



DETERMINATION OF NON-SIGNIFICANCE (DNS) WITH MITIGATION AND USE OF PHASED SEPA DETERMINATION (WAC 197-11-060(5))

- Application Nos.:** SEP16-015 and ZTR16-002
- Description of proposal:** **This State Environmental Policy Act (SEPA) threshold determination analyzes the environmental impacts associated with two “non-project actions” proposed by the applicant, Mercer Island Center for the Arts (MICA), as part of a phased SEPA review pursuant to WAC 197-11-060(5)(b) & (c)(i).** This SEPA Determination covers the following two non-project elements of the proposed MICA project:
1. A Zoning Code Text Amendment to Mercer Island City Code chapter 19.05, Special Purpose, to allow the uses planned for the performing arts center and to allow the use of off-site parking to meet the proposal’s parking demand; and
 2. An Agreement to Lease Subject to Certain Conditions Precedent (“agreement to lease”) between the City of Mercer Island and MICA for the portion of the Mercerdale Park property where a performing arts center is proposed to be located.
- The environmental impacts of “project actions” needed for the MICA project, such as a long subdivision, critical area determination and construction permits, are not ready for decision at this time and will be further analyzed after the City Council makes decisions on the zoning code text amendment and agreement to lease.
- Proponent:** Lesley Bain (Framework), Architect for MICA
- Location of proposal:** Mercerdale Park, 3205 77th Avenue SE, Mercer Island, WA
- Lead agency:** City of Mercer Island
- Project documents:** ***Please follow this file path to access the associated documents for this project:***
https://mieplan.mercergov.org/public/MICA-SEP16-015_ZTR16-002

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This threshold determination is a phased SEPA decision pursuant to WAC 197-11-060(5)(b) & (c)(i). Phased review assists agencies and the public to focus on issues that are ready for decision and exclude from consideration issues not yet ripe for a SEPA determination. In addition, phased review is appropriate when the sequence is from a non-project document to a document of narrower scope such as a site-specific analysis for subsequent project-level development applications (e.g., long subdivision, critical area determination, building permit).

This threshold determination will be supplemented with site-specific environmental review at the time of a project-level development application, and a new SEPA threshold determination will be issued prior to issuance

of any underlying project-level permits. The site-specific environmental review will address probable environmental impacts from the proposal, including but not limited to issues related to transportation (traffic and parking), surface waters (wetlands and wetland buffers), storm water, plants, aesthetics, light and glare, recreation, and the cumulative impacts of the project in any one or more SEPA checklist categories.

_____ There is no comment period for this DNS.

 X This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

_____ This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by _____.

Responsible Official: Scott Greenberg, Director
Development Services Group
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040
Email: scott.greenberg@mercergov.org

Date: September 11, 2017

Signature: _____



APPEAL INFORMATION

There is no administrative (City) appeal of a SEPA threshold determination associated with a City Council legislative action (the proposed zoning code amendment) pursuant to MICC 19.07.120(T)(1). Any appeal must be filed with the State of Washington Central Puget Sound Growth Management Hearings Board. Visit http://www.gmhb.wa.gov/Home_CPSB.aspx for more information.

FINDINGS

1. A series of non-project and project-level proposals are required for the proposed performing arts center to be built in Mercedale Park. The non-project actions include a zoning code text amendment and an agreement to lease. The project-level actions include multiple land use approvals (e.g., long subdivision and critical area determination), and construction permits.
2. The applicant initially submitted a SEPA checklist and supporting information for the entire MICA project, combining both the non-project and project actions. This submittal was reviewed by City staff and peer reviewers with technical expertise in various subject areas. The peer reviewers requested more detailed project-level information at the end of the first review cycle. The applicant provided some additional information, but in certain topic areas, the more detailed information is contingent on details of the building and project design, which cannot be known until a decision is made by the City Council on the non-project zoning code text amendment.
3. Due to the complexity of this project and the sequence of multiple project and non-project approvals needed, the City is opting to use a phased review approach pursuant to WAC 197-11-060(5). WAC 197-11-776 defines phased review as: "...the coverage of general matters in broader environmental documents, with subsequent narrower documents concentrating solely on the issues specific to the later analysis (WAC 197-11-060(5)). Phased review may be used for a single proposal or EIS (WAC 197-11-060)."
4. Phased review allows for environmental review of the issues and impacts ready for decision and excludes issues that are not yet ready for a decision. In this case, the proposed zoning code text amendment and agreement to lease are ready for review and decision. Being ready for review and decision simply means there is adequate information available to determine the environmental impacts and potential mitigation of those elements of the larger project. Being ready for review and decision does not mean that the City Council is ready to act immediately. The zoning code text amendment and agreement to lease both require additional public process prior to City Council action. Other proposals (such as the land use and construction approvals) are contingent upon the review and approval of the zoning code text amendment and agreement to lease approval, and are not ready for review and decision. City Council decisions on the zoning code text amendment and proposed agreement to lease could result in changes to the site design, building design and/or parking requirements of the project, affecting potential environmental impacts of the project.
5. Additional SEPA review of the physical MICA project, including but not limited to site-specific impacts, cumulative impacts and mitigation, will occur following decisions on the zoning code text amendment and agreement to lease, consistent with WAC 197-11-060(5).

ANALYSIS

1. Earth
 - a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create erosion or have other impacts to the earth. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to earth, including but not limited to slope stability, and appropriate SEPA action will be taken.
 - b. *Mitigation Measures:* No mitigation measures are needed to reduce or control erosion, or other impacts to the earth.
2. Air

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create emissions or have other impacts to air. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to emissions from construction and operation of the project, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control emissions or other impacts to air.

3. Water

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not increase discharge to water nor create impacts to drainage patterns or to surface, ground, or runoff water. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to a storm water management plan (to address storm water collection and runoff), and for impacts and mitigation related to the Category III wetland, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control impacts to drainage patterns or to surface, ground, or runoff water.

4. Plants

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to trees, plants or vegetation. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to plants, trees and vegetation, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control impacts to trees, plants or vegetation.

5. Animals

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to animals including fish and marine life. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to animals, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control impacts to animals including fish and marine life.

6. Energy and natural resources

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to nor deplete energy or natural resources. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to energy and natural resources (including green building), and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control energy impacts or conserve energy and natural resources.

7. Environmental health

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create noise, nor create or be affected by environmental health hazards, including toxic or hazardous substances. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to environmental health, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control noise or environmental health hazards.

8. Land use and shoreline use

- a. *Impacts:* The proposed code amendment is a non-project action that would allow “public facilities” as an additional use within Mercerdale Park. The proposed list of uses allowed as “public facilities” includes: theatre, lecture hall, classroom, performing studio, visual arts studio, exhibition gallery, gathering and meeting spaces, café and bar, and accessory functions. Adding the proposed use as a permitted use to Mercer Island City Code (MICC) 19.05.010 would not have direct impacts on the environment.

The proposed agreement to lease is a non-project action that would follow approval of a code amendment allowing the proposed land use (which is not allowed today). If the code amendment is approved, the proposed agreement to lease would then allow public facilities as a permitted use within Mercerdale Park and would not create land use impacts.

There are also environmentally critical areas in and adjacent to Mercerdale Park (wetland, wetland buffer, and geologic hazard areas). If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to land use and critical areas, and appropriate SEPA action will be taken.

- b. *Mitigation Measures:* No mitigation measures are needed to ensure the proposal is compatible with existing and projected land uses and plans.

9. Housing

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to housing. If adopted, the proposed code amendment would have no impact on existing housing nor would it allow any housing in Mercerdale Park. Future project actions would not require additional analysis for housing impacts.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control housing impacts.

10. Aesthetics

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create aesthetic impacts. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to aesthetics, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control aesthetic impacts.

11. Light and glare

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create light and glare impacts. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to light and glare, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control light and glare impacts.

12. Recreation

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create recreational impacts. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to recreation, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control impacts on recreation.

13. Historic and Cultural Preservation

- a. *Impacts:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to historic or cultural resources. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to historic and cultural preservation, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to avoid, minimize, or compensate for loss, changes to, and disturbance to historic or cultural resources.

14. Transportation

- a. *Impacts:* The proposed code amendment would create new parking requirements for Public Facilities in Mercedale Park. It would allow the amount of required parking to be determined through a parking demand study, similar to the allowance in the current code for the Town Center. It would also allow all parking to be provided off-site pursuant to a traffic management plan.

If shared parking is used, the applicant proposes use of unrecorded written agreements that can be terminated within 90 days. If such off-site parking agreement is terminated, the applicant proposes to locate alternative parking and/or provide shuttle service for parking. Because the parking agreement would not be recorded on title, a new owner may be unaware of the parking agreement, and could choose not to honor the agreement. This could lead to inadequate parking being provided for the proposed public facility. Requiring these parking agreements to be recorded would provide some level of certainty as to the continued existence of the required baseline number of parking stalls for the proposal. Further, extending the termination period to 120 days would give more time to locate additional (replacement) parking, and negotiate and record a new parking agreement.

While the final configuration, size and design of a specific public facility project in Mercedale Park is still under consideration, some concerns related to the proposed parking code amendments can be determined today. The primary concern is where staff, visitors and

patrons would park if one or more of the proposed off-site parking agreements is terminated. A related concern is the ability for City staff to adequately monitor compliance with the off-site parking agreements and approved traffic management plan over the duration of the proposed long-term lease period.

If adopted, the proposed code amendment and agreement to lease would enable future project actions that could have environmental impacts. Future project actions will be reviewed for additional impacts and mitigation related to transportation and parking, and appropriate SEPA action will be taken when more project details are known.

b. *Mitigation Measures:* The following mitigation measures are needed to reduce or control transportation impacts related to parking. The applicant shall:

- Complete a Parking Management Plan that includes both construction and operation of the facility.
- Provide for periodic review of the Parking Management Plan (Plan), not less than annually and any time an element of the Plan changes and disrupts availability of required parking.
- Provide annual reporting of the traffic demand management plan to provide program adjustments based on the report.
- MICA shall identify a designated “Parking Coordinator” who is responsible for parking and traffic management and coordination of these issues with the City.
- Enter into written agreement(s) approved by the City for any proposed off-site, off-street parking. Such agreements shall be recorded with King County prior to issuance of any construction permits. Such agreements may be terminated upon not less than one hundred twenty (120) days’ notice to the code official, provided that the applicant has agreed to either enter into a replacement parking contract or make alternative parking arrangements, such as a shuttle service; in the case of any replacement and/or alternative parking arrangement, such arrangements must be reviewed and approved by the code official prior to the end of the 120-day notice period.
- Update any private parking agreements as necessary to maintain baseline level of available parking to meet demand with an appropriate level of redundancy; and if parking is disrupted, modify MICA program scheduling until such parking is made available again.
- Provide clear signage at the proposed MICA site to assist with clarity of parking and loading requirements.
- Provide patron education specifically to restrict patron parking in the residential neighborhoods south, east and west of Mercedale Park.

15. Public Services

- a. *Impact:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to public services. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to public services, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control impacts on public services.

16. Utilities

- a. *Impact:* The proposed code amendment and agreement to lease are non-project actions and would not create impacts to utilities. If adopted, the proposed code amendment would enable future project actions that could have environmental impacts. Future project actions will be reviewed for impacts and mitigation related to utilities, and appropriate SEPA action will be taken.
- b. *Mitigation Measures:* No mitigation measures are needed to reduce or control impacts on utilities.



5309 Shilshole Avenue, NW
Suite 200
Seattle, WA 98107
206.789.9658 phone
206.789.9684 fax

www.esassoc.com

memorandum

date September 8, 2017

to Robin Proebsting, Project Planner and Scott Greenberg, SEPA Official; City of Mercer Island

from Claire Hoffman, Ecologist; ESA

subject Proposed Mercer Island Center for the Arts (MICA) –SEPA Review

This memorandum documents the State Environmental Policy Act (SEPA) third-party review process conducted by Environmental Science Associates (ESA) on behalf of the City of Mercer Island (City) for the proposed Mercer Island Center for the Arts (MICA) project. The City also retained Perrone Consulting and DKS to review the geotechnical and transportation evaluations, respectively, conducted by the MICA (Applicant). The responsible official at the City will make the SEPA threshold determination for the proposed project (Mercer Island City Code [MICC] 19.07.120). Note that the project may require phased review (WAC 197-11-776). This memorandum also includes ESA's SEPA determination recommendation to the City for the proposed MICA project.

The proposed MICA project would be located at 3205 77th Ave SE (Parcel #1224049068). The proposal includes a building approximately 28,300 square feet with a 300-seat main stage theatre, a 100-seat theatre, a 100-seat recital hall, and educational spaces. Public bathrooms accessible from the exterior and storage space for the Mercer Island Farmers Market would also be provided.

The following is a summary timeline of the review process by ESA, Perrone Consulting and DKS, beginning with the submission of the SEPA Checklist by the Applicant in July 2016.

August 2016

DKS reviewed the Traffic Impact Analysis by TranspoGroup (June 2016).

The City requested public comment on a SEPA Checklist (July 27, 2016) and received a number of comment letters during this initial comment period. Concerns included all elements of the environment, but primary concerns were parking, transportation, loss of park lands, impacts to the wetland and trees, and erosion/slides.

September 2016

ESA reviewed the SEPA Checklist (July 27, 2016) by Framework Cultural Placemaking and attachments. For detail of this review, refer to the Memorandum dated September 20, 2016 to Scott, Project Planner for the City from ESA (Attachment 1).

October 2016

Perrone Consulting reviewed the Earth and subsurface water elements of the SEPA Checklist (July 27, 2016) by Framework Cultural Placemaking as well as the geotechnical design report by HartCrowser (2016).

January 2017

In response to the aforementioned reviews and public comments, the Applicant was asked by the City to submit a revised SEPA Checklist. A revised Checklist was submitted to the City on January 12, 2017, which included additional attachments and responses to public comment. This version was deemed incomplete. MICA made several resubmittal attempts, and its April 4, 2017 submittal was deemed complete.

May 2017

ESA reviewed the January 12, 2017 SEPA Checklist, responses to comments, and attachments. On May 15, 2017 ESA met with the Applicant at the ESA office to discuss ESA's comments on the January SEPA Checklist. At this meeting, ESA asked for a revised SEPA Checklist to clarify wetland impacts and mitigation, tree removal and replacement, stormwater discharge, and improve general organization of the information in the SEPA Checklist.

Perrone Consulting and DKS reviewed the geotechnical and transportation elements, respectively, of the January 12, 2017 SEPA Checklist. Additionally, DKS reviewed a revised Transportation Impact Analysis by TranspoGroup (January 2017) and Perrone Consulting reviewed the Geotechnical Engineering Design Report (July 26, 2016) by HartCrowser. The City had a conference call with the Applicant, HartCrowser (the Applicant's consultant), DKS, Perrone Consulting, and ESA on June 7, 2017. DKS and Perrone Consulting requested further clarification on transportation and geotechnical elements, respectively.

June 2017

The Applicant sent an interim of their revisions to the City and ESA on June 6, 2017 via email. ESA had minor follow-up comments.

After further clarification between DKS and the Applicant, they submitted a revised SEPA Checklist with updated transportation attachments on June 29, 2017. On June 30, 2017, DKS reviewed this interim version and required no further changes (Attachment 2).

The Applicant submitted additional slope stability review which was reviewed by Perrone Consulting on June 23, 2017. Perrone Consulting had minor comments, but agreed with the overall determination that the slopes on the proposed project site would be relatively stable and pose a low risk of failure (Attachment 3).

July 2017

The Applicant submitted a reissued SEPA checklist on July 3, 2017 (Attachment 4), which addressed comments and questions from ESA, DKS, and Perrone Consulting.

Evaluation and Recommendation

The following discussion reviews the elements of the environment addressed in the reissued SEPA Checklist (July 3, 2017). ESA relied on DKS and Perrone Consulting to assess potential impacts to the transportation and geotechnical elements, respectively. ESA recommends a mitigated determination of non-significance (MDNS) for the MICA project. Some elements discussed below do not require mitigation because they comply with existing regulations and less than significant impacts are expected. Elements where mitigation is required to reduce the impacts to a level of non-significance are identified below.

1. Earth.

Based on review of analysis from Perrone Consulting, the Applicant has provided sufficient information to insure that the proposed project does not result in undue slope stability risk. Significant impacts to slope stability are not anticipated.

2. Air.

Emissions from construction and operation of the project are expected to be well below the Federal de minimis threshold of 100 tons per year, which is the applicable threshold within King County. Significant impacts to air quality are not anticipated.

3A. Water. Surface.

The SEPA Checklist and supporting Wetland Delineation Report and Critical Areas Report were reviewed by Claire Hoffman, professional wetland biologist from ESA. Additionally, she conducted a site visit to verify wetland and vegetation conditions on September 13, 2016. The delineation and proposed mitigation meet the requirements of MICC 19.07.080. MICC 19.07.080.C. allows for buffer averaging of Category III wetlands to a minimum of 25 feet with enhancement. The Applicant is proposing to avoid the wetland, and thus no direct wetland impacts are expected. The Applicant incorporated ESA's recommendations from the September 20, 2016 memorandum and from the May 15, 2016 meeting. Impacts to surface waters (wetlands and wetland buffers) are not anticipated to be significant.

Required Mitigation: enhance 11,362 square feet of degraded buffer with native trees, shrubs, and groundcover as proposed by the applicant in the Critical Areas Study of the July 2017 SEPA Checklist (see Attachment G). Comply with mitigation and monitoring methods outlined in Attachment G, Critical Areas Study. The enhancement area can only be reduced if the impact area is reduced.

3B. Water. Ground.

There are no withdrawals or discharges proposed as part of the project. No significant impacts are anticipated.

3C. Stormwater.

The proposed project would construct a detention vault and discharge to the existing City stormwater system as well as the on-site wetland. Stormwater discharge to surface waters (i.e. to the wetland) is allowed under MICC 15.09.040. As design of the MICA progresses, ESA recommends that the Applicant provide a detailed stormwater management plan to insure that current City and State standards are met. With development and compliance with a stormwater management plan, significant impacts are expected to be avoided.

Required Mitigation: develop and comply with a Stormwater Management Plan.

4. Plants.

Vegetation was field verified during a site visit (September 13, 2016) and the Tree Assessment and Critical Areas study for the project were reviewed. Adequate information has been provided by the Applicant regarding impacts to trees and other vegetation. There are a number of dead or unhealthy trees that would be replaced as part of this project. The exact number, location, size, and species of dead and healthy trees will need to be provided for the permitting process. A tree permit would be required per MICC 19.10. With the mitigation proposed, significant impacts to plants and vegetation are not expected.

Required Mitigation: plant a minimum of 74 trees within the wetland buffer, trees should be primarily coniferous and native species as proposed by the applicant in the Critical Areas Study of the July 2017 SEPA Checklist (see Attachment G). Comply with tree mitigation outlined in Attachment G, Critical Areas Study of the July 2017 SEPA Checklist. Prior to the permitting process, provide the exact number, location, size, and species of dead and

healthy trees that would be removed. The number of trees planted can only be reduced if the number removed is reduced.

5. Animals.

ESA reviewed the Critical Areas study and crosschecked available information regarding listed species and protected habitats on and near the site. There are no protected species known to use the site, and there are no expected significant impacts to wildlife.

6. Energy and Natural Resources.

The Applicant proposes to meet LEED Silver, which includes standards for energy efficiency. By obtaining LEED Silver, the proposal is not expected to result in significant impacts to energy and natural resources.

7. Environmental Health.

ESA reviewed the Phase I Environmental Assessment (Aerotech, 2015) which concluded that there is no obvious evidence of potential environmental risks or Recognized Environmental Conditions indicating the presence of hazardous or other conditions. Special emergency services are not expected to be required. Significant impacts to environmental health are not anticipated.

8. Land and Shoreline Use.

The Applicant has requested a zoning code text amendment to allow a cultural center to be built in the Public Institution zone (P zone). The code amendment is specific to this parcel; as such the code amendment would not affect other parcels in the P zone. The decision on the text amendment will be made by City of Mercer Island Council.

The following critical areas are found on/near the project site: a wetland, wetland buffer, and known or suspected land slide hazard area on-site, as well as erosion hazard areas and steep slopes to the west of the site. For a discussion of the wetland and wetland buffer refer to Element 3A above, Water and geologic hazard areas are discussed under Element 1, Earth. The project is not within the shoreline area. Impacts to land use are not anticipated to be significant. No additional mitigation is required.

9. Housing.

There is no housing proposed to be added or removed as part of this project. Impacts to housing are not anticipated to be significant.

10. Aesthetics.

The MICA building would look different than existing conditions; it would be taller and larger than the existing recycling center. The proposed mainstage is the tallest structure at 30 feet high, closer to the park the building would be approximately 16 feet tall. MICC 19.05.010 requires that buildings in the P-zone shall not exceed 36 feet or three stories. The MICA building would be visible from the park, street, adjacent businesses, and some homes. The design of the building will be subject to review and approval by the City. Vegetation would be removed but replaced as part of the mitigation plan; however, it will take time for trees to mature. Landscaping around the building would follow the requirements of MICC 19.12.040. With compliance to existing City regulations and design approval, the proposed building and landscaping are not anticipated to result in significant impacts to aesthetics.

11. Light and glare.

The proposed project is not anticipated to result in significant impacts from light and glare and will comply with MICC 19.12.070. The project will be required to develop a lighting plan.

Required Mitigation: Lighting Plan

12. Recreation.

The proposed project would be in the northwest corner of Mercerdale Park in the current location of a former recycling center building, public restrooms, and a portion of Bicentennial Park. The plaza and flagpole, and public restrooms would be permanently removed. During constructions, portions of the park immediately adjacent to the MICA building would be unavailable during construction. The public restrooms would be unavailable during construction. The trail around Mercerdale Park lawn would be relocated but remain open during construction. The trail leading to the Mercerdale Hillside Trail would not be changed, but may need to be closed temporarily during construction for safety reasons. After construction, the trail around Mercerdale Park lawn will be restored and the public restrooms and sinks will be replaced in the new MICA building. With mitigation, significant impacts to recreation are not anticipated. Visitors to the Sunday Mercer Island Farmer's Market which occurs June – October may be inconvenienced by construction activities. The Applicant will work with the Farmer's Market to insure that access to the Market is not restricted for vendors or visitors during construction as well as after the MICA building is completed. For these reasons the Farmer's Market is not expected to be significantly impacted. With the implementation of the proposed mitigation measures, significant impacts to recreation are not anticipated to be significant.

The Applicant has requested a code amendment which would allow for an arts center within the P-zone. The review of the code amendment is outside of the scope of this review. If the code is amended to allow for an arts center within the P-zone, there would be no significant impact to recreation.

Required Mitigation:

- The flagpole will be replaced by the Applicant; the flagpole will be located in an area agreed upon between the Applicant and the City within or immediately adjacent to Mercerdale Park.
- The trail leading to the Mercerdale Hillside Trail may be closed during construction hours for the safety of trail users. The Applicant will ensure it is accessible to the public on evenings and weekends.
- The Applicant will coordinate with the Farmers Market to assure that the Sunday activities of the Market are not significantly affected. This includes maintain access to the Farmer's Market both during construction and operation.

13. Historic and Cultural Preservation.

The historic and cultural preservation evaluations included in the SEPA checklist were reviewed by a historian at ESA. There are no recorded sites, cemeteries, register-listed properties, traditional cultural places, or indications of former use on historical aerials, maps, or in published ethnographies. None of the existing buildings are over 45 years old and thus do not meet the threshold for consideration as a historic property. No significant historic or cultural impacts are anticipated.

14. Transportation.

The transportation element was reviewed by DKS for the City. With the following mitigation measures, impacts to transportation and parking are not anticipated to be significant.

Required Mitigation:

- The Applicant will complete a Parking Management Plan which includes both construction and operation of the facility.
- Identify a designated “Parking Coordinator” – who is an on-site staff member responsible for parking and traffic management.
- Provide for periodic review of Parking Management Plan, any time an element of the Plan changes and disrupts availability of necessary parking.
- Update any private parking agreements as necessary to maintain baseline level of available parking to meet demand with an appropriate level of redundancy; and if parking is disrupted, modify MICA program scheduling until such parking is made available again.
- Provide annual reporting of the traffic demand management plan to provide program adjustments based on reporting.
- Manage the loading zones areas through program scheduling, patron education, signage and staffing assistance if necessary to ensure through traffic is not inhibited.
- Provide necessary illumination at the MICA site for safe pedestrian crossing and load/unload activities.
- Provide clear signage at the MICA site to assist with clarity of parking and loading requirements.
- Coordinate facility scheduling with other local events such as Summer Celebration, Farmer’s Market, Parks events, and the Thrift Shop.
- Provide patron education specifically to restrict patron parking in the neighborhood south of Mercerdale Park.
- Schedule afternoon activities for kids such that only one class has drop-off/pick-up at one time to manage traffic flow at the pullout area and ensure safe access to vehicles.

This SEPA review has been conducted very early in the design process and the Applicant has not yet completed design, or all required supporting documents. If the mitigation is completed in accordance with the measures outline above, it is ESA’s opinion that the project would be mitigated to a level of non-significance. Based on this review, ESA recommends a mitigated determination of non-significance (MDNS).

If you have any questions, please call us at (206) 789-9658.

Sincerely,

Claire Hoffman

cc.
Scott Olmsted, ESA
Molly Adolfson, ESA

Attachment 1



5309 Shilshole Avenue, NW
Suite 200
Seattle, WA 98107
206.789.9658 phone
206.789.9684 fax

www.esassoc.com

memorandum

date September 20, 2016

to Scott Greenberg, Project Planner; City of Mercer Island

from Scott Olmsted, Project Manager and Claire Hoffman, Ecologist; ESA

subject Proposed Mercer Island Center for the Arts (MICA) - Wetland Buffer Impacts and Mitigation Review

On behalf of the City, ESA reviewed the applicant's submittal materials for the proposed Mercer Island Center for the Arts (MICA). We focused our review on the following documents: Wetland Delineation Study (May 21, 2015), Supplemental Regulatory Evaluation (September 11, 2015), Wetland Interpretation (September 4, 2015), and a Conceptual Mitigation drawing (July 20, 2016) by The Watershed Company (TWC). Additionally, ESA reviewed the SEPA Checklist for MICA (July 27, 2016) by Framework Cultural Placemaking, Sheet C3502 Offsite Site and Paving Plan (July 9, 2015) and the Sheet C502 Offsite Storm Drainage Plan (July 9, 2015) by Framework and ORA. The proposed MICA would be located at 3205 77th Ave SE (Parcel #1224049068). This review is prepared to ensure compliance with Mercer Island City Code (MICC).

Review of Wetland Delineation

ESA staff conducted a field visit on September 13, 2016. Based on that field visit, the mapped wetland provided by TWC appears to match field conditions. A number of flags from TWC remained in the field making boundary verification possible. The wetland was observed to be a palustrine scrub-shrub and forested wetland dominated by bigleaf maple and Oregon ash. The wetland appears to be correctly rated as a Category III slope wetland, which has a standard buffer of 50 feet MICC 19.07.080(C)(1).

Review of Potential Stormwater Discharge

Insufficient information has been provided to determine whether the project complies with MICC 15.09. We recommend the applicant provide a stormwater control management plan or a "storm water site plan." Additionally, the applicant proposes several features that would discharge water to the wetland, which is allowed under MICC 15.09.040; however, it is not clear if such discharges are in compliance with state regulations.

The project proposes two features that would discharge water directly into the wetland: 1) a swale located west of the proposed building and 2) a wall drain located on the south side of the building (see Sheet C302 Offsite Storm Drainage Plan). Potential impacts to the wetland resulting from these proposed discharges (e.g., altered hydrology, scour) was not evaluated in submittal materials; therefore, ESA recommends that such an analysis be included in the stormwater management plan and/or wetland buffer mitigation plan. The analysis should include the volume and quality of water expected to discharge from these structures.

A proposed storm drain connected to the existing storm drain system will pass through a new underground stormwater detention vault and discharge to a new bioretention cell located at the south end of the proposed building. The proposed bioretention cell is partially located within the 50-foot wetland buffer. MICA does not restrict the placement of bioretention cell in wetland buffers; however, buffer impacts associated with the bioretention cell have not evaluated or mitigated. The applicant should describe wetland buffer impacts, and detail how impacts will be mitigated. Further, an access road “stub” north of the bioretention cell area is shown on Sheet C502 Offsite Storm Drainage Plan which also encroaches on the 50-foot wetland buffer.

Tree Removal

The project would remove multiple trees, requiring a tree removal permit (MICA 19.10.020). The applicant should include a description of proposed tree removals and provide a restoration/protection plan per MICA 19.10.080. This documentation should also include a discussion of trees that will be removed within the wetland buffer (a tree within 25 feet of the wetland boundary is considered a “critical area tree”) and any landmark trees. Trees removed from the wetland buffer will need to be replaced.

Wetland Buffer Reduction and Mitigation Plan

Sheet C502 (Offsite Storm Drainage Plan) indicates the proposed swale will continue into the wetland and the wall drain will be located with the wetland boundary. The applicant should confirm that no grading is proposed within the wetland and no fill material will be placed within the wetland boundary. If grading is proposed within the wetland buffer, these impacts (temporary and permanent) should be described.

Sheet W1 of 1 shows a buffer reduction at the north end of the wetland. The buffer will be reduced from 50 feet to 25 feet, which is the minimum width allowed MICA 19.07.080(C)(1). Buffer reduction would reduce the buffer area by 4,997 square feet. Proposed buffer reduction activities should be documented in a buffer mitigation plan. The proposed buffer reduction must account for the bioretention area and access road “stub” as described above.

To mitigate for buffer reduction, the applicant proposes to enhance 5,996 square feet of buffer located about 80 feet south of the reduction, adjacent to the east side of the wetland (Sheet W1 of 1). Buffer enhancement is an approved mitigation activity that offsets loss of buffer functions associated with buffer reductions MICA 19.07.080(C)(2). To better understand if the proposed mitigation complies with MICA, the applicant should provide a more detailed mitigation plan. ESA recommends a buffer mitigation plan that provides applicable information listed in MICA 19.07.050(C).

Recommendations

The applicant should update the submittal materials to provide additional details on wetland buffer impacts, stormwater management, and tree removal. We recommend that the following information be included in the resubmitted documents:

- Description of all wetland buffer impacts, including tree removal, and detail regarding how impacts will be mitigated in a buffer mitigation plan;
- Confirmation that no grading is proposed within the wetland or wetland buffer and no fill material will be placed within the wetland boundary;
- Description of proposed tree removals and a restoration/protection plan per MICA 19.10.080; and
- Provision of a stormwater control management plan or a “storm water site plan.”

If you have any questions, please call us at (206) 789-9658.

Attachment 2

Claire Hoffman

From: Richard Hutchinson <rjh@dksassociates.com>
Sent: Friday, June 30, 2017 1:51 PM
To: Claire Hoffman
Cc: Scott Olmsted
Subject: Re: FW: MICA Updated SEPA Documents

Hi Claire,

All of our comments have now been addressed sufficiently.

I would add "Parking Management Plan", that covers the construction time frame as well as when MICA is in operation, to your list of mitigation. More specifically:

- Identify a designated "Parking Coordinator" – who is an on-site staff member responsible for parking and traffic management.
- Provide for periodic review of Parking Management Plan, any time an element of the Plan changes and disrupts availability of necessary parking.
- Update any private parking agreements as necessary to maintain baseline level of available parking to meet demand with an appropriate level of redundancy; and if parking is disrupted, modify MICA program scheduling until such parking is made available again.
- Provide annual reporting of the traffic demand management plan to provide program adjustments based on reporting.
- Manage the loading zones areas through program scheduling, patron education, signage and staffing assistance if necessary to ensure through traffic is not inhibited.
- Provide necessary illumination at the MICA site for safe pedestrian crossing and load/unload activities.
- Provide clear signage at the MICA site to assist with clarity of parking and loading requirements.
- Coordinate facility scheduling with other local events such as Summer Celebration, Farmer's Market, Parks events, and the Thrift Shop.
- Provide patron education specifically to restrict patron parking in the neighborhood south of Mercerdale Park.
- Schedule afternoon activities for kids such that only one class has drop-off/pick-up at one time to manage traffic flow at the pullout area and ensure safe access to vehicles.

Thank you,

Richard J Hutchinson, PE, PTOE

Direct: 206.436.0282 | Main: 206.382.9800 | E-mail: rjh@dksassociates.com



Attachment 3

Claire Hoffman

From: Vincent Perrone <vjperone@peroneconsulting.com>
Sent: Wednesday, July 05, 2017 8:27 AM
To: Claire Hoffman
Cc: Scott Olmsted
Subject: RE: MICA Updated SEPA Documents

Follow Up Flag: Follow up
Flag Status: Completed

Claire,

I've reviewed the June 29, 2017 Hart Crowser letter and it incorporates the corrections based on discussions that I had with David Winter (Hart Crowser). I do not have any further review comments.

Vinnie

Vincent J. Perrone, Ph.D., P.E.
PERRONE CONSULTING, INC., P.S.
11220 Fieldstone Lane N.E.
Bainbridge Island, WA 98110
Telephone (206) 778-8074, Fax (206) 780-5669
Email: vjperone@peroneconsulting.com
Website: <http://peroneconsulting.com>

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From: Claire Hoffman [<mailto:CHoffman@esassoc.com>]
Sent: Monday, July 3, 2017 10:28 AM
To: Vincent Perrone <vjperone@peroneconsulting.com>
Cc: Scott Olmsted <SOlmsted@esassoc.com>
Subject: FW: MICA Updated SEPA Documents

Vinnie,

Here is HartCrowser's updated report, please check that they integrated the requested changes, and get back to me as soon as you can. Thanks Claire

From: Kristin Ryan [<mailto:kristin@mbarrientos.com>]
Sent: Friday, June 30, 2017 5:03 PM
To: Claire Hoffman; Sara Everett
Cc: Scott Olmsted
Subject: RE: MICA Updated SEPA Documents

Claire –

Thank you for getting Richard's review turned around quickly and your final comments. We will take a look at these and respond on Monday. I've also attached the updated Slope Stability Review Report. Please let us know if there are any remaining comments regarding this report and we will wrap the reference to it into the final package that we deliver on Monday.

Kristin

Kristin Ryan

barrientos | RYAN

kristin@mbarrientos.com

206-728-1912 x 102

917-796-2742

1402 Third Avenue, Suite 808, Seattle, WA 98101

Attachment 4

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org

[Inspection Requests: Online: www.MyBuildingPermits.com](http://www.MyBuildingPermits.com) VM: 206.275.7730



ENVIRONMENTAL CHECKLIST

Date Received: _____

File No: _____

Fee: _____

See Development Application for fees

PURPOSE OF CHECKLIST

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

INSTRUCTIONS FOR APPLICANTS

This environmental checklist asks you to describe some basic information about your proposal.

Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

USE OF CHECKLIST FOR NONPROJECT PROPOSALS

For nonproject proposals complete this checklist and the supplemental sheet for nonproject actions (Part D). The lead agency may exclude any question for the environmental elements (Part B) which they determine do not contribute meaningfully to the analysis of the proposal.

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:
Mercer Island Center for the Arts

2. Name of applicant:
Lesley Bain, Architect for Mercer Island Center for the Arts

3. Address and phone number of applicant and contact person:
**Framework Cultural Placemaking
1429 12th Avenue, Suite D, Seattle WA 98122**

4. Date checklist prepared:
This checklist, prepared on July 3, 2017, is a revision of a SEPA checklist submitted to the City of Mercer Island on March 28, 2017. This revision is in response to comments received by the community and third party review.

5. Agency requesting checklist:
City of Mercer Island

6. Proposed timing or schedule (including phasing, if applicable):
The lease agreement, the trigger for this review, is expected to be approved Spring 2017. Construction expected to begin 2018.

7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal? If yes, explain:
No. The intent of the project is construction of a performing arts/educational center building.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:
**Survey and Proposed Lease Boundary
Framework, January 5, 2016, Attachment A
Aerial and Proposed Building Footprint
Framework, January 2017, Attachment B
Geotechnical Engineering Design Report, Proposed Mercer Island Center for the Arts
Hart Crowser, July 26, 2016, Attachment C
Supplemental Memorandum
Hart Crowser, May 6, 2015, Attachment D
Slope Stability Report
Hart Crowser, June 29, 2017, Attachment E
Wetland Delineation Report, Mercer Island Center for the Arts,
The Watershed Company, May 21, 2015, Attachment F
Critical Area Study, Mercer Island Center for the Arts
The Watershed Company, November, 2016, Attachment G
Tree Assessment with proposed MICA Project Limits of Mercerdale Park
The Watershed Company, November 16, 2016, Attachment H**

**Phase 1 Environmental Review,
Aerotech, December 18, 2015, Attachment I**

**Transportation Impact Analysis,
Transpo, 2017, Attachment J**

**Parking Management Plan,
Transpo. 2017, Attachment K**

**Response to Public Comments Received
MICA, June 28, 2017, Attachment L**

**Citizen Question Index
MICA, February 15, 2017, Attachment M**

**Storm Drainage Plan
Magnusson Klemencic Associates, October 13, 2016, Attachment N**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No.

10. List any government approvals or permits that will be needed for your proposal, if known: **Lease of underlying property, City of Mercer Island;
Building Permit Approval, City of Mercer Island;
Possible Text Amendment to City of Mercer Island P-zone regulations;
Possible platting of property, City of Mercer Island;
Possible Comprehensive Plan Amendment, City of Mercer Island;
Environmental review pursuant to SEPA;
Critical Area Determination, City of Mercer Island;
Washington State Department of Ecology Construction Storm Water General Permit
Mercer Island Tree Permit**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The proposal is to build a center for the arts, which includes a building approximately 28,300 gsf housing a 300-seat main stage theatre, a 100-seat black box theatre and a 100-seat recital hall. Educational spaces include classrooms for art, dance and music are also included. A public lobby faces the park. bathrooms accessible from the exterior will be provide for the public. Storage space for the Mercer Island Farmers Market will be built along with power and sinks to satisfy public health requirements. Work will need to be done outside of the lease line for construction purposes and for park improvements, including mitigation for wetland buffer mitigation. The storm water detention vault may be located below ground outside the lease line, and fire access may be required from the south.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The location is generally on the Southwest corner of 77th Avenue SE and SE 32nd Street.

See Attachment A: Survey/Proposed Lease Boundary, and Attachment B: Aerial/Proposed Building Footprint

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

Flat Rolling Hilly Steep slopes Mountainous Other

b. What is the steepest slope on the site (approximate percent slope)?

The steepest portion of the slope is 36%. See response to related questions in B.1.1 of Attachment L, Response to Comments.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)?

If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

According to the geotechnical report, soils are fine-grained glacial deposits, overlain by nonglacial deposits, clay and Vashon till. For more detail, see Geotechnical Report, Attachment C, and D, Geotechnical Supplemental Memo.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

According to the geotechnical report, the site is in a landslide location and partially within mapped landslide deposits. In the opinion of the geotechnical engineers, the construction of the building will not increase or decrease the landslide hazard in the vicinity. Hart Crowser, in their memo dated November 22, 2016, states that in their opinion, a Landslide Hazard area does not exist on the development property. On further analysis of the existing soils and differential failure modes, Hart Crowser concludes that the site is a stable slope under normal conditions. An earthquake would increase the risk of movement in the western portion of the slope, but the safety factor is nearly 1.1, indicating that the slope is still stable, even under a major seismic event. See also Attachment C Geotechnical Report, and Attachment E, Slope Stability Review.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Excavation: Approximately 2,000 cubic yards of cut is expected.

Fill: Approximately 1,300 cubic yards of fill will be used to shape grade below the first floor.

The source will depend on selected earthwork contractor, but typically comes from either the Kent/Auburn or Issaquah/Preston area.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Prior to construction the project will apply for and receive a Washington State Department of Ecology Construction Storm Water General Permit, meeting Mercer Island standards and best practices to mitigate the erosion potential of soils exposed during construction or site grading activities. Hart Crowser's geotechnical analysis has also assessed the risk of erosion. Because of the soil type (Kitsap Silt Loam), substantial erosion is unlikely during construction. For further information, see Attachment E, Slope Stability Review.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The site currently has some 15,670 sf of impervious surface area, including the recycle center building, restrooms, asphalt vehicle area and driveway, and the Bicentennial park plaza. The proposed building footprint is 21,860 square feet. Plaza space, fire access and an outdoor performance area are an additional 14,200 sf, totaling 36,000 sf of impervious surface. The area proposed under the lease agreement is 42,207 sf; so the percent of the area within the lease agreement that is impervious would be approximately 85%.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Multiple best management practices will be used including a construction entrance, silt fence, a concrete truck and pump washout area and catch basin inserts. Strict maintenance and monitoring criteria will be provided so that the temporary erosion and sediment control systems are in good working order throughout the duration of construction.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, and industrial wood smoke) during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Typical emissions from construction equipment during construction.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None.

3. Water

- a. Surface:

- i. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

A Category III wetland is located along a large section of forested slope south of the site. Much of the wetland is situated on a slope above the skate park, where it is fed by seeps emerging from the face of the hillside. Most of the wetland was filled nearly 50 years ago, in the area where the Mercedale lawn is now. A narrow 'finger' of the wetland remains, and extends into the area proposed for MICA. Referred to as Wetland A, this Category III slope wetland has a standard buffer width of 50 feet. It is described further in in Attachment F: Wetland Delineation Report.

- ii. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes. Though the building is shaped to avoid direct impacts on Wetland A, the project proposes to reduce a portion of the buffer to the code allowed minimum 25-foot buffer in a limited area (in compliance with MICC 19.07.080(C)(2)), which would be a total of 5,746 sf of buffer reduction. The Watershed Company has prepared a mitigation plan that will restore ecological function to 11,362 sf of degraded area within the reduced buffer. This includes an area of pavement removal and restoration with amended soils and native trees, shrubs and ground cover. Other areas of degraded forested buffers will be enhanced with planting of native species. The net effect will be a major improvement to the ecological function and aesthetics of a long-degraded habitat. See further information in Attachment G, Critical Area Study.

- iii. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill or dredge material will be placed in or removed from the wetland.

- iv. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No.

- v. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No.

- vi. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

b. Ground

- i. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well? Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No.

- ii. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, [containing the following chemicals...]; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None.

c. Water runoff (including stormwater):

- i. Describe the source of runoff (including stormwater) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The mitigation strategies outlined in our proposal will be applied to any areas that are newly captured in the requirements under the new Mercer Island Stormwater Management Standard code at the time of permit application. Current strategy is that existing natural surface runoff from the hillside which currently flows onto the site will be intercepted by swales that will be strategically graded into the hillside to minimize impacts to the existing vegetation. These swales will redirect the existing runoff to two locations: the northern swales will be connected to the existing Trellis public storm drain line on the north edge of the site and the southern swale will convey hillside runoff to the wetland buffer due north of the wetland. The wetland will overflow into a catch basin located north of the wetland. Because of the soil type and the high groundwater, infiltration of runoff from the building is not possible. Flow control will occur through onsite detention in an underground detention vault. See further information in Attachment N, Storm Drainage Plan.

- ii. Could waste materials enter ground or surface waters? If so, generally describe.

No.

- d. Proposed measures to reduce or control surface, ground, runoff water, and drainage pattern impacts, if any:

Existing surface runoff from the hillside will be intercepted by the proposed swales shown on Attachment N, Storm Drainage Plan, which will be graded so existing conditions remain, thus resulting in no change to current runoff impacts or quantities. Water from impervious surfaces will pass through a stormfilter vault. MICA will also pay into the City's stormwater fee-in-lieu program.

4. Plants

- a. Check types of vegetation found on the site

- Deciduous tree: Alder, Maple, Aspen, other
- Evergreen tree: Fir, Cedar, Pine, other
- Shrubs
- Grass
- Pasture
- Crop or grain
- Wet soil plants: Cattail, buttercup, bulrush, skunk cabbage, other
- Water plants: Water lily, eelgrass, milfoil, other
- Other types of vegetation (See Attachment H, Tree Assessment and Attachment G, Critical Area Study for detail)

- b. What kind and amount of vegetation will be removed or altered?

The proposed MICA site plan calls for removal of 54 conifers and 58 deciduous trees. The deciduous population being removed consists mostly of “weedy” trees (as defined in MICC 19.10.040) such as alders and cottonwoods, including many from within the standard wetland buffer. There are no known landmarked trees present in the survey area. The coniferous population being removed consists of western red cedars and Douglas-firs, nearly all of which are dead or in severe condition. Sparse understory plantings (Dewey’s sedge, creeping buttercup) will also be removed from the site. Some grassy areas in the park will also be disturbed during construction but will be returned to existing conditions or landscaped. The proposed mitigation plan specifies 74 trees to be planted in the wetland buffer. This includes 60 conifers and 14 deciduous trees which would meet placement requirements defined in MICC 19.10.060. This includes full replacement of all conifers to be removed and partial replacement of the “weedy” deciduous species to be removed. For additional information, see Attachment H, Tree Assessment Within the Proposed MICA Project Limits”, The Watershed Company.

- c. List threatened or endangered species known to be on or near the site.

None known.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The site will be replanted around the new building with new trees and shrubs that will be planted in appropriate soil and growing conditions. Drought resistant and native plantings will be favored. Within the wetland buffer, the proposed mitigation plan calls for a total of 11,362 square feet of native trees, shrubs and groundcover. Proposed mitigation will benefit the on-site wetland and buffer by increasing the ability of the buffer vegetation to store/trap sediments and nutrients, increasing the ability of the buffer to attenuate flood flow during heavy rain, and improving cover and forage opportunities for wildlife. Overall, this area of enhancement will provide improved water quality, hydrology, and habitat functions in areas closest to the proposed building.

See also Attachment G, Critical Area Study.

- e. List all noxious weeds and invasive species known to be on or near the site.

The Critical Area study notes that Himalayan blackberry, English Ivy and English laurel are within the wetland buffer. Himalayan blackberry and English Ivy are on the King County Noxious Weed List. The Mitigation and Restoration Plan proposes the removal of the invasive weeds in a manner that will prevent their reestablishment, and installation of native tree, shrub and ground cover species suitable to the site.

5. Animals

- a. State any birds and animals which have been observed on or near the site or are known to be on or near the site. Examples include: Birds: hawk, heron, eagle, songbirds, other: Mammals: deer, bear, elk, beaver, other: Fish: bass, salmon, trout, herring, shellfish, other:

Typical bird and small mammal species are likely to be on the site

- b. List any threatened or endangered species known to be on or near the site.

There is a Bald Eagle's nest located approximately 2 miles away.

- c. Is the site part of a migration route? If so, explain.

Yes. The site is part of the Pacific Flyway.

- d. Proposed measure to preserve or enhance wildlife, if any:

The Watershed Company report, “Critical Area Study and Buffer Mitigation and Restoration Plan”, Attachment G, addresses wildlife habitat. Proposed mitigation in the wetland buffers will increase the ability of the buffer vegetation to store and trap sediments and nutrients, improving cover and forage opportunities for wildlife.

- e. List any invasive animal species known to be on or near the site.

None known.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity will be used to power variable air volume heat pump units for heating, cooling and ventilation. Electric will also be used for lighting, equipment and other power needs.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The building will meet, at a minimum, the provisions of the Washington State Energy Code, and LEED Silver. We expect a well-insulated building envelope and energy efficient building systems.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

In terms of existing environmental hazards, a Phase 1 Environmental Review was done, and indicates that any environmental contamination is highly unlikely. The review found that no Phase 2 Review would be merited. See Attachment I, Phase 1 Environmental Review, Aerotech, December 18, 2015. Minor amounts of hazardous material, such as paint or cleaning supplies would be too small to constitute a hazard.

- i. Describe any known or possible contamination at the site from present or past uses.
None known. The Phase I Environmental Site Assessment (Attachment N) included on-site reconnaissance, records research, historical investigation and review of Federally reported environmental information.

The report found no evidence of potential environmental risks indicating the evidence of contamination.

- ii. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None known, per the Phase 1 Environmental Site Assessment.

- iii. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Minor amounts of hazardous material, such as paint or cleaning supplies would be too small to constitute a hazard.

- iv. Describe special emergency services that might be required.

Emergency services such as fire and emergency medical assistance would be provided by first responders from the City of Mercer Island. No special emergency services are anticipated.

- v. Proposed measures to reduce or control environmental health hazards, if any:

No measures anticipated to be necessary.

- b. Noise
- i. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

- ii. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)?
Indicate what hours noise would come from the site.

In the short term, construction noise will occur during the construction phase, during hours allowed by the City. In the long term, sounds generated within the building will primarily stay within the building.

Outside of the building, outdoor performances will take place during summer months, expected to be evenings. MICA will work with the city to insure that noise from outdoor concerts will meet Mercer Island noise regulations.

- iii. Proposed measures to reduce or control noise impacts, if any:
**Construction will be done during hours allowed by City of Mercer Island.
For the building, a professional acoustical engineer is providing input to the project.**

8. Land and shoreline use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Much of the site was used as a recycle center until 2010. On the north end of the site is a small concrete plaza with a flagpole. The Farmers New World Life Insurance office building is adjacent to the site on the north. To the west is a wooded slope and to the east is the lawn of Mercedale Park. To the south is a vegetated area located on top of fill dirt, generally in poor condition. A skatepark is also to the south. A stair and trail connects First Hill to the Town Center on the north of the site.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe.

How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No.

- c. Describe any structures on the site.

**The site has a one-story structure built in the 1970's for a recycle center.
The site also has public restrooms, and sinks used by the Farmers Market.**

- d. Will any structures be demolished? If so, what?

The structures described above will be demolished.

- e. What is the current zoning classification of the site?

Public Institution—P

- f. What is the current comprehensive plan designation of the site?

Park

g. If applicable, what is the current shoreline master program designation of the site?

The site is not in the Shoreline District, and not covered by the shoreline master program.

h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.

Yes. The Landslide Hazard Area Map (MICC 19.16.010) indicates that there has been an identified landslide on the site. The area is identified for potential high water table. For more specific information, refer to

Attachment C, Geotechnical Report and Attachment E, Slope Stability Review.

i. Approximately how many people would reside or work in the completed project?

As many as a dozen staff would work in the building.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Regulations for the P-zone will need to be modified by the City of Mercer Island to allow a cultural center and building permit approval for the project. The project will provide plaza space for public use and new landscaping to tie the building into its park setting. The trail to First Hill will be retained or replaced. We are working with Mercer Island Parks & Recreation on supporting and supplementing park functions.

A Zoning Code Text Amendment has been proposed as part of the project. The text amendment will allow a cultural center to be built in a P (Public Institution) zone, with restrictions. This is a procedure that the City has used previously, most recently for elementary school improvements; MICA is not receiving special privileges to use this mechanism. The text amendment will be reviewed by City staff and requires approval from City Council. MICA will comply with the same process as any other proponent of a text amendment.

For additional detail, see B.8.2 of Attachment L, Response to Comments.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas? What is the principal exterior material(s) proposed?

The tallest portion of the structure is approximately 35' high. The exterior building materials on the most visible facade will be heavily glazed.

b. What views in the immediate vicinity would be altered or obstructed?

The MICA building will be visible from very few residencies. It is visible from the park and adjacent streets. However, as it backs up against the hill it does not obstruct views of the park lawn. The MICA facility will significantly improve the current view of the recycling center area, which is screened by a hedge in poor ecological condition.

- c. Proposed measures to reduce or control aesthetics impacts, if any:

MICA plans to provide an aesthetically pleasing building, plaza, and landscaping, as reflected by conceptual renderings of the proposed project. The portion of the building along the edge of the park will be lowered for scale, with quality materials and views into the cafe, lobby, a reclaimed wood truss roof and art gallery. Landscaping along the park edge of the building will integrate the building into the park. Further, MICA's ground lease allows the City to approve the design, and it is anticipated that this review will be done through the Design Commission.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Lighting will be designed to avoid glare, to shield excess light, and to provide sufficient lighting for safety after dark. Lighting at the intersection of 77th Avenue SE and SE 32nd Street will be designed to provide a safe condition for people coming to and leaving the facility and the park. A lighting plan will be subject to approval as part of the building permit.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

- c. What existing off-site sources of light or glare may affect your proposal?

None.

- d. Proposed measures to reduce or control light and glare impacts, if anything:

Lighting will be selected to reduce glare, and will typically be downlighting. Landscape screening will control also glare from across the park. A lighting plan will be done as building design is developed.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Mercedale Park's lawn and walking path; trails through the woods; a skatepark and exercise equipment. A children's play area is also nearby, to the southeast of the lawn area. The Farmers Market takes place in the adjacent streets during warmer months. SE 32nd Street and 77th Avenue SE are closed on Sundays from 10 to 3 for the Farmers Market, and for Summer Celebration weekend. Concerts and other events take place on the lawn during the summer.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

The project will remove existing public restrooms available to park users and sinks used by the Farmers Market; however the project will provide temporary replacement during construction and permanent replacement with the finished project. The flagpole and concrete plaza at Bicentennial Park will be removed. Part of what was once referred to as the native plant garden will be removed. A portion of the park will be unavailable during construction; however, trail access (temporarily relocated) will remain available during construction.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

When MICA is complete, the current uses will all be continued. There will be a walkway around the park lawn; the pergola, the children's play area and the skateboard park. The wooded area between the skateboard park and MICA – currently in poor ecological health - will be smaller as a result of the project, and MICA has undertaken to work with the City to re-landscape and turn this area into a space all Islanders can enjoy. Public restrooms and Farmers Market storage within MICA will support the community gatherings that currently take place in and near the park. The western slope, with its trails and stairway, will remain wooded and intact. The presence of MICA will create new cultural and recreational opportunities for the community with programs, activities, and outdoor seating.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

No buildings, structures, or sites in the project boundaries are over 45 years old and listed in or eligible for listing in national, state, or local preservation registers.

Bicentennial Park, created to celebrate the year 1976, is described on the City website as “a small park adjacent to Mercerdale Park with amenities including a restroom building, a flagpole, drinking fountain, plaza and trail.” The Mercer Island Parks & Rec Plan 2014-2019 describes the pergola in the northeast corner of Mercerdale Park as honoring veterans; Bicentennial Park does not contain a memorial.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation. This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

According to the Mercer Island Historical Society website (<http://mercerislandhistory.org/east.html>): The Island was visited by native Americans but they did not live there because it was believed it was inhabited by evil spirits. The book Mercer Island, by Priscilla Ledbetter Padgett (Arcadia Publishers, 2013), also states that Native Americans did not settle on Mercer Island. Evidence of Native American use of the Island is for small temporary fishing spots. (p. 7) Because the site is not on the lake, archaeological significance of the site is highly unlikely. Additionally the DAHP Wissard Maps GLO surveys do not show any Indian sites in the area.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Review of : MI historical society website; Mercer Island, Padgett 2013; Phase 1 Report; DAHP Wisaard online database.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. **MICA will comply with all laws requiring the protection of cultural resources and human remains (RCW 27.53, 27.44,68,50 and 68.60) and if cultural resources are inadvertently identified during construction, will halt work and notify the city, DAHP and Affected Tribes accordingly. If there is additional information gathered prior to construction that demonstrates a likelihood of cultural resources on the site, then a cultural resources Inadvertent Discovery Plan will be prepared for the project by an archaeologist for use during construction.**

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area, and describe proposed access to the existing street system. Show on site plans, if any.

The site is served by the street grid of Mercer Island's Town Center.

The site is southwest of the intersection of 77th Avenue SE and SE 32nd Street; access will be from that intersection.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The Town Center is well served by King County Metro and Sound Transit at the Park and Ride, which is approximately a ten minute walk from the site. Metro routes 201 and 204 have stops a block to the east of the site, on 78th Avenue SE. Buses from the Mercer Island School District also take children to and from schools, and are expected to be a major source of transportation for classes.

c. How many additional parking spaces would the completed project or nonproject proposal have? How many would the project or proposal eliminate?

The project will neither create parking spaces or eliminate parking spaces on the site.

Five accessible parking would replace three parallel parking stalls on the south side of SE 32nd Street.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

The project would not require new roads or streets, but fire access would be provided from the south via a pedestrian route that would be strengthened to bear the weight of a fire truck. The access would be partially asphalt and partially grasscrete. It would be used only by fire truck in the event that access from the north was unavailable.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

See Attachment J, Transportation Impact Analysis.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

- h. Proposed measures to reduce or control transportation impacts, if any:

A Transportation Impact Analysis (Attachment J) and a Parking Management Plan (Attachment K) have been completed and submitted as part of this SEPA application.

15. Public services

- a. Would the project result in an increased need for public services (for example; fire protection, police protection, health care, schools, other)? If so, generally describe.

Mercer Island Fire Department will provide fire protection for the facility. The City will also provide police protection.

The project does not significantly increase the need for public service.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

The building will be fully sprinklered and have a full fire alarm system. Staff will be fully trained in First Aid and First Aid equipment will be available on site.

16. Utilities

- a. Check utilities currently available at the site:

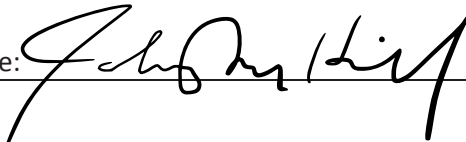
Electricity	<input checked="" type="checkbox"/>	Natural Gas	<input type="checkbox"/>	Water	<input checked="" type="checkbox"/>	Refuse Service	<input checked="" type="checkbox"/>
Telephone	<input checked="" type="checkbox"/>	Sanitary sewer	<input checked="" type="checkbox"/>	Septic system	<input type="checkbox"/>	Other	<input type="checkbox"/>

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Sanitary sewer will connect to an existing manhole in the existing asphalt driveway. Domestic water will come off of the existing water main in 77th Avenue SE. Fire lines will extend to the north and south corners of the proposed building. Power and telecommunications service will come off of an existing pole on the northwest corner of the site. Refuse service is provided by Republic on Mercer Island.

C. SIGNATURE

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the answers to the attached SEPA Checklist are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Date Submitted: **7/3/17**

SEPA RULES

SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; productions, storage, or release of toxic or hazardous substances; or production of noise?

This Supplemental Sheet for Nonproject Actions refers to the proposed Zoning Code Text Amendment to amend regulations related to the Public Institution – P-zone and proposed Comprehensive Plan amendment, if necessary, for implementation of said Zoning Code Text Amendment. The specific impacts of said Zoning Code Text Amendment and related Comprehensive Plan amendment, if necessary, are addressed in the project-related section of the the SEPA checklist. No impacts are expected other than these project-related impacts.

Proposed measures to avoid or reduce increases are:

None.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

This Supplemental Sheet for Nonproject Actions refers to the proposed Zoning Code Text Amendment to amend regulations related to the Public Institution – P-zone and proposed Comprehensive Plan amendment, if necessary, for implementation of said Zoning Code Text Amendment. The specific impacts of said Zoning Code Text Amendment and related Comprehensive Plan amendment, if necessary, are addressed in the project-related section of the the SEPA checklist. No impacts are expected other than these project-related impacts.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

None.

3. How would the proposal be likely to deplete energy or natural resources?

This Supplemental Sheet for Nonproject Actions refers to the proposed Zoning Code Text Amendment to amend regulations related to the Public Institution – P-zone and proposed Comprehensive Plan amendment, if necessary, for implementation of said Zoning Code Text Amendment. The specific impacts of said Zoning Code Text Amendment and related Comprehensive Plan amendment, if necessary, are addressed in the project-related section of the the SEPA checklist. No impacts are expected other than these project-related impacts.

Proposed measures to protect or conserve energy and natural resources are:

None.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

This Supplemental Sheet for Nonproject Actions refers to the proposed Zoning Code Text Amendment to amend regulations related to the Public Institution – P-zone and proposed Comprehensive Plan amendment, if necessary, for implementation of said Zoning Code Text Amendment. The specific impacts of said Zoning Code Text Amendment and related Comprehensive Plan amendment, if necessary, are addressed in the project-related section of the the SEPA checklist. No impacts are expected other than these project-related impacts.

Proposed measures to protect such resources or to avoid or reduce impacts are:

None.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

This Supplemental Sheet for Nonproject Actions refers to the proposed Zoning Code Text Amendment to amend regulations related to the Public Institution – P-zone and proposed Comprehensive Plan amendment, if necessary, for implementation of said Zoning Code Text Amendment. The specific impacts of said Zoning Code Text Amendment and related Comprehensive Plan amendment, if necessary, are addressed in the project-related section of the the SEPA checklist. No impacts are expected other than these project-related impacts.

Proposed measures to avoid or reduce shoreline and land use impacts are:

None.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

This Supplemental Sheet for Nonproject Actions refers to the proposed Zoning Code Text Amendment to amend regulations related to the Public Institution – P-zone and proposed Comprehensive Plan amendment, if necessary, for implementation of said Zoning Code Text Amendment. The specific impacts of said Zoning Code Text Amendment and related Comprehensive Plan amendment, if necessary, are addressed in the project-related section of the the SEPA checklist. No impacts are expected other than these project-related impacts.

Proposed measures to reduce or respond to such demand(s) are:

None.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

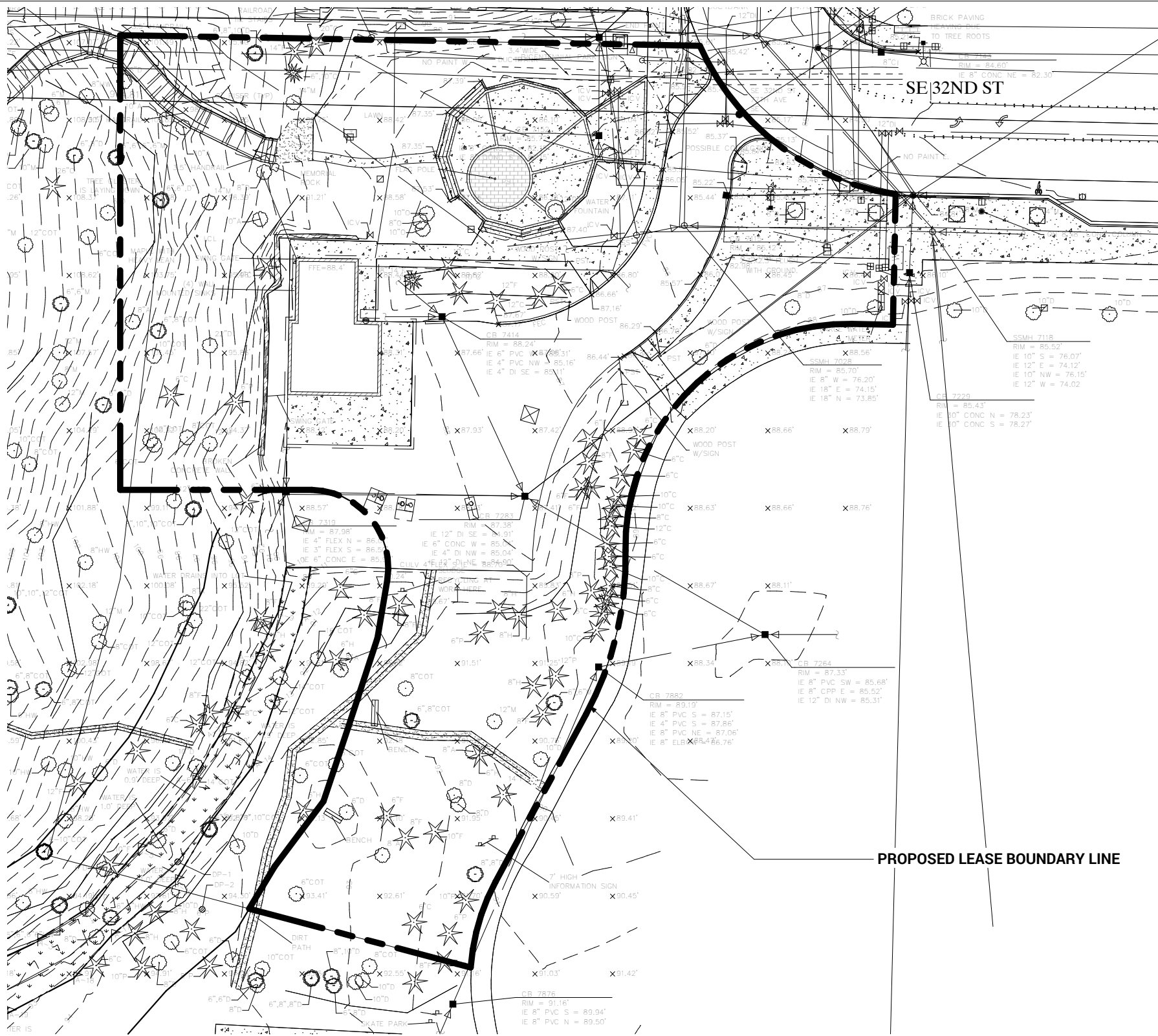
We do not believe that this proposal conflicts with local, state, or federal laws for environmental protection.

[Statutory Authority: RCW [43.21C.110](#). WSR 16-13-012 (Order 15-09), § 197-11-960, filed 6/2/16, effective 7/3/16. Statutory Authority: RCW [43.21C.110](#) and [43.21C.100](#) [43.21C.170]. WSR 14-09-026 (Order 13-01), § 197-11-960, filed 4/9/14, effective 5/10/14. Statutory Authority: RCW [43.21C.110](#). WSR 13-02-065 (Order 12-01), § 197-11-960, filed 12/28/12, effective 1/28/13; WSR 84-05-020 (Order DE 83-39), § 197-11-960, filed 2/10/84, effective 4/4/84.]

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment A
Survey/Proposed Lease Boundary

January 2017



PROPOSED LEASE BOUNDARY LINE



1433 12TH AVE
SEATTLE, WA 98122 / 206.347.8533



1205 East Pike Street Suite 2B
Seattle, WA 98122 / 206.625.0941



PROJECT:
MERCER ISLAND CENTER FOR THE ARTS
PREPARED FOR:
MICA
LOCATION:
MERCER ISLAND, WA

SHEET NAME
PROPOSED LEASE BOUNDARY
LINE
SCALE
1" = 40'-0"

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment B
Aerial/Proposed Building Footprint

January 2017



CURRENT PROPOSED LEASE BOUNDARY AND BUILDING FOOTPRINT

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment C
Geotechnical Report

January 2017



Geotechnical Engineering Design Report
**Proposed Mercer Island
Center for the Arts Building**
Mercer Island, Washington

Prepared for
Mercer Island Center for the Arts

July 26, 2016
19120-01

Geotechnical Engineering Design Report

**Proposed Mercer Island Center for the Arts
Building
Mercer Island, Washington**

Prepared for
Mercer Island Center for the Arts

July 26, 2016
19120-01

Prepared by
Hart Crowser, Inc.

Matthew W. Veenstra, PE
Senior Project
Geotechnical Engineer

David G. Winter, PE
Chief Executive Officer
Geotechnical Engineer

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APPENDIX A

Field Exploration Methods and Analysis

APPENDIX B

Laboratory Testing Program

APPENDIX C

Historical Explorations

Geotechnical Engineering Design Report

Proposed Mercer Island Center for the Arts Building

Mercer Island, Washington

This report provides our geotechnical engineering recommendations for the proposed Mercer Island Center for the Arts building in Mercer Island, Washington.

Our scope of work was to:

- Collect and assess subsurface conditions from historical explorations;
- Drill seven borings from 21.5 to 51 feet deep;
- Prepare logs of the soil explorations;
- Assess groundwater conditions;
- Conduct engineering analysis; and
- Prepare this report.

We completed this work in general accordance with our contract dated February 5, 2015. This report is for the exclusive use of Mercer Island Center for the Arts and their design consultants for specific application to this project and site. We completed this work in accordance with generally accepted geotechnical engineering practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. We make no other warranty, express or implied.

PROJECT AND SITE DESCRIPTION

The Site Vicinity Map and the Site and Exploration Plan are shown on Figures 1 and 2, respectively.

The proposed building will be located on city-owned land adjacent to the northwest corner of the Mercerdale Park. The property consists of a relatively flat, mowed lawn area to the east and a wooded slope to the west.

The top of the wooded slope begins near 74th Place SE, about elevation 280 feet, and descends eastward down to about elevation 90 feet at the toe. Upslope from the building site, the slope gradient varies from about 20 percent to greater than 40 percent across the western half of the slope and the gradient varies from less than 5 percent to about 22 percent across the eastern half of the slope. The portion of the slope that was surveyed for this study (about 120 feet west of the toe) has average gradients of about 5 to 22 percent.

Slope vegetation is primarily Alder and Maple with occasional Douglas Fir and Western Red Cedar. The Alder and Maple are frequently bowed downhill which suggests possible downhill soil creep.

The eastern half of the site varies from about elevation 88 to 91 feet and primarily consists of landscaped grass lawn and paved walking paths. The northern portion of the building site, adjacent to SE 32nd Street, is partially occupied by asphalt pavement, a one-story building, and a concrete paved area. We understand that the eastern half of the site was filled about 48 years ago when a school building was planned, but never built (Shannon & Wilson 1985).

The proposed building and improvements are illustrated on Figure 2. The building is expected to be two stories tall and have a roughly 28,000 square foot footprint. The finish floor elevation is expected to be between elevations 88 to 91 feet. The building may be cut into the west slope and retained soil cuts could be on the order of 12 to 18 feet tall.

We understand that there is no new surface parking planned at this time, but there will be a new paved fire lane.

MAPPED GEOLOGY

According to the Geologic Map of Mercer Island, Washington (Troost & Wisner 2006), the mapped geology in the vicinity of the building site includes Quaternary Vashon recessional lacustrine deposits overlain by landslide deposits and artificial fill. The encountered soils are consistent with the mapped geology.

Upslope from the site, the soils are mapped as Pre-Olympia fine-grained glacial deposits, overlain by pre-Fraser nonglacial deposits, overlain by Lawton Clay, overlain by Vashon advance outwash, overlain by Vashon subglacial till.

SUBSURFACE CONDITIONS

Subsurface Explorations

Subsurface exploration locations are shown on Figure 2 and generalized subsurface cross sections A-A' and B-B' are shown on Figures 3 and 4 respectively.

Our understanding of the subsurface conditions is based on current and historical explorations at the site and laboratory analysis of samples from the borings. On February 25 and 27, 2015, we completed seven borings, HC-1 to HC-7, to depths of 21.5 to 51.0 feet below ground surface (bgs). The exploration logs are provided in Appendix A. The results of laboratory tests are provided in Appendix B.

We also reviewed historical logs of explorations and laboratory results by Shannon & Wilson Inc. (1985). These included five soil borings, B-1 to B-5, drilled to depths of 24.5 to 39.5 feet bgs and seven test pits, TP-1 to TP-7, excavated to 10.5 to 13 feet bgs. Relevant explorations in the vicinity of the building site are SW-B-5 and SW-TP-1.

We also reviewed the historical logs of explorations and laboratory results by Hart Crowser & Associates, Inc. (1979) for the Farmers Insurance Group Building immediately north of the building site. Relevant explorations near the building site include boring HC-B-5.

Relevant historical exploration locations are shown on Figure 2 and the historical boring logs, test pit logs and laboratory results are provided in Appendix C.

Soil Conditions

The interpreted soil conditions in the vicinity of the building site generally consists of three basic soil units:

Soil Unit 1: Fill and Colluvium Soils

Interpreted fill or colluvium soils were encountered in all of explorations done for this study as well as HC-B-5, SW-B-5, and SW-TP-1 and typically consisted of as much as 2 feet of silty gravel or silty sand typically overlaying medium stiff to stiff silt, silty clay, and clay to about 4 to 9 feet bgs. Boring HC-3 encountered loose sand to 9.5 feet bgs. Test pit SW-TP-1 encountered remnant topsoil from 5 to 6.5 feet bgs and boring HC-4 encountered remnant topsoil from about 5 to 5.5 feet bgs. This soil unit is generally not suitable for heavy foundation loads or large tieback loads.

Soil Unit 2: Fine-Grained Recessional Lacustrine Soils

This soil unit generally consists of normally consolidated soft to stiff silt, clayey silt, and clay soils with occasional loose to medium dense silty and gravelly sand layers. The consistency of this soil unit is variable and is not considered suitable for support of heavy loads or settlement-sensitive structures. This soil unit is generally not suitable for heavy foundation loads or large tieback loads.

Soil Unit 3: Fine-Grained Glacially Overridden Soils

This soil unit generally consists of stiff to hard clayey silt and clay soils with occasional slickensides and highly organic zones. The depth to the top of this unit varied from about 13 to 33 feet bgs but was typically encountered within about 25 feet bgs. We recommend that pile foundations and soldier piles bear within this soil unit.

Groundwater Conditions

At the time of our visit, the ground surface was wet and soft across the site because the near-surface soils are typically fine-grained and poorly drained.

Borings HC-3, HC-4, and HC-7 encountered groundwater at about 20 feet bgs during drilling. However, most of the current and historical explorations did not encounter free water at the time of drilling/excavation but indicate groundwater levels within 1 to 2 feet bgs, suggesting excess water pressure within the relatively permeable (sandy) soil layers below ground surface (Shannon & Wilson 1985).

The regional groundwater table is deeper than the borings done for this project; however, perched groundwater within sandy soil layers and poorly draining near-surface soils can lead to local water within a couple feet of ground surface. Also, excavations into the hillside may encounter water seepage in sandy zones that can cause running or caving soils and reduced face stability.

Based on the observed and reported groundwater conditions, we recommend that drainage and waterproofing for walls and foundations be designed assuming the groundwater table is at the ground surface.

Note that water levels were measured at the times and under conditions stated on the boring logs. Fluctuations in the groundwater conditions may be caused by variations in rainfall, temperature, season, and other factors. Subsurface conditions interpreted from explorations at discrete locations on the site and the soil properties inferred from the field and laboratory tests, formed the basis of the geotechnical recommendations in this report. The nature and extent of variations between explorations may not become evident until additional explorations are performed or construction begins. If variations are encountered, it may be necessary to reevaluate the recommendations in this report.

MAPPED LANDSLIDE HAZARD REVIEW

We reviewed the Mercer Island Landslide Hazard Assessment map (Troost & Wisner 2009) for the site location. The site is mapped as an identified land slide location and is partially within mapped landslide deposits. Upslope from the building site, the map identifies areas of historic slope failure. These include:

- Slopes steeper than 15 percent (3.7H:1V) intersecting a geologic contact of relatively permeable deposits over relatively impermeable deposits with groundwater seepage
- Areas of slope steeper than 40 percent (1.2H:1V) with a vertical relief of ten or more feet (Qualifications i, ii, iii, ix)

In our opinion, construction of this building will not increase or decrease the landslide hazard in this vicinity. There is a risk that if a landslide occurs upslope from the site, the resulting landslide debris could travel down the slope and impact the proposed building. It is outside the scope of this report to provide recommendations for the potential impacts on the proposed building caused by a landslide well upslope of the building site.

GEOTECHNICAL ENGINEERING CONCLUSIONS AND RECOMMENDATIONS

Our recommendations are based on our understanding of the project and the subsurface conditions interpreted from explorations at and near the site by Hart Crowser and others. If the nature or location of the facilities is different than we have assumed, we should be notified so we can review, change, and/or confirm our recommendations.

Earthquake Engineering

Seismic Setting

The seismicity of western Washington is dominated by the Cascadia Subduction Zone (CSZ), where the offshore Juan de Fuca plate subducts beneath the continental North American plate. Three main types of earthquakes are typically associated with subduction zone environments: crustal, intraplate, and interplate earthquakes. Seismic records in the Puget Sound area clearly indicate a distinct shallow zone of crustal seismicity, the Seattle Fault, which may have surficial expressions and can extend to depths of 25 to 30 km. A deeper zone is associated with the subducting Juan de Fuca plate and produces intraplate earthquakes at depths of 40 to 70 km beneath the Puget Sound region (e.g., the 1949, 1965, and 2001 earthquakes) and interplate earthquakes at shallow depths near the Washington coast (e.g., the 1700 earthquake with an approximate magnitude of 9.0).

Seismic Hazards

- **Liquefaction induced subsidence.** There appear to be isolated zones of medium dense, wet sand beneath the building site that could lose strength during or after an earthquake. However, because significant free water and a continuous sand layer was not encountered, it is our opinion that the risk of liquefaction-induced subsidence is low.
- **Slope stability.** The slope within 120 feet or so of the building (about 14 to 18 percent slope) site is not steep enough to pose a seismic slope stability risk. Further upslope there are mapped historic failures, steep slopes, and groundwater seepage that present a risk of future landslides which could impact the proposed building. An earthquake would increase the risk of a landslide occurring.
- **Fault rupture.** The mapped northernmost splay of the Seattle Fault is about 0.3 miles south of the site. There is a remote potential for surface rupture at the site from a new splay of the Seattle Fault. However, this hazard is very low based on the Seattle Fault's 3,000-year recurrence interval, the many possible locations for surface rupture, and the likelihood that the fault would not produce surface rupture at this location.

Building Code Seismic Parameters

Based on the measured and extrapolated average SPT blowcount in the top 100 feet of soil, it is our opinion that the site class is best characterized as D.

Table 1 provides 2012 International Building Code (IBC) seismic design parameters for the site and the recommended soil Site Class. The parameters were obtained from the USGS US Seismic Design Maps web application (<http://earthquake.usgs.gov/designmaps/us/application.php>) accessed March 2015.

Table 1 – 2012 IBC Seismic Design Parameters

Parameter	Value
Latitude	47.58151
Longitude	-122.23552
Site Class	D
PGA	0.572 g
S _s	1.388 g
S ₁	0.538 g
F _a	1.0
F _v	1.5

Excavation and Shoring Options

We understand that the location of the building is subject to change. If the building is situated west of the toe of the existing slope, then shoring and/or regrading will be required to maintain soil cut and slope stability. We recommend considering the following options:

Option 1. Locate the building beyond the toe of the slope. The advantage of this option is that shoring would not need to be designed or built. The building would also not need to accommodate the relatively large static and seismic loads of the retained soil.

Option 2. Locate the building within the existing slope and retain the cut using temporary shoring; also, place the permanent building wall directly against the shoring so that the soil loads are transferred to the building structure. With this option, the building will need to be designed for the static and seismic earth pressures of the retained sloping soils.

Option 3a. Locate the building within the existing slope and retain the soil cut using permanent shoring that is not structurally connected to the building structure. With this option, the building will not need to be designed for the static or seismic earth pressures from the retained slope. The shoring will need to be designed as a permanent structure, which is more expensive than temporary shoring.

Option 3b. Locate the building about 4 feet interior of the temporary shoring wall. The gap between the shoring wall and permanent wall can be backfilled with gravel. The shoring tiebacks would be de-stressed as the gravel backfill is placed. The permanent building wall can then be designed for a conventional triangular active earth pressure distribution.

Option 4. Locate the building within the existing slope, but regrade and move the toe of the slope west, outside the building footprint. This option would not require temporary shoring and the building would not need to be designed to accommodate retained earth pressures. A permanent slope would need to be designed to be no steeper than 2H:1V.

Temporary Shoring Recommendations

Shoring should be designed by a professional structural engineer registered in the State of Washington. We recommend that we be given the opportunity to review the geotechnical aspects of the shoring design before construction. It is not the purpose of this report to provide specific criteria for the contractor's construction means and methods. The shoring contractor should be responsible for verifying actual ground conditions and determining the construction methods and procedures needed to install an appropriate shoring system.

This section addresses a temporary shoring wall built into the existing slope at the west side of the building location. Assuming an excavation down to elevation 88 feet, the slope cut could be on the order of 12 to 18 feet tall.

We did not do soil explorations along a substantial portion of the west building line, so we have assumed that the retained soils would primarily consist of Soil Unit 1 or 2.

Lateral Pressures

We expect that temporary shoring will consist of soldier piles and timber lagging with cantilevered and tied-back sections and that active earth pressures are applicable. Active earth pressures assume that the top of the shoring is allowed to deform on the order of 0.001 to 0.002 times the shoring height.

For cantilevered walls, we recommend a triangular earth pressure distribution. For tied-back walls, we recommend a trapezoidal earth pressure distribution. Our recommended earth pressures for temporary shoring are provided on Figure 5.

Timber lagging is expected to freely drain so that water does not build up behind the walls. Assuming a free-draining wall, the temporary shoring does not need to be designed for water pressure behind the wall.

Additional lateral pressures due to surcharge loads (e.g., buildings, footings, heavy equipment, large material stockpiles) should be calculated using methods shown on Figure 7. These loads would be added to the loads calculated for the shoring walls. We recommend Hart Crowser review or calculate the estimated surcharge loads when surcharge loads, footprints, and foundation plans of adjacent structures are available.

Soldier Pile Design

We make the following recommendations for soldier pile design:

- Use the axial pile capacity parameters in Table 2 to calculate the vertical capacity of the soldier piles. We recommend embedding piles at least 10 feet into the fine-grained glacially overridden soils (Soil Unit 3). Neglect the pile-side friction above the bottom of the excavation.

Table 2 - Axial Capacity Parameters for Drilled Soldier Piles

Soil Unit	Allowable Unit Side Capacity	Allowable Unit End Capacity
1 and 2	0.2 ksf	N/A
3	1.0 ksf	30 ksf

- Design soldier piles for bending using a uniform loading value equivalent to 80 percent of the design values and analyze for shear using total load.
- To design against kickout, compute the lateral resistance using the passive pressure on Figure 5 acting over two times the diameter of the concrete shaft section or the pile spacing, whichever is less.
- The embedded portion of the pile shaft should be at least 2 feet in diameter.

These recommendations assume proper installation of the soldier piles as discussed in the construction recommendations section of this report.

Lagging Design

Temporary lagging should be designed in accordance with FHWA GEC 4 (FHWA 1999), structural engineering guidelines, soil type, and local experience. Table 3 provides recommended lagging thicknesses based on the FHWA recommendations.

Based on our site investigation, we recommend using a Soil Type of “Competent.”

Table 3 – Recommended Temporary Lagging Thickness

Soil Type	Exposed Wall Height (feet)	Clear Span of Lagging (feet)					
		5	6	7	8	9	10
		Minimum Actual Thickness of Rough Cut Timber Lagging (inches)					
Competent ¹	25 and under	2	3	3	3	4	4
	Over 25 to 60	3	3	3	4	4	5
Difficult ¹	25 and under	3	3	3	4	4	5
	Over 25 to 60	3	3	4	4	5	5
Potentially Dangerous ¹	15 and under	3	3	4	5	See Note ²	See Note ²
	Over 15 to 25	3	4	5	6	See Note ²	See Note ²
	Over 25	4	5	6	See Note ²	See Note ²	See Note ²

¹Soil Type as defined in WSDOT Standard Specifications section 6-16.3(6)A

²For exposed wall heights exceeding the limits in Table 3, or where minimum rough cut lagging thickness is not provided, the Contractor should design the lagging in accordance structural engineering guidelines and local experience. Soldier pile and lagging shoring may not be appropriate in these cases.

Tieback Design

We recommend the tentative allowable tieback pullout values in Table 4 for a typical 6-inch-diameter drilled hole with a pressure-grouted bond zone. The allowable transfer load includes a recommended factor of safety of 2.0. The factor of safety should be confirmed by completing at least two successful verification tests in each soil type. Additionally, each tieback should be proof tested to 133 percent of the design load. Our recommended tieback testing program is provided in the construction recommendations section of this report. We recommend that the shoring contractor and/or designer determine a final design tieback pullout resistance based on their previous experience on Mercer Island, which must then be confirmed by field testing.

Table 4 – Tentative Pullout Capacity for Temporary Tiebacks with Pressure-Grouted Bond Zone

Soil Unit	Allowable Capacity
1 and 2	1 kip per foot
3	3 kip per foot

We make the following additional recommendations for tieback design:

- Do not install the bond zone within Soil Units 1 or 2, if possible.
- Tieback bond zones should be located outside of the no-load zone. The no-load zone is shown on Figure 5 as a zone bounded by a 60-degree line to the horizontal that starts at a distance of H/4 from the bottom of the excavation where H is the excavation height.
- Locate anchors at least three tieback diameters apart.

- Design anchor lengths so that they do not conflict with any underground support elements of adjacent structures.
- Identify existing facilities adjacent to the project site including buried utilities and foundations, as these may affect the location and the length of the anchors.
- Allow the contractor to select the tieback anchor material and the installation technique. The shoring contractor should be contractually responsible for the design of the tieback anchors, as tieback capacity is largely a function of the means and methods of installation. The selected installation method must be confirmed using verification and proof testing as discussed below.
- Hart Crowser should review the design for anchor locations, capacities, and related criteria prior to implementation.

Permanent Subgrade Walls

This section addresses permanent walls built against temporary shoring that would retain cuts into the existing slope on the west side of the building. This section also addresses backfilled walls that are not connected to temporary shoring.

Earth Pressures

Permanent subsurface walls constructed adjacent to soldier pile shoring may be designed using the same earth pressure values and distribution that was used for shoring design. If there is a gap between the shoring and permanent walls then use a conventional active earth pressure for the backfill material. The earth pressure does not include surcharge loads such as loads from adjacent buildings; these must be calculated separately and added to get the total permanent lateral pressure.

Permanent walls that are backfilled and are not adjacent to shoring walls should be designed using a triangular earth pressure distribution. For typical granular fill soil, active and at-rest pressures may be determined using the equivalent fluid unit weights in Table 5. Note that the equivalent fluid density does not include any surface loading conditions or loading due to groundwater hydrostatic pressure; also, the ground surface behind the wall is assumed to be horizontal. Walls without drainage must be designed for full hydrostatic pressure.

The use of active and passive pressure is appropriate if the wall is allowed to yield a minimum 0.001 times the wall height. For a non-yielding wall, at-rest pressures should be used.

Table 5 - Soil Equivalent Fluid Unit Weights for Walls Backfilled with Structural Fill

Soil Type	Parameter	Value (pcf)
Structural Fill	Active Earth Pressure	35
	At-Rest Earth Pressure	55
	Passive Earth Pressure ^a	300

Notes:

a. Includes a factor of safety of 1.5.

Hydrostatic Groundwater Pressure

We recommend full height drainage for all walls and foundations in order to preclude water pressure loads against the walls or foundations.

Seismic Earth Pressure on Walls

For walls retaining the soil slope, use a seismic earth pressure increment of 13H psf. For wall retaining level backfill use a seismic earth pressure increment of 9H psf. These earth pressures assume Soil Units 1 or 2 are present behind the wall with an average soil backslope of 7H:1V (8 degrees). The seismic earth pressure is calculated using the 2012 IBC design hazard level (2/3 of the MCE) for the site.

Apply the seismic increments as a uniform pressure from the top to the bottom of the wall as shown on Figure 6.

Surcharge Pressures on Walls

The pressures shown on Figures 5 and 6 do not include surcharge loads due to buildings, footings, heavy equipment, large stockpiles, etc. These loads must be calculated separately, using the methods shown on Figure 7, or similar, and added to the pressures determined using Figures 5 and 6.

We recommend Hart Crowser that review or complete the estimated surcharge loads when surcharge loads, footprints, and foundation plans of adjacent structures are available.

Foundation Design Recommendations

Axial Pile Capacity

We recommend pile foundations for the building because the upper soils are relatively weak and compressible and we expect that the building loads will be relatively high. In our opinion, the most suitable pile type is augercast piles because they typically offer the best combination of capacity and cost. Driven piles are not recommended because of potential noise issues and also ground vibrations that could adversely affect nearby slope stability.

Calculate the diameter and length of the piles using the allowable unit side and end capacities in Table 6. Do not include base capacity when calculating the total uplift capacity. Neglect side friction of the upper 5 feet of the shaft to accommodate potential soil disturbance. All piles should be embedded a minimum of 10 feet into Soil Unit 3.

Table 6 - Axial Capacity Parameters for Augercast Piles

Soil Unit	Allowable Unit Side Capacity	Allowable Unit End Capacity
1 and 2	0.2 ksf	Note recommended
3	1 ksf	35 ksf

Axial Pile Group Effects

To avoid axial group effects, we recommend a minimum center-to-center pile spacing of 3D, where D is the smallest pile diameter.

Lateral Pile Capacity

Lateral loads are resisted primarily by the horizontal bearing support of near-surface soils around the piles and pile caps. The lateral capacity of a pile depends on its length, stiffness in the direction of loading, proximity to other piles, and degree of fixity at the head, as well as on the engineering properties of the upper soils. The design lateral capacity of vertical piles will depend largely on the allowable lateral deflections of the piles.

Lateral pile analysis may be done using LPILE software using the soil parameters in Table 7.

Table 7 – LPILE Soil Parameters

Soil Unit	Soil Model	Effective Unit Weight (pcf)	Undrained Cohesion (psf)	Strain Factor, E50 (pci)
1 and 2	Soft Clay	110	600	Default
3	Stiff Clay w/o Free Water	120	4,000	Default

Lateral Pile Group Effects

Lateral group effects must be considered for pile spacings less than 5D, where D is the smallest pile diameter. We recommend the group reduction factors in Table 8 be used for LPILE analysis.

Table 8 – LPILE Reduction Factors for Lateral Pile Group Effects

Pile Center-to-Center Spacing (ft)	P-Multipliers, Pm		
	Row 1	Row 2	Row 3 and higher
3D	0.8	0.4	0.3
5D	1.0	0.85	0.7

Lateral Earth Pressures for Pile Caps and Beams

Active and passive earth pressures act over the embedded portion of pile caps and grade beams. We recommend backfilling around pile caps and beams with structural fill. We recommend using the values in Table 9 to determine the lateral earth pressure for pile caps and beams. Neglect the upper 1 foot of soil resistance unless the soil surface is covered by pavement or slabs. Passive resistance assumes a safety factor of 1.5, which may be increased by 1/3 for short-term loads such as wind or earthquake.

Table 9 – Lateral Earth Pressure Determination for Pile Caps and Beams

Parameter	Soil Type	Value (pcf)
Active Earth Pressure	Structural Fill	35
Passive Earth Pressure	Structural Fill	300

Mobilization of passive pressure may be calculated from Figure 4-6 of ASCE 41-06 for varying degrees of movement as calculated iteratively using LPILE. Alternatively, full passive pressure may be used for movement of 0.05H, where H is the depth below ground surface to the bottom of the pile cap or beam.

Bearing Layer Depth for Piles

As previously discussed, we recommend that all piles penetrate at least 10 feet into Soil Unit 3, the bearing layer. Table 10 provides the depth to the bearing layer at specific exploration locations. The depth to the top of Soil Unit 3 varied from about 13 to 33 feet bgs in the soil borings but was typically encountered within about 25 feet bgs. The depth to the bearing layer could vary significantly within unexplored areas of the site.

Table 10 – Depth Top of Soil Unit 3 at Exploration Locations

Exploration ID	Depth to Bearing Layer (feet)
HC-3	27
HC-4	33
HC-5	Greater than 21.5
SW-B5	21
HC-6	13
HC-7	23
HC-B-5	26

The depth to the top of Soil Unit 3 is likely highly variable across the site; therefore, for estimating pile drilling and material quantities, we recommend adding 5 feet to the calculated pile lengths. The final pile lengths should be established during drilling based on interpreted soil conditions. If

unexpected subsurface conditions are encountered during construction, the pile lengths may need to be adjusted.

Note on that borings HC-5 and SW-B-5 were drilled close to each other; however, the SPT blowcounts in SW-B-5 are considerably higher at shallower depths than in HC-5, in fact HC-5 did not encounter suitable bearing soils to the depth drilled. This is indicative of a high potential for unexpected subsurface conditions and variability across the site that can cause uncertainty and variability of construction estimates and actual construction costs.

To reduce the uncertainty of as-built pile lengths and potential construction cost overruns, additional explorations could be done across the finalized building footprint to refine the depth to the top of Soil Unit 3. For the sake of time and cost efficiency, we recommend doing these explorations using a Cone Penetration Test (CPT) or drilled borings. These explorations should be done after the building location is finalized and the resulting information should be provided to pile contractors as part of the request for bid.

GROUNDWATER CONTROL

Temporary Construction Dewatering

Water collected and discharged during construction will include stormwater, groundwater, and process water from construction activities.

Groundwater was not encountered during drilling in most of the current and historical borings; however, borings HC-3, HC-4, and HC-7, encountered water at about 20 feet bgs. Also, historical reports (Hart Crowser 1979, Shannon & Wilson 1985) show accumulated groundwater in monitoring wells near the ground surface within several hours after drilling.

For the planned finish floor elevation of about elevation 88 to 91 feet, groundwater inflow is expected to be minimal during excavation, manageable using trenches and sumps. Excavations left open for several hours may accumulate groundwater near the ground surface. Deep excavations for building spaces below the finish floor, such as elevator pits, may require active dewatering prior to excavation. Active dewatering may include wellpoints or sumps installed around the perimeter of the excavation.

The amount of water discharged from the site depends on many factors including design and operation of the dewatering system (if applicable), the excavation depth and extent, and the variability in soil and groundwater properties. Note that rainfall, surface water, and groundwater from adjacent utility trenches can significantly increase short-term water discharge rates. Also, the time of year and nearby construction dewatering activities can affect groundwater flows.

Permanent Drainage

Walls Placed against Shoring

We recommend installing drainage board (e.g., Miradrain 6100) between the shoring and permanent wall from the ground surface down to the full depth of the wall. The purpose of the drainage board is to prevent hydrostatic groundwater pressure buildup caused by surface water infiltration or perched groundwater above the water table. The drainage board can be connected to a pipe and discharged into a sump. We also recommend full coverage waterproofing for all below-grade, occupied spaces to provide a dry space. If the permanent wall has backfill behind it, install a perforated drain pipe at the bottom of the backfill to convey water to a suitable discharge point.

Slabs-on-Grade

- Slab-on-grade floors should be underlain by at least 6 inches of capillary break consisting of mineral aggregate Type 21 or Type 22, City of Seattle Standard Specification 9-03.16, with the exception that this material should have less than 10 percent sand and less than 3 percent fines.
- Any soil that is to be considered as capillary break and/or drainage material should be submitted to Hart Crowser for gradation analysis and approval.
- Provide underslab drainage using a combination of perimeter and cross drains. Drains should consist of perforated pipe placed in trenches at least 12 inches deep where the top of the trench is the bottom of the capillary break.
- Cross drains should be spaced about 30 to 40 feet apart and perimeter drains should extend around the perimeter of the building. The cross drains and the perimeter drains should be tied together and sloped to drain to a suitable discharge point.
- A layer of polyethylene sheeting should be used to protect the drainage layer from concrete as the floor slab is poured.
- Drainage material should be compacted to 90 percent of maximum dry density as determined by the Modified Proctor Method, ASTM D 1557.

Backfilled Walls

Walls with soil backfilled on one side only will require drainage or they must be designed for full hydrostatic pressure. We recommend the following:

- Backfill with a minimum thickness of 18 inches of free-draining sand or sand and gravel that is well-graded (i.e., has a wide range in particle size).
- Install drains behind any backfilled subgrade walls. The drains, with cleanouts, should consist of a minimum 4-inch-diameter perforated pipe that is placed on a bed of, and surrounded by, at least 6

inches of free-draining sand or sand and gravel. The drains should be sloped to carry the water to a sump or other suitable discharge.

- The backfill should be continuous and envelop the drainage behind the wall.
- The drainage fill surrounding the pipe should be compatible with the size of the holes in the pipe.
- Where dry interior spaces are required, backfilled walls should be waterproofed.

Final Site Drainage

The site should be graded in such a way that surface water will not pond near the structures. Roof drains should not be connected to the subgrade drainage system and should be sloped and tightlined to a suitable outlet away from the proposed building.

Pavement Areas

The pavement areas should be graded in such a way that surface water will not pond and will drain to a suitable outlet.

Pavement Design

We understand that new pavement is limited to a fire lane that will approach the building from the south.

For asphalt pavement we recommend 6 inches of hot mix asphalt (HMA) in high-traffic or heavy-duty zones and 3 inches of HMA in light-duty zones. HMA should be underlain by 6 inches of crushed rock base course conforming to City of Seattle Standard Spec Aggregate Type 2 – 3/4" Minus Crushed Gravel.

The subgrade beneath the crushed rock base course should be compacted to 95 percent of maximum dry density as determined by the modified Proctor test (ASTM D 1557) or otherwise deemed acceptable by Hart Crowser. Where the existing subgrade consists of fine-grained native soils or uncontrolled fill, we recommend excavation and replacement with up to 1.5 feet of compacted structural fill. Structural fill should conform to City of Seattle Standard Spec Aggregate Type 17. The structural fill should be underlain by a woven geotextile such as Mirafi 500x or better.

GEOTECHNICAL RECOMMENDATIONS FOR CONSTRUCTION

Recommendations for Soldier Pile Installation

- Conditions such as caving soil and groundwater can loosen soil at the bottom of the soldier pile borehole and reduce bearing capacity in the zone of disturbed soil.

- Tieback de-tensioning and shoring failure could occur if bearing capacity is inadequate and soldier piles settle under the vertical component of the inclined tieback load. We recommend that a Hart Crowser representative closely monitor soldier pile installation for these conditions so that construction methods can be adjusted accordingly.
- The contractor should be prepared to case the soldier pile holes where loose soils or groundwater seepage could cause loss of ground. Fill soils can be especially prone to caving and may require casing. The actual need for casing should be determined in the field at the time of installation.
- If the shaft excavation contains water or slurry, the contractor should place backfill using a tremie. Lean mix, concrete, and controlled density fill should not be end-dumped through water or slurry.
- The contractor should be prepared to excavate the soldier piles in a manner that prevents heave or boiling at the bottom of the soldier pile excavation. It may be possible to over-drill the borehole and backfill the bottom of the borehole with structural concrete bearing on undisturbed soil.
- Drilling mud should not be used unless use of the mud is reviewed and approved by Hart Crowser, the shoring designer, and the structural engineer.
- Soldier-pile shoring construction may be difficult if cobbles or loose sand and gravel are encountered in the excavation. If these conditions are encountered, substantial soil raveling could occur.

Recommendations for Lagging Installation

- Prompt and careful installation of lagging, particularly in areas of seepage and loose soil, is important to maintain the integrity of the excavation. The contractor should be prepared to place lagging in small vertical increments and to backfill voids caused by ground loss behind the shoring system. Proper installation to prevent soil failure and sloughing and loss of ground, and to provide safe working conditions, should be the responsibility of the shoring contractor.
- Backfill voids greater than 1 inch using sand, pea gravel, or a porous slurry. Backfill the void spaces progressively as the excavation deepens. The backfill must not allow hydrostatic pressure buildup behind the wall. Drainage behind the wall must be maintained or hydrostatic water pressure should be added to the recommended lateral earth pressures.
- If there is a slope above the wall, install extra lagging above the shoring wall to provide a partial barrier for material that could ravel down from the slope face and fall into the excavation.

Recommendations for Tieback Installation

- Pump structural grout into the anchor zone using a grout hose or tremie hose placed at the bottom of the anchor.

- Fill the portion of the tieback in the no-load zone with a non-cohesive mixture of sand-pozzolan-water or equivalent; or, install a bond breaker such as plastic sheathing or a polyvinyl chloride (PVC) pipe around the tie rods within the no-load zone.
- Grout and backfill tiebacks immediately after placing the anchor. To prevent collapse of anchor holes, ground loss, and surface subsidence, do not leave anchor holes open overnight.
- Take care not to mine out large cavities in granular soil.
- If using pneumatic drilling techniques near utility vaults, corridors, or subgrade slabs, maintain continuous cutting return so those structures are not damaged by the air pressure.
- Install anchors to minimize ground loss and do not disturb previously installed anchors. During tieback drilling, wet or saturated zones may be encountered and caving or blow-in could occur. Drilling with a casing may reduce the potential for these conditions and ground loss.
- Test the tiebacks to confirm the appropriateness of the anchor design values and to verify that a suitable installation is achieved.

Recommendations for Tieback Testing

The tieback anchor testing program should include verification testing of select tiebacks and proof testing of all production tiebacks. We recommend that tieback testing be done in general accordance with the recommendations in the publication Recommendations for Prestressed Rock and Soil Anchors by the Post Tensioning Institute (PTI 2004) and the recommendations below.

Verification Tests

We recommend a minimum of two verification tests per soil type before installation of production anchors to validate the design pullout value. The geotechnical engineer will select the testing locations with input from the shoring subcontractor. The geotechnical engineer or shoring designer may require additional verification tests when creep susceptibility is suspected or when varying ground conditions are encountered.

Verification tiebacks should be installed by the same methods and personnel, using the same material and equipment, as the production tiebacks; the engineer will determine whether deviations require additional verification testing. At least two successful verification tests should be performed for each installation method and each soil type.

Verification tests load the tieback to 200 percent of the DL and include a 60-minute hold time at 150 percent of the DL. The tieback DLs will be on the shoring drawings. The tieback load should not exceed 80 percent of the steel's ultimate tensile strength. Verification test tiebacks should be incrementally loaded and unloaded using the schedule in Table 11.

Table 11 – Tieback Verification Test Schedule

Load Level	Hold Time
Alignment load	Until stable
0.25DL	10 min
0.5DL	10 min
0.75DL	10 min
1.0DL	10 min
1.25DL	10 min
1.5DL	60 min
1.75DL	10 min
2.0DL	10 min

The alignment load should be the minimum load required to align the testing assembly and should be less than 5 percent of the DL. The dial gauge should be zeroed after the alignment load has stabilized. Perform a creep test at 1.5DL by holding the load constant to within 50 psi and recording deflections at 1, 2, 3, 5, 6, 10, 20, 30, 50, and 60 minutes.

The acceptance criteria for a verification test are:

- The creep rate at 1.5DL is less than 0.08 inches between 6 and 60 minutes and the creep rate is linear or decreasing during the creep test;
- The total tieback displacement is greater than 80 percent of the theoretical elastic elongation of the design unbonded length plus the jack length; and
- The anchor does not pull out under repeated loading.

Proof Tests

Proof tests load the tieback to 1.33DL and include a 10-minute hold time at 1.33DL. The tieback DLs should be on the shoring drawings. The tieback load should not exceed 80 percent of the steel's ultimate tensile strength. Proof tests should be incrementally loaded and unloaded using the schedule in Table 12.

Table 12 – Tieback Proof Test Schedule

Load Level	Hold Time
Alignment load	Until stable
0.25DL	1 min
0.5DL	1 min
0.75DL	1 min
1.0DL	1 min
1.33DL	10 min

The alignment load should be the minimum load required to align the testing assembly and should be less than 5 percent of the design load. The dial gauge should be zeroed after the alignment load has stabilized.

The load should be held constant to within 50 psi and deflections recorded at 1, 2, 3, 5, 6 and 10 minutes. If the tieback deflection between 1 and 10 minutes at 1.33DL exceeds 0.04 inches, the load should be held for an additional 50 minutes and deflections recorded at 20, 30, 50, and 60 minutes.

The acceptance criteria for a proof test are:

- The creep rate at 1.33DL is less than 0.04 inches between 1 and 10 minutes or less than 0.08 inches between 6 and 60 minutes and the creep rate is linear or decreasing during the creep test;
- The total tieback displacement is greater than 80 percent of the theoretical elastic elongation of the design unbonded length plus the jack length; and
- The anchor does not pull out under repeated loading.

Shoring Monitoring Program

A shoring monitoring program is recommended to provide early warning of shoring not performing as expected and to identify potential remedial measures. For this project, potential shoring includes a wall to retain soil cuts into the west slope and structures below finish grade, such as elevator or orchestra pits.

Prior to shoring, we recommend doing a pre-construction survey. A preconstruction survey documents the condition of pavement, utilities, buildings and upslope areas. The survey should include video and/or photographic documentation. The size and location of existing cracks in streets and buildings should receive special attention and may be monitored with a crack gauge.

During construction, we recommend optical surveys of horizontal and vertical movements of (1) the surface of the sloping ground above the building, (2) buildings adjacent to the site, and (3) the shoring system itself. The points on the adjacent buildings can be set either at the base or on the roof of the buildings. Points on the shoring should be set on every soldier pile.

For shoring that cuts into the west slope, we recommend installing a minimum of two slope inclinometer casings, one inclinometer casing attached to a soldier pile and the other inclinometer casing installed upslope from the shoring at a horizontal distance equal to the wall height.

The optical survey, or other measuring systems, should have an accuracy of at least 0.001 foot. All reference points on the ground surface should be installed and read before excavation begins. The frequency of readings will depend on the results of previous readings and the rate of construction. At a minimum, readings on the external points should be taken twice a week through construction until below-grade structural elements (such as floors, decks, columns) are completed, or as specified by the structural and geotechnical engineers. Readings on the top of soldier piles and the face of existing

buildings on or adjacent to the property should be taken at least twice a week during this time. We recommend that the owner hire an independent surveyor to record the data at least once per week; the surveyor or contractor could take the other weekly reading.

For buildings and streets adjacent to excavations we recommend a post-construction survey. A post-construction survey includes reviewing the preconstruction survey and comparing it to post-construction conditions. The survey should include video and/or photographic documentation. Changes in the number, size, or location of cracks in streets and buildings should be given special attention.

Augercast Pile Construction

We recommend that we observe the installation of augercast piles, so we can evaluate the contractor's operation and collect and interpret the installation data. Because a completed pile is below the ground surface and cannot be observed during construction, judgment and experience must be used to aid in determining the acceptability of the pile. We recommend close monitoring of installation procedures such as installation sequence, auger withdrawal rate, grouting pressure, and quantity of grout used per pile. Variations from the established pattern, such as low grout pressure, excessive settlement of grout in a completed pile, etc., would make the pile susceptible to rejection.

We make the following recommendations for augercast pile installation:

- Do not install two piles within 5-pile diameters of each other (center to center spacing) within a 12-hour period. This is intended to prevent interconnection of grout between piles.
- Require the contractor to provide a pressure gage in the grout line.
- Minimum pressures should be those required to maintain a steady flow of grout to the auger. A typical value of 100 pounds per square inch (psi) should be used for this purpose.
- Rapid drops in the grout pressure of 50 psi or more occurring when otherwise accepted procedures are used should be specified as a possible cause for reconstructing the pile.
- The rate of grout injection and rate of auger withdrawal from the soils should be able to maintain a positive grout head of at least 10 feet above the bottom of the auger. Loss of head during grout injection due to interrupted grout flow should be remedied by reinsertion of the auger 5 to 10 feet below the depth at which the interruption occurred, or to the bottom of the pile if the depth is unknown.
- Withdraw auger from hole at a slow rate so that pressure on the grout column is maintained.
- Require contractor to provide a means of monitoring quantity of grout used per pile. A stroke counter on the grout pump is the most efficient means to obtain grout quantity. Each time a new grout pump is used a new calibration in cubic yards per stroke should be provided. Typically, the ratio of measured to theoretical grout volume should be maintained between 1.2 and 1.5.

- Require the contractor to rotate the auger after initial grout pumping (about 2 cubic feet) prior to the beginning of auger withdrawal to help establish a firm bearing condition at the end of the pile.

Earthwork

Site Preparation and Grading

We recommend all site grading, paving, and any utility trenching be conducted during relatively dry weather conditions. At the time of our site explorations the ground surface was wet, soft and muddy. The existing ground surface is not suitable for construction traffic or staging areas. Working areas will need to be built using geotextile, quarry spalls, etc. Maintaining an adequate working surface should be the responsibility of the contractor.

It may be necessary to relocate or abandon some utilities. Excavation of these utility lines will probably occur through fill. Abandoned underground utilities should be removed or completely grouted. Ends of remaining abandoned utility lines should be sealed to prevent piping of soil or water into the pipe. Soft or loose backfill should be removed, and excavations should be backfilled with structural fill. Coordination with the utility agency is generally required.

Structural Fill

Backfill placed within the building area or below paved areas should be considered structural fill. We make the following recommendations for structural fill:

- For imported soil to be used as structural fill, use a clean, well-graded sand or sand and gravel with less than 5 percent by weight passing the No. 200 mesh sieve (based on the minus 3/4-inch fraction). Compaction of soil containing more than about 5 percent fines may be difficult if the material is wet or becomes wet during rainy weather.
- Place and compact all structural fill in lifts with a loose thickness no greater than 10 inches. For hand-operated “jumping jack” compactors, loose lifts should not exceed 6 inches. For small vibrating plate/sled compactors, loose lifts should not exceed 3 inches.
- Compact all structural fill to at least 95 percent of the modified Proctor maximum dry density (as determined by ASTM D 1557 test procedure).
- Control the moisture content of the fill to within 2 percent of the optimum moisture. Optimum moisture is the moisture content corresponding to the maximum Proctor dry density.
- In wet subgrade areas, clean material with a gravel content of at least 30 to 35 percent may be necessary. Gravel is material coarser than a US No. 4 sieve.
- Before filling begins, provide samples of the structural and drainage fill for laboratory testing. Laboratory testing will include a Proctor test and gradation for structural fill and a gradation for drainage fill. Field testing with a nuclear density gauge uses the maximum dry density determined

from a Proctor test so it is important to complete the laboratory testing as soon as possible in order to not delay backfilling.

Use of On-Site Soil as Structural Fill

Our explorations indicated that the near-surface site soil includes silty to very silty, slightly gravelly to gravelly sand, silt, and clay with scattered organic material; we do not recommend using these soils for structural fill.

