US Army Corps of Engineers
Seattle District

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-3755
Telephone: (206) 764-3482
ATTN: Jordan Bunch,
Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone: (360) 407-6076
ATTN: SEA Program,
Federal Permit Coordinator

Public Notice Date: March 13, 2020
Expiration Date: **April 12, 2020**

Reference No.: NWS-2019-175
Name: Costco Wholesale (Wetland Fill for a Warehouse in Lake Stevens)

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated February 12, 2020.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA). Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

APPLICANT: Peter Kahn
Costco Wholesale
999 Lake Drive
Issaquah, WA 98027
Telephone: (425) 427-7554

AGENT: Ed Sewall
Sewall Wetland Consulting, Inc.
P.O. Box 880
Fall City, WA 98024
Telephone: (253) 859-0515

LOCATION: 2404 South Lake Stevens Road at Lake Stevens, Snohomish County, Washington.

WORK: The applicant proposes to fill 1.72 acres of wetlands to construct a Costco Warehouse and attendant features (storm water facilities, roads, parking areas, gas station, and infrastructure).

PURPOSE: Develop a Costco Warehouse facility in the Lake Stevens service area along with associated parking, roads, and storm water infrastructure.

NWS-2019-175, Costco Wholesale

ADDITIONAL INFORMATION: The applicant proposes to place fill in 1.72 acres of Category II and III palustrine emergent, palustrine forest, and palustrine scrub-shrub wetlands to construct a new Costco Warehouse and attendant features (storm water facilities, roads, parking areas, gas station, and infrastructure). In addition to direct impacts, 2.24 acres of indirect impacts would occur to Wetlands A and D from inadequate buffers (wetland area used as "paper buffer").

The applicant proposes to extend 24th Street Southeast approximately 1,400 linear feet across the project site to the north, and widen the road and connect to a roundabout at the S.R. 9/ Lake Stevens Road interchange. The project would also extend 91st Avenue Southeast approximately 1,255 linear feet across 20th Street Southeast.

Storm water runoff from the project would be captured, treated, and detained onsite using the most current Washington Department of Ecology storm water manual.

The wetland boundaries shown on the project drawings have not yet been verified by the U.S. Army Corps of Engineers (Corps). If the Corps determines the boundaries of the wetlands are substantially inaccurate a new public notice may be published.

MITIGATION: The applicant has proposed to compensate for all direct and indirect wetland impacts through the purchase of mitigation credits through the Snohomish Mitigation Bank. The proposed mitigation plan has not been approved by the Corps and is currently under review.

The applicant has proposed voluntary mitigation that would consist of on-site creation of 0.45 of an acre of wetland along Wetland D, and removal of three (3) fish barrier culverts off-site to a Mosher Creek Tributary and the replacement of three (3) other off-site culverts with fish passable culverts.

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat. After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area.

If the U.S. Army Corps of Engineers (Corps) determines that the proposed action may adversely affect EFH for federally managed fisheries in Washington waters, the Corps will initiate EFH consultation with the NMFS. The Corps' final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

CULTURAL RESOURCES: The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. A historic properties investigation has been conducted within the permit area. No historic properties determined eligible for or listed on the National Register of Historic Places were found to exist within the permit area. The Corps invites responses to this public notice from Native American Tribes or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments from this public notice, the Corps will evaluate potential impacts

and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, as appropriate.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION – CORPS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

SOURCE OF FILL MATERIAL: The source of the fill material will be material located on site and/or an approved facility. Should a permit be issued, the Corps will evaluate the fill material source prior to the start of construction.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

ADDITIONAL EVALUATION:

Snohomish County is the authority for determining the requirement of a Shorelines Substantial Development permit for this project.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this

public notice to ensure consideration.

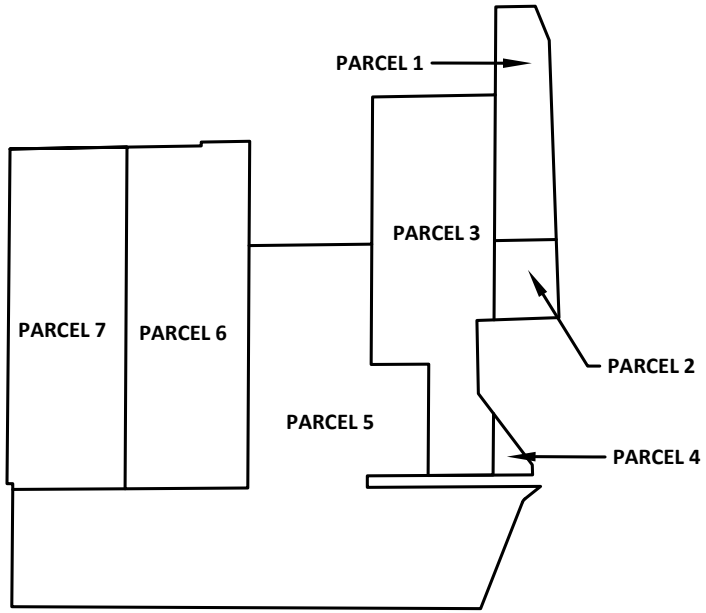
CORPS COMMENTS: All e-mail comments should be sent to jordan.a.bunch@usace.army.mil. Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Jordan Bunch, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA and/or Coastal Zone Management consistency concurrence, may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail to ecyrefedpermits@ecy.wa.gov.

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Costco Wholesale; NWS-2019-175

Encl: Figures (14)





S/T/R: A PORTION OF THE NE ¼ OF SECTION 25, TOWNSHIP 29 NORTH, RANGE 5 EAST, W.M.

PROJECT SITE INFORMATION:

LOCATION - 7 TAX PARCELS LOCATED IN THE SOUTHWEST CORNER OF THE INTERSECTION OF STATE ROUTE 9 & 20TH STREET SE IN LAKE STEVENS, WASHINGTON

SITE INFORMATION:

PARCEL 1 - TAX PARCEL NO. 00457000002501 (NO ADDRESS) 2.08 ACRES
PARCEL 2 - TAX PARCEL NO. 00457000002502 (NO ADDRESS) 0.78 ACRES
PARCEL 3 - TAX PARCEL NO. 00457000002401 (2326 S LAKE STEVENS RD) 6.06 ACRES
PARCEL 4 - TAX PARCEL NO. 00457000002503 (NO ADDRESS) 0.20 ACRES
PARCEL 5 - TAX PARCEL NO. 00457000002304 (2404 S LAKE STEVENS RD) 15.64 ACRES
PARCEL 6 - TAX PARCEL NO. 00457000002201 (9208 21ST ST SE) 6.66 ACRES
PARCEL 7 - TAX PARCEL NO. 00457000002102 (9126 21ST ST SE) 6.67 ACRES

NWS-2019-175

VICINITY MAP

CORPS REFERENCE:

APPLICANT:

COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WA 98027
(425) 313-8100

LOCATION:

SOUTHWEST CORNER OF INTERSECTION OF SR 9 & 20TH STREET SE

SHEET 1 of 14 **DATE:** 02/12/2020

PROPOSED PROJECT:

LAKE STEVENS COSTCO
NEW COMMERCIAL WAREHOUSE CLUB STORE.

