

**SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST**

This SEPA environmental review of Seattle Public Utilities' 2020 Urgent Drainage Improvements Project has been conducted in accord with the Washington State Environmental Policy Act (SEPA) (RCW 43.21C), State SEPA regulations [Washington Administrative Code (WAC) Chapter 197-11], and the City of Seattle SEPA ordinance [Seattle Municipal Code (SMC) Chapter 25.05].

A. BACKGROUND

1. Name of proposed project:

2020 Urgent Drainage Improvement Projects

2. Name of applicant:

Seattle Public Utilities (SPU)

3. Address and phone number of applicant and contact person:

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4. Date checklist prepared:

April 1, 2020

5. Agency requesting checklist:

Seattle Public Utilities (SPU)

6. Proposed timing or schedule (including phasing, if applicable):

SPU anticipates that construction at all three work sites will be performed by SPU crews in July 2020. Construction at each work site is anticipated to require up to five working days.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

SPU manages stormwater infrastructure throughout the City of Seattle. For efficiency and due to the repetitive nature of the work, SPU typically bundles drainage system repairs at multiple independent sites into packages that can be completed by SPU crews or, when necessary, completed by competitive construction contract. Repairs made to drainage structures that are connected to small-diameter (12 inches or less in diameter) storm drains are typically exempted from the threshold determination provisions of SEPA per exemptions provided in state regulations (WAC 197-11-800.23) and City of Seattle code (SMC 25.05.800.X). The current checklist describes only the proposed repair of structures that

connect to large-diameter (greater than 12 inches in diameter) storm drains. SPU currently has no other plans for repair of drainage structures connected to large-diameter storm drains or for additions, expansion, or further activity related to or connected with the current proposal.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

No environmental information has been prepared or will be prepared related to this proposal.

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.

SPU is not aware of pending government approvals of other proposals that directly affect the property or rights-of-way affected by this proposal.

10. List any government approvals or permits that will be needed for your proposal, if known.

Seattle Department of Transportation (SDOT) Street Use Permit

11. Give a 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.

In some portions of the City, SPU manages stormwater using an informal drainage network involving ditches, culverts, and sandboxes. Sandboxes have wooden lids and are filled with sand or gravel and drain directly into the ground or to a culvert as part of the informal ditch and culvert network. Sandboxes are no longer being installed by SPU and are being replaced over time by more durable structures such as junction boxes. Junction boxes are concrete structures with a grated metal lid, shallow in depth, and generally connect culverts in-line with the existing ditch and culvert system.

SPU's Urgent Sandbox Replacement Program involves the replacement of at-risk sandboxes (and sometime other drainage structures) with standard drainage structures throughout the City of Seattle. The structures being replaced are in or expected to be in a condition resulting in a potential safety risk or hazard to vehicles or pedestrians. Replacement work typically includes (but is not limited to) excavation, replacement of failing sandbox structures, replacement of pipe segments, bedding, disposal of excavated material, backfilling, and restoration of disturbed ground and damaged and demolished paved surfaces.

This SEPA environmental checklist reviews three separate work sites. Summaries of the proposed work at each site are provided below. All work would be in City of Seattle improved street rights-of-way near the indicated addresses.

- **Site 1, near 2132 N 128th St (SPU Project Number C600093):** Replace one existing sandbox structure with one Type 240b catch basin and reconnect existing pipe connections including two 18-inch diameter reinforced concrete (RCP) pipes, one 12-inch diameter RCP pipe, and one 6-inch diameter concrete pipe.

- **Site 2, near 1765 N 128th St along Meridian Ave N (SPU Project Number C600093):**
Replace one existing sandbox structure with one Type 240b catch basin in-line with an 18-inch diameter RCP drainage main.
- **Site 3, near 12555 Meridian Ave N (SPU Project Number N000855):** Install one Type 206b catch basin and one Type 204b maintenance hole in-line with an 18-inch diameter RCP drainage main.

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.

All three work sites are in paved City of Seattle street rights-of-way. Approximate street addresses and locations are as follows:

- Site 1: 2132 N 128th St (Section 20, Township 26N, Range 4E)
- Site 2: 1765 N 128th St along Meridian Ave N (Section 19, Township 26N, Range 4E)
- Site 3: 12555 Meridian Ave N (Section 19, Township 26N, Range 4E)

Vicinity and Location maps for each work site are included as Attachment A and B.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

Flat Rolling Hilly Steep Slopes Mountainous Other:

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

Site 1 has a grade less than 3 percent. Site 2 has a grade less than 5 percent. Site 3 has a grade less than 6 percent.

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 these soils.

The general geologic condition of the Puget Sound region is a result of glacial and non-glacial activity that occurred over the course of millennia. Review of the geologic map covering the work sites (Troost *et al.* 2005, available at <http://pubs.usgs.gov/of/2005/1252/>) indicates the work sites are underlain primarily by younger glacial deposits, including Vashon subglacial till. Urban development in this area over the last 100 years has resulted in a predominance of disturbed native soils/sediments, cut slopes, and placements of fill material. The work sites and immediately surrounding areas have been completely developed and disturbed in this way. No agricultural lands of commercial significance are near the work sites.