Temporary Cuts

Because of the variables involved, actual slope grades required for stability in temporary cut areas can only be estimated before construction. We recommend that stability of the temporary slopes used for construction be the sole responsibility of the contractor, since the contractor is in control of the construction operation and is continuously at the site to observe the nature and condition of the subsurface. Excavations should be made in accordance with all local, state, and federal safety requirements.

The stability and safety of open trenches and cut slopes depend on a number of factors, including the soil conditions, seepage conditions, depth of cuts, duration, proximity to surcharge loads and soil stockpiles, and general care and methods used by the contractor.

Temporary excavations should either be shored or sloped in accordance with Part N, WAC 296-155-650 through 296-155-66411. For planning purposes, we recommend maximum temporary cuts of 2H:1V.

In addition to the WAC requirements, we recommend limiting the depth and duration of temporary cuts and using plastic sheeting to protect the soil from rain. Also, if groundwater seepage is encountered during excavation, the contractor should install temporary drainage to reduce caving or sloughing of cut faces and to protect adjacent soil from becoming wet and soft. Temporary cuts that encounter seepage may need to be flattened to maintain stability.

RECOMMENDATIONS FOR CONTINUING GEOTECHNICAL SERVICES

Before construction begins, we recommend that we continue to meet with the design team, as needed, to address geotechnical questions that may arise throughout the remainder of the design and permitting process. We also recommend that we review the project plans and specifications to confirm that the geotechnical engineering recommendations have been properly interpreted.

During construction, we recommend that Hart Crowser be retained to perform the following tasks:

- Review contractor submittals;
- Observe shoring installation;

- Observe foundation installations;
- Observe foundation drainage installation;
- Other observations as required by the city of Mercer Island;
- Attend meetings, as needed; and
- Provide geotechnical engineering support that may arise during construction.

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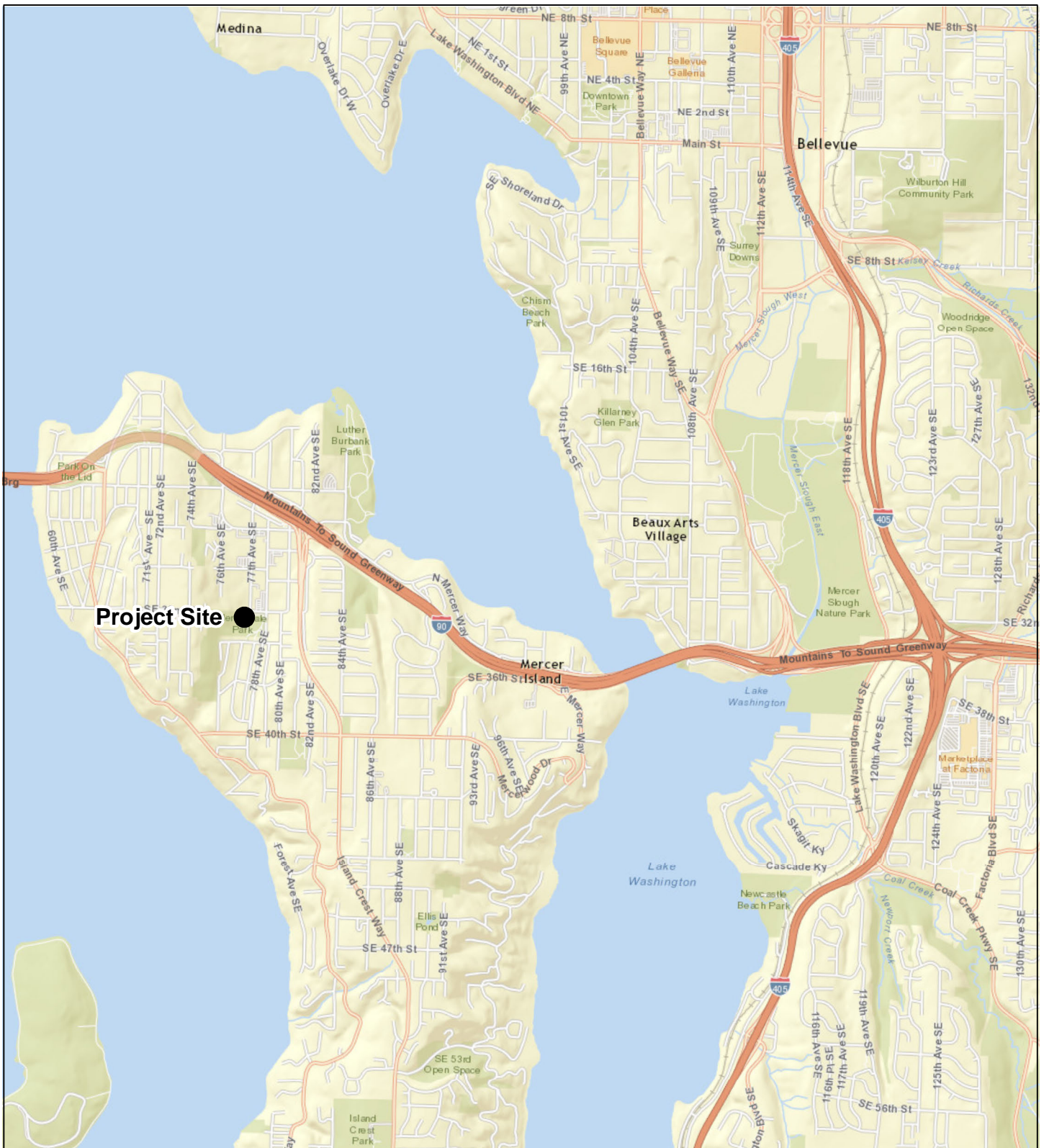
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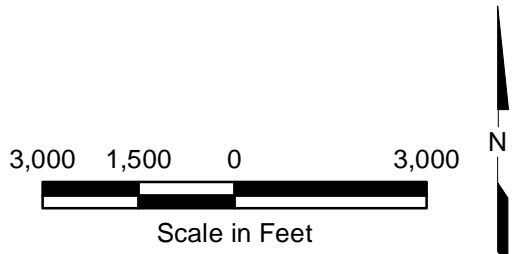
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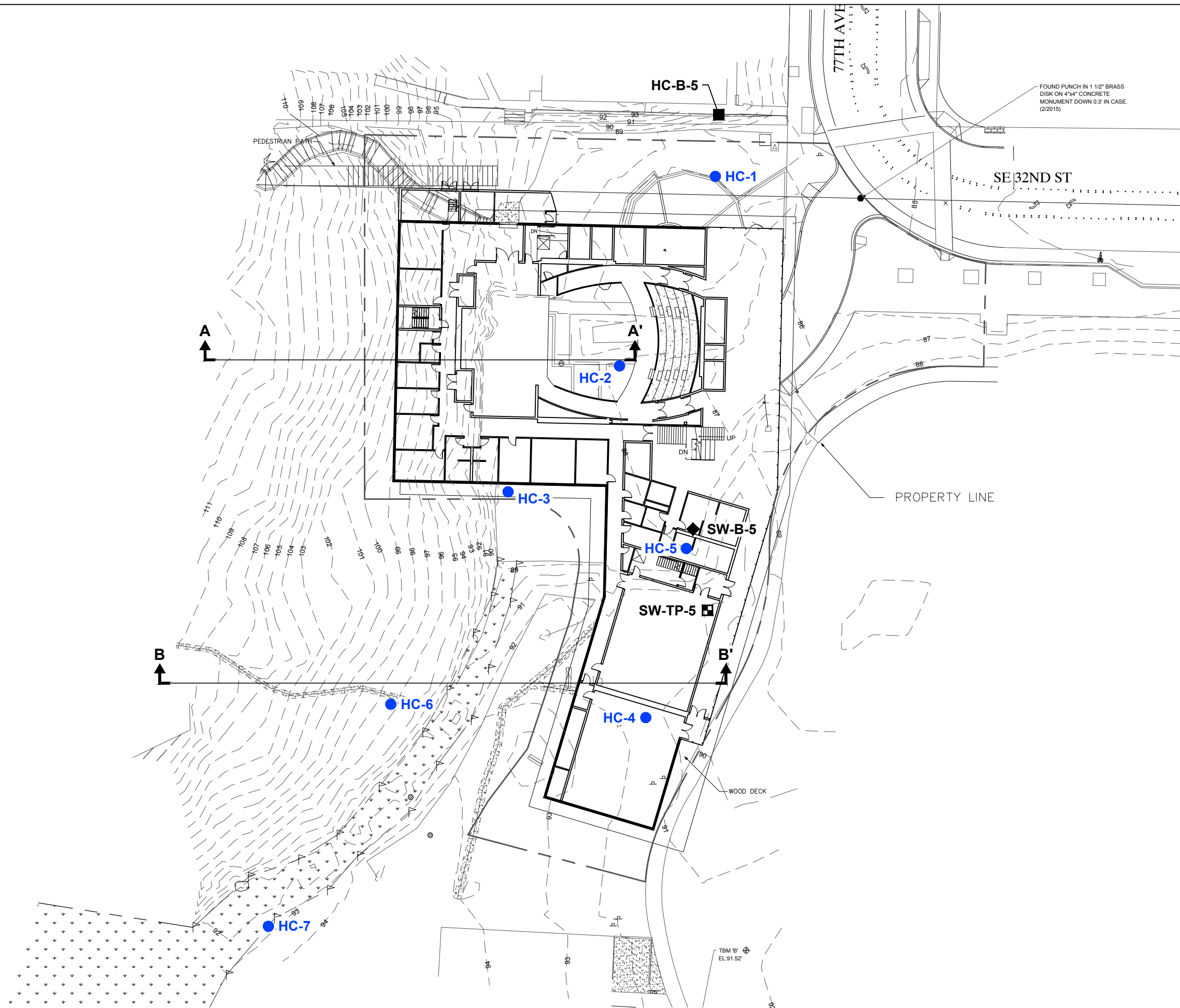


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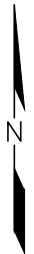
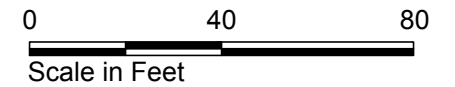


Mercer Island Center for the Arts Mercer Island, Washington	
Vicinity Map	
19120-01	7/16
	Figure 1



Legend

- HC-1 ● Boring (Hart Crowser 2015)
- SW-B-5 ◆ Boring (Shannon & Wilson 1985)
- SW-TP-5 ◼ Test pit (Shannon & Wilson 1985)
- HC-B-5 ◼ Boring (Hart Crowser 1980)
- A A' Cross section



Mercer Island Center for the Arts
Mercer Island, Washington

Site and Exploration Plan

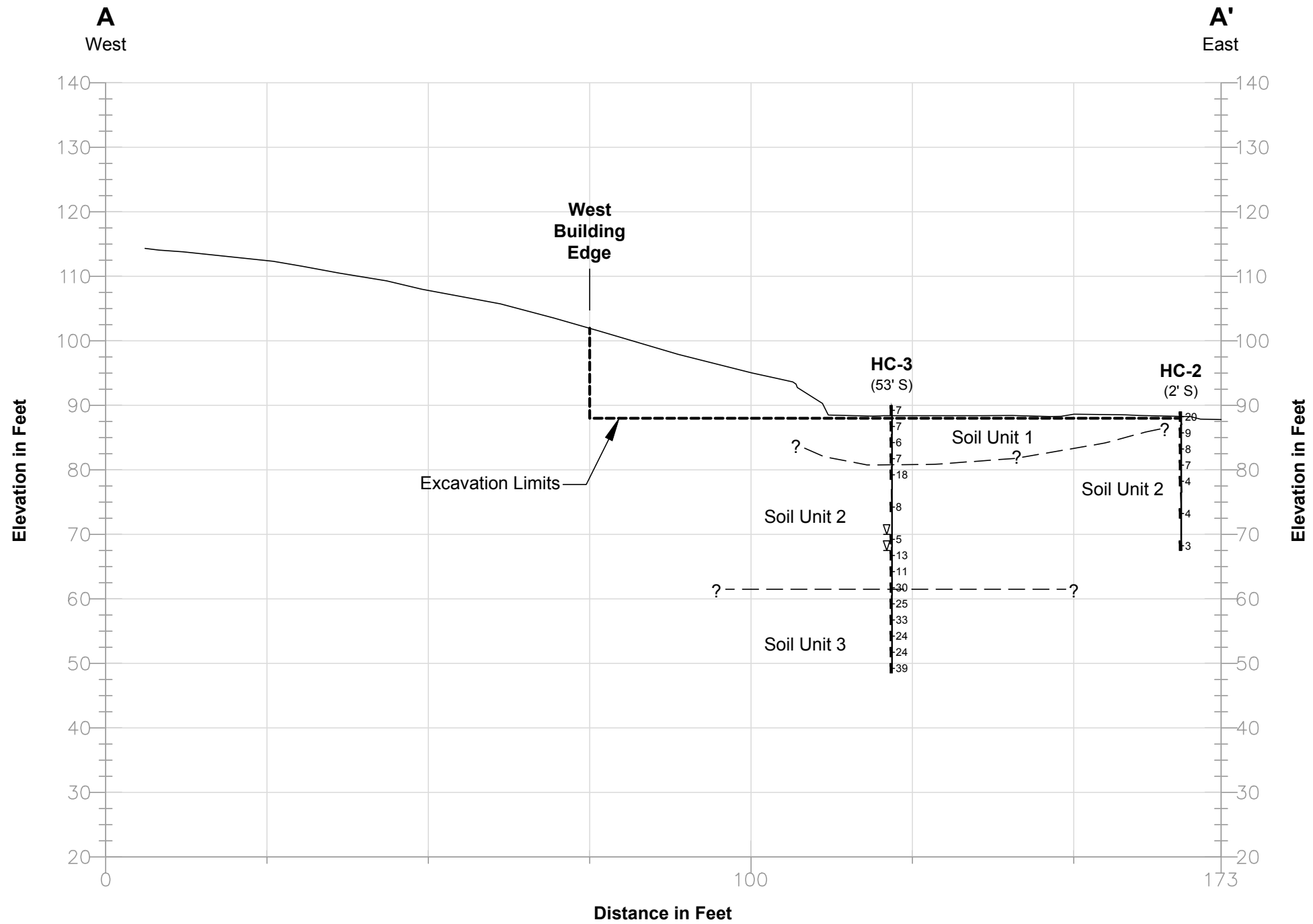
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7/16



Figure

2

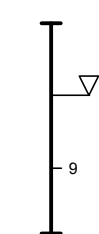


HC-2 Exploration number
(2' S) (Offset distance and direction)

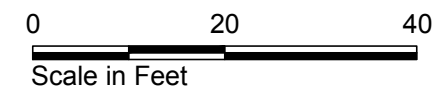
Exploration

Water level

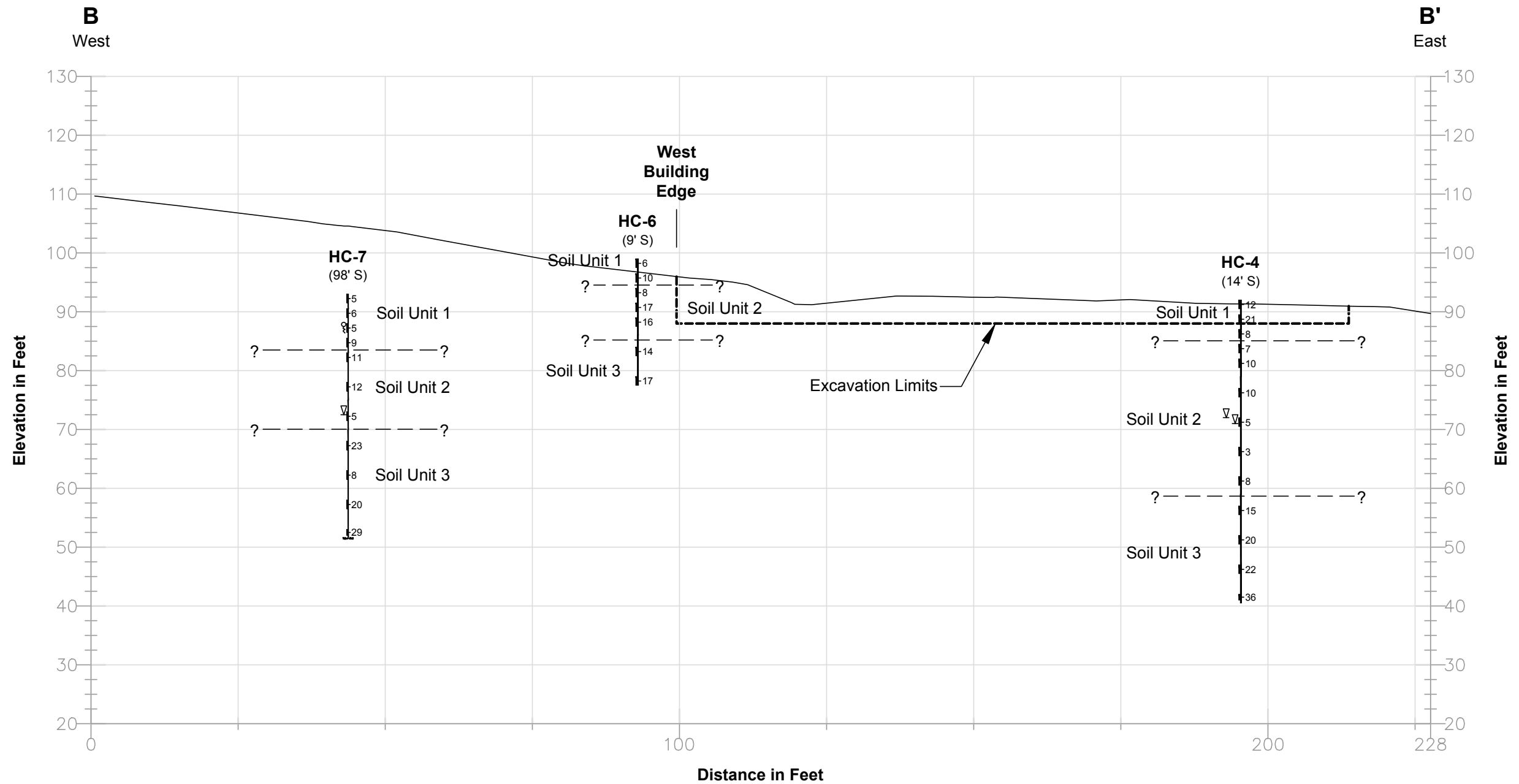
Standard penetration resistance in
blows per foot



Note:
Contact between soil units is interpolated between borings and represents our interpretation of subsurface conditions based on currently available data.



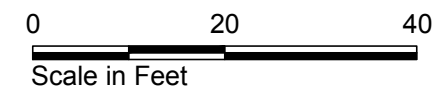
Mercer Island Center for the Arts Mercer Island, Washington	
Generalized Subsurface Cross Section A-A'	
19120-01	7/16
	Figure 3



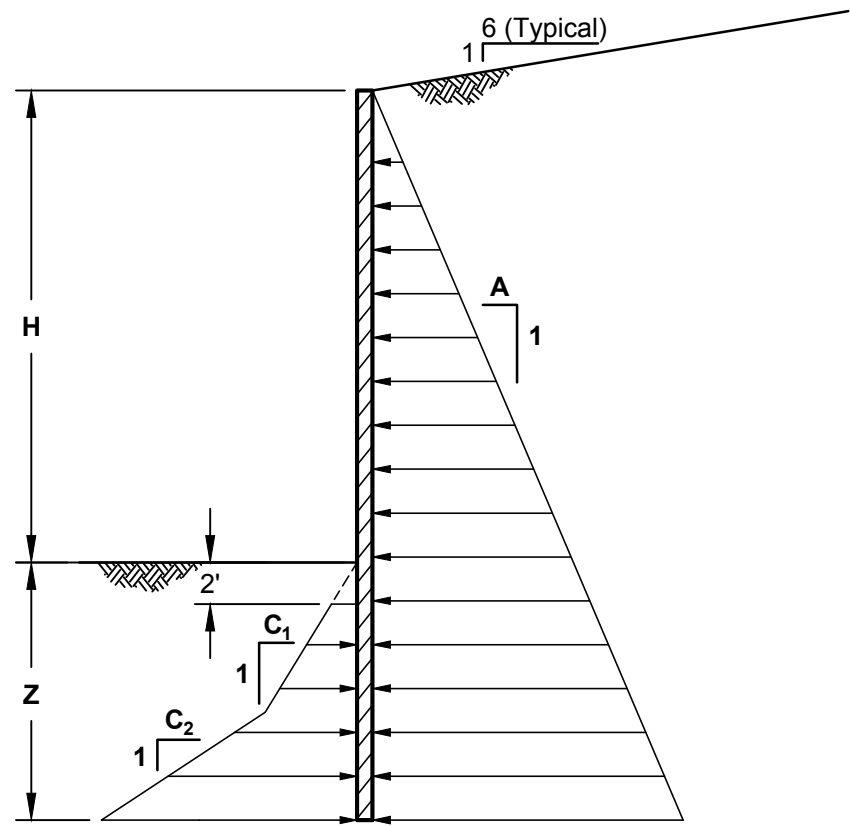
Note:
Contact between soil units is interpolated between borings and represents our interpretation of subsurface conditions based on currently available data.

HC-2 (2' S)
Exploration number (Offset distance and direction)

- Exploration
- Water level
- Standard penetration resistance in blows per foot

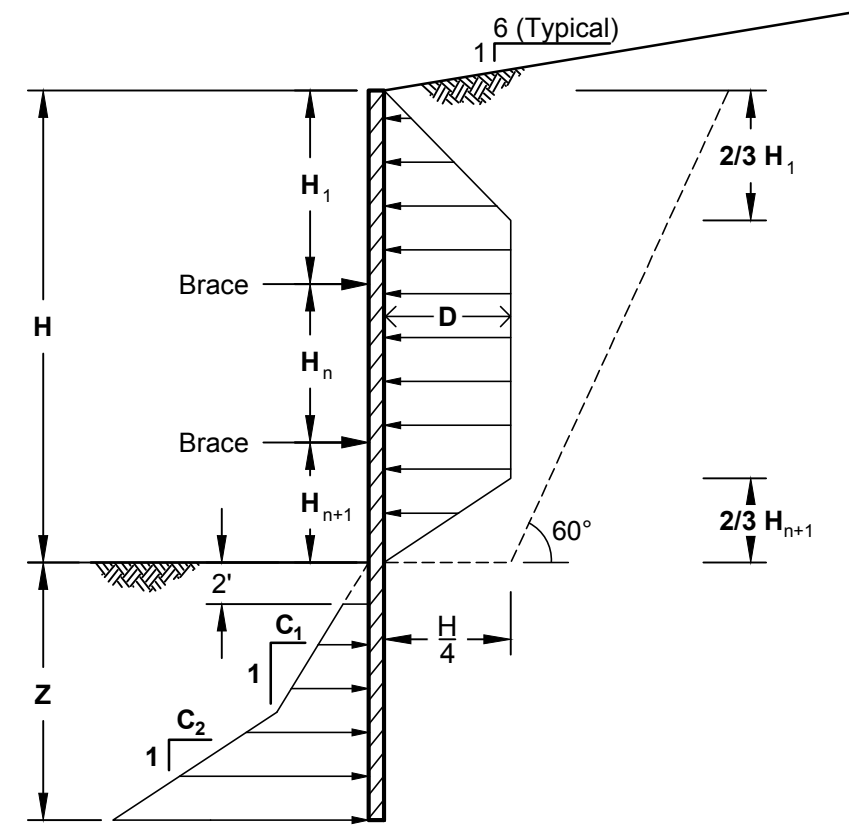


Mercer Island Center for the Arts Mercer Island, Washington	
Generalized Subsurface Cross Section B-B'	
19120-01	7/16
	Figure 4



Passive Earth Pressure Active Earth Pressure

Cantilever Soldier Pile and Single-Braced Wall



Passive Earth Pressure Apparent Earth Pressure

Multiple-Braced Wall

Recommended Lateral Earth Pressures

	A	C ₁ (Soil Units 1-2)	C ₂ (Soil Unit 3)	D
Active	60 pcf	-	-	38H
Passive	-	215 pcf	350 pcf	-

Notes:

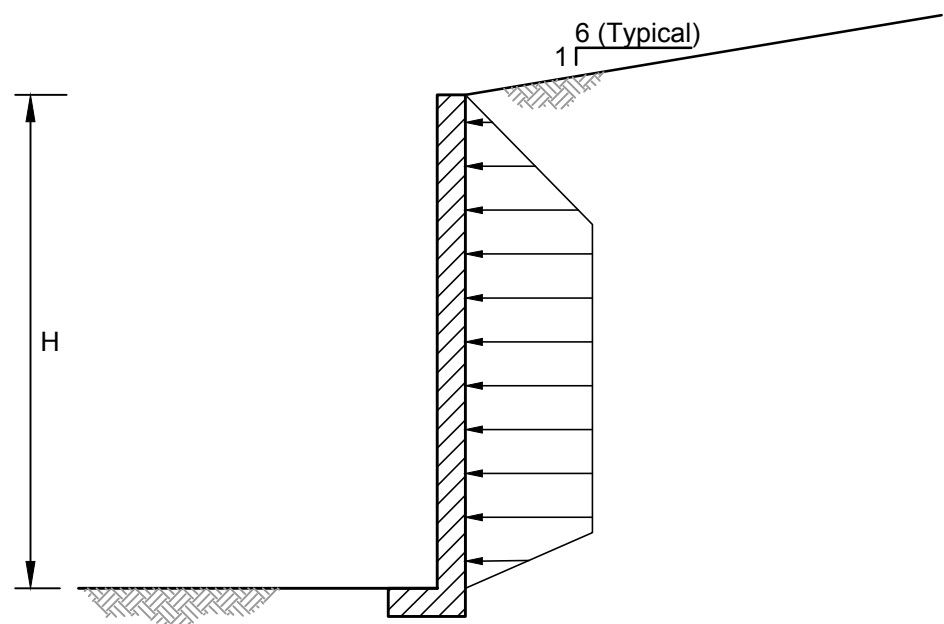
- For design, add 2 feet to the retained height.
- B and D are recommended equivalent uniform values.
- All earth pressures are in units of pounds per square foot.
- Minimum recommended embedment (Z) is 10 feet.
- Passive pressures are allowable values and include a 1.5 factor of safety.
- Passive pressure acts over 2.5 times the concreted diameter of the soldier pile or the pile spacing, whichever is less.
- Apparent earth pressure and surcharge act over the pile spacing above the base of the excavation.
- Active pressure acts over the pile diameter below the excavation.
- Additional surcharge (e.g. from footings, large stockpiles, heavy equipment), must be added to these pressures.
- All dimensions are in feet.
- Diagrams are not to scale.

Legend

- H Total height of excavation (feet)
- H₁ Depth to uppermost tieback (feet)
- H_n Height between tiebacks (feet)
- H_{n+1} Distance from base of excavation to lowermost tieback (feet)
- Z Embedment depth (feet)
- A,B,C, ... Earth pressure factors
- No-load zone

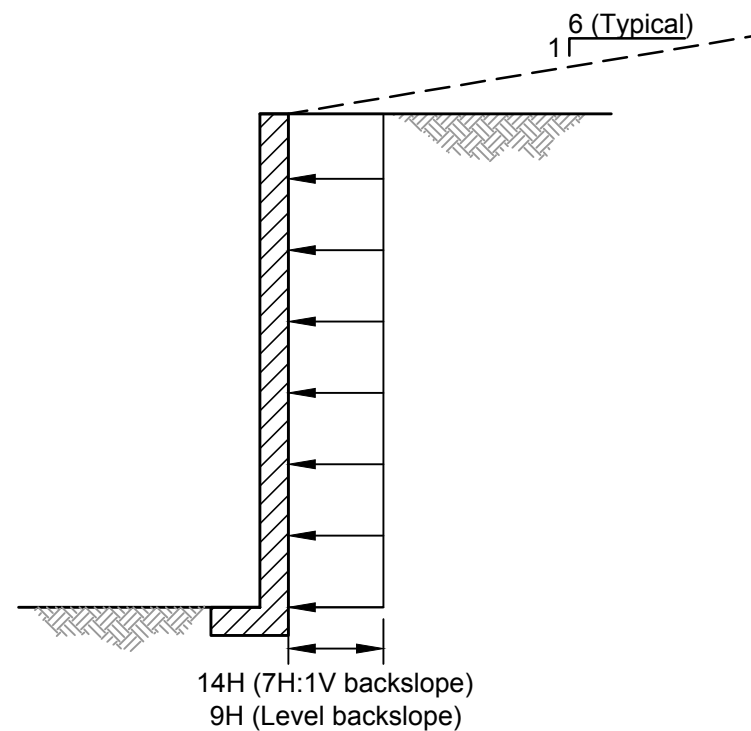
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Mercer Island Center for the Arts Mercer Island, Washington	
Lateral Earth Pressures for Temporary Shoring	
19120-01	7/16
HARTCROWSER	Figure 5

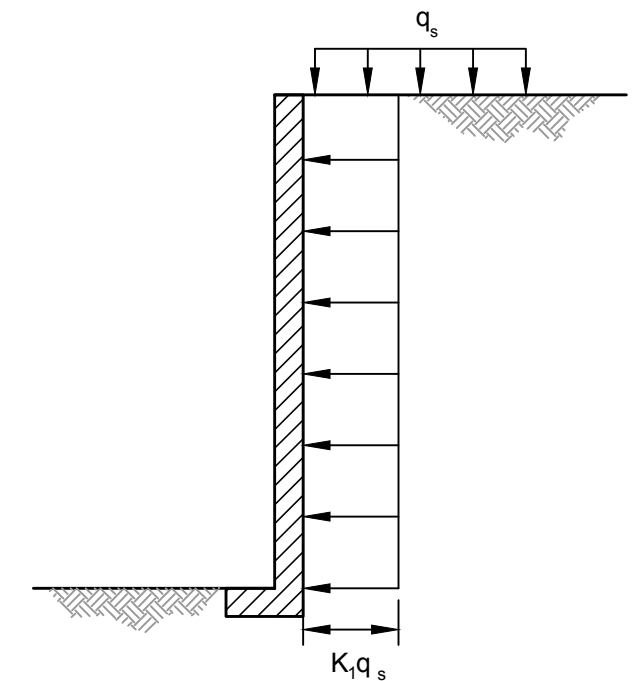


Earth Pressure*

* The same earth pressure distributions determined for temporary shoring should be used for permanent walls constructed against shoring (See Figure 5).



Dynamic Inertial Increment




Uniform Surcharge

Notes

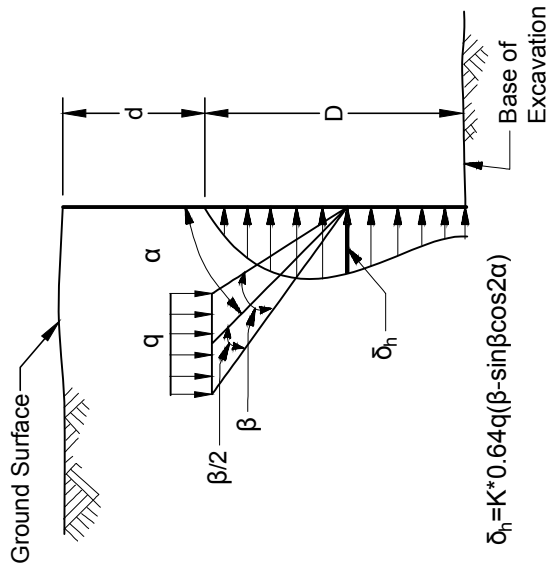
1. All pressures are in units of pounds per square foot.
2. Diagrams do not include surcharge loading due to adjacent structures; see Figure 7.
3. Diagrams not to scale.

Legend

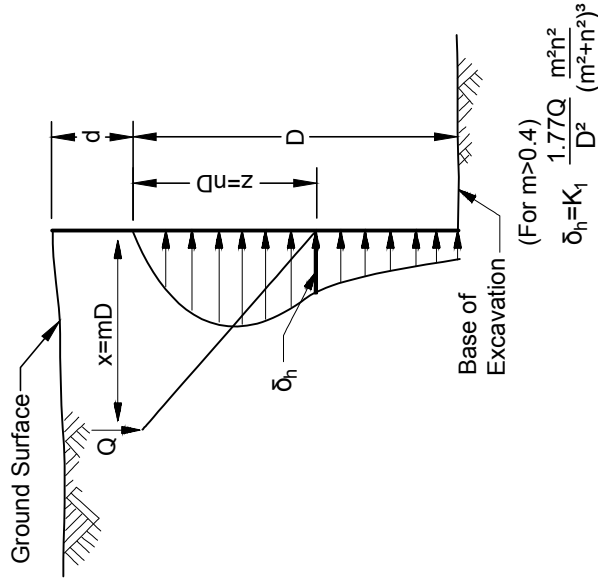
- H Height from bottom of excavation to ground surface (feet)
- q_s Traffic surcharge
- h_w Depth of excavation below groundwater table

Mercer Island Center for the Arts Mercer Island, Washington	
Lateral Pressures for Permanent Walls Constructed against Shoring	
19120-01	7/16
 HARTCROWSER	Figure 6

A. Strip Footing Cross Section View

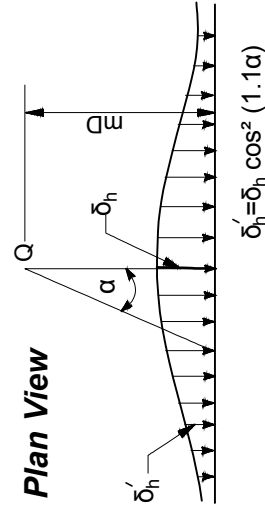


B(1). Small Isolated Footing Cross Section View

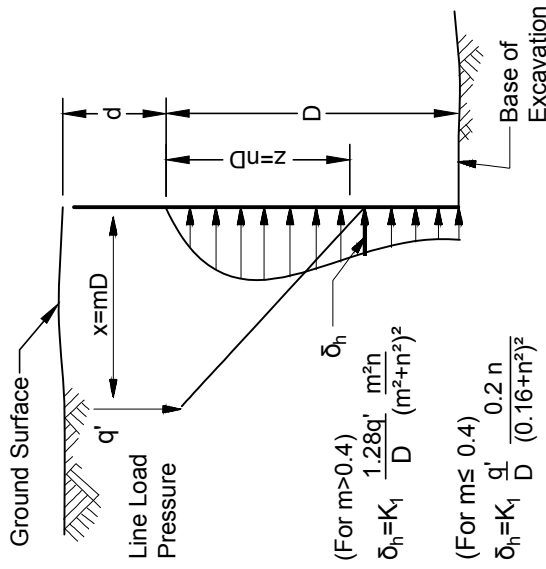


(For $m \leq 0.4$)
 $\delta_h = K_1 \frac{0.28Q}{D^2} \frac{n^2}{(0.16 + n^2)^3}$

B(2). Plan View



C. Continuous Wall Footing Parallel to Excavation Cross Section View



Definition and Units

- Q Footing Load in Pounds
- D Excavation Depth below Footing in Feet
- d Depth to Base of Footing in Feet
- δ_h Lateral Soil Pressure in PSF
- q Unit Loading Pressure in PSF
- q' Footing Load in Pounds per Foot
- α, β Radians

K_1	Conditions
0.35	Active earth pressure on a flexible wall (e.g., shoring)
0.5	At-rest conditions, where surcharge loads exist prior to excavation
1.0	At-rest conditions, where surcharge loads are applied after construction on permanent wall

- Notes:
- Lateral pressures from adjacent structures should be added to lateral pressures on Figures 5 and 6.
 - Wall footings acting other than parallel to the excavation can be treated as series of discrete point loads, using Diagram B.
 - Contact Hart Crowser for surcharge recommendations, if necessary.

Mercer Island Center for the Arts Mercer Island, Washington	
Determination of Lateral Pressure Acting on Adjacent Shoring from Surcharge Load	
19120-01	7/16
	Figure 7

APPENDIX A

Field Exploration Methods and Analysis

APPENDIX A

Field Exploration Methods and Analysis

This appendix documents the processes Hart Crowser used to determine the nature of the soils at the project site, and discusses:

- Explorations and their locations;
- Auger borings; and
- Standard Penetration Test procedures.

Explorations and Their Locations

The exploration logs in this appendix show our interpretation of the drilling, sampling, and testing data. These logs indicate the approximate depth where the soils change. Note that the soil changes may be gradual and may vary in depth across the site.

In the field, we classified the soil samples according to the methods shown on Figure A-1 - Key to Exploration Logs. This figure also provides a legend explaining the symbols and abbreviations used on the logs.

Figure 2 shows the explorations, located with a measuring tape from existing physical features. Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88) and were estimated from the provided topographic survey.

Auger Borings

Borings were drilled with a 2.5-inch-inside-diameter, 6.5-inch-outside-diameter, hollow-stem auger and were advanced with a track-mounted drill rig subcontracted by Hart Crowser. The drilling was continuously observed by a geologist from Hart Crowser. A detailed field log was prepared for the boring. Using the Standard Penetration Test (SPT), we obtained samples at minimum 5-foot intervals.

Standard Penetration Test Procedures

The SPT is an approximate measure of soil density and consistency. To be useful, the results must be interpreted in conjunction with other tests. The SPT (as described in ASTM D 1586) was used to obtain disturbed soil samples.

This test employs a standard 2-inch-outside-diameter, split-spoon sampler. Using a 140-pound autohammer, free-falling 30 inches, the sampler is driven into the soil for 18 inches. The number of blows required to drive the sampler the last 12 inches is the Standard Penetration Resistance. This resistance, or blow count, measures the relative density of granular soils and the consistency of cohesive soils. The blow counts are plotted on the boring logs at their respective sample depths.

Soil samples were recovered from the split-spoon sampler, field classified, and placed into watertight jars. They were taken to Hart Crowser's laboratory for further testing.

In the Event of Hard Driving

Occasionally, very dense materials preclude driving the total 18-inch sample. When this happens, the penetration resistance is entered on logs as follows:

Penetration less than 6 inches. The log indicates the total number of blows over the number of inches of penetration.

Penetration greater than 6 inches. The blow count noted on the log is the sum of the total number of blows completed after the first 6 inches of penetration. This sum is expressed over the number of inches driven that exceed the first 6 inches. The number of blows needed to drive the first 6 inches are not reported. For example, a blow count series of 12 blows for 6 inches, 30 blows for 6 inches, and 50 (the maximum number of blows counted within a 6-inch increment for SPT) for 3 inches would be recorded as 80/9.

Key to Exploration Logs

Sample Description

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:

Density/consistency, moisture, color, minor constituents, MAJOR CONSTITUENT, additional remarks.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

SAND or GRAVEL Density	Standard Penetration Resistance (N) in Blows/Foot	SILT or CLAY Consistency	Standard Penetration Resistance (N) in Blows/Foot	Approximate Shear Strength in TSF
Very loose	0 to 4	Very soft	0 to 2	<0.125
Loose	4 to 10	Soft	2 to 4	0.125 to 0.25
Medium dense	10 to 30	Medium stiff	4 to 8	0.25 to 0.5
Dense	30 to 50	Stiff	8 to 15	0.5 to 1.0
Very dense	>50	Very stiff	15 to 30	1.0 to 2.0
		Hard	>30	>2.0

Sampling Test Symbols

	1.5" I.D. Split Spoon		Grab (Jar)		3.0" I.D. Split Spoon
	Shelby Tube (Pushed)		Bag		
	Cuttings		Core Run		

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
	FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
LIQUID LIMIT GREATER THAN 50				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS			
		CH	INORGANIC CLAYS OF HIGH PLASTICITY			
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

Moisture

Dry	Little perceptible moisture
Damp	Some perceptible moisture, likely below optimum
Moist	Likely near optimum moisture content
Wet	Much perceptible moisture, likely above optimum

Minor Constituents

Estimated Percentage

Trace	<5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

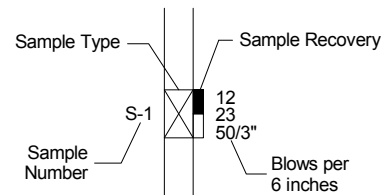
Laboratory Test Symbols

GS	Grain Size Classification	
CN	Consolidation	
UU	Unconsolidated Undrained Triaxial	
CU	Consolidated Undrained Triaxial	
CD	Consolidated Drained Triaxial	
QU	Unconfined Compression	
DS	Direct Shear	
K	Permeability	
PP	Pocket Penetrometer	
	Approximate Compressive Strength in TSF	
TV	Torvane	
	Approximate Shear Strength in TSF	
CBR	California Bearing Ratio	
MD	Moisture Density Relationship	
AL	Atterberg Limits	
		Water Content in Percent
		Liquid Limit Natural Plastic Limit
PID	Photoionization Detector Reading	
CA	Chemical Analysis	
DT	In Situ Density in PCF	
OT	Tests by Others	

Groundwater Indicators

	Groundwater Level on Date or (ATD) At Time of Drilling
	Groundwater Seepage (Test Pits)

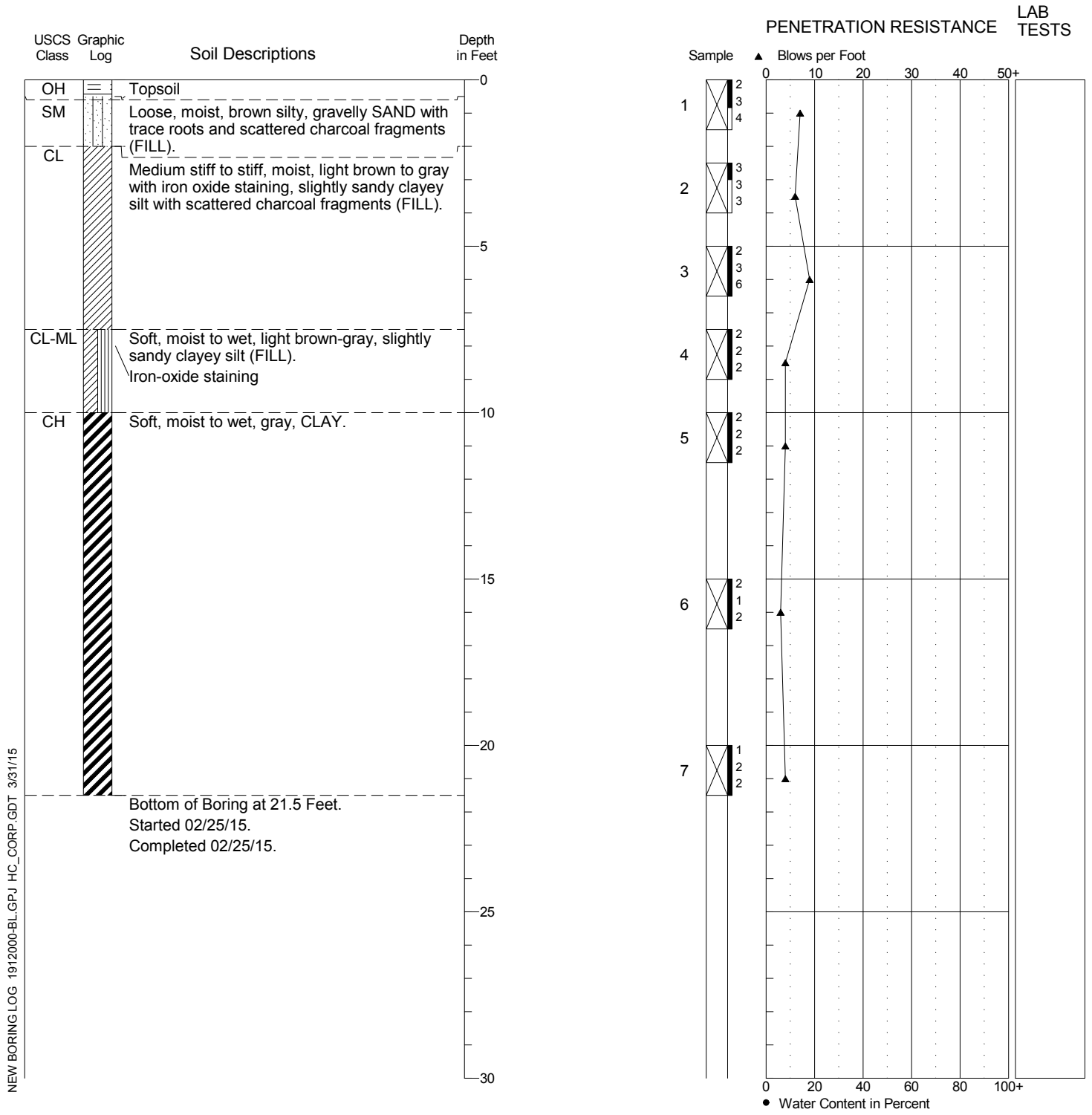
Sample Key



Boring Log HC-1

Approx. Location: 47.581844, -122.235290
 Approximate Ground Surface Elevation: 87
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



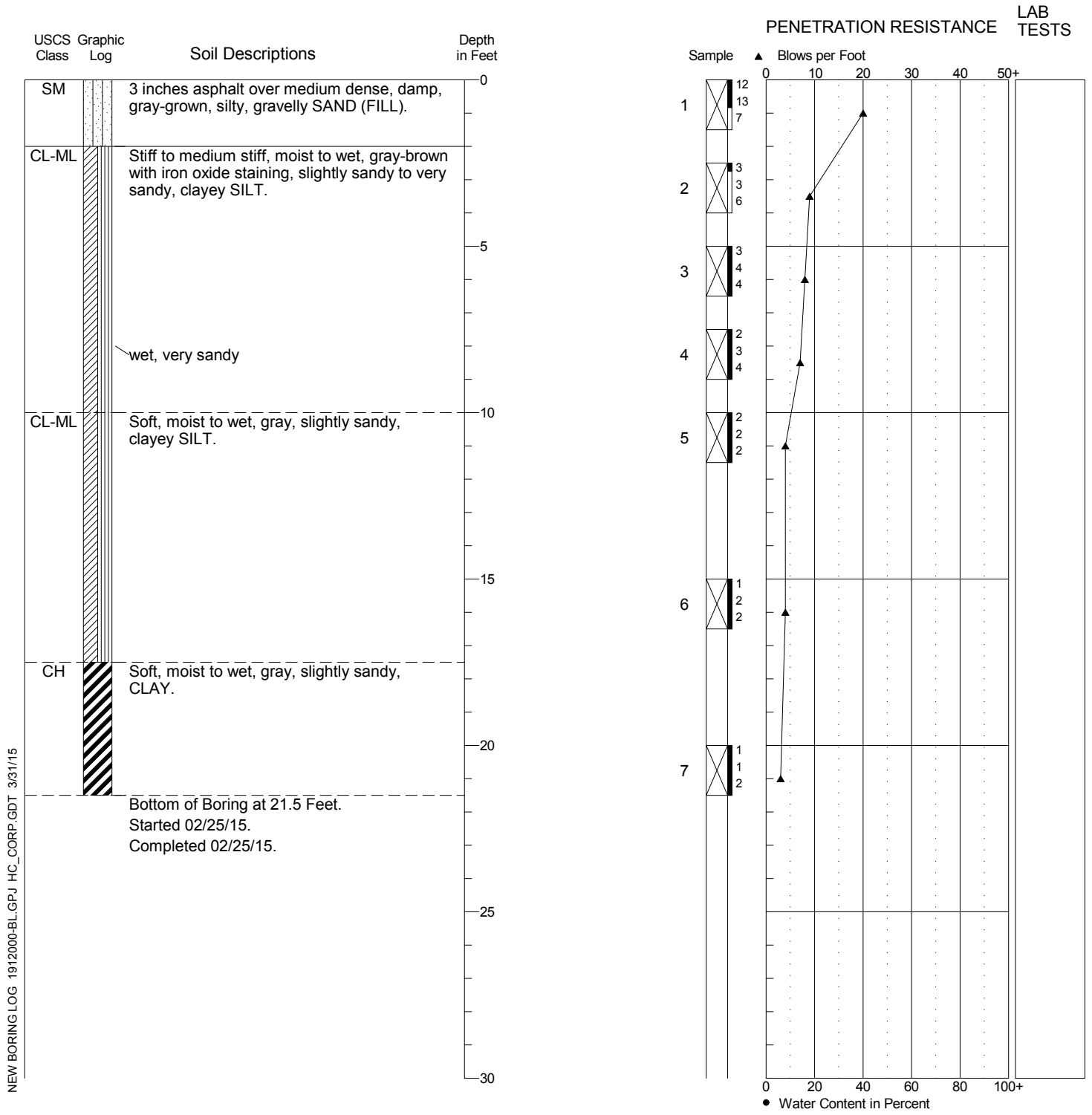
NEW BORING LOG 1912000-BL.GPJ_HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-2

Approx. Location: 47.581633, -122.235440
 Approximate Ground Surface Elevation: 89
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



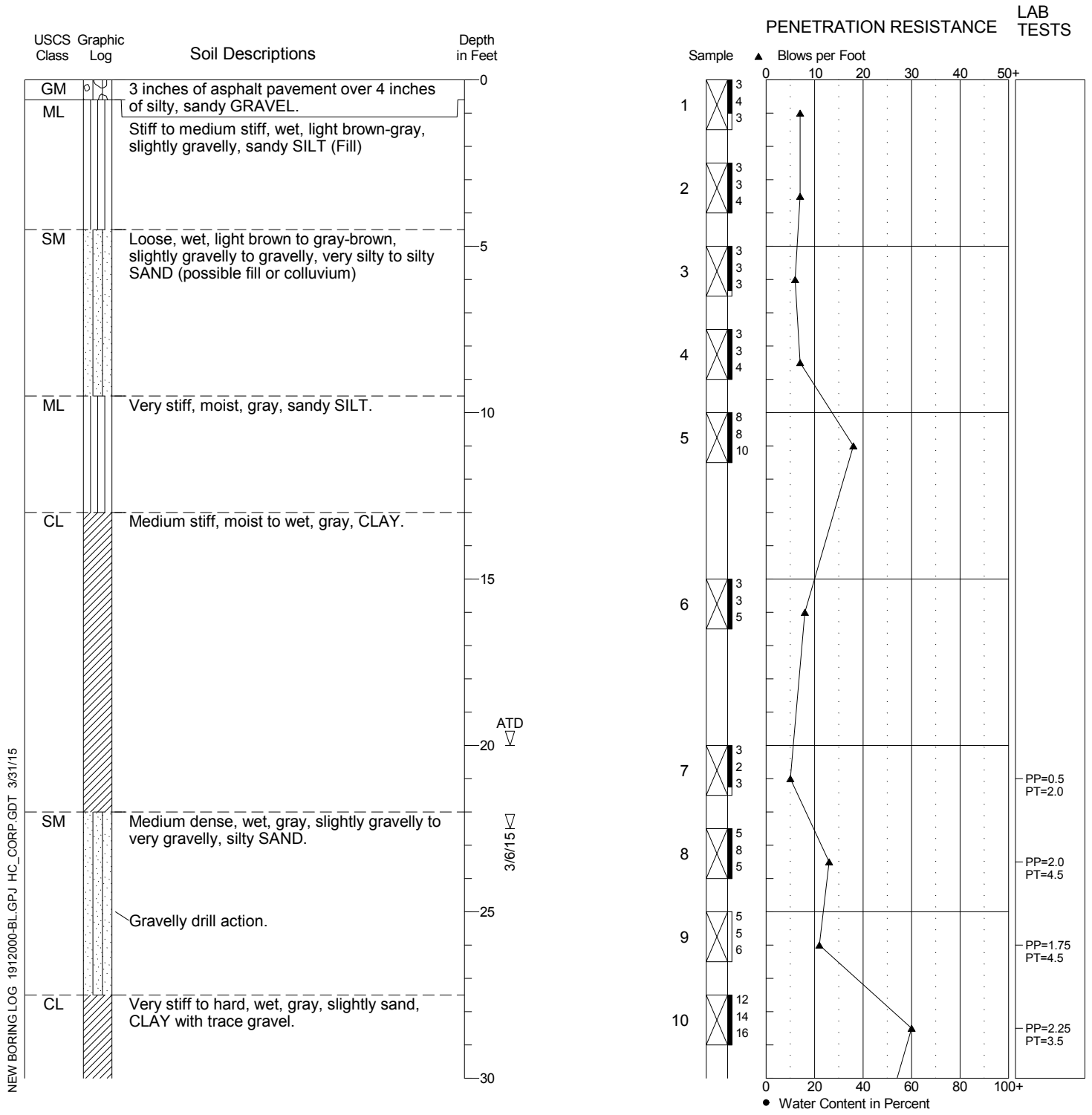
NEW BORING LOG 1912000-BL.GPJ_HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-3

Approx. Location: 47.581493, -122.235618
 Approximate Ground Surface Elevation: 90
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



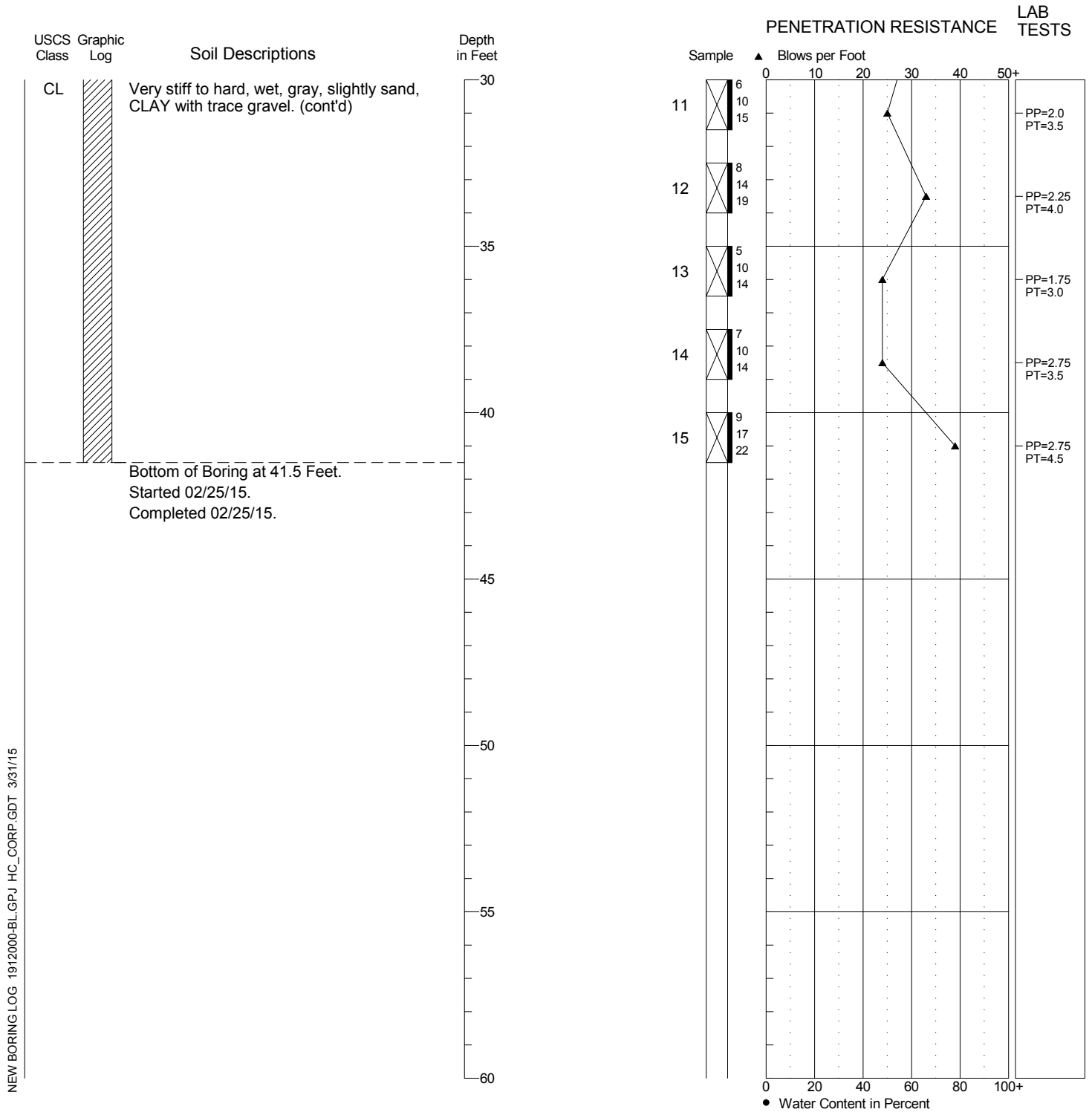
NEW BORING LOG 1912000-BL.GPJ HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-3

Approx. Location: 47.581493, -122.235618
 Approximate Ground Surface Elevation: 90
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



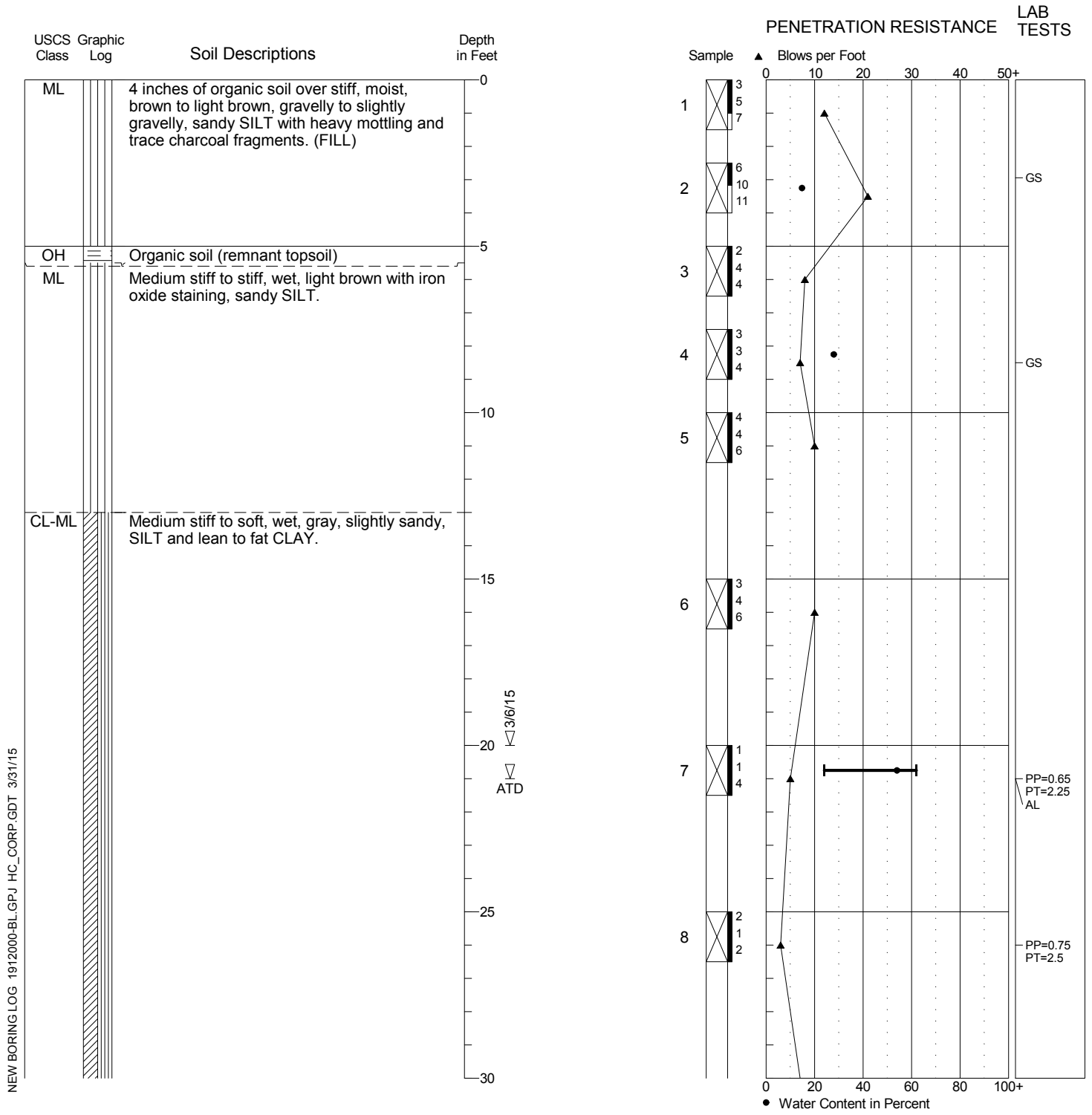
NEW BORING LOG 1912000-BL.GPJ_HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-4

Approx. Location: 47.581246, -122.235387
 Approximate Ground Surface Elevation: 92
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra

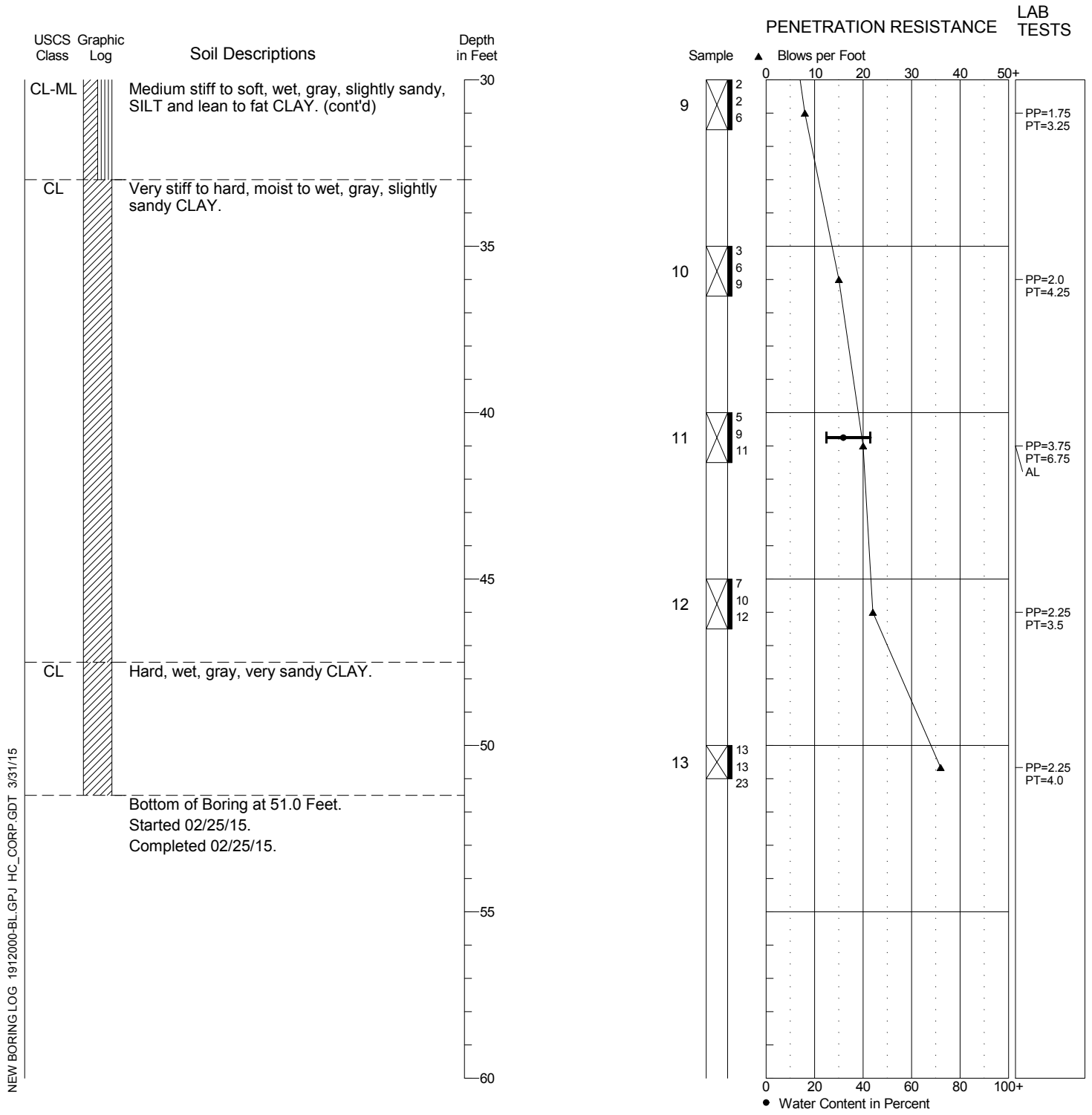


1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-4

Approx. Location: 47.581246, -122.235387
 Approximate Ground Surface Elevation: 92
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



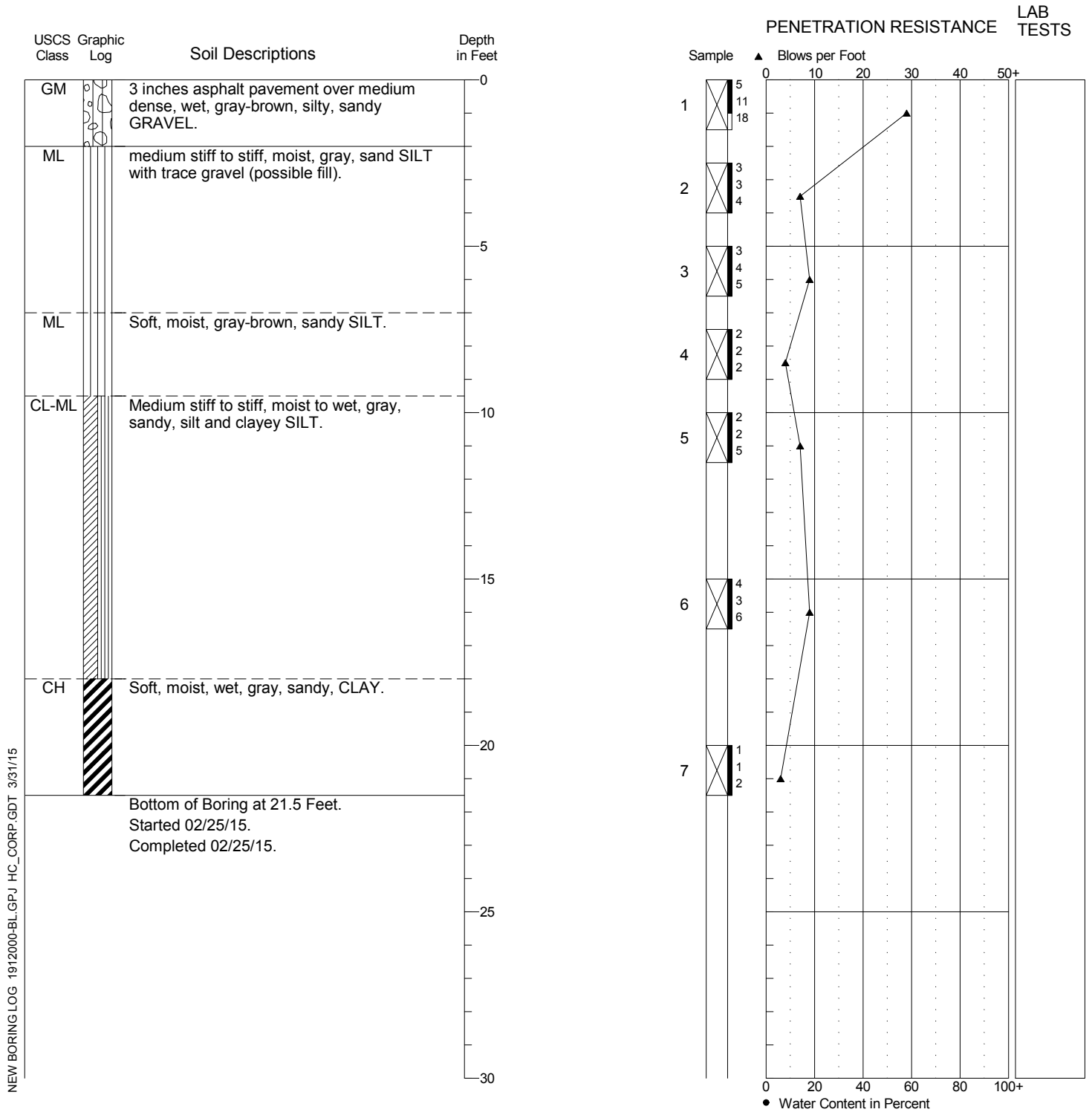
NEW BORING LOG 1912000-BL.GPJ_HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-5

Approx. Location: 47.581433, -122.235326
 Approximate Ground Surface Elevation: 88
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



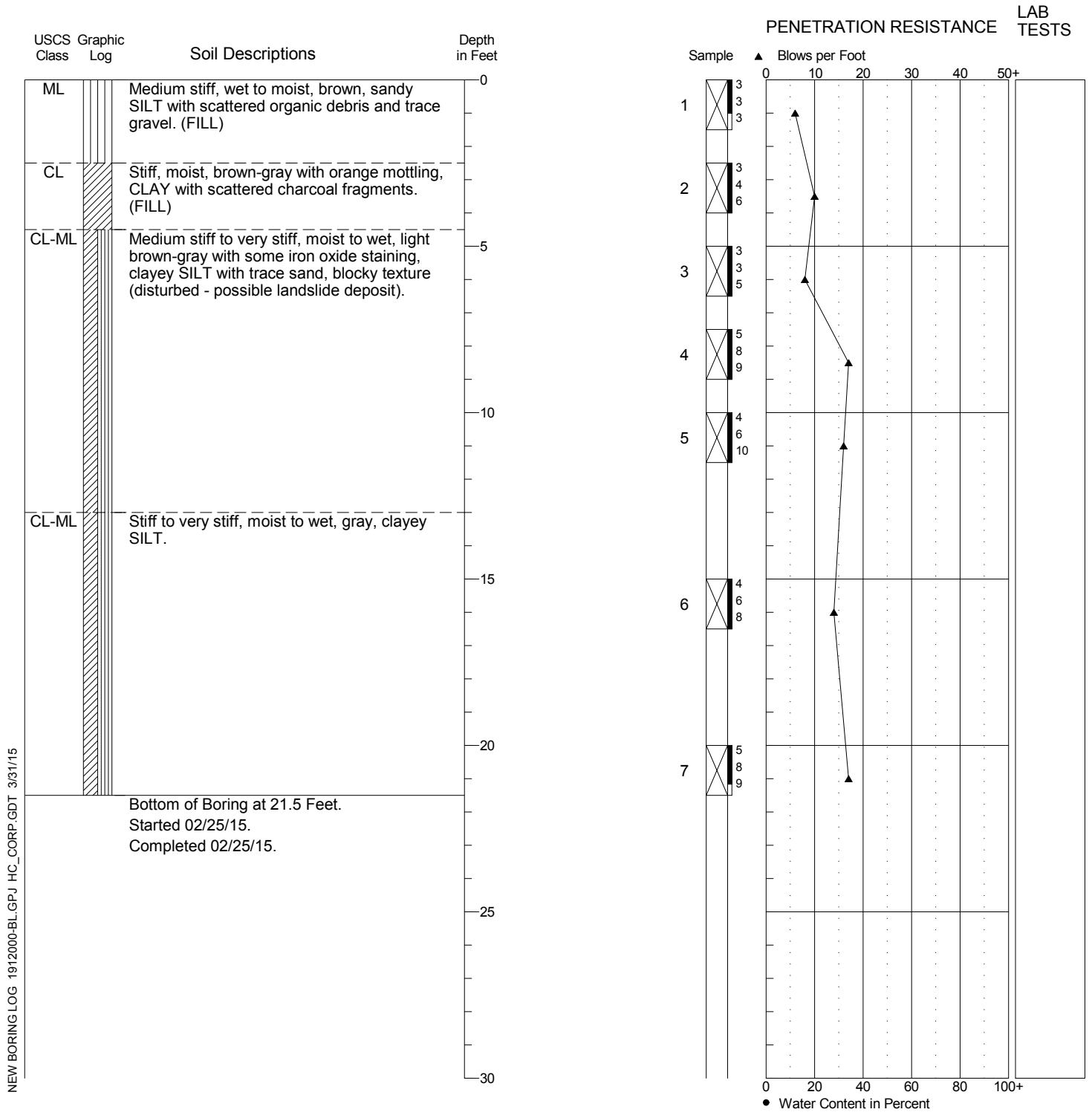
NEW BORING LOG 1912000-BL.GPJ_HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-6

Approx. Location: 47.581256, -122.235803
 Approximate Ground Surface Elevation: 99
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra

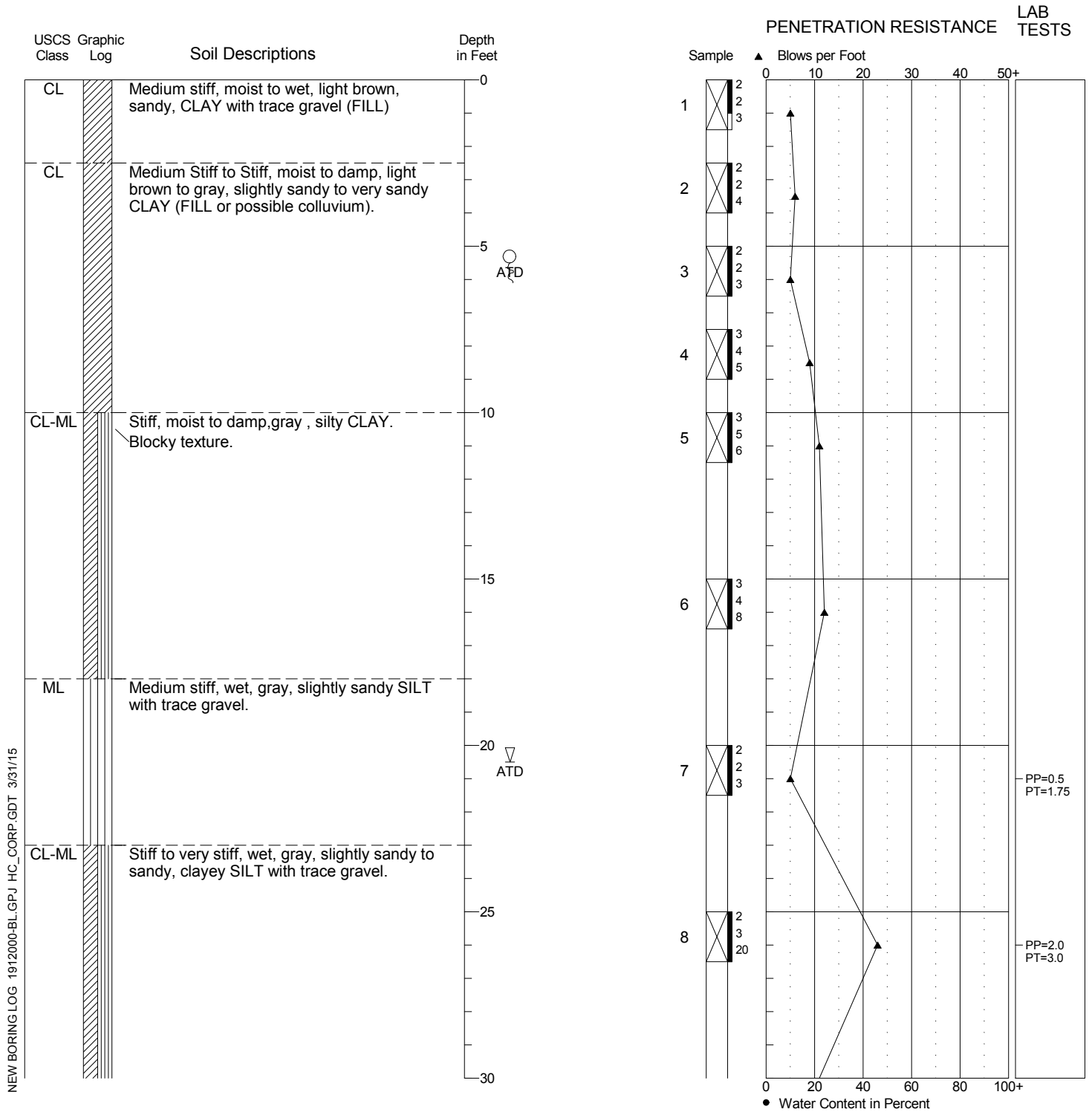


1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log HC-7

Approx. Location: 47.581010, -122.235996
 Approximate Ground Surface Elevation: 93
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.



19120-01

2/15

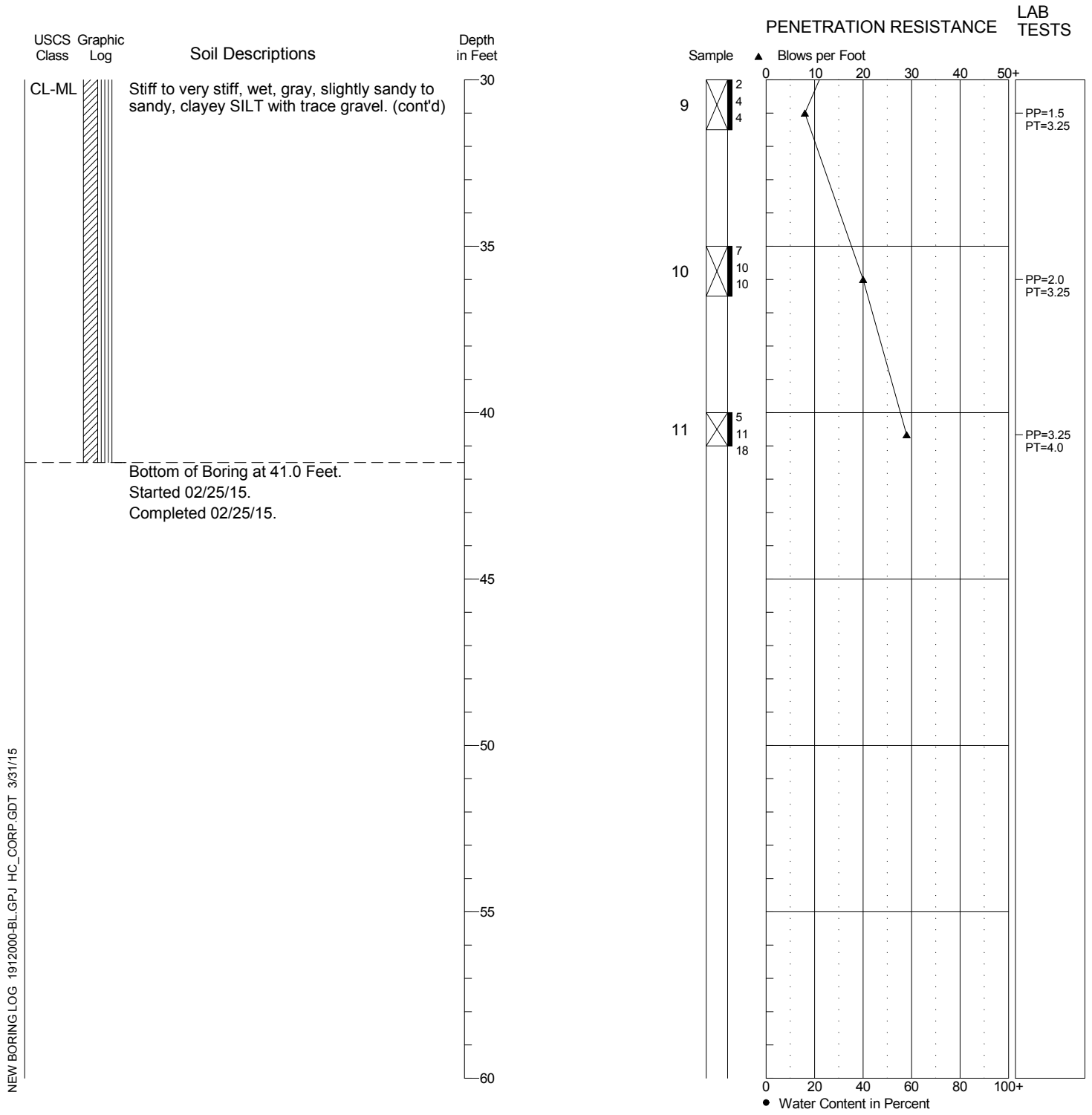
Figure A-8

1/2

Boring Log HC-7

Approx. Location: 47.581010, -122.235996
 Approximate Ground Surface Elevation: 93
 Horizontal Datum: WGS84
 Vertical Datum: NAVD88

Drill Equipment: Bobcat Minitrack (MT55)
 Hammer Type: SPT
 Hole Diameter: 6.5 inches
 Logged By: M. Smith Reviewed By: M. Veenstra



NEW BORING LOG 1912000-BL.GPJ_HC_CORP.GDT 3/31/15

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

APPENDIX B

Laboratory Testing Program

APPENDIX B

Laboratory Testing Program

A laboratory testing program was performed for this study to evaluate the basic index and geotechnical engineering properties of the site soils. Both disturbed and relatively undisturbed samples were tested. The tests performed and the procedures followed are outlined below.

Soil Classification

Soil samples from the explorations were visually classified in the field and then taken to our laboratory where the classifications were verified in a relatively controlled laboratory environment. Field and laboratory observations include density/consistency, moisture condition, and grain size and plasticity estimates.

The classifications of selected samples were checked by laboratory tests such as Atterberg limits determinations and grain size analysis. Classifications were made in general accordance with the Unified Soil Classification (USC) System, ASTM D 2487, as presented on Figure B-1.

Atterberg Limits

We determined Atterberg limits for selected fine-grained soil samples. The liquid limit and plastic limit were determined in general accordance with ASTM D4318-84. The results of the Atterberg limits analyses and the plasticity characteristics are summarized in the Liquid and Plastic Limits Test Report, Figures B-2 and B-3. This relates the plasticity index (liquid limit minus the plastic limit) to the liquid limit. The results of the Atterberg limits tests are shown graphically on the boring logs as well as where applicable on figures presenting various other test results.

Grain Size Analysis

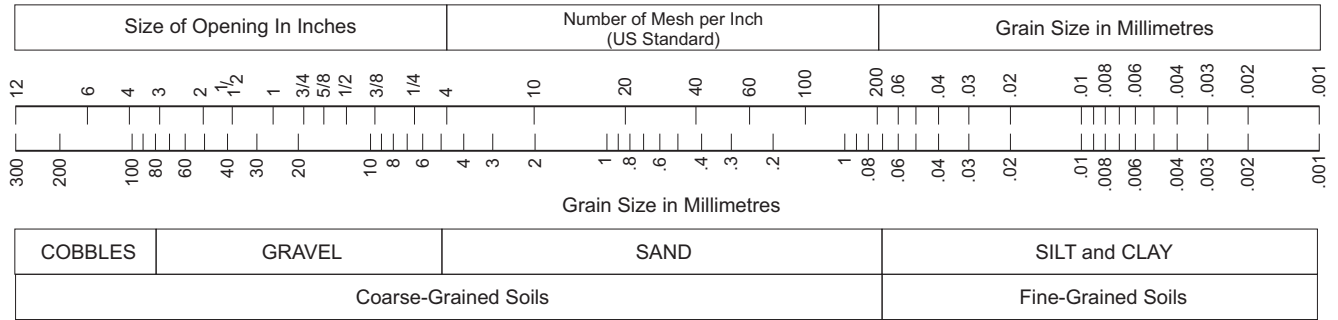
Grain size distribution was analyzed on representative samples in general accordance with ASTM D 422. Wet sieve analysis was used to determine the size distribution greater than the US No. 200 mesh sieve. The size distribution for particles smaller than the No. 200 mesh sieve was determined by the hydrometer method for a selected number of samples. The results of the tests are presented as curves plotting percent finer by weight versus grain size.

Water Content Determination

Water content was determined for several samples in general accordance with ASTM D 2216, as soon as possible following their arrival in our laboratory. Water content was not determined for very small samples or samples where large gravel content would result in unrepresentative values. The results of these tests are plotted at the respective sample depth on the exploration logs.

Unified Soil Classification (USC) System

Soil Grain Size



Coarse-Grained Soils

G W	G P	G M	G C	S W	S P	S M	S C
Clean GRAVEL <5% fines		GRAVEL with >12% fines		Clean SAND <5% fines		SAND with >12% fines	
GRAVEL >50% coarse fraction larger than No. 4				SAND >50% coarse fraction smaller than No. 4			
Coarse-Grained Soils >50% larger than No. 200 sieve							

$$G W \text{ and } S W \left(\frac{D_{60}}{D_{10}} \right) > 4 \text{ for } G W \quad \& \quad 1 \leq \left(\frac{D_{30}^2}{D_{10} \times D_{60}} \right) \leq 3$$

G P and S P Clean GRAVEL or SAND not meeting requirements for G W and S W

G M and S M Atterberg limits below A line with PI <4

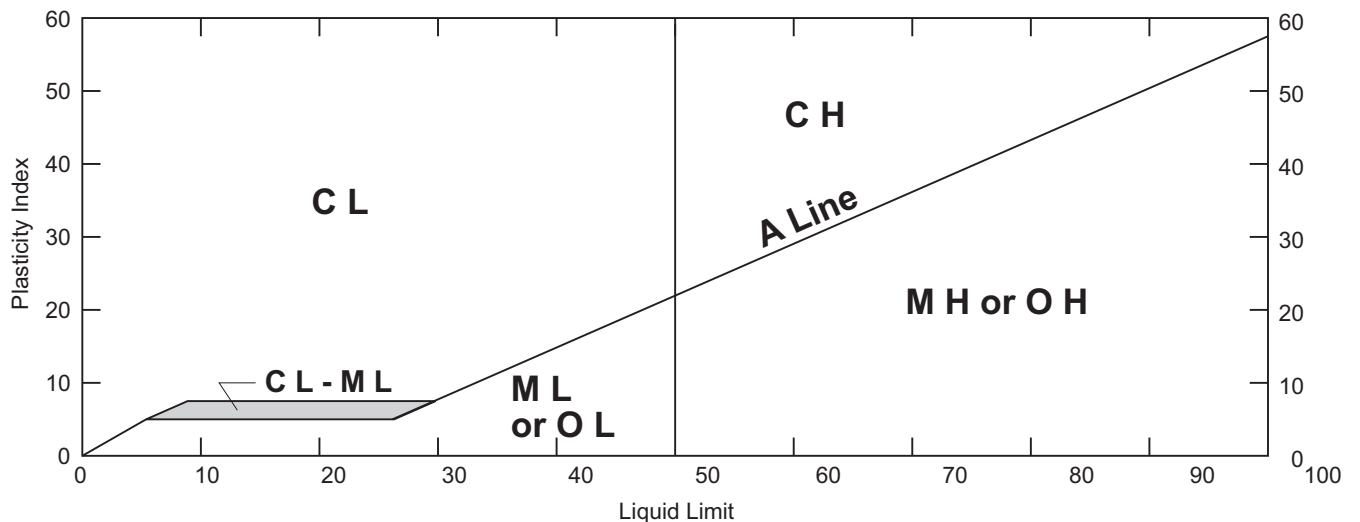
G C and S C Atterberg limits above A Line with PI >7

* Coarse-grained soils with percentage of fines between 5 and 12 are considered borderline cases requiring use of dual symbols.

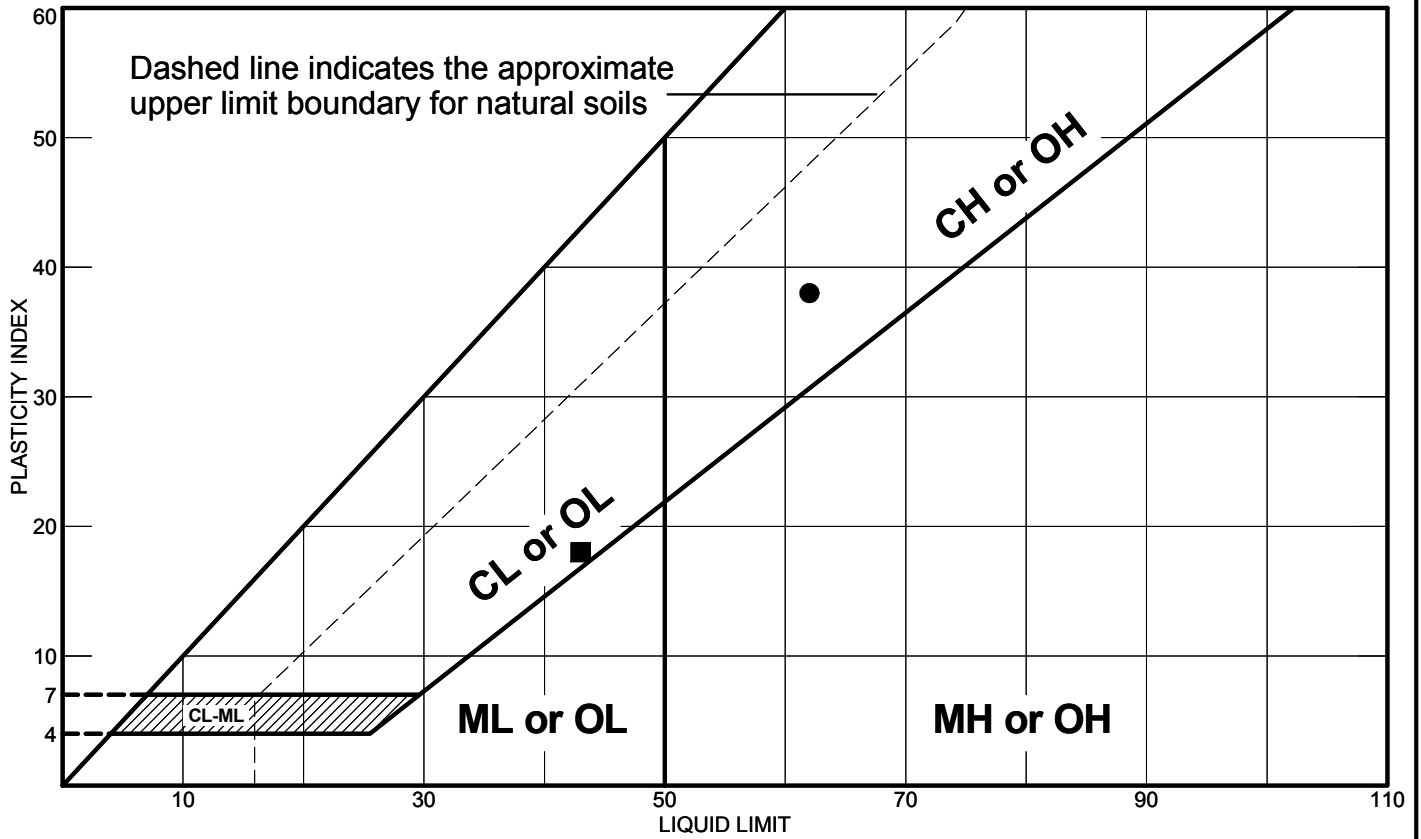
D₁₀, D₃₀, and D₆₀ are the particles diameter of which 10, 30, and 60 percent, respectively, of the soil weight are finer.

Fine-Grained Soils

ML	CL	OL	MH	CH	OH	Pt
SILT	CLAY	Organic	SILT	CLAY	Organic	Highly Organic Soils
Soils with Liquid Limit <50%			Soils with Liquid Limit >50%			
Fine-Grained Soils >50% smaller than No. 200 sieve						



Liquid and Plastic Limits Test Report



Location + Description	LL	PL	PI	-200	USCS
● Source: HC-4 Sample No.: 7 Depth: 20 Clay	62	24	38		CH
■ Source: HC-4 Sample No.: 11 Depth: 40 Clay	43	25	18		CL

Remarks:

-
-

Project: Mercer Island Center for the Arts

Client: Mercer Island Center for the Arts

Location: Mercer Island, WA



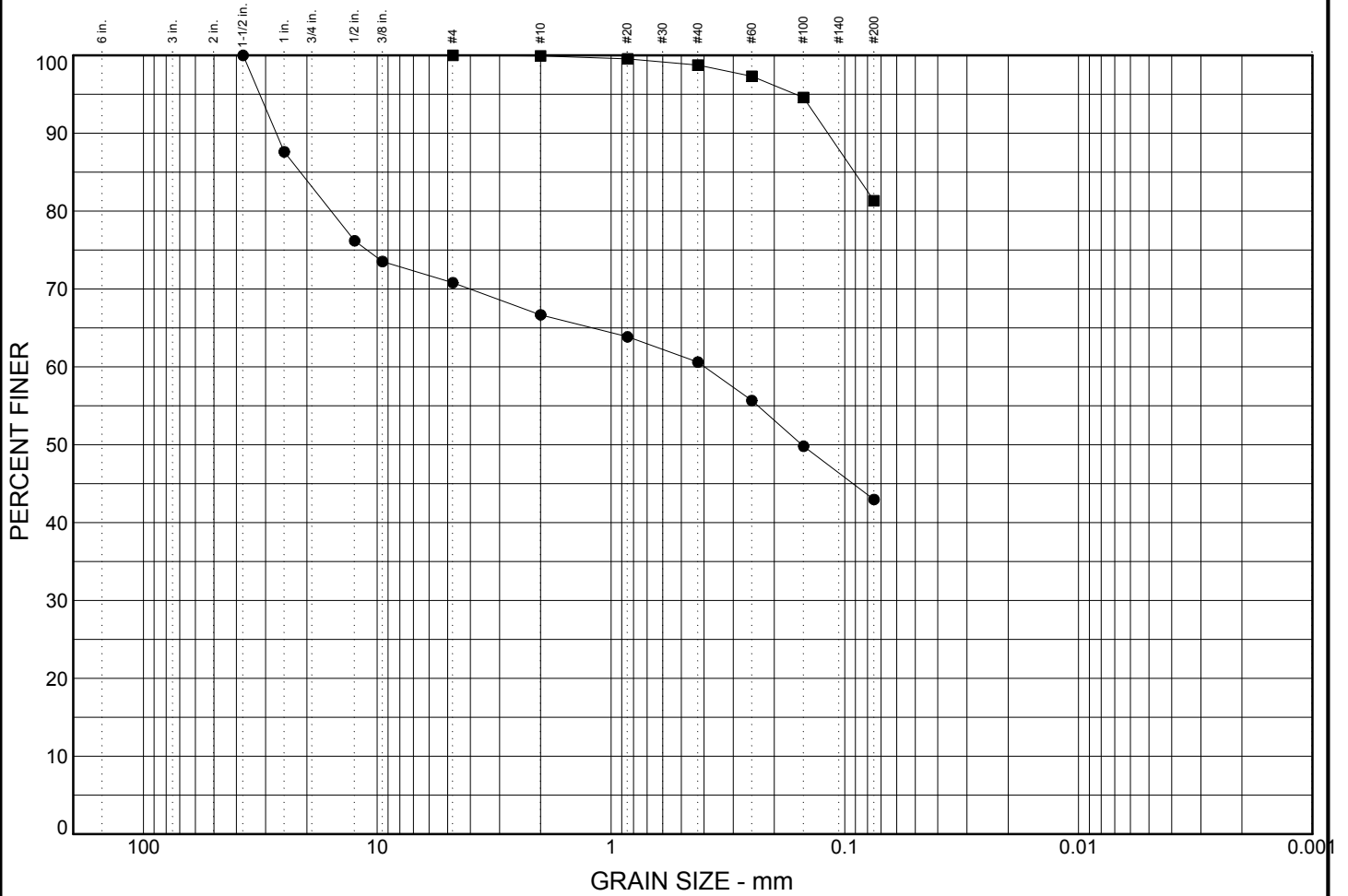
HARTCROWSER

19120-01

2/15

Figure B- 2

Particle Size Distribution Test Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	29.2	27.8	43.0	
■	0.0	0.0	18.7	81.3	

	LL	PI	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
●			21.324	0.398	0.152					
■			0.091							

MATERIAL DESCRIPTION	USCS	NAT. MOIST.
● sandy clayey GRAVEL	GC	14.8%
■ sandy SILT	ML	27.9%

Remarks:

●

■

Project: Mercer Island Center for the Arts

Client: Mercer Island Center for the Arts

● Source: HC-4 Sample No.: 2 Depth: 2.5 to 4.0

■ Source: HC-4 Sample No.: 4 Depth: 7.5 to 9.0



GRAIN SIZE: 1912000-BL.GPJ HC_CORP.GDT 3/27/15

APPENDIX C

Historical Explorations

Historical Explorations

Historical exploration logs are included in this appendix as follows:

Hart Crowser 1980. Design Phase Subsurface Explorations and Geotechnical Engineering Study, Proposed Office Building And Parking Structure for Farmers New World Life Insurance Company, Mercer Island, Washington. January 4, 1980. J-857-01.

Shannon & Wilson 1985. Preliminary Geotechnical Report, Mercer Island Civic Center, Mercer Island, Washington. August, 1985. Partial report accessed from the DNR Subsurface Geology Information System, Document ID 13758, <https://fortress.wa.gov/dnr/geology>.

Logs and test reports by others are included as they were produced by others for reference only and Hart Crowser is not responsible for the accuracy or completeness of the information presented in the logs. Approximate locations of the explorations by others are shown on Figure 2; actual locations may differ from those shown.

Area: Mercer Island

Status:

DocID 13758

Source: City of Mercer Island DSG-Archive

Local ID#: 8978

Local ID#2:

Site Address 3249 78th Ave SE

Date Copied: 11/3/04

By: PTI

Title page with the following information:

- Company (Author) name
- Report date
- Project Name
- Company's job number
- Site address
- Executive Summary / Introduction of the report
- Table of contents
- Project Location Map / Vicinity Map
- Site / Exploration Plans, Boring Location Plans
- Cross-sections / Subsurface profiles
- Exploration Logs
- Monitoring Well Logs
- Cone Penetrometer Logs
- Groundwater Elevation Tables / Data

Includes data from Previous Reports

No new data /data review

Missing Data / Illegible Data
Explanation _____

Comments: _____

City Hall construction bot 3 of 4

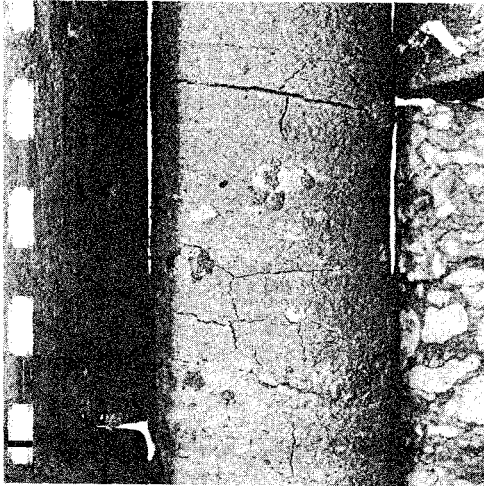
ArcView RW

Layers RW

Checked RW

Checked AF

**Preliminary Geotechnical Report
Mercer Island Civic Center
Mercer Island, Washington**

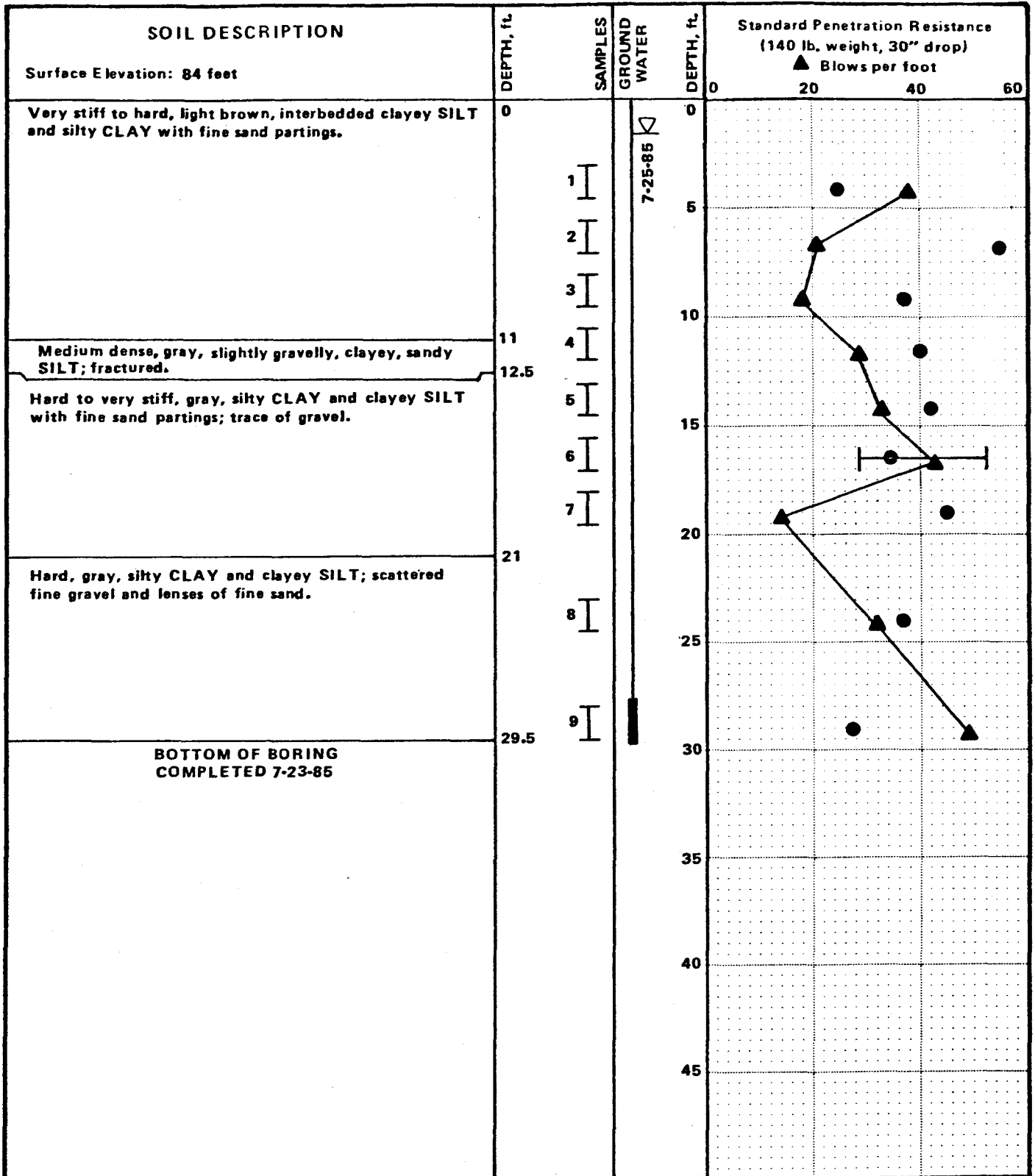


**City of Mercer Island
3505 88th Avenue S.E.
Mercer Island, Washington 98040**

August 1985

SHANNON & WILSON, INC.

W-4429-01

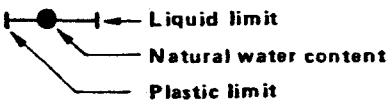


LEGEND

- I 2" O.D. split spoon sample
- II 3" O.D. thin-wall sample

*Sample not recovered

Atterberg Limits:



- Impervious seal
- Water level
- Piezometer tip
- Sample pushed

NOTE; The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.

CITY OF MERCER ISLAND
MERCER ISLAND CIVIC CENTER

LOG OF BORING B-5

AUGUST 1985

W-4429-01

SHANNON & WILSON, INC.
Geotechnical Consultants

FIG. A-5

SHANNON & WILSON, INC.
Geotechnical Consultants

JOB NO. W-4429-01 DATE 7-19-85 LOCATION NW CORNER
PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

LOG OF TEST PIT TP-1

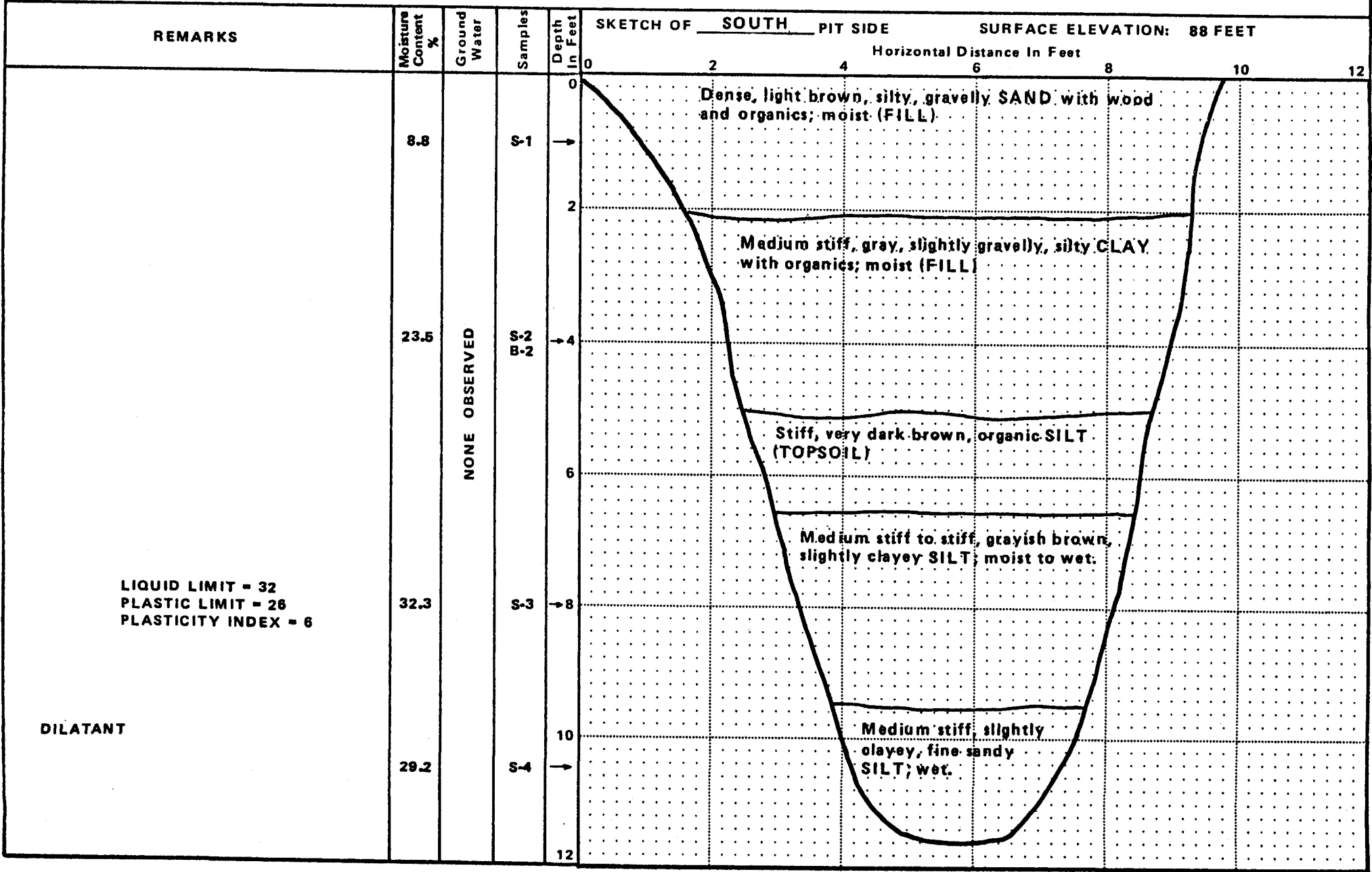


FIG. A-6

DESIGN PHASE SUBSURFACE EXPLORATIONS AND GEOTECHNICAL
ENGINEERING STUDY

PROPOSED OFFICE BUILDING AND PARKING STRUCTURE FOR
FARMERS NEW WORLD LIFE INSURANCE COMPANY

MERCER ISLAND, WASHINGTON

J-857-01

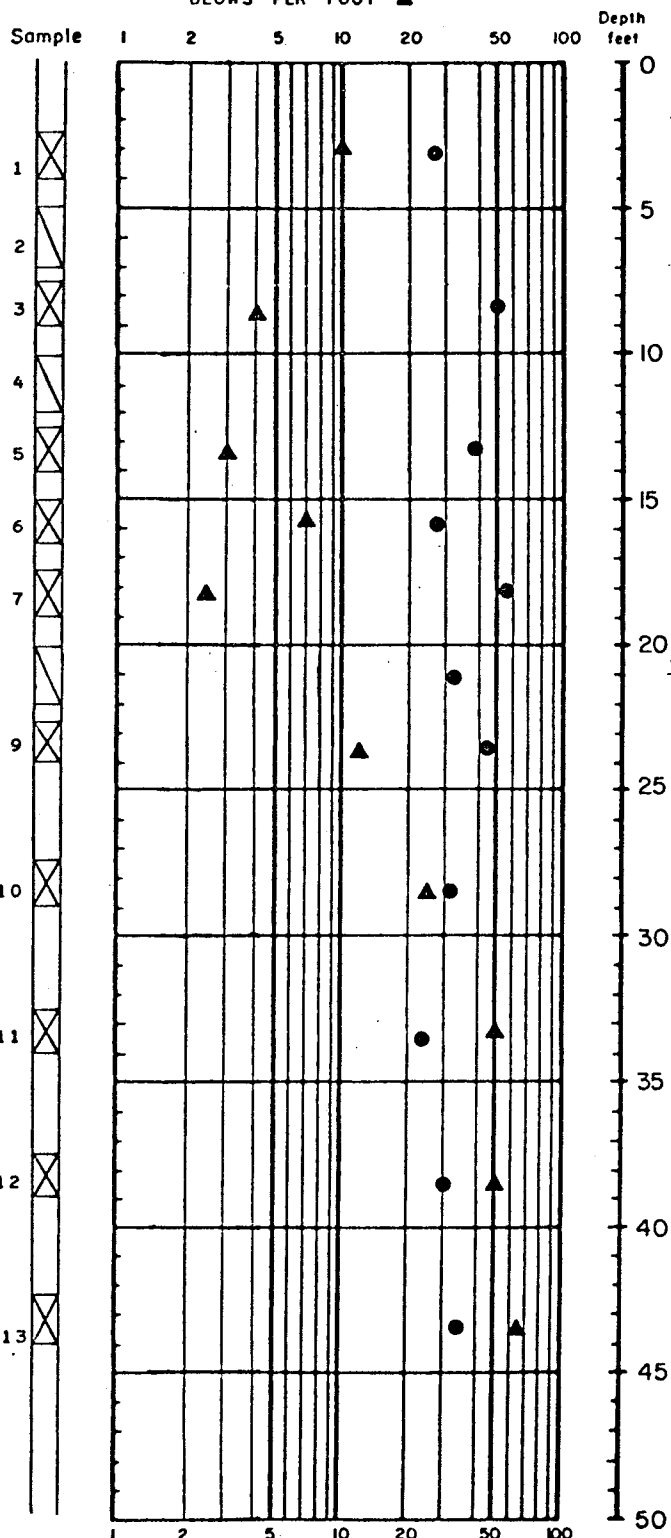


BORING LOG B-5

STANDARD PENETRATION RESISTANCE

(140 pound weight, 30 inch drop)

BLOWS PER FOOT ▲



SOIL INTERPRETATION

GROUND SURFACE ELEVATION APPROXIMATELY 83 FEET.

