Kite Hill Construction Completion Report

Gas Works Park Site
Seattle, Washington

for
Puget Sound Energy

October 19, 2015

GeoEngineers
Earth Science + Technology

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File No. 0186-846-01

October 19, 2015

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1.0 INTRODUCTION

The soil cover maintenance work summarized in this Construction Completion Report (CCR) was completed at the Kite Hill portion of Gas Works Park (GWP). Puget Sound Energy (PSE), The City of Seattle (City) and the Washington State Department of Ecology (Ecology) entered into a Consent Decree (No. 99-2-52532) for implementation of a cleanup action at GWP that includes construction of a vegetated soil cover. The work discussed in this CCR is considered a maintenance activity for the vegetated soil cover at the Kite Hill portion of GWP. The CCR was prepared by GeoEngineers Inc. (GeoEngineers) for PSE and the City.

1.1. Site Description

GWP is a twenty acre park located at 1801 North Northlake Way mostly owned and operated by Seattle Department of Parks and Recreation (Parks); a small portion owned by Seattle Finance and Administrative Services Department. GWP is bounded by Lake Union to the south and east, Seattle Harbor Patrol to the west, and North Northlake Way to the north. One of the features at GWP is Kite Hill which is located in the southwest area of GWP. The soil cover maintenance work area (also referred to as Kite Hill Soil Cover project area or project area) is associated with the portion of GWP known as Kite Hill, in addition to limited areas adjacent to Kite Hill. The Kite Hill project area is approximately four acres and the surface is primarily grass with asphalt/gravel pathways and limited trees/bushes. Kite Hill project area is bounded by Lake Union to the south, Seattle Harbor Patrol to the west, the existing Cracking Towers to the east, and a pedestrian pathway to the north. A small portion of the soil cover maintenance work area (approximately a tenth of an acre in size) lies within the Harbor Patrol parcel which is owned by City of Seattle Finance and Administrative Services Department.

1.2. Overview of Soil Cover Maintenance Work

The activities associated with the soil cover maintenance work comprised the following:

- Abandonment of monitoring well PZ-4 and modification of 16 on-site monitoring wells;
- Construction of soil cover;
- Placement of hydroseed and sod;
- Construction of asphalt and gravel pathways;
- Construction of a new irrigation system within the project area; and
- Off-site disposal of non-hazardous impacted material (excess soil and vegetation) resulting from excavation, tilling and grading.

Approximately 93,000 gallons of stormwater was collected during construction, treated and discharged under a Discharge Authorization to the local Publicly Owned Treatment Works via a sanitary sewer. Approximately 970 tons of non-hazardous impacted material was excavated from the project area and transported off-site for disposal. As part of the soil cover construction, approximately 22,500 square yards of geogrid, approximately 6,570 tons of import turf area gravel and approximately 9,320 cubic yards of import turf area soil were utilized. Approximately 15,670 square yards of hydroseeding and 9,900 square yards of sod were installed at the surface. A new irrigation system (irrigation piping, fixtures and Maxicon satellite control station) was installed in conjunction with the soil cover to maintain the vegetative layer. As part of asphalt pathway construction, approximately 560 tons of 1¼ minus base course rock and 194 tons

of Class B asphalt was utilized. Approximately 120 tons of 5/8-inch minus crushed rock was used for the gravel pathway construction.

All non-hazardous impacted materials were transported off-site by truck to the Republic Services Transfer Facility located in Seattle, Washington. From the transfer station, the material was shipped by rail to the Roosevelt Regional Landfill facility located in Klickitat County, Washington (a Subtitle D permitted facility) for final disposal.

Field activities pertaining to the soil cover maintenance work were completed by Wyser Construction. The work activities were initiated in August 2014 and completed in May 2015.

1.3. Report Organization

This CCR is organized into six sections. Section 1 provides a summary of the completion report. Section 2 describes the project management and organization. Section 3 describes the overview of soil cover maintenance work activities. Section 4 summarizes the site preparation activities. Section 5 describes the activities related to the placement of the soil cover and irrigation system construction. Summary and conclusions are presented in Section 6.

Appendices supporting this CCR include the following:

- **Appendix A** - Temporary Erosion and Sediment Control Log
- **Appendix B** - Monitoring Well Abandonment Report
- **Appendix C** - Monitoring Well Abandonment Waste Disposal Documentation
- **Appendix D** - Geogrid Manufacturer's Cut Sheet
- **Appendix E** - Import Fill Material Documentation
- **Appendix F** - Hydroseed and Sod Material Documentation
- **Appendix G** - Irrigation System Testing Documentation
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- **Appendix O** - Air Monitoring Report
- **Appendix P** - Irrigation Coverage Test Documentation
- **Appendix Q** - Irrigation Controller Trenching Coordination Diagram
- **Appendix R** - Irrigation Operations and Maintenance Manual

2.0 PROJECT MANAGEMENT AND ORGANIZATION

A brief summary of each contractor's role is described below. Ecology provided regulatory oversight for the project. The owner of the property is Parks. The project owner and GeoEngineers' client is PSE.

As project engineer, GeoEngineers was responsible for overall project management: coordination for securing all necessary permits and approvals; coordinating with Ecology; preparing the design documents; performing construction oversight; and coordinating with contractor during construction. GeoEngineers retained two subcontractors to perform the work identified below.

- J.A. Brennan and Associates (J.A. Brennan) located in Seattle, Washington was retained to perform lawn and irrigation system design and construction oversight of this work.
- EHS-International Inc. located in Bellevue, Washington was retained to perform initial worker exposure air monitoring and periodic perimeter fence line air sampling activities.

Wyser Construction (Wyser) of Snohomish, Washington was selected by PSE as the general contractor to perform site remediation and park redevelopment. Site activities performed by Wyser included clearing, demolition, earthwork (excavation, tilling, grading and backfilling), erosion control, stormwater collection and management, hydroseeding and sod placement, and irrigation system installation. In this capacity as project contractor, Wyser retained five subcontractors, to perform the work identified below.

- Republic Services transported impacted soil to the transfer facility located in Seattle, Washington. The material was disposed by Republic Services at their Subtitle D Roosevelt Regional Landfill facility in Klickitat County, Washington.
- Northwest Asphalt located in Renton, Washington performed asphalt paving work.
- Country Green located in Olympia, Washington performed hydroseeding work.
- True North Land Surveying Inc. located in Seattle, Washington performed site surveying activities.
- BakerCorp located in Everett, Washington delivered the stormwater settlement tank and installed the associated pumps/piping.

3.0 DESCRIPTION OF SOIL COVER MAINTENANCE WORK

The soil cover maintenance work addressed by this CCR at the project area performed during 2014 and 2015 consisted of the following activities:

- Site preparation;
- Site clearing;
- Stormwater management;
- Excavation and disposal of non-hazardous impacted material;
- Tilling and site grading;
- Backfilling;
- Construction of asphalt and gravel pathways;

- Placement of hydroseed and sod;
- Construction of irrigation system;
- Maintenance of lawns and grasses; and
- Restoration and final site cleanup.

Field activities were performed in accordance with the construction documents (GeoEngineers, 2014) prepared by GeoEngineers unless otherwise noted in this CCR (refer to figures). GeoEngineers provided on-site construction oversight on behalf of PSE and City. A detailed description of the field activities is provided in the subsequent sections.

4.0 SITE PREPARATION

Site preparation activities performed prior to initiating earthwork activities included:

- Pre-construction meeting;
- Installation of temporary facilities and controls; and
- Installation of temporary erosion and sedimentation controls (TESC).

Each of these activities is discussed below.

4.1. Pre-Construction Meeting

Three pre-construction meetings were held at the Site during August 2014 prior to site mobilization. The first pre-construction meeting was held on August 18 with City of Seattle Department of Planning and Development (DPD) to discuss requirements of the site grading permit. Attendees included representatives from City, GeoEngineers, and Wyser.

The second pre-construction meeting was held on August 20 with Ecology regarding the Construction Stormwater General Permit. Attendees included representatives from Ecology, PSE, Parks, GeoEngineers and Wyser. The final pre-construction meeting was held on the same day to discuss work related to the site irrigation system. Attendees included representatives from Parks, Ecology, GeoEngineers, J.A. Brennan and Wyser.

During construction, on-site progress meetings were held on a weekly basis to review progress of work, project schedule, submittals and items that required discussion or resolution. Attendees to the weekly progress meetings included representatives from PSE, City, Ecology, GeoEngineers and Wyser.

4.2. Temporary Facilities and Controls

Temporary facilities and controls provided by Wyser included:

- A job site trailer with electricity, first aid kit, and fire extinguisher within the support zone;
- Temporary fence with privacy screens along the north side, west side and east side of project area, gate and gravel pad at the construction entrance to project area;
- Site controls to separate clean and impacted areas;

- A decontamination trailer with decontamination and collection system located within the contamination reduction zone;
- Portable restroom and a non-potable water supply within project boundary;
- Warning signs for general public at the construction entrance/exit to the project area;
- Candles and caution tape along the perimeter of active excavations and other work areas; and
- Covers for impacted material stockpile, secured at the end of each work day.

4.3. Temporary Erosion and Sedimentation Controls

Silt fencing was installed along the southeastern, southern boundary and western boundary of the project area. The filter fabric fencing was installed in accordance with the project plans and the requirements of the *Stormwater Management Manual for Western Washington* (Ecology, 2012) and City of Seattle *Director's Rule 16-2009, Vol. II – Construction Stormwater Control Technical Requirements Manual* (Seattle, 2009). Wyser and GeoEngineers performed inspection of the silt fences on a regular basis. Wyser performed repairs to the silt fence as needed. The temporary erosion and sedimentation inspection log is provided in Appendix A.

Straw waddles were installed in the swale area and along the shoreline during earthwork activities to prevent silt from entering Lake Union. Sediment traps and rock check dams were constructed along the southern boundary and western boundary to effectively capture the stormwater prior to pumping to the onsite Baker tanks for further management. Wyser performed maintenance of the sediment traps as needed. Figure 1 shows the temporary erosion and sedimentation control features adopted at the project area.

5.0 SOIL COVER MAINTENANCE CONSTRUCTION

This section presents details related to the activities associated with the soil cover maintenance work (listed in Section 3) performed in the project area. Each of these activities is described in detail below.

5.1. Site Clearing

Site clearing work involved removing trees, sod/grass and brush to expose the work areas. Trees and brush removed were inspected and transported off-site for disposal as non-contaminated organic waste. Approximately 20 cubic yards of trees and brush were transported off-site for disposal. Figure 2 shows clearing areas where trees and brush were removed.

5.2. Site Demolition

Demolition activities included removal of asphalt pathways around Kite Hill and removal of gravel pathways along the eastern boundary of the project area. Figure 2 shows the areas where gravel and asphalt pathways were removed. Demolition materials were temporarily stockpiled and transported off-site for recycling.

5.3. Monitoring Well Abandonment and Modifications

Monitoring well abandonment work was performed on October 13, 2014. Cascade Drilling completed the well abandonment activities. Monitoring well PZ-4 (northwest corner of project area marked by red label in

Figure 2) was abandoned by over drilling. A copy of the well abandonment report is provided in Appendix B. The monitoring well was decommissioned in accordance with Washington Administrative Code (WAC) 173-160-381. Drill cuttings from the well abandonment work was placed in three drums. The contents of drums were sampled to characterize the soil for off-site disposal. Drums with the drill cuttings were transported to the Chemical Waste Management disposal facility in Arlington, Oregon for disposal. Documentation from disposal of the drill cuttings is provided in Appendix C.

Cascade Drilling modified 16 on-site monitoring wells (MW- 10, MW-13, MW-14, MW-15, MW-22, MW-23, MW-24, MW-25, MW-29, MW-30, MW-32S, MW-32D, MW-33S(b), TSW-2, TSW-3 and TDW-2) shown on Figure 2. Monitoring well modifications were completed on October 14 and 15, 2014. Documentation for the modification work is provided in Appendix B. As part of the well modification work, Cascade Drilling extended the well casing and installed the well monuments at the final surface elevation. All well modification work was completed in accordance with Ecology regulations.

5.4. Earthwork

5.4.1. Site Grading

Utility locate was completed by a private utility locating firm and Seattle Parks prior to starting earthwork activities. Initial survey and staking was completed to assist with the rough grading work. Grading activities included excavating to remove sod/turf, tilling portions of sod/turf into the underlying soil in areas identified on Figure 3 and limited regrading high and low areas identified on the grading plan in the construction documents (GeoEngineers, 2014). Excess soil from excavation and tilling was temporarily stockpiled prior to transport to an off-site disposal facility as described in Section 5.8.

Stripping/excavation of the sod/turf was completed by the contractor utilizing a track hoe with a flat bucket to remove approximately 3 to 4 inches of sod/turf across the majority of the project area. Approximately 18 inches of material was excavated along the berms at the top of Kite Hill to remove cobbles and miscellaneous concrete debris. Approximately 12 inches of sod/turf was excavated at the soil cover boundary to ensure a minimum 12 inch section of soil could be installed and match existing grades. Refer to Figure 3 for location of typical sections and Figure 4 for details.

Tilling of the sod/turf was completed by the contractor utilizing a John Deere tractor with a rear-mounted tiller, and Bobcat with front-mounted tiller to break up and mix the sod and roots. The till depth varied across the project area between approximately 8 to 10 inches. The contractor encountered occasional concrete, brick and metal debris during tilling with debris exceeding 4-inches in size removed. The tilled areas were deemed acceptable after the material was clear of sod clumps and large organics with probing depths reaching a minimum of 8 inches. The completed area was evaluated by means of probing with a ½ inch diameter steel probe rod.

Trenches for installation of irrigations lines were excavated to a minimum of 15 inches below finished grade for the main lines and a minimum of 12 inches below finish grade for the laterals. Survey stakes installed over the soil cover area identified fill depths and final elevations for the import backfill material.

The contractor track compacted the tilled area to a firm condition using a track-mounted excavator as documented by the on-site geotechnical representative.

5.4.2. Geogrid

After grading and scarifying the subgrade, geogrid was installed over the soil cover area in accordance with the project plans and the manufacturer's specifications. The subgrade was evaluated prior to placing the geogrid to ensure that the subgrade was compacted properly and was free of pumping soil conditions and observed to be firm. The subgrade was evaluated by probing with a ½-inch diameter steel probe rod. Probe depths were generally in the range of 2- to 3-inches. The geogrid consisted of TriAx® TX 130S (product of Tensar® International Corporation), manufactured from a punched polypropylene sheet, tri-axial with triangular aperture shape and rectangular rib shape. Approximately 22,500 square yards of geogrid was installed. Geogrid layers were rolled out and overlapped by a minimum of 12 inches along the edges. The geogrid layer provides structural stability to the soil cover and serves as a visual indicator at the interface between the existing underlying fill soil and import fill to alert future maintenance workers of their proximity to underlying fill soil. The manufacturer's cut sheet for the geogrid is provided in Appendix D.

5.4.3. Import Fill

5.4.3.1. Turf Area Gravel

Approximately 6,550 tons of turf area gravel was imported from a commercial gravel pit and placed over the geogrid layer within the project area (Figure 3). The contractor placed a 6-inch lift of turf area gravel (City of Seattle Type 17 bank run gravel, City of Seattle Specification 9-03.12[2]B) on top of the geo-grid. The cross-section of the turf area gravel backfill depicting thickness is shown on Figure 4. The contractor moisture conditioned the material utilizing a fire hose. The contractor compacted the soil utilizing an Ingersall Rand steel drum vibratory roller. After rolling, the material was track compacted with a minimum of two passes of a Case 650HLT dozer to a firm condition as documented by the on-site geotechnical representative.

The imported turf area gravel material met the specification requirement for grain size and chemical parameters specified in the construction documents (GeoEngineers, 2014). Analytical testing report and sieve analysis for the import turf area gravel is provided in Appendix E.

5.4.3.2. Turf Area Soil

Approximately 9,220 cubic yards of turf area soil was imported from a commercial supplier and placed over the turf area gravel layer. After the turf area gravel was compacted, the contractor placed an approximately 12-inch lift of turf area soil over the turf area gravel. The topsoil was spread in place with a Case 650HLT dozer, and track compacted at the same time. Fine grading was completed using a Deere 135D track mounted excavator. Compaction of the turf area soil was evaluated by probing with a ½-inch diameter steel probe rod. Probe depths were generally in the range of 2- to 3-inches.

The imported turf area soil material met the specification requirement for grain size and chemical parameters specified in the construction documents (GeoEngineers, 2014). Analytical testing report and sieve analysis for the import turf area soil is provided in Appendix E.

Figure 3 shows the extent of turf area soil backfill. The cross-section of the turf area soil backfill depicting thickness is shown on Figure 4.

5.5. Pathway Construction

5.5.1. Asphalt Pathway

The asphalt pathway within the soil cover maintenance area comprised of pedestrian pathway and vehicle access pathway. Asphalt paths were constructed of a Washington State Department of Transportation (WSDOT) Class B hot mix asphaltic concrete (HMA). A single 2-inch thick lift of WSDOT Class B HMA was used for the pedestrian pathway while a single 3-inch thick lift was used for the vehicle access pathway. The asphalt layer was compacted using smooth drum rollers to a firm condition as documented by on-site geotechnical representative. Approximately 170 tons of asphalt was used to construct the pathways. Hot mix asphalt product information for the pathway construction is provided in Appendix E.

The asphalt layer was underlain by 1¼ minus clean, crushed, surfacing base course material. Approximately 560 tons of 1¼ minus base course material was imported from Glacier Northwest for use in asphalt and gravel pathways. A 4-inch thick layer (two 2-inch lifts) of base course material was used for the pedestrian pathway while a 6-inch thick layer (three 2-inch lifts) was used for the vehicle access pathway. Sieve analysis for the import base course material is provided in Appendix E. The base course layer was compacted with a Deere 135D track mounted excavator fitted with a hoepack bucket to a firm condition as documented by on-site geotechnical representative.

Figure 3 shows the location of asphalt pathways constructed at the project area.

5.5.2. Gravel Pathway

Gravel pathway construction was completed with 5/8-inch minus crushed rock material. Approximately 120 tons of 5/8-inch minus crushed rock was imported from Glacier Northwest. The gravel pathway comprised of a 2-inch thick gravel layer compacted with a Deere 135D track mounted excavator fitted with a hoepack bucket to a firm condition as documented by the on-site geotechnical representative. Sieve analysis for the import 5/8-inch minus crushed rock is provided in Appendix E. The gravel layer was underlain by the compacted 4-inch thick base course material discussed in Section 5.5.1.

Figure 3 shows the location of gravel pathways constructed at the project area.

5.6. Lawns and Grasses

Lawn (sod and hydroseeding) was installed after top soil was spread and finished grades were established. The installation of hydroseeding met the winter seeding deadline (October 15, 2014).

The majority of the lawn installation was successful except for areas impacted by geese damage and storm events causing minor erosion of localized seeded and sodded areas. Geese control was a challenge throughout the establishment of the hydroseeded areas. Wyser installed several dog silhouette “decoys” as a deterrent. Initially the decoys helped to keep the geese away. Ultimately geese foraging in such a large area of freshly germinating lawn could not be deterred.

Once people were allowed back on the hill there was a reduction in geese foraging. Areas of lawn that were less robust due to the significant foraging and goose droppings became well established after Kite Hill re-opened to public.

Wyser maintained lawns and grasses during the maintenance period (November 1, 2014 to May 22, 2015) specified in the construction documents (GEI, 2014). Activities conducted by Wyser during the maintenance period include repair and reseeding certain lawn areas, fertilizing, mowing and irrigation system completion (summarized in the following sections).

5.6.1. Hydroseeding

Hydroseeding was initiated after the contractor completed the import and placement of topsoil and set finished grades. Hydroseeding occurred on the northern and southern portion of Kite Hill in accordance with the seed mix specified in the construction documents (GeoEngineers, 2014). The timing of application on the north side and south side of Kite Hill was early enough in the growing season (late September and early October 2014) that it germinated and established. Refer to Figure 5 for extent of as built hydroseed area. Documentation for hydroseed material is provided in Appendix F.

Wyser applied two applications of fertilizer through the maintenance period and completed several mowing cycles. The irrigation system was installed and operated during the 2015 maintenance period. The fertilizer and irrigation resulted in healthy and enhanced growth of the lawn.

Wyser spread seed mix (during maintenance period) in the swale between the Cracking Towers and Kite Hill as the sod installed (during construction) in this area did not initially establish due to continuous inundation of water through the winter which created an anaerobic condition. These conditions damaged the sod for the length of the swale (approximately 350 feet) and a width of approximately 4 to 5 feet. J.A. Brennan provided the following commercial seed mix for wetter sites for use in the swale bottom:

- 70 percent Tall Fescue, 10 percent Meadow Foxtail, 10 percent Seaside Bentgrass, 5 percent Alsike Clover, 5 percent Red Top
- Seeding rate: 80 pounds per acre

Seed mix installed in the affected area of the swale resulted in good grass establishment.

5.6.2. Sod

Sod placement was initiated after the contractor completed the import and placement of topsoil and set finished grades. Refer to Figure 5 for extent of as built sod area. Due to the onset of winter weather, Wyser installed sod on the lower portions of the hill, the area south of the Cracking Towers, and the swale region to the east. The sod established very well except in certain portions of the swale (specified in Section 5.6.1) where storm events prevented some of the sod panels from taking root. Water flow eroded the downstream end of the swale, beyond the southern edge of the path. Although Wyser made an effort to restore these disturbed areas during the maintenance period, additional maintenance was required. As discussed in Section 5.6.1, seed was installed in the bottom of the swale to re-establish the grass and minor areas damaged by geese were repaired during the maintenance period. Documentation for sod material is provided in Appendix F.

The sod was a non-netted sod, as specified, with a mix consisting of:

- 75 percent Perennial Ryegrass (CABO II Perennial Ryegrass and FIJI Perennial Ryegrass)
- 25 percent Kentucky Bluegrass (Midnight Kentucky Bluegrass and Prosperity Kentucky Bluegrass)

The installed sod lawn mix deviated from the original specification due to timing and availability. This sod mix was approved by Parks prior to installation. The specified hydroseed mix was also modified to match the sod to ensure a consistent look in the lawn surface. The sod and hydroseed mix was supplied by Country Green and Turf.

Path areas needed further work after installation of the sod. Lawn areas adjacent to the path were seeded after completion of path work. These areas were re-seeded during the maintenance period and continue to show good establishment.

5.6.3. Warranty – Lawns and Grasses

All lawn areas were monitored through the warranty period identified in the construction documents (GeoEngineers, 2014), including the restored staging area. Per the construction documents, lawn evaluation was conducted by J.A Brennan on May 22, 2015. Based on the evaluation it was determined that portions of the lawn area (including swale and a few other areas) were not established. Wyser performed a series of re-seeding applications. The swale and other areas were monitored for establishment to confirm lawn growth was meeting specifications. J.A Brennan performed a review of lawn areas on June 6, and October 7, 2015 to evaluate establishment of lawn at the end of one growing season and determined that the lawn had adequate establishment. It is anticipated that routine lawn maintenance by Parks' Operations will result in a healthy and robust lawn in the project area.

5.7. Irrigation System

The irrigation system was installed per construction documents (GeoEngineers, 2014), with minor deviations in pipe alignment that have been noted on the record drawings (Figure 6). All equipment installed was approved by Seattle Parks' Operations Staff. Refer to Figure 6 for as-built irrigation system and Figures 7, 8, and 9 for as-built irrigation system details.

The change in the point of connection (P.O.C) that connects to the water line at the northern toe of Kite Hill was successfully completed. Isolating the Kite Hill region from the rest of the Park's irrigation provides an improved operating irrigation system on the hill, with complete coverage of the lawn area. Wyser installed a new controller, at the direction of Parks, at the North entry to Kite Hill. Power was pulled from the existing controller located northwest of the new controller in the north meadow area. Wyser trenched from the existing controller to the new controller location at the entry to Kite Hill.

Wyser prepared the trenching to the new controller and Parks' Operations pulled electrical wire to controller. Refer to Appendix Q for the clarification sketch that was developed to guide the installation of the new controller and power feed to the controller.

The sequencing of the irrigation installation was very closely coordinated with installation of the fill material. Wyser built the system as they established grades and placed fill material. Due to the soil capping procedure over existing grade, the irrigation pipe is buried shallower than is typical for Seattle Parks' Standards. The shallower burial was approved by Parks. The mainline was set a minimum of 15 inches to the bottom of the pipe and the lateral pipe was typically set a minimum 12 inches to the bottom of the pipe. Wyser coordinated closely with Parks' Operations to review pipe installation prior to covering, and pressure tested lines as they installed the system.

Documentation of mainline and lateral line pressure testing was performed by Parks' Operations and provided to Wyser for distribution to the design team. Three separate tests were performed on October 7, October 10, and October 23, 2014, during installation of mainline and laterals. Each of the pressure tests met the required specifications: for the mainline a pressure of 150 pounds per square inch (psi) was maintained and the laterals held a pressure of 100 psi consistently. See Appendix G for pressure testing field notes provided from Parks' Operations.

Parks and J.A. Brennan performed a system coverage test with Wyser on May 13, 2015. All the irrigation zones performed well with some minor adjustments to localized rotor heads. Field notes from the coverage test meeting are provided as Appendix P.

Wyser provided an Operations and Maintenance Manual to document all installed irrigation equipment and parts for future use by Parks' Operations. A copy of the Operations and Maintenance Manual is provided in Appendix R.

5.7.1. Warranty – Irrigation System

Based on the construction documents (GeoEngineers, 2014), irrigation system is covered under a one year warranty from the date of physical completion. Since the irrigation system was completed in May 2015, warranty coverage extends through May 2016. The contractor is responsible for one complete winterizing and de-winterizing of the irrigation system, as well any potential issues during the warranty period.

5.8. Loading, Transport, and Disposal of Non-hazardous Impacted Soil

A portion of the soil was determined to be in excess of the material that could be utilized for grading in the project area. This excess non-hazardous impacted soil was temporarily stockpiled prior to transport to an off-site disposal facility. Trucks entered the project area via the construction access gate on the west side and material from the stockpile was loaded onto the trucks.

The non-hazardous impacted material was transported to the Republic Services Transfer Facility located in Seattle, Washington. From the transfer station, the material was shipped by rail to the Roosevelt Regional Landfill facility located in Klickitat County, Washington (a Subtitle D permitted facility). All trucks that contained waste materials were weighed at the Republic Services Transfer Station. The number of truck loads transported off-site each workday was documented by Wyser and bills of lading were completed for each truck exiting the project area. Based on the weight tickets, 932 tons of non-hazardous impacted soil were transported offsite. Documentation from Republic Services for non-hazardous impacted soil is provided in Appendix H.

5.9. Water Management

Stormwater runoff and equipment/personnel decontamination water from the project area was discharged to the permitted King County Metro (Metro) sewer point of discharge located in the project area. Ten Baker tanks were installed to collect water from construction activities. Stormwater collected in sediment traps was pumped to the Baker tanks. The Baker tanks allowed for settling of solids prior to discharge to the Metro sewer discharge location. A flowmeter was installed on the discharge line to record the volume of water discharged to the Publicly Owned Treatment Works (POTW). Effluent from the Baker tank was sampled by Wyser to satisfy the Metro discharge criteria specified in the Metro permit. Based on testing, the water satisfied the Metro discharge criteria and was discharged to the local POTW discharge point. The

POTW discharge point is shown on Figure 1. A total of approximately 93,000 gallons of water was discharged. The Industrial Waste Monthly Self-Monitoring Reports submitted to King County and Discharge Authorization for the project area are provided in Appendix I.

Per the Construction Stormwater General Permit requirements for the project area, Wyser submitted the monthly discharge monitoring reports to Ecology – Water Quality Program. Copies of the monthly discharge monitoring reports are included in Appendix J. As noted from Appendix J, no stormwater was discharged to Lake Union. Notice of Termination letter from Ecology for the Construction Stormwater General Permit is also included in Appendix J.

5.10. Site Restoration

As part of site restoration, Wyser repaired portions of the main east-west asphalt pathway traversing the project area. The main portion of the east-west pathway that was repaired was located between the swale and staging area. The asphalt in this area was repaired by grinding down approximately two inches at each end and overlaying a 2-inch asphalt section of the same mix listed in Section 5.5.1. In areas of the project area where asphalt paths were cut to install irrigation related piping, the paths were repaired with cold patch asphaltic concrete. Rough grading and hydroseeding was completed in the material staging area. Upon completing construction activities, Wyser demobilized equipment, materials, supplies, debris and temporary facilities on April 30, 2015. All construction debris was transported offsite and disposed of by Wyser.

5.11. As-Built Survey

An initial as-built survey was provided by Wyser Construction on June 01, 2015. After reviewing the as-built survey there were multiple items noted that needed to be addressed.

Follow-up surveys were provided by Wyser on July 13, 2015; August 12, 2015; and August 20, 2015 to address the missing items. The final as-built survey is provided on Figure 10.

5.12. Field Documentation

Photographs from the construction activities at the project area and a photo log are provided in Appendix K. Environmental field activity logs for the project are provided in Appendix L and geotechnical field logs are provided in Appendix M.

Wyser conducted health and safety tailgate meetings at the beginning of each work day. Health and safety logs from the tailgate meetings are included in Appendix N.

Air monitoring was performed during earthwork activities by GeoEngineers and EHS-International, Inc. (EHSI) in accordance with the site-specific project Health and Safety Plan (HASP) prepared by GeoEngineers and Air Monitoring Plan (AMP) prepared by EHSI. Wyser completed initial worker air monitoring for their workers separately. As specified in the HASP, air monitoring was performed as necessary during construction activities. During excavation, tilling and other site activities, a dust monitor (DustTrak RX Aerosol Model 8534) was used to measure dust concentrations around the work area and along the perimeter of the project area. All dust monitoring results were below action levels.

EHSI performed perimeter air sampling at the Site to monitor potential exposure of known site contaminants at the perimeter fence line. EHSI completed three perimeter fence line air sampling events

on September 5, September 12 and September 17, 2014. Based on the earthwork activities, air sample from September 5 was collected at the east perimeter fence line and the air samples from September 12 and September 17 were collected from the north perimeter fence line. Air samples were collected using 3M 3520 Organic Vapor Monitoring badge for benzene, low volume portable air pumps with glass fiber filter cassettes for polycyclic aromatic hydrocarbons (PAHs) and mixed cellulose ester 0.8 micrometer (µm) filter media for arsenic samples. All samples were submitted to Galson Laboratories located in East Syracuse, New York for analysis. Analytical data from the perimeter fence line air sampling is provided in Appendix O. The results indicated that the values were below laboratory detection limits and regulatory levels established by the Department of Occupational Safety and Health (DOSH).

6.0 SUMMARY AND CONCLUSIONS

Field activities (construction and maintenance) were completed at the Kite Hill portion of Gas Works Park between August 2014 and May 2015 as part of the soil cover maintenance work. Activities performed at the project area included monitoring well abandonment and modifications, stormwater management, tilling, excavation and soil disposal, placement of clean import fill soil cover, construction of asphalt and gravel pathways, installation of seed/sod, and construction of an irrigation system to maintain the vegetative soil cover. In our opinion, the field activities at the project area have been constructed in compliance with the intended design as presented in the construction documents (GEI, 2014).

Parks assumed responsibility for maintenance of the project area at the end of May 2015. Future inspection, maintenance, documentation and reporting of the soil cover will be performed by the City of Seattle Parks maintenance crew consistent with the requirements of the Consent Decree.

7.0 REFERENCES

City of Seattle, 2009. *Director's Rule 16-2009, Vol. II - Construction Stormwater Control Technical Requirements Manual*. City of Seattle Department of Planning and Development. December 2009.

GeoEngineers, Inc., 2014. Construction Documents. Prepared for Puget Sound Energy and Seattle Department of Parks and Recreation. August 2014.

ThermoRetec, 2000. Final Engineering Design Report. Prepared for Puget Sound Energy and Seattle Department of Parks and Recreation. September 2000.

Washington State Department of Ecology, 2012. *Stormwater Management Manual for Western Washington*. Washington State Department of Ecology. August 2012.

FIGURES

GeoEngineers

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.)

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM

CATCH BASIN INLET PROTECTION

MECHANICAL FLOW METER

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.)

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

LIMITS OF PROPOSED SOIL COVER

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.)

NOTE:
CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS.

EXISTING CRACKING TOWERS
(NO WORK WITHIN THIS AREA)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PROTECT EXISTING MONITORING WELLS (TYP.)

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE:
HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP
LENGTH = 400'
WIDTH = 6' (MINIMUM)
DEPTH = 1' (MINIMUM)

SILT FENCE (TYP.)

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.)

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.)

NOTE:
TEMPORARY EROSION AND SEDIMENTATION CONTROLS WERE INSTALLED ACCORDING TO APPROVED CONSTRUCTION DOCUMENTS UNLESS OTHERWISE INDICATED BY A REVISION CLOUD. A REVISION CLOUD INDICATES THE CONTROL ELEMENT WAS NOT USED OR MODIFIED TO MEET SITE CONDITIONS. REFER TO THE DAILY FIELD LOGS AND CONSTRUCTION COMPLETION REPORT FOR SPECIFIC MODIFICATIONS OR OMISSIONS.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GravEL
- EXISTING MONITORING WELL

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

C:\Users\tleonard\Documents\Projects\North Lake Union\Kite Hill\Construction Oversight\Project Completion Report\Figures\Figure 1 - Temporary Erosion and Sedimentation Controls.dwg, 10/14/2015 12:35:07 PM, tleonard, T-ABLPLAN modified on Oct 14, 2015 - 12:35pm

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

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Checked	Date
Approved	Date

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Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

TEMPORARY EROSION AND SEDIMENTATION CONTROLS

Figure 1

LEGEND

- FEATURE TO BE DEMOLISHED
- LIMITS OF CONSTRUCTION
- LIMITS OF PROPOSED SOIL COVER
- LIMITS OF EXISTING SOIL COVER
- EXISTING CONTOUR (MAJOR)
- TREES/BRUSH CLEARING AREAS
- PROPOSED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING IRRIGATION LINE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

PROTECT EXISTING WATER LINE
PROTECT EXISTING HYDRANT
PROTECT EXISTING MANHOLE
PROTECT EXISTING UTILITIES (STORM, SEWER, WATER)
PROTECT EXISTING ROOF DOWNSPOUTS
PROTECT EXISTING RETAINING WALL
LIMITS OF EXISTING SOIL COVER (TYP.) (INSTALLED 2001)
LIMITS OF PROPOSED SOIL COVER
PROTECT EXISTING IRRIGATION SYSTEM IN STOCKPILE / STAGING AREA (TYP.)
PROTECT EXISTING MANHOLE
PROTECT EXISTING CATCH BASIN AND STORM LINE
PROTECT EXISTING SEWER LINE
I.E. = 29.14
DO NOT DISTURB EXISTING BUILDING
PROTECT EXISTING FENCE
REMOVE EXISTING TREES (2) MINIMUM
PROTECT EXISTING CATCH BASIN
PROTECT EXISTING CURBING
DO NOT DISTURB EXISTING SUN DIAL. PROVIDE FENCING OR SIMILAR TO PROTECT SUN DIAL THROUGHOUT CONSTRUCTION
PROTECT EXISTING MANHOLE
PROTECT EXISTING STORM LINE
EXISTING MONITORING WELLS TO BE PROTECTED DURING CONSTRUCTION (TYP.)
REMOVE EXISTING GRAVEL PATHWAY (TYP.)
EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)
REMOVE EXISTING ASPHALT PATHWAY AND BASE COURSE (TYP.)
PROTECT EXISTING FENCE
OVERHEAD 6" PIPE 14.0' CLEARANCE
PROTECT EXISTING OVERHEAD PIPELINE SUPPORTS
OVERHEAD 6" PIPE 14.5' CLEARANCE
PROTECT EXISTING CONCRETE BENCHES
PROTECT EXISTING HAND HOLD AND ELECTRICAL LINE
PROTECT EXISTING CONCRETE/CURBING
REMOVE EXISTING TREES (3) MINIMUM
REMOVE EXISTING GRAVEL PATHWAY
PROPERTY LINE (TYP.)
PROTECT EXISTING SHORELINE (TYP.)
PROTECT EXISTING OUTFALL
PROTECT EXISTING ELECTRICAL LINE AND OUTLETS
PROTECT EXISTING ECOLOGY BLOCK WALL
PROTECT EXISTING WALL (TYP.)

PZ-3 MLS-2 PZ-4 (Abandoned During Construction) MW-19 PZ-8 MLS-4 DW-4 MLS-5 DW-5 MLS-6 DW-6 MW-17 PZ-6 MLS-7 CMP-1 DW-7 PZ-5 TSW-2 TDW-2 MW-32S MW-32D/GEO-1 MW-13 TSW-3 TDW-3 MW-29 MW-30 MW-10 MW-15 MW-14 MW-22 MW-24 MW-23 MW-25 MW-28 MW-33S(b) MW-34S

NOTE:
SITE CLEARING AND DEMOLITION OCCURRED ACCORDING TO APPROVED CONSTRUCTION DOCUMENTS UNLESS OTHERWISE INDICATED BY A REVISION CLOUD. A REVISION CLOUD INDICATES THE ITEM DID NOT OCCUR OR WAS MODIFIED TO MEET SITE CONDITIONS. REFER TO THE DAILY FIELD LOGS AND CONSTRUCTION COMPLETION REPORT FOR SPECIFIC MODIFICATIONS OR OMISSIONS.

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REFERENCES		REVISIONS											
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SEATTLE, WASHINGTON

SITE CLEARING AND DEMOLITION AREAS

Figure 2

C:\Users\tmonahan\Documents\Projects\North Lake Union\Kite Hill\Construction Oversight\Project Completion Report\Figures\Figure 2 - Site Clearing and Demolition Areas.dwg, 10/14/2015 10:37:11 AM, modified on Oct 14, 2015 - 12:37pm

LEGEND

- AREA TO BE EXCAVATED
- AREA TO BE TILLED
- LIMITS OF CONSTRUCTION
- LIMITS OF PROPOSED SOIL COVER
- LIMITS OF EXISTING SOIL COVER
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- PROPOSED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

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

PROTECT EXISTING ROOF DOWNSPOUTS

DO NOT DISTURB EXISTING BUILDING

PROTECT EXISTING FENCE

NOTE:
FOR WESTERN, SOUTHERN, EASTERN LIMITS OF PROPOSED SOIL COVER. EXCAVATE 12" ALONG LIMITS OF SOIL COVER. TAPER TO 3" AND TRANSITION TO TILLED AREA

TILL EXISTING GRASS/SOIL 12" DEPTH (MINIMUM) (TYP.) UNLESS NOTED/HATCHED TO BE EXCAVATED

LIMITS OF EXISTING SOIL COVER (TYP.) (INSTALLED 2001)

LIMITS OF PROPOSED SOIL COVER

EXCAVATE 3" (MIN.) THIS AREA TO REMOVE GRASS / SOD

EXISTING MONITORING WELLS TO BE PROTECTED DURING CONSTRUCTION (TYP.)

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING FENCE

OVERHEAD 6" PIPE 14.0' CLEARANCE

PROTECT EXISTING OVERHEAD PIPELINE SUPPORTS

OVERHEAD 6" PIPE 14.5' CLEARANCE

BERMS AROUND SUN DIAL TO BE REMOVED TO APPROXIMATE ELEVATION = 67.0' AND DISPOSED. RE-BUILD BERMS PER GRADING PLAN

NOTE:
HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

TILL EXISTING GRASS/SOIL 12" DEPTH (MINIMUM) (TYP.) UNLESS NOTED/HATCHED TO BE EXCAVATED

TILL EXISTING GRASS/SOIL 12" DEPTH (MINIMUM) (TYP.) UNLESS NOTED/HATCHED TO BE EXCAVATED

I.E. = 29.14

PROPERTY LINE (TYP.)

PROTECT EXISTING SHORELINE (TYP.)

EXCAVATE 6" (MIN.) THIS AREA

NOTE:
EXCAVATION AND TILLING OCCURRED ACCORDING TO APPROVED CONSTRUCTION DOCUMENTS UNLESS OTHERWISE INDICATED BY A REVISION CLOUD. A REVISION CLOUD INDICATES THE ITEM WAS MODIFIED TO MEET SITE CONDITIONS. REFER TO THE DAILY FIELD LOGS AND CONSTRUCTION COMPLETION REPORT FOR SPECIFIC MODIFICATIONS OR OMISSIONS.

MLS-2 · PZ-4 · MLS-4 · DW-4 · PZ-8 · MLS-5 · DW-5 · MLS-6 · DW-6 · MW-17 · PZ-6 · MLS-7 · CMP-1 · DW-7 · PZ-5 · TSW-2 · TDW-2 · MW-32S · MW-32D/GEO-1 · MW-13 · TSW-3 · TDW-3 · MW-19 · MW-29 · MW-30 · MW-10 · MW-14 · MW-15 · MW-22 · MW-24 · MW-23 · MW-25 · MW-28 · MW-33S(b) · MW-34S

FIG 4 callouts: H, I, J, G, C, D, F

Harbor Patrol

REFERENCES		REVISIONS									
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SEATTLE, WASHINGTON

EXTENT OF EXCAVATION AND TILLING AREAS

Figure 3

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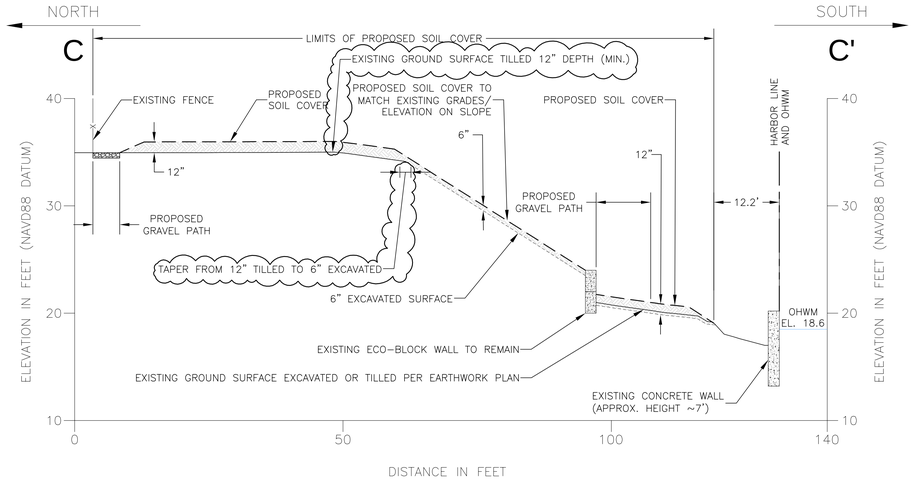
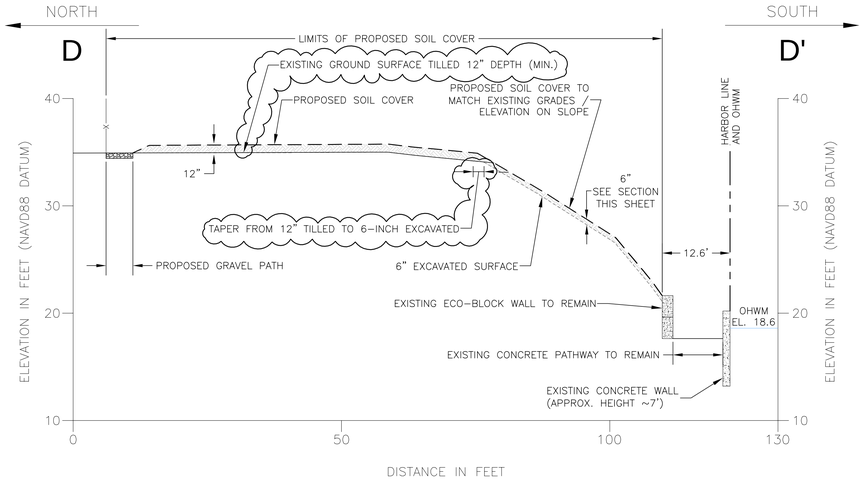
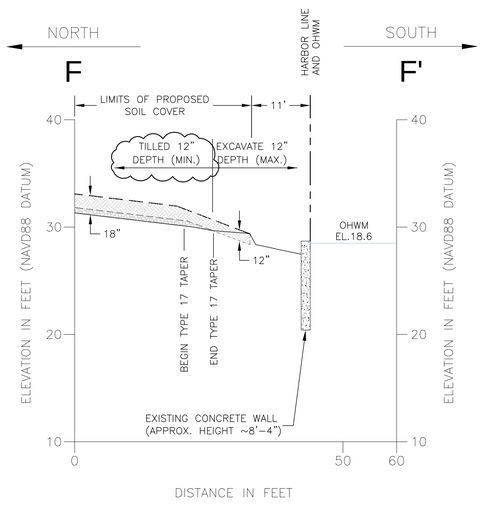
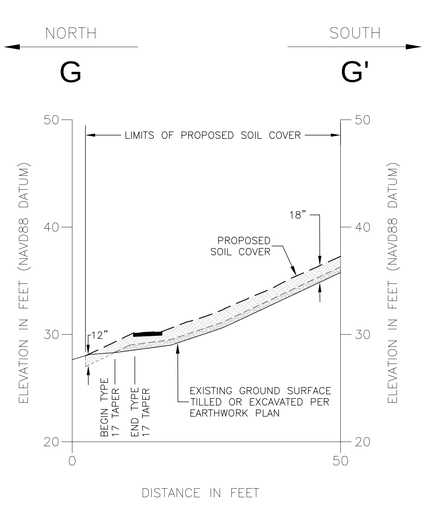
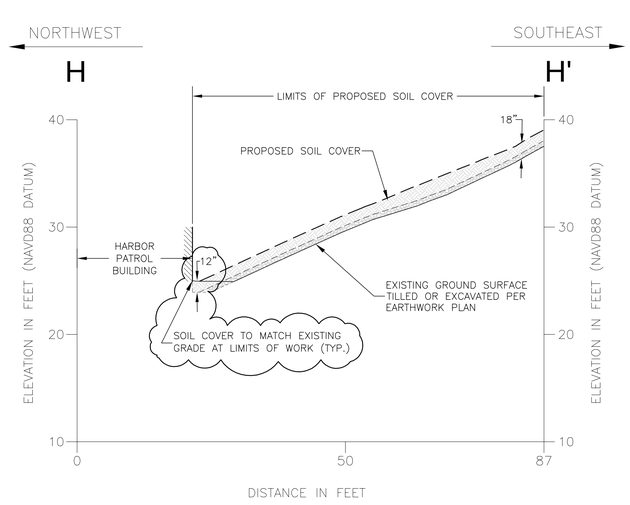


NOTE:
SITE SECTIONS AND DETAILS OCCURRED ACCORDING TO APPROVED CONSTRUCTION DOCUMENTS UNLESS OTHERWISE INDICATED BY A REVISION CLOUD. A REVISION CLOUD INDICATES THE ITEM WAS MODIFIED TO MEET SITE CONDITIONS. REFER TO THE DAILY FIELD LOGS AND CONSTRUCTION COMPLETION REPORT FOR SPECIFIC MODIFICATIONS OR OMISSIONS.

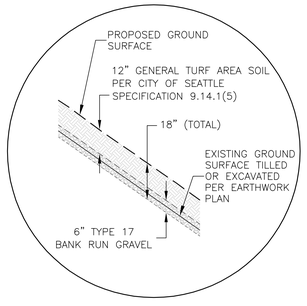








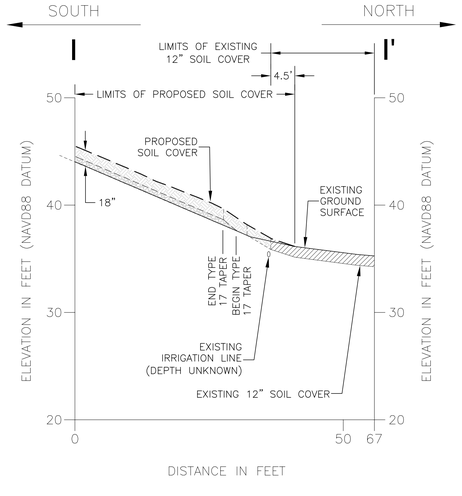
TYPICAL 18-INCH SOIL SECTION

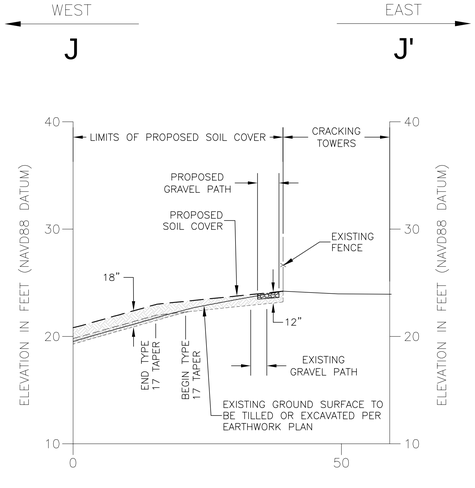


HORIZONTAL SCALE: 1"=10'
10 0 10
FEET

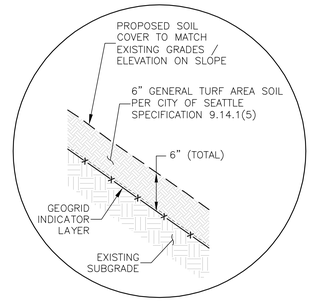
VERTICAL SCALE: 1"=5'
VERTICAL EXAGGERATION: 2X
5 0 5
FEET

NOTE:
GEOGRID INDICATOR LAYER TO BE INSTALLED BETWEEN SUBGRADE AND BOTTOM FILL LAYER THROUGHOUT PROJECT AREA.





TYPICAL 6-INCH SOIL SECTION FOR SLOPE ABOVE EXISTING ECO-BLOCK WALL



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SEATTLE, WASHINGTON

SITE SECTIONS AND DETAILS

Figure 4

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PROJECT LIMIT

SUN DIAL

EXISTING CRACKING TOWERS
(NO WORK WITHIN THIS AREA)

LAWN

LAKE UNION

Harbor Patrol

Action Limit

N 89°46'15" W 537.658'

N 53°25'49" E 29.45'

N 48°05'05" W 147.27'

N 45°21'45" W 114.57'

S 39°28'

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

LAWN RESTORATION LEGEND:

- EXTENT OF LAWN SOD AREA
- EXTENT OF LAWN HYDROSEED AREA
- EXTENT OF WET SEED MIX - BIOFILTRATION SEED

NOTE: HYDROSEED AND SOD WERE INSTALLED ACCORDING TO APPROVED CONSTRUCTION DOCUMENTS UNLESS OTHERWISE INDICATED BY A REVISION BUBBLE. A REVISION BUBBLE INDICATES THE HYDROSEED OR SOD WAS MODIFIED TO MEET SITE CONDITIONS

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WASHINGTON REGISTERED LANDSCAPE ARCHITECT
JAMES A. BROWN
CERTIFICATE NO. 453

Design	Date
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j.a. brennan associates PLLC

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

EXTENT OF HYDROSEED AND SOD

Project No.

