King County
Department of Natural Resources and Parks
Wastewater Treatment Division

TETRA TECH
and Associated Firms

North Mercer Island Interceptor and Enatai Interceptor Upgrade Project

Arborist Report: Mercer Island

Final



Tree Solutions Inc
Consulting Arborists

September 2019

Arborist Report: Mercer Island

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PREPARED FOR

King County
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Wastewater Treatment Division

King Street Center
201 South Jackson Street, MS KSC-NR-0507
Seattle, WA 98104

Tetra Tech

1420 Fifth Avenue, Suite 600
Seattle, WA 98101-2357
Phone: 206.883.9300
Fax: 206.883.9301
tetratech.com

PREPARED BY

Tree Solutions Inc

2940 Westlake Ave. N (Suite 200)
Seattle, WA 98109

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ACRONYMS / ABBREVIATIONS / DEFINITIONS

Acronym or Abbreviation	Definition
Caliper	Tree diameter measured 6 inches above grade
COMI	City of Mercer Island
CRZ	Critical root zone (see RLOD)
DSH / DBH	Diameter at standard height / Diameter at breast height; the diameter of the trunk measured 54 inches (4.5 feet) above grade; if multiple stems, single-stem equivalent is used for replacement calculations per Plant Appraisal Guide
Exceptional Tree	A tree measuring 36" DSH or greater or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table (MICC 19.16.010)
Exceptional Grove	A group of eight or more trees each 10 inches or more in diameter that form a continuous canopy. Trees that are part of a grove shall also be considered exceptional trees, unless they also meet the definition of a hazardous tree. (MICC)
ISA	International Society of Arboriculture
KC	King County (Wastewater Management)
Large Tree (regulated)	A tree measuring 10 inches or greater DSH (MICC)
LOD	Limits of Disturbance
MICC	Mercer Island City Code
MLOD	Minimum Limits of Disturbance represents a distance five (5) times that of the trunk and is the minimum distance from a trunk that a structural root can be cut on one side of a tree to maintain tree stability.
OHWM	Ordinary High Water Mark
RLOD	Recommend Limits of Disturbance: As outlined in ISA Best Management Practices: Managing Trees During Construction, this is calculated as a radial distance 8 times the trunk diameter. Some cases require 12 times the trunk diameter. For the purpose of this report, this represents the critical root zone (CRZ).
TPZ	Tree Protection Zone
WSDOT	Washington State Department of Transportation

SUMMARY

This project proposes to install a new sewer line along the north end of Mercer Island, traveling along city and state rights-of-way, as well as through some private property. Facility upgrades of the North Mercer Pump Station (NMPS) and open-cut and cover trenching will require tree removals. In most cases, trees removed will be replaced in-kind per requirements set forth by Washington State Department of Transportation (WSDOT) and the City of Mercer Island (COMI). Table 1 summarizes the proposed removals and replacement requirements below.

Table 1. Tree Removal Summary by Jurisdiction

	Tree Removals (Qty)	Replacements Required (Qty)
COMI Right-Of-Way		
Exceptional	1	6
10"-24"	23	46
6" - 10"	22	22
<6"	8	0
Dead -- snag	1	0
PRIVATE (King County Parcel)		
Exceptional	2	12
Exceptional - Grove	5	30
Large Tree (Regulated) >10"	17	34
<10"	5	0
PRIVATE (Other)		
Exceptional	2	12
Exceptional - Grove	9	54
<10"	4	0
Large Tree (Regulated) >10"	8	17
WSDOT		
Category 2	245	2414
Category 3	24	0
Early successional species (no replacement required)	4	0
Street Tree	68	68
Dead -- snag	30	0
Total	**478**	**2715**

Replacement size is based on jurisdiction requirements. WSDOT: 1 gal, WSDOT Street trees: 2.5" caliper, COMI: 6' conifer or 1.5" deciduous. Quantities may be reduced if larger plants are installed.

Tree protection will be required throughout the project for trees not being removed. Techniques may include tree protection fencing, signage, mulch, supplemental irrigation and root pruning, and will be included in the project specifications.

This report is preliminary and is intended to help guide the design process. The project is currently at the 90% design completion phase and tree protection and tree retention continues to be assessed as construction documents are developed. Some trees marked as ‘PROTECT” may not be feasibly retained, and trees with proposed construction within the recommended limits of disturbance (RLOD) will continue to be re-assessed for construction impacts on a case by case basis.

1. ASSIGNMENT & SCOPE OF REPORT

This report outlines the site inspection and data collected by Tree Solutions Inc on the following dates:

January 2,2018
January 3, 2018
January 11, 2018
January 16, 2018
April 4, 2018
April 26, 2018
May 17, 2018
November 30, 2018
December 11, 2018,
December 19, 2018, and
May 31, 2019.

We were asked to evaluate the trees on site, within 20 feet of proposed disturbance, according to 30% design drawings and tree regulations set forth by COMI and WSDOT. We were asked to collect additional data following the alignment adjustments documented on the 60% design drawings provided to us by Jacobs, and additional staging locations provided by Tetra Tech. We were asked to produce an Arborist Report documenting our findings, to satisfy permitting requirements by COMI and WSDOT during the permitting process.

Specifics for each tree can be found in Appendix F.

A site map in Appendix F shows tree locations and proposed removals.

2. PROJECT OVERVIEW

The North Mercer Island Interceptor Project is managed by the King County Wastewater Treatment Division and spans the north end of Mercer Island, WA and southwest portion of Bellevue, WA.

The project includes an upgrade to the NMPS and a proposed upgrade to Mercer Island Lift Station 11. It also includes installation of a new dual force main running southeast along residential streets between the NMPS and the I-90 trail, as well as along the I-90 trail until the end of 90th Pl. A new gravity sewer is proposed along the I-90 trail from 90th Pl to SE 35th Pl, connecting to a new sewer line crossing the East Channel to the Enatai Interceptor in Bellevue, which will be relined. See Figure 1 below for overview.

Some of these sewer lines are on public property or within the right of way managed by the COMI, and some are within the right of way managed by WSDOT. A small portion of the sewer lines will be on private property.

Disturbance from construction on this project will include trenching (6 to 8 feet wide trenches for new lines), re-grading at the NMPS, repaving, construction access, and material staging. Impacts to the landscape will include tree and shrub removal, root cutting, tree clearance pruning, soil compaction, and landscape restoration (replanting).

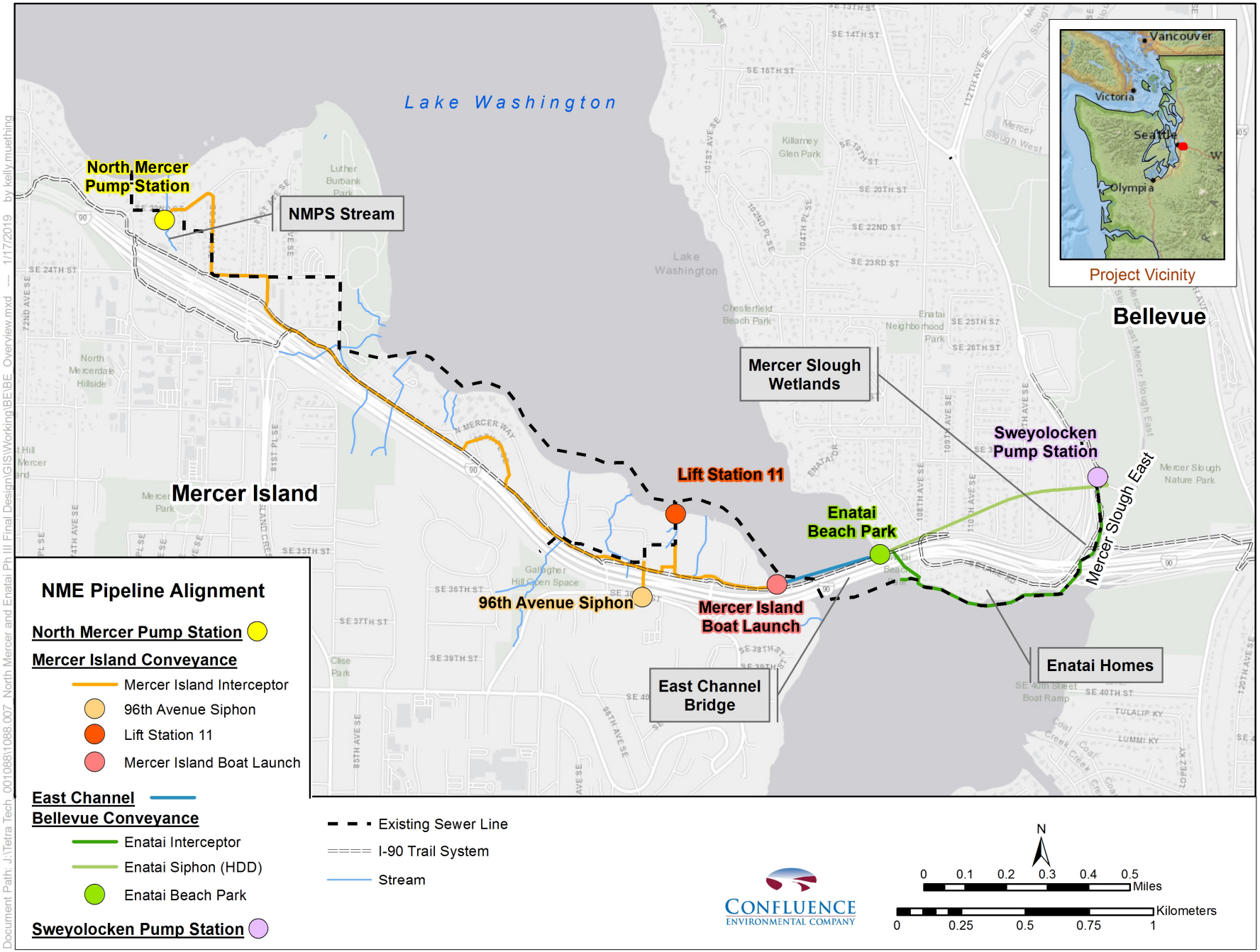


Figure 1. Key Map

3. DATA

3.1 TREE INVENTORY

We assessed all trees within 20-feet of the proposed sewer alignment as drawn on the 30% design drawings dated December 1, 2017. We also assessed all trees on the NMPS parcel, and trees within 5 feet, or with overhanging canopy, of three potential staging areas. To date, we have assessed 1159 trees . We assessed trees on private property from the public right of way except for 3508 96th Ave SE, and 9960 SE 35th Pl where permission to enter the property was specifically given to us.

WSDOT trees are separated into four categories[1]:

1. Category 1: Mature, old-growth, large specimen or heritage trees >30 inches DSH
2. Category 2: Moderate size trees (excluding alder and cottonwood) with DSH between 4 and 30 inches
3. Category 3: Small-size trees (excluding alder and cottonwood) with DSH <4 inches
4. Street Trees: Specifically identified by WSDOT Landscape Architect

WSDOT street trees are defined as "the first row of trees that parallel a road, trail or plaza to accentuate the pavement edge/provide user guidance, have an upright branching pattern to provide adequate vertical room for vehicles and bicyclists, provide canopy over the pavement, and typically have consistent spacing and setback along the pavement."[2]

Within the WSDOT right of way, we documented all category 1 and 2 trees, and all street trees. We did not document shrubs or Category 3 trees unless they were multi-stemmed with significant diameters that, after calculation of single-stem equivalent diameter, might qualify as a category 2 tree. We did document general locations where landscape beds were void of vegetation or where there was a high mortality rate of standing trees. These are noted on the attached site plan and can aid in identifying new planting locations, as well as avoiding staging and construction access points in these areas.

Since the time of our initial assessment, we have noticed that many trees have been removed by Mercer Island Parks crews (the entity responsible for maintaining vegetation along the I-90 trail) in an effort to remove dead trees and thin thick stands of conifers. This arborist report may not reflect recent tree removals along the trail or elsewhere in the project area.

Within the COMI right of way, at the City's request, we documented all trees equal to or greater than 6 inches.

On private property, we documented all regulated trees as defined by Mercer Island City Code (MICC 19.16.010). This includes all large trees 10 inches or greater in diameter and any tree that meets the definition of exceptional.

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1 Category 1, 2, and 3 trees are defined in WSDOT Roadside Policy Manual M 3110.03, dated August 2015

2 Language in proposed WSDOT Roadside Policy Manual currently under revision, provided by WSDOT Landscape Architect

3.2 TREE REMOVALS IN SHORELANDS AND CRITICAL AREAS

Mercer Island recently adopted a new Critical Areas Ordinance (CAO) and Shoreline Master Plan (SMP), which went into effect July 31, 2019. As part of the CAO, trees proposed for removal must be identified if they are within shorelands and/or critical areas. Critical areas include fish streams, seasonal streams, perennial streams, stream buffers, landslide hazard areas (steep slopes, shallow landslide hazard areas, deep-seated landslide hazard areas), landslide hazard area buffers, and seismic hazard areas. Additional information discussing these critical areas can be found in the Critical Area Study (CAS).

Quantities of proposed tree removals within shorelands and within critical areas are summarized in Table 2. Removal quantities are according to 90% design drawings dated July 2019 and include all regulated trees on WSDOT, COMI and private property in addition to some smaller trees. Dead trees are listed for removal if they are within the limits of construction or within 5 feet of work limits. Details of tree removals within each critical area can be found in the Tree Management Plan (TMP).

Table 2. Tree Removals within Shorelands and Critical Areas

	Total Removals (by area)	Trees Removals in: Shorelands[a]	Trees Removals in CRITICAL AREAS[b]
Burgess Easement 3508 96th Ave. SE, Mercer Island			
PRIVATE Exceptional	1	--	--
PRIVATE Exceptional - Grove	9	--	9
PRIVATE Large Tree (Regulated) >10"	6	--	2
PRIVATE <10"	6	--	6
I-90 Trail			
PRIVATE Exceptional	1	--	--
PRIVATE Large tree >10”	3	--	--
COMI 10”- 24”	18	--	17
COMI 6” - 10”	11	--	11
COMI <6”	2	--	1
WSDOT Street Tree	65	--	39
WSDOT Category 2	236	18	171
WSDOT Category 3	24	--	5
WSDOT Early successional species	4	--	3
Dead -- snag	30	--	21
Lift Station 11			
COMI Exceptional	1	1	1
MI Boat Launch			
WSDOT Street Tree	3	3	--
WSDOT Category 2	8	7	--
North Mercer Pump Station			
PRIVATE Exceptional	2	--	2
PRIVATE Exceptional - Grove	5	--	5
PRIVATE Large Tree (Regulated) >10"	17	--	17
PRIVATE <10"	6	--	6

	Total Removals (by area)	Trees Removals in: Shorelands[a]	Trees Removals in CRITICAL AREAS[b]
Streets / Right of Way			
COMI 10"- 24"	4	--	2
COMI 6" - 10"	11	--	--
COMI <6"	3	--	--
WSDOT Category 2	1	--	1
Dead -- snag	1	--	--

a. Shorelands are defined as 200 feet landward of the ordinary high water mark (OHWM) along the shoreline of Lake Washington.
b. Critical areas include Fish Stream Buffers (within 120 feet of OHWM), Perennial and Seasonal Streams and Stream Buffers (within 60 feet of OHWM), Landslide Hazard Areas (steep slopes, deep-seated landslide hazards and shallow-seated landslide hazards) and Landslide Hazard Buffers, and Seismic Hazard Areas. Some trees may be located in both shorelands and critical areas.

Some trees may have already been removed by the Mercer Island Parks Department as part of normal maintenance along this alignment.

3.3 TREE REMOVAL & REPLACEMENT (WSDOT RIGHT OF WAY)

Within the WSDOT right of way, vegetation and soil is required to be preserved to the greatest extent feasible. Where it is not practical, WSDOT requires restoration of the disturbed area. This includes restoring soil and replacing smaller vegetation[3]. It also includes tree replacement for all WSDOT street trees, trees greater than 30 inches diameter at standard height (DSH), and trees (with the exception of red alders, willow and black cottonwood) larger than 4 inches that will be removed.

We did not conduct a comprehensive inventory of trees less than 4 inches. Therefore, we omitted any replacement calculations for Category 3 trees. However, all areas within the WSDOT right of way must be revegetated if vegetation is removed.

These requirements are based off of the replacement ratio stated in WSDOT Roadside Policy Manual last revised in August 2015, and from conversations with the current WSDOT Landscape Architect, who provided information regarding street tree definitions. WSDOT intends to include street tree designations in their next revised Roadside Policy Manual and implement them on this project. See Table 3 for replacement ratios.

[3] *WSDOT Roadside Policy Manual M3110.03, dated August 2015*

Table 3. Tree Replacement Requirements (WSDOT Right of Way)

Classification[a]	Diameter of Removed Tree (inches)	Replacements Required (Qty of 1 gal)	Alternative Replacements Required (Qty of 2 gal)[c]	Alternative Replacements Proposed (Qty of 5 gal)[d]	Street Trees Replacements Required (Qty of 2.5" caliper)
Category 1	>30	to be determined[b]	--	--	--
Category 2	4	4	2	1	--
Category 2	5	5	2.5	1.25	--
Category 2	6	6	3	1.5	--
Category 2	7	7	3.5	1.75	--
Category 2	8	8	4	2	--
Category 2	9	9	4.5	2.25	--
Category 2	10+	10+	5+	2.5	--
Category 3	n/a	1[e]	--	--	--
Street Tree	n/a	--	--	--	1

a. Category 1: Mature trees >30" DSH, Category 2: Moderate-size trees with DSH between 4 and 30", Category 3: Small trees < 4" DSH, Street Tree as designated by WSDOT Landscape Architect. Early successional species such as red alder (*Alnus rubra*), willow (*Salix spp.*) and black cottonwood (*Populus trichocarpa*) only require replacements if they are category 1 or street trees.
b. Category 1 tree replacement requirements (quantity and size) to be determined by HQ Design Landscape Architect.
c. Category 2 trees should be replaced at a ratio of one 1-gallon replacement tree for each 1-inch of trunk diameter. The quantity of required replacements for Category 2 trees can be reduced if the size of nursery stock is increased.
d. Alternative replacement quantities proposed if 5 gallon trees are planted into permanently irrigated landscape.
e. Category 3 trees should be replaced using a 1:1 ratio, following BMPs for restoration of disturbed areas. Planted material may be a mix of trees and shrubs.

All replacement quantities will be rounded up to the nearest integer.

Replacement tree quantities for proposed tree removals within the WSDOT right of way are listed in

Table 4. Dead and living trees are listed for removal, but only living trees removed (regardless of condition) require replacements.

While Mercer Island requires larger replacement trees be planted, WSDOT requires a greater quantity of replacement trees. Therefore, for calculations purposes, I assumed that any tree on a WSDOT/COMI property line would be subject to the larger quantity tree replacement requirement.

Table 4. Tree Replacement Alternatives (WSDOT Right of Way)

	Removals (Qty)	Replacements required (Qty of 1 gal)	Alternative Replacements required (Qty of 2 gal)	Alternative Replacements proposed (Qty of 5 gal)	Street Trees Replacements required (Qty of 2.5" caliper)
WSDOT					
Category 2	245	2,414	1,207	603.5*	--
Category 3	24	--	--	--	--
Early successional species (no replacement required)	4	--	--	--	--
Street Tree	68	--	--	--	68
Dead -- snag	30	--	--	--	--
Total	**371**	**2414**	**1207**	**603.5***	**68**

* All replacement quantities will be rounded up to the nearest integer.

If construction plans change and tree removals are proposed, replacement plantings will be required. When developing the replacement planting plan within WSDOT right of way, preference should be given to long-lived and low-maintenance native plant species. Plant diversity, pollinator habitat, and wildlife food sources should also be considered.

WSDOT requires replacement plantings be within the area disturbed by construction or within the area disturbed by this project, when appropriate.

Otherwise tree planting should mitigate tree canopy loss in the following locations:

1. Plant trees in locations that do not currently have trees:
    i. On two undeveloped WSDOT properties on the west and east sides of El Dorado Beach Club Drive
    ii. On an unimproved area on the south side of the First Hill Lid between 72nd Ave SE and 74th Ave SE
2. Within WSDOT Resource Conservation Areas
3. Within WSDOT right of way along the same highway corridor, in coordination with existing Maintenance Integrated Vegetation Management Plan
4. Within WSDOT right of way along another highway within the same region where areas are available for planting or protection

A minimum of three years of plant establishment work is required for all planted areas. Plant establishment includes caring for all new plants and all planting and seeding areas within the project limits to ensure continued healthy growth to achieve a sustainable condition prior to transfer to maintenance staff. This includes weed control and irrigation. Permanent irrigation should be replaced or repaired in these areas.

Plant establishment work must be funded and performed by the project through a signed agreement with WSDOT.

As an alternative to replanting, WSDOT now has a tree mitigation program that allows for projects to fund replacement tree plantings elsewhere in the WSDOT right of way. This typically is about $300 per DSH of impact[4].

3.4 TREE REMOVAL & REPLACEMENT (COMI, KC PARCELS, PRIVATE PROPERTY)

Trees growing on private property or within the city right of way on Mercer Island, are subject to replacement requirements as stated in the MICC 19.10.070 (see Table 5).

Table 5. Tree Replacement Requirements (COMI, KC Parcels, Private Property)

Diameter of Removed Tree	Replacements Required (Qty of 6' conifer / 1.5" caliper deciduous / $500)
Less than 10 inches*	1
10 - 24 inches	2
24 - 36 inches	3
> 36 inches	6
All exceptional trees	6

*Trees of this size require replacement on private property only if they were initially planted as required replacement trees and have not yet reached 10 inches. COMI right of way trees >6" will likely require a 1:1 replacement as well, pending confirmation from city staff.

Replacement trees must be located in the following order of priority from most important to least important:

1. On-site replacement adjacent to or within critical tree areas as defined in Chapter 19.16 MICC;
2. On-site replacement outside of critical tree areas adjacent to other retained trees making up a grove or stand of trees;
3. On-site replacement outside of critical tree areas; and
4. Off-site in adjacent public right of way where explicitly authorized by the city.

Replacement trees shall primarily be those species native to the Pacific Northwest and shall be at least six-feet tall if coniferous, and 1.5-inches caliper if deciduous. The city arborist may authorize the planting of smaller-sized replacement trees if quantities are increased and the replanting plan meets the intent of Mercer Island's tree code. Tree species (not shrub species) are required for mitigation planting. Replacement trees shall be planted in the wet season (October 1 through April 1), following the applicable tree removal.

The replacement trees are required to be maintained for a period of five years after planting, and the applicant is required to replant any replacement tree that dies, becomes diseased, or is removed during this five-year period.

Trees should be planted with enough space to allow for long term success. Unless small species are chosen, it may be difficult to plant the required quantity on this site with enough room to fully mature. If there is not adequate space to successfully grow the required replacement trees, a fee in lieu shall be paid to Mercer Island. This fee is $500 per tree, according to the Mercer Island City Arborist. This accounts for the tree replacement cost including labor, materials, and maintenance for each replacement tree the city will plant off-site.

[4] *Per WSDOT Landscape Architect, 8.16.2018*

3.5 EXCEPTIONAL TREES

The Mercer Island City Code establishes protection for large trees, specifically exceptional trees. Exceptional trees do not apply to trees within WSDOT right of way. Exceptional tree removal totals, separated by area of the project, are shown in Table 6 below.

Per MICC 19.10.060 (A)(2)(b)(ii), priority for tree retention will be given to;

1. Exceptional trees
2. Trees with a diameter greater than 24 inches
3. Trees that have a greater likelihood of longevity
4. Trees that are part of a healthy grove

Table 6. Exceptional Tree Removals (KC, COMI, Private Property)

	Tree Removals (Qty)
Exceptional	
Burgess Easement*	1
I-90 Trail	1
Lift Station 11	1
North Mercer Pump Station	2
Exceptional - Grove	
Burgess Easement*	9
North Mercer Pump Station	5
Total	**19**

* Burgess Easement is located on the property of 3508 96th Ave. SE, Mercer Island, WA.

4. DISCUSSION

4.1 REPLACEMENT TREE SIZES

WSDOT and COMI require different size trees be planted for mitigation planting. For most replacements, WSDOT requires 1 or 2-gallon plants, which is consistent with high-count restoration projects where minimal maintenance will follow. This may not be an appropriate approach for all areas of re-planting, due to the park-like style of the landscape along the I-90 bike trail and required site lines for pedestrian and biker safety.

WSDOT has addressed this concern by identifying certain trees along the corridor as 'street trees' and requiring 2.5-inch caliper replacements for each removal. In addition to these trees, there may be trees along other areas of the trail where it would be equally appropriate to mitigate with larger nursery stock, or with trees that have a trunk clear of branches up to a certain height.

Nursery standards use different measurements when specifying different types of plants. To aid in negotiating size and quantities of tree replacements between two jurisdictions, I have included Appendix B: Tree Size Specifications for Planting. These tables compare container size, plant height, and caliper for shade trees, conifers and multi-stem trees. The smallest container class listed should be used for calculating tree replacement quantities.

To minimize future damage to the bike trail, replacement trees along the trail should be of a species known to have a less aggressive root system. Also, consider installing root barriers, surface reinforcements, or other long-term solutions to minimize future hazardous situations.

4.2 REPLACEMENT SPECIES

Replacement species to be determined.

4.3 TREE PROTECTION

Tree Protection within Mercer Island is based on Best Management Practices[5] as required by city code (MICC 19.10.080). These guidelines establish a tree protection zone (TPZ) for each tree, using a distance from each tree based on species tolerance to construction damage, relative tree age, and trunk diameter.

The TPZ, listed as recommended limits of disturbance (RLOD) in the table of trees (Appendix F), is the distance from the trunk where no disturbance should occur. This distance is calculated by multiplying the trunk diameter by a TPZ factor. For most trees on site, we applied a TPZ factor of 8. For tree species with a low tolerance to construction damage (katsura, red alder, western redcedar, black cottonwood), and for mature trees greater than 30 inches diameter, we used a factor of 12.

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5 Fite, Kelby and Dr. E. Thomas Smiley. Best Management Practices: Managing Trees During Construction, Second Edition. Champaign, IL: International Society of Arboriculture (ISA), 2016

In our experience, this factor can be reduced depending on site conditions, proposed work, and tree protection measures that are implemented. The attached table also includes the Minimum Limits of Allowable Disturbance (MLOD) for retained trees, which was determined by multiplying the trunk diameter by a factor of 5. If the RLOD cannot be met on all sides, a reduced tree protection distance equivalent to the MLOD may be reduced on one side of the tree on a case-by-case basis. As necessary, the RLOD for individual trees may be reduced further if determined that the type of work will not be detrimental to the long-term survivability of the tree.

Based on the City Code (MICC 19.10.080(B)) the city arborist may approve construction related activity of work within the tree protection barriers (LOD) if the city arborist concludes:

1. That such activity of work will not threaten the long-term health of the retained tree(s); and,
2. That such activity of work complies with the protective methods and best building practices established by the International Society of Arboriculture

Tree protection measures should include limiting over-excavation by marking the trench width on the pavement prior to digging, using small equipment (as available) with a narrow flat front bucket, and having someone on the ground spotting for roots greater than two (2) inches diameter.

Alternative trenching methods may need to be considered if a significant root mass is uncovered, i.e. air/hydro excavation or directional boring, depending on the proposed construction. At this time, no proposed construction techniques would allow for these alternatives.

While not required specifically by WSDOT or COMI, MICC states that best management practices should be followed for tree protection. Appendix D includes an abbreviated list of tree protection specifications that should be included, at a minimum, in the project specifications.

REFERENCES

ANSI A300 (Part 1) – 2017 American National Standards Institute. American National Standard for Tree Care Operations: Tree, Shrub, and Other Woody Plant Maintenance: Standard Practices (Pruning). New York: Tree Care Industry Association, 2017.

ANSI Z60.1-2014 -- American Standard for Nursery Stock.

Fite, Kelby and Dr. E. Thomas Smiley. Best Management Practices: Managing Trees During Construction, Second Edition. Champaign, IL: International Society of Arboriculture (ISA), 2016.

Matheny, Nelda and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees During Land Development. Champaign, IL: International Society of Arboriculture, 1998.

Mercer Island Municipal Code 19.16.010 Definitions

Mercer Island Municipal Code 19.10.070 Tree Replacement

Mercer Island Municipal Code 19.10.080 Tree Protection Standards

Oregon State University. Tree Protection on Construction and Development Sites: A Best Management Practices Guidebook for the Pacific Northwest. 2009.

WSDOT Roadside Policy Manual M3110.03, Chapter 2. August 2015

Appendix A. Methods

A. METHODS

I evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to reinforce weak areas, while depriving less stressed parts (Mattheck & Breloer 1994). An understanding of the uniform stress allows me to make informed judgments about the condition of a tree.

I measured the diameter at standard height (DSH) of each tree, typically at 54 inches above grade.

If a tree had multiple stems, I measured each stem individually at standard height and determined a single-stem equivalent diameter by using the method defined in the Guide for Plant Appraisal, 9th Edition.

Tree health considers crown indicators including foliar density, size, color, stem shoot extensions, decay, and damage. Tree structure considers tree form. We have adapted our ratings based on the Purdue University Extension Formula Values both conditions. These values are a general representation used to assist arborists in assigning ratings. For clarity, I assigned a condition rating separately for tree health and tree structure.

Excellent

Perfect specimen with excellent form and vigor, well-balanced crown. Normal to exceeding shoot length on new growth. Leaf size and color normal. Trunk is sound and solid. Root zone undisturbed. No apparent pest problems. Long safe useful life expectancy for the species.

Good

Imperfect canopy density in few parts of the tree, up to 10 percent of the canopy. Normal to less than ¾ of typical growth rate of shoots and minor deficiency in typical leaf development. Few pest issues or damage, and if they exist they are controllable, or tree is reacting appropriately. Normal branch and stem development with healthy growth. Safe useful life expectancy typical for the species.

Fair

Crown decline and dieback up to 30 percent of the canopy. Leaf color is somewhat chlorotic/necrotic with smaller leaves and “off” coloration. Shoot extensions indicate some stunting and stressed growing conditions. Stress cone crop is clearly visible. Obvious signs of pest problems contributing to a lesser condition. Control might be possible. I found some decay areas in the main stem and branches. Below average safe useful life expectancy

Poor

Lacking full crown, more than 50 percent decline and dieback, especially affecting larger branches. Stunting of shoots is obvious with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe and uncontrollable. Extensive decay or hollows in branches and trunk. Short safe useful life expectancy.

Tree health condition ratings have been adapted from the Purdue University Extension bulletin FNR-473-W - Tree Appraisal

Appendix B. Tree Size Specifications for Planting

B. Tree Size Specifications for Planting

Table 7. Specifications for Type 1 Shade Trees

Trunk Caliper (inches)	Avg Tree Height on Standard Trees (feet)	Min. Root Ball Diameter (inches)	Container Class (gallons)
1/2"	4-5'	12"	#2/3/5
5/8"	5-6'	13"	#3/5/7
3/4"	6-8'	14"	#5/7/10
1"	8-10'	16"	#7/10/15
1 ¼"	8-10'	18"	#10/15/20
1 ½"	10-12'	20"	#15/20/25
1 ¾"	10-12'	22"	#15/20/25/45

Adapted from table 3 in American Standard for Nursery Stock (ANSI Z60.1-2014). (*Acer rubrum, Liriodendron tulipifera, Quercus palustris, Zelkova serrata,* etc.)
For new plants, trunk caliper (diameter) is measured 6 inches from the ground.
Smallest container class should be used for replacement calculations.

Table 8. Specifications for Shrub form and multi-stem trees (spreading habit)

Avg Tree Height on Standard Trees (feet)	Trunk Caliper (inches)	Minimum Root Ball Diameter (inches)	Container Class (gallons)
2'			#2/3
3'			#3/5
4'		24"	#3/5/7
5'		28"	#5/7/10
6'		32"	#7/10/15
7'		36"	#10/15/20
8'		40"	#15/20/25
10'		44"	#20/25/45

Adopted from table 7 in American Standard for Nursery Stock (ANSI Z60.1-2014). Includes *Acer ginnala, Amelanchier spp., Cercidiphyllum spp., Cercis spp., Malus spp*., etc.)
Smallest container class should be used for replacement calculations.

Table 9. Specifications for Type 4 Conifers

Avg Tree Height on Standard Trees (feet)	Trunk Caliper (inches)	Min Root Ball Diameter (inches)	Container Class (gallons)
1'		8"	#1/2
1.25'		10"	#2/3
1.5'		12"	#2/3/5
2'		14"	#3/5/7
2.5'		16"	#3/5/7/10
3'		18"	#5/7/10
4'		20"	#7/10/15
5'		22"	#7/10/15/25
6'		24"	#10/15/25/45

Adapted from table 16 in American Standard for Nursery Stock (ANSI Z60.1-2014). (Includes *Pseudotsuga menziesii, Abies grandis, Cedrus deodara,* etc.)
Smallest container class should be used for replacement calculations.

Appendix C. Mercer Island City Code 19.10.070: Tree Replacements

C. Mercer Island City Code 19.10.070: Tree Replacements

Trees that are cut pursuant to a tree permit shall be replaced as specified in subsections A and B of this section, or a fee in lieu shall be paid as specified in subsection C of this section.

A. Tree Replacement Ratio. Removed trees shall have the following base replacement ratio:

Diameter of removed tree	Qty of replacement trees required (6' conifer / 1.5" cal)
Less than 10 inches	1
10 - 24 inches	2
24 - 36 inches	3
> 36 inches	6
All exceptional trees	6

B. Replacement Trees

1. Location. Replacement trees shall be located in the following order of priority from most important to least important:

a. On-site replacement adjacent to or within critical tree areas as defined in Chapter 19.16 MICC;

b. On-site replacement outside of critical tree areas adjacent to other retained trees making up a grove or stand of trees;

c. On-site replacement outside of critical tree areas; and

d. Off-site in adjacent public right of way where explicitly authorized by the city.

2. Species. Replacement trees shall primarily be those species native to the Pacific Northwest. In making a determination regarding the species of replacement trees, the city arborist shall defer to the species selected by the property owner unless the city arborist determines that the species selected is unlikely to survive for a period of at least 10 years, represents a danger or nuisance, would threaten overhead or underground utilities or would fail to provide adequate protection to any critical tree area.

3. Size.

a. Coniferous trees shall be at least six feet tall; and

b. Deciduous trees shall be at least 1.5 inches in caliper.

The city arborist may authorize the planting of smaller-sized replacement trees if the applicant can demonstrate that smaller trees are more suited to the species, the site conditions, neighborhood

character, and the purposes of this section, and that such replacement trees will be planted in sufficient quantities to meet the intent of this section. The city arborist shall not authorize the planting of shrubs or bushes in lieu of required replacement trees.

4. Reduction. The city arborist may reduce the number of replacement trees as follows, where other measures designed to mitigate the tree loss by restoring the tree canopy coverage and its associated benefits are considered to be effective and consistent with the purposes of this chapter. The city arborist may consider, but is not limited to, the following measures:

a. Replacement of hazardous, undesired, or short-lived trees with healthy new trees that have a greater chance of long-term survival;

b. Restoration of critical tree areas with native vegetation; and

c. Protection of small trees to provide for successional stages of tree canopy.

5. Timing. Replacement trees shall be planted in the wet season (October 1 through April 1), following the applicable tree removal or, in the case of a development proposal, completion of the development work, provided the city arborist may authorize an extension to ensure optimal planting conditions for tree survival.

C. Fee-in-Lieu. If the city determines there is insufficient area to replant on the site or within the adjacent public right of way, the city arborist may authorize payment of a fee-in-lieu provided:

1. There is insufficient area on the lot or adjacent right of way for proposed on-site tree replacement to meet the tree replacement requirements of this chapter; or

2. Tree replacement or management provided within public right of way or a city park in the vicinity will be of greater benefit to the community.

3. Fees provided in lieu of on-site tree replacement shall be determined based upon:

a. The expected tree replacement cost including labor, materials, and maintenance for each replacement tree; and

b. The most current Council of Tree and Landscaper Appraisers Guide for Plant Appraisal.

4. Any fee-in-lieu is also optional for the applicant and requires an explicit written agreement.

D. Maintenance of Replacement Trees. The applicant shall maintain all replacement trees in a healthy condition for a period of five years after planting. The applicant shall be obligated to replant any replacement tree that dies, becomes diseased, or is removed during this five-year time period

Appendix D. Tree Protection Specifications

D. TREE PROTECTION SPECIFICATIONS

Tree protection specifications are based on best management practices as outlined by ISA[6]. This list is a partial list of protection specifications that should be incorporated into the project specifications:

Tree Protection Fencing: All trees planned for retention or on neighboring properties that overhang the site shall be protected for the entire duration of the construction project. Tree protection fencing shall consist of 6-foot tall chain link fencing installed at the extent of the tree protection area. Where trees are being retained as a group the fencing should encompass the entire area.

Signage: Fencing should also have clear, large signage noting that fencing cannot be moved without an arborist present.

Soil Protection: No parking, materials storage, or dumping (including excavated soils) are allowed within the tree protection area. Any heavy machinery should remain outside of the protection area unless soils are protected from the load. Acceptable methods of soil protection include applying 1-inch plywood over 3 to 4 inches of wood chip mulch, steel plates, or use of Alturna mats (or equivalent product).

Duff/Mulch: Retain and protect as much of the existing duff and understory as possible. Retained trees in areas where there are exposed soils shall have 4 to 6 inches of wood chips applied to help prevent water evaporation and compaction. Keep mulch 1 foot away from the base of the tree.

Excavation: Excavation done at or within the tree protection area should be carefully planned to minimize disturbance. Where feasible consider using alternative methods such as pneumatic excavation which uses pressurized air to blow soil away from the root system, directional drilling to bore utility lines, or hand excavation to expose roots. Excavation done with machinery (backhoe) in proximity of trees should be performed slowly with flat front buckets, removing small amounts of soil at a time with one person on the ground spotting for roots. When roots are encountered, excavation should stop, and roots should be cleanly pruned as needed so they are not ripped or torn.

Root Pruning: Root pruning should be limited to the extent possible. All roots shall be pruned with a sharp saw making clean cuts. Avoid fracturing and breaking roots with excavation equipment. Root cuts shall be immediately covered with soil or mulch and kept moist.

Irrigation: Retained trees will require supplemental water if construction occurs during summer drought periods.

Pruning: Any pruning required for construction and safety clearance shall be done with a pruning specification provided by the project arborist in accordance with American National Standards Institute ANSI A300 Standard Practices for Pruning. Use of an arborist with an International Society of Arboriculture Certification to perform pruning is strongly advised

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6 Fite, Kelby and Dr. E. Thomas Smiley. Best Management Practices Managing Trees During Construction, Second Edition. Champaign, IL: International Society of Arboriculture, 2016.

Appendix E. Assumptions & Limiting Conditions

E. ASSUMPTIONS & LIMITING CONDITIONS

1. Consultant has agreed to undertake Services on the subject Site. Consultant assumes that the Client owns or is the agent for the owner of the Site and that the legal description of the Site provided by the Client is accurate. Consultant assumes that Client has granted a license over, under, upon, and across the Site for the limited purpose of providing Services.

2. Consultant assumes that the Site and its use do not violate, and is in compliance with, any applicable codes, ordinances, statutes or regulations.

3. The Client is responsible for making all relevant records and related information available to the Consultant and for the accuracy and completeness of that information. Consultant may also obtain information from other sources that it considers reliable. Nonetheless, Client is responsible for the accuracy and completeness of that additional information and Consultant assumes no obligation for the accuracy and completeness of that additional information.

4. The Consultant may provide report or recommendation based on published municipal regulations. The Consultant assumes that the municipal regulations published on the date of the report are current municipal regulations and assumes no obligation related to unpublished city regulation information.

5. Any report by Consultant and any values expressed therein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event, or upon any finding to be reported.

6. Ownership of any documents produced passes to the Client only when all fees have been paid.

7. All photographs included in our reports were taken by Tree Solutions, Inc. during the documented Site visit, unless otherwise noted. Sketches, drawings and photographs in any report by Consultant, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.

8. Unless otherwise agreed, (1) information contained in any report by Consultant covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring.

9. Consultant makes no warranty or guarantee, express or implied, that the problems or deficiencies of the plants or Site in question may not arise in the future. Any report is based on the observations and opinions of the authoring arborist, and does not provide guarantees regarding the future performance, health, vigor,

structural stability or safety of the plants described assessed. Neither the Arborist nor Tree Solutions, Inc. has assumed any responsibility for liability associated with the trees on or adjacent to this project site, their future demise and/or any damage which may result therefrom. Any changes to an established tree's environment can cause its decline, death and/or structural failure.

10. Species identification and measurements are subject to typical margins of error, considering the oval or asymmetrical cross-section of most trunks and canopies.

11. Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site's soil should be obtained by a qualified professional if an additional understanding of the site's characteristics is needed to make an informed decision.

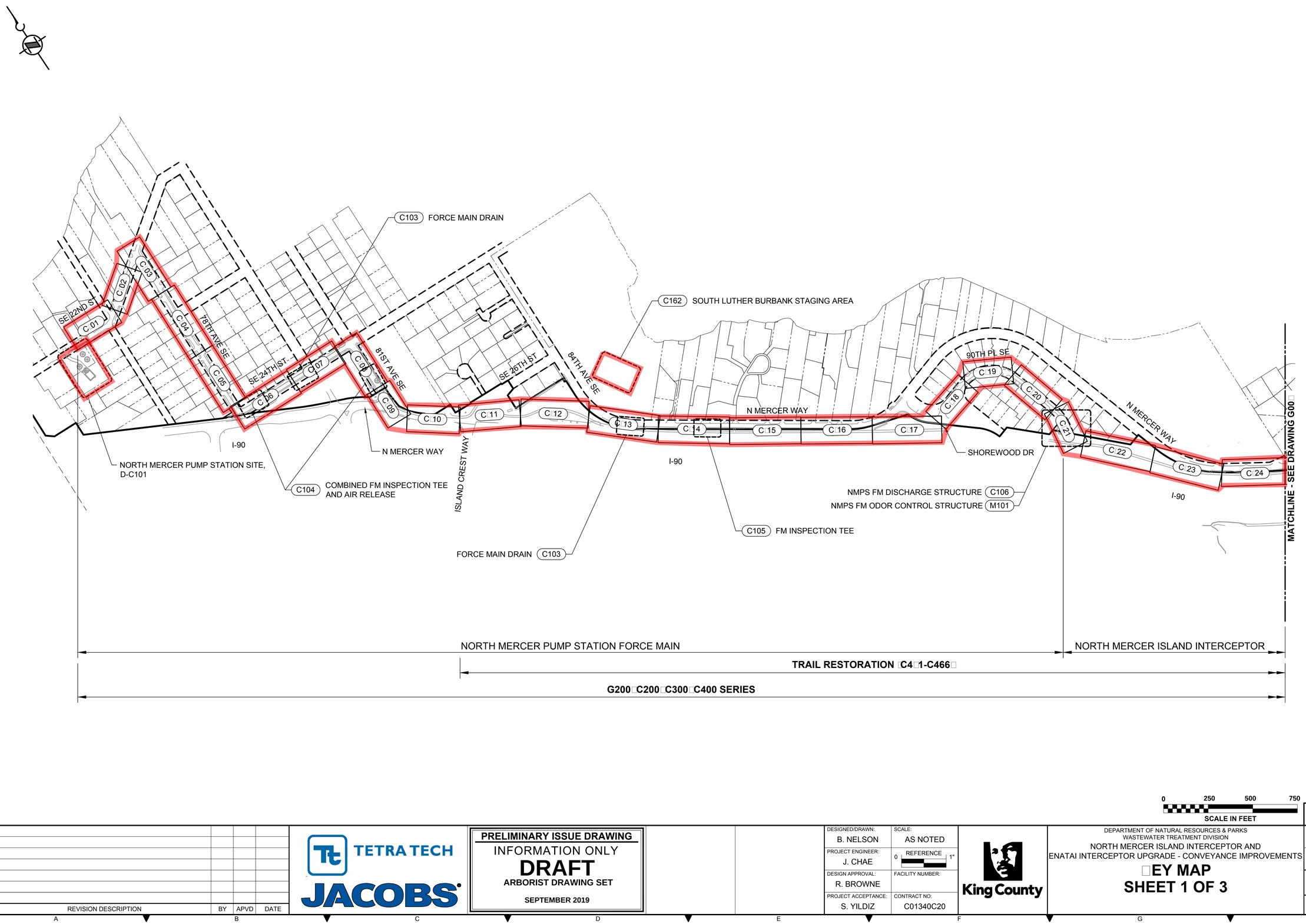
12. Our assessments are made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.

Appendix F. Tree Maps & Tables

F. TREE TABLE & MAPS

See separate key maps, tree maps and spreadsheets. Each drawing is followed by its associated tree table.

Tree maps were produced by Jacobs and Tetra Tech. They are included for reference only and are not construction drawings.