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

Erosion has been observed along the unopened right-of-way, south of the dead-end of Meridian Ave N, due to uncontrolled stormwater run-off from the paved road surface and adjacent impervious surfaces.

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

Excavation, fill, and grading at the three work sites would be minimal and would occur in existing improved street rights-of-way that are currently paved with concrete, asphalt, and gravel. Construction would include excavation, grading, and filling necessary to install and connect the storm drainage structures and pipe. For the three sites, total volume of excavation is estimated to be no more than 70 cubic yards and total volume of filling is estimated to be no more than 70 cubic yards. Fill materials in the street right-of-way would include Type 17 select backfill from SPU stockpiles and asphalt. Total area of disturbed ground is estimated to be no more than 275 square feet collectively for the three work sites. All right-of-way surfaces would be restored to pre-construction conditions following project completion.

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

Ground disturbance and vegetation trimming will be limited to that required for construction staging and access. Such areas will be in existing paved areas wherever possible. Because of the limited ground disturbance at all three work sites, potential for erosion is minimal. Erosion and sedimentation could occur as a result of construction, although this risk is low because the work sites are flat or nearly so and temporary erosion and sediment control best management practices (BMPs) would be deployed, inspected, and maintained as needed during construction. Disturbed paved areas would be restored to their near-original conditions.

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

The proposed project would demolish approximately 275 square feet of currently existing impervious surface and replace it with the same area of impervious surface (asphalt). There would be no new impervious surfaces. No current pervious surfaces would be replaced with new impervious surfaces.

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

BMPs would be used to protect the existing stormwater drainage systems and to minimize erosion and sedimentation. A temporary erosion and sedimentation control plan would be prepared and implemented. BMPs as identified in the City of Seattle's Stormwater Code (Seattle Municipal Code Title 22, Subtitle VIII), City of Seattle Director's Rule SDCI 17-2017/SPU DWW-200, and Volume 2 Construction Stormwater Control Manual would be used to manage stormwater runoff, construction disturbance, and erosion during construction.

2. Air

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

Construction equipment would include hand-held power tools, gasoline and diesel-powered compressors and generators, and gasoline and diesel-powered vehicles. Due to the combustion of gasoline and diesel fuels, these tools would generate greenhouse gas emissions (GHG) such as oxides of nitrogen and oxides of carbon, as well as particulate matter and smoke, uncombusted hydrocarbons, hydrogen sulfide, and water vapor. Other emissions during construction may include dust. These effects are expected to be localized, temporary, and minimized. The completed project would not generate odors.

The project would produce GHGs in three ways: embodied energy in materials to be installed on the project; energy expended through construction activity (especially as described above); and energy expended during regular operation, maintenance, and monitoring activities throughout the anticipated 50-year lifespan of the installed project. Total GHG emissions for the project are estimated to be 19.3 metric tons of carbon dioxide emission (MTCO_{2e}). GHG emissions calculations are shown in Attachment C and summarized in the table below. One metric ton is equivalent to 2,205 pounds.

The project would demolish and remove existing asphalt surfaces. The estimated volume of replacement asphalt and concrete is approximately 5.09 cubic yards, which is estimated to embody 13.75 MTCO_{2e}. Embodied energy in other materials (such as aggregate bedding, pipe material, and so forth) used in this project has not been estimated as part of this SEPA environmental review due to the difficulty and inaccuracy of calculating those estimates.

The project would generate GHG emissions during the construction period through the operation of diesel- and gasoline-powered equipment, and in the transportation of materials, equipment, and workers to and from the site. The estimates provided are based on assumptions for typical numbers of vehicle operations to execute the work; see Attachment C for more information. Construction activities would generate an estimated 5.4 MTCO_{2e}.

The project would also generate GHG emissions through the operation, maintenance, and monitoring of the project. The estimated emissions are based on an assumed life expectancy of 50 years. The estimated average annual GHG emissions generated from operations, maintenance, and monitoring are 0.12 MTCO_{2e}.

Summary of Greenhouse Gas (GHG) Emissions (combined for three projects)

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS Emissions (metric tons of CO ₂ e) ¹
Buildings	0	0
Paving	30,313.56	13.75
Construction Activities (Diesel)	11,921	5.4
Construction Activities (Gasoline)	150.7	0.07
Long-term Maintenance (Diesel)	265.5	0.12
Long-term Maintenance (Gasoline)	0	0
Total GHG Emissions	42,650.8	19.3

¹ Note: 1 metric ton = 2,204.6 pounds of CO₂e. 1,000 pounds = 0.45 metric tons of CO₂e

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

There are no known off-site sources of emissions that may affect this proposal.

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

During construction, impacts to air quality would be reduced and controlled through implementation of standard federal, state, and local emission control criteria and City of Seattle construction practices. These would include requiring contractors to use best available control technologies, proper vehicle maintenance, and minimizing vehicle and equipment idling.

3. Water

a. Surface:

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

- Site 1 (near 2132 N 128th St) is approximately 460 feet north of Haller Lake.
- Site 2 (near 1765 N 128th St along Meridian Ave N) is approximately 350 feet north of Haller Lake.
- Site 3 (near 12555 Meridian Ave N) is approximately 120 feet north of Haller Lake.