Drawing No. FIGURE 5

Sheet of

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XXX : XXX

ZONE SYMBOL:

Z15	ZONE #
78.5	ZONE: GPM
1-1/2"	ZONE: VALVE SIZE

N W E S

20 0 20 FEET

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

NOTE: IRRIGATION PIPE ALIGNMENT BASED ON FIELD MEASUREMENTS TAKEN BY CONTRACTOR

SERVICE CONNECTION FOR NEW POWER DROP TO NEW CONTROLLER. COORDIANTE WITH PARK CREWS

HARBOR PATROL

A Fig 9 PEDESTAL MOUNTED CONTROLLER

C Fig 8 DUCTILE IRON SLEEVING

A Fig 8 POINT OF CONNECTION

CONSTRUCTION LIMITS LINE

EXISTING 8" WATER LINE WITH AVAILABLE STATIC PRESSURE OF 127 PSI

A Fig 7 AUTOMATIC CONTROL VALVE

F Fig 7 QUICK COUPLER

C Fig 8 DUCTILE IRON SLEEVING, TYP.

E Fig 7 GATE VALVE

B Fig 7 ROTOR HEAD

F Fig 8 SLEEVE TRENCHING

F Fig 7 QUICK COUPLER

F Fig 8 PVC SLEEVING

EXISTING CRACKING TOWERS
(NO WORK WITHIN THIS AREA)

LIMITS OF CONSTRUCTION

C Fig 8 DUCTILE IRON SLEEVING AT ALL PATHWAYS AND SERVICE DRIVE CROSSINGS, TYP.

EX. LAWN

EXISTING CONCRETE PLAZA AND STEPS

EXISTING ECOLOGY BLOCK WALL

H Fig 8 IRRIGATION LATERAL LINE

A Fig 7 AUTOMATIC CONTROL VALVE

D Fig 8 IRRIGATION MAINLINE

D Fig 7 MANUAL DRAIN VALVE

LAKE UNION

Z1	12.72	1"
Z2	62.8	1-1/2"
Z3	78.5	1-1/2"
Z4	47.1	1-1/2"
Z5	62.8	1-1/2"
Z6	62.8	1-1/2"
Z7	78.5	1-1/2"
Z8	62.8	1-1/2"
Z9	62.8	1-1/2"
Z10	78.5	1-1/2"
Z11	62.8	1-1/2"
Z12	78.5	1-1/2"
Z13	9.6	1"
Z14	62.8	1-1/2"
Z15	78.5	1-1/2"
Z16	78.5	1-1/2"
Z17	62.8	1-1/2"
Z18	62.8	1-1/2"
Z19	62.8	1-1/2"
Z20	47.1	1-1/4"
Z21	62.8	1-1/2"
Z22	62.8	1-1/2"

LARGE RADIUS IRRIGATION ROTOR HEADS CHART:

TORO 640 SERIES CHECK-O-MATIC SPRINKLER
43 NOZZLE:
RADIUS 59'
ARC: FULL GPM: 15.7
ROTOR HEAD SPACING 53' OR AS SHOWN:
MODEL# - 644 02 43

TORO 640 SERIES CHECK-O-MATIC SPRINKLER
43 NOZZLE:
RADIUS 59'
ARC: 1/2 GPM: 15.7
ROTOR HEAD SPACING 53' OR AS SHOWN:
MODEL# - 643 02 43

TORO 640 SERIES CHECK-O-MATIC SPRINKLER
43 NOZZLE:
RADIUS 59'
ARC: 3/4 GPM: 15.7
ROTOR HEAD SPACING 53' OR AS SHOWN:
MODEL# - 643 02 43

TORO 640 SERIES CHECK-O-MATIC SPRINKLER
43 NOZZLE:
RADIUS 59':
ARC 127 GPM: 15.7
ROTOR HEAD SPACING 53' OR AS SHOWN:
MODEL# - 640 02 43 127

SMALL RADIUS IRRIGATION ROTOR HEADS CHART:

TORO T5 SERIES ROTOR
2.0 NOZZLE:
RADIUS 37':
ARC: 1/2 GPM: 2.12
ROTOR HEAD SPACING 33' OR AS SHOWN:
MODEL# - T5P-20

TORO T5 SERIES ROTOR
1.5 NOZZLE:
RADIUS 35':
ARC: 1/2 GPM: 1.8
HEAD SPACING 31' OR AS SHOWN:
MODEL# - T5HP-15CK

XXX : XXX

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REFERENCES

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NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

WASHINGTON REGISTERED LANDSCAPE ARCHITECT
JAMES A. BROWN
CERTIFICATE NO. 453

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

j.a. brennan associates PLLC

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT SEATTLE, WASHINGTON

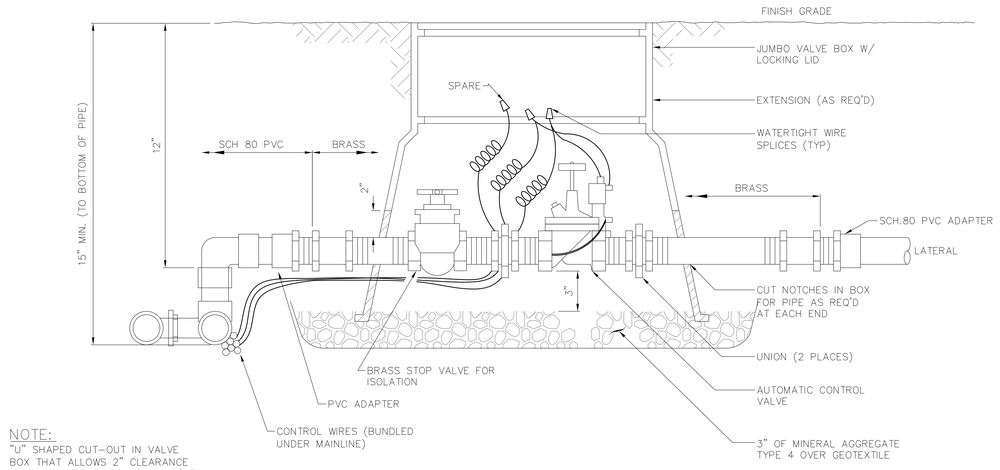
AS-BUILT IRRIGATION SYSTEM

Project No.

Drawing No. FIGURE 6

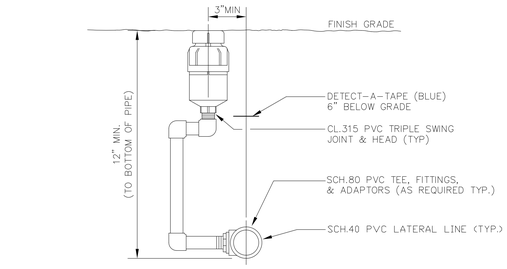
Sheet of

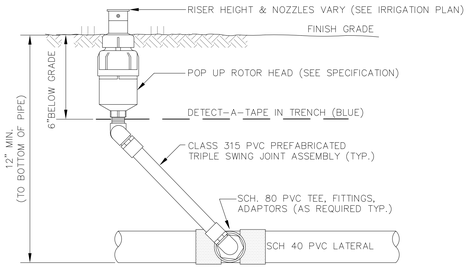
IRRIGATION LEGEND			
EQUIPMENT	PRODUCT/ MODEL	SYMBOL	
CONTROLLER	RAINBIRD ESP-SITE SAT 24 STATION PEDESTAL MOUNTED CONTROLLER. SEE DETAIL. CONTROLLER PROVIDED BY COS PARKS		
POINT OF CONNECTION	SEE POINT OF CONNECTION DETAIL ON SHT. L-5		
SMALL ROTOR HEADS	TORO T5 SERIES	SEE ROTOR HEAD CHART	
LARGE ROTOR HEADS	TORO 640 SERIES	SEE ROTOR HEAD CHART	
PIPE			
MAINLINE	SCH. 40 PVC PIPE, 3" DIAMETER, OR AS NOTED ON PLANS		
LATERAL	SCH. 40 PVC PIPE, SIZE AS NOTED ON PLAN		
SLEEVING	SCH. 40 PVC PIPE SIZE SEE SPECS.		
	DUCTILE IRON PIPE SIZE SEE SPECS.		
AUTOMATIC CONTROL VALVE	BUCKNER VALVE MODEL VB SEE SPECS. SIZE VARIES SEE PLAN		
MANUAL DRAIN VALVE	MUELLER MARK ORISEAL OR APPROVED EQUAL. SIZE = LINE SIZE. PROVIDE VALVE BOX.	DV	
QUICK COUPLER	PROVIDE VALVE BOX W/ LOCKING LID SEE SPECS. SIZE = LINE SIZE		
GATE VALVE	WILKINS OR APPROVED EQUAL, SIZE = LINE SIZE . PROVIDE VALVE BOX W/LOCKING LID SEE SPECS.		



NOTE:
"U" SHAPED CUT-OUT IN VALVE BOX THAT ALLOWS 2" CLEARANCE FROM TOP OF PIPE TO TOP OF "U"

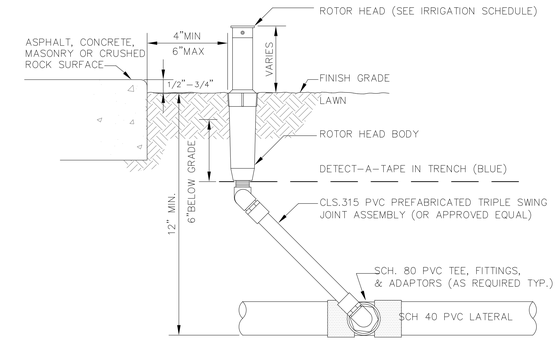
A AUTOMATIC CONTROL VALVE
NOT TO SCALE





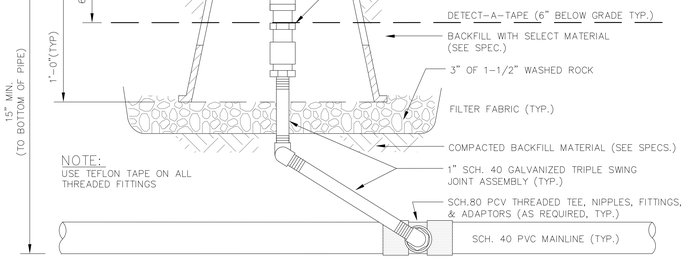
NOTE:
USE TEFLON TAPE ON ALL THREADED FITTINGS

B ROTOR HEAD WITH TRIPLE SWING JOINT
NOT TO SCALE

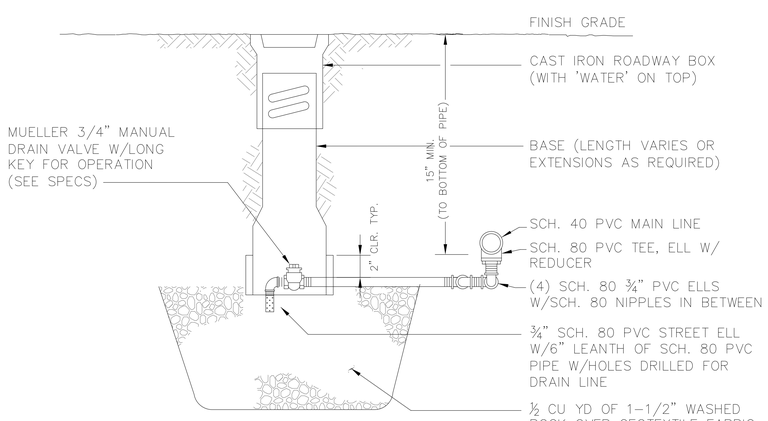


NOTE:
USE TEFLON TAPE ON ALL THREADED FITTINGS

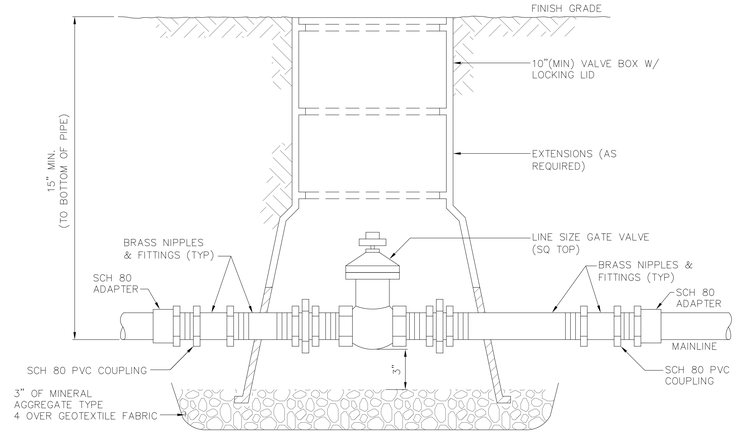
C IRRIGATION HEAD SETBACK FROM PAVING
NOT TO SCALE



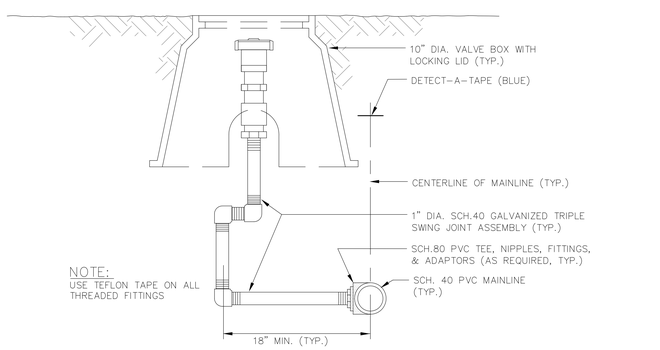
NOTE:
USE TEFLON TAPE ON ALL THREADED FITTINGS



D MANUAL DRAIN VALVE
NOT TO SCALE



E GATE VALVE
NOT TO SCALE



NOTE:
USE TEFLON TAPE ON ALL THREADED FITTINGS

F QUICK COUPLER VALVE
NOT TO SCALE

N W E S

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FEET

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

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

WASHINGTON REGISTERED LANDSCAPE ARCHITECT
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PSE PUGET SOUND ENERGY

j.a. brennan associates PLLC

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

AS-BUILT IRRIGATION SYSTEM DETAILS

Project No.
Drawing No. FIGURE 7
Sheet of

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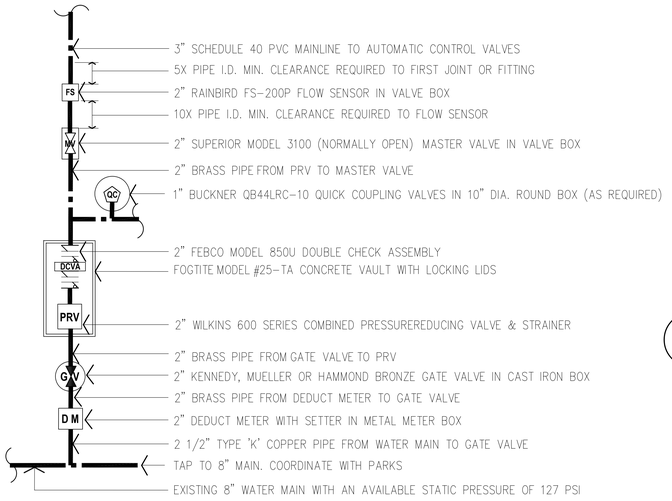
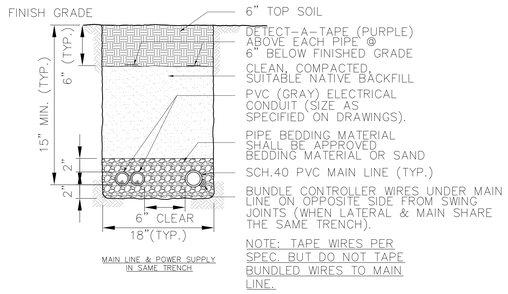
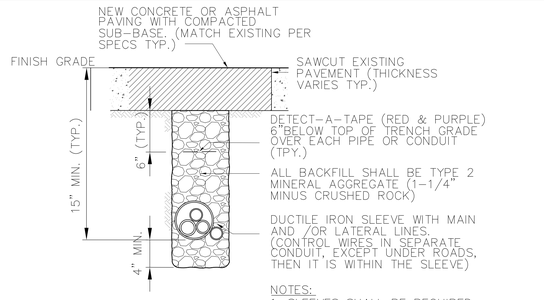


NOTES:
1. ALL COMPONENTS OF SCHEMATIC POINT OF CONNECTION SHALL BE INSTALLED PER SPR STANDARD DETAILS.
2. BACKFLOW PREVENTION DEVICE INSTALLATIONS REQUIRE INSPECTION, TESTING & CERTIFICATION BY SPU INSPECTION SERVICES. (SEE SPECIFICATIONS).
3. FOR 1-¼" & SMALLER SIZED PRV/DCVA APPLICATIONS USE FOGTITE #2 METER BOX.

A STANDARD POINT OF CONNECTION DIAGRAM
NOT TO SCALE

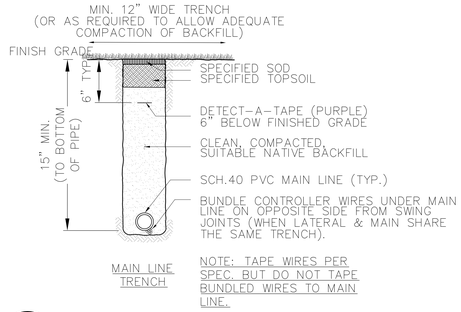


B MAIN LINE AND POWER LINE IN SAME TRENCH
NOT TO SCALE

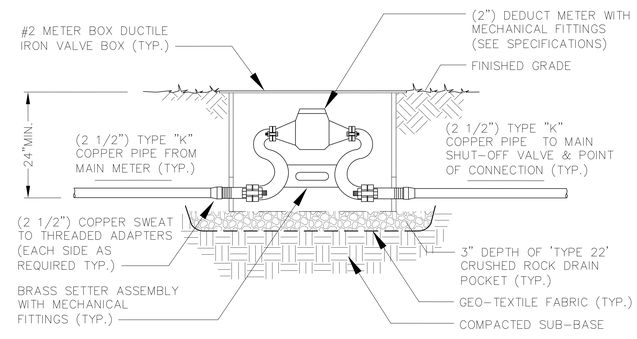


NOTES:
1. SLEEVES SHALL BE REQUIRED UNDER ALL PAVED AREAS & WALL OR FOOTING PENETRATIONS.
2. SLEEVE ID PIPE SIZE SHALL BE AT LEAST 2 TIMES GREATER THAN THE TOTAL OD SIZES OF INSERTED PIPES.
3. WIRES SHALL BE IN A SEPARATE SCH. 80 PVC ELECTRICAL CONDUIT WITHIN THE LARGER DUCTILE IRON SLEEVE.

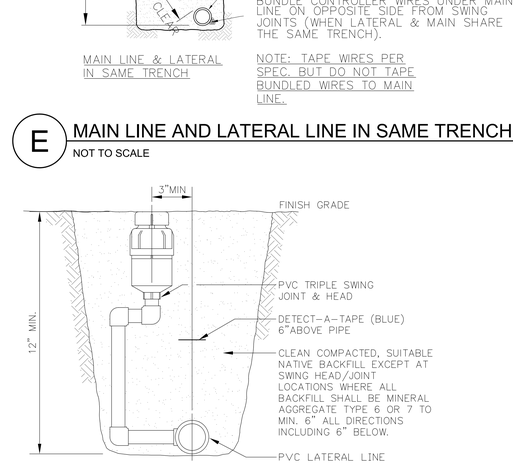
C DUCTILE IRON SLEEVING
NOT TO SCALE



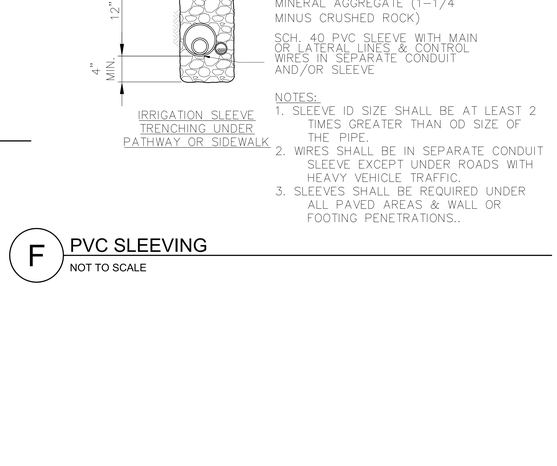
D MAIN LINE TRENCHING
NOT TO SCALE



G IRRGATION DEDUCT METER
NOT TO SCALE



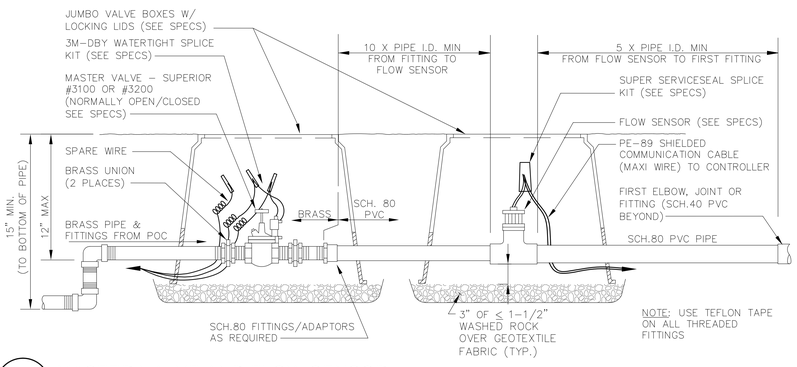
E MAIN LINE AND LATERAL LINE IN SAME TRENCH
NOT TO SCALE



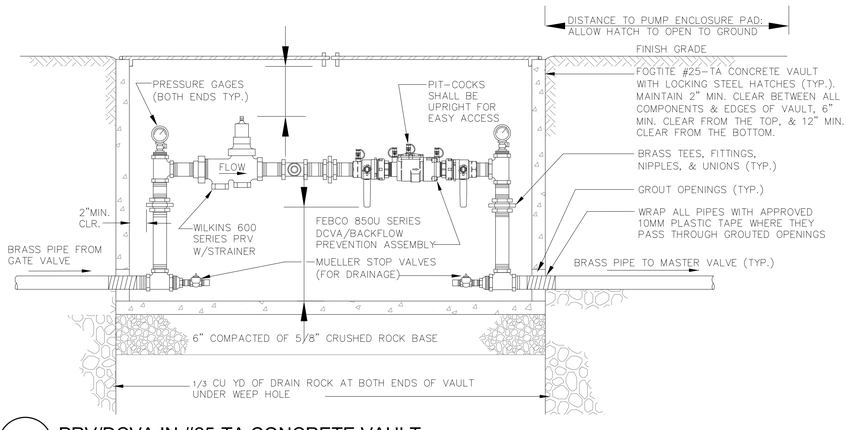
NOTES:
1. SLEEVE ID SIZE SHALL BE AT LEAST 2 TIMES GREATER THAN OD SIZE OF THE PIPE.
2. WIRES SHALL BE IN SEPARATE CONDUIT SLEEVE EXCEPT UNDER ROADS WITH HEAVY VEHICLE TRAFFIC.
3. SLEEVES SHALL BE REQUIRED UNDER ALL PAVED AREAS & WALL OR FOOTING PENETRATIONS..

F PVC SLEEVING
NOT TO SCALE

H LATERAL LINE TRENCHING
NOT TO SCALE



I MASTER VALVE AND FLOW SENSOR
NOT TO SCALE



J PRV/DCVA IN #25-TA CONCRETE VAULT
NOT TO SCALE

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

WASHINGTON REGISTERED LANDSCAPE ARCHITECT
JAMES A. BRENNAN CERTIFICATE NO. 453

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

j.a. brennan associates PLLC

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

AS-BUILT IRRIGATION SYSTEM DETAILS

Project No.
Drawing No. FIGURE 8
Sheet of

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(A) IRRIGATION CONTROL PANEL LEGEND:

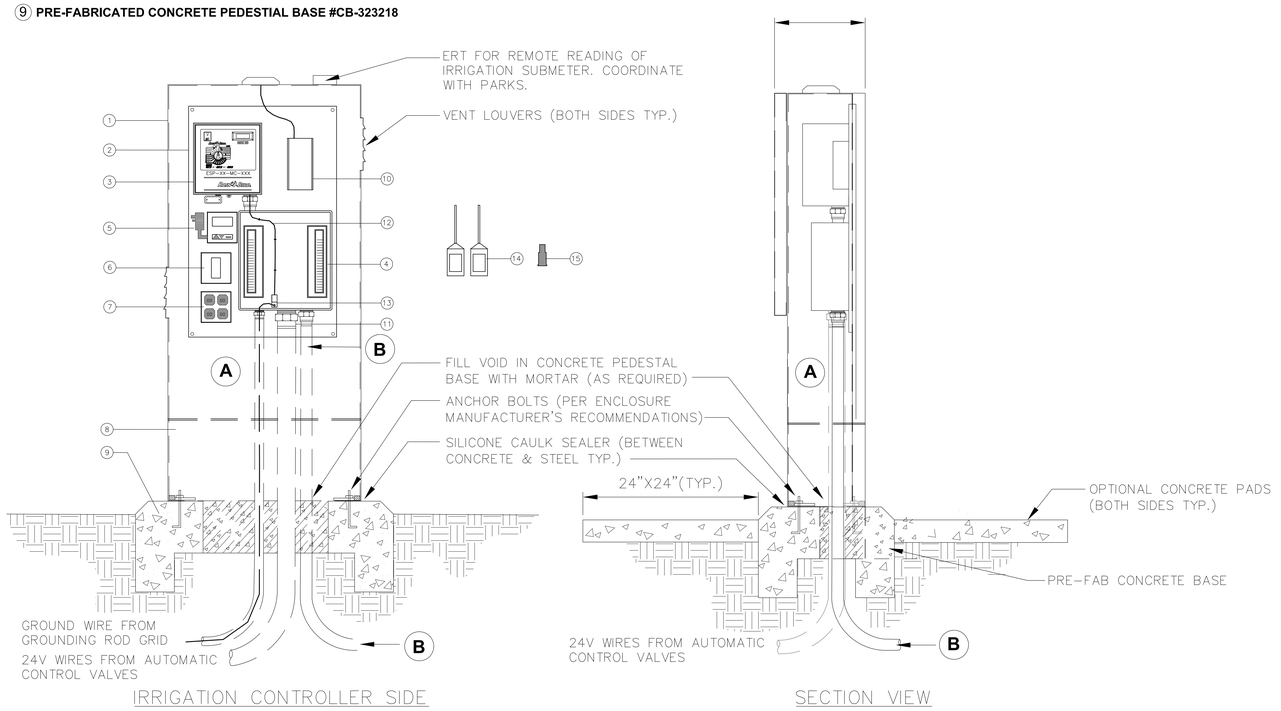
1. STRONGBOX ENCLOSURE PROVIDED BY COS PARKS, INSTALLED BY CONTRACTOR
2. ALUMINUM PANEL (BOLTED TO BACK WALL OF BOX)
3. CONTROLLER PROVIDED BY COS PARKS. INSTALLED BY CONTRACTOR.
4. TERMINAL BOX WITH TERMINAL STRIPS.
5. RAINBIRD FLOW MONITOR.
6. *PUMP MANUFACTURER (IF REQUIRED)*
7. LEVITON 5280-W, GFI OUTLET.
8. 12" ENCLOSURE EXTENSION (TYP.)
9. PRE-FABRICATED CONCRETE PEDESTIAL BASE #CB-323218
10. DATAREMOTE DIGITAL CELLULAR COMMUNICATION UNIT (#CDS-9022-1X-V) WITH DOMED TOP ANTENNA & CABLE
11. MIN. 2" CONDUIT FOR STATION CONTROL WIRES
12. GROUND WIRE CONNECTS FROM GROUND LUG TO GROUNDING BUSS IN CONTROLLER (TYP.)
13. GROUND LUG (RUN WIRE FROM GROUND LUG TO GROUNDING ROD GRID TYP.)
14. TRC COMMANDER REMOTE TRANSMITTERS (2 UNITS PER PROJECT TYP.)
15. PULSE DECODER (OPTIONAL IF REQUIRED)

(B) POWER TO CONTROLLER:

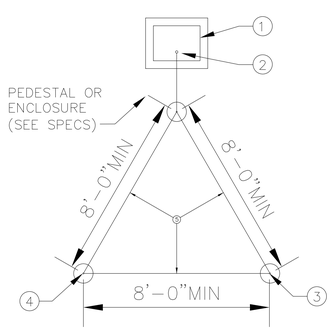
1. POWER SUPPLY WILL BE DRAWN FROM AN EXISTING CONTROLLER CABINET AT THE GAS WORKS ANNEX .
2. CONTRACTOR SHALL COORDINATE WITH PARKS CREWS TO TRENCH AND INSTALL ELECTRICAL CONDUIT AND PULL WIRE TO THE NEW CONTROLLER PEDESTAL. INSTALL ALL ELECTRICAL PER CITY CODE.
3. AN ELECTRIC METER INSTALLATION IS NOT NEEDED FOR THIS NEW CONTROLLER.

ENCLOSURE CABINET :

STRONG BOX CABINET
SUPPLIED BY CITY OF SEATTLE PARKS AND INSTALLED BY CONTRACTOR.



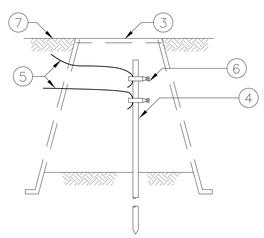
1 POWER DROP WITH METER & IRRIGATION CONTROLLER ENCLOSURE DETAILS
NOT TO SCALE



GROUND ROD GRID LAYOUT

GROUNDING LEGEND

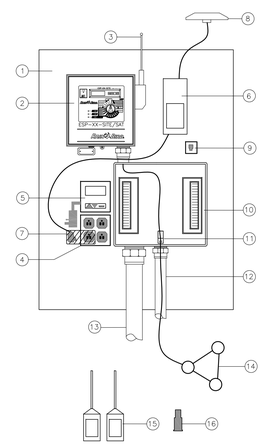
1. CONTROLLER AND/OR CLUSTER CONTROL UNIT (CCU)
2. #10 AWG SOLID BARE COPPER WIRE FROM GROUNDING ROD TO GROUND LUG ON CONTROLLER (OR CCU). MAKE WIRE AS SHORT AS POSSIBLE.
3. COVER GROUNDING ROD WITH 6" ROUND VALVE BOX
4. 5/8"X8'-0" COPPER CLAD GROUNDING RODS. INSTALL RODS IN SOIL IN A TRIANGULAR PATTERN, SPACED 8'-0"MIN APART. GROUNDING GRID SHALL HAVE A RESISTANCE OF 10 OHMS OR LESS.
5. #10 AWG BARE COPPER WIRE BETWEEN GROUNDING RODS (TYP.).
6. BRASS WIRE CLAMP (USE SEPARATE CLAMP FOR EACH WIRE).
7. FINISH GRADE.


GROUND ROD ASSEMBLY

2 GROUNDING ROD GRID DETAILS
NOT TO SCALE

A PEDESTAL MOUNTED CONTROLLER
NOT TO SCALE

1. MPAN2436A BACK PANEL
2. CONTROLLER PROVIDED BY COS PARKS. INSTALLED BY CONTRACTOR CONTROLLER WITH REMOTE RECEIVER CARD (#01060UP).
3. REMOTE ANTENNA
4. LEVITON 5280-W GFI OUTLET
5. RAINBIRD PT1502 FLOW MONITOR.
6. DATAREMOTE CELLULAR COMMUNICATION EQUIPMENT (#CDS-9022-1X-V).
7. DATAREMOTE POWER SUPPLY. (APS MODEL #AD-740-1150/SCG).
8. CELLULAR ANTENNA WITH ADAPTER & CABLE (INSTALLED ON TOP OF ENCLOSURE OR BUILDING AS REQUIRED).
9. RJ-11 PHONE JACK (AS REQ.).
10. TERMINAL BOX W/ TERMINAL STRIPS.
11. GROUND LUG.
12. 2" CONDUIT FOR STATION ZONE CONTROL WIRES.
13. 1" CONDUIT FOR GROUND WIRE FROM GROUNDING GRID (TYP.).
14. GROUNDING GRID
15. TRC COMMANDER REMOTE TRANSMITTERS (2 UNITS PER PROJECT TYP.).
16. PULSE DECODER (OPTIONAL AS REQUIRED).



NOTES: DATAREMOTE CELLULAR EQUIPMENT IS NOT USED IF PHONE SERVICE IS HARDLINED AT FACILITY. PHONE JACK IS USED FOR HARDLINE OPTION. GROUNDING IS REQUIRED (SEE SPECS).

B MAXICOM CONTROL PANEL
NOT TO SCALE

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REFERENCES		REVISIONS											
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j.a. brennan associates PLLC

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

AS-BUILT IRRIGATION SYSTEM DETAILS

Project No.
Drawing No. FIGURE 9
Sheet of

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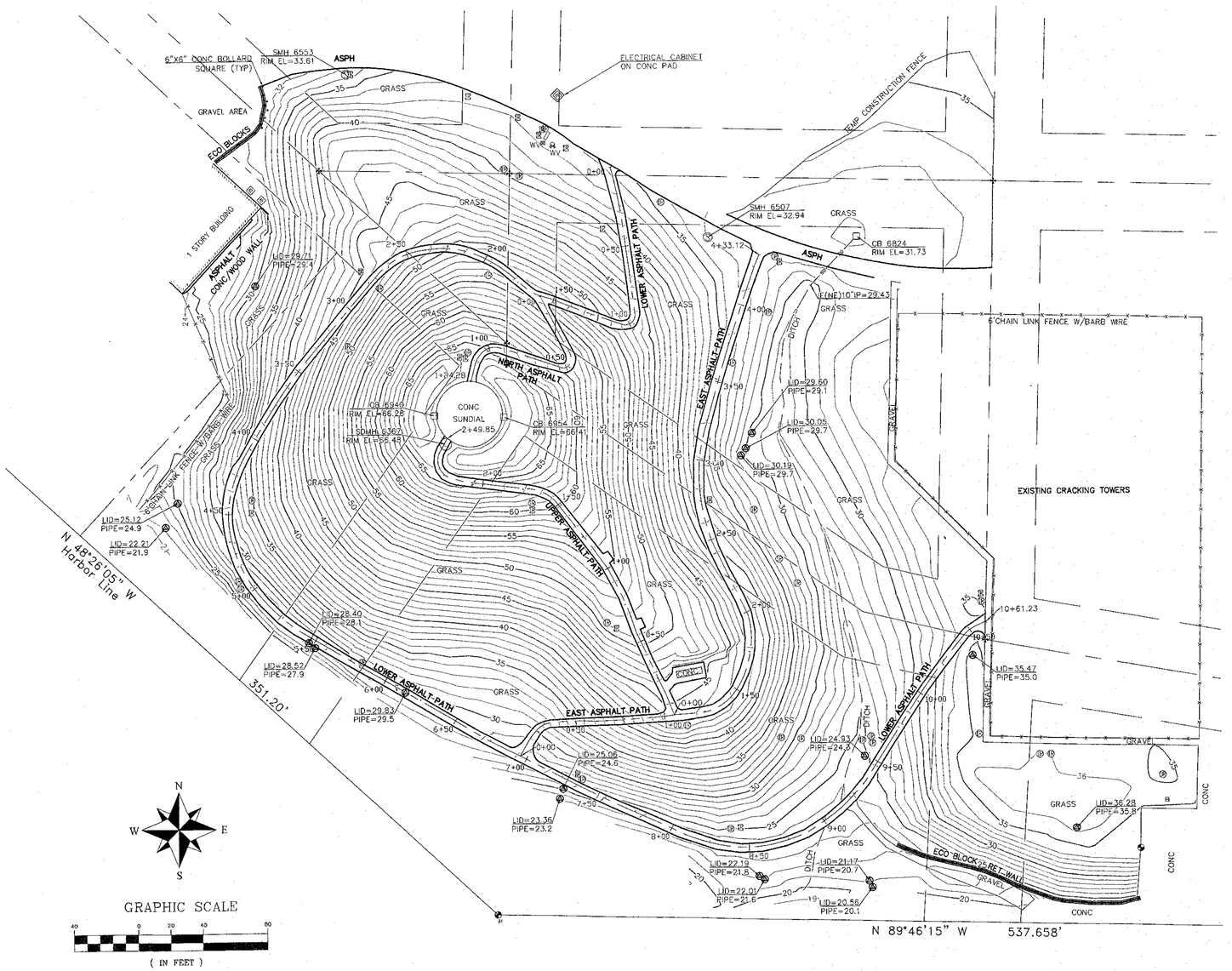
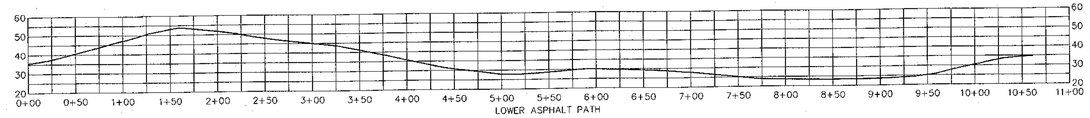
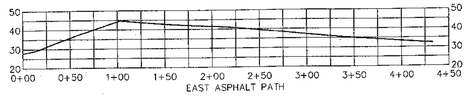
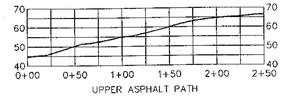
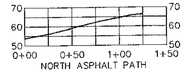










GRAPHIC SCALE

80 0 40 80 160

(IN FEET)

NOTES

1. BASIS OF BEARINGS: WASHINGTON STATE PLANE, NORTH ZONE
2. VERTICAL DATUM: NAVD 88
3. DATE OF SURVEY: MAY, JULY, AND AUGUST 2015.
4. EQUIPMENT USED: LEICA VIVA GS15
5. SURFACE UTILITIES SHOWN HEREON WERE FROM OBSERVED PHYSICAL STRUCTURES.
6. 1' CONTOUR INTERVAL.

LEGEND

- CENTERLINE
- STORM DRAIN LINE
- CHAIN LINK FENCE
- CONSTRUCTION FENCE
- WATER METER
- IRRIGATION BOX
- IRRIGATION VAVLE
- LID=29.71 PIPE=29.4 MONITORING WELL WITH TOP OF LID AND TOP-OF-PIPE ELEVATIONS
- CATCH BASIN
- STORM DRAIN MANHOLE
- SANITARY SEWER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- ELECTRICAL VAULT OR CABINET

REV	REVISION	DATE	BY	APP'D
01	ADDITIONS TO SURFACE AND RET WALL	07/13/15	SS	TI
02	ADDITIONS TO SURFACE, MW ELEVATIONS, AND ADDED TOPO	08/10/15	SS	TI

SURVEYED: SS
DRAWN: MP
CHECKED: TI

True NORTH LAND SURVEYING, INC.
815 S. Weller Street
Suite 200
Seattle, WA 98104-3023
206.332.0800

TIMOTHY J. INGRAHAM STATE OF WASHINGTON 24900 REGISTERED PROFESSIONAL LAND SURVEYOR

Date: 08/20/2015
Scale: AS NOTED
Drawing Name: J14-80.00

GAS WORKS PARK, KITE HILL
SOIL COVER PROJECT
FOR: WYSER CONSTRUCTION

Job Number: J14-80
Sheet: 1 of 1

APPENDICES

GeoEngineers

APPENDIX A
Temporary Erosion and Sediment Control Log

Construction Stormwater Site Inspection Form

Project Name **Kite Hill Soil Cover** Permit # WAR302235 Inspection Date **9/3/14** Time **0700**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: DAN RETZLOFF

Approximate rainfall amount since the last inspection (in inches): 1-2

Approximate rainfall amount in the last 24 hours (in inches): 1-2

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[X]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[ ]	Final stabilization	[ ]

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No	
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes	No X	
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes	No X	
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes	No X	
5.	If yes to #4 was it reported to Ecology?	Yes	No X	
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes	No X	

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date:

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?		X				On-going BMP installation.
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) DAN REYNOLDS (Signature) _____ Date: 4/4/14

Title/Qualification of Inspector: PM WYSER CONSTRUCTION CO INC

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **9/9/14** Time **1200**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Approx 0.20

Approximate rainfall amount in the last 24 hours (in inches): 0.01

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[ ]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.			X			
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X					
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X					
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [X] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dave Richards (Signature) _____ Date: _____

Title/Qualification of Inspector: POA

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date 9/19/14 Time 10:00

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Approx 1.25

Approximate rainfall amount in the last 24 hours (in inches): .15

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[ ]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.			X			
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X					
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X					
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [X] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
	:			

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 9/19/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **9/26/14** Time **10:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Approx 1.25

Approximate rainfall amount in the last 24 hours (in inches): .65

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[ ]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.			X			
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X					
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X					
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [X] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	9/25/14	DR

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 9/26/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name **Kite Hill Soil Cover** Permit # WAR302235 Inspection Date **10/03/14** Time **10:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): No measurable rainfall

Approximate rainfall amount in the last 24 hours (in inches): _____

Current Weather Clear [X] Cloudy [ ] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X					
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X					
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [X] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	9/25/14	DR
2	N. Northlake Place	Daily sweeper operation	10/3/14	DR
	:			

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 10/03/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **10/10/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Rainfall .45

Approximate rainfall amount in the last 24 hours (in inches): None

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X					
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X					
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [X] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	10/10/14	DR
2	N. Northlake Place	Daily sweeper operation	10/10/14	DR
	:			

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 10/10/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name **Kite Hill Soil Cover** Permit # WAR302235 Inspection Date **10/17/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Rainfall .78

Approximate rainfall amount in the last 24 hours (in inches): None

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [X] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No	
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes	No X	
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes	No X	
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes	No X	
5.	If yes to #4 was it reported to Ecology?	Yes	No X	
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes	No X	

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed and approx. 2/3 of site is hydro seeded**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X					
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	10/10/14	DR
2	N. Northlake Place	Daily sweeper operation	10/10/14	DR
4	Kite Hill	Hydro seed completed	10/17/14	DR
	:			

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 10/17/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date 10/22/14 Time 9:00

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____
A AZQ

Approximate rainfall amount since the last inspection (in inches): Rainfall .78

Approximate rainfall amount in the last 24 hours (in inches): None

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [X] Wind [x] Fog [ ]

A. Type of inspection: Weekly [ ] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.
Ponding of small amounts of water in ditch lines but nothing to pump

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed approx. 80% of site and hydro seeded 65%**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			Little ponding of water, not enough for pumping		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X					
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X					
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	10/10/14	DR
2	N. Northlake Place	Daily sweeper operation	10/10/14	DR
4	Kite Hill	Hydro seed completed	10/17/14	DR
	:			

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 10/22/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name **Kite Hill Soil Cover** Permit # WAR302235 Inspection Date **10/23/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*

Print Name: _____

A AZQ

Approximate rainfall amount since the last inspection (in inches): Rainfall .65

Approximate rainfall amount in the last 24 hours (in inches): 1.43

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [X] Wind [x] Fog [ ]

A. Type of inspection: Weekly [ ] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No	
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes	No X	
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes	No X	
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes	No X	
5.	If yes to #4 was it reported to Ecology?	Yes	No X	
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes	No X	

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.

Ponding of small amounts of water in ditch lines but nothing to pump

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed approx. 80% of site and hydro seeded 65%**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			Pump water from pond area in the middle of the swale		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X			All water was pumped into baker tanks today		
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X			Pond was established to contain water before it gets to the ditches. Clean water		
	Were contaminated surfaces cleaned immediately after a spill incident?			X			

	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			
Element #	**Inspection**	**BMPs Inspected**			**BMP needs maintenance**	**BMP failed**	**Action required (describe in section F)**
		yes	**no**	**n/a**			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	10/10/14	DR
2	N. Northlake Place	Daily sweeper operation	10/10/14	DR
4	Kite Hill	Hydro seed completed	10/17/14	DR
8,9	Swale area	Trapped water in pond and pump into baker tanks	10/22/14 10/23/14	DR
	:			

Attach additional page if needed

Sign the following certification:

Construction Stormwater Site Inspection Form

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 10/23/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **10/24/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Rainfall 1.12"

Approximate rainfall amount in the last 24 hours (in inches): 2.12

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [X] Wind [x] Fog [ ]

A. Type of inspection: Weekly [ ] Post Storm Event [X] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No ___
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5.	If yes to #4 was it reported to Ecology?	Yes ___	No X
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.
No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge. Set up containment area where water is ponding, pump water from that point into baker tanks for holding area. No Water observed in the infiltration ditches

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed approx. 80% of site and hydro seeded 65%**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X			**Piles are covered with visqueen**		
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X			**Containment pond**		
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			Pump water from pond area in the middle of the swale		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X			All water was pumped into baker tanks today		
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X			Pond was established to contain water before it gets to the ditches. Clean water		
	Were contaminated surfaces cleaned immediately after a spill incident?			X			

	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			
Element #	**Inspection**	**BMPs Inspected**			**BMP needs maintenance**	**BMP failed**	**Action required (describe in section F)**
		yes	**no**	**n/a**			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

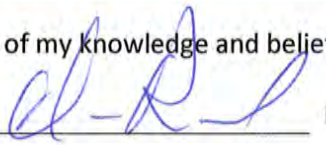
Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	10/10/14	DR
2	N. Northlake Place	Daily sweeper operation	10/10/14	DR
4	Kite Hill	Hydro seed completed	10/17/14	DR
6,8,9	Swale area	Trapped water in pond and pump into baker tanks	10/22/14 10/23/14	DR
	:			

Attach additional page if needed

Sign the following certification:

Construction Stormwater Site Inspection Form

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature)  Date: 10/24/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **10/31/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Rainfall 2.46"

Approximate rainfall amount in the last 24 hours (in inches): 1.86

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [X] Wind [x] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [ ] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No	
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes	No X	
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes	No X	
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes	No X	
5.	If yes to #4 was it reported to Ecology?	Yes	No X	
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes	No X	

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.
Set up containment area where water is ponding, pump water from that point into baker tanks for holding area.
Water was observed in the lower infiltration trench and swale area, water is being pumped into Baker Tanks

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed approx. 80% of site and hydro seeded 65%, 20,000 SF of sod has been installed**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X			**Piles are covered with visqueen**		
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X			**Containment pond**		
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			Pump water from pond area in the middle of the swale		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X			All water was pumped into baker tanks today		
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X			Pond was established to contain water before it gets to the ditches. Clean water		
	Were contaminated surfaces cleaned immediately after a spill incident?			X			

	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			
Element #	**Inspection**	**BMPs Inspected**			**BMP needs maintenance**	**BMP failed**	**Action required (describe in section F)**
		yes	**no**	**n/a**			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	10/10/14	DR
2	N. Northlake Place	Daily sweeper operation	10/10/14	DR
4	Kite Hill	Hydro seed completed	10/17/14	DR
6,8,9	Swale area	Trapped water in pond and pump into baker tanks	10/27/14 10/31/14	DR
	:			

Attach additional page if needed

Sign the following certification:

Construction Stormwater Site Inspection Form

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 10/31/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name **Kite Hill Soil Cover** Permit # WAR302235 Inspection Date **11/07/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Rainfall .78 "

Approximate rainfall amount in the last 24 hours (in inches): Rainfall .22 "

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [X] Wind [x] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [ ] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls		Clearing/Demo/Grading	X	Infrastructure/storm/roads	
Concrete pours		Vertical Construction/buildings		Utilities	
Offsite improvements		Site temporary stabilized	X	Final stabilization	

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No	
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes	No X	
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes	No X	
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes	No X	
5.	If yes to #4 was it reported to Ecology?	Yes	No X	
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes	No X	

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.
Set up containment area where water is ponding, pump water from that point into baker tanks for holding area.
Water was observed in the lower infiltration trench and swale area, water is being pumped into Baker Tanks

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed approx. 90% of site and hydro seeded 65%, 30,000 SF of sod has been installed**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X					
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X					
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			Pump water from pond area in the middle of the swale		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X			All water was pumped into baker tanks today		
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X			Pond was established to contain water before it gets to the ditches. Clean water		
	Were contaminated surfaces cleaned immediately after a spill incident?			X			

	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			
Element #	**Inspection**	**BMPs Inspected**			**BMP needs maintenance**	**BMP failed**	**Action required (describe in section F)**
		yes	**no**	**n/a**			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	11/07/14	DR
2	N. Northlake Place	Daily sweeper operation	11/07/14	DR
4	Kite Hill Hydro-seeded and 30,000 Sod	Complete topsoil	11/07/14	DR
6,8,9	Swale area	Trapped water in pond and pump into baker tanks	10/27/14 11/07/14	DR
	:			

Attach additional page if needed

Sign the following certification:

Construction Stormwater Site Inspection Form

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 11/10/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **11/14/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): Clear

Approximate rainfall amount in the last 24 hours (in inches): 0"

Current Weather Clear [X] Cloudy [ ] Mist [ ] Rain [ ] Wind [x] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [ ] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes X	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No X
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No X
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No X
5. If yes to #4 was it reported to Ecology?	Yes ___	No X
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No X

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge.
Set up containment area where water is ponding, pump water from that point into baker tanks for holding area.
Water was observed in the lower infiltration trench and swale area, water is being pumped into Baker Tanks

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Topsoil has been installed approx. 100% of site and hydro seeded 65%, 50,000 SF of sod has been installed**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X					
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X					
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X			**No piles onsite**		
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X			**Removed and sod installed**		
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			All area's are contained with topsoils and sod		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X			All pumping is completed		
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X			Secondary pond removed and sod installed		
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	11/17/14	DR
2	N. Northlake Place	Daily sweeper operation	11/17/14	DR
4	Kite Hill	Hydro seed completed, sod 90%	10/17/14	DR
6,8,9	Swale area	Topsoil complete, sod will be completed in swale area	11/17/14 11/17/14	DR
	:			

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 11/17/14

Title/Qualification of Inspector: Project Manager

Construction Stormwater Site Inspection Form

Project Name Kite Hill Soil Cover Permit # WAR302235 Inspection Date **11/21/14** Time **9:00**

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): .15"

Approximate rainfall amount in the last 24 hours (in inches): 0"

Current Weather Clear [ ] Cloudy [X] Mist [ ] Rain [ ] Wind [ ] Fog [ ]

A. Type of inspection: Weekly [X] Post Storm Event [ ] Other [ ]

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	[ ]	Clearing/Demo/Grading	[X]	Infrastructure/storm/roads	[ ]
Concrete pours	[ ]	Vertical Construction/buildings	[ ]	Utilities	[ ]
Offsite improvements	[ ]	Site temporary stabilized	[X]	Final stabilization	[ ]

C. Questions:

1.	Were all areas of construction and discharge points inspected?	Yes X	No	
2.	Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes	No X	
3.	Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes	No X	
4.	Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes	No X	
5.	If yes to #4 was it reported to Ecology?	Yes	No X	
6.	Is pH sampling required? pH range required is 6.5 to 8.5.	Yes	No X	

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

No discharge was observed or noted. No sampling for turbidity or pH occurred due to there being no discharge. All area's have new grass on the exposed area's, Baker tanks are being clean and removed from site. 5 Tanks have Been removed from site, 5 Tanks still remain onsite

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)	X					
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?	X					
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.	X					
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?			X			
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?			X			
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).	X			**Partial silt fence has been removed and grass has been installed per BMPs**		
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.	X			**All ponds have been removed, no longer needed**		
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.	X			**Stormwater is being directed over existing lawn area**		
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?	X					

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?	X			**No piles onsite**		
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?	X					
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?	X			**Removed and sod installed**		
	Is off-site storm water managed separately from stormwater generated on the site?			X			
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?	X					
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?	X					
7 Drain Inlets	Storm drain inlets made operable during construction are protected.			X			
	Are existing storm drains within the influence of the project protected?	X					
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?	X			All area's are contained with topsoils and sod		
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?	X			All pumping is completed		
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?	X					
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?	X					
	Has secondary containment been provided capable of containing 110% of the volume?	X			Secondary pond removed and sod installed		
	Were contaminated surfaces cleaned immediately after a spill incident?			X			
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?			X			

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.			X			
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.			X			
	Dewatering has been done to an approved source and in compliance with the SWPPP.			X			
	Were there any clean non turbid dewatering discharges?			X			
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?	X					
12 Manage the Project	Has the project been phased to the maximum degree practicable?	X					
	Has regular inspection, monitoring and maintenance been performed as required by the permit?	X					
	Has the SWPPP been updated, implemented and records maintained?	X					

E. Check all areas that have been inspected. ✔

All in place BMPs [X] All disturbed soils [ ] All concrete wash out area [ ] All material storage areas [X]
All discharge locations [X] All equipment storage areas [X] All construction entrances/exits [X]

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials
2	Construction Entrance	Sweeper onsite	11/17/14	DR
2	N. Northlake Place	Daily sweeper operation	11/17/14	DR
4	Kite Hill	Hydro seed completed, sod 90%	10/17/14	DR
6,8,9	Swale area	Topsoil complete, sod is completed in swale area	11/21/14	DR
	Baker tanks are no longer needed onsite :	5 tanks are removed and the other 5 next week		

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) Dan Reynolds (Signature) _____ Date: 11/21/14

Title/Qualification of Inspector: Project Manager

APPENDIX B
Monitoring Well Abandonment Report

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE29171

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner: **Gas Works Park**
Site Address: **1801 N Northlake Way**
Consulting Firm: **Wyser Construction**
City: **Seattle** County: **King**

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NE** 1/4 **NE** Sec **19** TWN **25N** R **4E** EWM or _____ WWM

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) Curtis Ashley

Driller/Trainee Signature _____

Driller/Trainee License No. 3867

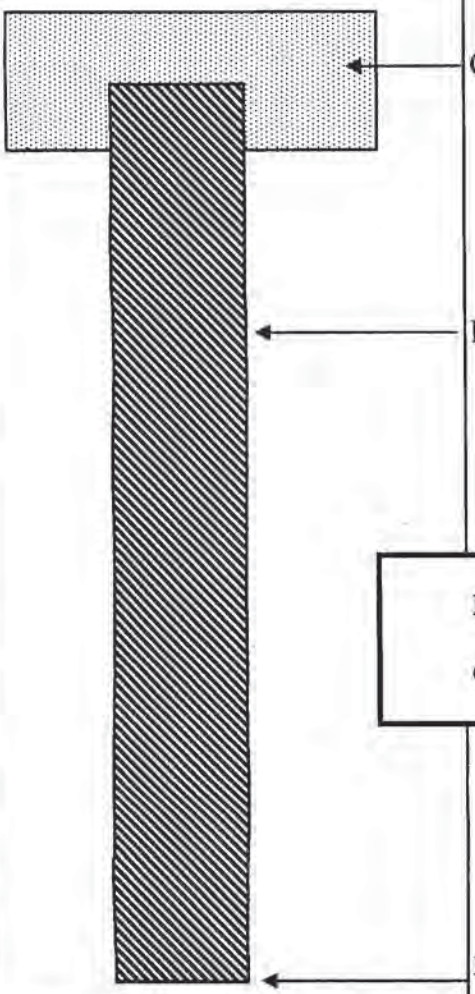
Cased or Uncased Diameter 8 1/4" Static Level 15'

Work/Decommision Start Date 10/13/14

Work/Decommision Completed Date 10/13/14

If trainee, licesned drillers' Signature and License No. _____

Construction/Design | Well Data 103-14-1460 | Formation Description



CONCRETE SURFACE SEAL 3 FT — 0 - 33 FT — Drill out 2" well

BACKFILL 30 FT — 0 - _____ FT — Bent. Chips

DEPTH OF BORING 33 FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG #: _____

CLIENT WELL ID #: PZ-4

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

APPENDIX C
Monitoring Well Abandonment Waste Disposal Documentation

17732

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAD988170225	1	206-205-5119	10018

GENERATOR

5. Generator's Name and Mailing Address

Seattle Parks and Rec. Gas Works Park
100 Dexter Ave N (Attn: Joey Sinclair)
Seattle, WA 98109

Generator's Site Address (if different than mailing address)

2101 Northlake Way N
Seattle, WA 98103

Generator's Phone: 206 684 7962

6. Transporter 1 Company Name

Kleen Environmental Technologies Inc

U.S. EPA ID Number

WAD988488452

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Chemical Waste Management of the NW
18629 Cedar Springs Lane
Arlington, OR 97812

U.S. EPA ID Number

ORD009020906

Facility's Phone: 541 454 2020

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Material Not Regulated by DOT	3	DM	165	G	
	2. Material Not Regulated by DOT	4	DM	2400	P	
	3.					
	4.					