IN: WETLANDS
NEAR/AT: CITY OF LAKE STEVENS
COUNTY: SNOHOMISH
STATE: WASHINGTON

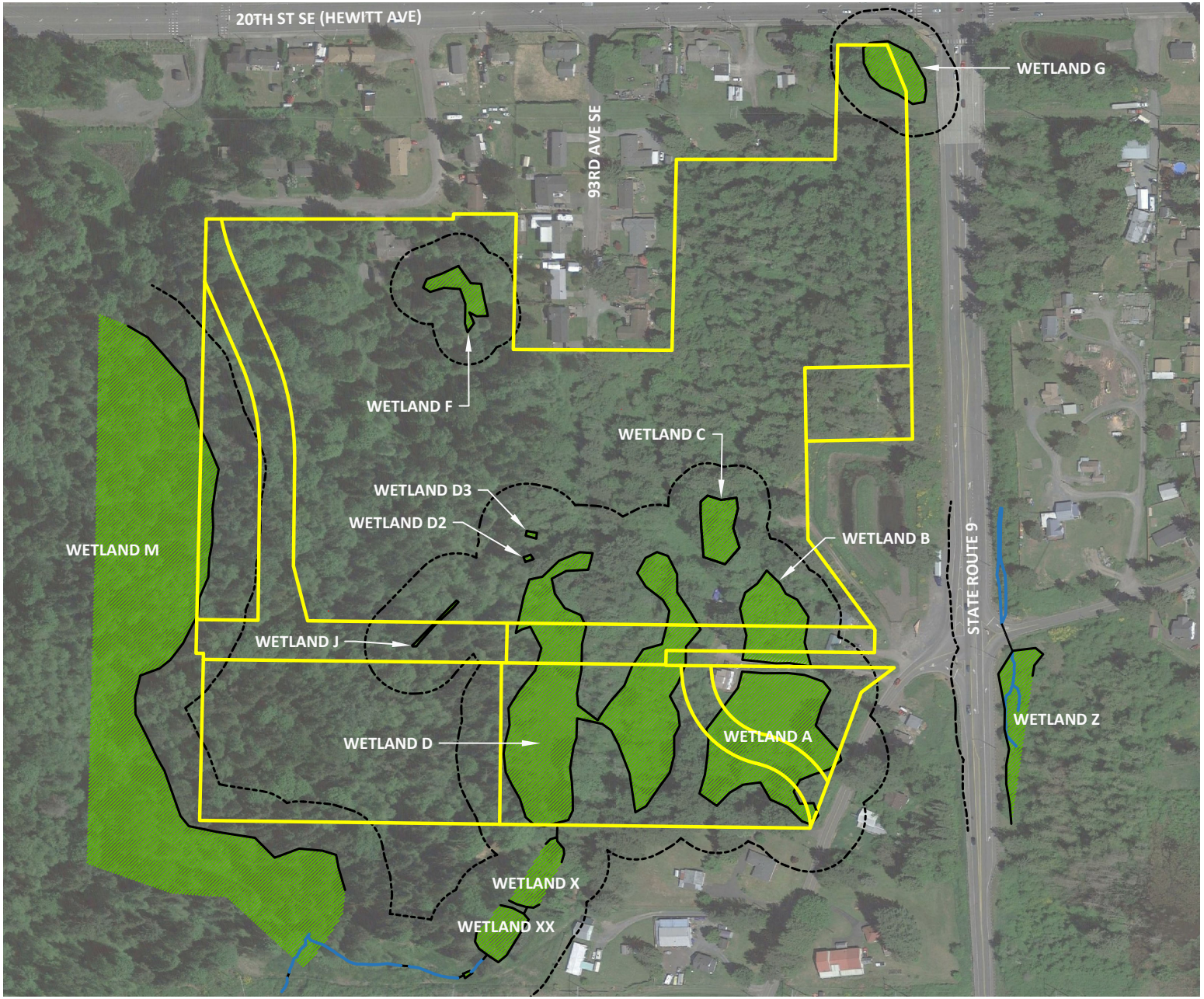
Sewall Wetland Consulting, Inc.
PO BOX 880
FALL CITY, WASHINGTON 98024
(253) 859-0515 - TELEPHONE

N

APPROX SCALE:
1" = 300'

WETLAND SUMMARY

WETLAND ID	AREA
WETLAND "A"	54,097 SF (1.24 ACRES)
WETLAND "B"	19,086 SF (0.43 ACRES
WETLAND "C"	8,579 SF (0.19 ACRES)
WETLAND "D"	100,623 SF (2.31 ACRES)
WETLAND "D2"	171 SF (0.004 ACRES)
WETLAND "D3"	230 SF (0.005 ACRES)
WETLAND "F"	5,811 SF (0.13 ACRES)
WETLAND "G"	10,379 SF (0.23 ACRES)



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

EXISTING CONDITIONS

REFERENCE:

APPLICANT: COSTCO WHOLESALE

PROPOSED PROJECT: LAKE STEVENS COSTCO

SHEET 2 of 14 **DATE:** 02/12/2020

Sewall Wetland Consulting, Inc.

PO BOX 880
FALL CITY, WASHINGTON 98024
(253) 859-0515 - TELEPHONE

NWS-2019-175

N

APPROX SCALE:
1" = 300'

LEGEND

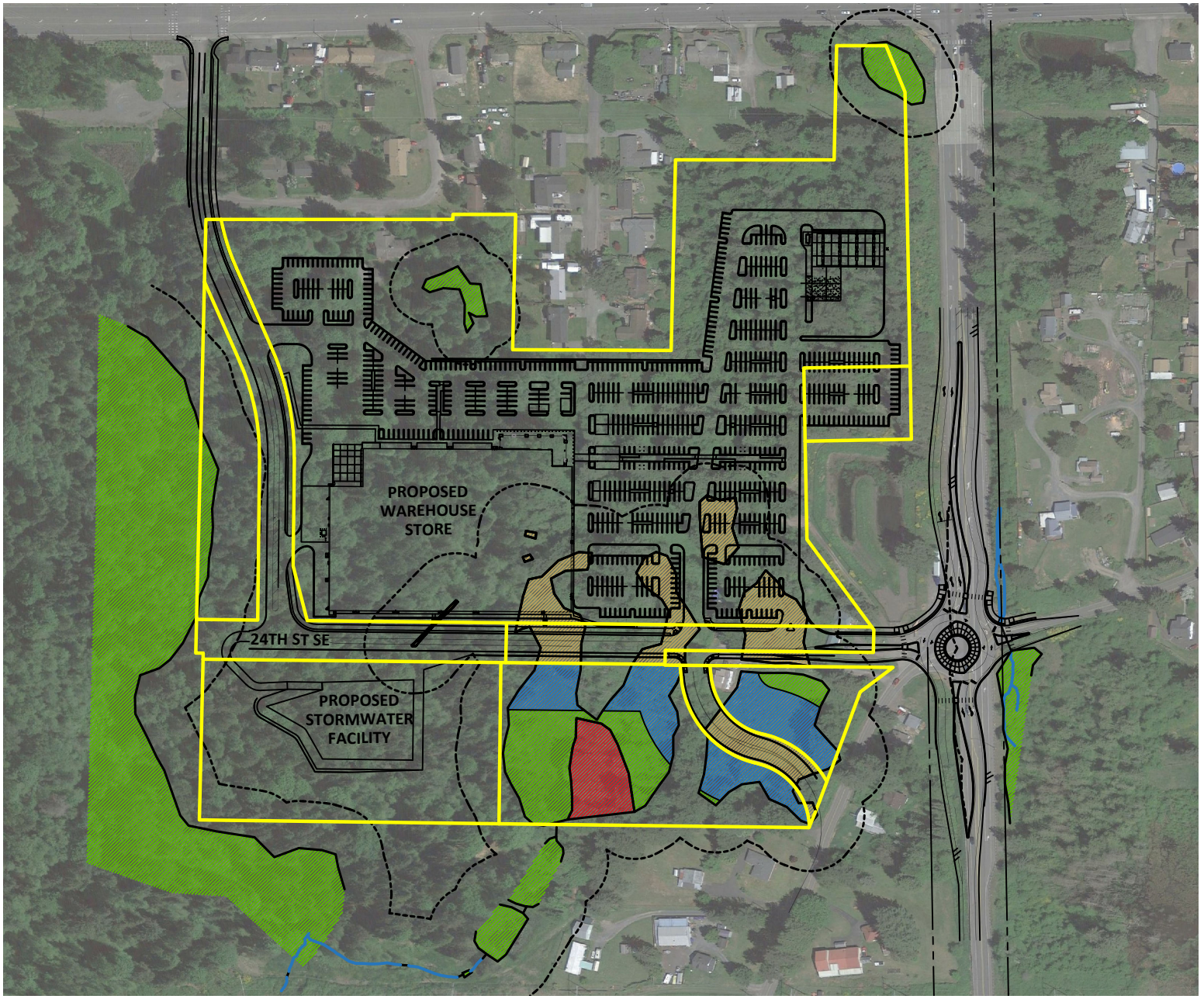
- WETLAND (RETAINED)
- WETLAND (TO BE FILLED)
- WETLAND (PAPER FILL)
- WETLAND MITIGATION