POST GLACIAL LUCISTRINE SEDIMENTS:
MEDIUM TO STIFF, MOIST, BROWN AND TAN, SILTY CLAY AND CLAYEY SILT, OCCASIONAL FINE SAND, LAMINATED. WEATHERED.

SOFT TO STIFF, MOIST, GRAY, SILTY CLAY AND CLAYEY SILT. LAMINATED.

— SAND PARTINGS

GLACIALLY CONSOLIDATED SEDIMENTS:

VERY STIFF TO HARD, MOIST, GRAY, SILTY CLAY AND CLAYEY SILT.

— OCCASIONAL GRAVEL

— WITH SOME SAND AND GRAVEL.

— LAMINATED

BOTTOM OF BORING 44 FEET.
COMPLETED 11/19/79.

WATER CONTENT PERCENT ●

LEGEND

- ⊗ 2" O.D. Split Spoon Sample
- ⊠ 3" O.D. Shelby Sample
- * No Sample Recovery
- ▽ Water Level
- Observation Well

NOTE: Soil descriptions are interpretive and actual changes may be gradual.

J-857-01 December 1979

HART-CROWSER & associates inc.

Figure A-9

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment D
Geotechnical Supplemental Memo

January 2017

MEMORANDUM

DATE: May 6, 2015

TO: Katie Oman, Mercer Island Center for the Arts

FROM: David Winter, PE, and Matt Veenstra, PE

RE: **Design Memorandum – Supplemental
Mercer Island Center for the Arts
Mercer Island, Washington
19120-00**

CC: Matt Jones, MKA

As the project evolves, additional geotechnical design criteria have been developed to supplement the recommendations in our March 31, 2015, report.

We understand that the current plans call for a fire lane to be built behind the back wall of the building. As a result, the shoring wall installed to allow excavation into the hillside and construction of the lowest level at elevation 90 feet will need to be designed as a permanent wall. This requires the following modifications to the design.

- Permanent tieback anchors must include corrosion protection.
- Pullout capacities for permanent anchors are estimated using a factor of safety of 2.5 (instead of 2.0 for temporary anchors). For Soil Units 1 and 2 the estimated allowable capacity is 0.8 kips per foot. For Soil Unit 3 the estimated allowable capacity is 2.4 kips per foot. The actual allowable capacity will need to be confirmed using field load testing.
- The first two permanent anchors should be tested using the supplementary extended creep tests described in section 8.3.4 of the Recommendations for Prestressed Rock and Soil Anchors (PTI 2004).
- Soil pressures on the permanent wall are the same as in Figures 5 and 6 of the geotechnical report (Hart Crowser 2015).



- In order to avoid hydrostatic pressures, we recommend installing weep holes between the soldier piles at 1 and 6 feet above the base of the wall. The weep holes should be fitted with a 3-inch-diameter slotted pipe extending into the soil. Water from the weep holes should be channeled at the base of the wall with a curb and routed to a suitable discharge point. Alternatively, waffle drain material can be installed behind the permanent facing of the wall and an outlet into a drain pipe at the base of the wall. As another alternative, if the wall facing will simply be treated lagging boards, then the wall will likely be permeable enough without the addition of drainage sheets.

Additional supplemental design recommendations include the following:

- Design the lowest level floor slab as a structural slab. All other recommendations regarding underslab drainage and construction from page 15 of the report will apply.
- According to the Mercer Island Design Code, the frost penetration depth is 12 inches. We recommend that any footings for temporary or permanent structures be embedded at least 18 inches below the adjacent site grade, or well below the frost level.
- Underslab drains are typically 3- or 4- inch-diameter slotted flexible pipe or rigid perforated pipe. The pipes may be wrapped in filter fabric or placed in a trench 12 inches wide and deep and lined with non-woven filter fabric such as Mirafi 140N or better. We have not calculated the potential flows into an underslab drainage system, but we expect the flow to be less than 30 gallons per minute.
- Shallow spread footings are not recommended for occupied building structures or other settlement sensitive structures. For support of small, lightly loaded facilities, we recommend placing footings on structural fill. The structural fill should extend 2 feet below the base of the footing and laterally 2 feet beyond the outer edges of the footing. Structural fill should be surrounded by a woven geotextile such as Mirafi HP370 or better. Structural fill should be compacted to a minimum of 95 percent of the modified Proctor maximum dry density. If compaction causes excessive subgrade disturbance, the first 1.5 feet of structural should consist of quarry spalls or similar angular rock that can be tamped into place and will provide adequate subgrade for compaction of overlying structural fill. If constructed as described, the footing may be designed for an allowable vertical bearing capacity of 2,000 psf. Calculate the lateral sliding resistance using a coefficient of friction of 0.35 for footings bearing on granular structural fill. Lateral bearing pressure for footings bearing against Soil Units 1 and 2 may be calculated using a triangular, passive earth pressure distribution of 100 psf/foot below grade. Ignore passive earth pressure in the upper 2 feet unless the ground surface is protected by pavement or concrete floor slabs.



Subgrade Recommendations for Pre-Manufactured Permeable Pavers

- Permeable pavers are a proprietary product, follow the manufacturer's recommendations for design and installation.
- We recommend the minimum subgrade sections in Table 1 for all types of permeable pavers.

Table 1 – Subgrade Sections for Permeable Pavers

Loading Type	Sub-base Geotextile	Sub-base	Base Course
Pedestrian	Mirafi 160N or better	N/A	12 inches of COS Type 1 (3/4" Minus Crushed Gravel)
Light passenger vehicles	Mirafi HP370 or better	12 inches of COS Type 1 (3/4" Minus Crushed Gravel)	6 inches of COS Type 1 (3/4" Minus Crushed Gravel)
Heavy vehicles	Mirafi RS280i or better	18 inches of COS Type 1 (3/4" Minus Crushed Gravel)	6 inches of COS Type 1 (3/4" Minus Crushed Gravel)

- Reinforcing geotextile should be placed on relatively undisturbed native soil. Construction traffic should not be allowed on native soil subgrade beyond what is necessary for excavation prior to backfilling.
- For pedestrian areas, the gravel backfill should be placed in a single lift and compacted to at least 90 percent of maximum dry density.
- For light vehicle sections the sub-base should be placed in a single lift and compacted to at least 90 percent of maximum dry density. The base course should be compacted to 95 percent of maximum dry density.
- For heavy vehicle sections, the sub-base should be placed in a single lift and the upper 12 inches compacted to at least 92 percent of maximum dry density. The base course should be compacted to 95 percent of maximum dry density.
- Vibratory compaction should not be allowed unless it is demonstrated to not degrade the native subgrade (e.g. cause subgrade pumping).
- Note that nuclear density tests may not provide reliable results in gravelly backfill. Hart Crowser may elect to evaluate adequacy of backfill compaction by visual inspection and proof rolling.
- Just prior to placing Grasspave pavers, the prepared subgrade should be proof-rolled using a loaded dump truck or similar equipment. The proof roll must be observed by a Hart Crowser representative.



- If drain pipes are placed within the sub-base, the drain pipes should be wrapped in geotextile filter fabric such as Mirafi 160N or better and placed at least 12 inches below light wheel loads and at least 18 inches below heavy wheel loads.

Note that the native subgrade soils are silt and clay and have very low infiltration capacity such that storm water infiltration into the native soils is not practical. Any water that infiltrates the pavers will be confined within the underlying gravel backfill and will need to be drained. The choice of gravel backfill will influence how much water is stored and how quickly water reaches the drain pipes. A more poorly-graded backfill than that recommended in Table 1 may be desirable if rapid infiltration to a drain pipe is desired.

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment E
Slope Stability Review

January 2017



June 29, 2017

Bruce Lorig, Building Committee Chair
Mercer Island Center for the Arts
P.O. Box 1702
Mercer Island, WA 98040

Re: **Mercer Island Center for the Arts**
Slope Stability Study - Revision 01
19120-01

Dear Bruce:

This report is the first revision to our original report dated November 22, 2016 and is submitted to address comments by Perrone Consulting, Inc., P.S.

We previously conducted a site visit and further analyses to assess the landslide risks for the proposed development site. We developed a cross section through the site and the adjacent hillside. It is presented as Figure 1 attached to this letter. Figure 1 also demonstrates the changing steepness of the slopes, from near flat at the building site, to 15% - 30% directly behind the building, to average slopes steeper than 40% up the rest of the hill.

General Geologic Conditions

Based on our borings, other borings in the vicinity, geologic mapping, and published sources, we prepared a subsurface cross section as shown in Figures 2 through 5. The soil layering is approximate, both in depth and thickness. As noted, the soils are generally glacial in origin and very dense or hard, except for surficial deposits.

During our recent site reconnaissance at the end of October 2016 we did not observe groundwater seepage on the slope, even though this past October has been the wettest on record. Groundwater levels and/or seepage rates are not static and we expect that groundwater conditions will vary depending on local subsurface conditions, season, precipitation, changes in land use both on and off site, and other factors.

Geologic Hazards

Steep Slope

The City of Mercer Island Municipal Code establishes that any ground with a grade of 40 percent or more is considered a "steep slope". However, the code also establishes that classification as a Landslide



Hazard Area requires slopes steeper than 15 percent, a hillside that intersects geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock, and the presence of springs or groundwater seepage. Therefore, it is possible to have a site that contains steep slopes, but is not considered a Landslide Hazard Area, and vice versa.

Based on our surface and subsurface investigation, it is our opinion that a Landslide Hazard Area does not exist on the development property because of the absence of seepage and the expected and mapped layering of the soil units. Nor is the property a steep slope, since the average slopes are near flat.

Much of the near surface soils in the 15-40% upslope area are assumed to consist of landslide debris from much older landslides probably occurring approximately 650 to 800 ft. upslope from the proposed building location. The presence of these soils raises the risk of reactivation of slide debris, or soil creep, and suggests past instability. However, we noted that an existing rockery wall near the base of the slope behind the existing structure has shown no signs of movement or displacement due to soil creep or landslide reactivation.

Slope Stability Analysis

To further analyze the slope stability, Hart Crowser conducted slope stability analysis using the computer program Slope/W to calculate safety factors on presumed critical slip surfaces.

Soil Conditions

We did not conduct soil borings on the soil slope; therefore, for slope stability analysis, we defined the soil stratigraphy based on existing geologic mapping (Troost et al. 2006). The geologic mapping for the site is presented on Figure 2 and our interpretation of the mapped geology is shown on the slope stability model sections in Figures 3 through 5.

Much of the near surface soils in the 15-40% upslope area are assumed to consist of landslide colluvium from much older landslides probably occurring approximately 650 to 800 feet upslope from the proposed building location (or from previous disturbance, such as logging). Because we did not conduct borings on the slope, the depth of potential colluvium can only be assumed based on judgement.

The effective stress strength parameters for the mapped soils were referenced from the USGS Open-File Report, Shallow-Landslide Hazard Map of Seattle, Washington (Harp et al. 2006). These values are presented on the slope stability results figures.

For the seismic case, we performed analysis using both effective stress strength parameters and total stress, or undrained strength, parameters. The undrained strength parameters are provided on the slope stability results figures. While the effective stress strength parameters are based on published data from regional landslide studies, the undrained strength parameters are assumed based on local data from the Seattle region and judgment of likely slope failure modes; however, the potential range of undrained strengths can be very large, so uncertainty is inevitable in the analysis results.



Groundwater Conditions

Groundwater conditions are assumed based on borings at the bottom of slope, observations of the slope face, and our judgment.

Observations of the slope face did not reveal seepage zones, so we have not included a perched water table at the modeled stratigraphic interfaces except for where the topmost advance outwash overlies the Lawton clay, as this is a typical seepage zone within local slopes and bluffs.

Analysis and Results

We have assumed that likely landslide hazards are those that exit on the slope, or near the toe of the slope (consistent with existing surficial colluvium deposits). Therefore, we have performed the analysis without consideration of very deep failure surfaces that would encompass the entire hillside and valley. As shown on Figures 3 to 5, to discourage the slope stability analysis software from searching for very deep failure surfaces, we have assigned an “impenetrable / bedrock” soil model. This does not mean that bedrock exists at that depth, it is simply used to facilitate the model results.

The first analysis is shown in Figure 3, and assumes effective stress strength parameters and no seismic force. The critical failure surface is expected to occur near the top of the slope, across the intersection of the advance outwash and underlying Lawton clay deposits. Such a failure surface would result in soil slumping on the slope, but would not be catastrophic. The calculated factor of safety (ratio of the resisting forces to the driving forces along the potential failure surface) for this surface and static load conditions is about 2.3, indicating that a slope stability failure is unlikely to occur. Other, deeper failure surfaces presented by the analysis have factors of safety greater than 2.3, and so are also unlikely to occur.

We also estimated the safety factor for potential failure surfaces under seismic loading by applying forces to the slope that would only occur during a major event. We conducted pseudo-static analysis with a seismic coefficient of 0.29g. This value represents the imparted forces from an earthquake with a return period of 2,475 years, referred to as the maximum considered earthquake. This is the most severe earthquake typically used in the design of new structures. The value of 0.29g is one-half the maximum credible peak ground acceleration. This is a catastrophic seismic event. For buildings, the code is roughly based on “collapse prevention” performance under the 2,475-year return period earthquake and “life safety” performance under 2/3 of this earthquake. Although not directly comparable, an earthquake with a magnitude of 7.5 to 9 could cause such accelerations, depending on the depth and location of the epicenter. If such an earthquake would hit the region, many buildings and infrastructure would be severely damaged or could collapse.

Figure 4 presents the results assuming the same effective stress soil strength parameters that were used for the static case. Figure 5 presents the results assuming undrained strength parameters for the Lawton clay, pre-Olympia fine-grain, and recessional lacustrine deposits. The results present slip surfaces likely to exit near the middle or toe of the slope with a factor of safety of about 1.0. The full range of potential slip surfaces with a factor of safety greater than 1.0 are not shown.



Conclusions

Our conclusion is that this is a relatively stable, low risk slope under static conditions. Although a major earthquake would increase the risk of a slope failure, the safety factor is likely not less than 1.0 based on our assumptions of stratigraphy and soil properties. Note that the stability of the slope is enhanced or maintained if the slope remains well vegetated and relatively undisturbed.

Erosion

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) website, soil within the property is mapped as Bellingham Silt Loam and Kitsap Silt Loam. The steepest portions of the property are sloped greater than 40 percent, but a large majority of the site is sloped between 0 and 20 percent.

The Bellingham Silt Loam has an erosion K factor (susceptibility of a soil to sheet and rill erosion by water) of 0.28. Values of K range from 0.02 to 0.69, and, the higher the value, the more susceptible the soil is to water erosion based on the mapped K factor. Therefore, Bellingham Silt Loam has an average susceptible to erosion. Kitsap Silt Loam does not have a mapped erosion K factor per the NRCS website. It should be noted, however, that the portions of the site mapped as Kitsap Silt Loam is low sloped (KpB 2-8% slope) and moderately sloped (KpD 15-30%) are estimated to be less than 10 percent of the proposed disturbed area of the site. Our opinion is that the Kitsap Silt Loam is unlikely to have substantial contributions to off-site erosion due to the small percentage that will be disturbed during construction based on the NRCS mapping and the soil types observed during our on-site explorations.

Site development is anticipated to include a Washington State Department of Ecology Construction Storm Water General Permit to mitigate the erosion potential of soils exposed during construction or site grading activities. In order to meet the criteria established by the Department of Ecology, an erosion control plan consistent with the governing municipal standards and best management practices will be required for this project. The contractor will be responsible for implementing the erosion control plan as established in the plans and specifications approved by the governing municipality for the project.



References

Harp, Edwin L., Michael, John A., and Laprade, William T., 2006, Shallow-Landslide Hazard Map of Seattle, Washington: U.S. Geological Survey Open-File Report 2006-1139.

Troost et al., 2006. Geologic Map of Mercer Island, Washington [map]. 1:12,000. Mercer Island, 2006.

Troost et al., 2009a. Mercer Island Landslide Hazard Assessment [map]. 1:12,000. Mercer Island, 2009.

Troost et al., 2009b. Mercer Island Erosion Hazard Assessment [map]. 1:12,000. Mercer Island, 2009.

King County 2016. LiDAR data. Accessed from <http://www5.kingcounty.gov/gisdataportal>.

The City of Mercer Island Municipal Code. <http://www.codepublishing.com/WA/MercerIsland>.

Closing

This report is for the exclusive use of Mercer Island Center for the Arts and their design consultants for specific application to this project and site. We completed this work in accordance with generally accepted geotechnical engineering practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. We make no other warranty, express or implied.

Please contact me directly if you have any questions, or if you would like additional information or review. We are available to meet with the team if needed to work through these issues on your behalf.

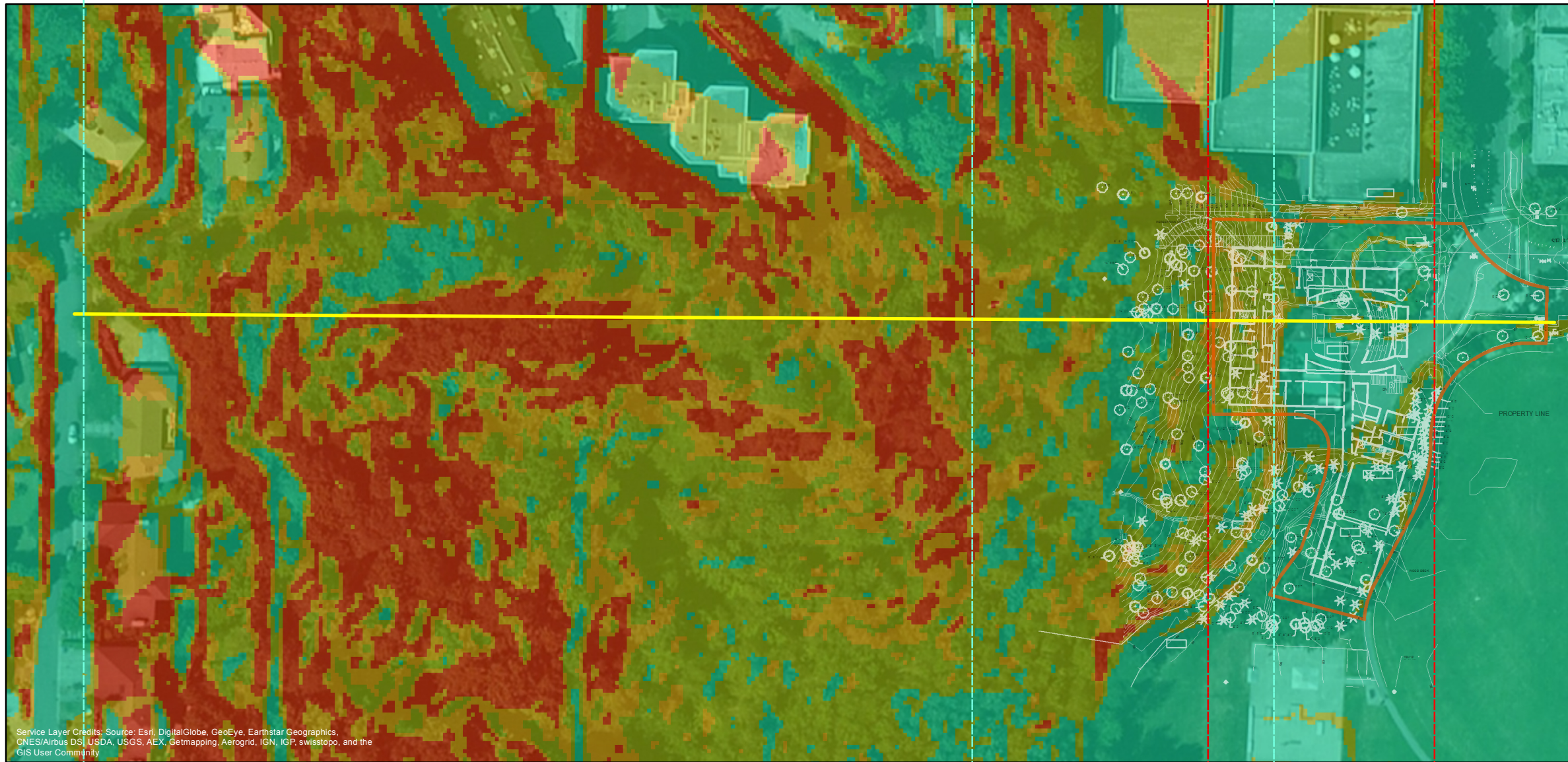
Sincerely,

HART CROWSER, INC.

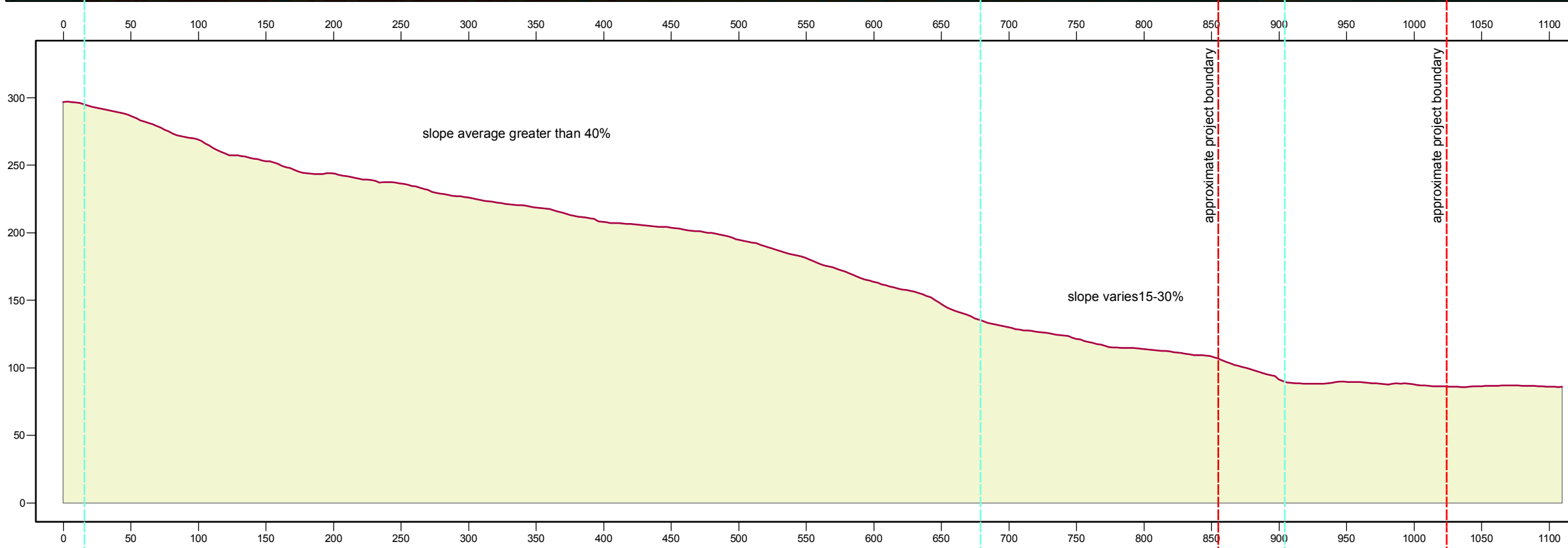


DAVID G. WINTER, PE, LEED AP
Chief Executive Officer

Attached: Figures 1 – 5

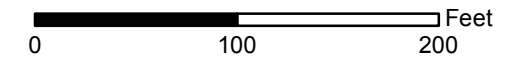


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Slope

- 0-14%
- 15%-29%
- 30%-39%
- >40%
- profile



Mercer Island Center for the Arts Geotechnical Report
Mercer Island, Washington

Slope and Profile

1912001

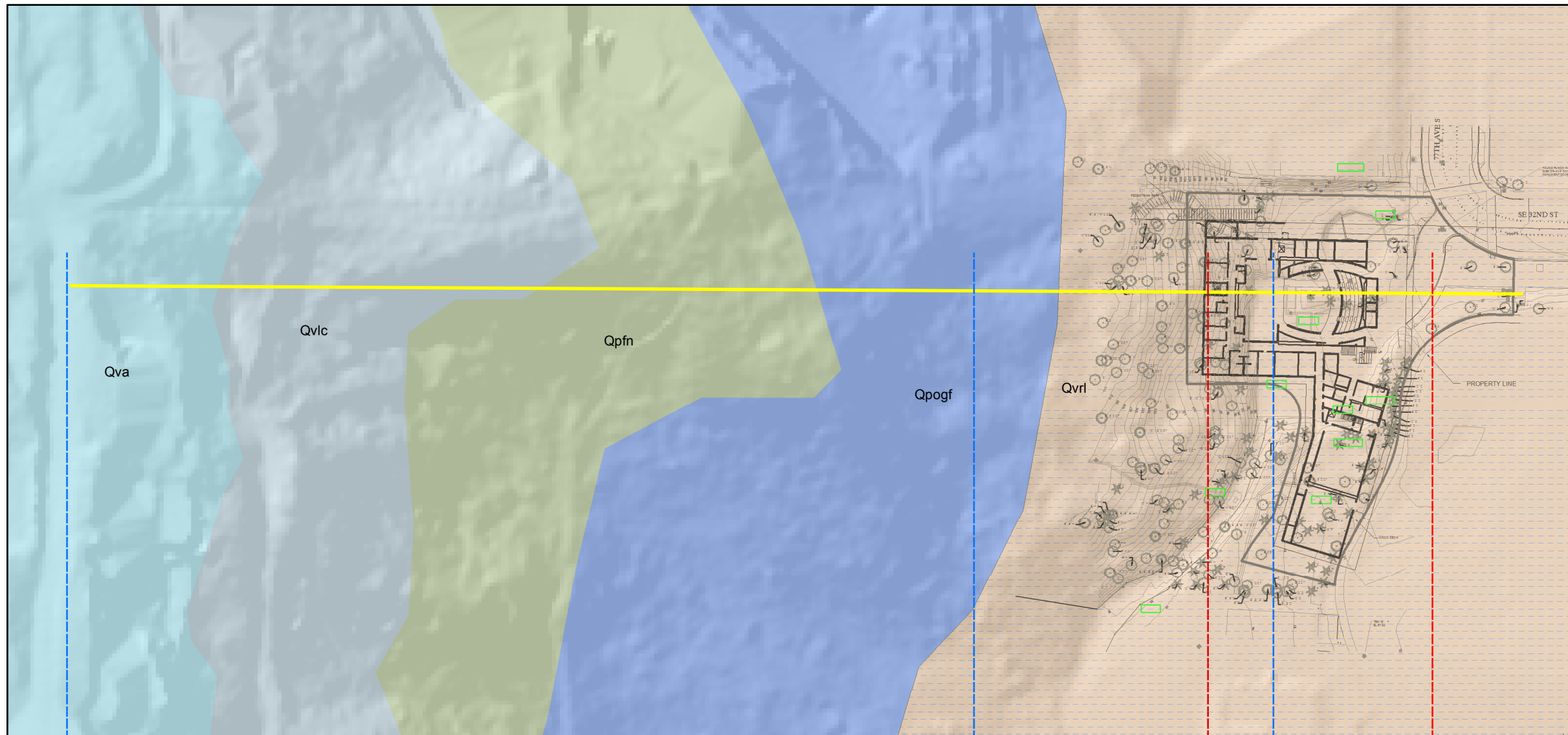
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Figure

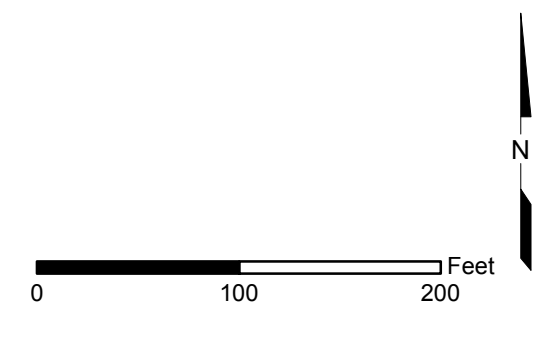
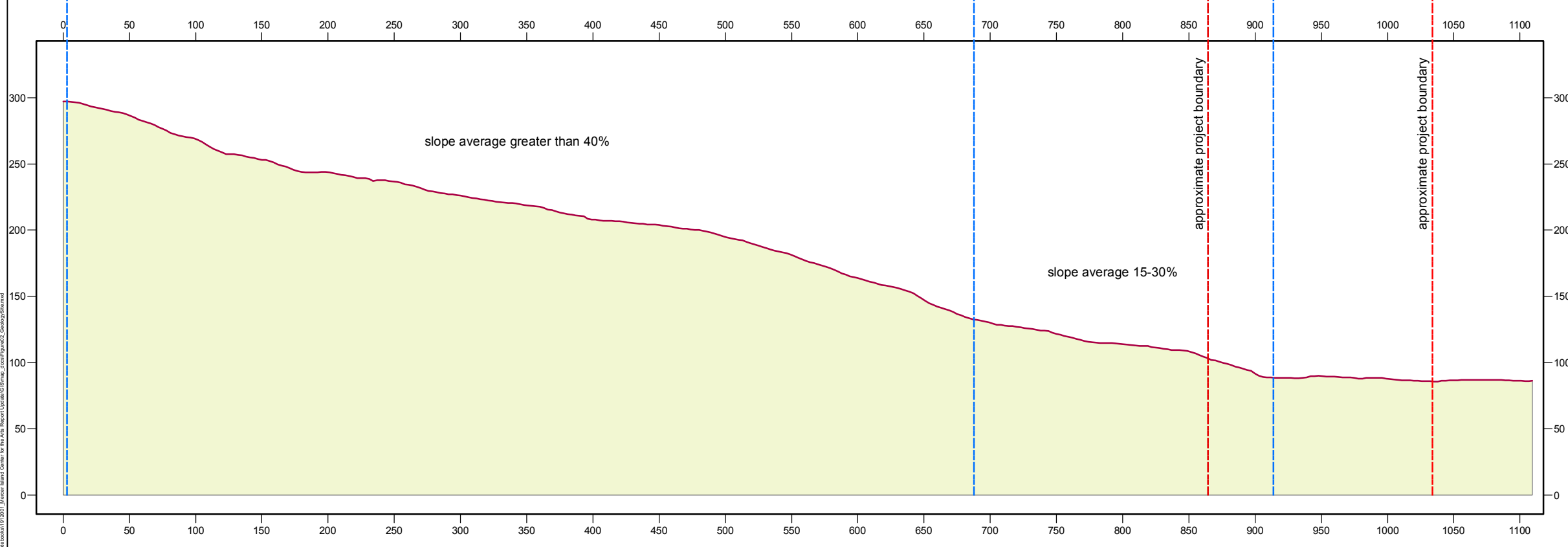
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Geologic Units

- Qpfn - Pre-Fraser age nonglacial deposits
- Qpogf - Olympia glaciation age fine-grained glacial deposits
- Qva - Vashon glaciation age advanced outwash deposits
- Qvlc - Vashon glaciation age Lawton clay deposits
- Qvrl - Vashon glaciation age recessional lacustrine deposits
- profiles



Mercer Island Center for the Arts Geotechnical Report
Mercer Island, Washington

Surface Geology

1912001

11/16

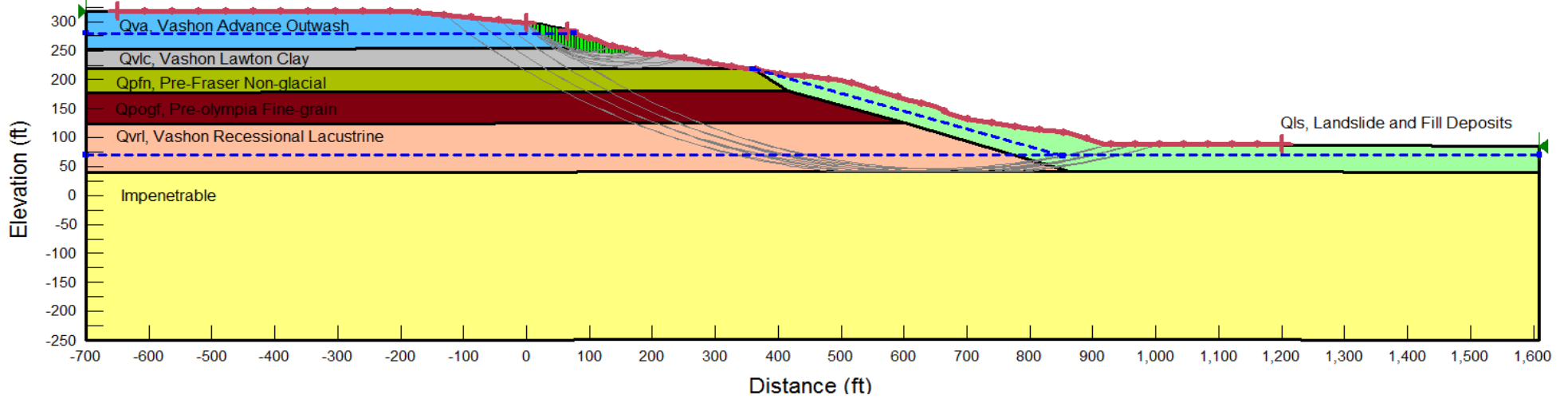


Figure
2

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 Name: Qva, Vashon Advance Outwash Model: Mohr-Coulomb Unit Weight: 120 Cohesion: 200 Phi: 38 Piezometric Line: 1
 Name: Qvlc, Vashon Lawton Clay Model: Mohr-Coulomb Unit Weight: 115 Cohesion: 300 Phi: 26
 Name: Qpfn, Pre-Fraser Non-glacial Model: Mohr-Coulomb Unit Weight: 125 Cohesion: 400 Phi: 36
 Name: Qpogf, Pre-olympia Fine-grain Model: Mohr-Coulomb Unit Weight: 120 Cohesion: 600 Phi: 26
 Name: Qvrl, Vashon Recessional Lacustrine Model: Mohr-Coulomb Unit Weight: 115 Cohesion: 400 Phi: 24 Piezometric Line: 2
 Name: Impenetrable Model: Bedrock (Impenetrable)

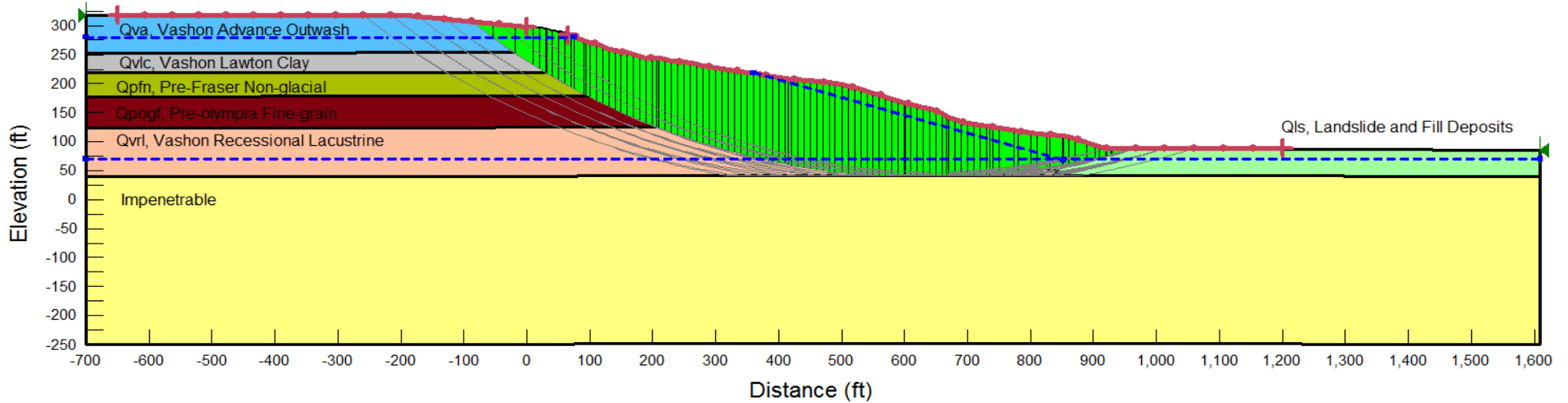
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Mercer Island Center for the Arts Seattle, WA	
Limit Equilibrium Slope Stability Analysis Results: Static, Effective Stress Strength	19120-01 06/18/17
	Figure 3

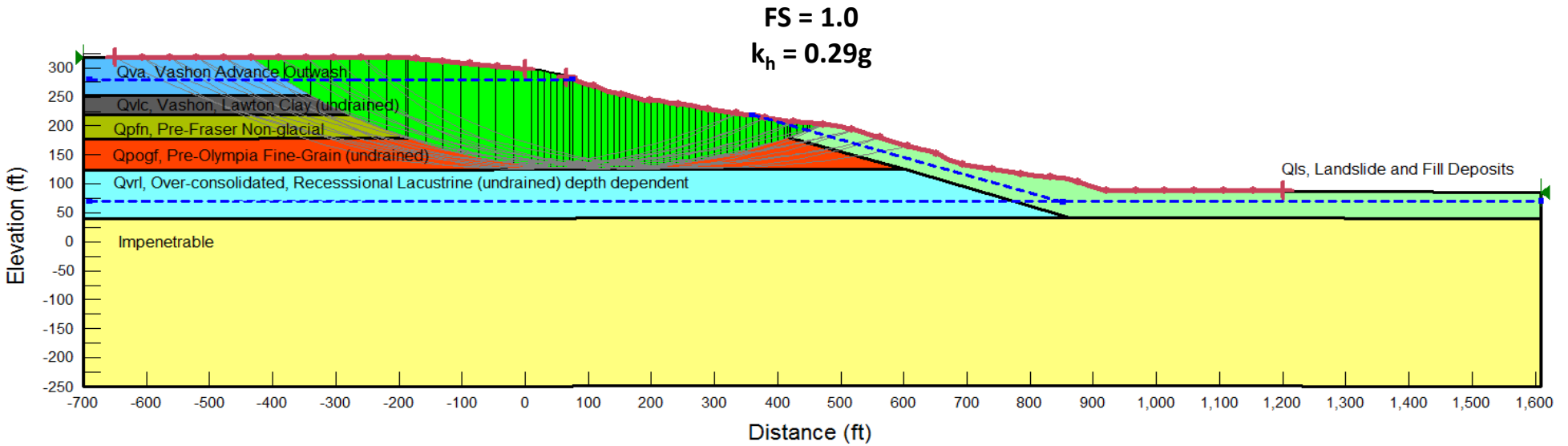
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 Name: Qvlc, Vashon Lawton Clay Model: Mohr-Coulomb Unit Weight: 115 Cohesion: 300 Phi: 26
 Name: Qpfn, Pre-Fraser Non-glacial Model: Mohr-Coulomb Unit Weight: 125 Cohesion: 400 Phi: 36
 Name: Qpogf, Pre-olympia Fine-grain Model: Mohr-Coulomb Unit Weight: 120 Cohesion: 600 Phi: 26
 Name: Qvrl, Vashon Recessional Lacustrine Model: Mohr-Coulomb Unit Weight: 115 Cohesion: 400 Phi: 24 Piezometric Line: 2
 Name: Impenetrable Model: Bedrock (Impenetrable) Piezometric Line: 1


FS = 1.0



Mercer Island Center for the Arts Seattle, WA	
Limit Equilibrium Slope Stability Analysis Results: Seismic, Effective Stress Strength	
19120-01 HARTCROWSER	06/18/17 Figure 4

Name: Qls, Landslide and Fill Deposits Model: Mohr-Coulomb Unit Weight: 120 Cohesion: 400 Phi: 32 Piezometric Line: 3
 Name: Qva, Vashon Advance Outwash Model: Mohr-Coulomb Unit Weight: 120 Cohesion: 200 Phi: 38 Piezometric Line: 1
 Name: Qpfn, Pre-Fraser Non-glacial Model: Mohr-Coulomb Unit Weight: 125 Cohesion: 400 Phi: 36
 Name: Qvlc, Vashon, Lawton Clay (undrained) Model: Undrained (Phi=0) Unit Weight: 115 Cohesion: 5,000
 Name: Qpogf, Pre-Olympia Fine-Grain (undrained) Model: Undrained (Phi=0) Unit Weight: 120 Cohesion: 5,000
 Name: Qvrl, Over-consolidated, Recesssional Lacustrine (undrained) depth dependent Model: S=f(overburden) Unit Weight: 115 Tau/Sigma Ratio: 0.6 Minimum Strength: 400 Piezometric Line: 2
 Name: Impenetrable Model: Bedrock (Impenetrable) Piezometric Line: 1



Mercer Island Center for the Arts Seattle, WA	
 HARTCROWSER	Figure 5
19120-01	06/18/17
Limit Equilibrium Slope Stability Analysis Results: Seismic, Undrained Strength	

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment F
Wetland Delineation Report

January 2017

May 21, 2015

Katie Oman
Director
AMS Planning and Research
Seattle, Washington
Via email: koman@ams-online.com

Re: Mercer Island Center for the Arts Wetland Delineation Study

The Watershed Company Reference Number: 150320

Dear Katie:

On May 7, 2015 Ecologist Ryan Kahlo and I completed a wetland delineation study at the site of the proposed Mercer Island Center for the Arts (MICA) at Mercedale Park located at 77th SE & SE 32nd Street (parcel # 1224049068) in the City of Mercer Island. The purpose of this study is to determine the jurisdictional boundary, size, classification, and associated buffer widths of Wetland A identified in the study area during a reconnaissance-level site investigation.

This letter summarizes the findings of this study and details applicable federal, state, and local regulations. The following attachments are included:

- Wetland Delineation Sketch
- Wetland Determination Data Forms
- Wetland Rating Forms

Methods

Public-domain information on the subject property was reviewed for this delineation study. These sources include USDA Natural Resources Conservation Service Soil maps, National Wetland Inventory maps, Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species interactive mapping system (PHS on the Web), King County's GIS mapping website (iMAP), and Mercer Island's GIS mapping website (Mercer Island GIS Portal).

The study area was evaluated for wetlands using methodology from the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region Version 2.0* (Regional Supplement) (US Army Corps of Engineers [Corps] May 2010). Wetland boundaries were determined on the basis of an examination of vegetation, soils, and hydrology. Areas meeting the criteria set forth in

the Regional Supplement were determined to be wetland. Soil, vegetation, and hydrologic parameters were sampled at several locations along the wetland boundaries to make the determination. Data points on-site are marked with yellow- and black-striped flags. Data were recorded at three of these locations.

Areas meeting wetland parameters were marked with pink- and black-striped flags. The boundary of the South Wetland was marked using 33 flags. Delineated wetlands were classified using the *Western Washington Wetland Rating System* (Ecology Rating System) (Ecology, Aug 2004, version 2).

Findings

Mercerdale Park is on the north end of Mercer Island, south of the downtown area. The MICA-identified study area is located north of the Mercerdale Skate Park (Figure 1) in the Cedar-Sammamish Water Resource Inventory Area (WRIA 8); Township 24N, Range 04E, Section 12. Developed areas are present north and northwest of the study area. A forested hillside with trails is located to the west, and a maintained park lawn area is present to the east.



Figure 1. MICA study area provided by AMS Planning and Research.

The study area contains a paved parking lot and building accessed from SE 32nd Street. The rest of the study area is undeveloped. Non-wetland, undeveloped areas are dominated by forested vegetation including Douglas-fir, red alder, bigleaf maple, and

Oregon ash in the canopy. One wetland, referred to here as Wetland A, is present in the study area and is described below.

Wetland A

Wetland A is narrow and located at the toe of a forested slope within the study area. Outside of the study area, the wetland unit extends to the south, and includes a relatively large forested slope to the southwest. The approximate wetland location is depicted in Figure 2, below.

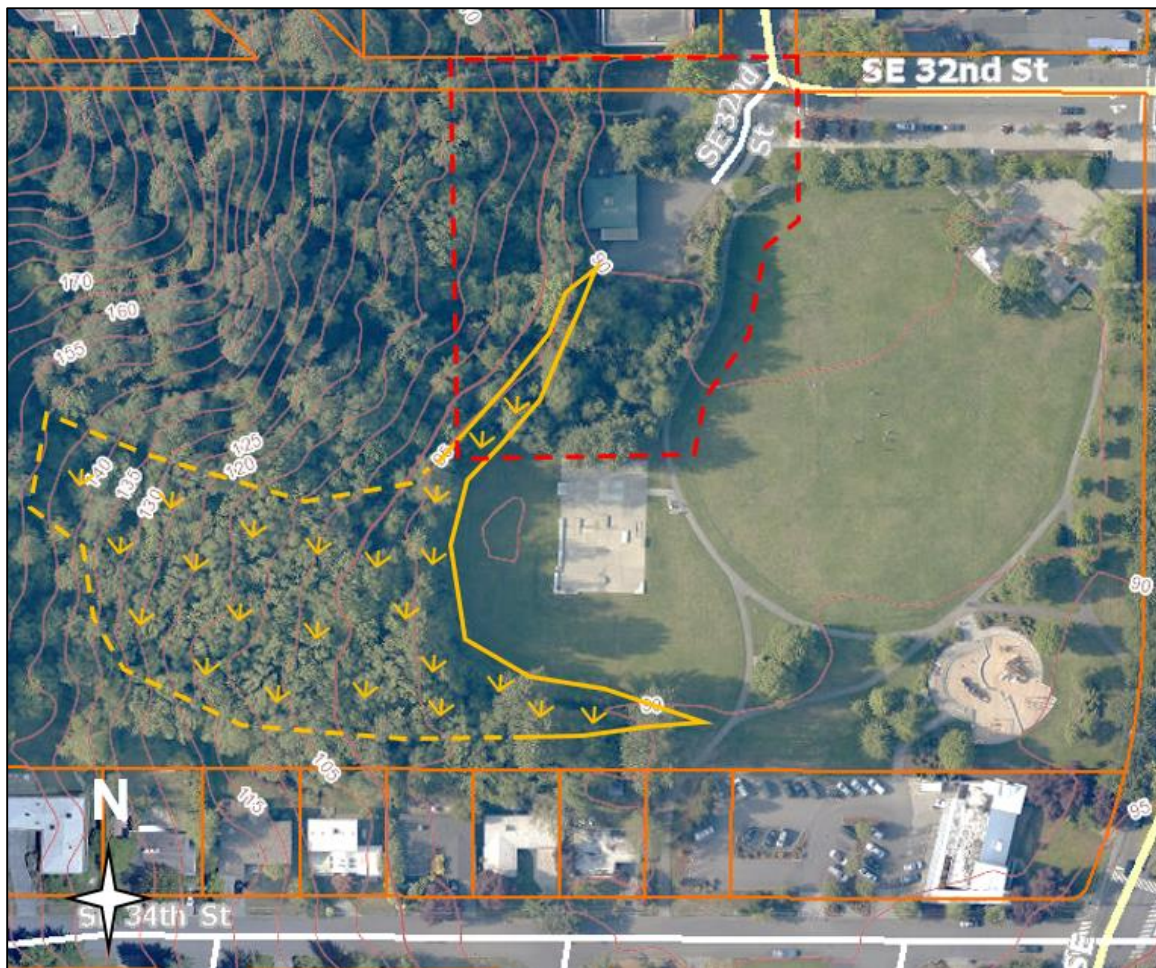


Figure 2. Approximate location and extent of Wetland A (yellow) with study area shown (red).

Wetland A contains slope and depressional hydrogeomorphic (HGM) classes; the depressional class is estimated to be less than 10 percent of the wetland unit. Therefore, Wetland A is rated as a slope wetland. Cowardin vegetation classes that are present in the wetland include palustrine forested and palustrine scrub-shrub. Common plants

observed during the site visit include Oregon ash, red alder, and black cottonwood in the canopy, with red-twig dogwood, Sitka willow, Dewey's sedge, creeping buttercup, soft rush, small-fruited bullrush, and giant horsetail in the shrub and herbaceous layers.

Sampled wetland soils in the study area contain a layer from 6 to 15 inches that is a dark (10 YR 3/1) clay loam with redox features present. Sampled soils meet hydric soil indicator Redox Dark Surface (F6). Soils were saturated to the surface during the field visit and a water table was observed at 6 inches below the soil surface. Several inches of standing water were present in a depressional area near the toe of the slope. The hydrology of Wetland A is provided by groundwater- and surface water-flow from the forested slope located to the west; water seasonally ponds at the toe of the slope near the extent of the maintained park area. According to the City's storm utility maps (Mercer Island GIS Portal), surface water from Wetland A flows both north and south into the City's storm-water system.

This wetland unit rates moderate for water quality functions, low for hydrologic functions, and moderate for habitat functions. The presence of dense herbaceous vegetation, and proximity to urban areas give this wetland the potential and opportunity to provide water quality functions. Hydrologic functions provided by Wetland A are low since flow from the wetland drains into the City's storm utility system; therefore the wetland does not have the opportunity to reduce flooding and erosion. Vegetative structure and diversity, and habitat features such as large woody debris and standing snags contribute to the moderate habitat functions score for this wetland unit.

Marginal Area (Non-wetland)

One marginal area is present on the western study area boundary; this area does not meet all three wetland criteria and is not considered a jurisdictional wetland. Vegetation at this location is dominated by a marginal, facultative vegetation assemblage including Oregon ash and bigleaf maple in the canopy with planted conifers in the understory and Dewey's sedge, creeping buttercup, and grass in the herbaceous layer. Sampled soils meet the conditions for hydric soil indicator Redox Dark Surface (F6). However, soils were not saturated at the time of sampling and did not meet any primary hydrology indicators. Due to the time of year and normal year-to-date precipitation, the lack of observed hydrology was judged to be reliable¹. Furthermore, two or more secondary hydrology indicators were not met. When compared to similar forested slopes of

¹ Precipitation data gathered from National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service Website (<http://w2.weather.gov/climate/index.php?wfo=sew>). On May 7, 2015, recorded precipitation for the Seattle-Tacoma area was within 0.3 inches of the normal year-to-date value.

Wetland A, this area is much dryer, and the vegetation assemblage generally reflects this observation.

Local Regulations

Wetlands in Mercer Island are regulated under the Mercer Island City Code (MICC) Unified Land Development Code Chapter 19.07, Environment. The Mercerdale Park parcel is zoned Public Institution (P).

Wetlands

Wetland A scored 12 points for water quality, 5 points for hydrology, and 15 points for habitat, for a total of 32 points. This score qualifies the Wetland A as a Category III wetland. Category III wetlands require a standard buffer width of 50 feet.

In general, site plans should avoid and minimize impacts to wetlands and buffers. However, the City may allow modification of the standard wetland buffer either through buffer reduction (19.07.08[C][2]) or buffer averaging (19.07.080[C][3]). The buffer reduction option would require a critical area study and mitigation, while the buffer averaging option does not require a critical area study but may require a mitigation plan.

Wetland buffers may be reduced to 25 feet via buffer reduction in accordance with an approved critical area study if the code official determines the following:

- That a smaller area is adequate to protect the wetland functions,
- Impacts will be mitigated consistent with MICC 19.07.070(B)(2), and
- The proposal will result in no net loss of wetland buffer functions.

Wetland buffers may be averaged in accordance with the following provisions outlined in MICC 19.07.070(B)(3):

- The proposal will result in a net improvement of critical area function;
- The proposal will include replanting of the averaged buffer using native vegetation;
- The total area contained in the averaged buffers on the development proposal site is not decreased below the total area that would be provided if the maximum width were not averaged;
- The standard buffer width is not reduced to a width that is less than the minimum buffer width (25 feet) at any location; and
- That portion of the buffer that has been reduced in width shall not contain a steep slope.

Direct wetland impacts are allowed for Category III wetlands less than one acre in size if proposed mitigation will result in equivalent or greater function (MICC 19.07.080(D)).

Wetland A is greater than 2 acres, thereby exceeding the alteration threshold. In addition, the City's reasonable use criteria found in MICC 19.07.030(B) is not applicable since an existing use (City park) has already been established on the parcel.

State and Federal Regulations

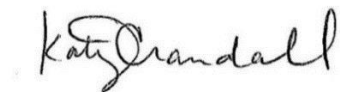
Wetlands are also regulated by the Corps under Section 404 of the Clean Water Act. Any filling of Waters of the U.S., including wetlands (except isolated wetlands), would require notification and permits from the Corps. Wetland A would likely not be considered isolated. Federally permitted actions that could affect endangered species (i.e. salmon or bull trout) may also require a biological assessment study and consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service. Application for Corps permits may also require an individual 401 Water Quality Certification and Coastal Zone Management Consistency determination from Ecology.

In general, neither the Corps nor Ecology regulates wetland buffers, unless direct impacts are proposed. When direct impacts are proposed, mitigated wetlands may be required to employ buffers based on Corps and Ecology joint regulatory guidance.

The information contained in this letter or report is based on the application of technical guidelines currently accepted as the best available science and in conjunction with the criteria outlined in the methods section. All discussions, conclusions and recommendations reflect the best professional judgment of the author(s) and are based upon information available to us at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local, State and Federal regulatory authorities. No other warranty, expressed or implied, is made.

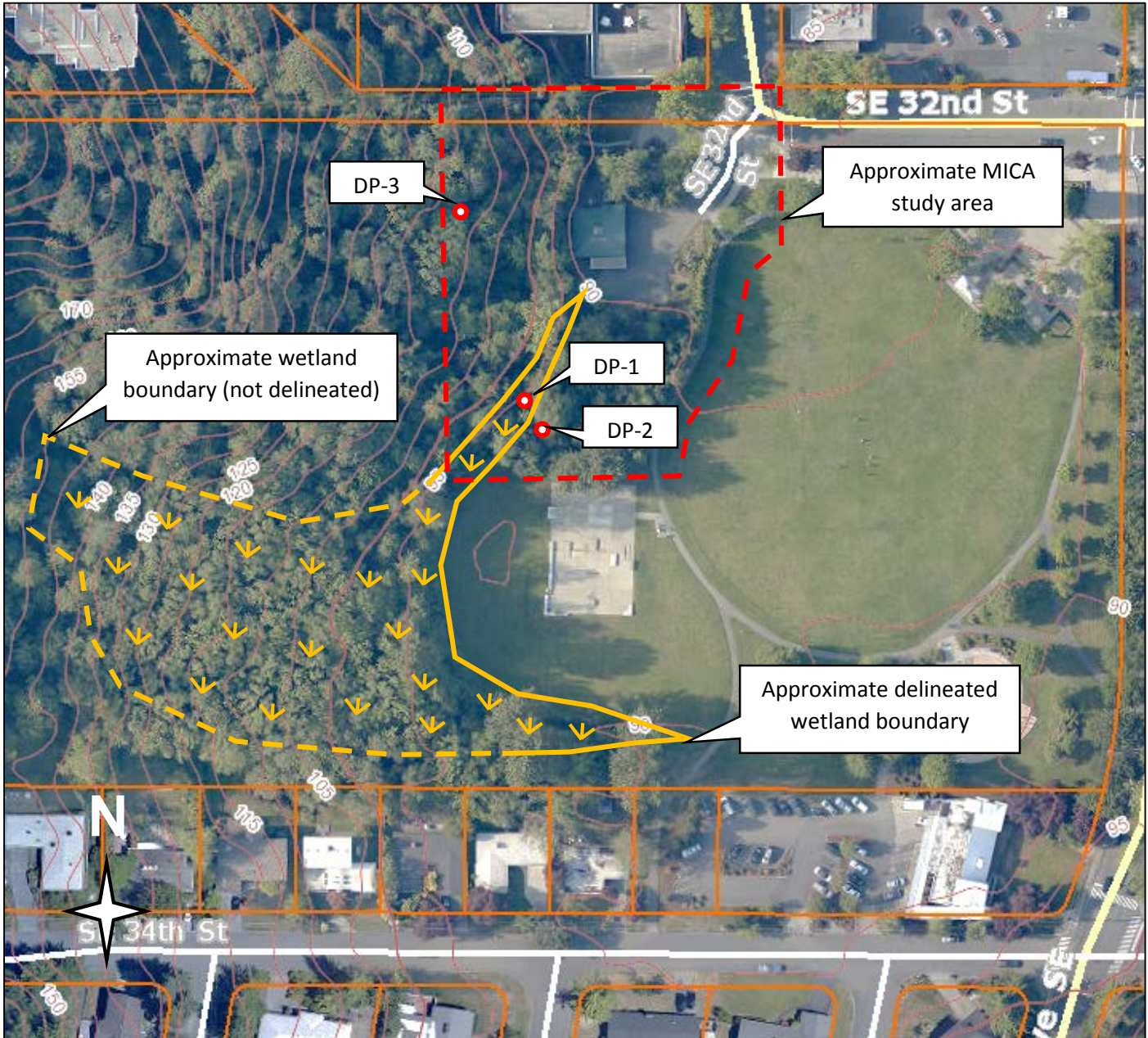
Please call if you have any questions or if we can provide you with any additional information.

Sincerely,



Katy Crandall, WPIT
Ecologist

Enclosures







Note: This is a field sketch. Wetland areas not surveyed. Areas depicted are approximate and not to scale.

Wetland Delineation Sketch

Prepared for: Katie Oman, AMS Planning and Research
 Located at: Mercerdale Park
 Parcel Number 1224049068
 3205 77th Ave. SE
 Mercer Island, WA 98040

LEGEND:

-  Wetland edge, delineated
-  Wetland edge, not delineated
-  Wetland area
-  Data Point (DP)

DP- 1

Project Site: Mercerdale Park		Sampling Date: 4/2/2015
Applicant/Owner: MICA		Sampling Point: DP- 1
Investigator: K. Crandall		City/County: Mercer Island
Sect., Township, Range: S 12 T 24N R 04E		State: WA
Landform (hillslope, terrace, etc): Toe of slope	Slope (%): 5	Local relief (concave, convex, none): Concave
Subregion (LRR): A	Lat:	Long:
Soil Map Unit Name: Bh – Bellingham silt loam		NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		(If no, explain in remarks.)
Are "Normal Circumstances" present on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic		
(If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydric Soils Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampling Point within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Wetland A in-pit			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m diam.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet																					
1. <i>Pseudotsuga menzeisii</i> (dying and rooted upslope)				Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)																					
2. <i>Crataegus monogyna</i>	30	Y	FAC																						
3. <i>Populus balsamifera</i>	15	Y	FAC																						
4. <i>Fraxinus latifolia</i>	3	N	FACW																						
	48	= Total Cover		Total Number of Dominant Species Across All Strata: 5 (B)																					
Percent of Dominant Species that are OBL, FACW, or FAC: 80 (A/B)																									
Sapling/Shrub Stratum (Plot size: 3m diam.)				Prevalence Index Worksheet																					
1. <i>Cornus sericea</i>	20	Y	FACW	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Total % Cover of</th> <th>Multiply by</th> </tr> <tr> <td>OBL species</td> <td></td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td></td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td></td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> </tr> <tr> <td>Column totals</td> <td>(A)</td> <td>(B)</td> </tr> </table>	Total % Cover of		Multiply by	OBL species		x 1 =	FACW species		x 2 =	FAC species		x 3 =	FACU species		x 4 =	UPL species		x 5 =	Column totals	(A)	(B)
Total % Cover of		Multiply by																							
OBL species		x 1 =																							
FACW species		x 2 =																							
FAC species		x 3 =																							
FACU species		x 4 =																							
UPL species		x 5 =																							
Column totals	(A)	(B)																							
2.																									
3.																									
4.																									
5.																									
	20	= Total Cover																							
Herb Stratum (Plot size: 1m diam.)				Prevalence Index = B / A =																					
1. <i>Ranunculus repens</i>	40	Y	FAC	<p>Hydrophytic Vegetation Indicators</p> <input checked="" type="checkbox"/> Dominance test is > 50% <input type="checkbox"/> Prevalence test is ≤ 3.0 * Morphological Adaptations * (provide supporting data in remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants * <input type="checkbox"/> Problematic Hydrophytic Vegetation * (explain) * Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																					
2.																									
3.																									
4.																									
5.																									
6.																									
7.																									
8.																									
9.																									
10.																									
11.																									
	40	= Total Cover																							
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																					
1. <i>Rubus armeniacus</i>	20	Y	FACU																						
2.																									
	20	= Total Cover																							
% Bare Ground in Herb Stratum:																									
Remarks:																									

SOIL

Sampling Point – DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Clay loam	
6-12	10YR 3/1	93	7.5YR 3/4	7	C	M	Clay loam	
12-15	10YR 3/1	80	7.5YR 3/4	20	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Loc: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³

<input type="checkbox"/> 2cm Muck (A10)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (explain in remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric soil present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply):

<input checked="" type="checkbox"/> Surface water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (except MLRA 1, 2, 4A & 4B) (B9)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (explain in remarks)

Secondary Indicators (2 or more required):

<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A & 4B)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Frost-Heave Hummocks

Field Observations Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (in): ~10 nearby Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (in): 6 BGS Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (in): 0 BGS (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: **BGS = below ground surface**

Project Site: Mercerdale Park	Sampling Date: 4/2/2015
Applicant/Owner: MICA	Sampling Point: DP- 2
Investigator: K. Crandall	City/County: Mercer Island
Sect., Township, Range: S 12 T 24N R 04E	State: WA
Landform (hillslope, terrace, etc): Terrace	Slope (%): 0
Subregion (LRR): A	Local relief (concave, convex, none): None
Soil Map Unit Name: Bh – Bellingham silt loam	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(If no, explain in remarks.)
Are "Normal Circumstances" present on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic	
(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampling Point within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soils Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Out-pit adjacent to Wetland A	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m diam.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet																						
1. <i>Pseudotsuga menzeisii</i>	50	Y	FACU	Number of Dominant Species that are OBL, FACW, or FAC:	2 (A)																					
2. <i>Alnus rubra</i>	50	Y	FAC	Total Number of Dominant Species Across All Strata:	4 (B)																					
3. <i>Acer macrophyllum</i>	10	N	FACU	Percent of Dominant Species that are OBL, FACW, or FAC:	50 (A/B)																					
4. <i>Fraxinus latifolia</i>	10	N	FACW																							
_____ = Total Cover																										
Sapling/Shrub Stratum (Plot size: 3m diam.)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index Worksheet																						
1. <i>Rosa gymnocarpa</i>	5	Y	FACU																							
2.				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Total % Cover of</th> <th style="text-align: center;">Multiply by</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td></td> <td style="text-align: center;">x 1 =</td> </tr> <tr> <td>FACW species</td> <td></td> <td style="text-align: center;">x 2 =</td> </tr> <tr> <td>FAC species</td> <td></td> <td style="text-align: center;">x 3 =</td> </tr> <tr> <td>FACU species</td> <td></td> <td style="text-align: center;">x 4 =</td> </tr> <tr> <td>UPL species</td> <td></td> <td style="text-align: center;">x 5 =</td> </tr> <tr> <td>Column totals</td> <td style="text-align: center;">(A)</td> <td style="text-align: center;">(B)</td> </tr> </tbody> </table>		Total % Cover of		Multiply by	OBL species		x 1 =	FACW species		x 2 =	FAC species		x 3 =	FACU species		x 4 =	UPL species		x 5 =	Column totals	(A)	(B)
Total % Cover of		Multiply by																								
OBL species		x 1 =																								
FACW species		x 2 =																								
FAC species		x 3 =																								
FACU species		x 4 =																								
UPL species		x 5 =																								
Column totals	(A)	(B)																								
3.				Prevalence Index = B / A =																						
4.																										
5.				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance test is > 50% <input type="checkbox"/> Prevalence test is ≤ 3.0 * Morphological Adaptations * (provide supporting data in remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants * <input type="checkbox"/> Problematic Hydrophytic Vegetation * (explain)																						
6.																										
7.																										
8.																										
9.																										
10.																										
11.				* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																						
_____ = Total Cover																										
Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																						
1.																										
2.																										
_____ = Total Cover																										
% Bare Ground in Herb Stratum: _____																										
Remarks:																										

SOIL

Sampling Point – DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/2	100					Gravelly sandy loam	
8-14	10YR 3/2	95	7.5YR 4/6	5	C	M	Gravelly sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Loc: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³

<input type="checkbox"/> 2cm Muck (A10)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (explain in remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric soil present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply):

<input type="checkbox"/> Surface water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (except MLRA 1, 2, 4A & 4B) (B9)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (explain in remarks)

Secondary Indicators (2 or more required):

<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A & 4B)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Frost-Heave Hummocks

Field Observations Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (in): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (in): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (in): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: **Damp, not saturated**

Project Site: Mercerdale Park	Sampling Date: 5/7/2015
Applicant/Owner: MICA	Sampling Point: DP- 3
Investigator: K. Crandall, R. Kahlo	City/County: Mercer Island
Sect., Township, Range: S 12 T 24N R 04E	State: WA
Landform (hillslope, terrace, etc): Terrace	Slope (%): 5
Subregion (LRR): A	Local relief (concave, convex, none): Concave
Soil Map Unit Name: KbP – Kitsap silt loam	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(If no, explain in remarks.)
Are "Normal Circumstances" present on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic	(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampling Point within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soils Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Marginal non-wetland area	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m diam.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1. <i>Acer macrophyllum</i>	50	Y	FACU	Number of Dominant Species that are OBL, FACW, or FAC:	5 (A)
2. <i>Fraxinus latifolia</i>	50	Y	FACW	Total Number of Dominant Species Across All Strata:	6 (B)
3.				Percent of Dominant Species that are OBL, FACW, or FAC:	83 (A/B)
4.					
	100	= Total Cover			
Sapling/Shrub Stratum (Plot size: 3m diam.)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index Worksheet	
1. <i>Thuja plicata</i>	10	Y	FAC	Total % Cover of	
2.				OBL species	x 1 =
3.				FACW species	x 2 =
4.				FAC species	x 3 =
5.				FACU species	x 4 =
	10	= Total Cover		UPL species	x 5 =
				Column totals	(A) (B)
Herb Stratum (Plot size: 1m diam.)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index = B / A =	
1. <i>Ranunculus repens</i>	70	Y	FAC		
2. <i>Carex deweyana</i>	60	Y	FAC		
3. <i>Unk. Grass</i>	40	Y	FAC*		
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
	170	= Total Cover			
Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators	
1.				<input checked="" type="checkbox"/> Dominance test is > 50%	
2.				<input type="checkbox"/> Prevalence test is ≤ 3.0 *	
				Morphological Adaptations * (provide supporting data in remarks or on a separate sheet)	
				<input type="checkbox"/> Wetland Non-Vascular Plants *	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation * (explain)	
				* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: *Presumed FAC					

SOIL

Sampling Point – DP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	2.5Y 3/1	92	7.5 YR 3/4	8	C	M	Silty clay loam	
8-14	10 YR 4/1	80	10 YR 4/6	20	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Loc: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³

<input type="checkbox"/> 2cm Muck (A10)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (explain in remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric soil present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply):

<input type="checkbox"/> Surface water (A1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (except MLRA 1, 2, 4A & 4B) (B9)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (explain in remarks)

Secondary Indicators (2 or more required):

<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A & 4B)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Frost-Heave Hummocks

Field Observations Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (in): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (in): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (in): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: **Damp, not saturated**

Wetland name or number: A

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users
Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland (if known): Wetland A Date of site visit: 5/7/2015
K. Crandall,
Rated by: R. Kahlo Trained by Ecology? Yes No Date of Training 09/2014
SEC: 12 TOWNSHIP: 24N RANGE: 04E Is S/T/R in Appendix D? Yes No

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score ≥70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions	12
Score for Hydrologic Functions	5
Score for Habitat Functions	15
TOTAL score for functions	32

Category based on SPECIAL CHARACTERISTICS of wetland

I II Does not Apply

Final Category (choose the “highest” category from above)

III

Check the appropriate type and class of wetland being rated.

Wetland Type	Wetland Class
Estuarine <input type="checkbox"/>	Depressional <input type="checkbox"/>
Natural Heritage Wetland <input type="checkbox"/>	Riverine <input type="checkbox"/>
Bog <input type="checkbox"/>	Lake-fringe <input type="checkbox"/>
Mature Forest <input type="checkbox"/>	Slope <input checked="" type="checkbox"/>
Old Growth Forest <input type="checkbox"/>	Flats <input type="checkbox"/>
Coastal Lagoon <input type="checkbox"/>	Freshwater Tidal <input type="checkbox"/>
Interdunal <input type="checkbox"/>	
None of the above <input checked="" type="checkbox"/>	Check if unit has multiple HGM classes present <input type="checkbox"/>

Wetland name or number: A

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X*
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X*
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X*
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

***The study area was reviewed for the presence of endangered, threatened, and priority species using WDFW online Priority Habitat and Species Data, PHS on the Web (<http://wdfw.wa.gov/mapping/phs/>).**

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. Classifying the wetland first simplifies the questions needed to answer how it functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Classification of Wetland Units in Western Washington

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in Questions 1-7 apply, and go to Question 8.

1. Are the water levels in the wetland unit usually controlled by tides (i.e. except during floods)?
 NO – go to 2 YES – the wetland class is **Tidal Fringe**

If yes, is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? **YES – Freshwater Tidal Fringe** **NO – Saltwater Tidal Fringe (Estuarine)**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is rated as an **Estuarine** wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term “Estuarine” wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p.).*

2. The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit
 NO – go to 3 **YES – The wetland class is Flats**

If your wetland can be classified as a “Flats” wetland, use the form for **Depressional** wetlands.

3. Does the entire wetland unit **meet both** of the following criteria?
 The vegetated part of the wetland is on the shores of a body of open water (without any vegetation on the surface) at least 20 acres (8 ha) in size;
 At least 30% of the open water area is deeper than 6.6 ft (2 m)?
 NO – go to 4 **YES – The wetland class is Lake-fringe (Lacustrine Fringe)**

4. Does the entire wetland unit **meet all** of the following criteria?
 The wetland is on a slope (*slope can be very gradual*),
 The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 The water leaves the wetland **without being impounded?**
NOTE: *Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than a foot deep).*
 NO – go to 5 **YES – The wetland class is Slope**

Wetland name or number: A

5. Does the entire wetland unit **meet all** of the following criteria?

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.
- The overbank flooding occurs at least once every two years

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.

NO - go to 6 **YES** – The wetland class is **Riverine**

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year. *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding. The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. **GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT** (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within your wetland. **NOTE:** Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

<i>HGM classes within the wetland unit being rated</i>	<i>HGM Class to Use in Rating</i>
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

If you are unable still to determine which of the above criteria apply to your wetland, or you have more than 2 HGM classes within a wetland boundary, classify the wetland as **Depressional** for the rating.

Wetland name or number: A

S	Slope Wetlands	Points
HYDROLOGIC FUNCTIONS - Indicators that wetland functions to reduce flooding and stream erosion		
	S 3. Does the wetland have the <u>potential</u> to reduce flooding and erosion?	<i>(see p. 68)</i>
S	<p>S 3.1 Characteristics of vegetation that reduce the velocity of surface flows during storms. <i>Choose the points appropriate for the description that best fit conditions in the wetland. (stems of plants should be thick enough (usually > 1/8in), or dense enough, to remain erect during surface flows)</i></p> <p>Dense, uncut, rigid vegetation covers > 90% of the area of the wetland. points = 6 Dense, uncut, rigid vegetation > 1/2 area of wetland points = 3 Dense, uncut, rigid vegetation > 1/4 area points = 1 More than 1/4 of area is grazed, mowed, tilled or vegetation is not rigid points = 0</p>	3
S	<p>S 3.2 Characteristics of slope wetland that holds back small amounts of flood flows: The slope wetland has small surface depressions that can retain water over at least 10% of its area.</p> <p>YES points = 2 NO points = 0</p>	2
S	Total for S 3 <i>Add the points in the boxes above</i>	5
S	<p>S 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion? <i>(see p. 70)</i> Is the wetland in a landscape position where the reduction in water velocity it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows? <i>Note which of the following conditions apply.</i></p> <p><input type="checkbox"/> Wetland has surface runoff that drains to a river or stream that has flooding problems <input type="checkbox"/> Other _____</p> <p><i>(Answer NO if the major source of water to the wetland is controlled by a reservoir or the wetland is tidal fringe along the sides of a dike)</i></p> <p style="text-align: center;">YES multiplier is 2 NO multiplier is 1</p>	(see p. 70) multiplier 1
S	TOTAL - Hydrologic Functions Multiply the score from S 3 by S 4 <i>Add score to table on p. 1</i>	5

Comments

S 4 – Using the Mercer Island GIS Portal website, it appears that surface water leaving the wetland is directed into the City’s storm utility system.

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that wetland functions to provide important habitat	
H 1. Does the wetland have the potential to provide habitat for many species?	
<p>H 1.1 <u>Vegetation structure</u> (see p. 72) Check the types of vegetation classes present (as defined by Cowardin) if the class is ¼ acre or covers more than 10% of the area of the wetland if unit smaller than 2.5 acres.</p> <p> <input type="checkbox"/> Aquatic bed <input type="checkbox"/> Emergent plants <input checked="" type="checkbox"/> Scrub/shrub (areas where shrubs have >30% cover) <input checked="" type="checkbox"/> Forested (areas where trees have >30% cover) <input checked="" type="checkbox"/> Forested areas have 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon </p> <p>Add the number of vegetation types that qualify. If you have:</p> <p style="text-align: right;"> 4 structures or more points = 4 3 structures points = 2 2 structures points = 1 1 structure points = 0 </p>	2
<p>H 1.2. <u>Hydroperiods</u> (see p. 73) Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)</p> <p> <input type="checkbox"/> Permanently flooded or inundated 4 or more types present points = 3 <input type="checkbox"/> Seasonally flooded or inundated 3 types present points = 2 <input checked="" type="checkbox"/> Occasionally flooded or inundated 2 types present points = 1 <input checked="" type="checkbox"/> Saturated only 1 types present points = 0 <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland <input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland <input type="checkbox"/> Lake-fringe wetland = 2 points <input type="checkbox"/> Freshwater tidal wetland = 2 points </p>	1
<p>H 1.3. <u>Richness of Plant Species</u> (see p. 75) Count the number of plant species in the wetland that cover at least 10 ft². (different patches of the same species can be combined to meet the size threshold) You do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0 List species below if you want to:</p> <p style="text-align: right;"> > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0 </p> <p>FRLA, POBA, ALRU, THPL, ACMA, SASI, SALU, COSE, RUAR, POMU, JUEF, ATFI, SCMI, CADE, RARE, EQTE, EQAR, OESA, COAR, Grass1</p>	2

Wetland name or number: A

<p>H 1.4. Interspersion of habitats (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points Low = 1 point Moderate = 2 points</p> <p>High = 3 points [riparian braided channels]</p> <p>NOTE: If you have four or more vegetation types or three vegetation types and open water the rating is always "high".</p>	<p>1</p>
<p>H 1.5. Special Habitat Features: (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (>4in. diameter and 6 ft long). <input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream for at least 33 ft (10m) <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present <input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated.(structures for egg-laying by amphibians) <input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants <p><i>Note: The 20% stated in early printings of the manual on page 78 is an error.</i></p>	<p>3</p>
<p>H 1. TOTAL Score - potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>9</p>

H 2. Does the wetland have the opportunity to provide habitat for many species?	
<p>H 2.1 Buffers (<i>see p. 80</i>) <i>Choose the description that best represents condition of buffer of wetland. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed."</i></p> <p><input type="checkbox"/> 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No developed areas within undisturbed part of buffer. (relatively undisturbed also means no-grazing) Points = 5</p> <p><input type="checkbox"/> 100 m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference..... Points = 4</p> <p><input type="checkbox"/> 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% circumference..... Points = 4</p> <p><input type="checkbox"/> 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference..... Points = 3</p> <p><input type="checkbox"/> 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water for > 50% circumference..... Points = 3</p> <p style="text-align: center;">If buffer does not meet any of the criteria above</p> <p><input type="checkbox"/> No paved areas (except paved trails) or buildings within 25 m (80ft) of wetland > 95% circumference. Light to moderate grazing, or lawns are OK..... Points = 2</p> <p><input checked="" type="checkbox"/> No paved areas or buildings within 50m of wetland for >50% circumference. Light to moderate grazing, or lawns are OK..... Points = 2</p> <p><input type="checkbox"/> Heavy grazing in buffer. Points = 1</p> <p><input type="checkbox"/> Vegetated buffers are <2m wide (6.6ft) for more than 95% of the circumference (e.g. tilled fields, paving, basalt bedrock extend to edge of wetland Points = 0</p> <p><input type="checkbox"/> Buffer does not meet any of the criteria above.....Points = 1</p>	2
<p>H 2.2 Corridors and Connections (<i>see p. 81</i>)</p> <p>H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (<i>dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor</i>).</p> <p style="padding-left: 40px;">YES = 4 points (<i>go to H 2.3</i>) NO = go to H 2.2.2</p> <p>H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above?</p> <p style="padding-left: 40px;">YES = 2 points (<i>go to H 2.3</i>) NO = H 2.2.3</p> <p>H 2.2.3 Is the wetland:</p> <p style="padding-left: 40px;">within 5 mi (8km) of a brackish or salt water estuary OR</p> <p style="padding-left: 40px;">within 3 mi of a large field or pasture (>40 acres) OR</p> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 40px;">within 1 mi of a lake greater than 20 acres?</div> <p style="padding-left: 40px;">YES = 1 point NO = 0 points</p>	1

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)</u></p> <p>Which of the following priority habitats are within 330ft (100m) of the wetland? (NOTE: the connections do not have to be relatively undisturbed)</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acres).</p> <p><input checked="" type="checkbox"/> Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full description in WDFW PHS report p. 152)</p> <p><input type="checkbox"/> Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.</p> <p><input type="checkbox"/> Old-growth/Mature forests: (<u>Old-growth west of Cascade crest</u>) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (<u>Mature forests.</u>) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less than 100%; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158.)</p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161)</p> <p><input type="checkbox"/> Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.</p> <p><input type="checkbox"/> Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report: pp. 167-169 and glossary in Appendix A.)</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input checked="" type="checkbox"/> Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of >51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30cm (12 in) in diameter at the largest end, and > 6m (20 ft) long.</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habitats = 3 points If wetland has 1 priority habitat = 1 point No habitats = 0 points</p> <p><i>Note: All vegetated wetland are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H2.4.</i></p>	<p>3</p>
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Wetland name or number: A

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetland within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile. points = 2</p> <p>There are no wetlands within ½ mile..... points = 0</p>	0
<p>H 2. TOTAL Score - opportunity for providing habitat Add the scores from H2.1, H2.2, H2.3, H2.4</p>	6
<p>TOTAL for H1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	15

H 2.4 – No *known* wetlands within ½ mile

Wetland name or number: A

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate Category.

Wetland Type <i>Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.</i>	Category
<p>SC 1.0 Estuarine wetlands (see p. 86)</p> <p>Does the wetland unit meet the following criteria for Estuarine wetlands?</p> <p><input type="checkbox"/> The dominant water regime is tidal,</p> <p><input type="checkbox"/> Vegetated, and</p> <p><input type="checkbox"/> With a salinity greater than 0.5 ppt.</p> <p>YES = Go to SC 1.1 NO <input checked="" type="checkbox"/></p>	
<p>SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-151?</p> <p><input type="checkbox"/> YES = Category I <input checked="" type="checkbox"/> NO = go to SC 1.2</p>	<p>Cat. I</p>
<p>SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions?</p> <p><input type="checkbox"/> YES = Category I <input type="checkbox"/> NO = Category II</p> <p><input type="checkbox"/> The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native <i>Spartina</i> spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II) The are aof <i>Spartina</i> would be rated a Category II while the relatively undisturbed upper marsh with native species would be a Category I. Do not, however, exclude the area of <i>Spartina</i> in determining the size threshold of 1 acre.</p> <p><input type="checkbox"/> At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed wetland.</p> <p><input type="checkbox"/> The wetland has at least 2 or the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</p>	<p>Cat. I</p> <p>Cat. II</p> <p>Dual rating I/II</p>

<p>SC 2.0 Natural Heritage Wetlands (see p. 87)</p> <p>Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species.</p> <p>SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a Natural Heritage wetland? <i>(this question is used to screen out most sites before you need to contact WNHP/DNR)</i> S/T/R information from Appendix D <input checked="" type="checkbox"/> or accessed from WNHP/DNR web site <input type="checkbox"/> YES <input type="checkbox"/> – contact WNHP/DNR (see p. 79) and go to SC 2.2 NO <input checked="" type="checkbox"/></p> <p>SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as or as a site with state threatened or endangered plant species? YES = Category I NO <input type="checkbox"/> Not a Heritage Wetland</p>	<p>Cat. I</p>
<p>SC 3.0 Bogs (see p. 87)</p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below to identify if the wetland is a bog. If you answer yes, you will still need to rate the wetland based on its functions.</i></p> <ol style="list-style-type: none"> 1. Does the wetland have organic soils horizons (i.e. layers of organic soil), either peats or mucks, that compose 16” or more of the first 32 inches of the soil profile? (See Appendix B for a field key to identify organic soils.) Yes - go to Q.3 NO - go to Q.2 2. Does the wetland have organic soils, either peats or mucks, that are less than 16 inches deep over bedrock or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes - go to Q.3 NO <input checked="" type="checkbox"/> is not a bog for purpose of rating 3. Does the wetland have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the “bog” species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists species in Table 3)? Yes – Is a bog for purpose of rating NO - go to Q.4 <i>NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16” deep. If the pH is less than 5.0 and the “bog” plant species in Table 3 are present, the wetland is a bog.</i> 4. Is the wetland forested (>30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann’s spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (>30% coverage of the total shrub/herbaceous cover)? YES = Category I NO <input type="checkbox"/> is not a bog for purpose of rating 	<p>Cat. I</p>

<p>SC 4.0 Forested Wetlands (see p. 90) Does the wetland have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? <i>If you answer yes you will still need to rate the wetland based on its functions.</i></p> <p><input type="checkbox"/> Old growth forests: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more. <i>Note: The criterion for dbh is based on measurements for upland forests. Two hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.</i></p> <p><input type="checkbox"/> Mature forests: (west of the Cascade crest) Stands where the largest trees are 80-200 years old OR have average diameters (dbh) exceeding 21 in (53 cm); crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth forests.</p> <p>YES = Category 1 NO <input checked="" type="checkbox"/> not a forested wetland with special characteristics</p>	<p style="text-align: center;">Cat. I</p>
<p>SC 5.0 Wetlands in Coastal Lagoons (see p. 91) Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <p><input type="checkbox"/> The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks.</p> <p><input type="checkbox"/> The lagoon in which the wetland is located contains surge water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</p> <p>YES – Go to SC 5.1 NO <input checked="" type="checkbox"/> not a wetland in a coastal lagoon</p> <p>SC 5.1 Does the wetland meet all of the following three conditions?</p> <p><input type="checkbox"/> The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of invasive plant species (see list of invasive species on p. 74).</p> <p><input type="checkbox"/> At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</p> <p><input type="checkbox"/> The wetland is larger than 1/10 acre (4350 square feet)</p> <p>YES = Category I NO = Category II</p>	<p style="text-align: center;">Cat. I</p> <p style="text-align: center;">Cat. II</p>

Wetland name or number: A

<p>SC 6.0 Interdunal Wetlands (see p. 93) Is the wetland unit west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? YES – go to SC 6.1 NO <input checked="" type="checkbox"/> not an interdunal wetland for rating <i>If you answer yes you will still need to rate the wetland based on its functions.</i> In practical terms that means the following geographic areas: – Long Beach Peninsula – lands west of SR 103 – Grayland-Westport – lands west of SR 105 – Ocean Shores-Copalis – lands west of SR 115 and SR 109 SC 6.1 Is the wetland 1 acre or larger, or is it in a mosaic of wetlands that is 1 acre or larger? YES = Category II NO – go to SC 6.2 SC 6.2 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre? YES = Category III</p>	<p>Cat. II</p> <p>Cat. III</p>
<p>Category of wetland based on Special Characteristics <i>Choose the “highest” rating if wetland falls into several categories, and record on p. 1 .</i> If you answered NO for all types enter “Not Applicable” on p.1.</p>	<p>NA</p>

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment G
Critical Area Study

January 2017



CRITICAL AREA STUDY

Mercer Island Center for the Arts

Mercer Island, WA

Prepared for: Bruce Lorig, Mercer Island Center for the Arts



November 2016



CRITICAL AREA STUDY

Mercer Island Center for the Arts: Wetland Buffer Reduction

Prepared for:

Bruce Lorig
Chairman
Mercer Island Center for the Arts
PO Box 1702
Mercer Island, WA 98040

Prepared by:



750 Sixth Street South
Kirkland . WA 98033

p 425.822.5242

f 425.827.8136

watershedco.com

November 2016

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CRITICAL AREA STUDY

MERCER ISLAND CENTER FOR THE ARTS

1 INTRODUCTION

This critical area study is prepared as part of a proposal to permit a wetland buffer reduction as part of the development of the Mercer Island Center for the Arts (MICA). The proposed MICA is to be located within a portion of Mercerdale Park at 3205 77th Avenue SE (parcel #1224049068) in the City of Mercer Island. Proposed construction of the MICA facility will include an approximate 28,300-square-foot structure situated in the north-central portion of the parcel.

The site contains one area of regulated wetland as documented in the *Mercer Island Center for the Arts Wetland Delineation Study* prepared by The Watershed Company in May 2015. The wetland is classified as a Category III wetland, which requires a standard buffer width of 50 feet.

The applicant proposes to reduce the standard 50-foot buffer to 25 feet through buffer enhancement. This report is intended to satisfy the requirements of the Mercer Island City Code (MICC). It provides a description of existing site conditions, proposed wetland buffer reductions, and includes compensatory mitigation to ensure no net loss of wetland or buffer functions.

2 EXISTING CONDITIONS

2.1 Setting

The subject parcel (parcel number 1224049068) is located at 3205 77th Avenue SE in Mercer Island, Washington; in Section 12 of Township 24 North, Range 4 East of the Public Land Survey System (PLSS). It is approximately 12.3 acres in size and situated in the Mercer Island sub-basin of the Cedar-Sammamish Watershed (Water Resource Inventory Area [WRIA] 8; Figure 1). The subject parcel is zoned Public Institution (P).

The study area is located north of the Mercerdale Skate Park. Developed areas are present north and northwest of the study area. A forested hillside with trails is located to the west, and a maintained park lawn area is present to the east. The study area

contains a paved parking lot and building accessed from SE 32nd Street. The rest of the study area is undeveloped. Non-wetland, undeveloped areas are dominated by forested vegetation including Douglas-fir, red alder, bigleaf maple, and Oregon ash in the canopy. One wetland, referred to here as Wetland A, is present at the toe of a forested slope within the study area. Outside of the study area, the wetland unit extends to the south, and includes a relatively large forested slope to the southwest.

2.2 Wetland A

Wetland A contains slope and depressional hydrogeomorphic (HGM) classes; the depressional class is estimated to be less than 10 percent of the wetland unit. Therefore, Wetland A is rated as a slope wetland. Cowardin vegetation classes that are present in the wetland include palustrine forested and palustrine scrub-shrub. Common plants observed during the site visit include Oregon ash, red alder, and black cottonwood in the canopy, with red-twig dogwood, Sitka willow, Dewey's sedge, creeping buttercup, soft rush, small-fruited bulrush, and giant horsetail in the shrub and herbaceous layers. Additional information on Wetland A can be found in the *Mercer Island Center for the Arts Wetland Delineation Study*.

The parcel is mapped with a combination of Kitsap silt loam, 15 to 30 percent slopes, Bellingham silt loam, and Kitsap silt loam, 2 to 8 percent slopes by the Natural Resources Conservation Service's (NRCS) Web Soil Survey (USDA 2016). Steep slope areas dominate the west side of the site; the east side of the parcel also contains the flatter developed areas, with the wetland located along the toe of the slope (Figure 2).

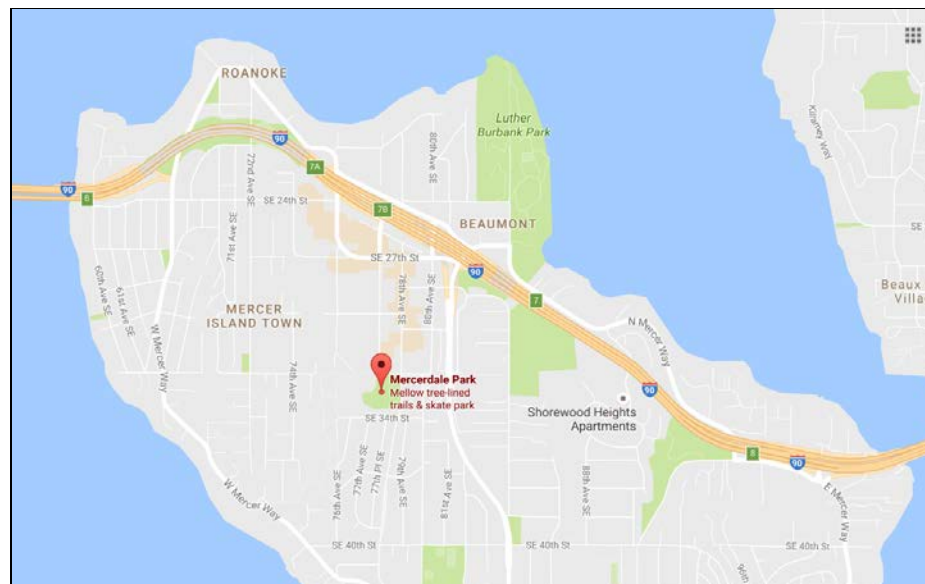


Figure 1. A vicinity map showing the location of the site (imagery source: Google Maps).

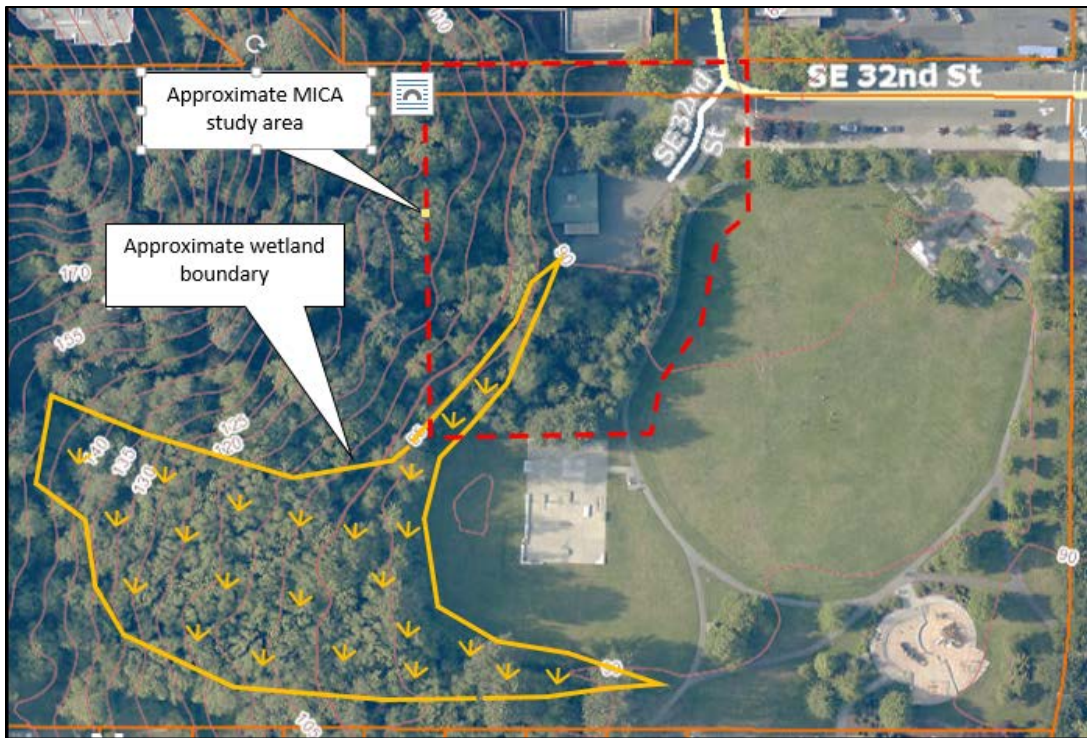


Figure 2. An aerial view of the subject property (imagery source: King County iMap).



Figure 3. View of wetland, looking south, from existing paved parking area.



Figure 4. View of wetland, looking north, from west of skate park.



Figure 5. Wetland conditions in study area.



Figure 6. Wetland conditions in study area.



Figure 7. View of wetland from Mercerdale Park, looking west.



Figure 8. View of slope portion of wetland, looking west.

2.3 Wildlife Habitat Conservation Areas

As indicated by both the City of Mercer Island's online mapping portal and PHS maps (WDFW 2016), an active bald eagle nest is located approximately 1,000 feet southwest of Mercerdale Park, with the study area within the park roughly 1,500 feet from the nest (Figure 9). This distance places the proposed development outside of all recommended buffer management zones for the nest. No other sensitive species are known to occur within or immediately adjacent to the project area.



Figure 9. Mapped nest location (red square) in vicinity of subject parcel showing 330-foot buffer (blue dashed-line) and 660-foot buffer (brown dashed-line) from the nest (imagery source: Mercer Island online mapping portal).

3 REGULATIONS

3.1 Local Regulations

In the City of Mercer Island, wetlands are regulated under the Mercer Island City Code (MICC), Chapter 19.07 – Environment. Wetland buffers are designated based on the wetland classification (MICC 19.07.080). Wetlands on Mercer Island are classified using the 2004 Ecology Rating System (MICC 19.16.10). Wetland A rates as a Category III wetland, with a total functions score of 32 points (12 water quality function points, 5 hydrologic function points, and 15 habitat function points). Per MICC 19.07.080.C, Category III wetlands require a standard buffer width of 50 feet.

Category III wetland buffers may be reduced to 25 feet, provided it is shown that a smaller area is adequate to protect the wetland, the impacts will be mitigated by using a combination of options, and the proposal will result in no net loss of wetland and buffer functions (MICC 19.07.080.C.2).

Wildlife habitat conservation areas are also regulated as critical areas; they are defined as “those areas the city council determine are necessary for maintaining species in suitable habitat within their natural geographic distribution so that isolated subpopulations are not created...” in MICC 19.16.010. Areas used by bald eagles for

nesting and breeding were considered wildlife habitat conservation areas when the species was protected under the Endangered Species Act. Since the MICA was written, bald eagles have been de-listed and are no longer considered threatened or endangered. Currently, the City of Mercer Island directs applicants potentially conducting activities that may disturb bald eagles to follow recommendations outlined in the US Fish and Wildlife Service's (FWS) *National Bald Eagle Management Guidelines* (FWS 2007).

4 PROJECT APPROACH

4.1 Project Description

The purpose of the project is to construct the MICA facility within a portion of Mercerdale Park. MICA will be a cultural focal point on Mercer Island for the public to enjoy, create, and celebrate the arts. MICA will be a multi-theater venue along with classrooms and studios for dance, music, and art. Plays, concerts, recitals, lectures, films, and all forms of arts will take place within the building. MICA will be the permanent home for Youth Theatre Northwest (YTN). It will also be a venue to serve Island Youth Ballet/Children's Dance Conservatory, Music Works Northwest, Russian Chamber Music Foundation of Seattle, Mercer Island Visual Arts League (MIVAL), and Musical Mind Studio. MICA will also provide space to support a local farmer's market.

The use of MICA by YTN is particularly relevant, as the organization needs a new home. In 2014, Mercer Island voters approved a bond to reclaim the North Mercer campus (where YTN was founded 30 years ago) and construct Northwood Elementary School to remedy overcrowding in the Mercer Island School District. YTN is currently operating out of interim space provided by Emmanuel Episcopal Church and is struggling to survive. MICA will provide YTN with a permanent home.

The MICA facility will consist of a single building, with an approximate 21,860 square foot footprint. The building will be situated in the location of the existing recycling center, near the intersection of 77th Avenue SE and SE 32nd Street. The building will be L-shaped to avoid direct impacts to Wetland A. In order to achieve the purpose of the project and provide for a building of adequate size to meet all programming needs, a portion of the Wetland A buffer will be reduced from 50-feet to 25-feet. As mitigation for the buffer reduction, an area of existing degraded wetland buffer will be significantly enhanced.

4.2 Site Selection

The project site was chosen for the MICA facility after an extensive search. In August 2013, the City Council selected the abandoned recycling center at Mercedale Park for study and analysis as the possible location of a future arts center to be developed by YTN. In June of 2014, the City confirmed that this site was still under consideration as the location for a center for the arts and that MICA had succeeded YTN as the potential developer/owner/operator of the facility, with YTN as its primary user. In July of 2014, the City Council approved expansion of the project into a portion of the wooded area south of the abandoned recycling center.

Other sites considered included attempts to partner with private developers to build multi-use structures on commercial sites in the City's Town Center. Properties explored either proved unavailable due to lease agreements, had irregular and/or insufficient building footprints, or resulted in buildings of excessive height. There were also significant financial challenges in pairing the needs of commercial developers with a small nonprofit arts organization.

Another plan involved a proposed partnership with the Mercer Island School District to create a school for the arts, including a performing arts center with YTN in residence. However, this plan was abandoned due to insufficient interest on the part of the school district. In a separate attempt, the City explored purchasing the old Boys and Girls Club site for YTN but found the purchase price prohibitively expensive. Luther Burbank Park, "Kite Hill," and several commercial sites west of City Hall were also explored, but the costs and other extenuating factors made them untenable. Finally, YTN began looking off-Island and exploring partnerships with other arts organizations, all of which were unsuccessful.

Ultimately the only site deemed viable was the abandoned recycling center at Mercedale Park. The City's Task Force made this recommendation to the City Council in August of 2013, and the City issued a letter of agreement with YTN, affirming its intention to make the former recycling center site available for further study and analysis as a future performing arts facility.

4.3 Mitigation Sequencing

The project has been designed to avoid, minimize and compensate for impacts to the greatest extent possible given the constraints of the site. The following describes how the mitigation sequencing requirements of the MICC have been met.

Avoid

The project area contains one wetland and its associated critical area buffer. The wetland includes a 'finger' that extends to near the existing recycling center building.

Prior versions of the project included a building that impacted the finger of the wetland. However, under the current proposal, direct impacts to the wetland have been avoided through the design of an L-shaped structure. The structure will, however, require a reduction to a portion of the standard wetland buffer.

Minimize

Impacts to the standard 50-foot wetland buffer have been minimized to the greatest extent feasible through the siting of the structure. Specifically, the proposed L-shaped building will be orientated to limit impacts to only a portion of the northeast corner of the standard buffer associated with the finger portion of the wetland. Remaining buffers areas will be unaffected and will maintain a standard 50-foot buffer. During the construction phase, impacts will be minimized through implementation of best management practices (BMPs).

Mitigate

Compensatory mitigation measures are proposed to offset the reduction in the standard buffer width. A total of 5,768 square feet of buffer reduction will occur, with the buffer reduced to a minimum of 25-feet. An area totaling 11,362 square feet will be restored within the reduced buffer. This includes an area of pavement removal and restoration with amended soils and native trees, shrubs, and groundcover. Others areas of degraded forested buffer will be enhanced with the planting of native conifers and shrubs. Together, the combined mitigation areas will achieve no net loss of critical area or buffer functions in light of the critical area buffer reductions.

Monitor

A five-year monitoring and maintenance plan is proposed to ensure the success of mitigation area over time.

5 IMPACT ASSESSMENT

The proposal involves the construction of the MICA facility within a portion of the standard wetland buffer. The building footprint will total approximately 21,860 square feet and will necessitate a portion of the standard buffer to be reduced from 50-feet to 25-feet. The proposal also includes improving the existing paved access trail within the park, ensuring it is compatible with fire access requirements. This will include improvements to a small section of the trail within the standard wetland buffer, including potential replacement of an existing culvert beneath the trail (to allow for fire

truck access). The buffer will be reduced by approximately 15 feet in this area to allow for the improvements.

To compensate for the proposed buffer reduction, an area totaling 11,362 square feet will be restored within the reduced buffer. This includes removal of a significant area of existing parking lot, which is a pollution-generating surface. This area will be restored with amended soils and native trees, shrubs, and groundcover. Other areas of degraded forested buffer will be enhanced with the planting of native conifers and shrubs. Species include western red cedar, grand fir, bigleaf maple, Douglas-fir, Sitka spruce, snowberry, baldhip rose, oceanspray, osoberry, thimbleberry, twinberry, nootka rose, red elderberry, sword fern, and salal. As described below, mitigation is expected to result in no net loss of wetland and buffer functions.

5.1 Buffer Reduction Criteria

MICC 19.07.080.C.2 provides the criteria to authorize a reduction in the standard wetland buffer width. Category III wetlands can have their buffers reduced from 50-feet to 25-feet. Such a reduction requires compliance with the following criteria:

The smaller area is adequate to protect the wetland functions;

Buffer reduction will result in a buffer loss of 5,768 square feet, which represents a small fraction of the total buffer area. This smaller area of buffer will include the enhancement of 11,362 square feet of existing degraded buffer to a native assemblage of trees, shrubs, and groundcover. This area of enhancement will provide improved water quality, hydrology, and habitat functions in areas closest to the proposed building (see Table 1 below). Therefore, while the buffer will be reduced in size, its functionality will improve, thereby maintaining and protecting wetland functions.

The impacts will be mitigated consistent with MICC 19.07.070.B.2;

Proposed mitigation includes enhancement of a portion of the existing degraded wetland buffer. Specifically, area of pavement will be removed and restored with amended soils and native trees, shrubs, and groundcover. Other areas of degraded forested buffer will be enhanced with the planting of native conifers and shrubs. Species include western red cedar, grand fir, bigleaf maple, Douglas-fir, Sitka spruce, snowberry, baldhip rose, oceanspray, osoberry, thimbleberry, twinberry, nootka rose, red elderberry, sword fern, and salal. This mitigation method is consistent with MICC 19.07.070.B.2, which includes the replacement or replanting of areas with native vegetation as part of an approved mitigation plan.

The proposal will result in no net loss of wetland and buffer functions.

The mitigation plan is designed to ensure no net loss of ecological function as a result of the proposed improvements. Proposed mitigation will benefit on-site critical area buffers by increasing the ability of the buffer vegetation to store/trap sediments and nutrients, increasing the ability of the buffer to attenuate flood flow during heavy rain, and improving cover and forage opportunities for wildlife. Table 1, below, summarizes how the proposed mitigation will achieve no net loss of ecological functions on-site.

Table 1. Summary showing no net loss of critical area buffer functions with proposed conditions.

Critical Area Buffer Function	Existing Conditions	Proposed Conditions	Determination
Water Quality	The current water quality function of the wetland buffer is limited by an area of parking lot, a sparsely vegetated understory and multiple dead trees, which do not contribute significantly to water quality functions.	Vegetative density to be substantially increased in the wetland buffer through the removal of parking lot, and the planting of native trees, shrubs, and groundcovers.	Increasing amount of dense, rigid vegetation and vertical structure will improve the ability to slow surface water and help filter and capture nutrients and sediments that might otherwise enter the wetland. Removal of the parking lot adjacent to the wetland will eliminate a direct point source of pollutants into the wetland.
Hydrology	The current hydrologic function of the wetland buffer is limited by a sparsely vegetated understory and area of existing pavement.	Vegetative density to be substantially increased in the wetland buffer through the removal of pavement, and the planting of native trees, shrubs, and groundcovers.	The addition of trees, shrubs, groundcover plants will help attenuate flood flow during heavy rain events. Removal of paved areas will greatly reduce the amount of stormwater generated within the standard buffer area.
Habitat	The habitat function of the wetland buffer is restricted by limited understory vegetative density, low structural diversity, and the presence of non-native plant species.	Non-native plant species to be removed. Vegetative density to be substantially increased through the planting of native trees, shrubs, and groundcovers. Woody debris to be installed throughout the restored wetland area.	Woody debris installation and understory planting of trees, shrubs, and groundcover plants will increase vegetative density and structural diversity, improving cover, providing forage opportunities for wildlife, and creating specialized habitat niches.

Overall	Moderate to low functioning wetland buffer in the project area, including an area of existing parking lot, which is detrimental to water quality. Existing vegetated areas are characterized by multiple dead trees and a relatively open or sparsely vegetated understory.	Removal of existing pavement and restoration with amended soils and native plantings. Planting of trees, shrubs, and groundcovers in existing degraded portions of the buffer, including the placement of woody debris.	The proposed project is expected to improve ecological functions over existing conditions. This includes habitat, hydrology, and water quality functions of the wetland buffer. Overall no net loss of wetland or buffer functions is expected.
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6 MITIGATION AND RESTORATION PLAN

6.1 Overview

A comprehensive five-year maintenance and monitoring plan is included as part of the buffer mitigation. The plan specifies appropriate species for planting and planting techniques, describes proper maintenance activities, and sets forth performance standards to be met yearly during monitoring. This will ensure that mitigation plantings will be maintained, monitored, and successfully established within the first five years following implementation.

Proposed restoration begins with removal of invasive weeds such as Himalayan blackberry, English ivy, and English laurel and placement of woody debris in the buffer. Soil amendments, including removal of asphalt paving in the parking area and incorporation of compost in all planting areas, would follow weed removal. Woody debris generated from removal of standing dead trees on the site would be placed throughout the buffer. Finally, installation of native tree, shrub, and groundcover species suitable to the site (Appendix A) would be initiated. The site would then be stabilized with a thick application of woodchip mulch. Four native tree species, eight native shrub species, and two native groundcover species are proposed in the mitigation area. The plan calls for new plantings within the reduced wetland buffer. Native plantings and woody material are intended to increase native plant cover, improve native species diversity, increase vegetative structure, and provide food and other habitat resources for wildlife.

6.2 Goals

1. Enhance the wetland buffer.
 - a. Remove and control all invasive woody species in the mitigation area including but not limited to Himalayan blackberry, English ivy, and English laurel.

- b. Establish dense and diverse native tree, shrub and groundcover vegetation throughout the mitigation area.

6.3 Performance Standards

Infill Planting Areas

1. Survival:
 - a. 100% survival of all trees and shrubs at the end of Year One. This standard may be met through establishment of installed plants or by replanting as necessary to achieve the required numbers.
 - b. 80% survival of all trees and shrubs at the end of Year Two. This standard may be met through establishment of installed plants or by replanting as necessary to achieve the required numbers.
 - i. Survival beyond Year Two is difficult to track. Therefore, a diversity standard is proposed in place of survival (see #3, below).
2. Native vegetation cover in planted areas:
 - a. Achieve at least 30% cover of native plants by the end of Year 3, excluding the existing canopy. Volunteer species may count towards this standard.
 - b. Achieve at least 80% cover of native plants by the end of Year 5, excluding the existing canopy. Volunteer species may count towards this standard.
3. Species diversity in planted areas:
 - a. Establish at least two native tree species, four native shrub species and one native groundcover species throughout the buffer area by Year 5. Volunteer species may count towards this standard.
4. Invasive species standard: No more than 10% cover of invasive species in the planting area, in any monitoring year. Invasive species are defined as any Class A, B, or C noxious weeds as listed by the King County Noxious Weed Control Board.

Buffer Restoration Area

5. Survival:
 - a. 100% survival of all trees and shrubs at the end of Year One. This standard may be met through establishment of installed plants or by replanting as necessary to achieve the required numbers.