13. Special Handling Instructions and Additional Information

1) 08426646 , 3 ea x 30/55 gal LAC Steel Drums, Waste from MGP site, 40 CFR261 .24(a)
2) 08324284 , 4 ea x 30/55 gal LAC Steel Drums, Waste from MGP site, 40 CFR261 .24(a)

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Nina Sinclair		10	15	15

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year
Paul Lucas		10	16	15

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR'S/SHIPPER'S INITIAL COPY

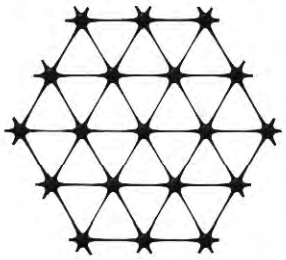
APPENDIX D
Geogrid Manufacturer's Cut Sheet

Tensar | THE COMPANY YOU CAN BUILD ON®

Interim Product Specification - TriAx® TX130S Geogrid[1]

Tensar International Corporation reserves the right to change its product specifications at any time. It is the responsibility of the person specifying the use of this product and of the purchaser to ensure that product specifications relied upon for design or procurement purposes are current and that the product is suitable for its intended use in each instance.

Tensar TriAx® Geogrid



General

1. The geogrid is manufactured from a punched polypropylene sheet, which is then oriented in three substantially equilateral directions so that the resulting ribs shall have a high degree of molecular orientation, which continues at least in part through the mass of the integral node.
2. The properties contributing to the performance of a mechanically stabilized layer include the following:

Index Properties	Longitudinal	Diagonal	Transverse	General
▪ Rib pitch[2], mm (in)	33 (1.30)	33 (1.30)	–	
▪ Mid-rib depth[2], mm (in)	–	1.5 (0.06)	1.2 (0.05)	
▪ Mid-rib width[2], mm (in)	–	0.6 (0.02)	0.7 (0.03)	
▪ Rib shape				rectangular
▪ Aperture shape				triangular

Structural Integrity	
▪ Junction efficiency[3], %	93
▪ Aperture stability[4], kg-cm/deg @ 5.0kg-cm	3.0
▪ Radial stiffness at low strain[5], kN/m @ 0.5% strain	200
(lb/ft @ 0.5% strain)	(15,075)

Durability	
▪ Resistance to chemical degradation[6]	100%
▪ Resistance to ultra-violet light and weathering[7]	100%

Dimensions and Delivery

The TX geogrid shall be delivered to the jobsite in roll form with each roll individually identified and nominally measuring 3.0 meters (9.8 feet) and/or 4.0 meters (13.1feet) in width and 75 meters (246 feet) in length.

Notes

1. Interim material property data sheet for TX130S as of December 1, 2011. Please contact Tensar for the most current material property data sheet for this product. Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
2. Nominal dimensions.
3. Load transfer capability determined in accordance with GRI-GG2-87 and GRI-GG1-87 and expressed as a percentage of ultimate tensile strength.
4. In-plane torsional rigidity measured by applying a moment to the central junction of a 225mm x 225mm specimen restrained at its perimeter in accordance with GRI-GG9 modified.
5. Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing in accordance with ASTM D6637-10.
6. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
7. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

Tensar International Corporation
2500 Northwinds Parkway, Suite 500
Alpharetta, Georgia 30009
Phone: 800-TENSAR-1
www.tensar-international.com

APPENDIX E
Import Fill Material Documentation

SUBMITTAL TRANSMITTAL

Project: Gas Works/Kite Hill Project
Puget Sound Energy

Date: 8/05/2014

A/E Project Number: 4600007635

Transmittal A

To: Puget Sound Energy
P.O. Box 97034 (EST-07E)
Bellevue, WA 98009-9734

Submittal Number: 08

From: Wyser Construction Co., Inc.
19015 – 109th Ave. S.E.
Snohomish, Wa. 98296

By: Dan Reynolds

Resubmission

Qty.	Submittal Checklist Item No.	Description	Spec. Section Title and Paragraph / Drawing Detail Reference
1	8	Asphalt Pathway Mix	02300

- ☒ Submitted for review and approval
- ☐ Resubmitted for review and approval
- ☐ Will be available to meet construction schedule
- ☐ Other remarks on above submission:
- ☐ Substitution involved – Substitution request attached with point-by-point comparative data or preliminary details.
- ☐ Complies with contract requirements
- ☐ One copy retained by sender

Transmittal B

To: Wyser Construction Co., Inc. Attn: Dan Reynolds

Date Received by A/E: 8/12/14

From: GEO Engineers

By: ~~Chris Bailey~~ Theo Leonard

Date Transmitted by A/E: 8/14/14

- ☑ Approved
- ☐ Approved as noted
- ☐ Not subject to review
- ☐ No action required
- ☐ Other remarks on above submission:
- ☐ Approved as noted / Resubmit
- ☐ Rejected / Resubmit
- ☐ Revise / Resubmit
- ☐ Submission Incomplete / Resubmit

Copies: ☐ Owner ☐ Consultants ☐ ☐ ☐ ☑ One copy retained by sender

ICONM**982 CF

HOT MIX ASPHALT MIX DESIGN SUBMITTAL

WSDOT CLASS 1/2" HMA - Commercial Evaluation - (Class "A" and "B" equivalent) *

Submittal Date: December 10, 2013
Description: **Class 1/2" Commercial**
Owner:
Contractor: **Northwest Asphalt, Inc.**

1. AGGREGATE, BINDER AND ANTI-STRIP SOURCES

A. First Mineral Aggregate - Washington State D.O.T. Source #A-464 (ICON Materials Auburn resource)
B. Second Mineral Aggregate - Source A-464
C. Blending Sand - Source A-464
D. Asphalt Cement - PG 64--22 - U.S. Oil & Refining - Tacoma WA refinery
Alternate Supplier: Targa Sound Terminal - Tacoma, WA terminal
Alternate Supplier: Gardner Asphalt - Tacoma, WA terminal
E. Anti-Strip Additive (All AC Suppliers) - Brand Name - Zysosoil
Alternate Anti-Strip Additive (All AC Suppliers) - Brand Name - ARR-MAZ Adhere LOF 6500

2. BLENDING RATIO

A. First Mineral Aggregate (5/8" chips) = 25 % **B.** Second Mineral Aggregate (1/2" - 0) = 70%
C. Blending Sand - 5%
D. AC Content - Most recent WSDOT design was verified by Washington State DOT (Mix ID No. MD120023). Asphalt binder content was set at 5.3% by weight of total mix. The proposed job mix formula is 1/2" HMA PG 64-22 as specified. For Commercial evaluation, this mix design approximates the obsolete Class "A"/ Class "B" spec.
E. Anti-Strip Additive - Arr-Maz anti-strip was required for WSDOT mix designs in 2011 - Dosage = 0.05%. Anti- strip additive dosage using Zycosoil was verified in the 2012 design at 0.10%

3. PROPOSED GRADATION

	Percent Passing by Weight				
	Stockpile Averages with blending ratios				
Sieve Sizes	First Mineral Aggregate (25%) (5/8" chips)	Second Mineral Aggregate (70%) (3/8" to 0)	Blending Sand (5%)	Proposed Target Gradation (Job Mix Formula)	1/2" HMA Specification
3/4"	100	100	100	100	100
1/2"	80.7	100	100	95	90 - 100
3/8"	18	97	100	77	90 Max
#4	3.5	64	100	51	
#8	3.0	42	99	35	28 - 58
#16	2.1	26	95.3	23	
#30	1.8	19	80.6	18	
#50	1.6	13.8	36.5	12	
#100	1.4	10.6	5.1	8	
#200	1.1	7.9	0.5	5.8	3.0 - 7.0

4. MISCELLANEOUS DATA

Sand Equivalent (Ave.) > 40 Sand/Silt Ratio = 2.0 Fracture > 90% Ave. Rice Density (Historic) = 154.6 pcf

* This design is based on historic WSDOT design parameters. For the current design era, this HMA can be referred to as Class 1/2 PG 64-22 Commercial" for applications as defined in the latest WSDOT specifications. WSDOT migrated to Superpave mix design: after 2004, renaming and slightly altering the historic Class A and Class B mix designs with Class 1/2" HMA, PG 64-22.

ICON Materials
1508 Valentine Ave. SE Pacific WA 98047
206.575.3200 * 206.575.3207 facsimile
An Equal Opportunity Employer

Washington State Department of Transportation

WSDOT MATERIALS LAB

08/27/2013

Aggregate Source Approval Report

Owner: La Pianta Limited Partnership
Lessee: Icon Materials, Inc.
Located in: SW1/4 SW1/4 SEC 28 & 29 Section 28,29, T21N R5E

Aggregate Source: PS-A-464
Known as: Auburn Pit
County: King

Remarks:
RR, QS & RRW tested on 9/10/10; LA=34, Deg=22, BSG (SSD)=2.698, Abs=1.64, BSG=2.655, ASG=2.776. Material expires 9/10/11....BLH.

Pit Run Materials:
At the discretion of the Project Engineer, preliminary samples for Gradation and Sand Equivalent tests may be performed to determine if the material does in fact meet the specification for the intended use:

Backfill for Rock Wall	Backfill for Sand Drains	Bedding Material for Rigid Pipe
Bedding Material for Thermoplastic Pipe	Blending Sand	Foundation Material for Classes A, B or C
Gravel Backfill for Drains and Drywells	Gravel Backfill for Foundation Class B	Gravel Backfill for Pipe Zone Bedding
Gravel Backfill for Walls	Gravel Borrow	Sand Drainage Blanket
Select or Common Borrow		

No Preliminary Tests are required to be performed by the State Materials Lab

Gravel Base: Test Date: 11/12/2008 Expiration Date:
Drainage: Free R Value: 69 Swell Pressure: 0.2

Contact the Regional Materials Office to request PRELIMINARY SAMPLES be acquired. Evaluation and approval of this site as a source of GRAVEL BASE is required prior to use.

Mineral Agg. and Surfacing: Test Date: 10/26/2009 Expiration Date: 10/26/2014
Absorption: 0.96 Apparent Sp. G.: 2.792 Bulk Sp. G. (SSD): 2.745 Bulk Sp. G.: 2.719
Deg: 52 LA: 24

Currently approved as a source of aggregate for:

ATB	Ballast	BST Crushed Cover Stone
BST Crushed Screenings	Crushed Surfacing Base Course	Crushed Surfacing Key Stone
Crushed Surfacing Top Course	Gravel Backfill for Foundation Class A	HMA Other Courses
HMA Wearing Course	Maintenance Rock	Permeable Ballast

Acceptance tests need to be performed as necessary.

Portland Cement Concrete Aggregates: Test Date: 12/18/2008 Expiration Date: 12/18/2013
ASR - 14 Day : 0.64 ASR - One Year: 0.031 CCA Absorption: 1.27 CCA Sp.G: 2.649
FCA Absorption: 2.02 FCA Organics: 1 FCA Sp. G: 2.637 LA: 11
Mortar Strength: Petrographic Analysis:

Currently approved for:
Coarse Concrete Aggregates
Fine Concrete Aggregates

Acceptance tests need to be performed as necessary

Riprap and Quarry Spalls: Test Date: Expiration Date:

Please see Remarks for Riprap and Quarry Spalls results.

Qualified Product List

Product Information

Manufacturer : U.S. Oil & Refining Co., Tacoma - WA

Product Name : PGAB: 58-22, 58-34, 64-22, 64-28, 64-34, 70-22, 70-28, 70-34, 76-22.

Standard Spec : 9-02.1(4), Asphalt - Performance Graded Asphalt Binders (PGAB)

Product Description : Performance graded asphalt binders
Product Restriction :

Acceptance Code : 2535
Code Description : Bituminous materials may be accepted by the Engineer based on the asphalt binder supplier's Certification of Compliance incorporated in their Bill of Lading. The Certification will include a statement certifying specification compliance for the product shipped. Additionally, verification samples are required to be taken in accordance with table 9-3.7 of the Construction Manual. Verification samples are not required for bituminous materials used for fog seal. Samples will be appropriately marked and forwarded promptly to the State Materials Laboratory.

Note 1 : Check Approved Mix Design for Anti-stripping requirements.
Last Updated : Sep 13, 2010

Contractors with WSDOT Click here for Contractor Product Info Page

Qualified Product List

Product Information

Manufacturer : Targa Sound Terminal, Tacoma - WA

Product Name : PG 64-22, PG 64-28, PG 70-22, PG 70-28

Standard Spec : 9-02.1(4), Asphalt - Performance Graded Asphalt Binders (PGAB)

Product Description : Performance graded asphalt binders
Product Restriction :

Acceptance Code : 2535
Code Description : Bituminous materials may be accepted by the Engineer based on the asphalt binder supplier's Certification of Compliance incorporated in their Bill of Lading. The Certification will include a statement certifying specification compliance for the product shipped. Additionally, verification samples are required to be taken in accordance with table 9-3.7 of the Construction Manual. Verification samples are not required for bituminous materials used for fog seal. Samples will be appropriately marked and forwarded promptly to the State Materials Laboratory.

Note 1 : Check Approved Mix Design for Anti-stripping requirements.
Last Updated : Sep 24, 2012

Contractors with WSDOT Click here for Contractor Product Info Page

Qualified Product List

Product Information

Manufacturer : Gardner Asphalt Supply LLC, Tacoma - WA

Product Name : PG 64-22

Standard Spec : 9-02.1(4), Asphalt - Performance Graded Asphalt Binders (PGAB)

Product Description : Performance graded asphalt binders
Product Restriction :

Acceptance Code : 2535
Code Description : Bituminous materials may be accepted by the Engineer based on the asphalt binder supplier's Certification of Compliance incorporated in their Bill of Lading. The Certification will include a statement certifying specification compliance for the product shipped. Additionally, verification samples are required to be taken in accordance with table 9-3.7 of the Construction Manual. Verification samples are not required for bituminous materials used for fog seal. Samples will be appropriately marked and forwarded promptly to the State Materials Laboratory.

Last Updated : Jun 19, 2012

Contractors with WSDOT Click here for Contractor Product Info Page

Qualified Product List

Product Information

Manufacturer : Zydex Industries, Morrisville - NC

Product Name : Zycosoil

Standard Spec : 9-02.4, Asphalt - Anti-Stripping Additive

Product Description : Anti-strip additive
Product Restriction :

Acceptance Code : 2520
Code Description : Compare the Name and the percent Anti-Strip recorded on the Bill of Lading with the approved Asphalt Mix Design issued from the State Materials Lab. Record, sign and date the comparison.

Last Updated : Sep 13, 2010

Contractors with WSDOT Click here for Contractor Product Info Page

SUBMITTAL TRANSMITTAL

Project: Gas Works/Kite Hill Project
Puget Sound Energy

Date: 7/29/2014

A/E Project Number: 4600007635

Transmittal A

To: Puget Sound Energy
P.O. Box 97034 (EST-07E)
Bellevue, WA 98009-9734

Submittal Number: 02

From: Wyser Construction Co., Inc.
19015 – 109th Ave. S.E.
Snohomish, Wa. 98296

By: Dan Reynolds

Resubmission

Qty.	Submittal Checklist Item No.	Description	Spec. Section Title and Paragraph / Drawing Detail Reference
1	01	Base Course	2.03

- ☒ Submitted for review and approval
- ☐ Resubmitted for review and approval
- ☐ Will be available to meet construction schedule
- ☐ Other remarks on above submission:
- ☐ Substitution involved – Substitution request attached with point-by-point comparative data or preliminary details.
- ☐ Complies with contract requirements
- ☐ One copy retained by sender

Transmittal B

To: Wyser Construction Co., Inc.

Attn: Dan Reynolds

Date Received by A/E: 8/6/14

From: GEO Engineers

By: ~~Chris Bailey~~ Bo McFadden

Date Transmitted by A/E: 8/7/14

- ☑ Approved
- ☐ Approved as noted
- ☐ Not subject to review
- ☐ No action required
- ☐ Other remarks on above submission:
- ☐ Approved as noted / Resubmit
- ☐ Rejected / Resubmit
- ☐ Revise / Resubmit
- ☐ Submission Incomplete / Resubmit

Copies: ☐ Owner ☐ Consultants ☐ ☐ ☐ ☑ One copy retained by sender

Glacier Northwest - Aggregate Submittal

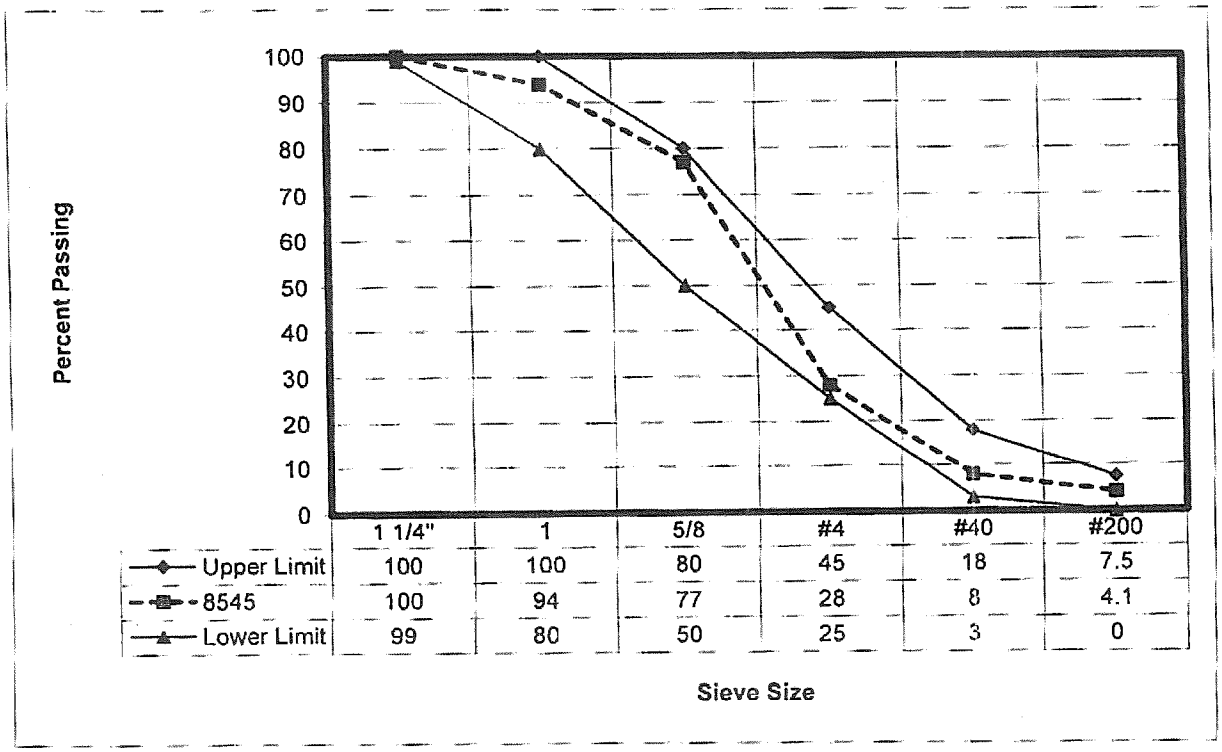
CALPORTLAND

Date:	April 1, 2014
Product Number:	8545
Product Description:	Crushed Base Course Type 2
Specification Number:	WSDOT 9-03.9(3)
Source:	Lafarge Canada
Location:	Texada Island, BC
WSDOT Pit Number:	QS-CA-8

Specification:

1 1/4" square	100% passing	% Fracture	-
1" square	80-100	Sand Equivalent	40 min
5/8" square	50-80	L.A. Wear	40% max.
U.S. No 4	25-45	Degradation:	-
U.S. No 40	3-18	Dust Ratio	2/3
U.S. No 200	0-7.5		

Specific Gravity:	2.76	% Fracture:	100%
Absorption:	-	Sand Equivalent:	54
L.A. Abrasion:	17.1%	Dust Ratio:	OK
Degradation:	65		



	1 1/4"	1	5/8	#4	#40	#200
Upper Limit	100	100	80	45	18	7.5
8545	100	94	77	28	8	4.1
Lower Limit	99	80	50	25	3	0

SUBMITTAL TRANSMITTAL

Project: Gas Works/Kite Hill Project
Puget Sound Energy

Date: 7/29/2014

A/E Project Number: 4600007635

Transmittal A

To: Puget Sound Energy
P.O. Box 97034 (EST-07E)
Bellevue, WA 98009-9734

Submittal Number: 03

From: Wyser Construction Co., Inc.
19015 – 109th Ave. S.E.
Snohomish, Wa. 98296

By: Dan Reynolds

Resubmission

Qty.	Submittal Checklist Item No.	Description	Spec. Section Title and Paragraph / Drawing Detail Reference
1	01	Gravel Pathway	2.04

- ☒ Submitted for review and approval
- ☐ Resubmitted for review and approval
- ☐ Will be available to meet construction schedule
- ☐ Other remarks on above submission:
- ☐ Substitution involved – Substitution request attached with point-by-point comparative data or preliminary details.
- ☐ Complies with contract requirements
- ☐ One copy retained by sender

Transmittal B

To: Wyser Construction Co., Inc.

Attn: Dan Reynolds

Date Received by A/E: 8/6/14

From: GEO Engineers

By: ~~Chris Bailey~~ Bo McFadden

Date Transmitted by A/E: 8/7/14

- ☑ Approved
- ☐ Approved as noted
- ☐ Not subject to review
- ☐ No action required
- ☐ Other remarks on above submission:
- ☐ Approved as noted / Resubmit
- ☐ Rejected / Resubmit
- ☐ Revise / Resubmit
- ☐ Submission Incomplete / Resubmit

Copies: ☐ Owner ☐ Consultants ☐ ☐ ☐ ☑ One copy retained by sender

Glacier Northwest - Aggregate Submittal

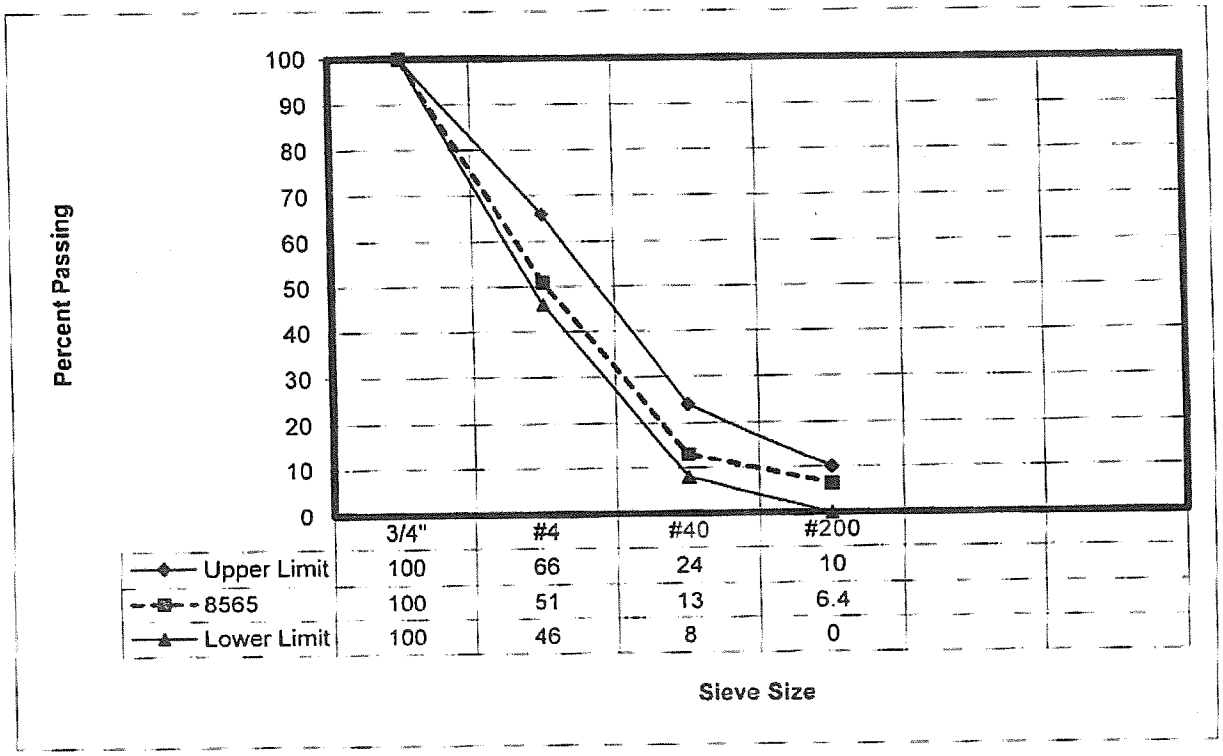
CALPORTLAND

Date:	April 1, 2014
Product Number:	8565
Product Description:	CSTC
Specification Number:	City Type 1
Source:	Lafarge Canada
Location:	Texada Island, BC
WSDOT Pit Number:	QS-CA-8

Specification:

5/8" square	100% passing	% Fracture	-
1/4" square	55-75	Sand Equivalent	53
U.S. No 40	8-24	L.A. Wear	40% max.
U.S. No 200	0-10	Degradation:	-
		Dust Ratio	2/3

Specific Gravity:	2.85	% Fracture:	100%
Absorption:	-	Sand Equivalent:	-
L.A. Abrasion:	17.1%	Dust Ratio:	
Degradation:	-		



SUBMITTAL TRANSMITTAL

Project: Gas Works/Kite Hill Project
Puget Sound Energy

Date: 7/29/2014

A/E Project Number: 4600007635

Transmittal A

To: Puget Sound Energy
P.O. Box 97034 (EST-07E)
Bellevue, WA 98009-9734

Submittal Number: 04

From: Wyser Construction Co., Inc.
19015 – 109th Ave. S.E.
Snohomish, Wa. 98296

By: Dan Reynolds

Resubmission

Qty.	Submittal Checklist Item No.	Description	Spec. Section Title and Paragraph / Drawing Detail Reference
1	01	Turf Area Soil 9-14.1 (5)	2.05

- ☒ Submitted for review and approval
- ☐ Resubmitted for review and approval
- ☐ Will be available to meet construction schedule
- ☐ Other remarks on above submission:
- ☐ Substitution involved – Substitution request attached with point-by-point comparative data or preliminary details.
- ☐ Complies with contract requirements
- ☐ One copy retained by sender

Transmittal B

To: Wyser Construction Co., Inc. Attn: Dan Reynolds

Date Received by A/E:

From: GEO Engineers By: Chris Bailey

Date Transmitted by A/E: 9/4/14

- ☒ Approved
- ☐ Approved as noted
- ☐ Not subject to review
- ☐ No action required
- ☐ Approved as noted / Resubmit
- ☐ Rejected / Resubmit
- ☐ Revise / Resubmit
- ☐ Submission Incomplete / Resubmit
- ☒ Other remarks on above submission: Received and approved analytical (attached Ahtest Report) data for Turf Area Soil Shashi Shankar 9/4/14

Copies: ☐ Owner ☐ Consultants ☐ ☐ ☐ ☐ One copy retained by sender

soiltest
farm consultants, inc.
2025 Driggs Dr., Moses Lake, Wa 98837 • www.soiltestlab.com
Office: (509)765-1032 • Fax:(509)765-0314 • (800)764-1622

PACIFIC TOPSOILS	Date Received: 6/19/2014
805 80TH ST SW	Grower:
	Sampled By:
Everett, WA 98203	Field: TWO THIRD SAND
Laboratory #: S14-13619	Customer Account #: ONE THIRD COMPOST
	Customer Sample ID:

Soil Test Results

Phosphorus	Bray	mg/kg	20	pH 1:1		7.9	CaCl2 pH 7.3
Potassium	NH4OAc	mg/kg	165	E.C. 1:1	m.mhos/cm	0.35	
Boron	DTPA	mg/kg	0.27	Est Sat Paste E.C.	m.mhos/cm	0.91	
Zinc	DTPA	mg/kg	2.8	Effervescence			
Manganese	DTPA	mg/kg	6.2				Lbs/Acre
Copper	DTPA	mg/kg	0.5	Ammonium - N	mg/kg	1.0	3
Iron	DTPA	mg/kg	9	Organic Matter W.B.	%		ENR:
Calcium	NH4OAc	meq/100g	8.5				
Magnesium	NH4OAc	meq/100g	1.7				
Sodium	NH4OAc	meq/100g	0.30				
Lime Req		Tons/Acre	0.0				
Buffer pH	SMP		7.0				
Cation Exchange	CEC	meq/100g	5.1				
Total Bases	NH4OAc	meq/100g	11.0				
Base Saturation	NH4OAc	%	215.9				
ESP	ESP	%	5.8				

Depth	Nitrate-N		Sulfate-S	Moisture
inches	mg/kg	lbs/acre	mg/kg	Inches
0 -12	0.7	2	6	
Totals	**0.7**	2	6	

Sum of Tested N: 5 lbs/acre N

Other Tests:

Organic Matter (LOI): 5.5 %:

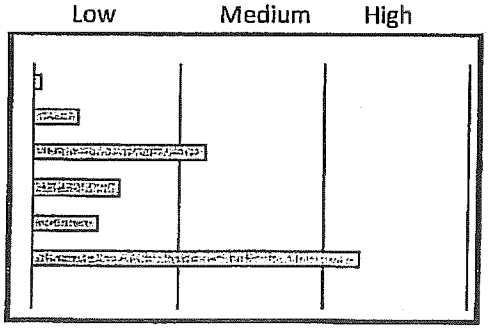
☒ APPROVED ☐ NOT APPROVED
☐ APPROVED AS CORRECTED
☐ REVISE AND RESUBMIT

APPROVED IN ACCORDANCE WITH THE GENERAL CONDITIONS. CHECKING IS FOR CONFORMANCE WITH DESIGN CONCEPTS. APPROVAL DOES NOT RELIEVE THE CONTRACTOR OR FABRICATOR OF RESPONSIBILITY FOR CONFORMANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS, WHICH HAVE PRIORITY OVER APPROVED SHOP DRAWINGS.

BY Emily Griffith DATE 8/6/2014

Interpretation Guide

Nitrogen	5	lbs/acre
Phosphorus	20	mg/kg
Potassium	165	mg/kg
Sulfur	6	mg/kg
Boron	0.27	mg/kg
Zinc	2.8	mg/kg
Manganese	6.2	mg/kg



Fertilizer recommendations for of ORNAMENTAL-LANDSCAPE after

90 lbs/acre of Nitrogen
90 lbs/acre of P2O5
0 lbs/acre of K2O
15 lbs/acre of Sulfur
1 lbs/acre of Boron
0 lbs/acre of Zinc
0 lbs/acre of Mn

We make every effort to provide an accurate analysis of your sample. For reasonable cause we will repeat tests, but because of factors beyond our control in sampling procedures and the inherent variability of soil, our liability is limited to the price of the tests. Recommendations are to be used as general guides and should be modified for specific field conditions and situations.

This is your Invoice #: S14-13619 Account #: 550000 Reviewed by: KEB List Cost: $99.00

US COMPOSTING COUNCIL
Seal of Testing Assurance

Washington State Department of Transportation

STA Participant Contact Information:
Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
425-231-3278

Product Identification: Fine Compost

Date Sampled/Received: 23-May-14

Compost Technical Data Sheet for Washington State DOT Projects

LABORATORY: Soiltest Farm Consultants 2925 Driggs Dr, Moses Lake, Wa. 98837 509-765-1622

Compost Parameters	Specification Requirements				Test Results	
Size Classification TMECC 02.02-B	% dry weight passing through				% dry weight passing	
	Sieve Size	Fine	Medium	Coarse	Sieve Size	
	2"			100	2"	100
	1"	99-100	100	80 – 100	1"	100
	¾"			70 – 100	¾"	100
	5/8"	90–100	85-100		5/8"	100
	¼"	75-100	70 - 85	40 – 60	¼"	87
Maximum Particle Length =		4"	4"	6"	Pass	
Carbon to Nitrogen Ratio (C:N)			18:1 - 35:1	25:1 - 35:1	33	
Total Carbon TMECC 04.01A					26.1	
Total Nitrogen TMECC 04.02D					0.80	
pH TMECC 04.11-A 1:5 slurry	6.0 min. and 8.5 max.				7.6	
Physical Contaminants TMECC 03.08-A % dry weight basis	less than 0.5				0.0	
Organic Matter Content TMECC 05.07 A Loss-on-Ignition % dry weight basis	40 min.				50.5	
Soluble Salts TMECC 04.10-A 1:5 Slurry dS/m (mmohs/cm)	4.0 max.				1.2	
Maturity Indicator TMECC 05.05 A Cucumber Bioassay % average of control	Germination: 80% or greater Vigor: 80% or greater				Germination: 97 Vigor: 98	
Stability Indicator TMECC 05.08-B Carbon Dioxide Evolution Rate	7 or below mg CO2-C/g OM/day				1.9	

DIFFERENT HIGHER THAN SPEC.
· MEETABLE FOR APPLICATIO

"This compost product has been sampled and tested by the Seal of Testing Assurance Program of the United States Composting Council (USCC), using certain methods from the Test Methods for the Examination of Compost and Composting Manual. Test results are available upon request by contacting the compost producer (address at top of page). The USCC makes no warranties regarding this product or its content, quality, or suitability for any particular use."

Laboratory Number: C14-358 Date Reported: 6/10/2014

Analyst: Brent Thyssen, CPSSc brent@soiltestlab.com

LAKESIDE INDUSTRIES

Sample No. 1

Sieve Analysis

Material: Issaquah Sand

Contract No. _____ Wt. Of Sample 1453.2 Sample From Issaquah A-189

Screen Size	Weight Retained	Total Weight Retained	% Retained	% Passing	Total % Passing	Specification ASTM C-33
1 1/2"						
1 1/4"						
1"						
3/8"						100
1/4"		0	0		100	
#4		0	0		100	95-100
#6		60	4		96	
#8		139	10		90	80-100
#10		199	14		86	
#16		375	26		74	50-85
#20		547	38		62	
#30		701	48		52	25-60
#40		962	66		34	
#50		1167	80		20	10-30
#80		1313	90		10	
#100		1370	94		6	2-10
#200		1421.2	97.8		2.2	0-5
Pan						

Fracture	
1"	
3/4"	
1/2"	
3/8"	
1/4"	
#4	
#10	

S.E. 82

D60 = 0.75
D30 = 0.38
D10 = 0.15

Cu = 7.5
Cc = 1.3
Well Graded Sand = SW

Tested By: David Bell, P.E.

P.O. Box 7016, Issaquah, WA 98027 • (425) 313-2600 • (425) 313-2620/FAX

US COMPOSTING COUNCIL

Seal of Testing Assurance

Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
Phone: 425-231-3278

Product Name: Fine Compost
Sample Date: 22-May-14
Laboratory ID: C14-358

COMPOST TECHNICAL DATA SHEET

Laboratory: **SOILTEST farm consultants;** 2925 Driggs Dr.; Moses Lake, WA 98837; tel. 509-765-1622 fax. 509-765-0314

Compost Parameters	*Reported as (units of measure)*	*Test Results*	*Test Results*
Plant Nutrients:	%, weight basis	%, wet weight basis	%, dry weight basis
Nitrogen	Total N	Not Reported	Not Reported
Phosphorus	P_2O_5	Not Reported	Not Reported
Potassium	K_2O	Not Reported	Not Reported
Calcium	Ca	Not Reported	Not Reported
Magnesium	Mg	Not Reported	Not Reported
Moisture Content	%, wet weight basis	52.5	
Organic Matter Content	%, dry weight basis	51	
pH	pH units	7.6	
Soluble Salts *(electrical conductivity EC_5)*	dS/m (mmhos/cm)	1.20	
Particle Size	% < 9.5 mm (⅜ in.), dw basis	96.4	
Stability Indicator *(respirometry)*			*Stability Rating*
CO_2 Evolution	mg CO2-C/g OM/day	2	Stable
	mg CO2-C/g TS/day	2	
Maturity Indicator (bioassay)			
Percent Emergence	average % of control	97	
Relative Seedling Vigor	average % of control	98	
Select Pathogens	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)	Pass	*Salmonella*
Trace Metals	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3.	Pass	*As,Cd,Cr,Cu,Pb,Hg,* Mo,Ni,Se,Zn

Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.

Date Received: *23-May-14* *Date Reported* *10-Jun-14*

Laboratory QA/QC *Brent Thyssen, CPSSc* *brent@soiltestlab.com* *www.soiltestlab.com*

US COMPOSTING COUNCIL

Seal of Testing Assurance

Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
Phone: 425-231-3278

Product Name: Fine Compost
Sample Date: 22-May-14
Laboratory ID: C14-358

COMPOST TECHNICAL DATA SHEET

Laboratory: SOILTEST farm consultants; 2925 Driggs Dr.; Moses Lake, WA 98837; tel. 509-765-1622 fax. 509-765-0314

Compost Parameters	*Reported as (units of measure)*	*Test Results*	*Test Results*
Plant Nutrients:	%, weight basis	%, wet weight basis	%, dry weight basis
Nitrogen	Total N	0.4	0.80
Phosphorus	P_2O_5	0.14	0.29
Potassium	K_2O	0.24	0.50
Calcium	Ca	0.78	1.65
Magnesium	Mg	0.19	0.40
Moisture Content	%, wet weight basis	52.5	
Organic Matter Content	%, dry weight basis	51	
pH	pH units	7.6	
Soluble Salts *(electrical conductivity EC_s)*	dS/m (mmhos/cm)	1.20	
Particle Size	% < 9.5 mm (¾ in.), dw basis	96.4	
Stability Indicator *(respirometry)*			*Stability Rating*
CO_2 Evolution	mg CO2-C/g OM/day	2	Stable
	mg CO2-C/g TS/day	2	
Maturity Indicator (bioassay)			
Percent Emergence	average % of control	97	
Relative Seedling Vigor	average % of control	98	
Select Pathogens	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)	Pass	*Salmonella*
Trace Metals	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3.	Pass	*As,Cd,Cr,Cu,Pb,Hg,* Mo,Ni,Se,Zn

Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.

Date Received:	*23-May-14*	*Date Reported*	*10-Jun-14*
Laboratory QA/QC	*Brent Thyssen, CPSSc*	*brent@soiltestlab.com*	*www.soiltestlab.com*

US Composting Council STA Certified Lab

soiltest farm consultants, inc.
2915 Driggs Dr., Moses Lake, WA 98837 - www.soiltestlab.com
Office: (509)765-1622 - Fax:(509)765-0314 - (800)764-1622

Client: Pacific Topsoils
Attn: Josh Roden
805 80th ST SW
Everett, WA 98203
425-231-3278

Product: Fine Compost
Date Sampled: 05/22/14
Date Received: 05/23/14

Date Reported: 06/10/14
Laboratory # C14-358
Reveiwed by Brent Thyssen, CPSSc

Invoice #: C14-358 Amount: $ 191.00

Nutrients

	Method	As Rcvd.	Dry Wt.	Units	Low	Normal	High	Typical Range
Moisture	70 C	53		%	**********			15 to 40
Solids	70 C	47		%	**********			60 to 85
pH	1:5	7.6	NA	SU	**********			5.5 to 8.5
E.C	1:5	0.57	1.20	mmhos/cm	*******			below 5.0
Total N	TMECC 04.02D	0.38	0.80	%	*******			1 to 5
Organic C	TMECC 04.01A	12.4	26.1	%	**********			18 to 45
Organic Matter	TMECC 05.07A	24	51	%	**********			40 to 60
Ash	550 C	23	49	%	**********			40 to 60
Phosphorous	TMECC 04.12B/04.14A	0.06	0.13	%				
P_2O_5		0.14	0.29	%	***			1 to 8
Potassium	TMECC 04.12B/04.14A	0.20	0.42	%				
K_2O		0.24	0.50	%	****			3 to 12
Calcium	TMECC 04.12B/04.14A	0.78	1.6	%	**********			0.5 to 10
Magnesium	TMECC 04.12B/04.14A	0.19	0.40	%	**********			0.05 to 0.7
Sodium	TMECC 04.12B/04.14A	0.02	0.04	%	****			0.05 to 0.7
Sulfur	TMECC 04.12B/04.14A	0.05	0.11	%	**********			0.1 to 1.0
Boron	TMECC 04.12B/04.14A	9	19	mg/kg	**********			25 to 150
Zinc	TMECC 04.12B/04.14A	55	116	mg/kg	**********			100 to 600
Manganese	TMECC 04.12B/04.14A	184	387	mg/kg	**********			250 to 750
Copper	TMECC 04.12B/04.14A	14	30	mg/kg	***			100 to 500
Iron	TMECC 04.12B/04.14A	5449	11480	mg/kg	**********			1000 to 25000
C/N ratio			33	ratio	**********			18 to 24
C/P Ratio			203	ratio	**********			80 to 140

Respiration & Stability

	Method		Units	Low	Normal	High	Normal
CO2 Evolution	TMECC 05.08	2	mg CO_2-C/g OM/day	**********			1 to 7
	TMECC 05.08	2	mg CO_2-C/g TS/day	**********			0.5 to 5
	TMECC 05.08	0.2	mg NH_3-N /kg /day	***			10 to 100
Stability Rating		Stable					

Sample was received, handled and tested in accordance with TMECC procedures

US Composting Council
STA Certified Lab

soiltest farm consultants, inc.
2925 Driggs Dr., Moses Lake, WA 98837 - www.soiltestlab.com
Office: (509)765-1622 - Fax:(509)765-0314 - (800)764-1623

Client:	Pacific Topsoils Attn: Josh Roden 805 80th ST SW Everett, WA 98203 425-231-3278	Product: Fine Compost Date Sampled: 05/22/14 Date Received: 05/23/14	Date Reported: 06/10/14 Laboratory # C14-358 Reveiwed by Brent Thyssen, CPSSc

Cucumber Bioassay

	Method		Units	Low	Normal	Normal
Emergence	TMECC 05.05A	97	%	**********		80 to 100
Vigor	TMECC 05.05A	98	%	**********		85 to 100
Plant Description		Mature				

Pathogens

	Method		Date Tested units	5/27/2014	Low	Normal	High	Normal
Fecal Coliforms	TMECC 07.01B	Not Tested	MPN/g					Less than 1000
Salmonella	TMECC 07.01A	ND	MPN/4g	Pass	*			Less than 3

ND = None Detected

WAC 173-350-220

	Method	Dry Wt.	Units	Low	Normal	High	WAC Limit
Arsenic	TMECC 04.12B/04.14A	6.1	mg/kg	********			20
Cadmium	TMECC 04.12B/04.14A	0.3	mg/kg	****			10
Chromium	TMECC 04.12B/04.14A	60.3	mg/kg				-
Cobalt	TMECC 04.12B/04.14A	6.5	mg/kg				-
Copper	TMECC 04.12B/04.14A	30	mg/kg	****			750
Lead	TMECC 04.12B/04.14A	19.3	mg/kg	****			150
Mercury	TMECC 04.12B/04.14A	0.09	mg/kg	****			8
Molybdenum	TMECC 04.12B/04.14A	3.5	mg/kg	**********			9
Nickel	TMECC 04.12B/04.14A	23	mg/kg	****			210
Selenium	TMECC 04.12B/04.14A	0.5	mg/kg	****			18
Zinc	TMECC 04.12B/04.14A	116	mg/kg	****			1400
		Pass					

Particle Size Distribution TMECC 2.02 B & C

Inches	mm	% Passing
3	76.2	100
2	50	100
1	25	100
3/4	19.1	100
5/8	16	100
1/2"	12.5	100
3/8"	9.5	96
1/4"	6.3	87

Inerts	% by wt.
Total Plastic	0.00
Film Plastic	0.00
Glass	0.00
Metal	0.00
Sharps	0.00

Sample was received, handled and tested in accordance with TMECC procedures

VALID 4/12/2014 TO 4/12/2015

PARTICIPANT

US COMPOSTING COUNCIL

Seal of Testing Assurance

Pacific Topsoils, Inc.