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TETRA TECH
JACOBS

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INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

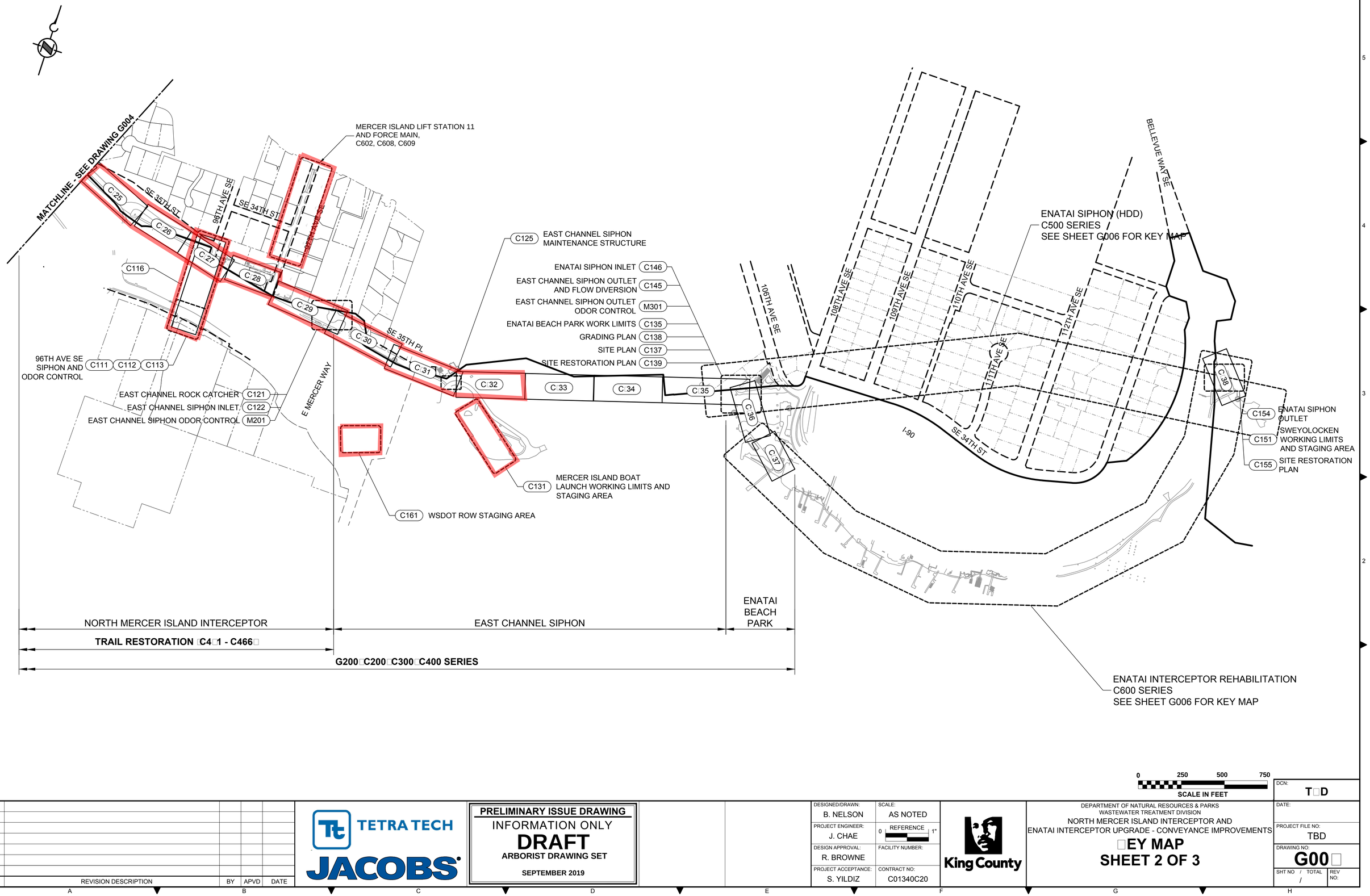
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PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND
ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

KEY MAP
SHEET 1 OF 3

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SHT NO / TOTAL	/
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TETRA TECH
JACOBS

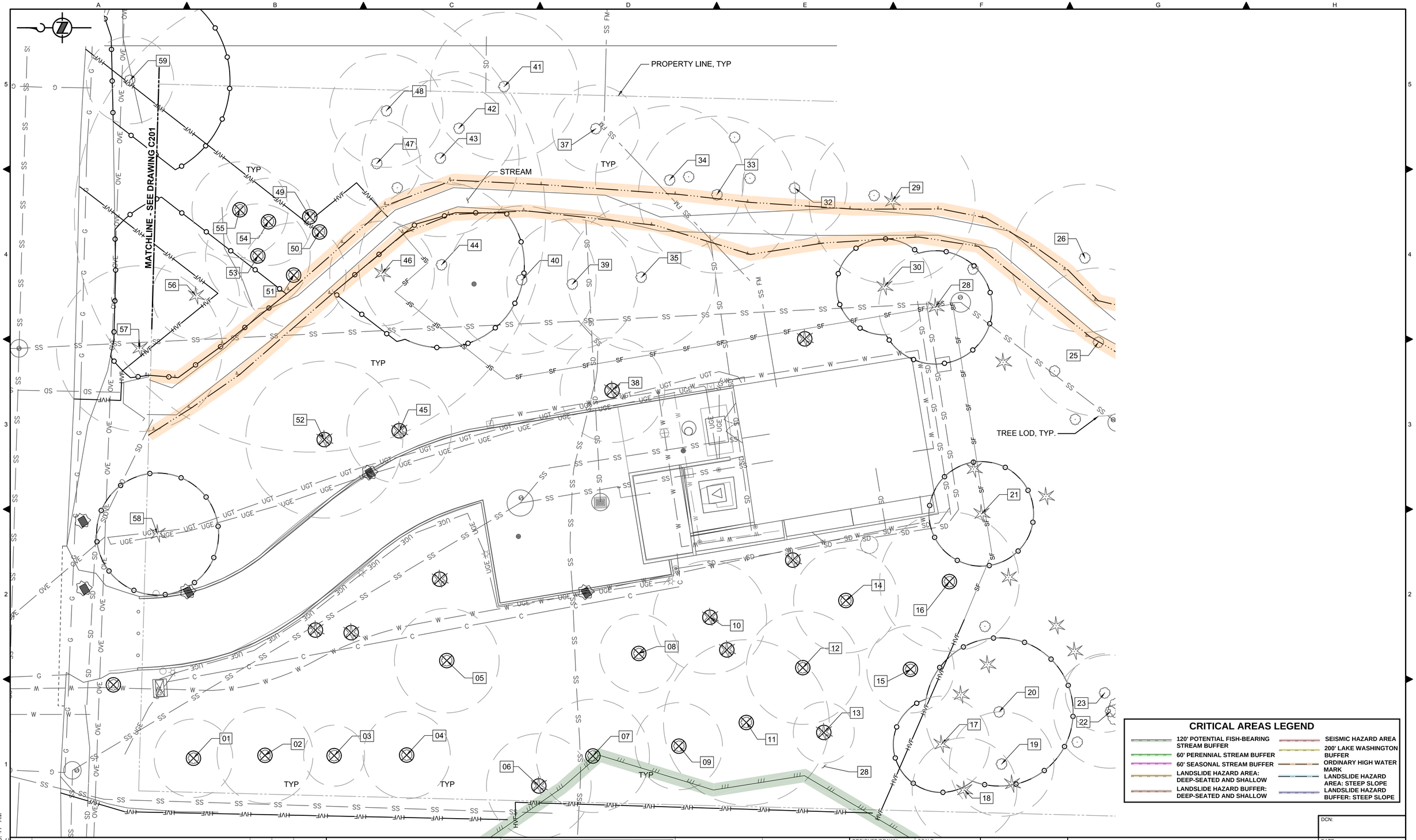
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King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND
ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS
□EY MAP
SHEET 2 OF 3

DCN:	T□D
DATE:	
PROJECT FILE NO:	TBD
DRAWING NO:	G00□
SHT NO / TOTAL	/
REV NO:	



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

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DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER: 333
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01339C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - PUMP STATION IMPROVEMENTS

SITE CIVIL DEMOLITION PLAN

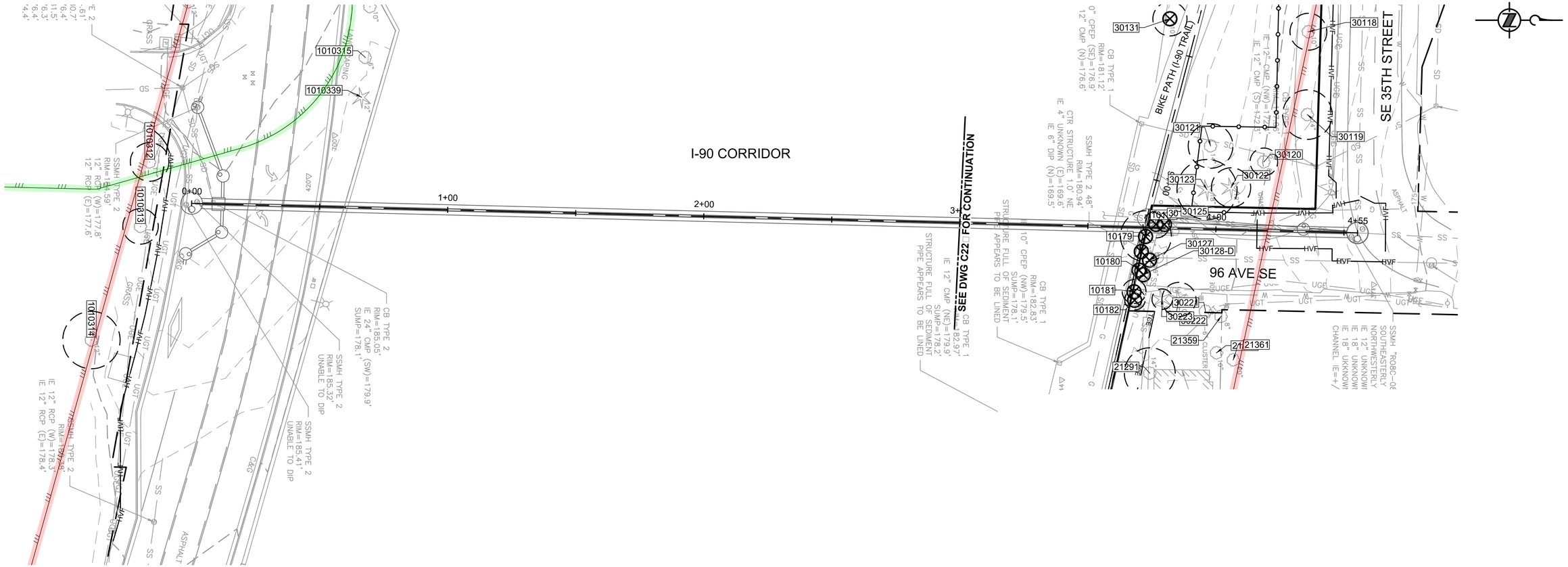
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PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	1	D-C101	*Acer platanoides*	Norway maple	14.0		Good	Good	KC	Large (Regulated) tree >10"	9	6	2		Grading within RLOD
Remove	2	D-C101	*Acer platanoides*	Norway maple	17.2		Good	Good	KC	Large (Regulated) tree >10"	11	7	2		Grading within RLOD
Remove	3	D-C101	*Acer platanoides*	Norway maple	10.5		Good	Good	KC	Large (Regulated) tree >10"	7	4	2		Grading within RLOD
Remove	4	D-C101	*Acer platanoides*	Norway maple	15.0		Good	Good	KC	Large (Regulated) tree >10"	10	6	2		Grading within RLOD
Remove	5	D-C101	*Alnus rubra*	Red alder	12.0		Poor	Poor	KC	Large (Regulated) tree >10"	12	5	2		Grading within RLOD
Remove	6	D-C101	*Thuja plicata*	Western redcedar	12.1		Good	Good	KC	Large (Regulated) tree >10"	12	5	2		Grading within RLOD
Remove	7	D-C101	*Acer platanoides*	Norway maple	20.2		Good	Fair	KC	Large (Regulated) tree >10"	13	8	2		Grading within RLOD
Remove	8	D-C101	*Prunus lusitanica*	Portuguese laurel	14.0		Good	Good	KC	Large (Regulated) tree >10"	9	6	2		Within excavation limits
Remove	9	D-C101	*Acer platanoides*	Norway maple	15.5		Good	Good	KC	Large (Regulated) tree >10"	10	6	2		Excavation too close
Remove	10	D-C101	*Abies grandis*	Grand fir	19.5		Fair	Good	KC	Large (Regulated) tree >10"	13	8	2		Within excavation limits
Remove	11	D-C101	*Alnus rubra*	Red alder	19.0		Poor	Fair	KC	Large (Regulated) tree >10"	19	8	2		Excavation too close
Remove	12	D-C101	*Alnus rubra*	Red alder	13.4		Fair	Fair	KC	Large (Regulated) tree >10"	13	6	2		Within excavation limits
Remove	13	D-C101	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	KC	Large (Regulated) tree >10"	7	4	2		within limits of re-grading
Remove	14	D-C101	*Alnus rubra*	Red alder	12.0		Fair	Fair	KC	Large (Regulated) tree >10"	12	5	2		Within excavation limits
Remove	15	D-C101	*Alnus rubra*	Red alder	10.0		Poor	Fair	KC	Exceptional - Grove	10	4	6		Excavation too close
Remove	16	D-C101	*Alnus rubra*	Red alder	15.5		Good	Good	KC	Large (Regulated) tree >10"	16	6	2		Excavation too close
Protect	17	D-C101	*Thuja plicata*	Western redcedar	17.0		Good	Good	KC	Exceptional - Grove	17	7	6	TBD	
Protect	18	D-C101	*Thuja plicata*	Western redcedar	11.5		Good	Good	KC	Exceptional - Grove	12	5	6	TBD	
Protect	19	D-C101	*Acer macrophyllum*	Bigleaf maple	18.2		Good	Fair	KC	Exceptional - Grove	12	8	6	TBD	
Protect	20	D-C101	*Acer macrophyllum*	Bigleaf maple	25.5	16.5,19.5	Good	Fair	KC	Exceptional - Grove	17	11	6	TBD	
Protect*	21	D-C101	*Abies grandis*	Grand fir	18.2		Good	Fair	KC	Exceptional - Grove	12	8	6	TBD	
Protect	22	D-C101	*Acer macrophyllum*	Bigleaf maple	19.8	14.4,13.6	Fair	Fair	KC	Exceptional - Grove	13	8	6	TBD	
Protect	23	D-C101	*Acer macrophyllum*	Bigleaf maple	14.0		Fair	Fair	KC	Exceptional - Grove	9	6	6	TBD	
Unimpacted	24	D-C101	*Acer macrophyllum*	Bigleaf maple	18.1		Good	Fair	KC	Exceptional - Grove	12	8	6		
Protect	25	D-C101	*Alnus rubra*	Red alder	17.0		Good	Good	KC	Exceptional - Grove	17	7	6	TBD	
Protect	26	D-C101	*Alnus rubra*	Red alder	17.0		Fair	Fair	KC	Exceptional - Grove	17	7	6	TBD	
Unimpacted	27	D-C101	*Populus trichocarpa*	Black cottonwood	78.1	60, 50	Good	Fair	KC	Exceptional	78	33	6		
Protect*	28	D-C101	*Abies grandis*	Grand fir	20.0		Good	Good	KC	Exceptional - Grove	13	8	6	TBD	
Protect	29	D-C101	*Alnus rubra*	Red alder	19.0		Good	Fair	KC	Exceptional - Grove	19	8	6	TBD	
Protect	30	D-C101	*Abies grandis*	Grand fir	16.1		Good	Good	KC	Exceptional - Grove	11	7	6	TBD	
Unimpacted	31	D-C101	*Acer macrophyllum*	Bigleaf maple	10.5		Good	Fair	KC	Exceptional - Grove	7	4	6		
Protect	32	D-C101	*Alnus rubra*	Red alder	12.0		Fair	Fair	KC	Exceptional - Grove	12	5	6	TBD	
Protect	33	D-C101	*Alnus rubra*	Red alder	17.6	16.5, 6	Fair	Poor	KC	Exceptional - Grove	18	7	6	TBD	
Protect	34	D-C101	*Alnus rubra*	Red alder	17.0		Fair	Fair	KC	Exceptional - Grove	17	7	6	TBD	
Protect	35	D-C101	*Alnus rubra*	Red alder	17.1		Good	Good	KC	Exceptional - Grove	17	7	6	TBD	
Unimpacted	36	D-C101	*Thuja plicata*	Western redcedar	11.8		Fair	Good	PRIVATE	Exceptional - Grove	12	5	6		
Protect	37	D-C101	*Fraxinus latifolia*	Ash	14.4		Good	Good	KC	Exceptional - Grove	10	6	6	TBD	
Remove	38	D-C101	*Abies grandis*	Grand fir	17.3		Good	Good	KC	Large (Regulated) tree >10"	12	7	2		Excavation too close
Protect	39	D-C101	*Alnus rubra*	Red alder	14.8		Good	Good	KC	Exceptional - Grove	15	6	6	TBD	
Protect	40	D-C101	*Alnus rubra*	Red alder	16.6		Good	Good	KC	Exceptional - Grove	17	7	6	TBD	
Protect	41	D-C101	*Alnus rubra*	Red alder	16.6		Good	Good	PRIVATE	Exceptional - Grove	17	7	6	TBD	
Protect	42	D-C101	*Alnus rubra*	Red alder	13.1		Good	Good	KC	Exceptional - Grove	13	5	6	TBD	
Protect	43	D-C101	*Alnus rubra*	Red alder	17.5		Good	Good	KC	Exceptional - Grove	18	7	6	TBD	
Protect	44	D-C101	*Alnus rubra*	Red alder	19.1		Good	Fair	KC	Exceptional - Grove	19	8	6	TBD	
Remove	45	D-C101	*Abies grandis*	Grand fir	18.7		Good	Good	KC	Large (Regulated) tree >10"	12	8	2		Excavation too close
Protect	46	D-C101	*Thuja plicata*	Western redcedar	18.0		Good	Good	KC	Exceptional - Grove	18	8	6	TBD	
Protect	47	D-C101	*Alnus rubra*	Red alder	10.0		Good	Fair	KC	Exceptional - Grove	10	4	6	TBD	
Protect	48	D-C101	*Alnus rubra*	Red alder	13.0		Good	Fair	KC	Exceptional - Grove	13	5	6	TBD	
n/a	49	D-C101	*Populus trichocarpa*	Black cottonwood	0 (see #11386 / #50)		n/a	n/a	n/a		n/a	n/a	0		
Remove	50	D-C101	*Populus trichocarpa*	Black cottonwood	53.6	41.5, 34	Fair	Fair	KC	Exceptional	54	22	6		Excavation too close
Remove	51	D-C101	*Alnus rubra*	Red alder	12.0		Fair	Fair	KC	Exceptional - Grove	12	5	6		Within excavation limits
Remove	52	D-C101	*Abies grandis*	Grand fir	26.5		Good	Good	KC	Exceptional	18	11	6		Construction access
Remove	53	D-C101	*Alnus rubra*	Red alder	12.2		Fair	Fair	KC	Exceptional - Grove	12	5	6		Within excavation limits
Remove	54	D-C101	*Alnus rubra*	Red alder	10.3		Fair	Fair	KC	Exceptional - Grove	10	4	6		Excavation too close
Remove	55	D-C101	*Alnus rubra*	Red alder	10.5		Fair	Fair	KC	Exceptional - Grove	11	4	6		Within excavation limits
Protect	56	D-C101	*Thuja plicata*	Western redcedar	23.2		Good	Good	KC	Exceptional - Grove	23	10	6	TBD	
Protect	57	D-C101	*Thuja plicata*	Western redcedar	18.5		Good	Fair	COMI	Exceptional - Grove	19	8	6	TBD	
Protect	58	D-C101	*Abies grandis*	Grand fir	20.7		Good	Good	KC	Large (Regulated) tree >10"	14	9	2	TBD	
Protect	11363	D-C101	*Fraxinus latifolia*	Oregon ash	9.4	8,5	Fair	Fair	KC	<10"	6	4	0	TBD	
Remove	11560	D-C101	*Calocedrus decurrens*	Incense cedar	8.2		Fair	Good	KC	<10"	5	3	0		within limits of re-grading
Remove	11562	D-C101	*Calocedrus decurrens*	Incense cedar	4.4		Good	Fair	KC	<10"	3	2	0		within limits of re-grading
Remove	11563	D-C101	*Calocedrus decurrens*	Incense cedar	5.7	5.3,2	Good	Good	KC	<10"	4	2	0		within limits of re-grading
Remove	11640	D-C101	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	<4		Good	Good	KC	<10"	0	0	0		Excavation too close
Unimpacted	11706	D-C101	*Dead*	Dead -- snag	0.0		Dead	Snag	KC	Dead -- snag	0	0	0		
Remove	11720	D-C101	*Thuja plicata*	Western redcedar	8.0		Good	Good	KC	<10"	8	3	0		Within excavation limits
Remove	19712	D-C101	*Fraxinus americana*	White ash	3.9		Good	Good	COMI	<6"	3	2	0		Grading within RLOD
Unimpacted	19755	D-C101	*Populus trichocarpa*	Black cottonwood	0 (see #11681)		n/a	n/a	PRIVATE		n/a	n/a	0		

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C116.dwg
PLOT DATE: 8/2/2019 8:49 AM
PLOTTED BY: D'Auria, Isaac

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR
UPGRADE - CONVEYANCE IMPROVEMENTS

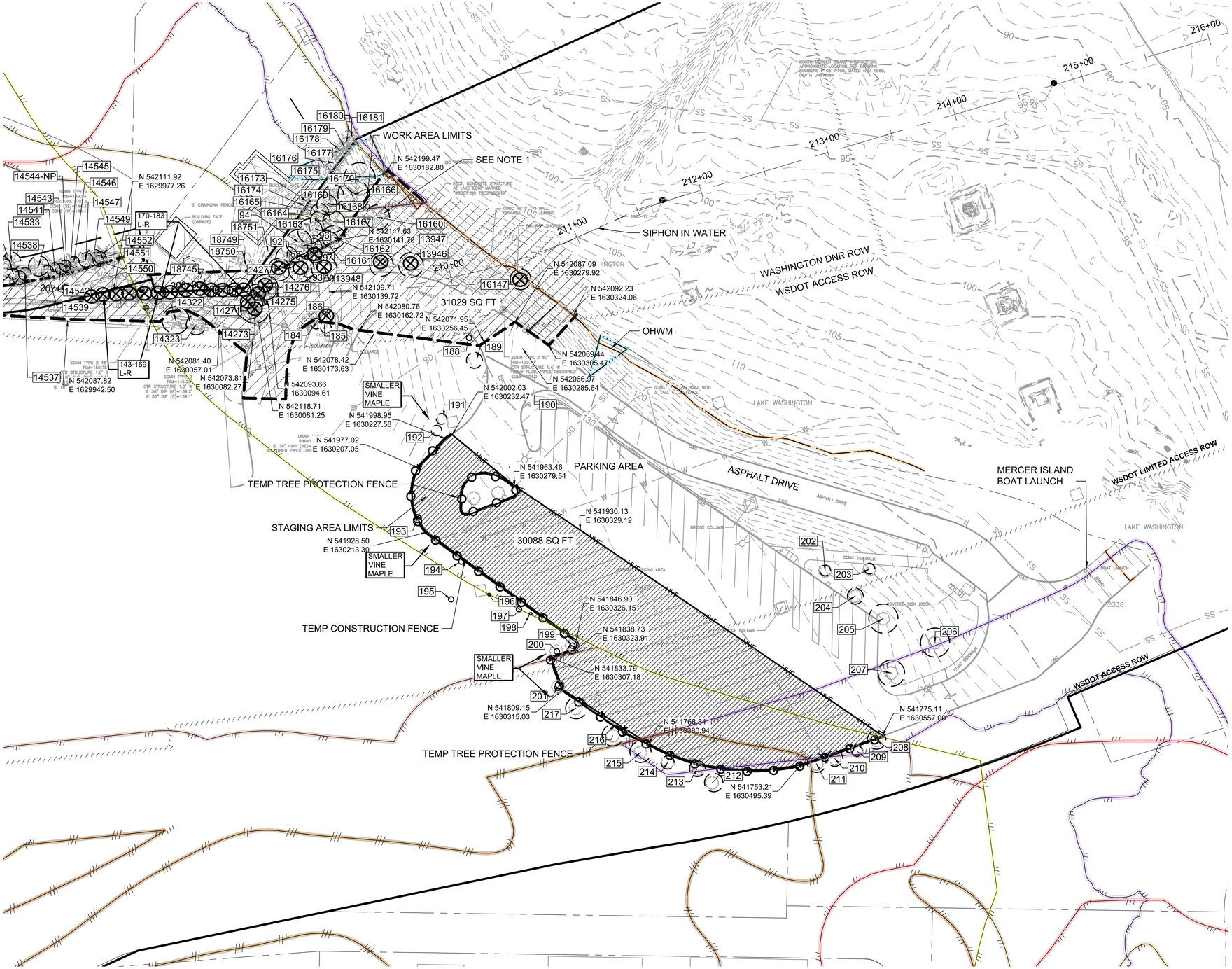
96TH AVE SE SIPHON SITE PREPARATION

DCN: T□D	
DATE:	
PROJECT FILE NO: TBD	
DRAWING NO: C116	
SHT NO / TOTAL /	REV NO:

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	1010312	C116	*Fraxinus latifolia*	Oregon ash	11.3		Good	Good	COMI	10"-24"	8	5	2	TBD	
Protect	1010313	C116	*Fraxinus latifolia*	Oregon ash	10.4		Good	Good	COMI	10"-24"	7	4	2	TBD	
Protect	1010314	C116	*Cornus mas*	Cornelian cherry	16.8		Good	Good	COMI	10"-24"	11	7	2	TBD	

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RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



NOTES:

1. SEE C231 AND C232 FOR SITE PREPARATION ALONG SIPHON PIPELINE.
2. ANY STAGING OUTSIDE OF THE AREA SHOWN WILL BE CONTRACTOR'S RESPONSIBILITY TO NEGOTIATE AND SECURE ADDITIONAL AREA.
3. MAINTAIN ACCESS TO BOAT LAUNCH AND PARKING STALLS NOT IN STAGING AREA.
4. LEAVE EITHER EAST OR WEST HALF OF CHANNEL OPEN TO BOAT TRAFFIC AT ALL TIMES DURING CONSTRUCTION.

CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 40 80 120
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: D. SCOTT	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER: TBD
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND
ENATAI INTERCEPTOR UPGRADE

MERCER ISLAND BOAT LAUNCH WORK LIMITS & STAGING PLAN

DCN:	TBD
DATE:	
PROJECT FILE NO:	TBD
DRAWING NO:	C131
SHT NO / TOTAL	/
REV NO:	

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: O:\Projects\Seattle\12539\200-12539-18001\CAD\SheetFiles\Mercer Island-LUP\Arborist report drawings\E00306E13-PIPE-C131.dwg
PLOT DATE: 9/26/2019 2:25 PM
PLOTTED BY: Morris, Richard

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	184	C131	*Acer circinatum*	Vine maple	5.8	3.5, 3.0, 2.5, 2.5	Good	Good	WSDOT	Category 2	4	2	6	TBD	
Protect	185	C131	*Acer circinatum*	Vine maple	6.4	4.0, 4.0, 3.0	Good	Good	WSDOT	Category 2	4	3	7	TBD	
Protect	187	C131	*Acer circinatum*	Vine maple	4.5	3.0, 2.5, 1.0, 1.5, 1.25	Good	Good	WSDOT	Category 2	3	2	5	TBD	
Protect	188	C131	*Acer circinatum*	Vine maple	2.7	1.5, 1.5, 1.0, 1.0, 1.0	Good	Good	WSDOT	Category 3	2	1	n/a	TBD	
Protect	189	C131	*Acer circinatum*	Vine maple	8.4	4.5, 4.5, 4.5, 3.0	Good	Good	WSDOT	Category 2	6	3	9	TBD	
Protect	190	C131	*Acer circinatum*	Vine maple	2.3	1.5, 1.0, 1.0, 1.0	Fair	Fair	WSDOT	Category 3	2	1	n/a	TBD	
Protect	191	C131	*Acer circinatum*	Vine maple	5.3	2.5, 2.5, 2.0, 2.0, 1.5, 1.5, 1.5, 1	Good	Good	WSDOT	Category 2	4	2	6	Chainlink fencing at curb edge	
Protect	192	C131	*Acer circinatum*	Vine maple	6.1	3.5, 3.5, 3.5, 1.0	Good	Good	WSDOT	Category 2	4	3	7	Chainlink fencing at curb edge	
Protect	193	C131	*Acer circinatum*	Vine maple	4.1	1.5, 2.0, 2.5, 2.0	Good	Good	WSDOT	Category 2	3	2	5	Chainlink fencing at curb edge	
Protect	194	C131	*Acer circinatum*	Vine maple	3.1	2.5, 1.0, 1.5	Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fencing at curb edge	
Protect	195	C131	*Acer circinatum*	Vine maple	3.7	2.5, 2.0, 1.5, 1.0	Good	Good	WSDOT	Category 3	2	2	n/a	Chainlink fencing at curb edge	
Protect	196	C131	*Acer circinatum*	Vine maple	2.1	1.5, 1.0, 1.0, .5	Good	Good	WSDOT	Category 3	1	1	n/a	Chainlink fencing at curb edge	
Protect	197	C131	*Acer circinatum*	Vine maple	3.6	1.5, 1.5, 1.0, 1.0, 1.0, 1.0, 1.0, 1.5	Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fencing at curb edge	
Protect	198	C131	*Acer circinatum*	Vine maple	2.2	1.5, 1.0, 1.2	Good	Good	WSDOT	Category 3	1	1	n/a	Chainlink fencing at curb edge	
Protect	199	C131	*Acer circinatum*	Vine maple	2.9	2.0, 1.5, 1.5	Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fencing at curb edge	
Protect	200	C131	*Acer circinatum*	Vine maple	3.4	1.5, 1.2, 1.2, 1.2, 1.0, 1.0, 1.0, 1.0, 1.0	Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fencing at curb edge	
Protect	201	C131	*Acer circinatum*	Vine maple	4.0	2.5, 1.5, 1.5, 1.5, 1.0, 1.0, 1.0	Good	Good	WSDOT	Category 2	3	2	4	Chainlink fencing at curb edge	
Protect	202	C131	*Acer circinatum*	Vine maple	6.7	3.5, 3.0, 3.0, 2.5, 2.8	Good	Good	WSDOT	Category 2	4	3	7	TBD	
Protect	203	C131	*Acer circinatum*	Vine maple	6.0	3.5, 3.0, 3.0, 2.5	Good	Good	WSDOT	Category 2	4	3	7	TBD	
Protect	204	C131	*Acer circinatum*	Vine maple	9.0	4.0, 3.5, 3.0, 3.0, 2.5, 2.5, 2.0, 2.5, 3.5	Good	Good	WSDOT	Category 2	6	4	10	TBD	
Protect	205	C131	*Acer platanoides*	Norway maple	16.5		Good	Good	WSDOT	Category 2	11	7	17	TBD	
Protect	206	C131	*Acer platanoides*	Norway maple	17.0		Good	Good	WSDOT	Category 2	11	7	17	TBD	
Protect	207	C131	*Acer platanoides*	Norway maple	15.0		Good	Good	WSDOT	Category 2	10	6	15	TBD	
Protect	208	C131	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Category 2	7	5	11	Chainlink fencing at curb edge	
Protect	209	C131	*Acer platanoides*	Norway maple	6.0		Good	Good	WSDOT	Category 2	4	3	6	Chainlink fencing at curb edge	
Protect	210	C131	*Acer platanoides*	Norway maple	9.5		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fencing at curb edge	
Protect	211	C131	*Acer platanoides*	Norway maple	10.2		Good	Good	WSDOT	Category 2	7	4	11	Chainlink fencing at curb edge	
Protect	212	C131	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10	Chainlink fencing at curb edge	
Protect	213	C131	*Pseudotsuga menziesii*	Douglas-fir	9.0		Good	Good	WSDOT	Category 2	6	4	9	Chainlink fencing at curb edge	
Protect	214	C131	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fencing at curb edge	
Protect	215	C131	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fencing at curb edge	
Protect	216	C131	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fencing at curb edge	
Protect	217	C131	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fencing at curb edge	

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RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 80 160
SCALE IN FEET

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C161.dwg
PLOT DATE: 8/2/2019 8:50 AM
PLOTTED BY: D'Auria, Isaac

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: 1" = 40'
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

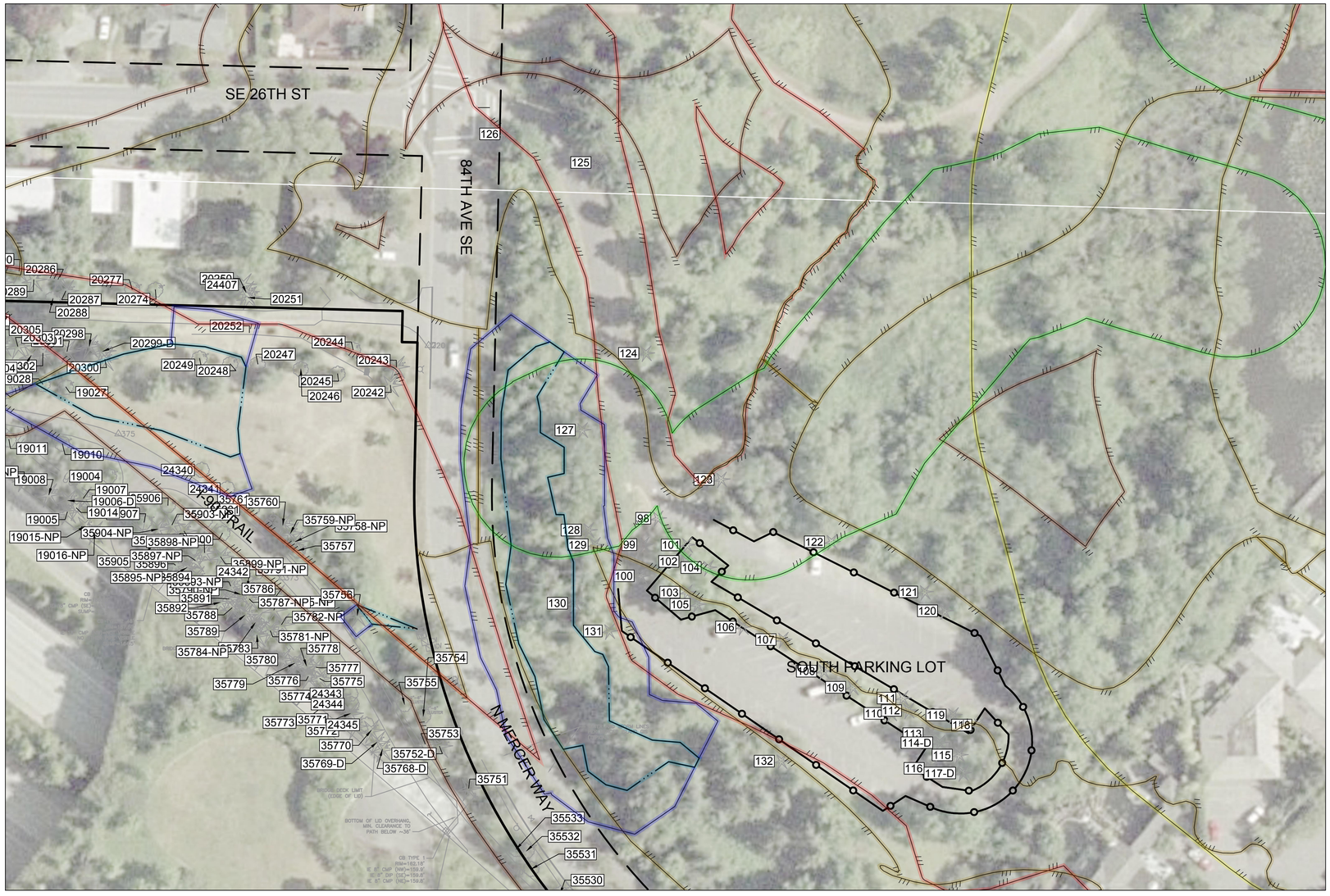
OFF SITE STAGING AREA EAST MERCER WAY

DCN: TBD
DATE:
PROJECT FILE NO: TBD
DRAWING NO: C161
SHT NO / TOTAL: /
REV NO:

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	24114	C161	*Fraxinus sp.*	Ash	13.0		Good	Good	WSDOT	Street Tree	9	5	1	Chainlink fencing 20 ft from tree	
Protect	24115	C161	*Fraxinus sp.*	Ash	15.0		Good	Good	WSDOT	Street Tree	10	6	1	Chainlink fencing 20 ft from tree	
Protect	24116	C161	*Fraxinus sp.*	Ash	11.0		Good	Good	WSDOT	Street Tree	7	5	1	Chainlink fencing 20 ft from tree	
Protect	24117	C161	*Fraxinus sp.*	Ash	12.0		Good	Good	WSDOT	Street Tree	8	5	1	Chainlink fencing 20 ft from tree	
Protect	24118	C161	*Fraxinus sp.*	Ash	12.5		Good	Good	WSDOT	Street Tree	8	5	1	Chainlink fencing 20 ft from tree	
Protect	24119	C161	*Pseudotsuga menziesii*	Douglas-fir	18.0		Good	Good	WSDOT	Category 2	12	8	18	Chainlink fencing 20 ft from tree	
Protect	24120	C161	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fencing 20 ft from tree	
Protect	24121	C161	*Thuja plicata*	Western redcedar	14.0		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fencing 20 ft from tree	
Protect	24122	C161	*Thuja plicata*	Western redcedar	11.0		Good	Good	WSDOT	Category 2	7	5	11	Chainlink fencing 20 ft from tree	
Protect	24123	C161	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Category 2	7	5	11	Chainlink fencing 20 ft from tree	
Protect	24124	C161	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Category 2	7	5	11	Chainlink fencing 20 ft from tree	
Protect	24125	C161	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fencing 20 ft from tree	
Protect	24126	C161	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13	Chainlink fencing 20 ft from tree	
Protect	24127	C161	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10	Chainlink fencing 20 ft from tree	
Protect	24128	C161	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fencing 20 ft from tree	
Protect	24129	C161	*Pseudotsuga menziesii*	Douglas-fir	15.0		Good	Good	WSDOT	Category 2	10	6	15	Chainlink fencing 20 ft from tree	
Protect	24130	C161	*Acer platanoides*	Norway maple	14.0		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fencing 20 ft from tree	
Protect	24131	C161	*Acer platanoides*	Norway maple	12.2		Good	Good	WSDOT	Category 2	8	5	13	Chainlink fencing 20 ft from tree	
Protect	24132	C161	*Acer platanoides*	Norway maple	8.5		Good	Good	WSDOT	Category 2	6	4	9	Chainlink fencing 20 ft from tree	
Protect	24133	C161	*Acer platanoides*	Norway maple	10.5		Good	Good	WSDOT	Category 2	7	4	11	Chainlink fencing 20 ft from tree	
Protect	24134	C161	*Acer platanoides*	Norway maple	13.0		Good	Good	WSDOT	Category 2	9	5	13	Chainlink fencing 20 ft from tree	

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
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- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 40 80 120
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: 1" □40□
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

OFF SITE STAGING AREA SOUTH LUTHER □UR□AN□ PAR□ING LOT

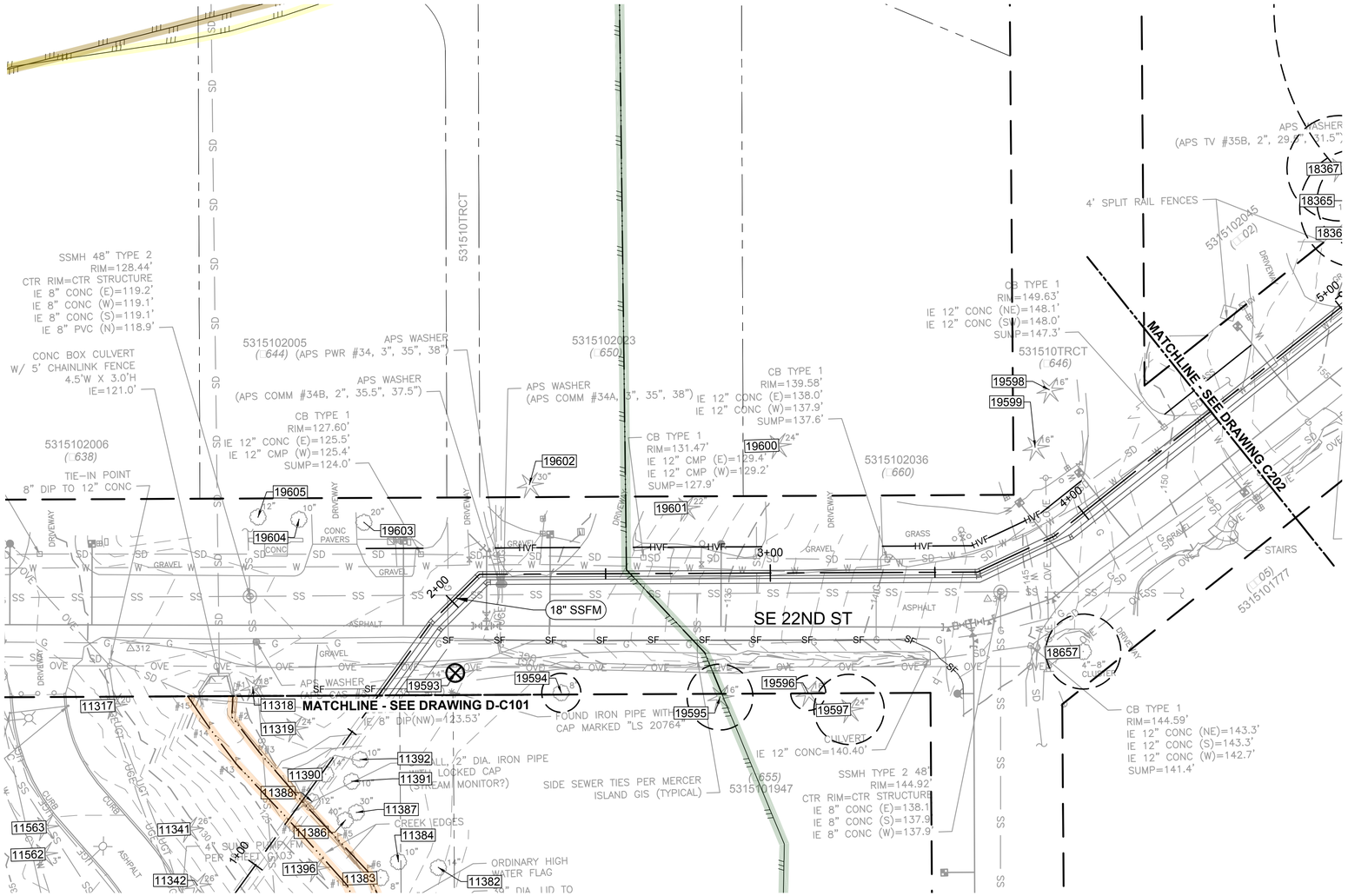
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PROJECT FILE NO: TBD
DRAWING NO: C162
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD_2012_Dsize_TB_Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13_PIPE_C162.dwg
PLOT DATE: 8/2/2019 8:51 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	98	C162	*Quercus rubra*	Red oak	9.6		Good	Good	COMI	6" - 10"	6	4	1	Clearance pruning	
Protect	99	C162	*Quercus rubra*	Red oak	14.3		Good	Good	COMI	10"-24"	10	6	2	Clearance pruning	
Protect	100	C162	*Quercus rubra*	Red oak	9.3		Good	Good	COMI	6" - 10"	6	4	1	TBD	
Protect	101	C162	*Quercus rubra*	Red oak	11.0		Good	Good	COMI	10"-24"	7	5	2	TBD	
Protect	102	C162	*Quercus rubra*	Red oak	8.0		Good	Good	COMI	6" - 10"	5	3	1	TBD	
Protect	103	C162	*Quercus rubra*	Red oak	9.5		Good	Good	COMI	6" - 10"	6	4	1	TBD	
Protect	104	C162	*Quercus rubra*	Red oak	12.5		Good	Good	COMI	10"-24"	8	5	2	TBD	
Protect	105	C162	*Quercus rubra*	Red oak	17.2		Good	Good	COMI	10"-24"	11	7	2	TBD	
Protect	106	C162	*Acer glabrum var. douglasii*	Rocky mountain maple	6.2	2.5, 2.5, 3.9, 3.3	Fair	Fair	COMI	Exceptional	4	3	6	TBD	
Protect	107	C162	*Acer glabrum var. douglasii*	Rocky mountain maple	5.7	4.4, 2.4, 2.7	Fair	Fair	COMI	<6"	4	2	0	TBD	
Protect	108	C162	*Acer macrophyllum*	Bigleaf maple	5.7	3.6, 2.5, 2.5, 2.7	Fair	Fair	COMI	<6"	4	2	0	TBD	
Protect	109	C162	*Acer macrophyllum*	Bigleaf maple	10.5	8.0, 6.8	Fair	Fair	COMI	10"-24"	7	4	2	TBD	
Protect	110	C162	*Acer macrophyllum*	Bigleaf maple	6.3	2.7, 4.0, 4.0	Fair	Fair	COMI	6" - 10"	4	3	1	TBD	
Protect	111	C162	*Acer macrophyllum*	Bigleaf maple	8.2	5.2, 6.3	Fair	Fair	COMI	6" - 10"	5	3	1	TBD	
Protect	112	C162	*Crataegus monogyna*	Common hawthorn	9.3	4.0, 5.0, 4.6, 3.6, 3.5	Fair	Fair	COMI	6" - 10"	6	4	1	TBD	
Protect	113	C162	*Acer macrophyllum*	Bigleaf maple	11.5	8.0, 8.2	Fair	Fair	COMI	10"-24"	8	5	2	TBD	
Protect	114	C162	*Dead*	Dead -- Douglas-fir	15.2		Dead	Dead	COMI	Dead -- snag	0	0	0	TBD	
Protect	115	C162	*Acer macrophyllum*	Bigleaf maple	7.0		Good	Good	COMI	6" - 10"	5	3	1	TBD	
Protect	116	C162	*Pseudotsuga menziesii*	Douglas-fir	11.2		Good	Good	COMI	10"-24"	7	5	2	TBD	
Protect	117	C162	*Dead*	Dead -- Douglas-fir	15.0		Dead	Dead	COMI	Dead -- snag	0	0	0	TBD	
Protect	118	C162	*Pseudotsuga menziesii*	Douglas-fir	14.0		Poor	Good	COMI	10"-24"	9	6	2	TBD	
Protect	119	C162	*Arbutus menziesii*	Pacific madrone	4.5	2.1,4.0	Good	Good	COMI	<6"	3	2	0	TBD	
Protect	120	C162	*Salix sp. (native)*	Willow	18.1	8.0, 10.0, 8.0, 10.0	Fair	Fair	COMI	Exceptional	12	8	6	Clearance pruning	
Protect	121	C162	*Salix sp. (native)*	Willow	10.6	8.0, 7.0,	Fair	Fair	COMI	Exceptional	7	4	6	Clearance pruning	
Protect	122	C162	*Salix sp. (native)*	Willow	10.0		Fair	Fair	COMI	Exceptional	7	4	6	Clearance pruning	
Protect	123	C162	*Betula pendula*	European white birch	13.6	9.6, 9.7	Good	Good	COMI	10"-24"	9	6	2	TBD	
Protect	124	C162	*Fraxinus latifolia*	Oregon ash	11.3		Good	Good	COMI	10"-24"	8	5	2	TBD	
Protect	125	C162	*Pseudotsuga menziesii*	Douglas-fir	15.8		Good	Good	COMI	10"-24"	11	7	2	TBD	
Protect	126	C162	*Acer macrophyllum*	Bigleaf maple	17.9	8.5, 15.7	Good	Good	COMI	10"-24"	12	7	2	TBD	
Protect	127	C162	*Alnus rubra*	Red alder	14.4		Good	Good	COMI	10"-24"	14	6	2	TBD	
Protect	128	C162	*Salix sp. (native)*	Willow	21.3	14.0, 16.0	Fair	Poor	COMI	Exceptional	21	9	6	Clearance pruning	
Protect	129	C162	*Salix sp. (native)*	Willow	17.0	8.0, 9.0, 12.0	Fair	Poor	COMI	Exceptional	17	7	6	Clearance pruning	
Protect	130	C162	*Fraxinus latifolia*	Oregon ash	16.3		Good	Good	COMI	10"-24"	16	7	2	TBD	
Protect	131	C162	*Fraxinus latifolia*	Oregon ash	18.0		Good	Fair	COMI	10"-24"	18	8	2	TBD	
Protect	132	C162	*Crataegus monogyna*	Common hawthorn	10.8	6.0, 6.0, 4.0, 5.0 2.0	Good	Fair	COMI	10"-24"	11	5	2	TBD	