WETLAND ID	TOTAL WETLAND FILL
WETLAND A #1	154 SF (0.004 ACRES)
WETLAND A #2	13,540 SF (0.31 ACRES)
WETLAND A #3	606 SF (0.14 ACRES)
WETLAND B	19,086 SF (0.44 ACRES)
WETLAND C	8,579 SF (0.20 ACRES)
WETLAND D #1	17,831 SF (0.40 ACRES)
WETLAND D #2	171 SF (0.004 ACRES)
WETLAND D #3	230 SF (0.005 ACRES)
WETLAND D #4	14,060 SF (0.32 ACRES)
WETLAND J	646 SF (0.02 ACRES)
	74,903 SF (1.72 ACRES)

WETLAND PAPER FILL = 61,262 SF (1.41 ACRES)

WETLAND MITIGATION = 19,824 SF (0.45 ACRES)

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



WETLAND FILL

REFERENCE:

APPLICANT: COSTCO WHOLESALE

PROPOSED PROJECT: LAKE STEVENS COSTCO

SHEET 3 of 14 **DATE:** 02/12/2020

Sewall Wetland Consulting, Inc.

PO BOX 880
FALL CITY, WASHINGTON 98024
(253) 859-0515 - TELEPHONE

NWS-2019-175

CRITICAL AREA MITIGATION PROJECT

PROPOSED LAKE STEVENS COSTCO WHOLESALE

- LAKE STEVENS, WASHINGTON -

VICINITY MAP:



DRAWING SHEET INDEX:

SHEET NUMBER	DESCRIPTION
1	COVERSHEET
2	SITE PLAN
3	WETLAND CREATION SITE PLAN
4	WETLAND CREATION PROFILES, NOTES AND DETAILS
5	WETLAND CREATION PLANTING PLAN
6	WETLAND CREATION NOTES AND DETAILS
7	PLANT INSTALLATION SPECIFICATIONS
8	STREAMBED PLAN & PROFILE #1
9	STREAMBED PLAN & PROFILE #2
10	CULVERT DETAILS #1
11	CULVERT DETAILS #2

TABLE 1: PLAN GOALS, MONITORING SCHEDULE, PERFORMANCE STANDARDS

GOAL:	MONITORING SCHEDULE:	PERFORMANCE STANDARDS:
ESTABLISH WETLAND HYDROLOGY WITHIN CREATED WETLAND AREAS.	YEARS 1 & 2	SOILS WITHIN CREATED WETLAND AREAS SHALL BE SATURATED TO THE SURFACE, HAVE SHALLOW GROUNDWATER PRESENT WITHIN 12 INCHES OF THE SOIL SURFACE, AND/OR HAVE SURFACE PONDING PRESENT FOR A MINIMUM OF FOUR (4) CONSECUTIVE WEEKS DURING THE GROWING SEASON WHEN RAINFALL IS LESS THAN OR EQUAL TO THE MEAN FOR THE PERIOD OF AVAILABLE RECORD.
TO SUCCESSFULLY ESTABLISH A DENSE NATIVE PLANT COMMUNITY COMPRISING TREES AND SHRUBS WITHIN THE AREAS SHOWN ON THIS PLAN.	LATE SUMMER YEARS 1, 2, & 3 FOLLOWING PLANT INSTALLATION	1. **PLANT SURVIVAL:** • 100% SURVIVAL BY INSTALLED PLANT STOCK AFTER THE FIRST GROWING SEASON. THIS STANDARD CAN BE ACHIEVED STRICTLY THROUGH SURVIVAL OR THROUGH A COMBINATION OF SURVIVAL AND PLANT REPLACEMENT. • 80% SURVIVAL BY INSTALLED PLANT STOCK AFTER THE SECOND GROWING SEASON. 2. **PLANT COVERAGE:** • BUFFER - YEAR 3: 30%; YEAR 5: 60%. • WETLAND MINIMUM PERCENT COVER BY TREES AND SHRUBS - YEAR 3: 30%; YEAR 5: 60%. • UP TO 20% OF THE NATIVE WOODY PLANT SPECIES COVERAGE DURING ANY YEAR MAY BE COMPRISED OF DESIRABLE NATIVE COLONIZING SPECIES. 3. **PLANT DIVERSITY:** • AFTER THE FIFTH GROWING SEASON, A MINIMUM OF FIVE DIFFERENT PLANT SPECIES WILL BE ESTABLISHED WITHIN BOTH WETLAND AND BUFFER AREAS.
TO LIMIT NOXIOUS WEED SPECIES WITHIN THE AREAS SHOWN ON THIS PLAN.	LATE SUMMER YEARS 1, 2, & 3 FOLLOWING PLANT INSTALLATION	LESS THAN **10%** COVERAGE BY ALL CLASS "A", "B", AND "C" NOXIOUS WEEDS (INCLUDING NON-REGULATED "B" AND "C" NOXIOUS WEEDS) IDENTIFIED ON THE LATEST SNOHOMISH COUNTY NOXIOUS WEED LIST.

MONITORING & MAINTENANCE PLAN

PLAN GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS:

PLAN GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS ARE OUTLINED IN **TABLE 1** (THIS SHEET). THE GOALS AND OBJECTIVES OF THIS PLAN ARE CONSIDERED ACHIEVED WHEN THE PERFORMANCE STANDARDS ARE SATISFIED.

MONITORING PLAN (DURATION: 5 YEARS):

AS-BUILT

SCHEDULE: **IMMEDIATELY FOLLOWING CONSTRUCTION**

FOLLOWING COMPLETION OF THE WORK SHOWN ON THIS PLAN, A QUALIFIED PROFESSIONAL SHALL PREPARE AN AS-BUILT OF THE WORK COVERED BY THIS PLAN. THE AS-BUILT SHALL SUMMARIZE THE COMPLETED WORK AS WELL AS ANY DEVIATIONS FROM THE APPROVED VERSION OF THIS PLAN.

IN ADDITION TO THE AS-BUILT, BASELINE MONITORING DATA SHALL BE COLLECTED AND PERMANENT PHOTO POINTS SHALL BE ESTABLISHED TO PHOTOGRAPHICALLY DOCUMENT REPRESENTATIVE CONDITIONS WITHIN THE WORK AREAS SHOWN ON THIS PLAN. BASELINE MONITORING DATA COLLECTED AND REPORTED AS PART OF THE AS-BUILT SHALL BE CONSISTENT WITH THAT DESCRIBED FOR ANNUAL MONITORING.

THE AS-BUILT AND BASELINE MONITORING DATA SHALL BE SUBMITTED TO THE **CITY OF LAKE STEVENS** NO LATER THAN **30 DAYS** FROM THE DATE THAT THE WORK SHOWN ON THIS PLAN HAS BEEN COMPLETED.