- b. 80% survival of all trees and shrubs at the end of Year Two. This standard may be met through establishment of installed plants or by replanting as necessary to achieve the required numbers.
 - i. Survival beyond Year Two is difficult to track. Therefore, a diversity standard is proposed in place of survival (see #3, below).
6. Native vegetation cover in planted areas:
 - a. Achieve at least 50% cover of native plants by the end of Year 3. Volunteer species may count towards this standard.
 - b. Achieve at least 80% cover of native plants by the end of Year 5. Volunteer species may count towards this standard.
7. Species diversity in planted areas:
 - a. Establish at least two native tree species, four native shrub species and one native groundcover species throughout the buffer area by Year 5. Volunteer species may count towards this standard.
8. Invasive species standard: No more than 10% cover of invasive species in the planting area, in any monitoring year. Invasive species are defined as any Class A, B, or C noxious weeds as listed by the King County Noxious Weed Control Board.

6.4 Monitoring Methods

This monitoring program is designed to track the success of the mitigation site over time by measuring the degree to which the performance standards listed above are being met. An as-built plan will be prepared within 30 days of substantially complete construction of the mitigation area. The as-built plan will document conformance with these plans and will disclose any substitutions or other non-critical departures. The as-built plan will establish baseline plant installation quantities, photopoints, and monitoring transects that will be used throughout the monitoring period to measure the performance standards.

Monitoring will occur twice annually for five years. The first monitoring visit will take place in the spring. This visit will record necessary weeding, invasive control, and other maintenance needs. The **restoration specialist** will then notify the owner and/or maintenance crews of necessary early season maintenance. The late-season visit will occur in late summer or fall and will record the following and be submitted in an annual report to the City:

1. General summary of the spring visit.

2. First- and second-year counts of surviving and dead/dying plants by species in the planting areas.
3. Estimates of native species cover using the line-intercept method along the monitoring transects.
4. Estimates of invasive species cover using the line-intercept method along the monitoring transects.
5. Counts of established native species to determine species richness.
6. Photographic documentation at permanent photopoints.
7. Intrusions into the planting areas, erosion, vandalism, trash, and other actions detrimental to the overall health of the mitigation areas.
8. Recommendations for maintenance in the mitigation areas.
9. Recommendations for replacement of all dead or dying plant material with same or like species and number as on the approved plan.

6.5 Construction Notes and Specifications

Specifications for items in **bold** can be found under "Material Specifications and Definitions."

General Notes

The restoration specialist will oversee the following:

1. Clearing, soil preparation (including asphalt removal), and placement of **woody debris**;
2. Invasive weed clearing; and
3. Plant material inspection.
 - a) Plant delivery inspection.
 - b) 50% plant installation/layout inspection.
 - c) 100% plant installation inspection.

The project arborist will oversee the following:

1. Placement of Tree Protection fencing
2. Any pruning or cutting of trees within the project area.

Work Sequence

1. Ensure tree protection fencing and silt fence are in place before the start of any work activities.

2. Clear the planting area of all invasive woody vegetation including but not limited to Himalayan blackberry, English ivy, and English laurel.
3. Manually or mechanically remove all invasive woody vegetation roots. Cut ivy growing on trees at approximately eye-level and remove roots from the soil. Rake out remaining roots to the maximum extent practical.
4. Remove all asphalt and areas of lawn from the planting areas and loosen all compacted soils in preparation for planting. Rototill two inches of **compost** into the upper six inches of the soil where decompaction is necessary in soil preparation area 1.
5. Place **woody debris** retained from tree removal in the buffer as shown in plans. Unless too dense, trees may be left where they fall rather than as exactly shown on the plan.
6. All plant installation will take place during the dormant season (October 15 to March 1).
7. Layout vegetation to be installed per the planting plan and plant schedule.
8. Prepare a planting pit for each plant and install per the container planting detail.
9. Mulch entire mitigation area with **wood chip mulch**, 4 inches thick pulled away from truck and stems of installed container trees, shrubs or groundcover.
10. Install a temporary or permanent irrigation system as needed to ensure that all plants receive at least one inch of water per week from June 1st – September 30th. Maintain irrigation system in working condition for at least two summers after initial plant installation.

6.6 Maintenance

This site will be maintained for five years following completion of the plant installation. Specifications in **bold** can be found under "Material Specifications and Definitions."

1. Replace each plant found dead in the summer monitoring visit during the upcoming fall dormant season (October 15 to March 1).
2. Follow the recommendations noted in the spring monitoring site visit.
3. Invasive species maintenance plan:
 - a) Himalayan blackberry, English ivy, English laurel, and other invasive woody vegetation will be grubbed out by hand on an ongoing basis, with care taken to grub out roots except where such work will jeopardize the roots of installed or volunteer native plants.

- b) If it is likely that hand removal will not be completely effective or will damage desirable species, then application of an herbicide approved for use in aquatic areas may be used. Herbicide applications must be conducted only by a state-licensed applicator. Applications should be done between mid-spring and mid-summer to maximize uptake by plants. Application should be a targeted method such as spot spray (preferred for Himalayan blackberry), or wick.
4. At least twice yearly, remove by hand all competing weeds and weed roots from beneath each installed plant and any desirable volunteer vegetation to a distance of 18 inches from the main plant stem. Weeding should occur as needed during the spring and summer. Frequent weeding will result in lower mortality and lower plant replacement costs.
5. Do not weed the area near the plant bases with string trimmer (weed whacker). Native plants are easily damaged or killed, and weeds easily recover after trimming.
6. Apply slow release granular **fertilizer** to each installed plant annually in the spring (by June 1) of Years 2 through 5.
7. Mulch the weeded areas beneath each plant with **wood chip mulch** as necessary to maintain a minimum 4-inch-thick, 18-inch-diameter mulch ring.
8. The temporary irrigation system will be operated to ensure that plants receive a minimum of one inch of water per week from June 1 through September 30 for the first two years following installation. Irrigation beyond the second year may be needed based on site performance or significant replanting.

6.7 Material Specifications and Definitions

1. **Compost:** Cedar Grove Compost or equivalent product. 100% vegetable compost with no appreciable quantities of sand, gravel, sawdust, or other non-organic materials.
2. **Fertilizer:** Slow release, granular phosphorous-free fertilizer. Follow manufacturer's instructions for application. Keep fertilizer in a weather-tight container while on site. Note that fertilizer is to be applied only in Years 2 through 5 and **not in the first year**.
3. **Restoration specialist:** The Watershed Company [(425) 822-5242] personnel or other person qualified to evaluate environmental restoration projects.
4. **Project Arborist:** The Watershed Company [(425) 822-5242] personnel or other person certified by The International Society of Arboriculture.
5. **Wood chip mulch:** Chipped woody material approximately 1 inch minimum to 3 inches in maximum dimension (not sawdust or coarse hog fuel). Mulch shall not

- contain appreciable quantities of garbage, plastic, metal, soil, and dimensional lumber or construction/ demolition debris. Pacific Topsoil sells suitable woodchip mulch called “Wood Chip Mulch” at many of their locations. Pacific Topsoil: (800) 884-7645. Note: Arborist woodchips generally contain weed seeds and are not a reliable alternative.
6. **Woody debris:** Large pieces of downed wood such as logs, rootwads, and limbs which are placed on the ground. These pieces of downed wood should have a diameter of at least 12 inches and a minimum length of 10 feet but will vary since they are sourced from existing standing dead trees already on the site. Debris to be placed to maximize ground contact.

7 SUMMARY

The applicant proposes the construction of the Mercer Island Center for the Arts. The facility will include a single building, approximately 21,860 square feet in size and positioned partially within the standard wetland buffer. In order to accommodate the facility, a 50 percent reduction in the on-site wetland buffer is proposed through the allowances outlined in MICC 19.07.080. A second small area of buffer reduction will occur to allow for fire access improvements. Reduction of the buffer will be mitigated through the removal of areas of existing pavement and lawn and restoration with amended soils and native trees, shrubs, and groundcover. Others areas of degraded forested buffer will be enhanced with the planting of native conifers and shrubs, including the placement of woody debris. Species include western red cedar, grand fir, bigleaf maple, Douglas-fir, Sitka spruce, snowberry, baldhip rose, oceanspray, osoberry, thimbleberry, twinberry, nootka rose, red elderberry, sword fern, and salal. A mitigation plan has been developed that details the plantings proposed to mitigate for the allowed buffer reduction. A total of 11,362 square feet of native plantings is proposed within the reduced buffer.

The mitigation plantings and large woody material proposed within the reduced wetland buffer will increase habitat function value and improve overall buffer functions. The proposed planting plan incorporates a diversity of native plant species, including trees, shrubs, and groundcover plants. The proposed plan will provide better protection of the on-site critical area functions and values than exists under current conditions, including increased water quality, hydrology, and habitat functions.

Additionally, a comprehensive five-year maintenance and monitoring plan has been prepared. This plan will ensure that proposed enhancement plantings will be maintained, monitored, and successfully established within the first five years following

implementation. Overall, a net gain in on-site critical area functions and values is the expected result of the implemented project.

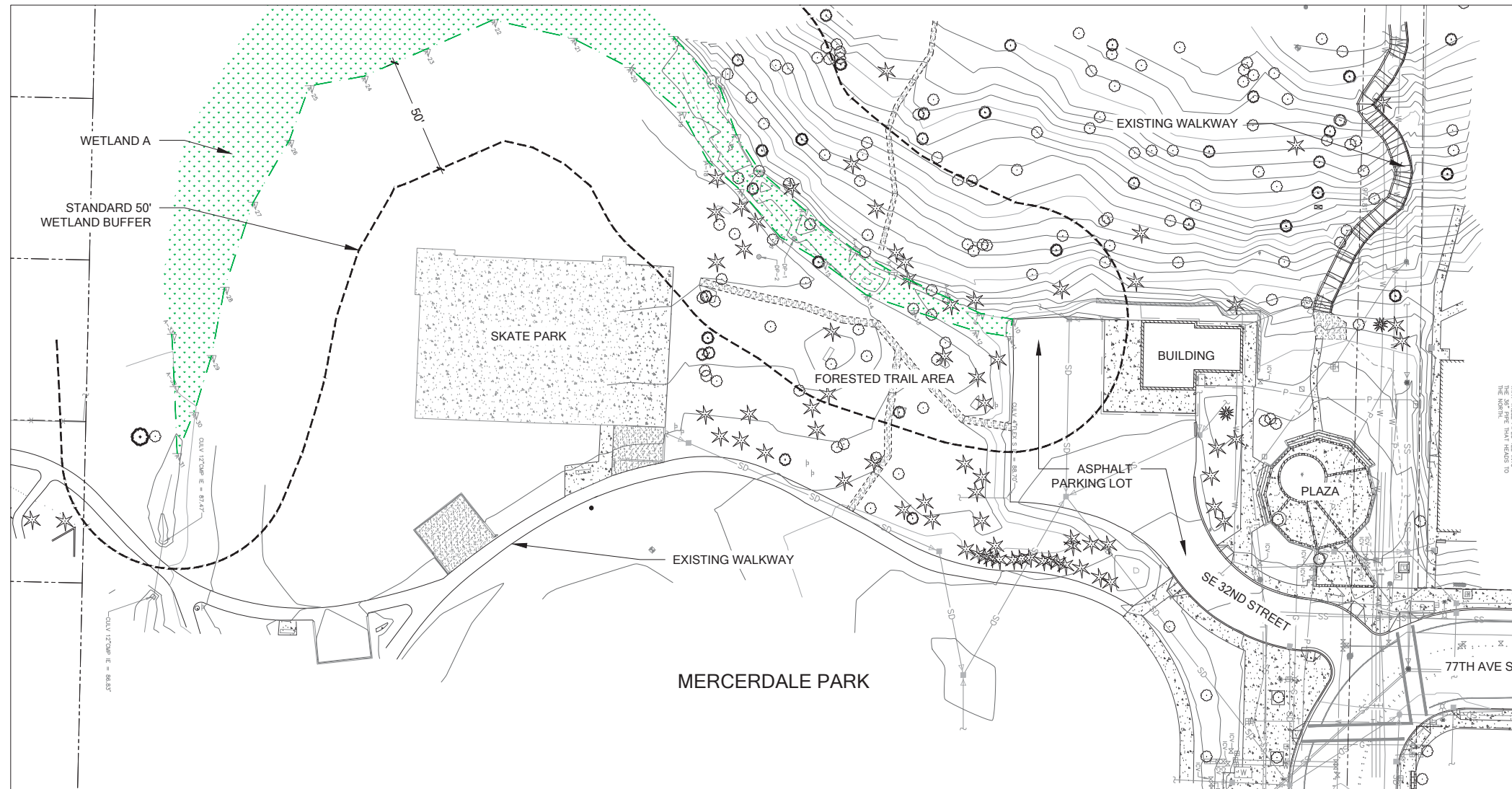
REFERENCES

- City of Mercer Island. Accessed October 2016. City of Mercer Island GIS Portal. Website:
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- Washington Department of Fish and Wildlife (WDFW). Accessed October 2016. Priority Habitats and Species (PHS): PHS on the Web. Website:
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- US Department of Agriculture (USDA). Accessed October 2016. Natural Resources Conservation Service: Web Soil Survey. Website:
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- US Fish and Wildlife Service (FWS). May 2007. National Bald Eagle Management Guidelines. Available online:
<https://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf>.

APPENDIX A

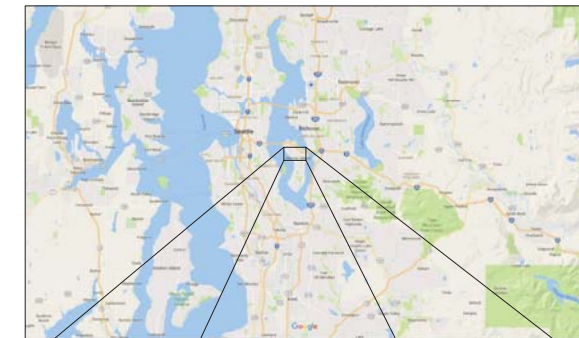
Mitigation Plan

MERCER ISLAND CENTER FOR THE ARTS



LEGEND

- DELINEATED WETLAND
- WETLAND BUFFER
- EXISTING SURVEYED TREE
- PARCEL BOUNDARIES



VICINITY MAPS

SHEET INDEX

- W1 EXISTING SITE CONDITIONS
- W2 IMPACTS ASSESSMENT AND MITIGATION PLAN
- W3 TREE DEMO AND PROTECTION PLAN
- W4 SITE PREPARATION PLAN
- W5 PLANTING PLAN
- W6 PLANT INSTALLATION SPECIFICATIONS AND MITIGATION DETAILS
- W7 MITIGATION PLAN DETAILS AND NOTES

NOTES

1. THIS PLAN IS TO BE REVIEWED BY MERCER ISLAND PARKS AND RECREATION PRIOR TO BUILDING PERMIT APPROVAL.
2. CRITICAL AREAS DELINEATED BY THE WATERSHED COMPANY APRIL 2ND, 2015
3. SURVEY RECEIVED FROM MAGNUSSON KLEMENCIC ASSOCIATES ON OCTOBER 14TH, 2016.

EXISTING SITE CONDITIONS



MERCER ISLAND CENTER FOR THE ARTS

MITIGATION PLAN
PREPARED FOR BRUCE LORIG
MERCERDALE PARK
77TH AVE SE & SE 32ND STREET (PARCEL # 1224049068)
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO	DATE	DESCRIPTION	BY
1	08-21-15	REVIEW SET	MSF
1	10-20-2016	CONCEPT PLANS	KMB
3	11-16-2016	SEPA	KMB

SHEET SIZE:
 ORIGINAL PLAN IS 22" x 34".
 SCALE ACCORDINGLY.

PROJECT MANAGER: HM
DESIGNED: KMB
DRAFTED: KMB
CHECKED: KC/KB

JOB NUMBER:

150320

SHEET NUMBER:

W1 OF 7



LEGEND

- DELINEATED WETLAND
- STANDARD WETLAND BUFFER
- PROPOSED REDUCED BUFFER
- PROPOSED BUFFER REDUCTION AREA (5,768 SQUARE FEET)
- PROPOSED BUFFER RESTORATION PLANTING AREA (2,908 SQUARE FEET) - PLANTING OF NATIVE TREES, SHRUBS, AND GROUNDCOVER
- PROPOSED BUFFER ENHANCEMENT PLANTING AREA (8,454 SQUARE FEET) - INFILL PLANTING OF NATIVE CONIFERS, SHRUBS, AND GROUNDCOVER
- PROPOSED LARGE WOODY DEBRIS STRUCTURES (57) (LARGE WOODY DEBRIS IS TO BE SOURCED FROM TREES TO BE REMOVED ON SITE. SEE SHEET W3)

1
W6

IMPACTS ASSESSMENT AND MITIGATION PLAN



MERCER ISLAND CENTER FOR THE ARTS

**MITIGATION PLAN
PREPARED FOR BRUCE LORIG
MERCERDALE PARK
77TH AVE SE & SE 32ND STREET (PARCEL # 1224049068)
MERCER ISLAND, WA 98040**

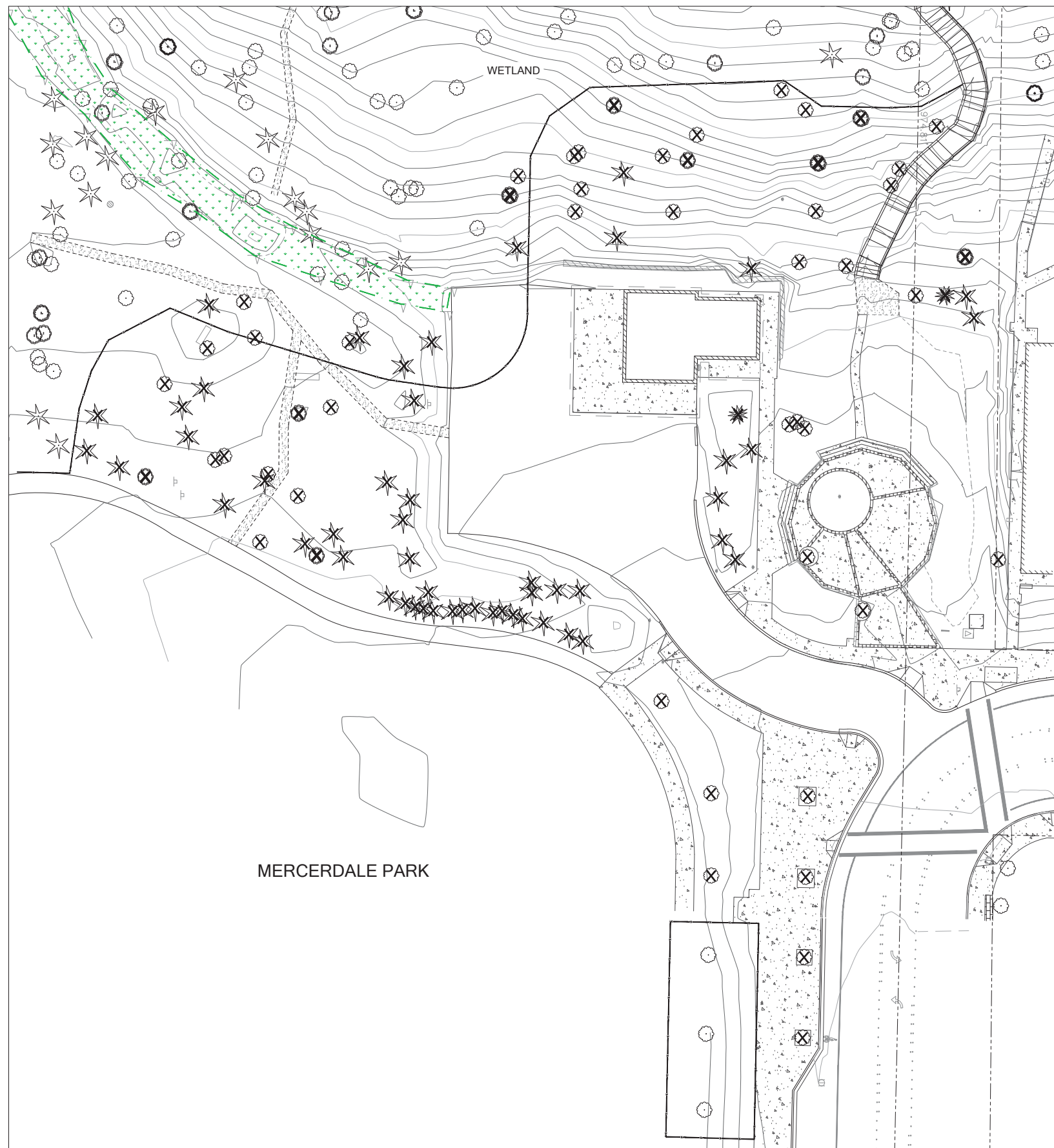
SUBMITTALS & REVISIONS

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1	10-20-2016	CONCEPT PLANS	KMB
3	11-16-2016	SEPA	KMB

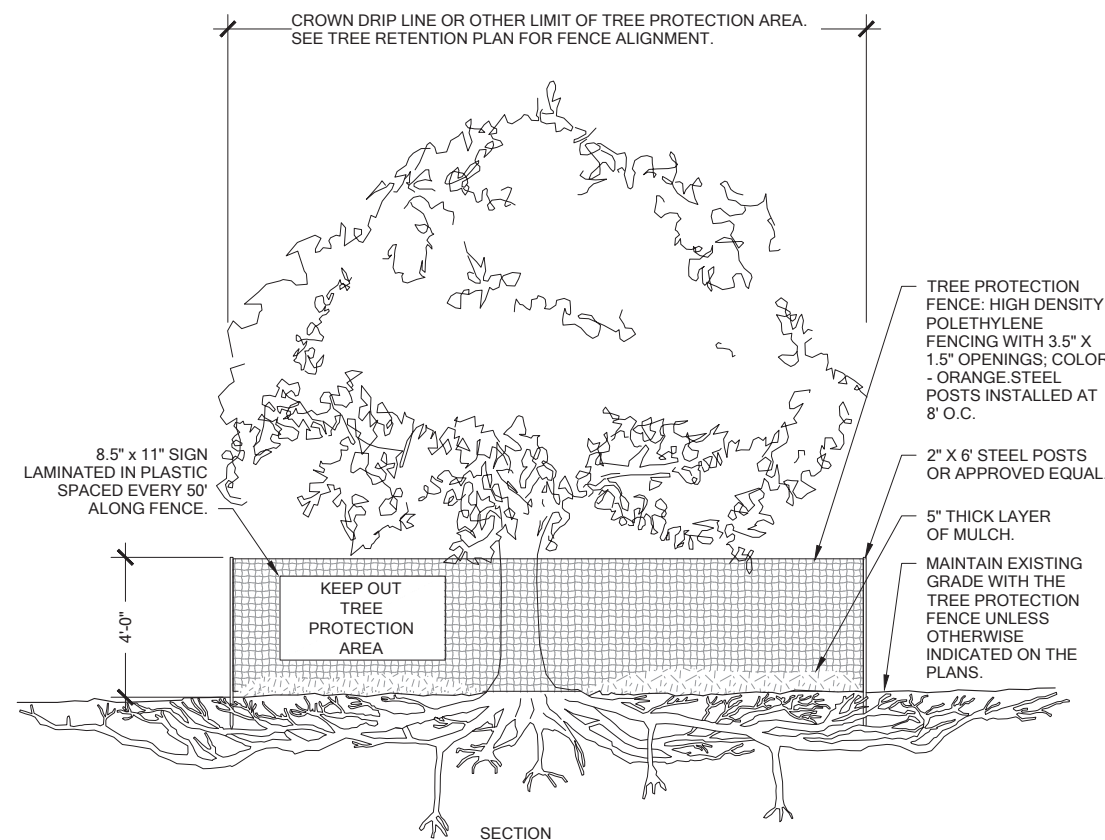
SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: HM
DESIGNED: KMB
DRAFTED: KMB
CHECKED: KC/KB
JOB NUMBER:

150320
SHEET NUMBER:
W2 OF 7



TREE DEMO AND PROTECTION PLAN



- NOTES:**
1. NO PRUNING SHALL BE PERFORMED UNLESS UNDER THE DIRECTION OF AN ARBORIST.
 2. NO EQUIPMENT SHALL BE STORED OR OPERATED INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
 3. NO STORAGE OF MATERIALS SHALL OCCUR INSIDE THE PROTECTIVE FENCING.
 4. UNAUTHORIZED ACTIVITIES IN TREE PROTECTION AREA MAY REQUIRE EVALUATION BY A CERTIFIED ARBORIST TO IDENTIFY IMPACTS AND MITIGATION REQUIRED.
 5. EXPOSED ROOTS: FOR ROOTS GREATER THAN 1" DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE DAMAGED PORTION AND INFORM PROJECT ARBORIST.

1 TREE PROTECTION FENCING

Scale: NTS

NOTES

1. TREE PROTECTION FENCING SHALL NOT BE MOVED WITHOUT PRIOR APPROVAL FROM PROJECT ARBORIST.
2. TREE PROTECTION FENCING SHALL BE PLACED BEFORE THE START OF ANY CONSTRUCTION AND SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.
3. OF THE 112 TREES TO BE REMOVED THE LARGEST CONIFER TREES IN THE BEST OVERALL HEALTH SHALL BE USED FOR LARGE WOODY DEBRIS STRUCTURES AS SHOWN ON THE MITIGATION PLAN.
4. TREES TO BE REMOVED INSIDE OF PROTECTION AREA OR LOCATED WITHIN THE PROPOSED MITIGATION AREA SHALL BE FALLEN IN PLACE AND LEFT AS IS.

LEGEND

- DELINEATED WETLAND
- TREE PROTECTION FENCING
- TREES TO BE REMOVED (54 CONIFERS, 58 DECIDUOUS)
- TREES TO REMAIN

MERCER ISLAND CENTER FOR THE ARTS

MITIGATION PLAN

PREPARED FOR BRUCE LORIG

MERCERDALE PARK

77TH AVE SE & SE 32ND STREET (PARCEL # 1224049068)

MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO	DATE	DESCRIPTION	BY		
			MSF	KMB	KMB
1	08-21-15	REVIEW SET			
1	10-20-2016	CONCEPT PLANS			
3	11-16-2016	SEPA			

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SCALE ACCORDINGLY.

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DESIGNED: KMB
DRAFTED: KMB
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JOB NUMBER:

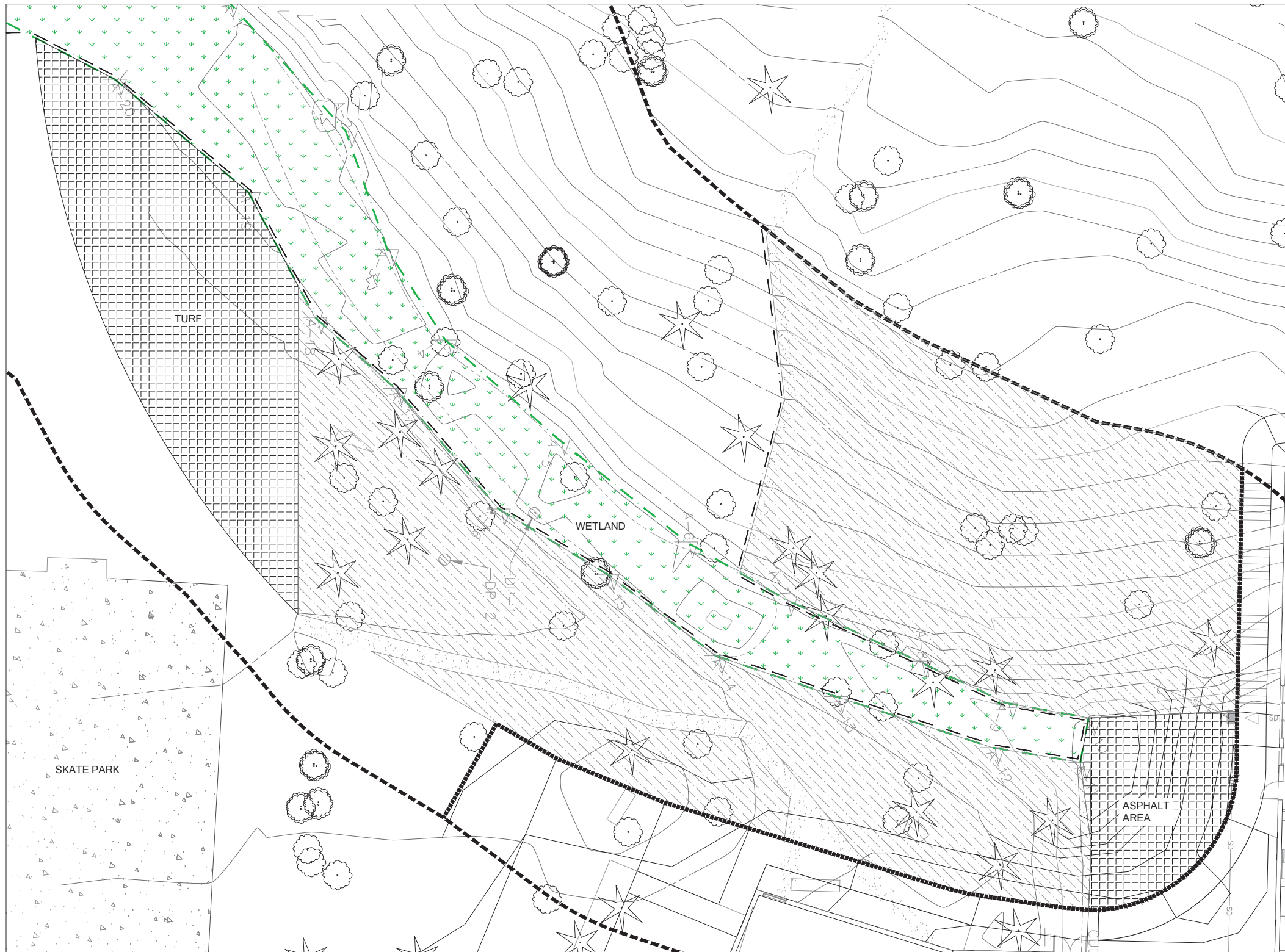
150320

SHEET NUMBER:

W3 OF 7

MERCER ISLAND CENTER FOR THE ARTS

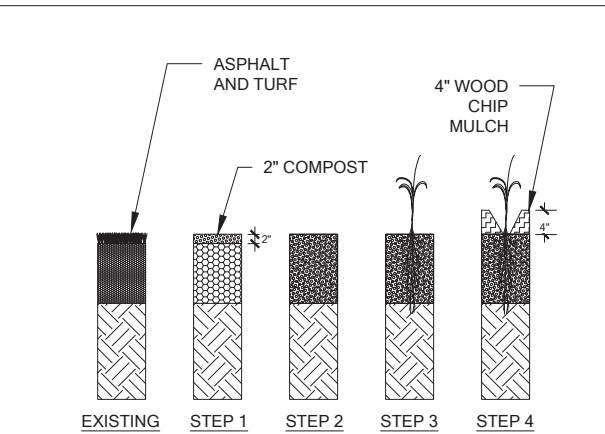
**MITIGATION PLAN
PREPARED FOR BRUCE LORIG
MERCERDALE PARK
77TH AVE SE & SE 32ND STREET (PARCEL # 1224049068)
MERCER ISLAND, WA 98040**



- LEGEND**
- DELINEATED WETLAND
 - STANDARD WETLAND BUFFER
 - REDUCED BUFFER
 - SILT FENCE

NOTES

1. ASPHALT AREA IS TO BE USED FOR CONSTRUCTION STAGING. RESTORATION TO COMMENCE UPON SUBSTANTIAL DEMOBILIZATION FROM THE SITE.



PLANTING AREA PREPARATION

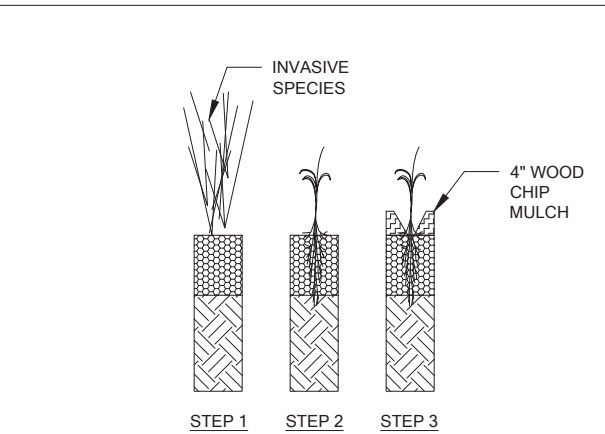
STEP 1
REMOVE ASPHALT, GRAVEL SUB-BASE AND TURF. ADDRESS COMPACTION TO A MINIMUM SIX (6) INCH DEPTH. DRAINAGE RATE SHALL BE BETWEEN 1 - 5 INCHES PER HOUR OR AS OTHERWISE APPROVED BY THE RESTORATION SPECIALIST. WORK WITHIN ROOT ZONES OF ANY TREES OR NATIVE PLANTS SHALL BE DONE BY HAND. THEN PLACE (2) INCHES OF COMPOST.

STEP 2
AMEND EXISTING SOIL AND COMPOST.

STEP 3
INSTALL PLANTS. (SEE CONTAINER PLANTING DETAIL)

STEP 4
PLACE 4" OF WOODCHIP MULCH. PULL MULCH BACK FROM STEMS AND TRUNK OF PLANTS AND TREES.

SOIL PREPARATION AREA 1
SEQUENCE OF WORK - NOT TO SCALE



PLANTING AREA PREPARATION

STEP 1
REMOVE INVASIVE SPECIES AND TURF. HAND GRUB IN AND AROUND EXISTING NATIVE VEGETATION.

STEP 2
PLANT INFILL PLANTINGS IN AND AROUND EXISTING NATIVE VEGETATION. (SEE CONTAINER PLANTING DETAIL.)

STEP 3
PLACE WOOD CHIP MULCH 4" DEEP. PULL BACK MULCH FROM STEMS OF PLANTS.

SOIL PREPARATION AREA 2
SEQUENCE OF WORK - NOT TO SCALE

SUBMITTALS & REVISIONS

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1	08-21-15	REVIEW SET	MSF
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3	11-16-2016	SEPA	KMB

SHEET SIZE:
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SCALE ACCORDINGLY.

PROJECT MANAGER: HM
DESIGNED: KMB
DRAFTED: KMB
CHECKED: KC/KB

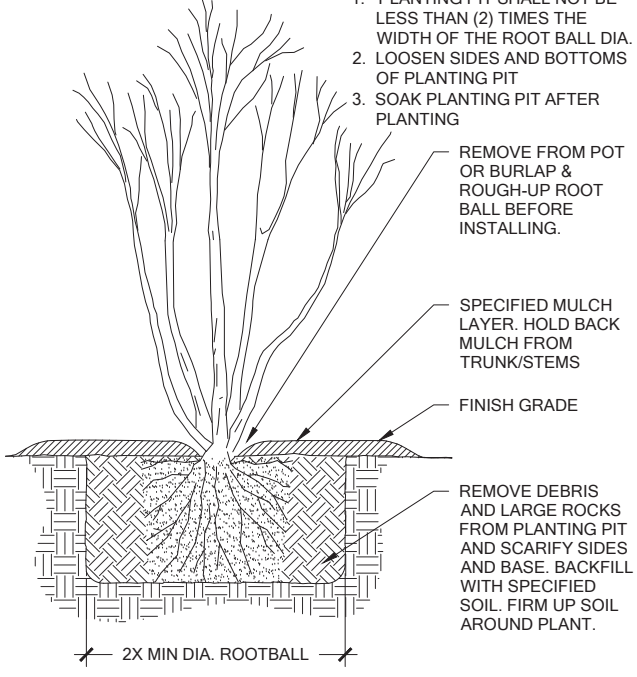
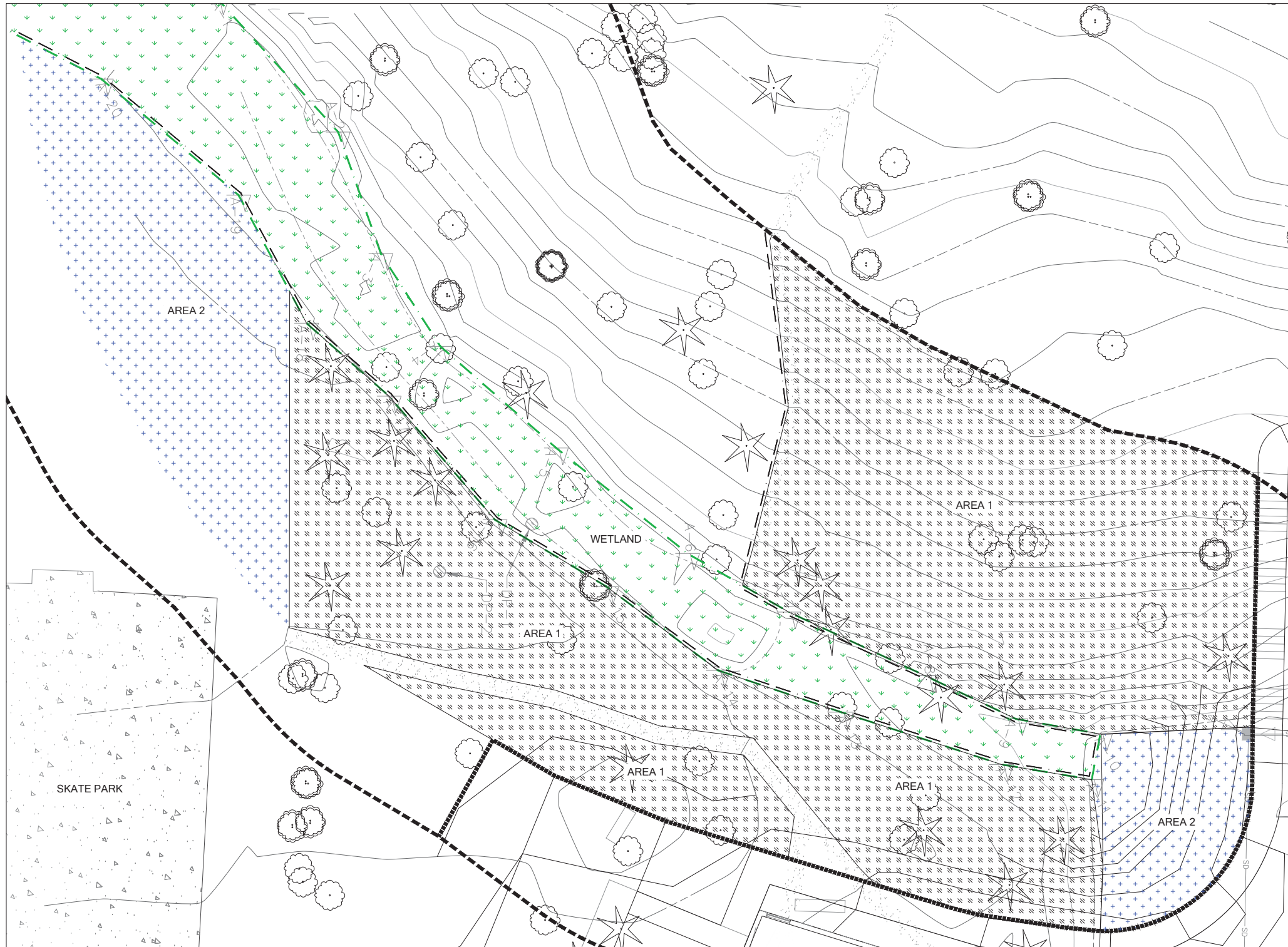
JOB NUMBER: 150320
SHEET NUMBER: W4 OF 7

SITE PREPARATION PLAN

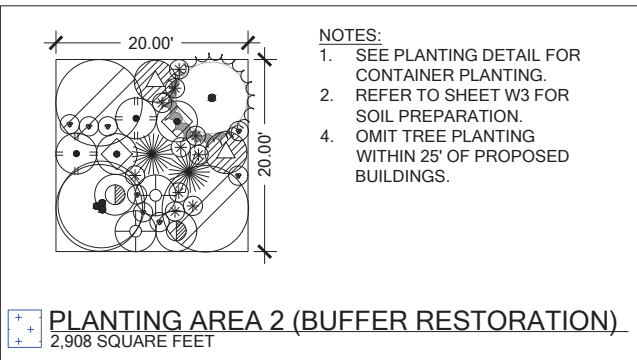
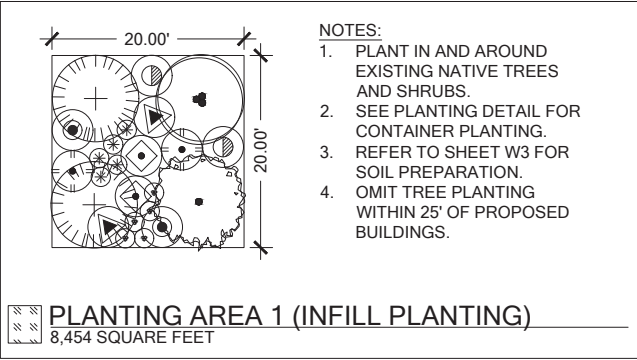


MERCER ISLAND CENTER FOR THE ARTS

**MITIGATION PLAN
PREPARED FOR BRUCE LORIG
MERCERDALE PARK
77TH AVE SE & SE 32ND STREET (PARCEL # 1224049068)
MERCER ISLAND, WA 98040**



1 CONTAINER PLANTING Scale: 1:1



LEGEND

- DELINEATED WETLAND
- STANDARD WETLAND BUFFER
- REDUCED BUFFER
- SILT FENCE (2 W6)

PLANTING SCHEDULE

TREES / SPACING @ 9'-0" O.C.	AREA 1 QTY	AREA 2 QTY	SIZE
THUJA PLICATA / WESTERN RED CEDAR	42	0	2 GAL.
ABIES GRANDIS / GRAND FIR	22	8	2 GAL.
PICEA SITCHENSIS / SITKA SPRUCE	0	8	2 GAL.
PSEUDOTSUGA MENZIESII / DOUGLAS-FIR	0	8	2 GAL.
ACER MACROPHYLLUM / BIGLEAF MAPLE	22	8	2 GAL.

SHRUBS / SPACING @ 42" O.C.	AREA 1 QTY	AREA 2 QTY	SIZE
SYMPHORICARPOS ALBUS / SNOWBERRY	42	0	1 GAL.
HOLIDISCUS DISCOLOR / OCEANSPRAY	42	16	1 GAL.
RUBUS PARVIFLORUS / THIMBLEBERRY	42	16	1 GAL.
ROSA GYMNOCARPA / BALDHIP ROSE	42	16	1 GAL.
OEMLERIA CERASIFORMIS / OSO BERRY	42	0	1 GAL.

SHRUBS / SPACING @ 42" O.C.	AREA 1 QTY	AREA 2 QTY	SIZE
SAMBUCUS RACEMOSA / RED ELDERBERRY	0	16	1 GAL.
ROSA NUTKANA / NUTKA (NOOTKA) ROSE	0	16	1 GAL.
LONICERA INVOLUCRATA / BLACK TWINBERRY	0	16	1 GAL.

GROUNDCOVERS / SPACING @ 24" O.C.	AREA 1 QTY	AREA 2 QTY	SIZE
POLYSTICHUM MUNIUM / SWORD FERN	110	80	4" POT
GAULTHERIA SHALLON / SALAL	110	80	4" POT

PLANTING PLAN



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CHECKED: KC/KB
JOB NUMBER: 150320
SHEET NUMBER: W5 OF 7

PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

QUALITY ASSURANCE

- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
- PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
- TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
- NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC.; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
- SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
- IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION

- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
- PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
- THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.)

SUBMITTALS

PROPOSED PLANT SOURCES

- WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES

- PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
- HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION

CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS

- TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
- SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
- HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
- LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY

PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT

- PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

GENERAL

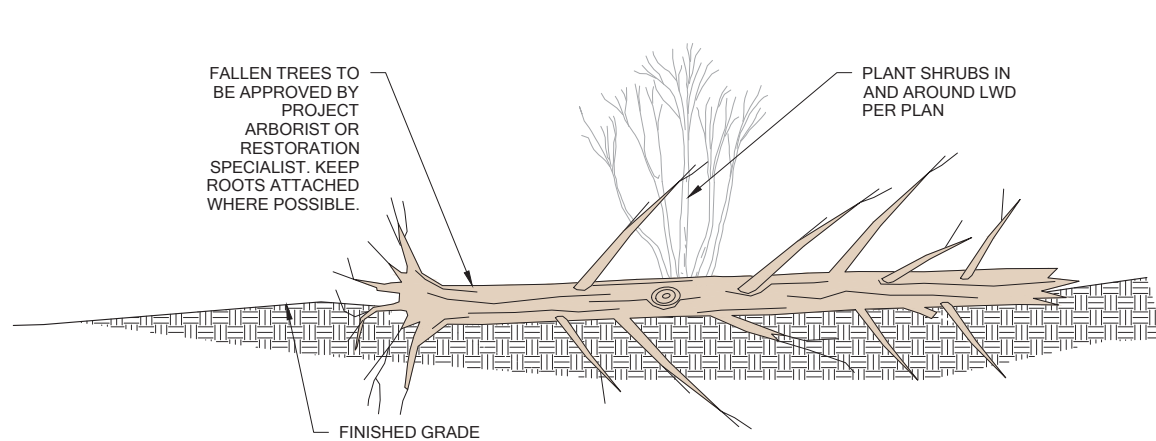
- PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

ROOT TREATMENT

- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.

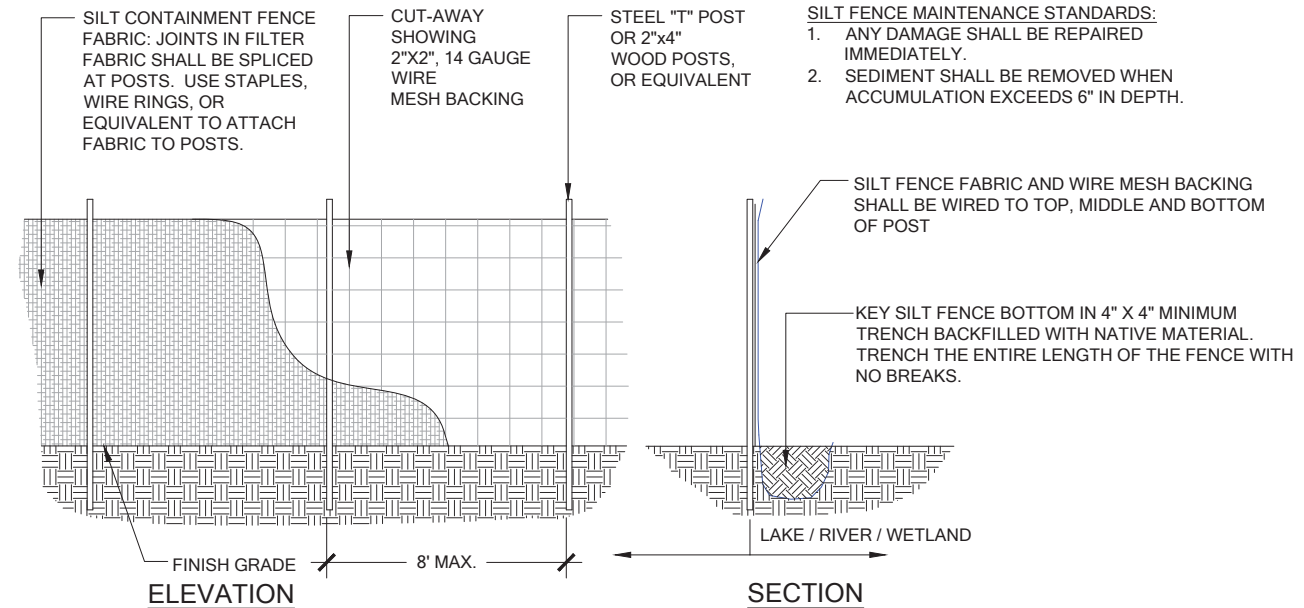


NOTES:

- LAYOUT OF DETAIL IS CONCEPTUAL. SEE PLAN FOR LOCATION. LAYOUT IN FIELD WITH ASSISTANCE FROM THE PROJECT ARBORIST OR RESTORATION SPECIALIST.
- ENSURE SOIL CONTACT OVER MINIMUM TWO THIRDS LOG LENGTH.
- DO NOT DISTURB EXISTING NATIVE VEGETATION.
- TREES TO BE REMOVED WITHIN MITIGATION AREA ARE TO BE FALLEN IN PLACE AND LEFT AS IS.

1 LARGE WOODY DEBRIS STRUCTURE

Scale: NTS



2 SILT FENCE

Scale: NTS

PLANT INSTALLATION SPECIFICATIONS AND MITIGATION DETAILS



750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

Science & Design

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MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO	DATE	DESCRIPTION	BY
1	08-21-15	REVIEW SET	MSF
1	10-20-2016	CONCEPT PLANS	KMB
3	11-16-2016	SEPA	KMB

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: HM
DESIGNED: KMB
DRAFTED: KMB
CHECKED: KC/KB

JOB NUMBER:

150320

SHEET NUMBER:

W6 OF 7

MITIGATION PLAN NOTES

OVERVIEW

A COMPREHENSIVE FIVE-YEAR MAINTENANCE AND MONITORING PLAN IS INCLUDED AS PART OF THE BUFFER MITIGATION. THE PLAN SPECIFIES APPROPRIATE SPECIES FOR PLANTING AND PLANTING TECHNIQUES, DESCRIBES PROPER MAINTENANCE ACTIVITIES, AND SETS FORTH PERFORMANCE STANDARDS TO BE MET YEARLY DURING MONITORING. THIS WILL ENSURE THAT MITIGATION PLANTINGS WILL BE MAINTAINED, MONITORED, AND SUCCESSFULLY ESTABLISHED WITHIN THE FIRST FIVE YEARS FOLLOWING IMPLEMENTATION.

PROPOSED RESTORATION BEGINS WITH REMOVAL OF INVASIVE WEEDS SUCH AS HIMALAYAN BLACKBERRY, ENGLISH IVY, AND ENGLISH LAUREL AND PLACEMENT OF WOODY DEBRIS IN THE BUFFER. SOIL AMENDMENTS, INCLUDING REMOVAL OF ASPHALT PAVING IN THE PARKING AREA AND INCORPORATION OF COMPOST IN ALL PLANTING AREAS, WOULD FOLLOW WEED REMOVAL. WOODY DEBRIS GENERATED FROM REMOVAL OF STANDING DEAD TREES ON THE SITE WOULD BE PLACED THROUGHOUT THE BUFFER. FINALLY, INSTALLATION OF NATIVE TREE, SHRUB, AND GROUND COVER SPECIES SUITABLE TO THE SITE (APPENDIX A) WOULD BE INITIATED. THE SITE WOULD THEN BE STABILIZED WITH A THICK APPLICATION OF WOODCHIP MULCH. FOUR NATIVE TREE SPECIES, EIGHT NATIVE SHRUB SPECIES, AND TWO NATIVE GROUND COVER SPECIES ARE PROPOSED IN THE MITIGATION AREA. THE PLAN CALLS FOR NEW PLANTINGS WITHIN THE REDUCED WETLAND BUFFER. NATIVE PLANTINGS AND WOODY MATERIAL ARE INTENDED TO INCREASE NATIVE PLANT COVER, IMPROVE NATIVE SPECIES DIVERSITY, INCREASE VEGETATIVE STRUCTURE, AND PROVIDE FOOD AND OTHER HABITAT RESOURCES FOR WILDLIFE.

GOALS

1. ENHANCE THE WETLAND BUFFER.

- REMOVE AND CONTROL ALL INVASIVE WOODY SPECIES IN THE MITIGATION AREA INCLUDING BUT NOT LIMITED TO HIMALAYAN BLACKBERRY, ENGLISH IVY, AND ENGLISH LAUREL.
- ESTABLISH DENSE AND DIVERSE NATIVE TREE, SHRUB AND GROUND COVER VEGETATION THROUGHOUT THE MITIGATION AREA.

PERFORMANCE STANDARDS

INFILL PLANTING AREAS

1. SURVIVAL:

- 100% SURVIVAL OF ALL TREES AND SHRUBS AT THE END OF YEAR ONE. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
- 80% SURVIVAL OF ALL TREES AND SHRUBS AT THE END OF YEAR TWO. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
- SURVIVAL BEYOND YEAR TWO IS DIFFICULT TO TRACK. THEREFORE, A DIVERSITY STANDARD IS PROPOSED IN PLACE OF SURVIVAL (SEE #3, BELOW).

2. NATIVE VEGETATION COVER IN PLANTED AREAS:

- ACHIEVE AT LEAST 30% COVER OF NATIVE PLANTS BY THE END OF YEAR 3, EXCLUDING THE EXISTING CANOPY. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.
- ACHIEVE AT LEAST 80% COVER OF NATIVE PLANTS BY THE END OF YEAR 5, EXCLUDING THE EXISTING CANOPY. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.

3. SPECIES DIVERSITY IN PLANTED AREAS:

- ESTABLISH AT LEAST TWO NATIVE TREE SPECIES, FOUR NATIVE SHRUB SPECIES AND ONE NATIVE GROUND COVER SPECIES THROUGHOUT THE BUFFER AREA BY YEAR 5. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.

4. INVASIVE SPECIES STANDARD: NO MORE THAN 10% COVER OF INVASIVE SPECIES IN THE PLANTING AREA, IN ANY MONITORING YEAR. INVASIVE SPECIES ARE DEFINED AS ANY CLASS A, B, OR C NOXIOUS WEEDS AS LISTED BY THE KING COUNTY NOXIOUS WEED CONTROL BOARD.

BUFFER RESTORATION AREA

1. SURVIVAL:

- 100% SURVIVAL OF ALL TREES AND SHRUBS AT THE END OF YEAR ONE. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
- 80% SURVIVAL OF ALL TREES AND SHRUBS AT THE END OF YEAR TWO. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
- SURVIVAL BEYOND YEAR TWO IS DIFFICULT TO TRACK. THEREFORE, A DIVERSITY STANDARD IS PROPOSED IN PLACE OF SURVIVAL (SEE #3, BELOW).

2. NATIVE VEGETATION COVER IN PLANTED AREAS:

- ACHIEVE AT LEAST 50% COVER OF NATIVE PLANTS BY THE END OF YEAR 3. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.
- ACHIEVE AT LEAST 80% COVER OF NATIVE PLANTS BY THE END OF YEAR 5. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.

3. SPECIES DIVERSITY IN PLANTED AREAS:

- ESTABLISH AT LEAST TWO NATIVE TREE SPECIES, FOUR NATIVE SHRUB SPECIES AND ONE NATIVE GROUND COVER SPECIES THROUGHOUT THE BUFFER AREA BY YEAR 5. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.

4. INVASIVE SPECIES STANDARD: NO MORE THAN 10% COVER OF INVASIVE SPECIES IN THE PLANTING AREA, IN ANY MONITORING YEAR. INVASIVE SPECIES ARE DEFINED AS ANY CLASS A, B, OR C NOXIOUS WEEDS AS LISTED BY THE KING COUNTY NOXIOUS WEED CONTROL BOARD.

MONITORING METHODS

THIS MONITORING PROGRAM IS DESIGNED TO TRACK THE SUCCESS OF THE MITIGATION SITE OVER TIME BY MEASURING THE DEGREE TO WHICH THE PERFORMANCE STANDARDS LISTED ABOVE ARE BEING MET. AN AS-BUILT PLAN WILL BE PREPARED WITHIN 30 DAYS OF SUBSTANTIALLY COMPLETE CONSTRUCTION OF THE MITIGATION AREA. THE AS-BUILT PLAN WILL DOCUMENT CONFORMANCE WITH THESE PLANS AND WILL

DISCLOSE ANY SUBSTITUTIONS OR OTHER NON-CRITICAL DEPARTURES. THE AS-BUILT PLAN WILL ESTABLISH BASELINE PLANT INSTALLATION QUANTITIES, PHOTOPOINTS, AND MONITORING TRANSECTS THAT WILL BE USED THROUGHOUT THE MONITORING PERIOD TO MEASURE THE PERFORMANCE STANDARDS.

MONITORING WILL OCCUR TWICE ANNUALLY FOR FIVE YEARS. THE FIRST MONITORING VISIT WILL TAKE PLACE IN THE SPRING. THIS VISIT WILL RECORD NECESSARY WEEDING, INVASIVE CONTROL, AND OTHER MAINTENANCE NEEDS. THE RESTORATION SPECIALIST WILL THEN NOTIFY THE OWNER AND/OR MAINTENANCE CREWS OF NECESSARY EARLY SEASON MAINTENANCE. THE LATE-SEASON VISIT WILL OCCUR IN LATE SUMMER OR FALL AND WILL RECORD THE FOLLOWING AND BE SUBMITTED IN AN ANNUAL REPORT TO THE CITY:

- GENERAL SUMMARY OF THE SPRING VISIT.
- FIRST- AND SECOND-YEAR COUNTS OF SURVIVING AND DEAD/DYING PLANTS BY SPECIES IN THE PLANTING AREAS.
- ESTIMATES OF NATIVE SPECIES COVER USING THE LINE-INTERCEPT METHOD ALONG THE MONITORING TRANSECTS.
- ESTIMATES OF INVASIVE SPECIES COVER USING THE LINE-INTERCEPT METHOD ALONG THE MONITORING TRANSECTS.
- COUNTS OF ESTABLISHED NATIVE SPECIES TO DETERMINE SPECIES RICHNESS.
- PHOTOGRAPHIC DOCUMENTATION AT PERMANENT PHOTOPOINTS.
- INTRUSIONS INTO THE PLANTING AREAS, EROSION, VANDALISM, TRASH, AND OTHER ACTIONS DETRIMENTAL TO THE OVERALL HEALTH OF THE MITIGATION AREAS.
- RECOMMENDATIONS FOR MAINTENANCE IN THE MITIGATION AREAS.
- RECOMMENDATIONS FOR REPLACEMENT OF ALL DEAD OR DYING PLANT MATERIAL WITH SAME OR LIKE SPECIES AND NUMBER AS ON THE APPROVED PLAN.

CONSTRUCTION NOTES AND SPECIFICATIONS

SPECIFICATIONS FOR ITEMS IN BOLD CAN BE FOUND UNDER "MATERIAL SPECIFICATIONS AND DEFINITIONS."

GENERAL NOTES

THE RESTORATION SPECIALIST WILL OVERSEE THE FOLLOWING:

- CLEARING, SOIL PREPARATION (INCLUDING ASPHALT REMOVAL), AND PLACEMENT OF WOODY DEBRIS;
- INVASIVE WEED CLEARING; AND
- PLANT MATERIAL INSPECTION.
 - PLANT DELIVERY INSPECTION.
 - 50% PLANT INSTALLATION/LAYOUT INSPECTION.
 - 100% PLANT INSTALLATION INSPECTION.

THE PROJECT ARBORIST WILL OVERSEE THE FOLLOWING:

- PLACEMENT OF TREE PROTECTION FENCING
- ANY PRUNING OR CUTTING OF TREES WITHIN THE PROJECT AREA.

WORK SEQUENCE

- ENSURE TREE PROTECTION FENCING AND SILT FENCE ARE IN PLACE BEFORE THE START OF ANY WORK ACTIVITIES.
- CLEAR THE PLANTING AREA OF ALL INVASIVE WOODY VEGETATION INCLUDING BUT NOT LIMITED TO HIMALAYAN BLACKBERRY, ENGLISH IVY, AND ENGLISH LAUREL.
- MANUALLY OR MECHANICALLY REMOVE ALL INVASIVE WOODY VEGETATION ROOTS. CUT IVY GROWING ON TREES AT APPROXIMATELY EYE-LEVEL AND REMOVE ROOTS FROM THE SOIL. RAKE OUT REMAINING ROOTS TO THE MAXIMUM EXTENT PRACTICAL.
- REMOVE ALL ASPHALT AND AREAS OF LAWN FROM THE PLANTING AREAS AND LOOSEN ALL COMPACTED SOILS IN PREPARATION FOR PLANTING. ROTOTILL TWO INCHES OF COMPOST INTO THE UPPER SIX INCHES OF THE SOIL WHERE DECOMPACTION IS NECESSARY IN SOIL PREPARATION AREA 1.
- PLACE WOODY DEBRIS RETAINED FROM TREE REMOVAL IN THE BUFFER AS SHOWN IN PLANS. UNLESS TOO DENSE, TREES MAY BE LEFT WHERE THEY FALL RATHER THAN AS EXACTLY SHOWN ON THE PLAN.
- ALL PLANT INSTALLATION WILL TAKE PLACE DURING THE DORMANT SEASON (OCTOBER 15 TO MARCH 1).
- LAYOUT VEGETATION TO BE INSTALLED PER THE PLANTING PLAN AND PLANT SCHEDULE.
- PREPARE A PLANTING PIT FOR EACH PLANT AND INSTALL PER THE CONTAINER PLANTING DETAIL.
- MULCH ENTIRE MITIGATION AREA WITH WOOD CHIP MULCH, 4 INCHES THICK PULLED AWAY FROM TRUCK AND STEMS OF INSTALLED CONTAINER TREES, SHRUBS OR GROUND COVER.
- INSTALL A TEMPORARY OR PERMANENT IRRIGATION SYSTEM AS NEEDED TO ENSURE THAT ALL PLANTS RECEIVE AT LEAST ONE INCH OF WATER PER WEEK FROM JUNE 1ST - SEPTEMBER 30TH. MAINTAIN IRRIGATION SYSTEM IN WORKING CONDITION FOR AT LEAST TWO SUMMERS AFTER INITIAL PLANT INSTALLATION.

MAINTENANCE

THIS SITE WILL BE MAINTAINED FOR FIVE YEARS FOLLOWING COMPLETION OF THE PLANT INSTALLATION. SPECIFICATIONS IN BOLD CAN BE FOUND UNDER "MATERIAL SPECIFICATIONS AND DEFINITIONS."

- REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISIT DURING THE UPCOMING FALL DORMANT SEASON (OCTOBER 15 TO MARCH 1).
- FOLLOW THE RECOMMENDATIONS NOTED IN THE SPRING MONITORING SITE VISIT.
- INVASIVE SPECIES MAINTENANCE PLAN:
 - HIMALAYAN BLACKBERRY, ENGLISH IVY, ENGLISH LAUREL, AND OTHER INVASIVE WOODY VEGETATION WILL BE GRUBBED OUT BY HAND ON AN ONGOING BASIS, WITH CARE TAKEN TO GRUB OUT ROOTS EXCEPT WHERE SUCH WORK WILL JEOPARDIZE THE ROOTS OF INSTALLED OR VOLUNTEER NATIVE PLANTS.

b) IF IT IS LIKELY THAT HAND REMOVAL WILL NOT BE COMPLETELY EFFECTIVE OR WILL DAMAGE DESIRABLE SPECIES, THEN APPLICATION OF AN HERBICIDE APPROVED FOR USE IN AQUATIC AREAS MAY BE USED. HERBICIDE APPLICATIONS MUST BE CONDUCTED ONLY BY A STATE-LICENSED APPLICATOR. APPLICATIONS SHOULD BE DONE BETWEEN MID-SPRING AND MID-SUMMER TO MAXIMIZE UPTAKE BY PLANTS. APPLICATION SHOULD BE A TARGETED METHOD SUCH AS SPOT SPRAY (PREFERRED FOR HIMALAYAN BLACKBERRY), OR WICK.

- AT LEAST TWICE YEARLY, REMOVE BY HAND ALL COMPETING WEEDS AND WEED ROOTS FROM BENEATH EACH INSTALLED PLANT AND ANY DESIRABLE VOLUNTEER VEGETATION TO A DISTANCE OF 18 INCHES FROM THE MAIN PLANT STEM. WEEDING SHOULD OCCUR AS NEEDED DURING THE SPRING AND SUMMER. FREQUENT WEEDING WILL RESULT IN LOWER MORTALITY AND LOWER PLANT REPLACEMENT COSTS.
- DO NOT WEED THE AREA NEAR THE PLANT BASES WITH STRING TRIMMER (WEED WHACKER). NATIVE PLANTS ARE EASILY DAMAGED OR KILLED, AND WEEDS EASILY RECOVER AFTER TRIMMING.
- APPLY SLOW RELEASE GRANULAR FERTILIZER TO EACH INSTALLED PLANT ANNUALLY IN THE SPRING (BY JUNE 1) OF YEARS 2 THROUGH 5.
- MULCH THE WEEDED AREAS BENEATH EACH PLANT WITH WOOD CHIP MULCH AS NECESSARY TO MAINTAIN A MINIMUM 4-INCH-THICK, 18-INCH-DIAMETER MULCH RING.
- THE TEMPORARY IRRIGATION SYSTEM WILL BE OPERATED TO ENSURE THAT PLANTS RECEIVE A MINIMUM OF ONE INCH OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION. IRRIGATION BEYOND THE SECOND YEAR MAY BE NEEDED BASED ON SITE PERFORMANCE OR SIGNIFICANT REPLANTING.

MATERIAL SPECIFICATIONS AND DEFINITIONS

- COMPOST: CEDAR GROVE COMPOST OR EQUIVALENT PRODUCT. 100% VEGETABLE COMPOST WITH NO APPRECIABLE QUANTITIES OF SAND, GRAVEL, SAWDUST, OR OTHER NON-ORGANIC MATERIALS.
- FERTILIZER: SLOW RELEASE, GRANULAR PHOSPHOROUS-FREE FERTILIZER. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION. KEEP FERTILIZER IN A WEATHER-TIGHT CONTAINER WHILE ON SITE. NOTE THAT FERTILIZER IS TO BE APPLIED ONLY IN YEARS 2 THROUGH 5 AND NOT IN THE FIRST YEAR.
- RESTORATION SPECIALIST: THE WATERSHED COMPANY [(425) 822-5242] PERSONNEL OR OTHER PERSON QUALIFIED TO EVALUATE ENVIRONMENTAL RESTORATION PROJECTS.
- PROJECT ARBORIST: THE WATERSHED COMPANY [(425) 822-5242] PERSONNEL OR OTHER PERSON CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE.
- WOOD CHIP MULCH: CHIPPED WOODY MATERIAL APPROXIMATELY 1 INCH MINIMUM TO 3 INCHES IN MAXIMUM DIMENSION (NOT SAWDUST OR COARSE HOG FUEL). MULCH SHALL NOT CONTAIN APPRECIABLE QUANTITIES OF GARBAGE, PLASTIC, METAL, SOIL, AND DIMENSIONAL LUMBER OR CONSTRUCTION/ DEMOLITION DEBRIS. PACIFIC TOPSOIL SELLS SUITABLE WOODCHIP MULCH CALLED "WOOD CHIP MULCH" AT MANY OF THEIR LOCATIONS. PACIFIC TOPSOIL: (800) 884-7645. NOTE: ARBORIST WOODCHIPS GENERALLY CONTAIN WEED SEEDS AND ARE NOT A RELIABLE ALTERNATIVE.
- WOODY DEBRIS: LARGE PIECES OF DOWNED WOOD SUCH AS LOGS, ROOTWADS, AND LIMBS WHICH ARE PLACED ON THE GROUND. THESE PIECES OF DOWNED WOOD SHOULD HAVE A DIAMETER OF AT LEAST 12 INCHES AND A MINIMUM LENGTH OF 10 FEET BUT WILL VARY SINCE THEY ARE SOURCED FROM EXISTING STANDING DEAD TREES ALREADY ON THE SITE. DEBRIS TO BE PLACED TO MAXIMIZE GROUND CONTACT.



750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

Science & Design

MERCER ISLAND CENTER FOR THE ARTS

MITIGATION PLAN
PREPARED FOR BRUCE LORIG
MERCERDALE PARK
77TH AVE SE & SE 32ND STREET (PARCEL # 1224049068)
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS		NO	DATE	DESCRIPTION	BY
1	08-21-15	REVIEW SET	MSF		
1	10-20-2016	CONCEPT PLANS	KMB		
3	11-16-2016	SEPA	KMB		

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: HM
DESIGNED: KMB
DRAFTED: KMB
CHECKED: KC/KB

JOB NUMBER:

150320

SHEET NUMBER:

W7 OF 7

MITIGATION PLAN DETAILS AND NOTES

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment H
Tree Assessment

January 2017

November 16, 2016

Bruce Lorig
Director
Mercer Island Center for the Arts
P.O. Box 1702
Mercer Island WA 98040

RE: Tree Assessment within proposed MICA Project Limits at Mercerdale Park

Dear Bruce,

We are pleased to present the Tree Assessment findings covering the proposed location of the Mercer Island Center for the Arts (MICA). ISA-Certified Arborist and Tree Risk Assessor Kyle Braun preformed a Level 1 assessment of all trees located within the proposed MICA project limits (Figure 1) on the northwest corner of Mercerdale Park on Mercer Island, Washington. The Watershed Company assessed the potential tree impacts in light of the proposed development and construction that will take place based on plans provided to The Watershed Company on October 13, 2016 from Magnusson Klemencic Associates.

Methods

A site visit was made on October 17, 2016 to assess the subject area and a basic Level 1 visual assessment was performed according to International Society of Arboriculture (ISA) standards. This assessment evaluated current tree forms, overall vigor of subject trees, proximity of trees to the proposed development and extent of impacts within the critical root zones of the trees. Photographs of the general study area and tree health are included at the end of this letter.

Local Regulations

Trees in Mercer Island are regulated under the Mercer Island City Code (MICC) Unified Land Development Code Chapter 19.10, Trees. In addition, activities within the standard buffer of the on-site wetland are regulated by MICC 19.07. The Mercerdale Park parcel is zoned Public Institution (P).

Overall Tree Evaluation

Mercerdale Park is on the north end of Mercer Island, south of the downtown area. The MICA lease area is located north of the Mercerdale Skate Park (Figure 1) in Township 24N, Range 04E, Section 12. Developed areas are present north and northeast of the project area. A forested hillside with trails is located to the west, and a maintained park lawn area is present to the east. A wetland is located to the south and west of the proposed MICA facility and there are also numerous informal trails running through various portions of the project area.

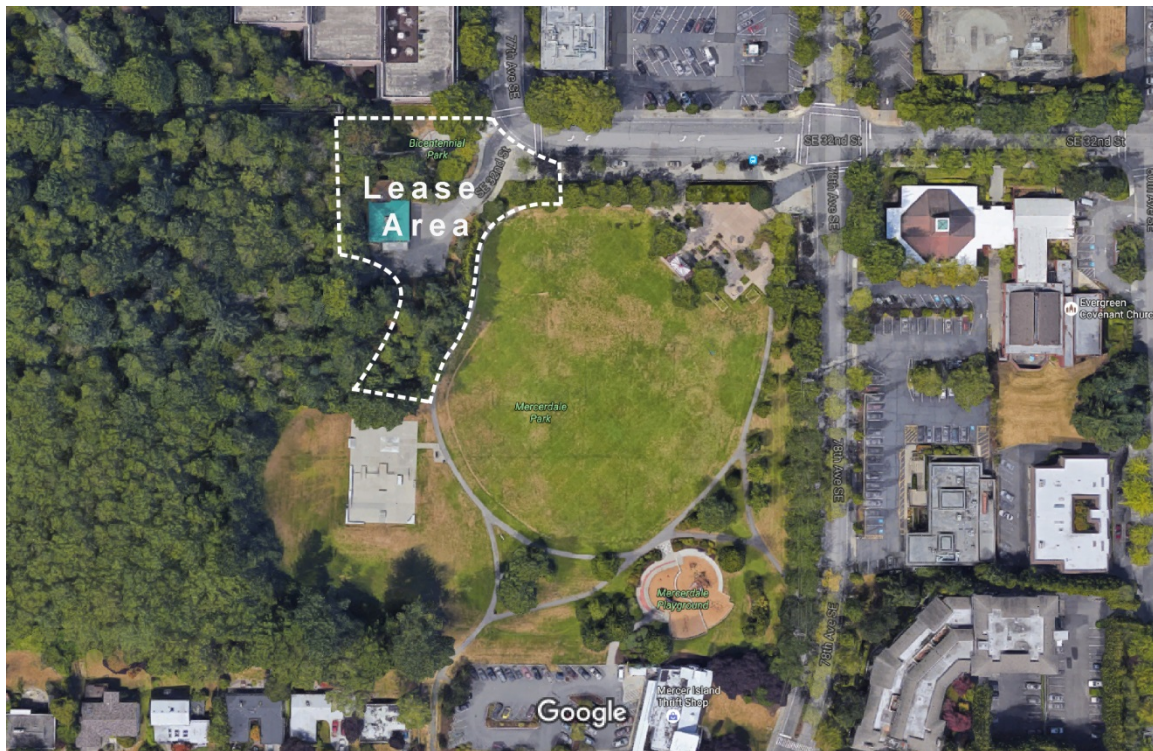


Figure 1 -- MICA lease area provided by AMS Planning and Research.

The lease area contains a paved parking lot and an abandoned recycling building accessed from SE 32nd Street. On the day of the site visit, approximately 130 trees were assessed, many of which are located within the standard (50-foot) wetland buffer. The tree species observed consisted of a majority of deciduous, “weedy” species as defined in MICC 19.10.000, such as red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*), and bitter cherry (*Prunus emarginata*). There are approximately nine western red cedars (*Thuja plicata*) with an average diameter at breast height (DBH) of 6 inches, all of which are dead or in severe condition. There are also approximately 18 Douglas-firs (*Pseudotsuga menziesii*) with an average DBH of 7 inches, most of which are dead or in severe condition (Figure 2-8). This is uncharacteristic for trees of this age which suggests there are other abiotic or biotic issues that are causing these trees to die. It is suspected that the lack of rainfall in the Puget Sound region over the last couple of years has

resulted in a significant amount of drought stress on many of the trees in the region. This has caused many of the Douglas-firs (*Pseudotsuga menziesii*) and western red cedar (*Thuja plicata*) in the region to become unusually susceptible to disease and pests.

There are also many newly planted young trees throughout the project area (Figure 5), but many of the young trees are also dead or in severe condition. The suspected cause of the poor health of the young trees is also lack of sufficient water in the summer and fall, making them more susceptible to other biotic issues.

Located on the west side of the large, central lawn is a hedgerow consisting of 15 Leyland Cypress (*Cupressus x leylandii*). These trees are approximately 10-15 years old and have been consistently hedged since their installation (Figure 2). These trees have very little habitat function and are also in poor health. They were also planted very close together to serve as screening for the recycling center; this has resulted in die-off of many of the inside branches. If these trees were to be removed it would result in no loss of function to the overall forest health.

The proposed MICA site plan calls for the removal of 54 conifers and 58 deciduous trees. The deciduous population being removed consists mostly of “weedy” trees such as alders (*Alnus rubra*) and cottonwoods (*Populus trichocarpa*), including many from within the standard wetland buffer. The coniferous population being removed consists of western red cedars (*Thuja plicata*) and Douglas-firs (*Pseudotsuga menziesii*), nearly all of which are dead or in severe condition. The proposed mitigation plan, prepared by The Watershed Company, specifies 74 trees to be planted within the wetland buffer. This includes 60 conifers and 14 deciduous trees, which would meet replacement requirements defined in MICC 19.10.060. This includes full replacement of all conifers to be removed and partial replacement of the “weedy” deciduous species to be removed. The plan also specifies soil amendments designed to improve the health of both the proposed new trees and remaining trees on the site.

Conclusions

Overall health of the trees within the project area is very poor. The cause of death and poor health conditions of these trees is suspected to be drought stress and lack of watering which is consistent with these species around the region. The majority of the conifers in the project area are dead or in severe condition, therefore removal and reuse of the logs for habitat structures within the reduced wetland buffer would be a more desirable method than attempting to retain any of these trees.

After review of the proposed project extents, grading limits, proposed drainage, and current site functions, it is concluded that the trees proposed for removal are either dead or in poor health and provide little function to the park, the wetland and wetland buffer.

Implementation of the mitigation plan will eventually result in a higher functioning forest compared to the current condition.

Limitations

The findings of this report are based on the best available science and are limited to the scope, budget and site conditions at the time of the assessment. Although the information in this letter is based on sound methodology, internal structural flaws (such as cracking or root rot) or other conditions that are not visible cannot be detected with this limited basic visual screening. Trees are inherently unpredictable. Even vigorous and healthy trees can fail due to high winds, heavy snow, ice storms, or rain.

This report is based on the current observable conditions and may not represent future conditions of the trees. Any change in site condition, including clearing and grading, will alter the condition of remaining trees in a way that is not predictable. Remaining trees should be monitored for signs of stress, pathogens and structural defects after clearing and MICA construction by the project arborist.

The conclusions contained within this report have been made for permitting purposes only. Tree assessment related to park visitor safety and safeguarding structures or other targets must be done separately and after The Mercer Island Center for the Arts has been completed.

Please call if you have any questions or if we can provide you with any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kyle Braun', with a long horizontal line extending to the right.

Kyle Braun
ISA Certified Arborist®/ Tree Risk Assessor



Figure 2 – Dead Douglas-firs (*Pseudotsuga menziesii*) located near the former recycling center and Leyland Cypress (*Cupressus x leylandii*) hedge located behind the Douglas-firs.



Figure 3 – Dead conifers located near hedge row and former recycling center.



Figure 4 – Dead Douglas-firs (*Pseudotsuga menziesii*) located in project area.



Figure 5 – Dead young western red cedars (*Thuja plicata*).



Figure 6 & 7 – Dead western red cedar (*Thuja plicata*) and Douglas-fir (*Pseudotsuga menziesii*).



Figure 8 – Dead conifers located near former recycling center.

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment I
Phase 1 Environmental Report

January 2017

**Compliant with All Appropriate Inquiry
Final Rule: 40 CFR Part 312**

**PHASE I
ENVIRONMENTAL
SITE ASSESSMENT**

Subject Property:

MERCER ISLAND CENTER FOR THE ARTS
Southwest Corner of 78th Avenue Southeast and Southeast 32nd Street
Mercer Island, Washington 98040

Prepared for:

Mercer Island Center for the Arts
Post Office Box 1702
Mercer Island, Washington 98040

Prepared by:

**AEROTECH
ENVIRONMENTAL CONSULTING, INC.**
13925 Interurban Avenue South, Suite No. 210
Seattle, Washington 98168
Fax (206) 402-3872
(360) 710-5899
www.AerotechEnvironmental.com

**Compliant with All Appropriate Inquiry
Final Rule: 40 CFR Part 312**

**PHASE I
ENVIRONMENTAL
SITE ASSESSMENT**

Clients: **MERCER ISLAND CENTER FOR THE ARTS**
Post Office Box 1702
Mercer Island, Washington 98040

Point of Contact: Mr. Benjamin S. Pariser
Mercer Island Center for the Arts
(206) 963-4818

Property: **MERCER ISLAND CENTER FOR THE ARTS**
Southwest Corner of 78th Avenue Southeast and Southeast 32nd Street
Mercer Island, Washington 98040

County: King County, Washington
Parcel Number: 122404-9068

S.I.C. Code: Not provided

Commercial Activity: Recreational Park

Environmental Assessor: Ms. Tiffany A. Chaussee

Project Number: No. 215 - 5266

Report Date: December 18, 2015

EXECUTIVE SUMMARY

The subject of this Phase I Environmental Site Assessment is a rectangular-shaped approximately 12.26-acre Parcel of land located on the southwest corner of the intersection of Southeast 78th Avenue and Southeast 32nd Street in Mercer Island, Washington.

The subject Property occupies *Mercerdale Park*. The majority of the land consists of a large open lawn that is bordered by a paved footpath that encircles the entire Site. Along the footpath are exercise stations. A playground is located along the southeastern side of the Site and a skatepark is located on the southwestern. On the west side of the park is an access point to trails that lead up the hillside into seven-acres of natural open space. The northeast corner of the park houses a paved picnic area with a covered pergola that faces the intersection of Southeast 32nd Street and 78th Avenue Southeast. On the northwestern side of the Property is an approximately 1,120 square foot, single story structure. This building houses two public restrooms located in the north side of the building and a separate storage room occupies the southern portion of the building. Outdoor sinks are located along the west exterior wall of the building and an attached canopy is located along the southeastern side of the building and covers a paved area.

The subject Property was originally developed in 1975 with the construction of the single story, 1,120 square foot building on the northwestern side of the Property. The building was used as a small recycling center by a "Committee To Save The Earth" and the Mercer Island High School. Around the 1970s, the Property was land was cleared as a field. The pedestrian pathways were added in the mid to late 1990s. In 2002, the present-day playground and skate park were constructed. Today, the northwest building appears to only be utilized as a maintenance storage shed for the park and the northern side of the building houses public restrooms. *The Mercer Island Center for the Arts* is anticipated to occupy the northwestern shop building in the near future.

The Property is located in downtown Mercer Island. To the north is Southeast 32nd Street followed by a retail strip building and Rite Aid. To the south is Mercer Island Thrift Shop, a parking lot, and residences to the southwest. To the east is 78th Avenue Southeast followed by the *Mercerdale Professional Center*. To the west is heavily wooded land.

Upon completion of the Site investigation, historical research, document file review, and other tasks as stipulated in the Scope of Work, the following Recognized Environmental Conditions, potential environmental concerns, or recommended actions were identified:

- **Recommendation: No Further Action Indicated.** As a result of the on-site Reconnaissance, records research, historical investigation, and review of Federally reported environmental information, this Assessment has revealed no obvious evidence of potential environmental risks or Recognized Environmental Conditions indicating the presence of hazardous or other conditions. It is reasonable and prudent to believe that the risk of contamination is so minimal that no further investigation is warranted.

Upon the completion of this Assessment, no further investigation, remediation, or response actions are indicated, suggested, or recommended relative the potential environmental conditions at the subject Property other than those previously discussed. Based upon this Phase I Environmental Site Assessment, with those exceptions, it is reasonable and prudent for the Client to believe there is no other significant risk of contamination.

ASTM PROTOCOL CONCLUSION

We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice 1527 (Revision 2013) for Southwest Corner of 78th Avenue Southeast and Southeast 32nd Street in Mercer Island, Washington, the *property*. Any exceptions to, or deletions from, this practice are described in Possible Report Exceptions To All Appropriate Inquiry Rule Section¹ of this *report*.

This Assessment has no revealed evidence of *recognized environmental conditions*² in connection with the *property*.

This Assessment has no revealed evidence of an *historical recognized environmental condition* in connection with the *property*³.

This Assessment has no revealed evidence of a *controlled recognized environmental conditions*⁴ in connection with the *property*.

¹ Refer to page 5 of this Assessment.

² *Recognized Environmental Condition* - the presence of likely presence of any *hazardous substances* or *petroleum products* in, on, or at a *property* under conditions that indicate an existing release, a past release, or a *material threat* of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, ground water, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis conditions* that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *recognized environmental conditions*.

³ *Historical Recognized Environmental Condition* - a past release of any hazardous substance or petroleum product that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory agency or meeting the unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls such as property use restrictions, activity and use limitations, institutional controls, or engineering controls - at the time of the completion of the Environmental Site Assessment.

⁴ *Controlled Recognized Environmental Condition* - a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances or petroleum products allowed by remain in place subject to the implementation of required controls. A condition identified as a Controlled Recognized Environmental Condition does not imply that the Assessment has evaluated or confirmed the adequacy, implementation, or continued effectiveness of the required control that has been, or is intended to be implemented.

This Phase I Environmental
Site Assessment was performed in
**Compliance with the
All Appropriate Inquiry (AAI)
Final Rule: 40 CFR Part 312⁵**

POTENTIAL REPORT EXCEPTIONS TO ALL APPROPRIATE INQUIRY RULE:

§ 40 CFR Part 312.25 Searches for recorded environmental cleanup liens. (a) All appropriate inquiry must include a search for the existence of environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law.

§ 40 CFR Part 312.28 Specialized knowledge or experience on the part of the defendant. (a) Persons to whom this part is applicable per § 312.1(b)⁶ must take into account, their specialized knowledge of the subject property, the area surrounding the subject property, the conditions of adjoining properties, and any other experience relevant to the inquiry, for the purpose of identifying conditions indicative of releases or threatened releases at the subject property, as defined in § 312.1(c).

§ 40 CFR Part 312.29 The relationship of the purchase price to the value of the property, if the property were not contaminated. (a) Persons to whom this part is applicable per § 312.1(b) must consider whether the purchase price of the subject property reasonably reflects to fair market value of the property, if the property were not contaminated.

⁵ A copy of excerpts from the *Standards and Practices for All Appropriate Inquiries; Final Rule* U.S. EPA, 40 CFR Part 312, 70 FR 66070, November 1, 2005, is included in the Appendix of this Report, in the Section entitled Supplemental Documents.

⁶ § 312.1(b). *Applicability.* The requirements of this part are applicable to: (1) Persons seeking to establish: (i) The innocent landowner defense pursuant to CERCLA sections 101(35) and 197(b)(3); (ii) The bona fide prospective purchaser liability protection pursuant to CERCLA sections 101(40) and 107(r); (iii) The contiguous property owner liability protection pursuant to CERCLA section 107(q); and (2) persons conducting site characterization and assessments with the use of a grant awarded under CERCLA section 104(k)(2)(B).

ASSESSMENT OVERVIEW

Purpose:

The purpose of this Assessment is to comply with selected sections of the standards and practices for “all appropriate inquiry” for the purposes of CERCLA sections 101(35)(B)(i)(I) and 101(35)(B)(ii) and (iii), as defined in *Standards and Practices for All Appropriate Inquiries; Final Rule*, U.S. EPA, 40 CFR Part 312 (70 FR 66070). Some of the requires contained in Part 312 are excluded from this Assessment, as delineated in the preceding Section entitled “Report Exceptions to All Appropriate Inquiry Rule.”

The business purpose of this Phase I Environmental Site Assessment was to investigate, review, assess, and evaluate – through historical research, document and record review, generally available environmental data, visual or physical observations, and inspection by a trained assessor – the presence or likely existence of:

- Contamination by hazardous materials, generally recognized environmental contaminants, visible pollutants, underground contaminants, and asbestos-containing materials.
- The possibility that these materials are or may have been introduced – by internal generation, external introduction, or unknown sources – into the structure or subject Property.
- A brief overview, evaluation, and assessment of the severity of the current potential environmental risk based upon known standards or applicable regulations.

Unless specifically noted within the text of this Report, this Phase I Environmental Site Assessment does not include or address groundwater, soil, or extraneous material contamination upon or under the surface soils, with respect to testing, coring, or sampling analysis.

Protocol:

The procedure for this Environmental Site Assessment was to perform in practical and reasonable steps--employing currently available technology, existing regulations, and generally acceptable engineering practices – an investigation to ascertain the possibility, presence, or absence of environmental releases, threatened releases, or Recognized Environmental Conditions, as limited by the Scope of Work. As such, this Assessment was performed in substantial compliance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation E 1527-13).

Objectives:

- To attempt to accomplish all appropriate inquiry into ownership and uses of the Property consistent with good commercial or customary practice, in an effort to minimize liability.
- To conduct an investigation of the Property that will assist ownership's positioning within the "safe harbor" section of the Federal Superfund liability in 42 U.S.C. §9601(35), the Lender Liability Final Rule, and the CERCLA amendments enacted as part of the 2002 Brownfields Act.
- To provide environmental information that will assist in evaluating ownership's risk of potential loss or value impairment of the security interest due to environmental defects; and information for decisions and operational limitations concerning the National Pollution Contingency Plan.

While this Phase I Assessment cannot absolutely quantify and qualify every possible past and present environmental risk, the Assessment does provide a partial information basis for reasonable decision making regarding the potential for environmental liabilities and risk, based upon the current Site-specific situation, Assessment limitations, and methods of evaluation.

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GENERAL SITE RECONNAISSANCE OVERVIEW

Mr. Benjamin S. Pariser of Mercer Island Center for the Arts engaged Aerotech Environmental Consulting, Inc. ("Aerotech") to perform a Phase I Environmental Site Assessment on the subject Property. This Assessment was additionally performed as required by the U.S. Small Business Administration ("SBA") Environmental Policy Guidelines for Phase I Environmental Site Assessments, and the "All Appropriate Inquiry" standard as promulgated by the U.S. Environmental Protection Agency in 40 CFR Part 312.

This Site consists of a rectangular-shaped approximately 12.26-acre (533,898 square foot) Parcel of land located in Mercer Island, Washington, occupied by *Mercerdale Park*. Mr. Benjamin S. Pariser identified himself as the Key Site Manager. The *Key Site Manager* is the person identified by the Client or the Owner of the Property as a person having the most reliable knowledge as to the previous uses and current condition of the subject Property and is in a position to provide reasonably accurate information for the Environmental Questionnaire. The Assessor performed the on-Site Reconnaissance on December 4, 2015 in the early afternoon.

According to the information provided verbally by the Key Site Manager, no previous Phase I Assessment, Environmental Investigations or Site Assessments, or other environmentally-related activities or studies, have been performed at, or for, the subject Property that indicated the presence of a Recognized Environmental Condition. No documents were supplied by any of the parties that indicated the presence or suspected presence of a recognized environmental condition or potential environmental concern indicating the need for immediate further action.

SUBJECT PROPERTY SITE DESCRIPTION

Visual Description:

The subject of this Phase I Environmental Site Assessment is a rectangular-shaped approximately 12.26-acre (533,898 square foot) Parcel of land located within the City limits of Mercer Island, Washington.

Adjoining and adjacent properties and landmarks include Southeast 78th Avenue adjoining to the east; Southeast 32nd Street adjoining to the north; Southeast 34th Street is one parcels south; Island Crest Way is two block west; Interstate 90 is three blocks northeast; and West Mercer Way is one-half mile southwest. Significant bodies of water include Lake Washington which surrounds the island but is in closest in proximity to the subject Property being one-half mile northeast and approximately one-half mile southwest.

The subject Property occupies *Mercerdale Park*. The majority of the land consists of a large open lawn that is bordered by a paved footpath that encircles the entire Site. Along the footpath are exercise stations. A playground is located along the southeastern side of the Site and a skatepark is located on the southwestern. On the west side of the park is an access point to trails that lead up the hillside into seven-acres of natural open space. The northeast corner of the park houses a paved

picnic area with a covered pergola that faces the intersection of Southeast 32nd Street and 78th Avenue Southeast. On the northwestern side of the Property is an approximately 1,120 square foot, single story structure. This building houses two public restrooms located in the north side of the building and a separate storage room occupies the southern portion of the building. Outdoor sinks are located along the west exterior wall of the building and an attached canopy is located along the southeastern side of the building and covers a paved area.

During the on Site Reconnaissance, there were no readily observed visual indicators of active underground storage tanks, stained soils, stressed vegetation, oily sheens, or discolorations on standing water surfaces. There was no evidence of foul odors. Additionally, the Site Reconnaissance did not reveal the presence of discarded drums, barrels, or containers, construction debris, damaged or discarded containers of chemicals, paints, or pesticides. There are no waste storage or treatment lagoons, pits, ponds, or surface impoundments on the Site, or the adjoining properties.

The subject Property was originally developed in 1975 with the construction of the single story, 1,120 square foot building on the northwestern side of the Property. The building was used as a small recycling center by a "Committee To Save The Earth" and Mercer Island High School. Around the 1970s, the Property was land was cleared as a field. In 1991, restrooms were constructed onto the building. The pedestrian pathways were added in the mid to late 1990s and in 2002, the playground and skate park were constructed. Today, the northwest building appears to only be utilized as a maintenance storage shed for the park with public restrooms. The Mercer Island Center for the Arts is anticipated to occupy the northwestern shop building in the near future.

The Property is located in downtown Mercer Island. To the north is Southeast 32nd Street followed by a retail strip building and Rite Aid. To the south is Mercer Island Thrift Shop, parking lot, and residences to the southwest. To the east is 78th Avenue Southeast followed by Mercerdale Professional Center. To the west is heavily wooded land.

Physical Setting Source:

In order to ascertain the physical setting of the subject Property, a review was conducted of the appropriate current United States Geological Survey ("USGS") 7.5 Minute Topographic Quadrangle (quad) Map. The USGS 7.5 minute quad map has an approximate scale of 1" to 2,000 feet, shows physical features such as wetlands, water bodies, roadways, mines, and buildings. These physical and natural features shown should be the areas of visual emphasis, when conducting the on-site inspection of the subject Property. The USGS 7.5 quad map is considered to be the only Standard Physical Setting Source, and is sufficient as a single reference. A copy of the applicable map is included in the Appendix. The applicable USGS 7.5 minute topo map is the Quadrangle 6005537 / 7.5 Mercer Island, WA., photo revised in 2014.

Surface Characteristics:

The precise Property location is N 47° 34' 52.32" / W 122° 14' 3.48" as determined by DeLorme mapping data. The Site is located within Universal Transverse Mercator Zone No.10 The Site elevation is approximately 89 feet above mean sea level. As observed during the Site visit and confirmed on the USGS topographic map, the subject Property exhibits a surficial drainage towards

the north, based upon overall Site topography. Additionally, the assumed general groundwater flow is to the north.

During the course of the on-site observations, particular attention was directed towards (i) pools of liquid; (ii) roads and paths that might be used for unauthorized entry; (iii) drains and sumps; (iv) stressed vegetation; (v) pits, ponds, or lagoons; (vi) surface or soil staining; (vii) ditches, catch basins, or dry wells; (viii) unidentified substance containers; (ix) location of manholes, sewer grates, sewer outfalls; and (x) other subterranean accesses. All roads, driveways, paths, and other vehicular access areas were identified and evaluated for suspected use as an avenue for transport or disposal of hazardous materials, regulated substances, or petroleum products. Railroad tracks and previous right-of-ways are also identified if present on the subject Property. Potential wetland area indicators were considered during the on-site activities. These indicators include (i) wetland characteristic soil types; (ii) areas that appear permanently wet during most of the year; (iii) the presence of wetlands-related submergent or emergent plants; and (iv) wetland indicative wildlife.

Subsurface Soils Characteristics:

The subject Property soils are likely characterized as *Urban Land - Alderwood Complex*. This Complex is on beaches and low terraces on broad uplands. The Alderwood soils formed in glacial till. The Complex is about 70 percent Urban land and 20 percent Alderwood very gravelly sandy loam, with 0 to 6 percent slopes. The components of this Complex tend to be intermingled, and can also include Dystric Xerorthents. Urban land is land covered by streets, parking lots, buildings, and other structures typical of urban areas.

The Alderwood soil is moderately deep and moderately well drained. Typically, the surface of this soil is covered by a thin mat of undecomposed needles and wood fragments. The subsurface layer is brown very gravelly sandy loam about ½ inch thick. The subsoil is brown very gravelly loam about 21 inches thick. The substratum to a depth of 60 inches or more is grayish brown gravelly sandy loam that is weakly-silica cemented in the upper part. Depth to the silica-cemented hardpan ranges from 20 to 40 inches.

The permeability of this Alderwood soil is moderately rapid above the hardpan and very slow in the pan. The available water capacity is low. Runoff is slow, and the hazard of water erosion is slight. A perched water table is at a depth of 2.5 to 3 feet during the rainy season in winter and spring. This generalized characterization has been determined by the U.S. Department of Agriculture, Soil Conservation Service in cooperation with the Washington State Department of Natural Resources and the Washington State University, Agricultural Research Center, and is published in the *Soil Survey of King County Area, Washington*, dated 1977.

Subsurface and Hydrological Characteristics:

The subsurface of the Property may have been modified by cuts and fills for building foundations and underground construction. However, no obvious visual evidence of non-native fill or backfill was observed around the structures. This was confirmed by Site interviews.

Based upon the USGS map and surface topography, groundwater is inferred to flow generally towards the north. However, topography is not always a reliable basis for predicting groundwater flow direction. Local gradient under the subject Property may be influenced naturally by zones of

higher or lower permeability, or artificially by nearby pumping or recharge, and may deviate in any particular location for the overall regional trend. These observations are consistent with the historical research and review of historical aerial photographs.

The principal aquifers in the Puget Sound Region occur in glacial drift, that along with finer grained interglacial sediments, underlies the basin lowland to depths of more than 1,000 feet. The sand and gravel units in the glacial drift form the principle aquifers. These aquifers receive ample recharge from the typically heavy precipitation characteristic of western Washington. The glacial drift in the Puget Sound region varies greatly in composition and water yielding capacity. Typically, wells in glacial drift that tap silt, clay, or till in the Region at approximately 75 to 100 feet below ground surface may have yields of 100 gallons or more per minute. Deeper wells tapping thick, saturated layers of highly permeable gravel and coarse sand, typically at depths greater than 250 feet below ground surface, can yield more than 1,000 gallons per minute.

HISTORICAL USAGE STANDARD INFORMATION SOURCES: LOCAL AND STATE

The Historical Usage Information Section research is considered satisfied when both the Fifty-Year Complete Source and Developmental Complete Source have been researched and identified. These historical research requirements are satisfied by two separate sources with respect to the milestone or time constraints. A single source cannot simultaneously fulfill both source requirements.

The *Historical Site milestones* can include (i) construction activities that involve structural, renovation, or remodeling at any location within the subject Property; (ii) major changes in the topography or grade of the Site; (iii) installation or construction of roads, utilities, water or sewer systems; (iv) installation, removal, or modification of permanent equipment; or (v) installation, removal, or modification of above or below ground tanks.

Standard Historical Sources are categorized as either Fifty-Year Complete or Developmental Complete. A *Fifty-Year Complete* source is a Standard Historical Source that provides the required information through and back to the 1945 cutoff date in either reasonable time intervals or Property milestone events. A *Developmental Complete* source is a Standard Historical Source which provides the required information from the point that the Property exhibited development (other than agricultural use) or structure construction continuously to the present in either reasonable time intervals or Property milestone events.

Fifty-Year Complete Standard Historical Source Summary:

The subject Property was originally developed in 1975 with the construction of the single story, 1,120 square foot building on the northwestern side of the Property. The building was used as a small recycling center by a "Committee To Save The Earth" and Mercer Island High School. Around the 1970s, the Property was land was cleared as a field. In 1991, restrooms were constructed

onto the building. The pedestrian pathways were added in the mid to late 1990s and in 2002, the playground and skate park were constructed. Today, the northwest building appears to only be utilized as a maintenance storage shed for the park with public restrooms. The Mercer Island Center for the Arts is anticipated to occupy the northwestern shop building in the near future.

Historical Research Data Gaps:

As defined in the Standards and Practices for All Appropriate Inquiries; Final Rule (70 FR 66070) promulgated November 1, 2005, and effective November 1, 2006,

“Data gap means: a lack or inability to obtain information required by the standards and practices listed in subpart C of this part despite good faith efforts by the environmental professional or persons identified under § 312.1(b), as appropriate, to gather such information pursuant to §§ 312.20(e)(1) and 312.20(e)(2).” [§ 312.10 Definitions].

Such Data Gaps result from insufficient information – as delineated in standards and practices – relative to the historical development of the subject Property.

“To the extent there are data gaps (as defined in § 312.10) in the information developed as part of the inquiries in paragraph (e) of this section that affect the ability of persons (including the environmental professional) conducting the all appropriate inquiries to identify conditions indicative of releases or threatened releases in each area of inquiry under each standard and practice such persons should identify the sources of information consulted to address such data gaps, and comment upon the significance of such data gaps with regard to the ability to identify conditions indicative of releases or threatened releases of hazardous substances [and in the case of persons identified in § 312.1(b)(2), hazardous substances, pollutants, contaminants, petroleum and petroleum products, and controlled substances (as defined in 21 U.S.C. 802)] on, at, in, or to the subject property.” [§ 312.20(g)].

In the opinion of the preparer of this Assessment and the Environmental Professional, no such Data Gaps as defined above, were identified during the preparation of this Assessment. No further investigation is necessary relative to issues resulting from Data Gaps.

Aerial Photograph Review:

Originally performed under government contracts, aerial photographs of the general area are available beginning with the 1930s. The scales for these aerials can range from 1"=1667' to 1"=2500'; aerials taken by private contractors were generally taken at lower altitudes and provide a larger scale. Depending upon the resolution, the photographs can provide valuable information on land use and site development of both the subject and adjoining properties. Ultimately, the scale, clarity, and resolution serves as the limitations on visual interpretation. Aerial photographs were reviewed at the offices of the Natural Resources Conservation Services Offices. The following aerials were available for review:

<i>Date:</i>	<i>Observations:</i>
1936	The subject Property consists of undeveloped vacant land. No buildings are present on the Property.
1968	The subject Property appears to consist of cleared vacant land with wooded land along the western portion. No buildings are present on the Property.
1969	The subject Property appears as it does in 1968.
1980	The subject Property appears to consist of cleared vacant field land with the maintenance/recycle building located on the northwestern portion. The westernmost side of the Parcel is heavily wooded land.
1990	The subject Property appears to consist of grass park land with the maintenance/recycle building located on the northwestern portion. The walkway paths, playground, and skate park have not been developed.
1998	The subject Property appears to be occupied by the park with a pedestrian walkway around the vicinity; a cleared area appears where the skate park is located today. The playground has not been built. The maintenance building is present on the northwestern portion of the Property.
2002	The subject Property consists of the park land with a pedestrian walkway around the vicinity and the small maintenance building situated on the northwestern side of the Parcel. The skate park and playground appear to be under construction.
2006	The subject Property appears as it does today, occupied by the park with a pedestrian walkway around the vicinity; a skate park located along the western side, a playground situated on the southeastern portion and a paved picnic area on the northeastern corner.
2009	The subject Property appears as it does today, occupied by the park with a pedestrian walkway around the vicinity; a skate park located along the western side, a playground situated on the southeastern portion and a paved picnic area on the northeastern corner.
2011	The subject Property appears as it does today, occupied by the park with a pedestrian walkway around the vicinity; a skate park located along the western side, a playground situated on the southeastern portion and a paved picnic area on the northeastern corner.
2013	The subject Property appears as it does today, occupied by the park with a pedestrian walkway around the vicinity; a skate park located along the western side, a playground situated on the southeastern portion and a paved picnic area on the northeastern corner.

City of Mercer Island Building Permit/Inspection Department - Permit Review:

The Property is located within the City of Mercer Island. Information concerning Site development was obtained from the Department of Planning and Community Development Services. Due the time required to obtain building department records via Freedom of Information requests ("FOIA"), this method of research was initially deemed to be reasonably ascertainable¹. The following substantive information was observed:

<i>Date:</i>	<i>Permit No.</i>	<i>Substantive Information:</i>
11/01/73	No. 73-321	Construction of precast concrete warehouse. Type of building - recycling. Owner: Committee to Save the Earth.
02/13/75	No. 5-016-75	Alter present contour to form level lot for construction of Recycling Station.
11/19/79	No. E79-210	Electrical Permit for new 100-amp service for lighting.
11/20/80	No. E80-255	Electrical Permit Application to install light fixtures (5), switches (3), time clock (1), and receptacle (1) in building that is for recycling of waste paper, glass, aluminum etc.
02/26/91	No. 8301	Restroom addition onto Recycling Center Building.
07/18/97	No. 97-1033	Electrical Permit for Temporary Power.
05/18/00	No. PSR0005-002	Re-roof recycling building.
08/28/01	No. 0108-124	Grading for play ground area.
03/15/02	No. 0108-189	Mercerdale Park Play area / skate park stormwater conveyance system that ties into existing system located in the park.
04/08/02	No. 0204-080	Water Service Permit for City of Mercer Island Parks: Install water meter for Mercerdale Park.
05/21/02	No. 0108-124	Grading for play ground and skate park area.
10/23/03	No. N/A	New Address to Site: 3205 77 th Ave SE.
03/03/04	No. 0403-012	Construct veterans memorial Mercerdale Park.

02/19/08	No. 0802-118	Connect boiler and indirect water tank, gas piping to boiler.
07/09/08	No. 0807-067	Install generator for summer celebration at Mercerdale Park.
11/12/12	No. 74428	Electrical permit for adding motion sensors in restrooms.
06/01/15	No. DSR15-016	Temporary Sign for Mercer Island Center for the Arts.

City and Telephone Directories:

Local directories based upon physical surveys of residents have been compiled since the late 1880's for use as city planning and marketing database tools. Commonly referred to as "reverse directories" or "city directories," these directories are generally maintained at public libraries. The following directories were available for review:

<i>Date:</i>	<i>Directory Listing:</i>
1976	32 nd Avenue Southeast Not Listed in Seattle Directory. 77 th Avenue Southeast Not Listed in Seattle Directory.
1983-84	32 nd Avenue SE Not Listed in Bellevue, Kirkland, Redmond Directory. 3003 77 th Avenue SE - Farmer's New Life Insurance 3010 77 th Avenue SE - Mercer Island Business Center 3036 77 th Avenue SE - Bicentennial Park Mercer Island Recycling Center University Federal Savings (Community Cntr) - SE 32 nd St Intersects - - SE 34 th St Intersects - 3403 77 th Avenue SE - Residence
1985	32 nd Avenue Southeast Not Listed in Seattle Directory. 77 th Avenue Southeast Not Listed in Seattle Directory.
1987	32 nd Avenue Southeast Not Listed in King County Directory. 77 th Avenue Southeast Not Listed in King County Directory.
1991	32 nd Avenue Southeast Not Listed in King County Directory. 77 th Avenue Southeast Not Listed in King County Directory.
1994	32 nd Avenue Southeast Not Listed in Seattle Directory. 77 th Avenue Southeast Not Listed in Seattle Directory.

Sanborn Fire Insurance Maps:

In 1867 the Sanborn Map Company began preparing detailed street maps of densely populated areas throughout the United States. The purpose of the mapping process was to assist insurance agents in rating the degree of fire hazard for a particular area or property. The maps drawn by the Sanborn Mapping Company indicate the type of building construction, the nature of land use, the configuration of buildings and the surrounding land, as well as identifying the location of above and below ground storage tanks.

The recent purchase by Environmental Data Resources (“EDR”) of the Sanborn Map Company included the acquisition of all copyrights associated with the Sanborn Maps. The Sanborn copyright prohibits the photocopying of the maps without the prior written permission of EDR².

This investigation has relied upon the collection of Sanborn maps previously owned by the Sanborn Mapping and Geological Information Service Company, known as the “Sanborn Library.”

Sanborns were never created for Mercer Island, therefore, Sanborns were not available for review for the subject Property.

Recorded Land Title Records:

Recorded land titles are records usually maintained by the municipal clerk or county recorder of deeds which detail ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against the subject Property in the local jurisdiction having control for or reporting responsibility to the subject Property. Due to state land trust regulations and laws, land title records will often only provide trust names, bank trust numbers, owners’ names, or easement holders, and not information concerning previous uses or occupants of the subject Property. Additionally, environmental liens recorded against the subject Property are considered outside the scope of recorded land title records. For these reasons, this Environmental Site Assessment has relied upon other standard historical information sources assumed to be either more accurate or informative than recorded land titles. Review of historical King County Tax Parcel maps revealed the following information:

<i>Date:</i>	<i>Assessor Comments:</i>
1956	Parcel is 12.27-acres of vacant land. Land Value \$1,210.00 Owner: Mercer Island School District (02/20/56)
1957	Parcel is 12.27-acres of vacant land. Land Value \$6,140.00
1961	Parcel is 12.27-acres of vacant land. Land Value \$16,500.00
1967	Parcel is 12.27-acres of vacant land. Land Value \$32,750.00

- 1975 Construction of a single story, 1,120 square foot building.
 “City Offices State School District “leased” this space to ecologists for recycling center (Committee To Save The Earth and Mercer Island High School) remainder of tax lot is undeveloped and used and maintained as a school field.”
- 1988 “Mercerdale field and recycling center.”
- 1990 Property Name: Recycle Center
 Address: 7677 SE 32nd Street.
- 1991 Construction of 400 square foot restroom onto recycle center bulding.
 Address: 7701 SE 32nd
- 1992 Property Name: Recycle Center
 Address: 7677 SE 32nd Street.
 Parcel has one building: Single story, 1,120 square foot, masonry structure that was constructed in 1975.
- 1993 “‘Swimming Pool Permit’ not for this parcel. (No permit in folio) SMO 07/93. Restroom addn was 30% now 100% (new value raised on previous mls analysis.”
- 1994 Property Name: Recycle Center
 Land Use: Swimming Pools
 Address: 7677 SE 32nd Street.
 Lot size: 533,989 square feet.
 Parcel has one building: Single story, 1,120 square foot, masonry structure that was constructed in 1975.

Washington State Business Registrations:

The State of Washington Business Licensing Service maintains records of all business licenses issued within the State of Washington. In an attempt to identify potential environment issues, a search of business licenses issued through the Washington State Business Licensing Service was completed for the Site and revealed that the following businesses were issued licenses to operate on the subject Property.

<i>Issued Date:</i>	<i>Business Name:</i>
N/A	EVERCYCLE PLASTICS LLC (7611 SE 34TH ST)

CURRENT USAGE
INFORMATION SOURCES:
LOCAL AND STATE

City of Mercer Island - Emergency Release Reports/SARA§304:

The Property is located within the City of Mercer Island, Washington. According to interviews with City Fire Department Personnel, the Site has not reported any Emergency Release incidents to local authorities. This information is consistent with the State of Washington ERNS records.