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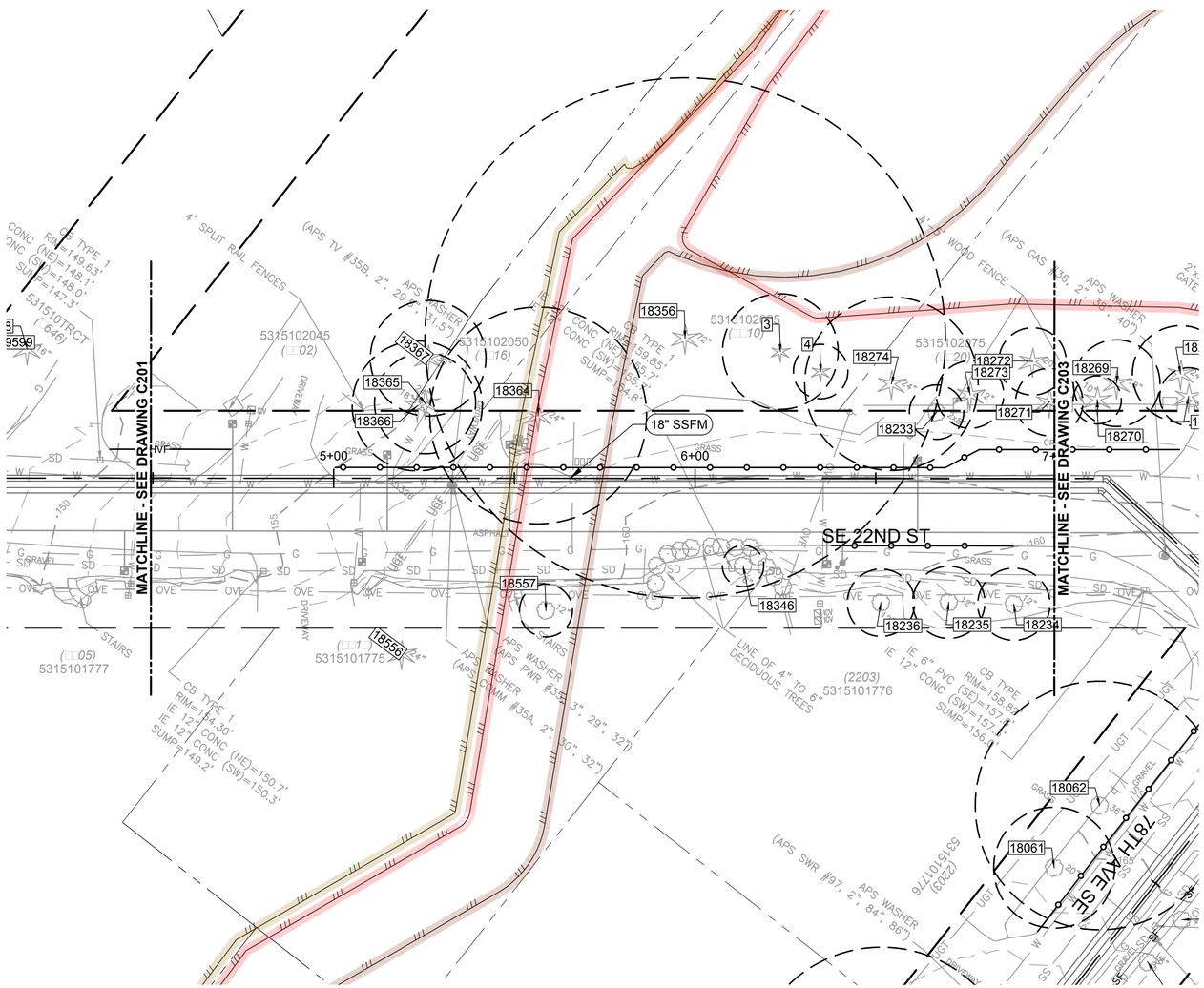
Tree Solutions Inc
Consulting Arborists


SSMH 48" TYPE 2
RIM=128.44'
CTR RIM=CTR STRUCTURE
IE 8" CONC (E)=119.2'
IE 8" CONC (W)=119.1'
IE 8" CONC (S)=119.1'
IE 8" PVC (N)=118.9'
CONC BOX CULVERT
W/ 5' CHAINLINK FENCE
4.5'W X 3.0'H
IE=121.0'
5315102005
(.644)
APS WASHER
(APS PWR #34, 3", 35", 38")
APS WASHER
(APS COMM #34B, 2", 35.5", 37.5")
APS WASHER
(APS COMM #34A, 3", 35", 38")
5315102023
(.650)
5315102006
(.638)
TIE-IN POINT
8" DIP TO 12" CONC
CB TYPE 1
RIM=127.60'
IE 12" CONC (E)=125.5'
IE 12" CMP (W)=125.4'
SUMP=124.0'
CB TYPE 1
RIM=131.47'
IE 12" CMP (E)=129.4'
IE 12" CMP (W)=129.2'
SUMP=127.9'
CB TYPE 1
RIM=139.58'
IE 12" CONC (E)=138.0'
IE 12" CONC (W)=137.9'
SUMP=137.6'
CB TYPE 1
RIM=149.63'
IE 12" CONC (NE)=148.1'
IE 12" CONC (SE)=148.0'
SUMP=147.3'
531510TRCT
(.646)
5315102036
(.660)
531510TRCT
4' SPLIT RAIL FENCES
5315102045
(.602)
APS WASHER
(APS TV #35B, 2", 29.5", 31.5")
MATCHLINE - SEE DRAWING C202
MATCHLINE - SEE DRAWING D-C101
SE 22ND ST
18" SSFM
2+00
3+00
4+00
5+00
19605
19604
19603
19602
19601
19600
19598
19599
19596
19597
19595
19594
19593
18367
18365
18657
11317
11318
11319
11392
11391
11390
11388
11387
11386
11384
11396
11383
11382
11563
11562
11341
11342
CONC PAVERS
GRASS
GRAVEL
ASPHALT
DRIVEWAY
STAIRS
CULVERT
4"-8" CULVERT
FOUND IRON PIPE WITH CAP MARKED "LS 20764"
IE 8" DIP(NW)=123.53'
IE 12" CONC=140.40'
SIDE SEWER TIES PER MERCER ISLAND GIS (TYPICAL)
5315101947
(.655)
SSMH TYPE 2 48"
RIM=144.92'
CTR RIM=CTR STRUCTURE
IE 8" CONC (E)=138.1
IE 8" CONC (S)=137.9
IE 8" CONC (W)=137.9'
CB TYPE 1
RIM=144.59'
IE 12" CONC (NE)=143.3'
IE 12" CONC (S)=143.3'
IE 12" CONC (W)=142.7'
SUMP=141.4'
5315101777
(.705)
CREEK EDGES
ORDINARY HIGH WATER FLAG
4" SURVEY PIN/CAP
PER RECORD 0103
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	18657	C201	*Prunus laurocerasus*	English laurel	17.1	6,7,8,6,7,4,5,3,2,2	Good	Good	COMI	10"-24"	11	7	2		
Remove	19593	C201	*Populus trichocarpa*	Black cottonwood	23.0		Fair	Poor	COMI	10"-24"	23	10	2		Excavation within 8 ft of tree; poor condition
Unimpacted	19594	C201	*Betula pendula*	European white birch	8.9		Good	Good	COMI	6" - 10"	6	4	1		
Unimpacted	19595	C201	*Pseudotsuga menziesii*	Douglas-fir	15.0		Fair	Fair	PRIVATE	Large (Regulated) tree >10"	10	6	2		
Unimpacted	19596	C201	*Picea abies*	Norway spruce	8.0		Poor	Fair	COMI	6" - 10"	5	3	1		
Unimpacted	19597	C201	*Pseudotsuga menziesii*	Douglas-fir	16.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	11	7	2		

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Consulting Arborists



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- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 4+□0 TO STA □+00

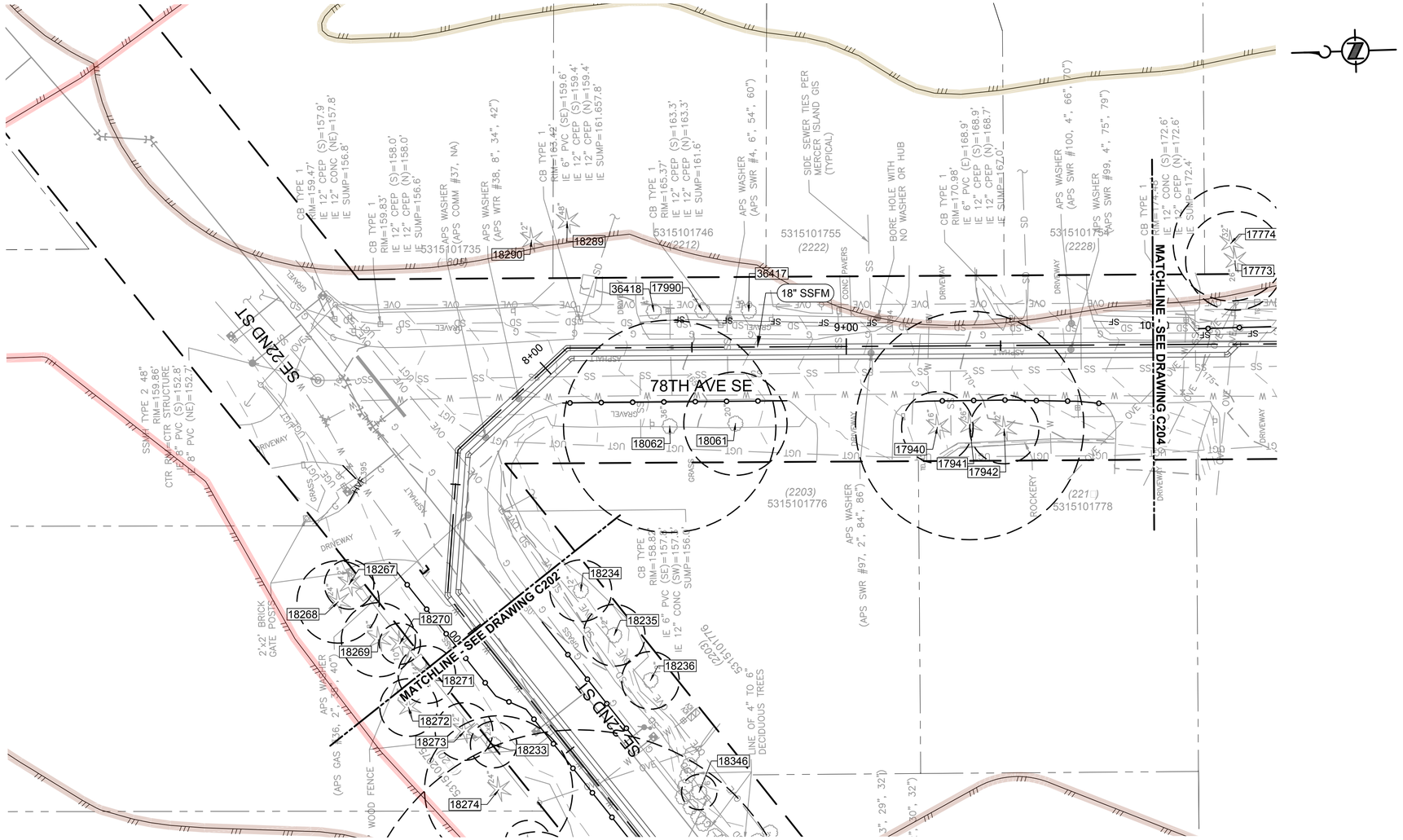
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SHT NO / TOTAL: /
REV NO:

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PLOT DATE: 8/2/2019 8:56 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	3	C202	*Pseudotsuga menziesii*	Douglas-fir	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3		
Unimpacted	4	C202	*Pinus thunbergii*	Japanese black pine	11.3	8, 8	Fair	Fair	PRIVATE	Large (Regulated) tree >10"	8	5	2		
Unimpacted	18233	C202	*Quercus robur*	English oak	11.3	8, 8	Good	Good	PRIVATE	Large (Regulated) tree >10"	8	5	2		
Protect	18234	C202	*Prunus cerasifera*	Purple leaf plum	15.0		Fair	Poor	COMI	10"-24"	10	6	2	Chainlink fencing at pavement edge	
Protect	18235	C202	*Prunus cerasifera*	Purple leaf plum	15.0		Fair	Poor	COMI	10"-24"	10	6	2	Chainlink fencing at pavement edge	
Protect	18236	C202	*Prunus cerasifera*	Purple leaf plum	14.0		Fair	Poor	COMI	10"-24"	9	6	2	Chainlink fencing at pavement edge	
Unimpacted	18271	C202	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	6	2		
Unimpacted	18272	C202	*Liquidambar styraciflua*	American sweetgum	14.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	6	2		
Unimpacted	18273	C202	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	6	2		
Protect	18274	C202	*Thuja plicata*	Western redcedar	24.0		Fair	Fair	PRIVATE	Large (Regulated) tree >10"	24	10	3	Place chainlink fencing within 2 ft of trench wall	
Unimpacted	18346	C202	*Prunus lusitanica*	Portugese cherry laurel	8.6	5.8, 6.4	Good	Good	COMI	6" - 10"	6	4	1		
Protect	18356	C202	*Sequoiadendron giganteum*	Giant sequoia	72.0		Good	Good	PRIVATE	Exceptional	72	30	6	Place chainlink fencing within 2 ft of trench wall	
Protect	18364	C202	*Thuja plicata*	Western redcedar	30.0		Fair	Good	COMI	24"-36"	30	13	3	Place chainlink fencing within 2 ft of trench wall	
Unimpacted	18365	C202	*Thuja plicata*	Western redcedar	14.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	14	6	2		
Protect	18366	C202	*Thuja plicata*	Western redcedar	18.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	18	8	2	Place chainlink fencing within 2 ft of trench wall	
Unimpacted	18367	C202	*Quercus robur*	English oak	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3		
Unimpacted	18557	C202	*Prunus serrulata*	Ornamental cherry	11.0		Good	Good	COMI	10"-24"	7	5	2		

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Tree Solutions Inc
Consulting Arborists



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- 120' POTENTIAL FISH-BEARING STREAM BUFFER
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- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
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- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

DCN: T□D

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION
STA □+00 TO STA 10+00

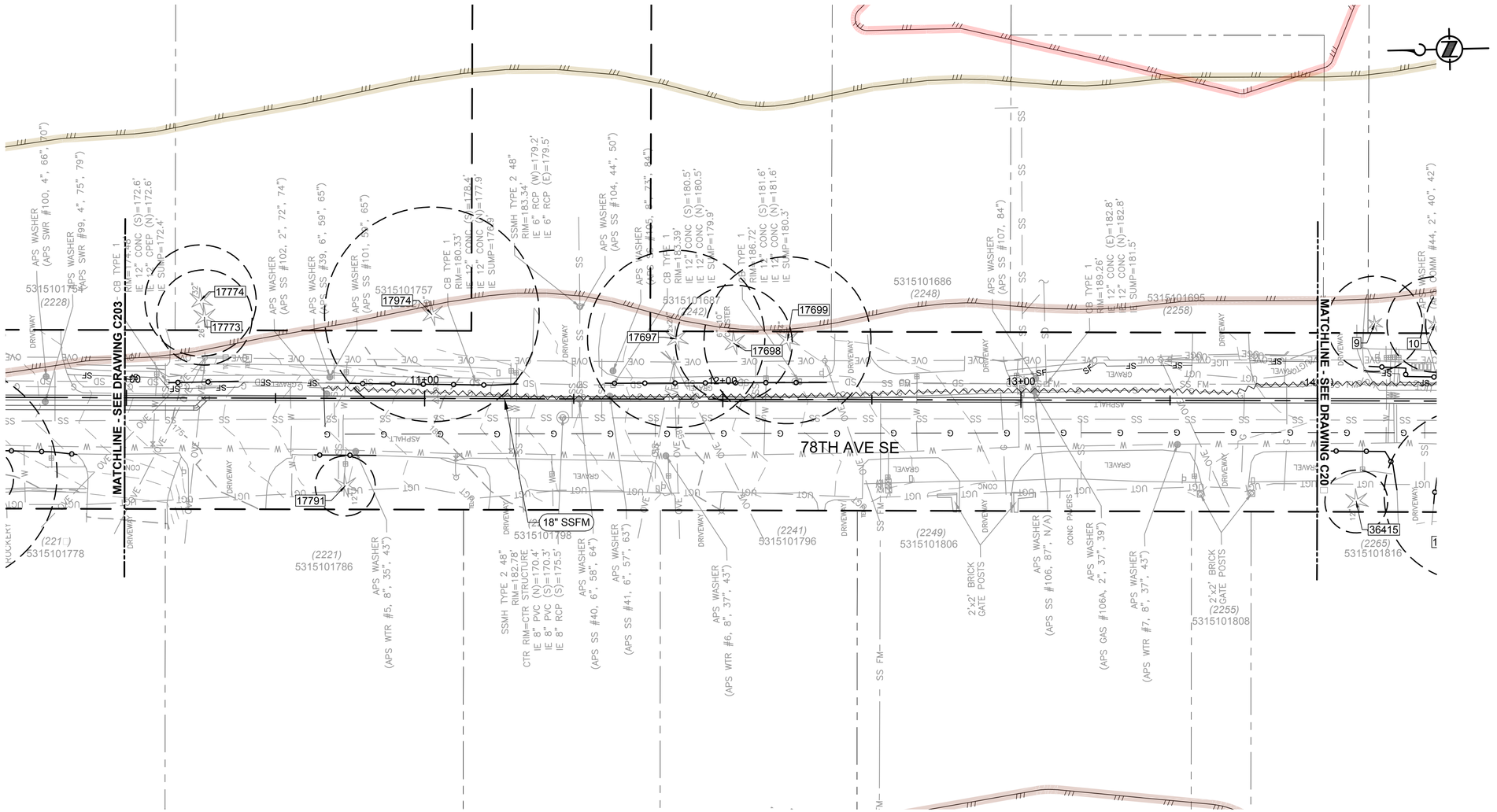
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PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	17940	C203	*Pinus sylvestris*	Scotch pine	17.4		Good	Good	COMI	10"-24"	12	7	2	Chainlink fencing at edge of asphalt, NOT gravel. Note on dwg "removal of asphalt within 15 ft of tree requires arborist present".	
Protect	17941	C203	*Cedrus deodara*	Deodar cedar	37.0		Good	Good	COMI	Exceptional	37	15	6	Chainlink fencing at edge of asphalt, NOT gravel. Note on dwg "removal of asphalt within 15 ft of tree requires arborist present".	
Protect	17942	C203	*Pseudotsuga menziesii*	Douglas-fir	16.8		Good	Good	COMI	10"-24"	11	7	2	Chainlink fencing at edge of asphalt, NOT gravel. Note on dwg "removal of asphalt within 15 ft of tree requires arborist present".	
Protect	17990	C203	*Carpinus betulus*	Hornbeam	<6		Good	Good	COMI	<6"	0	0	0	Limit root disturbance within 5 ft of tree	excavation 7 ft from tree
Protect	18061	C203	*Ulmus sp.*	Elm	25.1		Good	Good	COMI	24"-36"	17	10	3	Chainlink fencing at edge of asphalt, NOT gravel. Note on dwg "removal of asphalt within 15 ft of tree requires arborist present".	
Protect	18062	C203	*Acer saccharinum*	Silver maple	34.4		Good	Good	COMI	Exceptional	34	14	6	Chainlink fencing at edge of asphalt, NOT gravel. Note on dwg "removal of asphalt within 15 ft of tree requires arborist present".	
Protect	18267	C203	*Pinus strobus*	Eastern white pine	12.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	8	5	2	Overhead clearance issues. Keep fence outside of drip line.	
Protect	18268	C203	*Picea abies*	Norway spruce	20.0		Fair	Good	PRIVATE	Large (Regulated) tree >10"	13	8	2	Overhead clearance issues. Keep fence outside of drip line.	
Unimpacted	18269	C203	*Pseudotsuga menziesii*	Douglas-fir	18.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	12	8	2		
Unimpacted	18270	C203	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	7	4	2		
Unimpacted	18289	C203	*Pinus nigra*	Pine	not assessed		good	0	PRIVATE	Large (Regulated) tree >10"	0	0	2		
Unimpacted	18290	C203	*Sequoiadendron giganteum*	Giant redwood	not assessed		Good	Good	PRIVATE	Exceptional	0	0	6		
Protect	36417	C203	*Carpinus betulus*	Hornbeam	<6		Good	Good	COMI	<6"	0	0	0	Limit root disturbance within 5 ft of tree	excavation 7 ft from tree
Protect	36418	C203	*Carpinus betulus*	Hornbeam	<6		Good	Good	COMI	<6"	0	0	0	Limit root disturbance within 5 ft of tree	excavation 7 ft from tree

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0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

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NMPS FORCE MAIN SITE PREPARATION STA 10+00 TO STA 14+00

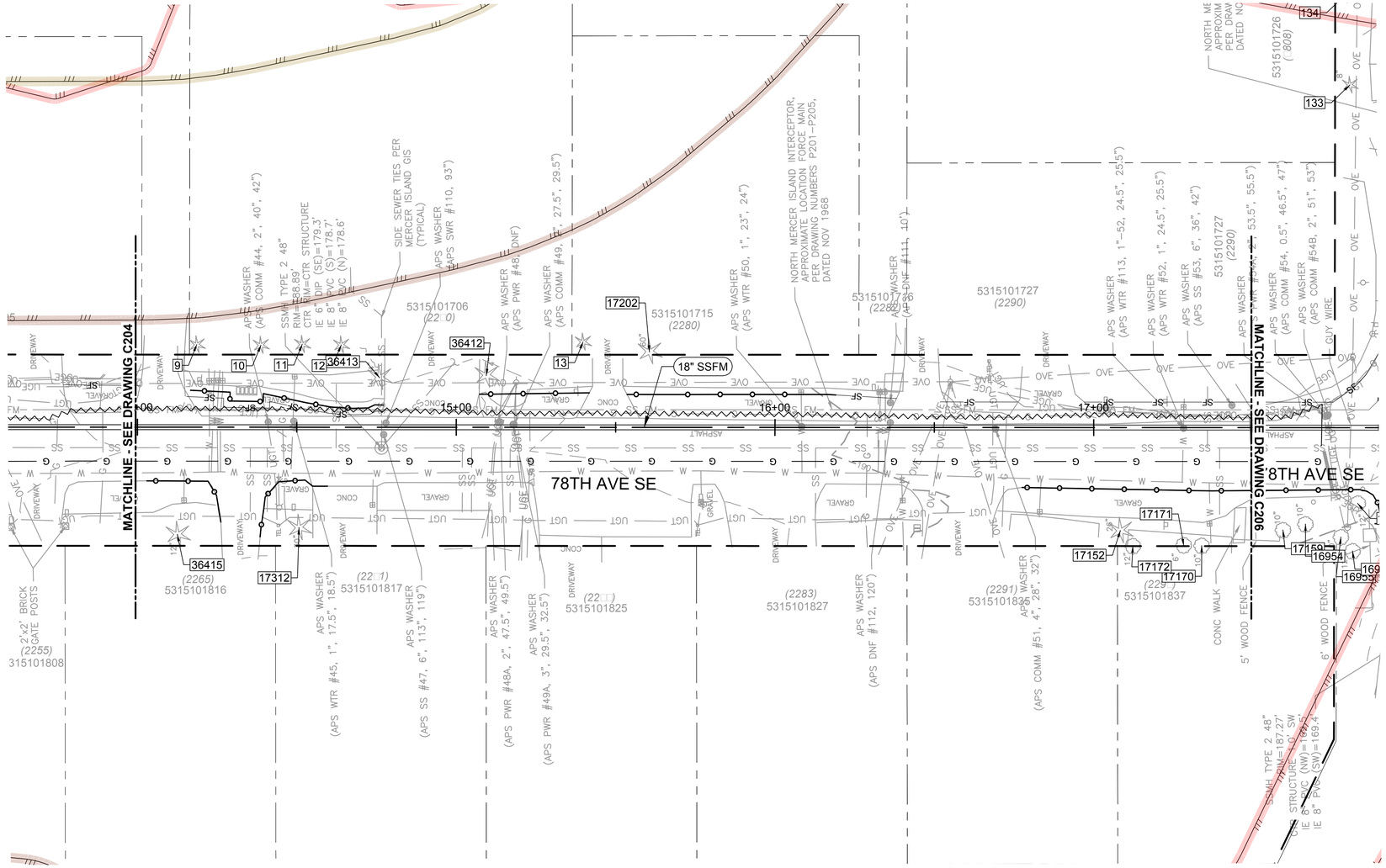
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PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	17697	C204	*Thuja plicata*	Western redcedar	29.7	20, 22	Good	Fair	COMI	24"-36"	30	12	3	Install chainlink fencing at edge of gravel	
Protect	17698	C204	*Thuja plicata*	Western redcedar	19.6	10,9,11,9	Good	Fair	COMI	10"-24"	20	8	2	Install chainlink fencing at edge of gravel	
Protect	17699	C204	*Thuja plicata*	Western redcedar	28.0		Good	Fair	COMI	24"-36"	28	12	3	Install chainlink fencing at edge of gravel	
Protect	17773	C204	*Pseudotsuga menziesii*	Douglas-fir	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3	Chainlink fence outside of MLOD	
Unimpacted	17774	C204	*Pseudotsuga menziesii*	Douglas-fir	28.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	19	12	3		
Protect	17791	C204	*Pinus densiflora*	Japanese red pine	15.1		Fair	Fair	COMI	10"-24"	10	6	2	Install chainlink fence at edge of asphalt	
Protect	17974	C204	*Thuja plicata*	Western redcedar	36.0		Good	Good	PRIVATE	Exceptional	36	15	6	Chainlink fence at gravel/asphalt edge	

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- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 14+00 TO STA 1□+□0

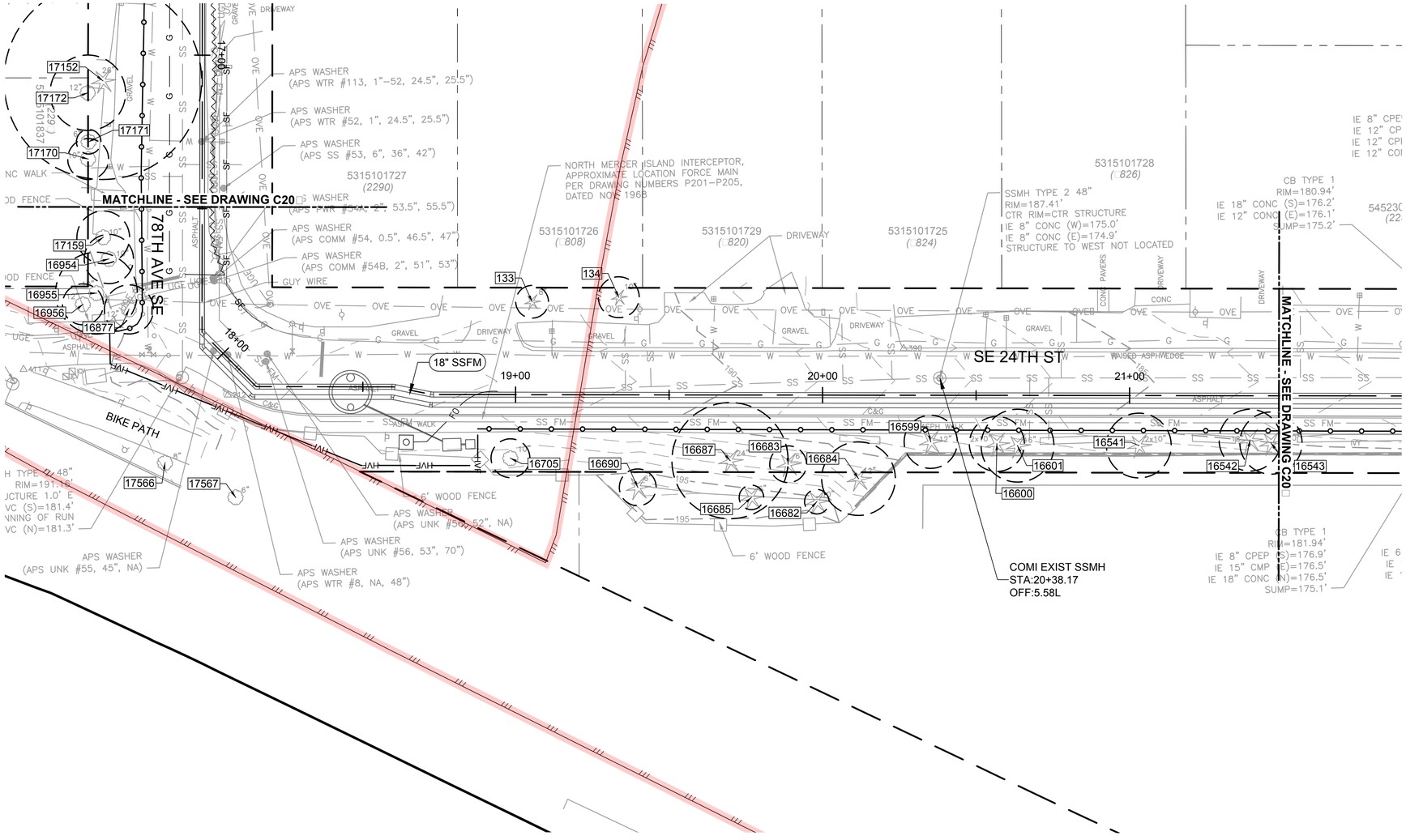
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DATE:
PROJECT FILE NO: TBD
DRAWING NO: C20□
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\WJX67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C205.dwg
PLOT DATE: 8/2/2019 9:03 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	9	C205	*Ulmus rubra*	Slippery elm	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3	Chainlink fencing at edge of asphalt	
Protect	10	C205	*Populus nigra*	Lombardy poplar	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3	Chainlink fencing at edge of asphalt	
Protect	11	C205	*Populus nigra*	Lombardy poplar	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3	Chainlink fencing at edge of asphalt	
Protect	12	C205	*Populus nigra*	Lombardy poplar	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	16	10	3	Chainlink fencing at edge of asphalt	
Protect	13	C205	*Thuja plicata*	Western redcedar	24.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	24	10	3	Chainlink fencing at edge of asphalt	
Protect	17152	C205	*Pseudotsuga menziesii*	Douglas-fir	32.2		Good	Good	COMI	Exceptional	32	13	6	Chainlink fencing at edge of asphalt; signage	
Unimpacted	17170	C205	*Acer platanoides*	Norway maple	10.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	7	4	2		
Unimpacted	17171	C205	*Sorbus aucuparia*	European mountain ash	6.0		Fair	Fair	COMI	6" - 10"	4	3	1		
Unimpacted	17172	C205	*Prunus cerasifera*	Purple leaf plum	18.4	12,14	Good	Good	PRIVATE	Large (Regulated) tree >10"	12	8	2		
Protect	17202	C205	*Sequoia sempervirens*	Coast redwood	60.0		Good	Good	PRIVATE	Exceptional	60	25	6	Chainlink fence at edge of asphalt, have arborist present during excavation. DO not allow roots to be ripped.	
Protect	17312	C205	*Thuja plicata*	Western redcedar	28.8		Fair	Good	COMI	24"-36"	29	12	3	Chainlink fencing at edge of asphalt	
Protect	36415	C205	*Pinus contorta v. contorta*	Shore pine	15.8		Good	Good	COMI	Exceptional	11	7	6	Chainlink fencing at edge of asphalt	

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 1□+□0 TO STA 21+□0

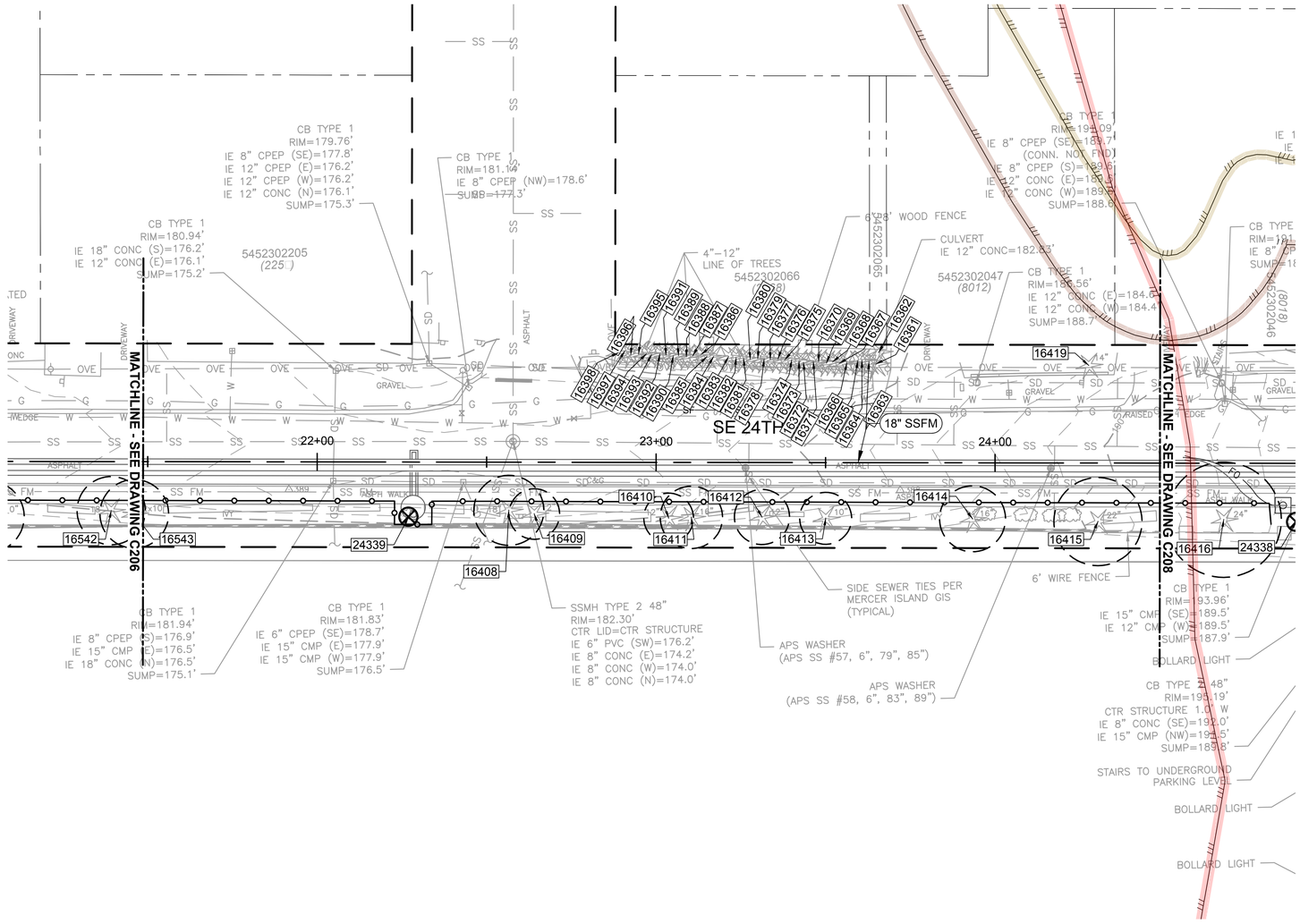
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DATE:	
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DRAWING NO: C206	
SHT NO / TOTAL: /	REV NO:

BORDER FILE EDITION: KCWD-2012-Dsize-TB-Border
FILE LOCATION:P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C206.dwg
PLOT DATE: 8/2/2019 9:05 AM
PLOTTED BY:D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	133	C206	*Pinus contorta var. contorta*	Shorepine	8.0		Good	Good	COMI	6" - 10"	5	3	1		
Unimpacted	134	C206	*Pinus contorta var. contorta*	Shorepine	10.0		Good	Good	COMI	10"-24"	7	4	2		
Protect	16541	C206	*Calocedrus decurrans*	Incense cedar	15.8	11.4,11	Fair	Fair	COMI	10"-24"	11	7	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16542	C206	*Calocedrus decurrans*	Incense cedar	15.1		Good	Good	COMI	10"-24"	10	6	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16543	C206	*Calocedrus decurrans*	Incense cedar	15.2	10.5,11	Fair	Fair	COMI	10"-24"	10	6	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16599	C206	*Calocedrus decurrans*	Incense cedar	13.0		Fair	Fair	COMI	10"-24"	9	5	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16600	C206	*Calocedrus decurrans*	Incense cedar	13.5	10,9	Good	Fair	COMI	10"-24"	9	6	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16601	C206	*Calocedrus decurrans*	Incense cedar	17.8		Good	Good	COMI	10"-24"	12	7	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Unimpacted	16682	C206	*Pseudotsuga menziesii*	Douglas-fir	6.0		Good	Good	PRIVATE	<10"	4	3	0		
Unimpacted	16683	C206	*Thuja plicata*	Western redcedar	6.0		Good	Good	COMI	6" - 10"	6	3	1		
Unimpacted	16684	C206	*Calocedrus decurrans*	Incense cedar	18.0		Good	Good	COMI	10"-24"	12	8	2		
Unimpacted	16685	C206	*Pseudotsuga menziesii*	Douglas-fir	6.0		Good	Good	PRIVATE	<10"	4	3	0		
Protect	16687	C206	*Pseudotsuga menziesii*	Douglas-fir	28.4		Good	Good	COMI	24"-36"	19	12	3	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Unimpacted	16690	C206	*Thuja plicata*	Western redcedar	6.0		Good	Good	PRIVATE	<10"	6	3	0		
Unimpacted	16705	C206	*Acer rubrum*	Red maple	9.5		Good	Good	COMI	6" - 10"	6	4	1		
Protect	16877	C206	*Acer rubrum*	Red maple	12.0		Good	Fair	COMI	10"-24"	8	5	2	Install chainlink fence at edge of asphalt	
Unimpacted	16954	C206	*Acer pensylvanicum*	Stripe bark maple	12.0	9,8	Fair	Fair	COMI	10"-24"	8	5	2		
Unimpacted	16955	C206	*Prunus cerasifera*	Purple leaf plum	20.0		Good	Good	COMI	10"-24"	13	8	2		
Unimpacted	16956	C206	*Betula pendula*	European white birch	10.0		Fair	Good	COMI	10"-24"	7	4	2		
Unimpacted	17159	C206	*Prunus cerasifera*	Purple leaf plum	12.9	8,4,5,6,4,3	Fair	Fair	COMI	10"-24"	9	5	2		

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Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
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0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR
UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN
SITE PREPARATION
STA 21+□0 TO STA 24+□0

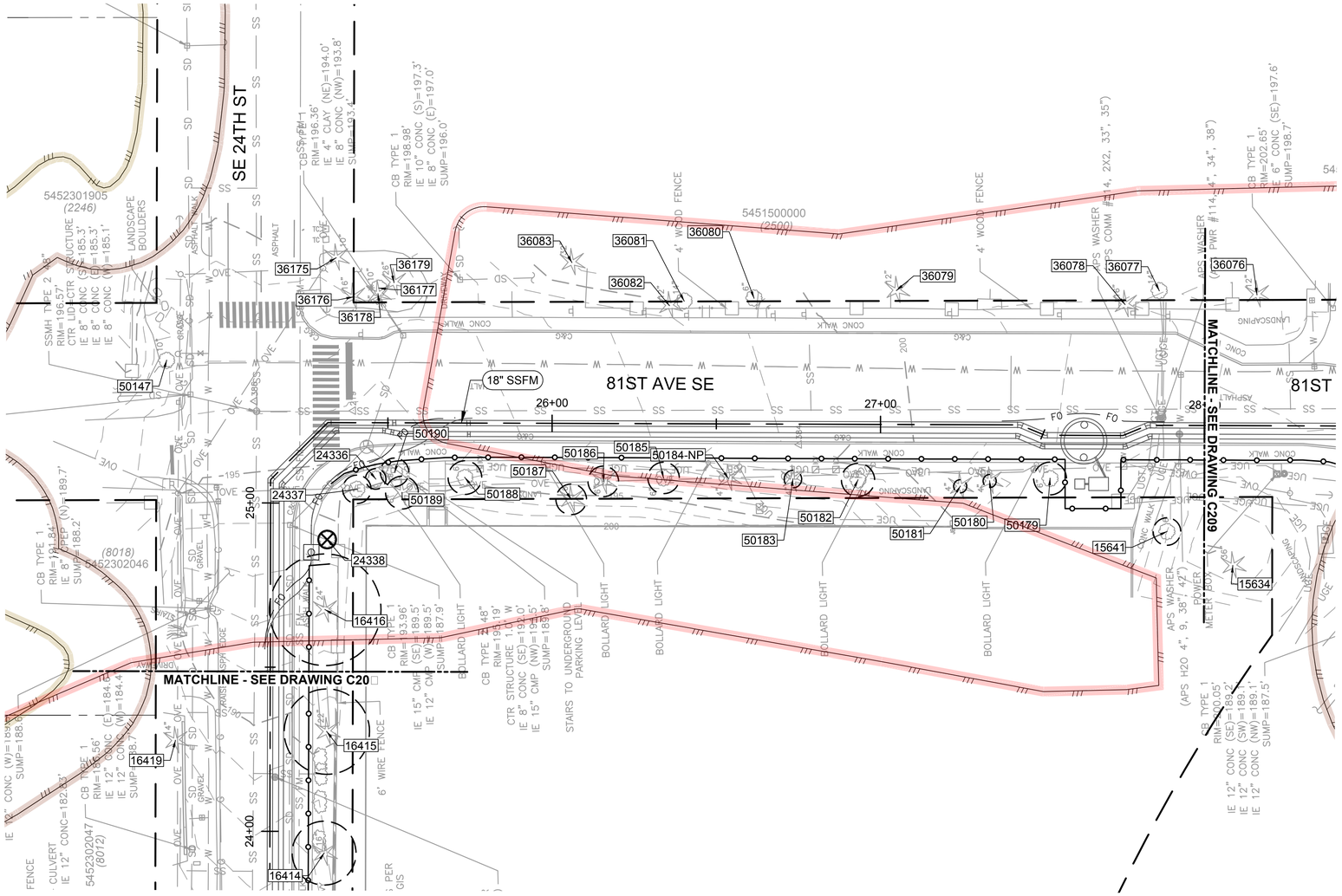
DCN: T□D	
DATE:	
PROJECT FILE NO: TBD	
DRAWING NO: C20□	
SHT NO / TOTAL: /	REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C207.dwg
PLOT DATE: 8/2/2019 9:08 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	16361	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16362	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16363	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16364	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16365	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16366	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16367	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16368	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16369	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16370	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16371	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16372	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16373	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16374	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16375	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16376	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16377	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16378	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16379	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16380	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16381	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16382	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16383	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16384	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16385	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16386	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16387	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16388	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16389	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16390	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16391	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16392	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16393	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16394	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16395	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16396	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16397	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Unimpacted	16398	C207	*Thuja plicata*	Western redcedar	various		Fair	Fair	COMI	6"-10"	0	0	0		
Protect	16408	C207	*Calocedrus decurrans*	Incense cedar	15.5		Fair	Fair	COMI	10"-24"	10	6	2	TBD	
Protect	16409	C207	*Calocedrus decurrans*	Incense cedar	11.2		Fair	Fair	COMI	10"-24"	7	5	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16410	C207	*Calocedrus decurrans*	Incense cedar	11.0		Fair	Fair	COMI	10"-24"	7	5	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16411	C207	*Calocedrus decurrans*	Incense cedar	13.8		Fair	Fair	COMI	10"-24"	9	6	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16412	C207	*Calocedrus decurrans*	Incense cedar	12.2		Fair	Fair	COMI	10"-24"	8	5	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16413	C207	*Calocedrus decurrans*	Incense cedar	11.5		Fair	Fair	COMI	10"-24"	8	5	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16414	C207	*Calocedrus decurrans*	Incense cedar	14.6		Fair	Fair	COMI	10"-24"	10	6	2	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	16415	C207	*Calocedrus decurrans*	Incense cedar	19.5		Good	Good	COMI	10"-24"	13	8	2	TBD	
Remove	24339	C207	*Calocedrus decurrans*	Incense cedar	17.9	14.8, 10	Fair	Fair	COMI	10"-24"	12	7	2		Grading within RLOD

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Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists


SE 24TH ST
81ST AVE SE
81ST
MATCHLINE - SEE DRAWING C209
MATCHLINE - SEE DRAWING C20
18" SSFM
26+00
27+00
25+00
24+00
5452301905 (2246)
5452302046 (8018)
5452302047 (8012)
5451500000 (2500)
36083
36081
36080
36082
36079
36078
36077
36076
36175
36176
36179
36177
36178
50147
50190
24336
24337
24338
16416
16419
16415
16414
50186
50185
50184-NP
50187
50188
50189
50182
50183
50181
50180
50179
15641
15634
4' WOOD FENCE
6' WIRE FENCE
CONC WALK
LANDSCAPING
BOLLARD LIGHT
STAIRS TO UNDERGROUND PARKING LEVEL
APS WASHER (APS #14, 2X2, 33", 35")
APS WASHER PWR #114, 4", 34", 38")
APS WASHER COMM #14, 4", 34", 38")
APS WASHER (APS H2O 4", 9, 38", 42")
METER BOX
POWER
CULVERT
FENCE
SSMH TYPE 2 48" RIM=196.57' CTR LID+CTR (S)=185.3' IE 8" CONC (S)=185.3' IE 8" CONC (E)=185.3' IE 8" CONC (W)=185.1'
CB TYPE 1 RIM=198.98' IE 10" CONC (S)=197.3' IE 8" CONC (E)=197.0' SUMP=196.0'
CB TYPE 1 RIM=202.65' IE 6" CONC (SE)=197.6' SUMP=198.7'
CB TYPE 1 RIM=196.36' IE 4" CLAY (NE)=194.0' IE 8" CONC (NW)=193.8' SUMP=193.4'
CB TYPE 1 RIM=191.84' IE 8" DEEP (N)=189.7' SUMP=188.2'
CB TYPE 1 RIM=184.56' IE 12" CONC (E)=184.4' IE 12" CONC (W)=184.4' SUMP=188.7'
CB TYPE 1 RIM=182.73' IE 12" CONC=182.73'
CB TYPE 1 RIM=183.96' (SE)=189.5' IE 15" CMP (W)=189.5' IE 12" CMP SUMP=187.9'
CB TYPE 1 RIM=194.19' IE 8" CONC (SE)=192.0' IE 15" CMP (NW)=192.5' SUMP=189.8'
CTR STRUCTURE 1.00 W
CB TYPE 1 RIM=200.05' (SE)=189.2' (SW)=189.1' (NW)=189.1' SUMP=187.5'
IE 12" CONC (W)=185.1' SUMP=188.8'
IE 12" CONC (S)=189.1' IE 12" CONC (N)=189.1' SUMP=187.5'
IE 12" CONC (S)=189.1' IE 12" CONC (N)=189.1' SUMP=187.5'
IE 15" CMP (S)=189.5' IE 12" CMP (N)=189.5' SUMP=187.9'
IE 8" CONC (S)=189.1' IE 8" CONC (N)=189.1' SUMP=187.5'
IE 12" CONC=182.73'
SUMP=188.8'
SUMP=188.2'
SUMP=187.9'
SUMP=189.8'
SUMP=187.5'
SUMP=187.5'
SUMP=188.7'
SUMP=193.4'
SUMP=196.0'
SUMP=198.7

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	15641	C208	*Acer rubrum*	Red maple	6.3		Good	Good	PRIVATE	<10"	4	3	0		
Protect	16416	C208	*Calocedrus decurrans*	Incense cedar	25.5		Good	Good	COMI	24"-36"	17	11	3	Maintain fencing at edge of sidewalk until demolition of sidewalk. Arborist must be present on site when excavation occurs for the vault.	
Protect	24336	C208	*Acer circinatum*	Vine maple	4.7	2, 2, 2, 2, 1.5, 1, 1, 1, 1	Good	Good	COMI	<6"	3	2	0	Keep root ball moist during excavation; Mulch, and cover exposed soil (face of excavation) with clear plastic to keep from drying out.	
Protect	24337	C208	*Chamaecyparis obtusa*	Hinoki sypress	6.5		Good	Good	COMI	6" - 10"	4	3	1	Keep root ball moist during excavation; Mulch, and cover exposed soil (face of excavation) with clear plastic to keep from drying out.	
Remove	24338	C208	*Acer circinatum*	Vine maple	6.6	3, 3, 3, 3, 2, 2	Good	Good	COMI	6" - 10"	4	3	1		Excavation 1 ft from trunk
Protect	50179	C208	*Acer rubrum*	Red maple	7.5		Good	Good	COMI	6" - 10"	5	3	1	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	50180	C208	*Chamaecyparis obtusa*	Hinoki sypress	3.0		Good	Good	COMI	<6"	2	1	0	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	50181	C208	*Chamaecyparis obtusa*	Hinoki sypress	3.0		Fair	Good	COMI	<6"	2	1	0	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	50182	C208	*Acer rubrum*	Red maple	7.6		Good	Good	COMI	6" - 10"	5	3	1	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	50183	C208	*Chamaecyparis obtusa*	Hinoki sypress	4.0		Good	Good	COMI	<6"	3	2	0	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Unimpacted	50184	C208	*Chamaecyparis obtusa*	Hinoki sypress	<6		Not Present	Not Present	COMI	<6"	n/a	n/a	0		
Protect	50185	C208	*Acer rubrum*	Red maple	7.2		Good	Good	COMI	6" - 10"	5	3	1	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	50186	C208	*Chamaecyparis obtusa*	Hinoki sypress	7.0		Good	Good	COMI	6" - 10"	5	3	1	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Unimpacted	50187	C208	*Chamaecyparis obtusa*	Hinoki sypress	7.0		Good	Good	PRIVATE	<10"	5	3	0		
Protect	50188	C208	*Acer rubrum*	Red maple	7.7		Good	Good	COMI	6" - 10"	5	3	1	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Unimpacted	50189	C208	*Chamaecyparis obtusa*	Hinoki sypress	7.5		Good	Good	COMI	6" - 10"	5	3	1		
Protect	50190	C208	*Acer circinatum*	Vine maple	6.5	3.3, 2.5, 2.5, 2.5, 2, 3	Good	Good	COMI	6" - 10"	4	3	1	Keep root ball moist during excavation; Mulch, and cover exposed soil (face of excavation) with clear plastic to keep from drying out.	