ANNUAL MONITORING

SCHEDULE: **(1) THIRTY DAYS AFTER PLANTING**
(2) EARLY IN THE GROWING SEASON OF THE FIRST YEAR
(3) END OF THE GROWING SEASON OF THE FIRST YEAR
(4) TWICE THE SECOND YEAR (AT THE BEGINNING AND END OF THE GROWING SEASON)
(5) ANNUALLY AT THE END OF THE GROWING SEASON DURING THE THIRD THROUGH FIFTH YEAR.

FOLLOWING ACCEPTANCE OF THE AS-BUILT, ANNUAL MONITORING SHALL BE COMPLETED FOR A PERIOD OF **FIVE (5) YEARS**. MONITORING SHALL BE COMPLETED BY A QUALIFIED PROFESSIONAL AND SHALL COMPRISE A DETAILED SITE ASSESSMENT PER THE ABOVE SCHEDULE WITH REPORTING TO THE **CITY OF LAKE STEVENS** NO LATER THAN **30 DAYS** FOLLOWING EACH MONITORING.

EARLY SEASON MONITORING (30 DAYS FOLLOWING PLANTING + YEAR 1):

THE PURPOSE OF THIS MONITORING REVIEW IS TO: 1) ASSESS GENERAL CONDITIONS WITHIN THE WORK AREAS SHOWN ON THIS PLAN; AND 2) TO DETERMINE THE NEED FOR AND THE SPECIFIC SCOPE OF MAINTENANCE ACTIONS REQUIRED FOR THE UPCOMING GROWING SEASON. THE RESULTS AND RECOMMENDATIONS OF EACH MONITORING REVIEW SHALL BE SUMMARIZED WRITTEN REPORT AND SUBMITTED TO THE **CITY OF LAKE STEVENS**.

LATE SEASON MONITORING (ALL YEARS):

THE PURPOSE OF THIS MONITORING REVIEW IS TO EVALUATE CONDITIONS WITHIN THE WORK AREAS SHOWN ON THIS PLAN PER THE CURRENT YEAR'S PERFORMANCE STANDARDS. THE FOLLOWING INFORMATION SHALL BE COLLECTED AND ASSESSED RELATIVE TO THE PERFORMANCE STANDARDS ESTABLISHED FOR THE PROJECT:

- WETLAND HYDROLOGY MONITORING (YEAR 1 THROUGH YEAR 2). PIEZOMETERS, SHALLOW GROUNDWATER MONITORING WELLS, OR EQUIVALENT METHODS WILL BE USED TO MONITOR WETLAND HYDROLOGY.
- THE PERCENT SURVIVAL OF INSTALLED PLANT STOCK (YEAR 1 THROUGH YEAR 2 ONLY). A DIRECT COUNT INVENTORY AND ASSESSMENT OF ALL INSTALLED PLANTS SHALL BE USED TO EVALUATE PERCENT SURVIVAL. THE RATIONALE FOR POOR CONDITIONS, IF PRESENT, WILL BE DETERMINED TO THE EXTENT FEASIBLE.
- THE PERCENT COVERAGE PROVIDED BY INSTALLED PLANT SPECIES (ALL YEARS). INSTALLED PLANT STOCK PERCENT COVERAGE SHALL BE ASSESSED USING APPROPRIATELY SIZED SAMPLE PLOTS OR LINE INTERCEPT TRANSECTS.
- THE PERCENT COVERAGE PROVIDED BY NOXIOUS WEEDS (ALL YEARS). INSTALLED PLANT STOCK PERCENT COVERAGE SHALL BE ASSESSED USING APPROPRIATELY SIZED SAMPLE PLOTS OR LINE INTERCEPT TRANSECTS.

IN ADDITION TO THE DATA COLLECTION AND ANALYSIS OUTLINED ABOVE, PHOTOGRAPHS OF THE WORK AREAS SHOWN ON THIS PLAN SHALL BE TAKEN FROM THE PERMANENT PHOTO POINTS ESTABLISHED DURING THE AS-BUILT.

CONTINGENCY PLAN

SHOULD ANY MONITORING ASSESSMENT REVEAL THAT THE PERFORMANCE STANDARDS FOR THE RESPECTIVE YEAR ARE NOT SATISFIED, THE PERMITTEE SHALL WORK WITH THE **CITY OF LAKE STEVENS** TO DEVELOP A CONTINGENCY PLAN TO ADDRESS THE DEFICIENCY(IES). CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ACTIONS:

1. ADDITIONAL PLANT INSTALLATION;
2. EROSION CONTROL;
3. HERBIVORY PROTECTION;
4. MODIFICATION TO THE IRRIGATION REGIME; AND/OR
5. PLANT SUBSTITUTIONS OF TYPE, SIZE, QUANTITY, AND LOCATION.

SUCH CONTINGENCY PLAN SHALL BE SUBMITTED TO THE **CITY OF LAKE STEVENS** BY JANUARY 31 OF ANY YEAR WHEN DEFICIENCIES ARE DISCOVERED. UNLESS OTHERWISE APPROVED BY THE **CITY OF LAKE STEVENS** , ACTIONS SPECIFIED ON AN APPROVED CONTINGENCY PLAN MUST BE COMPLETED WITHIN 60 DAYS. IF THE FAILURE IS SUBSTANTIAL, THE **CITY OF LAKE STEVENS** MAY EXTEND THE COMPLIANCE MONITORING PERIOD FOR THE ENHANCEMENT WORK.

MAINTENANCE PLAN

THIS SECTION PROVIDES A GENERAL OVERVIEW OF THE MAINTENANCE PROGRAM NECESSARY TO ENSURE THE PERFORMANCE STANDARDS ESTABLISHED FOR THIS PLAN ARE SATISFIED.

GENERAL MAINTENANCE

INSTALLED PLANTS SHALL BE MAINTAINED AT REGULAR INTERVALS DURING THE MONITORING PERIOD TO PROMOTE SUCCESSFUL ESTABLISHMENT AND VIGOROUS GROWTH.

GENERAL MAINTENANCE SHALL INCLUDE:

- WEEDING THE BASE OF EACH INSTALLED PLANT.
- RE-APPLYING BARK MULCH TO MAINTAIN A 6" MINIMUM APPLIED THICKNESS - YEAR 1 ONLY.
- THE PRUNING OF INSTALLED PLANTS TO REMOVE DEAD WOOD AND PROMOTE VIGOROUS PLANT GROWTH AND PROPER FORM.
- THE REPLACEMENT OF PLANTS IN DISTRESS AND/OR THAT ARE DISEASED.
- THE REMOVAL OF TRASH, LITTER, AND/OR OTHER NON-DECOMPOSING DEBRIS.
- TEMPORARY IRRIGATION.

NOXIOUS WEED CONTROL

FOLLOWING PLANT INSTALLATION AND AT REGULAR INTERVALS DURING THE MONITORING PERIOD, NOXIOUS WEED CONTROL SHALL OCCUR ON A SPOT TREATMENT BASIS WITHIN EACH WORK AREA. TARGET NOXIOUS WEED SPECIES SHALL INCLUDE THE FOLLOWING: **ALL CLASS "A", "B", AND "C" NOXIOUS WEEDS (INCLUDING NON-REGULATED "B" AND "C" NOXIOUS WEEDS)** IDENTIFIED ON THE LATEST SNOHOMISH COUNTY NOXIOUS WEED LIST. DURING NOXIOUS WEED CONTROL WORK, EXISTING NATIVE VEGETATION SHALL BE PROTECTED FROM DAMAGE. ALL NOXIOUS WEED CONTROL CUTTINGS AND DEBRIS SHALL BE REMOVED FROM THE SITE.