If it isn't STA compost.....

What is it??

US COMPOSTING COUNCIL

SNOHOMISH HEALTH DISTRICT
WWW.SNOHD.ORG

RECEIVED
JUL 03 2014

Environmental Health Division

SOLID WASTE FACILITY PERMIT # SW-093

Issued by the Snohomish Health District in accordance with the provisions of Chapter 70.95 of the Revised Code of Washington (RCW), Chapter 173-350 of the Washington Administrative Code (WAC) and the Snohomish Health District Sanitary Codes, Chapter 3.1 and 3.2 (Adopted text of WAC 173-350).

PERMIT PERIOD: JULY 1, 2014 TO JUNE 30, 2015

PERMITTEE AND ADMINISTRATIVE INFORMATION

NAME OF FACILITY:	Pacific Topsoils, Inc. Composting - Maltby
FACILITY LOCATION:	8616 219th Street SE, Woodinville, Washington 98072
FACILITY OWNER:	Sandra Forman
FACILITY OPERATOR:	Janusz Bajsarowicz
PHONE:	425.337.2700
PERMIT TYPE:	Composting Facility over 30,000 tons
ANNUAL FEE:	$4,368.00 plus $168 per hour for each additional hour over 26 hours

The conditions of this permit are contained on the following pages. This permit is the property of the Snohomish Health District and may be suspended or revoked upon violation of any rules and regulations applicable hereto. This permit is not transferable to a different site, and must be renewed annually. This permit or a legible copy must be displayed or stored in a manner, which allows easy access, by operating personnel.

Anne Alfred, MPH, RS
Solid Waste and Toxics Section
Environmental Health Division

7-1-2014
Date of Issuance

3020 Rucker Avenue, Suite 104 ■ Everett, WA 98201-3900 ■ tel: 425.339.5250 ■ fax: 425.339.5254

2.05 TURF AREA SOIL

Turf area soil shall consist of material from approved sources and meet the requirements outlined in City of Seattle Standard Specification 9-14.1(5). The material shall be uniform in quality and not contain any viable seeds or roots capable of sprouting of any State-listed noxious weed, or invasive root-propagating plants.

PART 3 – EXECUTION

3.01 TILLING AND EXCAVATION

A. Prior to tilling and excavation, the Contractor shall complete site clearing within the Limits of Excavation as specified in Section 02230 – Site Clearing.

B. Contractor shall complete soil tilling and excavation in the areas identified on the Drawings.

C. In areas to be tilled, Contractor shall cut the grass close to the ground surface. Contractor shall till the soil from the ground surface to the vertical limits shown on the Drawings. Tilling shall be completed utilizing appropriate tilling equipment to loosen the soil and ensure pulverizing and uniform mixing of existing grass surface into the soil within the Limits of Tilling. Contractor shall extend the limits of the tilling beyond those shown on the Drawings only at the direction of the Engineer.

D. Prior to beginning tilling and excavation, Contractor's Registered Land Surveyor shall stake the tilling and excavation boundaries indicated on the Drawings. Protect and preserve the survey stakes during the Work.

E. The Contractor shall excavate soil from within the Limits of Excavation shown on the Drawings. Soil removal shall be to the horizontal limits and elevations shown on the Drawings. Demolition of surface and subsurface structures shall be in accordance with Section 02220 – Site Demolition and the Drawings.

F. Contractor shall extend the vertical and horizontal limits of the excavation beyond those shown on the Drawings only at the direction of the Engineer. Additional excavation may be required beyond the Limits of Excavation shown on the Drawings based on presence of visibly impacted materials. If required, as directed by the Engineer, Contractor shall excavate beyond the Limits of Excavation shown on the Drawings to the required vertical and lateral extent determined by the Engineer based on Site conditions.

G. Excavation areas within the limits identified in the Drawings are expected to contain non-hazardous impacted material. Hazardous material may be encountered from the excavation areas during the earthwork activities. Contractor shall be prepared to handle hazardous materials as directed by the Engineer and per the Specifications (Section 02110 – Management of Excavated Materials and Water, Section 02114 – Stockpiling and Loading and Section 02120 – Off-Site Transportation and Disposal), if they are encountered.

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com

AMTEST LABORATORIES

Professional Analytical Services

ANALYSIS REPORT

Pacific Topsoil
805 80Th St SW
Everett, WA 98203
Attention: Josh Roden
PO Number: 633136
All results reported on an as received basis.

Date Received: 08/07/14
Date Reported: 8/20/14

AMTEST Identification Number 14-A012183
Client Identification 2/3 sand 1/3 compost
Sampling Date 08/07/14

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	92.4	%		0.1	SM 2540G	AY	08/08/14

Total Metals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Acid Digestion	Y				SW-846 3050B	EB	08/13/14
Arsenic	< 4.97	ug/g		4.97	SW-846 6010B	EB	08/14/14

BTEX

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Benzene	< 1.1	ug/kg		1.1	EPA 8260	NLN	08/07/14
Toluene	8.4	ug/kg		1.1	EPA 8260	NLN	08/07/14
Naphthalene	< 1.1	ug/kg		1.1	EPA 8260	NLN	08/14/14
Ethyl Benzene	< 1.1	ug/kg		1.1	EPA 8260	NLN	08/07/14
m+p-Xylene	< 1.1	ug/kg		1.1	EPA 8260	NLN	08/07/14
o-Xylene	< 1.1	ug/kg		1.1	EPA 8260	NLN	08/07/14

Surrogate

ANALYTE	% RECOVERY	LIMITS
Bromofluorobenzene	52.8 %	70.0 - 130.

Polynuclear Aromatic Hydrocarbons (PAH)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
2-Methylnaphthalene	< 3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Acenaphthene	< 3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Acenaphthylene	< 3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Anthracene	< 3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Benzo(a)anthracene	9.38	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Benzo(a)pyrene	< 3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Benzo(b)fluoranthene	15.5	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Benzo(ghi)perylene	17.0	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Benzo(k)fluoranthene	< 3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Chrysene	10.1	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Dibenzo(ah)anthracene	11.9	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Fluoranthene	18.0	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Fluorene	3.61	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Indeno(123-cd)pyrene	14.8	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Phenanthrene	19.1	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14
Pyrene	23.1	ug/Kg		3.6	EPA 8270-SIM	AY	08/20/14

Semi-Volatile Surrogates

ANALYTE	% RECOVERY	LIMITS
D5-Nitrobenzene (Soil)	58.6 %	25.0 - 128.
2-Fluorobiphenyl (Soil)	76.6 %	27.0 - 134.
D14-Terphenyl (Soil)	70.8 %	18.0 - 157.

Kathy Fugiel
President

Am Test Inc.
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AMTEST LABORATORIES

Professional Analytical Services

QC Summary for sample number: 14-A012183

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
14-A012294	Arsenic	ug/g	< 9	86.0	96.6	89.03 %
14-A012294	Arsenic	ug/g	< 9	88.7	96.6	91.82 %
Blank	2-Methylnaphthalene	ug/Kg	< 3.33	5.33	5.00	106.60 %
Blank	2-Methylnaphthalene	ug/Kg	< 3.33	5.80	5.00	116.00 %
Blank	Acenaphthylene	ug/Kg	< 3.33	5.57	5.00	111.40 %
Blank	Acenaphthylene	ug/Kg	< 3.33	5.91	5.00	118.20 %
Blank	Acenaphthene	ug/Kg	< 3.33	4.96	5.00	99.20 %
Blank	Acenaphthene	ug/Kg	< 3.33	5.59	5.00	111.80 %
Blank	Fluorene	ug/Kg	< 3.33	5.46	5.00	109.20 %
Blank	Fluorene	ug/Kg	< 3.33	6.22	5.00	124.40 %
Blank	Phenanthrene	ug/Kg	< 3.33	5.39	5.00	107.80 %
Blank	Phenanthrene	ug/Kg	< 3.33	6.21	5.00	124.20 %
Blank	Anthracene	ug/Kg	< 3.33	4.81	5.00	96.20 %
Blank	Anthracene	ug/Kg	< 3.33	5.61	5.00	112.20 %
Blank	Fluoranthene	ug/Kg	< 3.33	4.40	5.00	88.00 %
Blank	Fluoranthene	ug/Kg	< 3.33	5.60	5.00	112.00 %
Blank	Pyrene	ug/Kg	< 3.33	7.37	5.00	147.40 %
Blank	Pyrene	ug/Kg	< 3.33	8.00	5.00	160.00 %
Blank	Benzo(a)anthracene	ug/Kg	< 3.33	5.58	5.00	111.60 %
Blank	Benzo(a)anthracene	ug/Kg	< 3.33	5.73	5.00	114.60 %
Blank	Chrysene	ug/Kg	< 3.33	5.52	5.00	110.40 %
Blank	Chrysene	ug/Kg	< 3.33	5.65	5.00	113.00 %
Blank	Benzo(b)fluoranthene	ug/Kg	< 3.33	6.10	5.00	122.00 %
Blank	Benzo(b)fluoranthene	ug/Kg	< 3.33	7.01	5.00	140.20 %
Blank	Benzo(k)fluoranthene	ug/Kg	< 3.33	5.40	5.00	108.00 %
Blank	Benzo(k)fluoranthene	ug/Kg	< 3.33	5.31	5.00	106.20 %
Blank	Benzo(a)pyrene	ug/Kg	< 3.33	4.57	5.00	91.40 %
Blank	Benzo(a)pyrene	ug/Kg	< 3.33	5.22	5.00	104.40 %
Blank	Indeno(123-cd)pyrene	ug/Kg	< 3.33	4.41	5.00	88.20 %
Blank	Indeno(123-cd)pyrene	ug/Kg	< 3.33	5.26	5.00	105.20 %
Blank	Dibenzo(ah)anthracene	ug/Kg	< 3.33	4.32	5.00	86.40 %
Blank	Dibenzo(ah)anthracene	ug/Kg	< 3.33	5.28	5.00	105.60 %
Blank	Benzo(ghi)perylene	ug/Kg	< 3.33	4.16	5.00	83.20 %
Blank	Benzo(ghi)perylene	ug/Kg	< 3.33	5.48	5.00	109.60 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Arsenic	ug/g	86.0	88.7	3.1
Spike	2-Methylnaphthalene	ug/Kg	5.33	5.80	8.4
Spike	Acenaphthylene	ug/Kg	5.57	5.91	5.9
Spike	Acenaphthene	ug/Kg	4.96	5.59	12.
Spike	Fluorene	ug/Kg	5.46	6.22	13.
Spike	Phenanthrene	ug/Kg	5.39	6.21	14.
Spike	Anthracene	ug/Kg	4.81	5.61	15.
Spike	Fluoranthene	ug/Kg	4.40	5.60	24.
Spike	Pyrene	ug/Kg	7.37	8.00	8.2
Spike	Benzo(a)anthracene	ug/Kg	5.58	5.73	2.7
Spike	Chrysene	ug/Kg	5.52	5.65	2.3
Spike	Benzo(b)fluoranthene	ug/Kg	6.10	7.01	14.
Spike	Benzo(k)fluoranthene	ug/Kg	5.40	5.31	1.7
Spike	Benzo(a)pyrene	ug/Kg	4.57	5.22	13.
Spike	Indeno(123-cd)pyrene	ug/Kg	4.41	5.26	18.
Spike	Dibenzo(ah)anthracene	ug/Kg	4.32	5.28	20.
Spike	Benzo(ghi)perylene	ug/Kg	4.16	5.48	27.

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Arsenic	ug/g	109.	97.7	89.6 %
Arsenic	ug/g	109.	97.3	89.3 %
Benzene	ug/kg	10.0	9.1	91.0 %
Toluene	ug/kg	10.0	11.4	114. %
Naphthalene	ug/kg	10.	7.7	77.0 %
Ethyl Benzene	ug/kg	10.0	9.5	95.0 %
m+p-Xylene	ug/kg	20.0	18.8	94.0 %
o-Xylene	ug/kg	10.0	9.3	93.0 %
2-Methylnaphthalene	ug/Kg	1.00	1.10	110. %
Acenaphthylene	ug/Kg	1.00	1.21	121. %
Acenaphthene	ug/Kg	1.00	1.13	113. %
Fluorene	ug/Kg	1.00	0.99	99.0 %
Phenanthrene	ug/Kg	1.00	0.86	86.0 %
Anthracene	ug/Kg	1.00	0.90	90.0 %
Fluoranthene	ug/Kg	1.00	0.76	76.0 %
Pyrene	ug/Kg	1.00	1.18	118. %
Benzo(a)anthracene	ug/Kg	1.00	1.15	115. %
Chrysene	ug/Kg	1.00	1.07	107. %
Benzo(b)fluoranthene	ug/Kg	1.00	1.08	108. %
Benzo(k)fluoranthene	ug/Kg	1.00	0.98	98.0 %
Benzo(a)pyrene	ug/Kg	1.00	0.80	80.0 %
Indeno(123-cd)pyrene	ug/Kg	1.00	0.84	84.0 %
Dibenzo(ah)anthracene	ug/Kg	1.00	0.87	87.0 %
Benzo(ghi)perylene	ug/Kg	1.00	0.88	88.0 %

BLANKS

ANALYTE	UNITS	RESULT
Arsenic	ug/g	< 0.01
Benzene	ug/kg	< 1
Toluene	ug/kg	< 1
Naphthalene	ug/kg	< 1
Ethyl Benzene	ug/kg	< 1
m+p-Xylene	ug/kg	< 1
o-Xylene	ug/kg	< 1
2-Methylnaphthalene	ug/Kg	< 3.33
Acenaphthylene	ug/Kg	< 3.33
Acenaphthene	ug/Kg	< 3.33
Fluorene	ug/Kg	< 3.33
Phenanthrene	ug/Kg	< 3.33
Anthracene	ug/Kg	< 3.33
Fluoranthene	ug/Kg	< 3.33
Pyrene	ug/Kg	< 3.33
Benzo(a)anthracene	ug/Kg	< 3.33
Chrysene	ug/Kg	< 3.33
Benzo(b)fluoranthene	ug/Kg	< 3.33
Benzo(k)fluoranthene	ug/Kg	< 3.33
Benzo(a)pyrene	ug/Kg	< 3.33
Indeno(123-cd)pyrene	ug/Kg	< 3.33
Dibenzo(ah)anthracene	ug/Kg	< 3.33
Benzo(ghi)perylene	ug/Kg	< 3.33

SUBMITTAL TRANSMITTAL

Project: Gas Works/Kite Hill Project
Puget Sound Energy

Date: 7/29/2014

A/E Project Number: 4600007635

Transmittal A

To: Puget Sound Energy
P.O. Box 97034 (EST-07E)
Bellevue, WA 98009-9734

Submittal Number: 01

From: Wyser Construction Co., Inc.
19015 – 109th Ave. S.E.
Snohomish, Wa. 98296

By: Dan Reynolds

Resubmission

Qty.	Submittal Checklist Item No.	Description	Spec. Section Title and Paragraph / Drawing Detail Reference
1	01	Type 17	2.02

☒ Submitted for review and approval
☐ Resubmitted for review and approval
☐ Will be available to meet construction schedule
☐ Other remarks on above submission:

☐ Substitution involved – Substitution request attached with point-by-point comparative data or preliminary details.
☐ Complies with contract requirements
☐ One copy retained by sender

Transmittal B

To: Wyser Construction Co., Inc. Attn: Dan Reynolds Date Received by A/E: 8/6/14

From: GEO Engineers By: ~~Chris Bailey~~ Bo McFadden Date Transmitted by A/E: 8/7/14

☑ Approved
☐ Approved as noted
☐ Not subject to review
☐ No action required

☐ Approved as noted / Resubmit
☐ Rejected / Resubmit
☐ Revise / Resubmit
☐ Submission Incomplete / Resubmit

☒ Other remarks on above submission: Received and approved analytical data (ARI Report attached) for Type 17 material. Shashi Shankar 9/4/14

Copies: ☐ Owner ☐ Consultants ☐ ☐ ☐ ☑ One copy retained by sender

Received and approved analytical data (ARI Report attached) dated 9/3/14 for Type 17 material. The previous analytical data (dated 8/27/2014) submitted by Wyser is incorrect & does not apply to the KH project per Dan Reynolds. Shashi Shankar 9/9/14

Glacier Northwest - Aggregate Submittal

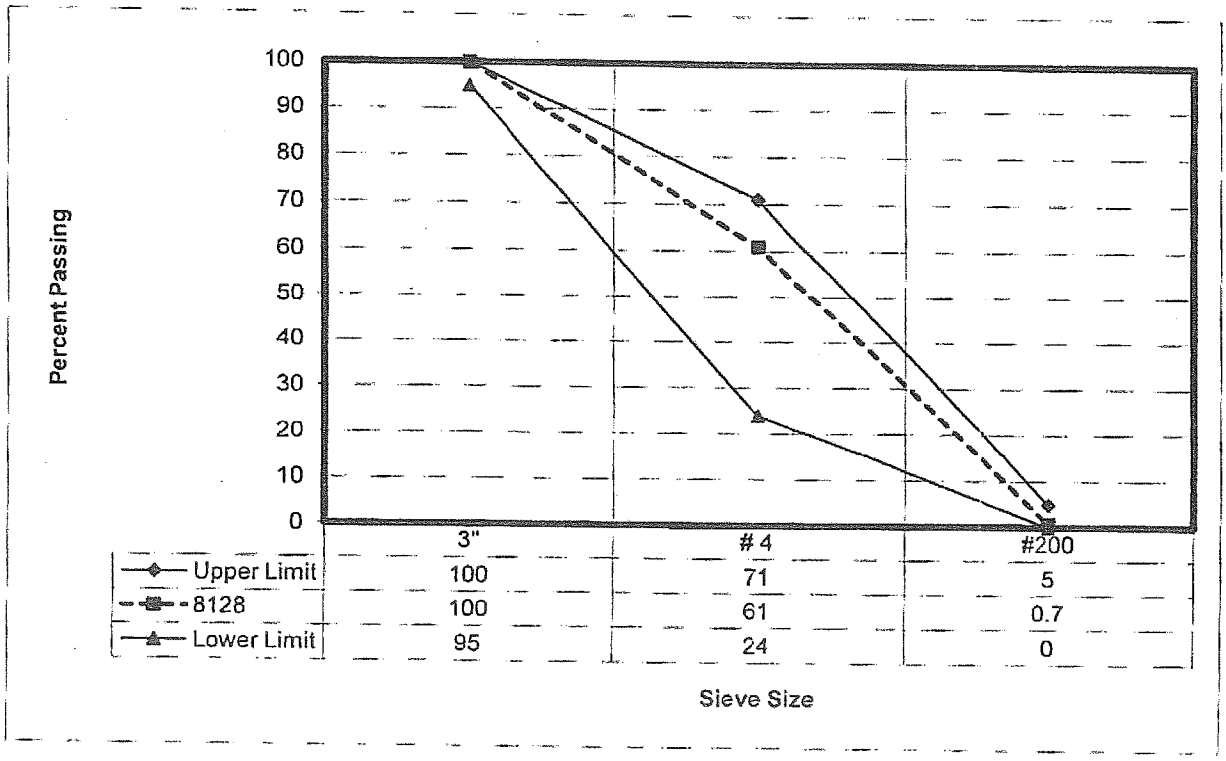
CALPORTLAND

Date:	June 1, 2014
Product Number:	8128
Product Description:	Mineral Aggregate, Type 17
Specification Number:	City of Seattle, 9-03.16
Source:	Johns Prairie
WSDOT Pit Number:	X-125
Location:	Shelton

Specification:

3"	95-100%	% Fracture	-
1/4"	25-75	Sand Equivalent	60 min.
#200	0-5	L.A. Wear	-
		Degradation:	-
		Dust Ratio	2/3 max.

Specific Gravity:	2.72	% Fracture:	-
Absorption:	1.1	Sand Equivalent:	65
L.A. Abrasion:	16.0%	Dust Ratio:	PASS
Degradation:	63		



Analytical Resources, Incorporated
Analytical Chemists and Consultants

September 3, 2014

Louie Bayless
CalPortland Company
4301 Pioneer Avenue
DuPont, WA 98327-7736

Project: Gas Works Park Kite Hill
ARI ID: YW93

Dear Mr. Bayless:

Please find enclosed the original chain of custody (COC) form and the final results for the project referenced above. Analytical Resources, Inc. (ARI) received one soil sample on August 18, 2014.

The sample was analyzed for Total Metals,, SIM PAHs and BTEX, as requested on the COC.

There were no anomalies associated with these samples.

QC analysis results are included for your review. A copy of this report and the supporting data will remain on file electronically with ARI. Please contact me at your convenience if you need further information.

Sincerely,

ANALYTICAL RESOURCES, INC.

Amanda Volgardsen
For
Kelly Bottem
Client Services Manager
kellyb@arilabs.com
(206) 695-6211
www.arilabs.com

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: YW913	Turn-around Requested:	Page:	of
ARI Client Company:	Phone:	Date:	Ice Present?
Client Contact: Mike Middling		No. of Coolers:	Cooler Temps:
Client Project Name: Gas Works Park Kit Hill			
Client Project #:	Samplers:		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

Sample ID	Date	Time	Matrix	No Containers	Analysis Requested	Notes/Comments
1-B	8-18	12:55				
2-B	8-18	1.00				

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
	Printed Name: Mike Middling	Printed Name: A. Volgardsen	Printed Name.	Printed Name.
	Company: CalPortland	Company: ARI	Company:	Company:
	Date & Time: 8-18-14 3:09	Date & Time: 8/18/14 1509	Date & Time	Date & Time.

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: CalPortland

Project Name: Gasworks Park Kit Hill

COC No(s). _____ (NA)

Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____

Assigned ARI Job No: YW93

Tracking No. _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry) 3.2

Time: 1509

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877452

Cooler Accepted by: AV Date: 8/18/14 Time: 1509

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? Bubble Wrap Wet Ice (Gel Packs) Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES (NO)

Were all bottles sealed in individual plastic bags? YES (NO)

Did all bottles arrive in good condition (unbroken)? (YES) NO

Were all bottle labels complete and legible? (YES) NO

Did the number of containers listed on COC match with the number of containers received? (YES) NO

Did all bottle labels and tags agree with custody papers? (YES) NO

Were all bottles used correct for the requested analyses? (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... (NA) YES NO

Were all VOC vials free of air bubbles? NA (YES) NO

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI.. (NA) 8-15-14

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 8-18-14 Time: 1647

** *Notify Project Manager of discrepancies or concerns* **

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

1-B 2-B Same sample. 1 overfilled as one to match 1st Job

By: TS Date: 8 18 14

clmin blank notes: 5ts filled

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles >4 mm

Small → "sm" (< 2 mm)

Peabubbles → "pb" (2 to < 4 mm)

Large → "lg" (4 to < 6 mm)

Headspace → "hs" (> 6 mm)

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: YW93
Client: CalPortland
Project Event: N/A
Project Name: Gas Works Park Kite Kill

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	1-B	YW93A	14-16983	Soil	08/18/14 12:55	08/18/14 15:09
2.	Trip Blank	YW93B	14-16984	Soil	08/18/14 13:00	08/18/14 15:09

Analytical Resources,
Incorporated
Analytical Chemists and
Consultants

Data Reporting Qualifiers

Effective 12/31/13

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C Sample ID: 1-B
  SAMPLE

Lab Sample ID: YW93A
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 09/02/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

Date Sampled: 08/18/14
Date Received: 08/18/14

Instrument/Analyst: NT15/PKC
Date Analyzed: 08/25/14 17:49

Sample Amount: 4.72 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 6.5%

CAS Number	Analyte	RL	Result	Q
71-43-2	Benzene	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
179601-23-1	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	117%
d8-Toluene	105%
Bromofluorobenzene	107%
d4-1,2-Dichlorobenzene	100%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C Sample ID: MB-082514A
  METHOD BLANK

Lab Sample ID: MB-082514A
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 09/02/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT15/PKC
Date Analyzed: 08/25/14 15:29

Sample Amount: 5.00 g-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

CAS Number	Analyte	RL	Result	Q
71-43-2	Benzene	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	100%
d8-Toluene	103%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	98.3%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-082514A	Method Blank	Low	100%	103%	101%	98.3%	0
LCS-082514A	Lab Control	Low	108%	104%	101%	101%	0
LCSD-082514A	Lab Control Dup	Low	106%	103%	101%	99.0%	0
YW93A	1-B	Low	117%	105%	107%	100%	0

	LCS/MB LIMITS		QC LIMITS	
SW8260C	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	80-149	80-124	80-149	80-124
(TOL) = d8-Toluene	77-120	80-120	77-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 14-16983 to 14-16983

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-082514A**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-082514A
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 09/02/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT15/PKC
LCSD: NT15/PKC
Date Analyzed LCS: 08/25/14 14:39
LCSD: 08/25/14 15:04

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	49.7	50.0	99.4%	52.7	50.0	105%	5.9%
Toluene	49.3	50.0	98.6%	52.1	50.0	104%	5.5%
Ethylbenzene	46.8	50.0	93.6%	50.3	50.0	101%	7.2%
m,p-Xylene	101	100	101%	108	100	108%	6.7%
o-Xylene	46.6	50.0	93.2%	49.0	50.0	98.0%	5.0%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	108%	106%
d8-Toluene	104%	103%
Bromofluorobenzene	101%	101%
d4-1,2-Dichlorobenzene	101%	99.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: Trip Blank**
Page 1 of 1 **SAMPLE**

Lab Sample ID: YW93B
LIMS ID: 14-16984
Matrix: Soil
Data Release Authorized:
Reported: 09/02/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

Date Sampled: 08/18/14
Date Received: 08/18/14

Instrument/Analyst: NT15/PKC
Date Analyzed: 08/25/14 16:08

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	LOQ	Result	Q
71-43-2	Benzene	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
179601-23-1	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	101%
d8-Toluene	104%
Bromofluorobenzene	99.9%
d4-1,2-Dichlorobenzene	99.6%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
YW93B	Trip Blank	5	101%	104%	99.9%	99.6%	0

SW8260C	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	80-149	80-125
(TOL) = d8-Toluene	77-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 14-16984 to 14-16984

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: 1-B
SAMPLE

Lab Sample ID: YW93A
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 08/27/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill
Event: NA
Date Sampled: 08/18/14
Date Received: 08/18/14

Date Extracted: 08/26/14
Date Analyzed: 08/27/14 15:16
Instrument/Analyst: NT8/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.96 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 7.0%

CAS Number	Analyte	LOQ	Result
91-20-3	Naphthalene	4.6	< 4.6 U
91-57-6	2-Methylnaphthalene	4.6	< 4.6 U
90-12-0	1-Methylnaphthalene	4.6	< 4.6 U
208-96-8	Acenaphthylene	4.6	< 4.6 U
83-32-9	Acenaphthene	4.6	< 4.6 U
86-73-7	Fluorene	4.6	< 4.6 U
85-01-8	Phenanthrene	4.6	< 4.6 U
120-12-7	Anthracene	4.6	< 4.6 U
206-44-0	Fluoranthene	4.6	< 4.6 U
129-00-0	Pyrene	4.6	< 4.6 U
56-55-3	Benzo(a)anthracene	4.6	< 4.6 U
218-01-9	Chrysene	4.6	< 4.6 U
50-32-8	Benzo(a)pyrene	4.6	< 4.6 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	< 4.6 U
53-70-3	Dibenz(a,h)anthracene	4.6	< 4.6 U
191-24-2	Benzo(g,h,i)perylene	4.6	< 4.6 U
132-64-9	Dibenzofuran	4.6	< 4.6 U
TOTBFA	Total Benzofluoranthenes	4.6	< 4.6 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	105%
d10-2-Methylnaphthalene	76.3%
d14-Dibenzo(a,h)anthracen	85.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
Extraction Method: SW3546
Page 1 of 1

Sample ID: MB-082614
METHOD BLANK

Lab Sample ID: MB-082614
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 08/27/14

QC Report No: YW93-Ca1Portland
Project: Gas Works Park Kite Kill
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/14
Date Analyzed: 08/27/14 14:20
Instrument/Analyst: NT8/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.00 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	LOQ	Result
91-20-3	Naphthalene	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	5.0	< 5.0 U
90-12-0	1-Methylnaphthalene	5.0	< 5.0 U
208-96-8	Acenaphthylene	5.0	< 5.0 U
83-32-9	Acenaphthene	5.0	< 5.0 U
86-73-7	Fluorene	5.0	< 5.0 U
85-01-8	Phenanthrene	5.0	< 5.0 U
120-12-7	Anthracene	5.0	< 5.0 U
206-44-0	Fluoranthene	5.0	< 5.0 U
129-00-0	Pyrene	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	5.0	< 5.0 U
218-01-9	Chrysene	5.0	< 5.0 U
50-32-8	Benzo(a)pyrene	5.0	< 5.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	< 5.0 U
53-70-3	Dibenz(a,h)anthracene	5.0	< 5.0 U
191-24-2	Benzo(g,h,i)perylene	5.0	< 5.0 U
132-64-9	Dibenzofuran	5.0	< 5.0 U
TOTBFA	Total Benzofluoranthenes	5.0	< 5.0 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	113%
d10-2-Methylnaphthalene	87.0%
d14-Dibenzo(a,h)anthracen	97.3%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

Client ID	FLN	MNP	DBA	TOT OUT
MB-082614	113%	87.0%	97.3%	0
LCS-082614	106%	82.7%	94.0%	0
1-B	105%	76.3%	85.0%	0

	LCS/MB LIMITS	QC LIMITS
(FLN) = d10-Fluoranthene	(36-134)	(36-134)
(MNP) = d10-2-Methylnaphthalene	(32-120)	(32-120)
(DBA) = d14-Dibenzo(a,h)anthracene	(21-133)	(21-133)

Prep Method: SW3546
Log Number Range: 14-16983 to 14-16983

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D-SIM GC/MS

Sample ID: LCS-082614
LAB CONTROL SAMPLE

Lab Sample ID: LCS-082614
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 08/27/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 08/26/14
Date Analyzed LCS: 08/27/14 14:48
Instrument/Analyst LCS: NT8/JZ

Sample Amount LCS: 10.00 g-dry-wt
Final Extract Volume LCS: 0.50 mL
Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Naphthalene	91.2	150	60.8%
2-Methylnaphthalene	93.6	150	62.4%
1-Methylnaphthalene	93.3	150	62.2%
Acenaphthylene	92.8	150	61.9%
Acenaphthene	83.6	150	55.7%
Fluorene	98.4	150	65.6%
Phenanthrene	103	150	68.7%
Anthracene	108	150	72.0%
Fluoranthene	116	150	77.3%
Pyrene	111	150	74.0%
Benzo(a)anthracene	118	150	78.7%
Chrysene	113	150	75.3%
Benzo(a)pyrene	114	150	76.0%
Indeno(1,2,3-cd)pyrene	117	150	78.0%
Dibenz(a,h)anthracene	109	150	72.7%
Benzo(g,h,i)perylene	126	150	84.0%
Dibenzofuran	92.7	150	61.8%
Total Benzofluoranthenes	355	450	78.9%

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	106%
d10-2-Methylnaphthalene	82.7%
d14-Dibenzo(a,h)anthracene	94.0%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: 1-B
SAMPLE

Lab Sample ID: YW93A
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized
Reported: 08/22/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

Date Sampled: 08/18/14
Date Received: 08/18/14

Percent Total Solids: 93.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/20/14	200.8	08/21/14	7440-38-2	Arsenic	0.2	1.2	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: YW93MB
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 08/22/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	08/20/14	200.8	08/21/14	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: YW93LCS
LIMS ID: 14-16983
Matrix: Soil
Data Release Authorized:
Reported: 08/22/14

QC Report No: YW93-CalPortland
Project: Gas Works Park Kite Kill

Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	27.6	25.0	110%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

APPENDIX F
Hydroseed and Sod Material Documentation

SUBMITTAL TRANSMITTAL

Project: Gas Works/Kite Hill Project
Puget Sound Energy

Date: 8/05/2014

A/E Project Number: 4600007635

Transmittal A

To: Puget Sound Energy
P.O. Box 97034 (EST-07E)
Bellevue, WA 98009-9734

Submittal Number: 07

From: Wyser Construction Co., Inc.
19015 – 109th Ave. S.E.
Snohomish, Wa. 98296

By: Dan Reynolds

Resubmission

Qty.	Submittal Checklist Item No.	Description	Spec. Section Title and Paragraph / Drawing Detail Reference
1	0	No Net Sod Alt Bid	02920

- ☒ Submitted for review and approval
- ☐ Resubmitted for review and approval
- ☐ Will be available to meet construction schedule
- ☐ Other remarks on above submission:
- ☐ Substitution involved – Substitution request attached with point-by-point comparative data or preliminary details.
- ☐ Complies with contract requirements
- ☐ One copy retained by sender

Transmittal B

To: Wyser Construction Co., Inc.
Attn: Dan Reynolds
Date Received by A/E:

From: GEO Engineers
By: Chris Bailey
Date Transmitted by A/E:

- ☐ Approved
- ☒ Approved as noted
- ☐ Not subject to review
- ☐ No action required
- ☐ Other remarks on above submission: ~~PLEASE CONFIRM~~ ~~NO SOD W/ SAME SEED MIX IS NOT AVAILABLE.~~
- ☐ Approved as noted / Resubmit
- ☐ Rejected / Resubmit
- ☐ Revise / Resubmit
- ☐ Submission Incomplete / Resubmit

Copies: ☐ Owner ☐ Consultants ☐ ☐ ☐ ☐ One copy retained by sender

PARKS HAS AGREED TO MATCH HYDROSEED MIX W/ SOD. PROCEED W/ SOD AMD MODIFY HYDROSEED MIX TO MEET SOD MIX. 8.25.2014.

Country Green
TURF FARMS

www.CountryGreen.com

August 6, 2014

Dan Reynolds
Wyser Construction
19015 109th Ave SE
Snohomish WA 98296
dan@wyserdirt.com

RE: **Gas Works Park - Sod Submittal Section 02920 2.04**

The sod shall be Country Green Turf Farms "Green Sport" Non-netted sod. This sod is grown without any mesh netting. The mixture shall consist of (percentages are by weight of seed at time of planting):

PLEASE MATCH HYDROSEED MIX WITH SOD MIX. 8-25-2014.

75%	Perennial Ryegrass
	CABO II Perennial Ryegrass
	FIJI Perennial Ryegrass
25%	Kentucky Bluegrass
	MIDNIGHT Kentucky Bluegrass
	PROSPERITY Kentucky Bluegrass

DIFFERENT FROM HYDROSEED MIX. AVAILABILITY.? PEG BROWN ISSUE.

Seed Test Date 1/13. Seed Mix contained 0.00 Crop and 0.00 Weed Seed. Varieties listed above are representative at time of planting and are subject to change as new fields are planted.

The sod shall conform to the standards of the T.P.I. (Turfgrass Producers International).

If you have any questions, please call us at the office at 360-456-1006 or 1-800-300-1763.

Sincerely,

Amy L. Padgett

Amy L. Padgett

Longfellow	Shadow w/Endo	Promoter	Victory	Weekend	Bridgeport
Waldorf	Bargreen	Southport	Tamara	Enjoy	----------

9-14.2(2) SEED MIX #1 (EROSION MIX)

The seed mixture and rate of application shall be as follows:

Kind and Variety of Seed in Mixture	Percent by Weight
Turf-type Perennial Rye (3 approved types)	50%
Creeping Red Fescue	20%
Chewings Fescue	20%
Hard Fescue	10%

The rate of application shall be 5 pounds per 1000 square feet. The seed mixture shall be no less than 98% pure, and shall have a minimum germination rate of 90%.

9-14.2(3) SEED MIX #2 (NON-IRRIGATED LAWN SEED MIX)

The seed mixture and rate of application shall be as follows:

Kind and Variety of Seed in Mixture	Percent by Weight
Turf-type Perennial Rye (3 approved types)	50%
Chewings Fescue	30%
Hard Fescue	20%

The rate of application shall be 6 pounds per 1000 square feet. No noxious weeds will be permitted. The seed mixture shall be no less than 98% pure, and shall have a minimum germination rate of 90%.

9-14.2(4) SEED MIX #3 (IRRIGATED LAWN OR ATHLETIC TURF AREA)

The seed mixture and rate of application shall be as follows:

Kind and Variety of Seed in Mixture						Percent by Weight
Turf-type Perennial Rye Grasses (choose any 3 of the following approved types)						100%
Barry	Citation	Elka	Palmer	Derby	Omega II	
Blazer	Citation II	Gator	Prelude	Omega	----------	
Manhattan II	Yorktown II	Loretta	Regal	Diplomat	----------	

The rate of application shall be 8 pounds per 1000 square feet. No noxious weeds will be permitted. The seed mixture shall be no less than 98% pure, shall have a minimum germination rate of 80%, and shall have no more than 0.5% weed seed.

All seed varieties shall be packed in separate, clean, sound containers of uniform weight. The Contractor shall deliver the seed to the Project Site in the original containers showing weight, analysis, and name of grower, and shall store in a manner that prevents all wetting and deterioration of seed, until the seed is approve

reccommend this mix

9-14.2(5) SEED MIX #4 (BIOFILTRATION SWALE MIX)

The seed mixture and rate of application shall be as follows:

Wet Biofiltration Swale Mix		Biofiltration Swale Mix	
Kind and Variety	Percent by Weight	Kind and Variety	Percent by Weight
Tall fescue or meadow fescue *Festuca arundinacea* or *Festuca elatior*	60-70 percent	Tall or meadow fescue *Festuca arundinacea* or *Festuca elatior*	75-80 percent
Seaside/Colonial bentgrass *Agrostis palustris*	10-15 percent	Seaside/Colonial bentgrass *Agrostis palustris*	10 -15 percent
Meadow foxtail *Alepocurus pratensis*	10-15 percent	Redtop bentgrass *Agrostis alba* or *A. gigantea*	5-10 percent

Alsike clover *Trifolium hybridum*	6-10 percent
Redtop bentgrass *Agrostis alba*	1-6 percent

*****Modified Briargreen, Inc Hydroseeding Guide Wetlands Seed Mix

Fertilizing a Biofiltration Swale should be avoided if at all possible in any application where nutrient control is an objective. Test soils for nitrogen, phosphorus, and potassium and consult with a landscape professional about the need for fertilizer in relation to soil nutrition and vegetation requirements. If use of a fertilizer cannot be avoided, use a slow-release fertilizer formulation in the least amount needed

Mow grass, if needed for good growth (typically maintain at 4-9 inches and not below design flow level.

9-14.2(6) WILDFLOWER MIX

The seed mixture and rate of application shall be as follows:

Wildflower Mix:

Kind and Variety	Percent by Weight
Turf Type Perennial Rye (3 types)	45%
Chewings Fescue	25%
Hard Fescue	15%
Wildflowers	15%

The Contractor shall submit, and receive approval from the Engineer at least 3 Working Days before ordering, all species included in the wildflower mix and the Material Person's written directions on how to apply the seed mix. Written directions shall include rate of application and the incorporation of specific species of grass seed components when appropriate to the achieve adequate erosion control protection while maximizing flower display and regeneration.

Wildflower seed mix shall have a minimum of 20 wildflower species and shall not contain more than 10% (by weight) of any single species. The seed mix shall be no less than 98% pure and shall have a minimum germination rate of 90%.

Noxious weeds (Chapter 16-750 WAC), and invasive species listed by the Washington State Noxious Weed Control Board, will not be allowed. The following list of invasive species will be considered as noxious weeds:

annual coreopsis (coreopsis tinctoria)
baby blue eyes (nemophila menziesii
baby's breath (gypsophila elegans)
bachelor's button (centaurea cyanus)
black-eyed susan (rudbeckia hirta)
blue flax (linum perenne)
california poppy (eschscholzia californica)
common yarrow (achillea millefolium)
cosmos (cosmos bipinnatus)
cow cockle (vaccaria hispanica)
crimson clover (trifolium incarnatum)
dame's rocket (hesperis matronalis)
fireweed (chamerion angustifolium)
forget-me-not (mysotis sylvatica)
poor man's weatherglass (anagallis arvensis)
redroot pigweed (amaranthus retroflexus)
sweet alyssum (lobularia maritima)
wild lupine (lupinus perennis)
yellow toadflax (linaria vulgaris)

Mixes shall be applied in accordance with manufacturers written directions submitted for Engineers approval a minimum of 2 Working Days prior to application. Written directions shall include rate of application and the incorporation of specific species of grass seed components when appropriate to the achieve adequate erosion control protection while maximizing flower display and regeneration.

Wildflower seed mix shall have a minimum of 20 wildflower species and shall not contain more than 10% (by weight) of any single species. Noxious weeds will not be permitted. The seed mix shall be no less than 98% pure and shall have a minimum germination rate of 90%. Approved sources of wildflower mixes are:

1. "Bloomers"
   Turf Seed
   Hubbard, OR
   Phone (800) 247-6910
   web-site www.turf-seed.com (Information and ordering)
2. "Pacific Northwest Wildflower"
   Environmental Seeds
   Lompoc, CA
   (order by phone, by FAX, or by e-mail)
   Phone (805) 735-8888
   FAX (805) 735-8798
   E-mail esp@espseeds.com

APPENDIX G
Irrigation System Testing Documentation

SEATTLE PARKS AND RECREATION

Parks Department Site Inspection Report

Project: GAS WORK @ KITE HILL **PW#:**

Contractor: [illegible]

Date Inspected: 10-1-14 **Date & Time requested:**

Project Manager:

Weather: CLEAR

Site Conditions:

Description of Work Inspected or Test, (e.g., air pressure, visual, etc.):

VISUAL - IRRIGATION CONTROL WIRE (PAINT)

Specific Location:

WEST SIDE

Subgrade:

Re-inspection ☐ **Overtime Inspection** ☐ **Back Charge to Contractor** **Special Inspector** ☐

Describe Any Discrepancies/Deficiencies:

NONE

Notified Contractor: ☐

Schedule Issues, Comments or Delays:

Notified: PM ☐ **Const. Mgr** ☐	**Date and Time: Posted in U drive**	**Email** ☐ **Phone** ☐

Inspected by: Dan Cudina **Phone:** 423 2960 **Division/Shop:** ELECT SHOP

(Please print name)

Initials: DFC **Date:** 10-1-14 **(Copies to: Contractor** ☐ **Project Manager** ☐**)**

SEATTLE PARKS AND RECREATION

Parks Department Site Inspection Report

Project: Gas Works Park Kite hill **PW#:** WC 582

Contractor: Wiser Co.

Date Inspected: 10/7/14 **Date & Time requested:** 900 AM

Project Manager: David, G

Weather: Fog 62°

Site Conditions: GABLE Harry F Sr. Plumber

Dry

Description of Work Inspected or Test, (e.g., air pressure, visual, etc.):

Main line (Irrigation) 150 pounds

Specific Location:

North west and West side of hill STATION 3, 18, 19, 20,

Subgrade:

1. Main line STATIONS 3, 18, 19, 20, 22 TOTAL #5 held 150 P.S.I for 25 min with no loss, OK Quick Couplers O.K.

2. lateral lines for STATIONS # 3, 18, 19, 20, 22 O.K held 100 P.S.I for 15 min with no loss

Took Pitches of Main line, lateral lines Pressure gauge

ALL lines had Tracer Tape over Them.

Re-inspection ☐ **Overtime Inspection** ☐ **Back Charge to Contractor** **Special Inspector** ☐

Describe Any Discrepancies/Deficiencies:

None

Notified Contractor: ☐

Schedule Issues, Comments or Delays:

None

Notified: PM ☒ **Const. Mgr** ☒	**Date and Time: Posted in U drive**	**Email** ☐ **Phone** ☐

Inspected by: Harry Gable **Phone:** 206) 473-2880 **Division/Shop:** KASA/Plumbing

(Please print name)

Initials: H.G. **Date:** 10/7/14 **(Copies to: Contractor** ☒ **Project Manager** ☒**)**

SEATTLE PARKS AND RECREATION

Parks Department Site Inspection Report

Project: Gas Works Park Kite hill **PW#:** WC 582

Contractor: Wiser Co.

Date Inspected: 10 10 14 **Date & Time requested:** 1 P.M

Project Manager: David Graves

Weather: Dry 70°

Site Conditions:

Dry Good

Description of Work Inspected or Test, (e.g., air pressure, visual, etc.):

Pressure Test Main line lateral lines and Manifolds

Specific Location: for stations 14-15

STATIONS # 14-15.

Subgrade:

1. Main line 150 P.S.I 30 min No Drop O.K.
2. lateral lines 100 P.S.I 15 min No Drop O.K
3. Manifolds 14-15 O.K.

Re-inspection ☐ **Overtime Inspection** ☐ **Back Charge to Contractor** **Special Inspector** ☐

Describe Any Discrepancies/Deficiencies:

None

Notified Contractor: ☐

Schedule Issues, Comments or Delays:

None

Notified: PM ☒ Const. Mgr ☒	Date and Time: Posted in U drive	Email ☒ Phone ☐

Inspected by: Harry Gibbs **Phone:** 206 423-2887 **Division/Shop:** K.1456

(Please print name)

Initials: H.G. **Date:** 10/14/14 **(Copies to: Contractor** ☒ **Project Manager** ☒**)**

Will Deliver

SEATTLE PARKS AND RECREATION

Parks Department Site Inspection Report

Project: Gas Works' Park Kite hill **PW#:** WC582

Contractor: Miller Co.

Date Inspected: 10-23-14 **Date & Time requested:** 2:00 P.M

Project Manager: David Graves

Weather:

Site Conditions:

Blustery / showers

Description of Work Inspected or Test, (e.g., air pressure, visual, etc.):

150# Main line, 100 P.S.I lateral lines and Manifolds

Specific Location:

Remaining mainline up to "T" that will complet

Subgrade: the loop system.

New soil.

System held tight

Re-inspection ☐ **Overtime Inspection** ☐ **Back Charge to Contractor** **Special Inspector** ☐

Describe Any Discrepancies/Deficiencies:

Notified Contractor: ☐

Schedule Issues, Comments or Delays:

Contractor located an existing (3/4" ⅝) valve near the Prow (the concrete overlook structure) He will put triangulating measurements on the print.

