 1/2"	RGS	(3) #2, (1) #6, (1) #8G	XHHW	LS5-GEN-01	LS5-ATS-01		
P005	(1) 1"	RGS	(3) #2, (1) #6, (1) #8G	XHHW	LS5-ATS-01	LS5-DP-01		
P006	(1) 1"	RGS	(4) #10, (1) #10G	XHHW	POWER PANEL	LS5-LP-01		
P007	(1) 1"	RGS	(3) #10, (1) #10G	XHHW	LS5-DP-01	PUMP CONTROL PANEL ENCLOSURE		
P008	(1) 1"	PVC	(3) #10, (1) #10G	XHHW	PUMP CONTROL PANEL ENCLOSURE	DRY WELL	FIELD TERMINATION BOX WITHIN DRY WELL	PUMP MOTOR 1 CONDUCTORS
P009	(1) 1"	PVC	(3) #10, (1) #10G	XHHW	PUMP CONTROL PANEL ENCLOSURE	DRY WELL	FIELD TERMINATION BOX WITHIN DRY WELL	PUMP MOTOR 2 CONDUCTORS
P010	(1) 1 1/2"	PVC	(18) #12, (9) #12G	XHHW	PUMP CONTROL PANEL ENCLOSURE	DRY WELL	FIELD TERMINATION BOX WITHIN DRY WELL	GFI RECEPTACLE HEATER LIGHT VAC PUMP 1 PRIMING SOLENOID 1 VAC PUMP 2 PRIMING SOLENOID 2 EXHAUST FAN SUMP PUMP
P011	(1) 1"	RGS	(2) #12, (1) #12G	XHHW	LS5-LP-01	GEN BLOCK HEATER		
P012	(1) 1"	RGS	(2) #12, (1) #12G	XHHW	LS5-LP-01	GEN BATTERY CHARGER		
P012	(1) 1"	RGS	(2) #12, (1) #12G	XHHW	LS5-GEN-01	REMOTE ESTOP		
C001	(1) 1"	PVC	(6) #16TSP	XHHW	GENERATOR BLDG (LS5-ATS-01,LS5-GEN-01, LS5-ZS-01, LS5-ZS-02)	PUMP CONTROL PANEL ENCLOSURE		GENERATOR START GENERATOR RUNNING GENERATOR FAULT ATS POSITION LS5-ZS-01 LS5-ZS-02
C002	(1) 1"	PVC	(8) #16TSP	XHHW	PUMP CONTROL PANEL ENCLOSURE	WET WELL		LEVEL TRANSMITTER LOW LEVEL FLOAT SWITCH HIGH LEVEL FLOAT SWITCH STANDBY PUMP ON AND ALARM FLOAT SWITCH DUTY PUMP FLOAT SWITCH PUMPS OFF FLOAT SWITCH
C003	(1) 1"	RGS	(3) #16TSP	XHHW	LS5-ATS-01	LS5-GEN-01		GENERATOR START

	REVISIONS	DATE	BY

DESIGNED D.SPENCER
DRAWN D.PETERSON
CHECKED C. WITTMAN
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME 2750.048-COMP.rvt
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DEREK STEVEN SPENCER — STATE OF WASHINGTON — 57078 — REGISTERED PROFESSIONAL ENGINEER — 11/26/25

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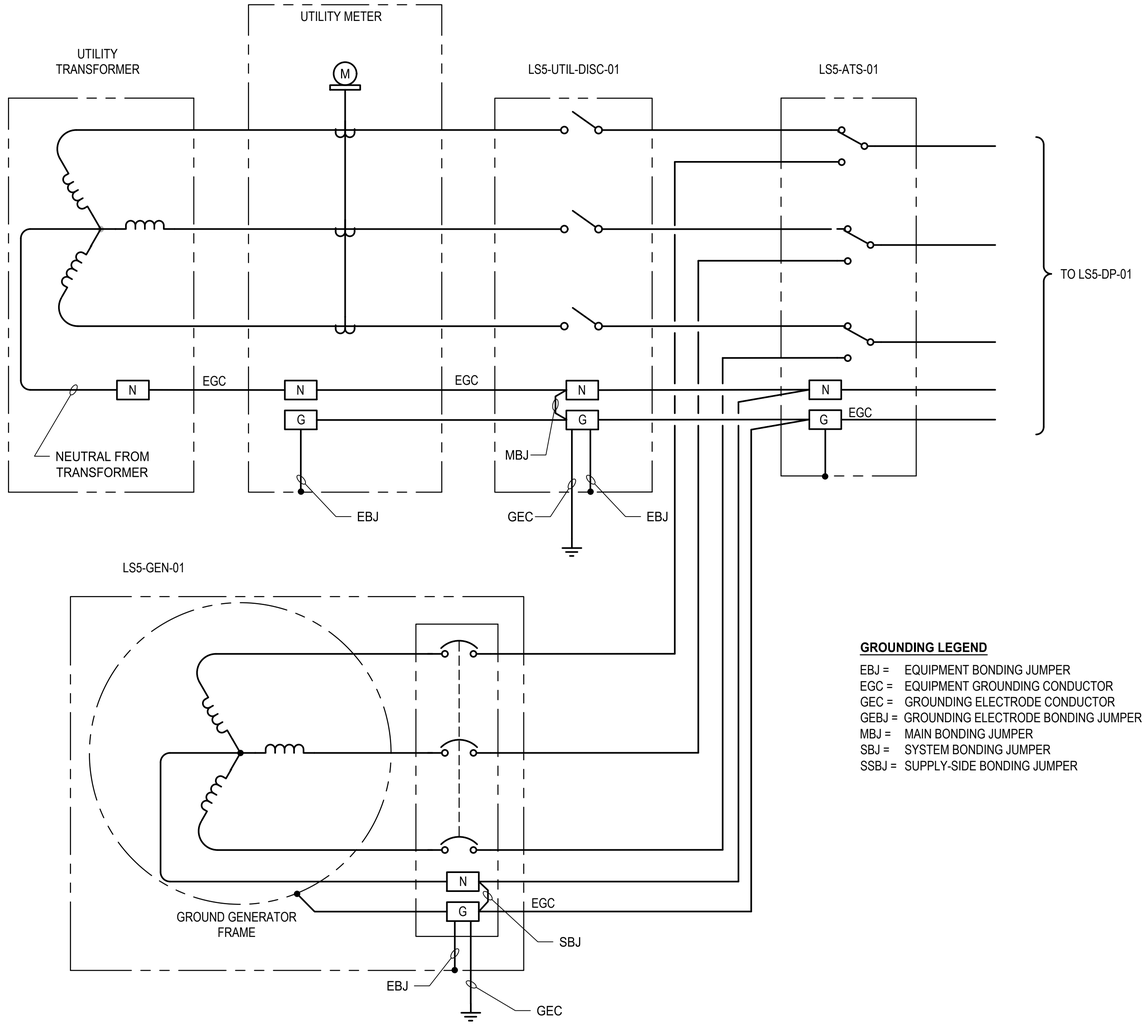
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN

GIG HARBOR, WASHINGTON

ELECTRICAL GENERATOR BUILDING PLAN

DRAWING NO. 25 OF 27

E4



GROUNDING LEGEND

EBJ = EQUIPMENT BONDING JUMPER
EGC = EQUIPMENT GROUNDING CONDUCTOR
GEC = GROUNDING ELECTRODE CONDUCTOR
GEBJ = GROUNDING ELECTRODE BONDING JUMPER
MBJ = MAIN BONDING JUMPER
SBJ = SYSTEM BONDING JUMPER
SSBJ = SUPPLY-SIDE BONDING JUMPER

GENERATOR AND ATS THREE LINE DIAGRAM

SCALE: NONE

LAYOUT: E5 PATH: U:\PSO\Projects\Clients\275b-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: peterand DATE: Wednesday, November 26, 2025 1:29:48 PM