Sewall Wetland Consulting, Inc.
PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

PROJECT: CRITICAL AREA MITIGATION PLAN - LAKE STEVENS COSTCO STORE -

CLIENT: COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WASHINGTON 98027
(425) 313-8100

NO.	DATE	NOTES
1.	11/20/2019	REVISED CULVERT REMOVAL
2.	01/20/2020	REVISED PER REVIEW COMMENTS; NEW SITE PLAN, & CULVERT DESIGN

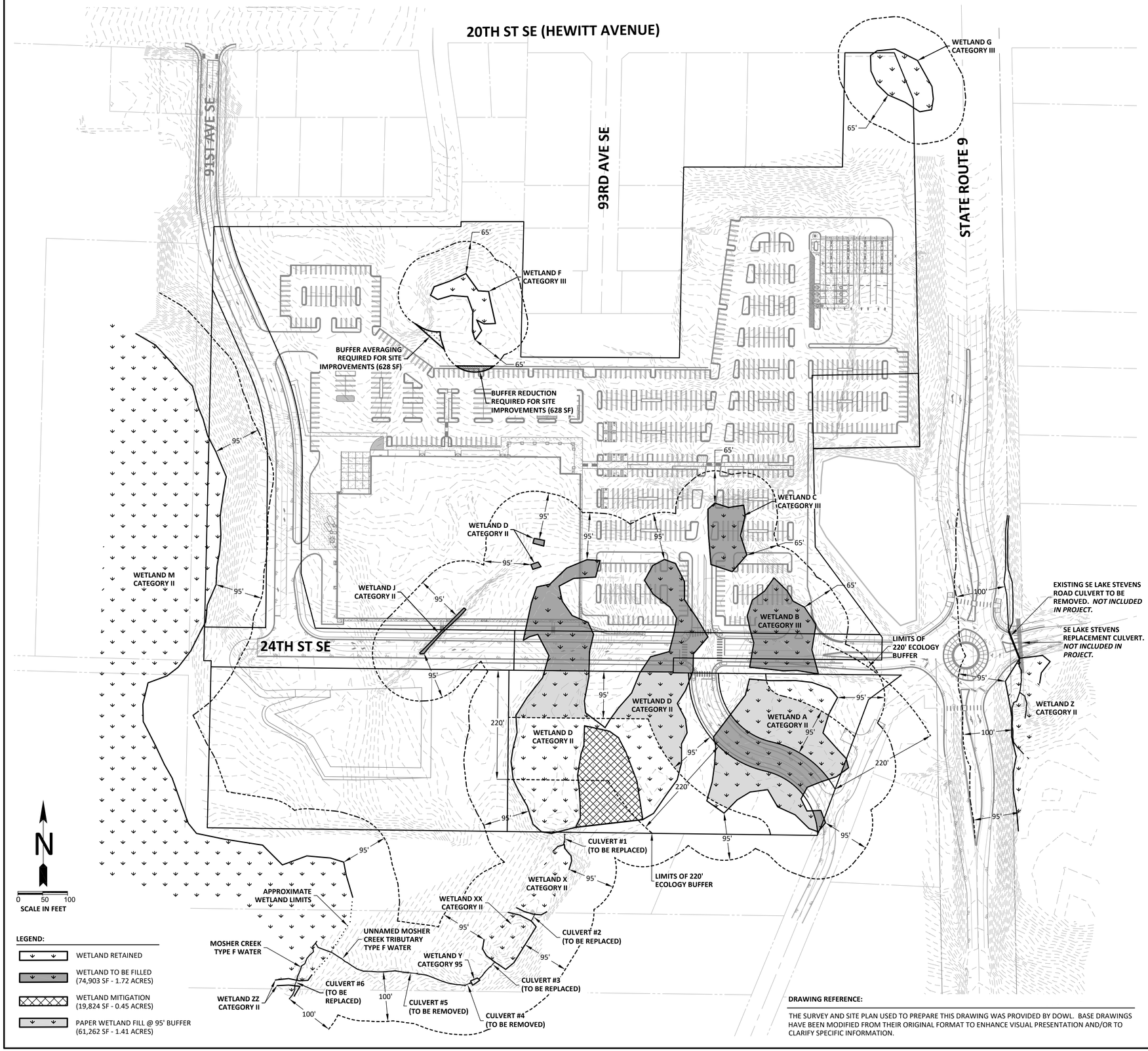
811 Know what's below. Call before you dig.

UTILITY LOCATIONS AND CHARACTERISTICS SHOWN ON THIS DRAWING, IF ANY, ARE BASED ON THE FIELD LOCATION OF THE APPARENT SURFACE EVIDENCE OF EXISTING STRUCTURES. THE UNDERGROUND ROUTING AND CONDITION OF BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED. ADDITIONAL UTILITY LOCATION AND MAPPING MAY BE REQUIRED. FIELD LOCATE, VERIFY DEPTH OF, AND ADEQUATELY PROTECT ALL UTILITIES PRIOR TO THE START OF WORK.

NWS-2019-175
02/12/2020

Coversheet

SHEET: 4 of 14



LEGEND:

- WETLAND RETAINED
- WETLAND TO BE FILLED (74,903 SF - 1.72 ACRES)
- WETLAND MITIGATION (19,824 SF - 0.45 ACRES)
- PAPER WETLAND FILL @ 95' BUFFER (61,262 SF - 1.41 ACRES)

DRAWING REFERENCE:

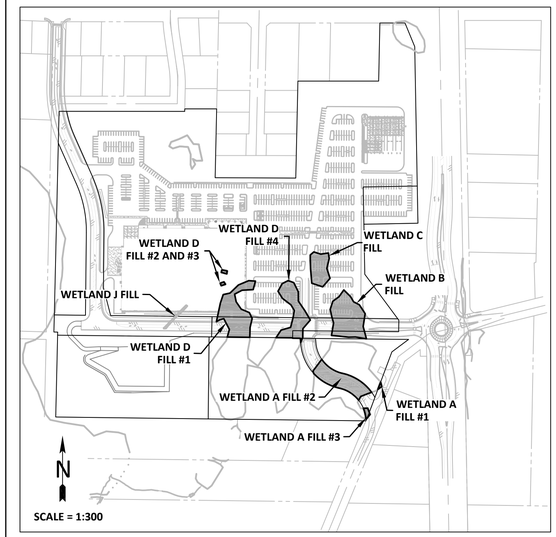
THE SURVEY AND SITE PLAN USED TO PREPARE THIS DRAWING WAS PROVIDED BY DOWL. BASE DRAWINGS HAVE BEEN MODIFIED FROM THEIR ORIGINAL FORMAT TO ENHANCE VISUAL PRESENTATION AND/OR TO CLARIFY SPECIFIC INFORMATION.

GENERAL CONSTRUCTION NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL **CITY OF LAKE STEVENS** CODES, ORDINANCES, AND REGULATIONS.
2. BEFORE THE START OF ANY CONSTRUCTION, A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN **CITY OF LAKE STEVENS** STAFF, THE OWNER, AND THE PLAN DESIGNER.
3. A COPY OF THESE APPROVED DRAWINGS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
4. THE TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) MEASURES SHOWN ON THESE DRAWINGS, IF ANY, ARE THE MINIMUM REQUIRED. ADJUST, AMEND, AND/OR ADD TO THE TESC MEASURES SHOWN TO ACCOMMODATE SITE AND WEATHER CONDITIONS AND/OR AS OTHERWISE DIRECTED BY OWNER OR REPRESENTATIVES FROM **CITY OF LAKE STEVENS**, THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, THE WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE, AND/OR THE US ARMY CORPS OF ENGINEERS .
5. THE CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF THE WORK SHOWN ON THESE DRAWINGS. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE TRAFFIC CONTROL IN ACCORDANCE WITH ANY AND ALL **CITY OF LAKE STEVENS** STANDARDS.
6. SITE CONDITIONS MAY VARY BASED ON SEASON AND/OR TIME OF YEAR. THE CONSTRUCTION CONTRACTOR SHALL ACCOMMODATE REALIZED AND ANTICIPATED SITE CONDITIONS WHEN COMPLETING THE WORK SHOWN ON THESE DRAWINGS.