Local/State Waste Disposal Compliance:

According to supplied information, the Site is not required to file, submit, or operate under any environmental permits, approvals, or notifications that were previously in place, or are known to be required in the future. Moreover, according the same supplied information and statements, the Site is not received prior notification of environmental violations, litigation, citations, claims, complaints, administrative actions, or environmental clean up or remedial actions pertaining to the Property or the operations conducted on the Property. This is consistent with the information reported in the EDR Environmental Database prepared for the subject Site.

VISUAL AND PHYSICAL
OBSERVATIONS AND INFORMATION:
STRUCTURAL AND BUSINESS OPERATIONAL

Mr. Benjamin S. Pariser was identified as the Key Site Manager. The *Key Site Manager* is the person identified by the Client or the Owner of the Property as a person having the most reliable knowledge as to the previous uses and current condition of the subject Property and is in a position to provide reasonably accurate information for the Environmental Questionnaire. The Aerotech Site Assessor performed the on-site Reconnaissance on December 4, 2015

Site Reconnaissance: Personal Interviews / Site Document Review:

The Aerotech Assessor, Ms. Tiffany A. Chaussee, performed the Site Reconnaissance on December 4, 2015, unaccompanied by Mr. Benjamin S. Pariser. Mr. Pariser was interviewed prior to the Site Reconnaissance regarding the current Site operations, required environmental operating permits, his knowledge of current and historical environmental issues, past uses of the Property, and possible environmental concerns.

If an adjoining property represented an obvious Recognized Environmental Condition or a visual reconnaissance of the site indicated a potential environmental concern, the owner or operator of that site was also contacted regarding the type, nature, and potential impact of the environmental concern.

The information obtained and conclusions reached during the course of these interviews and document review has been incorporated in this Assessment; while the specific source of the information may not be identified in the text of the Assessment Report.

Key Site Manager Interviews & Questionnaire:

The Client identified the *Key Site Manager* for the performance of this Phase I Environmental Site Assessment. As defined by the *ASTM⁷ Phase I Environmental Site Assessment Standard Practice* (ASTM E 1527-13) the *Key Site Manager* is the person identified by the Client or the Owner of the Property as having the most reliable knowledge as to the previous uses and current condition of the subject Property, and is in a position to provide reasonably accurate information to the Environmental Assessor and for the Environmental Questionnaire. Additionally, the information obtained from the Key Site Manager is recognized by the ASTM as a *Standard Historical Source* which can be utilized to satisfy the *Fifty-Year Complete* or *Developmental Complete* Historical Source requirements. A Field Screen Questionnaire was not completed.

Washington Commercial Real Estate Disclosure:

On February 28, 2010, the State of Washington Legislature passed Substitute Senate Bill No.6749, concerning the transfer of commercial real estate – commonly known as the *Commercial Real Estate Disclosure Act*.

As required in the Act, a seller of commercial real estate must provide a buyer with a Disclosure Statement about the land – whether improved or unimproved – unless the buyer waives the right to receive it. The Disclosure for commercial real estate concerns title, water, sewer and on-site sewage, structure, systems, fixtures, and environmental.

The Disclosure Statement must be provided within five business days, or as otherwise agreed to, after mutual acceptance of a written purchase agreement between a buyer and a seller. Within three business days of receiving the Disclosure Statement, the buyer has the right to approve and accept the Statement or rescind the Agreement for purchase. If the seller fails to provide the Disclosure Statement, the buyer may rescind the transaction until the transfer has closed. If the Disclosure Statement is delivered late, the buyer's right to rescind expires three days after receipt of the Disclosure Statement.

A completed Commercial Real Estate Disclosure Statement was not provided prior to the completion of the Phase I Environmental Site Assessment.

Site Exterior Observations:

This Phase I Environmental Site Assessment is an environmentally-based risk assessment of a rectangular-shaped approximately 12.26-acre (533,898 square foot) Parcel of land located in Mercer Island, Washington, occupied by *Mercerdale Park*.

⁷ ASTM: formerly the American Society for Testing and Materials.

The majority of the land consists of a large open lawn that is bordered by a paved footpath that encircles the entire Site. Along the footpath are exercise stations. A playground is located along the southeastern side of the Site and a skatepark is located on the southwestern. On the west side of the park is an access point to trails that lead up the hillside into seven-acres of natural open space. The northeast corner of the park houses a paved picnic area with a covered pergola that faces the intersection of Southeast 32nd Street and 78th Avenue Southeast. On the northwestern side of the Property is an approximately 1,120 square foot, single story structure. This building houses two public restrooms located in the north side of the building and a separate storage room occupies the southern portion of the building. Outdoor sinks are located along the west exterior wall of the building and an attached canopy is located along the southeastern side of the building and covers a paved area.

As observed and notated by the Aerotech Environmental Assessor during the on Site Reconnaissance activities, there were no readily observed visual indicators of active underground storage tanks, stained soils, stressed vegetation, oily sheens, or discolorations on standing water surfaces. There was no evidence of foul odors. Additionally, the Site Reconnaissance did not reveal the presence of discarded drums, barrels, or containers, construction debris, damaged or discarded containers of chemicals, paints, or pesticides. There are no waste storage or treatment lagoons, pits, ponds, or surface impoundments on the Site, or the adjoining properties. Particular attention was paid to indicators of petroleum based sheens or releases on the standing water; however, none were observed.

Site Interior Observations:

The Property has one building on the Site situated on the northwestern side of the Property. The building is an approximately 1,120 square foot, single story structure. This building houses two public restrooms located in the north side of the building and a separate storage room occupies the southern portion of the building.

Sensitive Receptors

Sensitive receptors are those receptors that would be especially or adversely affected by a release of hazardous substances on the Property. Sensitive receptors would include: exposed soil, surface water bodies and watercourses (including streams, washes, lakes, drainage ditches, or swales), impoundments (including lagoons, recharge basins, and detention basins), swamps, or wetlands, on-site groundwater monitoring or production wells, on-site hospitals or health care facilities, child daycare facilities, or parks and natural reserves. The northwest portion of the Property may be considered a Sensitive Receptor.

Wetland Area Indicators:

Potential wetland area indicators were considered during the on-site activities. These indicators include (i) wetland characteristic soil types; (ii) areas that appear permanently wet during most of the year; (iii) the presence of wetlands-related submergent or emergent plants; and (iv)

wetland indicative wildlife. The northwestern portion of the Property may be considered a Wetland Area Indicator.

Business Operations Description:

The subject Property was originally developed in 1975 with the construction of the single story, 1,120 square foot building on the northwestern side of the Property. The building was used as a small recycling center by a "Committee To Save The Earth" and Mercer Island High School. Around the 1970s, the Property was land was cleared as a field. In 1991, restrooms were constructed onto the building. The pedestrian pathways were added in the mid to late 1990s and in 2002, the playground and skate park were constructed. Today, the northwest building appears to only be utilized as a maintenance storage shed for the park with public restrooms. The Mercer Island Center for the Arts is anticipated to occupy the northwestern shop building in the near future.

This type of historical Property usage is not known as the type of business usage that is in the classification of industries with a higher probability of environmental risk. This "higher risk" classification is based upon the SIC codes³ reported by the business as applicable to their operation. Had the Site operations been in the general category of business operations identified by the EPA as a higher risk industry, particular attention would have been paid to those activities that presented an elevated potential for environmental impact.

MATERIAL, PRODUCT, AND WASTE-STREAM HANDLING AND PROCESSING

Materials/Products Handling and Storage:

No improper storage of materials or products was observed at the Site. Reporting under the Spill Prevention, Control and Countermeasures program to address accidental chemical spills (40 CFR §§109-114) is not required. Additionally, no activities were observed that could be interpreted to be indicative of improper classification of waste material⁴.

Medical Waste Discharges:

For the purposes of this Assessment, medical waste is defined in the *Medical Waste Tracking Act ("MWTA")* 42 U.S.C. §§ 6992-92k, "as waste materials produced in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. Specifically covered are cultures and stocks of infectious agents and associated biologicals, human pathological wastes, human blood and blood products, sharps (both used and unused), animal waste, and isolation waste." For the purposes of this Assessment, bloodborne pathogen waste material is defined in paragraph (b) of the *Occupational Exposure to Bloodborne Pathogens; Final Rule*, 29 CFR § 1910.1030 as "blood" and "other potentially infectious materials." No improper medical waste storage or discharge was observed.

Storage Tanks - Above and Below Ground:

During the course of on-site activities, particular attention was directed toward indicators of above or below ground storage tanks, including (i) fill pipes, overflow pipes, vent pipes; (ii) areas of abnormal or heavy staining; (iii) man ways, manholes, or access covers; (iv) abandoned concrete saddles or gravity racks; (v) abandoned pumping equipment or gasoline pumps; (vi) concrete pads not homogeneous with surrounding surfaces; (vii) concrete build-up areas potentially pump islands or non-homogeneous patching; or (viii) new fill areas or piles of fill. No above or underground tank indications were observed during the on-site investigation.

Secondary Underground Storage Tank Indicators:

In addition to the primary UST visual indicators usually observed on the exterior of the property, secondary UST indicators were considered. These secondary – and usually interior – indicators included (i) interior product feed lines; (ii) remote tank fuel level gauges connected via flex tubes; (iii) unexplained pipe access routes through exterior walls; (iv) areas of surficial staining; (v) furnace or boiler identification labels; or (vi) visual indicators of burner unit changeover. No secondary UST indicators were observed during the on-site investigation.

Waste Stream Processing and Disposal:

During the on-site observations, particular attention was directed toward activities or situations that could be considered contamination indicators by a regulated substance⁵. Potential indicators of contamination or violation can include: (1) stained or discolored sinks, drains, catch basins, drip pads, or sumps; (2) spills around loading docks, fueling areas, catch basins, or surface drains; (3) waste disposal areas, dumpsters, and other storage containers--evidence of spills or staining should be recorded; (4) pipes, gutters, spouts, or tubes protruding into potential bodies of water; or (5) waste stored on-site over 90 days that may require a RCRA Part B permit. No areas of potential concern were observed.

Hazardous Waste Processing and Disposal:

In addition to solid waste disposal⁶, the on-site observations considered the potential existence of hazardous waste, defined as a solid waste which, due to quantity, concentration, or other characteristics, may cause an increase in mortality or illness, or may pose a hazard to human health or the environment, under RCRA 42 USC §6903(5). The Assessor did not observe any improper waste processing or disposal activities at the Site.

Wastewater, Storm Water Discharges:

All point source discharges regulated by the Clean Water Act (“CWA”) are subject to the applicable water quality-based standards as established in the National Pollutant Discharge Elimination System (“NPDES”) codification 40 CFR Subpart D §131.36. Additionally, CWA

Sections 402 (p)(1) and (p)(2) have created categories of storm water discharges within Permit Issuance and Permit Compliance Deadlines for Phase I Storm water Discharges effective October 1, 1993, that may also be applicable to the subject Property (as detailed in the Federal Register, Volume 57, Number 244). Any significant change in the usage of the subject Property could require the submittal an NPDES initial storm water discharge permit under 40 CFR §122.26 or 40 CFR Chapter I - Preamble Appendix A. However, based upon information supplied during interviews and review of the relevant documents supplied to the Assessor, no requirements for NPDES permitting were discovered that are currently applicable to the subject Property.

**VISUAL AND PHYSICAL
OBSERVATIONS AND INFORMATION:
ADJACENT AND ADJOINING PROPERTIES**

For the Scope of this Assessment, properties are defined and categorized based upon their physical proximity to the subject Property. An *adjacent* property is any real property located within 0.25 mile of the subject Property's border. An *adjoining* property is any real property whose border is contiguous or partially contiguous with the subject Property, or that would be if the properties were not separated by a roadway, street, public thoroughfare, river, or stream.

Adjacent Properties Overview:

The Property is located in downtown Mercer Island. To the north is Southeast 32nd Street followed by a retail strip building and Rite Aid. To the south is Mercer Island Thrift Shop, parking lot, and residences to the southwest. To the east is 78th Avenue Southeast followed by Mercerdale Professional Center. To the west is heavily wooded land.

Adjoining Properties Description:

Limited visual observation of the adjoining properties was performed by the Assessor. There were no observed materials or storage practices or other visual indicators of potential environmental impact on the adjoining properties which could affect the subject Property.

Adjoining Property - north:	To the north is Southeast 32 nd Street followed by a retail strip building and Rite Aid;
Adjoining Property - south:	To the south is Mercer Island Thrift Shop, parking lot, and residences to the southwest;
Adjoining Property - east:	To the east is 78 th Avenue Southeast followed by Mercerdale Professional Center;
Adjoining Property - west:	To the west is heavily wooded land.

Adjoining and adjacent properties and landmarks include Southeast 78th Avenue adjoining to the east; Southeast 32nd Street adjoining to the north; Southeast 34th Street is one parcels south; Island Crest Way is two block west; Interstate 90 is three blocks northeast; and West Mercer Way is one-half mile southwest. Significant bodies of water include Lake Washington which surrounds the island but is in closest in proximity to the subject Property being one-half mile northeast and approximately one-half mile southwest.

POTENTIAL ON-SITE CONTAMINATION SOURCES

Current Business Operations:

The Site is occupied by *Mercerdale Park*. Based upon the on-site Reconnaissance, this type of occupancy is not reasonably anticipated to environmentally impact the subject Property.

Presumed Asbestos-Containing Building Materials:

During the on-site investigation presumed asbestos-containing materials were observed⁸, including but not limited to gypsum wall and ceiling surfacing materials, acoustic ceiling tiles, thermal insulation, floor tiles and associated mastic, and roofing materials. As defined in NESHAP §61.141, the observed materials may be classified as suspect regulated asbestos-containing materials. As defined in application OSHA regulations, the observed materials may also be classified as Presumed Asbestos-Containing Materials ("PACM"). Federal regulation requires that prior to demolition, renovation, or any other activity that may disturb these materials, either an inspection should be performed by an accredited building inspector or the materials should be handled as asbestos-containing. Moreover, the Site owner and operator should comply with the applicable regulations pursuant to the designation of PACM. Based upon the age of the building, the presence of asbestos is possible but unlikely.

Formaldehyde:

Formaldehyde is an extremely popular chemical used in a variety of both building materials and furnishing products. Currently national usage is estimated in the billions of pounds per year. EPA has now classified formaldehyde as a "probable human carcinogen" suspected of inducing cancer in humans. Studies have shown that after installation, indoor formaldehyde levels require years of decline and reach residual background levels. During the off-gassing process, the indoor

⁸The Site Reconnaissance observation were performed by an Accredited AHERA Asbestos Building Inspector trained and Certified to determine the presence, condition, and need for Response Actions for Suspected and Presumed Asbestos-Containing Building Materials. However, the Site Reconnaissance activities were not an asbestos building survey, Good Faith Survey, or assessment pursuant to the regulatory requirements of AHERA.

levels can be a significant source of irritation to hypersensitive individuals. The formaldehyde product investigated within the scope of this Assessment is urea-formaldehyde foam insulation ("UFFI"), used in the 1970's primarily as wall cavity insulation. The release potential of UFFI from wall cavities is dependent upon factors such as; water-damaged walls, unpainted wall surfaces, or cracked paint or wall covering. While interior air sampling and analysis is the only conclusive method to delineate formaldehyde concentrations, visual and physical inspection of the subject Property indicate a virtually non-existent potential for UFFI contamination.

Lead-Based Paint:

In 1978 the Federal Government banned the use of lead-based paint in residential applications, however use in general industry continued at a decreased rate to the present. Lead-based paint presents a hazard through inhalation or ingestion of paint chips or vapor fumes. The greatest cumulative health threat is to young children, and for this reason the Department of Housing and Urban Development ("HUD") has promulgated lead standards and survey requirements for buildings affected by HUD funding. This HUD regulation represents the only Federal requirement for lead-based paint management applicable to privately owned structures. Based upon the age of construction, the presence of lead-based paint is unlikely.

Lead-Based Paint Disclosure:

The *Lead-Based Paint Hazard Reduction Disclosure Act*⁷ is effective as of December 6, 1996. The Act applies, with limited exceptions, to all residential dwellings built before January 1, 1978⁸. The Act defines lead-based paint as "paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter or 0.5% by weight⁹." Under the Act, (i) sellers and lessors of most residential housing built before 1978 must disclose the presence of known lead-based paint and/or lead-based paint hazards in the housing; (ii) sellers and lessors must provide purchasers and lessees with any available records or reports pertaining to the presence of lead-based paint and/or lead-based paint hazards; (iii) sellers and lessors must provide purchasers and lessees with a federally approved lead hazard information pamphlet¹⁰; (iv) sellers must provide purchasers with a ten day opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards before the purchaser is obligated under the contract; (v) sales and leasing contracts must include certain disclosure and acknowledgment language; and (vi) agents must ensure compliance with these requirements. The determination of the applicability of the *Disclosure Act* to the subject Property is outside the Scope of this Assessment.

Lead-Based Paint OSHA §1926.62 Regulations:

During the Site observations, no suspected lead-based paint ("LBP") surfaces were identified, with paint in poor or delaminated condition. As defined in the OSHA *Lead Standard in Construction and General Industry*, and applicable State regulations, prior to any other activity that may disturb these suspect surfaces, either an inspection should be performed by an appropriately qualified Inspector, or the materials should be handled as lead-containing. Additionally, as required by 29

CFR §1926.62, (i) a limited response action should be initiated where necessary, and (ii) potentially impacted employees and occupants should be provided training. Based upon the age of the structures, the presence of lead-based paint is unlikely.

PCB-Containing Exterior Electrical Transformers:

The Assessor did not observe any leaking pole-mounted electrical transformers on the subject Property. All transformers are owned by the utility company, and not the responsibility of the Property owner.

Micro Biological Contaminants:

The presence of micro biological organisms and their byproducts is ubiquitous throughout the indoor and outdoor environments. Mold, also known as fungi, are a species of micro biological organisms that can detrimentally affect buildings via the presence of their spores, off gassing, and airborne suspension of the organisms themselves. In the presence of both excess moisture and a nutrient supply, molds can grow rapidly to produce larger colonies with potentially adverse consequences.

While it is generally accepted that in particular environments, molds can be allergenic, and occasionally infectious or toxic, there is both no clear scientific evidence to support the conclusions that the mere presence of micro organisms is in itself a recognized environmental condition, or that any threshold level exists of airborne organisms or byproducts above which a negative impact to human health will likely result¹¹. In particular, the U.S. EPA has stated “no EPA or other federal limits have been set for mold or mold spores...”¹²

In spite of the lack of scientific data – in response to the growing public concern over the potential adverse health effects of mold exposure – a variety of public agencies and regulatory authorities have published recommendations and guidelines for the assessment and remediation of mold. In recognition of both the increased public awareness and scientific limitations regarding mold, the observations conducted on Site attempted to identify clearly known indicators of potential micro biological impact.

These readily observable indicators typically include: (i) obvious visual indications of micro biological organism growth in readily accessible areas; (ii) indicators of extensive or continued water intrusion or severe staining; (iii) secondary indicators such as smells and odors; and (iv) information obtained from the Key Site Manager and other knowledgeable personnel. Since the majority of micro biological growth tends to occur in enclosed, covered, and otherwise inaccessible building and interstitial spaces, the likelihood that micro organisms would not be observed even though present, is possible. As such, even though no readily visible observations or indicators of micro biological impact were observed during the Site visit, a micro biologically-based problem could be present at the Site, even though not observed. However, the Site observations did not reveal the obvious potential presence of microbial impact.

Radon:

Radon is emitted by the natural breakdown and radioactive decay of uranium in rocks and soils, which then enters buildings through cracks in the foundation, sump pumps, areas around drainage pipes and other openings. In addition, radon may enter a structure as a water contaminant, natural gas contaminant, or off-gas by-product of building materials. Once inside an enclosed space, radon can accumulate. No visual estimation technique exists that accurately predicts the potential radon risk within a building.

The radon risk is a function of site location, soils composition, building construction, foundation integrity, and previous landfill practices. Actual physical testing of a building is the only way to accurately determine the radon levels. Radon health risks can be controlled by recognizing the potential for a problem, by testing and by reduction of radon levels in the building. In response to the unknown health risks of radon, the US EPA conducted a radon survey that attempted to generalize the radon health risks by county. The EPA Radon Study has identified King County, Washington, as a Radon Zone 3; the anticipated generalized level of Site radon is less than 2 pCi/L. Therefore, due to this specific usage, further investigation is not indicated at this time.

Vapor Intrusion:

The term "Vapor Intrusion" ("VI") means the presence of likely presence of any chemicals of concern in the indoor air environmental of existing or planned structures on a Property caused by the release of vapor from contaminated soils or groundwater on the Property, or within close proximity to the Property, at a concentration that presents or may present an unacceptable health risk to occupants. The term is not intended to include de minimis conditions that do not normally represent an unacceptable health risk to occupants and that generally would not be subject of an enforcement action if brought to the attention of appropriate governmental agencies. Such a condition is not a vapor intrusion condition. In order to determine the presence of Vapor Intrusion condition, this Assessment has taken into consideration the ASTM (formerly the American Society of Testing and Materials) Standard Practice No. E2600-08, *Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions*, approved by the ASTM Committee E50 on Environmental Assessment in March of 2008.

The ASTM Vapor Intrusion Standard Practice is a reasonably conservative screening process that relies upon information collected as part of the Phase I process, and gradually progresses towards a more complex and involved assessment involving the generation and use of Site specific data. If a Vapor Intrusion Condition ("VIC") is found to exist, the ASTM Practice describes the general mitigation alternatives. The VI Assessment is a four-tiered process: the first two tiers assess the potential for a VIC to exist, and if there is potential, the third tier is designed to provide confirmation that the VIC does in fact exist, or to reduce the level of uncertainty. The fourth tier provides general mitigation alternatives to address either a potential or existing VIC.

The Tier 1 Screening Process includes: (1) determination if there are any known or suspected contaminated sites in the Area of Concern; (2) for those known or suspected contaminated sites in the Area of Concern, determination of whether or not Chemicals of Concern may be present; and (3) if Chemicals of Concern in the Contaminated Plume may be present within the nearest edge of the

subject Property⁹. This Phase I Assessment has relied upon the general ASTM VI Standard Practice for a Tier 1 Screen, modified by known Site and area-wide subsurface conditions; migration characteristics of Contaminants of Concern¹⁰; revision of the Appropriate Minimum Search Distance of Surrounding Properties and Up-Gradient Only Properties; and distance between Contaminated Plume and the subject Property.

This Assessment has not identified the presence of a Contaminated Plume within the ASTM specific distance as delineated in E 2600-08 §§ 8.5.1 - 8.5.3. As such, no further investigation relative to potential Vapor Intrusion Conditions.

POTENTIAL ON-SITE HISTORICAL CONTAMINATION SOURCES

The Historical Usage Information research activities included a review of Standard Historical Sources, including but not limited to: (i) aerial photographs, (ii) fire insurance maps, (iii) property tax files, (iv) recorded land title records, (v) United States Geological Services topographical maps, (vi) local street directories, (vii) building department records, (viii) zoning or land use records, and (ix) other historical sources¹¹. The historical information contained in this Section may also include reviews of applicable Agency records, files, and database information.

Historical Site Operations Recognized Conditions:

As defined under the ASTM Phase I Standard Practice, a Historical Recognized Environmental Condition is an environmental condition which in the past would have been considered a Recognized Environmental Condition – but which may or may not be considered a Recognized Environmental Condition currently. The final determination will be influenced by the current impact of the Historical Recognized Environmental Condition (“HREC”) on the property.

⁹ If the linear distance from the nearest edge of a Contaminated Plume to the nearest structure on the subject Property – or to the subject Property boundary if there are no structures on the subject Property – is less than 100 feet, then the condition is considered to be a potential VIC. If the Chemicals of Concern are dissolved petroleum hydrocarbons, the distance must be less than 30 feet in order for a potential VIC to exist. (For additional information, refer to the ASTM E 2600-08, § 8.5.2.

¹⁰ As delineated in the ASTM VI Standard Practice, petroleum hydrocarbons are distinguished from other Chemicals of Concern because petroleum hydrocarbons often undergo significant bio-degradation in the vadose zone in the presence of oxygen – minimum five percent in the vadose zone soil gas.

¹¹ As defined in the *ASTM Standard Practice for Environmental Site Assessments E1527-13* (§ 8.3.4.9), "other historical sources" can include: miscellaneous maps, newspaper archives, internet sites, community organizations, local libraries, historical societies, current owners or occupants of neighboring properties, or records and files of the Property Owner or occupants.

For example, if a past release of any hazardous substances or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by the responsible regulatory agency, this condition shall be considered an HREC.

Additionally, trade practice occasionally identifies Controlled Recognized Environmental Conditions, which can be defined as a Recognized Environmental Condition which involves the past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory agency, subject to restrictions or conditions of use or implementation of activity and use limitations on the Property.

The prior Site activities and agency interactions, as defined above, do not represent such a Historical Recognized Environmental Condition or Controlled Recognized Environmental Condition. Had such been present, additional investigation in that regard would have been performed.

Regulatory Agency Records Information:

Where indicated, a review was conducted of the authoritative controlling agencies that previously interacted with the subject Property in a manner that indicated the presence of a potential environmental issue or Recognized Environmental Condition.

Activity and Use Limitations:

Activity and Use Limitations (“AUL”) include both legal and physical or engineering controls that may be required by an authoritative agency. Agencies, organizations, and jurisdictions may define or utilize these terms differently. An AUL is often recorded in land title records. AUL information may often be recorded in the restrictions of record on the title, rather than a within the chain of title.

The historical research and review has not encountered an Activity or Use Limitation that is applicable to the subject Property.

POTENTIAL OFF-SITE CONTAMINATION: SOURCES AND RECEPTORS

An adjacent property is defined as any real property located within 0.25 mile of the subject Property's border. *An adjoining property* is defined as any real property whose border is contiguous or partially contiguous with the subject Property, or that would be if the properties were not separated by a roadway, street, public thoroughfare, river, or stream.

Potential Adjacent and Adjoining Property Contamination Sources:

Adjoining to the north across Southeast 32nd Street is a strip mall that houses a drycleaning company known as *Lakeview & Four Seasons Drycleaners* at 3051 78th Avenue Northeast.

In May of 2007, the site Reported a Release of Halogenated Organics affecting the surrounding soil, surface water, and groundwater to the Washington State Department of Ecology.

This site is currently classified as Awaiting Cleanup. Based upon this site being down gradient flow direction from the subject Property, presence of the roadway, and location of the sewers, this site is not reasonably anticipated to environmentally impact the subject Property.

Potential Adjacent and Adjoining Property Contamination Receptors:

Environmentally sensitive receptors were investigated within a thousand feet of the borders of the subject Property. The sensitive receptors are materials or structures particularly susceptible to environmental damage or stress from migrating contamination. The major receptor groups investigated were water supplies, surface water bodies, residential structures, and other public receptors. During the course of on-site visual and physical inspection, no indicators of sensitive receptor contamination from the subject Property were observed.

ENVIRONMENTAL DATABASE INFORMATION

Environmental database information was prepared and supplied by third-party vendor Environmental Data Resources, Inc. A search of all readily available environmental records was conducted to assist in compliance with the requirements of the U.S. Environmental Protection Agency regulatory requirements for *All Appropriate Inquiry* (see, 40 CFR Part 312) and the ASTM¹² Standard Practice for Environmental Site Assessments (E 1527-13 for Phase I Site Assessments, and E 1528-14 for Transaction Screen Site Assessments).

Review of Federally Reported Environmental Data:

The following Federally maintained environmental records were reviewed for the purposes of this Environmental Site Assessment. All of the records have been updated within 90 days from the date the controlling governmental agency made the information available to the public in an electronic format.

National Priorities List (“NPL”) of Superfund Sites:

The NPL is the EPA's database of hazardous waste sites currently identified and targeted for priority cleanup action under the Superfund program. A search of the March 2015 National Priorities List revealed no Superfund sites within the subject Property's database search range.

Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”) of 1980:

Mandated as part of the 1980 Superfund Act, the CERCLIS (Comprehensive

¹² Formerly known as the American Society for Testing and Materials.

Environmental Response, Compensation and Liability Information System) list is an EPA compilation of the sites investigated or currently being investigated for a release or potential release of a regulated hazardous substance under the CERCLA regulations. A search of the October 2013 environmental database revealed no CERCLIS NFRAP sites within the appropriate database search range.

Resource Conservation and Recovery Act (“RCRA”) Facilities:

The RCRA program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRA facilities database is the composite of reporting facilities that generate, store, transport, treat, or dispose of controlled or hazardous waste. A search of the June 2015 RCRA facilities database found no RCRIS-TSD facilities, one Large Quantity Generator site, and no Small Quantity Generator sites within the Property's database search range.

The identified RCRA Generator site is not reasonably anticipated to impact the subject Property.

Review of State of Washington Reported Environmental Data:

This review of the existing compilation of the State of Washington environmental databases attempts to identify environment problem sites, activities, and occurrences from the records and reports of the applicable State Agencies. A detailed listing is included in the Appendix.

State of Washington - Confirmed and Suspected Contaminated (“CSCSL”) Sites:

The State of Washington Department of Ecology (“Ecology”) has identified sites that are suspected, or have been confirmed, as potential hazardous waste locations. Additionally, Ecology has identified sites where private Potentially Responsible Parties have undertaken remedial response actions. These sites may or may not be also identified or listed as a Federal CERCLIS sites. The Confirmed and Suspected Contaminated Sites listing (“CSCSL”) is therefore a combination of sites that have ever required a response action, sites with completed response actions, and sites pending cleanup. Due to the wide range of included sites, the CSCSL listing should not be interpreted as a “State Superfund” sites listing. A search of the Department of Ecology CSCSL July 2015 database found no CSCSL sites adjoining the subject Property.

State of Washington - Registered Underground Storage Tank (“UST”) Sites:

Underground Storage Tanks are regulated under Subtitle I of RCRA and must be registered with the appropriate State agency. The State of Washington requires

registration through the Department of Ecology, Solid Hazardous Waste Program. A search of the August 2015 State UST database found no UST sites within one-eighth of a mile and two sites within one-quarter mile of the subject Property.

The UST site in closest proximity to the subject Property was identified as *City of Mercer Island*, located one half block northeast. This site has three Operational underground storage tanks that are used for the City of Mercer Island Fire Station. In March of 1989, the site Reported a Release to the surrounding soil. Groundwater is suspected to be affected. The site is currently classified as Awaiting Cleanup. Based upon the down gradient groundwater flow direction, presence of significant subsurface obstructions, and distance, this site is not reasonably anticipated to environmentally impact the subject Property.

State of Washington - Leaking Underground Storage Tank ("LUST") Incident Location Sites:

Underground Storage Tank incident releases are regulated under RCRA and must be reported within 48 hours to the Washington Department of Ecology, Toxics Cleanup Program. The Section maintains a database of all reported LUST incident sites. A search of the August 2015 State LUST database identified no LUST sites within one-eighth of a mile, and one site within one-quarter of a mile from the subject Property.

The LUST site in closest proximity to the subject Property was identified as *City of Mercer Island*, located one half block northeast. This site has three Operational underground storage tanks that are used for the City of Mercer Island Fire Station. In March of 1989, the site Reported a Release to the surrounding soil. Groundwater is suspected to be affected. The site is currently classified as Awaiting Cleanup. Based upon the down gradient groundwater flow direction, presence of significant subsurface obstructions, and distance, this site is not reasonably anticipated to environmentally impact the subject Property.

State of Washington - Voluntary Cleanup Program ("VCP") Sites:

State of Washington regulation authorizes property owners or operators to initiate self-directed cleanup programs under the directives of the Voluntary Cleanup Program ("VCP") guidelines, with limited Washington Department of Ecology oversight. Upon completion of a VCP cleanup under the supervision of a Washington certified Site Cleanup Professional, the owner or operator submits a Closure Report to the Department of Ecology for cursory review and approval. The Washington VCP Sites lists identifies those sites that have entered by VCP Program, and those sites that previously participated in the VCP Program predecessor, the Independent Remedial Action Program. A search of the July 2015 State VCP database identified one VCP site within one-quarter mile of the Property.

The VCP site in closest proximity to the subject Property was identified as *Shell Oil Products*, located two blocks northeast. In September of 1993, the site Reported a Leaking Underground Storage Tank Release to the State. The site entered the VCP and was granted a No Further Action determination in November of 2008. Based upon the down gradient groundwater flow direction, presence of significant subsurface obstructions, distance, and current regulatory status, this site is not reasonably anticipated to environmentally impact the subject Property.

State of Washington Solid Waste Landfill Facilities:

The State Solid Waste Landfill Facilities ("LF") listing is the sites identified by the State of Washington Department of Ecology, Solid Waste Services Program as either currently operating or previously identified as a solid waste landfill. This classification can be a result of either RCRA Part B permitting or prior identification by the Department. A search of the March 2015 database revealed no SWLF sites within one-half mile of the subject Property.

Approximate Database Search Range:

The above referenced Federal and State databases were reviewed for an appropriate search distance from the subject Property borders approximating the following radius:

Federal Database/Search Range:

- National Priorities List (NPL) of Superfund Sites/1.0 mile
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Sites/0.5 mile
- Resource Conservation and Recovery Act (RCRA): TSDS Facilities/0.5 mile, Generators/0.25 mile
- Emergency Response Notification System (ERNS) Federal Reported Releases/0.05 mile

State of Washington Database/Search Range:

- State of Washington Registered Underground Storage Tanks/0.25 mile
- State of Washington Leaking Underground Storage Tanks/0.5 mile
- State of Washington Hazardous Waste Sites/1.0 mile
- State of Washington Landfill and Solid Waste Sites/0.5 mile

STATEMENT OF THE ENVIRONMENTAL PROFESSIONAL

Statement of Quality Assurance

I have performed this Assessment in accordance with generally accepted environmental practices and procedures, as of the date of this Report. I have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental technologists practicing in this area. The conclusions contained within this Assessment are based upon site conditions I observed or were reasonably ascertainable and present at the time of my inspection.

The objective of this Environmental Site Assessment was to ascertain the potential presence or absence of environmental releases or threatened releases that could impact the subject Property, as delineated by the Scope of Work. The Scope of this Assessment does not purport to encompass every report, record, or other form of documentation relevant to the Property being evaluated. Additionally, this Assessment does not include or address reasonably ascertainable Environmental Liens currently recorded against the Property.

The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted engineering practices in order to accomplish the stated objective.

The conclusions and recommendations stated in this Report are based upon personal observations made by myself and other employees of Aerotech, and also upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

Signature of Senior Environmental Assessor - Tiffany A. Chaussee:



Signature
Senior Environmental Assessor

Statement of Regulatory Compliance

I have performed this Assessment in compliance with requirements set forth in the *Standards and Practices for All Appropriate Inquiries; Final Rule* ("AAI"); U.S. EPA, 40 CFR Part 312, 70 FR 66070, November 1, 2005.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of this part. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature of Environmental Professional - Alan T. Blotch:



Signature
Registered Environmental Assessor
(State of California)

Environmental Assessment Report Limitations:

The enclosed Phase I Environmental Site Assessment has been performed for the exclusive use of the Client(s) for the transaction at issue concerning:

MERCER ISLAND CENTER FOR THE ARTS
Southwest Corner of 78th Avenue Southeast and Southeast 32nd Street
Mercer Island, Washington 98040

This Assessment has been performed in accordance with generally accepted environmental practices and procedures, as of the date of the Report. All services have been performed employing that degree of care and skill ordinarily exercised under similar circumstances by reputable environmental technologists practicing in this, or similar localities. No other warranty or guarantee, expressed or implied, is made or offered.

The conclusions and recommendations stated in this Report are based upon observations made by employees of Aerotech Environmental Consulting, Inc. and also upon information provided by others. We have no reason to suspect or believe that the information provided is inaccurate. However, we cannot be held responsible for the accuracy of the information provided to us by others. The Scope of this Assessment does not purport to encompass every report, record, or other form of documentation relevant to the Property being evaluated.

This Assessment does not include or address reasonably ascertainable Environmental Liens currently recorded against the subject Property.

The observations contained within this Assessment are based upon site conditions readily visible and present at the time of our Site inspection. These site observations are unable to specifically address conditions of subsurface soil, groundwater, or underground storage tanks, unless specifically mentioned. This Phase I Environmental Site Assessment does not attempt to address the past or forecast the future Site conditions.

REFERENCES AND CITATIONS

1. For the purposes of this Assessment, information is considered reasonably ascertainable if it is (1) publicly available, (2) obtainable from its source within reasonable time and cost constraints, and (3) practically reviewable. The length of time required to obtain information from the City Building and Zoning Department is considered to be reasonable.
2. It is a violation of copyright law to photocopy Sanborn Maps regardless of their location or source. This includes maps located at local libraries, universities, historical societies, or private collections. Sanborn Maps contained on microfiche collections are included in the prohibition against photocopying.
3. SIC code information is contained in the *Standard Industrial Classification Manual 1987*, publication 87-100012 of the national Technical Information Service, Springfield Va. The Manual is available through the U.S. Government Printing Office.
4. *Solid Waste*: defined as garbage, refuse, sludge, and other discarded material including solid, semi-solid, and contained gaseous waste per RCRA 42 USC §6903(27). For visual assessment purposes, any material that is discharged is a solid waste. A majority of the regulatory exclusions do not apply to discharges made within a structure.
5. *Regulated Substance*: defined as a substance that is (i) regulated under RCRA via direct definition; or (ii) regulated under CERCLA or the Clean Air Act, that may become subject to RCRA regulations as a result of the CERCLA classification.
6. *Disposal*: defined as the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste of hazardous waste or constituent thereof may enter the environment or be emitted into the air or discharged into the waters, including ground waters, per RCRA 42 USC §6903(3).
7. Refer to, *Federal Register* Volume 61 Number 9064, March 6 1996, *Lead; Requirements for Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards in Housing*.
8. EPA and HUD consider "housing constructed before 1978" to mean housing for which a construction permit was obtained before January 1, 1978. If no permit was obtained, then housing in which construction was started before January 1, 1978.
9. See, 24 CFR §35.86 and §40 CFR 745.103.
10. This requirement may be satisfied by supplying a pamphlet issued by the U.S. Environmental Protection Agency and the U.S. Consumer Product Safety Commission entitled *Protect Your Family From Lead In Your Home*. This pamphlet is available from the National Lead Information Clearinghouse at (800)424-LEAD.
11. The American Conference of Governmental Industrial Hygienists has concluded that there are no mandatory numerical limits against which investigators can compare measurements of air or source concentrations for the majority of substances of biological origin that are associated with building-related exposures.
12. See, U.S. EPA Publication: *A Brief Guide to Mold, Moisture, and Your Home*, page 13, Publication No. EPA 402-K-02-003, 2002.

TERMS AND DEFINITIONS

Description of Terms Specific to this Report

adjacent property..... any real property located within 0.25 mile of the subject Property's border.

adjoining property..... any real property whose border is contiguous or partially contiguous with the subject Property, or it would be if the Properties were not separated by a roadway, street, public thoroughfare, river, or stream.

ASTM..... formerly the American Society for Testing and Materials.

ASTM Phase I Environmental Site Assessment..... the process described in the ASTM practice E 1527, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The process by which a person or entity seeks to determine if a particular parcel of property including improvements is subject to recognized environmental conditions. The process does not purport to address all of the safety, environmental concerns, and regulatory compliance applicability associated with its use.

dwelling..... any structure all or part of which is designed or used for human habitation, ie.; a place of residence or abode.

field screen questionnaire..... the environmental questionnaire normally completed by the key site manager, that asks the respondent to answer all questions to the best of their actual knowledge and good faith. The answers provide further details on the appropriateness of the investigation and areas of potential environmental concern.

Key Site Manager..... a person identified by the owner of the Property as having the best reliable knowledge of the previous uses, current conditions, and physical characteristics of the Property, and in a position to provide reasonably accurate information for the Field Screen Questionnaire.

obvious..... that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer while visually or physically observing the property.

recognized environmental condition(s)..... the presence or likely presence of hazardous substances or petroleum products on the Property under conditions that indicate as existing release, a past release, or a material threat of a release of those same substances into structures on the Property or into the ground, groundwater, or surface water of the Property. The term does not include *de minimis* conditions or those that would not be subject to an enforcement action if brought to the attention of an appropriate governmental agency.

residential building..... any room, group of rooms, or other interior areas of a structure designed or used for human habitation; common areas accessible by inhabitants; and the surrounding property or structures.

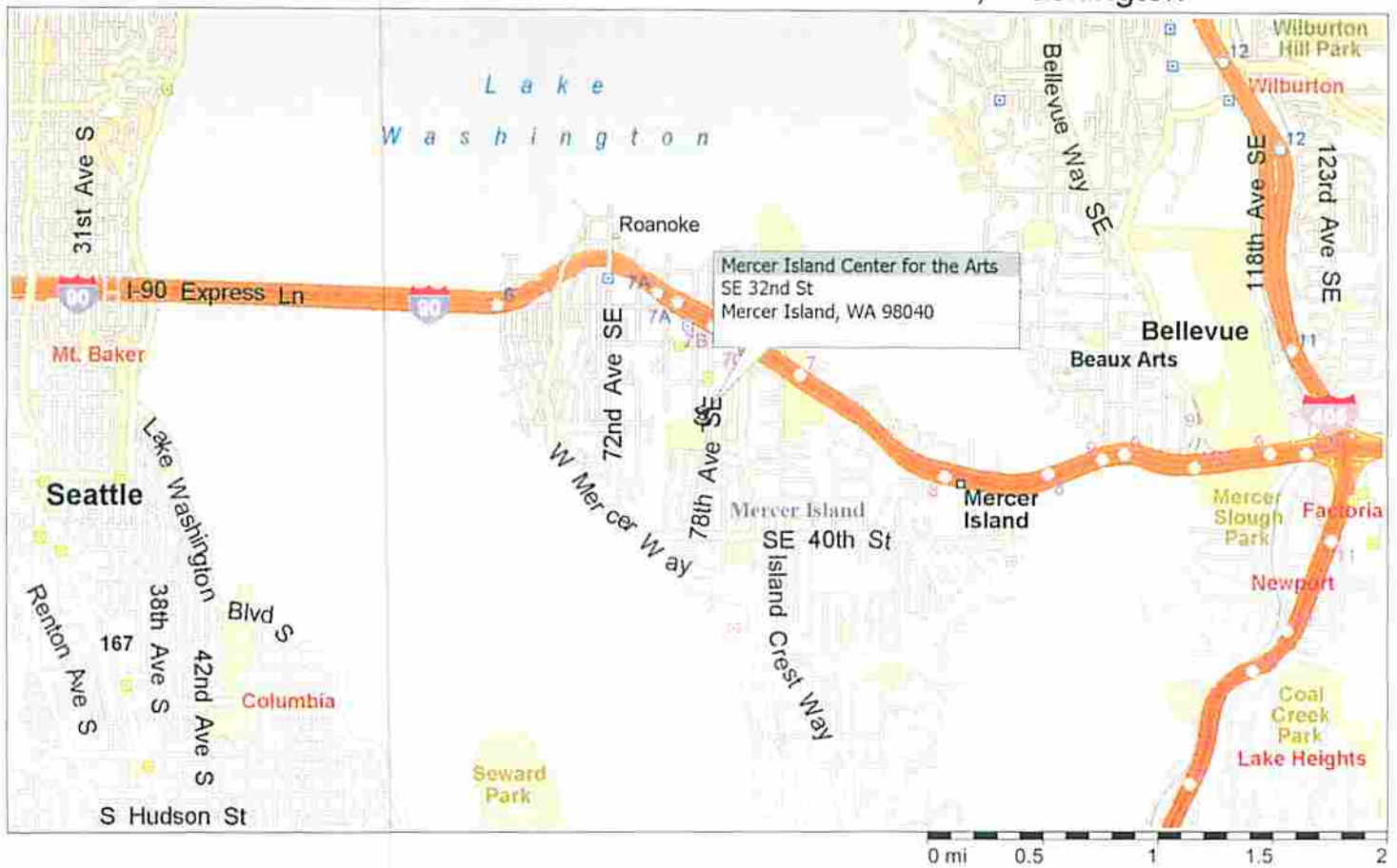
Transaction Screen Site Assessment..... the process described in the ASTM E 1528-00 standard, *Standard Practice for Environmental Site Assessments: Transaction Screen Process*.

APPENDIX

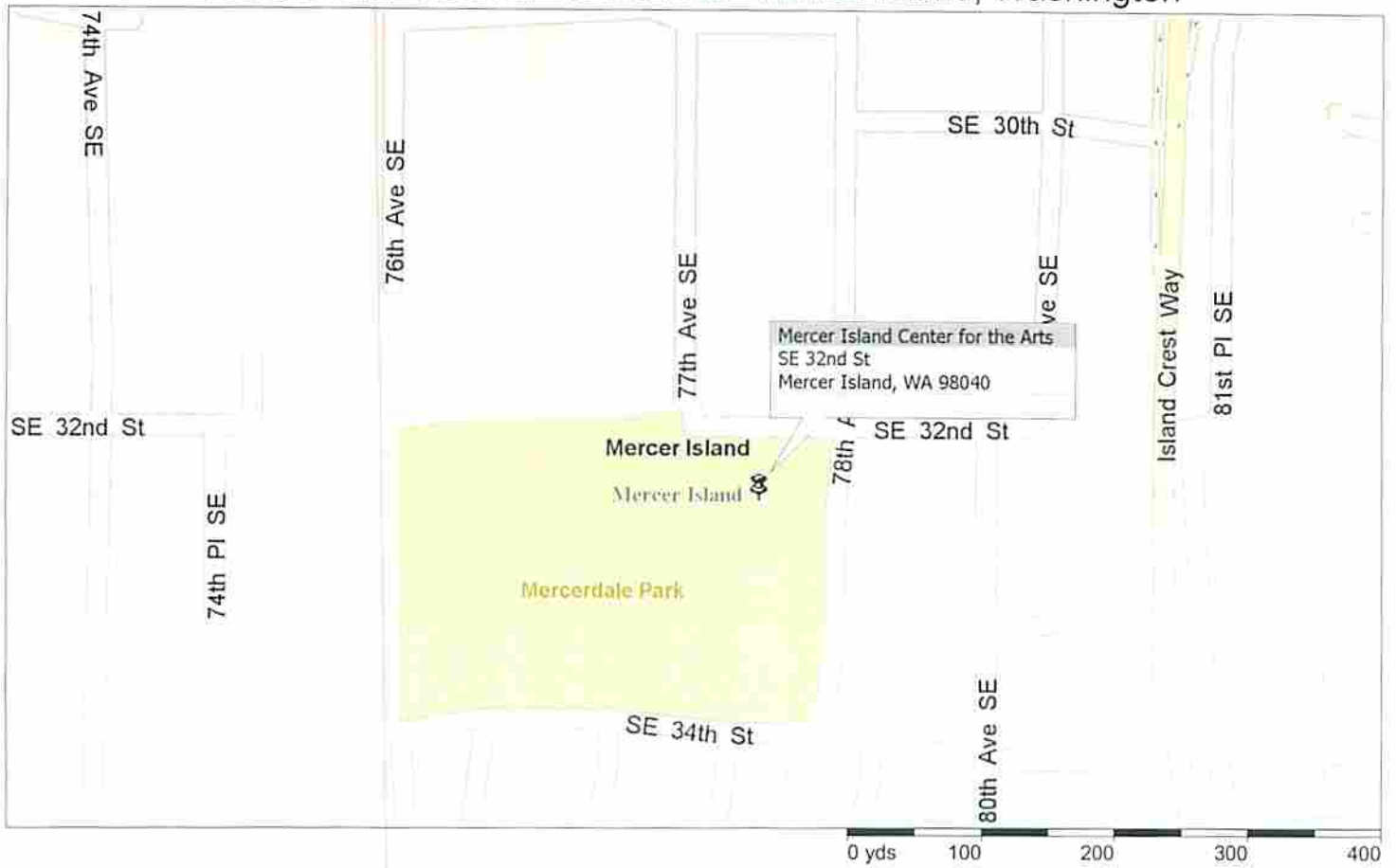
- Site Location and Photographs
- Project Contract Documents
- Supplemental Documents
- Environmental Questionnaire
- Environmental Database

■ Site Location and Photographs

Mercer Island Center for the Arts - Mercer Island, Washington



Mercer Island Center for the Arts - Mercer Island, Washington



Pushpins

My Pushpins



Imagery ©2015 DigitalGlobe, U.S. Geological Survey, Map data ©2015 Google 100 ft

Mercer Island Center for the Arts

Page 1 of 2

The center vicinity of the Park.



The playground.

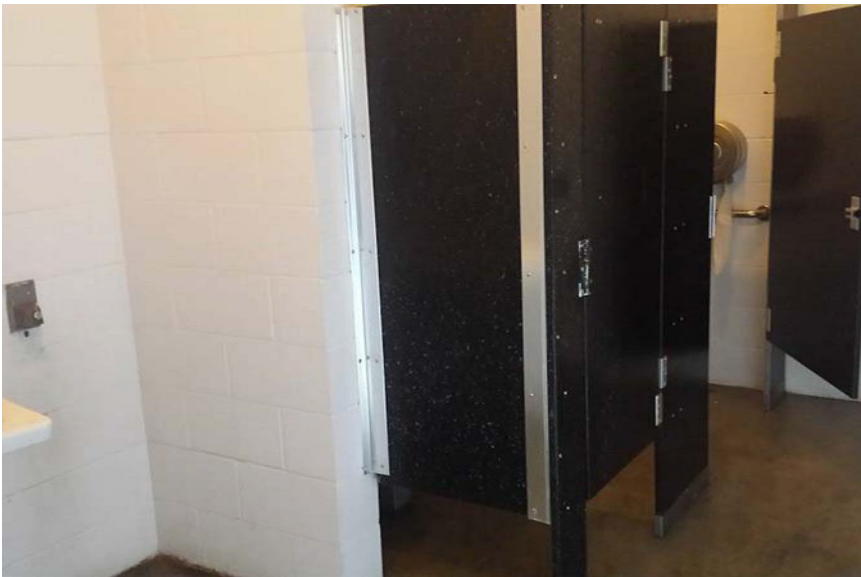
The skatepark.



Mercer Island Center for
the Arts

Page 2 of 2

The northwest building.



The restrooms located in
the north portion of the
building.

A photograph of the
northwest building after it
was constructed in 1975.



■ **Project Contract Documents**

ENVIRONMENTAL CONTRACTOR'S CERTIFICATION

MERCER ISLAND CENTER FOR THE ARTS
Southwest Corner of 78th Avenue Southeast and Southeast 32nd Street
Mercer Island, Washington 98040

1. Contractor's Name: Aerotech Environmental Consulting, Inc.
2. Contractor's Address: 13925 Interurban Avenue South, Suite No. 210, Seattle, Washington 98168
3. Name and title of person completing this certification: Alan T. Blotch / President
4. Answer the following questions about each employee that contractor will have perform the assessment or prepare the report showing the results of the inspection:
 - a. Name and Title of Employee: Alan T. Blotch – Environmental Assessor
 - b. Length of experience doing environmental assessments: 31 years
 - c. Education degrees received: Masters of Business Administration
Juris Doctor – Environmental Law
 - d. Relevant training received: ASTM E50 Environmental Assessment Committee Meetings
5. Identify any certifications and approvals issued to contractor pursuant to an official Federal, State or local program or policy to conduct environmental assessments: Registered Environmental Assessor
Issued by State of California
6. Describe the generally recognized standards which the contractor will use to perform the assessment.
Standard Practice for Environmental Site Assessments: Phase I Assessment (ASTM E 1527-13)
Standard Practice for Environmental Site Assessments: Transaction Screen Process (ASTM E 1528-14)
7. Disclose the nature of any previous environmental inspections contractor has ever performed for the seller of the property:
City of Mercer Island
or buyer of the property:
8. Disclose the nature of any affiliation or association contractor now has, or ever had, with the above referenced seller of the property, of the above referenced buyer of the property: None.
9. Describe the liability insurance carried by contractor to cover claims in the event that it fails to discover adverse environmental conditions during an environmental inspection.
Professional Errors & Omissions Coverage \$1,000,000 / claim and \$1,000,000 aggregate liability

THE UNDERSIGNED HEREBY CERTIFIES, UNDER PENALTY OF THE CRIMINAL AND/OR CIVIL PENALTIES IN 18 U.S.C. § 1001 FOR FALSE STATEMENTS TO THE UNITED STATES GOVERNMENT, THAT THE ABOVE INFORMATION IS TRUE AND CORRECT.

Alan T. Blotch

Signature

12-18-15

Date

Statement of Assessor Qualifications:

CURRICULUM VITAE

Alan T. Blotch

Mr. Blotch was previously the Corporate General Counsel for a national industrial safety and environmental consulting firm, with offices throughout the United States. Since 2000, he has been the President of an environmental consulting firm while continuing his law practice, specializing in insurance defense litigation orientated towards construction, products liability, environmental, health, and safety matters.

Mr. Blotch has over 31 years experience in the industrial safety and environmental consulting industry, including both field assessment and management positions. For nine years he held a variety of positions with a national consulting firm, including division manager, marketing vice president, and executive vice president.

Additionally, Mr. Blotch has been involved since 1991 in the development of the ASTM E50 Committee Phase I Environmental Site Assessment Standard Practice, ASTM Standard for the Survey of Asbestos Building Materials, EPA/HUD contract NIBS Lead-Based Paint Operations Manual, and NIBS Asbestos Operations and Maintenance Guidance manual.

Education:

University of Illinois at Chicago Circle – undergraduate pre-law
Illinois Benedictine College – Masters of Business Administration
Chicago-Kent College of Law – Juris Doctor of Law
with Certificate in Environmental and Energy Law

Certifications / Licenses:

Registered Environmental Assessor – State of California
Asbestos Supervisor, Project Manager – AHERA Accredited
Asbestos Building Inspector, Management Planner, Project Designer - AHERA Accredited
Attorney at Law – State of Washington and State of Oregon

Organization Memberships:

American Bar Association
– Section of Environmental, Energy, and Natural Resources, member.
American Industrial Hygiene Association
American Society of Safety Engineers
– Board of Directors, Puget Sound Chapter, member;
– Chairman, Regulatory Affairs Committee
American Society for Testing and Materials (ASTM)
– Environmental Standards Committee E50, Environmental Site Assessments, member;
– Asbestos Inspection Protocol for the Survey of Asbestos Building Materials Working Group, member;
– Environmental Standards Committee E06, Performance of Buildings, member.
Association of Trial Lawyers of America
Defense Research Institute, Inc.
National Institute of Building Sciences
– Operations Committee of Consultative Council; member, Project Committee on Lead-

- Based Paint O&M Work Practices Manual and Procedures Development, member;
 - Project Committee on Asbestos Management, and Operations and Maintenance Manual Development, member;
 - Project Committee on Asbestos Specifications and Response Actions Standards Revision, member.
- Occupational Safety and Health Administration
- Advisory Committee on Construction Safety and Health, participant.
- Puget Sound Area Construction Safety Summit
- Washington Defense Trial Lawyers Association
- Association magazine editorial board, member.
- Washington State Trial Lawyers Association

Professional and Standards Development:

ASTM Phase I Environmental Site Assessment Practice. Beginning in 1991, Mr. Blotch was involved in the drafting and review of the American Society for Testing and Materials (“ASTM”) Environmental Standards Committee E50, Environmental Site Assessments, charged with the responsibility of developing the ASTM Phase I Environmental Site Assessment Standard Practice. This involvement in the committee’s work continues to the present.

ASTM Survey of Asbestos in Buildings Practice. In 1993, the ASTM formed a working group to develop an Asbestos Inspection Protocol for the Survey of Asbestos Building Materials Working Group. Mr. Blotch personally performed the drafting of significant portions of the initial Survey document. His involvement continues to the present.

National Institute of Building Sciences (“NIBS”) Lead-Based Paint Work Practices Manual. In 1992, Mr. Blotch was invited to join the newly formed NIBS Operations Committee of Consultative Council, Project Committee on Lead-Based Paint O&M Work Practices Manual and Procedures Development pursuant to a NIBS contract with the EPA and HUD. For two years Mr. Blotch attended the committee meetings and discussion groups and participated in the development and review of the Manual, which was subsequently published by the EPA.

NIBS Asbestos Operations and Maintenance Manual. Beginning in 1994, Mr. Blotch was invited to join the newly formed Project Committee on Asbestos Management, and Operations and Maintenance, charged with the responsibility of developing an Asbestos O&M Manual. This work included both the attendance of working group committee meetings and document review. This project was completed within two years.

NIBS Asbestos Specifications Revision. In order to ensure compliance with the revised OSHA asbestos regulations, in 1997, NIBS formed a Project Committee on Asbestos Specifications and Response Actions Standards Revision, of which Mr. Blotch was a member. His involvement included review and comment on the draft Specification revisions to the NIBS Asbestos MASTERSPEC® Removal and Response document.

State of Washington Industrial Hygiene & Safety Title Protection Act. Instrumental in drafting the 2001 Session Washington State Industrial Hygiene and Professional Safety Title Protection Act, Chapter 18 of the Washington Revised Code. Testified before the Legislature’s combined House and Senate Committee on Commerce and Industry in support of the Title Protection Act.

CURRICULUM VITAE
Tiffany A. Chaussee
Senior Environmental Consultant

Ms. Chaussee has over 8 years of experience in the environmental consulting industry, including field environmental assessments and audits, site contamination characterization, and environmental research. Specifically, Ms. Chaussee has performed over 1,000 environmental site assessments for a wide variety of industrial sectors, including multi location retail, industrial facilities, manufacturing sites, gasoline storage, and retail operations.

Education:

Spectrum Community High School, Kingston, Washington (2005)
Pierce College, Puyallup, Washington (2010 - 2011)

Professional History:

Aerotech Environmental Consulting Inc., Environmental Consultant (2007 - Present)

Certifications / Licenses:

Asbestos Building Inspector - EPA / AHERA Accredited (2008 - Present)
Notary Public Appointment (2015 - Present)

Training:

Due Diligence at Dawn - Environmental Data Resources Inc., Seattle, Washington (2010)
Due Diligence at Dusk - Environmental Data Resources Inc., Bellevue, Washington (2014)

Management and Project Experience:

Ms. Chaussee has directly performed extensive environmental research, Transaction Screen Environmental Site Assessment, and Phase I Environmental Site Assessments compliant to the U.S. EPA All Appropriate Inquiry standard as mandated by 40 CFR Part 312.

Ms. Chaussee has completed the initial and annual refresher courses required to maintain status as an AHERA Accredited Asbestos Building Inspector.

Additionally, Ms. Chaussee has performed extensive environmental research including Federal and State archives research, review of tax documents, and historical mapping data. Her areas of responsibility included: environmental investigations, report preparation, client and project management, and vendor interface.

Ms. Chaussee has assisted in the performance of Phase II Subsurface Investigations and Monitoring Well Sampling for numerous representative properties including: former gasoline service stations, former dry cleaners, junk and used automotive parts yards, wood treatment operations, strip shopping centers, and dredged fill sites. Additionally, Ms. Chaussee has supervised the performance of Ground Penetrating Radar Investigations for numerous properties including: former gasoline service stations, former automotive sale lots, strip shopping centers, and former oil-heated building properties.

■ **Supplemental Documents**

Cleanup Site Details

KING COUNTY **Lakeview & Four Seasons Dry Cleaners** FS ID: 4114479 Cleanup Site ID: 4516

Alternate Name(s): GULL INDUSTRIES INC., Lakeview & Four Seasons Dry Cleaners, MERCER ISLAND SHOPPING CENTER

Address: 3051 78TH AVE NE
 MERCER ISLAND 98040

WRIA: 6 Lat/Long: 47.583 -122.234
 Township: 24N Range: 4E Section: 12
 Legislative District: 41
 Congressional District: 9

[View Vicinity Map](#)

STATUS: Awaiting Cleanup

Responsible Unit: Northwest Site Manager: Musa, Donna
 Rank: MTCA

Is Brownfield? Has Environmental Covenant?
 NFA Date: NFA Reason: Is PSI Site?

[View Site Documents](#)

ASSOCIATED CLEANUP UNIT(S)

culd	Cleanup Unit Name	Unit Type	Process Type	Unit Status	Size (Acres)	ERTS ID
2445	Lakeview & Four Seasons Dry Cleaners	Upland	No Process	Awaiting Cleanup		561930

SITE ACTIVITIES

Applies to:	Related ID (Unit-LUST-VCP)	Activity Display Name	Status	Start Date	End Date	Legal Mechanism	Performed By	Project Manager
CleanupSite		Site Discovery/Release Report Received		5/4/2007				Musa, Donna
CleanupSite		Initial Investigation / Federal Preliminary Assessment	Completed	5/4/2007	8/2/2007	Ecology		Colburn, Gail
CleanupSite		Early Notice Letter(s)		11/2/2007				Colburn, Gail

AFFECTED MEDIA & CONTAMINANTS

Contaminant:	Media:					
	Ground Water	Surface Water	Soil	Sediment	Air	Bedrock
Halogenated Organics	C	C	C	C		

Key:
 B - Below Cleanup Level
 C - Confirmed Above Cleanup Level
 S - Suspected
 R - Remediated
 RA - Remediated-Above
 RB - Remediated-Below

■ **Environmental Questionnaire**

■ **Environmental Database**

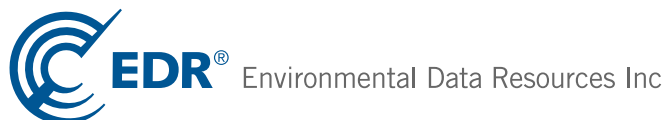
Mercer Island Center For The Arts

Southwest Corner of 78th Ave SE and SE 32nd St
Mercer Island, WA 98040

Inquiry Number: 4476599.1s

November 24, 2015

The EDR Radius Map™ Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

SOUTHWEST CORNER OF 78TH AVE SE AND SE 32ND ST
MERCER ISLAND, WA 98040

COORDINATES

Latitude (North): 47.5812000 - 47° 34' 52.32"
Longitude (West): 122.2343000 - 122° 14' 3.48"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 557580.2
UTM Y (Meters): 5269819.5
Elevation: 89 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6005537 MERCER ISLAND, WA
Version Date: 2014

West Map: 6005543 SEATTLE SOUTH, WA
Version Date: 2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20110826
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 SOUTHWEST CORNER OF 78TH AVE SE AND SE 32ND ST
 MERCER ISLAND, WA 98040

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	FARMERS NEW WORLD LI	3003 77TH AVE SE	RCRA-CESQG, WA ALLSITES, FINDS, WA MANIFEST	Lower	588, 0.111, NNW
A2	LAKEVIEW & FOUR SEAS	3051 78TH AVE NE	RCRA NonGen / NLR	Lower	743, 0.141, North
A3	LAKEVIEW & FOUR SEAS	3051 78TH AVE NE	WA CSCSL, WA ALLSITES, WA Inactive Drycleaners, WA...	Lower	743, 0.141, North
A4	LAKEVIEW CLEANERS	3037 78TH AVE SE	RCRA NonGen / NLR, FINDS, WA Inactive Drycleaners	Lower	788, 0.149, North
A5	LAKEVIEW CLEANERS	3035 78TH AVE SE	WA ALLSITES	Lower	795, 0.151, North
A6	MERCER ISLAND CITY F	3030 SE 78TH	RCRA NonGen / NLR, FINDS	Lower	814, 0.154, NNE
A7	CITY OF MERCER ISLAN	3030 78TH AVE SE	WA CSCSL, WA LUST, WA UST, WA ALLSITES, WA...	Lower	814, 0.154, NNE
A8	RITE AID 5197	3023 78TH AVE SE	RCRA-LQG	Lower	833, 0.158, North
A9	RITE AID 5197	3023 78TH AVE SE	WA ALLSITES, FINDS, WA MANIFEST	Lower	833, 0.158, North
A10	SILERS CLEANERS	3018 78TH AVE SE	WA ALLSITES, RCRA NonGen / NLR, FINDS, WA Inactive...	Lower	853, 0.162, NNE
B11	CORRYS DRY CLEANING	3006 78TH SE	WA ALLSITES, RCRA NonGen / NLR, FINDS, WA Inactive...	Lower	891, 0.169, NNE
B12	E-RECYCLE, LLC	7835 SE 30TH STREET	WA SWRCY	Lower	943, 0.179, NNE
13	GL CONSTRUCTION	8040 SE 36TH ST	WA ALLSITES, RCRA NonGen / NLR, FINDS	Higher	1042, 0.197, SE
14	TRELLIS MERCER ISLAN	2960 76TH AVE SE	WA ALLSITES, WA NPDES	Higher	1062, 0.201, NW
C15	PACIFIC NORTHWEST BA	2918 78TH AVE SE	WA CSCSL, WA ALLSITES	Lower	1116, 0.211, North
C16	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C17	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C18	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C19	JACKSONS 623	2903 78TH AVE SE	WA UST	Lower	1147, 0.217, North
C20	SHELL OIL PRODUCTS U	2903 78TH AVE SE	WA VCP, WA ALLSITES, WA CSCSL NFA, WA SPILLS, WA...	Lower	1147, 0.217, North
C21	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C22	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C23	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C24	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C25	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C26	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C27	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
C28	SHELL OIL PRODUCTS U	2903 78TH AVE SE	RCRA NonGen / NLR, FINDS, WA MANIFEST	Lower	1147, 0.217, North
C29	TEXACO #63 232 0276/	2903 78TH AVE. SE	WA ICR	Lower	1147, 0.217, North
30	ISLAND CATS VETERINA	3024 76TH AVE SE	WA ALLSITES	Higher	1169, 0.221, NW
31	ALBERTSONS 450	2755 77TH AVE SE	WA ALLSITES, WA MANIFEST	Lower	1464, 0.277, NNW
D32	MERCER ISLAND SHELL	7833 SE 28TH ST	WA UST, WA ICR	Higher	1583, 0.300, North
D33	MERCER ISLAND SHELL	7833 SE 28TH ST	WA CSCSL, WA LUST, WA ALLSITES, FINDS, WA...	Higher	1583, 0.300, North
34	AT&T WIRELESS MERCER	7900 SE 28TH ST	WA ALLSITES, FINDS	Higher	1641, 0.311, NNE
E35	UNOCAL 5097	2831 ISLAND CREST WA	WA UST, WA ALLSITES	Higher	1718, 0.325, NNE
36	MERCER ISLAND SERVIC	2728 80TH AVE SE	WA UST, WA ALLSITES	Higher	1770, 0.335, NNE
E37	CHEVRON SERV STA 936	2800 ISLAND CREST WA	WA VCP, WA ALLSITES, WA CSCSL NFA	Higher	1809, 0.343, NNE
38	COVAL PROPERTY	3051 84TH AVE SE	WA ALLSITES, WA NPDES	Higher	1880, 0.356, ENE
F39	LIGHTRECYCLE WASHING	7707 SE 27TH ST. SUI	WA SWRCY	Lower	2017, 0.382, North

MAPPED SITES SUMMARY

Target Property Address:
SOUTHWEST CORNER OF 78TH AVE SE AND SE 32ND ST
MERCER ISLAND, WA 98040

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
F40	AGREE ASSOCIATES	7700 SE 27TH ST	WA VCP, WA ALLSITES, WA CSCSL NFA, WA Inactive...	Lower	2029, 0.384, North
G41	I & M ASSOCIATES	7810 SE 27TH AVE	WA HSL, WA CSCSL, WA LUST, WA UST, WA ICR, WA...	Higher	2030, 0.384, North
42	PICTURE PERFECT THE	7687 SE 27TH ST	WA ALLSITES, RCRA NonGen / NLR, FINDS	Lower	2030, 0.384, North
43	MERCER ISLAND CLEANE	7652 SE 27TH	WA CSCSL, WA VCP, WA ALLSITES, RCRA NonGen / NLR,...	Higher	2089, 0.396, NNW
H44	CLAMPITT'S CLEANERS	7633 SE 27TH ST.	WA ICR	Higher	2122, 0.402, NNW
H45	CLAMPITTS CLEANERS	7633 SE 27TH	WA CSCSL, WA VCP, WA ALLSITES, RCRA NonGen / NLR,...	Higher	2122, 0.402, NNW
G46	FOUR SEASONS DRY CLE	7800 SE 27TH ST	WA CSCSL, WA ALLSITES, WA Inactive Drycleaners, WA...	Higher	2127, 0.403, North
H47	SIMBAS ENTERPRISES L	7620 SE 27TH ST	WA HSL, WA CSCSL, WA LUST, WA UST, WA ALLSITES	Higher	2144, 0.406, NNW
48	MERCY VET	2707 76TH AVE SE	WA ALLSITES	Higher	2157, 0.409, NNW
H49	SUDDEN PRINTING & PR	2690 76TH AVE SE	WA CSCSL, WA ALLSITES	Higher	2178, 0.412, NNW
50	7700 CENTRAL	2630 77TH AVE SE	WA ALLSITES	Lower	2179, 0.413, North
I51	CHEVRON 92736	7725 SUNSET HWY	WA VCP, WA ALLSITES, WA CSCSL NFA, RCRA NonGen /...	Higher	2230, 0.422, North
I52	CHEVRON #9 2736	7725 SUNSET HWY	WA ICR	Higher	2230, 0.422, North
53	MERCER CLEANING VILL	2615 76TH AVE SE & 7	WA CSCSL, WA VCP, WA ALLSITES	Higher	2260, 0.428, NNW
54	SHELL STATION 121549	7655 SUNSET WAY	WA ICR, WA ALLSITES, WA CSCSL NFA, WA Financial...	Lower	2333, 0.442, North
55	ADAMS CO 070323	3835 84TH AVE SE	WA UST, WA ALLSITES	Higher	2576, 0.488, SE
56	LEGACY MERCER ISLAND	2601 76TH AVE SE	WA ALLSITES	Lower	2587, 0.490, NNW
57	TRUGREEN LP	2441 76TH AVE SE	WA ALLSITES, RCRA NonGen / NLR, FINDS	Higher	2635, 0.499, NNW
58	UNOCAL #4518	2411 76TH SE	WA HSL, WA CSCSL, WA LUST, WA ICR, WA ALLSITES, WA..	Lower	3036, 0.575, NNW
59	MERCER ISLAND SCHOOL	4160 86TH AVE SE	WA CSCSL, WA LUST, WA UST, WA ALLSITES, RCRA...	Higher	4309, 0.816, SE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

EXECUTIVE SUMMARY

State and tribal landfill and/or solid waste disposal site lists

WA SWF/LF..... Solid Waste Facility Database

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

WA AST..... Aboveground Storage Tank Locations

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

WA INST CONTROL..... Institutional Control Site List

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

WA BROWNFIELDS..... Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WA SWTIRE..... Solid Waste Tire Facilities

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... National Clandestine Laboratory Register

WA CDL..... Clandestine Drug Lab Contaminated Site List

WA HIST CDL..... List of Sites Contaminated by Clandestine Drug Labs

US CDL..... Clandestine Drug Labs

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

EXECUTIVE SUMMARY

WA SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
WA AIRS..... Washington Emissions Data System
WA COAL ASH..... Coal Ash Disposal Site Listing
WA UIC..... Underground Injection Wells Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historic Gas Stations
EDR Hist Cleaner..... EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

WA RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
WA RGA LF..... Recovered Government Archive Solid Waste Facilities List
WA RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RITE AID 5197	3023 78TH AVE SE	N 1/8 - 1/4 (0.158 mi.)	A8	39

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-CESQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>FARMERS NEW WORLD LI</i>	<i>3003 77TH AVE SE</i>	<i>NNW 0 - 1/8 (0.111 mi.)</i>	<i>1</i>	<i>8</i>

State- and tribal - equivalent NPL

WA HSL: The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

A review of the WA HSL list, as provided by EDR, and dated 02/19/2015 has revealed that there are 3

EXECUTIVE SUMMARY

WA HSL sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
I & M ASSOCIATES Facility Type: Hazardous Sites List FSID Number: 91358149 Facility Status: Cleanup Started	7810 SE 27TH AVE	N 1/4 - 1/2 (0.384 mi.)	G41	176
SIMBAS ENTERPRISES L Facility Type: Hazardous Sites List FSID Number: 54465172 Facility Status: Cleanup Started	7620 SE 27TH ST	NNW 1/4 - 1/2 (0.406 mi.)	H47	213

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
UNOCAL #4518 Facility Type: Hazardous Sites List FSID Number: 89773988 Facility Status: Cleanup Started	2411 76TH SE	NNW 1/2 - 1 (0.575 mi.)	58	245

State- and tribal - equivalent CERCLIS

WA CSCSL: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Ecology's Confirmed & Suspected Contaminated Sites List.

A review of the WA CSCSL list, as provided by EDR, and dated 07/21/2015 has revealed that there are 13 WA CSCSL sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MERCER ISLAND SHELL Site Status: Cleanup Started Facility ID: 85772269 Clean Up Siteid: 10838	7833 SE 28TH ST	N 1/4 - 1/2 (0.300 mi.)	D33	161
I & M ASSOCIATES Site Status: Cleanup Started Facility ID: 91358149 Clean Up Siteid: 11021	7810 SE 27TH AVE	N 1/4 - 1/2 (0.384 mi.)	G41	176
MERCER ISLAND CLEANE Site Status: Cleanup Started Facility ID: 36895595 Clean Up Siteid: 4574	7652 SE 27TH	NNW 1/4 - 1/2 (0.396 mi.)	43	182
CLAMPITTS CLEANERS Site Status: Cleanup Started Facility ID: 79393356 Clean Up Siteid: 3388	7633 SE 27TH	NNW 1/4 - 1/2 (0.402 mi.)	H45	194
FOUR SEASONS DRY CLE Site Status: Cleanup Started Facility ID: 6355773	7800 SE 27TH ST	N 1/4 - 1/2 (0.403 mi.)	G46	201

EXECUTIVE SUMMARY

Clean Up Siteid: 4138				
SIMBAS ENTERPRISES L	7620 SE 27TH ST	NNW 1/4 - 1/2 (0.406 mi.)	H47	213
Site Status: Cleanup Started				
Facility ID: 54465172				
Clean Up Siteid: 6253				
SUDDEN PRINTING & PR	2690 76TH AVE SE	NNW 1/4 - 1/2 (0.412 mi.)	H49	219
Site Status: Awaiting Cleanup				
Facility ID: 1940697				
Clean Up Siteid: 2244				
MERCER CLEANING VILL	2615 76TH AVE SE & 7	NNW 1/4 - 1/2 (0.428 mi.)	53	237
Site Status: Awaiting Cleanup				
Facility ID: 6790				
Clean Up Siteid: 12341				
MERCER ISLAND SCHOOL	4160 86TH AVE SE	SE 1/2 - 1 (0.816 mi.)	59	251
Site Status: Cleanup Started				
Facility ID: 35714664				
Clean Up Siteid: 8857				
Lower Elevation	Address	Direction / Distance	Map ID	Page
LAKEVIEW & FOUR SEAS	3051 78TH AVE NE	N 1/8 - 1/4 (0.141 mi.)	A3	24
Site Status: Awaiting Cleanup				
Facility ID: 4114479				
Clean Up Siteid: 4516				
CITY OF MERCER ISLAN	3030 78TH AVE SE	NNE 1/8 - 1/4 (0.154 mi.)	A7	35
Site Status: Awaiting Cleanup				
Facility ID: 75419292				
Clean Up Siteid: 10407				
PACIFIC NORTHWEST BA	2918 78TH AVE SE	N 1/8 - 1/4 (0.211 mi.)	C15	118
Site Status: Cleanup Started				
Facility ID: 7978880				
Clean Up Siteid: 360				
UNOCAL #4518	2411 76TH SE	NNW 1/2 - 1 (0.575 mi.)	58	245
Site Status: Cleanup Started				
Facility ID: 89773988				
Clean Up Siteid: 10991				

State and tribal leaking storage tank lists

WA LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Ecology's Leaking Underground Storage Tanks Site List.

A review of the WA LUST list, as provided by EDR, and dated 08/18/2015 has revealed that there are 4 WA LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MERCER ISLAND SHELL	7833 SE 28TH ST	N 1/4 - 1/2 (0.300 mi.)	D33	161
Facility Status: Cleanup Started				

EXECUTIVE SUMMARY

Cleanup Site ID: 10838
Facility ID: 85772269

I & M ASSOCIATES Facility Status: Cleanup Started Cleanup Site ID: 11021 Facility ID: 91358149	7810 SE 27TH AVE	N 1/4 - 1/2 (0.384 mi.)	G41	176
SIMBAS ENTERPRISES L Facility Status: Cleanup Started Cleanup Site ID: 6253 Facility ID: 54465172	7620 SE 27TH ST	NNW 1/4 - 1/2 (0.406 mi.)	H47	213

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CITY OF MERCER ISLAN Facility Status: Awaiting Cleanup Cleanup Site ID: 10407 Facility ID: 75419292	3030 78TH AVE SE	NNE 1/8 - 1/4 (0.154 mi.)	A7	35

State and tribal registered storage tank lists

WA UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Ecology's Statewide UST Site/Tank Report.

A review of the WA UST list, as provided by EDR, and dated 08/19/2015 has revealed that there are 2 WA UST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CITY OF MERCER ISLAN Site Id: 100783 Facility ID: 75419292	3030 78TH AVE SE	NNE 1/8 - 1/4 (0.154 mi.)	A7	35
JACKSONS 623 Site Id: 7696 Facility ID: 5629973	2903 78TH AVE SE	N 1/8 - 1/4 (0.217 mi.)	C19	121

State and tribal voluntary cleanup sites

WA VCP: Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

A review of the WA VCP list, as provided by EDR, and dated 07/21/2015 has revealed that there are 7 WA VCP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHEVRON SERV STA 936 Facility ID: 57912829 Cleanup Siteid: 6332	2800 ISLAND CREST WA	NNE 1/4 - 1/2 (0.343 mi.)	E37	168
MERCER ISLAND CLEANE	7652 SE 27TH	NNW 1/4 - 1/2 (0.396 mi.)	43	182

EXECUTIVE SUMMARY

Facility ID: 36895595
Cleanup Siteid: 4574

CLAMPITTS CLEANERS **7633 SE 27TH** **NNW 1/4 - 1/2 (0.402 mi.)** **H45** **194**

Facility ID: 79393356
Cleanup Siteid: 3388

CHEVRON 92736 **7725 SUNSET HWY** **N 1/4 - 1/2 (0.422 mi.)** **I51** **220**

Facility ID: 71837884
Cleanup Siteid: 6554

MERCER CLEANING VILL **2615 76TH AVE SE & 7** **NNW 1/4 - 1/2 (0.428 mi.)** **53** **237**

Facility ID: 6790
Cleanup Siteid: 12341

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHELL OIL PRODUCTS U Facility ID: 5629973 Cleanup Siteid: 5371	2903 78TH AVE SE	N 1/8 - 1/4 (0.217 mi.)	C20	125
AGREE ASSOCIATES Facility ID: 4444303 Cleanup Siteid: 2484	7700 SE 27TH ST	N 1/4 - 1/2 (0.384 mi.)	F40	171

WA ICR: These are remedial action reports Ecology has received from either the owner or operator of the site. These actions have been conducted without department oversight or approval and are not under an order or decree.

A review of the WA ICR list, as provided by EDR, and dated 12/01/2002 has revealed that there are 16 WA ICR sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MERCER ISLAND SHELL	7833 SE 28TH ST	N 1/4 - 1/2 (0.300 mi.)	D32	155
I & M ASSOCIATES	7810 SE 27TH AVE	N 1/4 - 1/2 (0.384 mi.)	G41	176
CLAMPITT'S CLEANERS	7633 SE 27TH ST.	NNW 1/4 - 1/2 (0.402 mi.)	H44	193
CHEVRON #9 2736	7725 SUNSET HWY	N 1/4 - 1/2 (0.422 mi.)	I52	236

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C16	120
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C17	120
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C18	120
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C21	127
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C22	128
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C23	128
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C24	128
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C25	129
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C26	129
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C27	129
TEXACO #63 232 0276/	2903 78TH AVE. SE	N 1/8 - 1/4 (0.217 mi.)	C29	144
SHELL STATION 121549	7655 SUNSET WAY	N 1/4 - 1/2 (0.442 mi.)	54	238

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WA SWRCY: A listing of recycling center locations.

A review of the WA SWRCY list, as provided by EDR, and dated 07/27/2015 has revealed that there are 2 WA SWRCY sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
E-RECYCLE, LLC	7835 SE 30TH STREET	NNE 1/8 - 1/4 (0.179 mi.)	B12	113
LIGHTRECYCLE WASHING	7707 SE 27TH ST. SUI	N 1/4 - 1/2 (0.382 mi.)	F39	170

Local Lists of Hazardous waste / Contaminated Sites

Information on facilities and sites of interest to the Department of Ecology.

A review of the WA ALLSITES list, as provided by EDR, and dated 08/05/2015 has revealed that there are 35 WA ALLSITES sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>GL CONSTRUCTION</i> Facility Id: 46737961	<i>8040 SE 36TH ST</i>	<i>SE 1/8 - 1/4 (0.197 mi.)</i>	<i>13</i>	<i>116</i>
<i>TRELLIS MERCER ISLAN</i> Facility Id: 7004	<i>2960 76TH AVE SE</i>	<i>NW 1/8 - 1/4 (0.201 mi.)</i>	<i>14</i>	<i>117</i>
ISLAND CATS VETERINA Facility Id: 3238	3024 76TH AVE SE	NW 1/8 - 1/4 (0.221 mi.)	30	144
<i>MERCER ISLAND SHELL</i> Facility Id: 85772269	<i>7833 SE 28TH ST</i>	<i>N 1/4 - 1/2 (0.300 mi.)</i>	<i>D33</i>	<i>161</i>
<i>AT&T WIRELESS MERCER</i> Facility Id: 81931324	<i>7900 SE 28TH ST</i>	<i>NNE 1/4 - 1/2 (0.311 mi.)</i>	<i>34</i>	<i>164</i>
<i>UNOCAL 5097</i> Facility Id: 41439652	<i>2831 ISLAND CREST WA</i>	<i>NNE 1/4 - 1/2 (0.325 mi.)</i>	<i>E35</i>	<i>164</i>
<i>MERCER ISLAND SERVIC</i> Facility Id: 86625445	<i>2728 80TH AVE SE</i>	<i>NNE 1/4 - 1/2 (0.335 mi.)</i>	<i>36</i>	<i>167</i>
<i>CHEVRON SERV STA 936</i> Facility Id: 57912829	<i>2800 ISLAND CREST WA</i>	<i>NNE 1/4 - 1/2 (0.343 mi.)</i>	<i>E37</i>	<i>168</i>
<i>COVAL PROPERTY</i> Facility Id: 16398	<i>3051 84TH AVE SE</i>	<i>ENE 1/4 - 1/2 (0.356 mi.)</i>	<i>38</i>	<i>170</i>
<i>I & M ASSOCIATES</i> Facility Id: 91358149	<i>7810 SE 27TH AVE</i>	<i>N 1/4 - 1/2 (0.384 mi.)</i>	<i>G41</i>	<i>176</i>
<i>MERCER ISLAND CLEANE</i> Facility Id: 36895595	<i>7652 SE 27TH</i>	<i>NNW 1/4 - 1/2 (0.396 mi.)</i>	<i>43</i>	<i>182</i>
<i>CLAMPITTS CLEANERS</i> Facility Id: 79393356	<i>7633 SE 27TH</i>	<i>NNW 1/4 - 1/2 (0.402 mi.)</i>	<i>H45</i>	<i>194</i>
<i>FOUR SEASONS DRY CLE</i>	<i>7800 SE 27TH ST</i>	<i>N 1/4 - 1/2 (0.403 mi.)</i>	<i>G46</i>	<i>201</i>

EXECUTIVE SUMMARY

Facility Id: 6355773				
SIMBAS ENTERPRISES L	7620 SE 27TH ST	NNW 1/4 - 1/2 (0.406 mi.)	H47	213
Facility Id: 54465172				
MERCY VET	2707 76TH AVE SE	NNW 1/4 - 1/2 (0.409 mi.)	48	219
Facility Id: 8266				
SUDDEN PRINTING & PR	2690 76TH AVE SE	NNW 1/4 - 1/2 (0.412 mi.)	H49	219
Facility Id: 1940697				
CHEVRON 92736	7725 SUNSET HWY	N 1/4 - 1/2 (0.422 mi.)	I51	220
Facility Id: 71837884				
MERCER CLEANING VILL	2615 76TH AVE SE & 7	NNW 1/4 - 1/2 (0.428 mi.)	53	237
Facility Id: 6790				
ADAMS CO 070323	3835 84TH AVE SE	SE 1/4 - 1/2 (0.488 mi.)	55	241
Facility Id: 7328383				
TRUGREEN LP	2441 76TH AVE SE	NNW 1/4 - 1/2 (0.499 mi.)	57	243
Facility Id: 20453				
Facility Id: 33935623				
Lower Elevation	Address	Direction / Distance	Map ID	Page
FARMERS NEW WORLD LI	3003 77TH AVE SE	NNW 0 - 1/8 (0.111 mi.)	1	8
Facility Id: 25561588				
LAKEVIEW & FOUR SEAS	3051 78TH AVE NE	N 1/8 - 1/4 (0.141 mi.)	A3	24
Facility Id: 4114479				
LAKEVIEW CLEANERS	3035 78TH AVE SE	N 1/8 - 1/4 (0.151 mi.)	A5	33
Facility Id: 35957581				
CITY OF MERCER ISLAN	3030 78TH AVE SE	NNE 1/8 - 1/4 (0.154 mi.)	A7	35
Facility Id: 75419292				
RITE AID 5197	3023 78TH AVE SE	N 1/8 - 1/4 (0.158 mi.)	A9	41
Facility Id: 34474594				
SILERS CLEANERS	3018 78TH AVE SE	NNE 1/8 - 1/4 (0.162 mi.)	A10	105
Facility Id: 23188673				
CORRYS DRY CLEANING	3006 78TH SE	NNE 1/8 - 1/4 (0.169 mi.)	B11	109
Facility Id: 92786941				
PACIFIC NORTHWEST BA	2918 78TH AVE SE	N 1/8 - 1/4 (0.211 mi.)	C15	118
Facility Id: 7978880				
SHELL OIL PRODUCTS U	2903 78TH AVE SE	N 1/8 - 1/4 (0.217 mi.)	C20	125
Facility Id: 5629973				
ALBERTSONS 450	2755 77TH AVE SE	NNW 1/4 - 1/2 (0.277 mi.)	31	145
Facility Id: 3620				
AGREE ASSOCIATES	7700 SE 27TH ST	N 1/4 - 1/2 (0.384 mi.)	F40	171
Facility Id: 4444303				
PICTURE PERFECT THE	7687 SE 27TH ST	N 1/4 - 1/2 (0.384 mi.)	42	180
Facility Id: 21327254				
7700 CENTRAL	2630 77TH AVE SE	N 1/4 - 1/2 (0.413 mi.)	50	220
Facility Id: 23752				
SHELL STATION 121549	7655 SUNSET WAY	N 1/4 - 1/2 (0.442 mi.)	54	238
Facility Id: 65763755				
LEGACY MERCER ISLAND	2601 76TH AVE SE	NNW 1/4 - 1/2 (0.490 mi.)	56	243

EXECUTIVE SUMMARY

Facility Id: 24528

WA CSCSL NFA: The data set contains information about sites previously on the Confirmed and Suspected Contaminated Sites list that have received a No Further Action (NFA) determination. Because it is necessary to maintain historical records of sites that have been investigated and cleaned up, sites are not deleted from the database when cleanup activities are completed. Instead a No Further Action code is entered based upon the type of NFA determination the site received.

A review of the WA CSCSL NFA list, as provided by EDR, and dated 07/21/2015 has revealed that there are 5 WA CSCSL NFA sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHEVRON SERV STA 936 Facility/Site Id: 57912829 CS Id: 6332	2800 ISLAND CREST WA	NNE 1/4 - 1/2 (0.343 mi.)	E37	168
CHEVRON 92736 Facility/Site Id: 71837884 CS Id: 6554	7725 SUNSET HWY	N 1/4 - 1/2 (0.422 mi.)	I51	220
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHELL OIL PRODUCTS U Facility/Site Id: 5629973 CS Id: 5371	2903 78TH AVE SE	N 1/8 - 1/4 (0.217 mi.)	C20	125
AGREE ASSOCIATES Facility/Site Id: 4444303 CS Id: 2484	7700 SE 27TH ST	N 1/4 - 1/2 (0.384 mi.)	F40	171
SHELL STATION 121549 Facility/Site Id: 65763755 CS Id: 10065	7655 SUNSET WAY	N 1/4 - 1/2 (0.442 mi.)	54	238

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/09/2015 has revealed that there are 7 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GL CONSTRUCTION	8040 SE 36TH ST	SE 1/8 - 1/4 (0.197 mi.)	13	116
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LAKEVIEW & FOUR SEAS	3051 78TH AVE NE	N 1/8 - 1/4 (0.141 mi.)	A2	23
LAKEVIEW CLEANERS	3037 78TH AVE SE	N 1/8 - 1/4 (0.149 mi.)	A4	29
MERCER ISLAND CITY F	3030 SE 78TH	NNE 1/8 - 1/4 (0.154 mi.)	A6	33
SILERS CLEANERS	3018 78TH AVE SE	NNE 1/8 - 1/4 (0.162 mi.)	A10	105

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CORRYS DRY CLEANING	3006 78TH SE	NNE 1/8 - 1/4 (0.169 mi.)	B11	109
SHELL OIL PRODUCTS U	2903 78TH AVE SE	N 1/8 - 1/4 (0.217 mi.)	C28	130

WA Inactive Drycleaners: A listing of inactive drycleaner facility locations.

A review of the WA Inactive Drycleaners list, as provided by EDR, and dated 12/31/2014 has revealed that there are 4 WA Inactive Drycleaners sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LAKEVIEW & FOUR SEAS EPA I: WAH000031200 Facility ID: WAH000031200	3051 78TH AVE NE	N 1/8 - 1/4 (0.141 mi.)	A3	24
LAKEVIEW CLEANERS EPA I: WAD982653461 Facility ID: WAD982653461	3037 78TH AVE SE	N 1/8 - 1/4 (0.149 mi.)	A4	29
SILERS CLEANERS EPA I: WAD982654626 Facility ID: WAD982654626	3018 78TH AVE SE	NNE 1/8 - 1/4 (0.162 mi.)	A10	105
CORRYS DRY CLEANING EPA I: WAD988487831 Facility ID: WAD988487831	3006 78TH SE	NNE 1/8 - 1/4 (0.169 mi.)	B11	109

WA MANIFEST: Hazardous waste manifest information.

A review of the WA MANIFEST list, as provided by EDR, and dated 12/31/2014 has revealed that there are 4 WA MANIFEST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FARMERS NEW WORLD LI Facility Site ID Number: 25561588 Gen Status CD: SQG Gen Status CD: XQG EPA ID: WAD054839766	3003 77TH AVE SE	NNW 0 - 1/8 (0.111 mi.)	1	8
LAKEVIEW & FOUR SEAS Facility Site ID Number: 4114479 Gen Status CD: SQG EPA ID: WAH000031200	3051 78TH AVE NE	N 1/8 - 1/4 (0.141 mi.)	A3	24
RITE AID 5197 Facility Site ID Number: 34474594 Gen Status CD: XQG Gen Status CD: LQG Gen Status CD: SQG Gen Status CD: MQG EPA ID: WA0001013465	3023 78TH AVE SE	N 1/8 - 1/4 (0.158 mi.)	A9	41
SHELL OIL PRODUCTS U Facility Site ID Number: 5629973	2903 78TH AVE SE	N 1/8 - 1/4 (0.217 mi.)	C28	130

EXECUTIVE SUMMARY

Gen Status CD: SQG
Gen Status CD: XQG
Gen Status CD: MQG
EPA ID: WAD988476636

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

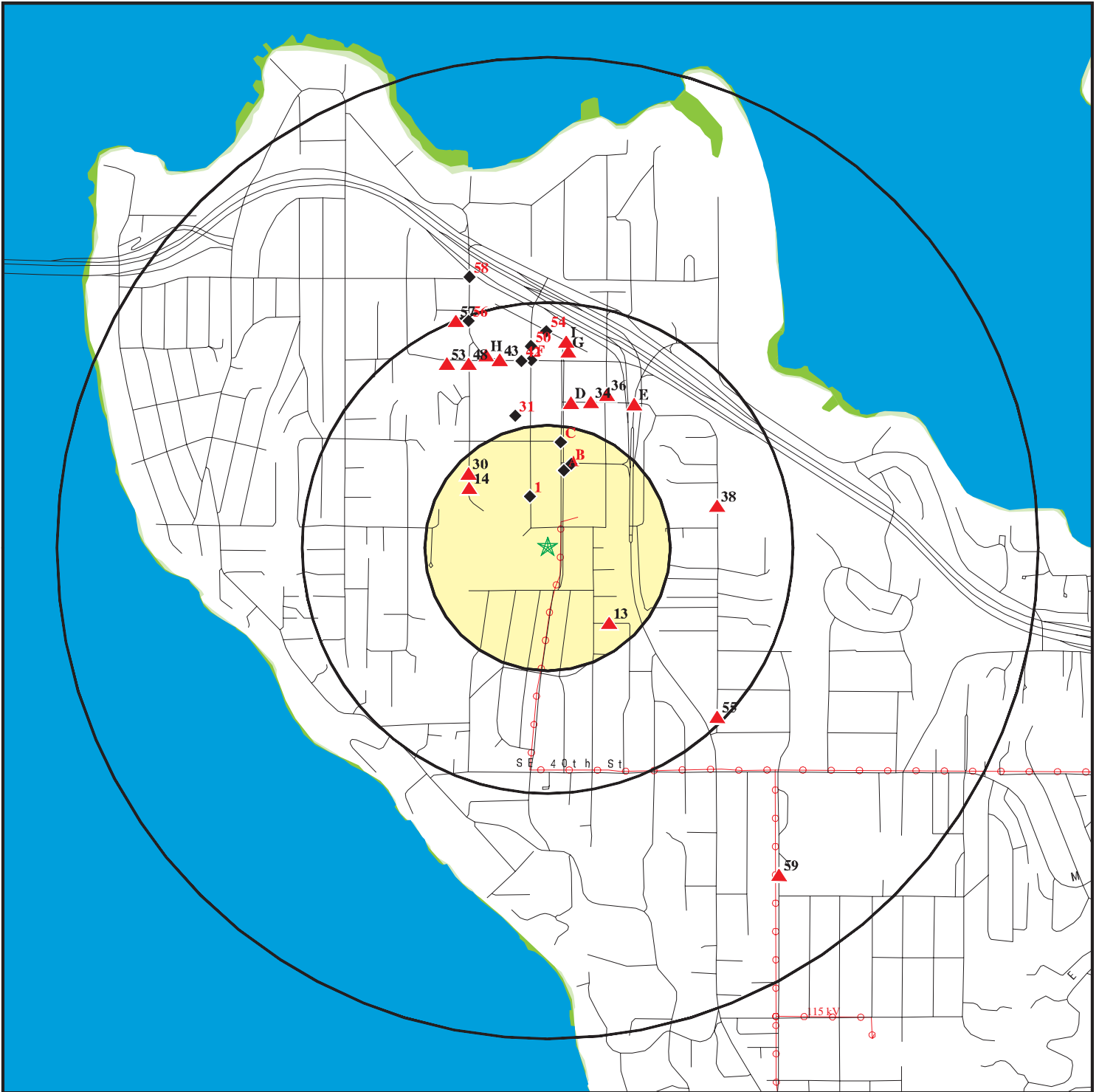
Site Name

Database(s)

WARREN MEDICAL OFFICE BUILDING (TH

WA ICR

OVERVIEW MAP - 4476599.1S



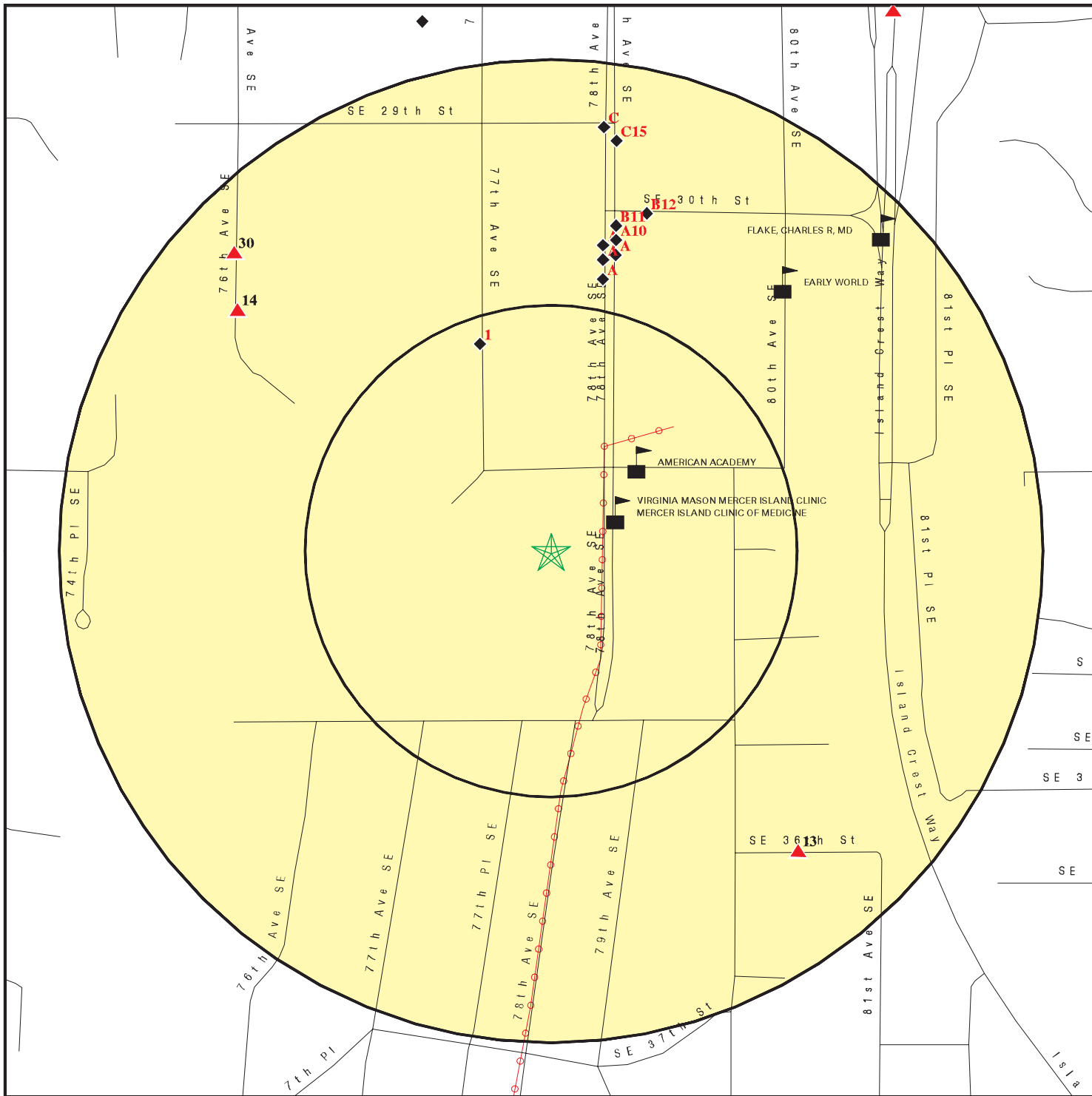
- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ⚡ Manufactured Gas Plants
- ☒ National Priority List Sites
- ☒ Dept. Defense Sites
- ☒ Indian Reservations BIA
- ⚡ Power transmission lines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▨ National Wetland Inventory
- ▨ State Wetlands








This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.





SITE NAME: Mercer Island Center For The Arts
 ADDRESS: Southwest Corner of 78th Ave SE and SE 32nd St
 Mercer Island WA 98040
 LAT/LONG: 47.5812 / -122.2343

CLIENT: AEROTECH Environmental Consult
 CONTACT: Alan Blotch
 INQUIRY #: 4476599.1s
 DATE: November 24, 2015 7:49 pm

DETAIL MAP - 4476599.1S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Mercer Island Center For The Arts
 ADDRESS: Southwest Corner of 78th Ave SE and SE 32nd St
 Mercer Island WA 98040
 LAT/LONG: 47.5812 / -122.2343

CLIENT: AEROTECH Environmental Consult
 CONTACT: Alan Blotch
 INQUIRY #: 4476599.1s
 DATE: November 24, 2015 7:49 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>STANDARD ENVIRONMENTAL RECORDS</u>								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
CERCLIS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERCLIS-NFRAP	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	1	NR	NR	NR	1
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		1	0	NR	NR	NR	1
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
WA HSL	1.000		0	0	2	1	NR	3
<i>State- and tribal - equivalent CERCLIS</i>								
WA CSCSL	1.000		0	3	8	2	NR	13
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
WA SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
WA LUST	0.500		0	1	3	NR	NR	4

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
WA UST	0.250		0	2	NR	NR	NR	2
WA AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
WA INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
WA VCP	0.500		0	1	6	NR	NR	7
WA ICR	0.500		0	11	5	NR	NR	16
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
WA BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WA SWTIRE	0.500		0	0	0	NR	NR	0
WA SWRCY	0.500		0	1	1	NR	NR	2
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
WA ALLSITES	0.500		1	11	23	NR	NR	35
WA CDL	TP		NR	NR	NR	NR	NR	0
WA HIST CDL	TP		NR	NR	NR	NR	NR	0
WA CSCSL NFA	0.500		0	1	4	NR	NR	5
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
WA SPILLS	TP		NR	NR	NR	NR	NR	0
WA SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	7	NR	NR	NR	7

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
WA AIRS	TP		NR	NR	NR	NR	NR	0
WA COAL ASH	0.500		0	0	0	NR	NR	0
WA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WA Financial Assurance	TP		NR	NR	NR	NR	NR	0
CA HAZNET	TP		NR	NR	NR	NR	NR	0
WA Inactive Drycleaners	0.250		0	4	NR	NR	NR	4
WA MANIFEST	0.250		1	3	NR	NR	NR	4
WA NPDES	TP		NR	NR	NR	NR	NR	0
WA UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

WA RGA HWS	TP		NR	NR	NR	NR	NR	0
------------	----	--	----	----	----	----	----	---

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
WA RGA LF	TP		NR	NR	NR	NR	NR	0
WA RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	3	46	52	3	0	104

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1
NNW
< 1/8
0.111 mi.
588 ft.