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

No work will occur over or in Haller Lake. Work will occur within 200 feet of Haller Lake at Site 3. However, all proposed work would disturb only existing paved surfaces.

- (3) 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 would be placed in or removed from surface water or wetlands.

- (4) Will the proposal require surface water withdrawals or diversions? If so, give general description, purpose, and approximate quantities if known.**

The proposed work would not require surface water withdrawals.

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

No portion of the project lies within a 100-year floodplain.

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

The proposed work would not produce or discharge waste materials to surface waters. However, several construction activities such as pouring and handling concrete, etc., would generate pollutants that could potentially enter local drainage conveyance systems. Non-sediment pollutants that may be present during construction include:

- Petroleum products including fuel, lubricants, hydraulic fluids, and form oils
- Paints, glues, solvents, and adhesives
- Concrete and concrete washwater.

Procedures to prevent and control pollutants, including hazardous materials such as hydrocarbons and pH-modifying substances, would be described in the Spill Prevention, Control, and Countermeasures (SPCC) Plan to be prepared as part of the project's Storm Water Pollution Prevention Plan (SWPPP).

b. Ground:

- (1) 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 groundwater withdrawals are planned.

- (2) 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.**

No waste material would be discharged to groundwater for this project.

c. Water Runoff (including storm water):

- (1) Describe the source of runoff (including storm water) 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.**

During construction, BMPs would be used to protect the existing stormwater drainage system and to minimize erosion and sedimentation. BMPs (as identified in the City of Seattle’s Stormwater Code SMC 22.800 through 22.808, Director’s Rule: DWW-200 SPU/17-2017 SDCl, and Volume 2 Construction Stormwater Control Technical Requirements Manual) would be used to manage stormwater runoff, construction disturbance, and erosion as needed during construction. Also, all work would be required to be performed with an approved CESC and SWPPP. During construction, when the new components are being connected to the existing drainage system, the project would use a pump and bypass system to divert the existing culvert flows into the new catch basin.

- (2) Could waste materials enter ground or surface waters? If so, generally describe.**

No part of the proposed work involves any discharges of waste materials to surface or ground waters. However, several construction activities such as saw-cutting, concrete pouring and handling, etc., would generate pollutants that could potentially enter local drainage conveyance systems. Non-sediment pollutants that may be present during construction include:

- Petroleum products including fuel, lubricants, hydraulic fluids, and form oils
- Paints, glues, solvents, and adhesives
- Concrete and concrete washwater
- Chemicals associated with portable toilets.

Procedures to prevent and control pollutants, including hazardous materials such as hydrocarbons and pH-modifying substances, would be described in the project’s SPCC plan.

- (3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

Proposed work would not alter or otherwise affect surface drainage patterns.

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

No adverse impacts to surface, ground, or runoff water are anticipated. BMPs identified in the City of Seattle’s Stormwater Code (Seattle Municipal Code Title 22, Subtitle VIII), the City of Seattle Director’s Rule SDCl 17-2017/SPU DWW-200, and Volume 2 Construction Stormwater Control Manual, would be used as needed to control erosion and sediment transport from and to the work sites during construction. Damaged and demolished paved surfaces would be restored and all disturbed soil would be stabilized using hydroseeding and other erosion control methods, as appropriate.

4. Plants

a. Types of vegetation found on the site:

<input checked="" type="checkbox"/> Deciduous trees:	<input checked="" type="checkbox"/> Alder	<input checked="" type="checkbox"/> Maple	<input type="checkbox"/> Aspen	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Evergreen trees:	<input checked="" type="checkbox"/> Fir	<input checked="" type="checkbox"/> Cedar	<input type="checkbox"/> Pine	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Shrubs				
<input checked="" type="checkbox"/> Grass				
<input type="checkbox"/> Pasture	<input type="checkbox"/> Crop or grain			
<input type="checkbox"/> Orchards, vineyards, or other permanent crops				
<input type="checkbox"/> Wet soil plants:	<input type="checkbox"/> Cattail	<input type="checkbox"/> Buttercup	<input type="checkbox"/> Bulrush	<input type="checkbox"/> Skunk cabbage
<input type="checkbox"/> Other:				
<input type="checkbox"/> Water plants:	<input type="checkbox"/> water lily	<input type="checkbox"/> eelgrass	<input type="checkbox"/> milfoil	<input type="checkbox"/> Other:
<input type="checkbox"/> Other types of vegetation:				

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

Work sites are in improved (paved) street rights-of-way with gravel shoulders. The work would not require pruning or removing vegetation. If construction, staging, or access activities damage vegetation, including shrubs, hedges, lawn, trees, etc., such vegetation would be restored to pre-project conditions following the completion of construction.

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

No federally-listed endangered or threatened plant species or State-listed sensitive plant species are known to occur within Seattle’s municipal limits. Work sites have been intensively disturbed by development and redevelopment over the last 100 years and have been extensively excavated, filled, paved, or occupied by street, utility, residential, and other constructed features. There is no habitat for threatened or endangered plants.