	REVISIONS	DATE	BY

DESIGNED D. SPENCER
DRAWN A. PETERSON
CHECKED J. LINKE
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME 2162750046-E-5
JOB No. 216-2750-048
DATE NOVEMEBER 2025

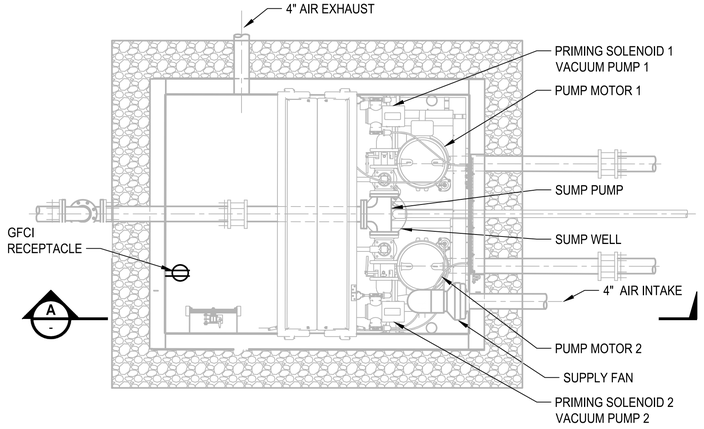
DEBRA STEVEN SPENCER STATE OF WASHINGTON 57078 REGISTERED PROFESSIONAL ENGINEER
11/26/25

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

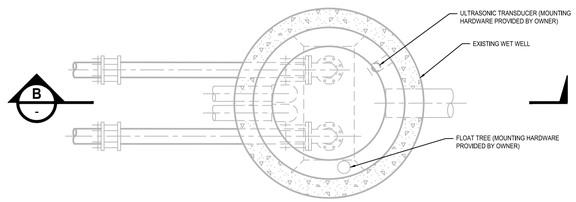
PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

GENERATOR GROUNDING DETAIL

DRAWING NO. 26 OF 27
E5



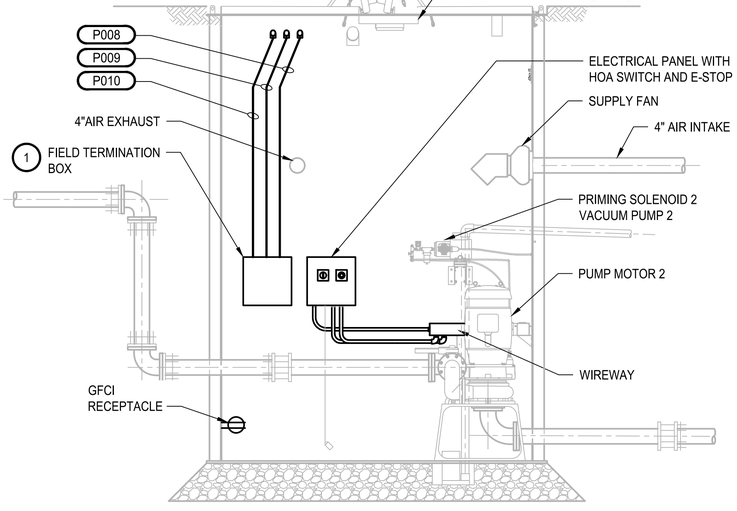
PUMP STATION DRY WELL
ELECTRICAL PLAN 1 E3
SCALE: 1/2" = 1'-0"



PUMP STATION WET WELL
ELECTRICAL PLAN 2 E3
SCALE: 1/2" = 1'-0"

NOTES

1. TERMINATE WIRES IN FIELD TERMINATION BOX PER MANUFACTURER'S SUBMITTAL.
2. CONDUIT AND WIRES WITHIN DRY WELL INSTALLED BY THE MANUFACTURER. CONTRACTOR TO BRING IN CONDUIT AND WIRES AND TERMINATE IN FIELD TERMINATION BOX.
3. THE ENTIRE SPACE INSIDE THE WET WELL IS CLASS I, DIVISION 1, GROUP D. PLUS AN ENVELOPE EXTENDING 3'-0" IN ALL DIRECTIONS AROUND HATCHES AND VENTS PER NFPA 820 TABLE 4.2.2, ROW 14(a).
4. THE ENVELOP EXTENDING FROM 3'-0" TO 5'-0" AROUND VENTS IS CLASS I, DIVISION 2, GROUP D, PER NFPA 820, TABLE 4.2.2, ROW 12(b).
5. PROVIDE SEAL FITTINGS FOR CONDUIT LEAVING THE WET WELL IN ACCORDANCE WITH THE NEC.
6. PROVIDE EXPLOSION PROOF CGB'S FOR MANUFACTURER'S INSTRUMENTATION CABLES LEAVING THE EXPLOSION PROOF JUNCTION BOX.



PUMP STATION DRY WELL
SECTION A -
SCALE: 1/2" = 1' - 0"

PUMP STATION WET WELL
SECTION B -
SCALE: 1/2" = 1' - 0"

	REVISIONS	DATE	BY

DESIGNED D. SPENCER
DRAWN D. PETERSON
CHECKED C. WITTMAN
APPROVED B. BUNKER

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME 2162750046-E-6
JOB No. 216-2750-048
DATE NOVEMEBER 2025

DEREK STEVEN SPENCER
STATE OF WASHINGTON
57078
REGISTERED
PROFESSIONAL ENGINEER
11/26/25

Parametrix
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

PROJECT NAME
CITY OF GIG HARBOR
LIFT STATION 5 FINAL DESIGN
GIG HARBOR, WASHINGTON

PUMP STATION DRY WELL & WET WELL ELECTRICAL PLANS AND SECTIONS

DRAWING NO.
27 OF 27
E6

PATH: U:\PSO\Projects\Clients\2750-CityOfGigHarbor\216-2750-048 Lift Station 5 Final Design\99Svcs\CADD\DWG PLOTTED BY: peterand DATE: Wednesday, November 26, 2025 1:30:34 PM
LAYOUT: E6

GIG HARBOR

"THE MARITIME CITY"

COMMUNITY DEVELOPMENT
PLANNING DIVISION

ADMINISTRATIVE INTERPRETATION OF THE CITY OF GIG HARBOR PLANNING DIRECTOR

Date: January 22, 2026

Authority: Interpretations and appeals,
Gig Harbor Municipal Code Section 17.66.050

Subject: Generator enclosure unable to meet design standards in GHMC 17.99.

Applicant: City of Gig Harbor Public Works Department, Jeff Langhelm

Introduction:
Pursuant to GHMC 17.66.050(1), a request is made for the Planning Director to determine the proper interpretation and application of GHMC 17.99 (Design Manual/Historic District standards) to a proposed generator enclosure consisting of a 101.3 square-foot, approximately 10-foot-tall concrete masonry unit (CMU) structure located within the Historic District. This request seeks clarification regarding which design standards reasonably apply to a small, non-habitable accessory structure intended solely to enclose mechanical equipment necessary for emergency utility operations. The requested interpretation is intended to remain consistent with the spirit and intent of Title 17 and the Comprehensive Plan, while recognizing the functional constraints associated with essential infrastructure.

Question Presented: Can a small, non-habitable generator enclosure proposed within the Historic District be required to meet all Design Manual standards, or may it be allowed to comply only with those requirements that are reasonable and feasible given its essential mechanical function?

Analysis: Although the Industrial Building Exemption may apply in other areas of the City, this generator enclosure is located within the Historic District and must be reviewed for compatibility with the surrounding neighborhood character. The enclosure has been designed to meet the Design Manual standards that are

reasonable and feasible for this type of structure, including building height (approximately 10 feet), avoiding unusual roof forms, and using compliant roofing materials and colors. The enclosure will also use CMU siding, and any associated features (such as railings) will be durable and architecturally compatible.