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR
UPGRADE - CONVEYANCE IMPROVEMENTS
NMPS FORCE MAIN
SITE PREPARATION
STA 28+00 TO STA 30+□0

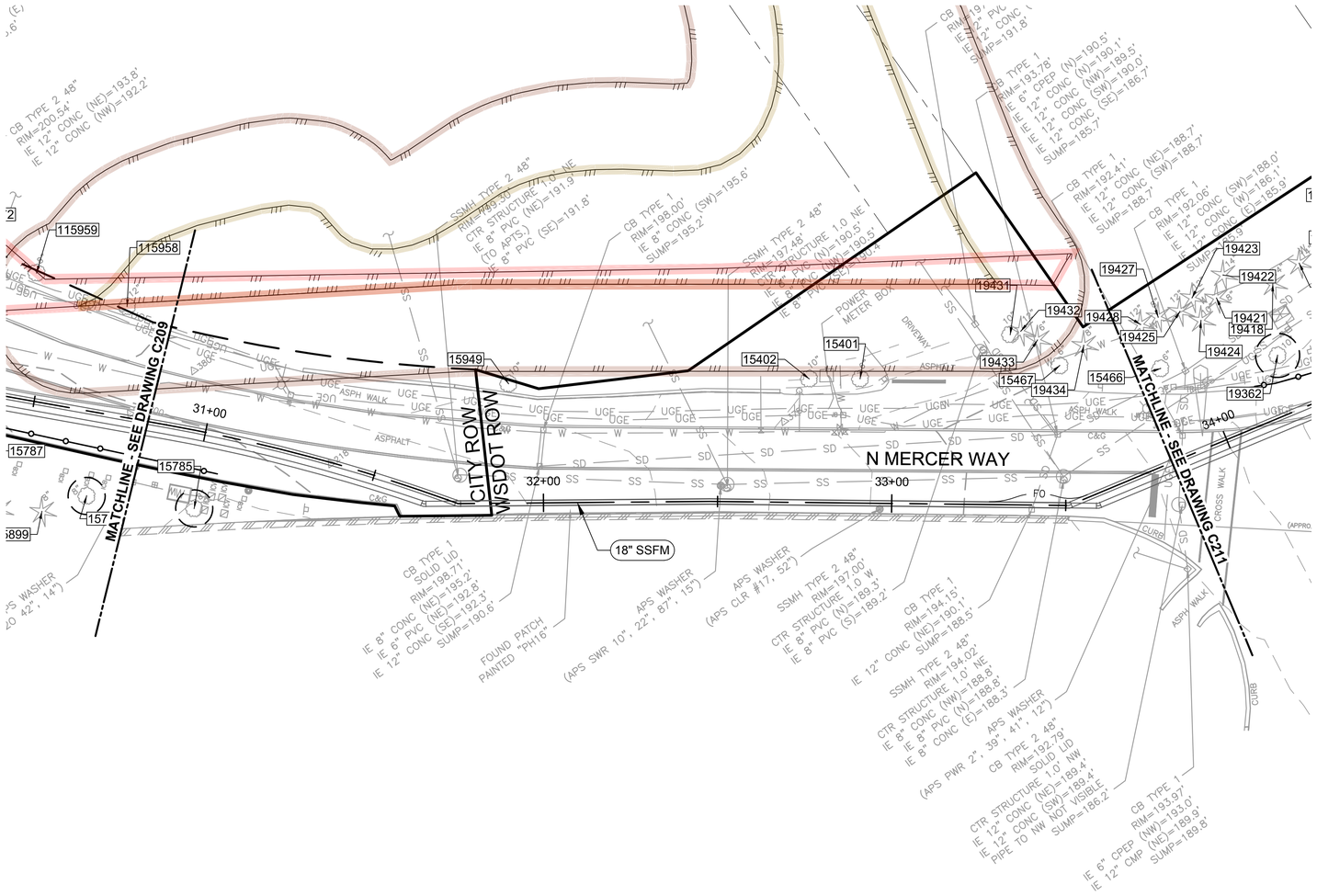
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PROJECT FILE NO:	TBD
DRAWING NO:	C209
SHT NO / TOTAL	/
REV NO:	

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PLOT DATE: 8/2/2019 9:13 AM
PLOTTED BY: D'Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	15786	C209	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain sidewalk during construction; chainlink fence at edge of sidewalk.	
Protect	15787	C209	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain curb during construction; chainlink fence at edge of curb	
Protect	15788	C209	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain curb during construction; chainlink fence at edge of curb	
Protect	15789	C209	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain curb during construction; chainlink fence at edge of curb	
Protect	15790	C209	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain curb during construction; chainlink fence at edge of curb	
Protect	15791	C209	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain curb during construction; chainlink fence at edge of curb	
Unimpacted	15901	C209	*Thuja plicata*	Western redcedar	10.5		Poor	Good	COMI	10"-24"	11	4	2		

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Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
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- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION

NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 30+□0 TO STA 33+□0

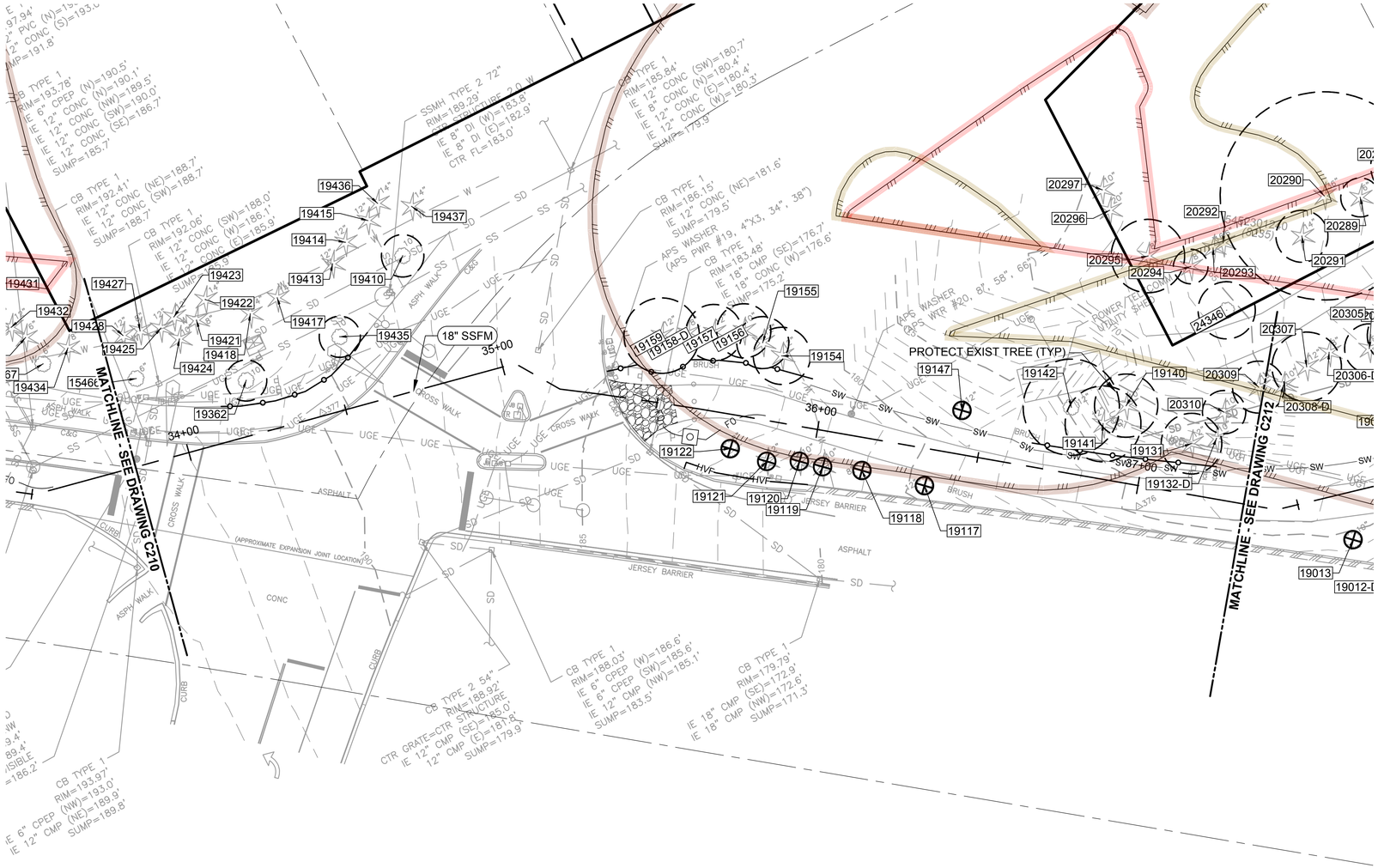
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PLOT DATE: 8/2/2019 9:15 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	15785	C210	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Retain curb during construction; chainlink fence at edge of curb	
Unimpacted	20309	C210	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Fair	WSDOT	Category 2	8	5	12		

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Consulting Arborists



CRITICAL AREAS LEGEND

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- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR
UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN
SITE PREPARATION
STA 33+□0 TO STA 3□+00

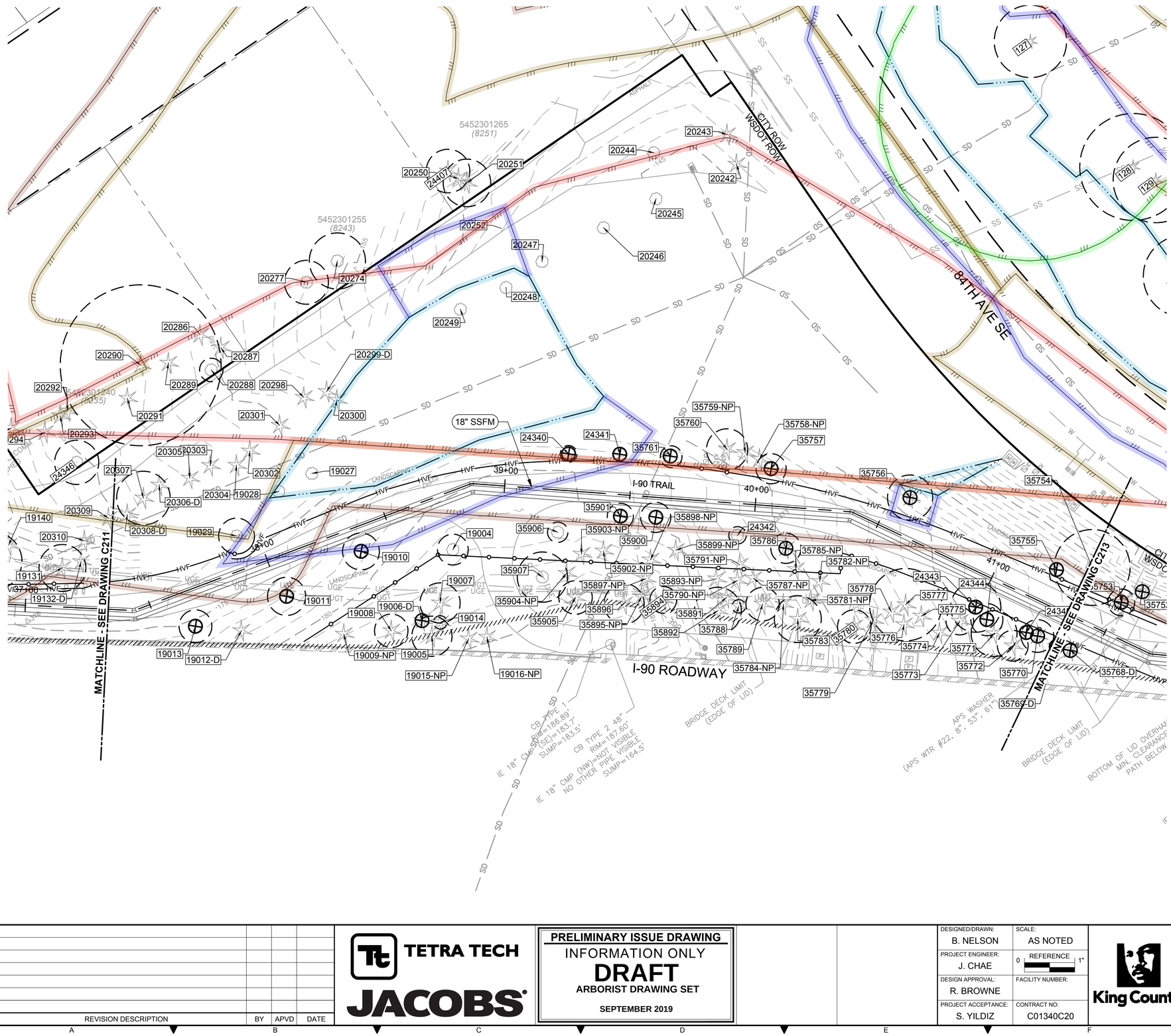
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SHT NO / TOTAL: /	REV NO:

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PLOT DATE: 8/2/2019 9:18 AM
PLOTTED BY: D'Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	19117	C211	*Acer platanoides*	Norway maple	12.5		Good	Good	WSDOT	Category 2	8	5	13		Grading within MLOD; incidental trail staging
Remove	19118	C211	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Category 2	7	4	10		Grading within MLOD; incidental trail staging
Remove	19119	C211	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12		Grading within MLOD; incidental trail staging
Remove	19120	C211	*Pseudotsuga menziesii*	Douglas-fir	10.5		Good	Good	WSDOT	Category 2	7	4	11		Grading within MLOD; incidental trail staging
Remove	19121	C211	*Pseudotsuga menziesii*	Douglas-fir	17.2		Good	Good	WSDOT	Category 2	11	7	18		Grading within MLOD; incidental trail staging
Remove	19122	C211	*Acer platanoides*	Norway maple	10.5		Good	Good	WSDOT	Category 2	7	4	11		Grading within MLOD; incidental trail staging
Protect	19131	C211	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Category 2	9	6	14	Minimize grading impacts; Chainlink fence 2.5' from trunk	
Unimpacted	19132	C211	*Dead*	Dead --Douglas-fir	0.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	19140	C211	*Pseudotsuga menziesii*	Douglas-fir	14.6		Good	Good	WSDOT	Category 2	10	6	15		
Protect	19141	C211	*Pinus contorta v. contorta*	Shore pine	17.5		Fair	Fair	WSDOT	Category 2	12	7	18	Chainlink fence 5' from trunk	
Protect	19142	C211	*Populus trichocarpa*	Black cottonwood	14.8		Good	Good	WSDOT	Early successional species - no replacement required	15	6	0	Chainlink fence 9' from trunk	
Remove	19147	C211	*Acer platanoides*	Norway maple	11.8		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Protect	19154	C211	*Pseudotsuga menziesii*	Douglas-fir	13.2		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fence outside of MLOD	
Protect	19155	C211	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12	TBD	
Protect	19156	C211	*Pseudotsuga menziesii*	Douglas-fir	12.5		Good	Good	WSDOT	Category 2	8	5	13	TBD	
Protect	19157	C211	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13	TBD	
Protect	19158	C211	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0	TBD	
Protect	19159	C211	*Pseudotsuga menziesii*	Douglas-fir	17.4		Good	Good	WSDOT	Category 2	12	7	18	TBD	
Protect	19362	C211	*Acer pseudoplatanus*	Sycamore maple	9.5		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fence at RLOD	
Unimpacted	19410	C211	*Acer pseudoplatanus*	Sycamore maple	9.8		Good	Good	WSDOT	Category 2	7	4	10		
Protect	19435	C211	*Acer pseudoplatanus*	Sycamore maple	9.5		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fence at RLOD	
Unimpacted	20294	C211	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	PRIVATE	<10"	5	3	0		
Unimpacted	20295	C211	*Thuja plicata*	Western redcedar	11.3	8, 8	Fair	Good	WSDOT	Category 2	11	5	12		
Unimpacted	20310	C211	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10		
Protect	24346	C211	*Platanus x acerifolia*	London planetree	13.2		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	6	2	If access road used: Clearance pruning and chainlink fencing	

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- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION
STA 3□+00 TO STA 41+00

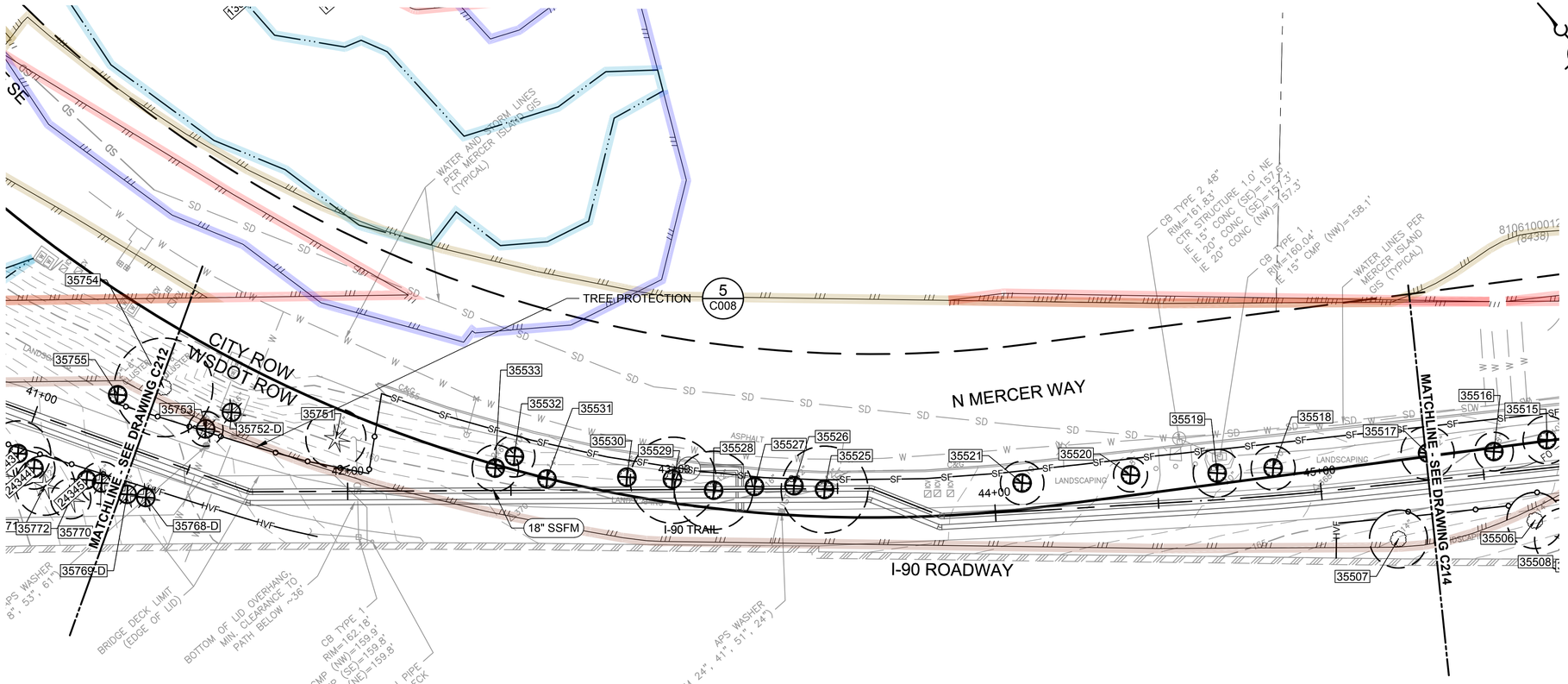
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PLOT DATE: 9/23/2019 12:06 PM
PLOTTED BY: Aurio Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	23	C212	*Acer macrophyllum*	Bigleaf maple	15.2		Good	Good	PRIVATE	Large (Regulated) tree >10"	10	6	2		
Protect	19004	C212	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Category 2	6	4	10	TBD	
Protect	19005	C212	*Pseudotsuga menziesii*	Douglas-fir	12.0		Fair	Fair	WSDOT	Category 2	8	5	12	Chainlink fencing 10 ft from trunk	
Remove (dead)	19006	C212	*Dead*	Dead	12.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Protect	19007	C212	*Pseudotsuga menziesii*	Douglas-fir	12.0		Fair	Fair	WSDOT	Category 2	8	5	12	Chainlink fencing 10 ft from trunk	
Protect	19008	C212	*Pseudotsuga menziesii*	Douglas-fir	10.0		Fair	Fair	WSDOT	Category 2	7	4	10	Chainlink fencing 10 ft from trunk	
Unimpacted	19009	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Remove	19010	C212	*Acer platanoides*	Norway maple	11.0		Good	Fair	WSDOT	Category 2	7	5	11		WSDOT shoulder excavation within 2 ft of trunk.
Remove	19011	C212	*Acer platanoides*	Norway maple	11.4		Good	Good	WSDOT	Category 2	8	5	12		WSDOT shoulder excavation within 2 ft of trunk.
Unimpacted	19012	C212	*Dead*	Dead -- Douglas-fir	14.5		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	19013	C212	*Acer platanoides*	Norway maple	9.8		Good	Good	WSDOT	Category 2	7	4	10		WSDOT shoulder excavation within 2 ft of trunk.
Protect	19014	C212	*Pseudotsuga menziesii*	Douglas-fir	4.0		Fair	Fair	WSDOT	Category 2	3	2	4	Chainlink fencing 10 ft from trunk	
Unimpacted	19015	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	19016	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	19029	C212	*Acer platanoides*	Norway maple	10.7		Good	Fair	WSDOT	Category 2	7	4	11	Chainlink fence at grading limits	
Unimpacted	20250	C212	*Pseudotsuga menziesii*	Douglas-fir	13.1		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	5	2		
Protect	20251	C212	*Pinus nigra*	Austrian black pine	14.2		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	6	2	If access road used: Clearance pruning and chainlink fencing	
Protect	20274	C212	*Acer macrophyllum*	Bigleaf maple	16.8	8.5,8.1,7,7,6,3	Good	Fair	PRIVATE	Large (Regulated) tree >10"	11	7	2	If access road used: Clearance pruning and chainlink fencing	
Protect	20277	C212	*Acer macrophyllum*	Bigleaf maple	13.1	6,6,5,5,4,4,3,3	Good	Fair	PRIVATE	Large (Regulated) tree >10"	9	5	2	If access road used: Clearance pruning and chainlink fencing	
Unimpacted	20286	C212	*Thuja plicata*	Western redcedar	10.6	7,8	Fair	Fair	PRIVATE	Large (Regulated) tree >10"	11	4	2		
Unimpacted	20287	C212	*Thuja plicata*	Western redcedar	10.0		Fair	Fair	PRIVATE	Large (Regulated) tree >10"	10	4	2		
Protect	20288	C212	*Acer macrophyllum*	Bigleaf maple	7.0		Fair	Fair	PRIVATE	<10"	5	3	0	If access road used: Clearance pruning and chainlink fencing	
Unimpacted	20289	C212	*Thuja plicata*	Western redcedar	6.0		Poor	Good	PRIVATE	<10"	6	3	0		
Protect	20290	C212	*Pseudotsuga menziesii*	Douglas-fir	32.0		Good	Fair	PRIVATE	Exceptional	32	13	6	If access road used: Clearance pruning and chainlink fencing	
Unimpacted	20291	C212	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Fair	PRIVATE	Large (Regulated) tree >10"	8	5	2		
Unimpacted	20298	C212	*Pseudotsuga menziesii*	Douglas-fir	11.0		Poor	Fair	WSDOT	Category 2	7	5	11		
Unimpacted	20299	C212	*Dead*	Dead -- Douglas-fir	12.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	20303	C212	*Pseudotsuga menziesii*	Douglas-fir	14.0		Poor	Fair	WSDOT	Category 2	9	6	14		
Unimpacted	20305	C212	*Pseudotsuga menziesii*	Douglas-fir	11.4		Good	Good	WSDOT	Category 2	8	5	12		
Unimpacted	20306	C212	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Protect	20307	C212	*Pseudotsuga menziesii*	Douglas-fir	16.0		Fair	Good	WSDOT	Category 2	11	7	16	If access road used: Clearance pruning and chainlink fencing	
Unimpacted	20308	C212	*Dead*	Dead -- Douglas-fir	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	24340	C212	*Acer platanoides*	Norway maple	5.0		Good	Good	WSDOT	Category 2	3	2	5		Grading within 2 ft of trunk
Remove	24341	C212	*Acer platanoides*	Norway maple	4.2		Poor	Good	WSDOT	Category 2	3	2	5		Grading within 2 ft of trunk; poor condition
Protect*	24342	C212	*Acer platanoides*	Norway maple	5.2	3.8,3.6	Good	Good	WSDOT	Category 2	3	2	6	Maintain fencing at dripline or remove	
Remove	24343	C212	*Cercidiphyllum japonicum*	Katsura tree	10.0	6,4,4,4,4	Good	Good	WSDOT	Category 2	10	4	10		WSDOT shoulder excavation within 2 ft of trunk.
Remove	24344	C212	*Cercidiphyllum japonicum*	Katsura tree	6.4	5,4	Good	Good	WSDOT	Category 2	6	3	7		Grading within 5 ft of trunk
Remove	24345	C212	*Cercidiphyllum japonicum*	Katsura tree	11.3	6,5,5,4,4,3	Good	Good	WSDOT	Category 2	11	5	12		WSDOT shoulder excavation within 2 ft of trunk.
Protect	24407	C212	*Acer macrophyllum*	Bigleaf maple	13.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	9	5	2	If access road used: Clearance pruning and chainlink fencing	
Remove	35755	C212	*Cercidiphyllum japonicum*	Katsura tree	13.2	7,7,5,5,5	Good	Good	WSDOT	Category 2	13	5	14		Excavation for WSDOT shoulder within 2 ft of tree
Remove	35756	C212	*Pseudotsuga menziesii*	Douglas-fir	13.5		Fair	Fair	WSDOT	Category 2	9	6	14		Grading within RLOD, fair condition.
Remove	35757	C212	*Acer platanoides*	Norway maple	9.0		Fair	Fair	WSDOT	Category 2	6	4	9		within 6 ft of grading; tree in decline
Unimpacted	35758	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35760	C212	*Pseudotsuga menziesii*	Douglas-fir	12.3		Good	Good	WSDOT	Category 2	8	5	13	Chainlink fence at RLOD	
Remove	35761	C212	*Acer platanoides*	Norway maple	6.5		Good	Good	WSDOT	Category 2	4	3	7		Grading within 3 ft of trunk
Remove	35770	C212	*Thuja plicata*	Western redcedar	6.5		Poor	Good	WSDOT	Category 2	7	3	7		Grading within 2 ft of trunk
Protect	35771	C212	*Pseudotsuga menziesii*	Douglas-fir	13.7		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fencing 6' from trunk	
Protect	35772	C212	*Pseudotsuga menziesii*	Douglas-fir	9.2		Poor	Good	WSDOT	Category 2	6	4	10	Chainlink fencing 6' from trunk	
Protect	35773	C212	*Thuja plicata*	Western redcedar	5.5		Poor	Good	WSDOT	Category 2	6	2	6	Chainlink fencing 6' from trunk	
Unimpacted	35775	C212	*Pseudotsuga menziesii*	Douglas-fir	11.0		Good	Good	WSDOT	Category 2	7	5	11		
Protect	35777	C212	*Thuja plicata*	Western redcedar	14.4		Good	Good	WSDOT	Category 2	14	6	15	Chainlink fence 7' from trunk	
Protect	35780	C212	*Pseudotsuga menziesii*	Douglas-fir	10.0		Fair	Fair	WSDOT	Category 2	7	4	10	Chainlink fencing 10 ft from trunk	
Unimpacted	35781	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35782	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35783	C212	*Pseudotsuga menziesii*	Douglas-fir	14.0		Fair	Fair	WSDOT	Category 2	9	6	14	Chainlink fencing 10 ft from trunk	
Unimpacted	35784	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35785	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Remove	35786	C212	*Pseudotsuga menziesii*	Douglas-fir	9.0		Poor	Fair	WSDOT	Category 2	6	4	9		Excavation within 5 ft of tree; poor condition
Unimpacted	35787	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35788	C212	*Thuja plicata*	Western redcedar	4.0		Good	Good	WSDOT	Category 2	3	2	4	Chainlink fencing 10 ft from trunk	
Protect	35789	C212	*Pseudotsuga menziesii*	Douglas-fir	10.0		Fair	Fair	WSDOT	Category 2	7	4	10	Chainlink fencing 10 ft from trunk	
Unimpacted	35790	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35791	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35892	C212	*Pseudotsuga menziesii*	Douglas-fir	14.0		Fair	Fair	WSDOT	Category 2	9	6	14	Chainlink fencing 10 ft from trunk	
Unimpacted	35893	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35894	C212	*Pseudotsuga menziesii*	Douglas-fir	8.0		Fair	Fair	WSDOT	Category 2	5	3	8	Chainlink fencing 10 ft from trunk	
Unimpacted	35895	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35896	C212	*Pseudotsuga menziesii*	Douglas-fir	12.0		Fair	Fair	WSDOT	Category 2	8	5	12	Chainlink fencing 10 ft from trunk	
Unimpacted	35897	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35898	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35899	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Remove	35900	C212	*Acer platanoides*	Norway maple	9.0		Good	Good	WSDOT	Category 2	6	4	9		Within grading limits; fair condition
Remove	35901	C212	*Acer platanoides*	Norway maple	7.8		Poor	Good	WSDOT	Category 2	5	3	8		Within grading limits; fair condition
Unimpacted	35902	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35903	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Unimpacted	35904	C212	*Stump - Not Present*	Stump - Not Present	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	35905	C212	*Pseudotsuga menziesii*	Douglas-fir	10.0		Fair	Fair	WSDOT	Category 2	7	4	10	Chainlink fencing 10 ft from trunk	
Protect	35906	C212	*Acer platanoides*	Norway maple	6.1		Fair	Good	WSDOT	Category 2	4	3	7	chainlink fencing at dripline	
Protect	35907	C212	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Category 2	10	4	10	Chainlink fencing 10 ft from trunk	

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RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 41+00 TO STA 4□+00

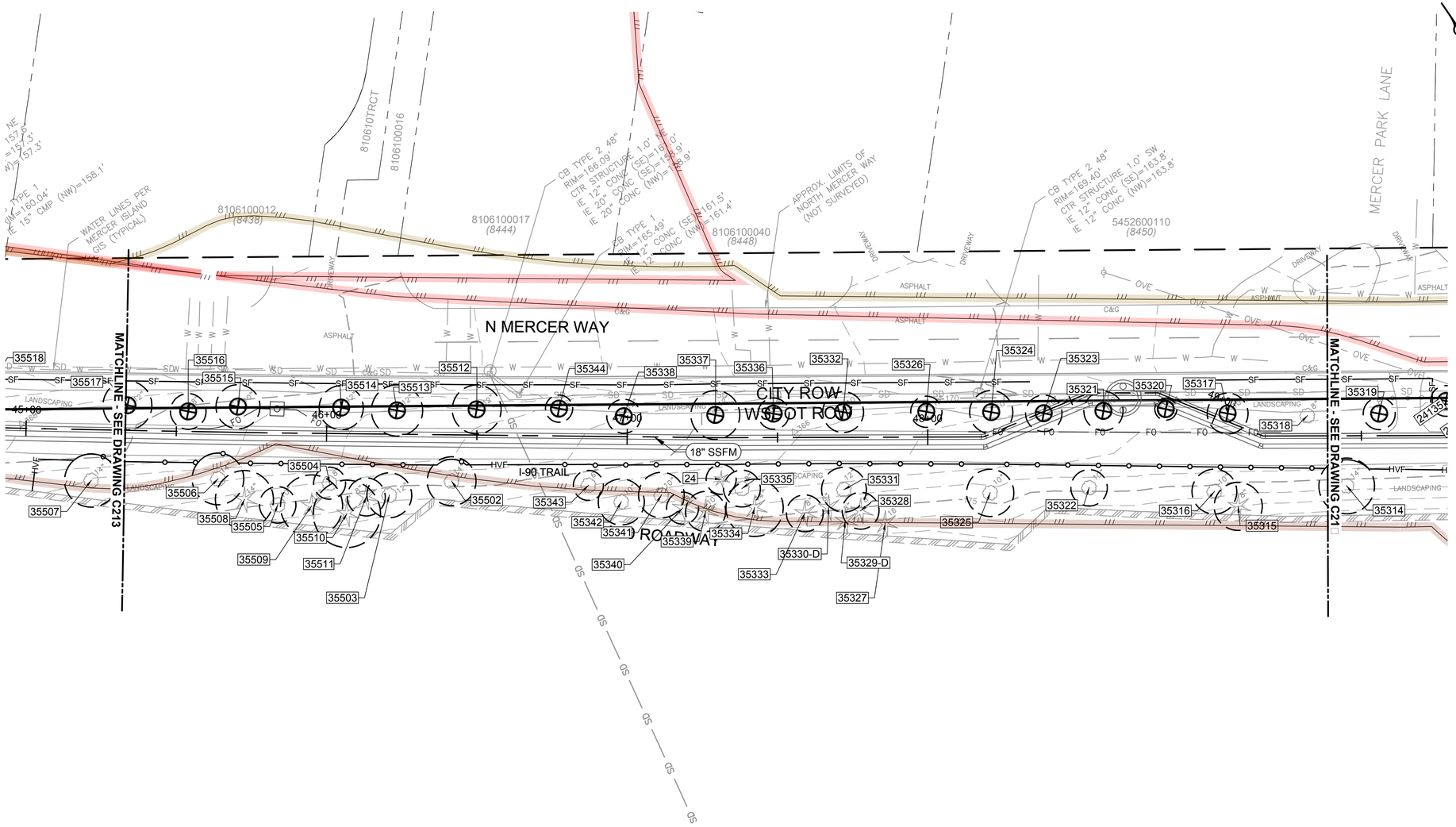
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PROJECT FILE NO:	TBD
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SHT NO / TOTAL	/
REV NO:	

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PLOT DATE: 8/2/2019 9:23 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	35507	C213	*Acer platanoides*	Norway maple	13.3		Good	Good	WSDOT	Street Tree	9	6	1	Chainlink fence at grading limits	Excavation 8 ft from tree
Remove	35518	C213	*Acer platanoides*	Norway maple	10.1		Good	Good	COMI	10"-24"	7	4	2		Within grading limits
Remove	35519	C213	*Acer platanoides*	Norway maple	11.0		Good	Good	COMI	10"-24"	7	5	2		Within grading limits
Remove	35520	C213	*Acer pseudoplatanus*	Sycamore maple	7.8		Good	Good	COMI	6" - 10"	5	3	1		Within grading limits
Remove	35521	C213	*Acer rubrum*	Red maple	10.0		Good	Good	COMI	10"-24"	7	4	2		Within grading limits
Remove	35525	C213	*Cercidiphyllum japonicum*	Katsura tree	13.3	7,8,8	Good	Good	COMI	10"-24"	13	6	2		Within grading limits
Remove	35526	C213	*Cercidiphyllum japonicum*	Katsura tree	11.8	7,7,5,4	Good	Good	COMI	10"-24"	12	5	2		Within grading limits
Remove	35527	C213	*Cercidiphyllum japonicum*	Katsura tree	13.5	6,7,6,6,5	Good	Good	COMI	10"-24"	13	6	2		Within grading limits
Remove	35528	C213	*Cercidiphyllum japonicum*	Katsura tree	12.0	6,6,6,6	Good	Good	COMI	10"-24"	12	5	2		Within grading limits
Remove	35529	C213	*Cercidiphyllum japonicum*	Katsura tree	13.2	7,5,8,6	Good	Good	COMI	10"-24"	13	5	2		Within grading limits
Remove	35530	C213	*Acer pseudoplatanus*	Sycamore maple	9.4		Good	Good	COMI	6" - 10"	6	4	1		Within grading limits
Remove	35531	C213	*Cercidiphyllum japonicum*	Katsura tree	12.2	6,7,8	Good	Good	COMI	10"-24"	12	5	2		Within grading limits
Remove	35532	C213	*Acer pseudoplatanus*	Sycamore maple	9.5		Good	Good	COMI	6" - 10"	6	4	1		Tree can be retained unless this is required staging.
Remove	35533	C213	*Cercidiphyllum japonicum*	Katsura tree	7.1	4.5,5.5	Good	Good	WSDOT	Street Tree	7	3	1		Within grading limits
Protect	35751	C213	*Pinus nigra*	Austrian black pine	13.8		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fence at RLOD	
Remove (dead)	35752	C213	*Dead*	Dead -- Douglas-fir	14.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove	35753	C213	*Pinus contorta*	Shore pine	8.0		Fair	Good	WSDOT	Category 2	5	3	8		Grading within MLOD
Protect	35754	C213	*Cercidiphyllum japonicum*	Katsura tree	15.1	6,5,5,4,4,7,6,4,3	Good	Good	WSDOT	Category 2	15	6	16	Install chainlink fence at edge of grading	
Remove (dead)	35768	C213	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove (dead)	35769	C213	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits

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RLOD (Recommended Limits of Disturbance)
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Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
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- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60

SCALE IN FEET

DCN: T□D

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH

JACOBS

PRELIMINARY ISSUE DRAWING

INFORMATION ONLY

DRAFT

ARBORIST DRAWING SET

SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION

NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION
STA 4□+00 TO STA 49+00

DATE:

PROJECT FILE NO: TBD

DRAWING NO: **C214**

SHT NO / TOTAL: /

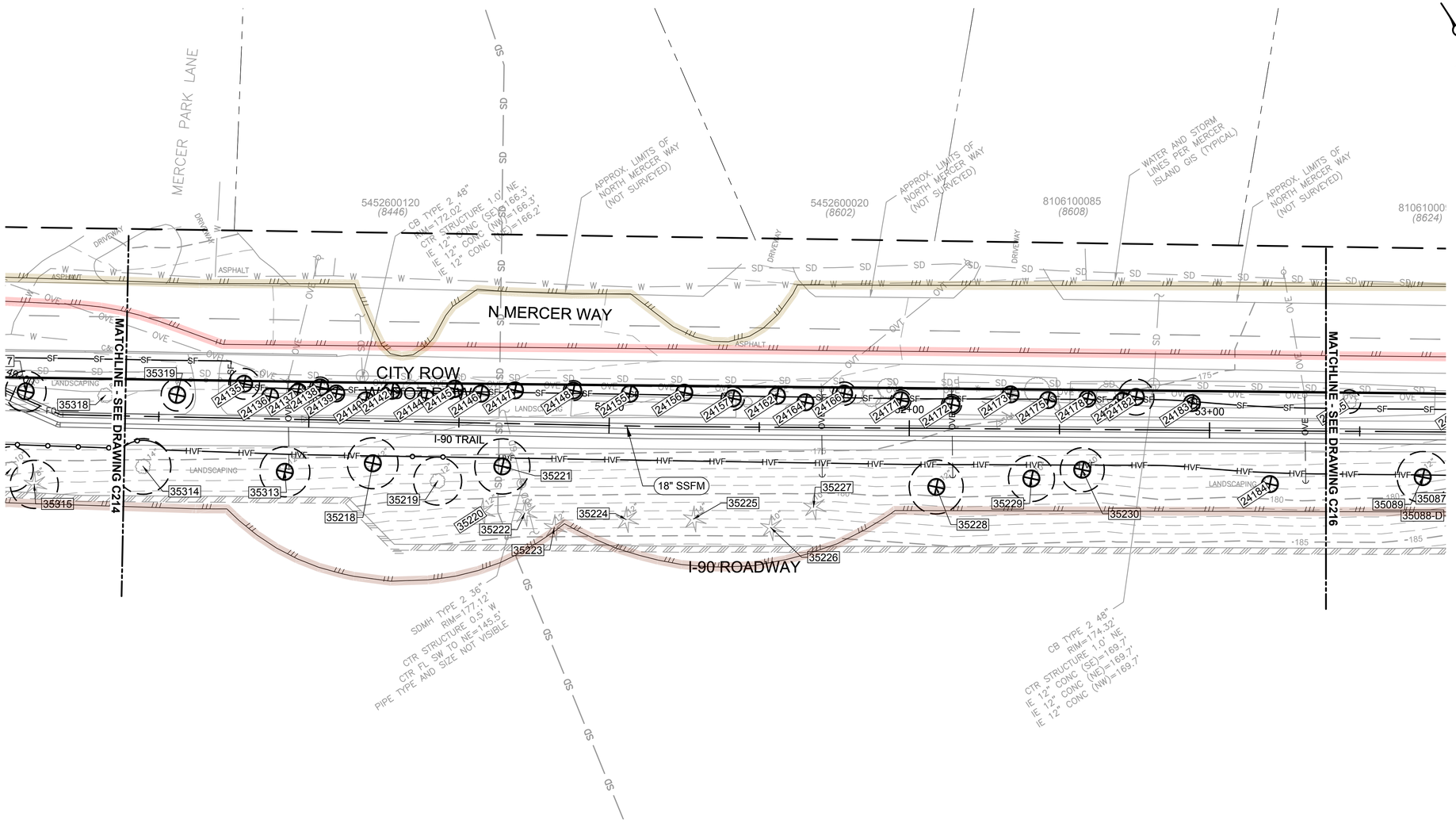
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PLOT DATE: 8/2/2019 9:25 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	24	C214	*Thuja plicata*	Western redcedar	5.0		Fair	Good	WSDOT	Street Tree	5	2	1	Trail is shifting towards road here. Maintain fencing at edge of asphalt.	
Unimpacted	35315	C214	*Thuja plicata*	Western redcedar	8.0		Good	Good	WSDOT	Street Tree	8	3	1		
Protect	35316	C214	*Fraxinus latifolia*	Oregon ash	11.2		Good	Good	WSDOT	Street Tree	7	5	1	Chainlink fence at RLOD	
Remove	35317	C214	*Acer platanoides*	Norway maple	10.2		Good	Good	WSDOT	Street Tree	7	4	1		Within grading limits
Remove	35320	C214	*Fraxinus spp*	Ash	5.5		Good	Good	WSDOT	Street Tree	4	2	1		Within grading limits
Remove	35321	C214	*Acer platanoides*	Norway maple	9.8		Good	Good	WSDOT	Street Tree	7	4	1		Within grading limits
Protect	35322	C214	*Fraxinus spp*	Ash	9.1		Fair	Good	WSDOT	Street Tree	6	4	1	Chainlink fence at RLOD	
Remove	35323	C214	*Acer platanoides*	Norway maple	9.1		Good	Good	WSDOT	Street Tree	6	4	1		Within grading limits
Remove	35324	C214	*Acer platanoides*	Norway maple	10.8		Good	Good	WSDOT	Street Tree	7	5	1		Within grading limits
Protect	35325	C214	*Acer platanoides*	Norway maple	11.8		Good	Good	WSDOT	Street Tree	8	5	1	Chainlink fence at RLOD	
Remove	35326	C214	*Fraxinus spp*	Ash	7.8		Fair	Good	WSDOT	Street Tree	5	3	1		Within grading limits
Unimpacted	35328	C214	*Pseudotsuga menziesii*	Douglas-fir	9.2		Fair	Good	WSDOT	Street Tree	6	4	1		
Unimpacted	35329	C214	*Dead*	Dead	9.2		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35330	C214	*Dead*	Dead	7.5		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Protect	35331	C214	*Acer platanoides*	Norway maple	11.2		Good	Fair	WSDOT	Street Tree	7	5	1	Chainlink fence at RLOD	
Remove	35332	C214	*Acer platanoides*	Norway maple	10.2		Good	Good	WSDOT	Street Tree	7	4	1		Within grading limits
Unimpacted	35333	C214	*Pseudotsuga menziesii*	Douglas-fir	9.2		Fair	Good	WSDOT	Street Tree	6	4	1		
Unimpacted	35334	C214	*Pseudotsuga menziesii*	Douglas-fir	14.3		Fair	Good	WSDOT	Street Tree	10	6	1		
Protect	35335	C214	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Street Tree	6	4	1	Chainlink fence at RLOD	
Remove	35336	C214	*Acer platanoides*	Norway maple	7.8		Fair	Good	WSDOT	Street Tree	5	3	1		Within grading limits
Remove	35337	C214	*Acer platanoides*	Norway maple	12.2		Good	Good	WSDOT	Street Tree	8	5	1		Within grading limits
Remove	35338	C214	*Fraxinus spp*	Ash	8.5		Poor	Good	WSDOT	Street Tree	6	4	1		Within grading limits
Unimpacted	35339	C214	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Street Tree	7	4	1		
Unimpacted	35340	C214	*Pseudotsuga menziesii*	Douglas-fir	8.0		Fair	Good	WSDOT	Category 2	5	3	8		
Protect	35341	C214	*Acer platanoides*	Norway maple	11.4		Good	Good	WSDOT	Street Tree	8	5	1	Chainlink fence at RLOD	
Protect	35342	C214	*Acer platanoides*	Norway maple	11.5		Good	Good	WSDOT	Street Tree	8	5	1	Chainlink fence at RLOD	
Protect	35343	C214	*Fraxinus sp.*	Ash	7.5		Good	Good	WSDOT	Street Tree	5	3	1	Chainlink fence at RLOD	
Remove	35344	C214	*Fraxinus spp*	Ash	6.8		Fair	Good	WSDOT	Street Tree	5	3	1		Within grading limits
Protect	35502	C214	*Acer platanoides*	Norway maple	12.2		Good	Good	WSDOT	Street Tree	8	5	1	Chainlink fence at grading limits	Grading within 6 ft of trunk
Protect	35503	C214	*Acer platanoides*	Norway maple	11.2		Good	Fair	WSDOT	Street Tree	7	5	1	Chainlink fence at RLOD	
Protect	35504	C214	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Street Tree	5	3	1	Chainlink fence at RLOD	
Unimpacted	35505	C214	*Acer platanoides*	Norway maple	9.1		Good	Good	WSDOT	Street Tree	6	4	1		
Protect	35506	C214	*Acer platanoides*	Norway maple	12.9		Good	Good	WSDOT	Street Tree	9	5	1	Chainlink fence at grading limits	Grading within 6 ft of trunk
Protect	35508	C214	*Pseudotsuga menziesii*	Douglas-fir	14.5		Good	Good	WSDOT	Street Tree	10	6	1	Chainlink fence at RLOD	
Protect	35509	C214	*Pseudotsuga menziesii*	Douglas-fir	15.5		Good	Good	WSDOT	Street Tree	10	6	1	Chainlink fence at RLOD	
Protect	35510	C214	*Pseudotsuga menziesii*	Douglas-fir	16.8		Good	Good	WSDOT	Street Tree	11	7	1	Chainlink fence at RLOD	
Protect	35511	C214	*Pinus nigra*	Austrian black pine	9.5		Good	Good	WSDOT	Street Tree	6	4	1	Chainlink fence at RLOD	
Remove	35512	C214	*Acer platanoides*	Norway maple	12.2		Good	Good	WSDOT	Street Tree	8	5	1		Within grading limits
Remove	35513	C214	*Acer platanoides*	Norway maple	12.8		Good	Good	WSDOT	Street Tree	9	5	1		Within grading limits
Remove	35514	C214	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Street Tree	7	5	1		Within grading limits
Remove	35515	C214	*Acer platanoides*	Norway maple	11.0		Good	Good	COMI	10"-24"	7	5	2		Within grading limits
Remove	35516	C214	*Acer platanoides*	Norway maple	8.9		Good	Good	COMI	6" - 10"	6	4	1		Within grading limits
Remove	35517	C214	*Acer platanoides*	Norway maple	12.2		Good	Good	COMI	10"-24"	8	5	2		Within grading limits