Notified: PM ☐ **Const. Mgr** ☐	**Date and Time: Posted in U drive**	**Email** ☐ **Phone** ☐

Inspected by: Larry Gable **Phone:** (206) 423-2887 **Division/Shop:** K 1956

(Please print name)

Initials: L.P **Date:** 10/23/14 **(Copies to: Contractor** ☐ **Project Manager** ☐**)**

APPENDIX H
Material Import/Export Documentation

Puget Sound Energy **Import/Export Log** PSE-14-1394

Gas Works Park-Kite Hill Soil Project

DATE	Export Concrete Debri/Sod	Export Asphalt	Excavate Transport PCS Soil	Export Clean Soil Brush	Import 5/8" Crush/ Asphalt	Import: Type 17 Backfill	Import: 1 1/4" Minus	Import: 2" x 4" Quarry	Import: Topsoil Compost Mix	Import: Sod Hydroseed
Sept. 2014										
9/2/2014								7.65 ton √		
9/8/2014			41.62 ton √	20.0 CY√		46.47 ton√				
9/9/2014			124.90 Ton √			102.08 ton√				
9/10/2014			102.61 Ton √			108.83 Ton√				
9/11/2014			146.97 Ton √			153.26 Ton√				
9/12/2014		27.71 ton√	136.95 Ton √			157.05 ton√				
		27.71 ton	***553.05 ton***	***20.0 cy***		***567.69 ton***		***7.65 ton***		
9/15/2014		24.70 ton√							460 cy √	
9/15/2014		20.0 cy√								
9/16/2014		20.0 cy√								
9/16/2014		5.88 ton√				44.63 ton√			420.0 cy√	
9/17/2014			35.45 ton√			210.78 ton√			300.0 cy√	
9/18/2014						119.60 ton√			240.0 cy√	
9/19/2014						104.64 ton√			220.0 cy√	
		30.58 ton 40.0 cy	***35.45 ton***			***479.65 ton***			***1640.0 cy***	
9/22/2014						264.14 ton√			200.0 cy√	
9/23/2014						275.14 ton√			300.0 cy√	
9/24/2014						310.34 ton√			280.0 cy√	
9/25/2014						389.32 ton√			340.0 cy√	
9/26/2014						302.93 ton√			380.0 cy√	
						1,541.87 ton			***1,500 cy***	
Sub Total Tons		**58.29 ton**	**588.50 ton**			**2,589.21 ton**		**7.65 ton**		
Sub Total yds		**40.0 cy**		**20.0 cy**					**3,140.0 cy**	

DATE	Export Concrete Debri/Sod	Export Asphalt	Excavate Transport PCS Soil	Excavate Clean Soil Brush	Import 5/8" Crush/ Asphalt	Import: Type 17 Backfill	Import: 1 1/4" Minus	Import: 2" x 4" Quarry	Import: Topsoil Compost Mix	Import: Sod Hydroseed
Previous Balance		**58.29 ton** **40.0 cy**	**588.50 ton**	**20.0 cy**		**2,589.21 ton**		**7.65 ton**	**3,140.0 cy**	
Sept. 2014										
9/29/2014						185.16 tonV	30.12 tonV			
9/30/2014						63.19 tonV	31.75 tonV		360.0 cyV	
						248.35 ton	***61.87 ton***		***360.0 cy***	
Oct. 2014										
10/1/2014						109.31 tonV	30.39 tonV		440.0cyV	
10/2/2014						292.78 tonV	29.63 tonV		180.0 cy V	
10/3/2014										52,000 SFV
10/6/2014						168.43 tonV				
10/7/2014						117.79 tonV	28.09 ton V		360.0 cy V	
10/8/2014						130.68 tonV			380.0 cy V	
10/9/2014						370.88 tonV	13.29 tonV		260.0 cy V	
10/10/2014						267.47 tonV	45.84 tonV		440.0 cy V	
						1457.34 ton	***147.24 ton***		***2,060.0 cy***	***52,000 SF***
10/13/2014						63.30 tonV				64,000 SFV
10/14/2014						222.55 tonV			360.0 cy V	
10/15/2014		13.88 tonV				277.80 tonV			240.0 cy V	
10/16/2014						273.04 tonV				
10/17/2014		14.36 tonV				139.84 tonV			320.0 cy V	
		28.24 ton				***976.53 ton***			***920.00 cy***	***64,000 SF***
SUB TOTAL TONS		***86.53 ton***	***588.50 ton***			***5,271.43 ton***	***209.11 ton***	***7.65 ton***		
SUB TOTAL YARDS		***40.0 cy***		***20.0 cy***					***6,480.0 cy***	***116,000 SF***

Puget Sound Energy **Import/Export Log** PSE-14-1394 PG. 3

Gas Works Park-Kite Hill Soil Project

DATE	Export Concrete Debri/Sod	Export Asphalt	Excavate Transport PCS Soil	Excavate Clean Soil Brush	Import 5/8" Crush/ Asphalt	Import: Type 17 Backfill	Import: 1 1/4" Minus	Import: 2" x 4" Quarry	Import: Topsoil Compost Mix	Import: Sod Hydroseed
Previous Balance		***86.53 ton***	***588.50 ton***			***5,271.43 ton***	***209.11 ton***	***7.65 ton***		
		40.0 cy		***20.0 cy***					***6,480.0 cy***	***116,000 SF***
Oct. 2014										
10/20/2014	9.99 ton √						29.42 ton√		400.0 cy√	
10/21/2014							15.05 ton√		360.0 cy√	
10/22/2014							13.78 ton√			
10/23/2014						65.18 ton√	27.88 ton√			
10/24/2014					75.39 ton√	276.75 ton√	57.25 ton√		440.0 cy√	
	9.99 ton				***75.39 ton***	***341.93 ton***	***143.38 ton***		***1,200.0 cy***	
10/27/2014					29.50 ton√	220.65 ton√	14.20 ton√			
10/28/2014						102.66 ton√	76.29 ton√			10,000 SF√
10/29/2014									420.0 cy √	
10/30/2014						117.49 ton √				10,000 SF√
10/31/2014						142.62 ton √			80.0 cy √	
					29.50 ton	***583.42 ton***	***90.49 ton***		***500.00 cy***	***20,000 sf***
Nov. 2014										
11/3/2014			136.08 ton√			195.73 ton√				
11/4/2014			116.94 ton√			103.61 ton√	59.13 ton√			
11/5/2014						28.93 ton√	14.68 ton√		320.0 cy √	10,000 SF√
11/6/2014							14.10 ton√		300.0 cy √	
			253.02 ton			***328.27 ton***	***87.91 ton***		***620.0 cy***	***10,000 sf***
SUB TOTAL TONS	**9.99 ton**	**86.53 ton**	**841.52 ton**		**104.89 ton**	**6525.05 ton**	**530.89 ton**	**7.65 ton**		
SUB TOTAL YARDS		**40.0 cy**		**20.0 cy**					**8,800 cy**	***116,000 SF*** **30, 000 SF**

Puget Sound Energy **Import/Export Log** PSE-14-1394 PG. 4

Gas Works Park-Kite Hill Soil Project

DATE	Export Concrete Debri/Sod	Export Asphalt	Excavate Transport PCS Soil	Excavate Clean Soil Brush	Import 5/8" Crush/ Asphalt	Import: Type 17 Backfill	Import: 1 1/4" Minus	Import: 2" x 4" Quarry	Import: Topsoil Compost Mix	Import: Sod Hydroseed
Previous Balance	**9.99 ton**	**86.53 ton 40.0 cy**	**841.52 ton**	**20.0 cy**	**104.89 ton**	**6525.05 ton**	**530.89 ton**	**7.65 ton**	**8,800 cy**	***116,000 SF*** **30,000 SF**
Nov. 2014										
11/7/2014					103.29 ton		13.44 ton √			
11/8/2014					69.05 ton					
					172.34 ton		***13.44 ton***			
11/12/2014			90.29 ton√			44.93 ton √				10,000 SF√
11/13/2014	.62 ton√								120.0 cy √	10,000 SF√
11/14/2014	.33 ton√								40.0 cy √	6,000 SF√
	.95 ton		***90.29 ton***			***44.93 ton***			***160.0 cy***	***26,000 SF***
	9.99 ton	86.53 ton	931.81 ton		104.89 ton	6569.98 ton	544.33 ton	7.65 ton	8,960 cy	***116,000 SF***
	.95 ton	40.0 cy		20.0 cy	172.34 ton					56,000 SF
11/17/2014									140.0 CY √	
11/18/2014		8.0 cy √			12.49 ton√		13.05 ton√			
11/19/2014										10,000 SF√
11/20/2014									60.0 cy √	
11/24/2014	24.80 ton√									
11/25/2014										6,000 SF√
11/26/2014	1.00 ton√									
	24.80 ton	***8.0 cy***			***12.49 ton***		***13.05 ton***		***200.00 cy***	***16,000 SF***
	1.00 ton									
SUB TOTAL TONS	**34.79 ton**	**86.53 ton**	**931.81 ton**		**117.38 ton**	**6569.98 ton**	**557.38 ton**	**7.65 ton**		
	.95 ton				**172.34 ton**					
SUB TOTAL YARDS	**1.00 ton**	**48.0 cy**		**20.0 cy**					**9,160.0 cy**	**116,000 SF**
										72,000 SF

Puget Sound Energy **Import/Export Log** PSE-14-1394 PG. 5

Gas Works Park-Kite Hill Soil Project

DATE	Export Concrete Debri/Sod	Export Asphalt	Excavate Transport PCS Soil	Excavate Clean Soil Brush	Import 5/8" Crush/ Asphalt	Import: Type 17 Backfill	Import: 1 1/4" Minus	Import: 2" x 4" Quarry	Import: Topsoil Compost Mix	Import: Sod Hydroseed
Previous Balance	**34.79 ton** **.95 ton** **1.00 ton**	**86.53 ton** **48.0 cy**	**931.81 ton**	 **20.0 cy**	**117.38 ton** **172.34 ton**	**6569.98 ton**	**557.38 ton**	**7.65 ton**	 **9,160.0 cy**	***116,000 SF*** **72,000 SF**
Dec. 2014										
12/1/2014									40.0 cy √	
12/2/2014									60.0 cy √	
12/3/2014									40.0 cy √	
12/5/2014									20.0 cy √	
									160.0 cy	
12/8/2014										5,000 SF √
12/9/2014										6,600 SF √
										11,600 SF
12/17/2014			37.37 ton√							
Pay App. #4	***24.80 ton*** ***1.00 ton***	 ***8.0 CY***	***37.37 ton***		***12.49 ton***		***13.05 ton***		 ***360.0 CY***	 ***27,600 SF***
SUB TOTAL TONS	34.79 ton .95 ton	86.53 ton	969.18 ton		117.38 ton 172.34 ton	6569.98 ton	557.38 ton	7.65 ton		
SUB TOTAL YARDS	1.00 ton	48.0 cy		20.0 cy					9,320 cy	***116,000 SF*** 83,600 cy

Puget Sound Energy **Import/Export Log** PSE-14-1394 PG. 6

Gas Works Park-Kite Hill Soil Project

DATE	Export Concrete Debri/Sod	Export Asphalt	Excavate Transport PCS Soil	Excavate Clean Soil Brush	Import 5/8" Crush/ Asphalt	Import: Type 17 Backfill	Import: 1 1/4" Minus	Import: 2" x 4" Quarry	Import: Topsoil Compost Mix	Import: Sod Hydroseed
Previous Balance	34.79 ton .95 ton 1.00 ton	86.53 ton 48.0 cy	969.18 ton	 20.0 cy	117.38 ton 172.34 ton	6569.98 ton	557.38 ton	7.65 ton	Mulch 9,320.0 cy	 *116,000 SF* 83,600 SF
Dec. 2014										
12/19/2015				24.0 cy √						
12/22/2014				58.24 ton√						
12/23/2014										5,600 sf √
12/23/2014										20,000 SF√
				24.0 cy						**5,600 SF**
				58.24 ton						**20,000 SF**
2015										
4/27/2015		6.0 CY			5.15 ton				10.0 CY	
4/30/2015					22.00 ton					
		6.0 CY			***5.15 ton***				***10.0 CY***	
					22.00 ton					
5/21/2015										*5000 SF*
PAY APP. #5		***6.0 CY***		***24.0 CY***	***5.15 ton***				***10.0 CY***	***5,600 SF***
				58.24 ton	***22.00 ton***					***25000***
SUB TOTAL TONS	**34.79 ton** **.95 ton**	**86.53 ton**	**969.18 ton**	**58.24 ton**	**122.53 ton** **194.34 ton**	**6569.98 ton**	**557.38 ton**	**7.65 ton**		
SUB TOTAL YARDS	**1.00 ton**	**54.0 cy**		**20.0 cy** **24.0 cy**					10.0 CY **9,320.0 cy**	***141000 SF*** **89,200 SF**

APPENDIX I
King County Metro Industrial Waste Documentation

King County

Industrial Waste Self-Monitoring Report

Send to: King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
Phone 206-263-3000 / FAX 206-263-3001
Email: info.KCIW@kingcounty.gov

Project Name: Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project

Authorization No.: [redacted] 941-01

Project Location: 1801 N. Northlake Way, Seattle

Sample Date	pH (s.u.)	Settleable Solids (mL/L)	Discharge Rate (gallons per minute)	Discharge Volume (gallons per day)	Name or initials of person collecting and recording samples and volume each day. If permitted for relief only, explain why you did not discharge to surface water for each day of discharge.
NO DISCHARGE					
			Total Discharge Volume:	No Discharge	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent

11.12.2014
Date

The authorization holder is responsible for monitoring the discharge in accordance with the monitoring requirements specified in King County Discharge Authorization No. 941-01. This report form must be completed, signed, and submitted to KCIW by **January 15, 2015**.

Your King County Industrial Waste Program Contact: Todd Gowing, 206-477-5426

King County

Industrial Waste Self-Monitoring Report

Send to: King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
Phone 206-263-3000 / FAX 206-263-3001
Email: info.KCIW@kingcounty.gov

Project Name: Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project **Authorization No.:** 941-02

Project Location: 1801 N. Northlake Way, Seattle

Sample Date	pH (s.u.)	Settleable Solids (mL/L)	Discharge Rate (gallons per minute)	Discharge Volume (gallons per day)	Name or initials of person collecting and recording samples and volume each day. If permitted for relief only, explain why you did not discharge to surface water for each day of discharge.
11/04/2014	7.5	3.0	45	40,000	Robert Reynolds, CESCL
11/11/2014	7.5	3.0	45	12,000	Robert Reynolds, CESCL
11/17/2014	7.5	3.0	45	12,000	Robert Reynolds, CESCL
11/18/2014	7.5	3.0	45	6,000	Robert Reynolds, CESCL
11/20/2014	7.5	4.0	45	20,000	Robert Reynolds, CESCL
12/05/2014	7.4	3.0	45	3,000	Robert Reynolds, CESCL
			Total Discharge Volume:	93,000	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent — Date: 1.13.2015

The authorization holder is responsible for monitoring the discharge in accordance with the monitoring requirements specified in King County Discharge Authorization No. 941-01. This report form must be completed, signed, and submitted to KCIW by **January 15, 2015**.

Your King County Industrial Waste Program Contact: Todd Gowing, 206-477-5426

King County

Wastewater Treatment Division
Industrial Waste Program
Department of Natural Resources and Parks
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
206-263-3000 Fax 206-263-3001
TTY Relay: 711

October 30, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

David Graves
Seattle Dept. Parks and Recreation
800 Maynard Ave. S., 3rd Floor
Seattle, WA 98134

Issuance of Wastewater Discharge Authorization No. 941-02 to Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project

Dear Mr. Graves:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge construction dewatering to the sewer system from the Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover construction project located at 1801 North Northlake Way, Seattle, Washington, and has issued the enclosed Minor Discharge Authorization. The enclosed Discharge Authorization No. 941-02 supersedes and cancels Discharge Authorization No. 941-01 effective October 31, 2014. There is no fee for this first revision of your authorization; however, KCIW will assess the applicable King County fee for additional revisions.

This authorization permits you to discharge limited amounts of industrial wastewater into King County's sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements and increased fees.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making a change.

If at any time you have questions about this discharge authorization or your wastewater discharge, please call me at 206-477-5426, or email me at todd.gowing@kingcounty.gov. You may also wish to visit our program's Internet pages at: www.kingcounty.gov/industrialwaste.

Thank you for helping support our mission to protect public health and enhance the environment.

Sincerely,

Todd Gowing
Compliance Investigator

Enclosures

cc: Chris Bailey, GeoEngineers, Inc.
Susie Larson, Seattle Public Utilities
Kristin Painter, King County

King County

MINOR DISCHARGE AUTHORIZATION
King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658

NUMBER 941-02
for
Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project

Site address: 1801 N. Northlake Way
Seattle, WA 98103

Mailing address: 800 Maynard Ave. S., 3rd Floor
Seattle, WA 98134

Phone: 206-684-7048

Emergency (24-hour) phone: 206-728-2674

Industry type: Construction dewatering

Discharge to: West Point Treatment Plant

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by construction operations

Pretreatment process: Gravity separation

Maximum discharge volume: 72,000 gallons per day
Maximum discharge rate: 50 gallons per minute

Issuance Date: October 31, 2014
Effective date: November 1, 2014
Expiration date: December 30, 2014

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization please call Industrial Waste Compliance Investigator Todd Gowing at 206-477-5426.

24-HOUR EMERGENCY NOTIFICATION
West Point Treatment Plant: 206-263-3801
Washington State Department of Ecology: 425-649-7000

SPECIAL CONDITIONS

A. In accordance with Seattle Public Utilities (SPU) requirements the discharge point shall be a sanitary sewer manhole located on Park property near North Northlake Place. The contractor shall take the following safety precautions:

1. Temporary cover must be placed over the lid of the structure; and

2. Temporary barrier must be placed around the structure to restrict accessibility.

3. The structure shall be left in as good or better condition as it was prior to the project's connection. If the structure is damaged during work associated with the temporary connection, contractor shall be responsible for repairing or replacing the structure as specified by the SPU inspector.

4. During periods where SPU requires access to the structure, SPU representatives reserve the authority to request that discharge through the temporary connection be stopped.

5. Site preparation and pedestrian trail closure shall be practiced to protect SPU structure and public wellbeing.

B. All persons responsible for monitoring the discharge to the sanitary sewer shall review a copy of this authorization.

C. A copy of this authorization shall be on site at all times for review and reference.

D. This authorization grants the discharge of limited amounts of wastewater from the following waste streams:

1. Contaminated stormwater runoff
2. Equipment cleaning
3. Wheel wash water

Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from KCIW.

E. The discharge shall not cause hydraulic overloading conditions of the sewerage conveyance system. During periods of peak hydraulic loading KCIW and SPU representatives reserve the authority to request that discharge to the sewer be stopped.

F. All wastewater shall be collected and treated in accordance with treatment methods approved by KCIW. Wastewater shall not bypass treatment systems. Modifications to wastewater treatment systems shall not occur without prior approval from KCIW.

G. Totalizing and non-resettable flow meters must be installed on all permitted discharge pipes to the sewer.

H. An accessible sampling spigot must be installed on the discharge pipe from the last treatment unit of the wastewater treatment system. The sample site shall be representative of all industrial waste streams discharged to the sewer from this site. Each sample site shall be accessible to KCIW representatives when discharge to the sewer is occurring.

I. The contractor shall implement erosion control best management practices to minimize the amount of solids discharged to the sanitary sewer system. As a minimum precaution, the wastewater must be pumped to an appropriately sized settling tank(s) prior to entering the sewer system.

J. The permittee shall properly operate and maintain all wastewater treatment units to ensure compliance with established discharge limits. Solids accumulation in tanks used for solids settling shall not exceed 25 percent of the tank's working hydraulic capacity. Each tank's working hydraulic capacity is based on the water column height as measured from the bottom of the tank to either the invert elevation of the tank's outlet pipe (gravity discharges) or discharge pump intake (pumped discharges).

K. Results of all required self-monitoring sampling must be recorded daily. Recorded information for each discharge site must include:

1. Sample date
2. Sample time
3. Sample results
4. Operator name
5. Comments (if applicable)

These records shall be maintained on site and shall be available for review by KCIW personnel during normal business hours.

L. The permittee must establish a sewer account with SPU and provide necessary reports to ensure accurate assessment of sewer charges for all construction dewatering discharge sites associated with this project.

SELF-MONITORING REQUIREMENTS

A. The following self-monitoring requirements shall be met for this discharge authorization:

Parameter	Frequency	Sample Type/Method
Discharge volume	Daily	In-line flow meter
Discharge rate	Daily	In-line flow meter
Settleable solids	Daily	Grab by Imhoff cone
pH	Daily	Hand-held meter

B. The settleable solids field test by Imhoff cone must be performed as follows:

1. Fill cone to one-liter mark with well-mixed sample.
2. Allow 45 minutes to settle.
3. Gently stir sides of cone with a rod or by spinning. Settle 15 minutes longer.
4. Record volume of settleable matter in the cone as ml/L.

C. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.

D. An end-of-project self-monitoring report (form enclosed), containing results of required self-monitoring and total volume discharged to the sewer, shall be submitted to KCIW by **January 15, 2015**.

E. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

F. All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136, or approved alternatives, shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

G. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:

1. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation

2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:

   a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations
   b. Can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements

c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures

3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively

4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency

5. The individuals described in one through four above may designate an authorized representative if:

   a. The authorization is submitted to King County in writing
   b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency

GENERAL DISCHARGE LIMITATIONS

Operating criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, unusual color, or visible turbidity. The discharge must remain translucent. If any of the discharge limits are exceeded, you must stop discharging and notify KCIW at 206-477-5300.

Corrosive substances

Limits

Maximum:	pH 12.0 (s.u.)
Instantaneous minimum:	pH 5.0 (s.u.)
Daily minimum:	pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than 5 percent NaOH by weight or greater than pH 12.0 are prohibited unless authorized by KCIW and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, oils, and grease

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Nonpolar FOG (oil and grease from petroleum sources): The three nonpolar FOG grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as Total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.

Polar FOG (oil and grease from animal and/or vegetable origin): Dischargers of polar FOG shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free-floating FOG.

Flammable or explosive materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams with a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than 5 percent nor any single reading be more than 10 percent of the lower explosive limit (LEL) of the meter.

Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

Petroleum Compounds	Maximum Concentration ppm (mg/L)
Benzene	0.07
Ethylbenzene	1.7
Toluene	1.4
Total xylenes	2.2

Heavy metals/cyanide

The industrial user shall not discharge wastes, which exceed the following limitations:

Heavy Metals & Cyanide	Instantaneous Maximum ppm (mg/L)[1]	Daily Average ppm (mg/L)[2]
Arsenic	4.0	1.0
Cadmium	0.6	0.5
Chromium	5.0	2.75
Copper	8.0	3.0
Lead	4.0	2.0
Mercury	0.2	0.1
Nickel	5.0	2.5
Silver	3.0	1.0
Zinc	10.0	5.0
Cyanide	3.0	2.0

[1]The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

[2]The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

High temperature

The industrial user shall not discharge material with a temperature in excess of 65° C (150° F).

Hydrogen sulfide

Atmospheric hydrogen sulfide: 10.0 ppm
(As measured at a monitoring manhole designated by KCIW)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.

Organic compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutants compound listed in 40 CFR Section 433.11 (e) (total toxic organics [TTO] definition), acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

Settleable solids

Settleable solids concentrations: 7.0 ml/L

GENERAL CONDITIONS

A. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this discharge authorization.

B. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the municipal sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.

C. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any changes that will cause the violation of the effluent limitations specified herein will not be allowed.

D. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:

1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
2. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
3. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.

E. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of the discharge authorization or the resulting liability for failure to comply.

F. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this authorization.

G. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.

H. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reapplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization until KCIW issues or denies the new wastewater discharge authorization. If the permittee fails to file its reapplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

Compliance Investigator: _____ Date: October 30, 2014
Todd Gowing

King County

Industrial Waste Self-Monitoring Report

Send to: King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
Phone 206-263-3000 / FAX 206-263-3001
Email: info.KCIW@kingcounty.gov

Project Name: Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project

Authorization No.: 941-02

Project Location: 1801 N. Northlake Way, Seattle

Sample Date	pH (s.u.)	Settleable Solids (mL/L)	Discharge Rate (gallons per minute)	Discharge Volume (gallons per day)	Name or initials of person collecting and recording samples and volume each day. If permitted for relief only, explain why you did not discharge to surface water for each day of discharge.
			Total Discharge Volume:		

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent

Date

The authorization holder is responsible for monitoring the discharge in accordance with the monitoring requirements specified in King County Discharge Authorization No. 941-01. This report form must be completed, signed, and submitted to KCIW by **January 15, 2015**.

Your King County Industrial Waste Program Contact: Todd Gowing, 206-477-5426

King County

Wastewater Treatment Division
Industrial Waste Program
Department of Natural Resources and Parks
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658
206-263-3000 Fax 206-263-3001
TTY Relay: 711

July 3, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

David Graves
Seattle Dept. Parks and Recreation
800 Maynard Ave. S., 3rd Floor
Seattle, WA 98134

Issuance of Wastewater Discharge Authorization No. 941-01 to Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project

Dear Mr. Graves:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge construction dewatering to the sewer system from the Seattle Parks and Recreation - Gas Works Park Kite Hill Soil Cover construction project located at 1801 North Northlake Way, Seattle, Washington, and has issued the enclosed Minor Discharge Authorization.

This authorization permits you to discharge limited amounts of industrial wastewater into King County's sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements and increased fees.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making a change.

King County Code 28.84 authorizes a fee for each Minor Discharge Authorization issued by the King County Department of Natural Resources and Parks. The current fee for issuance of a Minor Discharge Authorization is $1,000. King County will send you an invoice for this amount.

If at any time you have questions about this discharge authorization or your wastewater discharge, please call me at 206-263-3008, or email me at jim.sifford@kingcounty.gov. You may also wish to visit our program's Internet pages at: www.kingcounty.gov/industrialwaste.

Thank you for helping support our mission to protect public health and enhance the environment.

Sincerely,

Pat Mayhuser for JS

Jim Sifford
Compliance Investigator

Enclosures

cc: Chris Bailey, GeoEngineers, Inc.
Susie Larson, Seattle Public Utilities
Kristin Painter, King County

King County

MINOR DISCHARGE AUTHORIZATION
King County Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658

NUMBER 941-01
for
Seattle Parks and Recreation – Gas Works Park Kite Hill Soil Cover Project

Site address: 1801 N. Northlake Way
Seattle, WA 98103

Mailing address: 800 Maynard Ave. S., 3rd Floor
Seattle, WA 98134

Phone: 206-684-7048

Emergency (24-hour) phone: 206-728-2674

Industry type: Construction dewatering

Discharge to: West Point Treatment Plant

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by construction operations

Pretreatment process: Gravity separation

Maximum discharge volume: 72,000 gallons per day
Maximum discharge rate: 50 gallons per minute

Effective date: August 1, 2014
Expiration date: October 31, 2014

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization please call Industrial Waste Compliance Investigator Jim Sifford at 206-263-3008.

24-HOUR EMERGENCY NOTIFICATION
West Point Treatment Plant: 206-263-3801
Washington State Department of Ecology: 425-649-7000

SPECIAL CONDITIONS

A. In accordance with Seattle Public Utilities (SPU) requirements the discharge point shall be a sanitary sewer manhole located on Park property near North Northlake Place. The contractor shall take the following safety precautions:

1. Temporary cover must be placed over the lid of the structure; and

2. Temporary barrier must be placed around the structure to restrict accessibility.

3. The structure shall be left in as good or better condition as it was prior to the project's connection. If the structure is damaged during work associated with the temporary connection, contractor shall be responsible for repairing or replacing the structure as specified by the SPU inspector.

4. During periods where SPU requires access to the structure, SPU representatives reserve the authority to request that discharge through the temporary connection be stopped.

5. Site preparation and pedestrian trail closure shall be practiced to protect SPU structure and public wellbeing.

B. No later than August 15, 2014, the permittee must submit a list of Seattle Parks and Recreation and contractor personnel responsible for dewatering activities, including operation and maintenance of the wastewater treatment system and monitoring of the discharge to the sanitary sewer. The list shall include the site contacts' name, title, company, and phone numbers (office and cell).

C. Discharge to the sanitary sewer shall not begin until KCIW has conducted a preoperative inspection of the pretreatment facilities and has sent written notification (email is sufficient) to the permittee that discharges may begin.

D. All persons responsible for monitoring the discharge to the sanitary sewer shall review a copy of this authorization.

E. A copy of this authorization shall be on site at all times for review and reference.

F. This authorization grants the discharge of limited amounts of wastewater from the following waste streams:

1. Contaminated stormwater runoff
2. Equipment cleaning
3. Wheel wash water

Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from KCIW.

G. The discharge shall not cause hydraulic overloading conditions of the sewerage conveyance system. During periods of peak hydraulic loading KCIW and SPU representatives reserve the authority to request that discharge to the sewer be stopped.

H. All wastewater shall be collected and treated in accordance with treatment methods approved by KCIW. Wastewater shall not bypass treatment systems. Modifications to wastewater treatment systems shall not occur without prior approval from KCIW.

I. Totalizing and non-resettable flow meters must be installed on all permitted discharge pipes to the sewer.

J. An accessible sampling spigot must be installed on the discharge pipe from the last treatment unit of the wastewater treatment system. The sample site shall be representative of all industrial waste streams discharged to the sewer from this site. Each sample site shall be accessible to KCIW representatives when discharge to the sewer is occurring.

K. The contractor shall implement erosion control best management practices to minimize the amount of solids discharged to the sanitary sewer system. As a minimum precaution, the wastewater must be pumped to an appropriately sized settling tank(s) prior to entering the sewer system.

L. The permittee shall properly operate and maintain all wastewater treatment units to ensure compliance with established discharge limits. Solids accumulation in tanks used for solids settling shall not exceed 25 percent of the tank's working hydraulic capacity. Each tank's working hydraulic capacity is based on the water column height as measured from the bottom of the tank to either the invert elevation of the tank's outlet pipe (gravity discharges) or discharge pump intake (pumped discharges).

M. Results of all required self-monitoring sampling must be recorded daily. Recorded information for each discharge site must include:

1. Sample date
2. Sample time
3. Sample results
4. Operator name
5. Comments (if applicable)

These records shall be maintained on site and shall be available for review by KCIW personnel during normal business hours.

N. The permittee must establish a sewer account with SPU and provide necessary reports to ensure accurate assessment of sewer charges for all construction dewatering discharge sites associated with this project.

SELF-MONITORING REQUIREMENTS

A. The following self-monitoring requirements shall be met for this discharge authorization:

Parameter	Frequency	Sample Type/Method
Discharge volume	Daily	In-line flow meter
Discharge rate	Daily	In-line flow meter
Settleable solids	Daily	Grab by Imhoff cone
pH	Daily	Hand-held meter

B. The settleable solids field test by Imhoff cone must be performed as follows:

1. Fill cone to one-liter mark with well-mixed sample.
2. Allow 45 minutes to settle.
3. Gently stir sides of cone with a rod or by spinning. Settle 15 minutes longer.
4. Record volume of settleable matter in the cone as ml/L.

C. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.

D. An end-of-project self-monitoring report (form enclosed), containing results of required self-monitoring and total volume discharged to the sewer, shall be submitted to KCIW by **November 15, 2014**.

E. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

F. All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136, or approved alternatives, shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

G. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:

1. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation

2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:

   a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations
   b. Can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements

c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures

3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively

4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency

5. The individuals described in one through four above may designate an authorized representative if:

   a. The authorization is submitted to King County in writing
   b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency

GENERAL DISCHARGE LIMITATIONS

Operating criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, unusual color, or visible turbidity. The discharge must remain translucent. If any of the discharge limits are exceeded, you must stop discharging and notify KCIW at 206-263-3000.

Corrosive substances

Limits

Maximum:	pH 12.0 (s.u.)
Instantaneous minimum:	pH 5.0 (s.u.)
Daily minimum:	pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than 5 percent NaOH by weight or greater than pH 12.0 are prohibited unless authorized by KCIW and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, oils, and grease

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Nonpolar FOG (oil and grease from petroleum sources): The three nonpolar FOG grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as Total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.

Polar FOG (oil and grease from animal and/or vegetable origin): Dischargers of polar FOG shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free-floating FOG.

Flammable or explosive materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams with a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than 5 percent nor any single reading be more than 10 percent of the lower explosive limit (LEL) of the meter.

Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

Petroleum Compounds	Maximum Concentration ppm (mg/L)
Benzene	0.07
Ethylbenzene	1.7
Toluene	1.4
Total xylenes	2.2

Heavy metals/cyanide

The industrial user shall not discharge wastes, which exceed the following limitations:

Heavy Metals & Cyanide	Instantaneous Maximum ppm (mg/L)[1]	Daily Average ppm (mg/L)[2]
Arsenic	4.0	1.0
Cadmium	0.6	0.5
Chromium	5.0	2.75
Copper	8.0	3.0
Lead	4.0	2.0
Mercury	0.2	0.1
Nickel	5.0	2.5
Silver	3.0	1.0
Zinc	10.0	5.0
Cyanide	3.0	2.0

[1]The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

[2]The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

High temperature

The industrial user shall not discharge material with a temperature in excess of 65° C (150° F).

Hydrogen sulfide

Atmospheric hydrogen sulfide: 10.0 ppm
(As measured at a monitoring manhole designated by KCIW)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.

Organic compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutants compound listed in 40 CFR Section 433.11 (e) (total toxic organics [TTO] definition), acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

Settleable solids

Settleable solids concentrations: 7.0 ml/L

GENERAL CONDITIONS

A. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this discharge authorization.

B. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the municipal sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.

C. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any changes that will cause the violation of the effluent limitations specified herein will not be allowed.

D. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:

1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
2. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
3. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.

E. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of the discharge authorization or the resulting liability for failure to comply.

F. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this authorization.

G. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.

H. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reapplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization until KCIW issues or denies the new wastewater discharge authorization. If the permittee fails to file its reapplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

Compliance Investigator: Pat Mawson for JS Date: July 3, 2014
Jim Sifford

APPENDIX J
Construction Stormwater General Permit Documentation

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR302235 **Permittee:** Kite Hill Soil Cover Project

Facility County: King **Receiving Waterbody:**

Monitoring Period: 08/01/2014 - 08/31/2014 **Outfall:** 001 - Lake Union **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		001	001
Limit Set		Construction Stormwater General Permit 2011 - 303(d)	Construction Stormwater General Permit 2011 <5 acres

Reporting Codes Used: C - No Discharge

Overall DMR Notes/Comment

Reporting Code: C - No Discharge

TESC BMPs were installed. No grading occurred, but some clearing and grubbing was completed along the western boundary.

Outfall: 001 - Lake Union

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
001	All Parameters		C	

BMPs

Monitoring Point	Week	BMP
001		Sediment Trap
001		Silt Fence
001		Straw Wattles

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Andy Padvorac
Signature

9/12/2014 4:25:14 PM
Date

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR302235 **Permittee:** Kite Hill Soil Cover Project

Facility County: King **Receiving Waterbody:**

Monitoring Period: 09/01/2014 - 09/30/2014 **Outfall:** 001 - Lake Union **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		001	001
Limit Set		Construction Stormwater General Permit 2011 - 303(d)	Construction Stormwater General Permit 2011 <5 acres
1-M	**9/1/14**	C	C
2-Su	**9/7/14**	C	C
3-Su	**9/14/14**	C	C
4-Su	**9/21/14**	C	C
5-Su	**9/28/14**	C	C

Reporting Codes Used: C - No Discharge

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Gravel Filter Berm
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Gravel Filter Berm
	2	Other
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Gravel Filter Berm
	3	Other
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Gravel Filter Berm
	4	Other
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Gravel Filter Berm
	5	Other
	5	Sediment Trap
	5	Silt Fence

	5	Straw Wattles
	5	Temporary Sediment Pond

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Robert Reynolds
Signature

10/12/2014 7:49:53 PM
Date

Washington Department of Ecology Submission Cover Letter

WQWebDMR - DMR Submission Id: 1475533 - 9/12/2014 4:25:15 PM

Report Received Dated: 9/12/2014 4:25:16 PM

Company Name	Signer Name	System Name
Puget Sound Energy	Andy Padvorac	WQWebPortal

Attachments:

Document Name of Description	Document File Name
Submitted Copy of Record for Puget Sound Energy	Copy of Record PugetSoundEnergy Friday September 12 2014

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

For Ecology Use Only ---

sJU2cXWVTbQHxB6OYmbnff27TFmE3HEZLSHvT3UL6H4VbCmqy2LLrjwsLA64
NaVfRahPCWHGPEoMLje0XFJqeXhu6x9JPirl+i/kprrWvzM=

Washington Department of Ecology Submission Cover Letter

WQWebDMR - DMR Submission Id: 1478264 - 10/12/2014 7:49:53 PM

Report Received Dated: 10/12/2014 7:49:54 PM

Company Name	Signer Name	System Name
Wyser Construction	Robert Reynolds	WQWebPortal

Attachments:

Document Name of Description	Document File Name
Submitted Copy of Record for Wyser Construction	Copy of Record WyserConstruction Sunday October 12 2014

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

For Ecology Use Only ---

KoatrBdb7Vpm0BEBFjOangV21IceVRYDKNbY7i65ynceiDLPCOl9NQEsbFzkaCbw3fG8R9PpjZxRe+qUxWWRn3ZwY1FwpapclGNio1oMBmg=

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

January 7, 2015

Dan Reynolds
Wyser Construction
19015 - 109th Ave SE
Snohomish, WA 98296

RE: **Notice of Termination of Coverage under the Stormwater General Permit for Construction Activity**

Permit Number:	**WAR302235**
Site Name:	Kite Hill Soil Coverage
Location:	1801 N Northlake Way Seattle, WA (King County)
Disturbed Acres:	4.5

Dear Mr. Reynolds:

The Washington State Department of Ecology (Ecology) has reviewed your Notice of Termination (NOT) of coverage under the Construction Stormwater General Permit for the construction site shown above. Based upon the NOT, Ecology is terminating your coverage under the permit as of November 25, 2014, the date Ecology received the NOT, for the following reason:

> *The site has undergone final stabilization, all temporary BPMs have been removed, and all stormwater discharges associated with construction activity has been eliminated. (Section S10-A1).*

Please ensure that you retain the Stormwater Pollution Prevention Plan (SWPPP) and copies of all of the application, inspection reports, and all other reports required by this permit for at least three years after the date of final stabilization of the construction site. These documents need to be available to Ecology and to the local government agencies with jurisdiction, upon request.

As required by State law (RCW 90.48.465), Ecology charges a fee for its discharge permits. Although your permit is terminated, you will receive an invoice for entire fiscal year if payment has not been received. Ecology ***does not prorate fees*** for permits terminated during the fiscal year.

If you would like more information on the fee process, please contact Bev Poston at (360) 407-6425 or send email to bev.poston@ecy.wa.gov.

If you have any questions regarding the termination process, please contact Josh Klimek at (360) 407-7451 or send email to jokl461@ecy.wa.gov.

Sincerely,

Bill Moore, P.E.
Program Development Services Section Manager
Water Quality Program

cc: Bev Poston, Ecology/Water Quality Program/Fees
Josh Klimek, Ecology/Water Quality Program

APPENDIX K
Photographs
(available on CD)

APPENDIX L
Field Report – Environmental

GEOENGINEERS

PLAZA 600 BUILDING
600 STEWART STREET, SUITE 1700
SEATTLE, WA 98101
(206) 728-2674

FIELD REPORT

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project

Date: 8/18/14

Owner: City of Seattle

Time of Arrival: 0090

Report Number: ENV-1

Prepared by: Theo Leonard, P.E.

Location: Gas Works Park, Seattle, WA

Time of Departure: 1130

Page: 1 of 2

Purpose of visit: Construction Observations

Weather: Sunny, Clear, 70s

Travel Time: 0.5 hrs

Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington at the request of John Rork with Puget Sound Energy. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

John Rork (JR)_Puget Sound Energy (PSE)
David Graves (DG)_ City of Seattle Department of Parks and Recreation (Parks) – RUP #___
Titus Tramble_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractors Onsite:

Wyser Construction (Wyser) – PSE contractor

Project Personnel Onsite During Construction Activities:

Theo Leonard (TL) – GeoEngineers
Chris Bailey (CB) – GeoEngineers
Shashi Shankar (SS) – GeoEngineers
Whitney Ciani (WC) – GeoEngineers
Michael Gray (MG) - GeoEngineers
Dan Reynolds (DR) – Wyser
Pete Rude (PR) – Seattle Public Utilities (SPU)
Kathleen Wilson (KW) – Dept of Planning and Development (DPD)
Titus Tramble (TT) – Dept of Planning and Development

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8/18/14
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8/21/14

Attachments: DPD Site Inspection Report, DPD Pre-Construction Sign-in Sheet

Distribution: Dan Baker, Chris Bailey, Shashi Shankar, Bo McFadden, Whitney Ciani

Equipment:

No equipment was used onsite today.

Field Activities: Following is a summary/timeline of activities noted during the site visit.

TL arrived onsite at approximately 0900AM and met with DR. DR was walking the site taking photos to document the existing conditions. TL and DR had a general discussion regarding the need to match existing grade around the limits of the proposed soil cover and that there would be excess cut to balance around the site. DR noted the plan for this week was to get the trailer and fence delivered to the site on Wednesday and begin to setup erosion control measure along the shoreline starting next week.

~1000AM. WC, MG, CB, SS, PR, KW, and TT arrived onsite for the DPD pre-construction meeting. KW used to be in the inspector for the section of Seattle that includes Gas Works Park but TT was hired to takeover and would be performing the inspection work for DPD.

Started by giving TT a summary of the schedule including the soft start date of August 18 – September 2 and then the main construction period from September 2 – November 10. WC noted that based on the schedule the team should pre-emptively apply for the DPD wet weather extension which TT agreed with and recommended.

DR asked PR about obtaining a hydrant permit in order to use the hydrant at the base of Kite Hill for onsite water use. PR and TT noted that they thought the hydrant was Parks property so SPU would not be in charge of the hydrant permit. DR noted he would follow-up with David Graves to confirm who owned the hydrant and what needed to be done to get a permit to use the hydrant for on-site water use.

TT and KW reviewed the approved DPD Permit Plans and noted that the special inspections portion of the DPD coversheet was missing the required information for which inspections apply to the project. WC noted she would follow-up with DPD and TL could make a site visit to the Municipal Tower to get the information placed on the coversheet. TL noted to TT that the sub-surface drainage work was no longer included in the scope of work. TT asked about the erosion control plan and TL explained the erosion control plan using the plans for reference. The team touched on the schedule again and that it made sense to apply for the wet weather extension sometime around the beginning to middle of September. WC noted that copies of the field reports from the geotechnical engineers are provided to DPD as part of the inspection requirements and the final summary letter gets signed off which in turn, closes out the permit. TT and KW provided copies of the 'Site Inspection Report' which is attached.

~1045AM. The pre-construction meeting ended and TT, KW, and PR left the site.

CB discussed the concept for the revised irrigation which may include a new point of connection and tap to the fire main. CB noted that Parks and the landscape architect were hoping to have a meeting soon to discuss and finalize the irrigation plan.

WC, TL, CB, and SS had a general discussion about employee and perimeter air monitoring. DR noted that no one from Wyser would be wearing a respirator during the start of construction.

WC and DR discussed compaction of the Type 17 and turf soil and that field calls would need to be made regarding compaction values based on probing or other methods.

Overall the items that were completed today included the DPD pre-construction meeting and there was no construction that occurred today.

~1115AM. Left the site.

City of Seattle
Department of Planning and Development (DPD)
700 Fifth Avenue, Suite 2000, P.O. Box 34019
Seattle, WA 98124-4019

SITE INSPECTION REPORT

PERMIT NUMBER(S): 6407051 **ADDRESS:** 1801 N. Northlake Way
6413810 - Double logged.

WORK LOCATION

INSPECTION RESULTS: ☐SS ☐ BLDG	PASSED	PARTIAL PASSED	FAILED	CANCELLED
☐ Sanitary Cover	☐	☐	☐	☐
☐ Drainage Cover	☐	☐	☐	☐
☐ Final Inspection	☐	☐	☐	☐
☒ First Ground Disturbance	☒	☐	☐	☐
☐ Temporary Erosion Control (TESC)	☐	☐	☐	☐
☐ Other _____	☐	☐	☐	☐

☐ Job Not Ready
☐ As-Built [**Plan**] [**Corrections**] Required (Contact DPD Inspector)
☐ Hold Harmless Agreement Required (Contact DPD Drainage Counter)
☐ _____ Agreement and Fee Required (Contact DPD Drainage Counter)
☐ Other _____

COMMENTS:
Geo-Tech: Whitney Cimini: 425 861-6810 PCC: Dan Reynolds: 425-742-5795
Discussed special inspections: No drainage installation / plan change.
Dewatering permit obtained. Silt fencing / baker tanks / wattle.
Interceptor swells along shoreline / harbor control. Will pump up to tank as needed. Monitoring wells to be upgraded. One will be removed.
Application for TCP in works SDOT.
Will start 9-2-14 Will plan to complete by end of month.
Fencing to remain til Nov Will get grading season extension.

Ok to proceed.

CONTACT INFORMATION

☐ SPU Core Tap	(206) 615-0511	☐ DPD Support Staff	(206) 684-8860
☐ SPU Facilities & Operation	(206) 386-1800	☐ DPD Inspection Request Line	(206) 684-8900
☐ SDOT Street Use Counter	(206) 684-5283	☐ DPD Drainage Counter	(206) 684-5362
☐ SDOT Arborist	(206) 684-8733	☐ SPU Waterline Inspections	(206) 684-5803

☐ Obtain required documents at: http://www.seattle.gov/dpd/Publications/Forms/Side_Sewer/default.asp

SIGNED Titus Trimble **DATE** 8-18 **PHONE #** 684-4668
Site Inspector

10:00

City of Seattle
Department of Planning and Development (DPD)
700 Fifth Avenue, Suite 2000, P.O. Box 34019
Seattle, WA 98124-4019

SITE INSPECTION REPORT

PERMIT NUMBER(S): 6407051 **ADDRESS:** 1801 N Northlake Way

WORK LOCATION

INSPECTION RESULTS: ☐SS ☐ BLDG	PASSED	PARTIAL PASSED	FAILED	CANCELLED
☐ Sanitary Cover	☐	☐	☐	☐
☐ Drainage Cover	☐	☐	☐	☐
☐ Final Inspection	☐	☐	☐	☐
☒ First Ground Disturbance	☒	☐	☐	☐
☐ Temporary Erosion Control (TESC)	☐	☐	☐	☐
☐ Other _____	☐	☐	☐	☐

- ☐ Job Not Ready
- ☐ As-Built [**Plan**] [**Corrections**] Required (Contact DPD Inspector)
- ☐ Hold Harmless Agreement Required (Contact DPD Drainage Counter)
- ☐ _____ Agreement and Fee Required (Contact DPD Drainage Counter)
- ☐ Other _____

COMMENTS:

David Graves, Parks 684-7648
240-5968 (c)

CONTACT INFORMATION

☐ SPU Core Tap	(206) 615-0511	☐ DPD Support Staff	(206) 684-8860
☐ SPU Facilities & Operation	(206) 386-1800	☐ DPD Inspection Request Line	(206) 684-8900
☐ SDOT Street Use Counter	(206) 684-5283	☐ DPD Drainage Counter	(206) 684-5362
☐ SDOT Arborist	(206) 684-8733	☐ SPU Waterline Inspections	(206) 684-5803

☐ Obtain required documents at: http://www.seattle.gov/dpd/Publications/Forms/Side_Sewer/default.asp

SIGNED _____ **DATE** 8/18/14 **PHONE #** _____
Site Inspector

Kite Hill Pre-Construction Meeting

August 18, 2014
10 am

Name	Company	Email	Signature
Shashi Shankar	Geo Engineers	sshankar@geoengineers.com	
Chris Bailey	Geo	cbailey@geoengineers.com	
Pete Rude	SPU	pete.rude@seattle.gov	
Dan Peterson	WYSER CONS	DANP@WYSERCONS.COM	
Michael Gray	Geo Engineers	mgray@geoengineers.com	
Kathleen Wilson	Seattle DPD	kathleen.wilson@seattle.gov	
Whitney Ciani	Geo Engineers	wciani@geoengineers.com	
Titus Trumble	DPD	titus.trumble@seattle.gov	
Theo Leonard	Geo Engineers	tleonard@geoengineers.com	

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 8/19/14
Owner: City of Seattle		Time of Arrival: 0700	Report Number: ENV-2
Prepared by: Theo Leonard, P.E.	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: Sunny, Clear, high 60s/low 70s	Travel Time: 0.5 hrs.	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington at the request of John Rork with Puget Sound Energy. The purpose of the visit was to perform soil sampling to profile the soil for disposal and conduct pre-construction inspection of existing conditions for the Kite Hill Soil Cover Project, including monitoring well inspection within the construction footprint.

Lead Agencies/Authorities:

John Rork (JR)_Puget Sound Energy (PSE)
David Graves (DG)_ City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor:

Wyser Construction (Wyser) – PSE contractor

Project Personnel Onsite During Construction Activities:

Theo Leonard (TL) – GeoEngineers
Claudia De La Via (CD) - GeoEngineers

Equipment:

Bottleware from Laboratory
Hand Tools
Decontamination Items (Liqui-Nox, brush, buckets)
Trimble GPS
Field Screening Items (trowel, sheen pan, water)
PID

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8/19/14
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Zanna Satterwhite	**DATE** 8/20/14

Attachments: Chain-of-Custody, Soil Sample Data Sheet, Soil Sample Locations (kmz file), Pre-Construction Checklist Exhibit, Well Inspection Table, Photographs

Distribution: SharePoint

Field Activities: Following is a summary/timeline of activities noted during the site visit.

TL and CD arrived onsite at approximately 0700AM.

The purpose of the site visit was to perform:

1) the pre-construction sampling for soil characterization for disposal and
2) the pre-construction inspection of existing conditions and monitoring wells.

The Sampling and Analysis Plan (SAP) dated July 18, 2014 provides background information regarding the sampling as well as field methodology, decontamination procedures, and chemical analysis. Prior to sampling TL and CD discussed slips, trips, and falls.

~0720. The following are general procedures taken per discrete sample:

- A shovel was used to gently remove a patch of grass.
- Four voa sample volumes were collected from the soil end of the patch of grass
- Approximately 16-oz of soil from 0 to 3 inches bgs was placed in a decontaminated stainless steel bowl and homogenized
- Soil was field screened. See attached soil sample data sheet
- An 8-oz jar and 4-oz jar were filled with the homogenized soil
- Remaining soil in the steel bowl was placed in a zip-lock bag and sealed
- Photos were collected of each sample location. GPS coordinates (x,y,z) were collected using a Trimble GeoXH 3000. See attached kmz file for approximate sample locations; site plan with proposed sample locations is also attached.
- Grass patch was replaced to repair surface to pre-existing condition.

The following are general procedures taken per composite sample (DISP-1 and DISP-2). DISP-1 is a composite of DISP-1A, 1B and 1C, and DISP-2 is a composite of DISP-2A, 2B and 2C:

- Discrete homogenized soil samples stored in zip-lock bags were composited in a decontaminated stainless steel bowl and homogenized.
- An 8-oz jar and 4-oz jar were filled with the composited homogenized soil

The discrete samples were obtained in the following order: DISP-2C, DISP-2B, DISP-2A, DISP-1C, DISP-1B, DISP-1A. All of the samples exhibited no sheen and registered no reading on the PID. A strong mothball-likeodor was encountered in DISP-2B from what appeared to be a piece of anthropogenic material. No noticeable odor was encountered in any of the other samples.

~0900. Completed sampling. Samples were stored with ice in coolers. Chain-of-Custody is attached for reference. No visitors were encountered.

~0915. TL left the site while CD delivered the samples to Fremont Analytical for chemical analysis of TPH-Gx, BTEX, TPH-Dx (Diesel/Heavy Oil Range), PAHs, and RCRA 8 metals on a 'Next Day' turn around. After delivering samples to the laboratory, CD performed the pre-construction inspection of the monitoring wells (see attached well inspection table and photos) and existing features such as the sun dial (see attached photos). A copy of the Pre-Construction Checklist Exhibit site plan showing the features that were inspected is attached for reference.

~1630. CD left the site. The well inspection of TDW-2 and TSW-2 was not completed due to dense blackberry vegetation, TL to follow up the next day.

Fremont Analytical

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No (internal): 1408169

Date: 8/19/2014

Page: 1 of: 1

Client: GeoEngineers
Address: 600 Stewart St #1700
City, State, Zip: Seattle, WA 98101
Tel: 206-239-3231
Reports To (PM): Zanna Satterwhite
Fax:

Project Name: Gas Works Park Kite Hill
Location: Seattle, WA
Collected by: Claudia De La Via
Email: zsatterwhite@geoengineers.com
Project No: 0186-846-01

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOC (EPA 8260)	GX/BTEX	BTEX	NWTPH/EPA 8260	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SEMI VOL (EPA 8270)	PAH (EPA 8270 - SIM)	PCBs (EPA 8082)	Metals** (6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments/Depth
1 DISP-1	8/19	859	S		X				X		X		X				lab to composite 2 vols. Rest on HOLD
2 DISP-2		810			X				X		X		X				lab to composite 2 vols. Rest on HOLD
3 DISP-1A		855															HOLD
4 DISP-1B		845															
5 DISP-1C		825															
6 DISP-2A		805															
7 DISP-2B		750															
8 DISP-~~3C~~ 2C		725															
9 —		—															
10 —		—															

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (A fee may be assessed if samples are retained after 30 days.)

Relinquished	Date/Time	Received	Date/Time
x	8/19/14 10AM	x	8/19/14 10:00
Relinquished	Date/Time	Received	Date/Time
x		x	

Special Remarks: 24hr turn around or Next Day if price is the same

TAT -> (SameDay^) NextDay^ 2 Day 3 Day STD

^Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

Claudia De La Via

From: Claudia De La Via
Sent: Tuesday, August 19, 2014 11:27 AM
To: Erica Silva
Cc: Zanna A. Satterwhite; Clare Griggs
Subject: Re: Composition of samples for Gas Works Park Kite Hill

Confirmed. Thank you for checking with your analyst.