Some Design Manual standards are written for primary residential buildings and are not practical for a small, non-habitable generator enclosure. For example, the enclosure is not a residence or garage, does not have a front entry, and windows are not feasible due to safety, security, and operational needs. Instead, the enclosure includes slotted vents to provide required ventilation. Due to its essential mechanical function, the enclosure cannot incorporate the alternative "superior" design options in GHMC 17.99.030(B).

Summary of applicable Design Manual requirements and generator enclosure compliance listed below:

17.99.510 Building massing and height:

Incorporate characteristic roof lines and massing into residential structures: The generator enclosure is not a residential structure therefore these requirements do not apply.

Confirm to height standards for nonresidential structures: The generator enclosure is proposed to be approximately 10 feet high, therefore height requirements will be met.

Avoid unusual or atypical roof forms: Enclosure will avoid atypical roof forms.

Respect scale of adjacent structures: There are no adjacent structures to the generator enclosure.

17.99.520 Garage and front entry:

De-emphasize residential garages: The generator enclosure is not a residential garage, however the design intent is to appear as a garage so that it blends into the neighborhood. The structure cannot meet location requirements outlined in this section of the design manual. Location of the structure has been agreed upon with the property owner and will be abutting the front property line. Engineering staff has applied for a separate setback variance to address the enclosure location.

Emphasize front entry: This requirement is not applicable.

Respect scale of adjacent structures: There are no adjacent structures to the generator enclosure.

17.99.530 Window design

The generator enclosure will house an emergency generator that will supply emergency power to a utility. Adding windows to the enclosure will pose safety

and security issues; therefore, no windows are proposed. Slotted vents are proposed for generator ventilation.

17.99.540 Siding and trim
Siding of the enclosure will be Concrete Masonry Unit (CMU), which meets section requirements.

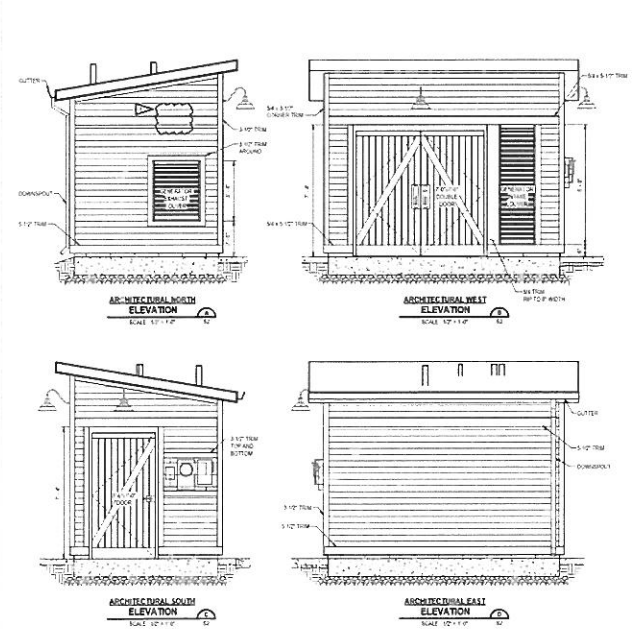
17.99.545 Railings
A stairwell is proposed in front of the generator enclosure. Since the structure is not listed nor eligible for listing on the city's Register of Historic Places, architecturally appropriate quality design will be used for railings.

17.99.550 Awning design
No awnings are proposed for the generator enclosure.

17.99.560 Roofing materials
Roofing materials will meet all requirements outlined in this section.

17.9.570 Colors
Building colors will meet all requirements outlined in this section.

17.99.580 Preservation of historic structures
This section does not apply to the generator enclosure.



Conclusion: The requested interpretation is that the generator enclosure should comply with those Design Manual standards that are applicable and feasible to achieve overall compatibility, such as height, roof form, materials, and colors, while allowing limited deviations from residential-oriented architectural elements that are

not practicable due to the enclosure's essential mechanical function. Because the enclosure's design is constrained by operational requirements, a superior alternative design solution is not feasible. This approach would maintain the intent of GHMC 17.99 while ensuring critical utility infrastructure can be safely, reliably, and effectively constructed and maintained.

Eric Baker
Community Development Director

1/22/26
Date

SEPA Threshold Decision: Exempt under WAC 197-11-800(23)(b), utility facilities, construction of sewer lines twelve inches or less in diameter.

Administrative Appeal: Parties of record may appeal this administrative decision to the City of Gig Harbor Hearing Examiner. Such appeals must be filed, in writing, pursuant to GHMC Section 19.06.004, within fourteen (14) days after the issuance of this notice of decision. Appeals shall be delivered to the Planning Director by mail, by personal delivery or by fax before 5:00 p.m. on the last business day of the appeal period. Appeals shall be mailed or delivered to: Planning Director, City of Gig Harbor, 3510 Grandview Street, Gig Harbor, WA 98335; or faxed to: 253-858-6804. Appeals received by mail after 5:00 p.m. on the last day of the appeal period will not be accepted, no matter when such appeals were mailed or postmarked. A filing fee of $275.00 must be submitted with any appeal filed. This fee is refunded if the appellant substantially prevails. Appellants that do not substantially prevail on appeal will be charged the cost of the Hearing Examiner.

CERTIFICATION OF PUBLIC NOTICE

==========

DECLARATION OF MAILING

I, Michelle Thomas (printed name), declare under penalty of perjury under the laws of the State of Washington and the United States of America that the foregoing is true and correct to the best of my knowledge:

On February 17, 2026 I mailed a true and correct copy of the **Notice of Public Hearing** for the following:

Project Name: **Lift Station #5 Basin Improvements**

Project Location: **2825 Harborview Drive | 0221081148 & 0221081150**

Permit Number(s): **PL-SDP-25-0003**

to the individuals/agencies identified on the attached transmittal form by United States Postal Service, inter-office routing, or electronic mail, as specified on the attached.

SIGNED at Gig Harbor, Washington, this 17th day of February 2026.

Michelle Thomas
DECLARANT (signature)

City of Gig Harbor
Transmittal Form

Routing for: NOA SEPA NOPH NOPM NOD **Notice Date:** 08.21.2025

Project: Lift Station #5 Basin Improvements **Planner:** Katharine

---

Routed to: City Depts.

- ☒ Public Works–Operations
- ☒ Public Works–Engineering
- ☒ Building and Fire Safety
- ☐ Other_____

SEPA Agencies: (NOA, SEPA) Electronic Mail

- ☒ Washington Department of Ecology, SEPA Register online
- ☒ Washington Department of Commerce, attn: Review Team
- ☒ Pierce Transit Land Use Review
- ☒ Washington State Department of Fish & Wildlife, attn: SEPA Desk
- ☒ Washington State Department of Natural Resources, attn: SEPA Center
- ☒ Washington State DAHP
- ☒ Puyallup Tribe of Indians Historic Preservation
- ☒ Puyallup Tribe Cultural Resources
- ☒ PenMet Parks
- ☒ Pierce County Fire District Number 5
- ☒ Suquamish Tribe
- ☒ Peninsula School District
- ☒ Pierce County Planning and Land Services
- ☒ Washington State Department of Transportation, attn: OR-SEPA-REVIEW
- ☒ Squaxin Island Tribe
- ☒ Muckleshoot Tribe
- ☒ Washington Department of Corrections
- ☒ Puget Sound Partnership
- ☒ Nisqually Tribe

Other Parties: 1st Class Mail

- ☒ Applicant/Owner/Agent (NOA, NOPH, NOPM, SEPA, NOD)
- ☒ DRB (NOA for Non-residential, Multi-family, Subdivisions, Public Projects)
- ☐ Mayor & Council (NOD Hearing Examiner Decisions)
- ☒ Property Owners within 300 feet of site: attached list (NOA, SEPA, NOPH, NOPM, NOD for Type II permits only)
- ☐ Parties of Record: attached list (NOPH, NOPM, NOD)
- ☐ Pierce County (NOA for Plats adjacent to City Limits)
- ☐ Pierce County Assessor-Treasurer (NOD)
- ☐ WA Transportation Secretary (NOA for Plats adj. to State ROW, or within 2 miles of Airport—approximately any plats south of Pioneer/Wollochet interchange)
- ☐ Tacoma Daily Index
- ☐ Other _____

Community Development
Planning Division

CITY OF GIG HARBOR
NOTICE OF PUBLIC HEARING

Lift Station #5 Basin Improvements

Permit Number:	PL-SDP-25-0003
Date of Notice:	February 17, 2026
Applicant:	Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335
Agent:	Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335
Project Location:	2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
Project Description:	Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 105 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and on private property (2825 Harborview Drive). The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.