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0 20 40 60
SCALE IN FEET

DCN: T□D

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

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WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 49+00 TO STA □3+00

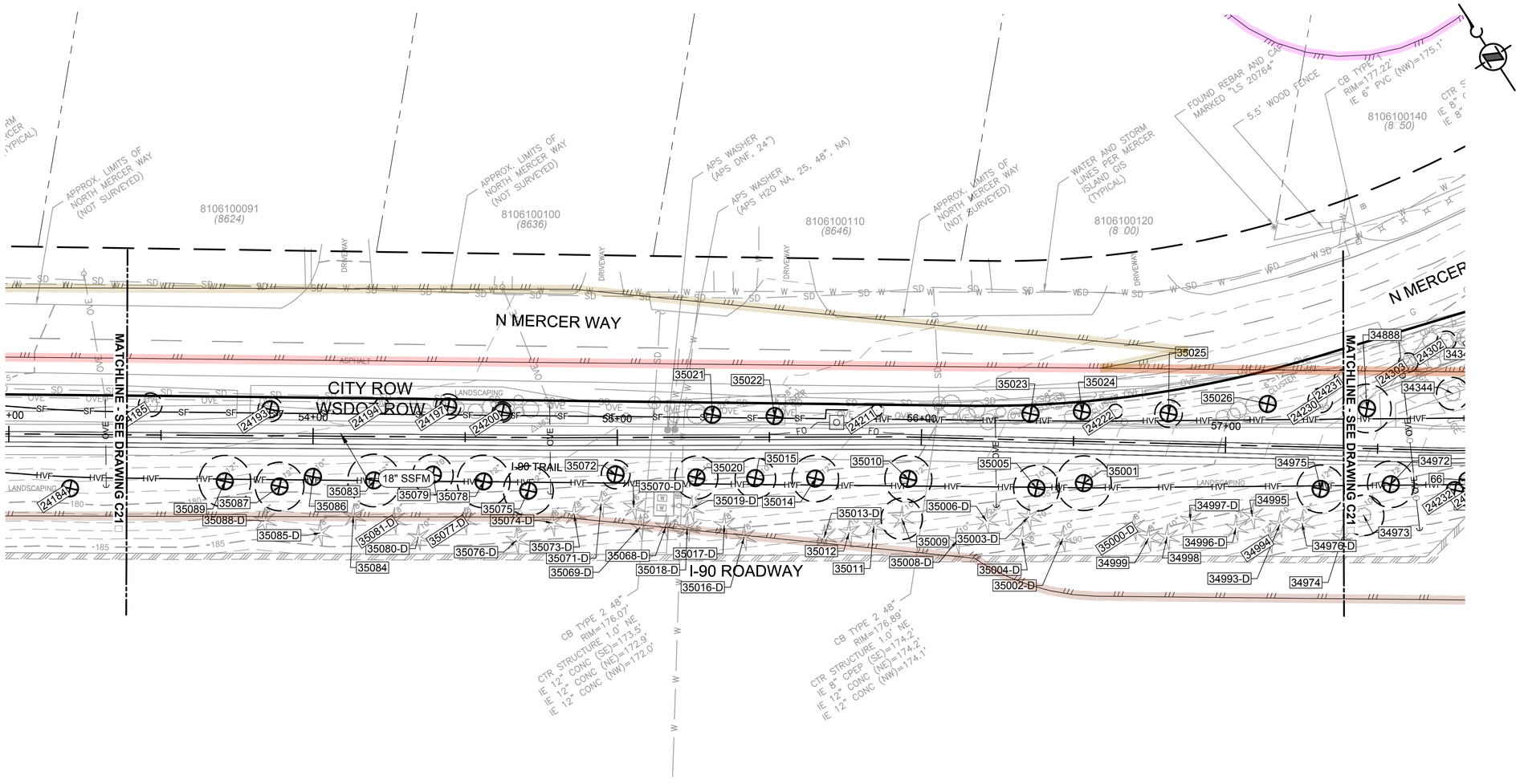
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PROJECT FILE NO: TBD
DRAWING NO: C21□
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION:P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C215.dwg
PLOT DATE: 8/2/2019 9:28 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	24135	C215	*Malus fusca*	Western crabapple	7.7	5,5,3	Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Remove	24136	C215	*Amelanchier alnifolia*	Western serviceberry	6.3	5.2,3,2	Good	Good	WSDOT	Category 2	4	3	7		Within grading limits
Remove	24137	C215	*Acer circinatum*	Vine maple	4.5	3.5,2,2	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24138	C215	*Acer circinatum*	Vine maple	5.2	3,3,3	Good	Good	WSDOT	Category 2	3	2	6		Within grading limits
Remove	24139	C215	*Acer circinatum*	Vine maple	3.0		Good	Good	WSDOT	Category 3	2	1	n/a		Within grading limits
Remove	24140	C215	*Amelanchier alnifolia*	Western serviceberry	5.4	3.5,3,2,2	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24142	C215	*Amelanchier alnifolia*	Western serviceberry	5.0	3.5,3,2	Good	Good	WSDOT	Category 2	3	2	6		Within grading limits
Remove	24144	C215	*Amelanchier alnifolia*	Western serviceberry	4.1	3,2,2	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24145	C215	*Amelanchier alnifolia*	Western serviceberry	4.3	2.5,2,2,2	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24146	C215	*Amelanchier alnifolia*	Western serviceberry	5.6	3,3,3,2,2,2	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24147	C215	*Acer circinatum*	Vine maple	5.4	3,2.8,2.5,2.5	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24148	C215	*Malus fusca*	Western crabapple	5.0	4,3	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24155	C215	*Malus fusca*	Western crabapple	5.4	4,3,2	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24156	C215	*Malus fusca*	Western crabapple	4.1	3,2,2	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24157	C215	*Amelanchier alnifolia*	Western serviceberry	5.8	5,3	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24162	C215	*Amelanchier alnifolia*	Western serviceberry	5.9	3,3,3,2,2	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24164	C215	*Amelanchier alnifolia*	Western serviceberry	5.5	3,3,2,2,2	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24166	C215	*Amelanchier alnifolia*	Western serviceberry	5.8	5,3	Good	Good	WSDOT	Category 2	4	2	6		Within grading limits
Remove	24171	C215	*Acer circinatum*	Vine maple	5.1	3,3,2,2	Good	Good	WSDOT	Category 2	3	2	6		Within grading limits
Remove	24172	C215	*Malus fusca*	Western crabapple	5.0	4,3	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24173	C215	*Malus fusca*	Western crabapple	4.7	3,2,3	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	24175	C215	*Malus fusca*	Western crabapple	3.6	3,2	Good	Good	WSDOT	Category 3	2	2	n/a		Within grading limits
Remove	24178	C215	*Malus fusca*	Western crabapple	2.8	2,2	Good	Good	WSDOT	Category 3	2	1	n/a		Within grading limits
Remove	24181	C215	*Populus trichocarpa*	Black cottonwood	3.0		Good	Good	WSDOT	Early successional species - no replacement required	3	1	0		Within grading limits
Remove	24182	C215	*Populus trichocarpa*	Black cottonwood	6.0		Good	Good	WSDOT	Early successional species - no replacement required	6	3	0		Within grading limits
Remove	24183	C215	*Malus fusca*	Western crabapple	2.8	2,2	Good	Good	WSDOT	Category 3	2	1	n/a		Within grading limits
Remove	24184	C215	*Amelanchier alnifolia*	Western serviceberry	4.6	3,2,2,2	Good	Good	WSDOT	Category 2	3	2	5		Within grading limits
Remove	35218	C215	*Acer platanoides*	Norway maple	12.7		Good	Good	WSDOT	Category 2	8	5	13		Grading within MLOD
Protect	35219	C215	*Acer platanoides*	Norway maple	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fence at 4' from trunk	
Remove	35221	C215	*Acer platanoides*	Norway maple	13.8		Good	Good	WSDOT	Category 2	9	6	14		Grading within MLOD
Remove	35228	C215	*Acer platanoides*	Norway maple	13.5		Good	Good	WSDOT	Category 2	9	6	14		Grading within 7 ft of trunk
Remove	35229	C215	*Acer platanoides*	Norway maple	11.5		Good	Good	WSDOT	Category 2	8	5	12		Grading within 2 ft of trunk
Remove	35230	C215	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Category 2	7	5	11		Within grading limits
Remove	35313	C215	*Acer platanoides*	Norway maple	12.5		Good	Good	WSDOT	Category 2	8	5	13		Grading within 7 ft of trunk
Protect	35314	C215	*Acer platanoides*	Norway maple	13.9		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fence at grading limits	Grading within 7 ft of trunk
Remove	35319	C215	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Street Tree	5	3	1		Within grading limits

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION
STA □3+00 TO STA □□+00

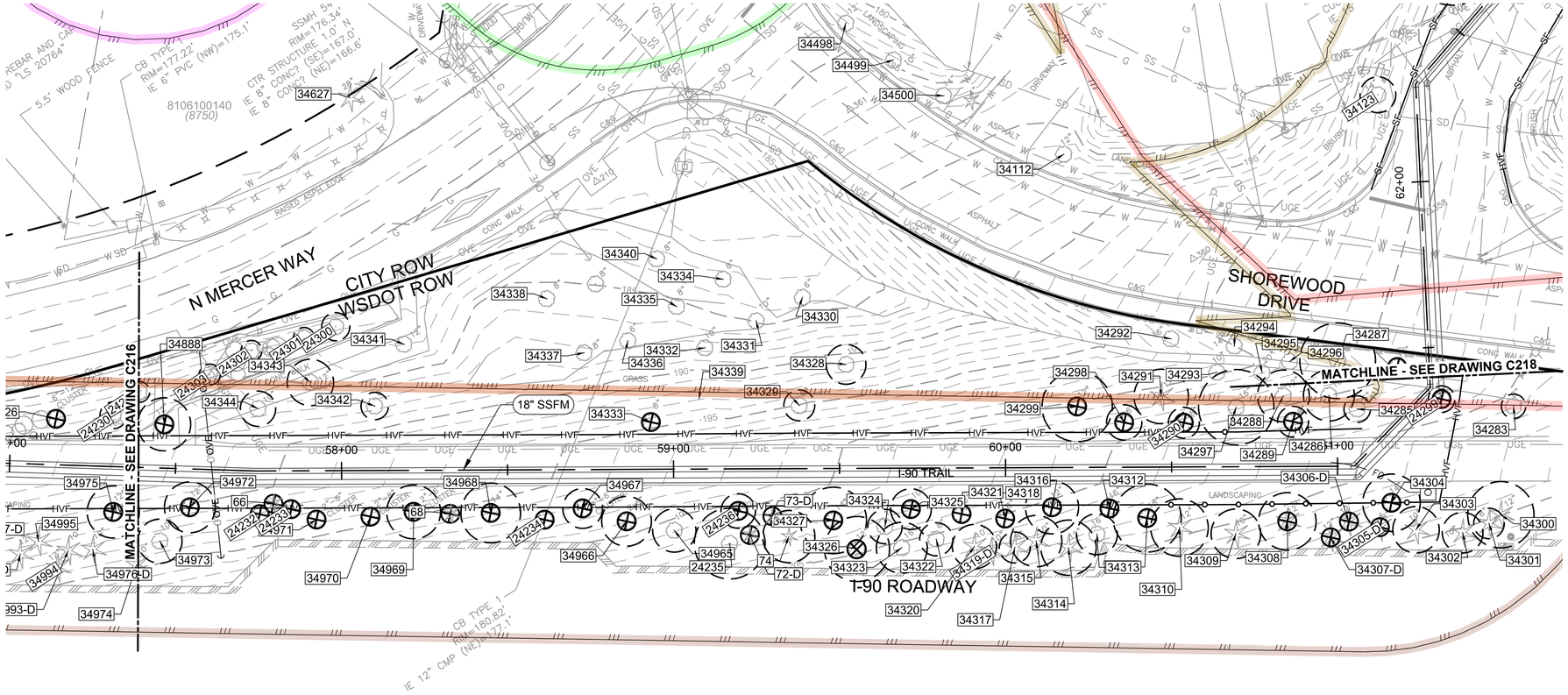
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DATE:	
PROJECT FILE NO:	TBD
DRAWING NO:	C216
SHT NO / TOTAL	/
REV NO:	

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\WSX67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C216.dwg
PLOT DATE: 8/2/2019 9:30 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	24185	C216	*Amelanchier alnifolia*	Western serviceberry	5.8	3,3,2,2,2,2	Good	Good	WSDOT	Category 2	4	2	6	Chainlink fence at trunk	
Remove	24193	C216	*Acer circinatum*	Vine maple	6.1	4,3,2,2,2	Good	Good	WSDOT	Category 2	4	3	7		Within grading limits
Protect	24194	C216	*Amelanchier alnifolia*	Western serviceberry	3.8	2.5,2,2	Good	Good	WSDOT	Category 3	3	2	n/a	Chainlink fence at grading limits	
Remove	24197	C216	*Malus fusca*	Western crabapple	6.2	5,3,2	Good	Good	WSDOT	Category 2	4	3	7		Grading within 4 ft of trunk
Remove	24200	C216	*Amelanchier alnifolia*	Western serviceberry	5.0		Fair	Good	WSDOT	Category 2	3	2	5		Grading within 1 ft of trunk
Protect	24211	C216	*Amelanchier alnifolia*	Western serviceberry	2.8	2,2	Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fence at trunk	Within grading limits
Protect	24222	C216	*Acer circinatum*	Vine maple	3.5	2,2,2	Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fence at RLOD	
Protect	24230	C216	*Acer circinatum*	Vine maple	6.1	3,3,2.5,2.5,2.5	Good	Good	WSDOT	Category 2	4	3	7	Chainlink fence at RLOD	
Unimpacted	24231	C216	*Acer circinatum*	Vine maple	4.7	1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5	Good	Good	WSDOT	Category 2	3	2	5		
Remove	34975	C216	*Acer platanoides*	Norway maple	11.8		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Unimpacted	34976	C216	*Dead*	Dead -- Douglas-fir	9.4		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	34993	C216	*Dead*	Dead -- Douglas-fir	9.8		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	34995	C216	*Pseudotsuga menziesii*	Douglas-fir NOT ASSESSED	8.0		Good	Good	WSDOT	Category 2	0	0	8		
Unimpacted	34996	C216	*Dead*	Dead	12.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	34997	C216	*Dead*	Dead -- Douglas-fir	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35000	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35001	C216	*Acer platanoides*	Norway maple	13.5		Good	Good	WSDOT	Category 2	9	6	14		Within grading limits
Unimpacted	35002	C216	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35003	C216	*Dead*	Dead -- Douglas-fir	9.9		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35004	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35005	C216	*Acer platanoides*	Norway maple	11.3		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Unimpacted	35006	C216	*Dead*	Dead -- Western redcedar	11.2	9.4,6	Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35008	C216	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35009	C216	*Pseudotsuga menziesii*	Douglas-fir	10.2		Poor	Fair	WSDOT	Category 2	7	4	11		
Remove	35010	C216	*Acer platanoides*	Norway maple	11.6		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Unimpacted	35013	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35014	C216	*Acer platanoides*	Norway maple	11.5		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Remove	35015	C216	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Category 2	7	4	10		Within grading limits
Unimpacted	35016	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35017	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35018	C216	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35019	C216	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35020	C216	*Acer platanoides*	Norway maple	10.6		Good	Good	WSDOT	Category 2	7	4	11		Within grading limits
Remove	35021	C216	*Cercidiphyllum japonicum*	Katsura	9.6	6.6,7	Good	Fair	WSDOT	Category 2	10	4	10		Within grading limits
Remove	35022	C216	*Cercidiphyllum japonicum*	Katsura	9.6	7.7,5.7	Good	Fair	WSDOT	Category 2	10	4	10		Within grading limits
Remove	35023	C216	*Cercidiphyllum japonicum*	Katsura	11.0	6,6.5,6.5	Good	Fair	WSDOT	Category 2	11	5	11		Within grading limits
Remove	35024	C216	*Cercidiphyllum japonicum*	Katsura	11.6	7,5,5,6	Good	Fair	WSDOT	Category 2	12	5	12		Grading within 2 ft of trunk
Remove	35025	C216	*Acer platanoides*	Norway maple	6.8		Good	Good	WSDOT	Category 2	5	3	7		Grading within 2 ft of trunk
Remove*	35026	C216	*Salix sp. (native)*	Native willow	17.1	7,7.3,8,11.3	Fair	Fair	WSDOT	Early successional species - no replacement required	11	7	0		Grading within 4 ft of trunk ?
Unimpacted	35068	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35069	C216	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35070	C216	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35071	C216	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35072	C216	*Acer platanoides*	Norway maple	7.1		Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Unimpacted	35073	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35074	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35075	C216	*Acer platanoides*	Norway maple	12.3		Good	Good	WSDOT	Category 2	8	5	13		Within grading limits
Unimpacted	35076	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35077	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35078	C216	*Acer platanoides*	Norway maple	13.0		Good	Good	WSDOT	Category 2	9	5	13		Within grading limits
Remove	35079	C216	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Category 2	7	4	10		Within grading limits
Unimpacted	35080	C216	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	35081	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35083	C216	*Acer platanoides*	Norway maple	13.0		Good	Good	WSDOT	Category 2	9	5	13		Within grading limits
Unimpacted	35085	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35086	C216	*Acer platanoides*	Norway maple	10.9		Good	Good	WSDOT	Category 2	7	5	11		Within grading limits
Remove	35087	C216	*Acer platanoides*	Norway maple	12.0		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Unimpacted	35088	C216	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	35089	C216	*Acer platanoides*	Norway maple	12.8		Good	Good	WSDOT	Category 2	9	5	13		Within grading limits

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION
STA □□+00 TO STA 61+00

DCN: T□D
DATE:
PROJECT FILE NO: TBD
DRAWING NO: C21□
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C217.dwg
PLOT DATE: 8/2/2019 9:33 AM
PLOTTED BY: D'Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	66	C217	*Cercidiphyllum japonicum*	Katsura tree	6.9	4,3,3,3,2	Good	Good	WSDOT	Category 2	7	3	7		Within grading limits
Remove	68	C217	*Cercidiphyllum japonicum*	Katsura tree	6.7	4,4,3,2	Good	Good	WSDOT	Category 2	7	3	7		Within grading limits
Remove (dead)	72	C217	*Dead*	Dead	9.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove (dead)	73	C217	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Unimpacted	74	C217	*Pseudotsuga menziesii*	Douglas-fir	11.8		Poor	Good	WSDOT	Category 2	8	5	12		
Remove	24232	C217	*Cercidiphyllum japonicum*	Katsura tree	5.7	4,3,2,2	Fair	Good	WSDOT	Category 2	6	2	6		Within grading limits
Remove	24233	C217	*Cercidiphyllum japonicum*	Katsura	11.1	3,4,4,4,4,5,5	Good	Good	WSDOT	Category 2	11	5	12		Within grading limits
Remove	24234	C217	*Cercidiphyllum japonicum*	Katsura tree	5.2	3,2.5,2,2,2	Good	Good	WSDOT	Category 2	5	2	6		Grading within 3 ft of trunk
Protect	24235	C217	*Pseudotsuga menziesii*	Douglas-fir	16.0		Fair	Good	WSDOT	Category 2	11	7	16	Chainlink fence at 3' from trunk	
Remove	24236	C217	*Acer platanoides*	Norway maple	7.8		Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Remove	24299	C217	*Fraxinus spp*	Ash	6.0		Good	Good	WSDOT	Category 2	4	3	6		Within grading limits
Unimpacted	24300	C217	*Cercidiphyllum japonicum*	Katsura tree	4.2	1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5	Good	Good	WSDOT	Category 2	4	2	5		
Unimpacted	24301	C217	*Acer circinatum*	Vine maple	4.7	1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5	Good	Good	WSDOT	Category 2	3	2	5		
Unimpacted	24302	C217	*Acer circinatum*	Vine maple	4.7	1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5	Good	Good	WSDOT	Category 2	3	2	5		
Unimpacted	24303	C217	*Acer circinatum*	Vine maple	4.7	1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5,1.5	Good	Good	WSDOT	Category 2	3	2	5		
Unimpacted	34283	C217	*Fraxinus spp*	Ash	5.5		Good	Good	WSDOT	Category 2	4	2	6		
Protect	34285	C217	*Fraxinus spp*	Ash	6.0		Good	Good	WSDOT	Category 2	4	3	6	Chainlink fence at grading limits	
Protect	34286	C217	*Cercidiphyllum japonicum*	Katsura	7.7	5,4,3,3	Good	Good	WSDOT	Category 2	8	3	8	Chainlink fence at grading limits	
Protect	34287	C217	*Cercidiphyllum japonicum*	Katsura	11.4	5.5,5,5,4,4,3,3	Good	Good	WSDOT	Category 2	11	5	12	Chainlink fence at grading limits	
Protect	34288	C217	*Cercidiphyllum japonicum*	Katsura	7.8	5,6	Good	Good	WSDOT	Category 2	8	3	8	place chainlink fencing at limits of RLOD	
Remove	34289	C217	*Fraxinus spp*	Ash	7.0		Good	Good	WSDOT	Category 2	5	3	7		Grading within 2 ft of trunk
Remove	34290	C217	*Fraxinus spp*	Ash	7.0		Good	Good	WSDOT	Category 2	5	3	7		Within grading limits
Protect	34291	C217	*Pinus nigra*	Austrian black pine	12.3		Fair	Good	WSDOT	Category 2	8	5	13	Chainlink fence at grading limits	
Protect	34297	C217	*Cercidiphyllum japonicum*	Katsura	11.4	6,5,5,4,3,3,3	Good	Good	WSDOT	Category 2	11	5	12	Chainlink fence at 8' from trunk	
Remove	34298	C217	*Fraxinus spp*	Ash	8.0		Good	Good	WSDOT	Category 2	5	3	8		Grading within 1 ft of trunk
Remove	34299	C217	*Cercidiphyllum japonicum*	Katsura	10.6	7, 8	Fair	Good	WSDOT	Category 2	11	4	11		Excavation within 7 ft of trunk; fair condition
Unimpacted	34300	C217	*Pseudotsuga menziesii*	Douglas-fir	15.0		Fair	Fair	WSDOT	Category 2	10	6	15		
Unimpacted	34301	C217	*Pseudotsuga menziesii*	Douglas-fir	6.9		Good	Good	WSDOT	Category 2	5	3	7		
Unimpacted	34302	C217	*Pseudotsuga menziesii*	Douglas-fir	9.2		Fair	Fair	WSDOT	Category 2	6	4	10		
Protect	34303	C217	*Pseudotsuga menziesii*	Douglas-fir	10.5		Fair	Fair	WSDOT	Category 2	7	4	11	Chainlink fence, no excavation for vault within RLOD	
Remove	34304	C217	*Acer macrophyllum*	Bigleaf maple	13.0		Good	Good	WSDOT	Category 2	9	5	13		Within excavation limits
Remove (dead)	34305	C217	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove (dead)	34306	C217	*Dead*	Dead -- Douglas-fir	12.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove (dead)	34307	C217	*Dead*	Dead -- Douglas-fir	10.3		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove	34308	C217	*Pseudotsuga menziesii*	Douglas-fir	13.0		Poor	Fair	WSDOT	Category 2	9	5	13		Grading within RLOD, poor condition
Protect	34309	C217	*Pseudotsuga menziesii*	Douglas-fir	11.2		Poor	Fair	WSDOT	Category 2	7	5	12	Chainlink fence at RLOD	
Protect	34310	C217	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13	Chainlink fence at 4' from trunk	
Remove	34311	C217	*Cercidiphyllum japonicum*	Katsura	10.2	5,4,4,4,4,4	Good	Good	WSDOT	Category 2	10	4	11		Within grading limits
Remove	34312	C217	*Cercidiphyllum japonicum*	Katsura	10.3	3,3,5,4,4,4,4	Good	Good	WSDOT	Category 2	10	4	11		Within grading limits
Protect	34313	C217	*Cercidiphyllum japonicum*	Katsura	6.2	3,3,2,2,2,2,2	Fair	Fair	WSDOT	Category 2	6	3	7	Chainlink fence at RLOD	
Unimpacted	34314	C217	*Pseudotsuga menziesii*	Douglas-fir	12.5		Poor	Fair	WSDOT	Category 2	8	5	13		
Unimpacted	34315	C217	*Pseudotsuga menziesii*	Douglas-fir	11.6		Fair	Good	WSDOT	Category 2	8	5	12		
Remove	34316	C217	*Acer platanoides*	Norway maple	12.0		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Unimpacted	34317	C217	*Pseudotsuga menziesii*	Douglas-fir	7.0		Poor	Good	WSDOT	Category 2	5	3	7		
Remove	34318	C217	*Cercidiphyllum japonicum*	Katsura	5.7	4,4	Good	Good	WSDOT	Category 2	6	2	6		Grading within 2 ft of trunk
Unimpacted	34319	C217	*Dead*	Dead -- Douglas-fir	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	34320	C217	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Fair	WSDOT	Category 2	7	4	10		
Remove	34321	C217	*Cercidiphyllum japonicum*	Katsura	4.3		Fair	Good	WSDOT	Category 2	4	2	5		Grading within 2 ft of trunk
Unimpacted	34322	C217	*Cercidiphyllum japonicum*	Katsura	5.0	3,4	Fair	Good	WSDOT	Category 2	5	2	5		
Unimpacted	34323	C217	*Cercidiphyllum japonicum*	Katsura	7.7	5,3,4,3	Good	Good	WSDOT	Category 2	8	3	8		
Unimpacted	34324	C217	*Cercidiphyllum japonicum*	Katsura	5.2	3,3,3	Good	Good	WSDOT	Category 2	5	2	6		
Remove	34325	C217	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Category 2	6	4	10		Grading within 2 ft of trunk
Remove	34326	C217	*Cercidiphyllum japonicum*	Katsura	9.8	6, 6, 5	Good	Good	WSDOT	Category 2	10	4	10		Within grading limits
Remove	34327	C217	*Cercidiphyllum japonicum*	Katsura	10.0	6,5,5.5,3	Good	Good	WSDOT	Category 2	10	4	11		Within grading limits
Unimpacted	34328	C217	*Acer platanoides*	Norway maple	9.0		Good	Good	WSDOT	Category 2	6	4	9		
Protect	34329	C217	*Acer platanoides*	Norway maple	7.0		Fair	Good	WSDOT	Category 2	5	3	7	Chainlink fence at RLOD	
Remove	34333	C217	*Acer platanoides*	Norway maple	7.3		Good	Good	WSDOT	Category 2	5	3	8		Grading within 2 ft of trunk
Unimpacted	34342	C217	*Acer platanoides*	Norway maple	6.2		Good	Good	WSDOT	Category 2	4	3	7		
Unimpacted	34343	C217	*Acer platanoides*	Norway maple	10.5		Good	Good	WSDOT	Category 2	7	4	11		
Protect	34344	C217	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fence at RLOD	
Protect*	34888	C217	*Acer platanoides*	Norway maple	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fence at grading limits	
Protect	34965	C217	*Acer platanoides*	Norway maple	9.8		Good	Good	WSDOT	Category 2	7	4	10	Chainlink fence at grading limits	
Remove	34966	C217	*Cercidiphyllum japonicum*	Katsura tree	7.5		Good	Good	WSDOT	Category 2	8	3	8		Grading within MLOD
Remove	34967	C217	*Cercidiphyllum japonicum*	Katsura	6.0	4,4,2	Good	Good	WSDOT	Category 2	6	3	6		Within excavation limits
Remove	34968	C217	*Acer platanoides*	Norway maple	13.5		Good	Good	WSDOT	Category 2	9	6	14		Within grading limits
Remove	34969	C217	*Cercidiphyllum japonicum*	Katsura	8.1	4,4,4,3,3	Good	Good	WSDOT	Category 2	8	3	9		Within grading limits
Remove	34970	C217	*Cercidiphyllum japonicum*	Katsura	10.9	6,5.8,5,4,3	Good	Good	WSDOT	Category 2	11	5	11		Within grading limits
Remove	34971	C217	*Cercidiphyllum japonicum*	Katsura	12.2	5,5,4,4,7,3,3	Good	Good	WSDOT	Category 2	12	5	13		Within grading limits
Remove	34972	C217	*Acer platanoides*	Norway maple	11.5		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Protect	34973	C217	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Category 2	7	4	10	Chainlink fence at grading limits	

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Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
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- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60

SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION

NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 61+00 TO STA 64+00

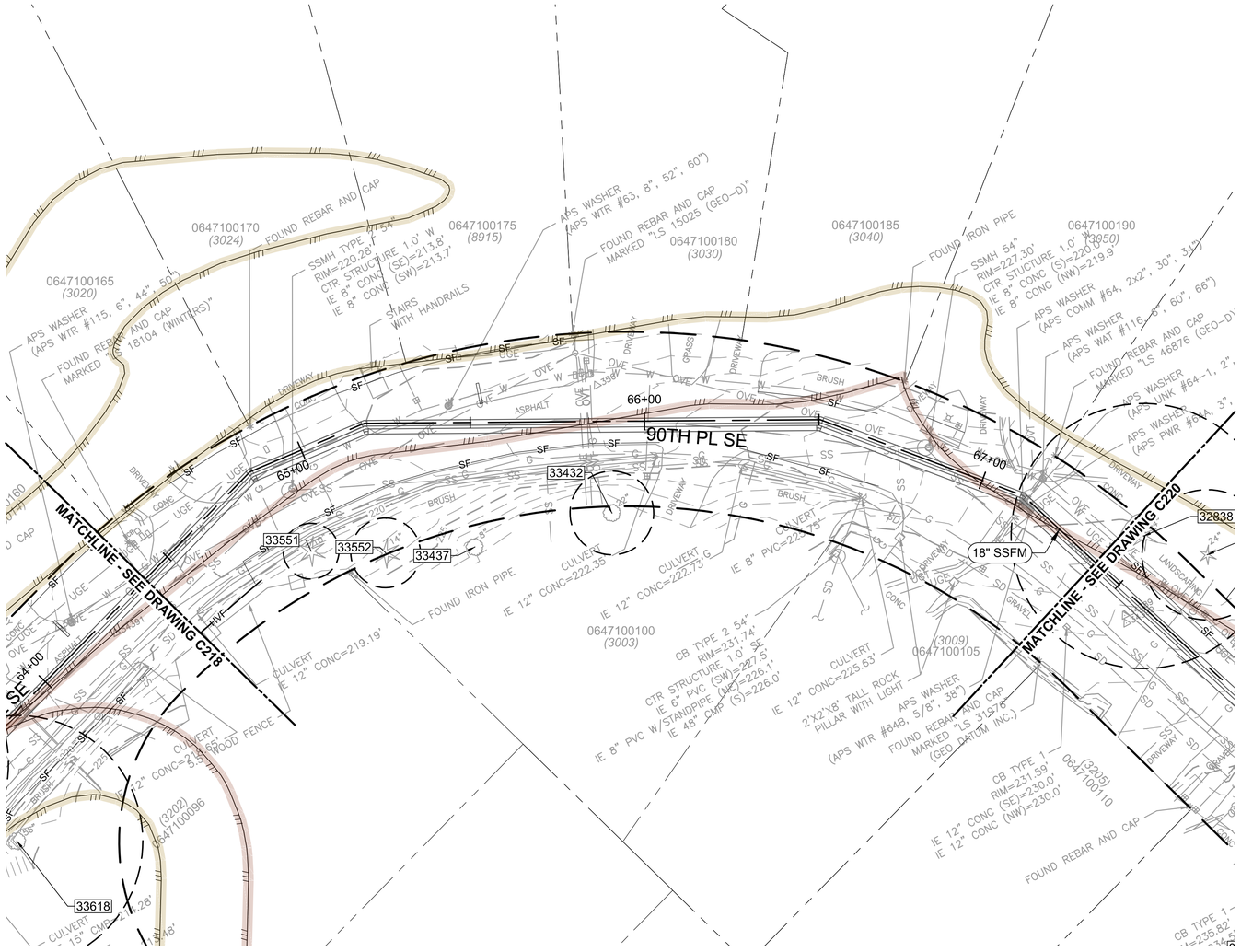
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PROJECT FILE NO: TBD	
DRAWING NO: C218	
SHT NO / TOTAL: /	REV NO:

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FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C218.dwg
PLOT DATE: 8/2/2019 9:36 AM
PLOTTED BY: D'Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	76	C218	*Pseudotsuga menziesii*	Douglas-fir	22.0		Good	Good	COMI	Exceptional - Grove	15	9	6		
Protect	77	C218	*Pinus nigra*	Austrian black pine	17.3		Good	Good	PRIVATE	Large (Regulated) tree >10"	12	7	2	Chainlink fencing at edge of asphalt	
Protect	33618	C218	*Acer macrophyllum*	Bigleaf maple	36.1	15, 15, 15, 15, 20	Good	Fair	COMI	Exceptional	36	15	6	If excavation within RLOD: arborist must be present. Asphalt remains as ground protection.	
Protect	33844	C218	*Thuja plicata*	Western redcedar	37.3		Good	Good	COMI	Exceptional	37	16	6	If excavation within RLOD: arborist must be present. Asphalt remains as ground protection.	
Protect	33910	C218	*Pinus nigra*	Austrian black pine	18.0		Good	Good	COMI	10"-24"	12	8	2	If excavation within RLOD: arborist must be present. Asphalt remains as ground protection.	
Protect	34123	C218	*Acer circinatum*	Vine maple	8.1	4, 4, 5, 3	Fair	Good	COMI	Exceptional	5	3	6	Chainlink fence at grading limits	
Remove	34284	C218	*Acer platanoides*	Norway maple	14.7		Good	Good	WSDOT	Category 2	10	6	15		Within grading limits

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Consulting Arborists



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- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

DCN: T□D

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION STA 64+00 TO STA 6□+00

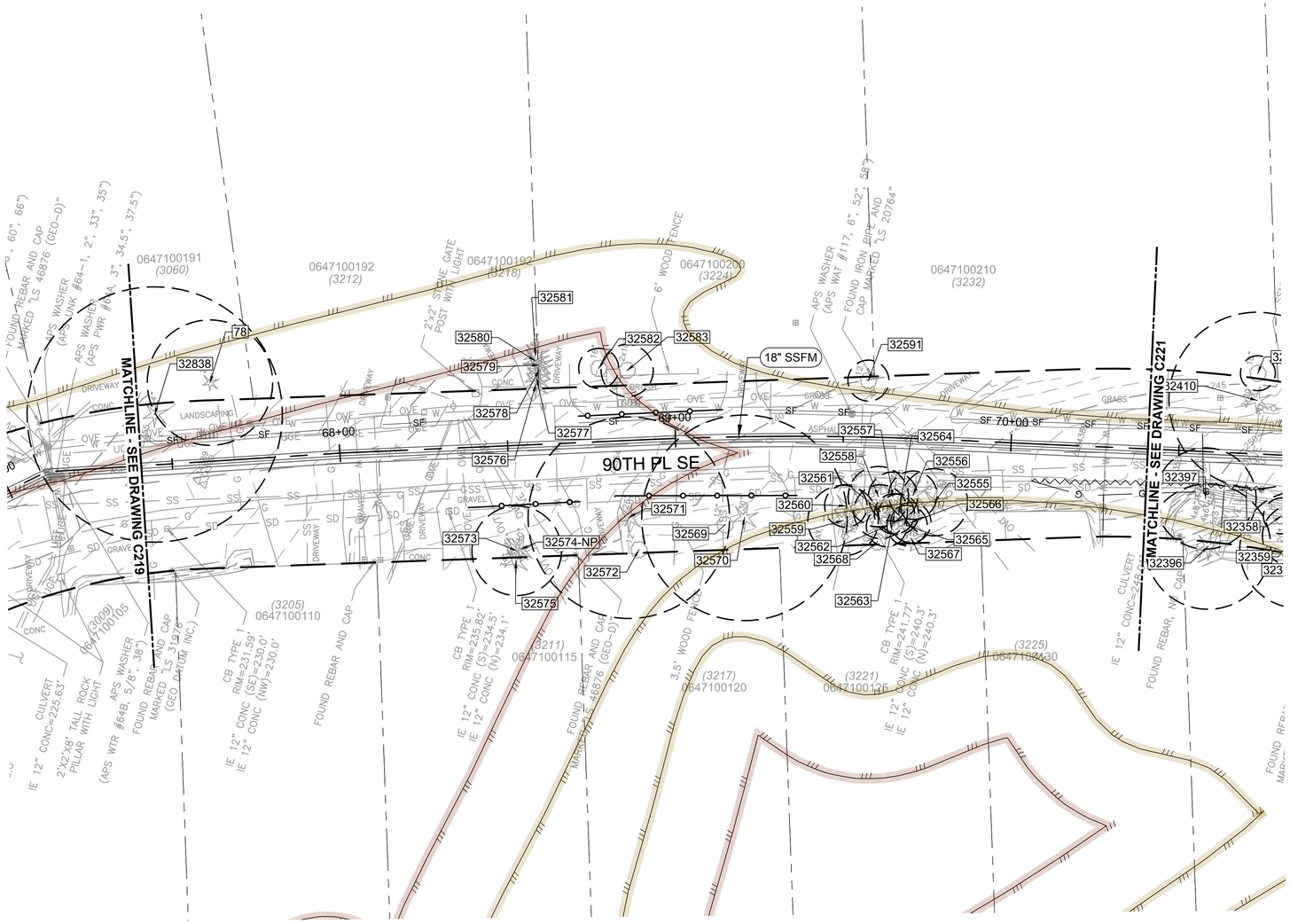
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SHT NO / TOTAL	/
REV NO:	

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PLOT DATE: 8/2/2019 9:38 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	33432	C219	*Prunus sp.*	Cherry	18.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	12	8	2		
Unimpacted	33551	C219	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Fair	COMI	Exceptional - Grove	8	5	6		
Unimpacted	33552	C219	*Cedrus deodara*	Deodar cedar	15.0		Good	Good	COMI	10"-24"	10	6	2		

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RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN SITE PREPARATION
STA 6□+00 TO STA □0+00

DCN: T□D	
DATE:	
PROJECT FILE NO: TBD	
DRAWING NO: C220	
SHT NO / TOTAL: /	REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-PIPE-C220.dwg
PLOT DATE: 8/2/2019 9:41 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	78	C220	*Pseudotsuga menziesii*	Douglas-fir	28.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	19	12	3	Chainlink fencing at edge of asphalt	
Protect	32555	C220	*Thuja plicata*	Western redcedar	10.0		Good	Good	COMI	10"-24"	10	4	2	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32556	C220	*Thuja plicata*	Western redcedar	7.2		Good	Fair	COMI	6" - 10"	7	3	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32557	C220	*Pseudotsuga menziesii*	Douglas-fir	11.0		Good	Good	COMI	10"-24"	7	5	2	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32558	C220	*Thuja plicata*	Western redcedar	9.0		Good	Fair	COMI	6" - 10"	9	4	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32559	C220	*Thuja plicata*	Western redcedar	10.5		Good	Fair	COMI	10"-24"	11	4	2	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32560	C220	*Pseudotsuga menziesii*	Douglas-fir	9.5		Good	Good	COMI	6" - 10"	6	4	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32561	C220	*Thuja plicata*	Western redcedar	8.0		Good	Fair	COMI	6" - 10"	8	3	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32562	C220	*Thuja plicata*	Western redcedar	6.0		Good	Fair	COMI	6" - 10"	6	3	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32563	C220	*Thuja plicata*	Western redcedar	6.0		Good	Good	COMI	6" - 10"	6	3	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32564	C220	*Thuja plicata*	Western redcedar	6.0		Good	Good	COMI	6" - 10"	6	3	1	Chainlink fencing at edge of asphalt; minor clearance pruning	
Unimpacted	32565	C220	*Thuja plicata*	Western redcedar	6.0		Good	Good	COMI	6" - 10"	6	3	1		
Unimpacted	32566	C220	*Thuja plicata*	Western redcedar	6.0		Good	Good	COMI	6" - 10"	6	3	1		
Protect	32570	C220	*Pseudotsuga menziesii*	Douglas-fir	30.6		Good	Good	COMI	Exceptional	31	13	6	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32571	C220	*Pseudotsuga menziesii*	Douglas-fir	30.0		Good	Good	COMI	24"-36"	30	13	3	Chainlink fencing at edge of asphalt; minor clearance pruning	
Protect	32573	C220	*Pseudotsuga menziesii*	Douglas-fir	20.0		Fair	Fair	COMI	10"-24"	13	8	2	Chainlink fencing at edge of asphalt; minor clearance pruning	
Unimpacted	32574	C220	*Not Present - Removed*	Not Present	10.0		Removed	Removed	COMI	Stump - Not Present	n/a	n/a	0		
Unimpacted	32582	C220	*Prunus cerasifera*	Cherry plum	8.9	8, 4	Good	Good	PRIVATE	<10"	6	4	0		
Unimpacted	32583	C220	*Prunus cerasifera*	Cherry plum	11.7	8, 6, 6	Good	Good	PRIVATE	Large (Regulated) tree >10"	8	5	2		
Unimpacted	32591	C220	*Crataegus monogyna*	Common hawthorn	9.2	5, 3, 3, 4, 5	Good	Fair	COMI	6" - 10"	6	4	1		
Protect	32838	C220	*Pseudotsuga menziesii*	Douglas-fir	38.0		Good	Good	COMI	Exceptional	38	16	6	Chainlink fencing at edge of asphalt	

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0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR
UPGRADE - CONVEYANCE IMPROVEMENTS