Thanks,
Claudia

On Aug 19, 2014, at 11:22 AM, "Erica Silva" <esilva@fremontanalytical.com> wrote:

> Good afternoon Claudia,
>
> I consulted with the analyst and she recommended proceeding as you had requested over the phone –
>
> compositing 2 of the 4 VOAs for **DISP-1A**, **DISP-1B**, and **DISP-1C** each (6 total going into the composite) to test under the sample name **DISP-1**
> compositing 2 of the 4 VOAs for **DISP-2A**, **DISP-2B**, and **DISP-3C** each (6 total going into the composite) to test under the sample name **DISP-2**
>
> Please confirm.
>
> Thank you,
>
> Erica Silva
> *Project Manager*
> ---
> <image001.jpg>
> **3600 Fremont Ave N.**
> **Seattle, WA 98103**
> ---
> Phone: 206.352.3790
> Fax: 206.352.7178
> ---
> esilva@fremontanalytical.com
> ---
>

Claudia De La Via

From: Claudia De La Via
Sent: Tuesday, August 19, 2014 11:56 AM
To: Erica Silva
Cc: Zanna A. Satterwhite; Clare Griggs
Subject: Re: Composition of samples for Gas Works Park Kite Hill

Yes, please correct the COC to read DISP-2C. Thanks again.

Claudia

> On Aug 19, 2014, at 11:49 AM, "Erica Silva" <esilva@fremontanalytical.com> wrote:
>
> Claudia,
>
> We noticed a discrepancy between the COC and the jar labels – the COC lists the eighth sample as “DISP-3C” - as indicated in the compositing confirmation below; however, the jar label reads “DISP-2C.” Please confirm that we should alter the COC to reflect the sample name “DISP-2C.” I’ve attached the COC for your reference.
>
> Thank you,
> Erica
>
> From: Claudia De La Via [mailto:cdelavia@geoengineers.com]
> Sent: Tuesday, August 19, 2014 11:27 AM
> To: Erica Silva
> Cc: Zanna A. Satterwhite; Clare Griggs
> Subject: Re: Composition of samples for Gas Works Park Kite Hill
>
> Confirmed. Thank you for checking with your analyst.
>
> Thanks,
> Claudia
>
> On Aug 19, 2014, at 11:22 AM, "Erica Silva" <esilva@fremontanalytical.com<mailto:esilva@fremontanalytical.com>> wrote:
> Good afternoon Claudia,
>
> I consulted with the analyst and she recommended proceeding as you had
> requested over the phone –
>
> compositing 2 of the 4 VOAs for DISP-1A, DISP-1B, and DISP-1C each (6
> total going into the composite) to test under the sample name DISP-1
> compositing 2 of the 4 VOAs for DISP-2A, DISP-2B, and DISP-3C each (6
> total going into the composite) to test under the sample name DISP-2
>
> Please confirm.
>
> Thank you,
>

> Erica Silva
> Project Manager
> ---
> <image001.jpg>
> 3600 Fremont Ave N.
> Seattle, WA 98103
> ---
> Phone: 206.352.3790
> Fax: 206.352.7178
> ---
> esilva@fremontanalytical.com<mailto:esilva@fremontanalytical.com>
> ---
> CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.
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>
> _____
> Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.
>
> Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.
> <169.pdf>

SOIL SAMPLE DATA SHEET

Job Name: Kite Hill Soil Cover Pre-Construction Soil Characterization	Sampling Method: Grab samples. Homogenized in stainless bowls.	Recorded By: Claudia De La Via
Project No: 0186-846-01 Task 1470	Sampling Equipment: Shovel and trowel.	Date: 8/19/14

Sample ID	Sample Time	Sample Depth (feet bgs)	Coordinates (Datum WGS 1984) North	Coordinates (Datum WGS 1984) East	Field Screening Results: Sheen	Field Screening Results: Odor	Field Screening Results: Headspace Vapors (ppm)	Soil Description	Soil Samples Collected: 8-oz jar (1x)	Soil Samples Collected: 4-oz jar (1x)	Soil Samples Collected: 5035 voas (4x)	Comments	
DISP-2C	725	0.25	47°38'40. 616"N	122°20'06. 255"W	NS	NO	0	Brown-gray fine to coarse silty sand w gravel	X	X	X		TRIMBLE GPS Coord taken 1
DISP-2B	750	0.25	47°38'43. 310"N	122°20'09. 450"W	NS	Naphtalene odor	0	Brown-gray silty fine sand occ gravel	X	X	X	4"x1"x1" for like material	2
DISP-2A	805	0.25	47°38'42. 584"N	122°20'10. 752"W	NS	NO	0	Brown silty fine sand occ gravel	X	X	X	—	3
DISP-2	810	composite	of	DISP-2A/2B/2C				—	X	X	—	—	
DISP-1C	825	0.25	47°38'43. 531"N	122°20'11. 645"W	NS	NO	0	Dark brown silty fine sand occ gravel (saturated) wet	X	X	X	—	4
DISP-1B	845	0.25	47°38'42. 587"N	122°20'13. 442"W	NS	NO	0	Light brown fine silty sand (moist)	X	X	X	—	5
DISP-1A	855	0.25	47°38'43. 861"N	122°20'13. 170"W	NS	NO	0	Light brown fine silty sand (moist)	X	X	X	—	6
DISP-1	859	composite	of	DISP-1A/1B/1C				—	X	X	—	—	

Sheen: NS= no sheen, SS = slight sheen, MS = moderate sheen, HS = heavy sheen
Odor: NO-= no odor, NS = slight odor, MO = moderate odor, HO = heavy odor

GeoEngineers

Take photos of the access area and along Northlake Place.

Take photos along the northern limits of construction.

Take photos of the hydrants, manholes.

Take photos of the main east-west pathway with the limits of construction.

Take photos around Harbor Patrol building.

Take photos of the fencing around the cracking towers and Harbor Patrol.

Take photos of the curbing, area drains just outside the curbing, the manhole, Sun Dial.

Take photos of the bare spots, areas of erosion.

Take photos of the overhead pipes.

Take photos of the block wall, concrete walk, and curbing around Prow.

Take photos of the vegetation along western boundary and southwestern area.

Take photos of the benches.

Take photos of the curbing, wall.

LEGEND

- FEATURE TO BE DEMOLISHED
- LIMITS OF CONSTRUCTION
- LIMITS OF PROPOSED SOIL COVER
- LIMITS OF EXISTING SOIL COVER
- 65 EXISTING CONTOUR (MAJOR)
- 32 EXISTING CONTOUR (MINOR)
- 65 PROPOSED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING IRRIGATION LINE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

PROTECT EXISTING WATER LINE
PROTECT EXISTING MANHOLE
PROTECT EXISTING UTILITIES (STORM, SEWER, WATER)
PROTECT EXISTING HYDRANT
PROTECT EXISTING RETAINING WALL
LIMITS OF EXISTING SOIL COVER (TYP.) (INSTALLED 2001)
LIMITS OF PROPOSED SOIL COVER
PROTECT EXISTING IRRIGATION SYSTEM IN STOCKPILE / STAGING AREA (TYP.)
PROTECT EXISTING CATCH BASIN
PROTECT EXISTING SEWER
I.E. = 29.14
DO NOT DISTURB EXISTING BUILDING
PROTECT EXISTING FENCE
REMOVE EXISTING TREES (2) MINIMUM
NOTE: SEE EARTHWORK PLAN FOR EXCAVATION AND TILLING WITHIN LIMITS OF PROPOSED COVER
CUT AND CAP EXISTING INLET AND OUTLET PIPE. REMOVE AREA DRAIN.
PROTECT EXISTING CURBING
DO NOT DISTURB EXISTING SUN DIAL. PROVIDE FENCING OR SIMILAR TO PROTECT SUN DIAL THROUGHOUT CONSTRUCTION
CUT AND CAP INLET AND OUTLET PIPES. FILL WITH NON-SHRINK CEMENT GROUT OR SIMILAR AN ABANDON MANHOLE. R LID AND FRAME AS NE TO PAVE OVER AND M GRADE OF SUN DIAL.
EXISTING STORM LINE TO BE FILLED WITH NON-SHRINK CEMENT SAND GROUT AND ABANDONED AFTER CAPPING
EXISTING MONITORING WELLS TO BE PROTECTED DURING CONSTRUCTION (TYP.)
REMOVE EXISTING GRAVEL PATHWAY (TYP.)
EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)
PROTECT EXISTING FENCE
OVERHEAD 6" PIPE 14.0' CLEARANCE
PROTECT EXISTING OVERHEAD PIPELINE SUPPORTS
OVERHEAD 6" PIPE 14.5' CLEARANCE
CONTRACTOR TO LOCATE BREAK IN EXISTING STORM LINE APPROXIMATELY 20' FROM OUTFALL . CAP EACH END OF BREAK
SEE LANDSCAPE PLANS FOR IRRIGATION SYSTEM WORK
EXISTING STORM LINE TO BE FILLED WITH NON-SHRINK CEMENT SAND GROUT AND ABANDONED AFTER CAPPING
CONTRACTOR TO LOCATE PLUG IN EXISTING STORM LINE APPROXIMATELY 18' FROM OUTFALL. CAP EACH END OF STORM LINE AT LOCATION OF PLUG
PROTECT EXISTING SHORELINE (TYP.)
PROTECT EXISTING CONCRETE/CURBING
REMOVE EXISTING TREES (3) MINIMUM
PROTECT EXISTING CONCRETE BLOCK
REMOVE EXISTING GRAVEL PATHWAY
PROTECT EXISTING OUTFALL
PROTECT EXISTING ELECTRICAL LINE AND OUTLETS
PROTECT EXISTING ECOLOGY BLOCK WALL
PROTECT EXISTING WALL (TYP.)
N 89°46'15" W 537.658'
422.7'+/-
S 37°24'48" W 64.4'+/-
N 48°21'18" W 283.0'+/-
N 48°21'18" W 113.3'+/-
N 89°39'10" W 158.4'+/-
N 48°21'11" W 268.18'
S 53°25'49" E 29.45'
351.29'
TDW-2
TDW-3
TSW-3
MW-13
MW-14
MW-15
MW-17
MW-19
MW-22
MW-23
MW-24
MW-25
MW-28
MW-29
MW-30
MW-10
MW-32S
MW-32D/GEO-1
MW-33S(b)
MW-34S
PZ-3
PZ-4
PZ-5
PZ-6
MLS-2
MLS-5
DW-5
MLS-6
DW-6
MLS-7
CMP-1
DW-7

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

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BALLEW, STATE OF WASHINGTON, 39963, REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

DEMOLITION PLAN

Project No. 0186846-01
Drawing No. 4.0
Sheet 4 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Bid Set\SHT_4 Domolition Plan.dwg\TAB\Layout1 modified on Jun 13, 2014 - 12:26pm

XXX - XXX

Kite Hill Soil Cover Project
Pre-construction Well Inspection
Inspection Completed on 8/19/2014

Well Name	Photo (on P Drive) "Well Inspec 8-19-14 (__)" \\sea\projects\0\0186846\01\Kite Hill Construction Oversight Photos\Field Report Photographs\Field Report_02_Photographs (8-19-14)\Pre-con Well Inspection	Well Type	Monument					Surface Water Infiltration	Casing Diameter (in)	Condition of Casing	Well Cap Type	Cap Lock	Additional Notes
			Type	Surface Concrete	Lid	Rim	Bolts						
MW-19	1, 2, 3, 4, 5	Monitoring Well	Flush	Good	Good	Good	3 hex 3/3 threaded	no	2	Good	J-plug compression	lock works	
PZ-3	6, 7, 8, 9, 13	Piezometer	Flush	Good	Good	Good	3 hex 1/3 threaded	yes	1	PDV is good. Casing is stained w DNAPL	slip cap	no lock	
MLS-2	10, 11, 12, 13	Multi-level sampler	Flush	Good	Good	Good	3 hex 1/3 threaded	no	1	Good	no cap. three 1/4 in tubes	no lock	
MW-17	14, 15, 16, 17, 18, 19	Monitoring Well	Flush	Good	Good	Good	2 hex 2/2 threaded	yes	2	Good	J-plug compression	lock works	
TDW-2	completed on a later date. Theo to fill in informatic	Monitoring Well	Flush										
TSW-2	completed on a later date. Theo to fill in informatic	Monitoring Well	Flush										
MW-32S	20, 22, 23	Monitoring Well	Flush	Good	Good	Good	2 penta 2/2 threaded	no	2	Good	J-plug compression	lock works	
MW-32D/GEO-1	20, 21, 24	Monitoring Well	Flush	Good	Good	Good	2 penta 2/2 threaded	yes	2	Good	J-plug compression	lock works	
MW-13	62, 63	Monitoring Well	Flush. Old water meter monument	none	Good	Good	none	no	2	Good	J-plug compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
TDW-3	58, 59, 60, 61	Monitoring Well	Flush	Good	Good	Good	3 hex 2/3 threaded	no	2	Good	J-plug compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
TSW-3	56, 57, 61	Monitoring Well	Flush	Good	Good	Good	3 hex 3/3 threaded	yes	2	Good	J-plug compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-22	25, 26,28	Monitoring Well	Flush	Good	Good	Good	3 hex 2/3 threaded	no	2	Good	old compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-24	25, 27, 29	Monitoring Well	Flush	Good	Good	Good	3 hex 3/3 threaded	no	2	Good	old compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-23	30, 31	Monitoring Well	Flush	Good	Good	Good	3 hex 2/3 threaded	no	2	Good	J-plug compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-25	30, 32	Monitoring Well	Flush	Good	Good	Good	3 hex 2/3 threaded	no	2	Good	old compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-33S(b)	43, 44, 45,	Monitoring Well	Flush	Good	Good	Good	2 hex 2/2 threaded	yes	2	Good	J-plug compression	lock works	
MW-14	33, 34, 35, 36, 37, 38	Monitoring Well	Flush. Old water meter monument	none	Lid flange is chipped	Good. ID 6.5 inches	none	yes	2	Mud in monument, close to top of casing.	old compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-15	39, 40, 41, 42	Monitoring Well	Flush. Old water meter monument	none	Good	Good. ID 6.5 inches. NE corner of rim missing, filled w dirt.	none	yes	2	Good	J-plug compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-10	46, 47, 48, 49, 50, 51	Monitoring Well	Flush. Old water meter monument	none	Missing bolt in the middle, open gap	Good. ID 6.5 inches. Filled w grass roots	none	yes	2	Good	J-plug compression	lock works	
MW-29	46, 47, 54, 55	Monitoring Well	Flush	Good	Good	Good	3 penta 3/3 threaded	no	2	Good	old compression	lock is rusted and has sediment. Lock is stuck on cap, does not work	
MW-30	46, 47, 52, 53	Monitoring Well	Flush	Good	Good	Good	3 penta 3/3 threaded	no	4	Good	old compression	lock works	

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 8/20/14
Owner: City of Seattle		Time of Arrival: 0830	Report Number: ENV-03
Prepared by: Theo Leonard, P.E.	Location: Gas Works Park, Seattle, WA	Time of Departure: 1300	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: Overcast, 60s	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington at the request of John Rork with Puget Sound Energy. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

John Rork (JR)_Puget Sound Energy (PSE)
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor Onsite:

Dan Reynolds – Wyser Construction (Wyser) – PSE contractor
Ron – True North – Surveyor for Wyser

Project Personnel Onsite:

Theo Leonard (TL) – GeoEngineers
Dan Baker (DB) – GeoEngineers
Chris Bailey (CB) – GeoEngineers
Shashi Shankar (SS) – GeoEngineers
John Rork (JR) – PSE
Dan Reynolds (DR) – Wyser
David Graves (DG) – Seattle Parks and Rec
Libby Goldstein (LG) – Ecology
Luis Buen Abad (LA) - Ecology
Drew Coombs (DC) – Brennan&Associates

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-20-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-22-2014

Attachments: Photographs

Distribution:

Equipment:

Survey Equipment

Field Activities: Following is a summary/timeline of activities noted during the site visit.

TL arrived onsite at approximately 0830AM and met with JR. Ron with True North was already at the site when TL arrived. After a brief conversation with Ron TL noted Ron had an older copy of the topographic survey. DR arrived onsite and there was a discussion regarding the existing survey for the park. An action item was noted by TL to provide DR with a copy of the most recent survey. TL followed up back at the office by emailing DR a copy of the most recent survey. Thomas Barger whom is a surveyor for Parks was cc'ed on the email in case questions come up through the course of construction regarding the survey.

~0940. DG, CB, and DC arrived onsite. DB, JR, TL, DR, and SS discussed the agenda for the meeting with Ecology.

~0955. LG arrived onsite. The team briefly discussed the neighboring projects and the potential implications/impacts to the Kite Hill project given trucks from the other projects would potentially be using the same roads as the Kite Hill project.

~1000. LA arrived onsite.

Ecology CSWGP Discussion – Meeting Minutes
Attendees:
GeoEngineers (GEI) – Dan Baker, Shashi Shankar, Theo Leonard
PSE – John Rork
City of Seattle – David Graves
Wyser – Dan Reynolds
Ecology – Libby Goldstein, Luis Abad

1. GEI provided project overview (general scope) and details of the proposed TESC plan during construction activities. All the details from the TESC plan including sediment traps, straw wattles, swales, stormwater collection, management and disposal was discussed. GEI provided Ecology with the permit number for the King County Wastewater Discharge Authorization for the Site.
2. Luis Abad asked about the plan for dust control and wheel wash at the entrance. Dan Reynolds mentioned the planned usage of water from the hydrant and water trucks for dust control. Dan Reynolds mentioned that all trucks (solo) for the Site importing or exporting material will stay on paved roads and Wyser will use vacuum sweepers to keep the paved entrance clean and prevent tracking. If necessary, Wyser is prepared to install wheel wash at the entrance depending on site conditions.
3. Wyser mentioned that both Dan Reynolds and Robert Reynolds are CESCLs. Per Ecology, weekly CESCL reporting can be completed online.
4. GEI provided a summary of important milestones for the project including CSWGP coverage start date, start of earthwork activities, completion of hydroseed and substantial completion of all activities.
5. For transfer of permit from PSE to Wyser, form needs to be completed and submitted to Ecology (electronic submission). Andy Padvorac has started this process and need to follow up with him to move it further. The transfer approval should not take too long per Ecology. Upon transfer all the liability associated with the permit shifts from PSE to Wyser until the permit is active. Ecology mentioned that the permit for the site will be covered under the requirements of the General Construction SW Permit. Since all the stormwater planned for discharge to KC Metro, no additional sampling required from Ecology.
6. For reporting, first discharge monitoring report due by September 15 for covering any discharge activities in August. Even if there is no discharge, a report has to be sent to Ecology stating no discharge. Need to obtain password from Ecology to access web DMR submission.
7. Condition 10 of the CSWGP provides guidelines for permit closeout. NOT can be filed after site is established and all site BMPs have been removed. A form (contact Luis for the website and electronic NOT form) will need to be filled online and submitted to Ecology. This will initiate an inspection from Ecology during a 30-day window. Luis mentioned that he will try and be onsite for the inspection during early part of the 30-day window. If everything is acceptable during inspection, permit will be closed. If not, corrections can be made and follow-up inspection can be scheduled within the 30-day window to obtain approval for closure of permit.
8. Luis Abad asked if wave action was an issue along the southern shoreline at the Site. David Graves mentioned that it was not an issue and typically Lake levels drop by 2 ft during winter.

~1045. Meeting with LA ended.

~1100. Began meeting with Parks regarding changes to the proposed irrigation design.

~1140. Meeting with Parks ended.

~1200. TL spoke with DR and Ron regarding the survey work performed thus far. The survey work included installing stakes for the silt fence along the shoreline within the soft start construction area. In addition there were paint marks applied along the shoreline to mark the limits of the proposed sediment traps.

~1230. TL and DR left the site.

Today's activities included the pre-construction meeting with Ecology regarding the General Construction Stormwater Permit, a meeting with Parks regarding the changes to the proposed irrigation system design, and initial survey work by the Contractor.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):
No dust monitoring or field screening occurred today as there was no soil disturbed.

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 8/21/14
Owner: City of Seattle		Time of Arrival: 0830	Report Number: ENV-04
Prepared by: Theo Leonard, P.E.	Location: Gas Works Park, Seattle, WA	Time of Departure: 1330	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: Sunny, 60s	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington at the request of John Rork with Puget Sound Energy. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

John Rork (JR)_Puget Sound Energy (PSE)
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction (Wyser) – PSE contractor
David Strasburg (DS) – Wyser Construction

Project Personnel Onsite:

Theo Leonard (TL) – GeoEngineers

Equipment:

John Deere 35D track excavator
Kubota KX 161-3 track excavator

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-21-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-22-2014

Attachments: Daily Photo Log

Distribution:

Field Activities: Following is a summary/timeline of activities noted during the site visit.

TL arrived onsite at approximately 0830AM and met with DR. Construction fencing had been dropped off at the site. TL and DR discussed the daily field reports from Wyser. DR noted that field reports would not be provided for the work from this week since construction had not officially kicked-off. DR noted Wyser had templates for filling out the daily report and that the reports from Wyser would be emailed to GeoEngineers each day. GeoEngineers would then post the daily field reports from Wyser to the SharePoint for the review by the client.

~0930. Sanitation port-o-pottys were dropped off at the site.

~1015. The excavators noted above arrived onsite as well as the office trailer.

~1130. Break for lunch.

~1200. Wyser began setting up the construction fence around the office trailer and entrance to the park at the North Northlake Place. DR and TL noted it would be a good time for Parks to start posting signs regarding limited access from Northlake Place for pedestrian access.

~1230. DR left the site. DS remained onsite to secure the site.

~1330. DS and TL left the site after securing the fencing and office trailer.

Today's activities included setting up the office trailer and preliminary construction fencing. Activities planned for tomorrow include getting the TESC materials delivered to the site and potentially installing some rock reinforcement at the entrance to the site for truck traffic. Photos from today were tracked on the daily photo log.

Environmental Activities (Dust Monitoring, Field Screening, Etc...):
No dust monitoring or field screening occurred today as there was no soil disturbed.

GeoEngineers

PLAZA 600 BUILDING
600 STEWART STREET, SUITE 1700
SEATTLE, WA 98101
(206) 728-2674

FIELD REPORT

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project

Date: 8/22/14

Owner: City of Seattle

Time of Arrival: 0830

Report Number: ENV-05

Prepared by: Theo Leonard, P.E.

Location: Gas Works Park, Seattle, WA

Time of Departure: 0930

Page: 1 of 2

Purpose of visit: Construction Observations

Weather: Sunny, 60s

Travel Time: 0.5 hrs

Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington at the request of John Rork with Puget Sound Energy. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

John Rork (JR)_Puget Sound Energy (PSE)
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor Onsite:

David Strasburg (DS) – Wyser Construction

Project Personnel Onsite:

Theo Leonard (TL) – GeoEngineers

Equipment:

John Deere 35D track excavator
Kubota KX 161-3 track excavator
Bobcat 763 forklift

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-22-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-22-2014

Attachments: Daily Photo Log

Distribution:

Field Activities: Following is a summary/timeline of activities noted during the site visit.

TL arrived onsite at approximately 0830AM and met with DS. Erosion control items such as the straw wattles had been delivered to the site. Cold patch asphalt had been installed at the eastern and western ends of the access to the construction site where Northlake Place and the main east-west pathway meet.

~0930. Site was secured and TL and DS left the site.

Today's activities included getting the TESC materials delivered to the site and installing cold patch asphalt at the entrance to the site for truck traffic. Photos from today were tracked on the daily photo log.

Environmental Activities (Dust Monitoring, Field Screening, Etc...):
No dust monitoring or field screening occurred today as there was no soil disturbed.

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number:	
00186-846-01 Task 1401	
Project: Kite Hill Soil Cover Project	Date: 8/25/14
Owner: City of Seattle	Time of Arrival: 0730 / Report Number: ENV-06
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA / Time of Departure: 1530 / Page: 1 of 3
Purpose of visit: Construction Observations	Weather: Morning: Sunny, Clear, 60s; Afternoon: Sunny, Clear, 70s / Travel Time: 0.5 hrs / Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

Contractor Equipment:

John Deere 35D track excavator
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Hand Tools

Health and Safety:

Prior to beginning work a tailgate safety meeting was held with Wyser (Dan, David, Spencer, Manuel). Items discussed included PPE, staying hydrated, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-25-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-29-14

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Field Activities: Following is a timeline of activities noted during the site visit.

~0730. TL arrived onsite at and met with Wyser. TL calibrated the dust monitor. No construction work is planned until DR arrives onsite.

~0830. TL sent Shashi an email regarding the transfer of the Ecology CGSWP from PSE to Wyser. Dan Baker replied that Lisa Bona and Jennifer Lee with PSE are taking care of this. TL walked the perimeter of construction to monitor dust.

~0930. DR arrived onsite with office and field equipment. Wyser used a machete to clear some of the brush around the Harbor Patrol building to double check the location of the gas meter and other items that need to be protected from the earthwork activities. Wyser noted the downspout on the east side of the building as well as a meter and elec'l box on the north side of the building.

Wyser posted a sign at the entrance gate to the site. The sign includes information that beyond the gate is an active construction site and that certain PPE and permission is required to enter. Similar signs will be posted at any entrance to the site. Throughout the morning it was noted that pedestrians and cyclists would enter North Northlake Place and travel almost to the end of the street where the gate to the site is located. It is recommended that Parks post signage near the entrance to Harbor Patrol to alert pedestrians/cyclists that a portion of the park is closed and a detour is in place.

DR noted that utility locates were still not planned until the meeting with Parks on September 3, 2014.

TL and DR noted some of the items that were being revised on the drawings such as the work to the drainage around the Sun Dial. TL noted that Wyser would receive the Conformed Set soon.

~1015. Wyser began installing the temporary construction fence around the limits of the 'soft start' area.

~1030. TL walked the perimeter of construction to monitor dust.

~1115. Wyser completed installing the temporary construction fence around the soft start area. Wyser began installing the silt fence along the shoreline starting at the bulkhead at the eastern limits of the soft start area.

~1130. TL walked the perimeter of construction to monitor dust. Break for lunch.

~1230. Wyser continuing to install the silt fence along the shoreline. TL walked the perimeter of construction to monitor dust.

~1415. Wyser continuing to install the silt fence along the shoreline. TL walked the perimeter of construction to monitor dust.

~1445. Wyser continuing to install the silt fence along the shoreline. TL walked the perimeter of construction to monitor dust.

~1515. Wyser stopped installing silt fence and began putting equipment away.

~1530. Site was secured and TL and Wyser left the site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of six monitoring events occurred throughout the day with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the monitor and noted below:

    - DustTrak file Manual_002 – Min (0.050 mg/m^3), Max (0.118 mg/m^3), Average (0.066 mg/m^3).
    - DustTrak file Manual_003 – Min (0.017 mg/m^3), Max (0.064 mg/m^3), Average (0.026 mg/m^3).
    - DustTrak file Manual_004 – Min (0.016 mg/m^3), Max (0.212 mg/m^3), Average (0.039 mg/m^3).
    - DustTrak file Manual_005 – Min (0.015 mg/m^3), Max (0.257 mg/m^3), Average (0.061 mg/m^3).
    - DustTrak file Manual_006 – Min (0.039 mg/m^3), Max (2.55 mg/m^3), Average (0.561 mg/m^3).
    - DustTrak file Manual_007 – Min (0.025 mg/m^3), Max (0.595 mg/m^3), Average (0.162 mg/m^3).

- Field Screening: No odor or staining was encountered, therefore; no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Visitors to the Site:
There were no visitors to the site.

Field Report Summary:
Today's activities included installing the temporary construction fence along the limits of the 'soft start' area and installing a portion of the silt fence along the shoreline. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:
- Follow-up with Lisa Bona and Jennifer Lee regarding transfer of the CGSWP from PSE to Wyser.

- Confirm a date to issue the Conformed Set to Wyser.

- Have Parks post signage along North Northlake Place to alert the public that the entrance to the Park from Northlake Place is closed.

- Return Submittal 11 (Wyser HASP) to Wyser ASAP.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

Construction Fence Installed Around Soft Start Area

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMP'S AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

A portion of the Silt Fence Along the Shoreline was Installed

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 3 STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2023 at 2:33pm

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number:	
00186-846-01 Task 1401	
Project: Kite Hill Soil Cover Project	Date: 8/26/14
Owner: City of Seattle	Time of Arrival: 0730 / Report Number: ENV-07
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA / Time of Departure: 1530 / Page: 1 of 3
Purpose of visit: Construction Observations	Weather: Morning: Sunny, Clear, 60s Afternoon: Sunny, Clear, 70s / Travel Time: 0.5 hrs / Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

Contractor Equipment:

John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck

Health and Safety:

Prior to beginning work a tailgate safety meeting was held with Wyser (Dan, David, Spencer, Manuel). Items discussed included PPE, staying hydrated, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-26-2014
☒ **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-29-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Field Activities: Following is a timeline of activities noted during the site visit.

~0730. TL arrived onsite and met with Wyser. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued work from yesterday (8/25) installing the silt fence along the shoreline within the soft start area.

~0930. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser completed installing the silt fence along the shoreline and began clearing the vegetation and installing the silt fence along the Harbor Patrol boundary.

~1030. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser was still clearing vegetation and installing the silt fence along the Harbor Patrol boundary.

~1100. DR arrived onsite with a water truck to control dust.

~1130. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. While clearing brush along the eastern side of the Harbor Patrol building, Wyser noted there was an asphalt slab that ran the length of the building that was approximately 10 feet wide (minimum) and 2 to 4 inches thick. An RFI was generated by Wyser for GeoEngineers to respond to. The silt fence in the area of the asphalt slab was installed approximately 2 feet from the building instead of right along next to it until a final decision can be made regarding the unknown asphalt slab.

~1220. Wyser break for lunch. TL left site to attend meeting at the GeoEngineers Seattle office.

~1430. TL arrived back at the site. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser had completed clearing of the vegetation and installation of the silt fence along the Harbor Patrol boundary. Wyser had stockpiled the cleared vegetation near the main east-west pathway.

Wyser noted that there was a frayed and broken wire coming from the elec'l box on the north side of the Harbor Patrol building. The wire appeared to have been broken prior to any work in the area.

~1500. DR noted he would check on the street use permits with SDOT this Thursday (8/28). DR noted the plan for tomorrow (8/27) included installing the silt fence along a portion of the main east-west pathway near the entrance to the site from N Northlake Place. The sediment trap along the north side of the Harbor Patrol building will also be installed.

~1530. Site was secured and TL and Wyser left the site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of five monitoring events occurred throughout the day with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the monitor and noted below:

    - DustTrak file Manual_008 (0739) – Min (0.048 mg/m^3), Max (0.059 mg/m^3), Average (0.052 mg/m^3).
    - DustTrak file Manual_009 (0931) – Min (0.099 mg/m^3), Max (3.72 mg/m^3), Average (0.992 mg/m^3).
    - DustTrak file Manual_010 (1039) – Min (0.022 mg/m^3), Max (0.185 mg/m^3), Average (0.047 mg/m^3).
    - DustTrak file Manual_011 (1138) – Min (0.024 mg/m^3), Max (0.085 mg/m^3), Average (0.040 mg/m^3).
    - DustTrak file Manual_012 (1439) – Min (0.018 mg/m^3), Max (2.68 mg/m^3), Average (0.685 mg/m^3).

- Field Screening: No odor or staining was encountered, therefore; no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: There was no rain or other events that caused any discharge from the site.

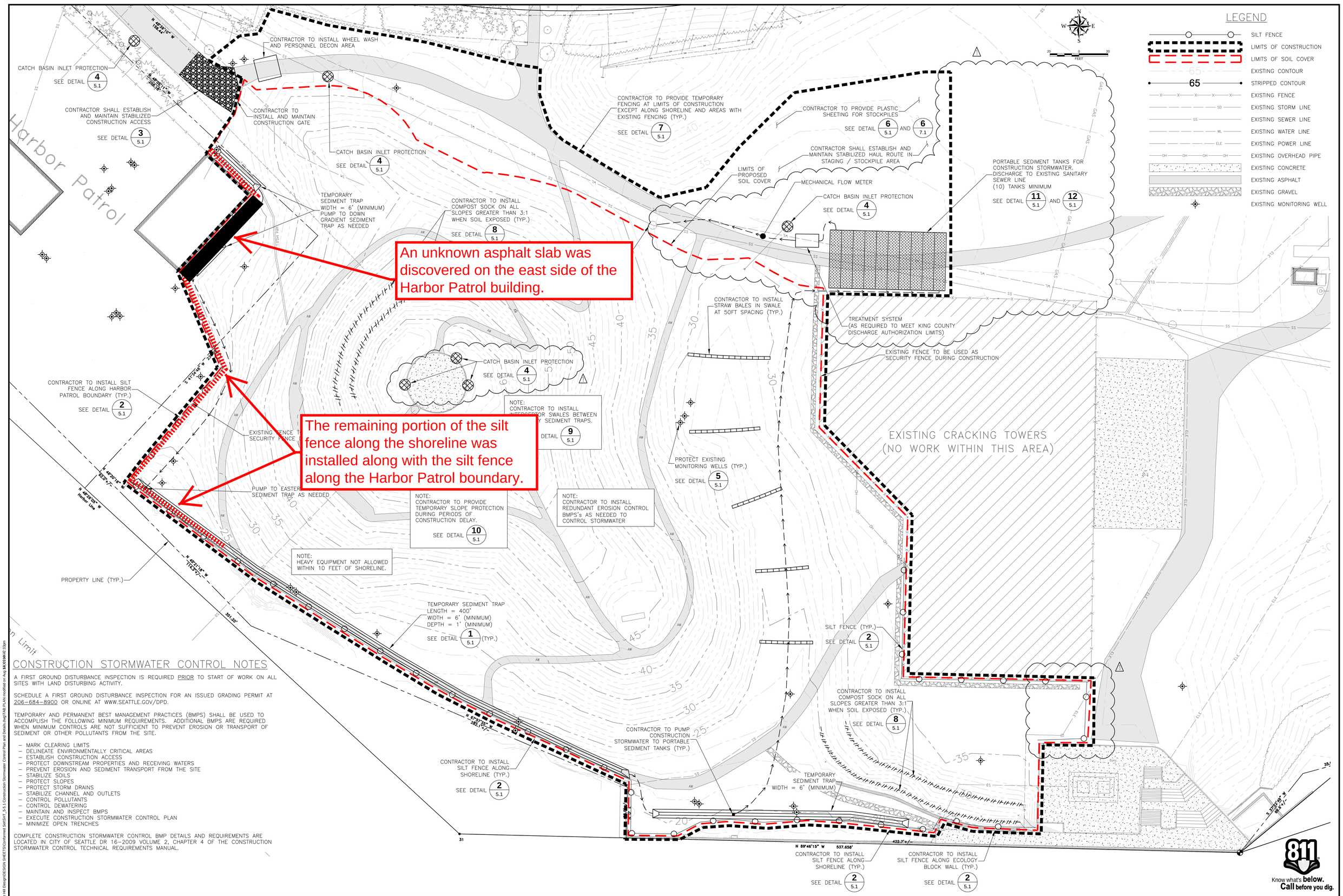
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Visitors to the Site:
There were no visitors to the site.

Field Report Summary:
Today's activities included installing the remaining portion of the silt fence along the shoreline within the soft start area. Vegetation was cleared and the silt fence was installed along the Harbor Patrol boundary. An RFI was generated by Wyser regarding an unknown asphalt slab that was discovered on the east side of the Harbor Patrol building. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Follow-up with Lisa Bona and Jennifer Lee regarding transfer of the CGSWP from PSE to Wyser.
- Confirm a date to issue the Conformed Set to Wyser.
- Have Parks post signage along North Northlake Place to alert the public that the entrance to the Park from Northlake Place is closed.
- Return Submittal 11 (Wyser HASP) to Wyser ASAP.
- Address RFI from Wyser regarding the unknown slab adjacent to the Harbor Patrol building on the east side.



CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS MURAY — STATE OF WASHINGTON — 22955 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\GIS\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_1-5-1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 23,2023@2:23pm

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 8/27/14
Owner: City of Seattle		Time of Arrival: 0715	Report Number: ENV-08
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1530	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: Morning: Sunny, Clear, 60s Afternoon:	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

Contractor Equipment:

John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck

Health and Safety:

Prior to beginning work a tailgate safety meeting was held with Wyser (Dan, David). Items discussed included PPE, staying hydrated, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-27-2014
☒ **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-29-2014

Attachments: Site Plan, Daily Photo Log, Photographs, Well Inspection Log

Distribution:

Field Activities: Following is a timeline of activities noted during the site visit.

~0715. TL arrived onsite and met with Wyser. Wyser performed maintenance to their equipment while TL inspected the two remaining monitoring wells that were not inspected during 8/19/14 site visit. The reason the two wells were not inspected on 8/19/14 with the rest of the wells was due to blackberries covering the wells. Results from the well inspection were noted on the Well Inspection log.

~1000. Discussed the baker tanks. DR noted the tanks should begin arriving onsite early next week. Begin weekly construction meeting. No site work commenced thus far today as Wyser was getting supplies from the store and doing maintenance on their equipment.

~1100. Weekly construction meeting ended. Wyser began installing the silt fence near the entrance to the site where N Northlake place ends and the park begins.

~1130. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1220. TL left site to attend a meeting in the GeoEngineers' Seattle office.

~1430. TL returned to the site. Wyser had already left the site. TL noted the silt fence had been installed near the entrance to the site and the sediment trap along the north side of the Harbor Patrol building had begun to get installed. Site was secured and TL left the site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. One monitoring event occurred today with an approximate ten minute period where the monitor was continuously run. The results were recorded by the monitor and noted below:
    - DustTrak file Manual_013 (1132) – Min (0.018 mg/m^3), Max (0.275 mg/m^3), Average (0.106 mg/m^3).
- Field Screening: No odor or staining was encountered, therefore; no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today.

Visitors to the Site:
There were no visitors to the site.

Field Report Summary:
Today's activities included the weekly construction meeting, installing the silt fence near the entrance to the site at N Northlake Way, and starting the installation of the sediment trap along the north side of the Harbor Patrol building. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Confirm a date to issue the Conformed Set to Wyser.
- Have Parks post signage along North Northlake Place to alert the public that the entrance to the Park from Northlake Place is closed.
- Return Submittal 11 (Wyser HASP) to Wyser ASAP.
- Address RFI from Wyser regarding the unknown slab adjacent to the Harbor Patrol building on the east side.

The silt fence near the entrance to the site was installed.
Began installing the sediment trap along the north side of the Harbor Patrol building.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4/5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3/5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4/5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8/5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7/5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6/5.1 AND 6/7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4/5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11/5.1 AND 12/5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CATCH BASIN INLET PROTECTION SEE DETAIL 4/5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9/5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5/5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2/5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10/5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMP's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1/5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2/5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2/5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8/5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2/5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2/5.1

Harbor Patrol

Limit

N 89°46'15" W 537.658'

422.7'+/-

N 48°29'10" W 156.4'+/-

S 41°30'48" W 208.8'+/-

S 41°30'48" W 208.8'+/-

N 48°29'10" W 93.0'+/-

N 48°29'10" W Harbor Line

N 48°21'16" W 1143.9'+/-

N 67°02'55" E 283.1'+/-

351.39'

S 37°25'48" W 69.4'+/-

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2016 - 2:33pm

Kite Hill Soil Cover Project

Pre-construction Well Inspection

Inspection Completed on 8/27/2014

Well Name	Photos (on P Drive) "Well Inspec 8-27-14"	Well Type	Monument					Surface Water	Casing Diameter (in)	Condition of Casing	Well Cap Type	Cap Lock	Additional Notes
			Type	Surface Concrete	Lid	Rim	Bolts						
TDW-2	TDW-2 (2, 3, 4)	Monitoring Well	Flush	Good	Good	Good	9/16ths	no	2	Good	plug compression	lock in place. No key to check if working	water pooled up between cap and lid.
TSW-2	TSW-2 (2)	Monitoring Well	Flush	Broken on west side	Good	Good	9/16ths	no	2	Good	plug compression	lock in place. No key to check if working	water pooled up between cap and lid.

GeoEngineers

PLAZA 600 BUILDING
600 STEWART STREET, SUITE 1700
SEATTLE, WA 98101
(206) 728-2674

FIELD REPORT

File Number: 00186-846-01 Task 1401

	Project: Kite Hill Soil Cover Project		Date: 8/28/14
	Owner: City of Seattle	Time of Arrival: 0715	Report Number: ENV-09
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1130	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: Morning: Overcast, 60s Afternoon: Overcast, 60s	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
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Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
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Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

Contractor Equipment:

John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck

Health and Safety:

Prior to beginning work a meeting was held with Wyser. Items discussed included PPE, staying hydrated, working around equipment, wasps noted in the area, being alert to the public around the limits of construction, slips, trips, and falls.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-28-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-29-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Field Activities: Following is a timeline of activities noted during the site visit.

~0715. TL arrived onsite and met with Wyser. TL took a photo of the asphalt pad referenced in RFI 001 and noted that there is enough clearance to install the soil cover over the existing asphalt and match the pre-construction conditions.

~0800. Wyser picked up where the work left off yesterday and continued to install the sediment trap on the north side of the Harbor Patrol building.

~0830. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~0930. Wyser completed installation of the sediment trap on the north side of Harbor Patrol. Wyser continued work to complete installation of the sediment trap on the east side of Harbor Patrol. Excavated material from the sediment traps has been stockpiled on plastic sheeting separate from the stockpile of tree branches/blackberry bushes. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1030. Wyser completed installation of the sediment trap on the east side of the Harbor Patrol building. Both the stockpile of branches/blackberry bushes and stockpile of excavated material were covered with plastic sheeting.

~1100. Secured site. TL and Wyser left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of two monitoring events occurred today with an approximate ten minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:
    - DustTrak file Manual_014 (0825) – Min (0.007 mg/m^3), Max (0.216 mg/m^3), Average (0.049 mg/m^3).
    - DustTrak file Manual_015 (0928) – Min (0.009 mg/m^3), Max (1.08 mg/m^3), Average (0.264 mg/m^3).

- Field Screening: No odor or staining was encountered, therefore; no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today.

Visitors to the Site:
There were no visitors to the site.

Field Report Summary:
Today's activities included completing installation of the sediment traps on the north and east side of the Harbor Patrol building. Excavated material was stockpiled on plastic sheeting and then covered with plastic sheeting. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Confirm a date to issue the Conformed Set to Wyser.

- Have Parks post signage along North Northlake Place to alert the public that the entrance to the Park from Northlake Place is closed.

Approximate location of stockpiled material.

Completed installing of the sediment traps along the north and east sides of the Harbor Patrol building.

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

PROPERTY LINE (TYP.)

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMP's AS NEEDED TO CONTROL STORMWATER

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Limit

N 89°46'15" W 537.658'

422.7'+/-

N 48°29'10" W 156.41'

S 41°30'47" W 208.18'

S 41°30'48" W 208.18'

N 48°29'10" W 93.0'+/-

N 48°29'10" W Harbor Line

N 48°21'16" W 1143.97'+/-

N 67°02'55" W 283.14'+/-

S 37°25'48" W 69.44'+/-

351.39'

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

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- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
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- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
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- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2016 - 2:33pm

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 8/29/14
Owner: City of Seattle		Time of Arrival: 1245	Report Number: ENV-10
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1315	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: Afternoon: Overcast, 60s	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to check on the status of the erosion control BMPs and construction fencing.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
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Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

Contractor Equipment:

John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck

Health and Safety:

Prior to beginning work TL noted the following health and safety items: wasps noted in the area, being alert to the public around the limits of construction, slips, trips, and falls.

Field Activities: Following is a timeline of activities noted during the site visit.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 8-29-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 8-29-2014

Attachments: Daily Photo Log, Photographs

Distribution:

~1245. TL arrived onsite to check on the erosion control BMPs and construction fencing. A slight rainstorm had just occurred. TL noted the erosion control BMPs were in place and functioning to retain soil onsite with no visible discharges noted. Construction fencing was intact. It appeared Wyser had been onsite before TL arrived but was not onsite during the visit.

~1315. TL secured site and left.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: There was no construction that occurred today, therefore; no dust monitoring occurred.
- Field Screening: No odor or staining was encountered, therefore; no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today.

Visitors to the Site:
There were no visitors to the site.

Field Report Summary:
Today's activities included checking on the status of the erosion control BMPs and construction fencing. Photos from today were tracked on the daily photo log.

Action Items:

- Confirm a date to issue the Conformed Set to Wyser.
- Have Parks post signage along North Northlake Place to alert the public that the entrance to the Park from Northlake Place is closed.

GeoEngineers

PLAZA 600 BUILDING
600 STEWART STREET, SUITE 1700
SEATTLE, WA 98101
(206) 728-2674

FIELD REPORT

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 9/2/14
Owner: City of Seattle		Time of Arrival: 0715	Report Number: ENV-11
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: Morning: Overcast, 60s, windy Afternoon: Overcast, 60s, windy	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator
John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck

Subcontractor Onsite:

APS – Utility location services

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-2-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-5-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Michael Gray (MG). Items discussed included PPE, staying hydrated, working around equipment, broken glass, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted tailgate health and safety meeting.

Field Activities: Following is a timeline of activities noted during the site visit.

~0715. TL arrived onsite and met with MG who is overseeing the geotechnical fieldwork for GeoEngineers. TL discussed the Health and Safety Plan with MG as noted above. TL and MG walked the perimeter of the site to check on the erosion control BMPs which appeared to be intact with no discharge from the project area. Wyser was onsite installing the construction fencing around the limits of construction. DR noted he had visited the site Sunday (8/31) and that the erosion control BMPs were intact.

~0845. Two Baker Tanks arrived onsite and were placed in the area north of the cracking towers. A Parks employee was onsite to mark irrigation lines within the limits of construction.

~0900. The construction fencing had been installed and a Parks employee was onsite locating and marking irrigation lines.

~0920. APS arrived onsite to locate and mark any applicable utilities.

~0945. Wyser installed protection on and around the sun dial. The sun dial was covered with fabric and plywood with plywood placed overtop to keep the fabric in place. Temporary fencing was then installed around the sun dial.

~1000. APS noted they could not get a locate on the water main and the reason could potentially be that it is asbestos lined. The weekly construction meeting began.

~1130. The weekly construction meeting ended. Two additional Baker Tanks arrived onsite and were placed north of the cracking towers. Wyser began removing the asphalt pathway along the shoreline beginning near the bulkhead. The removed asphalt was stockpiled separate from the tree branches and excavated soil. It was noted that there was a base course material under part of the asphalt pathway while other parts did not appear to have a base course. Wyser used hand tools as necessary to separate any soil from the asphalt before stockpiling.

~1200. Break for lunch.

~1300. A truckload of quarry spalls were delivered to the site to stabilize the entrance as part of erosion control where trucks enter/leave the site. On-going work to remove the asphalt pathway along the shoreline. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1400. DR installed the quarry spalls near the entrance for stabilization. The silt fence along the bulkhead and east of the bulkhead was being installed. An additional Baker Tank arrived at the site. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1415. Began to rain.

~1500. No dust monitoring performed during this time as the rain was still falling and no visible dust was present. Wyser continued work installing the silt fence along the shoreline east of the bulkhead.

~1600. Rain had stopped. Silt fence had been installed along the shoreline east of the bulkhead. Wyser began removing the trees along the block wall. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1630. Two out of the three trees along the block wall had been removed. Wyser completed work for the day. Secured site. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of three monitoring events occurred today with an approximate ten minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

- DustTrak file Manual_016 (1255) – Min (0.004 mg/m^3), Max (0.133 mg/m^3), Average (0.029 mg/m^3).
- DustTrak file Manual_017 (1354) – Min (0.004 mg/m^3), Max (0.052 mg/m^3), Average (0.011 mg/m^3).
- DustTrak file Manual_018 (1546) – Min (0.004 mg/m^3), Max (0.710 mg/m^3), Average (0.099 mg/m^3).

- Field Screening: No odor or staining was encountered, therefore; no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. The weekly inspection is planned for tomorrow (9/3).

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today beyond the load of quarry spalls that was brought in for stabilization near the entrance.

Visitors to the Site:
Visitors to the site included Zanna Satterwhite, Dan Baker, Shashi Shankar, David Graves, and John Rork. The purpose of the visit was to have the weekly construction meeting.

Field Report Summary:
Today's activities included installing the remaining fencing around the limits of construction. A total of five Baker Tanks were delivered to the site and placed north of the cracking tower. APS and Parks were onsite to locate and mark utilities. The weekly construction meeting took place onsite. Protection was installed on and around the Sun Dial. A portion of the asphalt pathway along the shoreline was removed. The silt fence was installed along the bulkhead and shoreline east of the bulkhead. Quarry spalls were installed near the entrance to the site for stabilization purposes. Two out of the three trees along the block wall were removed. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:
- Perform the weekly inspection as part of the GCSWP compliance.

The remaining fencing was installed around the limits of construction.

Approximate location where the five Baker Tanks were placed.

Quarry spalls were installed near the entrance for stabilization.

Protection was installed on and around the Sun Dial.

Approximately 30-feet of the existing asphalt pathway was removed.

Silt fence installed around the bulkhead and shoreline east of the bulkhead.

Two out of the three trees along the block wall were removed.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

SEE DETAIL 5.1 AND 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

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

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS HALES — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\DELIV\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\T-AB-PLAN modified on Aug 30, 2023 by JULIO SANCHEZ

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 9/3/14
Owner: City of Seattle		Time of Arrival: 0630	Report Number: ENV-12
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1645	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: Morning: Overcast, 60s Afternoon: Sunny, 70s	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator
John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck

Subcontractor Onsite:

None

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-3-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-5-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Michael Gray (MG). Items discussed included PPE, staying hydrated, working around equipment, broken glass, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted tailgate health and safety meeting.

Field Activities: Following is a timeline of activities noted during the site visit.

~0630. TL arrived onsite and walked the perimeter to check on erosion control BMPs. A rainstorm occurred overnight that had caused flooding in other parts of the City. TL noted the erosion control BMPs were intact and there did not appear to be any discharge from the site.

~0700. MG and Wyser personnel arrived onsite. Wyser continued work from the previous day removing the trees from along the block wall and removing the asphalt pathway along the shoreline.

~0730. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~0830. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. A Baker tank arrived onsite and was staged north of the cracking towers with the other Baker Tanks. Wyser completed removal of the trees along the block wall. Wyser continued work removing the asphalt pathway along the shoreline.

~0930. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser installing the privacy screen for the construction fencing along the eastern limits of construction. Wyser began installation of the silt fence along the block wall. Wyser continued work removing the asphalt pathway along the shoreline.