SEPA Threshold Determination:

The proposal is categorically exempt from SEPA, as per WAC 197-11 800(23)(b)

PUBLIC HEARING DATE: Hearing Examiner, **March 3, 2026 at 1:30 pm**, Hearing held Virtual and in Community Development Conference Room

Interested persons are invited to attend the public hearing and provide testimony on this proposal. The hearing will be conducted in the manner prescribed by Gig Harbor Municipal Code Chapter 19.05.

Documents pertinent to this application are available for review and inspection at the City of Gig Harbor Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335, during normal business hours, Monday through Friday or on the City's Permit Portal. A copy of the staff report on this proposal will be available at least seven days prior to the hearing. A copy of the application, all documents and evidence relied upon by the applicant, and applicable criteria are available for inspection at no cost; copies will be provided at the requestor's cost.

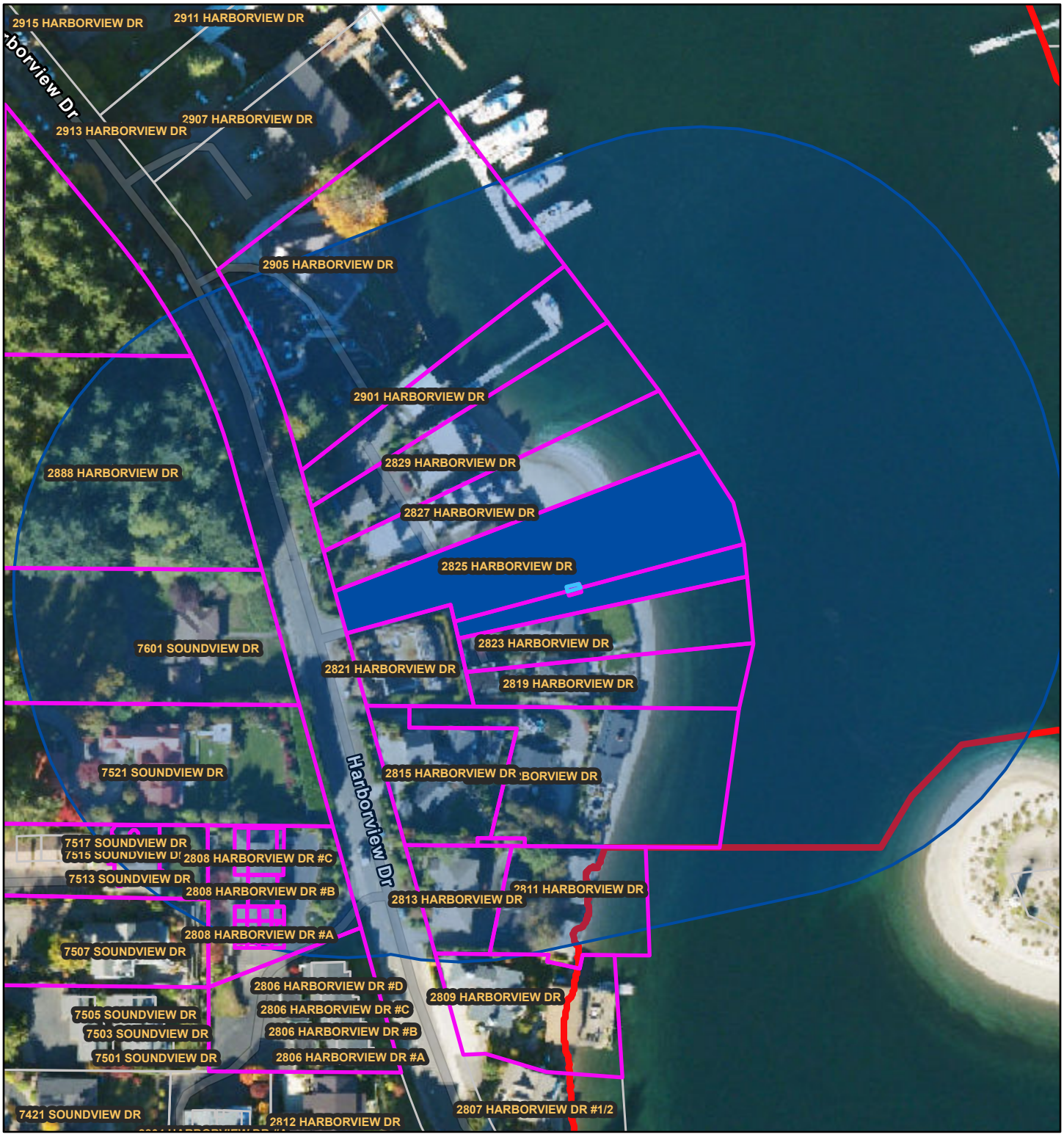
Interested persons may comment on the above stated application or may request a copy of the decision on this application. **Requests for notification, written comments, including any written comments addressing the findings required for a decision, must be submitted to the Planning Division no later than 5:00 PM on March 2, 2026.**

Questions regarding the above stated application should be made to Katharine Shaffer, Principal Planner, KShaffer@gigharborwa.gov or City of Gig Harbor Community Development Department, 3510 Grandview Street, Gig Harbor, WA 98335, or by calling (253)851-6170. Additional permit information can also be found at www.gigharborwa.gov by clicking "Permit Portal" and entering the permit number.



Project Information

Gig Harbor Web Map



2/9/2026, 3:19:32 PM

City Boundary

Parcel Boundary

1:2,314

0 70 140 280 ft

0 20 40 80 m

Microsoft, Vantor, Imagery © 2023 Hexagon and data partners., Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

City of Gig Harbor Staff

The map features are approximate. All data is provided "as-is" and "with all faults." The City assumes no liability for variations ascertained by actual survey.