NMPS FORCE MAIN
SITE PREPARATION
STA 0+00 TO STA 3+00

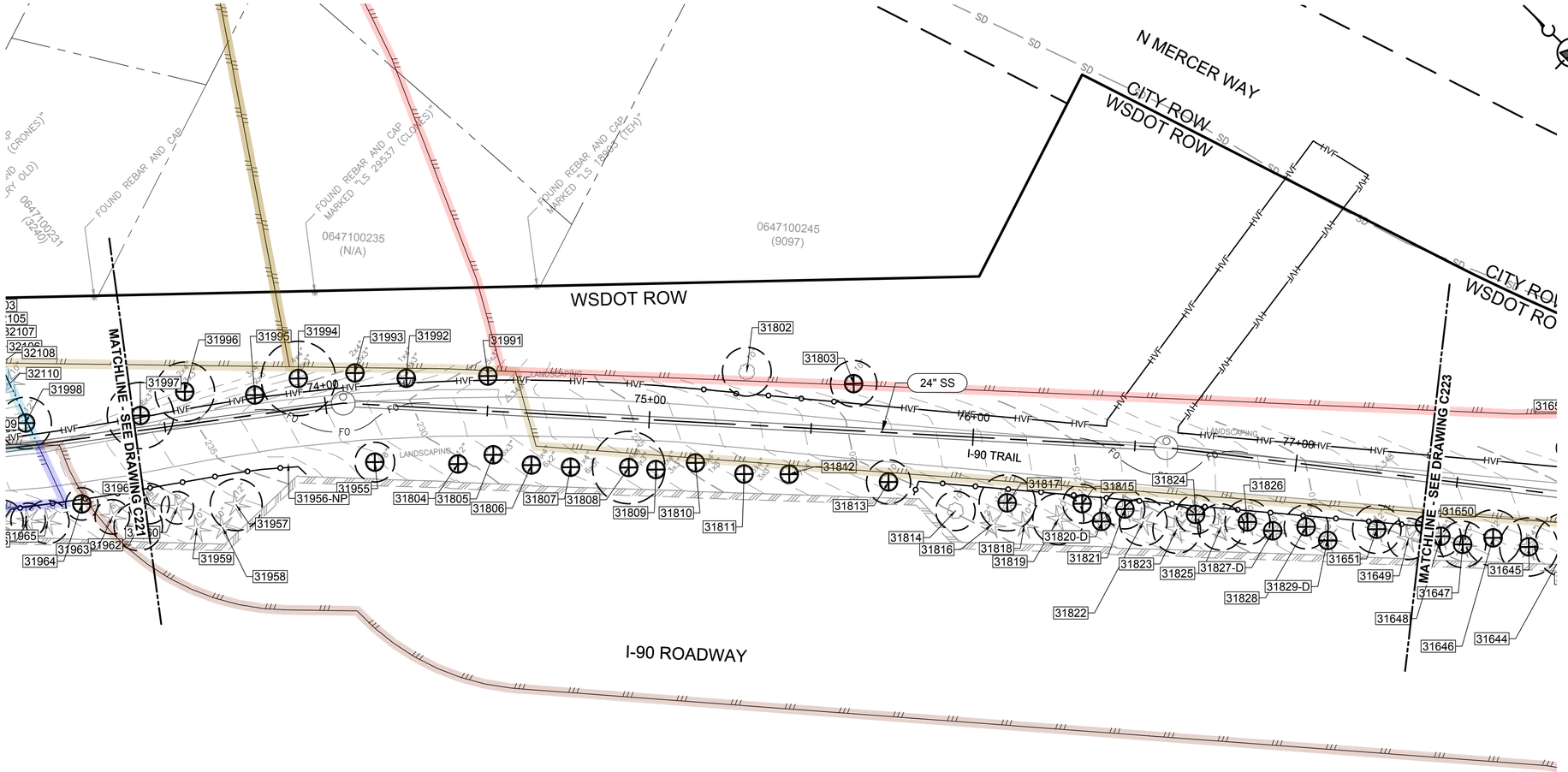
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PLOT DATE: 8/2/2019 9:43 AM
PLOTTED BY: Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	24347	C221	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Category 2	7	5	11		
Protect	31962	C221	*Pseudotsuga menziesii*	Douglas-fir	11.2		Poor	Fair	WSDOT	Category 2	7	5	12	Chainlink fence at grading limits	
Unimpacted	31963	C221	*Pinus thunbergii*	Japanese black pine	8.0		Fair	Fair	WSDOT	Category 2	5	3	8		
Remove	31964	C221	*Acer platanoides*	Norway maple	7.5		Poor	Fair	WSDOT	Category 2	5	3	8		Grading within 2 ft of trunk, poor condition.
Protect	31965	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10	Chainlink fencing at edge of asphalt	
Protect	31966	C221	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fencing at 4' from trunk	
Protect	31967	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10	Chainlink fencing at edge of asphalt	
Remove (dead)	31968	C221	*Dead*	Dead -- Norway maple	9.2		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within grading limits
Remove	31969	C221	*Acer platanoides*	Norway maple	9.3		Good	Fair	WSDOT	Category 2	6	4	10		Within grading limits
Remove	31970	C221	*Acer platanoides*	Norway maple	7.5		Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Remove	31971	C221	*Acer platanoides*	Norway maple	7.3		Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Remove	31972	C221	*Pinus thunbergii*	Japanese black pine	11.8		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Remove	31973	C221	*Pinus thunbergii*	Japanese black pine	11.5		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Remove	31974	C221	*Pinus thunbergii*	Japanese black pine	12.3		Good	Good	WSDOT	Category 2	8	5	13		Within grading limits
Unimpacted	31975	C221	*Pyrus calleryana*	Callery pear	5.1		Poor	Good	WSDOT	Category 2	3	2	6		
Unimpacted	31976	C221	*Pyrus calleryana*	Callery pear	5.1		Poor	Good	WSDOT	Category 2	3	2	6		
Remove	31998	C221	*Acer platanoides*	Norway maple	12.0		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Unimpacted	32055	C221	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	32056	C221	*Acer platanoides*	Norway maple	9.0		Fair	Good	WSDOT	Category 2	6	4	9		
Protect	32057	C221	*Acer platanoides*	Norway maple	9.5		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fencing at edge of asphalt	
Remove	32058	C221	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Category 2	6	4	10		Within grading limits
Remove (dead)	32059	C221	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Unimpacted	32060	C221	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	32061	C221	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Protect	32062	C221	*Pseudotsuga menziesii*	Douglas-fir	12.0		Fair	Good	WSDOT	Category 2	8	5	12	Chainlink fence outside RLOD	
Remove (dead)	32063	C221	*Dead*	Dead	4.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove	32064	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Fair	Good	WSDOT	Category 2	7	4	10		Excavation within 8 ft of trunk
Unimpacted	32065	C221	*Pseudotsuga menziesii*	Douglas-fir	3.0		Good	Good	WSDOT	Category 3	0	0	n/a		
Unimpacted	32066	C221	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Protect	32067	C221	*Pseudotsuga menziesii*	Douglas-fir	6.0		Fair	Good	WSDOT	Category 2	4	3	6	TBD	
Remove (dead)	32068	C221	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove (dead)	32069	C221	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove (dead)	32070	C221	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove	32085	C221	*Pseudotsuga menziesii*	Douglas-fir	6.0		Good	Good	WSDOT	Category 2	4	3	6		Within excavation limits
Remove (dead)	32086	C221	*Dead*	Dead	4.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within limits of excavation
Remove	32087	C221	*Pseudotsuga menziesii*	Douglas-fir	10.5		Good	Good	WSDOT	Category 2	7	4	11		Within excavation limits
Remove	32088	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10		within 6 ft of excavation
Protect	32089	C221	*Pseudotsuga menziesii*	Douglas-fir	13.5		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fence outside RLOD	
Protect	32091	C221	*Pseudotsuga menziesii*	Douglas-fir	6.0		Good	Good	WSDOT	Category 2	4	3	6	ChainInk fence at 4' from trunk	Within excavation limits
Remove (dead)	32095	C221	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within 5 ft of work limits, dead
Unimpacted	32108	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10		
Unimpacted	32109	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Poor	Fair	WSDOT	Category 2	7	4	10		
Remove (dead)	32113	C221	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within 5 ft of work limits, dead
Remove	32114	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Fair	Good	WSDOT	Category 2	7	4	10		Within work limits; poor condition
Remove	32115	C221	*Betula pendula*	European white birch	6.0		Poor	Good	WSDOT	Category 2	4	3	6		Excavation too close; poor condition
Remove (dead)	32116	C221	*Dead*	Dead	4.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within 5 ft of work limits, dead
Remove (dead)	32117	C221	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within work limits, dead
Remove	32118	C221	*Pseudotsuga menziesii*	Douglas-fir	10.0		Poor	Good	WSDOT	Category 2	7	4	10		Within work limits; poor condition
Unimpacted	32119	C221	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12		
Unimpacted	32120	C221	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	32121	C221	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	32122	C221	*Dead*	Dead	6.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Protect	32357	C221	*Pseudotsuga menziesii*	Douglas-fir	16.0		Good	Good	COMI	10"-24"	11	7	2	Chainlink fencing at edge of asphalt	
Protect	32358	C221	*Crataegus monogyna*	Common hawthorn	8.0		Good	Fair	COMI	6" - 10"	5	3	1	Chainlink fencing at edge of asphalt	
Protect	32359	C221	*Acer macrophyllum*	Bigleaf maple	13.6	8, 8, 6.5, 4	Good	Fair	COMI	10"-24"	9	6	2	Chainlink fencing at edge of asphalt, careful excavation	
Unimpacted	32360	C221	*Pseudotsuga menziesii*	Douglas-fir	26.0		Good	Good	COMI	24"-36"	17	11	3		
Protect	32396	C221	*Pseudotsuga menziesii*	Douglas-fir	28.0		Good	Good	COMI	24"-36"	19	12	3	Chainlink fencing at edge of asphalt	
Protect	32397	C221	*Salix scouleriana*	Scouler's willow	22.6	8, 8, 8, 7, 9, 6, 8, 8, 5	Fair	Fair	COMI	Exceptional	15	9	6	Chainlink fencing at edge of asphalt, careful excavation	
Protect	32410	C221	*Thuja plicata*	Western redcedar	26.2	17, 20	Good	Fair	COMI	24"-36"	26	11	3	Chainlink fencing at edge of asphalt, careful excavation	
Unimpacted	32411	C221	*Crataegus monogyna*	Common hawthorn	7.8		Good	Good	WSDOT	Category 2	5	3	8		

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60

SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH

JACOBS

PRELIMINARY ISSUE DRAWING

INFORMATION ONLY

DRAFT

ARBORIST DRAWING SET

SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION

NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION

STA □3+00 TO STA □□+00

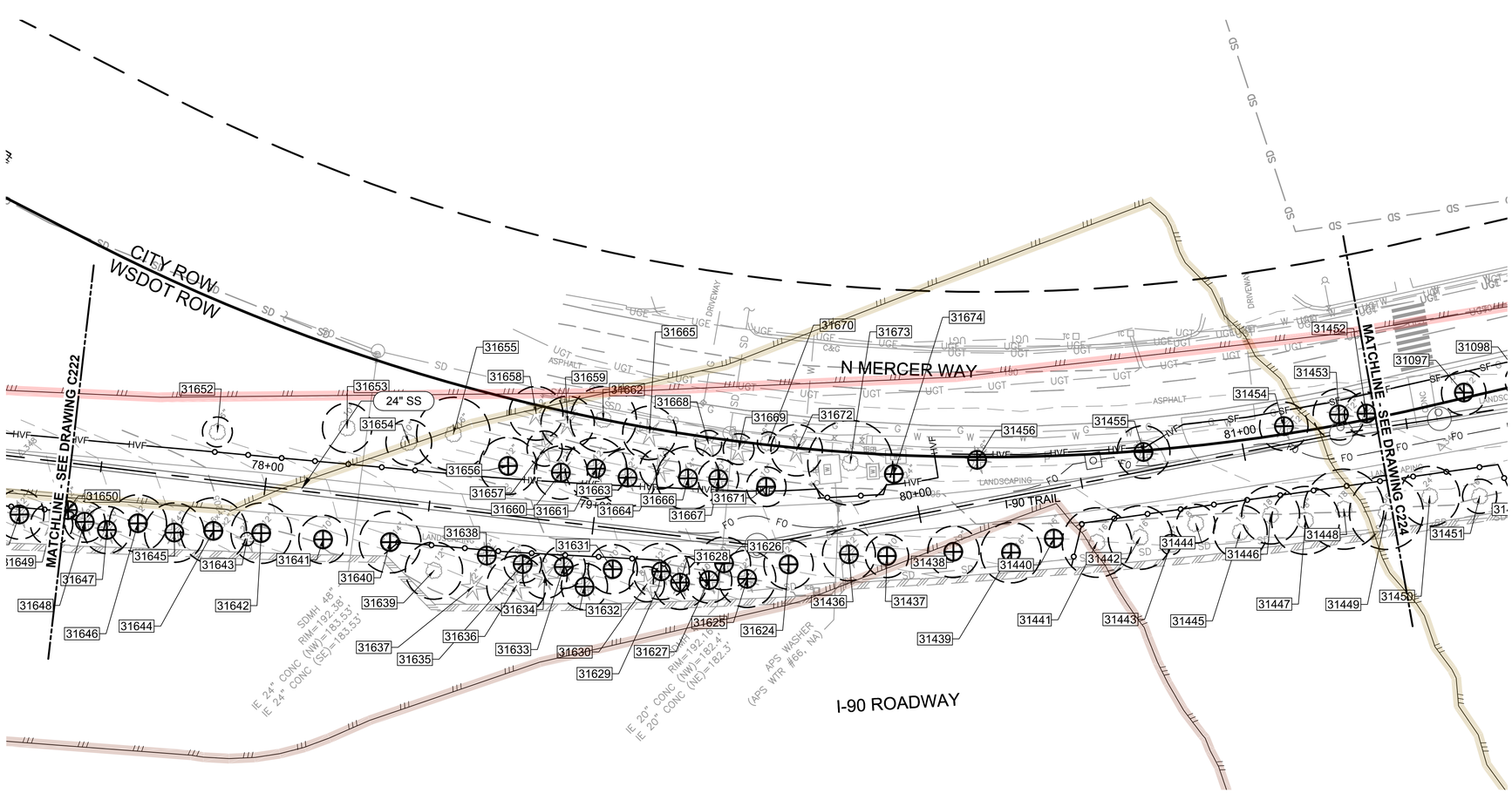
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DRAWING NO:	C222
SHT NO / TOTAL	/
REV NO:	

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PLOT DATE: 8/2/2019 9:46 AM
PLOTTED BY: D'Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	31649	C222	*Pseudotsuga menziesii*	Douglas-fir	9.6		Fair	Good	WSDOT	Category 2	6	4	10	Place chainlink fencing within 2 ft of trench wall	Retention status should be consistent with adjacent Doug firs
Remove	31651	C222	*Pinus thunbergii*	Japanese black pine	11.2	8.5,7.3	Fair	Fair	WSDOT	Category 2	7	5	12		Grading within MLOD
Protect	31802	C222	*Acer platanoides*	Norway maple	11.3		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fence at RLOD	
Remove	31803	C222	*Acer platanoides*	Norway maple	10.7		Good	Good	WSDOT	Category 2	7	4	11		Grading within RLOD
Remove	31804	C222	*Cercidiphyllum japonicum*	Katsura tree	7.5	2,3,3,3,3,4	Fair	Good	WSDOT	Category 2	7	3	8		Grading within RLOD
Remove	31805	C222	*Cercidiphyllum japonicum*	Katsura tree	8.7	3,3,3,4,4,4	Fair	Good	WSDOT	Category 2	9	4	9		Grading within RLOD
Remove	31806	C222	*Cercidiphyllum japonicum*	Katsura tree	8.4	5,3,3,3,3,3	Good	Good	WSDOT	Category 2	8	3	9		Grading within RLOD
Remove	31807	C222	*Cercidiphyllum japonicum*	Katsura tree	8.2	3,3,3,3,4,4	Fair	Good	WSDOT	Category 2	8	3	9		Grading within RLOD
Remove	31808	C222	*Cercidiphyllum japonicum*	Katsura tree	11.2	4,6,4,4,4,5	Good	Good	WSDOT	Category 2	11	5	12		Grading within RLOD
Remove	31809	C222	*Cercidiphyllum japonicum*	Katsura tree	8.7	3,3,3,4,4,4	Good	Good	WSDOT	Category 2	9	4	9		Grading within RLOD
Remove	31810	C222	*Cercidiphyllum japonicum*	Katsura tree	7.5	4,4,4,3	Good	Fair	WSDOT	Category 2	8	3	8		Grading within RLOD
Remove	31811	C222	*Cercidiphyllum japonicum*	Katsura tree	8.7	3,3,3,4,4,4	Good	Good	WSDOT	Category 2	9	4	9		Grading within RLOD
Remove	31812	C222	*Cercidiphyllum japonicum*	Katsura tree	8.9	3,3,3,3,3,3,3,4	Good	Good	WSDOT	Category 2	9	4	9		Grading within RLOD
Remove	31813	C222	*Acer platanoides*	Norway maple	10.2		Good	Good	WSDOT	Category 2	7	4	11		Grading within RLOD
Protect	31814	C222	*Acer platanoides*	Norway maple	9.1		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fence at RLOD	
Remove	31815	C222	*Acer platanoides*	Norway maple	9.0		Good	Good	WSDOT	Category 2	6	4	9		Grading within 3 feet of trunk.
Remove	31817	C222	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13		Within excavation limits
Protect	31819	C222	*Pseudotsuga menziesii*	Douglas-fir	11.8		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fence at RLOD	
Remove (dead)	31820	C222	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within excavation limits; dead
Remove	31821	C222	*Pseudotsuga menziesii*	Douglas-fir	9.2		Poor	Good	WSDOT	Category 2	6	4	10		Grading within 2 ft of tree; poor condition
Protect	31822	C222	*Pseudotsuga menziesii*	Douglas-fir	11.0		Fair	Good	WSDOT	Category 2	7	5	11	Chainlink fence at RLOD	
Protect	31823	C222	*Pseudotsuga menziesii*	Douglas-fir	11.0		Good	Good	WSDOT	Category 2	7	5	11	Chainlink fence at RLOD	
Remove	31824	C222	*Pseudotsuga menziesii*	Douglas-fir	9.0		Poor	Good	WSDOT	Category 2	6	4	9		Within excavation limits; poor condition
Protect	31825	C222	*Pseudotsuga menziesii*	Douglas-fir	10.7		Good	Good	WSDOT	Category 2	7	4	11	Chainlink fence at RLOD	
Remove	31826	C222	*Pseudotsuga menziesii*	Douglas-fir	10.4		Fair	Good	WSDOT	Category 2	7	4	11		Within excavation limits
Remove (dead)	31827	C222	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within excavation limits; dead
Remove	31828	C222	*Pseudotsuga menziesii*	Douglas-fir	10.2		Good	Good	WSDOT	Category 2	7	4	11		grading 5 ft from tree
Remove (dead)	31829	C222	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		within excavation limits; dead
Remove	31955	C222	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Category 2	6	4	10		Within grading limits
Unimpacted	31956	C222	*Dead*	Dead -- removed	0.0		Dead	Dead	WSDOT	Stump - Not Present	0	0	0		
Protect	31957	C222	*Pinus thunbergii*	Japanese black pine	12.0		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fence at grading limits	
Protect	31960	C222	*Pinus thunbergii*	Japanese black pine	7.5		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fence at grading limits	
Protect	31961	C222	*Pinus thunbergii*	Japanese black pine	9.3		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fence at grading limits	
Remove	31991	C222	*Cercidiphyllum japonicum*	Katsura tree	8.5	3,4,4,4,4	Good	Good	WSDOT	Category 2	9	4	9		Grading within RLOD; species not tolerant
Remove	31992	C222	*Cercidiphyllum japonicum*	Katsura tree	9.7	6,4,3,3,3,4	Good	Good	WSDOT	Category 2	10	4	10		Grading within RLOD; species not tolerant
Remove	31993	C222	*Cercidiphyllum japonicum*	Katsura tree	9.5	5,5,4,4,3	Fair	Good	WSDOT	Category 2	10	4	10		Grading within RLOD; species not tolerant
Remove	31994	C222	*Cercidiphyllum japonicum*	Katsura tree	11.5	4,4,4,5,5,5,3	Good	Good	WSDOT	Category 2	11	5	12		Grading within RLOD; species not tolerant
Remove	31995	C222	*Cercidiphyllum japonicum*	Katsura tree	10.3	5,5,5,4,4	Good	Good	WSDOT	Category 2	10	4	11		Grading within RLOD; species not tolerant
Remove	31996	C222	*Cercidiphyllum japonicum*	Katsura tree	9.2	5,5,4,3,3	Poor	Good	WSDOT	Category 2	9	4	10		Grading within RLOD; species not tolerant
Remove	31997	C222	*Cercidiphyllum japonicum*	Katsura tree	10.2	5,4,4,4,4,4	Fair	Good	WSDOT	Category 2	10	4	11		Grading within RLOD; species not tolerant

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR
UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION
STA ☐☐+00 TO STA 81+00

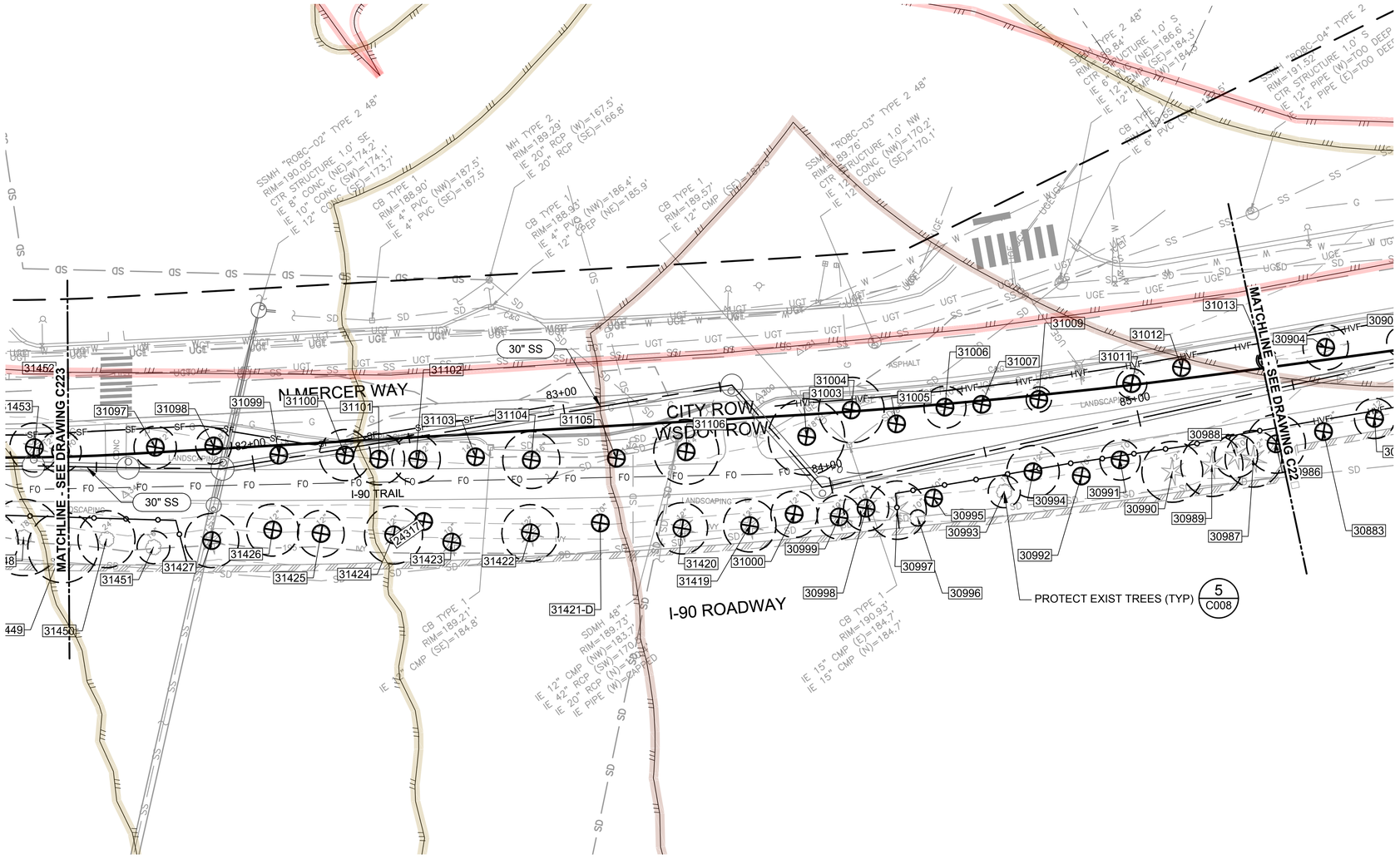
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SHT NO / TOTAL /	REV NO:

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PLOT DATE: 8/2/2019 9:49 AM
PLOTTED BY: DAuria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	31436	C223	*Pinus thunbergii*	Japanese black pine	12.0		Good	Good	WSDOT	Category 2	8	5	12		Within excavation limits
Remove	31437	C223	*Acer platanoides*	Norway maple	9.8		Good	Good	WSDOT	Category 2	7	4	10		Within excavation limits
Remove	31438	C223	*Acer platanoides*	Norway maple	11.7		Good	Good	WSDOT	Category 2	8	5	12		Within grading limits
Remove	31439	C223	*Cercidiphyllum japonicum*	Katsura tree	9.2	3,3,3,4,4,5	Good	Good	WSDOT	Category 2	9	4	10		Grading within 5 ft of trunk
Remove	31440	C223	*Cercidiphyllum japonicum*	Katsura tree	8.7	5,4,4,3,3	Good	Good	WSDOT	Category 2	9	4	9		Grading within 2 ft of trunk
Protect	31441	C223	*Cercidiphyllum japonicum*	Katsura tree	10.5	6,4,4,4,3,3,3	Good	Good	WSDOT	Category 2	11	4	11	Chainlink fence at 2' beyond grading	Grading within 6 ft of trunk
Protect	31442	C223	*Cercidiphyllum japonicum*	Katsura tree	9.6	5,5,5,3,3	Good	Good	WSDOT	Category 2	10	4	10	Chainlink fence at 2' beyond grading	Grading within 6 ft of trunk
Protect	31443	C223	*Myrica californica*	California wax myrtle	4.6	2, 2, 3, 2	Good	Good	WSDOT	Category 2	3	2	5	Chainlink fence at RLOD	
Protect	31444	C223	*Fraxinus latifolia*	Oregon ash	8.8		Good	Good	WSDOT	Category 2	6	4	9	Chainlink fence at RLOD	
Protect	31445	C223	*Cercidiphyllum japonicum*	Katsura tree	8.1	4,4,5,3	Good	Good	WSDOT	Street Tree	8	3	1	Chainlink fence at RLOD	
Protect	31446	C223	*Cercidiphyllum japonicum*	Katsura tree	8.8	6,4,4,3	Good	Good	WSDOT	Street Tree	9	4	1	Chainlink fence at 2' beyond grading	Grading within 5 ft of trunk
Protect	31447	C223	*Cercidiphyllum japonicum*	Katsura tree	10.3	6,6,5,3	Good	Good	WSDOT	Street Tree	10	4	1	Chainlink fence at RLOD	
Protect	31448	C223	*Cercidiphyllum japonicum*	Katsura tree	12.1	6,6,5,5,4,3	Good	Good	WSDOT	Street Tree	12	5	1	Chainlink fence at 2' beyond grading	Grading within 8 ft of trunk
Protect	31449	C223	*Cercidiphyllum japonicum*	Katsura tree	11.2	5,5,5,4,4,3,3	Good	Good	WSDOT	Street Tree	11	5	1	Chainlink fence at grading limits	
Remove	31452	C223	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	COMI	10"-24"	7	4	2		Within excavation limits
Remove	31453	C223	*Pseudotsuga menziesii*	Douglas-fir	11.7		Good	Good	COMI	10"-24"	8	5	2		Within excavation limits
Remove	31454	C223	*Pseudotsuga menziesii*	Douglas-fir	11.0		Good	Fair	COMI	10"-24"	7	5	2		Within excavation limits
Remove	31455	C223	*Thuja plicata*	Western redcedar	8.0		Good	Good	WSDOT	Street Tree	8	3	1		Within excavation limits
Remove	31456	C223	*Pseudotsuga menziesii*	Douglas-fir	16.6		Good	Good	WSDOT	Category 2	11	7	17		Excavation within 5 ft of tree
Remove	31624	C223	*Acer platanoides*	Norway maple	11.2		Good	Poor	WSDOT	Category 2	7	5	12		Within excavation limits
Remove	31625	C223	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13		Grading within 5 ft of trunk
Remove	31626	C223	*Pinus nigra*	Austrian black pine	12.0		Fair	Good	WSDOT	Category 2	8	5	12		Within excavation limits
Remove	31627	C223	*Pseudotsuga menziesii*	Douglas-fir	10.4		Good	Good	WSDOT	Category 2	7	4	11		Grading within 4 ft of trunk
Remove	31628	C223	*Pseudotsuga menziesii*	Douglas-fir	12.2		Good	Good	WSDOT	Category 2	8	5	13		Grading within 6 ft of trunk
Remove	31629	C223	*Pinus nigra*	Austrian black pine	12.8		Good	Fair	WSDOT	Category 2	9	5	13		Grading within 4 ft of trunk
Protect	31630	C223	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fence at RLOD	
Remove	31631	C223	*Acer platanoides*	Norway maple	11.2		Good	Fair	WSDOT	Category 2	7	5	12		Grading within 3 ft of trunk
Remove	31632	C223	*Pseudotsuga menziesii*	Douglas-fir	10.5		Poor	Poor	WSDOT	Category 2	7	4	11		Within work limits; poor condition
Remove	31633	C223	*Pinus thunbergii*	Japanese black pine	9.8		Good	Good	WSDOT	Category 2	7	4	10		Grading within 3 ft of trunk
Protect	31634	C223	*Pseudotsuga menziesii*	Douglas-fir	10.1		Good	Good	WSDOT	Category 2	7	4	11	TBD	
Remove	31635	C223	*Pinus thunbergii*	Japanese black pine	8.5		Good	Good	WSDOT	Category 2	6	4	9		Grading within 3 ft of trunk
Protect	31636	C223	*Pseudotsuga menziesii*	Douglas-fir	13.5		Good	Good	WSDOT	Category 2	9	6	14	Chainlink fence at RLOD	
Unimpacted	31637	C223	*Pseudotsuga menziesii*	Douglas-fir	3.0		Good	Good	WSDOT	Category 3	0	0	n/a		
Remove	31638	C223	*Pseudotsuga menziesii*	Douglas-fir	3.0		Good	Good	WSDOT	Category 3	0	0	n/a		Grading within 2 ft of trunk
Protect	31639	C223	*Acer platanoides*	Norway maple	13.0		Good	Good	WSDOT	Category 2	9	5	13	Chainlink fence at RLOD	
Remove	31640	C223	*Acer platanoides*	Norway maple	14.0		Good	Good	WSDOT	Category 2	9	6	14		Within excavation limits
Remove	31641	C223	*Acer platanoides*	Norway maple	11.0		Good	Good	WSDOT	Category 2	7	5	11		Grading within 2 ft of trunk
Remove	31642	C223	*Cercidiphyllum japonicum*	Katsura tree	9.2	5,5,5,3	Good	Good	WSDOT	Category 2	9	4	10		Within excavation limits
Protect	31643	C223	*Pseudotsuga menziesii*	Douglas-fir	3.0		Good	Good	WSDOT	Category 3	2	1	n/a	Chainlink fencing 5 ft radius around tree	
Remove	31644	C223	*Cercidiphyllum japonicum*	Katsura tree	10.0	4,4,4,4,3,3,3,3	Good	Good	WSDOT	Category 2	10	4	10		Grading within 2 ft of trunk
Remove	31645	C223	*Pseudotsuga menziesii*	Douglas-fir	13.5		Good	Good	WSDOT	Category 2	9	6	14		Grading within 4 ft of trunk
Remove	31646	C223	*Acer platanoides*	Norway maple	13.0		Good	Good	WSDOT	Category 2	9	5	13		Grading within 2 ft of trunk
Remove	31647	C223	*Pseudotsuga menziesii*	Douglas-fir	10.7		Good	Good	WSDOT	Category 2	7	4	11		Grading within 5 ft of trunk
Remove	31648	C223	*Pseudotsuga menziesii*	Douglas-fir	9.3		Good	Good	WSDOT	Category 2	6	4	10		Grading within 2 ft of trunk
Remove	31650	C223	*Pinus thunbergii*	Japanese black pine	12.6		Good	Good	WSDOT	Category 2	8	5	13		Within excavation limits
Protect	31652	C223	*Pyrus calleryana*	Callery pear	6.8		Good	Good	WSDOT	Category 2	5	3	7	Chainlink fence at RLOD	
Protect	31653	C223	*Acer platanoides*	Norway maple	11.2		Good	Good	WSDOT	Category 2	7	5	12	Chainlink fence at RLOD	
Protect	31654	C223	*Acer platanoides*	Norway maple	10.4		Good	Good	WSDOT	Category 2	7	4	11	Chainlink fence at RLOD	
Protect	31655	C223	*Cercidiphyllum japonicum*	Katsura tree	11.1	6,6,6,4	Good	Good	WSDOT	Category 2	11	5	12	Chainlink fence at RLOD	
Remove	31656	C223	*Acer platanoides*	Norway maple	13.0		Good	Good	WSDOT	Category 2	9	5	13		Grading within 5 ft of trunk
Protect	31657	C223	*Pinus thunbergii*	Japanese black pine	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fence at RLOD	
Protect	31658	C223	*Pseudotsuga menziesii*	Douglas-fir	12.2		Good	Good	WSDOT	Category 2	8	5	13	Chainlink fence at RLOD	
Protect	31659	C223	*Pseudotsuga menziesii*	Douglas-fir	12.1		Good	Good	WSDOT	Category 2	8	5	13	Chainlink fence at RLOD	
Remove	31660	C223	*Pinus thunbergii*	Japanese black pine	12.1		Fair	Fair	WSDOT	Category 2	8	5	13		Grading within 3 ft of trunk
Remove	31661	C223	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Category 2	9	6	14		Grading within 4 ft of trunk
Protect	31662	C223	*Cercidiphyllum japonicum*	Katsura tree	10.0	6, 8	Fair	Good	WSDOT	Category 2	10	4	10	Chainlink fence at RLOD	
Remove	31663	C223	*Pseudotsuga menziesii*	Douglas-fir	13.1		Good	Good	WSDOT	Category 2	9	5	14		Grading within 2 ft of trunk
Protect	31664	C223	*Pseudotsuga menziesii*	Douglas-fir	9.2		Good	Good	WSDOT	Category 2	6	4	10	Chainlink fence at RLOD	
Protect	31665	C223	*Pseudotsuga menziesii*	Douglas-fir	12.2		Good	Good	WSDOT	Category 2	8	5	13	Chainlink fence at RLOD	
Remove	31666	C223	*Pseudotsuga menziesii*	Douglas-fir	14.4		Good	Good	WSDOT	Category 2	10	6	15		Grading within 5 ft of trunk
Remove	31667	C223	*Pseudotsuga menziesii*	Douglas-fir	9.2		Good	Good	WSDOT	Category 2	6	4	10		Grading within 2 ft of trunk
Protect	31668	C223	*Pseudotsuga menziesii*	Douglas-fir	6.0		Good	Good	WSDOT	Category 2	4	3	6	Chainlink fence at RLOD	
Protect	31669	C223	*Pseudotsuga menziesii*	Douglas-fir	7.0		Good	Good	WSDOT	Category 2	5	3	7	Chainlink fence at RLOD	
Protect	31670	C223	*Fraxinus latifolia*	Oregon ash	5.0		Fair	Good	COMI	<6"	3	2	0	Chainlink fence at RLOD	
Remove	31671	C223	*Fraxinus latifolia*	Oregon ash	9.0		Fair	Good	WSDOT	Category 2	6	4	9		Within grading limits
Protect	31672	C223	*Pseudotsuga menziesii*	Douglas-fir	11.7		Good	Good	WSDOT	Category 2	8	5	12	Chainlink fence at RLOD	
Protect	31673	C223	*Cercidiphyllum japonicum*	Katsura tree	12.8	5,5,5,6,6,3,3	Good	Good	WSDOT	Category 2	13	5	13	Chainlink fencing at limits of grading	regrading 6 ft from trunk
Remove	31674	C223	*Cercidiphyllum japonicum*	Katsura tree	10.7	6,6,3,3,3,4	Good	Good	WSDOT	Category 2	11	4	11		Grading within 2 ft of trunk

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
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- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60

SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH

JACOBS

PRELIMINARY ISSUE DRAWING

INFORMATION ONLY

DRAFT

ARBORIST DRAWING SET

SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION

NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION STA 81+00 TO STA 8□+00

DCN: T□D

DATE:

PROJECT FILE NO: TBD

DRAWING NO: C224

SHT NO / TOTAL: /

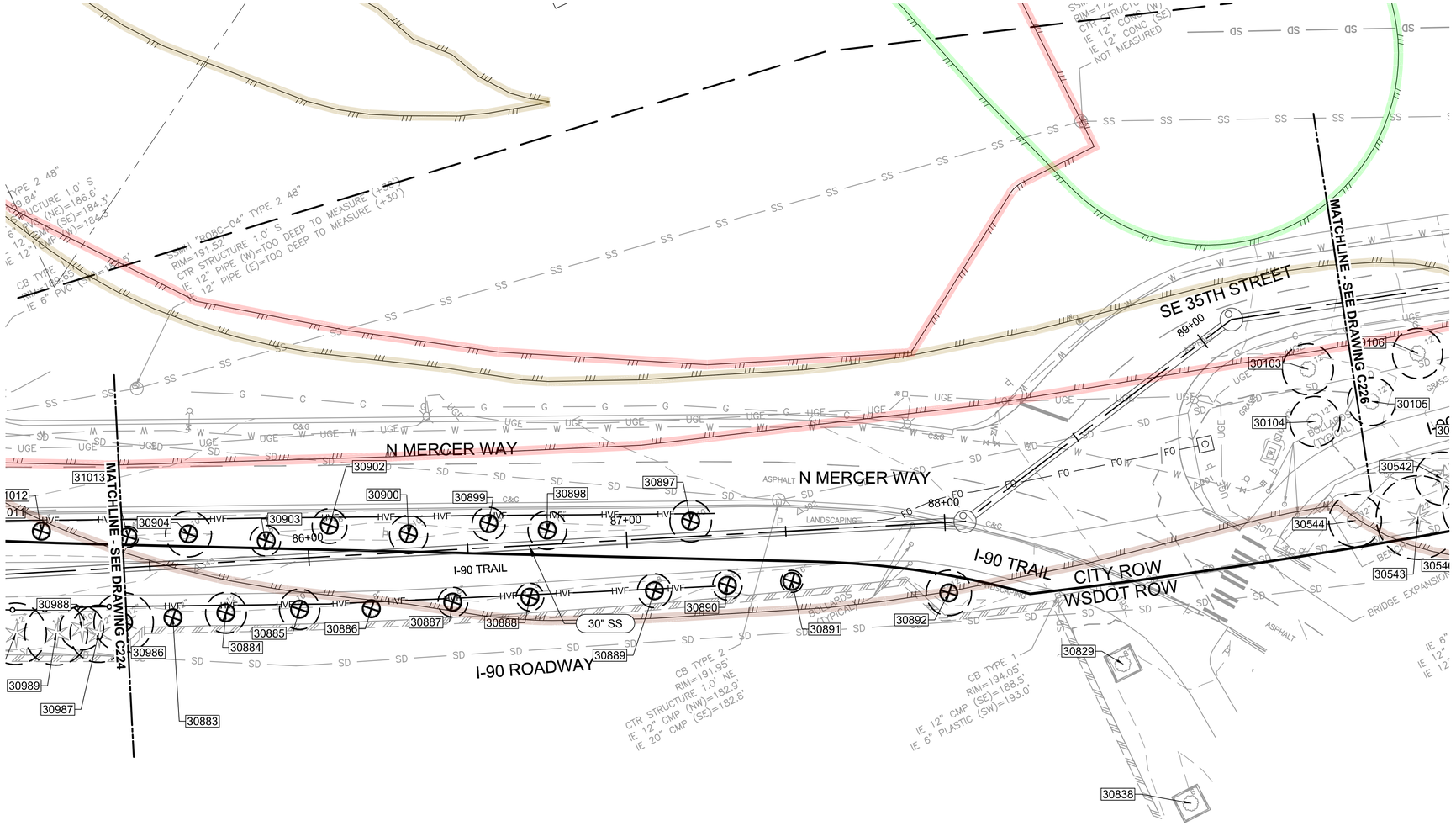
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PLOT DATE: 8/2/2019 9:51 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	24317	C224	*Cercidiphyllum japonicum*	Katsura tree	5.2	3.8, 3, 2	Poor	Good	WSDOT	Street Tree	5	2	1		Within excavation limits
Remove	30986	C224	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Street Tree	9	6	1		Grading within 5 ft of trunk
Protect	30987	C224	*Pseudotsuga menziesii*	Douglas-fir	13.5		Good	Good	WSDOT	Street Tree	9	6	1	Chainlink fence at grading limits	
Protect	30988	C224	*Pseudotsuga menziesii*	Douglas-fir	10.3		Good	Good	WSDOT	Street Tree	7	4	1	Chainlink fence at grading limits	
Protect	30989	C224	*Pseudotsuga menziesii*	Douglas-fir	14.8		Good	Good	WSDOT	Street Tree	10	6	1	Chainlink fence at grading limits	
Protect	30990	C224	*Pseudotsuga menziesii*	Douglas-fir	14.5		Good	Good	WSDOT	Street Tree	10	6	1	Chainlink fence at grading limits	
Remove	30991	C224	*Cercidiphyllum japonicum*	Katsura tree	6.4	4, 4, 3	Good	Good	WSDOT	Street Tree	6	3	1		Grading within 2 ft of trunk
Remove	30992	C224	*Cercidiphyllum japonicum*	Katsura tree	5.7	4, 4	Fair	Good	WSDOT	Street Tree	6	2	1		Grading within 6 ft of trunk
Protect	30993	C224	*Cercidiphyllum japonicum*	Katsura tree	5.1	3, 3, 2, 2	Good	Good	WSDOT	Street Tree	5	2	1	Chainlink fence at RLOD	
Remove	30994	C224	*Acer platanoides*	Norway maple	12.5		Good	Good	WSDOT	Street Tree	8	5	1		Excavation within 1 ft of tree
Remove	30995	C224	*Cercidiphyllum japonicum*	Katsura tree	4.7	2, 3, 3	Poor	Good	WSDOT	Street Tree	5	2	1		Excavation within 4 ft of tree; poor condition
Unimpacted	30996	C224	*Myrica californica*	California wax myrtle	3.8	1.5, 1.5, 2, 2, 1.5	Good	Good	WSDOT	Category 3	3	2	1		
Remove	30997	C224	*Pseudotsuga menziesii*	Douglas-fir	13.9		Good	Good	WSDOT	Street Tree	9	6	1		regrading 7 ft from tree
Remove	30998	C224	*Pseudotsuga menziesii*	Douglas-fir	10.8		Good	Good	WSDOT	Street Tree	7	5	1		Grading within 2 ft of trunk
Remove	30999	C224	*Pseudotsuga menziesii*	Douglas-fir	10.5		Good	Fair	WSDOT	Street Tree	7	4	1		Excavation within MLOD
Remove	31000	C224	*Acer platanoides*	Norway maple	11.1		Good	Good	WSDOT	Street Tree	7	5	1		Within grading limits
Remove	31003	C224	*Cercidiphyllum japonicum*	Katsura tree	12.1	6,6,5,5,5	Good	Good	WSDOT	Street Tree	12	5	1		Excavation within 1 ft of tree
Remove	31004	C224	*Cercidiphyllum japonicum*	Katsura tree	10.4	6,6,6	Good	Good	COMI	10"-24"	10	4	2		Grading within 6 ft of trunk
Remove	31005	C224	*Cercidiphyllum japonicum*	Katsura tree	11.0	6,5,5,6	Good	Good	WSDOT	Street Tree	11	5	1		Within grading limits
Remove	31006	C224	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Street Tree	7	4	1		Grading within 4 ft of trunk
Remove	31007	C224	*Cercidiphyllum japonicum*	Katsura tree	9.9	5,5,4,4,4	Good	Good	WSDOT	Street Tree	10	4	1		Grading within 1 ft of trunk
Remove	31009	C224	*Fraxinus latifolia*	Oregon ash	6.0		Fair	Good	WSDOT	Street Tree	4	3	1		Grading within 1 ft of trunk
Remove	31011	C224	*Fraxinus latifolia*	Oregon ash	7.2		Good	Good	WSDOT	Street Tree	5	3	1		Within grading limits
Remove	31012	C224	*Fraxinus latifolia*	Oregon ash	5.6		Fair	Good	COMI	<6"	4	2	0		Within grading limits
Remove	31097	C224	*Acer platanoides*	Norway maple	10.1		Good	Good	COMI	10"-24"	7	4	2		Within excavation limits
Remove	31098	C224	*Acer platanoides*	Norway maple	8.5		Good	Good	COMI	6" - 10"	6	4	1		Within excavation limits
Remove	31099	C224	*Cercidiphyllum japonicum*	Katsura tree	8.4	6,3,5	Good	Good	WSDOT	Street Tree	8	3	1		Within excavation limits
Remove	31100	C224	*Cercidiphyllum japonicum*	Katsura tree	8.1	5,5,4	Good	Good	WSDOT	Street Tree	8	3	1		Within excavation limits
Remove	31101	C224	*Cercidiphyllum japonicum*	Katsura tree	8.1	5,4,4,3	Good	Good	WSDOT	Street Tree	8	3	1		Within excavation limits
Remove	31102	C224	*Cercidiphyllum japonicum*	Katsura tree	7.7	5,4,3,3	Good	Good	WSDOT	Street Tree	8	3	1		Within excavation limits
Remove	31103	C224	*Cercidiphyllum japonicum*	Katsura tree	9.8	6,6,5	Good	Good	WSDOT	Street Tree	10	4	1		Within excavation limits
Remove	31104	C224	*Cercidiphyllum japonicum*	Katsura tree	9.1	5,4,4,4,3	Good	Good	WSDOT	Street Tree	9	4	1		Within grading limits
Remove	31105	C224	*Cercidiphyllum japonicum*	Katsura tree	9.7	6,5,5,3	Good	Good	WSDOT	Street Tree	10	4	1		Within grading limits
Remove	31106	C224	*Cercidiphyllum japonicum*	Katsura tree	10.3	6,6,5,3	Good	Good	WSDOT	Street Tree	10	4	1		Within grading limits
Remove	31419	C224	*Pseudotsuga menziesii*	Douglas-fir	12.5		Good	Good	WSDOT	Street Tree	8	5	1		Grading within 4 ft of trunk
Remove	31420	C224	*Pseudotsuga menziesii*	Douglas-fir	12.2		Fair	Fair	WSDOT	Street Tree	8	5	1		Grading within 1 ft of trunk
Remove (dead)	31421	C224	*Dead*	Dead	5.0	4, 3	Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove	31422	C224	*Pseudotsuga menziesii*	Douglas-fir	13.5		Poor	Fair	WSDOT	Street Tree	9	6	1		Within grading limits
Remove	31423	C224	*Pseudotsuga menziesii*	Douglas-fir	10.9		Good	Good	WSDOT	Street Tree	7	5	1		Grading within 3 ft of trunk
Remove	31424	C224	*Pseudotsuga menziesii*	Douglas-fir	13.8		Good	Good	WSDOT	Street Tree	9	6	1		Grading within 2 ft of trunk
Remove	31425	C224	*Acer platanoides*	Norway maple	11.1		Good	Good	WSDOT	Street Tree	7	5	1		Grading within 1 ft of trunk
Remove	31426	C224	*Acer platanoides*	Norway maple	12.4		Good	Good	WSDOT	Street Tree	8	5	1		Grading within 1 ft of trunk
Remove	31427	C224	*Pseudotsuga menziesii*	Douglas-fir	12.9		Good	Good	WSDOT	Street Tree	9	5	1		Within excavation limits
Protect	31450	C224	*Cercidiphyllum japonicum*	Katsura tree	9.1	4,4,4,4,3,3	Good	Good	WSDOT	Street Tree	9	4	1	Chainlink fence at grading limits	Excavation within 7 ft of trunk
Protect	31451	C224	*Cercidiphyllum japonicum*	Katsura tree	5.2	3,3,3	Good	Good	WSDOT	Street Tree	5	2	1	Chainlink fencing 6 ft from tree	