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

Work sites are in improved (paved) street rights-of-way with gravel shoulders. The work would not require pruning or removing vegetation. If construction, staging, or access activities damage vegetation, including shrubs, hedges, lawn, trees, etc., such vegetation would be restored to pre-project conditions following the completion of construction.

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

Purple Loosestrife (*Lythrum salicaria*) is present near (approximately 150 feet away) Site 3. Haller Lake is known to be infested with numerous aquatic invasive species including milfoil (*Myriophyllum aquaticum*) and fragrant pond lily (*Nymphaea odorata*).

5. Animals

- a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site:**

Birds: Hawk Heron Eagle Songbirds
 Other: The project area generally supports a wide variety of resident and migratory waterfowl, songbirds, and raptors. In addition to the checked boxes above, some commonly observed species include geese, ducks, crows, pigeons, and gulls.

Mammals: Deer Bear Elk Beaver
 Other: The project area encompasses the presence and habitats for a variety of animal species commonly found in urban areas of the region. Commonly observed species include opossum, rabbit, raccoon, skunk, squirrel, rat, mice, and bat.

Fish: Bass Salmon Trout Herring
 Shellfish Other: Yellow Perch

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

Based on a check of the WDFW's "Priority Habitat Species on the Web" database on March 16, 2020, all three work sites are in the breeding area of little brown bats (*Myotis lucifugus*).

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

Seattle is in the migratory route of many birds and other animal species and is part of the Pacific Flyway, a major north-south route of travel for migratory birds in the Americas extending from Alaska to Patagonia, South America. Also, Puget Sound and Lake Washington are important water migration routes for many animal species.

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

The proposed work would limit plant removal, pruning, and other vegetation modification and disturbance to that required for project construction. Construction would not remove any trees, but may temporarily damage lawn, hedges, or other landscaped areas. All damaged or removed vegetation would be restored to pre-project conditions or otherwise replaced once the work is complete.

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

King County lists the European starling, house sparrow, Eastern gray squirrel, and fox squirrel as terrestrial invasive species for this area (<http://www.kingcounty.gov/services/environment/animals-and-plants/biodiversity/threats/Invasives.aspx>).

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.**

No energy would be required to meet the constructed works' energy needs, beyond the energy already utilized for existing sewer and stormwater drainage systems.

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

The proposed work does not involve building structures or planting vegetation that would block access to the sun for adjacent properties.

- 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:**

There are no conservation features or proposed measures to reduce or control energy impacts because there would be no such impacts.

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:**

Small amounts of materials likely to be present during construction, mainly to support vehicle and construction equipment, include gasoline and diesel fuels, hydraulic fluids, oils, lubricants, but also may include solvents, paints, and other chemical products. A spill of one of these chemicals could potentially occur during construction due to equipment failure or worker error. Though unlikely, contaminated soils, sediments, or groundwater could also be exposed during excavation. If disturbed, contaminated substances could expose construction workers and potentially other individuals in the vicinity through blowing dust, stormwater runoff, or vapors.

- (1) Describe any known or possible contamination at the site from present or past uses.**

None of the work sites are known to have environmental contamination. However, it is possible that contamination of soil or groundwater associated with past uses or activities on or near a site may be present.

- (2) 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.**

There are no known hazardous chemicals or conditions that might affect development and design of the proposed work.

(3) 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.

Chemicals and pollutants that may be present during construction include:

- Petroleum products associated with vehicular and equipment use, including fuel, lubricants, hydraulic fluids, and form-release oils
- Paints, glues, solvents, and adhesives.

No toxic or hazardous chemicals would be stored, used, or produced at any time during the operating life of the constructed project.

(4) Describe special emergency services that might be required.

No special emergency services such as confined space rescue would be required during construction or operation of the project. Possible fire or medic services could be required during construction, as well as possibly during operation of the completed project. However, the completed work would not demand higher levels of special emergency services than already exist at the work sites.

(5) Proposed measures to reduce or control environmental health hazards, if any:

The construction contractor would be required to develop and implement a Spill Plan to control and manage spills during construction. In addition, a spill response kit will be maintained at each site during construction work at that site, and all workers will be trained in spill prevention and containment consistent with the City of Seattle's Standard Specifications for Road, Bridge, and Municipal Construction. During construction, the contractor would use standard operating procedures and BMPs identified in the City of Seattle's Stormwater Code (Seattle Municipal Code Title 22, Subtitle VIII), the City of Seattle Director's Rule SDCI 17-2017/SPU DWW-200, and Volume 2 Construction Stormwater Control Manual to reduce or control any possible environmental health hazards. Soils contaminated by spills during construction would be excavated and disposed of in a manner consistent with the level and type of contamination, in accordance with federal, state and local regulations, by qualified contractor(s) and/or City staff.

b. Noise

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

Noise that exists in the area would not affect the project.

(2) 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.

Noise levels in the vicinity of construction would temporarily increase during construction. Short-term noise from construction equipment would be limited to the allowable maximum levels of applicable laws, including the City of Seattle's Noise

Control Ordinance (SMC 25.08.425—Construction and Equipment Operations). Within the allowable maximum levels, SMC 25.08 permits noise from construction equipment between the hours of 7 a.m. and 7 p.m. weekdays, and 9 a.m. and 7 p.m. weekends and legal holidays. The completed project would generate no additional noise from equipment used for operation or maintenance.