0221081076
CHATMAN STEVEN L TTEE &
CHATMAN ANNE M TTEE
2829 HARBORVIEW DR
GIG HARBOR WA, 98335-1908

0221081148 0221081150
GIG HARBOR TOWN OF
3510 GRANDVIEW ST
GIG HARBOR WA, 98335-1214

0221081114
KAMMER JACK & MICHELLE
2819 HARBORVIEW DR
GIG HARBOR WA, 98335

0221085018
MORRIS DAVID R & MERRILLYN A
11505 BURNHAM DR STE 206
GIG HARBOR WA, 98332

2987000020
POLLITT GEORGE L & MARCIA B
2808 HARBORVIEW DR APT B
GIG HARBOR WA, 98335-1903

0221085017
REFERENCE
REFERENCE
PIERCE COUNTY WA, 00000

0221081113 0221081151
SHARP MICHAEL A TTEE &
DIMAGGIO KATHRYN ANNE TTEE
2823 HARBORVIEW DR
GIG HARBOR WA, 98335-1908

0221085007
TWETEN TIMOTHY & LORIE
2817 HARBORVIEW DR
GIG HARBOR WA, 98335-1908

0221081108 0221081191
01221081192
CITY OF GIG HARBOR
3510 GRANDVIEW ST
GIG HARBOR WA, 98335-1214

2987000010
GNEGY CHARLES R
& MAY KATHERINE J
2808 HARBORVIEW DR APT C
GIG HARBOR WA, 98335-1903

0221081122
KATKE JEFFREY J TTEE
7521 SOUNDVIEW DR
GIG HARBOR WA, 98335-1950

0221085006
NIESZ TIMOTHY J
PO BOX 2419
GIG HARBOR WA, 98335-4419

0221081177
REFERENCE
REFERENCE
PIERCE COUNTY WA, 00000

2987000030
RUSSI FAMILY TRUST
2808 HARBORVIEW DR UNIT A
GIG HARBOR WA, 98335-1903

0221081156
STORSET FAMILY LIVING TRUST
7507 SOUNDVIEW DR
GIG HARBOR WA, 98335-1950

5573000020
NORDQUIST REVOC LIVING TR
7515 SOUNDVIEW DR
GIG HARBOR WA, 98335-1950

0221081149 0221081116
GARNAN PROPERTIES 2825
HARBORVIEW LLC
2130 MAIN ST STE 255
HUNTINGTN BCH CA, 92648-7451

0221081138
HORSEHEAD INVESTMENTS LLC
10809 32ND STREET CT NW
GIG HARBOR WA, 98335-5872

0221081112
LIERMAN MICHAEL E & DENISE R
2821 HARBORVIEW DR
GIG HARBOR WA, 98335-1908

5573000030 5573000010
NORDQUIST NORMA D TTEE
& VICARS BYRON G TTEE
7515 SOUNDVIEW DR
GIG HARBOR WA, 98335-1950

0221085008
REFERENCE
REFERENCE
PIERCE COUNTY WA, 00000

0221081121
SAMI'S HOUSE LLC
5726 34TH AVE NE
SEATTLE WA, 98105

0221081134 0221081168
0221081135
STUART ROBERT E & MELINDA K
2813 HARBORVIEW DR
GIG HARBOR WA, 98335-1908

Planning Division Interested Party Roster

Project Name: Lift Station #5 Basin Improvements

Applicant: City

Name	Address	City, State	Email	Phone	Comment Type/Date
Puyallup Tribe, Mike Shong			Mike.Shong@puyalluptribe-nsn.gov		2025.09.04 NOA
Squaxin Island Tribe, Shaun Dinubilo	200 SE Billy Frank Jr Way	Shelton, WA 98584	sdinubilo@squaxin.us		2025.09.03 NOA
Patrick Gartland			garnan@flash.net		2025.09.19 NOA

Please refer to Gig Harbor Municipal Code (GHMC), Title 19, for any questions relative to the administration of the development code.This list should not be considered an exhaustive list of all those parties who may be interested in this project. This list represents only those parties who have commented at some point during the permit project and/or who have explicitly requested that they are included in project related correspondence. This list does not represent Parties of Record as definedin GHMC 19.06.003, however some may qualify as such.

From:	Michelle Thomas
Bcc:	Steven Demmer; "Mike.Shong@PuyallupTribe-nsn.gov"; "Shaun Dinubilo"; "garnan@flash.net"
Subject:	Notice of Public Hearing Lift Station #5 Basin Improvements
Date:	Tuesday, February 17, 2026 9:01:00 AM
Attachments:	2026.02.17 NOPH.pdf

Please see attached Notice of Public Hearing for your review and comment.

LOCATION: 2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive**.**
PROPOSAL: Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 105 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and on private property (2825 Harborview Drive). The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.
COMMENT DEADLINE: 5:00pm March 2, 2026

The City of Gig Harbor will not act on this proposal for at least 14 days from the date of issuance of this notice. If you have any comments on this proposal, please send them to PlanningComments@gigharborwa.gov, City of Gig Harbor, Planning Division, 3510 Grandview Street, Gig Harbor, Washington, 98335; (253) 851-6170

Comments must be received by no later than 5PM, Monday, March 2, 2026 for consideration.

Michelle Thomas | Planning Technician
3510 Grandview St • Gig Harbor, WA 98335
253-851-6170 | 253-853-8255 (direct) | www.gigharborwa.gov

Stay Connected! Sign up for the city's weekly Gig-A-Byte email newsletter

CERTIFICATION OF PUBLIC NOTICE

==========

DECLARATION OF POSTING

I, Steven Demmer (printed name), declare under penalty of perjury under the laws of the State of Washington and the United States of America that the foregoing is true and correct to the best of my knowledge:

On February 17, 2026 I caused to be posted the notice board provided by the City for the Notice of Public Hearing on the following:

Project Name: **Lift Station #5 Basin Improvements**

Project Location: **2825 Harborview Drive | 0221081148 & 0221081150**

Permit Number(s): **PL-SDP-25-0003**

at the locations indicated below meeting the requirements of GHMC 19.03.001(A).

- ☒ At the midpoint of the street fronting the site or as otherwise directed by the director for maximum visibility
- ☒ _____

SIGNED at Gig Harbor, Washington, this 17 day of February, 2026.

_____
DECLARANT (signature)



CERTIFICATION OF PUBLIC NOTICE

==========

DECLARATION OF PUBLISHING

I, Michelle Thomas, declare under penalty of perjury under the laws of the State of Washington and the United States of America that the foregoing is true and correct to the best of my knowledge:

On **February 5, 2026,** I sent a true and correct copy of the **NOTICE OF PUBLIC HEARING** for publication in the **February 17, 2026** edition of the Tacoma Daily Index for the following:

Project Name: **Lift Station #5 Basin Improvements**

Project Location: **2825 Harborview Drive | 0221081148 & 0221081150**

Permit Number(s): **PL-SDP-25-0003**

SIGNED at Gig Harbor, Washington, this 5th, Day of February 2026

Michelle Thomas
DECLARANT (signature)

City of Gig Harbor
Transmittal Form

Routing for: NOA SEPA NOPH NOPM NOD **Notice Date:** 08.21.2025

Project: Lift Station #5 Basin Improvements **Planner:** Katharine

---

Routed to: City Depts.

- ☒ Public Works–Operations
- ☒ Public Works–Engineering
- ☒ Building and Fire Safety
- ☐ Other_____

SEPA Agencies: (NOA, SEPA) Electronic Mail

- ☒ Washington Department of Ecology, SEPA Register online
- ☒ Washington Department of Commerce, attn: Review Team
- ☒ Pierce Transit Land Use Review
- ☒ Washington State Department of Fish & Wildlife, attn: SEPA Desk
- ☒ Washington State Department of Natural Resources, attn: SEPA Center
- ☒ Washington State DAHP
- ☒ Puyallup Tribe of Indians Historic Preservation
- ☒ Puyallup Tribe Cultural Resources
- ☒ PenMet Parks
- ☒ Pierce County Fire District Number 5
- ☒ Suquamish Tribe
- ☒ Peninsula School District
- ☒ Pierce County Planning and Land Services
- ☒ Washington State Department of Transportation, attn: OR-SEPA-REVIEW
- ☒ Squaxin Island Tribe
- ☒ Muckleshoot Tribe
- ☒ Washington Department of Corrections
- ☒ Puget Sound Partnership
- ☒ Nisqually Tribe