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RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
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- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
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- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION
STA 8□+00 TO STA 89+00

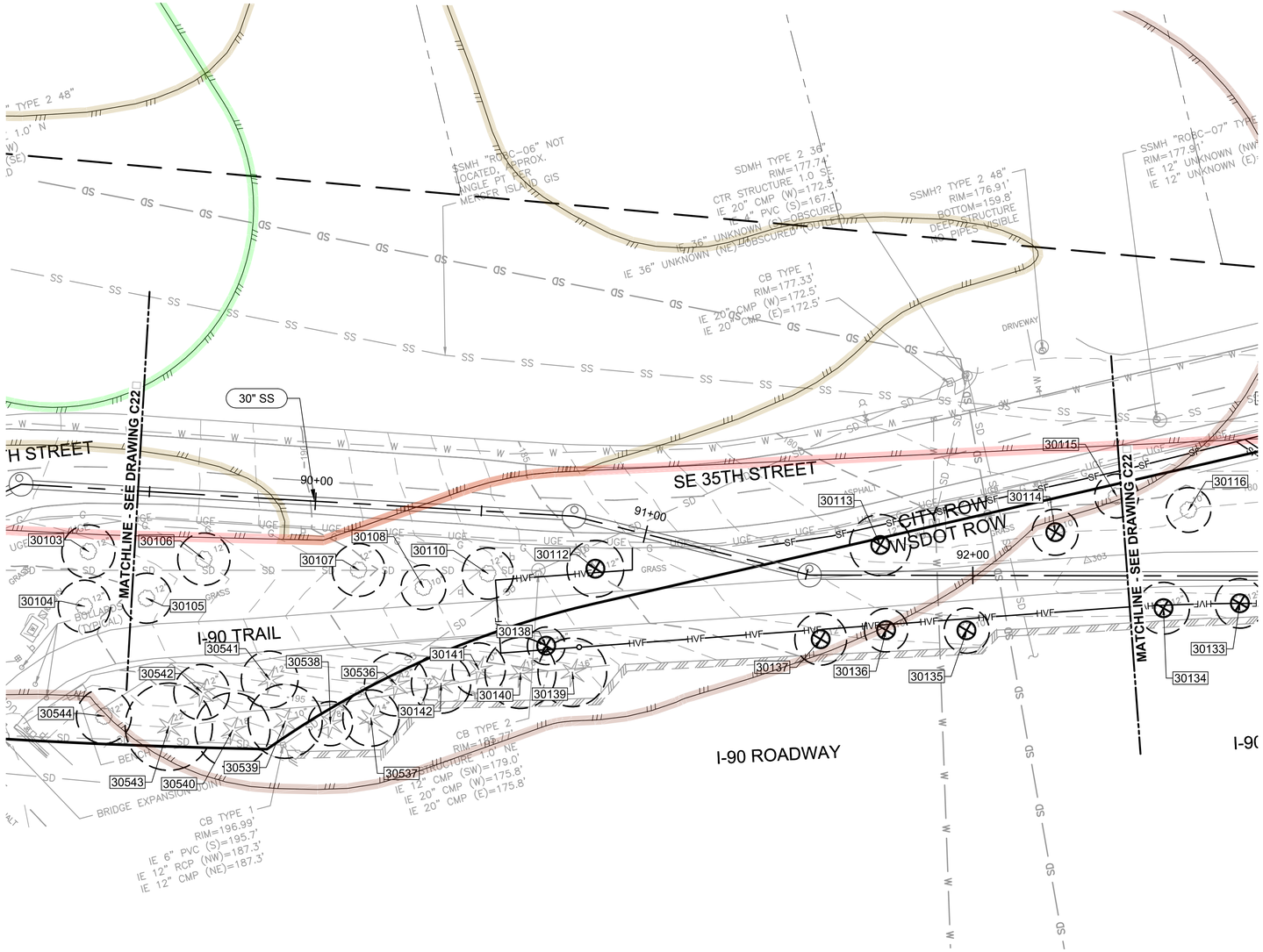
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PLOT DATE: 8/2/2019 9:53 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	30103	C225	*Acer platanoides*	Norway maple	12.0		Good	Good	COMI	10"-24"	8	5	2	Chainlink fence at RLOD	
Protect	30104	C225	*Acer platanoides*	Norway maple	11.8		Good	Good	COMI	10"-24"	8	5	2	Chainlink fence at RLOD	
Protect	30544	C225	*Acer platanoides*	Norway maple	12.4		Good	Good	COMI	Exceptional - Grove	8	5	6	Chainlink fencing at edge of asphalt	
Remove	30883	C225	*Cercidiphyllum japonicum*	Katsura tree	6.6	3, 3, 5	Fair	Good	WSDOT	Street Tree	7	3	1		Grading within 5 ft of trunk
Remove	30884	C225	*Cercidiphyllum japonicum*	Katsura tree	6.4	5, 4	Fair	Good	WSDOT	Street Tree	6	3	1		Grading within 4 ft of trunk
Remove	30885	C225	*Acer platanoides*	Norway maple	9.5		Good	Good	WSDOT	Street Tree	6	4	1		Grading within 1 ft of trunk
Remove	30886	C225	*Acer platanoides*	Norway maple	6.6		Good	Good	WSDOT	Street Tree	4	3	1		Grading within 1 ft of trunk
Remove	30887	C225	*Acer platanoides*	Norway maple	7.0		Good	Good	WSDOT	Street Tree	5	3	1		Grading within 1 ft of trunk
Remove	30888	C225	*Acer platanoides*	Norway maple	6.5		Good	Good	WSDOT	Street Tree	4	3	1		Grading within 1 ft of trunk
Remove	30889	C225	*Acer platanoides*	Norway maple	8.0		Good	Good	WSDOT	Street Tree	5	3	1		Within excavation limits
Remove	30890	C225	*Acer platanoides*	Norway maple	6.9		Good	Good	WSDOT	Street Tree	5	3	1		Within excavation limits
Remove	30891	C225	*Acer platanoides*	Norway maple	5.2		Good	Good	WSDOT	Street Tree	3	2	1		Within excavation limits
Remove	30892	C225	*Acer platanoides*	Norway maple	10.7		Good	Good	WSDOT	Street Tree	7	4	1		Grading within 1 ft of trunk
Remove	30897	C225	*Acer platanoides*	Norway maple	9.8		Good	Good	COMI	6" - 10"	7	4	1		Within excavation limits
Remove	30898	C225	*Acer platanoides*	Norway maple	9.1		Good	Good	COMI	6" - 10"	6	4	1		Within excavation limits
Remove	30899	C225	*Acer platanoides*	Norway maple	7.8		Good	Good	COMI	6" - 10"	5	3	1		Within excavation limits
Remove	30900	C225	*Acer platanoides*	Norway maple	9.0		Good	Good	COMI	6" - 10"	6	4	1		Within excavation limits
Remove	30902	C225	*Acer platanoides*	Norway maple	8.2		Good	Good	COMI	6" - 10"	5	3	1		Grading within 1 ft of trunk
Remove	30903	C225	*Acer platanoides*	Norway maple	7.2		Good	Good	COMI	6" - 10"	5	3	1		Within excavation limits
Remove	30904	C225	*Acer platanoides*	Norway maple	10.8		Good	Good	COMI	10"-24"	7	5	2		Within excavation limits
Remove	31013	C225	*Fraxinus latifolia*	Oregon ash	5.0		Fair	Good	COMI	<6"	3	2	0		Within grading limits

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION STA 89+00 TO STA 92+00

DCN:	T□D
DATE:	
PROJECT FILE NO:	TBD
DRAWING NO:	C226
SHT NO / TOTAL	/
REV NO:	

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
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PLOT DATE: 8/2/2019 9:56 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Unimpacted	30105	C226	*Acer platanoides*	Norway maple	11.3		Good	Good	COMI	10"-24"	8	5	2		
Unimpacted	30106	C226	*Acer platanoides*	Norway maple	11.8		Good	Good	COMI	10"-24"	8	5	2		
Unimpacted	30107	C226	*Acer platanoides*	Norway maple	11.9		Good	Good	COMI	10"-24"	8	5	2		
Unimpacted	30108	C226	*Acer platanoides*	Norway maple	10.1		Good	Good	COMI	10"-24"	7	4	2		
Protect	30110	C226	*Acer platanoides*	Norway maple	11.6		Good	Good	COMI	10"-24"	8	5	2	Chainlink fence at RLOD	
Remove	30112	C226	*Acer platanoides*	Norway maple	12.8		Good	Good	COMI	10"-24"	9	5	2		Grading within 2 ft of trunk
Remove	30113	C226	*Acer platanoides*	Norway maple	13.8		Good	Good	WSDOT	Street Tree	9	6	1		Grading within 2 ft of trunk
Remove	30114	C226	*Acer saccharinum*	Silver maple	10.4		Good	Good	WSDOT	Street Tree	7	4	1		Grading within 2 ft of trunk
Remove	30135	C226	*Acer platanoides*	Norway maple	10.2		Good	Good	WSDOT	Street Tree	7	4	1		Grading within 4 ft of trunk
Remove	30136	C226	*Acer platanoides*	Norway maple	9.8		Good	Good	WSDOT	Street Tree	7	4	1		Grading within 2 ft of trunk
Remove	30137	C226	*Acer platanoides*	Norway maple	11.7		Good	Good	WSDOT	Street Tree	8	5	1		Grading within 4 ft of trunk
Remove	30138	C226	*Acer platanoides*	Norway maple	8.5		Good	Good	WSDOT	Street Tree	6	4	1		Within grading limits
Protect	30139	C226	*Pinus thunbergii*	Japanese black pine	15.5		Fair	Fair	WSDOT	Street Tree	10	6	1	Chainlink fence 2' from grading	Grading within 7 ft of trunk
Protect	30140	C226	*Pinus thunbergii*	Japanese black pine	16.0		Good	Good	WSDOT	Street Tree	11	7	1	Chainlink fence 2' from grading	Within grading limits
Protect	30141	C226	*Pinus thunbergii*	Japanese black pine	12.0		Fair	Fair	WSDOT	Street Tree	8	5	1	Chainlink fence 2' from grading	Within grading limits
Protect	30142	C226	*Pinus thunbergii*	Japanese black pine	13.4		Good	Fair	WSDOT	Street Tree	9	6	1	Chainlink fence at RLOD	
Unimpacted	30536	C226	*Pinus thunbergii*	Japanese black pine	14.2		Good	Fair	WSDOT	Street Tree	9	6	1		
Unimpacted	30537	C226	*Pinus thunbergii*	Japanese black pine	12.7		Fair	Fair	WSDOT	Street Tree	8	5	1		
Unimpacted	30538	C226	*Pinus thunbergii*	Japanese black pine	10.0		Fair	Good	WSDOT	Street Tree	7	4	1		
Unimpacted	30539	C226	*Pinus thunbergii*	Japanese black pine	16.7		Good	Fair	COMI	Exceptional - Grove	11	7	6		
Unimpacted	30540	C226	*Pinus thunbergii*	Japanese black pine	16.9		Good	Fair	COMI	Exceptional - Grove	11	7	6		
Unimpacted	30541	C226	*Pinus thunbergii*	Japanese black pine	12.8		Good	Good	COMI	Exceptional - Grove	9	5	6		
Unimpacted	30542	C226	*Pinus thunbergii*	Japanese black pine	12.5		Good	Fair	COMI	Exceptional - Grove	8	5	6		
Unimpacted	30543	C226	*Pinus thunbergii*	Japanese black pine	19.7		Good	Fair	COMI	Exceptional - Grove	13	8	6		

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Consulting Arborists



CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
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- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS
NORTH MERCER INTERCEPTOR SITE PREPARATION
STA 92+00 TO STA 9□+00

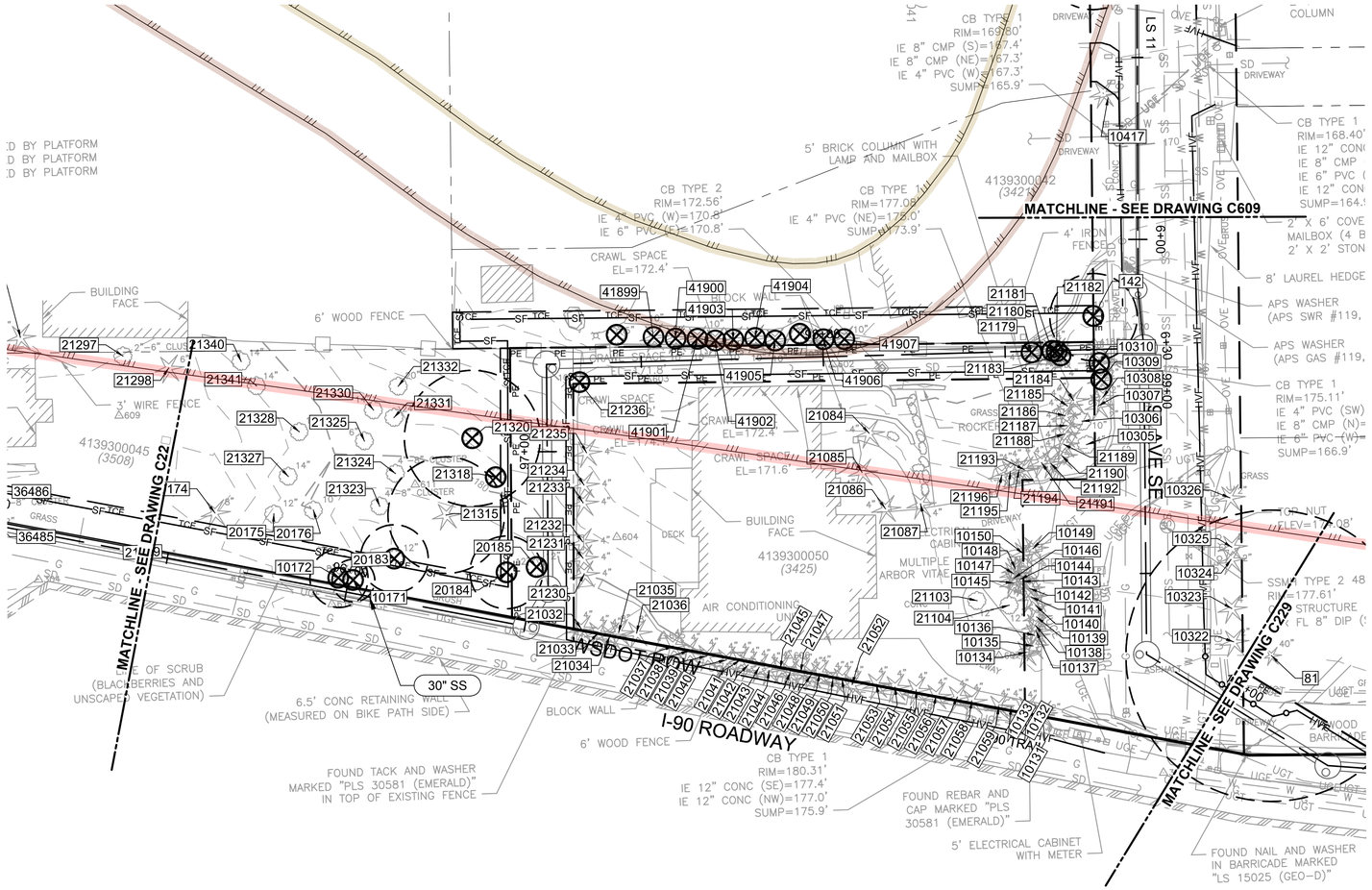
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DATE:	
PROJECT FILE NO:	TBD
DRAWING NO:	C22□
SHT NO / TOTAL	/
REV NO:	

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PLOTTED BY: D'Auria, Isaac
PLOT DATE: 8/2/2019 9:59 AM

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	10178	C227	*Robinia pseudoacacia*	Black locust	14.9	7.5, 9, 9.2	Good	Good	COMI	10"-24"	10	6	2		Within excavation limits
Remove	10179	C227	*Acer macrophyllum*	Bigleaf maple	3.0		Good	Good	COMI	<6"	0	0	0		Within excavation limits
Remove	10180	C227	*Arbutus menziesii*	Pacific madrone	3.0		Good	Good	COMI	<6"	2	1	0		Within excavation limits
Remove	10181	C227	*Robinia pseudoacacia*	Black locust	7.0		Good	Good	COMI	6" - 10"	5	3	1		Within excavation limits
Remove	10182	C227	*Robinia pseudoacacia*	Black locust	6.0		Good	Good	COMI	6" - 10"	4	3	1		Within excavation limits
Protect	21291	C227	*Fraxinus sp*	Ash	14.9		Good	Fair	PRIVATE	Large (Regulated) tree >10"	10	6	2	Chainlink fence outside of MLOD	
Protect	30115	C227	*Acer saccharinum*	Silver maple	9.9		Good	Good	WSDOT	Street Tree	7	4	1	Chainlink fence at RLOD	
Protect	30116	C227	*Acer saccharinum*	Silver maple	10.1		Good	Good	WSDOT	Street Tree	7	4	1	Chainlink fence at RLOD	
Protect	30117	C227	*Acer platanoides*	Norway maple	14.0		Good	Good	WSDOT	Street Tree	9	6	1	Chainlink fencing/construction fencing beyond RLOD	
Protect	30118	C227	*Acer platanoides*	Norway maple	10.8		Good	Good	WSDOT	Street Tree	7	5	1	Chainlink fencing/construction fencing beyond RLOD	
Protect	30119	C227	*Acer platanoides*	Norway maple	14.5		Good	Good	WSDOT	Street Tree	10	6	1	Chainlink fencing/construction fencing beyond RLOD	
Protect	30120	C227	*Fraxinus latifolia*	Oregon ash	8.1		Good	Good	WSDOT	Category 2	5	3	9	Chainlink fencing/construction fencing beyond RLOD	
Protect	30121	C227	*Acer platanoides*	Norway maple	13.1		Good	Good	WSDOT	Category 2	9	5	14	Chainlink fencing/construction fencing beyond RLOD	
Protect	30122	C227	*Acer platanoides*	Norway maple	11.5		Good	Good	COMI	10"-24"	8	5	2	Chainlink fencing/construction fencing beyond RLOD	
Protect	30123	C227	*Acer platanoides*	Norway maple	17.6		Good	Good	COMI	10"-24"	12	7	2	Chainlink fence at MLOD along 96th Ave SE	
Remove	30124	C227	*Fraxinus latifolia*	Oregon ash	7.8		Good	Good	COMI	6" - 10"	5	3	1		Within excavation limits
Remove	30125	C227	*Robinia pseudoacacia*	Black locust	7.4		Good	Good	COMI	6" - 10"	5	3	1		Within excavation limits
Remove	30127	C227	*Alnus rubra*	Red alder	15.1	7.5, 9.6, 9	Fair	Fair	COMI	10"-24"	15	6	2		Within excavation limits
Remove (dead)	30128	C227	*Dead*	Dead -- Madrone	10.3		Dead	Dead	COMI	Dead -- snag	0	0	0		Within excavation limits
Remove	30131	C227	*Acer platanoides*	Norway maple	10.0		Good	Good	WSDOT	Category 2	7	4	10		Grading within 1 ft of trunk
Remove	30132	C227	*Acer platanoides*	Norway maple	10.2		Good	Good	WSDOT	Category 2	7	4	11		Grading within 1 ft of trunk
Remove	30133	C227	*Acer platanoides*	Norway maple	11.2		Good	Good	WSDOT	Category 2	7	5	12		Grading within 1 ft of trunk
Remove	30134	C227	*Acer platanoides*	Norway maple	11.7		Good	Good	WSDOT	Category 2	8	5	12		Grading within 1 ft of trunk
Protect	30222	C227	*Picea glauca*	White spruce	10.0		Fair	Good	PRIVATE	Large (Regulated) tree >10"	7	4	2	Chainlink fencing at edge of asphalt or RLOD	
Protect	30223	C227	*Pseudotsuga menziesii*	Douglas-fir	6.0		Good	Good	PRIVATE	<10"	4	3	0	Chainlink fencing at edge of asphalt or RLOD	
Remove	36485	C227	*Prunus sp*	Cherry	14.2	12,4,4,5	Good	Fair	PRIVATE	Large (Regulated) tree >10"	9	6	2		Within excavation limits
Remove	36486	C227	*Prunus sp*	Cherry	15.8	5,6,4,8,10,3	Good	Fair	PRIVATE	Large (Regulated) tree >10"	11	7	2		Excavation 1 ft from trunk

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0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION
STA 9□+00 TO STA 99+□0

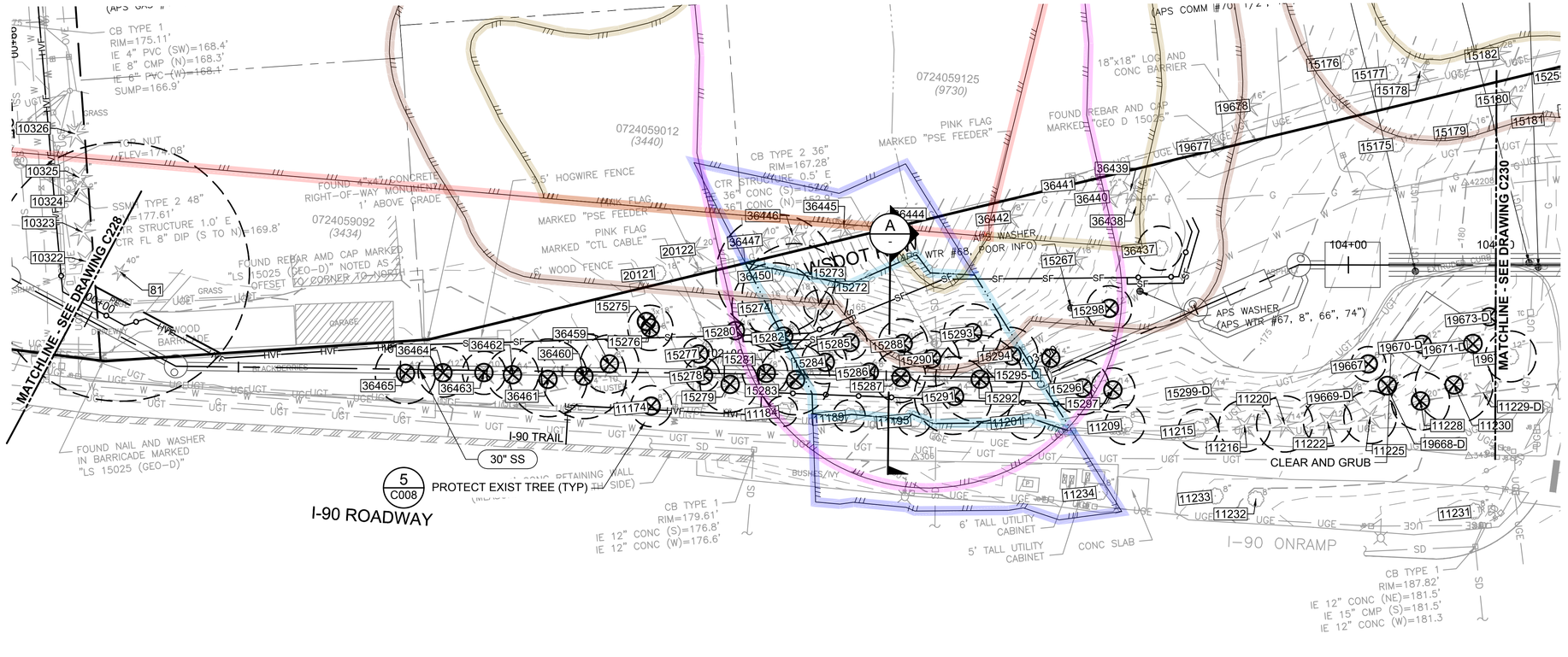
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PROJECT FILE NO: TBD
DRAWING NO: C228
SHT NO / TOTAL: /
REV NO:

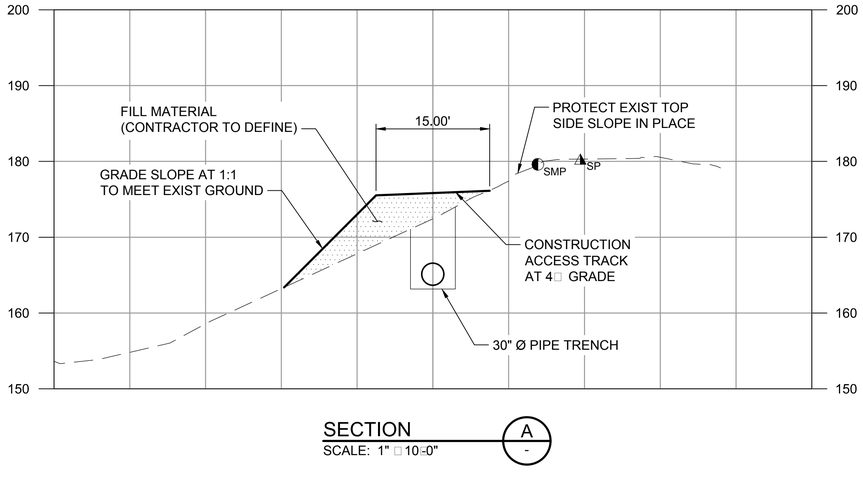
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PLOT DATE: 8/2/2019 10:01 AM
PLOTTED BY: D'Aurio, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	142	C228	*Prunus serrulata*	Flowering cherry	12.0		Good	Good	COMI	10"-24"	12	5	2		Too close to excavation
Unimpacted	10132	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	10133	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Remove	10171	C228	*Arbutus menziesii*	Pacific madrone	8.8		Good	Good	PRIVATE	Exceptional	6	4	6		Within excavation limits
Remove	10172	C228	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	PRIVATE	Large (Regulated) tree >10"	8	5	2		Within excavation limits
Remove	10309	C228	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	<6		N/A	N/A	COMI	<6"	0	0	0		Within grading limits
Remove	10310	C228	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	<6		N/A	N/A	COMI	<6"	0	0	0		Within grading limits
Protect	20174	C228	*Picea breweriana*	Brewer spruce	11.7		Fair	Fair	PRIVATE	Large (Regulated) tree >10"	8	5	2	Chainlink fence outside of MLOD	
Remove	20183	C228	*Acer macrophyllum*	Bigleaf maple	14.0		Fair	Good	PRIVATE	Large (Regulated) tree >10"	9	6	2		Excavation within 7 ft of trunk -- potential to save if property owner requests
Remove	20184	C228	*Populus trichocarpa*	Black cottonwood	10.0		Good	Fair	PRIVATE	Large (Regulated) tree >10"	10	4	2		Excavation within 5 ft of tree
Remove	20185	C228	*Acer macrophyllum*	Bigleaf maple	20.5	15,5,13	Poor	Poor	PRIVATE	Large (Regulated) tree >10"	14	9	2		Within excavation limits; poor condition
Unimpacted	21032	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21033	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21034	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21035	C228	*NOT ASSESSED*	NO ACCESS	8.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21036	C228	*NOT ASSESSED*	NO ACCESS	8.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21037	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21038	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21039	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21040	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21041	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21042	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21043	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21044	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21045	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21046	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21047	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21048	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21049	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21050	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21051	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21052	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21053	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21054	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21055	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21056	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	WSDOT	Category 2	0	0	4		
Unimpacted	21057	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21058	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Unimpacted	21059	C228	*NOT ASSESSED*	NO ACCESS	4.0		N/A	N/A	PRIVATE	<10"	0	0	0		
Remove	21179	C228	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	0.0		N/A	N/A	PRIVATE	<10"	0	0	0		Within grading limits
Remove	21180	C228	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	0.0		N/A	N/A	PRIVATE	<10"	0	0	0		Within grading limits
Remove	21181	C228	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	0.0		N/A	N/A	PRIVATE	<10"	0	0	0		Within grading limits
Remove	21183	C228	*Thuja occidentalis*	Arborvitae (Not assessed due to size)	0.0		N/A	N/A	PRIVATE	<10"	0	0	0		Within grading limits
Remove	21236	C228	*Acer macrophyllum*	Bigleaf maple?? (Not assessed, species and dia estimated))	10.0		?	?	PRIVATE	Large (Regulated) tree >10"	0	0	2		Within excavation limits
Protect	21315	C228	*Pseudotsuga menziesii*	Douglas-fir	24.0		Good	Fair	PRIVATE	Large (Regulated) tree >10"	16	10	3	Chainlink fence at RLOD	
Remove	21318	C228	*Acer macrophyllum*	Bigleaf maple	32.6	29.5,13.8	Good	Fair	PRIVATE	Exceptional	33	14	6		Within excavation limits
Remove	21320	C228	*Acer macrophyllum*	Bigleaf maple	28.0		Fair	Poor	PRIVATE	Large (Regulated) tree >10"	19	12	3		Excavation 14 ft from tree; poor condition. Could be saved as habitat tree
Remove	41899	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41900	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41901	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41902	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41903	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41904	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41905	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41906	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk
Remove	41907	C228	*X Cupressocyparis leylandii*	Leyland cypress (Not assessed NO ACCESS)	0.0		0	0	PRIVATE	Exceptional - Grove	0	0	6		Excavation 2 ft from trunk

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists





SECTION A
SCALE: 1" □ 10□0"

CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

DCN: T□D

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: B. NELSON	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER:
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - CONVEYANCE IMPROVEMENTS

NORTH MERCER INTERCEPTOR SITE PREPARATION STA 99+□0 TO STA 104+00

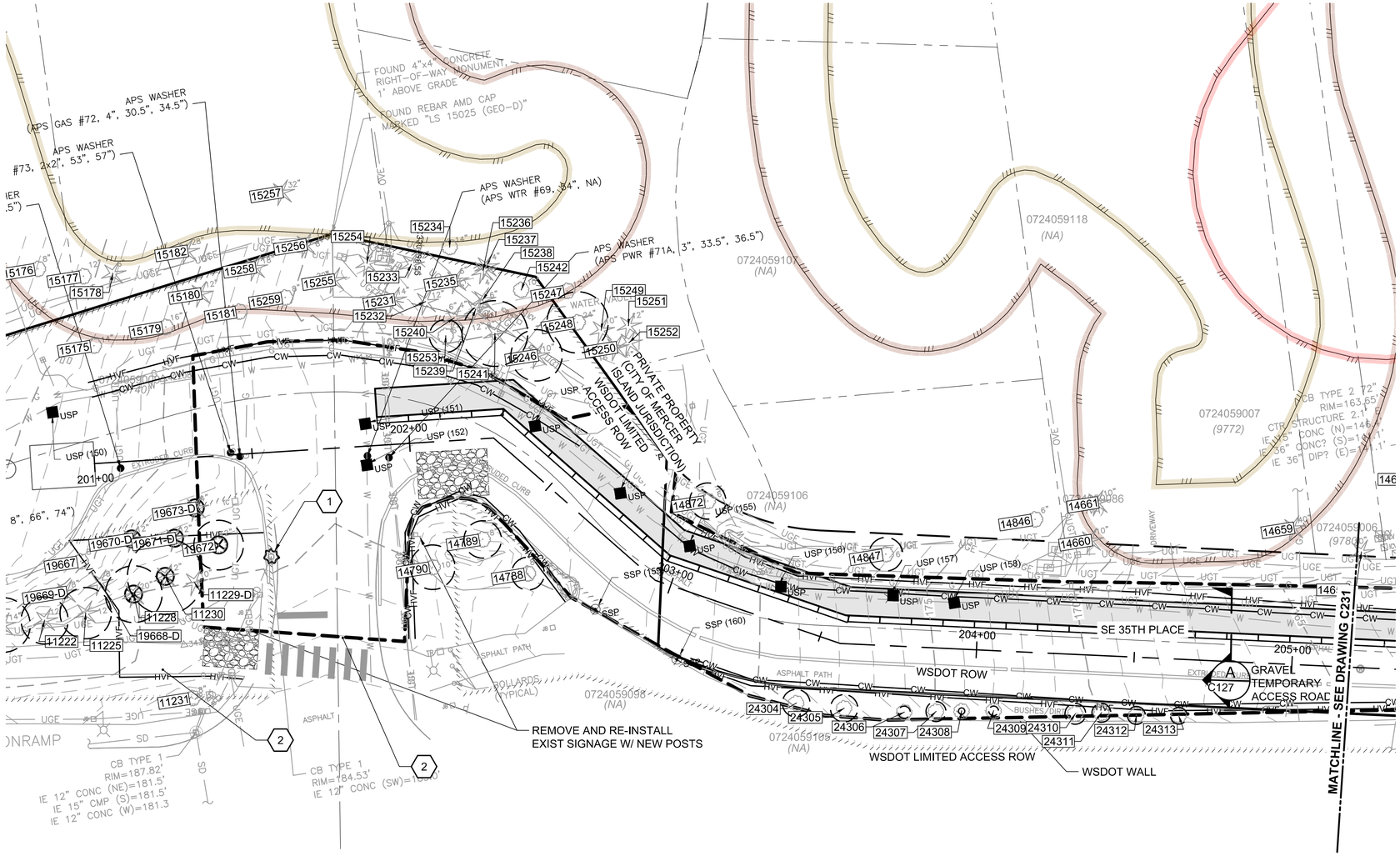
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DRAWING NO: C229
SHT NO / TOTAL: /
REV NO:

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PLOT DATE: 8/2/2019 10:05 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	81	C229	*Thuja plicata*	Western redcedar	40.0		Good	Good	PRIVATE	Exceptional	40	17	6	Chainlink fence at edge of excavation	Within excavation limits
Remove	11174	C229	*Acer platanoides*	Norway maple	9.5		Good	Good	WSDOT	Category 2	6	4	10		Excavation 4 ft from trunk
Protect	11184	C229	*Acer platanoides*	Norway maple	7.0		Good	Good	WSDOT	Category 2	5	3	7	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11189	C229	*Acer platanoides*	Norway maple	7.5		Good	Good	WSDOT	Category 2	5	3	8	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11195	C229	*Acer platanoides*	Norway maple	7.8		Good	Good	WSDOT	Category 2	5	3	8	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11201	C229	*Acer platanoides*	Norway maple	9.0		Good	Good	WSDOT	Category 2	6	4	9	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11209	C229	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Category 2	6	4	10	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11215	C229	*Acer platanoides*	Norway maple	9.2		Good	Good	WSDOT	Category 2	6	4	10	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11216	C229	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11220	C229	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11222	C229	*Pseudotsuga menziesii*	Douglas-fir	11.2		Good	Good	WSDOT	Category 2	7	5	12	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Protect	11225	C229	*Pseudotsuga menziesii*	Douglas-fir	12.2		Poor	Good	WSDOT	Category 2	8	5	13	Leave asphalt path in place, chainlink fencing along path and outside RLOD	
Remove	11228	C229	*Thuja plicata*	Western redcedar	9.0		Good	Good	WSDOT	Category 2	9	4	9		excavation within 2 ft of tree
Remove	11230	C229	*Thuja plicata*	Western redcedar	12.0		Good	Good	WSDOT	Category 2	12	5	12		excavation within 2 ft of tree
Protect	15272	C229	*Pseudotsuga menziesii*	Douglas-fir	7.0		Good	Good	WSDOT	Category 2	5	3	7	Chainlink fence at RLOD or grading limits	
Protect	15273	C229	*Populus trichocarpa*	Black cottonwood	16.3		Good	Good	WSDOT	Early successional species - no replacement required	16	7	0	Chainlink fence at limits of grading	Grading within 6 ft of trunk: consider removal
Protect	15274	C229	*Populus trichocarpa*	Black cottonwood	13.4		Good	Good	WSDOT	Early successional species - no replacement required	13	6	0	Chainlink fence at limits of grading	Grading within 6 ft of trunk: consider removal
Remove	15275	C229	*Populus trichocarpa*	Black cottonwood	27.4	14.6, 17.8, 14.9	Fair	Poor	WSDOT	Early successional species - no replacement required	27	11	0		Excavation 9 ft from trunk; poor condition
Remove	15276	C229	*Thuja plicata*	Western redcedar	7.0		Good	Good	WSDOT	Category 2	7	3	7		Excavation within 8 ft of trunk -- potential to save; young tree
Remove	15277	C229	*Pseudotsuga menziesii*	Douglas-fir	7.0		Good	Good	WSDOT	Category 2	5	3	7		Excavation within 1 ft of tree
Remove	15278	C229	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8		Within excavation limits
Remove	15279	C229	*Pseudotsuga menziesii*	Douglas-fir	13.4		Good	Good	WSDOT	Category 2	9	6	14		Within excavation limits
Remove	15280	C229	*Pseudotsuga menziesii*	Douglas-fir	15.4		Good	Good	WSDOT	Category 2	10	6	16		Grading within 6 ft of trunk, excavation 7 ft from trunk
Remove	15281	C229	*Thuja plicata*	Western redcedar	7.0		Good	Good	WSDOT	Category 2	7	3	7		Within excavation limits
Remove	15282	C229	*Pseudotsuga menziesii*	Douglas-fir	7.5		Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Remove	15283	C229	*Thuja plicata*	Western redcedar	11.0	8.7,6.7	Poor	Fair	WSDOT	Category 2	11	5	11		Within excavation limits
Remove	15284	C229	*Pseudotsuga menziesii*	Douglas-fir	10.4		Good	Good	WSDOT	Category 2	7	4	11		Within excavation limits
Remove	15285	C229	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8		Within grading limits
Remove	15286	C229	*Pseudotsuga menziesii*	Douglas-fir	14.7		Good	Good	WSDOT	Category 2	10	6	15		Within excavation limits
Remove	15287	C229	*Thuja plicata*	Western redcedar	8.0		Poor	Good	WSDOT	Category 2	8	3	8		Within excavation limits
Remove	15288	C229	*Pseudotsuga menziesii*	Douglas-fir	11.4		Good	Good	WSDOT	Category 2	8	5	12		Within excavation limits
Remove	15290	C229	*Pseudotsuga menziesii*	Douglas-fir	12.8		Good	Good	WSDOT	Category 2	9	5	13		Within excavation limits
Remove	15291	C229	*Thuja plicata*	Western redcedar	12.0		Poor	Fair	WSDOT	Category 2	12	5	12		Within excavation limits
Remove	15292	C229	*Thuja plicata*	Western redcedar	13.4		Fair	Fair	WSDOT	Category 2	13	6	14		Within excavation limits
Remove	15293	C229	*Pseudotsuga menziesii*	Douglas-fir	13.3		Good	Good	WSDOT	Category 2	9	6	14		Within excavation limits
Remove	15294	C229	*Pseudotsuga menziesii*	Douglas-fir	12.8		Good	Good	WSDOT	Category 2	9	5	13		Too close to excavation
Remove (dead)	15295	C229	*Dead*	Dead -- Douglas-fir	13.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead: within 5 feet of work limits
Remove	15296	C229	*Pseudotsuga menziesii*	Douglas-fir	12.8		Fair	Good	WSDOT	Category 2	9	5	13		Within grading limits
Remove	15297	C229	*Pseudotsuga menziesii*	Douglas-fir	10.2		Fair	Good	WSDOT	Category 2	7	4	11		Within excavation limits
Remove	15298	C229	*Acer platanoides*	Norway maple	10.5		Good	Good	WSDOT	Category 2	7	4	11		Within excavation limits
Unimpacted	15299	C229	*Dead*	Dead -- Douglas-fir	12.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove	19667	C229	*Acer platanoides*	Norway maple	8.1		Good	Good	WSDOT	Category 2	5	3	9		Within excavation limits
Unimpacted	19668	C229	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Unimpacted	19669	C229	*Dead*	Dead	8.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		
Remove (dead)	19670	C229	*Dead*	Dead -- Douglas-fir	11.2		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove (dead)	19671	C229	*Dead*	Dead -- Douglas-fir	11.7		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Remove (dead)	19673	C229	*Dead*	Dead	4.0		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Dead
Protect	36437	C229	*Acer macrophyllum*	Bigleaf maple	10.2	4,5,8	Fair	Fair	WSDOT	Category 2	7	4	11	Chainlink fence at RLOD	
Protect	36450	C229	*Populus trichocarpa*	Black cottonwood	18.5		Good	Good	WSDOT	Early successional species - no replacement required	19	8	0	Chainlink fence at grading limits	
Remove	36459	C229	*Thuja plicata*	Western redcedar	9.0		Good	Good	WSDOT	Category 2	9	4	9		Within excavation limits
Remove	36460	C229	*Thuja plicata*	Western redcedar	13.1	11, 5, 5	Poor	Good	WSDOT	Category 2	13	5	14		Within excavation limits
Remove	36461	C229	*Thuja plicata*	Western redcedar	12.0		Fair	Good	WSDOT	Category 2	12	5	12		Within excavation limits
Remove	36462	C229	*Pseudotsuga menziesii*	Douglas-fir	12.0		Good	Good	WSDOT	Category 2	8	5	12		Within excavation limits
Remove	36463	C229	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10		Within excavation limits
Remove	36464	C229	*Pseudotsuga menziesii*	Douglas-fir	11.7		Good	Good	WSDOT	Category 2	8	5	12		Within excavation limits
Remove	36465	C229	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Category 2	9	6	14		Within excavation limits

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



NOTES:

1. SEE DRAWINGS C001-C004 FOR STANDARD SITE PREPARATION NOTES AND DETAILS.
2. PROTECT EXISTING TREES EXCEPT WHERE INDICATED TO BE REMOVED.
3. SEE TREE MANAGEMENT SPECIFICATIONS FOR TREE PROTECTION REQUIREMENTS WHEN WORKING WITHIN LIMITS OF DISTURBANCE (LOD).
4. CONTRACTOR SHALL COORDINATE WITH PROJECT ARBORIST FOR ANY TREE TRIMMING OR REMOVAL NOT SHOWN ON DRAWINGS.
5. TREE HEALTH SHALL BE MINITORED BY THE PROJECT ARBORIST DURING AND AFTER CONSTRUCTION, UNTIL SUBSTANTIAL COMPLETION.
6. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS IN ADVANCE OF WORK.
7. TEMPORARILY RELOCATE MAILBOXES WITHIN WORK AREA. MAINTAIN ACCESS FOR POST OFFICE AND RESIDENTS.
8. REMOVE AND STORE EXISTING SIGNS WITHIN WORK AREA. REINSTALL OR REPLACE.
9. REFER TO TRAFFIC CONTROL DRAWINGS FOR TEMPORARY SIGNAGE.