(3) Proposed measures to reduce or control noise impacts, if any:

Construction equipment would be muffled in accordance with applicable laws. SMC Chapter 25.08, which prescribes limits to noise and construction activities, would be enforced while the proposed work is being constructed and during operations, except for emergencies.

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.

Work sites are in improved street rights-of-way in a primarily single family residential community. The proposed work could result in short-term, temporary closures of street lanes, parking areas, and/or route detours that would be experienced by individuals who live, work, or visit destinations near the work sites. Repair work would temporarily block access to residential driveways. SPU will coordinate with affected residents.

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?

The work sites have not been recently used for agricultural purposes or forestry. The proposed work would not result in land use conversion.

(1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?

The proposed work would neither be affected by nor affect surrounding working farm or forest land normal business operations because there are no such operations at or near any of the work sites.

c. Describe any structures on the site.

Work sites are locations of existing, buried sewer and stormwater infrastructure and other utilities within improved street rights-of-way. Sewer maintenance holes are the only at-grade or above-ground structures at the work sites. Other structures on and in the vicinity of work sites include residential and commercial structures and fences.

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

Proposed work is related to buried and at-grade utilities and would not demolish any aboveground structures. Proposed work would remove two existing sandbox structures.

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

The work sites are in the Residential, Single-family 7200 zone.

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

The work sites are in a designated Single Family Residential Area.

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

None of the work sites are in the City of Seattle's Shoreline Management District.

h. Has any part of the site been classified as an "environmentally critical" area? If so, specify.

Site 3 is adjacent to (but not inside) the riparian management area Environmentally Critical Area associated with Haller Lake.

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

No people would reside or work in the completed project.

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

The proposed work would not displace any people.

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

No such measures are proposed because proposed work would not displace any people.

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

The proposal is compatible with existing and projected land uses and plans.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

No such measures are proposed because there would be no impacts to agricultural or forest lands of long-term significance. There are no nearby agricultural or forest lands of long-term commercial significance.

9. Housing

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

The proposed work would not provide any housing units.

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

The proposed work would not eliminate any housing units.

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

No such measures are proposed because there would be no housing impacts.

10. Aesthetics

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

The tallest height of proposed structures would be grade level.

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

No views would be altered or obstructed.

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

Damaged and demolished paved surfaces would be restored, and all disturbed soil would be stabilized using hydroseeding and other erosion control methods, as appropriate.

11. Light and Glare

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

The constructed projects would not produce light or glare. During construction, if an emergency situation calls for after-dark work, the construction contractor may deploy portable lights that temporarily produce light and glare.

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

The completed projects would not create light or glare.

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

No existing off-site sources of light and glare would affect the proposed work.

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

If an emergency requires after-dark work during construction, portable lighting would be adjusted as feasible to minimize glare.

12. Recreation

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

Proposed work is in or adjacent to street rights-of-way, which are used for informal recreational activities such as dog-walking, walking, jogging, and bicycling.

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

Proposed work would not permanently displace any existing recreational uses. Access to streets and parking areas affected by construction would be more challenging during construction, but SPU would require construction crews to maintain safe pedestrian and vehicle access at all times. Exposed work areas would be off-limits for the duration of project construction at each site.

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

Temporary closures or detours affecting vehicle and/or pedestrian routes/access may be required during construction, but those are expected to be brief. The frequency, duration, and timing of those closures and detours are not known at this time.

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 places or objects listed on, or proposed for, national, state, or local preservation registers are known to be on or adjacent to the work sites.

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 information sources listed in Item B13c below, there are no archaeological or cultural resources that have been documented to exist on or near the work sites. All ground disturbance and excavation would occur in existing transportation/utility rights-of-way areas that have been disturbed previously by installation of underground utility infrastructure. According to the Washington Department of Archeology and Historic Preservation's (DAHP) Washington Information System for Architectural and Archaeological Research Data (WISAARD) predictive model, all three work sites are at Moderate Risk for discovery of archaeological resources.

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 Archaeology and Historic Preservation, archaeological surveys, historic maps, GIS data, etc.

To determine if National Register or Washington Heritage properties are in or adjacent to the proposed work, the three work sites were checked against the following registers on March 16, 2020:

- WISAARD (found at <https://fortress.wa.gov/dahp/wisaardp3/>)
- Landmark List, and Map of Designated Landmarks, maintained by the City of Seattle, Department of Neighborhoods (found at <http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map>)

DAHP's statewide predictive model layer was also reviewed for probability estimates of prehistoric cultural resources.

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.

All proposed work is in improved street rights-of-way and would not affect any buildings or structures. All ground-disturbing activity would be in areas that have been previously disturbed and filled to construct/install the existing drainage system piping, streets and other developments. The proposed work's location on previously disturbed and filled ground substantially reduces the chance of encountering contextually significant archaeological materials.

An approved inadvertent discovery plan will be onsite and in effect during all construction activities. Excavation at the three work sites is not likely to excavate into previously undisturbed native soil or sediments. Should evidence of cultural artifacts or human remains, either historic or prehistoric, be encountered during excavation at the four spot repair work sites, work in that immediate area would be suspended and the find would be examined and documented by a professional archaeologist. Decisions regarding appropriate mitigation and further action would be made at that time.