Other Parties: 1st Class Mail

- ☒ Applicant/Owner/Agent (NOA, NOPH, NOPM, SEPA, NOD)
- ☒ DRB (NOA for Non-residential, Multi-family, Subdivisions, Public Projects)
- ☐ Mayor & Council (NOD Hearing Examiner Decisions)
- ☒ Property Owners within 300 feet of site: attached list (NOA, SEPA, NOPH, NOPM, NOD for Type II permits only)
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- ☐ Pierce County (NOA for Plats adjacent to City Limits)
- ☐ Pierce County Assessor-Treasurer (NOD)
- ☐ WA Transportation Secretary (NOA for Plats adj. to State ROW, or within 2 miles of Airport—approximately any plats south of Pioneer/Wollochet interchange)
- ☐ Tacoma Daily Index
- ☐ Other _____

Tacoma Daily Index

Affidavit of Publication

State of Washington }
County of Pierce } ss

Amanda Kahlke being first duly sworn, upon oath deposes and says: that he/she is the legal representative of the Tacoma Daily Index a newspaper. The said newspaper is a legal newspaper by order of the superior court in the county in which it is published and is now and has been for more than six months prior to the date of the first publication of the Notice hereinafter referred to, published in the English language continually as a newspaper in Pierce County, Washington and is and always has been printed in whole or part in the Tacoma Daily Index and is of general circulation in said County, and is a legal newspaper, in accordance with the Chapter 99 of the Laws of 1921, as amended by Chapter 213, Laws of 1941, and approved as a legal newspaper by order of the Superior Court of Pierce County, State of Washington, by order dated June 16, 1941, and that the annexed is a true copy of IDX1026247 as it was published in the regular and entire issue of said paper and not as a supplement form thereof for a period of 1 issue(s), such publication commencing on 02/17/2026 and ending on 02/17/2026 and that said newspaper was regularly distributed to its subscribers during all of said period.

The amount of the fee for such publication is $187.59.

Subscribed and sworn before me on this 17 day of February, 2026.

Notary Public in and for the State of Washington.

City of Gig Harbor | 09256156
MICHELLE THOMAS

JENNIFER TRIBBETT
APPOINTMENT EXPIRES June 25, 2028
NOTARY PUBLIC
COMM # 160097
STATE OF WASHINGTON

Classified Proof

Community Development
Planning Division
CITY OF GIG HARBOR
NOTICE OF PUBLIC HEARING
Lift Station #5 Basin Improvements

Permit Number:
PL-SDP-25-0003
Date of Notice:
February 17, 2026
Applicant:
Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335
Agent:
Steve Demmer, City of Gig Harbor Engineering Department, 3510 Grandview Street, Gig Harbor, WA 98335
Project Location:
2825 Harborview Drive | Parcel Numbers 0221081148, 0221081150, 0221081149 and 0221081151. The site is located on the east side of Harborview Drive, approximately 660 feet south of the intersection with Soundview Drive.
Project Description:
Project proposes to demolish existing lift station #5 pump but retain the existing lift station wet well. A new lift station pump will be installed approximately 105 feet west of the existing lift station pump and will include new pump suction lines to the existing wet well. A new generator and generator enclosure will be installed to provide emergency power to the lift station pump. The generator enclosure will be located both in the Harborview Drive right-of-way and on private property (2825 Harborview Drive). The new lift station pump and generator enclosure will be located in a shoreline buffer zone, designated as Low Intensity and part of Shoreline Planning Segment C. Permanent easements will be obtained to locate the pump and generator enclosure.
SEPA Threshold Determination:
The proposal is categorically exempt from SEPA, as per WAC 197-11-800(23)(b)
PUBLIC HEARING DATE:

Hearing Examiner, **March 3, 2026 at 1:30 pm**, Hearing held Virtual and in Community Development Conference Room

Interested persons are invited to attend the public hearing and provide testimony on this proposal. The hearing will be conducted in the manner prescribed by Gig Harbor Municipal Code Chapter **19.05**.

Documents pertinent to this application are available for review and inspection at the City of Gig Harbor Planning Division, 3510 Grandview Street, Gig Harbor, WA 98335, during normal business hours, Monday through Friday or on the City's Permit Portal. A copy of the staff report on this proposal will be available at least seven days prior to the hearing. A copy of the application, all documents and evidence relied upon by the applicant, and applicable criteria are available for inspection at no cost; copies will be provided at the requestor's cost.

Interested persons may comment on the above stated application or may request a copy of the decision on this application. **Requests for notification, written comments, including any written comments addressing the findings required for a decision, must be submitted to the Planning Division no later than 5:00 PM on March 2, 2026.**

Questions regarding the above stated application should be made to Katharine Shaffer, Principal Planner, **KShaffer@gigharborwa.gov** or City of Gig Harbor Community Development Department, 3510 Grandview Street, Gig Harbor, WA 98335, or by calling (253)851-6170. Additional permit information can also be found at www.gigharborwa.gov by clicking "Permit Portal" and entering the permit number.

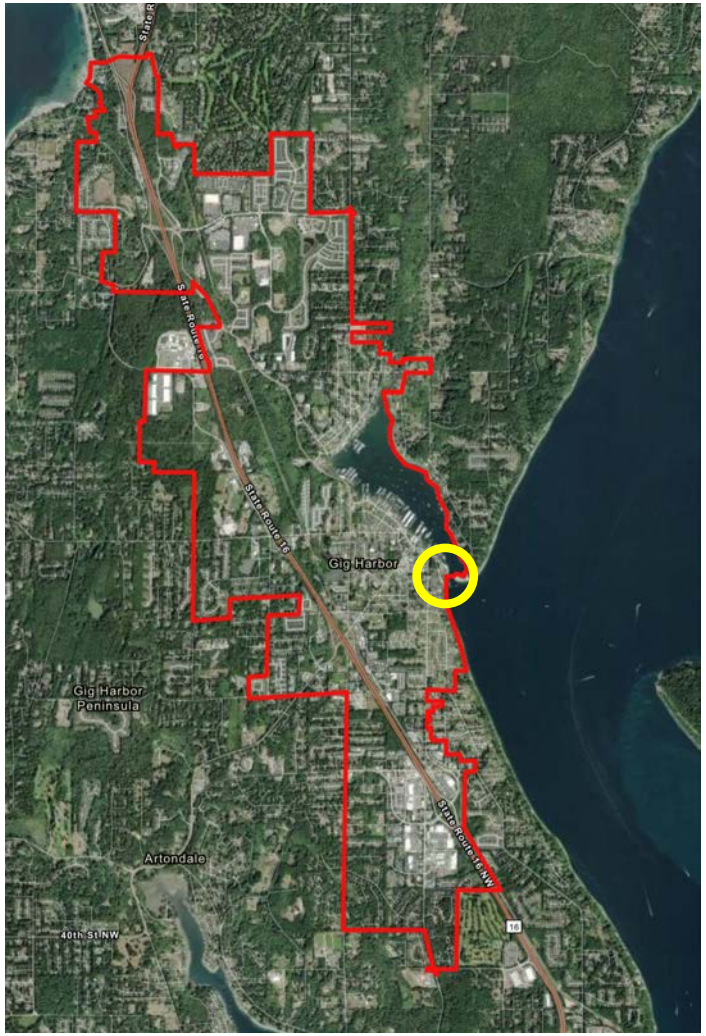
IDX-1026247
February 17, 2026

Lift Station #5
PL-SDP-25-0003:
Shoreline Substantial Development Permit
General Variance
Minor Site Plan Review

Public Hearing
March 3, 2026

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Location: City Wide



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Location: 2823, 2825 Harborview (Private Residences)
Parcel #0221081148 and 0221081150