(#) KEY NOTES:

1. STORM DRAIN INLET PROTECTION (TYP) (2 / C002)
2. TRAFFIC CONTROL PLAN (1 / T108)
3. TREE PROTECTION (4 / C002)

CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: D. NICE	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER: TBD
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE

EAST CHANNEL SIPHON SITE PREPARATION STA 201+00 TO STA 205+20

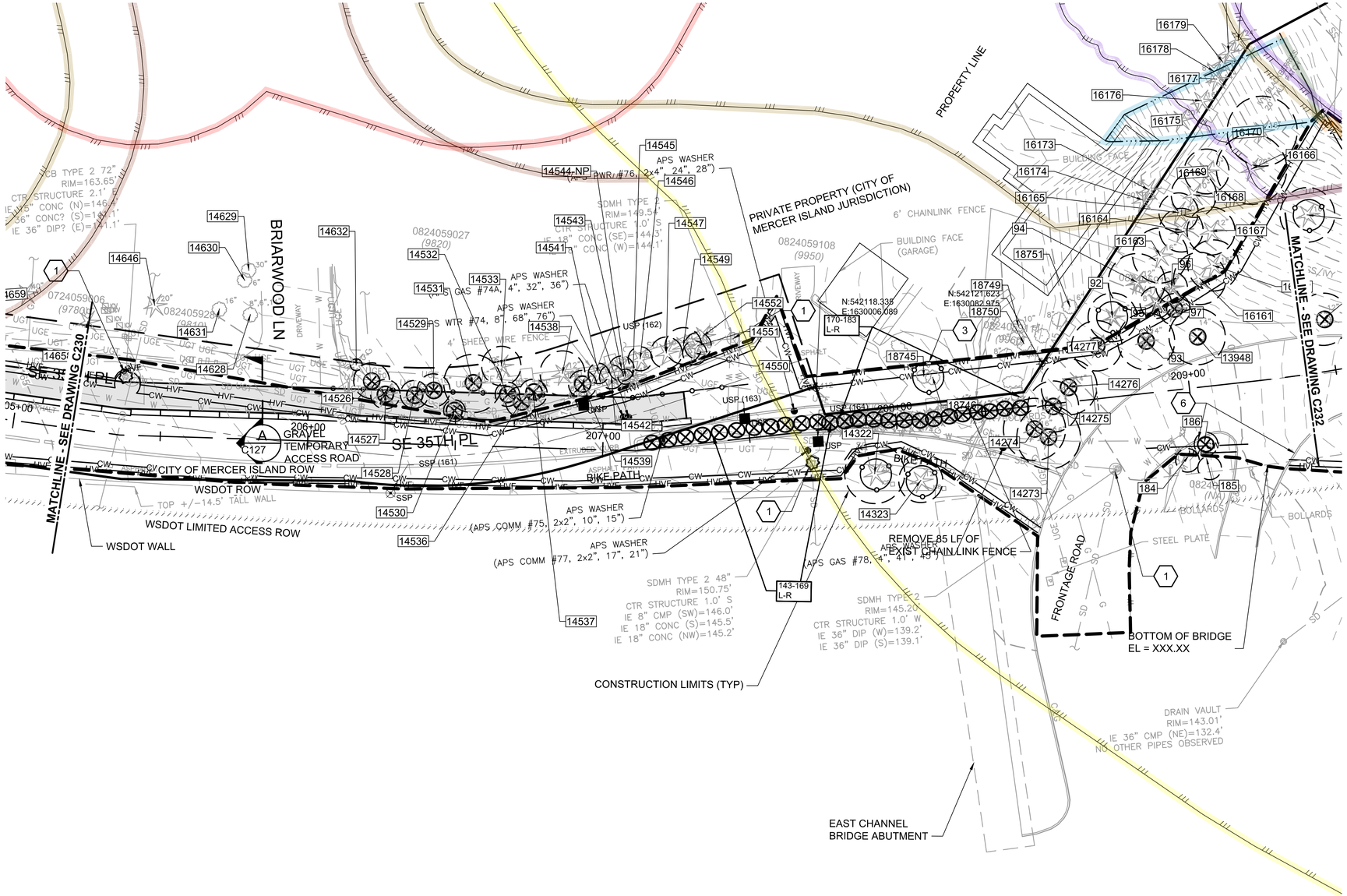
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SHT NO / TOTAL: /
REV NO:

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PLOT DATE: 9/26/2019 2:16 PM
PLOTTED BY: Morris, Richard

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	24304	C230	*Acer circinatum*	Vine maple	6.6	2.5,2.5,2.5,2.5,2.2,2.2,1.5	Good	Good	WSDOT	Category 2	4	3	7	Chainlink fencing at curb edge	
Protect	24305	C230	*Acer circinatum*	Vine maple	6.5	3.5,3,2.5,2.5,2.5,1.5	Good	Good	WSDOT	Category 2	4	3	7	Chainlink fencing at curb edge	
Protect	24306	C230	*Acer circinatum*	Vine maple	2.9	2,1.5,1.5	Fair	Poor	WSDOT	Category 3	2	1	n/a	Chainlink fencing at curb edge	
Protect	24307	C230	*Acer circinatum*	Vine maple	4.7	2.5,2.5,1.5,1.5,1.5,1.5,1	Good	Fair	WSDOT	Category 2	3	2	5	Chainlink fencing at curb edge	
Protect	24308	C230	*Acer circinatum*	Vine maple	1.5		Good	Fair	WSDOT	Category 3	1	1	n/a	Chainlink fencing at curb edge	
Protect	24309	C230	*Acer circinatum*	Vine maple	2.3	1.5, 1.0, 1.0, 1.0	Fair	Fair	WSDOT	Category 3	2	1	n/a	Chainlink fencing at curb edge	
Protect	24310	C230	*Acer circinatum*	Vine maple	4.9	2.0, 2.0, 2.0, 2.0, 2, 1.5, 1.5	Good	Good	WSDOT	Category 2	3	2	5	Chainlink fencing at curb edge	
Protect	24311	C230	*Acer circinatum*	Vine maple	4.5	3.0, 2.5, 2.0, 1.0	Fair	Fair	WSDOT	Category 2	3	2	5	Chainlink fencing at curb edge	
Protect	24312	C230	*Acer circinatum*	Vine maple	4.3	2.5, 2.0, 2.0, 2.0	Good	Good	WSDOT	Category 2	3	2	5	Chainlink fencing at curb edge	
Protect	24313	C230	*Acer circinatum*	Vine maple	4.0	2.5, 2.5, 1.5, 1	Good	Good	WSDOT	Category 2	3	2	4	Chainlink fencing at curb edge	
Remove (dead)	11229	C230	*Dead*	Dead	10.0		Dead	Dead	WSDOT	Dead – snag	0	0	0		Dead
Protect	14788	C230	*Acer platanoides*	Norway maple	7.8		Good	Good	WSDOT	Street Tree	5	3	1	Chainlink fencing at curb edge	
Protect	14789	C230	*Acer platanoides*	Norway maple	8.9		Good	Good	WSDOT	Street Tree	6	4	1	Chainlink fencing at curb edge	
Protect	14790	C230	*Acer platanoides*	Norway maple	10.6		Good	Good	WSDOT	Street Tree	7	4	1	Chainlink fencing at curb edge	
Unimpacted	14847	C230	*Acer platanoides*	Norway maple	8.0		Good	Good	COMI	6" - 10"	5	3	1		
Unimpacted	14872	C230	*Acer platanoides*	Norway maple	8.6		Good	Good	COMI	6" - 10"	6	4	1		
Protect	15241	C230	*Xanthocyparis nootktensis*	Alaskan cedar	15.6	10,12	Good	Fair	WSDOT	Category 2	10	7	16	TBD	
Protect	15246	C230	*Xanthocyparis nootktensis*	Alaskan cedar	12.2		Good	Good	WSDOT	Category 2	8	5	13	TBD	
Protect	15248	C230	*Thuja plicata*	Western redcedar	9.7	8,5.5	Good	Fair	COMI	6" - 10"	10	4	1		
Protect	15253	C230	*Acer platanoides*	Norway maple	7.8		Good	Good	COMI	6" - 10"	5	3	1		
Remove	19672	C230	*Acer platanoides*	Norway maple	11.8		Good	Good	WSDOT	Category 2	8	5	12		10 ft from excavation

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RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



NOTES:

1. SEE DRAWINGS C001-C004 FOR STANDARD SITE PREPARATION NOTES AND DETAILS.
2. PROTECT EXISTING TREES EXCEPT WHERE INDICATED TO BE REMOVED.
3. SEE TREE MANAGEMENT SPECIFICATIONS FOR TREE PROTECTION REQUIREMENTS WHEN WORKING WITHIN LIMITS OF DISTURBANCE (LOD).
4. CONTRACTOR SHALL COORDINATE WITH PROJECT ARBORIST FOR ANY TREE TRIMMING OR REMOVAL NOT SHOWN ON DRAWINGS.
5. TREE HEALTH SHALL BE MONITORED BY THE PROJECT ARBORIST DURING AND AFTER CONSTRUCTION, UNTIL SUBSTANTIAL COMPLETION.
6. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS IN ADVANCE OF WORK.
7. TEMPORARILY RELOCATE MAILBOXES WITHIN WORK AREA. MAINTAIN ACCESS FOR POST OFFICE AND RESIDENTS.
8. REMOVE AND STORE EXISTING SIGNS WITHIN WORK AREA. REINSTALL OR REPLACE.
9. REFER TO TRAFFIC CONTROL DRAWINGS FOR TEMPORARY SIGNAGE.
10. KEEP ONE LANE OF FRONTAGE ROAD OPEN AT ALL TIMES DURING CONSTRUCTION.

(#) KEY NOTES:

1. STORM DRAIN INLET PROTECTION (TYP) (2 / C002)
2. TRAFFIC CONTROL PLAN (1 / T108)
3. TREE PROTECTION (4 / C002)
4. MINIMIZE TRIMMING OF BRANCHES CROSSING TCE BOUNDARY. IN NO CASE MAY TRIMMING OCCUR PAST PLANE OF TCE BOUNDARY.
5. PLACE 18" OF HOG FUEL WITH STEEL SHEETS WITHIN 15' OF TREES/SHRUBS TO REMAIN.
6. REMOVE CURB AND GUTTER AND LANDSCAPE. GRADE AND WIDEN ROAD AND MAINTAIN SINGLE LANE TRAFFIC TO BOAT LAUNCH DURING SIPHON INSTALLATION.

CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
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0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: K. GOSS	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	0 REFERENCE 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER: TBD
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE

EAST CHANNEL SIPHON SITE PREPARATION STA 205+20-209+40

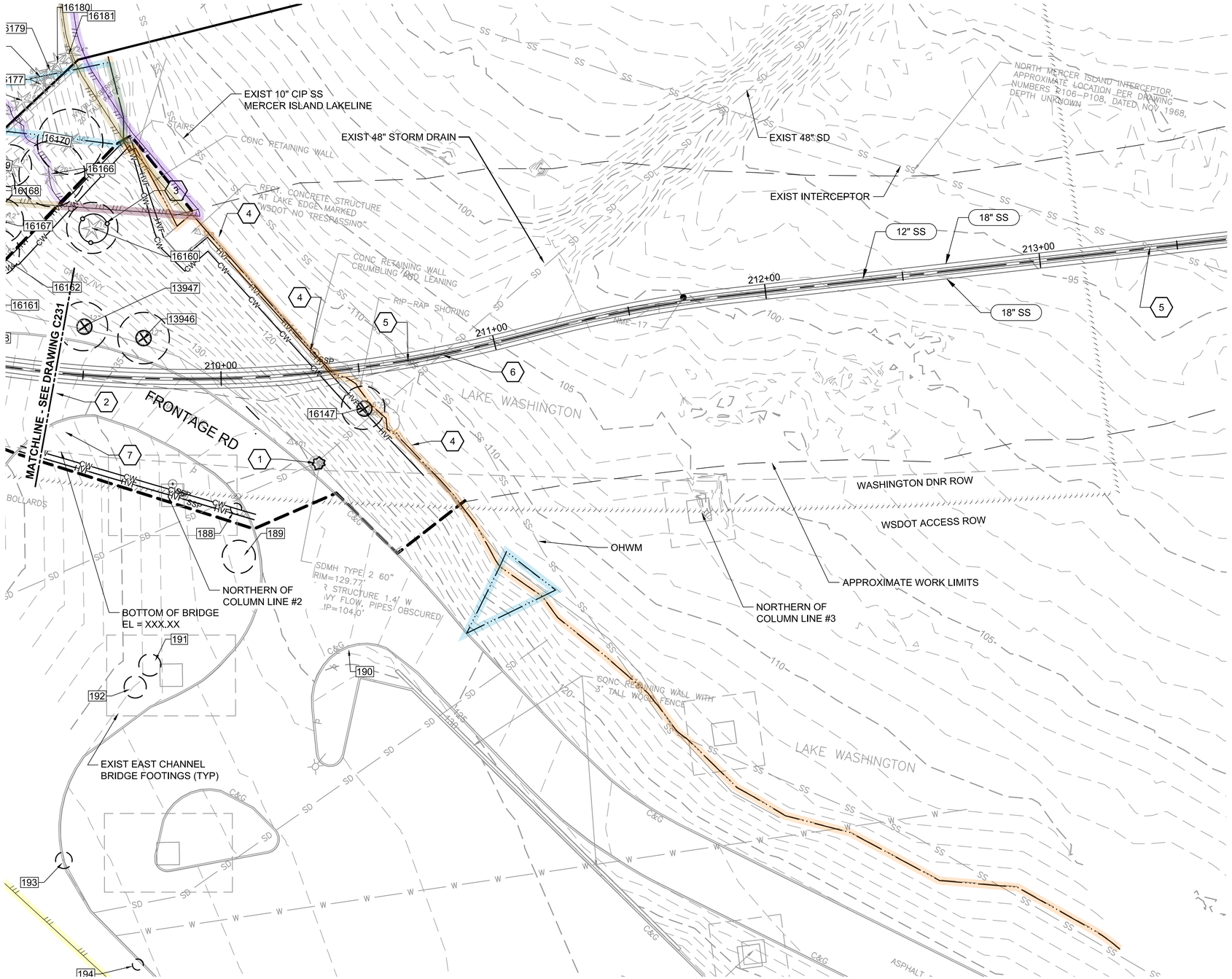
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DATE:	
PROJECT FILE NO:	TBD
DRAWING NO:	C231
SHT NO / TOTAL	/
REV NO:	

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
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PLOT DATE: 9/26/2019 2:21 PM
PLOTTED BY: Morris, Richard

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	92	C231	*Pseudotsuga menziesii*	Douglas-fir	12.4		Good	Good	WSDOT	Category 2	8	5	13	TBD	
Remove	93	C231	*Pseudotsuga menziesii*	Douglas-fir	14.5		Good	Good	WSDOT	Category 2	10	6	15		staging/construction access
Protect	94	C231	*Pseudotsuga menziesii*	Douglas-fir	14.5		Good	Good	WSDOT	Category 2	10	6	15	Chainlink fencing at RLOD or dripline	
Protect	95	C231	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fencing at RLOD or dripline	
Protect	96	C231	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8	Chainlink fencing at RLOD or dripline	
Remove	97	C231	*Pseudotsuga menziesii*	Douglas-fir	8.0		Good	Good	WSDOT	Category 2	5	3	8		staging/construction access
Remove	143	C231	*Thuja plicata*	Western redcedar	5.7	3.5, 3.8, 2.5	Poor	Poor	WSDOT	Category 2	6	2	6		Within limits of excavation
Remove	144	C231	*Thuja plicata*	Western redcedar	2.4	2.0, 1.0, 1.0	Poor	Poor	WSDOT	Category 3	2	1	n/a		Within limits of excavation
Remove	145	C231	*Thuja plicata*	Western redcedar	2.6	1.5, 1.5, 1.5	Poor	Poor	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	146	C231	*Thuja plicata*	Western redcedar	2.1	1.0, 1.0, 1.5	Poor	Poor	WSDOT	Category 3	2	1	n/a		Within limits of excavation
Remove	147	C231	*Thuja plicata*	Western redcedar	1.7	1.5, .75	Poor	Poor	WSDOT	Category 3	2	1	n/a		Within limits of excavation
Remove	148	C231	*Thuja plicata*	Western redcedar	2.3	1.0, 1.0, 1.0, 1.5	Poor	Poor	WSDOT	Category 3	2	1	n/a		Within limits of excavation
Remove	149	C231	*Thuja plicata*	Western redcedar	5.0		Poor	Good	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	150	C231	*Thuja plicata*	Western redcedar	4.5		Fair	Good	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	151	C231	*Thuja plicata*	Western redcedar	3.1	2.0, 1.5, 1.5, 1.0	Fair	Poor	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	152	C231	*Thuja plicata*	Western redcedar	3.9	3.0, 1.0, 1.5, 1.5, 1.0	Poor	Fair	WSDOT	Category 3	4	2	n/a		Within limits of excavation
Remove	153	C231	*Thuja plicata*	Western redcedar	3.5		Poor	Poor	WSDOT	Category 3	4	1	n/a		Within limits of excavation
Remove	154	C231	*Thuja plicata*	Western redcedar	3.7	2.5, 2.5, 1.0	Poor	Poor	WSDOT	Category 3	4	2	n/a		Within limits of excavation
Remove	155	C231	*Thuja plicata*	Western redcedar	3.6	2.5, 1.5, 1.5, 1.0, 1.0	Poor	Poor	WSDOT	Category 3	4	1	n/a		Within limits of excavation
Remove	156	C231	*Thuja plicata*	Western redcedar	4.3	3.5,2.0, 1.5	Fair	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove	157	C231	*Thuja plicata*	Western redcedar	2.9	2.5, 1.5	Fair	Fair	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	158	C231	*Thuja plicata*	Western redcedar	4.3	3.0, 1.5, 2.5, 1.0	Fair	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove (dead)	159	C231	*Dead*	Dead -- Western redcedar	3.5		Dead	Dead	WSDOT	Dead -- snag	0	0	0		Within limits of excavation
Remove	160	C231	*Thuja plicata*	Western redcedar	4.0		Good	Fair	WSDOT	Category 2	4	2	4		Within limits of excavation
Remove	161	C231	*Thuja plicata*	Western redcedar	2.0		Poor	Poor	WSDOT	Category 3	2	1	n/a		Within limits of excavation
Remove	162	C231	*Thuja plicata*	Western redcedar	4.7	3.5, 2.5, 2.0	Fair	Fair	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	163	C231	*Thuja plicata*	Western redcedar	2.9	2.0, 1.5, 1.5	Fair	Fair	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	164	C231	*Thuja plicata*	Western redcedar	4.3	3.5, 2.0, 1.5	Good	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove	165	C231	*Thuja plicata*	Western redcedar	2.9	2.5, 1.0, 1.0	Good	Fair	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	166	C231	*Thuja plicata*	Western redcedar	4.1	2.0, 2.0, 2.0, 1.5, 1.5	Fair	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove	167	C231	*Thuja plicata*	Western redcedar	3.5		Fair	Fair	WSDOT	Category 3	4	1	n/a		Within limits of excavation
Remove	168	C231	*Thuja plicata*	Western redcedar	4.0	3.5, 2.0	Fair	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove	169	C231	*Thuja plicata*	Western redcedar	4.9	3.0, 3.0, 2.5	Fair	Fair	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	170	C231	*Thuja plicata*	Western redcedar	3.0		Fair	Fair	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	171	C231	*Thuja plicata*	Western redcedar	4.3	3.5, 2.5	Fair	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove	172	C231	*Thuja plicata*	Western redcedar	5.0		Fair	Fair	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	173	C231	*Thuja plicata*	Western redcedar	5.0		Fair	Fair	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	174	C231	*Thuja plicata*	Western redcedar	5.0		Fair	Fair	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	175	C231	*Thuja plicata*	Western redcedar	5.0		Fair	Fair	WSDOT	Category 2	5	2	5		Within limits of excavation
Remove	176	C231	*Thuja plicata*	Western redcedar	6.0	5.5, 2.5	Fair	Fair	WSDOT	Category 2	6	3	7		Within limits of excavation
Remove	177	C231	*Thuja plicata*	Western redcedar	4.5	4.0, 2.0	Fair	Fair	WSDOT	Category 2	4	2	5		Within limits of excavation
Remove	178	C231	*Thuja plicata*	Western redcedar	6.4	4.5, 4.5	Fair	Fair	WSDOT	Category 2	6	3	7		Within limits of excavation
Remove	179	C231	*Thuja plicata*	Western redcedar	7.7	4.5, 5.5, 3.0	Fair	Fair	WSDOT	Category 2	8	3	8		Within limits of excavation
Remove	180	C231	*Thuja plicata*	Western redcedar	5.3	3.5, 4.0	Fair	Fair	WSDOT	Category 2	5	2	6		Within limits of excavation
Remove	181	C231	*Thuja plicata*	Western redcedar	3.5	2.5, 2.5	Fair	Fair	WSDOT	Category 3	4	1	n/a		Within limits of excavation
Remove	182	C231	*Thuja plicata*	Western redcedar	3.4	3.0, 1.5	Fair	Fair	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	183	C231	*Thuja plicata*	Western redcedar	3.0		Fair	Fair	WSDOT	Category 3	3	1	n/a		Within limits of excavation
Remove	13948	C231	*Acer platanoides*	Norway maple	14.3		Good	Good	WSDOT	Street Tree	10	6	1		staging/construction access
Remove	14273	C231	*Pseudotsuga menziesii*	Douglas-fir	16.2		Good	Good	WSDOT	Category 2	11	7	17		Temporary access road
Remove	14274	C231	*Pseudotsuga menziesii*	Douglas-fir	15.8		Good	Good	WSDOT	Category 2	11	7	16		Temporary access road
Remove	14275	C231	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13		Within limits of excavation
Remove	14276	C231	*Pseudotsuga menziesii*	Douglas-fir	14.2		Good	Good	WSDOT	Category 2	9	6	15		Within limits of excavation
Remove	14277	C231	*Pseudotsuga menziesii*	Douglas-fir	12.8		Good	Good	WSDOT	Category 2	9	5	13		staging/construction access
Protect	14322	C231	*Xanthocyparis nootktensis*	Alaskan cedar	15.3		Good	Good	WSDOT	Category 2	10	6	16	TBD	
Protect	14323	C231	*Xanthocyparis nootktensis*	Alaskan cedar	11.2		Good	Good	WSDOT	Category 2	7	5	12	TBD	
Protect	14526	C231	*Acer Platanoides*	Norway maple	9.1		Good	Good	COMI	6" - 10"	6	4	1	TBD	
Remove	14527	C231	*Pseudotsuga menziesii*	Douglas-fir	7.5		Good	Good	COMI	6" - 10"	5	3	1		Temporary access road
Remove	14528	C231	*Pseudotsuga menziesii*	Douglas-fir	7.1		Good	Good	COMI	6" - 10"	5	3	1		Temporary access road
Remove	14529	C231	*Acer platanoides*	Norway maple	8.4		Good	Good	COMI	6" - 10"	6	4	1		Temporary access road
Remove	14530	C231	*Pseudotsuga menziesii*	Douglas-fir	5.5		Good	Good	COMI	<6"	4	2	0		Temporary access road
Protect	14531	C231	*Pseudotsuga menziesii*	Douglas-fir	14.8		Good	Good	COMI	10"-24"	10	6	2	TBD	
Remove	14532	C231	*Pseudotsuga menziesii*	Douglas-fir	6.2		Good	Good	COMI	6" - 10"	4	3	1		Temporary access road
Protect	14533	C231	*X Cupressocyparis leylandii*	Leyland cypress	10.0		Good	Fair	COMI	10"-24"	7	4	2	TBD	
Remove	14536	C231	*X Cupressocyparis leylandii*	Leyland cypress	7.8		Good	Good	COMI	6" - 10"	5	3	1		Temporary access road
Remove	14537	C231	*Pseudotsuga menziesii*	Douglas-fir	7.1		Good	Good	COMI	6" - 10"	5	3	1		Temporary access road
Protect	14538	C231	*X Cupressocyparis leylandii*	Leyland cypress	11.4		Good	Good	COMI	10"-24"	8	5	2	TBD	
Protect	14539	C231	*X Cupressocyparis leylandii*	Leyland cypress	7.1		Good	Good	COMI	6" - 10"	5	3	1	TBD	
Protect	14541	C231	*Pseudotsuga menziesii*	Douglas-fir	5.2		Good	Good	COMI	<6"	3	2	0	TBD	
Protect	14542	C231	*X Cupressocyparis leylandii*	Leyland cypress	6.1		Good	Good	COMI	6" - 10"	4	3	1	TBD	
Protect	14543	C231	*Pseudotsuga menziesii*	Douglas-fir	6.4		Good	Good	COMI	6" - 10"	4	3	1	TBD	
n/a	14544	C231	*Not Present*	Not present	0.0		Not Present	Not Present	COMI	Stump - Not Present	n/a	n/a	0		
Protect	14545	C231	*X Cupressocyparis leylandii*	Leyland cypress	5.0		Good	Good	COMI	<6"	3	2	0	TBD	
Protect	14546	C231	*X Cupressocyparis leylandii*	Leyland cypress	6.1		Good	Good	COMI	6" - 10"	4	3	1	TBD	
Protect	14547	C231	*X Cupressocyparis leylandii*	Leyland cypress	8.0		Good	Good	COMI	6" - 10"	5	3	1	TBD	
Protect	14548	C231	*X Cupressocyparis leylandii*	Leyland cypress	8.5		Good	Good	COMI	6" - 10"	6	4	1		
Protect	14549	C231	*X Cupressocyparis leylandii*	Leyland cypress	9.3		Good	Good	COMI	6" - 10"	6	4	1	TBD	
Protect	14550	C231	*X Cupressocyparis leylandii*	Leyland cypress	6.1		Good	Good	COMI	6" - 10"	4	3	1	TBD	
Protect	14551	C231	*Robinia pseudoacacia*	Black locust	6.8		Good	Good	COMI	6" - 10"	5	3	1	TBD	
Protect	14632	C231	*Picea spp.*	Glehn's spruce	3.0		Good	Good	COMI	<6"	2	1	0	TBD	
Protect	16161	C231	*Pseudotsuga menziesii*	Douglas-fir	13.3		Good	Good	WSDOT	Category 2	9	6	14	TBD	
Protect	16162	C231	*Pseudotsuga menziesii*	Douglas-fir	13.0		Good	Good	WSDOT	Category 2	9	5	13	TBD	
Protect	16163	C231	*Pseudotsuga menziesii*	Douglas-fir	14.0		Good	Good	WSDOT	Category 2	9	6	14	TBD	
Protect	16164	C231	*Pseudotsuga menziesii*	Douglas-fir	11.1		Good	Good	WSDOT	Category 2	7	5	12	TBD	
Protect	16165	C231	*Pseudotsuga menziesii*	Douglas-fir	10.0		Good	Good	WSDOT	Category 2	7	4	10	TBD	
Protect	16166	C231	*Pseudotsuga menziesii*	Douglas-fir	17.9		Good	Good	WSDOT	Category 2	12	7	18	TBD	
Protect	16167	C231	*Pseudotsuga menziesii*	Douglas-fir	12.2		Good	Good	WSDOT	Category 2	8	5	13	TBD	
Protect	16168	C231	*Pseudotsuga menziesii*	Douglas-fir	11.5		Good	Good	WSDOT	Category 2	8	5	12	TBD	
Protect	16169	C231	*Pseudotsuga menziesii*	Douglas-fir	11.4		Good	Good	WSDOT	Category 2	8	5	12	TBD	
Protect	16170	C231	*Pseudotsuga menziesii*	Douglas-fir	17.8		Good	Good	WSDOT	Category 2	12	7	18	TBD	

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



NOTES:

1. SEE DRAWINGS C001-C004 FOR STANDARD SITE PREPARATION NOTES AND DETAILS.
2. PROTECT EXISTING TREES EXCEPT WHERE INDICATED TO BE REMOVED.
3. SEE TREE MANAGEMENT SPECIFICATIONS FOR TREE PROTECTION REQUIREMENTS WHEN WORKING WITHIN LIMITS OF DISTURBANCE (LOD).
4. CONTRACTOR SHALL COORDINATE WITH PROJECT ARBORIST FOR ANY TREE TRIMMING OR REMOVAL NOT SHOWN ON DRAWINGS.
5. TREE HEALTH SHALL BE MINITORED BY THE PROJECT ARBORIST DURING AND AFTER CONSTRUCTION, UNTIL SUBSTANTIAL COMPLETION.
6. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS IN ADVANCE OF WORK.
7. TEMPORARILY RELOCATE MAILBOXES WITHIN WORK AREA. MAINTAIN ACCESS FOR POST OFFICE AND RESIDENTS.
8. REMOVE AND STORE EXISTING SIGNS WITHIN WORK AREA. REINSTALL OR REPLACE.
9. REFER TO TRAFFIC CONTROL DRAWINGS FOR TEMPORARY SIGNAGE.
10. KEEP ONE LANE OF FRONTAGE ROAD OPEN AT ALL TIMES DURING CONSTRUCTION.
11. IN-WATER WORK SHALL BE FULLY ENCLOSED BY TURBIDITY CURTAIN UNTIL TURBIDITY LEVELS MEET STANDARDS.
12. MAINTAIN OPEN CHANNELS BENEATH BRIDGE PER SPECIFICATIONS.

(#) KEY NOTES:

1. STORM DRAIN INLET PROTECTION, TYPICAL. (2 / C002)
2. FOR TEMPORARY TRAFFIC CONTROL (1 / T108)
3. TREE PROTECTION. (4 / C002)
4. DEMO EXISTING CONCRETE BULKHEAD TO WORK LIMIT.
5. SUPPORT EXISTING 10" SANITARY SEWER TO ALLOW FOR SIPHON INSTALLATION. SEE X/CYYY.
6. REMOVE SEGMENT OF EXISTING 48" STORM DRAIN TO ALLOW FOR SIPHON INSTALLATION. SEE 1/C029.
7. REMOVE CURB, GUTTER, AND LANDSCAPE. GRADE AND WIDEN ROAD AN MAINTAIN TRAFFIC TO BOAT LAUNCH DURING SIPHON CONSTRUCTION.

CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: K. GOSS	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER: TBD
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01340C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE

EAST CHANNEL SIPHON SITE PREPARATION STA 209+40-213+60

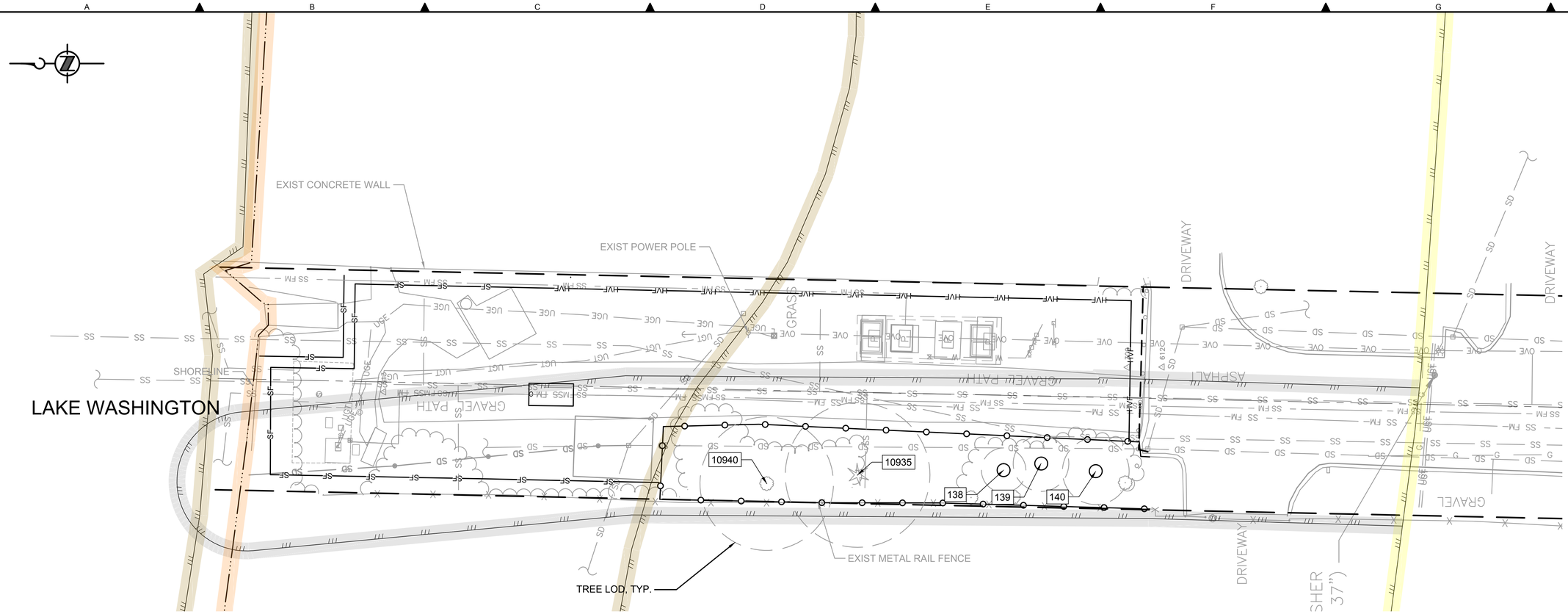
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PROJECT FILE NO: TBD
DRAWING NO: C232
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: O:\Projects\Seattle\125390\200-12539-18001\CAD\SheetFiles\Mercer Island-LUP\Arborist report drawings\E00306E13-PIPE-C232.dwg
PLOT DATE: 9/26/2019 2:22 PM
PLOTTED BY: Morris, Richard

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	13946	C232	*Acer platanoides*	Norway maple	14.0		Good	Good	WSDOT	Street Tree	9	6	1		staging/construction access
Remove	13947	C232	*Acer platanoides*	Norway maple	13.3		Good	Good	WSDOT	Street Tree	9	6	1		staging/construction access
Remove	16147	C232	*Sorbus aucuparia*	European Mountain Ash	11.8	7.2, 5.2, 5.5, 3.0, 4.5	Fair	Fair	WSDOT	Category 2	8	5	12		shoreline restoration
Protect*	16160	C232	*Pinus nigra*	Austrian black pine	13.9		Good	Fair	WSDOT	Category 2	9	6	14	TBD	Tree broke in snow storm. Removal?

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



THE PIPED STREAM HAS BEEN RELOCATED BY THE CITY OF MERCER ISLAND. RELOCATED ALIGNMENT AND SUBSEQUENT BUFFER WILL BE UPDATED AS SOON AS INFORMATION BECOMES AVAILABLE.

KEY NOTES:

1. VEGETATION EXTENT (NOT TREES) BEYOND THE TREE PROTECTION FENCING EXTENT SHOWN IS TO BE TRIMMED PRIOR TO FENCING PLACEMENT.

TREE INVENTORY TABLE:

TREE ID	SCIENTIFIC NAME	COMMON NAME	LOD (ft.)	DBH (in.)	DISPOSITION	EXCEPTIONAL
138	ACER PALMATUM	JAPANESE MAPLE	4	6.7	PROTECT	NO
139	PRUNUS EMARGINATA	BITTER CHERRY	5	8.2	PROTECT	NO
140	ACER PALMATUM	JAPANESE MAPLE	6	9.5	PROTECT	NO
10935	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	13	19.3	PROTECT	NO
10940	KOELREUTERIA PANICULATA	GOLDEN RAINTREE	12	17.3	PROTECT	NO

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0 10 20 30
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: E. BRODAHL	SCALE: AS NOTED
PROJECT ENGINEER: J. CHAE	REFERENCE 0 1"
DESIGN APPROVAL: R. BROWNE	FACILITY NUMBER: N/A
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01339C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER ISLAND INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - PUMP STATION IMPROVEMENTS

LIFT STATION 11
TESC PLAN AND NOTES

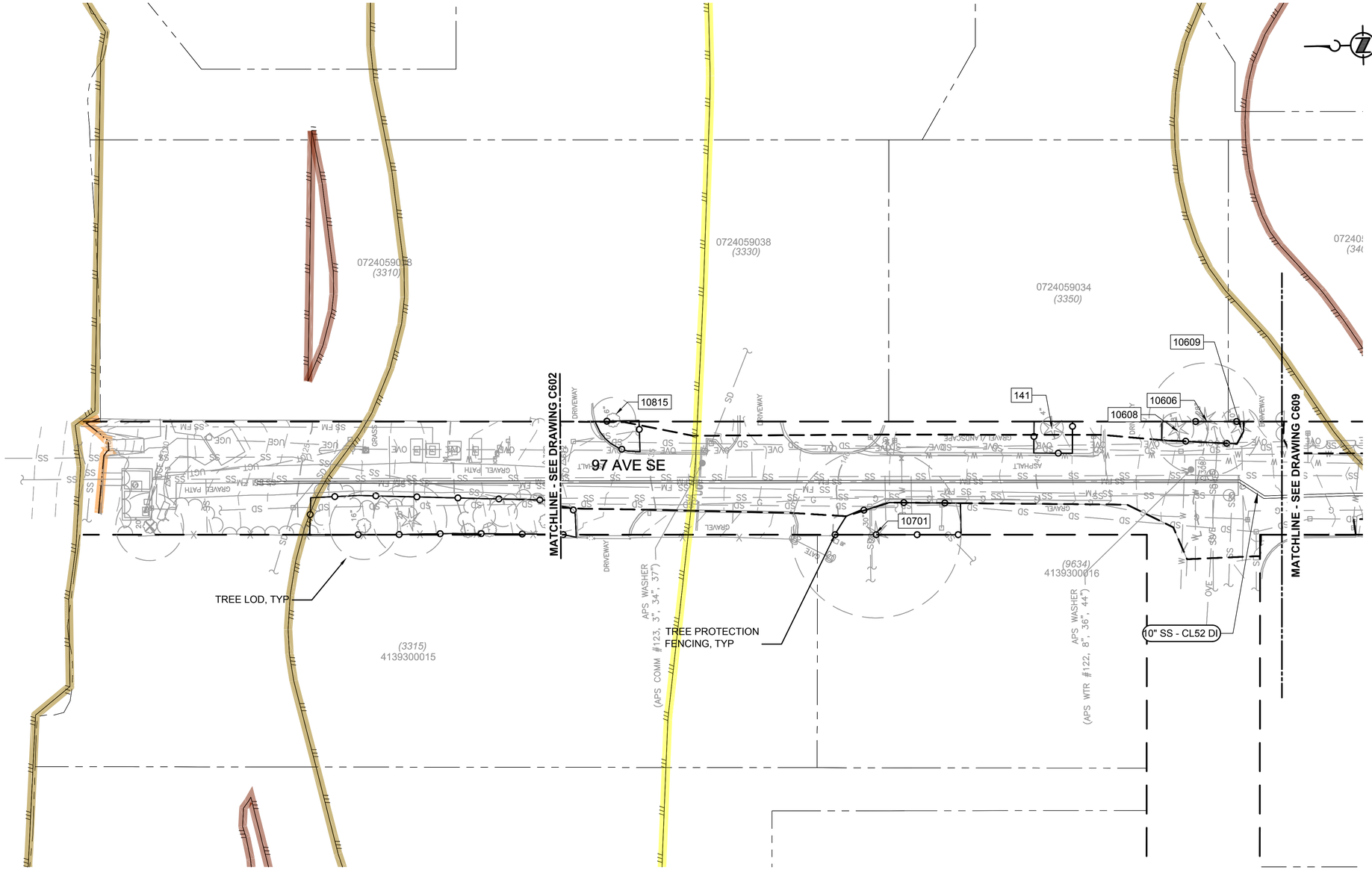
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DATE: 05/02/2019
PROJECT FILE NO:
DRAWING NO: C602
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
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PLOT DATE: 9/23/2019 11:31 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Remove	0	C602	*Crataegus monogyna*	Common hawthorn	17.9	8.8, 10.6, 11.4	Good	Good	COMI	Exceptional	12	7	6		Within construction limits
Protect	0	C602	*Pseudotsuga menziesii*	Douglas-fir	19.3		Good	Good	COMI	10"-24"	13	8	2	Chainlink fencing along access road	
Protect	0	C602	*Koelreuteria paniculata*	Golden raintree	17.3	10, 10, 8, 6	Good	Good	COMI	10"-24"	12	7	2	Chainlink fencing along access road	
Protect	138	C602	*Acer palmatum*	Japanese maple	6.7	5, 4.5	Good	Good	COMI	6" - 10"	4	3	1	Chainlink fencing along access road	
Protect	139	C602	*Prunus emarginata*	Bitter cherry	8.2		Good	Poor	COMI	6" - 10"	5	3	1	Chainlink fencing along access road	
Protect	140	C602	*Acer palmatum*	Japanese maple	9.5		Good	Good	COMI	6" - 10"	6	4	1	Chainlink fencing along access road	

**Special designations include exceptional trees, exceptional groves, WSDOT designated 'Street Trees' and WSDOT Category 1, 2, and 3 trees.*
RLOD (Recommended Limits of Disturbance)
Proposed action is noted for all regulated trees

Tree Solutions Inc
Consulting Arborists



TREE INVENTORY TABLE:

TREE ID	SCIENTIFIC NAME	COMMON NAME	LOD (ft.)	DBH (in.)	DISPOSITION	EXCEPTIONAL
141	TSUGA MERTENSIANA	MOUNTAIN HEMLOCK	4	6.0	PROTECT	NO
10606	CEDRUS DEODARA	DEODAR CEDAR	20	29.9	PROTECT	NO
10608	CEDRUS DEODARA	DEODAR CEDAR	6	9.0	PROTECT	NO
10609	SE□UOIADENDRON GIGANTEUM	WEEPING REDWOOD	7	10.1	PROTECT	NO
10701	THUJA PLICATA	WESTERN REDCEDAR	30	30.0	PROTECT	NO

CRITICAL AREAS LEGEND

- 120' POTENTIAL FISH-BEARING STREAM BUFFER
- 60' PERENNIAL STREAM BUFFER
- 60' SEASONAL STREAM BUFFER
- LANDSLIDE HAZARD AREA: DEEP-SEATED AND SHALLOW
- LANDSLIDE HAZARD BUFFER: DEEP-SEATED AND SHALLOW
- SEISMIC HAZARD AREA
- 200' LAKE WASHINGTON BUFFER
- ORDINARY HIGH WATER MARK
- LANDSLIDE HAZARD AREA: STEEP SLOPE
- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: M. TOOLEY	SCALE: AS NOTED
PROJECT ENGINEER:	REFERENCE 0 1"
DESIGN APPROVAL:	FACILITY NUMBER: 333
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01339C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - PUMP STATION IMPROVEMENTS

LIFT STATION 11 FORCE MAIN SITE PREPARATION STA 0+00 TO STA 3+64

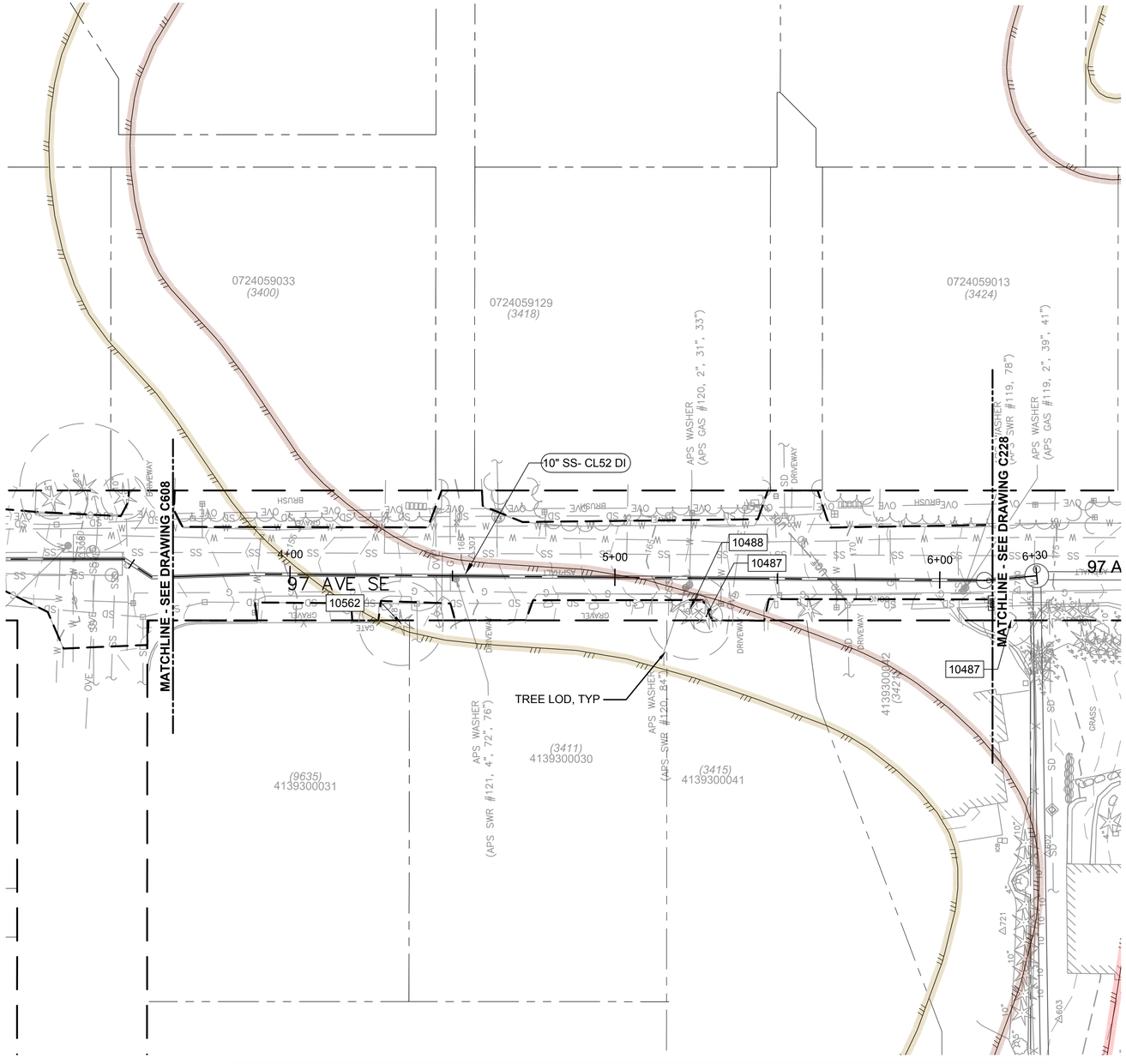
DCN:
DATE: 05/02/2019
PROJECT FILE NO:
DRAWING NO: **C608**
SHT NO / TOTAL: /
REV NO:

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13-LS11-C608.dwg
PLOTTED BY: D'Auria, Isaac
PLOT DATE: 8/2/2019 8:43 AM

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	141	C608	*Tsuga mertensiana*	Mountain hemlock	6.0		Good	Good	COMI	6" - 10"	4	3	1	Chainlink fencing at edge of asphalt	
Protect	10606	C608	*Cedrus deodara*	Deodar cedar	29.9		Good	Fair	COMI	24"-36"	20	12	3	Chainlink fencing at edge of asphalt	
Protect	10608	C608	*Cedrus deodara*	Deodar cedar	9.0		Good	Good	COMI	6" - 10"	6	4	1	Chainlink fencing at edge of asphalt	
Protect	10609	C608	*Sequoiadendron giganteum 'Pendulum'*	Weeping Redwood	10.1		Good	Good	COMI	10"-24"	7	4	2	Chainlink fencing at edge of asphalt	
Protect	10701	C608	*Thuja plicata*	Western redcedar	30.0		Fair	Good	COMI	Exceptional	30	13	6	Chainlink fencing at edge of asphalt	
Protect	10815	C608	*Cercidiphyllum japonicum*	Katsura tree	8.2		Good	Good	COMI	6" - 10"	8	3	1	Chainlink fencing at edge of asphalt	

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TREE INVENTORY TABLE:

TREE ID	SCIENTIFIC NAME	COMMON NAME	LOD (ft.)	DBH (in.)	DISPOSITION	EXCEPTIONAL
10487	PRUNUS SERRULATA	FLOWERING CHERRY	8	11.6	PROTECT	NO
10488	CEDRUS DEODARA	DEODAR CEDAR	13	20.0	PROTECT	NO
10562	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	13	20.2	PROTECT	NO
10487	CHAMAECYPARIS LAWSONIANA	PORT ORFORD CEDAR	5	8	PROTECT	NO

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- LANDSLIDE HAZARD BUFFER: STEEP SLOPE

0 20 40 60
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

TETRA TECH
JACOBS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
DRAFT
ARBORIST DRAWING SET
SEPTEMBER 2019

DESIGNED/DRAWN: M. TOOLEY	SCALE: AS NOTED
PROJECT ENGINEER:	REFERENCE 0 1"
DESIGN APPROVAL:	FACILITY NUMBER: 333
PROJECT ACCEPTANCE: S. YILDIZ	CONTRACT NO: C01339C20

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
NORTH MERCER INTERCEPTOR AND ENATAI INTERCEPTOR UPGRADE - PUMP STATION IMPROVEMENTS

LIFT STATION 11 FORCE MAIN SITE PREPARATION STA 3+64 TO STA 6+16

DCN:	
DATE:	05/02/2019
PROJECT FILE NO:	
DRAWING NO:	C609
SHT NO / TOTAL	/
REV NO:	

BORDER FILE EDITION: KCWTD_2012_Dsize_TB_Border
FILE LOCATION: P:\W3X67200\700CADD\702CIVIL\Arborist Sheets\E00306E13_LS11_C609.dwg
PLOT DATE: 8/2/2019 8:45 AM
PLOTTED BY: D'Auria, Isaac

Proposed Action	Tree ID	Sheet	*Scientific Name*	Common Name	Single Stem Equivalent DSH (in)	Multiple Stem DSH (in)	Health Condition	Structural Condition	Jurisdiction	Designation*	RLOD (ft)	MLOD (ft)	Replacements required (Qty)	Protection Notes	Removal Reason
Protect	10487	C609	*Prunus serrulata*	Flowering cherry	11.6		Good	Good	COMI	10"-24"	8	5	2	Chainlink fencing at edge of asphalt	
Protect	10488	C609	*Cedrus deodara*	Deodar cedar	20.0		Good	Good	COMI	10"-24"	13	8	2	Chainlink fencing at edge of asphalt	
Protect	10562	C609	*Pseudotsuga menziesii*	Douglas-fir	20.2		Good	Good	COMI	10"-24"	13	8	2	Chainlink fencing at edge of asphalt	

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