~1000. HD Fowler delivered irrigation lines to the site which were staged near the stockpiles. The meeting with Parks to locate the irrigation lines and confirm irrigation work began. A sign-in sheet was passed around to the meeting participants and Drew Coombs with Brennan&Associates plans to follow-up with a meeting summary.

~1030. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued installing the privacy screen for the construction fencing along the eastern limits of construction. Wyser continued installation of the silt fence along the block wall. Wyser continued work removing the asphalt pathway along the shoreline. Meeting with Parks was on-going.

~1045. A Baker Tank was delivered to the site.

~1130. Wyser continued installing the privacy screen for the construction fencing along the eastern limits of construction. Wyser completed installation of the silt fence along the block wall. Wyser continued work removing the asphalt pathway along the shoreline. Meeting with Parks was on-going.

~1200. Meeting with Parks ended and visitors left the site. Wyser completed installation of the privacy fence. Break for lunch.

~1330. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.. Wyser completed removal of the asphalt pathway along the shoreline. Wyser began installing a high visibility fence to establish the exclusion zone. A Baker Tank was delivered to the site.

~1430. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.. Wyser completed establishing the exclusion zone which included a trailer with decontamination equipment including a boot wash. The decon trailer was setup so that access to the exclusion zone occurs by going through the trailer. A Baker Tank was delivered to the site. Wyser began tilling in the northern portion of the swale. Wyser began installing the sediment trap along the shoreline. Excavated material from the sediment trap was stockpiled in the tilled area in the northern portion of the swale.

~1530. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.. Wyser continued tilling in the northern portion of the swale. Wyser discontinued installing the sediment trap along the shoreline for the day.

~1630. Completed work for the day. Stockpiles were covered with plastic sheeting. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc...):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service

manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of seven monitoring events occurred today with an approximate ten minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

- DustTrak file Manual_019 (0744) – Min (0.008 mg/m^3), Max (0.029 mg/m^3), Average (0.017 mg/m^3).
- DustTrak file Manual_020 (0844) – Min (0.010 mg/m^3), Max (0.056 mg/m^3), Average (0.022 mg/m^3).
- DustTrak file Manual_021 (0942) – Min (0.008 mg/m^3), Max (0.117 mg/m^3), Average (0.028 mg/m^3).
- DustTrak file Manual_022 (1028) – Min (0.007 mg/m^3), Max (0.123 mg/m^3), Average (0.038 mg/m^3).
- DustTrak file Manual_023 (1333) – Min (0.005 mg/m^3), Max (0.142 mg/m^3), Average (0.050 mg/m^3).
- DustTrak file Manual_024 (1434) – Min (0.006 mg/m^3), Max (0.033 mg/m^3), Average (0.017 mg/m^3).
- DustTrak file Manual_025 (0942) – Min (0.004 mg/m^3), Max (0.040 mg/m^3), Average (0.01 mg/m^3).

- Field Screening: A slight odor near the overhead piping on the west side of the cracking towers was observed toward the end of the meeting with Parks. The source of the odor could not be identified as it was encountered in an area where no tilling or other earthwork had occurred as of the time when the odor was noted. No staining was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: The weekly inspection occurred and the inspection form will be maintained for record keeping.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today.

Visitors to the Site:
Visitors to the site were noted on the sign-in sheet for the Parks meeting.

Field Report Summary:
Today's activities included completing removal of the trees along the block wall. Completing the removal of the asphalt pathway along the shoreline. Three Baker Tanks were delivered to the site. There is now a total of eight Baker Tanks onsite. The privacy screen was installed along fencing on the eastern limits of construction. The silt fence along the block wall was installed. The meeting with Parks to locate utilities and confirm the scope of irrigation work took place. The exclusion zone and decontamination area were established. Wyser began tilling in the northern portion of the swale. Wyser began installation of the sediment trap along the shoreline. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:
- None noted.

Approximate location where the three Baker Tanks were placed. A total of eight Baker Tanks are onsite as of today.

Privacy screen installed on eastern limits of construction.

Exclusion zone and decontamination station were established.

Tilling began in the northern portion of the swale.

The existing asphalt pathway along the shoreline was removed.

Completed removal of the three trees along the block wall.

Silt fence installed along the block wall.

Privacy screen installed on eastern limits of construction.

Began installation of the sediment trap along the shoreline.

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

Know what's below. Call before you dig.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BALLEW, STATE OF WASHINGTON, 39963, REGISTERED PROFESSIONAL ENGINEER

Design Date
Drawn Date
Checked Date
Approved Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 24,2023@2:33pm

GeoEngineers

PLAZA 600 BUILDING
600 STEWART STREET, SUITE 1700
SEATTLE, WA 98101
(206) 728-2674

FIELD REPORT

File Number: 00186-846-01 Task 1401

	Project: Kite Hill Soil Cover Project		Date: 9/4/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-13
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1600	Page: 1 of 4
Purpose of visit: Construction Observations	Weather: Morning: Sunny, clear, 60s Afternoon: Sunny, clear, 70s	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator with 5-foot cleanout bucket
John Deere 35D track excavator
John Deere 410 tractor with bucket and brush hog
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck
Decontamination Trailer

Subcontractor Onsite:

Spectrum – sub-contractor for Wyser performing the employee air monitoring.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-04-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-08-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Michael Gray (MG). Items discussed included PPE, staying hydrated, working around equipment, broken glass, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer. Emphasis from today was to use the decontamination trailer when leaving the exclusion zone, specifically the boot wash.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite and met with MG. Discussed MG's work for the day which included monitoring the excavated soil from the sediment trap to determine if the material can be re-used onsite as fill or should be stockpiled with the sod for disposal. In addition MG was to confirm the depth of tilled material using a probe rod to ensure tilling reached a depth of 12-inch per plan.

~0745. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser continued tilling the northern portion of the swale.

~0815. Wyser continued the previous day's work installing the sediment trap along the shoreline west of the bulkhead. Discussed excavated material from sediment trap with MG and DR. MG working with operator of dump truck to classify soils as either re-usable fill or material that should be disposed. Material that was deemed re-usable was stockpiled in the tilled area within the northern part of the swale while disposable material was stockpiled with the sod.

The double check valve and meter were installed on the existing hydrant for onsite use of the water as needed.

~0830. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser began using the excavator with cleanout bucket to remove three to four inch of sod from the western portion of kite hill near the top of the hill.

Spectrum arrived onsite to perform the employee air monitoring for Wyser personnel.

~0915. A Baker Tank arrived onsite to make a total of nine tank onsite.

~0930. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser began work to cut and cap the existing irrigation mainline near the existing hydrant.

Wyser began work removing the top ten to twelve inch of material from the western berm at the top of kite hill. The material removed was stockpiled with the sod for disposal. The remaining berm material will be evaluated at a later date for use as re-usable fill onsite or disposed with the sod.

On-going work to install the sediment trap along the shoreline west of the bulkhead. Larger pieces of rock or other debris was separated from excavated material.

~1015. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

On-going sediment trap installation.

On-going berm removal and stripping of the western and northern portions of Kite Hill.

On-going work to the irrigation mainline.

On-going tilling in the northern portion of the swale.

~1100. The tenth and final Baker Tank arrived onsite and was staged with the other tanks north of the cracking towers in the staging area.

~1115. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Rock check dams installed in the sediment trap along the shoreline west of the bulkhead.

~1130. Break for lunch.

~1215. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser installed a Type 1 catch basin in the southwest corner of the site within the sediment trap to work as a sump. The pump for stormwater will be placed in the catch basin to keep the pump free of material that may clog or damage it.

Wyser completed installation of the sediment trap along the shoreline west of the bulkhead.

~1315. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser began installation of the sediment trap along the shoreline on the east side of the bulkhead.

~1400. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

On-going sediment trap installation.

On-going stripping of the western and northern portions of Kite Hill.

On-going work to the irrigation mainline.

On-going tilling in the northern portion of the swale.

~1500. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser began putting equipment away for the day and covering the stockpiles.

~1600. Completed work for the day. Stockpiles were covered with plastic sheeting. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of nine monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_026 (0753) – Min (0.011 mg/m^3), Max (0.066 mg/m^3), Average (0.025 mg/m^3).
    - DustTrak file Manual_027 (0833) – Min (0.007 mg/m^3), Max (0.018 mg/m^3), Average (0.012 mg/m^3).
    - DustTrak file Manual_028 (0923) – Min (0.008 mg/m^3), Max (0.093 mg/m^3), Average (0.024 mg/m^3).
    - DustTrak file Manual_029 (1014) – Min (0.007 mg/m^3), Max (0.078 mg/m^3), Average (0.022 mg/m^3).
    - DustTrak file Manual_030 (1115) – Min (0.013 mg/m^3), Max (0.105 mg/m^3), Average (0.037 mg/m^3).
    - DustTrak file Manual_031 (1223) – Min (0.008 mg/m^3), Max (0.263 mg/m^3), Average (0.057 mg/m^3).
    - DustTrak file Manual_032 (1322) – Min (0.008 mg/m^3), Max (1.310 mg/m^3), Average (0.165 mg/m^3).
    - DustTrak file Manual_033 (1400) – Min (0.011 mg/m^3), Max (0.210 mg/m^3), Average (0.056 mg/m^3).
    - DustTrak file Manual_034 (1451) – Min (0.008 mg/m^3), Max (0.625 mg/m^3), Average (0.101 mg/m^3).

- Field Screening:. No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today.

Visitors to the Site:
There were no visitors to the site.

Field Report Summary:
Today's activities included completing installation of the sediment trap along the shoreline west of the bulkhead and sump in the southwest corner of the site. The meter and double check valve were installed on the existing hydrant for onsite use of the water. The ninth and tenth (final) Baker Tanks were delivered to the site and staged north of the cracking towers. Continued tilling in the northern portion of the swale. Began stripping of Kite Hill and removal of the western berm at the top of kite hill. Began work to the irrigation mainline. Began installation of the sediment trap along the shoreline on the east side of the bulkhead. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:
- None noted.

Meter and double check valve installed in the existing hydrant.

The final two Baker Tanks were delivered for a total of ten tanks onsite.

Began stripping the north and western portion of kite hill and removal of western berm.

Tilling continued in the northern portion of the swale.

Began installation of the sediment trap along the shoreline east of the bulkhead.

Completed installation of the sediment trap and sump along the shoreline west of the bulkhead.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONSTRUCTION GATE

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (AREA)

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMP's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

N 89°46'15" W 537.658'

422.7'+/-

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design Date
Drawn Date
Checked Date
Approved Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN, modified on Aug 30, 2016 - 2:33pm

GeoEngineers

PLAZA 600 BUILDING
600 STEWART STREET, SUITE 1700
SEATTLE, WA 98101
(206) 728-2674

FIELD REPORT

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project

Date: 9/5/14

Owner: City of Seattle

Time of Arrival: 0700

Report Number: ENV-14

Prepared by: Theo Leonard (TL)

Location: Gas Works Park, Seattle, WA

Time of Departure: 1600

Page: 1 of 4

Purpose of visit: Construction Observations

Weather: Morning: Sunny, clear, 60s
Afternoon: Sunny, clear, 80s

Travel Time: 0.5 hrs

Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator with 5-foot cleanout bucket
John Deere 35D track excavator
John Deere 410 tractor with bucket and tiller
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader
Tracked dump truck
Water Truck
Decontamination Trailer

Subcontractor Onsite:

EHSI – sub-contractor for GeoEngineers performing the employee and perimeter air monitoring.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-05-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-08-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Michael Gray (MG). Items discussed included PPE, staying hydrated, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer. Emphasis from today was to use the decontamination trailer when leaving the exclusion zone, specifically the boot wash.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite and met with MG. Wyser was conducting their morning meeting and began preparing equipment for the day.

~0730. Wyser continued work from the previous day which included installing the sediment trap along the shoreline east of the bulkhead, stripping sod from Kite Hill, and tilling the northern portion of the swale.

Lisa Kollasch (LK) with EHSI arrived onsite. TL discussed health and safety including the exclusion zone, decontamination trailer, and equipment moving around the site. LK signed form C-3 of the health and safety plan. TL and LK discussed the work done thus far as well as the on-going activities. Given the stripping on the hill and tilling in the northern portion of the swale as part of the on-going work the perimeter air monitoring station would be setup near the northwest corner of the fencing for the cracking towers and that MG would be fitted with the employee air monitoring equipment.

~0800. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Wyser completed installation of the sump for the sediment trap along the shoreline in front of and east of the bulkhead. Similar to the sump in the southwest corner a pump will be placed in the sump to pump any ponded stormwater to the Baker Tanks. A small amount of groundwater (5-gallons or less) was encountered at the bottom of the hole where the sump was installed. The groundwater ponded in the sediment trap when the sump was placed in the hole and infiltrated back into the ground throughout the day. No odor or sheen was observed from the groundwater.

TL discussed the dust monitoring procedure that was being employed during construction with EHSI. TL noted that dust monitoring took place every hour along the perimeter of construction or specific times when the work may cause dust. The dust monitor would run for ten to fifteen minutes collecting a sample every minute. The minimum, maximum, and average values for each monitoring event were then recorded in the field report. EHSI noted that the monitoring procedure seemed to be sufficient.

MG probed the tilled area in the northern portion of the swale to determine the depth of material that was tilled. A few pieces of re-bar and miscellaneous metal was encountered during the tilling and separated out.

~0900. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

On-going tilling work in the northern portion of the swale. TL noted that the tilling equipment seemed to be undersized for reaching a depth of twelve inches.

On-going stripping and stockpiling of the sod from kite hill.

~0915. Wyser began tilling the central portion of the swale.

On-going stripping and stockpiling of the sod from kite hill.

~0945. Wyser began removing the eastern berm at the top of kite hill.

~1000. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1030. On-going tilling in the central portion of the swale. On-going stripping of the sod from kite hill with the stripped sod being stockpiled in the northwest area of the site.

~1100. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1200. Break for lunch.

~1230. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

Approximately eighteen to twenty four inches of material were removed from the eastern berm at the top of kite hill had been removed. On-going tilling in the central portion of the swale and stripping of sod from kite hill.

~1300. Wyser applied water to the central portion of the swale to help control dust.

~1330. The geo-grid was delivered to the site and placed in the staging area north of the main east-west pathway.

~1345. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1430. EHSI collected their equipment and left the site to deliver the samples to the laboratory for chemical analysis.

~1500. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling in the central portion of the swale and stripping of sod from kite hill.

~1550. Completed work for the day and began to put away equipment. Stockpiles were covered with plastic sheeting and site secured. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of seven monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_036 (0805) – Min (0.007 mg/m^3), Max (0.069 mg/m^3), Average (0.019 mg/m^3).
    - DustTrak file Manual_037 (0904) – Min (0.010 mg/m^3), Max (0.249 mg/m^3), Average (0.063 mg/m^3).
    - DustTrak file Manual_038 (0958) – Min (0.011 mg/m^3), Max (1.860 mg/m^3), Average (0.207 mg/m^3).
    - DustTrak file Manual_039 (1052) – Min (0.006 mg/m^3), Max (0.238 mg/m^3), Average (0.037 mg/m^3).
    - DustTrak file Manual_040 (1241) – Min (0.016 mg/m^3), Max (1.390 mg/m^3), Average (0.305 mg/m^3).
    - DustTrak file Manual_041 (1348) – Min (0.014 mg/m^3), Max (1.450 mg/m^3), Average (0.198 mg/m^3).
    - DustTrak file Manual_042 (1449) – Min (0.013 mg/m^3), Max (0.206 mg/m^3), Average (0.088 mg/m^3).

- Field Screening:. No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Truck Log:
There was no import/export trucking activity at the site today.

Visitors to the Site:
Florence Weinberg (FW) with Seattle Parks and Recreation visited the site toward the end of the work day. FW noted she was there to inspect the site. TL noted to FW that it was an active construction site with contaminated soil with 40-hr OSHA training requirements to enter the exclusion zone and that the decontamination trailer would need to be used if FW entered the exclusion zone. FW entered the exclusion zone to take photographs from the top of Kite Hill. TL and FW exited the exclusion zone through the decontamination trailer and FW left the site.

Field Report Summary:
Today's activities included installing the sump for the sediment trap along the shoreline in front of and east of the bulkhead. EHSI was onsite to perform the first round of perimeter air sampling and baseline employee air monitoring event. On-going

work tilling the swale and stripping the sod from kite hill with the sod stockpiled in the northwest corner of the site. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- None noted.

Approximate location of perimeter air monitoring station installed by EHSI.

Continued stripping kite hill and removal of eastern berm.

Tilling continued in the northern portion of the swale and began in the central portion of the swale.

Completed installation sump for the sediment trap along the shoreline in front of and east of the bulkhead.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILE SEE DETAIL 6 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE, STAGING / STOCKPILE AREAS

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS												
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS RALPH — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design Date | Drawn Date | Checked Date | Approved Date

PSE PUGET SOUND ENERGY

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Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0\0186846\GIS\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\T-AB-PLAN modified on Aug 30, 2023 by JXX at 09:02:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/08/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-15
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1540	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator with 5-foot cleanout bucket
John Deere 35D track excavator
John Deere 410 tractor with bucket and tiller
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Tracked dump truck
Water Truck
Decontamination Trailer
Solo Truck (~ten yard capacity)

Subcontractor Onsite:

Baker Corp – Wyser sub-contractor installing the piping between the Baker Tanks/sediment traps.
Z&S Trucking – Wyser sub-contractor hauling the export/import material.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-08-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-10-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Michael Gray (MG). Items discussed included PPE, staying hydrated, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer. Emphasis from today was a reminder to use hard hats, safety glasses, orange vests, proper footwear, and gloves at all times.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite and met with MG. Wyser was conducting their morning meeting and began preparing equipment for the day. DR noted that vandals had broken a window out of the water truck and taken down some of the fencing around the sun dial. No visible damage was noted to the sun dial.

~0745. Wyser began loading the tree branches for export off-site to United Recycling and marking the monitoring wells with red-painted stakes.

~0800. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued operations from the previous Friday loading the stripped sod from Kite Hill into the mini-dump truck which was then stockpiled in the northwest corner. Wyser issued RFI 002.

~0845. Wyser began stripping sod and vegetation from the southwest corner of the site.

~0900. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. BakerCorp delivered and began installing the piping intended to be used for pumping stormwater from the sediment trap to the Baker Tanks.

~0915. Wyser began tilling the south side of kite hill. On-going stripping of the sod in the southwest corner and along Harbor Patrol. On-going stockpiling of stripped sod in the northwest corner of the site.

~1015. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser loaded the solo truck with sod for export off-site to Regional Disposal Intermodal at 3rd and Lander in Seattle, WA. On-going stripping of the sod in the southwest corner and along Harbor Patrol. On-going stockpiling of stripped sod in the northwest corner of the site. On-going tilling of the south side of kite hill. On-going installation of piping between the Baker Tanks and sediment trap.

~1115. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser loaded the solo truck with sod for export off-site to Regional Disposal Intermodal at 3rd and Lander in Seattle, WA. On-going stripping of the sod in the southwest corner and along Harbor Patrol. On-going stockpiling of stripped sod in the northwest corner of the site. On-going tilling of the south side of kite hill. On-going installation of piping between the Baker Tanks and sediment trap. A truck load of Type 17 was delivered to the site from CalPortland and stockpiled near the Baker Tanks.

~1145. Wyser applied water on the west side of kite hill for dust control.

~1215. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1315. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going stripping of the sod in the southwest corner and along Harbor Patrol. On-going stockpiling of stripped sod in the northwest corner of the site. On-going installation of piping between the Baker Tanks and sediment trap. Wyser began tilling the western side of kite hill. Wyser applied water on the west side of kite hill for dust control.

~1420. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going stripping of the sod in the southwest corner and along Harbor Patrol. On-going stockpiling of stripped sod in the northwest corner of the site. On-going installation of piping between the Baker Tanks and sediment trap with the pump/generator installed near the sump. Wyser began tilling the north side of kite hill.

~1500. Wyser began tilling a portion of the east side of kite hill and began putting equipment away for the day.

~1540. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc...):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service

manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of seven monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

- DustTrak file Manual_043 (0758) – Min (0.015 mg/m^3), Max (0.112 mg/m^3), Average (0.040 mg/m^3).
- DustTrak file Manual_044 (0901) – Min (0.014 mg/m^3), Max (0.652 mg/m^3), Average (0.158 mg/m^3).
- DustTrak file Manual_045 (1015) – Min (0.006 mg/m^3), Max (0.489 mg/m^3), Average (0.132 mg/m^3).
- DustTrak file Manual_046 (1114) – Min (0.013 mg/m^3), Max (5.770 mg/m^3), Average (0.862 mg/m^3).
- DustTrak file Manual_047 (1212) – Min (0.012 mg/m^3), Max (1.140 mg/m^3), Average (0.318 mg/m^3).
- DustTrak file Manual_048 (1317) – Min (0.017 mg/m^3), Max (1.160 mg/m^3), Average (0.315 mg/m^3).
- DustTrak file Manual_049 (1423) – Min (0.012 mg/m^3), Max (2.350 mg/m^3), Average (0.487 mg/m^3).

- Field Screening:. No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s, slight breeze from the south to the north. Raingage data from website: http://www.atmos.washington.edu/weather/forecast.php

~1015. A light rain began.

Afternoon: rain stopped around 1400. Overcast with some sun, high 60s.

Truck Log:
Export:
- Brush: 2 loads of tree branches and brush was exported off-site. 20 yards of branches/brush were exported off-site.

- Sod: 3 loads of sod were exported off-site. 41.62 tons of sod was exported off-site.

Import:
- Type 17: 3 loads of Type 17 were imported to the site. 42.15 tons of Type 17 was imported to the site.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None

Field Report Summary:
Today's activities included exporting two loads of tree branches and three loads of sod off-site. Imported three loads of Type 17 to the site. Continued to strip and stockpile sod. Began installation of the piping between the sediment trap and Baker Tank for pumping stormwater from the sediment trap to the Baker Tank. Began tilling the south, west, north, and east sides of kite hill. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:
- None noted.

Began tilling the south, west, north, and east sides of kite hill.

Stripped sod along the harbor patrol boundary.

Began installation of the piping and pump for pumping stormwater to the Baker Tanks.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

PROPERTY LINE (TYP.)

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Limit

N 89°46'15" W 537.658'

422.7'+/-

N 48°29'18" W 93.0'+/-

N 89°23'00" W Harbor Line

N 67°23'16" W 351.79'

N 67°23'16" W 283.1'+/-

S 41°04'48" W 208.1'+/-

S 41°04'48" W 208.1'+/-

S 37°24'48" W 69.4'+/-

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

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SCHEDULE A
206-684-890

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

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GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 24,2020@2:33pm

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 9/09/14
Owner: City of Seattle	Time of Arrival: 0700		Report Number: ENV-16
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1530	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LB)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator with 5-foot cleanout bucket
John Deere 35D track excavator
John Deere 410 tractor with bucket and tiller
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Tracked dump truck
Water Truck
Decontamination Trailer
Solo Truck (~ten yard capacity)

Subcontractor Onsite:

Z&S Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-09-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-12-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Michael Gray (MG). Items discussed included PPE, staying hydrated, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting outside the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite and met with MG. Wyser conducted their morning meeting and began preparing equipment for the day.

~0725. Wyser loaded a solo truck with sod for export off-site.

~0745. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser applied water before beginning tilling operations on the west side of kite hill to control dust. Continued the previous day's work tilling the north and east side of kite hill as well as stockpiling stripped sod in the northwest corner of the site.

~0900. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling of the north side of kite hill. On-going stockpiling of stripped sod in the northwest corner of the site.

~0930. Wyser applied water to the west and north side of kite hill for dust control.

~0945. Wyser began using the Case skid steer with Bobcat tiller to scarify the north side of kite hill where the sod was stripped.

~1000. Began weekly construction meeting.

~1045. Wyser applied water to the west and north side of kite hill for dust control. On-going stockpiling of stripped sod in the northwest corner of kite hill. Wyser stopped scarifying the north side of kite hill and proceeded with tilling the north side.

~1145. Weekly meeting ended. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. TL walked the site with team members Dan Baker and Shashi Shankar to review on-going and completed work.

~1335. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going stockpiling of stripped sod in the northwest corner of kite hill.

~1435. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going stockpiling of stripped sod in the northwest corner of kite hill. The mini-dump truck came off one of the tracks which Wyser worked on to fix.

~1500. Wyser began putting away equipment and continued work to fix the mini-dump truck. Work accomplished during the last part of the day was a bit slow given the work to fix the mini-dump truck.

~1530. Equipment was secured. The sod stockpile in the northwest corner of kite hill was covered with plastic sheeting. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of five monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_050 (0755) – Min (0.007 mg/m^3), Max (2.320 mg/m^3), Average (0.231 mg/m^3).
    - DustTrak file Manual_051 (0904) – Min (0.013 mg/m^3), Max (0.390 mg/m^3), Average (0.128 mg/m^3).
    - DustTrak file Manual_052 (1149) – Min (0.009 mg/m^3), Max (0.845 mg/m^3), Average (0.254 mg/m^3).
    - DustTrak file Manual_053 (1114) – Min (0.012 mg/m^3), Max (1.470 mg/m^3), Average (0.270 mg/m^3).
    - DustTrak file Manual_054 (1437) – Min (0.028 mg/m^3), Max (1.600 mg/m^3), Average (0.459 mg/m^3).

- Field Screening:. No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: The weekly inspection occurred and the inspection form will be maintained for record keeping.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, high 50s, slight breeze from the south to the north.

Afternoon: sunny, clear, low 70s, slight breeze from south to the north.

Truck Log:
Export: 8 loads of sod were exported off-site. Two of the truck tickets from Wyser still need to be obtained with times leaving the site at approximately 0800 and 1315. Approximately 125 tons of sod was exported off-site to Republic Services.

Import: 7 loads of Type 17 were imported to the site. A total of 102.08 tons of Type 17 was imported to the site.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
Attendees for the weekly construction meeting.

Field Report Summary:
Today's activities included exporting eight loads of sod off-site and importing seven loads of Type 17 to the site. Continued to stockpile stripped sod in the northwest corner of kite hill. The weekly construction meeting occurred. Began to scarify the stripped area on the north side of kite hill. Continued tilling the west and north sides of kite hill. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:
- Regularly change out the boot wash in the decon trailer.

- Ensure silt fence along shoreline is in good condition and replace as needed.

- Obtain two missing export truck tickets from Wyser.

Continued tilling the west and north sides of kite hill.

Began scarifying the stripped area on the north side of kite hill.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

Harbor Patrol

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMP's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

N 89°46'15" W 537.658'

422.7'+/-

N 48°29'10" W 156.18'

S 41°30'47" W 208.18'

S 41°30'47" W 208.18'

N 48°29'10" W 93.07'+/-

N 48°29'10" W Harbor Line

N 48°21'16" W 1143.97'+/-

351.79'

N 67°02'55" W 283.14'+/-

S 37°25'48" W 69.44'+/-

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- 65 EXISTING CONTOUR
- 65 STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLE — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
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Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2016 - 2:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/10/14
	Owner: City of Seattle	Time of Arrival: 0645	Report Number: ENV-17
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1530	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere 135D track excavator with 5-foot cleanout bucket
John Deere 35D track excavator
John Deere 410 tractor with bucket and tiller
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Tracked dump truck
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)

Subcontractor Onsite:

Z&S Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.
L&L Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.
Spectrum – Wyser sub-contractor performing air monitoring.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-10-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-12-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Claudia De La Via (CDV). Items discussed included PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls. Michael Gray (MG) arrived onsite approximately one half hour after CDV. MG and TL briefly discussed on-going health and safety including working around heavy equipment.

Wyser conducted daily health and safety meeting outside the office trailer. Emphasis from today was on trench/excavation safety and making sure the boot wash water was regularly changed out.

Field Activities: Following is a timeline of activities noted during the site visit.

~0645. TL arrived onsite. Wyser conducted their morning meeting and began preparing equipment for the day including changing out the water in the boot wash and rinse tubs. Two solo trucks were onsite.

~0730. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser began removing the asphalt pathway located mid-way up kite hill on the south side. The solo trucks were loaded with sod for export off-site.

~0815. Spectrum arrived onsite to perform air monitoring for Wyser.

~0830. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going asphalt pathway removal on the south side of kite hill.

~0930. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going import and export of Type 17 and sod, respectively. The solo trucks take approximately one to one and half hours for a round trip dropping off sod and picking up Type 17. On-going stockpiling of sod in the northwest corner of kite hill. On-going asphalt removal on the south side of kite hill.

~0945. Applied water to the north and east sides of kite hill before tilling the areas.

~1000. Continued the previous day's work tilling the north and east side of kite hill.

~1030. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. DR asked for clarification regarding the removal of material over 4-inch in diameter during tilling operations and whether it was just concrete/debris or all material including rock. MG followed-up with a phone call to the geotechnical project manager Whitney Ciani (WC). WC noted to MG that rock over 4-inch could remain while concrete and debris over 4-inch needed to be removed and separated out. MG relayed the information from WC to DR who confirmed that was in line with the specifications and would proceed to remove and separate concrete and debris over 4-inch.

~1100. Wyser continued application of water to the tilled area for dust control. On-going tilling on the north and east side of kite hill. On-going asphalt pathway removal. Began stockpiling stripped sod in the northeast corner of kite hill.

~1130. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued application of water to the tilled area for dust control.

~1300. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued application of water to the tilled area for dust control. CDV removed water within the monument between the lid and casing from monitoring wells TSW-2 and TDW-2. On-going tilling on the north and east side of kite hill. On-going asphalt pathway removal. On-going stockpiling of stripped sod in the northeast corner of kite hill.

~1400. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling on the north and east side of kite hill. On-going asphalt pathway removal. On-going stockpiling of stripped sod in the northeast corner of kite hill.

~1500. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser began putting away equipment.

~1530. Equipment was secured. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of eight monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_055 (0728) – Min (0.017 mg/m^3), Max (0.330 mg/m^3), Average (0.125 mg/m^3).
    - DustTrak file Manual_056 (0828) – Min (0.021 mg/m^3), Max (1.110 mg/m^3), Average (0.249 mg/m^3).
    - DustTrak file Manual_057 (0927) – Min (0.239 mg/m^3), Max (3.450 mg/m^3), Average (1.120 mg/m^3).
    - DustTrak file Manual_058 (1031) – Min (0.037 mg/m^3), Max (0.810 mg/m^3), Average (0.180 mg/m^3).
    - DustTrak file Manual_059 (1127) – Min (0.029 mg/m^3), Max (0.284 mg/m^3), Average (0.086 mg/m^3).
    - DustTrak file Manual_060 (1307) – Min (0.046 mg/m^3), Max (2.640 mg/m^3), Average (0.381 mg/m^3).
    - DustTrak file Manual_061 (1400) – Min (0.012 mg/m^3), Max (0.724 mg/m^3), Average (0.218 mg/m^3).
    - DustTrak file Manual_062 (1457) – Min (0.056 mg/m^3), Max (0.421 mg/m^3), Average (0.135 mg/m^3).

- Field Screening: No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, high 50s, negligible wind.

Afternoon: sunny, clear, low 70s, slight wind from west to the east.

Truck Log:
Export: X loads of Sod were exported off-site. X tons of Sod was exported off-site. A total of XX tons of Sod has been exported off-site as of today.

Import: X loads of Type 17 were imported to the site. X tons of Type 17 was imported to the site. A total of XX tons of Type 17 has been brought onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
Libby Goldstein (LG) arrived onsite at approximately 1400. The purpose of the visit was to review the site controls and on-gong work. TL and LG walked the perimeter of the construction limits. LG was specifically interested in seeing the sediment traps and silt fence along the shoreline along with general on-going work. After walking the perimeter of the construction limits TL and LG exited the exclusion zone through the decontamination trailer. LG left the site at approximately 1430.

Field Report Summary:
Today's activities included exporting X tons of sod off-site and importing X tons of Type 17 to the site. Continued to stockpile stripped sod in the northwest corner of kite hill and began stockpiling sod in the northeast corner of kite hill. Removed the asphalt pathway located mid-way on the south side of kite hill. Removed a portion of the upper asphalt pathway on the north side of kite hill. Continued tilling the north and east sides of kite hill with water applied intermittently for dust control. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Ensure silt fence along shoreline is in good condition and replace as needed.

- Two of the truck tickets from 9/9/10 still need to be obtained with times leaving the site at approximately 0800 and 1315. Obtain truck tickets from today (9/10/14).

Continued tilling the north and east sides of kite hill.

Removed the asphalt pathway located mid-way on the south and west side of kite hill.

Removed the upper portion of the asphalt pathway located on the north side of kite hill.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

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- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
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- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
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COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BAUER — STATE OF WASHINGTON — 37963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

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600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0\0186846\01\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2013 by JKC 2:33pm

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 9/11/14
Owner: City of Seattle		Time of Arrival: 0645	Report Number: ENV-18
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1530	Page: 1 of 4
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator with 5-foot cleanout bucket, 35D track excavator, 410 tractor with tiller
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck

Subcontractor Onsite:

Z&S Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.
L&L Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.
True North – Wyser sub-contractor performing the surveying .

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-11-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-15-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Claudia De La Via (CDV). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls. Michael Gray (MG) arrived onsite approximately one and a half hour after CDV. MG and TL briefly discussed on-going health and safety including working around heavy equipment.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0645. TL arrived onsite. Wyser conducted their morning meeting and began preparing equipment for the day including changing out the water in the boot wash and rinse tubs. Two solo trucks were onsite.

~0730. Wyser continued the previous days' work removing the asphalt pathway on the north and south sides of kite hill. The solo trucks were loaded with sod for export off-site. Wyser installed new filter fabric against the existing silt fence along the shoreline due to wind fraying parts of the filter fabric. Wyser repaired the berm near the eastern sump as it appeared someone had walked over the berm making it so stormwater had the potential to leave the site instead of getting into the sump.

~0800. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser removed approximately 12"-15" of material from the western berm at the top of kite hill. The material appeared to be suitable for non-structural fill which the geotechnical engineer will verify. True North arrived onsite to begin staking proposed grades.

~0830. While walking the eastern limits of construction along the existing fence for the cracking towers TL noted an naphthalene-type odor. The wind was blowing slightly from east to west whereas it typically blows from west to east. It was noted that the naphthalene-type odor appeared to be coming from within the fencing for the cracking towers.

~0900. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser applied water to the east side of kite hill before beginning tilling operations. True North began staking the stripped and tilled areas. On-going asphalt pathway removal on the south side of kite hill.

~0930. TL asked True North to clarify what grades were being staked (existing, proposed, top of Type 17 layer). Ron with True North noted that the proposed grades were being staked. After reviewing the call-outs on the stakes for the proposed grades TL noted that the stakes called for 18-inch of soil to be stripped/excavated with 18-inch of fill placed. TL noted to True North that there should not be 18-inch of soil stripped/excavated and that overall there should be between 15-18-inch of fill with no excavation beyond the stripping of sod except for a couple localized areas True North noted that the electronic survey file that they were given showed 18-inch of stripping/excavation. TL stopped the surveying work and TL, Wyser, and True North had a meeting in the office trailer to clarify what electronic survey file True North was using. True North called their CAD manager Sal for clarification. TL spoke with Sal on the phone to clarify exactly which electronic survey files were sent from GeoEngineers to Wyser, and from Wyser to True North. After TL and Sal reviewed the previously transmitted electronic survey files and TL noted the proposed grades should come from the grading plan, Sal asked for a few minutes to review everything and call back. Approximately five minutes later Sal called back and noted he would be to the site shortly with the correct electronic survey file. True North continued staking without marking the proposed grades on the stakes so as to not slow down their work. The grades would be marked on the stakes after Sal brought the correct electronic survey file to the site.

~1000. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued the previous day's work tilling the east side of kite hill. On-going asphalt pathway removal on the south side of kite hill. On-going staking by True North without marking the proposed grades on the stakes.

~1030. Sal with True North arrived onsite and noted the wrong file had previously been given to their field technicians. True North used the electronic file Sal brought to the site to mark a couple of the proposed grades on the stakes. The proposed grades showed fill of 15-18-inch with no stripping/excavation. TL noted that True North had the correct electronic file and the staking and marking of proposed grades continued.

~1100. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling of the east side of kite hill. On-going asphalt pathway removal on the south side of kite hill. On-going staking by True North. On-going export/import of sod/Type 17.

~1200. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. The mini-dump truck previously used onsite was taken from the site due to mechanical problems.

~1315. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling of the east side of kite hill. On-going asphalt pathway removal on the south side of kite hill. On-going staking by True North. On-going export/import of sod/Type 17.

~1345. Wyser applied water and began tilling the south side of kite hill.

~1415. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going asphalt pathway removal on the south side of kite hill. Per the previous weekly construction meeting the tilled areas needed to be compacted and scarified before placing the geo-grid and Type 17 soil. Wyser used the 135D excavator to compact the tilled area with the tracks simultaneously scarifying the compacted area. MG took photos and probed the compacted/scarified area and noted to the geotechnical project manager Whitney Ciani (WC) that the method of using the excavator to compact and scarify was working thus far.

~1500. The MST-2000 and iC45 rubber-tracked dump trucks were delivered to the site. Wyser began putting equipment away and wrapping up for the day.

~1530. Equipment was secured. The sod stockpile was covered. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of seven monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_063 (0803) – Min (0.023 mg/m^3), Max (0.497 mg/m^3), Average (0.104 mg/m^3).
    - DustTrak file Manual_064 (0909) – Min (0.022 mg/m^3), Max (0.331 mg/m^3), Average (0.111 mg/m^3).
    - DustTrak file Manual_065 (1009) – Min (0.004 mg/m^3), Max (0.517 mg/m^3), Average (0.132 mg/m^3).
    - DustTrak file Manual_066 (1056) – Min (0.004 mg/m^3), Max (2.270 mg/m^3), Average (0.472 mg/m^3).
    - DustTrak file Manual_067 (1207) – Min (0.005 mg/m^3), Max (1.020 mg/m^3), Average (0.300 mg/m^3).
    - DustTrak file Manual_068 (1317) – Min (0.012 mg/m^3), Max (1.240 mg/m^3), Average (0.248 mg/m^3).
    - DustTrak file Manual_069 (1419) – Min (0.008 mg/m^3), Max (0.871 mg/m^3), Average (0.228 mg/m^3).

- Field Screening:. No staining or odor associated with construction activities was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, high 50s, negligible wind.

Afternoon: sunny, clear, 80s, slight wind from east to the west.

Truck Log:
Export: 10 loads of Sod were exported off-site to Republic Services. 146.97 tons of Sod was exported off-site. A total of 416.10 tons of Sod has been exported off-site to Republic Services as of today.

Import: 10 loads of Type 17 were imported to the site from Cal Portland. 153.26 tons of Type 17 was imported to the site. A total of 410.64 tons of Type 17 has been brought onto the site as of today from Cal Portland.

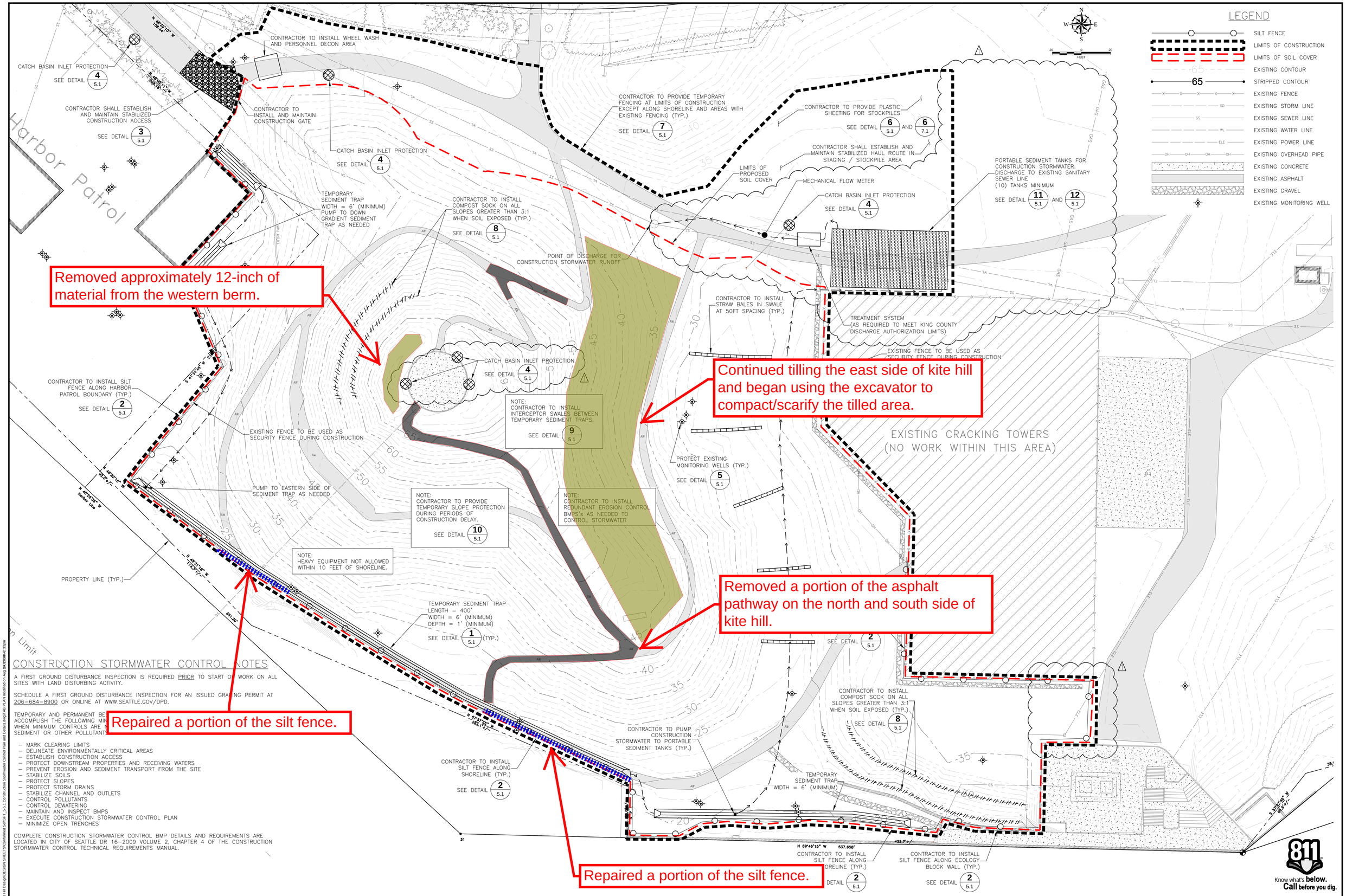
Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None noted.

Field Report Summary:
Today's activities included removal of asphalt pathways on the north and south side of kite hill. Silt fence repair along the shoreline west of the bulkhead. Berm repair by the sump in front of the bulkhead. Approximately twelve inch of material was removed from the western berm at the top of kite hill. True North began staking the proposed grades. Continued tilling the east side of kite hill. Continued export/import of sod/Type 17. The excavator was used to compact and scarify a portion of the east side of kite hill. Two rubber–tracked dump trucks were delivered to the site. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- None noted.



CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BES
ACCOMPLISH THE FOLLOWING MIN
WHEN MINIMUM CONTROLS ARE N
SEDIMENT OR OTHER POLLUTANTS

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

REFERENCES		REVISIONS												
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BAUER — STATE OF WASHINGTON — 37963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

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Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

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

P:\0186846\01\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 13, 2020 by JC 2:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/12/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-19
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1530	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck

Subcontractor Onsite:

Z&S Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.
L&L Trucking – Wyser sub-contractor hauling the export/import material with a solo truck.
True North – Wyser sub-contractor performing the surveying.
EHSI – GeoEngineers sub-contractor performing perimeter air monitoring.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-12-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-15-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Eamaan Tabatabai (ET). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite. Wyser conducted their morning meeting and began preparing equipment for the day. Two solo trucks were onsite.

~0730. Lisa Kollasch (LK) with EHSI arrived onsite to perform the second perimeter air monitoring event. TL and LK discussed health and safety and where the air monitoring station should be setup. Based on the proximity of the sod stockpile to the limits of construction it was decided that the perimeter air monitoring station should be setup just downwind of where the sod was being loaded into the solo trucks for export off-site. Wyser began loading demolished asphalt into the dump truck and stockpiling the asphalt in the northwest corner of kite hill for export off-site.

~0800. True North arrived onsite and continued the previous day's work staking the site with proposed grades.

~0830. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser continued the previous day's work stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control.

~0930. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going survey work, stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control.

~1030. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going survey work, stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control.

~1130. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going survey work, stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control. ET left the site since tilling work was not taking place and the focus was on stockpiling the stripped sod and demolished asphalt.

~1245. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going survey work, stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control.

~1330. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going survey work, stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control.

~1400. LK left the site.

~1430. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going survey work, stockpiling stripped sod in the northwest corner of kite hill, importing/exporting Type 17/sod, and applying water to the site for dust control.

~1500. The John Deere 544K was delivered to the site. Wyser began putting equipment away and wrapping up for the day.

~1530. Equipment was secured. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of six monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run. The results were recorded by the DustTrak and noted below:

- DustTrak file Manual_070 (0844) – Min (0.039 mg/m^3), Max (0.616 mg/m^3), Average (0.237 mg/m^3).
- DustTrak file Manual_071 (0928) – Min (0.015 mg/m^3), Max (1.830 mg/m^3), Average (0.329 mg/m^3).
- DustTrak file Manual_072 (1033) – Min (0.023 mg/m^3), Max (0.897 mg/m^3), Average (0.237 mg/m^3).
- DustTrak file Manual_073 (1249) – Min (0.015 mg/m^3), Max (0.433 mg/m^3), Average (0.095 mg/m^3).
- DustTrak file Manual_074 (1331) – Min (0.037 mg/m^3), Max (0.303 mg/m^3), Average (0.123 mg/m^3).
- DustTrak file Manual_075 (1317) – Min (0.020 mg/m^3), Max (0.160 mg/m^3), Average (0.068 mg/m^3).

- Field Screening:. No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, high 50s, negligible wind.

Afternoon: sunny, clear, 70s, slight wind from west to the east.

Truck Log:
Export:

- Sod: 10 loads of Sod were exported off-site. 136.95 tons of Sod was exported off-site. A total of 553.05 tons of Sod has been exported off-site as of today.

- Asphalt: 2 loads of asphalt were exported off-site. 27.71 tons of asphalt were exported off-site. A total of 27.71 tons of asphalt has been exported off-site as of today.

Import:

- Type 17: 10 loads of Type 17 were imported to the site. 157.05 tons of Type 17 was imported to the site. A total of 567.69 tons of Type 17 has been brought onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
David Graves (DG) with Parks briefly stopped by. DG did not have the proper PPE and did not leave the trailer to review the work onsite.

Field Report Summary:
Today's activities included True North staking the proposed grades. Demolished asphalt was stockpiled and began export off-site. EHSI performed the second perimeter air monitoring event. The John Deere 544K front loader was delivered to the site. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Obtain two truck tickets for asphalt export.

Approximate EHSI placed the perimeter air monitoring station.

Approximate location of sod stockpile loaded into the trucks for transport off-site.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO PROVIDE TEMPORARY

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMP's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

N 89°46'15" W 537.658'

422.7'+/-

N 48°29'10" W 156.41'

S 48°29'11" W 268.18'

N 48°29'18" W 303.07'+/-

N 48°31'00" W Harbor Line

N 48°21'16" W 1123.97'+/-

351.79'

S 41°38'48" W 248.19'

S 37°25'48" W 69.47'+/-

Harbor Patrol

Limit

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

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Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2016 - 2:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/15/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-20
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1545	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Baker Corp – Wyser sub-contractor installing the plumbing between the Baker Tanks.
Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-15-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-26-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Eamaan Tabatabai (ET). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite. Pacific Topsoil had trucks waiting at the gate to begin delivering and stockpiling topsoil in the northeast corner of kite hill.

~0730. TL walked the perimeter and noted the TESC BMPs appeared to be intact. Wyser began stockpiling demolished asphalt in the northwest corner of kite hill.

~0800. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser used hand tools to remove the remaining sod around the sun dial. The 650HLT bulldozer was delivered to the site. Wyser applied water to the work area for dust control.

~0900. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going import and stockpiling of topsoil in the northeast corner of kite hill. On-going stockpiling of asphalt in the northwest corner of kite hill.

~1000. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going import and stockpiling of topsoil in the northeast corner of kite hill. On-going stockpiling of asphalt in the northwest corner of kite hill. Wyser began tilling the south side of kite hill. Wyser began installing geo-grid in the northeast area of kite hill and installing Type 17 over the geo-grid.

~1100. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. TL noted there appeared to be more dust coming from the trucks importing the topsoil then from the on-going tilling work.

~1130. The roller/compactor was delivered to the site. Baker Corp arrived onsite to complete the plumbing between the Baker Tanks.

~1200. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser began using the roller to compact the Type 17. ET probed the area and noted that the desired compaction was not being reached. A method for compacting the Type 17 that all parties agree on will need to be developed as the Type 17 was still not compacted to spec after wetting and rolling it again. Wyser noted that the method for compaction could be discussed at the weekly construction meeting and that topsoil would be stockpiled on the Type 17 that was compacted in order to have space for stockpiling additional topsoil. Wyser continued installing the geo-grid and Type 17 on the east side of kite hill without compacting the Type 17.

~1230. John Rork (JR) visited the site.

~1330. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1430. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1515. Wyser began putting equipment away and wrapping up for the day.

~1545. Equipment was secured. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of seven monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_076 (0753) – Min (0.079 mg/m^3), Max (0.950 mg/m^3), Average (0.295 mg/m^3).
    - DustTrak file Manual_077 (0904) – Min (0.037 mg/m^3), Max (1.320 mg/m^3), Average (0.322 mg/m^3).

- DustTrak file Manual_078 (1008) – Min (0.042 mg/m^3), Max (7.810 mg/m^3), Average (0.905 mg/m^3).
- DustTrak file Manual_079 (1108) – Min (0.050 mg/m^3), Max (2.870 mg/m^3), Average (0.687 mg/m^3).
- DustTrak file Manual_080 (1215) – Min (0.087 mg/m^3), Max (0.485 mg/m^3), Average (0.250 mg/m^3).
- DustTrak file Manual_081 (1327) – Min (0.050 mg/m^3), Max (1.030 mg/m^3), Average (0.176 mg/m^3).
- DustTrak file Manual_082 (1419) – Min (0.033 mg/m^3), Max (0.403 mg/m^3), Average (0.149 mg/m^3).