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Existing Conditions



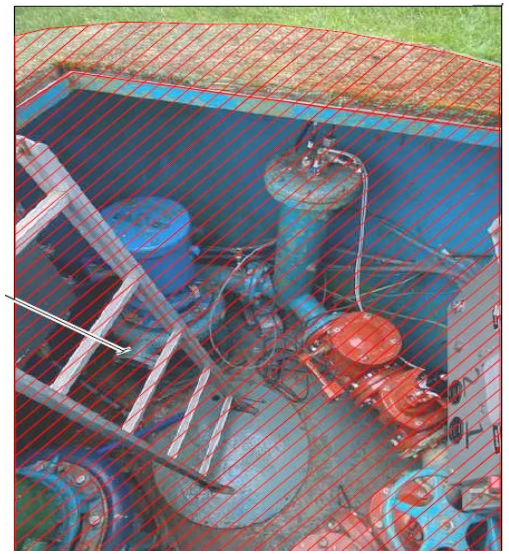
View from Harborview Drive

Slopes down toward Gig Harbor Bay



Red-hatched area: Existing Lift Station #5

The black arrow shows existing handhole



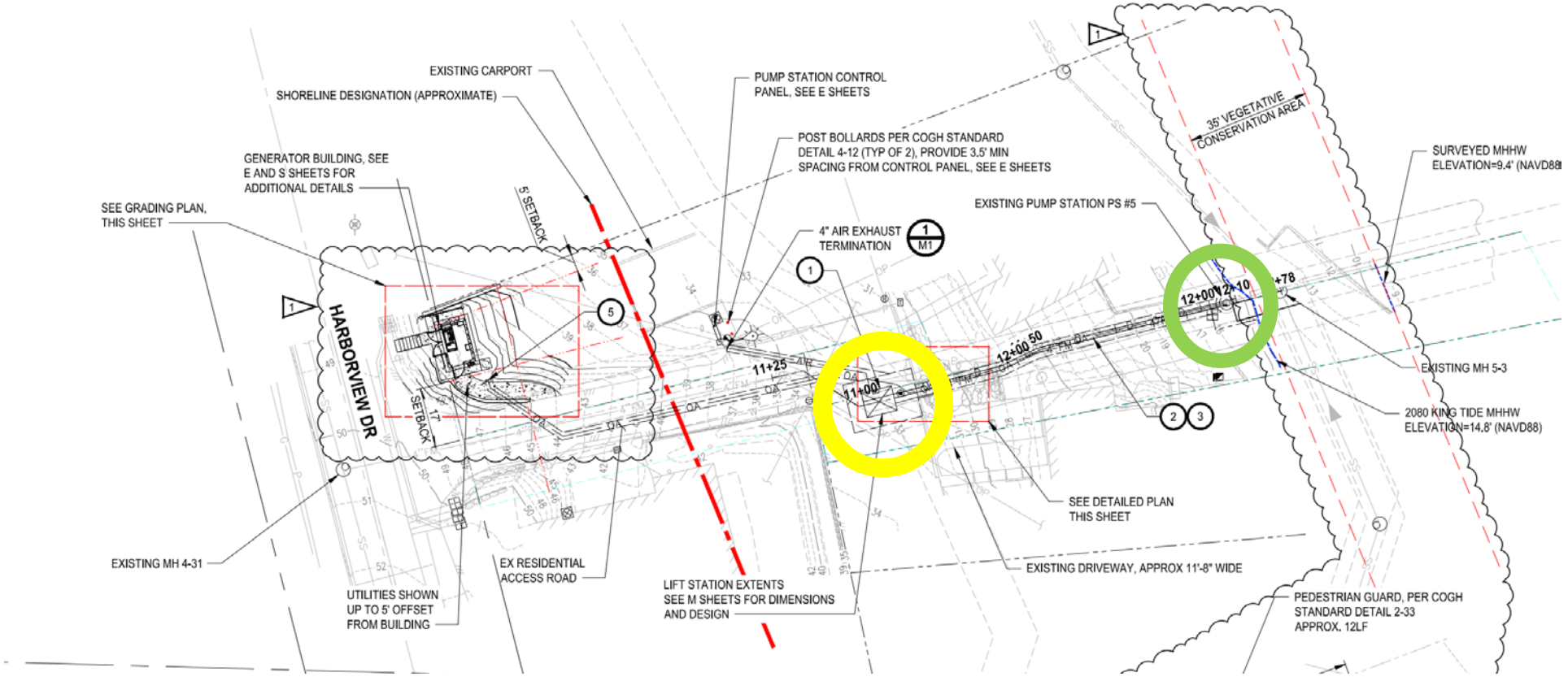
Under covering of Lift Station #5

Pump equipment to be removed

Modern, new equipment moved upland

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Site Plan



Shoreline Designation: Low Intensity
Shoreline Buffer: 35’

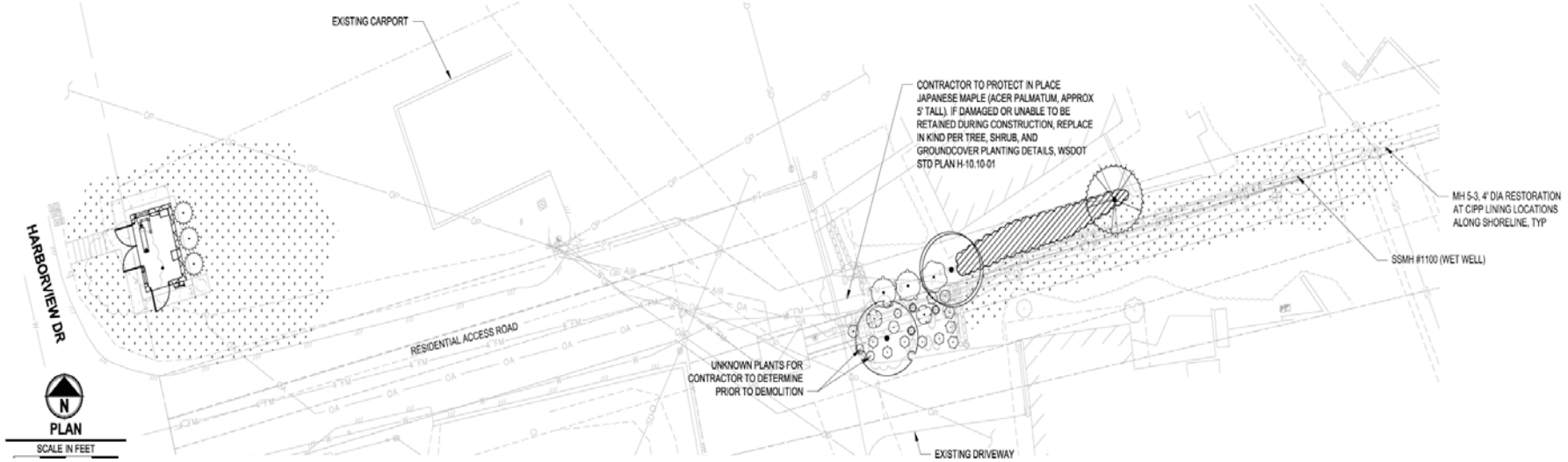
Zoning: Waterfront Residential

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Shoreline Master Program and Shoreline Substantial Development

Consistent with Shoreline Master Program:

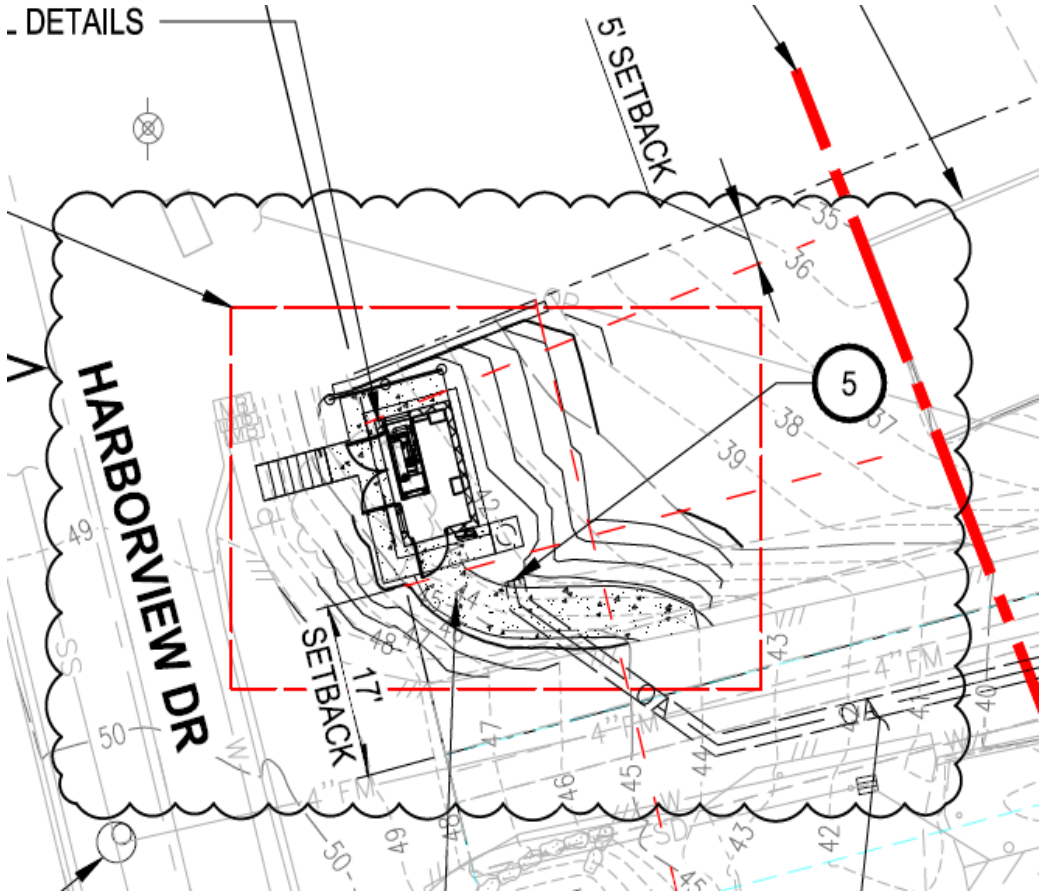
- **SMP 5.2.4 Low Intensity Environment:** Maintains residential shoreline character; primarily below-grade infrastructure.
- **SMP 6.2.2 No Net Loss:** No permanent impacts to shoreline ecological functions; temporary disturbance restored per approved Restoration Plan (shown below).
- **SMP 7.21.2 Utilities:** Existing shoreline-dependent public utility; relocated inland and upslope where feasible; no new shoreline discharge outfalls.
- **SMP 8.2.1 Shoreline Substantial Development Permit – including WAC 173-27-150:** Replaces existing public infrastructure; no expansion of service area; no new waterward structures.



Restoration Plan

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General Variance – Front Yard Setback



Request: Reduce required 20-foot front yard setback to zero feet for generator enclosure

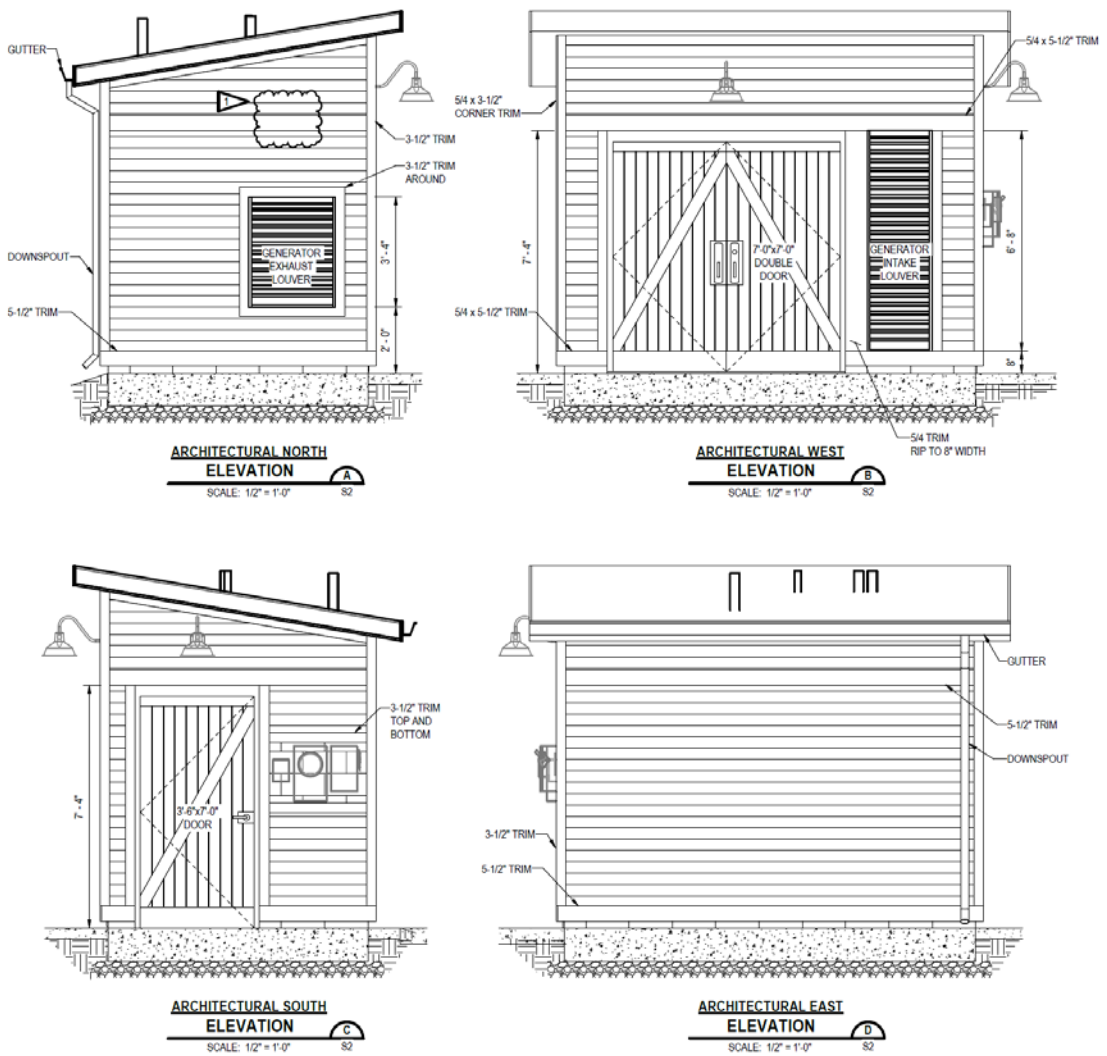
Variance Criteria (GHMC 17.66)

1. No rezone or new use
2. Special site constraints
3. Not self created
4. No special privilege / Not Detrimental
5. Minimum necessary

Staff finds the variance meets all criteria under GHMC 17.66 and represents the minimum necessary relief

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Planning Interpretation



17.66.050 Interpretations

The planning director's decision shall be in keeping with the spirit and intent of this title and of the comprehensive plan.

Question Presented: Can a small, non-habitable generator enclosure proposed within the Historic District be required to meet all Design Manual standards, or may it be allowed to comply only with those requirements that are reasonable and feasible given its essential mechanical function?

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Minor Site Plan Review

17.96.030 Site plan review

The director shall approve applications for minor and major site plan review only if all of the following criteria are met:

A. The site plan is compatible with the surrounding uses; and

B. The site plan is compliant with all relevant statutory codes, regulations, and ordinances.

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Conclusion/Questions

The proposed improvements to Lift Station #5 represent a necessary upgrade to aging critical public wastewater infrastructure. Staff finds that the proposal, as conditioned, meets all applicable shoreline, zoning, variance, and site plan criteria and recommends **approval** of the consolidated application.

Questions?

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