CONSTRUCTION SEQUENCE:

1. FLAG WORK AREA LIMITS.
2. REQUEST AND ATTEND A PRE-CONSTRUCTION MEETING WITH OWNER.
3. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) MEASURES PER **CITY OF LAKE STEVENS** STANDARDS.
4. EXCAVATE WETLAND CREATIONS AREAS.
3. AMEND SOILS.
4. INSTALL LOGS AND SNAGS.
5. APPLY HYDROSEED TO GRADED AREAS .
6. INSTALL NATIVE PLANTS.
7. INSTALL MULCH.
8. INSTALL CRITICAL AREA FENCING AND CRITICAL AREA SIGNS.
9. INSTALL TEMPORARY IRRIGATION SYSTEM.
10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) MEASURES.
11. CLEAN-UP AND DEMOBILIZE FROM SITE.
12. REQUEST FROM AND ATTEND INSPECTION WITH OWNER.
13. CONTRACTOR TO PROVIDE 1 YEAR OF MAINTENANCE UNDER DIRECTION OF OWNER.
14. OWNER TO COMPLETE 5 YEARS OF MONITORING.



WETLAND ID	TOTAL WETLAND FILL	ROAD IMPACTS	STORE IMPACTS
WETLAND A #1	154 SF (0.004 ACRES)	154 SF (0.004 ACRES)	0 SF (0.00 ACRES)
WETLAND A #2	13,540 SF (0.31 ACRES)	13,540 SF (0.31 ACRES)	0 SF (0.00 ACRES)
WETLAND A #3	606 SF (0.14 ACRES)	606 SF (0.14 ACRES)	0 SF (0.00 ACRES)
WETLAND B	19,086 SF (0.44 ACRES)	9,284 SF (0.21 ACRES)	9,802 SF (0.22 ACRES)
WETLAND C	8,579 SF (0.20 ACRES)	0 SF (0.00 ACRES)	8,579 SF (0.20 ACRES)
WETLAND D #1	17,831 SF (0.40 ACRES)	7,796 SF (0.18 ACRES)	10,035 SF (0.23 ACRES)
WETLAND D #2	171 SF (0.004 ACRES)	0 SF (0.00 ACRES)	171 SF (0.004 ACRES)
WETLAND D #3	230 SF (0.005 ACRES)	0 SF (0.00 ACRES)	230 SF (0.005 ACRES)
WETLAND D #4	14,060 SF (0.32 ACRES)	6,189 SF (0.14 ACRES)	7,871 SF (0.18 ACRES)
WETLAND J	646 SF (0.02 ACRES)	333 SF (0.01 ACRES)	313 SF (0.01 ACRE)
	74,903 SF (1.72 ACRES)	**37,902 SF (0.87 ACRES)**	**37,001 SF (0.85 ACRES)**

1 2 WETLAND FILL SUMMARY

FOR PERMITTING PURPOSES

WETLAND ID	LAKE STEVENS (95' BUFFER)	WA ECOLOGY (220' BUFFER)
WETLAND A	34,933 SF (0.80 ACRES)	39,797 SF (0.91 ACRES)
WETLAND D	26,329 SF (0.60 ACRES)	57,694 SF (1.32 ACRES)
	61,262 SF (1.41 ACRES)	**97,491 SF (2.24 ACRES)**

2 2 PAPER FILL SUMMARY

FOR PERMITTING PURPOSES

Sewall Wetland Consulting, Inc.
PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

PROJECT: CRITICAL AREA MITIGATION PLAN - LAKE STEVENS COSTCO STORE -

CLIENT: COSTCO WHOLESALE CORPORATION

999 LAKE DRIVE
ISSAQUAH, WASHINGTON 98027
(425) 313-8100

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

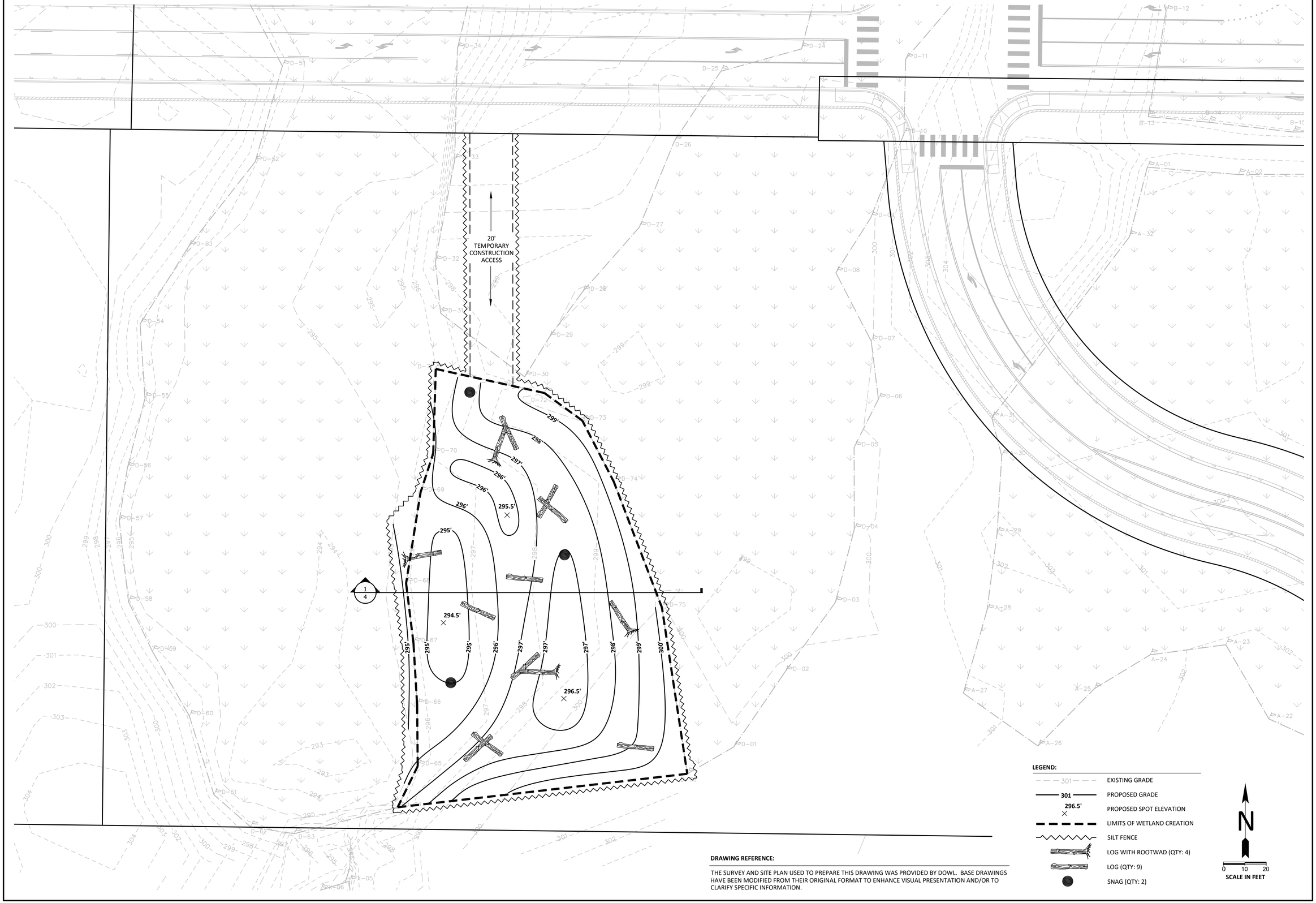
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NO.	DATE	NOTES
1.	11/20/2019	REVISED CULVERT REMOVAL
2.	01/20/2020	REVISED PER REVIEW COMMENTS
		NEW SITE PLAN, & CULVERT DESIGN

NWS-2019-175
02/12/2020

Site Plan

SHEET: 5 of 14



DRAWING REFERENCE:

THE SURVEY AND SITE PLAN USED TO PREPARE THIS DRAWING WAS PROVIDED BY DOWL. BASE DRAWINGS HAVE BEEN MODIFIED FROM THEIR ORIGINAL FORMAT TO ENHANCE VISUAL PRESENTATION AND/OR TO CLARIFY SPECIFIC INFORMATION.