FARMERS NEW WORLD LIFE INSURANCE CO
3003 77TH AVE SE
MERCER ISLAND, WA 98040

RCRA-CESQG
WA ALLSITES
FINDS
WA MANIFEST

1004793508
WAD054839766

Relative:
Lower

RCRA-CESQG:

Date form received by agency: 03/13/2012

Facility name: FARMERS NEW WORLD LIFE INSURANCE CO

Facility address: 3003 77TH AVE SE
MERCER ISLAND, WA 98040

EPA ID: WAD054839766

Contact: SKIP REYNOLDS

Contact address: 3003 77TH AVE SE
MERCER ISLAND, WA 98040

Contact country: US

Contact telephone: (206) 236-6500

Contact email: SKIP.REYNOLDS@FARMERSINSURANCE.COM

EPA Region: 10

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: FARMERS NEW WOR F
Owner/operator address: 3003 77TH AVE SE
MERCER ISLAND, WA 98040

Owner/operator country: US
Owner/operator telephone: (206)232-8400

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 02/06/1982

Owner/Op end date: Not reported

Owner/operator name: FARMERS NEW WORLD LIFE INSURANCE COMPANY
Owner/operator address: 3003 77TH AVE SE
MERCER ISLAND, 98040

Owner/operator country: US
Owner/operator telephone: (206)232-8400

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 02/06/1982

Owner/Op end date: Not reported

Owner/operator name: FARMERS NEW WORLD LIFE INSURANCE CO
Owner/operator address: 3003 77TH AVE SE
MERCER ISLAND, WA 98040

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 02/06/1982
Owner/Op end date: Not reported

Owner/operator name: FARMERS NEW WORLD LIFE INSURANCE COMPANY
Owner/operator address: 3003 77TH AVE SE
MERCER ISLAND, WA 98040

Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/06/1982
Owner/Op end date: Not reported

Owner/operator name: FARMERS NEW WOR F
Owner/operator address: 3003 77TH AVE SE
MERCER ISLAND, WA 98040

Owner/operator country: US
Owner/operator telephone: (206)232-8400
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/06/1982
Owner/Op end date: Not reported

Owner/operator name: FARMERS NEW WORLD LIFE INSURANCE CO
Owner/operator address: 3003 77TH AVE SE
MERCER ISLAND, 98040

Owner/operator country: US
Owner/operator telephone: (206)232-8400
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 02/06/1982
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 03/17/2011

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Site name: FARMERS NEW WORLD LIFE INSURANCE CO
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/03/2010

Site name: FARMERS NEW WORLD LIFE INSURANCE CO
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2007

Site name: FARMERS NEW WORLD LIFE INSURANCE CO
Classification: Not a generator, verified

Date form received by agency: 12/31/2005

Site name: FARMERS NEW WORLD LIFE INSURANCE CO
Classification: Not a generator, verified

Date form received by agency: 12/31/2003

Site name: FARMERS NEW WORLD LIFE INSURANCE CO
Classification: Not a generator, verified

Violation Status: No violations found

ALLSITES:

Facility Name: FARMERS NEW WORLD LIFE INSURANCE CO
Facility Id: 25561588

. Interaction: I
. Interaction 1: HWG
. Interaction 2: Hazardous Waste Generator
. Ecology Program: HAZWASTE
. Program Data: TURBOWASTE
. Facility Alt.: Farmers New World Life Insurance Co
. Program ID: WAD054839766
. Date Interaction: 1987-09-23 00:00:00
. Date Interaction 3: 2013-12-31 00:00:00
. Latitude: 47.582924372999997
. Longitude: -122.234965128

FINDS:

Registry ID: 110005322454

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

HAZARDOUS WASTE BIENNIAL REPORTER

WA MANIFEST:

Facility Site ID Number: 25561588
EPA ID: WAD054839766
NAICS: 524113
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: 2009
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter deferral: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 179010948
Business Type: Life Insurance Company
Mail Name: Farmers New World Life Insurance Company
Mail addr line1: 3003 77TH AVE SE
Mail city,st,zip: MERCER ISLAND, WA 98040-2837
Mail country: UNITED STATES
Legal org name: Farmers New World Life Insurance Co
Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact EMail: skip.reynolds@farmersinsurance.com
Form Contact NAME: Rosa Pacecca-Fischer
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6510
Form Contact EMail: skip.reynolds@farmersinsurance.com
Gen Status CD: SQG
Monthly Generation: True
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

Facility Site ID Number: 25561588
EPA ID: WAD054839766
NAICS: 524113
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: Not reported
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False

Map ID
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MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 179010948
Business Type: Life Insurance Company
Mail Name: Farmers New World Life Insurance Company
Mail addr line1: 3003 77TH AVE SE
Mail city,st,zip: MERCER ISLAND, WA 98040-2837
Mail country: UNITED STATES
Legal org name: Farmers New World Life Insurance Co
Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact EMail: skip.reynolds@farmersinsurance.com
Form Contact NAME: Rosa Pacecca-Fischer
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6510
Form Contact EMail: skip.reynolds@farmersinsurance.com
Gen Status CD: SQG
Monthly Generation: True
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Facility Site ID Number:	25561588
EPA ID:	WAD054839766
NAICS:	524113
SWC Desc:	Not reported
FWC Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	No
Treatment by Generator:	No
Mixed radioactive waste:	No
Importer of hazardous waste:	No
Immediate recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of dangerous fuel waste:	No
Generator marketing to burner:	No
Other marketers (i.e., blender, distributor, etc.):	No
Utility boiler burner:	No
Industry boiler burner:	No
Industrial Furnace:	No
Smelter deferral:	No
Universal waste - batteries - generate:	No
Universal waste - thermostats - generate:	No
Universal waste - mercury - generate:	No
Universal waste - lamps - generate:	No
Universal waste - batteries - accumulate:	No
Universal waste - thermostats - accumulate:	No
Universal waste - mercury - accumulate:	No
Universal waste - lamps - accumulate:	No
Destination Facility for Universal Waste:	No
Off-specification used oil burner - utility boiler:	No
Off-specification used oil burner - industrial boiler:	No
Off-specification used oil burner - industrial furnace:	No
Tax Reg #:	179010948
Business Type:	Life insurance company
Mail Name:	Farmers New World Life Insurance Company
Mail addr line1:	3003 77TH AVE SE
Mail city,st,zip:	MERCER ISLAND, WA 98040-2837
Mail country:	UNITED STATES
Legal org name:	Farmers New World Life Insurance Co
Legal org type:	Private
Legal addr line1:	3003 77TH AVE SE
Legal city,st,zip:	MERCER ISLAND, WA 98040-2837
Legal country:	UNITED STATES
Legal phone nbr:	(206)232-8400
Legal effective date:	02/06/1982
Land org name:	CLF Mercer Island LLC c/o Caplease LP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

EDR ID Number
EPA ID Number
Database(s)

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact EMail: skip_reynolds@farmersinsurance.com
Form Contact NAME: Jordan Kuehn
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6521
Form Contact EMail: jordan_kuehn@farmersinsurance.com
Gen Status CD: SQG
Monthly Generation: No
Batch Generation: Yes
One Time Generation: No
Transport Own Waste: No
Tranports Other Waste: No
Recycler Onsite: No
Transfer Facility: No
Other Exemption: Not reported
UW Battery Gen: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Fuel Marketer Directs Shipments: No
Used Oil Fuel Marketer Meets Specs: No

Facility Site ID Number: 25561588
EPA ID: WAD054839766
NAICS: 524113
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: 2012
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False

Map ID
Direction
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MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: True
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 179010948
Business Type: Life Insurance Company
Mail Name: Farmers New World Life Insurance Company
Mail addr line1: 3003 77TH AVE SE
Mail city,st,zip: MERCER ISLAND, WA 98040-2837
Mail country: UNITED STATES
Legal org name: Farmers New World Life Insurance Co
Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact Email: skip.reynolds@farmersinsurance.com
Form Contact NAME: Richard G White
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6512
Form Contact Email: richard.g.white@farmersinsurance.com

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Gen Status CD:	SQG	
Monthly Generation:	False	
Batch Generation:	True	
One Time Generation:	False	
Transport Own Waste:	False	
Tranports Other Waste:	False	
Recycler Onsite:	False	
Transfer Facility:	False	
Other Exemption:	Not reported	
UW Battery Gen:	False	
Used Oil Transporter:	False	
Used Oil Transfer Facility:	False	
Used Oil Processor:	False	
Used Oil Refiner:	False	
Used Oil Fuel Marketer Directs Shipments:	False	False
Used Oil Fuel Marketer Meets Specs:	False	False
Facility Site ID Number:	25561588	
EPA ID:	WAD054839766	
NAICS:	524113	
SWC Desc:	Not reported	
FWC Desc:	d009	
Form Comm:	lamp crushing	
Data Year:	2011	
Permit by Rule:	False	
Treatment by Generator:	False	
Mixed radioactive waste:	False	
Importer of hazardous waste:	False	
Immediate recycler:	False	
Treatment/Storage/Disposal/Recycling Facility:	False	False
Generator of dangerous fuel waste:	False	False
Generator marketing to burner:	False	False
Other marketers (i.e., blender, distributor, etc.):	False	False
Utility boiler burner:	False	False
Industry boiler burner:	False	False
Industrial Furnace:	False	False
Smelter defferal:	False	False
Universal waste - batteries - generate:	False	False
Universal waste - thermostats - generate:	False	False
Universal waste - mercury - generate:	False	False
Universal waste - lamps - generate:	False	False
Universal waste - batteries - accumulate:	False	False
Universal waste - thermostats - accumulate:	False	False
Universal waste - mercury - accumulate:	False	False
Universal waste - lamps - accumulate:	False	False
Destination Facility for Universal Waste:	False	False
Off-specification used oil burner - utility boiler:	False	False
Off-specification used oil burner - industrial boiler:	False	False
Off-specification used oil burner - industrial furnace:	False	False
Tax Reg #:	179010948	
Business Type:	Life Insurance Company	
Mail Name:	Farmers New World Life Insurance Company	
Mail addr line1:	3003 77TH AVE SE	
Mail city,st,zip:	MERCER ISLAND, WA 98040-2837	
Mail country:	UNITED STATES	
Legal org name:	Farmers New World Life Insurance Co	

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact Email: skip.reynolds@farmersinsurance.com
Form Contact NAME: Richard G White
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6512
Form Contact Email: richard.g.white@farmersinsurance.com
Gen Status CD: SQG
Monthly Generation: False
Batch Generation: True
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

Facility Site ID Number: 25561588
EPA ID: WAD054839766
NAICS: 524113
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Permit by Rule: FALSE
Treatment by Generator: FALSE
Mixed radioactive waste: FALSE
Importer of hazardous waste: FALSE
Immediate recycler: FALSE
Treatment/Storage/Disposal/Recycling Facility: FALSE
Generator of dangerous fuel waste: FALSE
Generator marketing to burner: FALSE
Other marketers (i.e., blender, distributor, etc.): FALSE
Utility boiler burner: FALSE
Industry boiler burner: FALSE
Industrial Furnace: FALSE
Smelter deferral: FALSE
Universal waste - batteries - generate: FALSE
Universal waste - thermostats - generate: FALSE
Universal waste - mercury - generate: FALSE
Universal waste - lamps - generate: FALSE
Universal waste - batteries - accumulate: FALSE
Universal waste - thermostats - accumulate: FALSE
Universal waste - mercury - accumulate: FALSE
Universal waste - lamps - accumulate: FALSE
Destination Facility for Universal Waste: FALSE
Off-specification used oil burner - utility boiler: FALSE
Off-specification used oil burner - industrial boiler: FALSE
Off-specification used oil burner - industrial furnace: FALSE
Tax Reg #: 179010948
Business Type: Life Insurance Company
Mail Name: Farmers New World Life Insurance Company
Mail addr line1: 3003 77TH AVE SE
Mail city,st,zip: MERCER ISLAND, WA 98040-2837
Mail country: UNITED STATES
Legal org name: Farmers New World Life Insurance Co
Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Site Contact EMail: skip.reynolds@farmersinsurance.com
Form Contact NAME: Jordan Kuehn
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6521
Form Contact EMail: jordan.kuehn@farmersinsurance.com
Gen Status CD: SQG
Monthly Generation: FALSE
Batch Generation: TRUE
One Time Generation: FALSE
Transport Own Waste: FALSE
Tranports Other Waste: FALSE
Recycler Onsite: FALSE
Transfer Facility: FALSE
Other Exemption: Not reported
UW Battery Gen: FALSE
Used Oil Transporter: FALSE
Used Oil Transfer Facility: FALSE
Used Oil Processor: FALSE
Used Oil Refiner: FALSE
Used Oil Fuel Marketer Directs Shipments: FALSE
Used Oil Fuel Marketer Meets Specs: FALSE

Facility Site ID Number: 25561588
EPA ID: WAD054839766
NAICS: 524113
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: 2013
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Tax Reg #: 179010948
Business Type: Life Insurance Company
Mail Name: Farmers New World Life Insurance Company
Mail addr line1: 3003 77TH AVE SE
Mail city,st,zip: MERCER ISLAND, WA 98040-2837
Mail country: UNITED STATES
Legal org name: Farmers New World Life Insurance Co
Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES
Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact EMail: skip.reynolds@farmersinsurance.com
Form Contact NAME: Richard G White
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6512
Form Contact EMail: richard.g.white@farmersinsurance.com
Gen Status CD: XQG
Monthly Generation: False
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Facility Site ID Number: 25561588
EPA ID: WAD054839766
NAICS: 524113
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: 2008
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 179010948
Business Type: Life Insurance Company
Mail Name: Farmers New World Life Insurance Company
Mail addr line1: 3003 77TH AVE SE
Mail city,st,zip: MERCER ISLAND, WA 98040-2837
Mail country: UNITED STATES
Legal org name: Farmers New World Life Insurance Co
Legal org type: Private
Legal addr line1: 3003 77TH AVE SE
Legal city,st,zip: MERCER ISLAND, WA 98040-2837
Legal country: UNITED STATES
Legal phone nbr: (206)232-8400
Legal effective date: 02/06/1982
Land org name: CLF Mercer Island LLC c/o Caplease, LP
Land org type: Private
Land person name: Not reported
Land addr line1: 110 Maiden Lane
Land city,st,zip: New York, NY 10005
Land country: UNITED STATES
Land phone nbr: (212) 217-6300
Operator org name: Farmers New World Life Insurance Company
Operator org type: Private
Operator addr line1: 3003 77TH AVE SE
Operator city,st,zip: MERCER ISLAND, WA 98040-2837
Operator country: UNITED STATES

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FARMERS NEW WORLD LIFE INSURANCE CO (Continued)

1004793508

Operator phone nbr: (206)232-8400
Operator effective date: 02/06/1982
Site contact name: Skip Reynolds
Site contact addr line1: 3003 77TH AVE SE
Site Contact City/State/ Zip: MERCER ISLAND, WA 98040-2837
Site Contact Country: UNITED STATES
Site Contact Phone #: (206)236-6500
Site Contact EMail: skip.reynolds@farmersinsurance.com
Form Contact NAME: Rosa Pacecca-Fischer
Form Contact ADDR LINE1: 3003 77TH AVE SE
Form Contact City,ST,Zip: MERCER ISLAND, WA 98040-2837
Form Contact Country: UNITED STATES
Form Contact Phone #: (206)236-6510
Form Contact EMail: skip.reynolds@farmersinsurance.com
Gen Status CD: SQG
Monthly Generation: True
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

A2
North
1/8-1/4
0.141 mi.
743 ft.

LAKEVIEW & FOUR SEASONS DRY CLEANERS
3051 78TH AVE NE
MERCER ISLAND, WA 98040
Site 1 of 9 in cluster A

RCRA NonGen / NLR

1010788328
WAH000031200

Relative:
Lower

RCRA NonGen / NLR:
Date form received by agency: 02/25/2008
Facility name: LAKEVIEW & FOUR SEASONS DRY CLEANERS
Facility address: 3051 78TH AVE NE
MERCER ISLAND, WA 98040
EPA ID: WAH000031200
Mailing address: PO BOX 24687
SEATTLE, WA 98124
Contact: GULL INDUSTRIES GULL INDUSTRIES
Contact address: PO BOX 24687
SEATTLE, WA 98124
Contact country: US
Contact telephone: (000)000-0000
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW & FOUR SEASONS DRY CLEANERS (Continued)

1010788328

Owner/operator name: 78TH AVE MERCER 7
Owner/operator address: PO BOX 24687
SEATTLE, WA 98124
Owner/operator country: US
Owner/operator telephone: (206)624-5900
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1900
Owner/Op end date: Not reported

Owner/operator name: LAKEVIEW & FOUR L
Owner/operator address: 3051 78TH AVE NE
MERCER ISLAND, WA 98040
Owner/operator country: US
Owner/operator telephone: (120)623-2766
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 12/31/2007
Site name: LAKEVIEW & FOUR SEASONS DRY CLEANERS
Classification: Not a generator, verified

Violation Status: No violations found

A3
North
1/8-1/4
0.141 mi.
743 ft.

LAKEVIEW & FOUR SEASONS DRY CLEANERS
3051 78TH AVE NE
MERCER ISLAND, WA 98040
Site 2 of 9 in cluster A

WA CSCSL S108969357
WA ALLSITES N/A
WA Inactive Drycleaners
WA MANIFEST

Relative:
Lower

CSCSL:
Facility ID: 4114479
Region: Northwest
Actual:
Lat/Long: 47.583144 / -122.233802
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 4516
Site Status: Awaiting Cleanup

Actual:
80 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW & FOUR SEASONS DRY CLEANERS (Continued)

S108969357

PSI?: Not reported
Contaminant Name: Halogenated Organics
Ground Water: Confirmed Above Cleanup Level
Surface Water: Confirmed Above Cleanup Level
Soil: Confirmed Above Cleanup Level
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

ALLSITES:

Facility Name: LAKEVIEW & FOUR SEASONS DRY CLEANERS
Facility Id: 4114479

. Interaction: I
. Interaction 1: HWG
. Interaction 2: Hazardous Waste Generator
. Ecology Program: HAZWASTE
. Program Data: TURBOWASTE
. Facility Alt.: Not reported
. Program ID: WAH000031200
. Date Interaction: 2007-06-12 00:00:00
. Date Interaction 3: 2007-12-31 00:00:00
. Latitude: 47.583138372999997
. Longitude: -122.233787128

. Interaction: A
. Interaction 1: SCS
. Interaction 2: State Cleanup Site
. Ecology Program: TOXICS
. Program Data: ISIS
. Facility Alt.: Lakeview & Four Seasons Dry Cleaners
. Program ID: Not reported
. Date Interaction: 2007-10-31 00:00:00
. Date Interaction 3: Not reported
. Latitude: 47.583138372999997
. Longitude: -122.233787128

. Interaction: A
. Interaction 1: RSVP
. Interaction 2: Revised Site Visit Program
. Ecology Program: HAZWASTE
. Program Data: RSVP
. Facility Alt.: Lakeview Dry Cleaners
. Program ID: Not reported
. Date Interaction: 2007-05-11 00:00:00
. Date Interaction 3: Not reported
. Latitude: 47.583138372999997
. Longitude: -122.233787128

INACTIVE DRYCLEANERS:

EPA I: WAH000031200
FS Id: 4114479

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW & FOUR SEASONS DRY CLEANERS (Continued)

S108969357

Facility ID: WAH000031200
NAICS Code: 812320
Fed Waste Code Desc: D039, D029, D040, F002
State Waste Code Desc: Not reported
TAX REG NBR: 602201564
BUSINESS TYPE: Dry Cleaner in Strip Mall
MAIL NAME: Gull Industries
MAIL LINE1: PO Box 24687
MAIL LINE2: Not reported
MAIL CITY: Seattle
MAIL STATE: WA
MAIL ZIP: 98124
MAIL COUNTRY: UNITED STATES
LEGAL ORG NAME: 78th Ave Mercer Island LLC
LEGAL PERSON FIRST NAME: Not reported
LEGAL PERSON MIDDLE INIT: Not reported
LEGAL PERSON LAST NAME: Not reported
LEGAL LINE1: PO Box 24687
LEGAL LINE2: Not reported
LEGAL CITY: Seattle
LEGAL STATE: WA
LEGAL ZIP: 98124
LEGAL COUNTRY: UNITED STATES
LEGAL PHONE NBR: (206)624-5900
LEGAL EFFECTIVE DATE: Not reported
LEGAL ORGANIZATION TYPE: Private
LAND ORG NAME: 78th Ave Mercer Island LLC
LAND PERSON FIRST NAME: Not reported
LAND PERSON MIDDLE INIT: Not reported
LAND PERSON LAST NAME: Not reported
LAND LINE1: PO Box 24687
LAND LINE2: Not reported
LAND CITY: Seattle
LAND STATE: WA
LAND ZIP: 98124
LAND COUNTRY: UNITED STATES
LAND PHONE NBR: (206)624-5900
LAND ORGANIZATION TYPE: Private
OPERATOR ORG NAME: Lakeview & Four Seasons Dry Cleaner
OPERATOR PERSON FIRST NAME: Not reported
OPERATOR PERSON MIDDLE INIT: Not reported
OPERATOR PERSON LAST NAME: Not reported
OPERATOR LINE1: 3051 78th Ave NE
OPERATOR LINE2: Not reported
OPERATOR CITY: Mercer Island
OPERATOR STATE: WA
OPERATOR ZIP: 98040
OPERATOR COUNTRY: UNITED STATES
OPERATOR PHONE NBR: (1206)232-7666
OPERATOR EFFECTIVE DATE: 01/01/04
OPERATOR ORGANIZATION TYPE: Private
SITE CONTACT FIRST NAME: Karen
SITE CONTACT MIDDLE INIT: Not reported
SITE CONTACT LAST NAME: Stephens
SITE CONTACT LINE1: PO Box 53290
SITE CONTACT LINE2: Not reported
SITE CONTACT CITY: Bellevue

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW & FOUR SEASONS DRY CLEANERS (Continued)

S108969357

SITE CONTACT STATE: WA
SITE CONTACT ZIP: 98015-3290
SITE CONTACT COUNTRY: UNITED STATES
SITE CONTACT PHONE NBR: (425)643-8400
SITE CONTACT EMAIL: kstephens@mpiha.com
FORM CONTACT FIRST NAME: Pam
FORM CONTACT MIDDLE INIT: Not reported
FORM CONTACT LAST NAME: Morrill
FORM CONTACT LINE1: 11811 NE 1st St Ste 201
FORM CONTACT LINE2: Not reported
FORM CONTACT CITY: Bellevue
FORM CONTACT STATE: WA
FORM CONTACT ZIP: 98005
FORM CONTACT COUNTRY: UNITED STATES
FORM CONTACT PHONE NBR: (425)453-8383 303
FORM CONTACT EMAIL: morrillpj@cdm.com
GEN STATUS CD: SQG
MONTHLY GENERATION: F
BATCH GENERATION: F
ONE TIME GENERATION: T
TRANSPORTS OWN WASTE: F
TRANSPORTS OTHERS WASTE: F
RECYCLER ONSITE: F
TRANSFER FACILITY: F
PBR: F
TBG: F
MIXED RADIOACTIVE: F
IMPORTER: F
TSDR FACILITY: F
IMMEDIATE RECYCLER: F
GEN DANG FUEL: F
GEN MARKET TO BURNER: F
GEN OTHER MARKETERS: F
UTILITY BOILER BURNER: F
INDUSTRY BOILER BURNER: F
FURNACE BURNER: F
SMELTER DEFERRAL: F
SMALL QTY EXEMPTION: F
OTHER EXEMPTION: Not reported
UW BATTERY GEN: F
UW THERMOSTATS GEN: F
UW MERCURY GEN: F
UW LAMPS GEN: F
UW BATTERY ACCUM: F
UW THERMOSTATS ACCUM: F
UW MERCURY ACCUM: F
UW LAMPS ACCUM: F
UW DESTINATION FACILITY: F
OFF SPEC UTILITY BOILER: F
OFF SPEC INDUSTRY BOILER: F
OFF SPEC FURNACE: F
USED OIL TRANSPORTER: F
USED OIL TRANSFER FACILITY: F
USED OIL PROCESSOR: F
USED OIL REREFINER: F
USED OIL FUEL MARKETER DIR SHIPMENTS: F
USED OIL FUEL MARKETER MEETS SPECS: F

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW & FOUR SEASONS DRY CLEANERS (Continued)

S108969357

Comments: Waste generated from a one-time cleaning of catch basins.

WA MANIFEST:

Facility Site ID Number: 4114479
EPA ID: WAH000031200
NAICS: 812320
SWC Desc: Not reported
FWC Desc: D039, D029, D040, F002
Form Comm: Waste generated from a one-time cleaning of catch basins.
Data Year: Not reported
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter deferral: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 602201564
Business Type: Dry Cleaner in Strip Mall
Mail Name: Gull Industries
Mail addr line1: PO Box 24687
Mail city,st,zip: Seattle, WA 98124
Mail country: UNITED STATES
Legal org name: 78th Ave Mercer Island LLC
Legal org type: Private
Legal addr line1: PO Box 24687
Legal city,st,zip: Seattle, WA 98124
Legal country: UNITED STATES
Legal phone nbr: (206)624-5900
Legal effective date: Not reported
Land org name: 78th Ave Mercer Island LLC
Land org type: Private
Land person name: Not reported
Land addr line1: PO Box 24687
Land city,st,zip: Seattle, WA 98124
Land country: UNITED STATES
Land phone nbr: (206)624-5900
Operator org name: Lakeview & Four Seasons Dry Cleaner
Operator org type: Private
Operator addr line1: 3051 78th Ave NE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW & FOUR SEASONS DRY CLEANERS (Continued)

S108969357

Operator city,st,zip: Mercer Island, WA 98040
Operator country: UNITED STATES
Operator phone nbr: (1206)232-7666
Operator effective date: 01/01/2004
Site contact name: Karen Stephens
Site contact addr line1: PO Box 53290
Site Contact City/State/ Zip: Bellevue, WA 98015-3290
Site Contact Country: UNITED STATES
Site Contact Phone #: (425)643-8400
Site Contact EMail: kstephens@mpiha.com
Form Contact NAME: Pam Morrill
Form Contact ADDR LINE1: 11811 NE 1st St Ste 201
Form Contact City,ST,Zip: Bellevue, WA 98005
Form Contact Country: UNITED STATES
Form Contact Phone #: (425)453-8383 303
Form Contact EMail: morrillpj@cdm.com
Gen Status CD: SQG
Monthly Generation: False
Batch Generation: False
One Time Generation: True
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

A4
North
1/8-1/4
0.149 mi.
788 ft.

LAKEVIEW CLEANERS
3037 78TH AVE SE
MERCER ISLAND, WA 98040
Site 3 of 9 in cluster A

RCRA NonGen / NLR **1000224873**
FINDS **WAD982653461**
WA Inactive Drycleaners

Relative:
Lower

RCRA NonGen / NLR:

Date form received by agency: 06/19/1997

Facility name: LAKEVIEW CLEANERS

Facility address: 3037 78TH AVE SE
MERCER ISLAND, WA 98040

EPA ID: WAD982653461

Contact: LAKEVIEW CLEANER LAKEVIEW CLEANER

Contact address: 3037 78TH AVE SE
MERCER ISLAND, WA 98040

Contact country: US

Contact telephone: (000)000-0000

Contact email: Not reported

EPA Region: 10

Land type: Private

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
81 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW CLEANERS (Continued)

1000224873

Owner/Operator Summary:

Owner/operator name: LAKEVIEW CLEANER L
Owner/operator address: 3037 78TH AVE SE
MERCER ISLAND, WA 98040
Owner/operator country: US
Owner/operator telephone: (206)232-7303
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/02/1997
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 02/08/1993
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110005345849

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

INACTIVE DRYCLEANERS:

EPA I: WAD982653461
FS Id: 4313
Facility ID: WAD982653461
NAICS Code: 81232
Fed Waste Code Desc: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW CLEANERS (Continued)

1000224873

State Waste Code Desc:	Not reported
TAX REG NBR:	Not reported
BUSINESS TYPE:	Not reported
MAIL NAME:	Not reported
MAIL LINE1:	Not reported
MAIL LINE2:	Not reported
MAIL CITY:	Not reported
MAIL STATE:	Not reported
MAIL ZIP:	Not reported
MAIL COUNTRY:	Not reported
LEGAL ORG NAME:	Not reported
LEGAL PERSON FIRST NAME:	Not reported
LEGAL PERSON MIDDLE INIT:	Not reported
LEGAL PERSON LAST NAME:	Not reported
LEGAL LINE1:	Not reported
LEGAL LINE2:	Not reported
LEGAL CITY:	Not reported
LEGAL STATE:	Not reported
LEGAL ZIP:	Not reported
LEGAL COUNTRY:	Not reported
LEGAL PHONE NBR:	Not reported
LEGAL EFFECTIVE DATE:	Not reported
LEGAL ORGANIZATION TYPE:	Not reported
LAND ORG NAME:	Not reported
LAND PERSON FIRST NAME:	Not reported
LAND PERSON MIDDLE INIT:	Not reported
LAND PERSON LAST NAME:	Not reported
LAND LINE1:	Not reported
LAND LINE2:	Not reported
LAND CITY:	Not reported
LAND STATE:	Not reported
LAND ZIP:	Not reported
LAND COUNTRY:	Not reported
LAND PHONE NBR:	Not reported
LAND ORGANIZATION TYPE:	Not reported
OPERATOR ORG NAME:	Not reported
OPERATOR PERSON FIRST NAME:	Not reported
OPERATOR PERSON MIDDLE INIT:	Not reported
OPERATOR PERSON LAST NAME:	Not reported
OPERATOR LINE1:	Not reported
OPERATOR LINE2:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR COUNTRY:	Not reported
OPERATOR PHONE NBR:	Not reported
OPERATOR EFFECTIVE DATE:	Not reported
OPERATOR ORGANIZATION TYPE:	Not reported
SITE CONTACT FIRST NAME:	Not reported
SITE CONTACT MIDDLE INIT:	Not reported
SITE CONTACT LAST NAME:	Not reported
SITE CONTACT LINE1:	Not reported
SITE CONTACT LINE2:	Not reported
SITE CONTACT CITY:	Not reported
SITE CONTACT STATE:	Not reported
SITE CONTACT ZIP:	Not reported
SITE CONTACT COUNTRY:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEVIEW CLEANERS (Continued)

1000224873

SITE CONTACT PHONE NBR:	Not reported
SITE CONTACT EMAIL:	Not reported
FORM CONTACT FIRST NAME:	Not reported
FORM CONTACT MIDDLE INIT:	Not reported
FORM CONTACT LAST NAME:	Not reported
FORM CONTACT LINE1:	Not reported
FORM CONTACT LINE2:	Not reported
FORM CONTACT CITY:	Not reported
FORM CONTACT STATE:	Not reported
FORM CONTACT ZIP:	Not reported
FORM CONTACT COUNTRY:	Not reported
FORM CONTACT PHONE NBR:	Not reported
FORM CONTACT EMAIL:	Not reported
GEN STATUS CD:	Not reported
MONTHLY GENERATION:	Not reported
BATCH GENERATION:	Not reported
ONE TIME GENERATION:	Not reported
TRANSPORTS OWN WASTE:	Not reported
TRANSPORTS OTHERS WASTE:	Not reported
RECYCLER ONSITE:	Not reported
TRANSFER FACILITY:	Not reported
PBR:	Not reported
TBG:	Not reported
MIXED RADIOACTIVE:	Not reported
IMPORTER:	Not reported
TSDR FACILITY:	Not reported
IMMEDIATE RECYCLER:	Not reported
GEN DANG FUEL:	Not reported
GEN MARKET TO BURNER:	Not reported
GEN OTHER MARKETERS:	Not reported
UTILITY BOILER BURNER:	Not reported
INDUSTRY BOILER BURNER:	Not reported
FURNACE BURNER:	Not reported
SMELTER DEFERRAL:	Not reported
SMALL QTY EXEMPTION:	Not reported
OTHER EXEMPTION:	Not reported
UW BATTERY GEN:	Not reported
UW THERMOSTATS GEN:	Not reported
UW MERCURY GEN:	Not reported
UW LAMPS GEN:	Not reported
UW BATTERY ACCUM:	Not reported
UW THERMOSTATS ACCUM:	Not reported
UW MERCURY ACCUM:	Not reported
UW LAMPS ACCUM:	Not reported
UW DESTINATION FACILITY:	Not reported
OFF SPEC UTILITY BOILER:	Not reported
OFF SPEC INDUSTRY BOILER:	Not reported
OFF SPEC FURNACE:	Not reported
USED OIL TRANSPORTER:	Not reported
USED OIL TRANSFER FACILITY:	Not reported
USED OIL PROCESSOR:	Not reported
USED OIL REREFINER:	Not reported
USED OIL FUEL MARKETER DIR SHIPMENTS:	Not reported
USED OIL FUEL MARKETER MEETS SPECS:	Not reported
Comments:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A5
North
1/8-1/4
0.151 mi.
795 ft.

LAKEVIEW CLEANERS
3035 78TH AVE SE
MERCER ISLAND, WA 98040

Site 4 of 9 in cluster A

WA ALLSITES **S109555318**
N/A

Relative:
Lower

ALLSITES:
Facility Name: LAKEVIEW CLEANERS
Facility Id: 35957581

Actual:
81 ft.

- . Interaction: I
- . Interaction 1: HWG
- . Interaction 2: Hazardous Waste Generator
- . Ecology Program: HAZWASTE
- . Program Data: TURBOWASTE
- . Facility Alt.: Not reported
- . Program ID: WAD982653461
- . Date Interaction: 1988-08-01 00:00:00
- . Date Interaction 3: 1997-07-01 00:00:00
- . Latitude: 47.583254373000003
- . Longitude: -122.233785127

A6
NNE
1/8-1/4
0.154 mi.
814 ft.

MERCER ISLAND CITY FIRE DE
3030 SE 78TH
MERCER ISLAND, WA 98040

Site 5 of 9 in cluster A

RCRA NonGen / NLR **1001969522**
FINDS **WAD988475372**

Relative:
Lower

RCRA NonGen / NLR:
Date form received by agency: 06/24/2004
Facility name: MERCER ISLAND CITY FIRE DE
Facility address: 3030 78TH AVE SE
MERCER ISLAND, WA 98040
EPA ID: WAD988475372
Contact: MERCER ISLAND C MERCER ISLAND C
Contact address: 3030 78TH AVE SE
MERCER ISLAND, WA 98040-2823
Contact country: US
Contact telephone: (000)000-0000
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
82 ft.

Owner/Operator Summary:
Owner/operator name: MERCER ISLAND C M
Owner/operator address: 3030 78TH AVE SE
MERCER ISLAND, WA 98040
Owner/operator country: US
Owner/operator telephone: (000)000-0000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/02/1996
Owner/Op end date: Not reported

Owner/operator name: WALT M
Owner/operator address: 3030 78TH AVE SE
MERCER ISLAND, WA 98040

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERCER ISLAND CITY FIRE DE (Continued)

1001969522

Owner/operator country: US
Owner/operator telephone: (206)236-3600
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1900
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 12/31/2003
Site name: MERCER ISLAND CITY FIRE DE
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110005354295

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A7
NNE
1/8-1/4
0.154 mi.
814 ft.

CITY OF MERCER ISLAND FIRE DPRT
3030 78TH AVE SE
MERCER ISLAND, WA 98040

Site 6 of 9 in cluster A

WA CSCSL
WA LUST
WA UST
WA ALLSITES
WA Financial Assurance

U003024953
N/A

Relative:
Lower

CSCSL:

Facility ID: 75419292
Region: Northwest
Lat/Long: 47.58318 / -122.23484
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 10407
Site Status: Awaiting Cleanup
PSI?: Not reported
Contaminant Name: Benzene
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Actual:
82 ft.

Facility ID: 75419292
Region: Northwest
Lat/Long: 47.58318 / -122.23484
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 10407
Site Status: Awaiting Cleanup
PSI?: Not reported
Contaminant Name: Petroleum-Diesel
Ground Water: Suspected
Surface Water: Not reported
Soil: Confirmed Above Cleanup Level
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Facility ID: 75419292
Region: Northwest
Lat/Long: 47.58318 / -122.23484
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 10407
Site Status: Awaiting Cleanup
PSI?: Not reported
Contaminant Name: Petroleum-Gasoline
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Facility ID: 75419292

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF MERCER ISLAND FIRE DPRT (Continued)

U003024953

Region: Northwest
Lat/Long: 47.58318 / -122.23484
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 10407
Site Status: Awaiting Cleanup
PSI?: Not reported
Contaminant Name: Petroleum-Other
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Facility ID: 75419292
Lust Status Type: Awaiting Cleanup
Cleanup Site ID: 10407
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: MERCER ISLAND FIRE DEPT PROPERTY
Lust Status Date: 07/01/2011
Response Section: Northwest
Lat/Long: 47.58318 / -122.23484

UST:

Facility ID: 75419292
Site Id: 100783
UBI: 1790196400010006
Phone Number: 2062757802
Decimal Latitude: 47.58318
Decimal Longitude: -122.23484

Tank Name: 1EAST
Tag Number: A3916
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/01/1990
Tank Closure Date: Not reported
Capacity Range: 1,101 to 2,000 Gallons
Tank Permit Expiration Date: 06/30/2016
Tank Upgrade Date: 03/31/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Dielectric Coated Steel
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Sacrificial Anode
Tank Manifold: Not reported
Tank Release Detection: Interstitial Monitoring
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Interstitial Monitoring (or Sump Sensor)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF MERCER ISLAND FIRE DPRT (Continued)

U003024953

Pipe Second Release Detection: Not Applicable
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Non-Safe Suction
Responsible Unit: NORTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 1WEST
Tag Number: A3916
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/20/1990
Tank Closure Date: Not reported
Capacity Range: 1,101 to 2,000 Gallons
Tank Permit Expiration Date: 06/30/2016
Tank Upgrade Date: 03/31/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Dielectric Coated Steel
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Sacrificial Anode
Tank Manifold: Not reported
Tank Release Detection: Interstitial Monitoring
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection: Not Applicable
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Non-Safe Suction
Responsible Unit: NORTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: TANK 3
Tag Number: A3916
Tank Status: Operational
Tank Status Date: 07/16/2009
Tank Install Date: 00/19/1998
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: 06/30/2016
Tank Upgrade Date: Not reported
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Dielectric Coated Steel
Tank Construction: Double Wall Tank
Tank Tightness Test: Annual
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Interstitial Monitoring
Tank SFC Type: Not reported
Pipe Material: No Piping Attached to Tank
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: No Piping Attached to Tank
Pipe Second Release Detection: Not Applicable

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF MERCER ISLAND FIRE DPRT (Continued)

U003024953

Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Product Removed by Reclaimer
Responsible Unit: NORTHWEST
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Facility Name: MERCER ISLAND CITY FIRE DE
Facility Id: 75419292

. Interaction: I
. Interaction 1: LUST
. Interaction 2: LUST Facility
. Ecology Program: TOXICS
. Program Data: ISIS
. Facility Alt.: Not reported
. Program ID: 100783
. Date Interaction: 1989-03-13 00:00:00
. Date Interaction 3: 1995-06-01 00:00:00
. Latitude: 47.583174372999999
. Longitude: -122.23482512699999

. Interaction: A
. Interaction 1: UST
. Interaction 2: Underground Storage Tank
. Ecology Program: TOXICS
. Program Data: UST
. Facility Alt.: Not reported
. Program ID: 100783
. Date Interaction: 1990-01-01 00:00:00
. Date Interaction 3: Not reported
. Latitude: 47.583174372999999
. Longitude: -122.23482512699999

. Interaction: I
. Interaction 1: ENFORFNL
. Interaction 2: Enforcement Final
. Ecology Program: TOXICS
. Program Data: DMS
. Facility Alt.: Not reported
. Program ID: Not reported
. Date Interaction: 2015-03-19 00:00:00
. Date Interaction 3: 2015-03-19 00:00:00
. Latitude: 47.583174372999999
. Longitude: -122.23482512699999

. Interaction: I
. Interaction 1: HWG
. Interaction 2: Hazardous Waste Generator
. Ecology Program: HAZWASTE
. Program Data: TURBOWASTE
. Facility Alt.: Not reported
. Program ID: WAD988475372
. Date Interaction: 1990-07-18 00:00:00
. Date Interaction 3: 2003-12-31 00:00:00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF MERCER ISLAND FIRE DPRT (Continued)

U003024953

. Latitude: 47.583174372999999
. Longitude: -122.23482512699999

WA Financial Assurance 1:

edr_fstat: WA
edr_fzip: 98040
edr_fcnty: Not reported
edr_zip: Not reported
DOE Site ID: 100783
Site Type: Other Ins
Financial Resp Type: Zurich
Inception Date: 01/10/2012
Expiration Date: 01/10/2013

A8
North
1/8-1/4
0.158 mi.
833 ft.

RITE AID 5197
3023 78TH AVE SE
MERCER ISLAND, WA 98040

RCRA-LQG 1015751692
WA0001013465

Site 7 of 9 in cluster A

Relative:
Lower

RCRA-LQG:

Date form received by agency: 02/24/2014
Facility name: RITE AID 5197
Facility address: 3023 78TH AVE SE
MERCER ISLAND, WA 98040
EPA ID: WA0001013465
Mailing address: 30 HUNTER LANE
CAMP HILL, WA 17011
Contact: STORE MANAGER
Contact address: 3023 78TH AVE SE
MERCER ISLAND, WA 98040
Contact country: US
Contact telephone: (253) 236-0776
Contact email: Not reported
EPA Region: 10
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Actual:
81 ft.

Owner/Operator Summary:

Owner/operator name: RITE AID 5197
Owner/operator address: 3023 78TH AVE SE
MERCER ISLAND, WA 98040
Owner/operator country: US
Owner/operator telephone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1015751692

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/16/1998
Owner/Op end date: Not reported

Owner/operator name: THRIFTY PAYLESS INC
Owner/operator address: 30 HUNTER LANE
CAMP HILL, 17011

Owner/operator country: US
Owner/operator telephone: (717) 761-2633

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/27/1997
Owner/Op end date: Not reported

Owner/operator name: RITE AID CORP
Owner/operator address: 30 HUNTER LANE
CAMP HILL, 17011

Owner/operator country: US
Owner/operator telephone: (717) 761-2633

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/25/1997
Owner/Op end date: Not reported

Owner/operator name: RITE AID CORP
Owner/operator address: PO BOX 3165
HARRISBURG, PA 17105

Owner/operator country: US
Owner/operator telephone: Not reported

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1997
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 04/06/2012
Site name: RITE AID 5197
Classification: Not a generator, verified

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RITE AID 5197 (Continued)

1015751692

Date form received by agency: 12/08/2011
 Site name: RITE AID 5197
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/19/2010
 Site name: RITE AID 5197
 Classification: Not a generator, verified

Date form received by agency: 12/31/2007
 Site name: RITE AID 5197
 Classification: Not a generator, verified

Date form received by agency: 12/31/2005
 Site name: RITE AID 5197
 Classification: Small Quantity Generator

Date form received by agency: 12/31/2003
 Site name: RITE AID 5197
 Classification: Small Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 01/26/1998
 Evaluation: COMPLIANCE ASSISTANCE VISIT
 Area of violation: Not reported
 Date achieved compliance: Not reported
 Evaluation lead agency: State

A9
North
1/8-1/4
0.158 mi.
833 ft.

RITE AID 5197
3023 78TH AVE SE
MERCER ISLAND, WA 98040

Site 8 of 9 in cluster A

WA ALLSITES 1000993245
FINDS N/A
WA MANIFEST

Relative:
Lower

ALLSITES:
 Facility Name: RITE AID 5197
 Facility Id: 34474594

Actual:
81 ft.

. Interaction: I
 . Interaction 1: HWOTHER
 . Interaction 2: Haz Waste Management Activity
 . Ecology Program: HAZWASTE
 . Program Data: TURBOWASTE
 . Facility Alt.: Rite Aid 5197
 . Program ID: WA0001013465
 . Date Interaction: 2009-12-31 00:00:00
 . Date Interaction 3: 2011-12-08 00:00:00
 . Latitude: 47.583714372999999
 . Longitude: -122.23378512799999

. Interaction: A
 . Interaction 1: HWG
 . Interaction 2: Hazardous Waste Generator
 . Ecology Program: HAZWASTE
 . Program Data: TURBOWASTE
 . Facility Alt.: Rite Aid 5197

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

. Program ID: WA0001013465
. Date Interaction: 2012-12-31 00:00:00
. Date Interaction 3: Not reported
. Latitude: 47.583714372999999
. Longitude: -122.23378512799999

. Interaction: I
. Interaction 1: HWG
. Interaction 2: Hazardous Waste Generator
. Ecology Program: HAZWASTE
. Program Data: TURBOWASTE
. Facility Alt.: Rite Aid 5197
. Program ID: WA0001013465
. Date Interaction: 2011-12-08 00:00:00
. Date Interaction 3: 2011-12-31 00:00:00
. Latitude: 47.583714372999999
. Longitude: -122.23378512799999

. Interaction: I
. Interaction 1: HWG
. Interaction 2: Hazardous Waste Generator
. Ecology Program: HAZWASTE
. Program Data: TURBOWASTE
. Facility Alt.: RITE AID 5197
. Program ID: WA0001013465
. Date Interaction: 1995-01-24 00:00:00
. Date Interaction 3: 2009-12-31 00:00:00
. Latitude: 47.583714372999999
. Longitude: -122.23378512799999

. Interaction: I
. Interaction 1: HWOTHER
. Interaction 2: Haz Waste Management Activity
. Ecology Program: HAZWASTE
. Program Data: TURBOWASTE
. Facility Alt.: Rite Aid 5197
. Program ID: WA0001013465
. Date Interaction: 2011-12-31 00:00:00
. Date Interaction 3: 2012-12-31 00:00:00
. Latitude: 47.583714372999999
. Longitude: -122.23378512799999

FINDS:

Registry ID: 110005308764

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

WA MANIFEST:

Facility Site ID Number:	34474594
EPA ID:	WA0001013465
NAICS:	812922
SWC Desc:	Not reported
FWC Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Treatment by Generator:	False
Mixed radioactive waste:	False
Importer of hazardous waste:	False
Immediate recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of dangerous fuel waste:	False
Generator marketing to burner:	False
Other marketers (i.e., blender, distributor, etc.):	False
Utility boiler burner:	False
Industry boiler burner:	False
Industrial Furnace:	False
Smelter defferal:	False
Universal waste - batteries - generate:	False
Universal waste - thermostats - generate:	False
Universal waste - mercury - generate:	False
Universal waste - lamps - generate:	False
Universal waste - batteries - accumulate:	False
Universal waste - thermostats - accumulate:	False
Universal waste - mercury - accumulate:	False
Universal waste - lamps - accumulate:	False
Destination Facility for Universal Waste:	False
Off-specification used oil burner - utility boiler:	False
Off-specification used oil burner - industrial boiler:	False
Off-specification used oil burner - industrial furnace:	False
Tax Reg #:	578043735
Business Type:	Not reported
Mail Name:	Rite Aid 5197
Mail addr line1:	C/O PSC-NBC
Mail addr line2:	5151 San Felipe, Suite 1600
Mail city,st,zip:	Houston, TX 77056
Mail country:	UNITED STATES
Legal org name:	Rite Aid Corp
Legal org type:	Private
Legal addr line1:	PO Box 3165
Legal city,st,zip:	Harrisburg, PA 17105
Legal country:	UNITED STATES
Legal phone nbr:	(717)761-2633 x5569
Legal effective date:	01/01/1997

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Land org name: Tesoro Refining and Marketing Company
Land org type: Private
Land person name: Not reported
Land addr line1: 3404 Fourth Ave S
Land city,st,zip: Seattle, WA 98124
Land country: UNITED STATES
Land phone nbr: (206)624-5900
Operator org name: Rite Aid 5197
Operator org type: Private
Operator addr line1: 3023 78th Ave SE
Operator city,st,zip: Mercer Island, WA 98040
Operator country: UNITED STATES
Operator phone nbr: (206)236-0770
Operator effective date: 02/16/1998
Site contact name: JORGE GOMEZ
Site contact addr line1: 5151 SAN FELIPE ST, SUITE 1600
Site Contact City/State/ Zip: HOUSTON, TX 77056
Site Contact Country: UNITED STATES
Site Contact Phone #: 713-625-7015
Site Contact Email: JGOMEZ2@PSCNOW.COM
Form Contact NAME: JORGE GOMEZ
Form Contact ADDR LINE1: 5151 SAN FELIPE ST, SUITE 1600
Form Contact City,ST,Zip: HOUSTON, TX 77056
Form Contact Country: UNITED STATES
Form Contact Phone #: 713-625-7015
Form Contact Email: JGOMEZ2@PSCNOW.COM
Gen Status CD: XQG
Monthly Generation: False
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

Waste Streams Generated:

Facility ID: 34474594
Data Year: 2013
Description: RX P-Listed Empty Pharmaceutical Containers
Mix: False
Reported Qty: 1 LB
Kilo Qty: 0.45360000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: Insulin
Mix: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Reported Qty: 0.5 LB
Kilo Qty: 0.22680000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: RX Flammable Liquids
Mix: False
Reported Qty: 3.20000000 LB
Kilo Qty: 1.45152002
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: RX Acute Toxic Solids
Mix: False
Reported Qty: 5.70000000 LB
Kilo Qty: 2.58552004
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: RX Toxic Solids
Mix: False
Reported Qty: 10.80000000 LB
Kilo Qty: 4.89888008
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: Oxydizing Liquids
Mix: False
Reported Qty: 6.40000000 LB
Kilo Qty: 2.90304004
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: Flammable Liquids
Mix: False
Reported Qty: 22.69999999 LB
Kilo Qty: 10.2967201
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: Basic Liquids, Corrosive
Mix: False
Reported Qty: 17.39999999 LB
Kilo Qty: 7.89264013
Density No: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Aerosols
Mix:	False
Reported Qty:	26.6000000 LB
Kilo Qty:	12.0657602
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx Toxic Solids
Mix:	False
Reported Qty:	1.24 LB
Kilo Qty:	0.56246400
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx Alcohol Prep PAdS
Mix:	False
Reported Qty:	1.43999999 LB
Kilo Qty:	0.65318401
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Oxidizing Liquids
Mix:	False
Reported Qty:	12.8000000 LB
Kilo Qty:	5.80608009
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Liquid Health Enhancing Perishables
Mix:	False
Reported Qty:	0.94999999 LB
Kilo Qty:	0.43092000
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx P-listed empty pharmaceutical containers
Mix:	False
Reported Qty:	3.01210000 LB
Kilo Qty:	1.36628858
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Data Year: 2014
Description: Rx Nicotine
Mix: False
Reported Qty: 1.45 LB
Kilo Qty: 0.65772001
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Flammable Liquids
Mix: False
Reported Qty: 24.52 LB
Kilo Qty: 11.1222721
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Basic Liquids, Corrosive
Mix: False
Reported Qty: 4.099999999 LB
Kilo Qty: 1.85976003
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Aerosols
Mix: False
Reported Qty: 24.7600000 LB
Kilo Qty: 11.2311361
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: Not reported
Description: Used photographic solutions containing silver
Mix: No
Reported Qty: 2662.8 LB
Kilo Qty: 1207.84610077495
Density No: 0
Density Qty: Not reported

Shipments Sent:
Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-09-14 00:00:00
Reported Qty: 1 LB
Kilo Qty: 0.45360000

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-09-14 00:00:00
Reported Qty: 0.5 LB
Kilo Qty: 0.22680000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	2.10000000 LB
Kilo Qty:	0.95256001
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-06-24 00:00:00
Reported Qty:	0.69999999 LB
Kilo Qty:	0.31752000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-04-01 00:00:00
Reported Qty:	0.40000000 LB
Kilo Qty:	0.18144000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-06-24 00:00:00
Reported Qty:	3 LB
Kilo Qty:	1.36080002
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-01-29 00:00:00
Reported Qty:	2.70000000 LB
Kilo Qty:	1.22472002
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	0.5 LB
Kilo Qty:	0.22680000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-01-29 00:00:00
Reported Qty:	10.30000000 LB
Kilo Qty:	4.67208008
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-04-01 00:00:00
Reported Qty:	3.29999999 LB
Kilo Qty:	1.49688002
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-06-24 00:00:00
Reported Qty:	1 LB
Kilo Qty:	0.45360000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Reported Qty:	2.10000000 LB
Kilo Qty:	0.95256001
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-12-07 00:00:00
Reported Qty:	9.30000000 LB
Kilo Qty:	4.21848007
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	11.80000000 LB
Kilo Qty:	5.35248009
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-06-24 00:00:00
Reported Qty:	1.60000000 LB
Kilo Qty:	0.72576001
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	5.09999999 LB
Kilo Qty:	2.31336003
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-06-24 00:00:00
Reported Qty:	8.19999999 LB
Kilo Qty:	3.71952006
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-04-01 00:00:00
Reported Qty:	0.59999999 LB
Kilo Qty:	0.27216000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-01-29 00:00:00
Reported Qty:	3.5 LB
Kilo Qty:	1.58760002
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-12-07 00:00:00
Reported Qty:	6.79999999 LB
Kilo Qty:	3.08448005

Waste Stream Comments:

Facility ID:	34474594
Data Year:	2006
Comments:	A-7: Photoprocessing

Facility ID: 34474594

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned Consumer products

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Data Year: 2013
Comments: Damaged/returned consumer products

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Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired consumer commodities

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired toxic solid pharmaceuticals

Facility ID: 34474594
Data Year: 2014
Comments: A8- Damaged/used alcohol prep pads

Facility ID: 34474594
Data Year: 2014
Comments: A8- Damaged/Returned/Expired consumer commodities

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired consumer commodities

Facility ID: 34474594
Data Year: 2014
Comments: A8- empty warfarin/Coumadin bottles containing p-listed residue

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired smoking cessation products

Facility Site ID Number: 34474594

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

EPA ID: WA0001013465
NAICS: 446110
SWC Desc: WP01,WT02
FWC Desc: D001,D002,D007,D009,D010,D011,D024,D026,P001,P075
Form Comm: Not reported
Data Year: 2014
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter deferral: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 601637571
Business Type: Retail Chain Pharmacy
Mail Name: Rite Aid Corp
Mail addr line1: 30 Hunter Lane
Mail city,st,zip: Camp Hill, PA 17011
Mail country: UNITED STATES
Legal org name: Thrifty Payless Inc
Legal org type: Private
Legal addr line1: 30 Hunter Lane
Legal city,st,zip: Camp Hill, PA 17011
Legal country: UNITED STATES
Legal phone nbr: (717)761-2633
Legal effective date: 05/27/1997
Land org name: Gull Industries Inc
Land org type: Private
Land person name: Marc Wilson
Land addr line1: c\o WMS LLC
Land addr line2: 600 108th Ave SE Ste 530
Land city,st,zip: Bellevue, WA 98004
Land country: UNITED STATES
Land phone nbr: (425)453-1909
Operator org name: Rite Aid Corp
Operator org type: Private
Operator addr line1: 30 Hunter Lane
Operator city,st,zip: Camp Hill, PA 17011
Operator country: UNITED STATES

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Operator phone nbr: (717)761-2633
Operator effective date: 05/25/1997
Site contact name: Stephanie Caiati
Site contact addr line1: 30 Hunter Lane
Site Contact City/State/ Zip: Camp Hill, PA 17011
Site Contact Country: UNITED STATES
Site Contact Phone #: 717-975-8643
Site Contact EMail: rksafe@riteaid.com
Form Contact NAME: Stephanie A Caiati
Form Contact ADDR LINE1: 30 Hunter Lane
Form Contact City,ST,Zip: Camp Hill, PA 17011
Form Contact Country: UNITED STATES
Form Contact Phone #: (717)975-8643
Form Contact EMail: rksafe@riteaid.com
Gen Status CD: LQG
Monthly Generation: True
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

Waste Streams Generated:

Facility ID: 34474594
Data Year: 2013
Description: RX P-Listed Empty Pharmaceutical Containers
Mix: False
Reported Qty: 1 LB
Kilo Qty: 0.45360000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: Insulin
Mix: False
Reported Qty: 0.5 LB
Kilo Qty: 0.22680000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: RX Flammable Liquids
Mix: False
Reported Qty: 3.20000000 LB
Kilo Qty: 1.45152002
Density No: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	RX Acute Toxic Solids
Mix:	False
Reported Qty:	5.70000000 LB
Kilo Qty:	2.58552004
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	RX Toxic Solids
Mix:	False
Reported Qty:	10.80000000 LB
Kilo Qty:	4.89888008
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Oxydizing Liquids
Mix:	False
Reported Qty:	6.40000000 LB
Kilo Qty:	2.90304004
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Flammable Liquids
Mix:	False
Reported Qty:	22.69999999 LB
Kilo Qty:	10.2967201
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Basic Liquids, Corrosive
Mix:	False
Reported Qty:	17.39999999 LB
Kilo Qty:	7.89264013
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Aerosols
Mix:	False
Reported Qty:	26.60000000 LB
Kilo Qty:	12.0657602
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Data Year:	2014
Description:	Rx Toxic Solids
Mix:	False
Reported Qty:	1.24 LB
Kilo Qty:	0.56246400
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx Alcohol Prep PAdS
Mix:	False
Reported Qty:	1.43999999 LB
Kilo Qty:	0.65318401
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Oxidizing Liquids
Mix:	False
Reported Qty:	12.8000000 LB
Kilo Qty:	5.80608009
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Liquid Health Enhancing Perishables
Mix:	False
Reported Qty:	0.94999999 LB
Kilo Qty:	0.43092000
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx P-listed empty pharmaceutical containers
Mix:	False
Reported Qty:	3.01210000 LB
Kilo Qty:	1.36628858
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx Nicotine
Mix:	False
Reported Qty:	1.45 LB
Kilo Qty:	0.65772001
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Flammable Liquids
Mix:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Reported Qty:	24.52 LB
Kilo Qty:	11.1222721
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Basic Liquids, Corrosive
Mix:	False
Reported Qty:	4.09999999 LB
Kilo Qty:	1.85976003
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Aerosols
Mix:	False
Reported Qty:	24.7600000 LB
Kilo Qty:	11.2311361
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	Not reported
Description:	Used photographic solutions containing silver
Mix:	No
Reported Qty:	2662.8 LB
Kilo Qty:	1207.84610077495
Density No:	0
Density Qty:	Not reported
Shipments Sent:	
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	1 LB
Kilo Qty:	0.45360000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	0.5 LB
Kilo Qty:	0.22680000
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-09-14 00:00:00
Reported Qty:	2.10000000 LB
Kilo Qty:	0.95256001
Facility ID:	34474594
Data Year:	2013
Shipment sent data:	2013-06-24 00:00:00
Reported Qty:	0.69999999 LB
Kilo Qty:	0.31752000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-04-01 00:00:00
Reported Qty: 0.40000000 LB
Kilo Qty: 0.18144000

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-06-24 00:00:00
Reported Qty: 3 LB
Kilo Qty: 1.36080002

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-01-29 00:00:00
Reported Qty: 2.70000000 LB
Kilo Qty: 1.22472002

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-09-14 00:00:00
Reported Qty: 0.5 LB
Kilo Qty: 0.22680000

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-01-29 00:00:00
Reported Qty: 10.30000000 LB
Kilo Qty: 4.67208008

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-04-01 00:00:00
Reported Qty: 3.29999999 LB
Kilo Qty: 1.49688002

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-06-24 00:00:00
Reported Qty: 1 LB
Kilo Qty: 0.45360000

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-09-14 00:00:00
Reported Qty: 2.10000000 LB
Kilo Qty: 0.95256001

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-12-07 00:00:00
Reported Qty: 9.30000000 LB
Kilo Qty: 4.21848007

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-09-14 00:00:00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Reported Qty: 11.8000000 LB
Kilo Qty: 5.35248009

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-06-24 00:00:00
Reported Qty: 1.60000000 LB
Kilo Qty: 0.72576001

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-09-14 00:00:00
Reported Qty: 5.09999999 LB
Kilo Qty: 2.31336003

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-06-24 00:00:00
Reported Qty: 8.19999999 LB
Kilo Qty: 3.71952006

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-04-01 00:00:00
Reported Qty: 0.59999999 LB
Kilo Qty: 0.27216000

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-01-29 00:00:00
Reported Qty: 3.5 LB
Kilo Qty: 1.58760002

Facility ID: 34474594
Data Year: 2013
Shipment sent data: 2013-12-07 00:00:00
Reported Qty: 6.79999999 LB
Kilo Qty: 3.08448005

Waste Stream Comments:

Facility ID: 34474594
Data Year: 2006
Comments: A-7: Photoprocessing

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Data Year: 2013
Comments: Damaged/returned Consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2013
Comments: Damaged/returned consumer products

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired consumer commodities

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired toxic solid pharmaceuticals

Facility ID: 34474594
Data Year: 2014
Comments: A8- Damaged/used alcohol prep pads

Facility ID: 34474594
Data Year: 2014
Comments: A8- Damaged/Returned/Expired consumer commodities

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired consumer commodities

Facility ID: 34474594
Data Year: 2014
Comments: A8- empty warfarin/Coumadin bottles containing p-listed residue

Facility ID: 34474594
Data Year: 2014
Comments: A8- damaged/returned/expired smoking cessation products

Facility Site ID Number: 34474594
EPA ID: WA0001013465
NAICS: 812922
SWC Desc: Not reported
FWC Desc: Not reported
Form Comm: Not reported
Data Year: 2010
Permit by Rule: False
Treatment by Generator: False
Mixed radioactive waste: False
Importer of hazardous waste: False
Immediate recycler: False
Treatment/Storage/Disposal/Recycling Facility: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Generator of dangerous fuel waste: False
Generator marketing to burner: False
Other marketers (i.e., blender, distributor, etc.): False
Utility boiler burner: False
Industry boiler burner: False
Industrial Furnace: False
Smelter defferal: False
Universal waste - batteries - generate: False
Universal waste - thermostats - generate: False
Universal waste - mercury - generate: False
Universal waste - lamps - generate: False
Universal waste - batteries - accumulate: False
Universal waste - thermostats - accumulate: False
Universal waste - mercury - accumulate: False
Universal waste - lamps - accumulate: False
Destination Facility for Universal Waste: False
Off-specification used oil burner - utility boiler: False
Off-specification used oil burner - industrial boiler: False
Off-specification used oil burner - industrial furnace: False
Tax Reg #: 578043735
Business Type: Not reported
Mail Name: Rite Aid 5197
Mail addr line1: C/O PSC-NBC
Mail addr line2: 5151 San Felipe, Suite 1600
Mail city,st,zip: Houston, TX 77056
Mail country: UNITED STATES
Legal org name: Rite Aid Corp
Legal org type: Private
Legal addr line1: PO Box 3165
Legal city,st,zip: Harrisburg, PA 17105
Legal country: UNITED STATES
Legal phone nbr: (717)761-2633 x5569
Legal effective date: 01/01/1997
Land org name: Tesoro Refining and Marketing Company
Land org type: Private
Land person name: Not reported
Land addr line1: 3404 Fourth Ave S
Land city,st,zip: Seattle, WA 98124
Land country: UNITED STATES
Land phone nbr: (206)624-5900
Operator org name: Rite Aid 5197
Operator org type: Private
Operator addr line1: 3023 78th Ave SE
Operator city,st,zip: Mercer Island, WA 98040
Operator country: UNITED STATES
Operator phone nbr: (206)236-0770
Operator effective date: 02/16/1998
Site contact name: JORGE GOMEZ
Site contact addr line1: 5151 SAN FELIPE ST, SUITE 1600
Site Contact City/State/ Zip: HOUSTON, TX 77056
Site Contact Country: UNITED STATES
Site Contact Phone #: 713-625-7015
Site Contact EMail: JGOMEZ2@PSCNOW.COM
Form Contact NAME: JORGE GOMEZ
Form Contact ADDR LINE1: 5151 SAN FELIPE ST, SUITE 1600
Form Contact City,ST,Zip: HOUSTON, TX 77056
Form Contact Country: UNITED STATES

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Form Contact Phone #: 713-625-7015
Form Contact Email: JGOMEZ2@PSCNOW.COM
Gen Status CD: XQG
Monthly Generation: False
Batch Generation: False
One Time Generation: False
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False

Waste Streams Generated:

Facility ID: 34474594
Data Year: 2013
Description: RX P-Listed Empty Pharmaceutical Containers
Mix: False
Reported Qty: 1 LB
Kilo Qty: 0.45360000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: Insulin
Mix: False
Reported Qty: 0.5 LB
Kilo Qty: 0.22680000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: RX Flammable Liquids
Mix: False
Reported Qty: 3.20000000 LB
Kilo Qty: 1.45152002
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2013
Description: RX Acute Toxic Solids
Mix: False
Reported Qty: 5.70000000 LB
Kilo Qty: 2.58552004
Density No: 0
Density Qty: Not reported

Facility ID: 34474594

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Data Year:	2013
Description:	RX Toxic Solids
Mix:	False
Reported Qty:	10.8000000 LB
Kilo Qty:	4.89888008
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Oxydizing Liquids
Mix:	False
Reported Qty:	6.40000000 LB
Kilo Qty:	2.90304004
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Flammable Liquids
Mix:	False
Reported Qty:	22.6999999 LB
Kilo Qty:	10.2967201
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Basic Liquids, Corrosive
Mix:	False
Reported Qty:	17.3999999 LB
Kilo Qty:	7.89264013
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2013
Description:	Aerosols
Mix:	False
Reported Qty:	26.6000000 LB
Kilo Qty:	12.0657602
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx Toxic Solids
Mix:	False
Reported Qty:	1.24 LB
Kilo Qty:	0.56246400
Density No:	0
Density Qty:	Not reported
Facility ID:	34474594
Data Year:	2014
Description:	Rx Alcohol Prep PAdS
Mix:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITE AID 5197 (Continued)

1000993245

Reported Qty: 1.43999999 LB
Kilo Qty: 0.65318401
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Oxidizing Liquids
Mix: False
Reported Qty: 12.8000000 LB
Kilo Qty: 5.80608009
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Liquid Health Enhancing Perishables
Mix: False
Reported Qty: 0.94999999 LB
Kilo Qty: 0.43092000
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Rx P-listed empty pharmaceutical containers
Mix: False
Reported Qty: 3.01210000 LB
Kilo Qty: 1.36628858
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Rx Nicotine
Mix: False
Reported Qty: 1.45 LB
Kilo Qty: 0.65772001
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Flammable Liquids
Mix: False
Reported Qty: 24.52 LB
Kilo Qty: 11.1222721
Density No: 0
Density Qty: Not reported

Facility ID: 34474594
Data Year: 2014
Description: Basic Liquids, Corrosive
Mix: False
Reported Qty: 4.09999999 LB
Kilo Qty: 1.85976003
Density No: 0

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MERCER ISLAND	S103511088	WARREN MEDICAL OFFICE BUILDING (TH	21727 76TH AVE. W.	98040	WA ICR

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 11/07/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 11/07/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 11/07/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/08/2015	Telephone: 703-603-8704
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 10/09/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 11/23/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 11/23/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/29/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/29/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/29/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/29/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/29/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 11/13/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 08/31/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/14/2015
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 08/31/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/14/2015
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 06/26/2015	Telephone: 202-267-2180
Date Made Active in Reports: 09/16/2015	Last EDR Contact: 09/29/2015
Number of Days to Update: 82	Next Scheduled EDR Contact: 01/11/2016
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

HSL: Hazardous Sites List

The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

Date of Government Version: 02/19/2015	Source: Department of Ecology
Date Data Arrived at EDR: 03/13/2015	Telephone: 360-407-7200
Date Made Active in Reports: 03/20/2015	Last EDR Contact: 09/11/2015
Number of Days to Update: 7	Next Scheduled EDR Contact: 12/21/2015
	Data Release Frequency: Semi-Annually

State- and tribal - equivalent CERCLIS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CSCSL: Confirmed and Suspected Contaminated Sites List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 07/21/2015	Source: Department of Ecology
Date Data Arrived at EDR: 07/22/2015	Telephone: 360-407-7200
Date Made Active in Reports: 08/20/2015	Last EDR Contact: 10/22/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/12/2015	Source: Department of Ecology
Date Data Arrived at EDR: 03/13/2015	Telephone: 360-407-6132
Date Made Active in Reports: 03/20/2015	Last EDR Contact: 10/23/2015
Number of Days to Update: 7	Next Scheduled EDR Contact: 12/21/2015
	Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks Site List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/18/2015	Source: Department of Ecology
Date Data Arrived at EDR: 08/21/2015	Telephone: 360-407-7183
Date Made Active in Reports: 09/23/2015	Last EDR Contact: 11/20/2015
Number of Days to Update: 33	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/13/2015	Source: EPA Region 6
Date Data Arrived at EDR: 08/03/2015	Telephone: 214-665-6597
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/21/2015	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2015	Telephone: 206-553-2857
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 76	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/30/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 07/28/2015
Date Data Arrived at EDR: 08/07/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 67

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/08/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2015
Date Data Arrived at EDR: 08/07/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 53

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/08/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/08/2015
Next Scheduled EDR Contact: 01/25/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/19/2015	Source: Department of Ecology
Date Data Arrived at EDR: 08/25/2015	Telephone: 360-407-7183
Date Made Active in Reports: 09/23/2015	Last EDR Contact: 11/13/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tank Locations

A listing of aboveground storage tank locations regulated by the Department of Ecology's Spill Prevention, Preparedness and Response Program.

Date of Government Version: 07/29/2015	Source: Department of Ecology
Date Data Arrived at EDR: 08/06/2015	Telephone: 360-407-7562
Date Made Active in Reports: 09/23/2015	Last EDR Contact: 11/07/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 02/15/2016
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/28/2015	Source: EPA Region 5
Date Data Arrived at EDR: 08/07/2015	Telephone: 312-886-6136
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 67	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014	Source: EPA Region 9
Date Data Arrived at EDR: 02/13/2015	Telephone: 415-972-3368
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 10/30/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 02/09/2016
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 04/30/2015	Telephone: 617-918-1313
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 10/27/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 07/21/2015	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2015	Telephone: 206-553-2857
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 76	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/13/2015	Source: EPA Region 6
Date Data Arrived at EDR: 08/03/2015	Telephone: 214-665-7591
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/28/2015	Source: EPA Region 8
Date Data Arrived at EDR: 08/14/2015	Telephone: 303-312-6137
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 60	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2015	Source: EPA Region 4
Date Data Arrived at EDR: 08/07/2015	Telephone: 404-562-9424
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 67	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Semi-Annually

State and tribal institutional control / engineering control registries

INST CONTROL: Institutional Control Site List

Sites that have institutional controls.

Date of Government Version: 07/21/2015	Source: Department of Ecology
Date Data Arrived at EDR: 07/22/2015	Telephone: 360-407-7170
Date Made Active in Reports: 08/20/2015	Last EDR Contact: 10/22/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 10/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 09/29/2015
Number of Days to Update: 36	Next Scheduled EDR Contact: 01/11/2016
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites

Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Date of Government Version: 07/21/2015	Source: Department of Ecology
Date Data Arrived at EDR: 07/22/2015	Telephone: 360-407-7200
Date Made Active in Reports: 08/20/2015	Last EDR Contact: 10/22/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Varies

ICR: Independent Cleanup Reports

These are remedial action reports Ecology has received from either the owner or operator of the sites. These actions have been conducted without department oversight or approval and are not under an order or decree. This database is no longer updated by the Department of Ecology.

Date of Government Version: 12/01/2002	Source: Department of Ecology
Date Data Arrived at EDR: 01/03/2003	Telephone: 360-407-7200
Date Made Active in Reports: 01/22/2003	Last EDR Contact: 08/10/2009
Number of Days to Update: 19	Next Scheduled EDR Contact: 11/09/2009
	Data Release Frequency: No Update Planned

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites Listing

A listing of brownfields sites included in the Confirmed & Suspected Sites Listing. Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 07/21/2015	Source: Department of Ecology
Date Data Arrived at EDR: 07/22/2015	Telephone: 360-725-4030
Date Made Active in Reports: 08/20/2015	Last EDR Contact: 10/22/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/22/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/24/2015	Telephone: 202-566-2777
Date Made Active in Reports: 09/02/2015	Last EDR Contact: 09/23/2015
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/04/2016
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility List

A listing of recycling center locations.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 07/28/2015
Date Made Active in Reports: 08/20/2015
Number of Days to Update: 23

Source: Department of Ecology
Telephone: 360-407-6105
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

SWTIRE: Solid Waste Tire Facilities

This study identified sites statewide with unauthorized accumulations of scrap tires.

Date of Government Version: 11/01/2005
Date Data Arrived at EDR: 03/16/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 28

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 09/11/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/06/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: No Update Planned

ALLSITES: Facility/Site Identification System Listing

Information on facilities and sites of interest to the Department of Ecology.

Date of Government Version: 08/05/2015
Date Data Arrived at EDR: 08/07/2015
Date Made Active in Reports: 09/23/2015
Number of Days to Update: 47

Source: Department of Ecology
Telephone: 360-407-6423
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Contaminated Site List

Illegal methamphetamine labs use hazardous chemicals that create public health hazards. Chemicals and residues can cause burns, respiratory and neurological damage, and death. Biological hazards associated with intravenous needles, feces, and blood also pose health risks.

Date of Government Version: 08/07/2015
Date Data Arrived at EDR: 08/17/2015
Date Made Active in Reports: 09/23/2015
Number of Days to Update: 37

Source: Department of Health
Telephone: 360-236-3380
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

HIST CDL: List of Sites Contaminated by Clandestine Drug Labs

This listing of contaminated sites by Clandestine Drug Labs includes non-remediated properties. The current CDL listing does not. This listing is no longer updated by the state agency.

Date of Government Version: 02/08/2007
Date Data Arrived at EDR: 06/26/2007
Date Made Active in Reports: 07/19/2007
Number of Days to Update: 23

Source: Department of Health
Telephone: 360-236-3381
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

CSCSL NFA: Confirmed and Contaminated Sites - No Further Action

This report contains information about sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup. Sites on the Hazardous Sites List (see above) are included in this data set.

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/22/2015
Date Made Active in Reports: 08/20/2015
Number of Days to Update: 29

Source: Department of Ecology
Telephone: 360-407-7170
Last EDR Contact: 10/22/2015
Next Scheduled EDR Contact: 02/01/2016
Data Release Frequency: Semi-Annually

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: Quarterly

Local Land Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 10/30/2015
Number of Days to Update: 37	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 06/26/2015	Telephone: 202-366-4555
Date Made Active in Reports: 09/02/2015	Last EDR Contact: 09/29/2015
Number of Days to Update: 68	Next Scheduled EDR Contact: 01/11/2016
	Data Release Frequency: Annually

SPILLS: Reported Spills

Spills reported to the Spill Prevention, Preparedness and Response Division.

Date of Government Version: 06/08/2015	Source: Department of Ecology
Date Data Arrived at EDR: 06/09/2015	Telephone: 360-407-6950
Date Made Active in Reports: 07/13/2015	Last EDR Contact: 09/08/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 12/21/2015
	Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/23/2006	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2015	Telephone: (206) 553-1200
Date Made Active in Reports: 09/16/2015	Last EDR Contact: 09/29/2015
Number of Days to Update: 82	Next Scheduled EDR Contact: 01/11/2016
	Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/11/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/16/2015
Next Scheduled EDR Contact: 01/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/16/2015
Next Scheduled EDR Contact: 01/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/10/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/25/2015
Next Scheduled EDR Contact: 01/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/28/2015
Next Scheduled EDR Contact: 12/07/2015
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/11/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/26/2015	Telephone: 202-564-8600
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 69	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/13/2015
Number of Days to Update: 3	Next Scheduled EDR Contact: 02/22/2016
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014	Source: EPA
Date Data Arrived at EDR: 10/15/2014	Telephone: 202-566-0500
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 10/29/2015
Number of Days to Update: 33	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/06/2015	Telephone: 202-564-5088
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 10/08/2015
Number of Days to Update: 31	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/10/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 95

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/03/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/11/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/29/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/07/2015
Next Scheduled EDR Contact: 01/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/28/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/28/2015
Next Scheduled EDR Contact: 12/07/2015
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/16/2015
Next Scheduled EDR Contact: 01/25/2016
Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/05/2015
Next Scheduled EDR Contact: 01/18/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust.

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 07/22/2015
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 40

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/28/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 07/22/2015
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 40

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/28/2015
Next Scheduled EDR Contact: 01/11/2016
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/14/2015
Date Data Arrived at EDR: 06/03/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 91

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/01/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/04/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/04/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 09/09/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Quarterly

AIRS (EMI): Washington Emissions Data System Emissions inventory data.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 17

Source: Department of Ecology
Telephone: 360-407-6040
Last EDR Contact: 09/21/2015
Next Scheduled EDR Contact: 01/04/2016
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

Date of Government Version: 09/10/2014
Date Data Arrived at EDR: 09/11/2014
Date Made Active in Reports: 10/15/2014
Number of Days to Update: 34

Source: Department of Ecology
Telephone: 360-407-6933
Last EDR Contact: 10/20/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DRYCLEANERS: Drycleaner List

A listing of registered drycleaners who registered with the Department of Ecology (using the SIC code of 7215 and 7216) as hazardous waste generators.

Date of Government Version: 12/31/2014	Source: Department of Ecology
Date Data Arrived at EDR: 05/01/2015	Telephone: 360-407-6732
Date Made Active in Reports: 05/22/2015	Last EDR Contact: 10/19/2015
Number of Days to Update: 21	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/24/2012	Source: Department of Ecology
Date Data Arrived at EDR: 02/24/2012	Telephone: 360-586-1060
Date Made Active in Reports: 03/27/2012	Last EDR Contact: 11/16/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/17/2015	Source: Department of Ecology
Date Data Arrived at EDR: 08/18/2015	Telephone: 360-407-6754
Date Made Active in Reports: 09/23/2015	Last EDR Contact: 11/16/2015
Number of Days to Update: 36	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/01/2001	Source: Department of Ecology
Date Data Arrived at EDR: 03/06/2007	Telephone: 360-407-6136
Date Made Active in Reports: 04/19/2007	Last EDR Contact: 11/20/2015
Number of Days to Update: 44	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Varies

INACTIVE DRYCLEANERS: Inactive Drycleaners

A listing of inactive drycleaner facility locations.

Date of Government Version: 12/31/2014	Source: Department of Ecology
Date Data Arrived at EDR: 05/01/2015	Telephone: 360-407-6732
Date Made Active in Reports: 05/29/2015	Last EDR Contact: 10/19/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Annually

WA MANIFEST: Hazardous Waste Manifest Data

Hazardous waste manifest information.

Date of Government Version: 12/31/2014	Source: Department of Ecology
Date Data Arrived at EDR: 05/01/2015	Telephone: N/A
Date Made Active in Reports: 05/29/2015	Last EDR Contact: 10/19/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 02/01/2016
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPDES: Water Quality Permit System Data

A listing of permitted wastewater facilities.

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/22/2015
Date Made Active in Reports: 08/20/2015
Number of Days to Update: 29

Source: Department of Ecology
Telephone: 360-407-6073
Last EDR Contact: 10/22/2015
Next Scheduled EDR Contact: 02/01/2016
Data Release Frequency: Quarterly

UIC: Underground Injection Wells Listing

A listing of underground injection wells.

Date of Government Version: 08/18/2015
Date Data Arrived at EDR: 08/21/2015
Date Made Active in Reports: 09/23/2015
Number of Days to Update: 33

Source: Department of Ecology
Telephone: 360-407-6143
Last EDR Contact: 11/20/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

KING COUNTY:

Abandoned Landfill Study in King County

The King County Abandoned Landfill Survey was conducted from October through December 1984 by the Health Department's Environmental Health Division at the request of the King County Council. The primary objective of the survey was to determine if any public health problems existed at the predetermined 24 sites.

Date of Government Version: 04/30/1985
Date Data Arrived at EDR: 11/07/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Seattle-King County Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 10/21/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SEATTLE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Abandoned Landfill Study in the City of Seattle

The Seattle Abandoned Landfill Survey was conducted in June and July of 1984 by the Health Department's Environmental Health Division at the request of the Mayor's Office. The primary objective of the survey was to determine if any public health problems existed at the predetermined 12 sites.

Date of Government Version: 07/30/1984
Date Data Arrived at EDR: 11/07/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Seattle - King County Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 10/21/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SEATTLE/KING COUNTY:

Seattle - King County Abandoned Landfill Toxicity / Hazard Assessment Project

This report presents the Seattle-King County Health Department's follow-up investigation of two city owned and four county owned abandoned landfills which was conducted from February to December 1986.

Date of Government Version: 12/31/1986
Date Data Arrived at EDR: 08/18/1995
Date Made Active in Reports: 09/20/1995
Number of Days to Update: 33

Source: Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 08/14/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SNOHOMISH COUNTY:

Solid Waste Sites of Record at Snohomish Health District

Solid waste disposal and/or utilization sites in Snohomish County.

Date of Government Version: 11/16/2011
Date Data Arrived at EDR: 03/29/2012
Date Made Active in Reports: 05/03/2012
Number of Days to Update: 35

Source: Snohomish Health District
Telephone: 206-339-5250
Last EDR Contact: 09/25/2015
Next Scheduled EDR Contact: 01/04/2016
Data Release Frequency: Semi-Annually

TACOMA/PIERCE COUNTY:

Closed Landfill Survey

Following numerous requests for information about closed dumpsites and landfills in Pierce County, the Tacoma-Pierce County Health Department decided to conduct a study on the matter. The aim of the study was to evaluate public health risks associated with the closed dumpsites and landfills, and to determine the need, if any, for further investigations of a more detailed nature. The sites represent all of the known dumpsites and landfills closed after 1950.

Date of Government Version: 09/01/2002
Date Data Arrived at EDR: 03/24/2003
Date Made Active in Reports: 05/14/2003
Number of Days to Update: 51

Source: Tacoma-Pierce County Health Department
Telephone: 206-591-6500
Last EDR Contact: 03/19/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/16/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/06/2015
Date Made Active in Reports: 08/24/2015
Number of Days to Update: 18

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/19/2015
Next Scheduled EDR Contact: 02/01/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/10/2015
Next Scheduled EDR Contact: 12/28/2015
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Daycare Center Listing

Source: Department of Social & Health Services

Telephone: 253-383-1735

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Ecology

Telephone: 360-407-6121

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment J
Transportation Impact Analysis

January 2017

Transportation Impact Analysis

MERCER ISLAND CENTER FOR THE ARTS (MICA)

Prepared for:
MICA

January 2017

Prepared by:



12131 113th Avenue NE, Suite 203
Kirkland, WA 98034
Phone: 425-821-3665
Fax: 425-825-8434
www.transpogroup.com

15249.00

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Executive Summary

This section provides an executive summary of the Transportation Impact Analysis through a set of frequently asked questions (FAQs).

Where is the project located and what would be developed?

The project is adjacent to Mercedale Park, at the SE 32nd Street/77th Avenue SE intersection in Mercer Island, Washington. Development will include a performing arts center, containing a mainstage auditorium, blackbox theater, recital studio, classrooms, and music studios. Outside the building structure, an outdoor theater, café, and plaza/drop-off area are included within the property's perimeter.

How is parking to be accommodated for the site?

It is anticipated that on-street parking and parking committed by adjacent businesses will be shared to satisfy the project parking demand, based on studies of existing supply and utilization. This approach is consistent with recommendations made in the *Town Center Parking Study* (April 2016, BERK/City of Mercer Island). Proposed changes to the town center area include the addition of on-street parking on both east and west sides of 77th Avenue SE, as well as along other roadways surrounding the site. No on-site parking is proposed for this project.

How many daily vehicular trips would the project generate and when would peak traffic volumes occur?

Based on current activity forecasts, the peak traffic volumes will occur during the weekday PM peak hour and the project will generate approximately 283 total trips with approximately 144 inbound trips and 139 outbound trips.

What transportation impacts are anticipated, if any?

Traffic generated by daytime classes and nighttime performances is not anticipated to impact levels of service on surrounding roadways and intersections. The site is not providing parking on-site and is anticipated to utilize publicly available on-street parking to accommodate daytime activities and utilize agreements with nearby businesses to share parking in the evenings for performances and activities when additional parking is needed.

What measures are proposed to reduce or control traffic impacts?

The adjacent street frontages along 77th Avenue SE and SE 32nd Street will be reconfigured to provide for a pick-up and drop-off area in front of the site, safe pedestrian crossings, and additional on-street parking. In addition, MICA is coordinating with the City to develop a Parking Management Plan.

Introduction

The purpose of this transportation impact analysis (TIA) is to evaluate transportation conditions and identify potential impacts associated with the proposed Mercer Island Center for the Arts (MICA).

Project Description

The proposed project is located adjacent to Mercerdale Park, at the SE 32nd Street/77th Avenue SE intersection. The Mercer Island Center for the Arts includes a 300-person mainstage, 100-person blackbox theater, as well as a recital studio, three classrooms, and four music studios. Studio and classroom activities vary in size: music studios accommodate individual students, while a classroom may fit up to 15 students at once. Outside the building structure, an outdoor theater, café, and performance plaza are included within the property's perimeter. The adjacent street frontages along 77th Avenue SE and SE 32nd Street will be reconfigured to provide for a pick-up and drop-off area in front of the site, safe pedestrian crossings, and additional on-street parking. The project site vicinity is shown in Figure 1, and the site plan is found in Figure 2.

No on-site parking is proposed for this project, and it is anticipated that on-street parking and parking available at local businesses will be shared to satisfy the project parking demand. A parking management plan has been developed to include strategies for accommodating the variety of events and activities at MICA (see MICA Parking Management Plan).

Study Area and Approach

The analysis focuses on the weekday PM peak period (one busiest hour between 4:00 and 6:00 p.m.) operations at four study intersections as coordinated with the City. This period represents the highest cumulative total traffic for the adjacent street system providing a conservative timeframe for level of service (LOS) analysis. The study intersections include (also see Figure 1):

1. 77th Avenue SE / SE 27th Street
2. 78th Avenue SE / SE 28th Street
3. Island Crest Way / SE 28th Street
4. 78th Avenue SE / SE 32nd Street

The TIA begins by describing background conditions in the site vicinity including the roadway network, existing and future (2019) weekday PM peak hour traffic volumes, traffic operations, traffic safety, non-motorized facilities, and transit. Future conditions, with the proposed project constructed and occupied, were evaluated by adding site-generated traffic to future baseline traffic volumes. Analysis of future conditions addresses cumulative impacts of the proposed project and traffic growth in the study area. Site-generated impacts are identified based on differences in transportation conditions between future with- and without-project conditions.

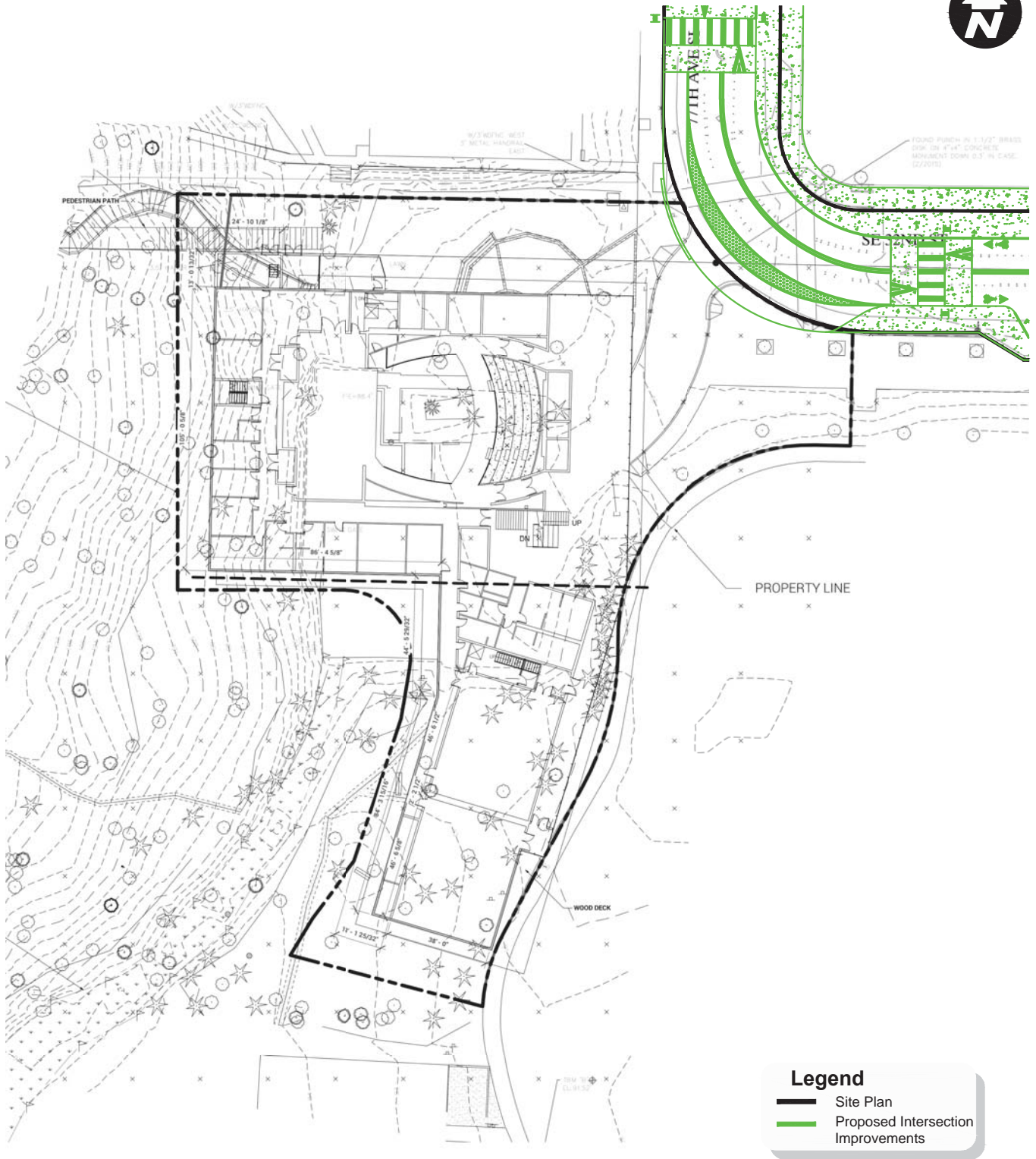


Site Vicinity

Mercer Island Center for the Arts (MICA)

FIGURE

1



Site Plan

Mercer Island Center for the Arts (MICA)

FIGURE

2

Existing & Future Without-Project Conditions

This section describes existing and future conditions within the identified study area without construction of the project. Characteristics are provided for the roadway network, planned roadway improvements, non-motorized facilities, transit service, existing and future without-project traffic volumes, traffic operations, and traffic safety.

Roadway Network

The project site is located in north Mercer Island, adjacent to the bottom of the Town Center area, and is bound by 77th Avenue SE to the east and SE 32nd Street to the north. Mercedale Park acts as a boundary to the south and west of the site. The major roadways within the study area include:

77th Avenue SE is a three-lane roadway classified as a secondary arterial with sidewalks and a center two-way left-turn lane and bike lanes. This north-south roadway serves as a connection between the Mercer Island town center area and Interstate 90 (I-90). The posted speed limit is 25 miles per hour (mph).

78th Avenue SE is a two-lane north-south roadway classified as a collector arterial with sidewalks and a raised median. This roadway provides north-south access within the town center area. The posted speed limit is 25 mph.

SE 27th Street is a three-lane east-west roadway with sidewalks and a center two-way left-turn lane. The roadway is classified as a secondary arterial and provides east-west access within the town center area. The posted speed limit is 25 mph.

SE 28th Street is a two-lane roadway with sidewalks. This roadway provides east-west access within the town center area. The posted speed limit is 25 mph.

SE 32nd Street is an east-west secondary arterial with sidewalks. The road provides one lane in each direction and a center two-way left-turn lane. Access to the project site would be via the 77th Avenue SE/ SE 32nd Street intersection. The posted speed limit is 25 mph.

Island Crest Way is a five-lane roadway classified as a primary arterial. This north-south roadway serves as one of the primary accesses to and from I-90, especially to reach areas east of the project site. Island Crest Way also serves as a primary access to southern Mercer Island neighborhoods. The posted speed limit is 35 mph.

Planned Roadway Improvements

Based on a review of the City's recently-completed Town Center Development and Design Standards Section 19.11.120, future improvements by the City include narrowing 77th Avenue SE and adding on-street parking to both sides. In addition, the planned 2019 resurfacing program will repave 80th Avenue from SE 28th Street to SE 32nd Street, SE 32nd Street from 80th Avenue SE to 78th Avenue SE, and SE 29th Street from 76th Avenue SE to 77th Avenue SE. The resurfacing program will also repair sidewalks and upgrade sidewalk ramps to meet ADA requirements.

Non-Motorized Facilities

Sidewalks are provided along all of the nearby streets with crosswalks located at major intersections allowing safe pedestrian mobility throughout the area. Signalized crossings are provided at the 77th Avenue SE/SE 27th Street and Island Crest Way/SE 28th Street

intersections. Unsignalized pedestrian crossings are provided at the 78th Avenue SE/SE 32nd Street and 78th Avenue SE/SE 28th Street intersections. Pedestrian routes to the project site are clearly marked and accessible from all directions.

Transit Service

Three nearby transit stops are within walking distance from the project site. These stops are located at the southwest and northeast corners of the 78th Avenue SE/SE 32nd Street intersection, as well as at the Island Crest Way/SE 32nd Street intersection. Six transit routes access these stops, providing service throughout the King County area, primarily to Mercer Island and Seattle. The service areas, operating hours, and headways for these routes are summarized in Table 1.

Table 1. Existing Transit Service¹

Routes	Area Served	Approximate Operating Hours	PM Peak Vehicle Trips		PM Peak Headways (minutes)
			Eastbound	Westbound	
201	Downtown Seattle – Mercer Island Park & Ride	7:00 a.m. to 8:30 a.m. 6:00 p.m. to 7:00 p.m.	1	1	40-60
204	Downtown Seattle – Mercer Island	6:00 a.m. to 7:30 p.m.	2	2	30
630	Downtown Seattle – Mercer Island	6:00 a.m. to 9:00 a.m. 4:00 p.m. to 7:30 p.m.	2	0	30
891, 892	Mercer Island – Mercer Island High School	7:00 a.m. to 8:00 a.m. 2:00 p.m. to 4:00 p.m.	1	1	60
894	Mercer Village Shopping Center – Mercer Island High School	7:00 a.m. to 8:00 a.m. 2:00 p.m. to 4:00 p.m.	1	1	60
Total			7	5	30-60

1. Based on data provided by, King County Metro Transit (April 2016).

As shown in the table, most of the service is provided to Downtown Seattle and other areas of Mercer Island. Headways range from 30-60 minutes.

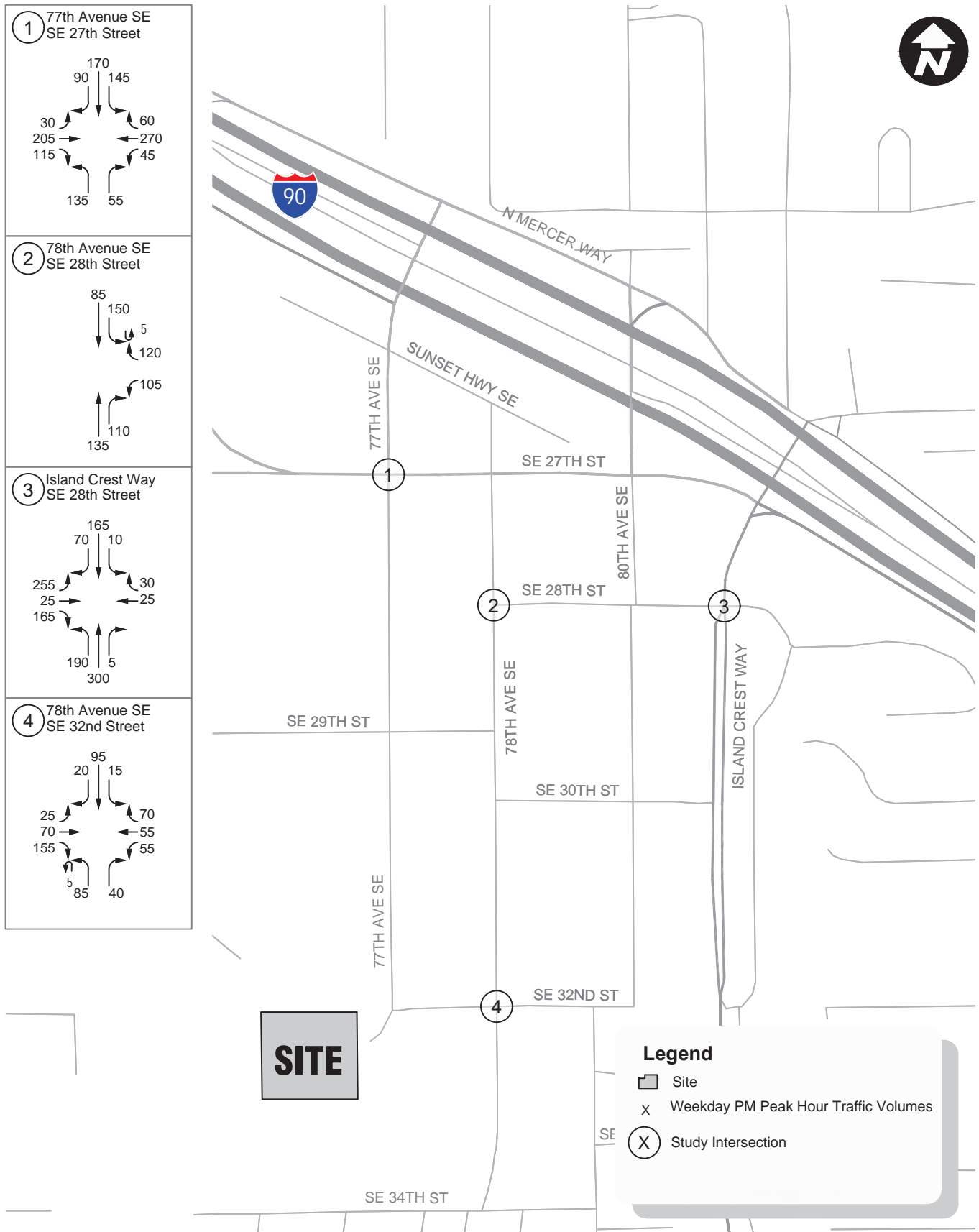
Traffic Volumes

Existing Conditions

This transportation analysis focuses on the weekday PM peak hour when traffic volumes would be greatest. Existing turning movement counts at the study intersections were counted in April 2016. The detailed intersection turning movement traffic volumes are provided in Appendix A. Existing weekday PM peak hour traffic volumes are summarized in Figure 3 and were used to establish existing traffic conditions.

Future Traffic Volume Forecasts

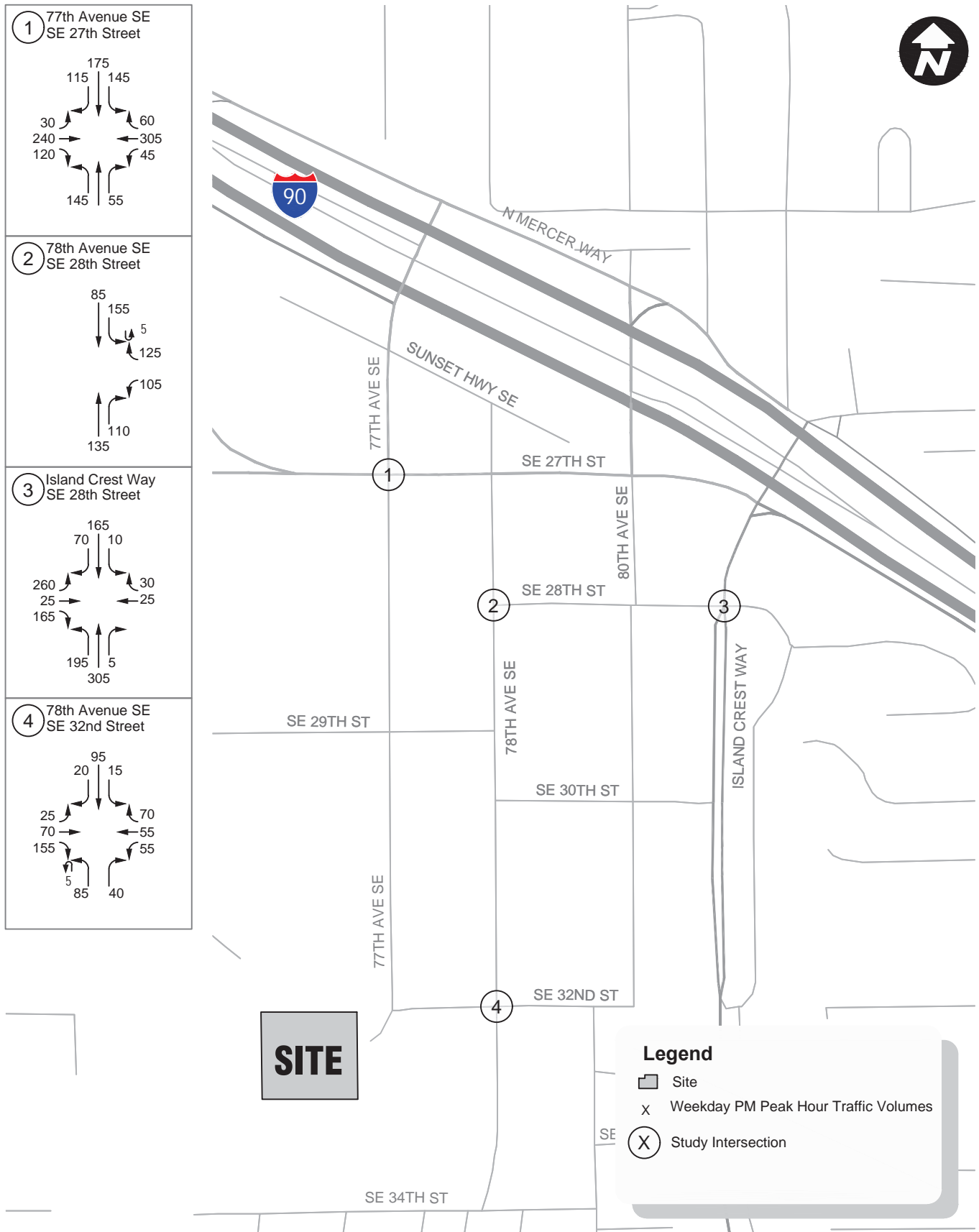
Future (2019) without-project traffic volumes were forecasted using an annual background growth rate of 0.5 percent. These volumes were forecasted using the information from the City of Mercer Island's background growth rate for areas outside the Town Center boundary, as defined by the City of Mercer Island Comprehensive Plan. Project trips from the known pipeline development, Keeler Mixed Use (The Hadley), were also applied. Future (2019) without-project traffic volumes are shown in Figure 4.



Existing (2016) Weekday PM Peak Hour Volumes

FIGURE

Mercer Island Center for the Arts (MICA)



Future (2019) Without-Project Weekday PM Peak Hour Volumes

FIGURE

Mercer Island Center for the Arts (MICA)

Traffic Operations

PM peak hour traffic operations were evaluated at the study intersections based on level of service (LOS). The LOS analysis method was based on procedures identified in the *Highway Capacity Manual* (2010), and evaluated using Synchro version 9.0.

At signalized intersections, LOS is measured in average control delay per vehicle and is typically reported using the intersection delay and volume-to-capacity ratio (V/C). At stop-sign-controlled intersections, LOS is measured in delay per vehicle. Traffic operations for an intersection can be described alphabetically with a range of levels of service (LOS A through F), with LOS A indicating free-flowing traffic and LOS F indicating extreme congestion and long vehicle delays. Appendix B contains a detailed explanation of LOS criteria and definitions.

Based on the Transportation Element of the City’s Comprehensive Plan (2005), the City has adopted an LOS D standard within the city boundary. Washington State Department of Transportation (WSDOT) has set an LOS D standard. Table 2 summarizes the existing and future (2019) without-project weekday PM peak hour LOS at study intersections. The detailed LOS worksheets are included in Appendix C.

Table 2. Existing and Future (2019) Without-Project Weekday PM Peak Hour Level of Service

Intersections	Jurisdiction	2016 Existing			2019 Without-Project		
		LOS ¹	Delay ²	WM ³	LOS ¹	Delay ²	WM ³
1. 77th Avenue SE / SE 27th Street	Mercer Island	B	15.9	-	B	17.2	-
2. 78th Avenue SE / SE 28th Street	Mercer Island	B	11.1	SB	B	11.3	SB
3. Island Crest Way / SE 28th Street	WSDOT	C	20.7	-	C	21.0	-
4. 78th Avenue SE / SE 32nd Street	Mercer Island	B	12.3	EB	B	12.3	EB

1. Level of service (LOS), based on 2010 *Highway Capacity Manual* methodology.
2. Average delay in seconds per vehicle.
3. Worst movement reported for unsignalized intersections where EB = eastbound and SB = southbound

As shown in Table 2, all study intersections currently operate at LOS C or better during the weekday PM peak hour, meeting the respective City and WSDOT LOS standards. Under future without-project conditions, all intersections continue to meet the respective City and WSDOT standards, operating at LOS C or better. Increases in delay between existing and 2019 without-project conditions are approximately one second or less at all study intersections.

Traffic Safety

WSDOT provided the collision data for the most recent three-year period for intersections and roadway segments within the study area. Specifically, the data was summarized between January 1, 2013 and December 31, 2015. Table 3 provides a summary of collision history within the study area.

Table 3. Three-Year Collision Summary – 2013 to 2015

Location	Number of Collisions			Total	Annual Average	Collisions per MEV ¹
	2013	2014	2015			
1. 77th Avenue SE/ SE 27th Street	1	3	3	7	2.3	0.46
2. 78th Avenue SE/ SE 28th Street	0	0	3	3	1.0	0.39
3. Island Crest Way/ SE 28th Street	0	0	0	0	0.0	0.00
4. 78th Avenue SE/ SE 32nd Street	1	2	1	4	1.3	0.43

Source: WSDOT and Transpo Group, 2016

1. Million Entering Vehicles

Within the analysis time period, the highest number of collisions occurred at the 77th Avenue SE/ SE 27th Street intersection with an average of 2.3 collisions per year. The other study intersections experienced on average between 0 and 2 collisions per year. No fatalities or bicyclist collisions were reported at a study intersection; however, one pedestrian collision occurred at the 77th Avenue SE/SE 27th Street intersection. The collision was the result of driver inattention, as a pedestrian was hit when a vehicle turned right from westbound SE 27th Street onto southbound 77th Avenue SE. The most common collision type during the three-year period was an angle collision.

By incorporating the traffic volume at the intersection, the rate of collisions per million entering vehicles (MEV) allows a uniform standard for evaluating accident history. Generally, a collision rate at intersections greater than 1.0 collision per MEV is considered higher than normal. Based on this threshold, there were no safety issues identified at the study intersections.

Project Impacts

This section of the analysis documents project-generated impacts on the surrounding roadway network and at the study intersections. First, peak hour traffic volumes are estimated, distributed, and assigned to adjacent roadways and intersection within the study area. Next, 2019 volumes are projected and potential impact to traffic volumes, traffic operations and non-motorized facilities are identified.

Project Trip Generation

Project trip generation estimates were developed for the project based on assumptions consistent with MICA's intended use as a performing arts center. Trips were calculated using methodology found in *Federal Way Performing Arts & Conference Center – Traffic & Parking Study*¹. The 41,000 square foot Federal Way (WA) Performing Arts & Conference Center includes a 700-seat auditorium and 8,000 square feet of additional conference space, as well as an outdoor plaza area. The event space is designed to accommodate music and dance performances, seminars, and local or regional meetings. Based on similarities in size and uses between the two venues, the trip generation methodology was also applied to MICA. The Federal Way Performing Arts & Conference Center study relies on average vehicle occupancy (AVO) rates from surveys conducted at Seattle's McCaw Hall². The following sections summarize the preliminary trip generation methodology and estimate for the proposed use.

Activity Forecasts

Two forecasts, Typical Activity and Peak Activity, were evaluated to estimate trip generation and parking demand based on utilization and room capacities of the performing arts center. Each scenario was evaluated for weekday (Monday-Thursday), Friday, and Saturday forecast schedules. The two forecasts account for multiple activities taking place at the performing arts center during the same time period. Activity forecasts and expected class sizes for both typical and peak activity were developed through coordination with MICA and its tenants. The forecasts are outlined below. Detailed assumptions regarding activity forecasts and trips generated are included in Appendix D.

- 1. Typical Activity:** The Typical Activity scenario represents the majority of the facility's use. All classes and rehearsals are assumed 100 percent attendance from performers. Performances assumed 75 percent attendance from audience members. All performances are anticipated to be 2 hours in length, while classes range from 60 to 90 minutes.
 - **Weekday (Monday-Thursday) activity:** Weekday activity includes an evening mainstage performance, as well as evening classroom or recital studio events. Morning and mid-day classroom events at 100 percent capacity are also included in this scenario. Classes occur throughout the day, with approximately 60 to 90-minute classes between 10:00 am and 9:00 p.m. Class start and dismissal times are staggered at 15-minute intervals. The majority of classroom events occur during the afternoon, between approximately 3:00 p.m. and 8:00 p.m., but can also occur during morning hours or throughout the day. A rehearsal in the blackbox venue is anticipated

¹ Memorandum – *Federal Way Performing Arts & Conference Center – Traffic & Parking Study*, K. Jones to P. Doherty (September 23, 2014).

² Memorandum – *Kirkland Resource Library and Performing Arts Center Draft Environmental Impact Statement – Transportation and Parking Analysis*, The Transpo Group to Huckell/Weinman Associates Inc. and The City of Kirkland (February 4, 1991).

to occur between 6:00 p.m. and 9:00 p.m, concurrently with the 7:00 p.m. mainstage performance.

- **Friday activity:** Friday activity is similar to mid-week activity schedule, including classes and an evening performance. Class start and dismissal times are staggered at 15-minute intervals. Classes are anticipated to conclude by 6:00 p.m, with the mainstage performance starting at 7:00 p.m. No blackbox venue activity is anticipated to occur concurrently with the mainstage performance.
 - **Saturday activity:** Saturday activity includes additional classes during the morning and mid-day hours, as well as an evening performance. Classes would begin in all venues (excluding the mainstage) at approximately 9:00 a.m. and would conclude between 5:00 p.m. and 6:30 p.m. Class start and dismissal times are staggered at 15-minute intervals. The mainstage performance would begin at 7:00 p.m.
- 2. Peak Activity:** The Peak Activity scenario includes performance and classroom events listed above in the Typical Activity scenario, as well as an additional evening performance in the blackbox theater on Friday and Saturday. Most evening performances in this scenario would be sold out or at 100 percent audience capacity. It is expected that this Peak Activity scenario would occur only a few nights per year.
- **Weekday (Monday-Thursday activity):** Weekday activity for the Peak Activity scenario mirrors the Typical Activity weekday scenario described above; however, the Peak Activity weekday evening performance includes 100 percent audience capacity.
 - **Friday activity:** The Peak Activity Friday schedule mirrors the Typical Activity Friday scenario described above; however, the Peak Activity includes an additional evening performance in the blackbox venue occurring concurrently with the mainstage performance. Both performances include 100 percent audience capacity.
 - **Saturday activity:** The Peak Activity Saturday schedule mirrors the Typical Activity Saturday scenario described above; however, the Peak Activity includes an additional evening performance in the blackbox venue occurring concurrently with the mainstage performance. The blackbox performance includes 100 percent audience capacity while the mainstage performance includes 75 percent audience capacity. Classes would conclude by 6:00 p.m. in this scenario to accommodate the additional performance.

Performance Capacity and AVO

A Typical Activity and Peak Activity performance capacity were estimated to account for differences between audiences in the center's mainstage venue. These assumptions were conservative, considering an average performance is only anticipated to reach 75 percent audience capacity. AVO values of 2.2 persons per vehicle are consistent with the *Federal Way Performing Arts & Conference Center – Traffic & Parking Study* and were assumed for staff, performers, and audience of evening performances at each venue. For daytime classes and rehearsals, AVO value of 1.0 persons per vehicle was assumed for staff of the classrooms and studios. The performers and students in the recital studio and classrooms were assumed to be younger than driving age and transported to/from MICA by a parent or chaperone. Adult performers in daytime classes were assumed to drive themselves and park for the duration of class. For trip generation purposes, classroom and studio performers were assumed to have an AVO of 1.0.

Non-Vehicle Trips

Small percentages of transit and walk trips were included to account for the use of nearby transit and pedestrian facilities, although the majority of generated trips are assumed to be by vehicle. The project site is connected to the Mercerdale and First Hill neighborhoods by pedestrian pathways to the south and west. King County Metro provides daytime transit service one block away on 78th Ave SE. Based on extrapolations from American Community Survey data, 5 percent transit (daytime only, not for performances) and 5 percent pedestrian/bicycle trips were included. Transit trips were not included for performance peak hours because study area transit routes are not in service directly before or after performance times. No pass-by or internal trips were assumed to be included due to the nature of the venue and its events. In practice, it is likely that youth class attendees will also arrive by bus, bicycle, or walking. Therefore, drop-off trips shown here are conservative.

Peak Hour

Trip generation was calculated for classes occurring during the weekday (Monday-Thursday) PM peak hour (the peak of the surrounding roadways and the peak of the facility) as well as for the weekday evening performances (both the Monday-Thursday Typical and Peak Activity scenarios). The weekday PM peak hour trip generation assumed 100 percent capacity for classes at that time. Pick-up and drop-off trips occurring around class and rehearsal times were included in trip generation calculations. For evening performances, trip generation was carried out for both Typical Activity and Peak Activity forecasts, using a peak hour of 6:00 p.m. to 7:00 p.m. These performance peak hours assume a 7:00 p.m. performance start time based on coordination with MICA. The traffic impact assessment evaluated the peak hour during 4:00 p.m. to 6:00 p.m. The performance peak hour (6:00 to 7:00 p.m.) trip generation was used for parking accommodation. Additional traffic was expected for on-street parking circulation near the project site.

Table 4 summarizes the project’s estimated trip generation for the weekday PM peak hour time period and evening performance scenarios. Detailed assumptions regarding activity schedules and trips generated are included in Appendix D.