- Field Screening: No staining or odor was encountered and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: sunny, clear, mid 50s, negligible wind.

Afternoon: sunny, clear, mid 80s, slight wind from west to the east.

Truck Log:
Export:

- Asphalt: 4 loads of asphalt were exported off-site. Ticket from Renton Concrete had two loads noted at 10 yards per load instead of tonnage. Assume 12 yards per load. Approximately 49 tons of asphalt was exported off-site. A total of approximately 77 tons of asphalt has been exported off-site as of today.

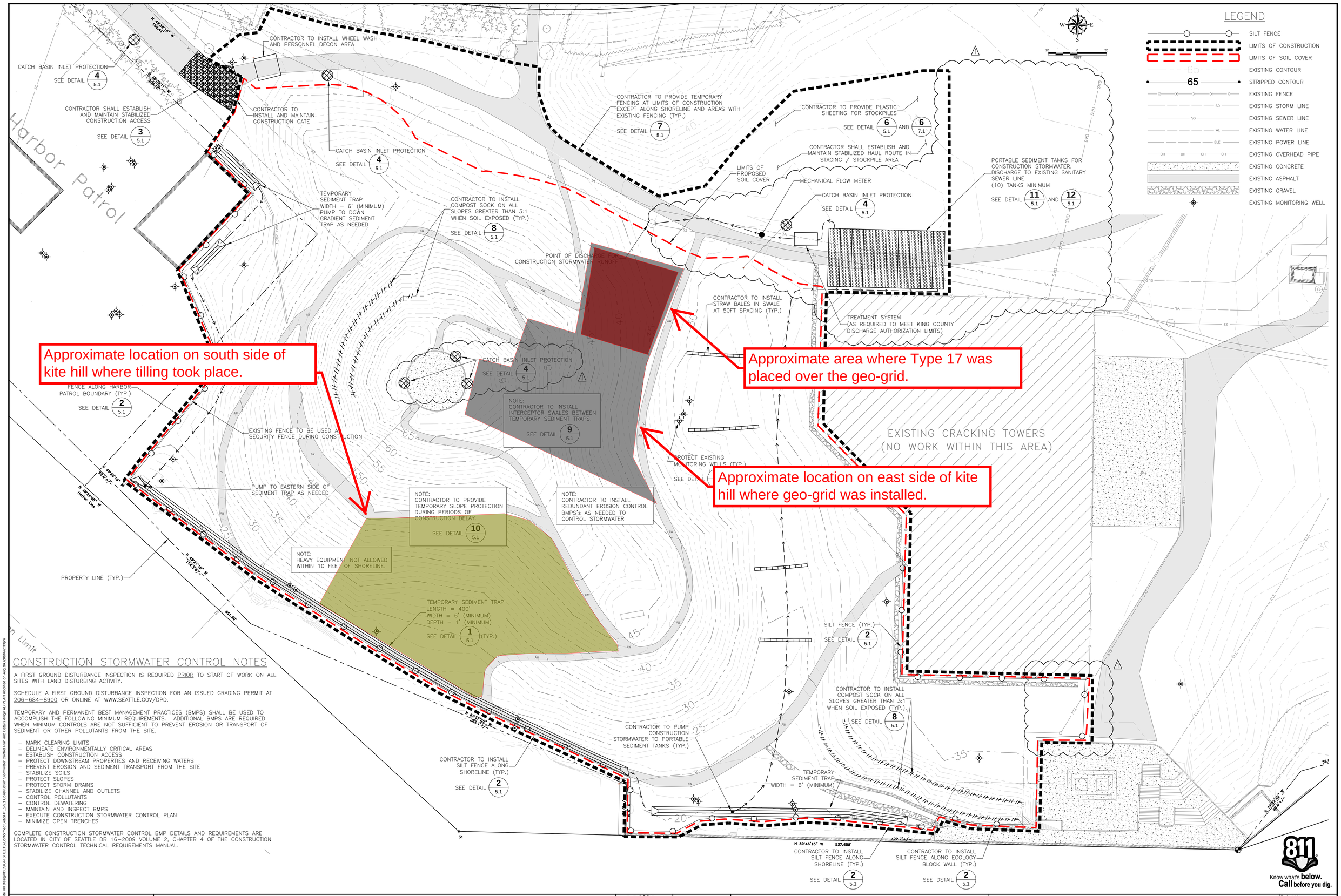
Import:

- Topsoil: 23 loads of topsoil were imported to the site. 460 yards of topsoil was imported to the site. A total of 460 yards of topsoil has been brought onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
John Rork with PSE walked the perimeter of the work area and discussed the work accomplished thus far with TL and Dan Reynolds.

Field Report Summary:
Today's activities included stockpiling demolished asphalt in the northwest corner of kite hill. Began importing and stockpiling topsoil in the northeast corner of kite hill. Began installing the geo-grid on the east side of kite hill and placing Type 17 on the geo-grid. Continued the previous (business) day's work tilling the south side of kite hill. Baker Corp was onsite to complete the plumbing between the Baker Tanks. John Rork visited the site. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.



CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS HALE — STATE OF WASHINGTON — 37963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

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GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\01\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB:PLAN modified on Aug 18 2020 @ 2:33pm

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, WA 98101
(206) 728-2674

Field Report

File Number: 00186-846-01 Task 1401

Project: Kite Hill Soil Cover Project			Date: 9/16/14
Owner: City of Seattle		Time of Arrival: 0700	Report Number: ENV-21
Prepared by: Theo Leonard (TL)	Location: Gas Works Park, Seattle, WA	Time of Departure: 1545	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Theo Leonard, PE	**DATE** 9-16-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-26-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steve Godes (SG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. TL arrived onsite and walked the perimeter of construction. TL noted TESC BMPs were in place and intact except for a portion of the interceptor swale along Harbor Patrol. SG arrived onsite. After discussing health and safety TL and SG discussed the project objectives.

~0730. Wyser began tilling the west side of kite hill near the harbor patrol boundary and grading the upper portion of kite hill on the west side in preparation for installing the geo-grid. Wyser continued the previous day's work placing Type 17 soil over the geo-grid on the east side of kite hill. Water was applied to the work areas for dust control.

~0830. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~0930. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling of the west side of kite hill near the harbor patrol boundary and grading the upper portion of kite hill on the east side in preparation for installing the geo-grid. On-going placement of the Type 17 soil over the geo-grid on the east side of kite hill. On-going application of water to the work areas for dust control. Pacific Topsoils imported topsoil.

~1000. The weekly construction meeting began.

~1100. The weekly construction meeting ended. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser discontinued tilling the west side of kite hill and began tilling the south side of kite hill. Wyser discontinued grading the upper portion of kite hill on the west side and began grading the southeast area of kite hill near the benches in preparation for placement of the geo-grid. Dan Baker (DB) noted that dust from the existing soil that was being graded had the potential to get mixed in with the import topsoil since the topsoil was downwind of the area that was being graded. TL to follow-up and discuss with DR. On-going placement of the Type 17 soil over the geo-grid on the east side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1300. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling of the south side of kite hill. On-going grading of the southeast area of kite hill near the benches in preparation for placement of the geo-grid. On-going placement of the Type 17 soil over the geo-grid on the east side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1400. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Discontinued tilling of the south side of kite hill. Discontinued grading of the southeast area of kite hill near the benches in preparation for placement of the geo-grid. On-going placement of the Type 17 soil over the geo-grid on the east side of kite hill. Wyser began placing topsoil on the lower portion of kite hill on the east side. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1500. TL calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the Type 17 soil over the geo-grid on the east side of kite hill. Discontinued placing topsoil on the lower portion of kite hill on the east side. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1530. Wyser began putting equipment away and wrapping up for the day.

~1545. Equipment was secured. TL left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of five monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area along the limits of construction. The results were recorded by the DustTrak and noted below:
    - DustTrak file Manual_083 (0821) – Min (0.017 mg/m^3), Max (0.600 mg/m^3), Average (0.145 mg/m^3).

- DustTrak file Manual_084 (0931) – Min (0.025 mg/m^3), Max (0.227 mg/m^3), Average (0.098 mg/m^3).
- DustTrak file Manual_085 (1117) – Min (0.025 mg/m^3), Max (2.220 mg/m^3), Average (0.535 mg/m^3).
- DustTrak file Manual_086 (1306) – Min (0.018 mg/m^3), Max (0.407 mg/m^3), Average (0.133 mg/m^3).
- DustTrak file Manual_087 (1508) – Min (0.019 mg/m^3), Max (0.588 mg/m^3), Average (0.152 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, clear, low 60s.

Afternoon: sunny, clear, high 70s.

Wind:
- Time (0823), Direction (south), Speed (~9 mph)
- Time (0934), Direction (south), Speed (~6 mph)
- Time (1120), Direction (southeast), Speed (~1 mph)
- Time (1403), Direction (southwest), Speed (~8 mph)

Truck Log:
Export:
- Asphalt: 3 loads of asphalt were exported off-site. A total of 9 loads of asphalt has been exported off-site as of today.

Import:
- Type 17: 3 loads of Type 17 equaling 44.63 tons were imported to the site. A total of 612.32 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 23 loads of topsoil equaling 460 yards were imported to the site. A total of 920 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
Weekly construction meeting attendees.

Field Report Summary:
Today's activities included conducting the weekly construction meeting. Type 17 soil was placed over geo-grid on the east side of kite hill. Began grading the upper west side and southeast area of kite hill near the benches in preparation for placing the geo-grid. Tilled the west and south side of kite hill. Began placing topsoil on the lower portion of kite hill on the east side. Continued import of topsoil. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Obtain import/export truck tickets for asphalt export from 9/16/14.

- TL to discuss dust control with DR in regards to the potential for dust from existing soils to get mixed with the topsoil.

Approximate area where Type 17 was placed over the geo-grid.

Approximate location on northwest side of kite hill where tilling took place.

Approximate area where Topsoil was placed over the Type 17.

Approximate location on south side of kite hill where tilling took place.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.)

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) JUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 20' WIDTH = 6' DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Limit

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Site Plan_21 (9-16-14)

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

Know what's below. Call before you dig.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BAKER, STATE OF WASHINGTON, 39963, REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0\01866\46\CADData 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB:PLAN modified on Aug 30,2013@09:02:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/17/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-22
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.
EHSI – GeoEngineers sub-contractor performing the perimeter air monitoring.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Steven L. Godes	**DATE** 9-17-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-26-2014

Attachments: Site Plan, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Theo Leonard (TL). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG and TL arrived onsite and walked the perimeter of construction. TL noted TESC BMPs were in place and intact except for a portion of the interceptor swale along Harbor Patrol.

~0730. Wyser began tilling the north side of kite hill and grading the upper portion of kite hill on the north side in preparation for installing the geo-grid. Wyser continued the previous day's work placing Type 17 soil over the geo-grid on the east side of kite hill. Water was applied to the work areas for dust control.

~0800. Lisa with EHSI arrived onsite for the third round of perimeter air monitoring. The perimeter air monitoring station was setup just north of the main east-west pathway near the entrance to the park that is currently blocked by construction fencing.

~0900. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust.

~1030. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going tilling of the north side of kite hill in preparation for installing the geo-grid. On-going placement of the Type 17 soil over the geo-grid on the east and north sides of kite hill. On-going application of water to the work areas for dust control. Pacific Topsoils imported topsoil.

~1130. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Wyser discontinued tilling the north side of kite hill and attempted tilling the south side of kite hill. Soil conditions were too wet and tractor could not till the steep slope. Will wait for drier conditions and try again later. On-going placement of the Type 17 soil over the geo-grid on the east and north side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1300. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going grading of the north area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil over the geo-grid on the east and north sides of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1430. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the north area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil over the geo-grid on the east and north sides of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1500. On-going placement of the Type 17 soil over the geo-grid on the east and north sides of kite hill. On-going application of water to the work areas for dust control.

~1615. Wyser began putting equipment away and wrapping up for the day.

~1630. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of five monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area along the limits of construction. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_089 (0856) – Min (0.043 mg/m^3), Max (2.560 mg/m^3), Average (0.343 mg/m^3).
    - DustTrak file Manual_090 (1035) – Min (0.034 mg/m^3), Max (0.258 mg/m^3), Average (0.093 mg/m^3).
    - DustTrak file Manual_091 (1138) – Min (0.053 mg/m^3), Max (0.378 mg/m^3), Average (0.107 mg/m^3).
    - DustTrak file Manual_092 (1307) – Min (0.041 mg/m^3), Max (0.525 mg/m^3), Average (0.178 mg/m^3).

- DustTrak file Manual_093 (1432) – Min (0.046 mg/m^3), Max (1.160 mg/m^3), Average (0.239 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. There was no rain or other events that caused any discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, clear, low 60s.

Afternoon: mostly cloudy, low 70s.

Truck Log:
Export:
- Sod: 3 loads of Sod equaling 35.45 tons were exported off-site. A total of 588.50 tons of Type 17 has been exported off-site as of today.

Import:
- Type 17: 14 loads of Type 17 equaling 210.78 tons were imported to the site. A total of 823.10 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 13 loads of topsoil equaling 260 yards were imported to the site. A total of 1180 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None noted.

Field Report Summary:
Today's activities: Type 17 soil was placed over geo-grid on the east and north sides of kite hill. Continued grading the north side of kite hill in preparation for placing the geo-grid. Tilled the north and attempted to till the south side of kite hill. Continued import of topsoil and Type 17. EHSI performed the third round of perimeter air monitoring. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Action Items:

- Obtain import/export truck tickets for asphalt export from 9/17/14.

Approximate area where Type 17 was placed over the geo-grid.

Approximate location on north side of kite hill where tilling took place.

Approximate location on south side of kite hill where tilling was attempted.

Approximate area where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN-SLOPE SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BAUER — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0\0186846\02\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB:PLAN modified on Aug 30,2023@02:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/18/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-23
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1600	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.
True North – Wyser sub-contractor for conducting on-site survey.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Steven L. Godes	**DATE** 9-18-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-26-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact except for a portion of the interceptor swale along Harbor Patrol.

~0730. Wyser continued the previous day's work placing Type 17 soil over the geo-grid on the north side of kite hill. Water was applied to the work areas for dust control.

~1000. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the Type 17 soil over the geo-grid on the north side of kite hill. Begin placing topsoil on east and north sides of kite hill where Type 17 has now been compacted. On-going application of water to the work areas for dust control. Pacific Topsoils imported topsoil.

~1300. True North arrives on site and begins staking for path, south, west and north sides of kite hill. On-going placement of the Type 17 soil and topsoil over the geo-grid on the east and north side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1445. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the east and north sides of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1515. True North finished staking for the day and departs site. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the east and north sides of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1515. Wyser depletes stockpile of the Type 17 soil, focuses on placement of topsoil for the remainder of the day. On-going application of water to the work areas for dust control.

~1545. Wyser began putting equipment away and wrapping up for the day.

~1600. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of three monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area along the limits of construction. Testing was reduced due to the fact that it rained overnight, and the site soils remained very moist during the day in the overcast conditions. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_094 (0856) – Min (0.013 mg/m^3), Max (0.059 mg/m^3), Average (0.036 mg/m^3).
    - DustTrak file Manual_095 (1035) – Min (0.013 mg/m^3), Max (1.550 mg/m^3), Average (0.280 mg/m^3).
    - DustTrak file Manual_096 (1138) – Min (0.036 mg/m^3), Max (0.225 mg/m^3), Average (0.096 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site. The CSWGP was transferred to Wyser as of this date. Wyser will fill out and provide a copy of the inspection forms for this week and moving forward.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: mostly cloudy, high 60s.

Truck Log:
Export:
- None.

Import:
- Type 17: 8 loads of Type 17 equaling 119.60 tons were imported to the site. A total of 942.70 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 12 loads of topsoil equaling 240 yards were imported to the site. A total of 1,420 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None

Field Report Summary:
Today's activities: Type 17 soil and topsoil was placed over geo-grid on the east and north sides of kite hill. Continued grading the northwest side of kite hill in preparation for placing the geo-grid. Continued import of topsoil and Type 17. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Approximate area where Type 17 and topsoil was placed over the geo-grid.

Approximate location on south side of kite hill where tilling is not completed.

Approximate area where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Limit

N 89°46'15" W 537.658'

422.7'+/-

S 57°23'48" W 68.4'+/-

N 49°39'10" W 156.4'+/-

N 49°39'11" W 268.8'+/-

S 41°04'48" W 24.8'+/-

N 49°39'10" W 20.0'+/-

N 49°39'05" W Harbor Line

N 49°39'18" W 323.0'+/-

N 67°31'16" W 113.9'+/-

N 67°31'16" W 351.20'

N 67°31'16" W 383.14'+/-

CONSTRUCTION STORMWATER CONTROL NOTES

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- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
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LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

Know what's below. Call before you dig.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BAUER — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design Date
Drawn Date
Checked Date
Approved Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0\01866\46\02\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB:PLAN modified on Aug 30,2023@09:02:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/19/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-24
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1600	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Steven L. Godes	**DATE** 9-19-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 9-26-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact except for a portion of the interceptor swale along Harbor Patrol.

~0730. Wyser continued the previous day's work placing Type 17 soil over the geo-grid on the northwest side of kite hill. Water was applied to the work areas for dust control.

~0815. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the Type 17 soil over the geo-grid on the northwest side of kite hill. Continue placing topsoil on east and north sides of kite hill. On-going application of water to the work areas for dust control. Pacific Topsoils imported topsoil.

~1915. John Rork arrives on site to observe construction progress. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~0930. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1045. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1145. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1245. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1345. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1445. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1515. Florence Weinberg of Parks visits site briefly to observe construction progress. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1545. Wyser began putting equipment away and wrapping up for the day.

~1600. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of seven monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area along the limits of construction. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_097 (0811) – Min (0.020 mg/m^3), Max (0.081 mg/m^3), Average (0.037 mg/m^3).
    - DustTrak file Manual_098 (0926) – Min (0.014 mg/m^3), Max (0.455 mg/m^3), Average (0.109 mg/m^3).
    - DustTrak file Manual_099 (1043) – Min (0.015 mg/m^3), Max (0.617 mg/m^3), Average (0.188 mg/m^3).
    - DustTrak file Manual_100 (1145) – Min (0.015 mg/m^3), Max (0.494 mg/m^3), Average (0.131 mg/m^3).
    - DustTrak file Manual_101 (1244) – Min (0.050 mg/m^3), Max (0.470 mg/m^3), Average (0.151 mg/m^3).
    - DustTrak file Manual_102 (1343) – Min (0.029 mg/m^3), Max (0.721 mg/m^3), Average (0.196 mg/m^3).
    - DustTrak file Manual_103 (1452) – Min (0.011 mg/m^3), Max (0.048 mg/m^3), Average (0.022 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: The weekly inspection occurred. Wyser filled out and provided a copy of the inspection form and will continue to do so moving forward.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: mostly sunny, low 70s.

Truck Log:
Export:

- None.

Import:

- Type 17: 7 loads of Type 17 equaling 104.64 tons were imported to the site. A total of 1,047.34 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 11 loads of topsoil equaling 220 yards were imported to the site. A total of 1,640 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
John Rork of PSE. Florence Weinberg of Parks.

Field Report Summary:
Today's activities: Type 17 soil and topsoil was placed over geo-grid on the northwest side of kite hill. Continued grading the northwest side of kite hill in preparation for placing the geo-grid. Continued import of topsoil and Type 17. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Approximate area where Type 17 and topsoil was placed over the geo-grid.

Approximate location on south side of kite hill where tilling is not completed.

Approximate area where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.) SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Harbor Patrol Limit

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BAUER — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design Date
Drawn Date
Checked Date
Approved Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0\0186846\02\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB:PLAN modified on Aug 30,2023@02:33pm

GeoEngineers	FIELD REPORT		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/22/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-25
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.
True North – Wyser sub-contractor for on-site survey work.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Steven L. Godes	**DATE** 9-22-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-01-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact except for a portion of the interceptor swale along Harbor Patrol.

~0730. Wyser continued the previous day's work placing Type 17 soil over the geo-grid on the northwest side of kite hill. Water was applied to the work areas for dust control.

~0830. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the Type 17 soil over the geo-grid on the northwest side of kite hill. Continue placing topsoil on northwest side of kite hill. Continue grading in northwest quadrant of kite hill with excavator. On-going application of water to the work areas for dust control. Pacific Topsoils imported topsoil. True North on site for staking.

~0930. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1045. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1200. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1315. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control. Tilling old stockpile area northeast quadrant.

~1430. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control. Placement of geo-grid, Type 17, and topsoil in tilled area northeast quadrant.

~1445. True North departs site. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1515. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1600. Wyser began putting equipment away and wrapping up for the day.

~1630. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of six monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was

continuously run downwind of the work area along the limits of construction. The results were recorded by the DustTrak and noted below:

- DustTrak file Manual_104 (0833) – Min (0.016 mg/m^3), Max (0.077 mg/m^3), Average (0.032 mg/m^3).
- DustTrak file Manual_105 (0925) – Min (0.023 mg/m^3), Max (0.168 mg/m^3), Average (0.055 mg/m^3).
- DustTrak file Manual_106 (1047) – Min (0.083 mg/m^3), Max (2.050 mg/m^3), Average (0.569 mg/m^3).
- DustTrak file Manual_107 (1202) – Min (0.019 mg/m^3), Max (0.404 mg/m^3), Average (0.109 mg/m^3).
- DustTrak file Manual_108 (1316) – Min (0.009 mg/m^3), Max (0.448 mg/m^3), Average (0.152 mg/m^3).
- DustTrak file Manual_109 (1428) – Min (0.004 mg/m^3), Max (0.212 mg/m^3), Average (0.045 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: mostly sunny, low 70s.

Truck Log:
Export:
- None.

Import:
- Type 17: 17 loads of Type 17 equaling 264.14 tons were imported to the site. A total of 1,311.48 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 10 loads of topsoil equaling 200 yards were imported to the site. A total of 1,840 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None

Field Report Summary:
Today's activities: Type 17 soil and topsoil was placed over geo-grid on the northwest side of kite hill. Continued grading the northwest side of kite hill in preparation for placing the geo-grid. Continued import of topsoil and Type 17. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Approximate area where Type 17 and topsoil was placed over the geo-grid.

Approximate location on south side of kite hill where tilling is not completed.

Approximate area where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

SEE DETAIL 7 5.1

PLASTIC STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Limit

N 89°46'15" W 537.658'

422.7'+/-

N 48°21'18" W 303.0'+/-

N 48°21'18" W 1143'+/-

N 67°02'55" W 283.1'+/-

S 41°54'48" W 208'+/-

S 37°24'48" W 614'+/-

351.39'

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

Know what's below. Call before you dig.

REFERENCES		REVISIONS											
DRAWING NUMBER	REFERENCE DRAWING TITLE	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D	NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

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Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN, modified on Aug 30, 2016 - 2:33pm

GeoEngineers	FIELD REPORT		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/23/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-26
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

	FIELD REPRESENTATIVE	DATE
O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	Steven L. Godes	9-23-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-01-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact.

~0730. Wyser continued the previous day's work placing Type 17 soil over the geo-grid on the northwest side of kite hill. Water was applied to the work areas for dust control.

~0800. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the Type 17 soil over the geo-grid on the northwest side of kite hill. Continue placing topsoil on northwest side of kite hill. Continue grading in northwest quadrant of kite hill with excavator. On-going application of water to the work areas for dust control. Pacific Topsoils imported topsoil.

~1000. Weekly construction meeting begins.

~1100. Weekly construction meeting ends. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1245. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1330. Jim Sifford, Compliance Investigator, King County Wastewater Treatment Division arrives on site to inspect stormwater collection system and point of discharge to King County Sewer. Ongoing grading of the west area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control. Tilling old stockpile area northeast quadrant.

~1400. Jim Sifford departs site. No further dust monitoring performed today as it begins to rain. Ongoing grading of the west area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1445. Ongoing grading of the west area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1515. Ongoing grading of the northwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the northwest side of kite hill. On-going import of topsoil. On-going application of water to the work areas for dust control.

~1600. Wyser began putting equipment away and wrapping up for the day.

~1630. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of three monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area along the limits of construction. The results were recorded by the DustTrak and noted below:

  - DustTrak file Manual_110 0801) – Min (0.017 mg/m^3), Max (1.870 mg/m^3), Average (0.311 mg/m^3).
  - DustTrak file Manual_111 (1110) – Min (0.016 mg/m^3), Max (0.310 mg/m^3), Average (0.108 mg/m^3).
  - DustTrak file Manual_112 (1241) – Min (0.017 mg/m^3), Max (0.625 mg/m^3), Average (0.176 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: overcast with occasional light rain, low 70s.

Truck Log:
Export:
- None.

Import:
- Type 17: 18 loads of Type 17 equaling 275.14 tons were imported to the site. A total of 1,586.62 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 15 loads of topsoil equaling 300 yards were imported to the site. A total of 2,140 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
Weekly construction meeting attendees. Jim Sifford, Compliance Investigator, King County Wastewater Treatment Division.

Field Report Summary:
Today's activities: Jim Sifford with King County inspected the dewatering system as part of the wastewater discharge authorization permit requirements. Type 17 soil and topsoil was placed over geo-grid on the northwest and west sides of kite hill. Continued grading the northwest and west sides of kite hill in preparation for placing the geo-grid. Continued import of topsoil and Type 17. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Approximate area where Type 17 and topsoil was placed over the geo-grid.

Approximate location on south side of kite hill where tilling is not completed.

Approximate areas where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAPS AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Harbor Limit

N 89°46'15" W 537.658'

N 48°29'10" W 156.18'

N 48°29'10" W 156.18'

N 48°29'10" W 93.04'+/-

N 48°29'10" W Harbor Line

N 48°21'16" W 1143.97'+/-

N 67°02'55" W 283.14'+/-

351.39'

422.7'+/-

S 37°25'49" W 69.44'+/-

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

Know what's below. Call before you dig.

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BALLEW, STATE OF WASHINGTON, 39963, REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 3X,'09@2:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/24/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-27
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1100	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Steven L. Godes	**DATE** 9-24-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-01-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact. Observed some minor ponding of runoff in the interceptor swale on the west side of kite hill. The contractor was trenching with shovels and later placed a 2-inch electric pump in this area to remove the water. Sump at low point is still dry, not pumping to Baker Tanks.

~0730. Wyser was stockpiling imported soil cap materials. No earthwork was performed due to wet weather.

~1100. No earthwork being performed today. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: No dust monitoring was performed today due to heavy rains.
- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, heavy rain low 60s.

Afternoon: overcast with occasional light rain, mid 60s.

Truck Log:
Export:

- None.

Import:

- Type 17: 20 loads of Type 17 equaling 310.34 tons were imported to the site. A total of 1,896.96 tons of Type 17 has been imported onto the site as of today.
- Topsoil: 14 loads of topsoil equaling 280 yards were imported to the site. A total of 2,420 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None.

Field Report Summary:
Today's activities: Type 17 soil and topsoil were stockpiled on site on the prepared subgrade in the northwest quadrant of the site. No earthwork was performed due to wet weather.

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/25/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-28
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 0930	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

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Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
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Water Truck
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Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

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X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-02-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact. Sump at low point is still dry, not pumping to Baker Tanks.

~0730. Wyser was stockpiling imported soil cap materials. Some minor earthwork was performed in the southwest quadrant of kite hill. The excavator could not track compact the graded area due to wet weather and the soils being slickened.

~0930. No additional earthwork other than that noted above due to heavy rain. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: No dust monitoring was performed today due to heavy rains.
- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, heavy rain low 60s.

Afternoon: overcast with occasional light rain, mid 60s.

Truck Log:
Export:

- None.

Import:

- Type 17: 26 loads of Type 17 equaling 389.32 tons were imported to the site. A total of 2,286.28 tons of Type 17 has been imported onto the site as of today.
- Topsoil: 17 loads of topsoil equaling 340 yards were imported to the site. A total of 2,760 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None.

Field Report Summary:
Today's activities: Type 17 soil and topsoil were stockpiled on site on the prepared subgrade in the northwest quadrant of the site. A small area was graded in the southwest quadrant of kite hill.

GeoEngineers	FIELD REPORT		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/26/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-29
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 0930	Page: 1 of 2
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
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General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

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Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

	FIELD REPRESENTATIVE	DATE
O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	Steven L. Godes	9-26-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-02-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact. Sump at low point is still dry, not pumping to Baker Tanks.

~0730. Wyser was stockpiling imported soil cap materials. No earthwork was performed due to wet weather.

~1300. No earthwork being performed today. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: No dust monitoring was performed today due to heavy rains.
- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: The weekly CESCL inspection was performed today by Wyser.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, heavy rain low 60s.

Afternoon: overcast with occasional light rain, mid 60s.

Truck Log:
Export:

- None.

Import:

- Type 17: 20 loads of Type 17 equaling 302.93 tons were imported to the site. A total of 2,589.21 tons of Type 17 has been imported onto the site as of today.
- Topsoil: 19 loads of topsoil equaling 380 yards were imported to the site. A total of 3,140 yards of topsoil has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None.

Field Report Summary:
Today's activities: Type 17 soil and topsoil were stockpiled on site on the prepared subgrade in the northwest quadrant of the site. No earthwork was performed due to wet weather. The weekly CESCL inspection was performed today by Wyser.

GeoEngineers	FIELD REPORT		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/29/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-30
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
Luis Buen Abad (LA)_Department of Ecology (Ecology) – NPDES Permit #WAR302235
Jim Sifford (JS)_King County Industrial Waste Program (KCIW) – Discharge Authorization #941-01

General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
Decontamination Trailer
Solo Truck (~15 yard capacity)
MST-2000 dump truck
iC45 dump truck
650HLt bulldozer
Ingersoll Rand 70roller/compactor

Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

	FIELD REPRESENTATIVE	DATE
O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	Steven L. Godes	9-29-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-06-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact.

~0730. Wyser continued the previous day's work grading, placing geo-grid, placing Type 17 soil and topsoil over the southwest side of kite hill. Irrigation work continues on the north side of the hill.

~1100. On-going placement of the Type 17 soil and topsoil over the geo-grid on the southwest side of kite hill. On-going import of Type 17 and crushed rock base.

~1330. Ongoing grading of the southwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the southwest side of kite hill. Type 17 and crushed rock base.

~1445. Ongoing grading of the southwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the southwest side of kite hill.

~1600. Wyser began putting equipment away and wrapping up for the day.

~1630. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: No dust monitoring was performed today due to rain.
- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: overcast with occasional light rain, low 60s.

Truck Log:
Export:

- None.

Import:

- Type 17: 12 loads of Type 17 equaling 185.16 tons were imported to the site. A total of 2,774.37 tons of Type 17 has been imported onto the site as of today.
- Topsoil: None.
- Crushed Rock (base course): 2 loads of crushed rock equaling 30.12 tons were imported to the site. A total of 30.12 tons of crushed rock has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
None.

Field Report Summary:
Today's activities: Type 17 soil and topsoil was placed over geo-grid on the southwest side of kite hill. Continued grading the southwest side of kite hill in preparation for placing the geo-grid. Continued import of Type 17. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

Approximate area where Type 17 and topsoil was placed over the geo-grid.

Approximate areas where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMEN TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.) SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

NOTE: CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS. SEE DETAIL 9 5.1

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE: CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY. SEE DETAIL 10 5.1

NOTE: CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE: HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SEDIMENT TRAP LENGTH = 400' WIDTH = 6' (MINIMUM) DEPTH = 1' (MINIMUM) SEE DETAIL 1 5.1 (TYP.)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

PROTECT EXISTING MONITORING WELLS (TYP.) SEE DETAIL 5 5.1

SILT FENCE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.) SEE DETAIL 8 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.) SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.) SEE DETAIL 2 5.1

Harbor Patrol

Harbor Limit

N 89°46'15" W 537.658'

422.7'+/-

N 48°21'18" W 923.0'+/-

N 48°21'18" W 1143'+/-

N 67°02'55" W 283.1'+/-

S 41°57'48" W 228'+/-

S 37°25'48" W 69.4'+/-

351.39'

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- 65 EXISTING CONTOUR
- 65 STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

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

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BALLE — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

P:\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 30, 2016 - 2:33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 9/30/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-31
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1600	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

GeoEngineers visited Gas Works Park located at 1801 N Northlake Way in Seattle, Washington. The purpose of the visit was to observe and document construction activities for the Kite Hill Soil Cover Project.

Lead Agencies/Authorities:

Libby Goldstein (LG)_WA Department of Ecology (Ecology) – Site Manager
David Graves (DG)_City of Seattle Department of Parks and Recreation (Parks) – RUP #2014-51
Titus Tramble (TT)_City of Seattle Department of Planning and Development (DPD) – Grading Permit #6407051
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General Contractor Onsite:

Dan Reynolds (DR) – Wyser Construction

General Contractor Equipment:

John Deere: 135D track excavator, 35D track excavator, 410 tractor with tiller, 544K front loader
Kubota KX 161-3 track excavator
Bobcat 763 forklift
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Subcontractor Onsite:

Pacific Topsoils – Wyser sub-contractor hauling the import topsoil material with solo trucks.

O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Steven L. Godes	**DATE** 9-30-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-06-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact.

~0730. Wyser continued the previous day's work grading, placing geo-grid, placing Type 17 soil and topsoil over the southwest side of kite hill. Irrigation work continues on the north side of the hill.

~1000. Weekly construction meeting begins.

~1100. Weekly construction meeting ends. On-going placement of the Type 17 soil and topsoil over the geo-grid on the southwest side of kite hill. On-going import of Type 17 and crushed rock base.

~1330. Ongoing grading of the southwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the southwest side of kite hill. Type 17 and crushed rock base.

~1445. Ongoing grading of the southwest area of kite hill in preparation for placement of the geo-grid. On-going placement of the Type 17 soil and topsoil over the geo-grid on the southwest side of kite hill.

~1545. Wyser began putting equipment away and wrapping up for the day.

~1600. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: No dust monitoring was performed today due to moist conditions from yesterday's rain.
- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.
- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.
- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: partly sunny, mid 60s.

Truck Log:
Export:

- None.

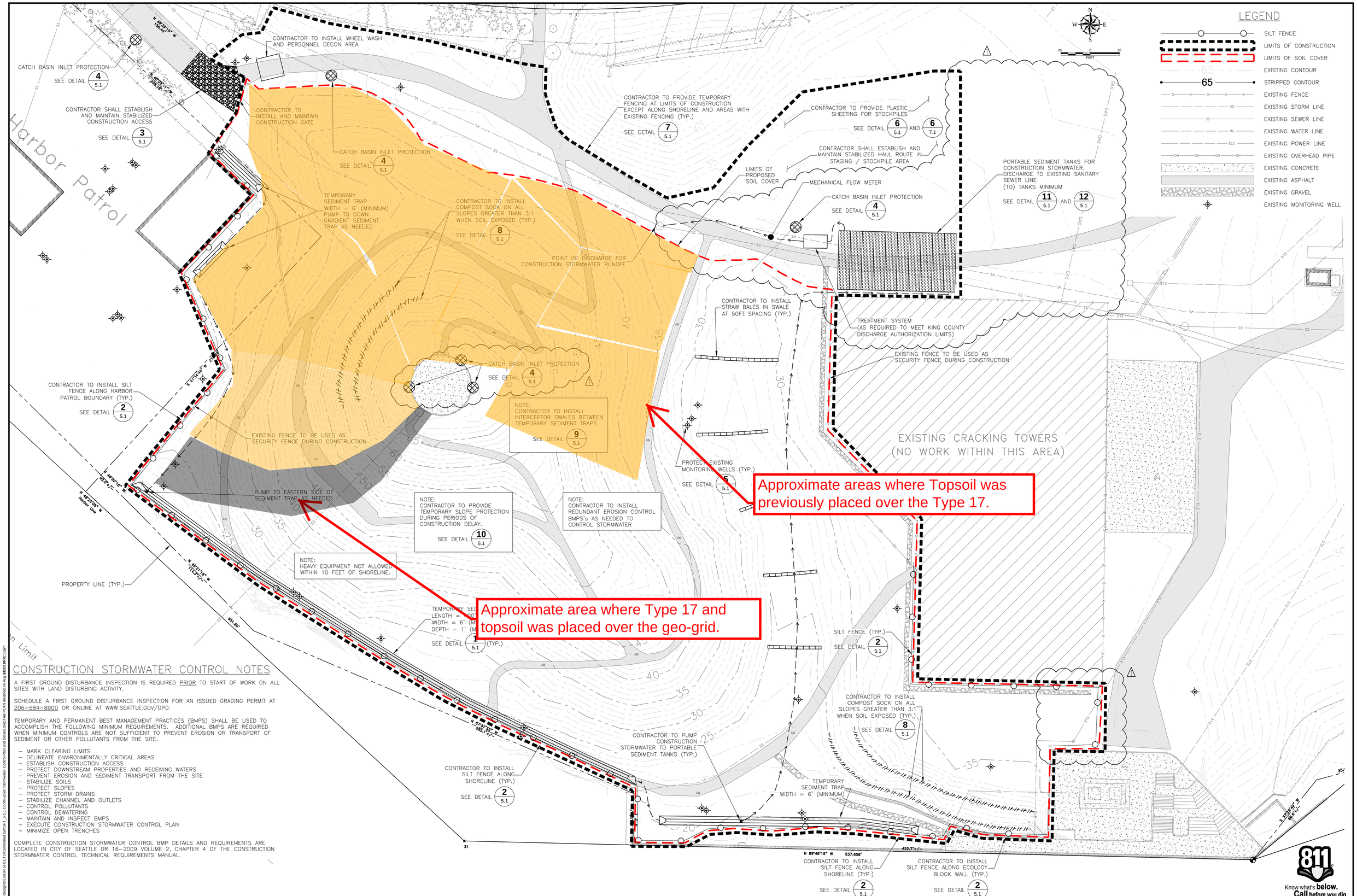
Import:

- Type 17: 4 loads of Type 17 equaling 63.19 tons were imported to the site. A total of 2,837.56 tons of Type 17 has been imported onto the site as of today.
- Topsoil: 18 loads of Topsoil equaling 360 yards were imported to the site. A total of 3,500 yards of Topsoil has been imported onto the site as of today.
- Crushed Rock (base course): 2 loads of crushed rock equaling 31.75 tons were imported to the site. A total of 61.87 tons of crushed rock has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
Weekly meeting attendees.

Field Report Summary:
Today's activities: Type 17 soil and topsoil was placed over geo-grid on the southwest side of kite hill. Continued grading the southwest side of kite hill in preparation for placing the geo-grid. Continued import of Type 17, topsoil and crushed rock base. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.



CONSTRUCTION STORMWATER CONTROL NOTES

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REFERENCES		REVISIONS											
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		1	CONFORMED SET	TJM		TML	CLB						

CHRISTOPHER LEWIS HALEY — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13

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P:\0\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg(T-AB-PLAN modified on Aug 30, 2023 by JUVOSKO 33pm

GeoEngineers	**FIELD REPORT**		File Number: 00186-846-01 Task 1401
Plaza 600 Building 600 Stewart Street, Suite 1700 Seattle, WA 98101 (206) 728-2674	Project: Kite Hill Soil Cover Project		Date: 10/1/14
	Owner: City of Seattle	Time of Arrival: 0700	Report Number: ENV-32
Prepared by: Steven L. Godes	Location: Gas Works Park, Seattle, WA	Time of Departure: 1630	Page: 1 of 3
Purpose of visit: Construction Observations	Weather: See 'Weather Conditions' section	Travel Time: 0.5 hrs	Permit Number: DPD #6407051

Upon arrival to the site I assessed personal safety hazards: ☐ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable

Safety Hazards Were Addressed by : ☒ Staying Alert to Construction and Equipment Hazards ☐ Other (describe)

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Kubota KX 161-3 track excavator
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Case 450CT skid steer with front loader and Bobcat tiller
Water Truck
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	FIELD REPRESENTATIVE	DATE
O **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	Steven L. Godes	10-1-2014
X **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Shashi Shankar	**DATE** 10-06-2014

Attachments: Site Plan, Daily Photo Log, Photographs

Distribution:

Health and Safety:
Prior to beginning work a safety meeting was held with Steven Godes (SLG). Items discussed included weather, PPE, working around equipment, being alert to the public around the limits of construction, slips, trips, and falls.

Wyser conducted daily health and safety meeting in the office trailer.

Field Activities: Following is a timeline of activities noted during the site visit.

~0700. SLG arrived onsite and walked the perimeter of construction. SLG noted TESC BMPs were in place and intact.

~0730. Wyser continued the previous day's work grading, placing topsoil over the southwest side of kite hill. Irrigation work continues on the north side of the hill.

~1130. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. On-going placement of the topsoil on the southwest side of kite hill. On-going import of Type 17, topsoil, and crushed rock base.

~1300. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing fine grading of the topsoil on the north and west areas of kite hill in preparation for hydroseeding. On-going placement of the topsoil on the southwest side of kite hill. Ongoing import of Type 17, topsoil, and crushed rock base.

~1430. SLG calibrated the dust monitor and walked the perimeter of construction to monitor for dust. Ongoing grading of the southwest area of kite hill in preparation for placement of the geo-grid. Ongoing fine grading of the topsoil on the north and west areas of kite hill in preparation for hydroseeding. On-going placement of the topsoil on the southwest side of kite hill. Ongoing import of Type 17, topsoil, and crushed rock base.

~1615. Wyser began putting equipment away and wrapping up for the day.

~1630. Equipment was secured. SLG left site.

Environmental Activities (Dust Monitoring, Field Screening, Etc…):

- Dust Monitoring: A portable DustTrak DRX Aerosol Model 8534 was used to monitor the perimeter of construction. The dust monitor was calibrated before each use using the 'Zero Cal' as specified in the operation and service manual. The 'User Cal' was set to 'Ambient Cal' per recommendations in the operation and service manual. A total of three monitoring events occurred today with an approximate ten to fifteen minute period where the monitor was continuously run downwind of the work area along the limits of construction. The results were recorded by the DustTrak and noted below:

    - DustTrak file Manual_113 (1125) – Min (0.018 mg/m^3), Max (0.107 mg/m^3), Average (0.057 mg/m^3).
    - DustTrak file Manual_114 (1300) – Min (0.015 mg/m^3), Max (2.460 mg/m^3), Average (0.520 mg/m^3).
    - DustTrak file Manual_115 (1433) – Min (0.008 mg/m^3), Max (0.145 mg/m^3), Average (0.042 mg/m^3).

- Field Screening: No staining or odor was encountered within the limits of construction and no PID readings were taken.

- Ecology CSWGP Compliance Monitoring: No weekly CESCL inspection today. Last night's rain event was very light and did not cause a discharge from the site.

- King County Waste Discharge Compliance Monitoring: There was no discharge to the sewer system.

Weather Conditions:
Morning: overcast, low 60s.

Afternoon: partly sunny, mid 60s.

Truck Log:

Export:

- None.

Import:

- Type 17: 7 loads of Type 17 equaling 109.31 tons were imported to the site. A total of 2,946.87 tons of Type 17 has been imported onto the site as of today.

- Topsoil: 22 loads of Topsoil equaling 440 yards were imported to the site. A total of 3,940 yards of Topsoil has been imported onto the site as of today.

- Crushed Rock (base course): 2 loads of crushed rock equaling 30.39 tons were imported to the site. A total of 92.26 tons of crushed rock has been imported onto the site as of today.

Daily trucking logs of export and import material are maintained for record keeping.

Visitors to the Site:
Weekly meeting attendees.

Field Report Summary:
Today's activities: Topsoil was placed over compacted Type 17 on the southwest side of kite hill. Fine grading the north side of kite hill in preparation for hydroseeding. Continued import of Type 17, topsoil and crushed rock base. The attached Site Plan shows the approximate location of today's work. Photos from today were tracked on the daily photo log.

CATCH BASIN INLET PROTECTION
SEE DETAIL 4 5.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED CONSTRUCTION ACCESS
SEE DETAIL 3 5.1

CONTRACTOR TO INSTALL WHEEL WASH AND PERSONNEL DECON AREA

CONTRACTOR TO INSTALL AND MAINTAIN CONSTRUCTION GATE

CATCH BASIN INLET PROTECTION
SEE DETAIL 4 5.1

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM) PUMP TO DOWN GRADIENT SEDIMENT TRAP AS NEEDED

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.)
SEE DETAIL 8 5.1

POINT OF DISCHARGE FOR CONSTRUCTION STORMWATER RUNOFF

CONTRACTOR TO PROVIDE TEMPORARY FENCING AT LIMITS OF CONSTRUCTION EXCEPT ALONG SHORELINE AND AREAS WITH EXISTING FENCING (TYP.)
SEE DETAIL 7 5.1

CONTRACTOR TO PROVIDE PLASTIC SHEETING FOR STOCKPILES
SEE DETAIL 6 5.1 AND 6 7.1

CONTRACTOR SHALL ESTABLISH AND MAINTAIN STABILIZED HAUL ROUTE IN STAGING / STOCKPILE AREA

LIMITS OF PROPOSED SOIL COVER

MECHANICAL FLOW METER

CATCH BASIN INLET PROTECTION
SEE DETAIL 4 5.1

PORTABLE SEDIMENT TANKS FOR CONSTRUCTION STORMWATER. DISCHARGE TO EXISTING SANITARY SEWER LINE (10) TANKS MINIMUM
SEE DETAIL 11 5.1 AND 12 5.1

CONTRACTOR TO INSTALL STRAW BALES IN SWALE AT 50FT SPACING (TYP.)

TREATMENT SYSTEM (AS REQUIRED TO MEET KING COUNTY DISCHARGE AUTHORIZATION LIMITS)

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

EXISTING CRACKING TOWERS (NO WORK WITHIN THIS AREA)

CATCH BASIN INLET PROTECTION
SEE DETAIL 4 5.1

NOTE:
CONTRACTOR TO INSTALL INTERCEPTOR SWALES BETWEEN TEMPORARY SEDIMENT TRAPS.
SEE DETAIL 9 5.1

PROTECT EXISTING MONITORING WELLS (TYP.)
SEE DETAIL 5 5.1

Approximate areas where Topsoil was previously placed over the Type 17.

CONTRACTOR TO INSTALL SILT FENCE ALONG HARBOR PATROL BOUNDARY (TYP.)
SEE DETAIL 2 5.1

EXISTING FENCE TO BE USED AS SECURITY FENCE DURING CONSTRUCTION

PUMP TO EASTERN SIDE OF SEDIMENT TRAP AS NEEDED

NOTE:
CONTRACTOR TO PROVIDE TEMPORARY SLOPE PROTECTION DURING PERIODS OF CONSTRUCTION DELAY.
SEE DETAIL 10 5.1

NOTE:
CONTRACTOR TO INSTALL REDUNDANT EROSION CONTROL BMPS's AS NEEDED TO CONTROL STORMWATER

NOTE:
HEAVY EQUIPMENT NOT ALLOWED WITHIN 10 FEET OF SHORELINE.

PROPERTY LINE (TYP.)

TEMPORARY SED
LENGTH = 200'
WIDTH = 6' (M
DEPTH = 1' (M
SEE DETAIL 1 5.1 (TYP.)

Approximate area where Type 17 and topsoil was placed over the geo-grid.

SILT FENCE (TYP.)
SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL COMPOST SOCK ON ALL SLOPES GREATER THAN 3:1 WHEN SOIL EXPOSED (TYP.)
SEE DETAIL 8 5.1

CONTRACTOR TO PUMP CONSTRUCTION STORMWATER TO PORTABLE SEDIMENT TANKS (TYP.)

TEMPORARY SEDIMENT TRAP WIDTH = 6' (MINIMUM)

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.)
SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG SHORELINE (TYP.)
SEE DETAIL 2 5.1

CONTRACTOR TO INSTALL SILT FENCE ALONG ECOLOGY BLOCK WALL (TYP.)
SEE DETAIL 2 5.1

Harbor Patrol

Harbor Limit

N 89°46'15" W 537.658'

422.7'+/-

N 48°21'18" W 93.0'+/-

N 48°21'18" W 113.3'+/-

N 67°02'55" W 283.1'+/-

S 41°34'48" W 208.1'+/-

S 37°25'48" W 69.4'+/-

N 48°21'18" W 351.39'

N 48°39'10" W 156.4'+/-

S 48°39'11" W 208.1'+/-

N 48°39'00" W Harbor Line

CONSTRUCTION STORMWATER CONTROL NOTES

A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.

SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED GRADING PERMIT AT 206-684-8900 OR ONLINE AT WWW.SEATTLE.GOV/DPD.

TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) SHALL BE USED TO ACCOMPLISH THE FOLLOWING MINIMUM REQUIREMENTS. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPS
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES

COMPLETE CONSTRUCTION STORMWATER CONTROL BMP DETAILS AND REQUIREMENTS ARE LOCATED IN CITY OF SEATTLE DR 16-2009 VOLUME 2, CHAPTER 4 OF THE CONSTRUCTION STORMWATER CONTROL TECHNICAL REQUIREMENTS MANUAL.

LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- LIMITS OF SOIL COVER
- EXISTING CONTOUR
- STRIPPED CONTOUR
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING POWER LINE
- EXISTING OVERHEAD PIPE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING GRAVEL
- EXISTING MONITORING WELL

N W E S

20 0 20 FEET

Know what's below. Call before you dig.

P:\0\0186846\001\CAD\Task 1400 Kite Hill Design\DESIGN SHEETS\Conformed Set\SHT_5-5.1 Construction Stormwater Control Plan and Details.dwg\TAB PLAN modified on Aug 24,XX 20:XX:23pm

REFERENCES

DRAWING NUMBER	REFERENCE DRAWING TITLE

REVISIONS

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D
1	CONFORMED SET	TJM		TML	CLB

NO.	DESCRIPTION	BY	DATE	CHK'D	APP'D

CHRISTOPHER LEWIS BALLEW — STATE OF WASHINGTON — 39963 — REGISTERED PROFESSIONAL ENGINEER

Design	Date
Drawn	Date
Checked	Date
Approved	Date

PSE PUGET SOUND ENERGY

GEOENGINEERS
600 Stewart Street, Suite 1700
Seattle, WA 98101
Telephone (206) 728-2674

GAS WORKS PARK, KITE HILL SOIL COVER PROJECT
SEATTLE, WASHINGTON

CONSTRUCTION STORMWATER CONTROL PLAN

Project No. 0186846-01
Drawing No. 5.0
Sheet 5 of 13