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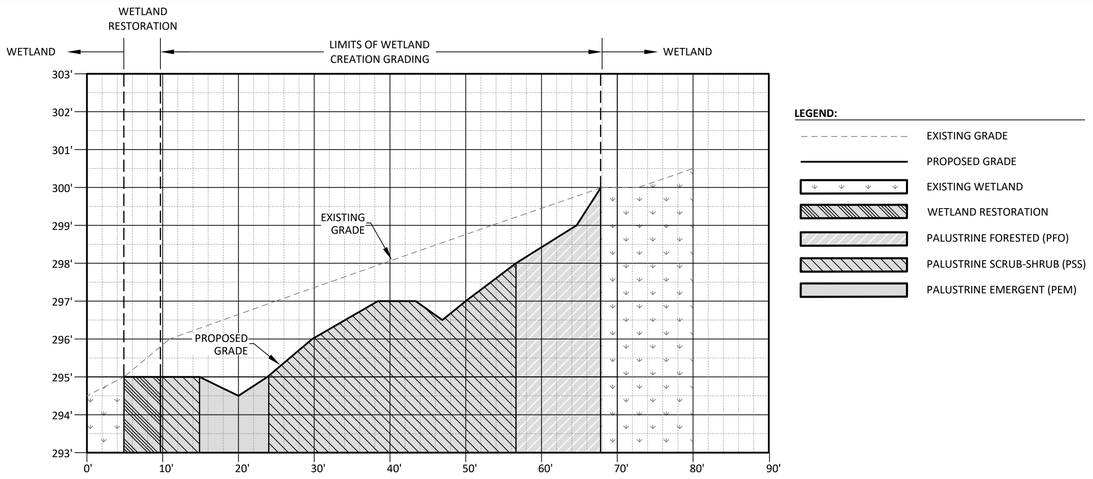
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Wetland Creation Site Plan

SHEET: 6 of 14



1/4 **WETLAND CREATION CROSS-SECTION #2**

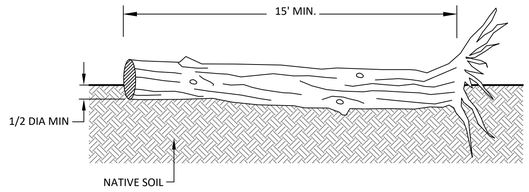
SCALE: HORIZONTAL - 1:20 VERTICAL - 1:2

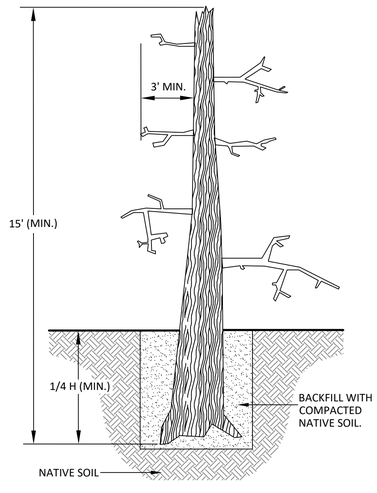
WETLAND CREATION GENERAL NOTES:

1. PLAN DESIGNER MUST BE ON-SITE DURING ALL CLEARING AND GRADING WORK.
2. THE AREA TO BE CLEARED AND GRADED MUST FLAGGED BY THE CONTRACTOR AND APPROVED BY OWNER PRIOR TO THE START OF ANY WORK. SITE CLEARING AND GRADING WORK SHALL BE LIMITED TO THE AREAS WITHIN THE APPROVED "CLEARING LIMITS" AS DEPICTED ON THIS DRAWING.
3. EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1ST THROUGH APRIL 30TH. FROM MAY 1ST THROUGH SEPTEMBER 30TH, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND ALSO AT THE THREAT OF RAIN.
4. THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.
5. RECOMMENDED CONSTRUCTION SEQUENCE FOR WETLAND GRADING ACTIVITIES:
   - INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
   - EXCAVATE AND REMOVE EXISTING SOIL TO A DEPTH AS SHOWN ON THESE PLANS.
   - PROVIDE A SMOOTH TRANSITION TO, FROM, AND WITHIN EXISTING WETLAND AND BUFFER AREAS.
   - DISPOSE OF EXCESS SOIL OR REMOVED FILL MATERIAL AT A LEGAL OFF-SITE DISPOSAL SITE.
   - AMEND ALL GRADED SOILS PER THE SPECIFICATIONS INCLUDED ON THIS SHEET.
   - RAKE/GRADE ALL FINAL SURFACES TO PROVIDE A UNIFORM APPEARANCE.
   - APPLY HYDROSEED TO GRADED AREAS FOR EROSION CONTROL.
6. SOIL EXCAVATION, GRADING, AND SOIL AMENDMENT SHALL NOT OCCUR DURING FREEZING WEATHER OR WHEN SOIL IS FROZEN OR EXCESSIVELY WET.

SOIL AMENDMENT SPECIFICATION:

1. FOLLOWING GRADING AND PRIOR TO PLANT INSTALLATION, DECOMPACT AND AMEND SOILS WITHIN ALL GRADED AREAS PER THE FOLLOWING SPECIFICATIONS:
   - MECHANICALLY DECOMPACT SOIL TO A MINIMUM DEPTH OF 12 INCHES.
   - APPLY 4 INCHES OF ORGANIC COMPOST COMPRISING CEDAR GROVE COMPOSTING "BUILDERS BLEND" (WWW.CEDAR-GROVE.COM; 1-877-SOILS4U) OR APPROVED EQUAL TO THE GRADED AREA.
   - UNIFORMLY TILL IN COMPOST TO ACHIEVE A UNIFORM MIXTURE OF EXISTING SOIL AND COMPOST WITHIN THE UPPER 12 INCHES OF THE DECOMPACTED SOIL.
   - RAKE/GRADE FINAL SURFACE TO PROVIDE A UNIFORM APPEARANCE.





LOG/SNAG SPECIFICATIONS:

1. LOGS SHALL BE A 50%/50% MIX OF CONIFER AND DECIDUOUS SPECIES HAVING A MINIMUM DIAMETER OF 12 INCHES WITH BARK ATTACHED.
2. SNAGS SHALL BE CONIFER SPECIES MEASURING 12 INCHES MINIMUM DIAMETER WITH BARK ATTACHED AND FIVE (5) BRANCHES MINIMUM.