Table 4. Weekday PM Peak Hour Trip Generation

Venue	Network PM Peak Hour (Highest 60 minutes, 4-6pm)			Performance Typical Activity Scenario Peak Hour (6-7pm)			Performance Peak Activity Scenario Peak Hour (6-7pm)		
	Total	In	Out	Total	In	Out	Total	In	Out
<i>Proposed Uses</i>									
Subtotal	315	160	155	355	229	126	388	262	126
<i>Mode Split Reduced Trips</i>									
Transit Trips (5%)	-16	-8	-8	-18	-12	-6	-19	-13	-6
Pedestrian & Bicycle Trips (5%)	-16	-8	-8	-18	-12	-6	-19	-13	-6
Total Proposed Trips	283	144	139	319	205	114	350	236	114

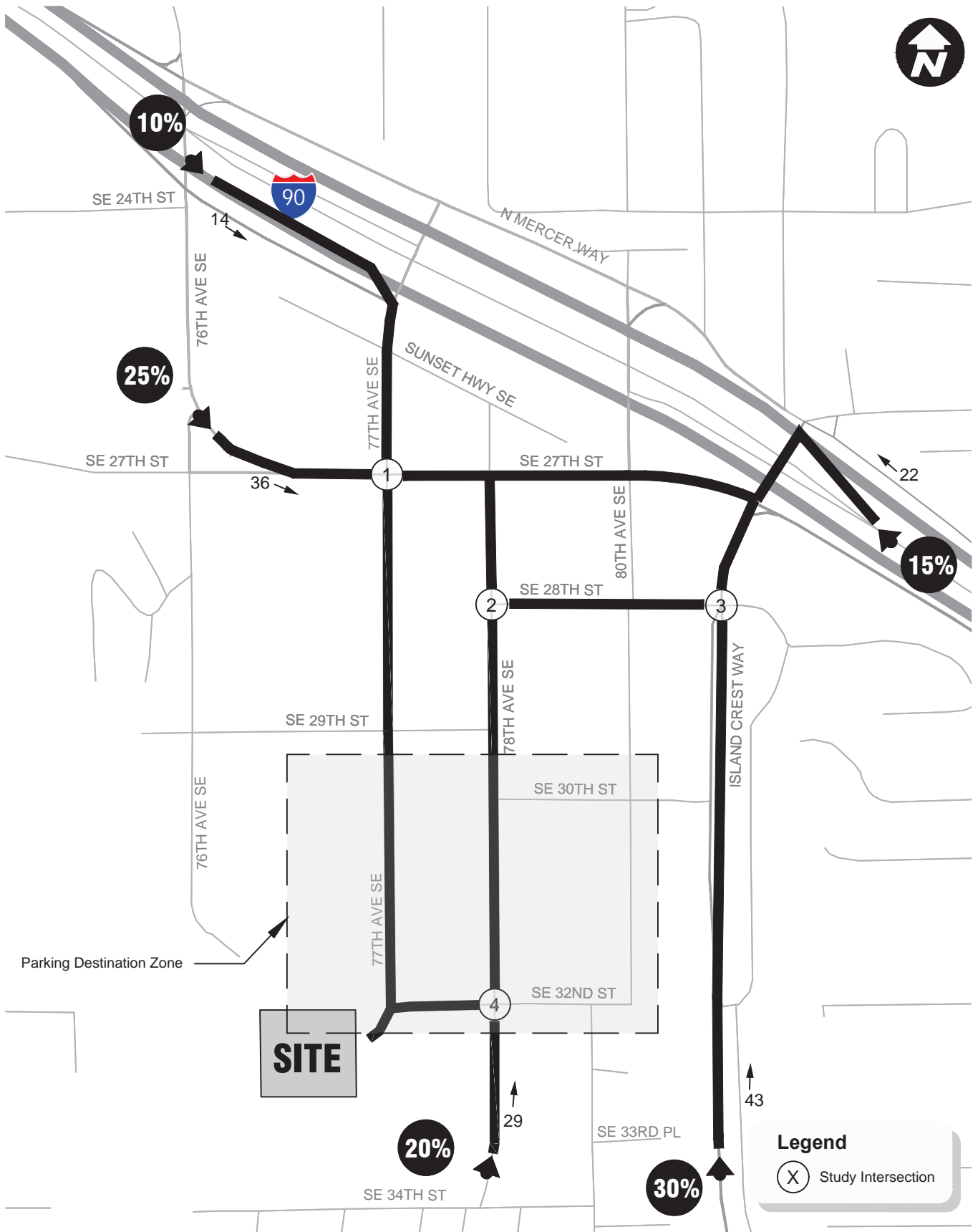
In summary, the project is anticipated to generate approximately 283 trips during the weekday PM peak hour with 144 inbound and 139 outbound. During the Typical Activity 6:00 p.m. to 7:00 p.m. hour before a performance, the project would generate approximately 319 trips, 205 inbound and 114 outbound. During the Peak Activity 6:00 p.m. to 7:00 p.m. hour before a performance, the project would generate approximately 350 trips, 236 inbound and 114 outbound.

Project Trip Distribution and Assignment

The development of the inbound and outbound trip distributions is consistent with previous studies submitted in the vicinity of the project. Distributions were developed based on travel patterns in the study area and through the scoping process with the City of Mercer Island.

It is anticipated that 75 percent of project trips would distribute throughout Mercer Island, while the remaining 25 percent of project trips would originate off-island, utilizing eastbound and westbound I-90. Based on this distribution, project trips were then proportionally assigned to the network. Trip distribution and assignment of the inbound and outbound project trips are shown in Figure 5 and Figure 6, respectively.

Trips were assigned to parking lots closest to the project site within the study area. Lots were chosen based on proximity to the project site and average evening availability, using information from MICA's Mercer Island Parking Analysis to Assess Availability (2015).

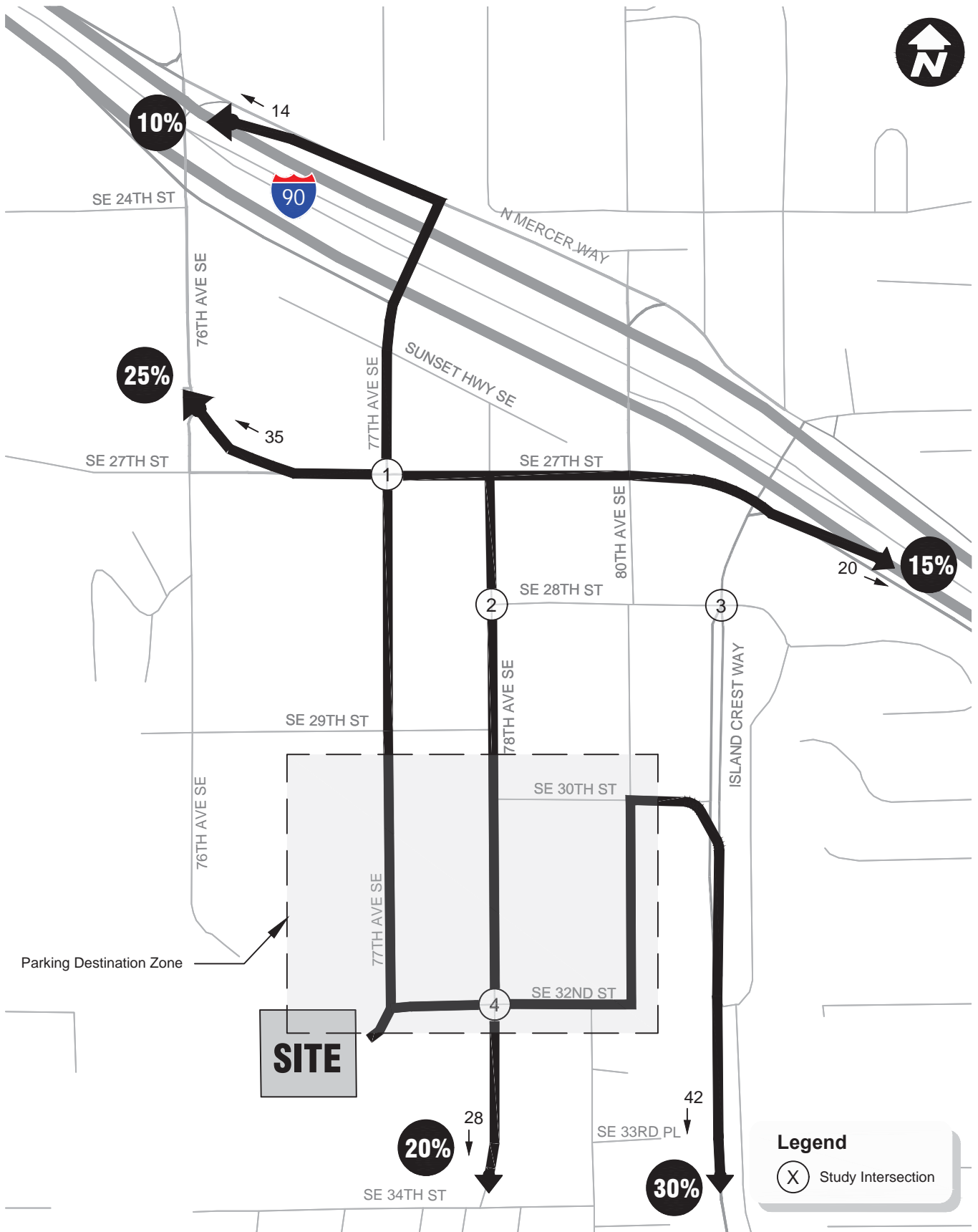


Project Inbound Trip Distribution

Mercer Island Center for the Arts (MICA)

FIGURE

5



Project Outbound Trip Distribution

Mercer Island Center for the Arts (MICA)

FIGURE

6

Traffic Volumes

The project traffic volumes were added to the future without-project 2019 traffic volumes to form the basis of the with-project analysis. Figure 7 shows the weekday PM peak hour with-project traffic volumes at the study intersections.

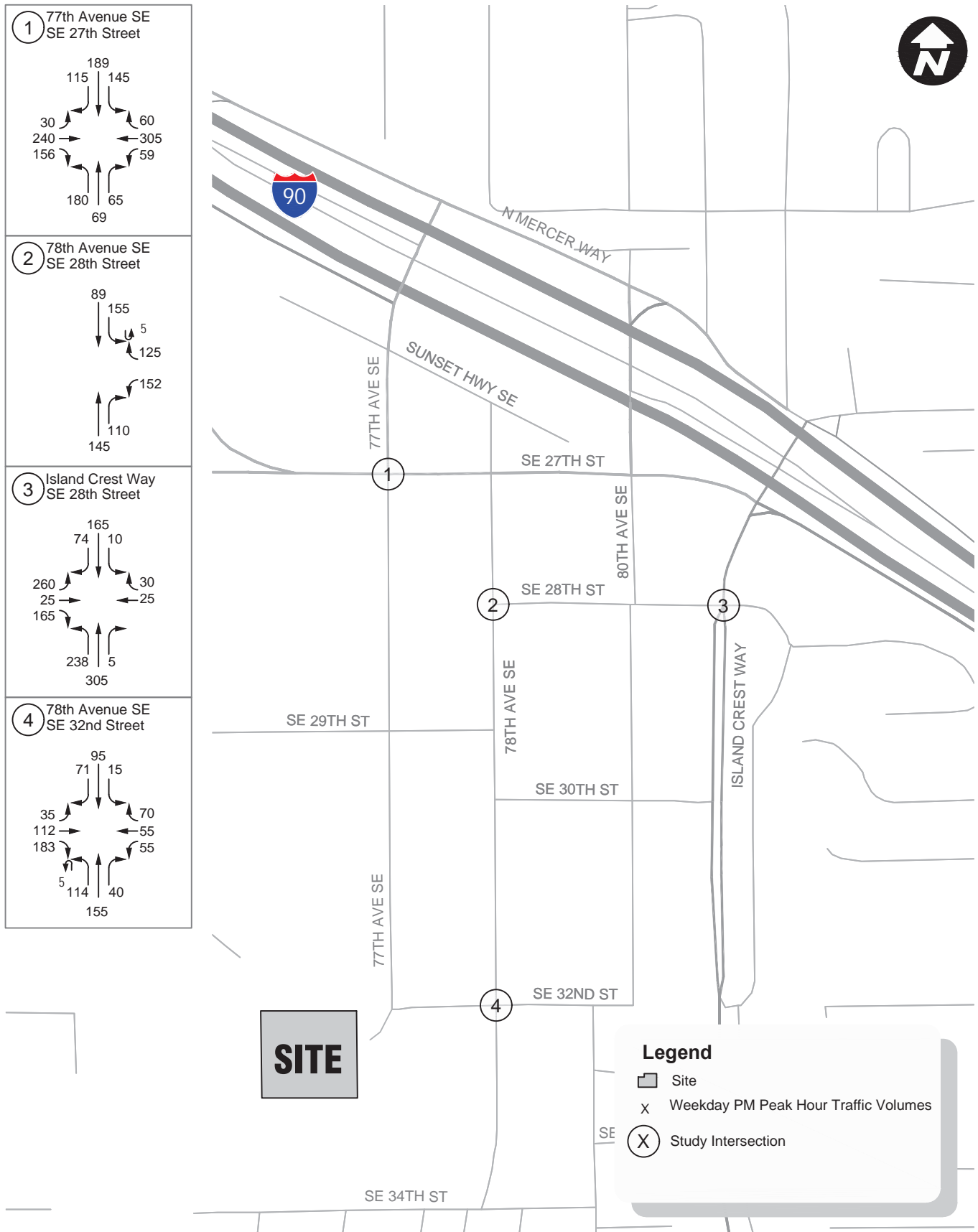
Table 5 summarizes the anticipated increase in total entering traffic as well as the percent of future with-project volume attributable to the proposed project.

Table 5. 2019 Weekday PM Peak Hour Traffic Volume Impact at Study Intersections

Study Intersections	2019 PM Peak Traffic			
	Without-Project	With- Project	Project Traffic	Project Impact
1. 77th Avenue SE/ SE 27th Street	1,490	1,613	123	7.6%
2. 78th Avenue SE/ SE 28th Street	720	781	61	7.8%
3. Island Crest Way/ SE 28th Street	1,255	1,302	47	3.6%
4. 78th Avenue SE/ SE 32nd Street	845	1,005	160	15.9%

Source: Transpo Group, June 2016

As shown in the table, project traffic would account for about 8 to 16 percent of the total PM peak hour traffic volume at the study intersections in 2019. At intersections closer to the project site, including the 78th Avenue SE/SE 28th Street study intersection, project traffic would have the greatest volume impact.



Future (2019) With-Project Weekday PM Peak Hour Volumes FIGURE

Mercer Island Center for the Arts (MICA)

Traffic Operations

Intersection operations analysis was conducted in the study area to evaluate the future 2019 conditions with the development of the project. Intersection LOS were calculated at the study intersections using the LOS methodology described previously.

Table 6 provides a comparison between the 2019 with- and without-project conditions. The detailed LOS worksheets are included in Appendix C.

Table 6. Future (2019) With and Without-Project Weekday PM Peak Hour Level of Service

Intersections	2019 Without-Project			2019 With-Project		
	LOS ¹	Delay ²	WM ³	LOS	Delay	WM
1. 77th Avenue SE / SE 27th Street	B	17.2	-	B	19.1	-
2. 78th Avenue SE / SE 28th Street	B	11.3	SB	B	11.3	SB
3. Island Crest Way / SE 28th Street	C	21.0	-	C	23.5	-
4. 78th Avenue SE / SE 32nd Street	B	12.3	EB	B	13.9	EB

1. Level of service (LOS), based on 2010 *Highway Capacity Manual* methodology.
2. Average delay in seconds per vehicle.
3. Worst movement reported for unsignalized intersections where EB = eastbound and SB = southbound.

As shown in Table 6, all study intersections would operate at LOS C or better, meeting LOS standards. All study intersections would operate at the same LOS under with-project conditions relative to without-project conditions, adding approximately three seconds or less of delay.

Pick-Up and Drop-Off Trips

Pick-up and drop-off activity will occur for youth classes and rehearsals at the MICA facility correlated with class start and dismissal times. Based on projected MICA activity forecasts, back-to-back classes during daytime, afternoon, and evening hours would require simultaneous pick-up and drop-off trips. Class start and dismissal times will be staggered to accommodate high drop-off and pick-up volumes. It is estimated that a maximum of 34 drop-off trips and 19 pick-up trips could occur during the weekday (Monday-Thursday) PM peak hour for the roadway network. Given drop off activity is very quick and would occur over a 15-minute period leading up to the start of a class these activities would operate well. Pick-up activities for a class dismissal occur at the same time and the capacity of the loading area will accommodate approximately 6 vehicles at once. There is space for an additional 29 vehicles to queue in the on-street parking areas north of the drop off along the west side of 77th Avenue SE. This assumes the on-street parking on the west side of 77th Avenue SE will be signed for temporary loading and unloading during times of high drop-off and pick-up volume. An additional 19 on-street parallel parking spaces will be created on the east side of 77th Avenue SE.

A parking management plan has been developed in coordination with the City to identify strategies to best manage pick-up and drop-off activity. The plan will incorporate a dedicated pick-up and drop-off area that will be supervised and managed by staff from MICA. Signage for temporary loading activity will be applied to the on-street parking along the west side of 77th Avenue SE north of the site. MICA will work to manage the capacity through scheduling and other management practices to ensure for smooth operations. The proposed loading area design concept is included in Appendix F.

Parking

The following sections summarize the proposed parking supply, on-street parking utilization, and estimated peak parking demand.

Supply

No on-site parking is proposed for this project. The project is proposing to reconfigure SE 32nd Street and 77th Avenue SE to provide a dedicated drop-off and pick-up area as well as additional on-street parking. Providing additional parking along these streets is consistent with the Town Center plan.

Existing on-street parking supply is currently under-utilized. Two studies, the *Mercer Island Parking Analysis to Assess Availability* (2015, MICA) and the *Town Center Parking Study* (April 2016, BERK/City of Mercer Island), assessed the availability of off-site surrounding parking lots. More than 1,600 off-street parking stalls are located within a quarter mile of the MICA site, and their occupancy ranged from 20 percent to 40 percent in the highest studied occupancy period, 12:00 p.m. to 3:00 p.m. Based on these studies and commitments from surrounding lots, it is anticipated that on-street parking and parking available at local businesses will be shared to satisfy the project parking demand.

On-Street Parking Supply

An on-street parking utilization study was conducted to determine the available on-street parking supply and occupancy within a 1200-foot walking distance of the project site. Information at 800-foot, 1000-foot, and 1200-foot walking distances from the site are summarized in Table 7. Parking supply and demand counts were conducted from 2 p.m. to 3 p.m. and 6 p.m. to 7 p.m. in April 2016. The roadways included in the study area were SE 29th Street, 80th Avenue SE, and SE 32nd Street. A detailed summary of the parking utilization study is provided in Appendix E.

Table 7. Parking Utilization Study Summary

	Walking Distance from Site		
	800-feet	1,000-feet	1,200-feet
On-Street Supply ¹	19	106	116
<u>Afternoon</u>			
Average On-Street Occupancy ²	11 (58%)	70 (66%)	71 (61%)
Available Parking Supply	8	36	45
<u>Evening</u>			
Average On-Street Occupancy ²	3 (13%)	37 (34%)	38 (33%)
Available Parking Supply	16	69	78

1. Estimated on-street parking spaces based on standard SDOT procedures for measurements July 2015.

2. Based on an average of two days of data collection on April 26 and 27, 2016.

As shown in the table, the average on-street occupancy ranges from approximately 58-61 percent of the available on-street supply in the afternoon and approximately 13-34 percent in the evening. During the afternoon, a total of 45 spaces are available within 1,200 feet the site, with 36 available within 1,000 feet of the site, and 8 available within 800 feet of the site. During the evening, a total of 78 spaces are available within the site vicinity, with 69 available within 1,000 feet of the site, and 16 available within 800 feet of the site. Note these figures do not include the approximately 37 new on-street parking spaces that are expected to be added on 77th Avenue SE north of the site, extending to SE 29th Street.

Demand

Parking demand was evaluated through multiple factors. The Institute of Transportation Engineers (ITE) *Parking Generation*, 4th Edition, and City of Mercer Island code requirements were consulted while developing parking demand. The ITE Land Use 441 (Live Theater) recommends an average of 0.33 spaces per seat, or 1 parking space per 3 theater seats. ITE provides guidelines for parking demand; however, due to the unique

characteristics of the project site, activity forecasts for both Typical Activity and Peak Activity scenarios were analyzed.

Within the Mercer Island commercial zoned areas, City code requires 1 parking space for every 4 seats.³ The City of Mercer Island zoning does not specifically require a minimum amount of parking for performing arts uses in the P land use zoning, but MICA will propose zoning changes to require an amount of spaces. ADA parking requirements will be accommodated with on-street designated handicap parking at the nearest areas to the site.

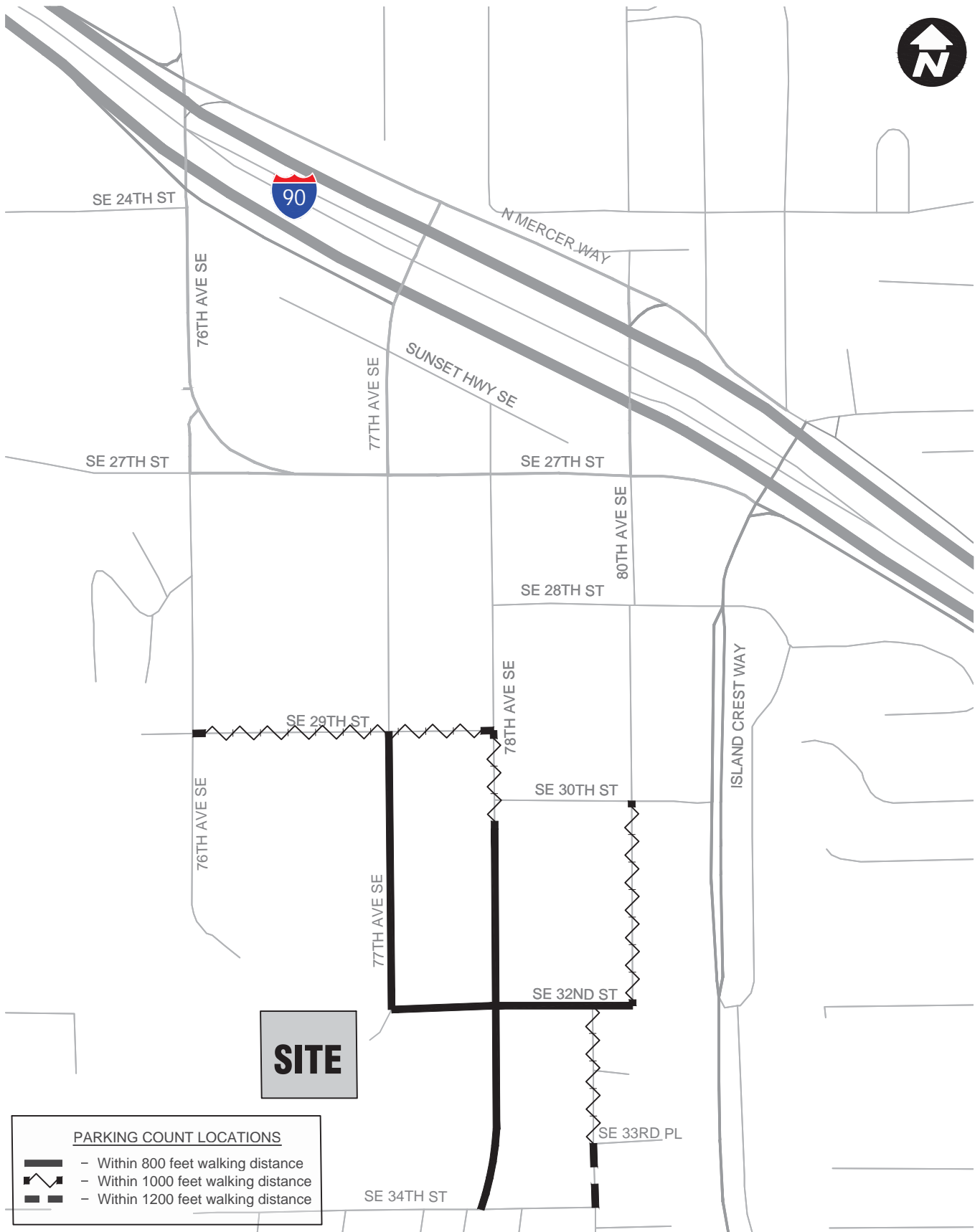
Parking demand and accumulation was estimated based on activity schedules provided by MICA. Two demand scenarios were developed to accompany each trip generation scenarios, a base parking demand and parking demand with load zone spillover. The base parking demand includes inbound and outbound vehicles parking at MICA for an extended period (i.e. staff members, audience, and adult performers not utilizing the loading area). The parking demand with load zone spillover includes the base demand with additional vehicles that would park to drop-off or pick-up a youth performer, but would not be accommodated in the load zone due to high vehicle volume. Detailed assumptions regarding parking demand are included in Appendix D.

The weekday (Monday-Thursday) base peak parking demand ranges from a total of 117 to 150 parking stalls for the Typical and Peak Activity forecasts, respectively. The weekday (Monday-Thursday) peak parking demand including load zone spillover ranges from a total of 126 to 159 for the Typical and Peak scenarios, respectively. Peak demand occurs during the 7:00 p.m. to 8:00 p.m. hour, during evening performances. Parking demand assumptions are conservative because attendance levels are anticipated to be lower. While it is expected that multiple activities could occur throughout the performing arts center simultaneously, it is unlikely that every venue would be filled at the same time period.

The Average Vehicle Occupancies (AVO) of 1.0 persons per vehicle for staff members and performers, and 2.2 persons per vehicle for audience were assumed to be consistent with trip generation methodology, as well as the *Federal Way Performing Arts & Conference Center – Traffic & Parking Study*.

The accompanying parking management plan details strategies for accommodating parking demands. Detailed assumptions regarding activity schedules and parking accumulation are included in Appendix D.

³ Mercer Island City Code, Chapter 19.04, Section 19.04.040



Parking Utilization Study Area

Mercer Island Center for the Arts (MICA)

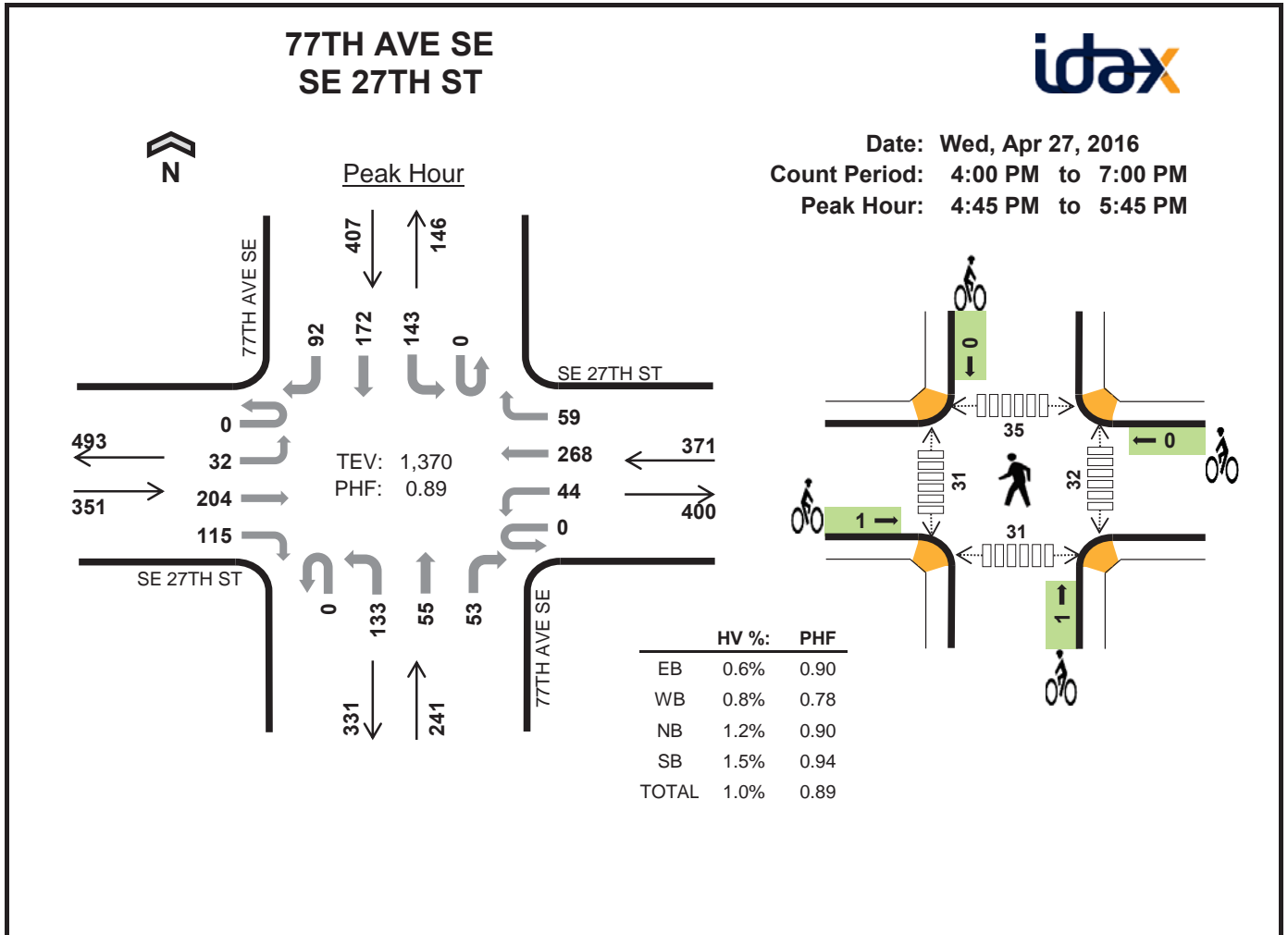
FIGURE

8

Findings and Recommendations

This transportation impact study summarizes the project traffic impacts of the proposed Mercer Island Center for the Arts (MICA). General findings and recommendations include:

- Based on a conservative estimate of project trip generation, the project will generate approximately 283 trips during the weekday PM peak hour with 144 inbound and 139 outbound.
- Project traffic would represent 8 to 16 percent of the 2019 PM peak hour traffic volumes at off-site study intersections.
- All study intersections are anticipated to meet the respective City and WSDOT standards, operating at LOS C or better under both future 2019 with- and without-project conditions.
- The adjacent street frontages along 77th Avenue SE and SE 32nd Street will be reconfigured to provide for a pick-up and drop-off area in front of the site, safe pedestrian crossings, and additional on-street parking.
- The site is not providing parking on-site and is anticipated to utilize publicly available on-street parking to accommodate every day activities and utilize agreements with nearby businesses to share parking in the evenings for performances and activities when additional parking is needed. The anticipated weekday (Monday-Thursday) base peak parking demand ranges from a total of 117 to 150 parking stalls for the Typical and Peak Activity forecasts, respectively.
- MICA has developed a Parking Management Plan that identifies strategies for managing parking and minimizing impacts to the surrounding neighborhood.



Three-Hour Count Summaries

Interval Start	SE 27TH ST Eastbound				SE 27TH ST Westbound				77TH AVE SE Northbound				77TH AVE SE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM	0	6	60	31	0	11	60	12	0	31	11	16	0	32	40	20	330	0
5:00 PM	0	6	39	40	0	11	64	12	0	27	16	11	0	29	49	23	327	0
5:15 PM	0	10	57	25	0	15	81	23	0	36	19	12	0	34	48	24	384	0
5:30 PM	0	10	48	19	0	7	63	12	0	39	9	14	0	48	35	25	329	1,370
Peak Hour	0	32	204	115	0	44	268	59	0	133	55	53	0	143	172	92	1,370	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	1	2	1	1	5	0	0	0	0	0	6	8	6	9	29
5:00 PM	0	0	2	1	3	0	0	0	0	0	9	8	12	9	38
5:15 PM	1	1	0	1	3	1	0	0	0	1	5	6	8	4	23
5:30 PM	0	0	0	3	3	0	0	1	0	1	12	9	9	9	39
Peak Hour	2	3	3	6	14	1	0	1	0	2	32	31	35	31	129

Three-Hour Count Summaries																		
Interval Start	SE 27TH ST				SE 27TH ST				77TH AVE SE				77TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	69	39	0	10	57	11	0	33	13	25	0	33	40	20	352	0
4:15 PM	0	5	49	27	0	12	55	12	0	29	16	13	0	21	35	17	291	0
4:30 PM	0	3	59	36	0	12	38	10	0	32	10	16	0	39	37	22	314	0
4:45 PM	0	6	60	31	0	11	60	12	0	31	11	16	0	32	40	20	330	1,287
5:00 PM	0	6	39	40	0	11	64	12	0	27	16	11	0	29	49	23	327	1,262
5:15 PM	0	10	57	25	0	15	81	23	0	36	19	12	0	34	48	24	384	1,355
5:30 PM	0	10	48	19	0	7	63	12	0	39	9	14	0	48	35	25	329	1,370
5:45 PM	0	3	49	30	0	9	56	10	0	26	10	17	0	41	50	22	323	1,363
6:00 PM	0	4	77	28	0	8	52	13	0	35	10	9	0	28	35	25	324	1,360
6:15 PM	0	6	52	23	0	10	50	11	0	22	9	13	0	23	39	15	273	1,249
6:30 PM	0	5	54	31	0	9	60	21	0	25	8	10	0	22	40	18	303	1,223
6:45 PM	0	6	60	27	0	10	59	14	0	27	7	9	0	26	17	23	285	1,185
Count Total	0	66	673	356	0	124	695	161	0	362	138	165	0	376	465	254	3,835	0
Peak Hour	0	32	204	115	0	44	268	59	0	133	55	53	0	143	172	92	1,370	0

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

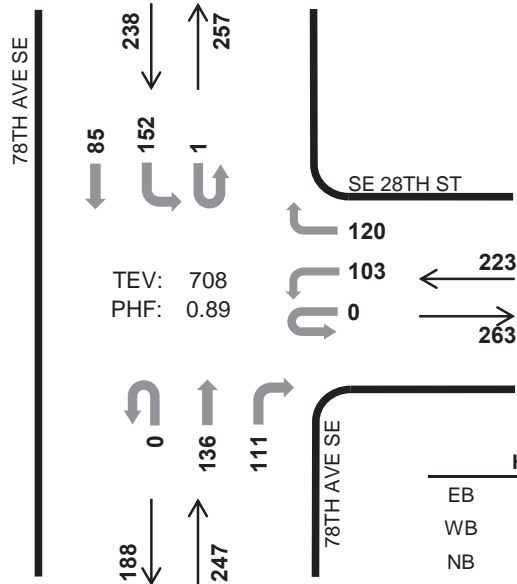
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	2	2	6	0	0	0	0	0	12	7	5	8	32
4:15 PM	0	1	0	1	2	1	0	1	0	2	2	2	4	20	28
4:30 PM	2	1	0	1	4	0	0	1	1	2	9	6	10	1	26
4:45 PM	1	2	1	1	5	0	0	0	0	0	6	8	6	9	29
5:00 PM	0	0	2	1	3	0	0	0	0	0	9	8	12	9	38
5:15 PM	1	1	0	1	3	1	0	0	0	1	5	6	8	4	23
5:30 PM	0	0	0	3	3	0	0	1	0	1	12	9	9	9	39
5:45 PM	0	0	0	0	0	0	0	2	2	4	3	7	7	11	28
6:00 PM	0	0	1	1	2	1	0	1	0	2	18	3	10	7	38
6:15 PM	0	0	0	1	1	0	1	0	0	1	5	7	1	12	25
6:30 PM	2	1	0	3	6	0	1	0	3	4	4	3	9	6	22
6:45 PM	0	0	1	0	1	0	0	0	0	0	4	6	7	16	33
Count Total	8	6	7	15	36	3	2	6	6	17	89	72	88	112	361
Peak Hour	2	3	3	6	14	1	0	1	0	2	32	31	35	31	129

78TH AVE SE SE 28TH ST



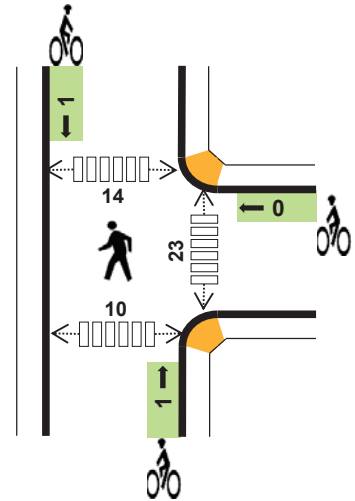
Peak Hour

Date: Wed, Apr 27, 2016
 Count Period: 4:00 PM to 7:00 PM
 Peak Hour: 5:00 PM to 6:00 PM



TEV: 708
 PHF: 0.89

	HV %:	PHF
EB	-	-
WB	0.0%	0.91
NB	1.6%	0.77
SB	1.3%	0.96
TOTAL	1.0%	0.89



Three-Hour Count Summaries

Interval Start	0				SE 28TH ST				78TH AVE SE				78TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	0	0	0	26	0	35	0	0	40	40	0	33	26	0	200	0
5:15 PM	0	0	0	0	0	22	0	29	0	0	42	24	0	37	24	0	178	0
5:30 PM	0	0	0	0	0	30	0	26	0	0	27	17	1	41	14	0	156	0
5:45 PM	0	0	0	0	0	25	0	30	0	0	27	30	0	41	21	0	174	708
Peak Hour	0	0	0	0	0	103	0	120	0	0	136	111	1	152	85	0	708	0

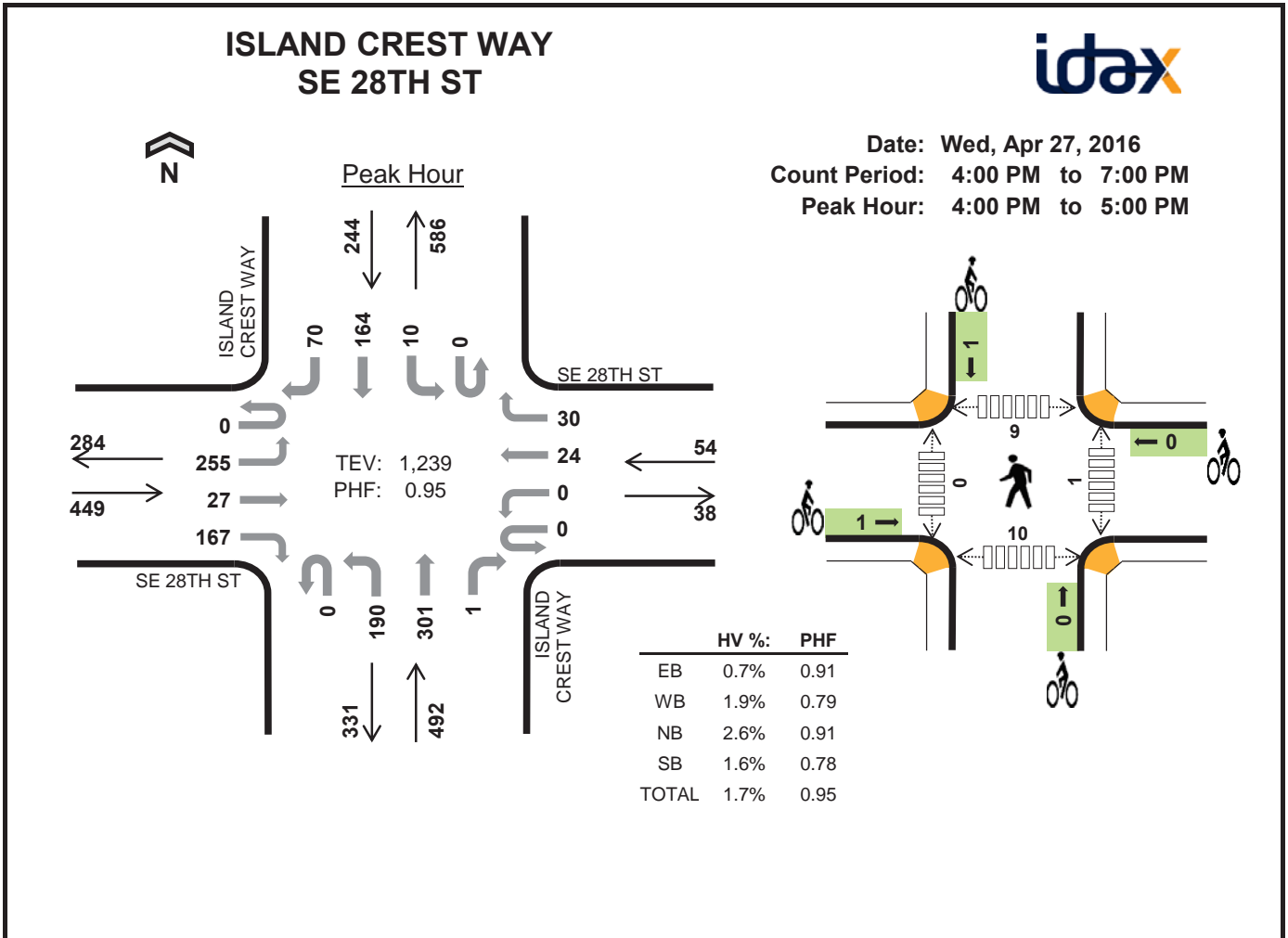
Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 PM	0	0	3	1	4	0	0	1	0	1	4	0	4	0	8
5:15 PM	0	0	0	2	2	0	0	0	0	0	12	0	3	6	21
5:30 PM	0	0	1	0	1	0	0	0	1	1	5	0	5	3	13
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	1	5
Peak Hour	0	0	4	3	7	0	0	1	1	2	23	0	14	10	47

Three-Hour Count Summaries																		
Interval Start	0				SE 28TH ST				78TH AVE SE				78TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	33	0	33	0	0	38	37	0	30	28	0	199	0
4:15 PM	0	0	0	0	0	30	0	37	0	0	39	30	0	21	14	0	171	0
4:30 PM	0	0	0	0	0	19	0	26	0	0	28	33	0	36	22	0	164	0
4:45 PM	0	0	0	0	0	23	0	28	0	0	21	26	0	38	24	0	160	694
5:00 PM	0	0	0	0	0	26	0	35	0	0	40	40	0	33	26	0	200	695
5:15 PM	0	0	0	0	0	22	0	29	0	0	42	24	0	37	24	0	178	702
5:30 PM	0	0	0	0	0	30	0	26	0	0	27	17	1	41	14	0	156	694
5:45 PM	0	0	0	0	0	25	0	30	0	0	27	30	0	41	21	0	174	708
6:00 PM	0	0	0	0	0	21	0	23	0	0	29	23	0	27	23	0	146	654
6:15 PM	0	0	0	0	0	29	0	25	0	0	35	18	0	22	11	0	140	616
6:30 PM	0	0	0	0	0	24	0	34	0	0	34	17	0	24	13	0	146	606
6:45 PM	0	0	0	0	0	24	0	30	0	0	31	13	0	20	10	0	128	560
Count Total	0	0	0	0	0	306	0	356	0	0	391	308	1	370	230	0	1,962	0
Peak Hour	0	0	0	0	0	103	0	120	0	0	136	111	1	152	85	0	708	0

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	2	3	0	0	0	0	0	16	0	4	14	34
4:15 PM	0	0	1	1	2	0	0	0	1	1	11	0	6	3	20
4:30 PM	0	0	1	2	3	0	0	0	0	0	10	0	1	2	13
4:45 PM	0	1	0	2	3	0	0	0	0	0	6	0	0	6	12
5:00 PM	0	0	3	1	4	0	0	1	0	1	4	0	4	0	8
5:15 PM	0	0	0	2	2	0	0	0	0	0	12	0	3	6	21
5:30 PM	0	0	1	0	1	0	0	0	1	1	5	0	5	3	13
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	1	5
6:00 PM	0	0	3	1	4	0	0	0	0	0	9	0	2	8	19
6:15 PM	0	0	1	1	2	0	0	0	1	1	4	0	6	2	12
6:30 PM	0	0	2	0	2	0	0	1	1	2	11	0	0	5	16
6:45 PM	0	0	0	0	0	0	0	0	2	2	7	0	5	5	17
Count Total	0	1	13	12	26	0	0	2	6	8	97	0	38	55	190
Peak Hr	0	0	4	3	7	0	0	1	1	2	23	0	14	10	47



Three-Hour Count Summaries

Interval Start	SE 28TH ST				SE 28TH ST				ISLAND CREST WAY				ISLAND CREST WAY				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	75	6	38	0	0	5	6	0	49	66	0	0	4	43	26		
4:15 PM	0	63	3	34	0	0	8	5	0	47	88	0	0	3	57	18		
4:30 PM	0	60	7	40	0	0	7	10	0	44	64	0	0	2	32	14		
4:45 PM	0	57	11	55	0	0	4	9	0	50	83	1	0	1	32	12		
Peak Hour	0	255	27	167	0	0	24	30	0	190	301	1	0	10	164	70		

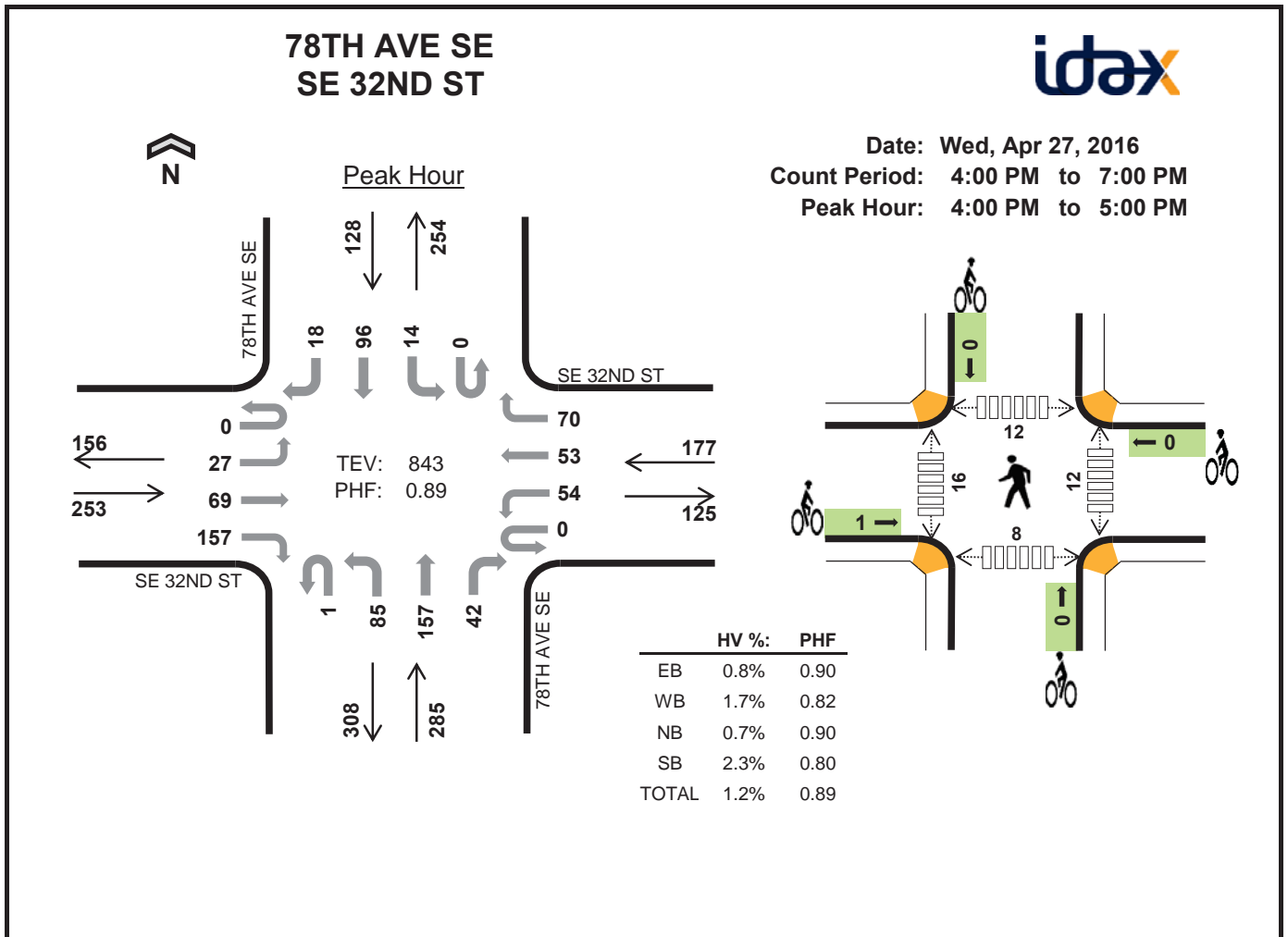
Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	1	3	1	7	0	0	0	0	0	0	0	3	0	3
4:15 PM	0	0	2	1	3	0	0	0	0	0	0	0	4	0	4
4:30 PM	1	0	4	2	7	1	0	0	0	1	1	0	1	6	8
4:45 PM	0	0	4	0	4	0	0	0	1	1	0	0	1	4	5
Peak Hour	3	1	13	4	21	1	0	0	1	2	1	0	9	10	20

Three-Hour Count Summaries																		
Interval Start	SE 28TH ST				SE 28TH ST				ISLAND CREST WAY				ISLAND CREST WAY				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	75	6	38	0	0	5	6	0	49	66	0	0	4	43	26	318	0
4:15 PM	0	63	3	34	0	0	8	5	0	47	88	0	0	3	57	18	326	0
4:30 PM	0	60	7	40	0	0	7	10	0	44	64	0	0	2	32	14	280	0
4:45 PM	0	57	11	55	0	0	4	9	0	50	83	1	0	1	32	12	315	1,239
5:00 PM	0	83	8	44	0	0	10	6	0	52	64	0	1	2	23	20	313	1,234
5:15 PM	0	55	7	42	0	1	3	4	0	45	64	0	0	2	33	16	272	1,180
5:30 PM	0	54	7	49	0	0	5	6	0	52	79	2	0	1	25	4	284	1,184
5:45 PM	0	35	10	50	0	0	13	12	0	36	66	0	0	4	32	12	270	1,139
6:00 PM	0	38	10	50	0	1	6	8	0	44	45	0	0	2	46	7	257	1,083
6:15 PM	0	35	5	43	0	0	2	5	0	39	66	0	0	5	48	14	262	1,073
6:30 PM	0	31	8	32	0	0	7	9	0	29	82	0	0	1	32	15	246	1,035
6:45 PM	0	24	6	28	0	0	5	3	0	37	75	1	0	2	30	20	231	996
Count Total	0	610	88	505	0	2	75	83	0	524	842	4	1	29	433	178	3,374	0
Peak Hour	0	255	27	167	0	0	24	30	0	190	301	1	0	10	164	70	1,239	0

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	1	3	1	7	0	0	0	0	0	0	0	3	0	3
4:15 PM	0	0	2	1	3	0	0	0	0	0	0	0	4	0	4
4:30 PM	1	0	4	2	7	1	0	0	0	1	1	0	1	6	8
4:45 PM	0	0	4	0	4	0	0	0	1	1	0	0	1	4	5
5:00 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	2	2
5:15 PM	1	0	2	2	5	0	0	0	0	0	0	0	3	0	3
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	3	0	3
5:45 PM	0	0	1	1	2	0	0	0	0	0	0	0	2	0	2
6:00 PM	1	0	2	0	3	0	0	0	0	0	0	0	1	0	1
6:15 PM	2	0	2	1	5	0	1	0	0	1	0	0	0	0	0
6:30 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	1	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Count Total	8	1	25	8	42	1	1	0	1	3	1	0	19	13	33
Peak Hour	3	1	13	4	21	1	0	0	1	2	1	0	9	10	20



Three-Hour Count Summaries

Interval Start	SE 32ND ST Eastbound				SE 32ND ST Westbound				78TH AVE SE Northbound				78TH AVE SE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	8	21	36	0	20	17	17	0	19	45	14	0	5	28	7	237	0
4:15 PM	0	7	21	35	0	14	16	13	1	22	38	9	0	4	26	6	212	0
4:30 PM	0	4	18	48	0	8	6	25	0	16	38	4	0	1	16	5	189	0
4:45 PM	0	8	9	38	0	12	14	15	0	28	36	15	0	4	26	0	205	843
Peak Hour	0	27	69	157	0	54	53	70	1	85	157	42	0	14	96	18	843	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	2	1	1	4	0	0	0	0	0	2	3	2	2	9
4:15 PM	0	0	0	2	2	1	0	0	0	1	3	4	2	3	12
4:30 PM	2	0	1	0	3	0	0	0	0	0	4	5	1	3	13
4:45 PM	0	1	0	0	1	0	0	0	0	0	3	4	7	0	14
Peak Hour	2	3	2	3	10	1	0	0	0	1	12	16	12	8	48

Three-Hour Count Summaries																		
Interval Start	SE 32ND ST				SE 32ND ST				78TH AVE SE				78TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	8	21	36	0	20	17	17	0	19	45	14	0	5	28	7	237	0
4:15 PM	0	7	21	35	0	14	16	13	1	22	38	9	0	4	26	6	212	0
4:30 PM	0	4	18	48	0	8	6	25	0	16	38	4	0	1	16	5	189	0
4:45 PM	0	8	9	38	0	12	14	15	0	28	36	15	0	4	26	0	205	843
5:00 PM	0	7	15	46	0	7	10	18	0	20	29	6	0	6	24	3	191	797
5:15 PM	0	6	9	39	0	10	12	12	0	24	42	5	0	3	36	3	201	786
5:30 PM	0	3	7	39	0	4	10	3	0	26	34	11	0	1	22	3	163	760
5:45 PM	0	6	7	36	0	12	11	4	0	24	34	6	0	4	27	6	177	732
6:00 PM	0	5	8	50	0	14	7	11	0	22	34	3	0	6	34	1	195	736
6:15 PM	0	5	15	47	0	7	9	4	0	13	30	4	0	7	21	3	165	700
6:30 PM	0	8	6	30	0	5	8	3	0	26	28	5	0	7	22	4	152	689
6:45 PM	0	3	2	28	0	5	5	7	0	21	37	0	0	2	16	1	127	639
Count Total	0	70	138	472	0	118	125	132	1	261	425	82	0	50	298	42	2,214	0
Peak Hour	0	27	69	157	0	54	53	70	1	85	157	42	0	14	96	18	843	0

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	2	1	1	4	0	0	0	0	0	2	3	2	2	9
4:15 PM	0	0	0	2	2	1	0	0	0	1	3	4	2	3	12
4:30 PM	2	0	1	0	3	0	0	0	0	0	4	5	1	3	13
4:45 PM	0	1	0	0	1	0	0	0	0	0	3	4	7	0	14
5:00 PM	0	0	3	1	4	0	0	0	0	0	3	2	3	0	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	5	4	3	13
5:30 PM	0	0	2	2	4	0	0	0	0	0	2	4	2	4	12
5:45 PM	1	0	1	0	2	1	0	0	0	1	4	2	1	0	7
6:00 PM	0	1	3	1	5	1	0	0	0	1	1	3	1	2	7
6:15 PM	0	0	0	1	1	0	0	0	1	1	5	1	1	4	11
6:30 PM	0	0	3	0	3	3	0	1	1	5	2	3	0	3	8
6:45 PM	0	0	0	0	0	0	0	0	1	1	2	5	1	3	11
Count Total	3	4	14	8	29	6	0	1	3	10	32	41	25	27	125
Peak Hour	2	3	2	3	10	1	0	0	0	1	12	16	12	8	48

Appendix B: LOS Definitions

Highway Capacity Manual 2010

Signalized intersection level of service (LOS) is defined in terms of a weighted average control delay for the entire intersection. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control as well as provides a surrogate measure for driver discomfort and fuel consumption. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday PM peak hour). Control delay is a complex measure based on many variables, including signal phasing and coordination (i.e., progression of movements through the intersection and along the corridor), signal cycle length, and traffic volumes with respect to intersection capacity and resulting queues. Table 1 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2010* (Transportation Research Board, 2010).

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F ¹	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.

1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way stop and two-way stop control. All-way stop control intersection LOS is expressed in terms of the weighted average control delay of the overall intersection or by approach. Two-way stop-controlled intersection LOS is defined in terms of the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns. This approach is because major-street through vehicles are assumed to experience zero delay, a weighted average of all movements results in very low overall average delay, and this calculated low delay could mask deficiencies of minor movements. Table 2 shows LOS criteria for unsignalized intersections.

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F ¹	>50





















Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.

1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Appendix C:LOS Worksheets

HCM 2010 Signalized Intersection Summary
 1: 77th Ave SE & SE 27th St




















Existing (2016) Weekday PM Peak Hour
 Mercer Island Center for the Arts

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	205	115	45	270	60	135	55	55	145	170	90
Future Volume (veh/h)	30	205	115	45	270	60	135	55	55	145	170	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.93	0.98		0.95	0.97		0.92	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1881	1881	1900	1863	1863	1900
Adj Flow Rate, veh/h	34	230	129	51	303	67	152	62	62	163	191	101
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	336	411	231	335	552	122	421	222	222	549	309	163
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.09	0.27	0.27	0.10	0.28	0.28
Sat Flow, veh/h	996	1102	618	1006	1478	327	1792	826	826	1774	1122	593
Grp Volume(v), veh/h	34	0	359	51	0	370	152	0	124	163	0	292
Grp Sat Flow(s),veh/h/ln	996	0	1720	1006	0	1805	1792	0	1651	1774	0	1715
Q Serve(g_s), s	1.6	0.0	9.5	2.4	0.0	9.3	3.4	0.0	3.4	3.7	0.0	8.5
Cycle Q Clear(g_c), s	10.9	0.0	9.5	11.9	0.0	9.3	3.4	0.0	3.4	3.7	0.0	8.5
Prop In Lane	1.00		0.36	1.00		0.18	1.00		0.50	1.00		0.35
Lane Grp Cap(c), veh/h	336	0	642	335	0	673	421	0	444	549	0	472
V/C Ratio(X)	0.10	0.00	0.56	0.15	0.00	0.55	0.36	0.00	0.28	0.30	0.00	0.62
Avail Cap(c_a), veh/h	572	0	1049	573	0	1101	728	0	864	842	0	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	14.2	19.0	0.0	14.2	13.6	0.0	16.6	12.8	0.0	18.2
Incr Delay (d2), s/veh	0.1	0.0	0.8	0.2	0.0	0.7	0.5	0.0	0.3	0.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.6	0.7	0.0	4.8	1.7	0.0	1.6	1.8	0.0	4.1
LnGrp Delay(d),s/veh	18.6	0.0	15.0	19.2	0.0	14.9	14.1	0.0	16.9	13.1	0.0	19.5
LnGrp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		393			421			276			455	
Approach Delay, s/veh		15.3			15.4			15.3			17.2	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	20.4		26.4	10.2	20.8		26.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	30.0		35.0	15.0	30.0		35.0				
Max Q Clear Time (g_c+I1), s	5.7	5.4		12.9	5.4	10.5		13.9				
Green Ext Time (p_c), s	0.3	2.8		5.6	0.3	2.7		5.5				
Intersection Summary												
HCM 2010 Ctrl Delay			15.9									
HCM 2010 LOS			B									

Intersection										
Intersection Delay, s/veh	10.4									
Intersection LOS	B									
Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT	
Traffic Vol, veh/h	0	105	120	0	135	110	5	150	85	
Future Vol, veh/h	0	105	120	0	135	110	5	150	85	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	
Mvmt Flow	0	118	135	0	152	124	6	169	96	
Number of Lanes	0	1	1	0	1	0	0	0	1	
Approach										
	WB				NB			SB		
Opposing Approach					SB			NB		
Opposing Lanes	0				1			1		
Conflicting Approach Left	NB							WB		
Conflicting Lanes Left	1				0			2		
Conflicting Approach Right	SB				WB					
Conflicting Lanes Right	1				2			0		
HCM Control Delay	9.8				10.3			11.1		
HCM LOS	A				B			B		
Lane										
	NBLn1	WBLn1	WBLn2	SBLn1						
Vol Left, %	0%	100%	0%	64%						
Vol Thru, %	55%	0%	0%	36%						
Vol Right, %	45%	0%	100%	0%						
Sign Control	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	245	105	120	240						
LT Vol	0	105	0	153						
Through Vol	135	0	0	87						
RT Vol	110	0	120	0						
Lane Flow Rate	275	118	135	270						
Geometry Grp	2	7	7	2						
Degree of Util (X)	0.356	0.205	0.189	0.376						
Departure Headway (Hd)	4.662	6.261	5.048	5.024						
Convergence, Y/N	Yes	Yes	Yes	Yes						
Cap	765	569	702	712						
Service Time	2.728	4.051	2.837	3.092						
HCM Lane V/C Ratio	0.359	0.207	0.192	0.379						
HCM Control Delay	10.3	10.7	9	11.1						
HCM Lane LOS	B	B	A	B						
HCM 95th-tile Q	1.6	0.8	0.7	1.8						

HCM 2010 Signalized Intersection Summary
3: Island Crest Way & SE 28th St





















Existing (2016) Weekday PM Peak Hour
Mercer Island Center for the Arts

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	25	165	0	25	30	190	300	5	10	165	70
Future Volume (veh/h)	255	25	165	0	25	30	190	300	5	10	165	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1881	1900	1863	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	268	26	174	0	26	32	200	316	5	11	174	74
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	2	2	2	3	3	3	2	2	2
Cap, veh/h	393	38	367	0	63	78	248	1220	19	15	262	112
Arrive On Green	0.24	0.24	0.24	0.00	0.09	0.09	0.14	0.35	0.35	0.01	0.21	0.21
Sat Flow, veh/h	1640	159	1532	0	745	917	1757	3531	56	1774	1236	525
Grp Volume(v), veh/h	294	0	174	0	0	58	200	157	164	11	0	248
Grp Sat Flow(s),veh/h/ln	1799	0	1532	0	0	1662	1757	1752	1835	1774	0	1761
Q Serve(g_s), s	8.5	0.0	5.6	0.0	0.0	1.9	6.3	3.7	3.7	0.4	0.0	7.4
Cycle Q Clear(g_c), s	8.5	0.0	5.6	0.0	0.0	1.9	6.3	3.7	3.7	0.4	0.0	7.4
Prop In Lane	0.91		1.00	0.00		0.55	1.00		0.03	1.00		0.30
Lane Grp Cap(c), veh/h	431	0	367	0	0	142	248	605	634	15	0	374
V/C Ratio(X)	0.68	0.00	0.47	0.00	0.00	0.41	0.81	0.26	0.26	0.74	0.00	0.66
Avail Cap(c_a), veh/h	939	0	799	0	0	781	412	951	995	102	0	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	18.8	0.0	0.0	24.9	23.9	13.5	13.5	28.4	0.0	20.8
Incr Delay (d2), s/veh	1.4	0.0	0.7	0.0	0.0	1.4	2.3	0.2	0.2	22.8	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	2.4	0.0	0.0	0.9	3.2	1.8	1.9	0.3	0.0	3.8
LnGrp Delay(d),s/veh	21.3	0.0	19.5	0.0	0.0	26.3	26.3	13.8	13.8	51.3	0.0	22.8
LnGrp LOS	C		B			C	C	B	B	D		C
Approach Vol, veh/h		468			58			521			259	
Approach Delay, s/veh		20.6			26.3			18.6			24.0	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.3	12.6	17.2		9.4	5.0	24.9				
Change Period (Y+Rc), s		4.5	4.5	5.0		4.5	4.5	5.0				
Max Green Setting (Gmax), s		30.0	13.5	21.0		27.0	3.3	31.2				
Max Q Clear Time (g_c+I1), s		10.5	8.3	9.4		3.9	2.4	5.7				
Green Ext Time (p_c), s		1.9	0.1	2.6		0.2	0.0	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			20.7									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	11.5											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	25	70	155	0	55	55	70	5	85	155	40
Future Vol, veh/h	0	25	70	155	0	55	55	70	5	85	155	40
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	2	2	2	2	1	1	1	1
Mvmt Flow	0	28	79	174	0	62	62	79	6	96	174	45
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0
Approach												
	EB			WB				NB				
Opposing Approach	WB			EB				SB				
Opposing Lanes	2			2				2				
Conflicting Approach Left	SB			NB				EB				
Conflicting Lanes Left	2			2				2				
Conflicting Approach Right	NB			SB				WB				
Conflicting Lanes Right	2			2				2				
HCM Control Delay	12.1			10.5				11.8				
HCM LOS	B			B				B				
Lane												
	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%				
Vol Thru, %	0%	79%	0%	31%	0%	44%	0%	83%				
Vol Right, %	0%	21%	0%	69%	0%	56%	0%	17%				
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop				
Traffic Vol by Lane	90	195	25	225	55	125	15	115				
LT Vol	90	0	25	0	55	0	15	0				
Through Vol	0	155	0	70	0	55	0	95				
RT Vol	0	40	0	155	0	70	0	20				
Lane Flow Rate	101	219	28	253	62	140	17	129				
Geometry Grp	7	7	7	7	7	7	7	7				
Degree of Util (X)	0.187	0.365	0.052	0.402	0.118	0.232	0.033	0.227				
Departure Headway (Hd)	6.656	6.004	6.726	5.73	6.856	5.95	6.957	6.324				
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Cap	539	598	531	627	522	601	513	566				
Service Time	4.404	3.752	4.478	3.482	4.611	3.704	4.715	4.083				
HCM Lane V/C Ratio	0.187	0.366	0.053	0.404	0.119	0.233	0.033	0.228				
HCM Control Delay	10.9	12.2	9.8	12.3	10.5	10.5	10	10.9				
HCM Lane LOS	B	B	A	B	B	B	A	B				
HCM 95th-tile Q	0.7	1.7	0.2	1.9	0.4	0.9	0.1	0.9				

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	15	95	20
Future Vol, veh/h	0	15	95	20
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	17	107	22
Number of Lanes	0	1	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		2		
Conflicting Approach Left		WB		
Conflicting Lanes Left		2		
Conflicting Approach Right		EB		
Conflicting Lanes Right		2		
HCM Control Delay		10.8		
HCM LOS		B		
Lane				




















HCM 2010 Signalized Intersection Summary (2019) Without Project Weekday PM Peak Hour
 1: 77th Ave SE & SE 27th St Mercer Island Center for the Arts

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	240	120	45	305	60	145	55	55	145	175	115
Future Volume (veh/h)	30	240	120	45	305	60	145	55	55	145	175	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.93	0.98		0.95	0.97		0.92	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1881	1881	1900	1863	1863	1900
Adj Flow Rate, veh/h	34	270	135	51	343	67	163	62	62	163	197	129
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	304	435	217	297	571	112	404	236	236	558	293	192
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	962	1154	577	966	1516	296	1792	827	827	1774	1026	672
Grp Volume(v), veh/h	34	0	405	51	0	410	163	0	124	163	0	326
Grp Sat Flow(s),veh/h/ln	962	0	1731	966	0	1812	1792	0	1655	1774	0	1697
Q Serve(g_s), s	1.8	0.0	11.7	2.8	0.0	11.2	3.8	0.0	3.6	3.9	0.0	10.4
Cycle Q Clear(g_c), s	13.0	0.0	11.7	14.5	0.0	11.2	3.8	0.0	3.6	3.9	0.0	10.4
Prop In Lane	1.00		0.33	1.00		0.16	1.00		0.50	1.00		0.40
Lane Grp Cap(c), veh/h	304	0	652	297	0	682	404	0	472	558	0	485
V/C Ratio(X)	0.11	0.00	0.62	0.17	0.00	0.60	0.40	0.00	0.26	0.29	0.00	0.67
Avail Cap(c_a), veh/h	490	0	986	484	0	1032	675	0	808	825	0	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	15.6	21.5	0.0	15.4	14.1	0.0	17.0	13.2	0.0	19.4
Incr Delay (d2), s/veh	0.2	0.0	1.0	0.3	0.0	0.9	0.6	0.0	0.3	0.3	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	5.7	0.8	0.0	5.7	1.9	0.0	1.7	1.9	0.0	5.1
LnGrp Delay(d),s/veh	20.8	0.0	16.6	21.7	0.0	16.3	14.7	0.0	17.2	13.4	0.0	21.0
LnGrp LOS	C		B	C		B	B		B	B		C
Approach Vol, veh/h		439			461			287			489	
Approach Delay, s/veh		16.9			16.9			15.8			18.5	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	22.5		28.1	10.7	22.6		28.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	30.0		35.0	15.0	30.0		35.0				
Max Q Clear Time (g_c+I1), s	5.9	5.6		15.0	5.8	12.4		16.5				
Green Ext Time (p_c), s	0.3	3.1		6.1	0.3	2.8		5.9				
Intersection Summary												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									

Intersection										
Intersection Delay, s/veh	10.5									
Intersection LOS	B									
Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT	
Traffic Vol, veh/h	0	105	125	0	135	110	5	155	85	
Future Vol, veh/h	0	105	125	0	135	110	5	155	85	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	
Mvmt Flow	0	118	140	0	152	124	6	174	96	
Number of Lanes	0	1	1	0	1	0	0	0	1	
Approach										
	WB				NB		SB			
Opposing Approach					SB		NB			
Opposing Lanes	0				1		1			
Conflicting Approach Left	NB						WB			
Conflicting Lanes Left	1				0		2			
Conflicting Approach Right	SB				WB					
Conflicting Lanes Right	1				2		0			
HCM Control Delay	9.8				10.4		11.3			
HCM LOS	A				B		B			
Lane										
	NBLn1	WBLn1	WBLn2	SBLn1						
Vol Left, %	0%	100%	0%	65%						
Vol Thru, %	55%	0%	0%	35%						
Vol Right, %	45%	0%	100%	0%						
Sign Control	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	245	105	125	245						
LT Vol	0	105	0	158						
Through Vol	135	0	0	87						
RT Vol	110	0	125	0						
Lane Flow Rate	275	118	140	275						
Geometry Grp	2	7	7	2						
Degree of Util (X)	0.358	0.206	0.198	0.385						
Departure Headway (Hd)	4.684	6.277	5.064	5.04						
Convergence, Y/N	Yes	Yes	Yes	Yes						
Cap	763	567	701	707						
Service Time	2.754	4.07	2.856	3.112						
HCM Lane V/C Ratio	0.36	0.208	0.2	0.389						
HCM Control Delay	10.4	10.7	9.1	11.3						
HCM Lane LOS	B	B	A	B						
HCM 95th-tile Q	1.6	0.8	0.7	1.8						

HCM 2010 Signalized Intersection Summary (2019) Without Project Weekday PM Peak Hour
 3: Island Crest Way & SE 28th St





















Mercer Island Center for the Arts

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	25	165	0	25	30	195	305	5	10	165	70
Future Volume (veh/h)	260	25	165	0	25	30	195	305	5	10	165	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1881	1900	1863	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	274	26	174	0	26	32	205	321	5	11	174	74
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	2	2	2	3	3	3	2	2	2
Cap, veh/h	397	38	370	0	63	78	253	1227	19	15	262	111
Arrive On Green	0.24	0.24	0.24	0.00	0.08	0.08	0.14	0.35	0.35	0.01	0.21	0.21
Sat Flow, veh/h	1643	156	1532	0	745	917	1757	3532	55	1774	1236	525
Grp Volume(v), veh/h	300	0	174	0	0	58	205	159	167	11	0	248
Grp Sat Flow(s),veh/h/ln	1799	0	1532	0	0	1662	1757	1752	1835	1774	0	1761
Q Serve(g_s), s	8.8	0.0	5.7	0.0	0.0	1.9	6.6	3.8	3.8	0.4	0.0	7.5
Cycle Q Clear(g_c), s	8.8	0.0	5.7	0.0	0.0	1.9	6.6	3.8	3.8	0.4	0.0	7.5
Prop In Lane	0.91		1.00	0.00		0.55	1.00		0.03	1.00		0.30
Lane Grp Cap(c), veh/h	435	0	370	0	0	141	253	609	638	15	0	373
V/C Ratio(X)	0.69	0.00	0.47	0.00	0.00	0.41	0.81	0.26	0.26	0.74	0.00	0.67
Avail Cap(c_a), veh/h	926	0	789	0	0	770	407	939	983	100	0	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	18.9	0.0	0.0	25.3	24.2	13.6	13.6	28.8	0.0	21.1
Incr Delay (d2), s/veh	1.5	0.0	0.7	0.0	0.0	1.4	2.5	0.2	0.2	22.9	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	2.4	0.0	0.0	0.9	3.4	1.8	1.9	0.3	0.0	3.9
LnGrp Delay(d),s/veh	21.6	0.0	19.6	0.0	0.0	26.7	26.7	13.9	13.9	51.7	0.0	23.1
LnGrp LOS	C		B			C	C	B	B	D		C
Approach Vol, veh/h		474			58			531			259	
Approach Delay, s/veh		20.8			26.7			18.8			24.3	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.6	12.9	17.3		9.4	5.0	25.2				
Change Period (Y+Rc), s		4.5	4.5	5.0		4.5	4.5	5.0				
Max Green Setting (Gmax), s		30.0	13.5	21.0		27.0	3.3	31.2				
Max Q Clear Time (g_c+I1), s		10.8	8.6	9.5		3.9	2.4	5.8				
Green Ext Time (p_c), s		1.9	0.1	2.7		0.2	0.0	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			21.0									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	11.5											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	25	70	155	0	55	55	70	5	85	155	40
Future Vol, veh/h	0	25	70	155	0	55	55	70	5	85	155	40
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	2	2	2	2	1	1	1	1
Mvmt Flow	0	28	79	174	0	62	62	79	6	96	174	45
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0
Approach												
	EB			WB				NB				
Opposing Approach	WB			EB				SB				
Opposing Lanes	2			2				2				
Conflicting Approach Left	SB			NB				EB				
Conflicting Lanes Left	2			2				2				
Conflicting Approach Right	NB			SB				WB				
Conflicting Lanes Right	2			2				2				
HCM Control Delay	12.1			10.5				11.8				
HCM LOS	B			B				B				
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%				
Vol Thru, %	0%	79%	0%	31%	0%	44%	0%	83%				
Vol Right, %	0%	21%	0%	69%	0%	56%	0%	17%				
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop				
Traffic Vol by Lane	90	195	25	225	55	125	15	115				
LT Vol	90	0	25	0	55	0	15	0				
Through Vol	0	155	0	70	0	55	0	95				
RT Vol	0	40	0	155	0	70	0	20				
Lane Flow Rate	101	219	28	253	62	140	17	129				
Geometry Grp	7	7	7	7	7	7	7	7				
Degree of Util (X)	0.187	0.365	0.052	0.402	0.118	0.232	0.033	0.227				
Departure Headway (Hd)	6.656	6.004	6.726	5.73	6.856	5.95	6.957	6.324				
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Cap	539	598	531	627	522	601	513	566				
Service Time	4.404	3.752	4.478	3.482	4.611	3.704	4.715	4.083				
HCM Lane V/C Ratio	0.187	0.366	0.053	0.404	0.119	0.233	0.033	0.228				
HCM Control Delay	10.9	12.2	9.8	12.3	10.5	10.5	10	10.9				
HCM Lane LOS	B	B	A	B	B	B	A	B				
HCM 95th-tile Q	0.7	1.7	0.2	1.9	0.4	0.9	0.1	0.9				

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	15	95	20
Future Vol, veh/h	0	15	95	20
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	17	107	22
Number of Lanes	0	1	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		2		
Conflicting Approach Left		WB		
Conflicting Lanes Left		2		
Conflicting Approach Right		EB		
Conflicting Lanes Right		2		
HCM Control Delay		10.8		
HCM LOS		B		
Lane				

HCM 2010 Signalized Intersection Summary Future (2019) With Project Weekday PM Peak Hour
 1: 77th Ave SE & SE 27th St Mercer Island Center for the Arts

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	240	156	59	305	60	180	69	65	145	189	115
Future Volume (veh/h)	30	240	156	59	305	60	180	69	65	145	189	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.93	0.98		0.95	0.98		0.93	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1881	1881	1900	1863	1863	1900
Adj Flow Rate, veh/h	34	270	175	66	343	67	202	78	73	163	212	129
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	308	403	261	268	589	115	406	257	241	540	299	182
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.11	0.30	0.30	0.09	0.28	0.28
Sat Flow, veh/h	964	1036	672	935	1516	296	1792	860	804	1774	1059	644
Grp Volume(v), veh/h	34	0	445	66	0	410	202	0	151	163	0	341
Grp Sat Flow(s),veh/h/ln	964	0	1708	935	0	1812	1792	0	1664	1774	0	1703
Q Serve(g_s), s	2.0	0.0	14.7	4.3	0.0	12.2	5.3	0.0	4.8	4.3	0.0	12.3
Cycle Q Clear(g_c), s	14.2	0.0	14.7	19.0	0.0	12.2	5.3	0.0	4.8	4.3	0.0	12.3
Prop In Lane	1.00		0.39	1.00		0.16	1.00		0.48	1.00		0.38
Lane Grp Cap(c), veh/h	308	0	664	268	0	704	406	0	498	540	0	481
V/C Ratio(X)	0.11	0.00	0.67	0.25	0.00	0.58	0.50	0.00	0.30	0.30	0.00	0.71
Avail Cap(c_a), veh/h	428	0	876	384	0	930	604	0	732	766	0	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	17.2	25.1	0.0	16.5	15.6	0.0	18.4	14.8	0.0	22.0
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.5	0.0	0.8	0.9	0.0	0.3	0.3	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	7.2	1.1	0.0	6.2	2.6	0.0	2.2	2.1	0.0	6.0
LnGrp Delay(d),s/veh	22.2	0.0	18.5	25.6	0.0	17.2	16.6	0.0	18.8	15.1	0.0	23.9
LnGrp LOS	C		B	C		B	B		B	B		C
Approach Vol, veh/h		479			476			353			504	
Approach Delay, s/veh		18.8			18.4			17.5			21.1	
Approach LOS		B			B			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	25.4		31.5	12.4	24.3		31.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	30.0		35.0	15.0	30.0		35.0				
Max Q Clear Time (g_c+I1), s	6.3	6.8		16.7	7.3	14.3		21.0				
Green Ext Time (p_c), s	0.3	3.4		6.3	0.3	3.0		5.5				
Intersection Summary												
HCM 2010 Ctrl Delay			19.1									
HCM 2010 LOS			B									

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B




















Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations									
Traffic Vol, veh/h	0	152	125	0	145	110	5	155	89
Future Vol, veh/h	0	152	125	0	145	110	5	155	89
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1
Mvmt Flow	0	171	140	0	163	124	6	174	100
Number of Lanes	0	1	1	0	1	0	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.8	11.2	12
HCM LOS	B	B	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	64%
Vol Thru, %	57%	0%	0%	36%
Vol Right, %	43%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	255	152	125	249
LT Vol	0	152	0	158
Through Vol	145	0	0	91
RT Vol	110	0	125	0
Lane Flow Rate	287	171	140	280
Geometry Grp	2	7	7	2
Degree of Util (X)	0.395	0.306	0.204	0.413
Departure Headway (Hd)	4.964	6.453	5.238	5.318
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	728	558	685	680
Service Time	2.972	4.18	2.965	3.327
HCM Lane V/C Ratio	0.394	0.306	0.204	0.412
HCM Control Delay	11.2	12	9.3	12
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.9	1.3	0.8	2

HCM 2010 Signalized Intersection Summary Future (2019) With Project Weekday PM Peak Hour
 3: Island Crest Way & SE 28th St

Mercer Island Center for the Arts

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	25	165	0	25	30	238	305	5	10	165	74
Future Volume (veh/h)	260	25	165	0	25	30	238	305	5	10	165	74
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1881	1900	1863	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	274	26	174	0	26	32	251	321	5	11	174	78
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	2	2	2	3	3	3	2	2	2
Cap, veh/h	391	37	364	0	62	76	299	1311	20	15	254	114
Arrive On Green	0.24	0.24	0.24	0.00	0.08	0.08	0.17	0.37	0.37	0.01	0.21	0.21
Sat Flow, veh/h	1643	156	1532	0	745	916	1757	3532	55	1774	1213	544
Grp Volume(v), veh/h	300	0	174	0	0	58	251	159	167	11	0	252
Grp Sat Flow(s),veh/h/ln	1799	0	1532	0	0	1661	1757	1752	1835	1774	0	1757
Q Serve(g_s), s	9.4	0.0	6.0	0.0	0.0	2.0	8.5	3.9	3.9	0.4	0.0	8.2
Cycle Q Clear(g_c), s	9.4	0.0	6.0	0.0	0.0	2.0	8.5	3.9	3.9	0.4	0.0	8.2
Prop In Lane	0.91		1.00	0.00		0.55	1.00		0.03	1.00		0.31
Lane Grp Cap(c), veh/h	428	0	364	0	0	138	299	650	681	15	0	368
V/C Ratio(X)	0.70	0.00	0.48	0.00	0.00	0.42	0.84	0.24	0.25	0.74	0.00	0.69
Avail Cap(c_a), veh/h	874	0	744	0	0	726	384	885	927	95	0	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	20.2	0.0	0.0	26.9	24.8	13.4	13.4	30.6	0.0	22.6
Incr Delay (d2), s/veh	1.6	0.0	0.7	0.0	0.0	1.5	10.0	0.2	0.2	23.4	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	2.6	0.0	0.0	1.0	4.9	1.9	2.0	0.3	0.0	4.2
LnGrp Delay(d),s/veh	23.1	0.0	21.0	0.0	0.0	28.4	34.8	13.6	13.6	53.9	0.0	24.8
LnGrp LOS	C		C			C	C	B	B	D		C
Approach Vol, veh/h		474			58			577			263	
Approach Delay, s/veh		22.3			28.4			22.8			26.0	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.2	15.0	17.9		9.6	5.0	27.9				
Change Period (Y+Rc), s		4.5	4.5	5.0		4.5	4.5	5.0				
Max Green Setting (Gmax), s		30.0	13.5	21.0		27.0	3.3	31.2				
Max Q Clear Time (g_c+I1), s		11.4	10.5	10.2		4.0	2.4	5.9				
Green Ext Time (p_c), s		1.9	0.1	2.6		0.2	0.0	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			23.5									
HCM 2010 LOS			C									

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations		↶	↷			↶	↷			↶	↷	
Traffic Vol, veh/h	0	35	112	183	0	55	55	70	5	114	155	40
Future Vol, veh/h	0	35	112	183	0	55	55	70	5	114	155	40
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	2	2	2	2	1	1	1	1
Mvmt Flow	0	39	126	206	0	62	62	79	6	128	174	45
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	16.4	11.5	13.3
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	79%	0%	38%	0%	44%	0%	57%
Vol Right, %	0%	21%	0%	62%	0%	56%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	195	35	295	55	125	15	166
LT Vol	119	0	35	0	55	0	15	0
Through Vol	0	155	0	112	0	55	0	95
RT Vol	0	40	0	183	0	70	0	71
Lane Flow Rate	134	219	39	331	62	140	17	187
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.269	0.401	0.079	0.575	0.129	0.257	0.035	0.347
Departure Headway (Hd)	7.24	6.584	7.192	6.241	7.506	6.594	7.524	6.707
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	497	548	500	580	478	545	476	535
Service Time	4.96	4.304	4.909	3.957	5.247	4.335	5.267	4.45
HCM Lane V/C Ratio	0.27	0.4	0.078	0.571	0.13	0.257	0.036	0.35
HCM Control Delay	12.6	13.7	10.5	17.1	11.4	11.6	10.5	13
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	1.1	1.9	0.3	3.6	0.4	1	0.1	1.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Lane Configurations		↘	↑	
Traffic Vol, veh/h	0	15	95	71
Future Vol, veh/h	0	15	95	71
Peak Hour Factor	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	17	107	80
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.8
HCM LOS	B

Appendix D: Typical and Peak Scenario Activity Forecasts

The activity forecasts that follow were developed in collaboration with MICA, based on current forecasts of activity, as well as allowances for future unknown class, rehearsal, and performance activity. These forecasts describe anticipated typical and maximum scenarios, but should not be viewed as detailed usage schedules. In practice, class and performance schedules will vary from day to day, week to week, and year to year.

When developing actual class and performance schedules in the future, MICA's decisions will be informed by the detailed understanding of parking loads and trip generation provided by this report. If questions or unanticipated conditions arise, MICA will coordinate with the City of Mercer Island.

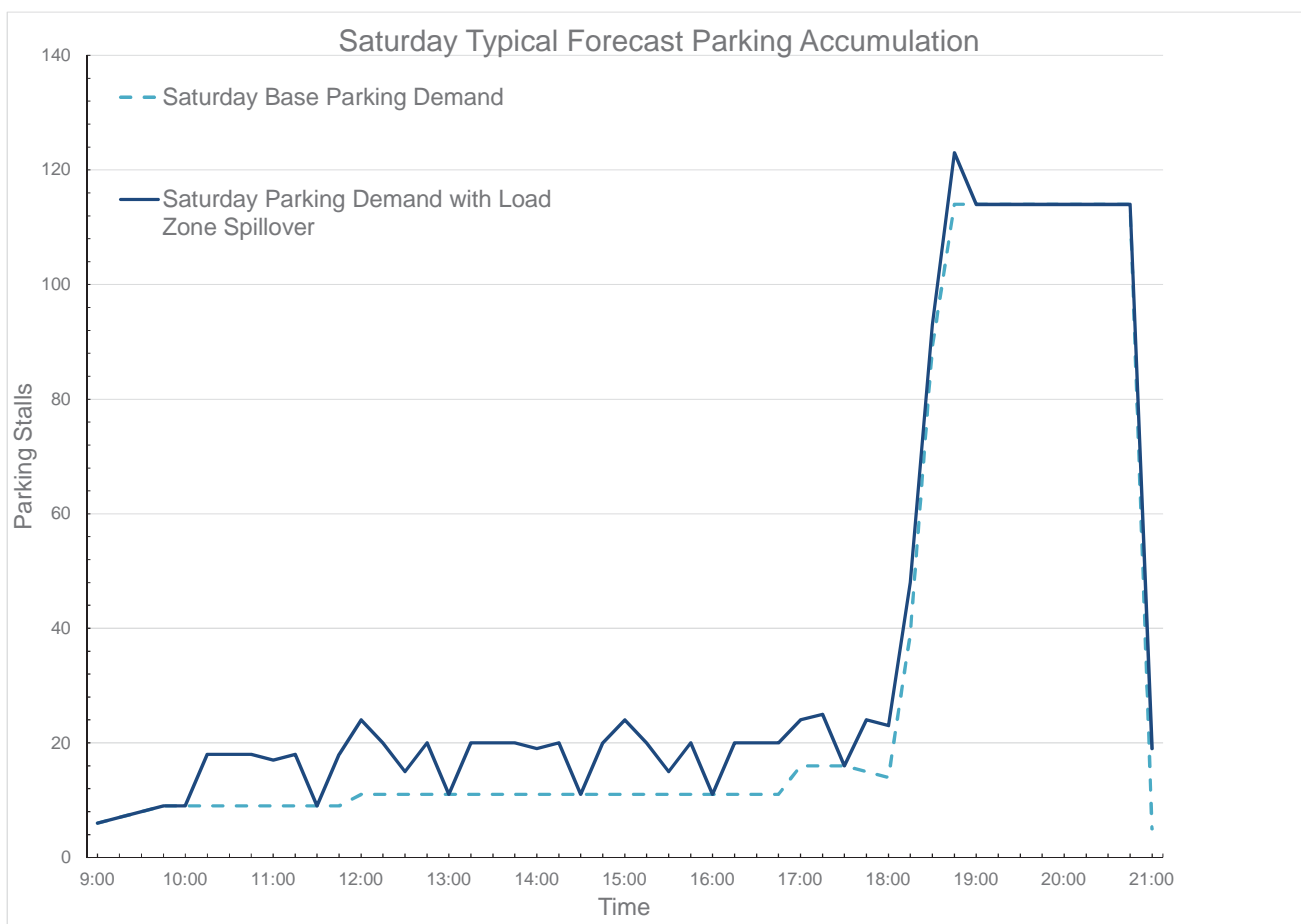
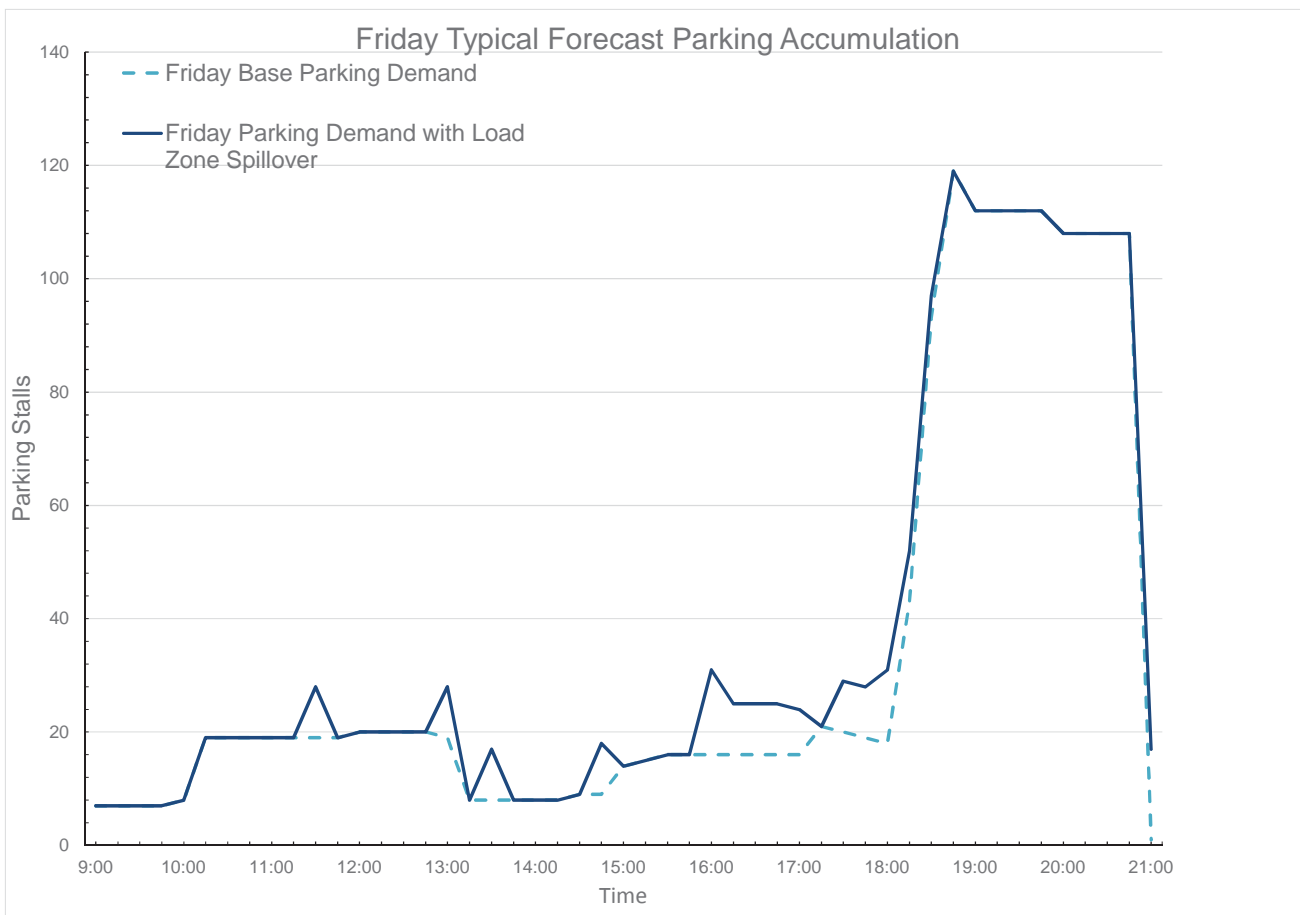
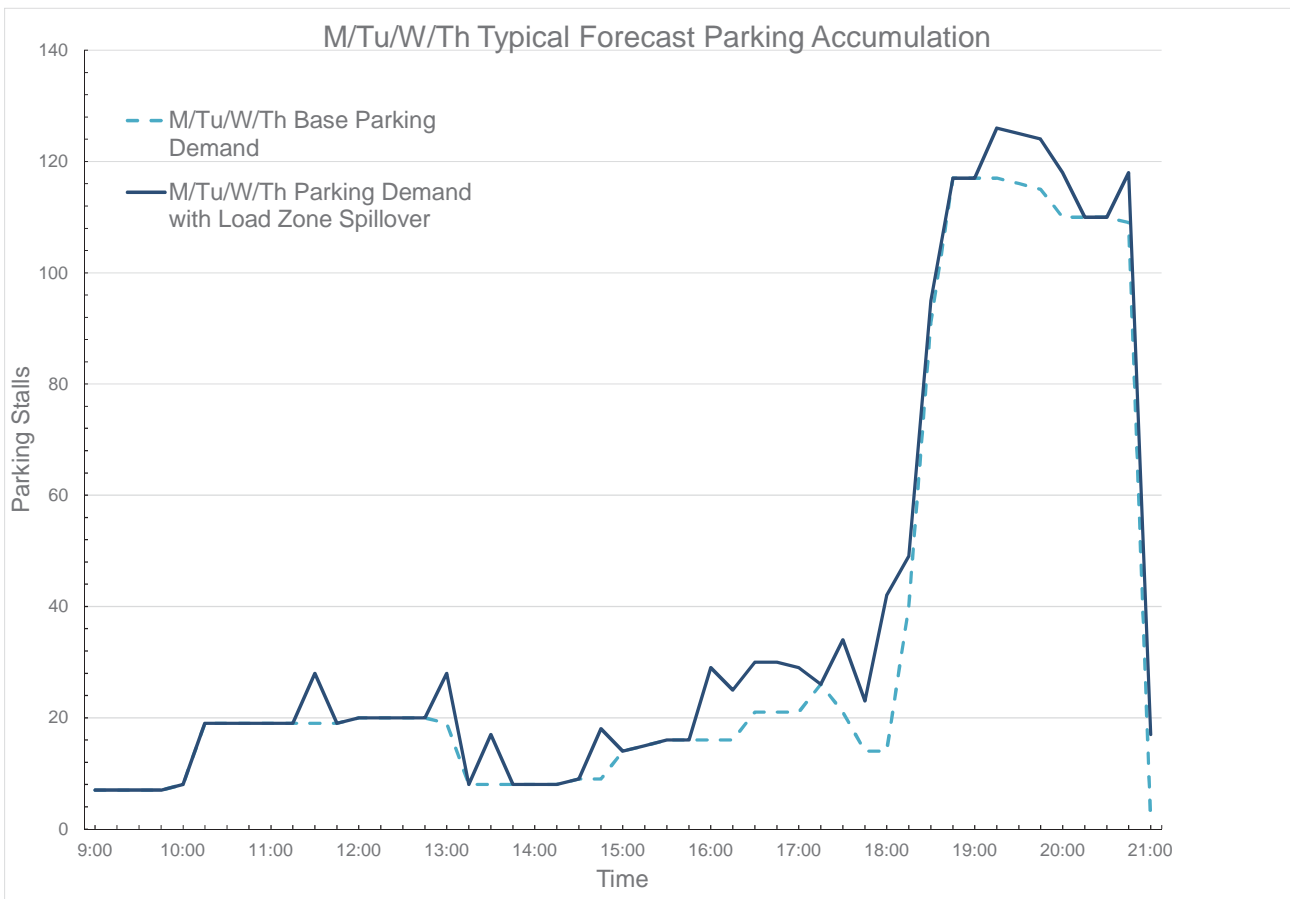
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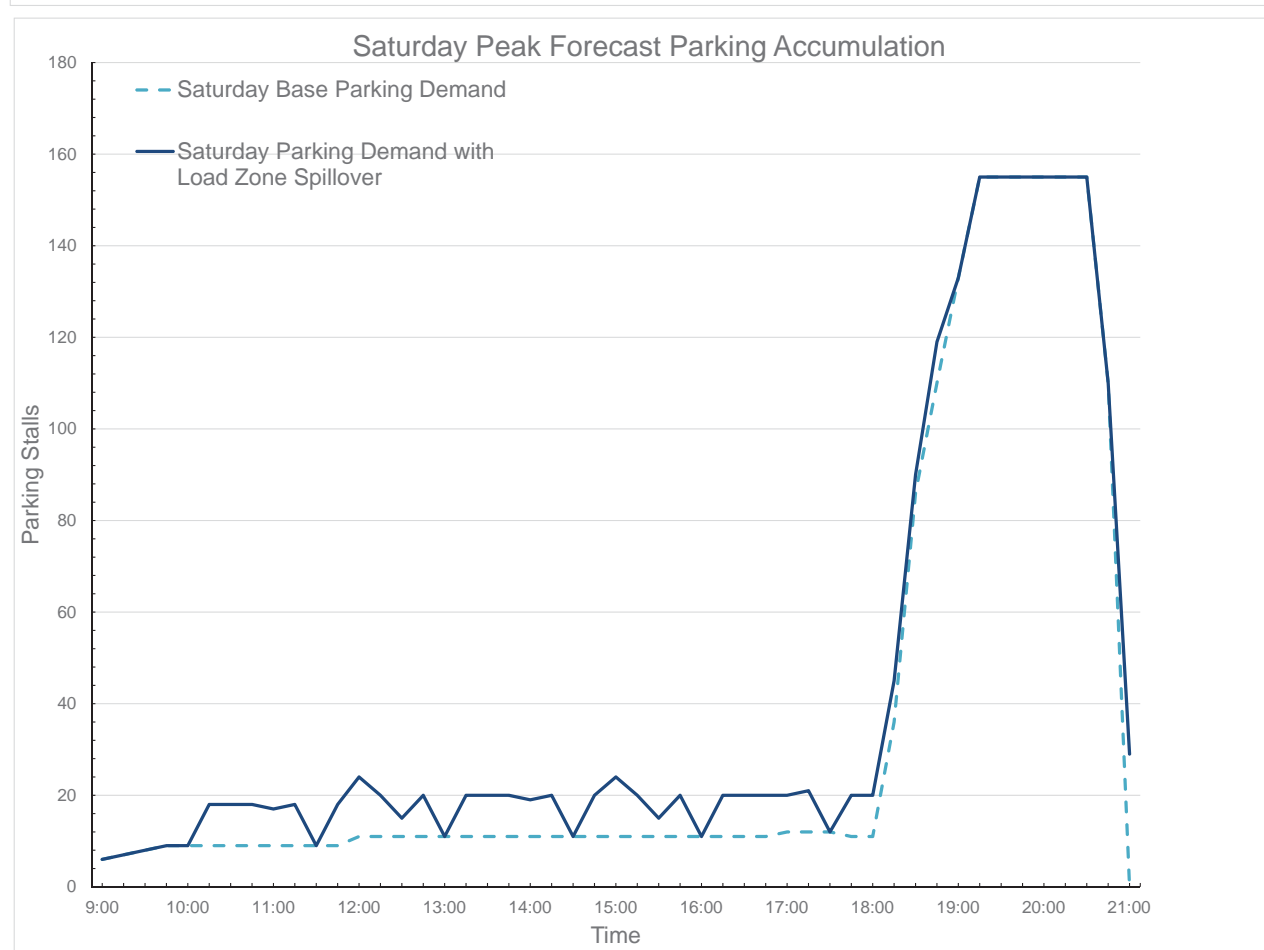
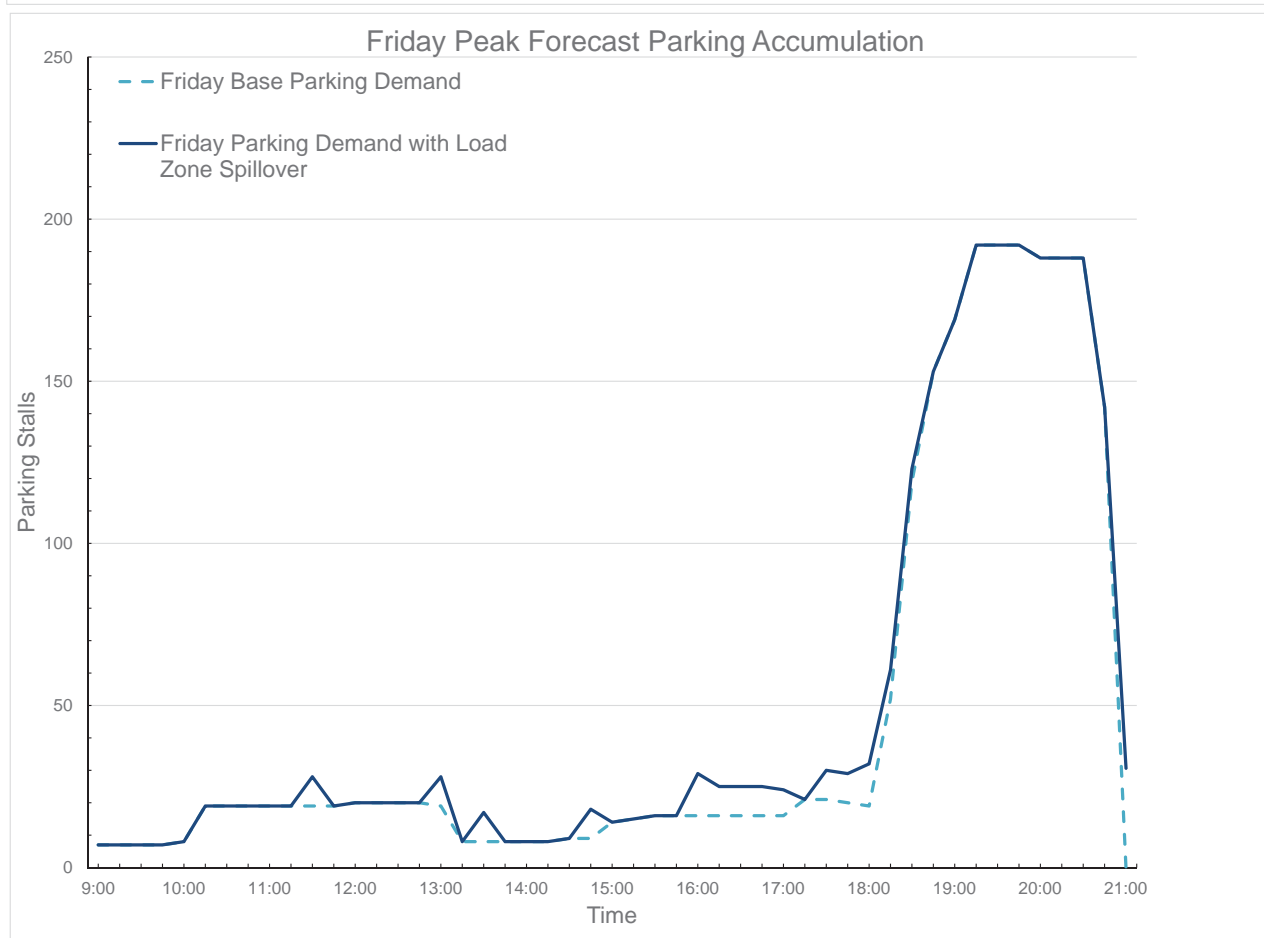
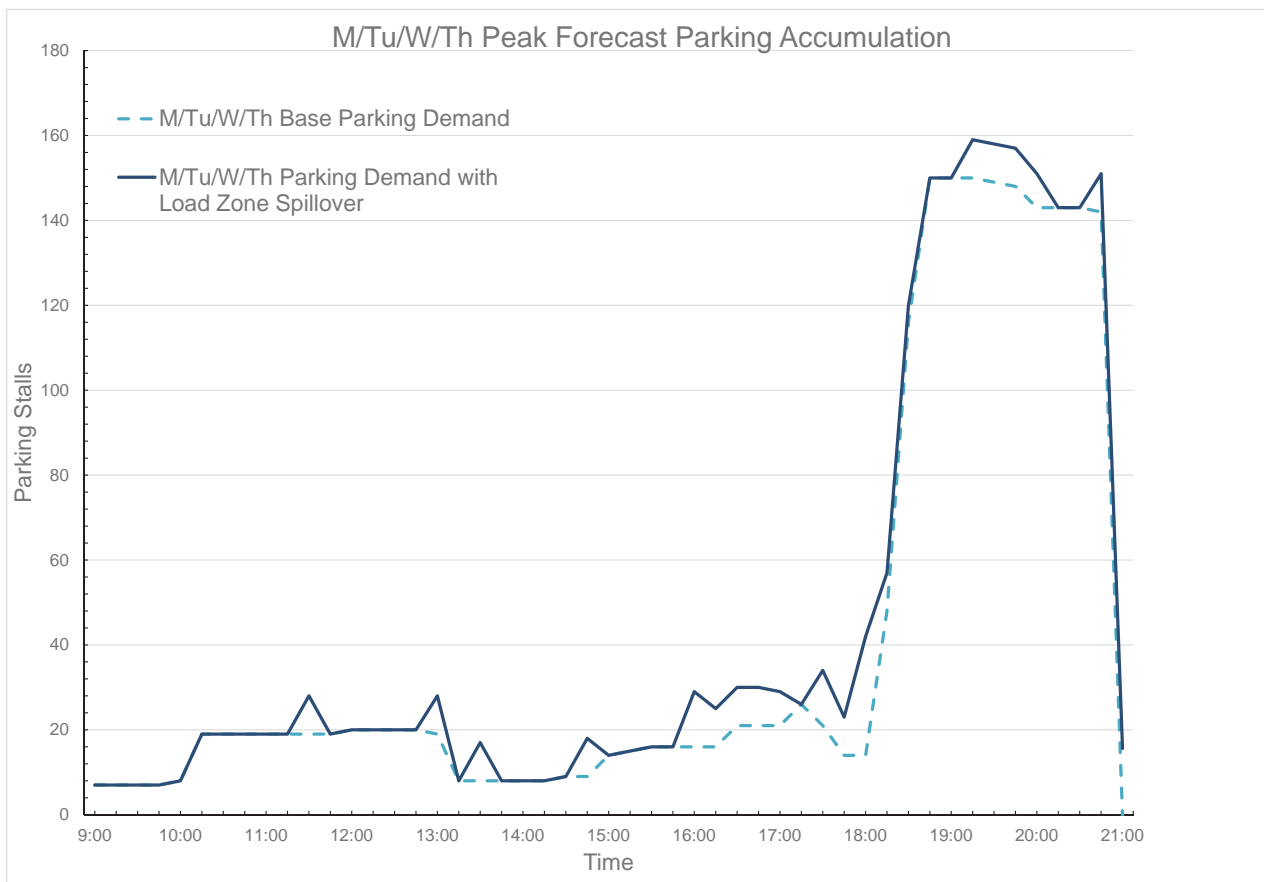
Design Forecast: Typical Activity

NOTE: the class and performance blocks outlined below are estimated forecasts of possible activity at MICA. The actual class and performance times may vary.