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.

Work sites are in existing street rights-of-way (along N 128th St and Meridian Ave N). Staging areas would be within 200 feet of repair work on existing street rights-of-way or utility easements.

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?

Public bus transit service is provided by King County Metro. Site 1 is within one block of a Metro route. Site 2 and 3 are not located directly on Metro routes but are located within one mile of a bus stop. Construction would not impact public transit. The completed work would neither require nor affect public transit.

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

Completed work would neither create nor eliminate any parking spaces. However, during construction, there may be temporary on-street parking closures during construction activities. Specific timing and duration of parking closures are not known at this time, but such closures would comply with policies administered by SDOT as part of its street use permitting process.

- 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).**

Proposed work would restore any demolished and damaged roads to pre-construction conditions or better and consistent with SDOT requirements. The completed work would not require any new or improved public or private transportation infrastructure.

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

Proposed work would not use or occur in the immediate vicinity of water, rail, or air transportation.

- 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?**

Construction of the proposed work would generate an estimated 72 vehicular round trips for each of the three sites due to works and materials being transported to and from the sites during the construction period. Most of those trips would occur during weekdays (between 8 a.m. and 9 p.m.) but trips may occur at other times including weekend days. The completed project would generate an estimated total of 50 vehicle round-trips related to ongoing routine operation, maintenance, and monitoring over the project's 50-year lifespan. No long-term additional traffic would result from the completed work.

- 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.**

Proposed work would not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area.

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

These measures would be used to reduce or control transportation impacts:

- SPU or its construction contractor would submit a traffic control plan for approval and enforcement by SDOT.
- SPU would conduct public outreach before and during construction to notify residents, local agencies, Metro, and other stakeholders of work progress and expected disruptions or changes in traffic flow.
- Access for emergency-response vehicles would be maintained at all times.
- Through-access and vehicle access to private properties may not be available at all times during construction, but temporary closures would be minimized and detour routes would be properly and clearly signed.
- Alternative routes for pedestrians, bicyclists, and those with disabilities would be identified and clearly signed, as needed.

15. Public Services

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

The proposed work is not expected to create increased need for public services. SPU would accommodate emergency access for buildings accessed via the affected streets. Emergency access would comply with policies administered by SDOT as part of its Street Use permitting process.

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

During construction, the proposed work would be required at all times to accommodate emergency access. Otherwise, no mitigation is being proposed because the completed work would have no adverse impacts on public services.

16. Utilities

- a. Check utilities available at the site, if any:**

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Electricity | <input checked="" type="checkbox"/> Natural gas | <input checked="" type="checkbox"/> Water | <input checked="" type="checkbox"/> Refuse service |
| <input checked="" type="checkbox"/> Telephone | <input checked="" type="checkbox"/> Sanitary sewer | <input type="checkbox"/> Septic system | |
| <input checked="" type="checkbox"/> Other: cable, fiber optics | | | |

- 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.**

No new utilities are being proposed. No interruptions of other utilities or services are anticipated during construction.

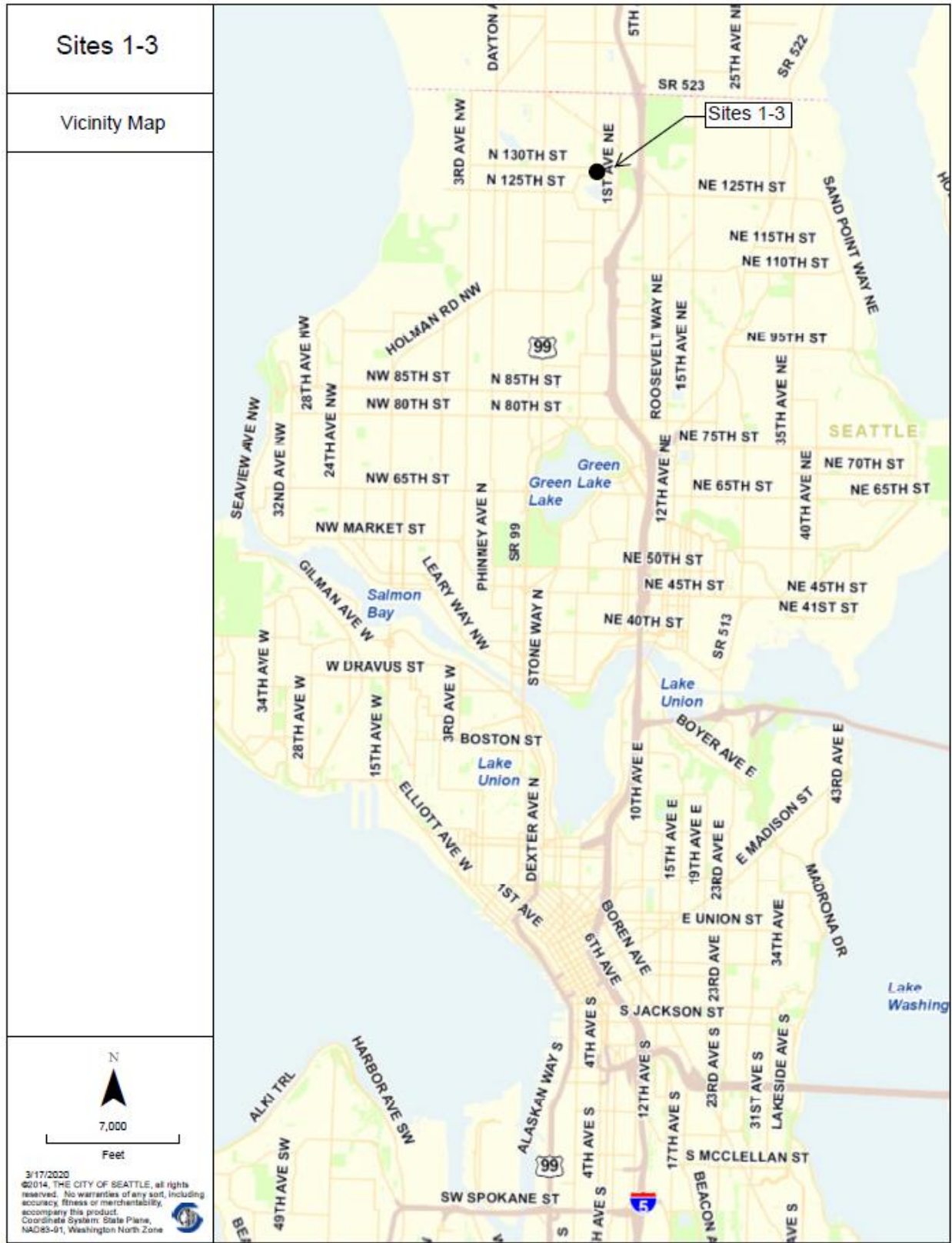
C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