M/Tu/W/Th	Hours in the Day																								People per block																										
	9	10	11	12	1	2	3	4	5	6	7	8	9	staff	child students/ performers	adult students/ performers	audience																																		
Admin offices	staff (7)												Individual instruction 1h blocks												staff (2)																										
Music Studios (4)	Preschool 90m: 10, 11:30												Class 90m: 3, 4:30, 6												Rehearsal 3h: 6																										
Classroom 1	Adult class 90m 10:15, 11:45												Class 90m: 3:15, 4:45, 6:15												Class 90m: 3:30, 5, 6:30																										
Classroom 2	Preschool 90m 12, 1:30												Class 90m: 2:30, 4												Class 90m: 2:45, 4:15, 5:45, 7:15																										
Classroom 3																																																			
Recital studio																																																			
Blackbox																																																			
Mainstage																																																			
Time	9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00		
Inbound Total (Trip Gen - Includes Drop Off and Pick Up)	7	0	0	0	16	11	0	0	0	0	31	11	16	0	0	0	15	0	31	0	0	0	16	31	10	16	11	0	43	31	55	31	38	5	19	33	74	57	72	26	12	31	15	15	14	0	0	15	22		
Inbound Total	7	0	0	0	16	11	0	0	0	0	16	11	16	0	0	0	15	0	16	0	0	0	16	31	10	16	11	0	43	31	55	31	38	5	19	33	74	57	72	26	12	31	15	15	14	0	0	15	22		
Staff	7	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	5	1	1	6	1	1	1	4	1	1	1	4	1	1	1	5	5	
Performer					15	10					15	10	15				15		15				15	15	5	15	10	19	15	34	15	19			17	34	15	10	4	15											
Audience					1	11	0	0	0	0	1	11	1	0	0	0	0	0	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	5	0	1	6	27	51	26	4	1	0	0	0	0	0	0	0	0	
Inbound Parkers	7	0	0	0	1	11	0	0	0	0	1	11	1	0	0	0	0	0	1	0	0	1	1	5	1	1	0	5	1	6	1	5	5	0	1	6	27	51	26	4	1	0	0	0	0	0	0	0	0		
Outbound Total (Trip Gen - Includes Drop Off and Pick Up)	0	0	0	0	15	0	0	0	0	0	31	11	15	0	0	0	16	11	31	0	0	0	15	31	5	15	10	0	43	31	50	31	38	0	24	40	74	31	21	0	12	31	16	16	19	0	0	16	130		
Outbound Total	0	0	0	0	15	0	0	0	0	0	16	11	15	0	0	0	16	11	31	0	0	0	15	31	5	15	10	0	43	31	50	31	38	0	24	40	74	31	21	0	12	31	16	16	19	0	0	16	130		
Staff					0	0	0	0	0	0	16	11	1	0	0	0	16	11	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Performer					0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1	5	1	1	0	5	1	1	1	5	5	8	6	1	1	1	1	4	1	1	1	5	1	1	1	1	6	
Audience					0	0	0	0	0	0	1	11	1	0	0	0	1	11	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	0	1	6	1	1	1	0	4	1	1	1	5	0	0	1	1	108	
Outbound Parkers	0	0	0	0	0	0	0	0	0	0	1	11	1	0	0	0	1	11	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	0	1	6	1	1	1	0	4	1	1	1	5	0	0	1	1	108	
M/Tu/W/Th Base Parking Demand	7	7	7	7	8	19	19	19	19	19	19	19	19	20	20	20	20	20	19	8	8	8	8	8	8	9	9	14	15	16	16	16	16	21	21	26	21	14	14	40	91	117	117	117	116	115	110	110	110	109	1
Drop-off and Pick-up Activity																																																			
Drop-off Total					15						15		15				15		15				15	15	5	15	10	19	15	34	15	19			17	34	15	10	4	15	0										
Pick-up Total					0	0	0	0	0	0	6	0	0	0	0	0	6	0	6	0	0	0	6	0	0	0	0	0	6	0	6	6	6	6	0	6	6	6	6	0	4	6	6	6	6	0	0	6	6	22	
Using Loading Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Load Zone Spillover	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	0	9	0	0	0	9	0	0	0	0	0	13	9	9	9	8	0	13	9	28	9	4	0	0	9	9	9	8	0	0	9	16		
M/Tu/W/Th Parking Demand with Load Zone Spillover	7	7	7	7	8	19	19	19	19	19	28	19	20	20	20	20	28	8	17	8	8	8	8	9	14	15	16	16	29	25	30	30	29	26	34	23	42	49	95	117	117	126	125	124	118	110	110	118	17		

Friday	Hours in the Day																								People per block																												
	9	10	11	12	1	2	3	4	5	6	7	8	9	staff	child students/ performers	adult students/ performers	audience																																				
Admin offices	staff (7)												Individual instruction 1h blocks												staff (2)																												
Music Studios (4)	Preschool 90m: 10, 11:30												Class 90m: 3, 4:30												Rehearsal 3h: 6																												
Classroom 1	Adult class 90m 10:15, 11:45												Class 90m: 3:15, 4:45												Class 90m: 3:30, 5																												
Classroom 2	Preschool 90m 12, 1:30												Class 90m: 2:45, 4:15												Class 90m: 2:30, 4																												
Classroom 3																																																					
Recital studio																																																					
Blackbox																																																					
Mainstage																																																					
Time	9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00				
Inbound Total (Trip Gen - Includes Drop Off and Pick Up)	7	0	0	0	16	11	0	0	0	0	31	11	16	0	0	0	15	0	31	0	0	0	16	31	10	16	11	0	43	31	55	31	38	5	15	15	74	57	72	26	12	31	15	15	14	0	0	0	0	0			
Inbound Total	7	0	0	0	16	11	0	0	0	0	16	11	16	0	0	0	15	0	16	0	0	0	16	31	10	16	11	0	43	31	55	31	38	5	15	15	74	57	72	26	12	31	15	15	14	0	0	0	0	0			
Staff	7	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	1	1	5	1	1	0	5	1	1	1	5	5	0	0	6	27	51	26	4	1	0	0	0	0	0	0	0	0			
Performer					15	10					15	10	15				15		15				15	15	5	15	10	19	15	34	15	19			17	34	15	10	4	15													
Audience					1	11	0	0	0	0	1	11	1	0	0	0	0	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	5	0	0	6	27	51	26	4	1	0	0	0	0	0	0	0	0	0			
Inbound Parkers	7	0	0	0	1	11	0	0	0	0	1	11	1	0	0	0	0	1	0	0	1	1	5	1	1	0	5	1	6	1	5	5	0	0	6	27	51	26	4	1	0	0	0	0	0	0	0	0	0				
Outbound Total (Trip Gen - Includes Drop Off and Pick Up)	0	0	0	0	15	0	0	0	0	0	31	11	15	0	0	0	16	11	31	0	0	0	15	31	5	15	10	0	43	31	50	31	38	0	24	40	74	31	21	0	12	31	16	16	19	0	0	16	129				
Outbound Total	0	0	0	0	15	0	0	0	0	0	16	11	15	0	0	0	16	11	31	0	0	0	15	31	5	15	10	0	43	31	50	31	38	0	24	40	74	31	21	0	12	31	16	16	19	0	0	16	129				
Staff					0	0	0	0	0	0	16	11	1	0	0	0	16	11	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Performer					0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1	5	1	1	0	5	1	1	1	5	5	8	6	1	1	1	1	11	15	10	4	1	1	1	5	1	1	1	22	
Audience					0	0	0	0	0	0	1	11	1	0	0	0	1	11	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	0	1	6	1	1	1	0	11	0	0	0	0	4	0	0	0	0	0	0	107
Outbound Parkers	0	0	0	0	0	0	0	0	0	0	1	11	1	0	0	0	1	11	1	0	0	0	1	1	5	1	1	0	5	1	6	1	5	0	1	6	1	1	1	0	11	0	0	0	0	4	0	0	0	0	0	0	
Friday Base Parking Demand	7	7	7	7	8	19	19	19	19	19	19	19	20	20	20</																																						





Appendix E: On-Street Parking Utilization Study

On-Street Parking Utilization Study

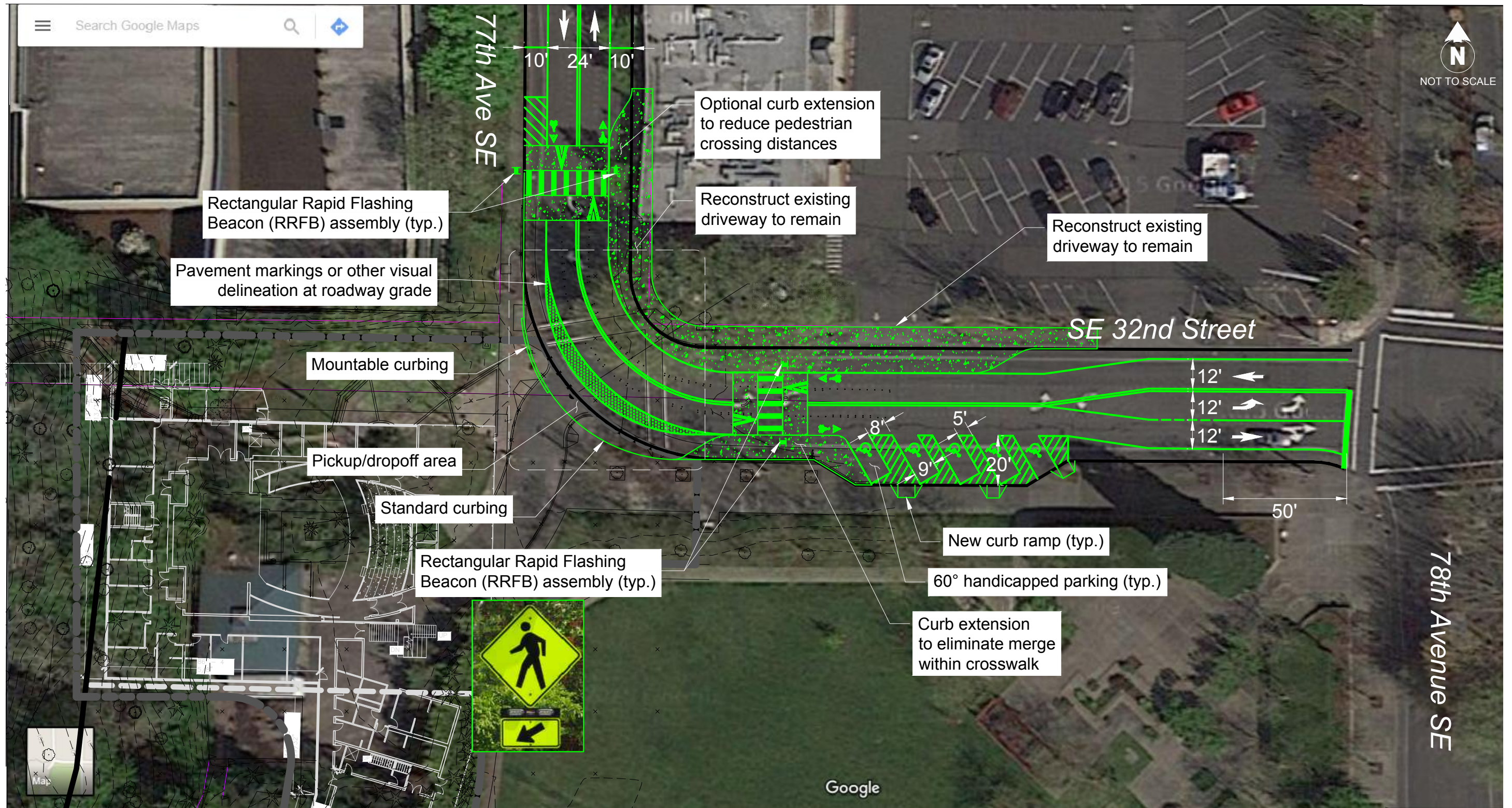
	Description	Distance from Site (ft)	Side	Supply	Average Demand Afternoon	Average Demand Evening	Demand 1 (2-3pm)	Demand 1 (6-7pm)	Demand 2 (2-3pm)	Demand 2 (6-7pm)
1	SE 29th St between 76th Ave SE & 77th Ave SE	1000	N	11	6.5	5	7	5	6	5
			S	8	5	3	7	3	3	3
2	SE 29th St between 77th Ave SE & 78th Ave SE	1000	N	4	3	3	2	5	4	1
			S	9	3	1.5	3	2	3	1
3	77th Ave SE between SE 29th St & SE 32nd St	800	E	0	0	0	0	0	0	0
			W	0	0	0	0	0	0	0
4	78th Ave SE between SE 29th St & SE 30th St	1000	E	0	0	0	0	0	0	0
			W	0	0	0	0	0	0	0
5	78th Ave SE between SE 30th St & SE 32nd St	800	E	0	0	0	0	0	0	0
			W	0	0	0	0	0	0	0
6	SE 32nd St between 77th Ave SE & 78th Ave SE	800	N	0	0	0	0	0	0	0
			S	4	1	1	2	2	0	0
7	SE 32nd St between 78th Ave SE & 80th Ave SE	800	N	7	4	1	4	1	4	1
			S	8	6	0.5	6	0	6	1
8	80th Ave SE between SE 30th St & SE 32nd St	1000	E	30	21.5	11	20	11	23	11
			W	12	10.5	7	12	6	9	8
9	78th Ave SE between SE 32nd St & SE 34th St	800	E	0	0	0	0	0	0	0
			W	0	0	0	0	0	0	0
10	80th Ave SE between SE 32nd St & SE 33rd Pl	1000	E	13	9	3.5	9	2	9	5
			W	0	0	0	0	0	0	0
11	80th Ave SE between SE 33rd Pl and SE 34th St	1200	E	10	1	1.5	1	2	1	1
			W	0	0	0	0	0	0	0
Total				116	70.5	38	73	39	68	37

Based on two days of counts (afternoon and evening) conducted in April 2016 (Tuesday, April 26, 2016 and Wednesday, April 27, 2016)

On-Street Parking Supply	Spaces	Demand Afternoon	Demand Evening	Afternoon Utilization	Evening Utilization
Within 1200 feet of the site	116	71	38	61%	33%
Within 1000 feet of the site	106	70	37	66%	34%
Within 800 feet of the site	19	11	3	58%	13%

Appendix F: Proposed Design Concept

MATCHLINE - SEE FIGURE 2

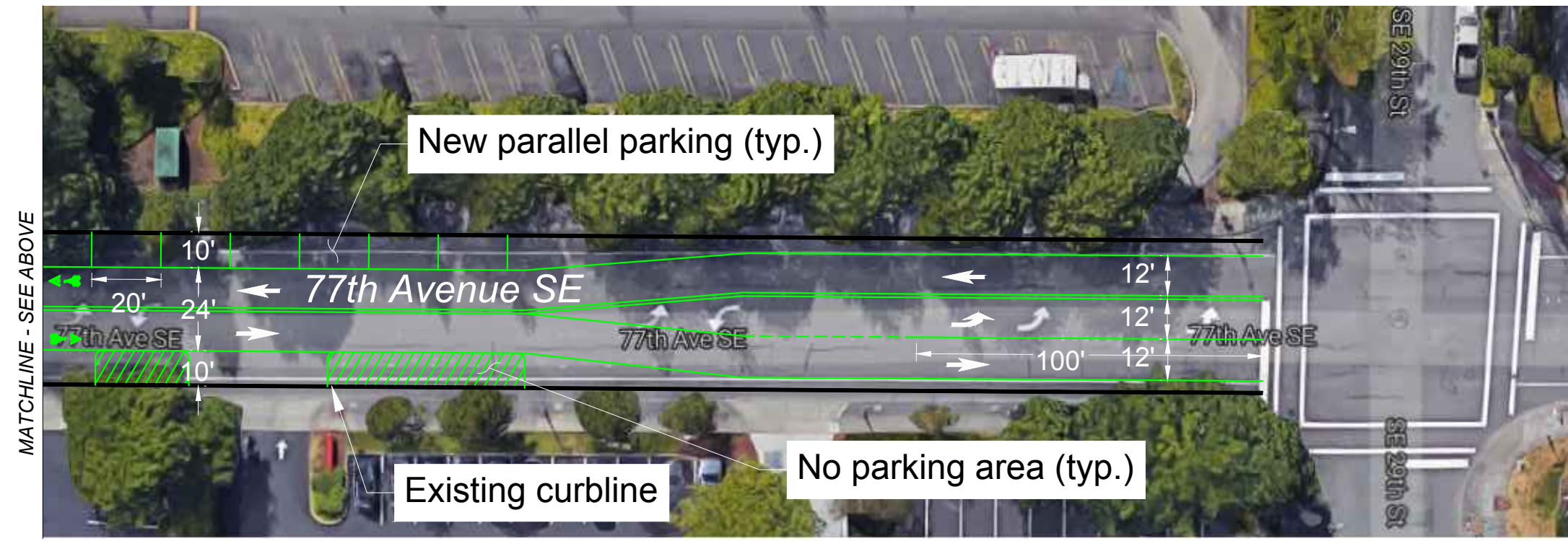
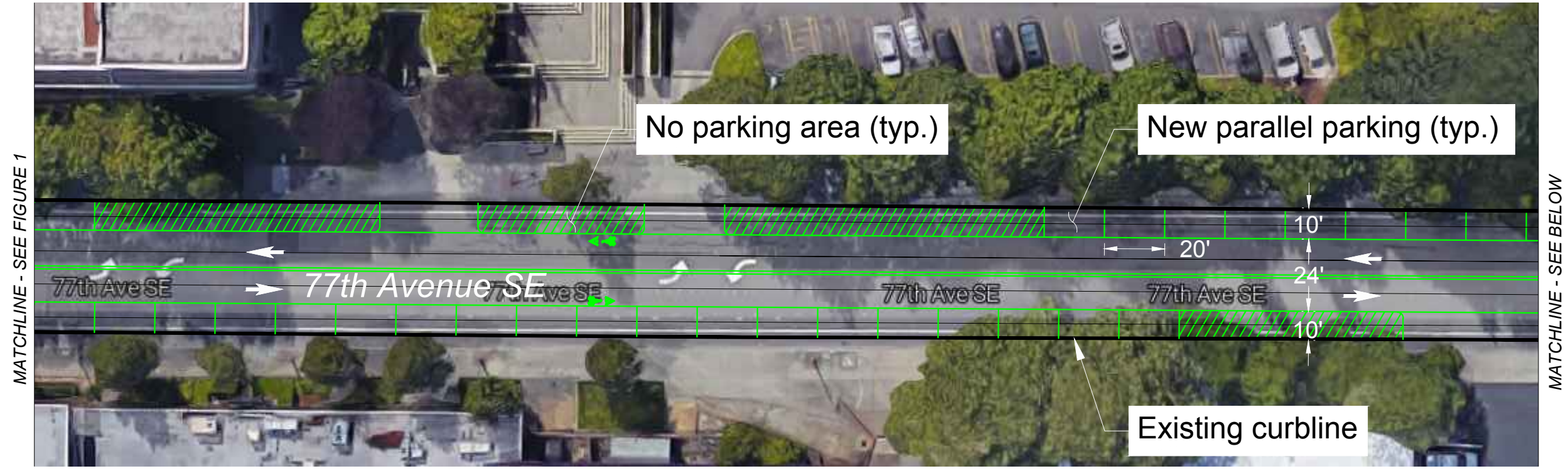


77th Avenue SE/ SE 32nd Street Corner Concept

15249 Mercer Island Center for the Arts - November 9, 2016

FIGURE

1



77th Avenue SE On-Street Parking Concept

15249 Mercer Island Center for the Arts - November 9, 2016

SEPA Environmental Checklist
Mercer Island Center for the Arts

Supplement to Attachment J
Transportation Impact Analysis

June 2017

Supplement to Transportation Impact Analysis

Responses to Additional Comments

1. Pursuant to the notice issued by the City of Mercer Island, WSDOT plans to permanently close the Center roadway of I90. MICA has analyzed the newly anticipated diversion associated with SOV access restriction to the westbound ICW on-ramp to i-90 and has concluded that this traffic shall not impact the MICA site.
2. MICA has analyzed the pedestrian access routes to and from the site for the proposed parking areas. Existing crosswalks are sufficient to provide safe pedestrian crossing.
3. Mitigation measures are summarized in the Parking Management Plan.
4. Existing safe pedestrian access routes to the site are illustrated on Figure 1 in the Parking Management Plan. Figure 2 in the Parking Management plan includes potential pedestrian safety lighting locations.
5. The Transpo Group survey was conducted prior to the opening of the New Seasons Market. It is noted that demand may have changed.
6. A more recent analysis by the City shows the number of on-street spaces along 77th could be about 60 to 70 parallel stalls on both sides of the street and 50 to 55 angled stalls on one side of the street.
7. If City Parks needs to use the MICA driveway area for parks vehicles, then City Parks will be brought in to review the design to ensure the MICA driveway access will meet their vehicle requirements, without encumbering any emergency vehicle access requirements.

SEPA Environmental Checklist
Mercer Island Center for the Arts
Attachment K
Parking Management Plan

June 2017

Mercer Island Center for the Arts

Parking Management Plan

updated 29 June 2017

This parking management plan is intended to describe the way in which the parking needs of all tenants, audiences, and users of the proposed Mercer Island Center for the Arts (MICA) will be met. The MICA project itself will have no on-site parking. As a result, its parking demand will be met by a combination of available on-street parking, shared parking with owners of private off-street parking lots, and the management of activities that occur in the MICA building.

So that MICA can effectively manage parking demand, under this plan MICA will:

- 1) Ensure that any measures under this plan will be in place before MICA commences operations;
- 2) Ensure that there is safe pedestrian access to the site from the identified off-site parking locations;
- 3) Take any necessary measures to ensure that there is adequate parking available to meet the demand.

This requirement is an important part of MICA's parking management plan. The parking management plan will be updated annually and it will be MICA's obligation to ensure that all aspects of the plan are able to be implemented to provide for the parking demand. MICA controls the use of its building and can limit activity during parts of the day that would overwhelm the available parking supply. This active management of parking demand for a building is unusual, but is achievable in a facility that schedules use of its various venues. For example, if a particular activity is expected to attract an unusually large number of participants, an adjacent venue can be closed and will remain vacant during that time slot. The activity forecasts described in the sections that follow describe expected activity at MICA. Real conditions may vary, but can be managed through this active parking management approach.

1. PARKING SUPPLY

1.1 Town Center Off-Street Parking Supply

The Town Center Parking Study assessed existing off-street parking in surface lots at businesses throughout the Town Center, as part of the Town Center visioning process. The study's inventory found approximately 3,308 off-street non-residential spaces in the Town Center area of which approximately half (1,600) are within a quarter mile of the MICA site. Of these spaces,

the highest occupancy period was 12:00 pm to 3:00 pm. During this time, the spaces were just over 40 percent full.¹

Per the study, there is more available parking in the Town Center than observed demand requires. The Town Center Parking Study recommends that 50% percent of the parking requirement for new projects be accommodated through shared parking with shared off-street parking agreements.

To accommodate forecast parking demand, MICA will need to secure shared off-street parking agreements in the evenings from 5:00 pm to 10:00 pm to allow shared parking in the evenings and during the day on Sundays.

1.2 On Street Parking Supply

There are currently 116 on-street parking spaces within a quarter mile of the MICA site located as follows:

- 32 spaces on SE 29th Street between 76th and 78th Avenues
- 19 spaces on SE 32nd Street between 77th and 80th Avenues
- 65 spaces on 80th Avenue between 30th and 34th Streets

A parking occupancy survey conducted by Transpo Group over two weekdays in April 2016 found an average of 45 vacant and available spaces in the afternoon (2:00 pm - 3:00 pm) and as many as 78 spaces vacant in an evening (6:00 pm - 7:00 pm).² This survey was conducted prior to the opening of the New Seasons Market. It is noted that demand may have changed.

In addition, there could be as many as 88 new spaces added on 77th Avenue between SE 28th and SE 32nd Avenue as a part of the recently completed Town Center Development and Design Standards. See Figure 1. A more recent analysis by the City shows the number of on-street spaces along 77th could be about 60 to 70 parallel stalls on both sides of the street and 50 to 55 angled stalls on one side of the street.

For the purposes of parking management, MICA has assumed that up to 45 available spaces (afternoon) and up to 78 available spaces (evening) would be available to users and patrons. MICA will only count use of these spots towards the MICA parking supply if they are available at the time that MICA commences operations. If they are not yet available, MICA will advocate to encourage the City to complete any required on-street parking improvements, including striping, signage, etc., necessary for these spots to become available.

With the proposed on-street parking along 32nd St being converted to ADA stalls, access will be provided for Parks and Maintenance vehicles in the MICA driveway, and access will be coordinated as needed. If City Parks needs to use the area for parks vehicles, then City Parks will

¹ Berk. Mercer Island Town Center Parking Study. April 2016.

² See Attachment O: Transportation Impact Analysis for detail.

be brought in to review the design to ensure the MICA driveway access will meet their vehicle requirements, without encumbering any emergency vehicle access requirements.

2. MICA'S PARKING NEEDS

MICA's activity and therefore parking needs fall into three distinct scenarios:³

- A. Daytime class activity (9:00 am – 6:00 pm)
- B. Typical evening performance activity (6:00 pm – 11:00 pm)
- C. Peak evening performance activity (6:00 pm – 11:00 pm)

2.1 Daytime Class Activity

During the day, parking spaces will be used by MICA and user group staff members, class instructors, adult students, and the dropping off and picking up of youth students. Though it is expected that youth students will access the building by a combination of bus, bike, walking, and drop-off/pick-up, the worst-case scenario is that each student is picked up or dropped off by one car. With proper scheduling, only one class at a time will be dropped off or picked up, requiring 15 spaces in the queue, of which 6 are accommodated in the pickup/drop-off zone proposed at the corner of 77th Avenue SE and SE 32nd Street. (Figure 1)

Current activity forecasts show the expected daytime parking demand is 30 spaces, occurring between 4:30 and 5:00 p.m. Of these 30 spaces, 9 are forecast to be short-term use for drop-off and pick-up, with a sustained parking demand of 21 spaces.

If the west side of 77th Avenue were signed for temporary loading and unloading at times of peak need, an additional 9 to 12 spaces could be provided, easily accommodating the 9 cars picking up/dropping off. MICA will stagger the start and end times of classes to minimize peaks in dropoff/pickup queuing, as the mode split between bus, bike, walk, and dropoff will vary from class to class. Class start and end times would not coincide with audience arrival and departure for performances.

2.2 Typical Evening Performance Activity

On a typical evening, it is anticipated that only one of MICA's performance halls would be in use for performance. On weekdays, some evening class and rehearsal activity could be concurrent with a performance. Though some MICA performances are anticipated to be youth performances, the most parking demand would come with adult performers, and so this scenario is described here.

The typical scenario projects an evening parking need of 126 spaces, based on an expected typical 75 percent capacity audience in the Mainstage Theatre (225 audience at 2.2 persons/vehicle + forecast performers and staff)⁴. This need can be satisfied with the 78 available on-street spaces (Figure 1) plus 48 shared spaces in privately-owned lots in the Town Center (see

³ See Attachment O, Appendix D for detailed parking space use/activity forecast.

⁴ See Attachment O: Transportation Impact Analysis p 19-20 for discussion of this ratio.

section 3.1 below for detail). Additionally, there are 34 available spaces in city-owned parking at the Mercer Island Thrift Shop. Because this lot is located in the Mercerdale neighborhood, MICA will designate specific parking for VIPs, subscribers, and/or staff for this location; general patrons will not be guided there to prevent overflow into the neighborhood. Using this lot will make more Town Center on-street and off-street spaces available.

On-street spaces available	78
Thrift Shop spaces available	34
Shared off-street parking available (see section 3.1 below)	80-120
Total Available Spaces	192
Forecast Demand (Typical)	126

2.3 Peak Evening Performance Activity

Occasionally MICA may have two sold-out evening performances running at one time, which would constitute the expected activity levels at the facility. This would require 192 parking spaces (400 audience at 2.2 persons/vehicle + forecast performers and staff). These would be provided by the 78 available on street spaces, the 34 spaces in the thrift shop lot, and 80 shared spaces in privately owned lots.

On-street spaces available	78
Thrift Shop spaces available	34
Shared off-street parking available (see section 3.1 below)	80-120
Total Available Spaces	192-232
Forecast Demand (Peak)	192

3. MICA PARKING MANAGEMENT

3.1 MICA Parking Agreements

MICA’s evening activity will require agreements with local businesses for use of off-street parking spaces in Town Center privately owned lots. It is assumed that no owner will want to commit his/her parking permanently, or even for an extended period of time. MICA expects any agreement to be able to be cancelled with perhaps as little as 30 days’ notice. As a result, MICA expects to have agreements for at least 120 spaces (33 percent above peak demand) to cover the circumstance that one or more owners wishes to rescind their agreement. All parking agreements will be in place before the project is occupied. It is MICA’s obligation to manage the availability of spaces through the private off-street parking arrangements. Upon a change or cancellation of any agreement that would curtail parking availability, MICA will immediately work to identify an appropriate alternate location and to secure a new agreement to cover the parking demand. MICA will identify more potential partner sites than required to meet demand so an alternative partner agreement can be in place before an issue arises at any given time. If a

minimum of 80 off-street spaces cannot be maintained for evening hours, MICA will curtail its evening activity until new agreements can be secured or an alternative parking strategy can be agreed upon.

In the event that the City takes the Town Center project's recommendation and creates 88 additional on-street parking spaces on 77th Avenue SE, enough on-street spaces would exist to satisfy MICA's needs even in the peak activity scenario. However, the decision to create those spaces has not been made at this time.

3.2 Loading Zones

Loading zones will be assumed for drop off and pick up only and MICA will work with the City to post necessary signage to this effect, and will clearly communicate the loading area times and details in all parking and transportation related information distributed by MICA through the website and other materials and signage. MICA will manage its programming to ensure that queuing can operating smoothly, and will assist in the management of traffic flow during drop off and pick up times to ensure that these activities do not impede through traffic on 77th Avenue SE and SE 32nd Street.

3.3 MICA Parking Coordinator

MICA will designate an on-site staff member to be the point person as the "Parking Coordinator" who will assure that MICA's parking requirements are actively managed. This person will also be the one that the City will go to in the event there are problems. MICA has no legal ability to insure the enforcement of public parking on public streets. However, MICA will work with whomever is enforcing on-street parking, and will work to direct MICA patrons to appropriate places for parking.

As the area changes over time, this parking management plan will be updated. The MICA Parking Coordinator will be an on-site employee that will be responsible for updating the parking management plan as needed when changes occur, for managing the off-site parking agreements and for any interim reviews with the City.

MICA's parking coordinator will also be responsible for maintaining and updating all transportation and parking communications to patrons of MICA, including on site signage, website information and flyers, to ensure visitors have current information.

3.4 Patron Education

MICA will educate tenants and audiences regarding preferred on-street and off-street parking locations and alternative transportation options to minimize parking, queuing, and traffic impacts at the site and in surrounding areas. Strategies include: website and social media information, literature included with tickets and course information, email newsletters to patrons, and on-site wayfinding displays. This will include clear designation of the residential neighborhood south of Mercedale Park as a no-parking zone, to discourage patrons from parking in this area.

3.5 Activity Forecast Review

MICA will coordinate with the City of Mercer Island approximately 6 months prior to project opening to update activity forecasts and ensure the strategies outlined in this PMP adequately address expected demand. If adjustments are needed at that time to the quantities and management approaches described herein, MICA will work with the City to develop a mutually agreeable update.

4. MICA TRAFFIC MITIGATION SUMMARY

MICA agrees to:

- Have a designated “Parking Coordinator” – who is an on-site staff member responsible for parking and traffic management.
- Provide for periodic review of Parking Management Plan, any time an element of the Plan changes and disrupts availability of necessary parking.
- Update any private parking agreements as necessary to maintain baseline level of available parking to meet demand; and if parking is disrupted, modify MICA program scheduling until such parking is made available again.
- Provide annual reporting of the traffic demand management plan to provide program adjustments based on reporting.
- Manage the loading zones areas through program scheduling, patron education, signage and staffing assistance if necessary to ensure through traffic is not inhibited.
- Provide necessary illumination at the MICA site for safe pedestrian crossing and load/unload activities.
- Provide clear signage at the MICA site to assist with clarity of parking and loading requirements.
- Coordinate facility scheduling with other local events such as Summer Celebration, Farmer’s Market, Parks events, and the Thrift Shop.
- Provide patron education specifically to restrict patron parking in the neighborhood south of Mercerdale Park
- Schedule afternoon activities for kids such that only one class has drop-off/pick-up at one time to manage traffic flow at the pullout area and ensure safe access to vehicles.

MICA Parking Management Plan

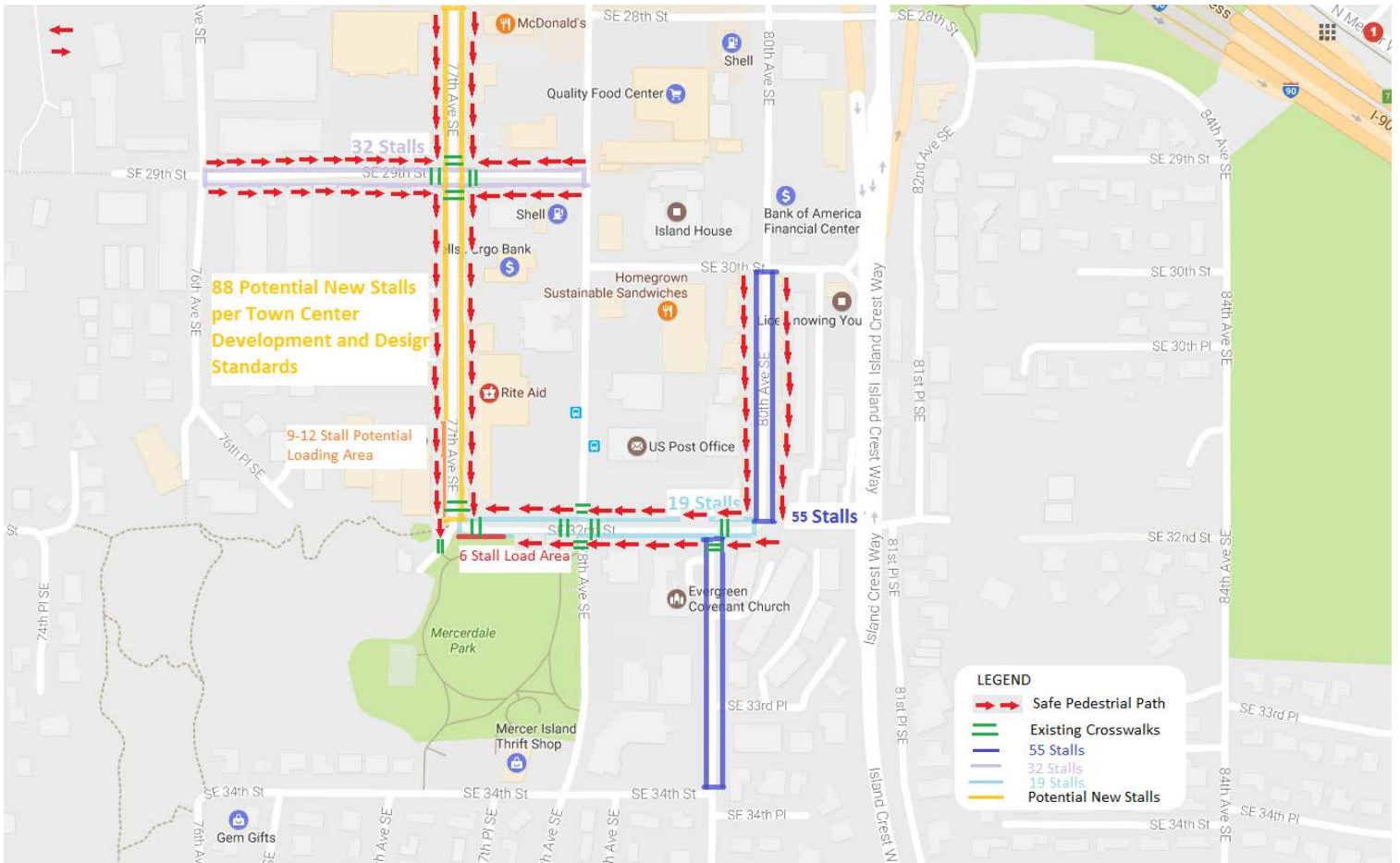


Figure 1
Parking Location and Pedestrian Pathway Study



Figure 2
Load / Unload, ADA and Park Maintenance Areas

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment L
Response to Public Comments Received

June 2017

MERCER ISLAND CENTER FOR THE ARTS

Responses to Citizen’s Questions to the SEPA Checklist Submission

The City of Mercer Island (“the City”) received 26 letters and emails from community members responding to the State Environmental Policy Act (SEPA) submission by Mercer Island Center for the Arts (MICA) regarding the proposed lease, permitting, and construction of a new arts facility on the site near the intersection of SE 77th Street and 32nd Avenue SE. In order to address these 130+ questions and comments, MICA has indexed them, and organized responses by SEPA checklist section. The responses address specific comments or themes common to multiple comments or questions. The index (Attachment M) includes paraphrased versions of individual numbered comments.

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- A: Survey/Proposed Lease Boundary
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SECTION A: BACKGROUND

A.1 MICA and its objectives

MICA is a 501(c)(3) nonprofit organization formed by a group of Mercer Island community members for the purpose of building, operating and maintaining a new arts center on Mercer Island. The proposed arts center would provide a community gathering place and host a variety of arts and cultural activities, including theater, music, and dance performances, visual arts exhibits, recitals, lectures, and classes for youth and adults.

There is a strong unaddressed need on Mercer Island for space for both performances and arts education. The new MICA facility would support long-standing Island arts institutions, particularly Youth Theatre Northwest, which lost its home in 2014 and is currently in temporary facilities at Emmanuel Episcopal Church. Other organizations interested in using space at the new art center include Music Works Northwest, and Island-based arts organizations including the Children's Dance Conservatory/Island Youth Ballet, Musical Mind Studio, Russian Chamber Music Foundation, and Mercer Island Visual Arts League.

A.2 The site

The project is proposed to be located in the northwest corner of Mercerdale Park, near the intersection of 77th Avenue SE and SE 32nd Street, on the site of the abandoned recycling center. The site includes a concrete plaza and flagpole (Bicentennial Park), the recycle storage building, public bathrooms, sinks and storage for the Farmers Market, asphalt paving, and an unmaintained wooded area in poor health.

A.3 Concerns regarding City process

Comments 1,16, 56, 84, 86, 87, 117, 118

General dissent and reference to letter from CCMIP

Comment 88

Forwards letter from Tracy Granbois

Comment 17, 123

Asks to be party of record

Comments 100, 102

Questions City process for comment period

Comment 105

Objects to decision without public vote

Comment 111

Objection to Town Center plans

A number of questions or comments from the public relate to the process being used by the City to evaluate the project under City code and various provisions of the Revised Code of Washington. As the City reviews proposal under its interpretation of City and State law, concerns about procedural issues should be addressed by the City.

A.4 Non-profit - government cooperation

Comments 89, 90, 91, 92, 104

MICA is not a public institution, so none of the exceptions in the proposed Zoning Text Amendment apply. Objections to lease agreement with private organization on public property.

Why will the city allow a private entity to build on public land?

Comment 44

Objects to MICA given special preference

Cooperation between government and non-profit organizations is a common mechanism for providing public benefit while limiting government spending and risk. MICA is raising funds to build and operate the proposed art center, with the City of Mercer Island providing the land under a 50-year lease at nominal rent. Public benefits and features that would have otherwise required the expenditure of public funds are noted in the proposed Lease Agreement. MICA's vision is to provide a cultural gathering place, open and inviting to the public, as an amenity to the community.

Some commenters expressed concern with the idea of a private entity building a facility on City land. MICA is a 501(c)(3) organization, incorporated as a Washington State nonprofit corporation on December 5, 2013 and formally recognized by the IRS as a 501(c)3 organization on September 8, 2014. This makes MICA a public charity, identical to organizations such as Seattle Art Museum and the Seattle Symphony.

The Mercer Island code defines "Public Facility" as "[a] building, structure, or complex used by the general public. Examples include but are not limited to assembly halls, schools, libraries, theaters and meeting places" (MICC 19.16.010). This definition necessarily includes privately held facilities. The proposed zoning text amendment allows a Public Facility in public parks within the Public Institution Zone (allowing for privately held facilities), but restricts such facilities to the public benefits provided by MICA such "as primary uses of theatre, lecture hall, classroom, performing studio, visual arts studio, exhibition gallery, gathering and meeting spaces, café and bar, and accessory functions thereof."

A.5 Relationship to Town Center

Comment 66

MICA should meet LEED Gold

Comments 58, 60, 124

MICA should abide by Town Center standards.

The MICA site is adjacent to the Town Center, but not within the Town Center zone. Therefore, the project is not subject to Town Center regulations, and is not required to be certified as LEED Gold, or other provisions of the Town Center zone.

A.7 The Comprehensive Plan: arts and culture and community vision

Comments 20, 21, 22

How do you propose to "cherish the environment," per the Comprehensive Plan?

Comments 23, 103, 114

How does MICA comply with the Comprehensive Plan if it is reducing the amount of open space on Mercer Island?

The City's Comprehensive Plan is intended to set the vision for manifesting the community's values through the actions of local government. Some comments were received regarding the Comprehensive Plan's vision and its relationship to MICA and Mercerdale Park. The Comprehensive Plan recognizes that a balance of fiscal responsibility, quality services, environmental sensitivity, and livability must be achieved for a healthy community, and that residents expect both recreational and cultural opportunities.¹ Community discussions have emphasized a deficit of space for art and cultural activities.

Mercer Island has 30 developed and semi-developed parks comprising more than 400 acres of open space and more than 50 miles of trails.² Art facilities provided by the City are far more limited. Many beloved community cultural events take place in parks and public spaces, but can only occur during the summer months because of a lack of indoor facilities.

While the recycling center site is partly "open space", it is no longer needed for recycling, the ecological habitat and vegetation are in poor condition, (see Attachment H: Tree Assessment) and there are drainage problems associated with the site. MICA will replace this condition with active indoor and outdoor space open to the public, enhancing the site's ecological function and filling an unmet need for cultural space that has not been met through public funding.

A.8 Site Selection Process

Comments 115, 120

Further studies of alternative sites should be performed. The Hines property should be considered.

The site for the project is the result of several years of intense work by Mercer Island residents, along with members of City Council and City staff to find a replacement venue for Youth Theatre Northwest, in cooperation with the City. While numerous options were reviewed, all others had insurmountable barriers to use for the facility. At the end of the site selection process the City Council decided that the recycle center at Mercerdale was the optimal site. This decision was confirmed by a memorandum of understanding signed by MICA and the City. An abbreviated history of the site selection follows:

Youth Theatre Northwest (YTN) was notified in 2012 that it would be displaced from its location on school district property as the site was needed for new elementary school. For two years thereafter, YTN worked to find an adequate replacement site on Mercer Island. Their efforts included unsuccessful attempts to partner with private developers to build multi-use structures on commercial sites in the Town Center. Properties explored either proved unavailable due to lease agreements, had irregular and/or insufficient building footprints, or resulted in buildings of excessive height. There were also significant financial challenges in pairing the needs of commercial developers with a nonprofit arts organization.

¹ Selected references from Mercer Island Comprehensive Plan:

p 4 **Livability is Paramount:** Our community's values are reflected by safety and freedom from fear, physical and environmental attributes, and the **cultural** and recreational opportunities of our Island. This translates into the feeling the Mercer Island is "the nicest of places for everyone to live."

p 4 **Cherish the Environment:** Island residents see themselves as "stewards of the island environment. In considering community decisions, protection and enhancement of trees, open spaces, clean water and air, neighborhood quiet and environmentally sensitive lands will be given a high priority."

p 5 **Community Services:** Mercer Island will continue to provide a wide range of education, **cultural** and municipal services for the community's varied population. Balanced and flexible programs will be necessary to meet the community's evolving needs in education, recreation and cultural enjoyment. The community will maintain its broad range of quality basic services, including public safety, human services, physical development and utilities. At the same time, community leaders recognize that delivery of these services will take place in an arena of limited resources and heightened competition for tax revenues."

² See Mercer Island Parks Guide: http://www.mercergov.org/files/mi_parksguide.pdf

A proposed plan to partner with the Mercer Island School District to create a school for the arts, including a performing arts center with YTN in residence, was abandoned due to insufficient interest on the part of the school district. The City explored purchasing the old Boys and Girls Club site for YTN but found the purchase price prohibitively expensive. Luther Burbank Park, “Kite Hill,” and several commercial sites west of City Hall were also explored, but the costs and other extenuating factors made them untenable.

YTN then began looking off-Island and exploring partnerships with other arts organizations. Although unsuccessful, these efforts by YTN spurred the City into action to keep YTN on the Island. In the spring of 2013, a City task force comprised of City Manager Rich Conrad, Council members Jane Meyer Brahm and Tana Senn, and YTN Executive Director Manuel Cawaling was charged with finding a site for YTN on City property. The City of Mercer Island hired architectural firm Weinstein A|U in May 2013 for a Performing Arts Theater Site Feasibility Study, looking at the abandoned recycling center site and a site behind the Mercer Island Community and Event Center (MICEC).

Ultimately the only site deemed viable was the abandoned recycling center at Mercerdale Park. The MICEC site was rejected because it lacked visibility and created additional parking problems for the existing facility. The Mercerdale site was preferred because of its ability to contribute to a more vibrant Town Center. The City’s Task Force made this recommendation to the City Council in August of 2013, and the City issued a letter of agreement with YTN, affirming its intention to make the former recycling center site available for further study and analysis as a future performing arts facility. In June of 2014, MICA succeeded YTN as the potential builder/owner/operator of the facility, with YTN as a primary user.

The Hines property refers to the block between 77th and 78th Avenue SE, north of SE 29th Street. The block has businesses including Tiger Garden, Mudd Bay, Mercer Island Cross Fit, and the MICA office, and was the location of a proposed project by the developer Hines. The preliminary design was rejected by the Design Commission in June 2015, and later the project was abandoned by the developer. This site has been suggested as a location for MICA, but the cost of land acquisition would make MICA infeasible.

SECTION B: ENVIRONMENTAL ELEMENTS

B.0 Environmental stewardship

Comment 18

What is “green” about the facility?

Comment 25

How does a large building in the park “protect the natural environment”?

MICA is committed to environmental stewardship, including care for the natural systems on site and the provision of year-round cultural activities within a natural setting that will be a treasure for the Mercer Island community.

The project involves balancing two desirable objectives: stewardship of the park environment and providing a home for culture and artistic activities. MICA will provide for the cultural arts, and it will also enhance the environmental value of the portion of the site not used for the

building and plazas – areas that are now seriously degraded and partially covered with asphalt paving.

The building will be designed to LEED Silver standards. Proposed green measures include water efficient landscaping, use of native plants, wetland restoration, and energy efficient mechanical systems and commissioning, among others.

MICA’s cultural activities will bring members of the Mercer Island community to Mercerdale Park to enjoy each other and the out-of-doors, encouraging use of and appreciation for the park.

B.1 Earth

B.1.1 Geologic Conditions

Comments 59, 93

Why isn't this site considered a steep slope?

Comment 35

Who is responsible for doing the hillside study?

Comments 3, 27, 36, 94, 106, 85

Is the Mercerdale site safe, given that landslides could put people at risk?

A cross section through the site shows a relatively level condition near the proposed building, rising into the hillside to the west. The portion of the slope that was surveyed, including the lease area, has average gradients of about 5 to 22 percent. Because the City of Mercer Island defines critical slopes as 40% or higher (MICC 19.16.10), the site is not within a critical slope area. The hill rises further west, outside of the site boundary. The eastern portion of the site was filled approximately 48 years ago (Shannon & Wilson 1985). A school was planned for the site, but not built.

MICA’s geotechnical consultants, Hart Crowser, ran several stability analyses for the hill to the west of the MICA site. Based on their surface and subsurface investigations it is their opinion that a landslide hazard does not exist on the MICA site. To reach that conclusion, Hart Crowser analyzed several potential failure modes. In each case the safety factor of the existing soil conditions were sufficiently high that slope failure was deemed unlikely to occur. For further information, see Attachment E, Slope Stability Review.

Prior to this supplemental analysis, a full geotechnical report was completed by Hart Crowser (Attachment C, Geotechnical Report), based on site investigation and borings. The Hart Crowser report was peer-reviewed by Perrone Consulting Inc, according to standard City procedures.

B.1.2 Erosion

Comment 61

Can erosion occur as a result of clearing, construction or use?

Prior to construction the project will apply for and receive a Washington State Department of Ecology Construction Storm Water General Permit, including an erosion control plan and meeting Mercer Island standards and best practices to mitigate the erosion potential of soils exposed during construction or site grading activities. Once construction is complete and landscaping established, further erosion is not expected. Hart Crowser’s geotechnical analysis has also assessed the risk of erosion. Because of the soil type (Kitsap Silt Loam), substantial erosion is unlikely during construction.

For further information, see Attachment E, Slope Stability Review.

B.1.3 Seismic Design

Comment 37

Will the building be able to withstand a 9.0 earthquake?

The design of the MICA building will meet the current building code requirements which anticipate a “maximum considered earthquake” with a return period about 2,000 years. The design criteria in this circumstance is based on “collapse prevention” with “life safety” performance under 2/3 of this earthquake. The Richter Scale is not the measure used in seismic design. Even if the building is damaged, the design would allow people in the building to exit safely. In a 9.0 magnitude earthquake, depending on its depth and location, the seismic forces could be strong enough to cause damage to the building.

B.2 Air

Comment 63

What are the details regarding air quality during construction and when the project is completed?

Air quality during construction will be similar to that of other major construction projects. No unusual air quality issues are expected upon completion and operation of the building. Air quality both inside and outside the building will be similar to other public use buildings.

B.3 Water

B.3.1 Wetlands

Comment 4

MICA should not be given special treatment regarding the wetland

Comment 26

How do you plan to protect environmentally sensitive land where MICA is located?

Comments 78,79,80

Is there a critical area determination? This is required in order to reduce the buffer zone.

Comment 96

By what authority is the buffer reduced? What is the mitigation?

The site has been investigated by environmental consultants The Watershed Company (Attachment F, Wetland Delineation Report; Attachment H, Tree Assessment; and Attachment G, Critical Area Study). A Category III wetland is located along a large section of forested slope south of the site. Four categories of wetland are identified in the City of Mercer Island code, (19.07.080), with Category I being the most sensitive, and Category IV the least. Much of the wetland is situated on a slope above the skate park, where it is fed by seeps emerging from the face of the hillside. Most of the wetland was filled nearly 50 years ago, in the area where the Mercerdale lawn is now. A narrow ‘finger’ of the wetland remains, and extends into the area proposed for MICA.

Category III wetlands require a standard buffer of 50 feet, but City code allows for a reduction of buffer zones for Category III wetlands under 19.07.080.C,³ when a critical area study is done

³ 2. Reduction of Wetland Buffer Widths. The code official may allow the standard wetland buffer width to be reduced to not less than the minimum buffer width in accordance with an approved critical area study when he/she determines that a smaller area is adequate to protect the wetland functions, the impacts will be mitigated consistent with MICC [19.07.070\(B\)\(2\)](#), and the proposal will result in no net loss of wetland and buffer functions.

with mitigation that results in no net loss of wetland and buffer functions. MICA proposes to reduce the standard 50 foot buffer to the code allowed minimum 25-foot buffer in a limited area, which would be a total of 5,746 sf of buffer reduction. The Watershed Company has prepared a mitigation plan that will restore ecological function to 11,362 sf of degraded area within the reduced buffer. This includes an area of pavement removal and restoration with amended soils and native trees, shrubs and ground cover. Other areas of degraded forested buffers will be enhanced with planting of native species. The net effect will be a major improvement to the ecological function and aesthetics of a long-degraded habitat. The mitigation plan is subject to City approval.

A complete description of site conditions and the proposed mitigation plan can be found in [Attachment G](#), Critical Area Study.

B.3.2 Stormwater

Comments 97, 112

How will runoff/stormwater be addressed?

Comment 125

The wetlands in the vicinity of the Town Center should be rehabilitated, not paved over.

Storm drainage requirements for the City of Mercer Island adhere to the Washington State Department of Ecology Stormwater Management Manual (2005 Edition). The manual requires on-site stormwater management, runoff treatment and flow control. Because of the soil type and the high groundwater, infiltration is not possible. Surface runoff from the hillside will be intercepted by swales that will be strategically graded into the hillside to minimize impacts to the existing vegetation. The northern swales will be connected to the existing Trellis public storm drain line on the north edge of the site and the southern swale will convey hillside runoff to the wetland buffer due north of the wetland. The wetland will overflow into a catch basin located north of the wetland. Flow control will occur through onsite detention. MICA will also pay into the City's stormwater fee-in-lieu-of program. The mitigation strategies outlined in our proposal will be applied to any areas that are newly captured in the requirements under the new Mercer Island Stormwater Management Standard code at the time of permit application.

B.3.2 Impervious surface

Comments 62, 95

What is the percentage of impervious surface of the site? How does this compare to present conditions?

The proposed building footprint is 21,860 sf. Plaza space, fire access and an outdoor performance area include an additional 14,200 sf, totaling 36,000 sf of impervious surface, or 85% of the site. Mercerdale Park is 30.9 acres, or approximately 1,346,000 sf. The combined impervious surface would be 2.7% of the park. The impervious surface associated with the old recycle center is 15,670 sf, or approximately 1.2%. Existing surface runoff from the hillside will be intercepted by the proposed swales shown on Attachment N, Storm Drainage Plan, which will be graded so existing conditions remain, thus resulting in no change to current runoff impacts or quantities. Water from impervious surfaces will pass through a stormfilter vault. MICA will also pay into the City's stormwater fee-in-lieu program.

Comments 28, 41, 42, 99

B.4 Plants

How will constructing MICA affect trees on-site? Is there an Arborists report?

Does the project need to meet provisions of the tree ordinance?

Comment 98

What plants will be affected?

Comment 101

Objection to project impact on flora and fauna

MICA's environmental consultants, The Watershed Company, assessed the impact of the proposed project on trees. Approximately 130 trees were assessed on October 16, 2016. The majority are classified as "weedy" species as defined in MICC 19.10.000. There were nine Western red cedars, all of which were dead, or in severe condition, and approximately 18 Douglas Fir, most of which were dead or in severe condition. There were also many newly planted young trees, many of which were dead or in severe condition. The cause of death is suspected to be drought stress and lack of watering.

The proposed MICA site plan calls for the removal of 54 conifers and 58 deciduous trees. The deciduous population being removed consists mostly of "weedy" trees; the coniferous population being removed consists of western red cedars and Douglas-firs, nearly all of which are dead or in severe condition. The proposed mitigation plan specifies 74 trees to be planted within the wetland buffer, including 60 conifers and 14 deciduous trees, which would meet replacement requirements defined in MICC 19.10.060. This includes full replacement of all conifers to be removed and partial replacement of the "weedy" deciduous species to be removed. The plan also specifies soil amendments designed to improve the health of both the proposed new trees and remaining trees on the site.

For additional information, see Attachment H, Tree Assessment.

B.5 Animals

Comments 116, 131

MICA will negatively affect the animals and plants in the wetland

The Watershed Company report, "Critical Area Study and Buffer Mitigation and Restoration Plan" (Attachment G), addresses wildlife habitat, noting that proposed mitigation in the wetland buffers will increase the ability of the buffer vegetation to store and trap sediments and nutrients, improving cover and forage opportunities for wildlife.

B.6 Energy and Natural Resources

No comments received.

B.7 Environmental Health

No comments received.

B.8 Land Use

B.8.1 Lease Boundary

Comments 40, 50, 64, 65

Elements of MICA seem to appear outside the lease boundary. Why doesn't the lease boundary include these elements?

The lease boundary was drawn to include the building itself and adjacent areas where the most frequent MICA activities will occur, such as the entry plaza and accessible parking. Should temporary or long term activities be desired outside of the lease boundary, that could be subject to an agreement between MICA and the City.

As on most projects of any type, utility connections and provisions for fire truck access are outside the lease boundary, and the contractor will need to use laydown space beyond the lease

boundary during construction, which will be restored to its original condition when construction is complete.

MICA also expects to construct improvements in the public right-of-way at the intersection of 77th Avenue SE and SE 32nd Street to improve safety for patrons arriving and leaving the facility, as well as others using the park.

B.8.2 Zoning

Comments 5, 43, 76, 77, 81

This project should not be granted special rights with regard to a change in city code from a P-zone to whatever would allow its use. The text amendment may set a precedent for other projects.

A Zoning Text Amendment has been proposed as part of the project. The text amendment will allow a cultural center to be built in a P (Public Institution) zone, with restrictions. This is a procedure that the City has used previously, most recently for elementary school improvements; MICA is not receiving special privileges to use this mechanism. The text amendment will be reviewed by City staff and requires approval from City Council. MICA will comply with the same process as any other proponent of a text amendment.

Further, the proposed text amendment is an extension of an existing zone, or a logical transition between zones, which cannot be characterized as “spot” zoning. The text amendment simply allows a performing arts center to be located at Mercerdale Park, which is zoned P. The site is directly adjacent to the Town Center, which would allow for this use. The general intent of the Town Center is to be a place of diverse land uses, integrating residential, retail, office, civic, transit and vehicular use, and pedestrian needs, within an aesthetically attractive, easily accessible and economically healthy environment.

A performing arts center is a civic and public use that is compatible and complementary to both the current P zone and the proposed rezone. It is aligned with the historical primary access by vehicle that the Town Center seeks to maintain while also is attractive and convenient to pedestrians and bicyclists. As a public and community focused land use, the performing arts center is exactly the kind of use that is appropriate as an extension of the Town Center classification or a logical transition between the P zone and the TC zone.

B.8.3 Growth Management Act Compliance

Comments 82, 83

MICA fails to address GMA concurrency requirements.

The MICA proposal does not change the Urban Growth boundary. With regard to concurrency, the MICA project is in an area already served by utilities and other city services.

B.8.4 Platting

Comment 57

Why does the checklist say that there is only a possibility of a Short Plat? Isn't it required?

It is currently not clear whether or not a plat will be necessary, and MICA is reviewing with the City what will be required. If the City requires a plat, MICA will proceed with that process.

B.9 Housing

No comments received.

B.10 Aesthetics

B.10.1 Design

Comment 107

MICA will have negative aesthetic impacts to recreational users, adjacent landowners, and citizens in general.

MICA plans to provide an aesthetically pleasing building, plaza, and landscaping, as reflected by conceptual renderings of the proposed project. Further, MICA's ground lease allows the City to approve the design, and it is anticipated that this review will be done through the Design Commission.

MICA's design team was chosen for its recognized design expertise and for its knowledge of Mercer Island. Led by Mercer Island native, Lesley Bain, FAIA, the team includes members that have designed public facilities and theaters throughout the country (including local examples McCaw Hall and Chihuly Garden and Glass). The team's landscape architect, OLIN, selected to ensure the integration of the facility with Mercerdale Park, has designed award-winning parks including Bryant Park and Metropolitan Museum of Art in New York, The Academy of Fine Arts and Barnes Museum in Philadelphia, and Director's Park in Portland, Oregon.

B.10.2 Views

Comments 38, 67

How will MICA impact views at the park and for neighbors? It will obstruct views of the hillside and wetland.

The MICA building will be visible from very few residences. It is visible from the park and adjacent streets. However, as it backs up against the hill it does not obstruct views of the park lawn. The MICA facility will significantly improve the current view of the recycling center area, which is screened by a hedge in poor ecological condition.

B.10.3 Building Height

Comment 39

How high is the proposed building?

The highest element of the proposed facility, the Main Stage, is approximately 30 feet high. The facility is designed so that its lowest heights are closest to the park, with heights of about 16 feet.

B.11 Lighting and Glare

Comment 68

No specific lighting details were provided.

Comment 85

MICA will bring light pollution to the site.

Lighting will be designed to avoid glare, to shield excess light, and to provide sufficient lighting for safety after dark. Lighting at the intersection of 77th Avenue SE and SE 32nd Street will be designed to provide a safe condition for people coming to and leaving the facility and the park. A lighting plan will be subject to approval as part of the building permit.

B.12 Recreation

B.12.1 Recreational Uses

Comment 34

Will the restroom in MICA be open for public use?

Comment 113

MICA will harm recreational opportunities

Comment 130

Where will visitors to Mercedale Park and the many activities there go to use a public restroom facility?

When MICA is complete, the current park uses will all be continued. There will be a walkway around the park lawn; the pergola, the children's play area and the skateboard park. The wooded area between the skateboard park and MICA – currently in poor ecological health - will be smaller as a result of the project, and MICA has undertaken to work with the City to re-landscape and turn this area into a space all Islanders can enjoy. Public restrooms and Farmers Market storage within MICA will support the community gatherings that currently take place in and near the park. The western slope, with its trails and stairway, will remain wooded and intact. The presence of MICA will create new cultural and recreational opportunities for the community with programs, activities, and outdoor seating.

B.12.2 Pedestrian Paths

Comments 29, 30, 31

How will MICA affect Mercedale Park's perimeter path? What will happen to the trail to First Hill?

When MICA is complete, there will still be a perimeter path around the park. Note that a temporary path will be put in place during construction. The details will be coordinated with the Parks Department. The trail to First Hill will be restored after construction.

B.12.3 Bicentennial Park

Comments 32, 33, 69

Will the memorial at Bicentennial Park be preserved?

Comment 128

I hate to see beautiful Centennial Park torn down, as it is a favorite shady spot.

Bicentennial Park does not contain a memorial. It was created to celebrate the year 1976, is described on the City website as “a small park adjacent to Mercedale Park with amenities including a restroom building, a flagpole, drinking fountain, plaza and trail.” The Mercer Island Parks & Rec Plan 2014-2019 describes the pergola in the northeast corner of Mercedale Park as honoring veterans. MICA proposes to relocate the flagpole near the pergola structure in the park. The plaza space near MICA will be redesigned, to create a space for contemplation, gathering and celebration.

B.13 Historical

No comments received.

B.14 Transportation

MICA retained The Transpo Group to complete transportation studies including a Transportation Impact Analysis (TIA). Their work is being reviewed by the City as part of the SEPA process, and the City selected DKS as the peer-review consultants. This work covers traffic, parking and access, service, turning movements and proposed changes in the right-of-way, such as new crosswalks.

B.14.1 Parking

Comment 2

MICA should create its own parking, not just be dependent on street parking and other property owners

Comments 121, 127

Parking will be a disaster. Allowing MICA to be built without enough parking Mercerdale will put traffic congestion into Mercerdale.

Comment 119

Allowing MICA to be built without off street parking will increase the number of cars on the street of Mercerdale that are moving and the number of cars that are parked, which will risk the safety of pedestrians.

Dedicated on-site parking is not desirable to build within Mercerdale Park, nor feasible to build underground. In early 2016, the City commissioned Berk Consulting to conduct a study of non-residential parking in the Mercer Island Town Center that identified empty off-street parking spots were available within a short distance of the proposed site. The study showed that more than 1,800 off-street spaces and more than 100 on-street spaces were available in the Town Center during the early-afternoon peak, with more available in the evening hours when MICA would be heavily used. Pending City approval, MICA will pursue agreements with businesses in the area to allow after-hours parking for MICA patrons in parking stalls that would otherwise be empty. These agreements will provide the required amount of parking, but are unlikely to be cemented until MICA has secured a lease agreement with the City.

The City has also proposed, as part of its Town Center development plan, restriping 77th Ave. SE to provide more than 70 curbside parking spaces. Parking spaces at the Mercer Island Youth and Family Services Thrift Shop at the southeast corner of Mercerdale Park, that are typically unused in the evening, are also within a short distance of MICA. MICA is working with the City and transportation consultants Transpo Group to refine the proposed Parking Management Plan to meet parking needs in accordance with City regulations. MICA is proposing to utilize on-street parking supply to meet some of their needs and they will be encouraging other modes of travel to minimize their parking demands. MICA has applied for a Zoning Text Amendment to allow combined use of on-street and off-site parking for public institutions in the P Zone.

B.14.2 Transportation Impact Analysis

Comments 6, 8, & 9

The Transportation Impact Analysis and level of service analyses omit key intersections that will be affected by MICA.

The study areas for the Transportation Impact Analysis were established in coordination with the City of Mercer Island. The volume of traffic projected to travel through these intersections is relatively low and not anticipated to have a significant impact on levels of service or operations. The intersection of SE 28th Avenue and 80th Avenue SE is only projected to have inbound through traffic travel through this intersection. Intersections to the east and west were evaluated and were found to operate at acceptable levels of service.

Comment 7

The Transportation Impact Analysis should include ST East Link project 2019.

The TIA was completed through coordination with the City and focuses on the impacts of the MICA facility. The construction impacts related to Sound Transit's Link project are temporary and are not related to the proposed project.

Comment 48

How will cars and buses from North Mercer Way get to Island Crest Way when the R8A configuration is implemented?

Project trip inbound and outbound distributions are shown on Figures 5 and 6 of the TIA, respectively. MICA's traffic impact on 77th Ave is anticipated to be low during peak traffic hours, and is not expected to significantly impact N. Mercer Way / Island Crest Way access.

Comments 54, 85

MICA will create more traffic and strain parking resources.

Per the Transportation Impact Analysis, the MICA facility is expected to have relatively low impact on trip generation at local intersections (see Attachment J, Transportation Impact Analysis). The Town Center Parking Study documented significant oversupply of available on-street and off-street parking in the Town Center, which MICA will use during non-peak hours.

Comment 49

Has a Traffic Study been performed? By whom and when was it done?

Yes. A Transportation Impact Analysis was undertaken by consultants Transpo Group. It is attached here as Attachment J.

Comment 110

MICA's traffic and parking studies were completed prior to the determination by FHWA on August 5, 2016, that eliminated Mercer Island SOV access to the HOV lanes. As a result, the regular exit from I-90 onto 77th eastbound will become critical for citizens exiting an overburdened I-90 in order to get to Island Crest Way.

MICA's traffic impact on 77th Ave is anticipated to be low during peak traffic hours, and is not expected to significantly impact N. Mercer Way / Island Crest Way access.

Comments 12, 129

New retail development in the Town Center is not included in the project impact calculations.

Continued development in the Town Center is expected during the development of the MICA project. In MICA's Parking Management Plan (Attachment K), MICA proposes to review its parking management strategy with the City in view of updated activity forecasts and current parking conditions prior to project opening.

B.14.3 Parking Management Plan

Comment 10

What days was on-street parking study done for the Parking Management Plan?

Data was collected for the on-street parking study on Tuesday 4/26/2016 and Wednesday 4/27/2016.

Comment 11

How can peak activity at MICA occur only twice a year?

The Peak Activity Scenario was developed taking into consideration the groups and organizations that may use MICA facilities throughout the year. Current forecasts expect sell-out performances in multiple venues only a few times a year.

Comment 13

MICA needs a Transportation Management Plan to get MICA users to its facility in modes other than single occupancy vehicles.

MICA is proposing to utilize on-street parking supply to meet some of their needs and they will be encouraging other modes of travel to minimize their parking demands.

Comments 14, 108

On street parking should not be counted. I object to MICA's parking management plan that proposed to eliminate any requirement for off-street (on-site) parking.

MICA is currently working with the City to identify the details that are necessary as part of shared parking agreements. The strategy of shared off-street parking was identified in the Town Center Parking Study as a way to address parking oversupply.

Comment 24

How can adding more parking and adding cars help attain our quality of life?

MICA does not propose to add new parking, but intends to take advantage of underutilized parking within the Town Center. Balancing parking, access to amenities, and quality of life are important aspects of planning; best practices suggest that walkability is highly desirable, with health, social, and economic benefits, but people also need parking and transit access to amenities they enjoy. Issaquah's Old Town has greatly benefitted from the presence of the Village Theater, which has parking throughout Issaquah's downtown. A significant number of patrons eat dinner beforehand, or have drinks after shows, making use of on-street and nearby public parking.

Comment 45

The Code talks about "off-street parking," but in the Application, you are talking about "off-site parking," is there a difference between off-site and off-street?

Off-site parking is parking that is not provided on a project site. Off-site parking is divided into on-street and off-street parking. On-street parking is on the street in a public right-of-way. Off-street parking is on private property.

Comment 75

The Transportation Impact Analysis Attachment J (#2) to the SEPA Environmental Checklist proposes parking that fails to acknowledge let alone comply with Mercer Island's parking requirements in the land use code MICC 19.05.010(D) specifically the requirement for location within 500 feet of the front entry of a use served by uses in a P zone MICC 19.05.020(B)(4).

The MICA project has proposed an amendment to the P Zone parking requirements with which it would comply.

B.14.4 Parking Agreements

Comments 15, 19, 52, 55, 70, 109

Will MICA have long-term agreements with nearby property owners for use of their parking?

Did anyone check with Thrift Shop, Rite Aid, Farmer's, City and Metro for patrons to park in their lots?

The correct answer to "how many parking spaces would the completed project have" is zero.

With City approval of the proposed parking strategy, MICA intends to enter into long-term agreements with neighboring businesses and property owners for use of their parking. In order for the construction of MICA to be approved, the City will need to approve MICA's agreements with these neighbors, as well as other strategies.

These agreements are anticipated to be completed following approval of the lease.

B.14.5 Pick-up and Drop Off

Comments 46, 51, 73

How will people access MICA safely? Where & how will dropoff occur? Where will queued vehicles be other than in the street? How will the "staff outside" assist?

MICA's design will create a safe drop-off and pick-up area at the intersection of 77th and 32nd, with areas for cars to line up. Updated design concepts for 77th Avenue SE and SE 32nd Street have been provided in the updated TIA (Attachment J, appendix F). Drop-off and pick-up operations will take place in the public right of way and will utilize space from available on-street parking along 77th Avenue SE as needed. Time restrictions when on-street parking is needed as drop-off and pick-up space will be determined by the MICA activity schedule. Please see MICA's proposed Parking Management Plan, Attachment K, for detail.

B.14.6 Service Access

Comment 47

How are the refuse trucks supposed to get to the back of the building to pick the trash up?

The loading dock for the theater is on the north side of the building, accessed from the intersection of 77th Avenue SE and SE 32nd Street. Deliveries will occur here intermittently, mostly in small trucks. Screened trash facilities would be located on the north side of the building, accessible by trash truck. Updated design concepts for 77th Avenue SE and SE 32nd Street have been provided that address this in more detail.

B.15 Public Services

Comment 74

The project's impact on public services is not answered sufficiently.

The City already provides services such as Police and Fire protection to many of the activities that will be housed in MICA, including YTN and Island Youth Ballet, which operate elsewhere on the Island. These programs would be expanded with the new facility, but would not be expected to require additional staff or facilities for public services.

B.16 Utilities

No comments received.

Other

Comment 53

Does MICA comply with the ADA requirement for access for the disabled?

MICA will be fully accessible to people with disabilities, including ADA parking, accessible routes to all spaces including the theatre's orchestra area and lighting booths. Audio loop technology will be available for the hearing impaired.

SEPA Environmental Checklist
Mercer Island Center for the Arts

*Attachment M Citizen
Question Index*

March 2017

MICA SEPA PUBLIC QUESTION/COMMENT INDEX

sorted by SEPA section

Section	Comment #	Commenter	Comment (paraphrase)
A	122	Charney	Project proponent; lives nearby and notes that current parking lots are empty after 6pm.
A	126	Scalzo	Project proponent
A	132	Witmer	Project proponents
A.3	1	Lippert, Alan	Refers to CCMIP letter
A.3	16	Bond	Refers to CCMIP letter
A.3	17	Dunbar	Question about Party of Record
A.3	56	Gilman	Refers to CCMIP
A.3	84	Robinson	Refers to CCMIP
A.3	86	Majury	Refers to CCMIP
A.3	87	McWilliams	Refers to CCMIP
A.3	88	Medved	Forwards Granbois letter
A.3	100	Thompson	Objection to SEP16-015 language regarding 14-day comment period, administrative appeals, etc. Objection to zoning text amendment and long-term lease allowing MICA in Mercedale Park.
A.3	102	Thompson	Objection to 14 day period for written comments without having supporting materials available online.
A.3	105	Thompson	Objection to action by City Council absent a public vote since the zoning code amendment for MICA will create a precedent that will allow other private developers to request or demand the reduction or elimination of required on-site parking.
A.3	111	Thompson	The City Council's proposal to eliminate the turn lane on 77rh, as well as the bike lane, in order to provide street parking for MICA, is an unwise decision that will create traffic gridlock in the town center, both for citizens who live north of ICW attempting to drive through the town center to the top of Island Crest Way in order to access the I-90 HOV/HOT lane (if allowed by FHWA), and for citizens attempting to exit to ICW eastbound or SOV citizens driving through the town center to enter at 76th westbound.
A.3	117	Vu	Refers to CCMIP
A.3	118	Zwingle	Refers to CCMIP
A.3	123	Cero	Asks to be party of record
A.3	134	Dunbar	Request notice of threshold determination, along with right of appeal.
A.3	139	CCMIP	DNS Issuance Failed to Follow SEPA Procedures
A.3	140	CCMIP	Please list all required permits and approvals, along with appropriate mitigation measures
A.4	44	Fletcher	If MICA is given approval, why would you give them preferential treatment?

Section	Comment #	Commenter	Comment (paraphrase)
A.4	89	Lippert, Meg	The public and the city will not build nor own the facility and will not have control over the programs and/or activities that take place within and/or adjacent to the building in the area facing the Mercerdale Park Lawn.
A.4	90	Lippert, Meg	MICA is not a public institution and it is not constructing a public building and thus none of the proposed changes to the City code, which focus on public facilities, would apply to the proposed MICA structure in Mercerdale Park.
A.4	91	Lippert, Meg	None of the exceptions listed in the chart (in the proposed Zoning Text Amendment) apply to MICA, since MICA is not a public building.
A.4	92	Lippert, Meg	Objection to exempting a private facility from the city requirement to provide off-street parking.
A.4	104	Thompson	Objection to City Council granting a long-term lease to a private organization for construction in a public park.
A.5	58	Granbois	The planning and permitting processes for the proposed MICA Center for the Arts ("MICA Center") require MICA to comply with, among other things, Chapter 19.11 MICC, Town Center Development and Design Standards. See Mercer Island City Code ("MICC") 19.05.010(C).
A.5	60	Granbois	It appears that MICA failed to comply with the requirements of RCW 36.70.B.050(1) and WAC 197-11-030(2)(d) by not addressing the Town Center Development and Design Standards.
A.5	66	Granbois	The SEPA Checklist § B, Q. 6 subsection c states the project will meet "LEED Silver" standards. The current Mercer Island Development Code requires "LEED 5 Gold" standards. Mercer Island City Code (MICC) 19.11.050. MICA's proposal is not compliant with current Mercer Island Code.
A.5	124	Kuttner	Do the environmental studies take into adequate consideration the recent Town Center code?
A.7	20	Fletcher	How do you propose to cherish the environment, per the Comprehensive Plan?
A.7	21	Fletcher	Open space must be preserved per Comp Plan Land Use section
A.7	22	Fletcher	How does the Zoning Code change protect environmental values?
A.7	23	Fletcher	The protection of trees and open space should be given priority.
A.7	103	Thompson	I believe MICA should not be placed in a public park, especially considering Mercerdale is the only significant open or green space in the town center
A.7	114	Thompson	MICA is contrary to Mercer Island's commitment to historical and cultural preservation of green spaces and open spaces.
A.8	115	Thompson	Further studies of alternative sites should be performed.
A.8	120	Cassan	MICA should buy the Hines property and build there.
B.0	18	Fletcher	What is "green" about the facility?

Section	Comment #	Commenter	Comment (paraphrase)
B.0	25	Fletcher	How does a large building in the park "protect the natural environment"?
B.1.1	3	Antilla	Is the Mercerdale location safe from landslide?
B.1.1	27	Fletcher	Multiple concerns regarding parking quantity, location and access
B.1.1	35	Fletcher	Who is responsible for doing the study (including the hillside)? Developer, City or MICA?
B.1.1	36	Fletcher	Was the Environmental Study done before vegetation removal? is the hill at risk of landslide?
B.1.1	59	Granbois	The SEPA Checklist § B, Q. 1 subsection a is non responsive. The "steep slopes" box is not checked even though "excavation into the hillside" will be required. See SEPA Attachment D.
B.1.1	93	Lippert, Meg	Is MICA on a steel slope? What would happen in the event of a landslide - would lives be in danger?
B.1.1	94	Lippert, Meg	"Could erosion occur as a result of clearing, construction or use?" The response includes clearing and construction but not use. Yet erosion from the adjacent hillside could certainly occur during use of the facility, perhaps causing hazardous conditions for occupants
B.1.1	106	Thompson	The geotechnical report should address the risk to patrons of MICA should a slide occur.
B.1.1	142	CCMIP	Add existing information about landslide hazard areas
B.1.1	144	CCMIP	Develop a landscape design that restores and keep the hillside from sliding on structure
B.1.2	61	Granbois	The SEPA Checklist § B, Q. 1 subsection f is non responsive. The question whether erosion could occur "as a result of clearing, construction or use" has not been answered.
B.1.2	143	CCMIP	Add existing information about erosion hazard areas
B.1.3	37	Fletcher	Will the building be able to withstand a 9.0 earthquake?
B.1.3	141	CCMIP	Add existing information about Seismic Hazard Areas
B.10.1	107	Thompson	MICA will have negative aesthetic impacts to recreational users, adjacent land owners, and citizens in general.
B.10.2	38	Fletcher	How will MICA impact views at the park and for neighbors?
B.10.2	67	Granbois	The SEPA Checklist § B, Q. 10 subsection b states "building itself will not alter or obstruct any views". In fact, the MICA building will obstruct views of the wetlands and natural hillside.
B.10.2	155	CCMIP	Request a more realistic visualization of views, showing how the building will actually appear amidst the open space.
B.10.3	39	Fletcher	How high is the proposed building?
B.11	68	Granbois	No specific details regarding lighting were provided.

Section	Comment #	Commenter	Comment (paraphrase)
B.11	157	CCMIP	An analysis should be undertaken to verify that the glare of the glaze materials will not degrade the park environment and neighborhood. Use the National Institute of Building science design guide for visual glare.
B.12.1	34	Fletcher	Will the restroom in MICA be open for public use?
B.12.1	113	Thompson	MICA will harm recreation opportunities.
B.12.1	130	Stapanov-Sommerfield	Where will visitors to Mercedale Park and the many activities there go to use a public restroom facility?
B.12.1	158	CCMIP	How much of Bicentennial Park will be unavailable & for how long?
B.12.1	159	CCMIP	Reducing open space inventory warrants mitigation.
B.12.2	29	Fletcher	Will the proposed building encroach onto the path?
B.12.2	30	Fletcher	Are they planning on building a new path, and where will it go?
B.12.2	31	Fletcher	What will happen to the trail?
B.12.3	32	Fletcher	What will happen to the Bicentennial Monument?
B.12.3	33	Fletcher	Per the City's Park Rules, it would be illegal to disturb any monument...plant or flower
B.12.3	69	Granbois	The SEPA Checklist § B, Q. 13 subsection b fails to recognize the historical and cultural importance of the Bicentennial Park to many historians and veterans, who have served and currently serve our country. See http://mercerislandhistory.org/historic.html .
B.12.3	128	Stapanov-Sommerfield	I hate to see beautiful Centennial Park torn down, as it is a favorite shady spot.
B.12.3	160	CCMIP	To mitigate for removing Bicentennial Park, please relocate and reinstall the Bicentennial Park prior to construction
B.12.3	161	CCMIP	Flagpole is of "cultural importance" to the site.
B.14.1	2	Antilla	MICA should create its own parking
B.14.1	119	Brondstetter	Allowing MICA to be built without off street parking will increase the number of cars on the street of Mercedale that are moving and the number of cars that are parked, which will risk the safety of pedestrians.
B.14.1	121	Cassan	Parking will be a disaster.
B.14.1	127	Stapanov-Sommerfield	Allowing MICA to be built without enough parking Mercedale will put traffic congestion into Mercedale.
B.14.2	6	Jeff Bender	The Transportation Impact Analysis omits key intersections that will be affected by MICA
B.14.2	7	Jeff Bender	The Transportation Impact Analysis should include ST East Link project 2019
B.14.2	8	Jeff Bender	A level of service analysis should be done for North Mercer Way & 77th; SE 27th & 80th
B.14.2	9	Jeff Bender	A level of service analysis should be done for SE 28th & 80th
B.14.2	48	Fletcher	How will cars and buses from North Mercer Way get to Island Crest Way when the R8A configuration is implemented?

Section	Comment #	Commenter	Comment (paraphrase)
B.14.2	49	Fletcher	Has a Traffic Study been performed? By whom and when was it done?
B.14.2	54	Fletcher	The City's street mobility rating under the GMA is already at the lowest level, and therefore any variance would have to address further degradation of mobility on the City's streets from both MICA traffic and off-site parking?
B.14.2	85	Magaram	MICA will further strain the hillside; create more traffic and pollution in an already very congested area; bring noise and light pollution to an increasingly busy area: further strain overly strained parking resources; and cause a bike lane passing through Town Center to be eliminated.
B.14.2	110	Thompson	MICA's traffic and parking studies were completed prior to the determination by FHWA on August 5,2016, that eliminated Mercer Island SOV access to the HOV lanes. As a result, the regular exit from I-90 onto 77rh eastbound will become critical for citizens exiting an overburdened I-90 in order to get to Island Crest'Way
B.14.2	129	Stapanov-Sommerfield	The traffic study was done before Pagliacci's pizza was built.
B.14.2	135	Chong	Increased traffic and congestion due to limited access points.
B.14.2	137	Morrison	Requests a plan for how patrons from off-island will get to MICA.
B.14.2	164	CCMIP	Please provide a Transportation Management Plan to get MICA users to facility in modes other than SOV and include on and off street parking parking impacts.
B.14.2	165	CCMIP	Include in LOS analysis intersection of N Mercer Way & 77th Ave SE, SE 27th St & 80th Ave SE & SE 28th & 80th Ave SE
B.14.2	166	CCMIP	MICA transportation impact analysis uses a 2019 horizon for analyzing its future impact without mention of the i-90 East link.
B.14.3	10	Jeff Bender	What days was on-street parking study done for the Parking Management Plan?
B.14.3	11	Jeff Bender	When were the two days the on-street parking done? If it were done the week of April 11-15, it should take into account that Mercer Island High School was on spring break.
B.14.3	12	Jeff Bender	New Seasons will affect on-street parking supply
B.14.3	13	Jeff Bender	MICA needs a Transportation Management Plan to get MICA users to its facility in modes other than single occupancy vehicles.
B.14.3	14	Jeff Bender	On street parking should not be counted
B.14.3	24	Fletcher	How can adding more parking and adding cars help attain our quality of life?
B.14.3	45	Fletcher	The Code talks about "off-street parking," but in the Application, you are talking about "off-site parking," is there a difference between off-site and off-street?
B.14.3	75	Granbois	Attachment G (#2) to the SEPA Environmental Checklist proposes parking that fails to acknowledge let alone comply with MICC 19.05.010(D) and MICC 19.05.020(B)(4).

Section	Comment #	Commenter	Comment (paraphrase)
B.14.3	108	Thompson	I object to MICA's parking management plan that proposed to eliminate any requirement for off-street (on-site) parking.
B.14.3	138	Morrison	Parking.
B.14.3	163	CCMIP	On street parking should not be counted
B.14.4	15	Jeff Bender	Off street parking should have 30 year agreement
B.14.4	19	Fletcher	Did anyone check with Thrift Shop, Rite Aid, Farmer's, City and Metro for patrons to park in their lots?
B.14.4	52	Fletcher	Have anyone submitted any parking agreements with private land owners to evidence its "off-site" parking, which should be a requirement for any SEPA review.
B.14.4	55	Fletcher	Is there a parking agreement with other property owners?
B.14.4	70	Granbois	The correct answer to "how many parking spaces would the completed project have" is ZERO.
B.14.4	109	Thompson	MICA has not presented any informal or formal agreements with private property owners for parking for MICA, including the Farmer's property or the Rite-Aid property.
B.14.4	136	Chong	Concern that MICA patrons will be parking in Lower Mercerdale neighborhood.
B.14.4	162	CCMIP	MICA provides no evidence that it has engaged with nearby private owners for parking.
B.14.5	46	Fletcher	Where are they going to be dropping the children off?
B.14.5	51	Fletcher	if the parking is across the road in the Rite Aid parking lot or on the street across the road from the proposed MICA, how does one propose patrons are supposed to get to the parking in a safe manner?
B.14.5	73	Granbois	Where specifically will the "queued vehicles" be other than in the street? There is no drop off area – how will the "staff outside" assist with cars lined up in the street?
B.14.6	47	Fletcher	How are the refuse trucks supposed to get to the back of the building to pick the trash up from?
B.15	74	Granbois	There is no answer to whether "the project resulted in an increased number of public services". In fact, neither the Chief of Police nor the Fire Chief have been consulted about whether this project will increase the demand for public services.
B.15	167	CCMIP	Police and fire departments have not been consulted about the MICA project increase in activity at night.

Section	Comment #	Commenter	Comment (paraphrase)
B.2	63	Granbois	The SEPA Checklist § B, Q. 2 subsection a is non responsive. There are no details regarding specific emissions to the air typical to the construction process or "when the project is completed".
B.2	146	CCMIP	"Typical emissions" during construction is an inadequate generalization. Include more precise detail.
B.2	147	CCMIP	Response in B2a of "none needed" to reduce emissions is inadequate.
B.3.1	4	Antilla	The project should not be granted special rights with regard to wetlands issues
B.3.1	26	Fletcher	How do you plan to protect environmentally sensitive lands, such as where MICA is located?
B.3.1	78	Granbois	Any alteration of a critical area or buffer requires a critical area determination. MICC19.07.020. To date, there has been no critical area determination and MICA has not listed this required element in its SEPA application.

MICA SEPA PUBLIC QUESTION/COMMENT INDEX

sorted by commenter

Section	Comment #	Commenter	Comment (paraphrase)
A.3	1	Lippert, Alan	Refers to CCMIP letter
B.14.1	2	Antilla	MICA should create its own parking
B.1.1	3	Antilla	Is the Mercerdale location safe from landslide?
B.3.1	4	Antilla	The project should not be granted special rights with regard to wetlands issues
B.8.2	5	Antilla	This project should not be granted special rights with regard to a change in city code
B.14.2	6	Jeff Bender	The Transportation Impact Analysis omits key intersections that will be affected by MICA
B.14.2	7	Jeff Bender	The Transportation Impact Analysis should include ST East Link project 2019
B.14.2	8	Jeff Bender	A level of service analysis should be done for North Mercer Way & 77th; SE 27th & 80th
B.14.2	9	Jeff Bender	A level of service analysis should be done for SE 28th & 80th
B.14.3	10	Jeff Bender	What days was on-street parking study done for the Parking Management Plan?
B.14.3	11	Jeff Bender	When were the two days the on-street parking done? If it were done the week of April 11-15, it should take into account that Mercer Island High School was on spring break.
B.14.3	12	Jeff Bender	New Seasons will affect on-street parking supply
B.14.3	13	Jeff Bender	MICA needs a Transportation Management Plan to get MICA users to its facility in modes other than single occupancy vehicles.
B.14.3	14	Jeff Bender	On street parking should not be counted
B.14.4	15	Jeff Bender	Off street parking should have 30 year agreement
A.3	16	Bond	Refers to CCMIP letter
A.3	17	Dunbar	Question about Party of Record
B.0	18	Fletcher	What is "green" about the facility?
B.14.4	19	Fletcher	Did anyone check with Thrift Shop, Rite Aid, Farmer's, City and Metro for patrons to park in their lots?
A.7	20	Fletcher	How do you propose to cherish the environment, per the Comprehensive Plan?
A.7	21	Fletcher	Open space must be preserved per Comp Plan Land Use section
A.7	22	Fletcher	How does the Zoning Code change protect environmental values?
A.7	23	Fletcher	The protection of trees and open space should be given priority.
B.14.3	24	Fletcher	How can adding more parking and adding cars help attain our quality of life?
B.0	25	Fletcher	How does a large building in the park "protect the natural environment"?
B.3.1	26	Fletcher	How do you plan to protect environmentally sensitive lands, such as where MICA is located?
B.1.1	27	Fletcher	Multiple concerns regarding parking quantity, location and access
B.4	28	Fletcher	If MICA installs a retaining wall will that mean the destruction of more trees?
B.12.2	29	Fletcher	Will the proposed building encroach onto the path?
B.12.2	30	Fletcher	Are they planning on building a new path, and where will it go?
B.12.2	31	Fletcher	What will happen to the trail?
B.12.3	32	Fletcher	What will happen to the Bicentennial Monument?
B.12.3	33	Fletcher	Per the City's Park Rules, it would be illegal to disturb any monument...plant or flower
B.12.1	34	Fletcher	Will the restroom in MICA be open for public use?
B.1.1	35	Fletcher	Who is responsible for doing the study (including the hillside)? Developer, City or MICA?
B.1.1	36	Fletcher	Was the Environmental Study done before vegetation removal? is the hill at risk of landslide?
B.1.3	37	Fletcher	Will the building be able to withstand a 9.0 earthquake?
B.10.2	38	Fletcher	How will MICA impact views at the park and for neighbors?
B.10.3	39	Fletcher	How high is the proposed building?

Section	Comment #	Commenter	Comment (paraphrase)
B.8.1	40	Fletcher	Why is the lease site halfway down the street that is next to Mercerdale Park when the proposed building does not come that far down?
B.4	41	Fletcher	I would like to know if the Code will be followed with regard to "Site Design Tree Ordinance" requirements?
B.4	42	Fletcher	Could you please inform me as to what measures the arborist is going to use to preserve the trees? And Is there an Arborist's Report and is he adhering to the code?
B.8.2	43	Fletcher	If you allow a variance for MICA, does it not set a precedent?
A.4	44	Fletcher	If MICA is given approval, why would you give them preferential treatment?
B.14.3	45	Fletcher	The Code talks about "off-street parking," but in the Application, you are talking about "off-site parking," is there a difference between off-site and off-street?
B.14.5	46	Fletcher	Where are they going to be dropping the children off?
B.14.6	47	Fletcher	How are the refuse trucks supposed to get to the back of the building to pick the trash up from?
B.14.2	48	Fletcher	How will cars and buses from North Mercer Way get to Island Crest Way when the R8A configuration is implemented?
B.14.2	49	Fletcher	Has a Traffic Study been performed? By whom and when was it done?
B.8.1	50	Fletcher	if there is supposed to be parking along the whole of 32nd Street, wouldn't the Lease need to be extended to the whole street, rather than just a part?
B.14.5	51	Fletcher	if the parking is across the road in the Rite Aid parking lot or on the street across the road from the proposed MICA, how does one propose patrons are supposed to get to the parking in a safe manner?
B.14.4	52	Fletcher	Have anyone submitted any parking agreements with private land owners to evidence its "off-site" parking, which should be a requirement for any SEPA review.
Other	53	Fletcher	Does MICA comply with the ADA requirement for access for the disabled?
B.14.2	54	Fletcher	The City's street mobility rating under the GMA is already at the lowest level, and therefore any variance would have to address further degradation of mobility on the City's streets from both MICA traffic and off-site parking?
B.14.4	55	Fletcher	Is there a parking agreement with other property owners?
A.3	56	Gilman	Refers to CCMIP
B.8.4	57	Granbois	Scott Greenberg requested that MICA include a short subdivision as part of the project. The SEPA Checklist only states that "a possible Short Plat if required by the City"
A.5	58	Granbois	The planning and permitting processes for the proposed MICA Center for the Arts ("MICA Center") require MICA to comply with, among other things, Chapter 19.11 MICC, Town Center Development and Design Standards. See Mercer Island City Code ("MICC") 19.05.010(C).
B.1.1	59	Granbois	The SEPA Checklist § B, Q. 1 subsection a is non responsive. The "steep slopes" box is not checked even though "excavation into the hillside" will be required. See SEPA Attachment D.
A.5	60	Granbois	It appears that MICA failed to comply with the requirements of RCW 36.70.B.050(1) and WAC 197-11-030(2)(d) by not addressing the Town Center Development and Design Standards.
B.1.2	61	Granbois	The SEPA Checklist § B, Q. 1 subsection f is non responsive. The question whether erosion could occur "as a result of clearing, construction or use" has not been answered.
B.3.3	62	Granbois	The SEPA Checklist § B, Q. 1 subsection g is non responsive. The specific percentage of impervious surface coverage was not noted.

Section	Comment #	Commenter	Comment (paraphrase)
B.2	63	Granbois	The SEPA Checklist § B, Q. 2 subsection a is non responsive. There are no details regarding specific emissions to the air typical to the construction process or “when the project is completed”.
B.8.1	64	Granbois	The SEPA Checklist § B, Q. 3 subsection c(1) contemplates a bioretention area, an underground stormwater detention vault and related drains outside of the lease boundaries. See SEPA Checklist Attachment M. There is no authority for MICA to build necessary building elements on city land without a lease for that specific area.
B.8.1	65	Granbois	The SEPA Checklist § B, Q. 3 subsection d contemplates a “proposed swale that will be strategically graded into the hillside” outside of the lease boundaries. See SEPA Checklist Attachment B. There is no authority for MICA to build necessary building elements on city land without a lease for that specific area.
A.5	66	Granbois	The SEPA Checklist § B, Q. 6 subsection c states the project will meet “LEED Silver” standards. The current Mercer Island Development Code requires “LEED 5 Gold” standards. Mercer Island City Code (MICC) 19.11.050. MICA’s proposal is not compliant with current Mercer Island Code.
B.10.2	67	Granbois	The SEPA Checklist § B, Q. 10 subsection b states “building itself will not alter or obstruct any views”. In fact, the MICA building will obstruct views of the wetlands and natural hillside.
B.11	68	Granbois	No specific details regarding lighting were provided.
B.12.3	69	Granbois	The SEPA Checklist § B, Q. 13 subsection b fails to recognize the historical and cultural importance of the Bicentennial Park to many historians and veterans, who have served and currently serve our country. See http://mercerislandhistory.org/historic.html .
B.14.4	70	Granbois	The correct answer to “how many parking spaces would the completed project have” is ZERO.
Contents	71	Granbois	There are three Attachment Gs – which document and sections within the document specifically address roads?
Contents	72	Granbois	There are three Attachment Gs – which document and sections within the document specifically address trip generation?
B.14.5	73	Granbois	Where specifically will the “queued vehicles” be other than in the street? There is no drop off area – how will the “staff outside” assist with cars lined up in the street?
B.15	74	Granbois	There is no answer to whether “the project resulted in an increased number of public services”. In fact, neither the Chief of Police nor the Fire Chief have been consulted about whether this project will increase the demand for public services.
B.14.3	75	Granbois	Attachment G (#2) to the SEPA Environmental Checklist proposes parking that fails to acknowledge let alone comply with MICC 19.05.010(D) and MICC 19.05.020(B)(4).
B.8.2	76	Granbois	The July 18, 2016 letter from Mercer Island Development Services Group Director, Scott Greenberg, to Lesley Bain, appears to ask the applicant to request that the city engage in spot zoning.

Section	Comment #	Commenter	Comment (paraphrase)
B.8.2	77	Granbois	In addition, MICA is requesting that a private building owned by a private organization be placed in a zone for Public Institutions. All of the other uses delineated in MICC 19.05.010 are publically owned. This code text amendment would set a precedent for allowing private uses in a public zone.
B.3.1	78	Granbois	Any alteration of a critical area or buffer requires a critical area determination. MICC19.07.020. To date, there has been no critical area determination and MICA has not listed this required element in its SEPA application.
B.3.1	79	Granbois	Nor was there any mention of waiver or modification as may be allowed in MICC 19.07.050(E). MICA is surrounded by critical areas. See Exhibit 1, February 2016 Critical Area Overview.
B.3.1	80	Granbois	Per MICC 19.07.080(c)(2), a critical area study is necessary to reduce the size of a buffer zone. In addition, the code official must determine that: 1. A smaller area is adequate to protect the wetland functions; 2. The impacts will be mitigated consistent with MICC 19.07.070(B)(2); AND 3. The proposal will result in no net loss of wetland and buffer functions. MICC 19.07.080(c)(2).
B.8.2	81	Granbois	The answer "The proposal is not likely to cause impacts beyond the project covered in the SEPA checklist because the language of the Text Amendment is very narrow and highly unlikely to result in other project actions." is not responsive to questions 1, 2, 3, 4, 5, and 6.
B.8.3	82	Granbois	MICA fails to address the Growth Management Act ("GMA") requirement that the proposed text amendment is consistent with and implements Mercer Island's comprehensive plan.
B.8.3	83	Granbois	MICA fails to address GMA concurrency requirements. See, e.g., 36.70A.020 and RCW 36.70A.070.
A.3	84	Robinson	Refers to CCMIP
B.14.2	85	Magaram	MICA will further strain the hillside; create more traffic and pollution in an already very congested area; bring noise and light pollution to an increasingly busy area: further strain overly strained parking resources; and cause a bike lane passing through Town Center to be eliminated.
A.3	86	Majury	Refers to CCMIP
A.3	87	McWilliams	Refers to CCMIP
A.3	88	Medved	Forwards Granbois letter
A.4	89	Lippert, Meg	The public and the city will not build nor own the facility and will not have control over the programs and/or activities that take place within and/or adjacent to the building in the area facing the Mercerdale Park Lawn.
A.4	90	Lippert, Meg	MICA is not a public institution and it is not constructing a public building and thus none of the proposed changes to the City code, which focus on public facilities, would apply to the proposed MICA structure in Mercerdale Park.
A.4	91	Lippert, Meg	None of the exceptions listed in the chart (in the proposed Zoning Text Amendment) apply to MICA, since MICA is not a public building.
A.4	92	Lippert, Meg	Objection to exempting a private facility from the city requirement to provide off-street parking.
B.1.1	93	Lippert, Meg	Is MICA on a steel slope? What would happen in the event of a landslide - would lives be in danger?
B.1.1	94	Lippert, Meg	"Could erosion occur as a result of clearing, construction or use?" The response includes clearing and construction but not use. Yet erosion from the adjacent hillside could certainly occur during use of the facility, perhaps causing hazardous conditions for occupants
B.3.3	95	Lippert, Meg	What is the percent of impervious surface?

Section	Comment #	Commenter	Comment (paraphrase)
B.3.1	96	Lippert, Meg	When and by what authority was the buffer changed from 50 feet to 25 feet? "Wetland mitigation" is mentioned, but no mitigation is described. What is the mitigation, and who will be responsible for approving and supervising it?
B.3.2	97	Lippert, Meg	Where is the bio-retention area and how will runoff water be treated?
B.4	98	Lippert, Meg	B.4.a Plants--"grass" and "other types of plants" should have been checked. Some grass will be covered by pavement according to the site plans, and "other types of vegetation" include pink and white cyclamen and other woodland plants.
B.4	99	Lippert, Meg	4.b.The comment "The vegetation...is not generally healthy" is a judgement call. Most of the trees and vegetation that would be removed are thriving. It is a lovely woodland environment treasured by the community and providing habitat for native birds and animals. The area is in use and contains trails built and maintained by the City, as well as two benches where citizens can relax and enjoy the surrounding woods.
A.3	100	Thompson	Objection to SEP16-015 language regarding 14-day comment period, administrative appeals, etc. Objection to zoning text amendment and long-term lease allowing MICA in Mercerdale Park.
B.4	101	Thompson	I object to and disagree with MICA's mitigation plan for the loss of wetlands and the effect it will have on flora and fauna.
A.3	102	Thompson	Objection to 14 day period for written comments without having supporting materials available online.
A.7	103	Thompson	I believe MICA should not be placed in a public park, especially considering Mercerdale is the only significant open or green space in the town center
A.4	104	Thompson	Objection to City Council granting a long-term lease to a private organization for construction in a public park.
A.3	105	Thompson	Objection to action by City Council absent a public vote since the zoning code amendment for MICA will create a precedent that will allow other private developers to request or demand the reduction or elimination of required on-site parking.
B.1.1	106	Thompson	The geotechnical report should address the risk to patrons of MICA should a slide occur.
B.10.1	107	Thompson	MICA will have negative aesthetic impacts to recreational users, adjacent land owners, and citizens in general.
B.14.3	108	Thompson	I object to MICA's parking management plan that proposed to eliminate any requirement for off-street (on-site) parking.
B.14.4	109	Thompson	MICA has not presented any informal or formal agreements with private property owners for parking for MICA, including the Farmer's property or the Rite-Aid property.
B.14.2	110	Thompson	MICA's traffic and parking studies were completed prior to the determination by FHWA on August 5,2016, that eliminated Mercer Island SOV access to the HOV lanes. As a result, the regular exit from I-90 onto 77rh eastbound will become critical for citizens exiting an overburdened I-90 in order to get to Island Crest'Way
A.3	111	Thompson	The City Council's proposal to eliminate the turn lane on 77rh, as well as the bike lane, in order to provide street parking for MICA, is an unwise decision that will create traffic gridlock in the town center, both for citizens who live north of ICW attempting to drive through the town center to the top of Island Crest'Way in order to access the I-90 HOV/HOT lane (if allowed by FHWA), and for citizens attempting to exit to ICW eastbound or SOV citizens driving through the town center to enter at76th westbound.
B.3.2	112	Thompson	MICA will significantly affect the surface water and runoff from the hill behind it, and will negatively affect the animals and plants in the wetland
B.12.1	113	Thompson	MICA will harm recreation opportunities.

Section	Comment #	Commenter	Comment (paraphrase)
A.7	114	Thompson	MICA is contrary to Mercer Island's commitment to historical and cultural preservation of green spaces and open spaces.
A.8	115	Thompson	Further studies of alternative sites should be performed.
B.5	116	Thompson	MICA will negatively affect the animals and plants in the wetland
A.3	117	Vu	Refers to CCMIP
A.3	118	Zwingle	Refers to CCMIP
B.14.1			Allowing MICA to be built without off street parking will increase the number of cars on the street of Mercerdale that are moving and the number of cars that are parked, which will risk the safety of pedestrians.
	119	Brondstetter	
A.8	120	Cassan	MICA should buy the Hines property and build there.
B.14.1	121	Cassan	Parking will be a disaster.
			Project proponent; lives nearby and notes that current parking lots are empty after 6pm.
A	122	Charney	
A.3	123	Cero	Asks to be party of record
			Do the environmental studies take into adequate consideration the recent Town Center code?
A.5	124	Kuttner	
B.3.1			The wetlands in the vicinity of the Town Center should be rehabilitated, not paved over.
	125	Kuttner	
A	126	Scalzo	Project proponent
B.14.1			Allowing MICA to be built without enough parking Mercerdale will put traffic congestion into Mercerdale.
	127	Stapanov-Sommerfielc	
B.12.3	128	Stapanov-Sommerfielc	I hate to see beautiful Centennial Park torn down, as it is a favorite shady spot.
B.14.2	129	Stapanov-Sommerfielc	The traffic study was done before Pagliacci's pizza was built.
			Where will visitors to Mercerdale Park and the many activities there go to use a public restroom facility?
B.12.1	130	Stapanov-Sommerfielc	
			The wetlands house animals, and it is not right to take up the little remaining space they have.
B.5	131	Stapanov-Sommerfielc	
A	132	Witmer	Project proponents
B.8.2	133	Gehrig	Park Property cannot be rezoned as commercial without a vote
A.3	134	Dunbar	Request notice of threshold determination, along with right of appeal.
B.14.2	135	Chong	Increased traffic and congestion due to limited access points.
B.14.4	136	Chong	Concern that MICA patrons will be parking in Lower Mercerdale neighborhood.
B.14.2	137	Morrison	Requests a plan for how patrons from off-island will get to MICA.
B.14.3	138	Morrison	Parking.
A.3	139	CCMIP	DNS Issuance Failed to Follow SEPA Procedures
A.3	140	CCMIP	Please list all required permits and approvals, along with appropriate mitigation measures
B.1.3	141	CCMIP	Add existing information about Seismic Hazard Areas
B.1.1	142	CCMIP	Add existing information about landslide hazard areas
B.1.2	143	CCMIP	Add existing information about erosion hazard areas
B.1.1	144	CCMIP	Develop a landscape design that restores and keep the hillside from sliding on structure.
Answered on new checklist, B.1.e.	145	CCMIP	Checklist missed to disclose environmental impacts of soil removal
			"Typical emissions" during construction is an inadequate generalization. Include more precise detail.
B.2	146	CCMIP	
B.2	147	CCMIP	Response in B2a of "none needed" to reduce emissions is inadequate.
			No evidence is provided regarding what on-site mitigation would be provided for the encroachment of this wetland.
B.3.1	148	CCMIP	
			Wetland buffer restoration appears to increase the footprint for MICA by 25%, reducing the amount of parkland vs MICA land.
B.8.1	149	CCMIP	
			What bioretention area is being referred to in item C.1 and what is the proposed detention vault, and what will be its size and location?
B.3.2	150	CCMIP	

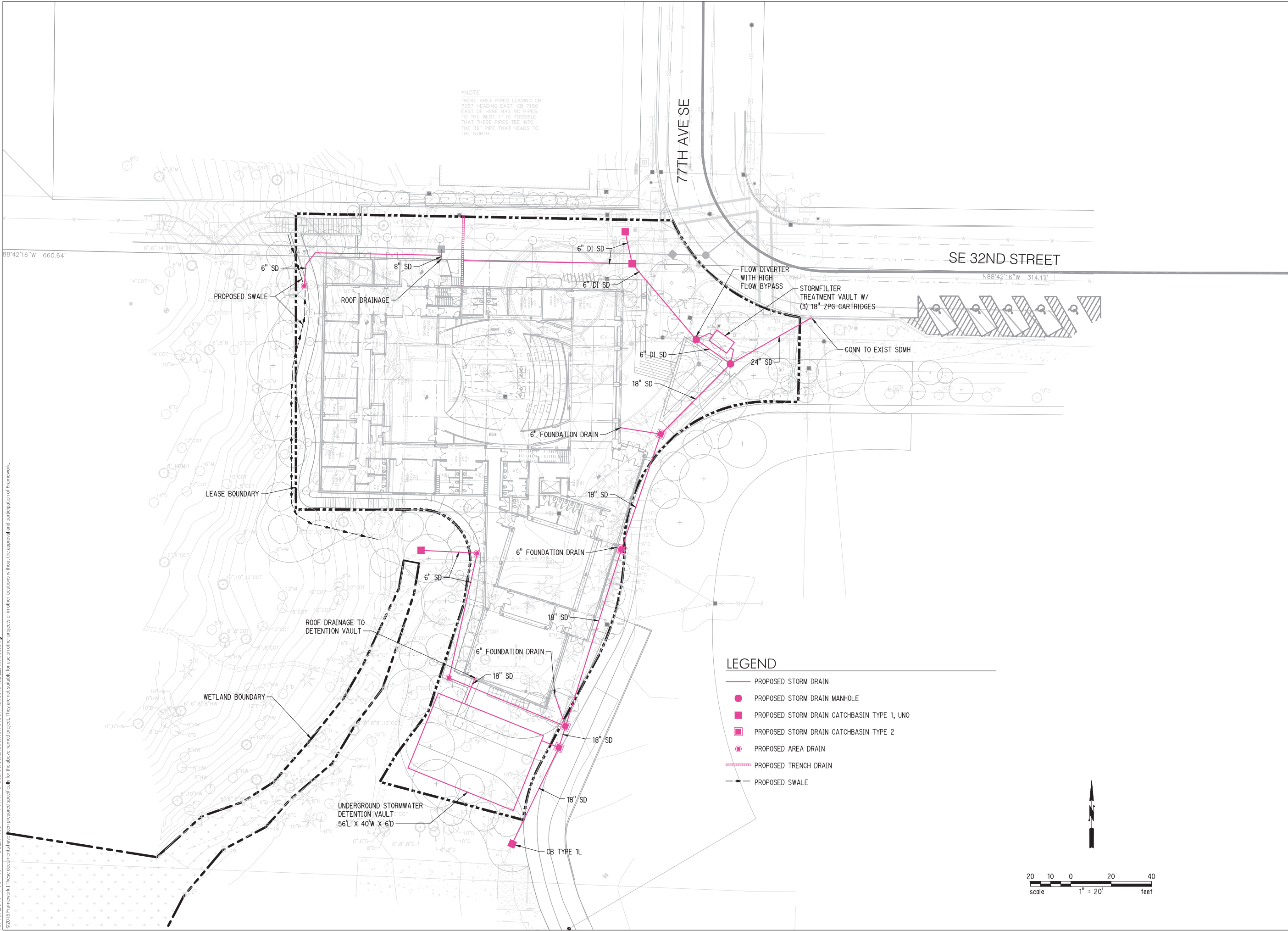
Section	Comment #	Commenter	Comment (paraphrase)
B.5	151	CCMIP	Deer should be considered as one of the animals in this section of the park.
B.5	152	CCMIP	Additional study is needed to verify claim of "none known" for endangered species, especially bald eagles.
B.8.1	153	CCMIP	Proposed lease boundary fails to acknowledge that actual land disturbed is larger than proposed.
B.8.4	154	CCMIP	As directed by the City, a short plat is required
B.10.2	155	CCMIP	Request a more realistic visualization of views, showing how the building will actually appear midst the open space.
B.4	156	CCMIP	The number of trees to be removed is unclear and needs to be clarified.
B.11	157	CCMIP	An analysis should be undertaken to verify that the glare of the glaze materials will not degrade the park environment and neighborhood. Use the National Institute of Building science design guide for visual glare.
B.12.1	158	CCMIP	How much of Bicentennial Park will be unavailable & for how long?
B.12.1	159	CCMIP	Reducing open space inventory warrants mitigation.
B.12.3	160	CCMIP	To mitigate for removing Bicentennial Park, please relocate and reinstall the Bicentennial Park prior to construction
B.12.3	161	CCMIP	Flagpole is of "cultural importance" to the site.
B.14.4	162	CCMIP	MICA provides no evidence that it has engaged with nearby private owners for parking.
B.14.3	163	CCMIP	On street parking should not be counted
B.14.2	164	CCMIP	Please provide a Transportation Management Plan to get MICA users to facility in modes other than SOV and include on and off street parking impacts.
B.14.2	165	CCMIP	Include in LOS analysis intersection of N Mercer Way & 77th Ave SE, SE 27th St & 80th Ave SE & SE 28th & 80th Ave SE
B.14.2	166	CCMIP	MICA transportation impact analysis uses a 2019 horizon for analyzing its future impact without mention of the i-90 East link.
B.15	167	CCMIP	Police and fire departments have not been consulted about the MICA project increase in activity at night.
B.3.2	168	CCMIP	How will MCA ensure that the edesign for water runoff is adequate?

SEPA Environmental Checklist
Mercer Island Center for the Arts

Attachment N
Storm Drainage Plan

March 2017

***NOTE**
 THERE ARE PIPES LEAVING CB 7057 HEADING EAST, CB 7150 EAST OF HERE HAS NO PIPES TO THE WEST. IT IS POSSIBLE THAT THESE PIPES TEE INTO THE 36" PIPE THAT HEADS TO THE NORTH.



- LEGEND**
- PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED STORM DRAIN CATCHBASIN TYPE 1, UNO
 - PROPOSED STORM DRAIN CATCHBASIN TYPE 2
 - PROPOSED AREA DRAIN
 - PROPOSED TRENCH DRAIN
 - - - PROPOSED SWALE

PROJECT NUMBER	A1611.00
PERMIT NUMBER	
DATE	20161018
PROJECT TEAM	LCS
CHECK	MJJ
REVISION	

SCALE: 1" = 20'

SHEET NAME: **STORM DRAINAGE PLAN**

SHEET NUMBER: **C501**