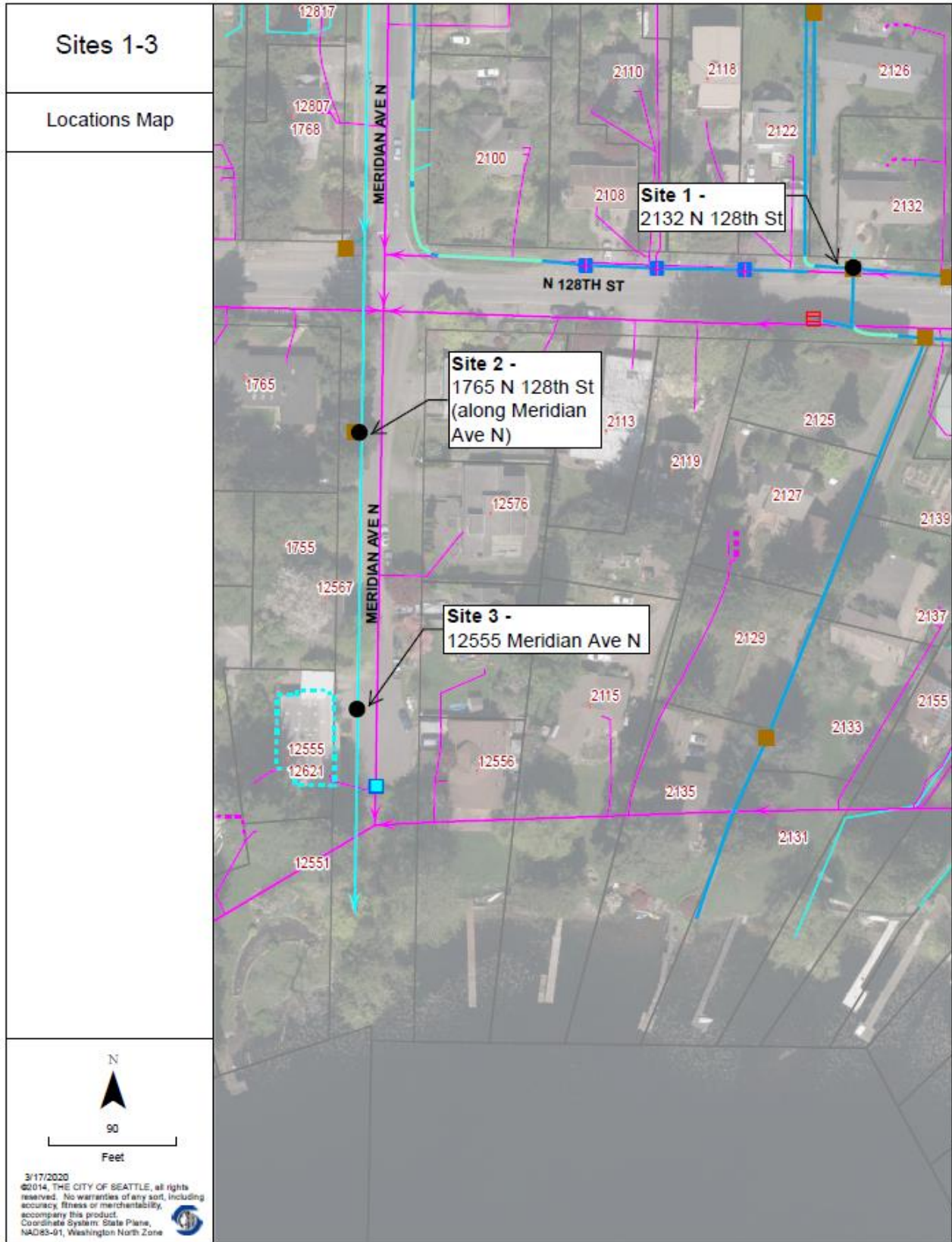
Signature: <u>Alissa Lee</u> Alissa Lee, PE, Project Manager	Digitally signed by Alissa Lee Date: 2020.04.01	Date: <u>4/1/2020</u>
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- Attachment A – Vicinity Map, Sites 1, 2, and 3
- Attachment B – Locations Map, Sites 1, 2, and 3
- Attachment C – Greenhouse Gas Emissions Worksheet

Attachment A – Vicinity Map



Attachment B – Locations Map



2020 Urgent Drainage Improvements Project

SEPA Environmental Checklist

Attachment C – Greenhouse Gas Emissions Worksheet

Section I: Buildings						
			Emissions Per Unit or Per Thousand Square Feet (MTCO ₂ e)			
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	Lifespan Emissions (MTCO ₂ e)
Single-Family Home	0		98	672	792	0
Multi-Family Unit in Large Building	0		33	357	766	0
Multi-Family Unit in Small Building	0		54	681	766	0
Mobile Home	0		41	475	709	0
Education		0.0	39	646	361	0
Food Sales		0.0	39	1,541	282	0
Food Service		0.0	39	1,994	561	0
Health Care Inpatient		0.0	39	1,938	582	0
Health Care Outpatient		0.0	39	737	571	0
Lodging		0.0	39	777	117	0
Retail (Other than Mall)		0.0	39	577	247	0
Office		0.0	39	723	588	0
Public Assembly		0.0	39	733	150	0
Public Order and Safety		0.0	39	899	374	0
Religious Worship		0.0	39	339	129	0
Service		0.0	39	599	266	0
Warehouse and Storage		0.0	39	352	181	0
Other		0.0	39	1,278	257	0
Vacant		0.0	39	162	47	0
TOTAL Section I Buildings						0

Section II: Pavement					
					MTCO ₂ e
Pavement (sidewalk, asphalt patch)		0.0			0
Concrete Pad (50 MTCO ₂ e/1,000 sq ft of pavement at a depth of 6 inches)		275 sq ft (6 inches thick)			13.75
TOTAL Section II Pavement					13.75

Section III: Construction	
(See detailed calculations below)	MTCO ₂ e
TOTAL Section III Construction	
	5.47

Section IV: Operations and Maintenance	
(See detailed calculations below)	MTCO ₂ e
TOTAL Section IV Operations and Maintenance	
	0.12

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROPOSED WORK (MTCO₂e)	19.34
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Attachment C – Greenhouse Gas Emissions Worksheet, continued

Section III Construction Details		
Construction: Diesel		
Equipment	Diesel (gallons)	Assumptions
Excavator	448	64 hours x 7 gallons/hour (345 hp engine)
Dump truck	1	5 round trips x 1 miles/round trip ÷ 5 mpg
Subtotal Diesel Gallons	449	
GHG Emissions in lbs CO₂e	11,921	26.55 lbs CO ₂ e per gallon of diesel
GHG Emissions in metric tons CO₂e	5.4	1,000 lbs = 0.45359237 metric tons

Construction: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
Pick-up Trucks or Crew Vans	3.2	8 workdays x 4 trucks x 2 round-trip/day x 1 miles/round-trip ÷ 20 mpg
Misc. Hand Equipment	3	
Subtotal Gasoline Gallons	6.2	
GHG Emissions in lbs CO₂e	150.7	24.3 lbs CO ₂ e per gallon of gasoline
GHG Emissions in metric tons CO₂e	0.07	1,000 lbs = 0.45359237 metric tons

Construction Summary		
Activity	CO₂e in pounds	CO₂e in metric tons
Diesel	11,921	5.4
Gasoline	150.7	0.07
Total for Construction	12,071.7	5.47

Section IV Long-Term Operations and Maintenance Details		
Operations and Maintenance: Diesel		
Equipment	Diesel (gallons)	Assumptions
Vactor Truck (maintenance)	10	50 events (once annually for 50 years) x 1 miles/round-trip x 1 round-trip/event ÷ 5 mpg
Subtotal Diesel Gallons	10	
GHG Emissions in lbs CO₂e	265.5	26.55 lbs CO ₂ e per gallon of diesel
GHG Emissions in metric tons CO₂e	0.12	1,000 lbs = 0.45359237 metric tons

Operations and Maintenance: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
	n/a	n/a
Subtotal Gasoline Gallons		
GHG Emissions in lbs CO₂e		24.3 lbs CO ₂ e per gallon of gasoline
GHG Emissions in metric tons CO₂e		1,000 lbs = 0.45359237 metric tons

Operations and Maintenance Summary		
Activity	CO₂e in pounds	CO₂e in metric tons
Diesel	265.5	0.12
Gasoline	0	0
Total Operations and Maintenance	265.5	0.12