2/4 **LOG AND SNAG INSTALLATION DETAIL**

NO SCALE

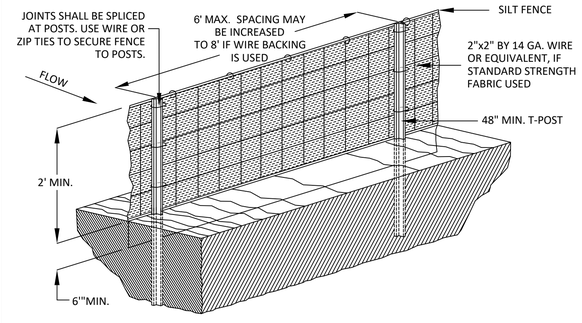
HYDROSEEDING SPECIFICATION:

1. APPLY HYDROSEED TO ALL GRADED AREAS USING APPROPRIATE CELLULOSE FIBER, FERTILIZER, AND TACKIFIER. SEED MIX SHALL BE:
   - SUNMARK NATIVE EC MIX (SUNMARK SEEDS INTERNATIONAL, INC. 503-241-7333; WWW.SUNMARKSEEDS.CO/NATIVE-EC-MIX) OR APPROVED EQUAL:

   SEED APPLICATION RATE: 43.63 LBS PER ACRE.
2. CONTRACTOR SHALL FURNISH COPIES OF A STATEMENT SIGNED BY SEED VENDOR CERTIFYING THAT EACH LOT OF SEED HAS BEEN TESTED BY A RECOGNIZED SEED TESTING LABORATORY WITHIN SIX MONTHS BEFORE THE DATE OF DELIVERY TO THE PROJECT.
3. SEED, FIBER, AND FERTILIZER SHALL BE APPLIED IN A UNIFORM MANNER UTILIZING A HYDROSEEDER THAT USES WATER AS THE CARRYING AGENT AND MAINTAINS CONTINUOUS AGITATION THROUGH PADDLE BLADES. THE SEEDER SHALL HAVE AN OPERATING CAPACITY SUFFICIENT TO AGITATE, SUSPEND, AND MIX INTO A HOMOGENEOUS SLURRY THE SPECIFIED AMOUNT OF SEED, MULCH, FERTILIZER AND WATER. DISTRIBUTION AND DISCHARGE LINES SHALL BE LARGE ENOUGH TO PREVENT STOPPAGE AND SHALL BE EQUIPPED WITH A SET OF HYDRAULIC DISCHARGE SPRAY NOZZLES WHICH WILL PROVIDE A UNIFORM DISTRIBUTION OF THE SLURRY. THE FERTILIZER SHALL BE PLACED IN THE HYDROSEEDER TANK NO MORE THAN 30 MINUTES PRIOR TO APPLICATION.

SOIL STOCKPILE NOTES:

1. SOIL THAT CONTAINS REED CANARYGRASS OR OTHER NOXIOUS WEEDS SPECIES' ROOTS, RHIZOMES, OR SEEDS SHALL BE EXPORTED OFF-SITE AND DISPOSED OF AT AN APPROVED LANDFILL.



NOTES:

1. SILT FENCING SHALL BE INSTALLED BEFORE GROUND COVER IS REMOVED AND SHALL BE INSTALLED ALONG A TOPOGRAPHIC CONTOUR WHENEVER POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
2. SILT FENCING SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE FABIRC. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) AN ADDITIONAL RUN OF SILT FENCE SHALL BE PLACED UPSTREAM, 2) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 3) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 4) OTHER EROSION/RUNOFF CONTROL MEASURES SHALL BE IMPLEMENTED.

3/4 **SILT FENCE INSTALLATION DETAIL**

NO SCALE

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COSTCO WHOLESALE CORPORATION

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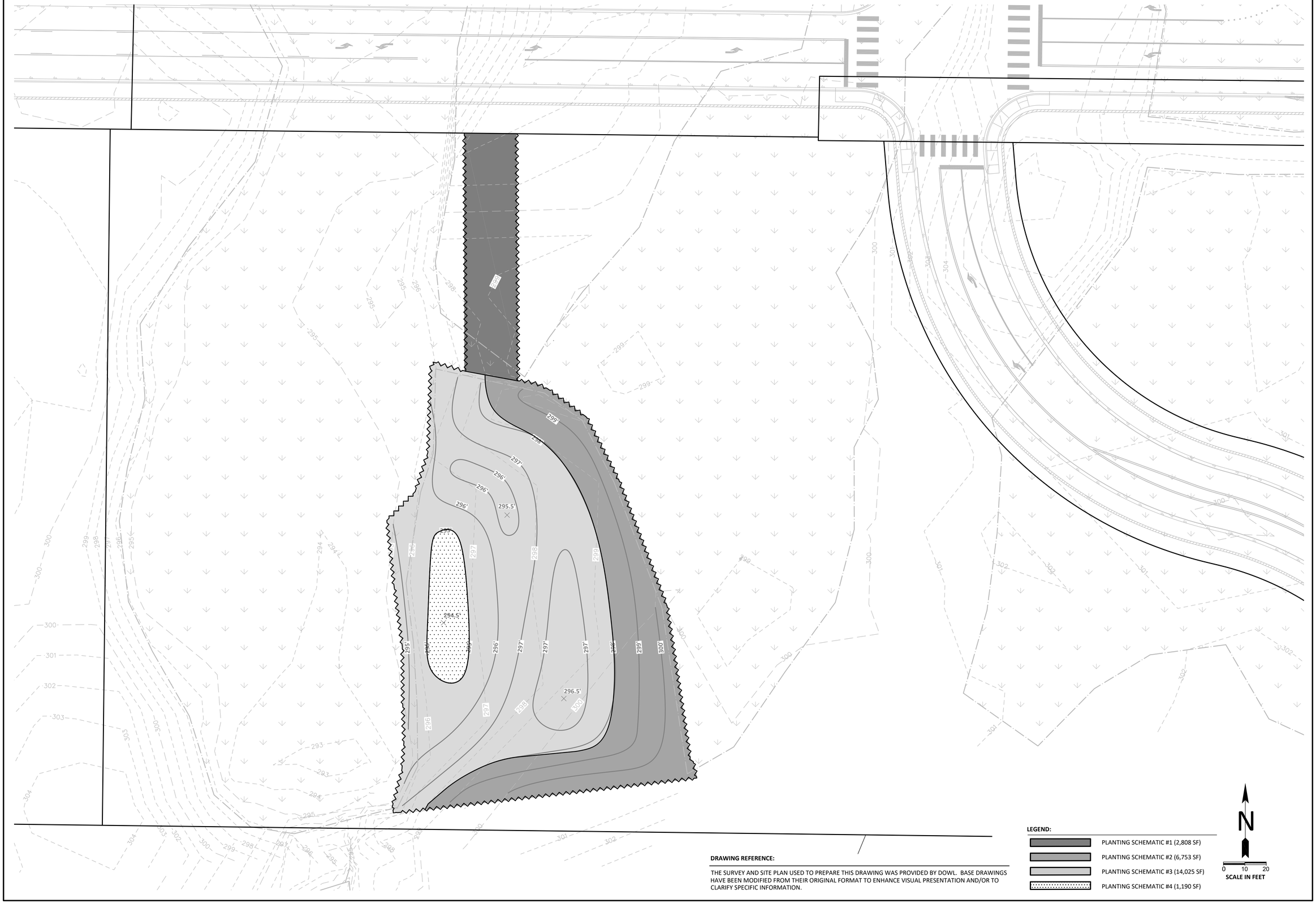
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02/12/2020

Wetland Creation Profiles, Notes, and Details

SHEET: 7 of 14



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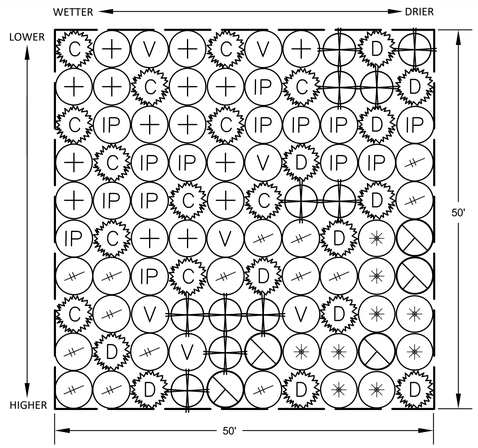
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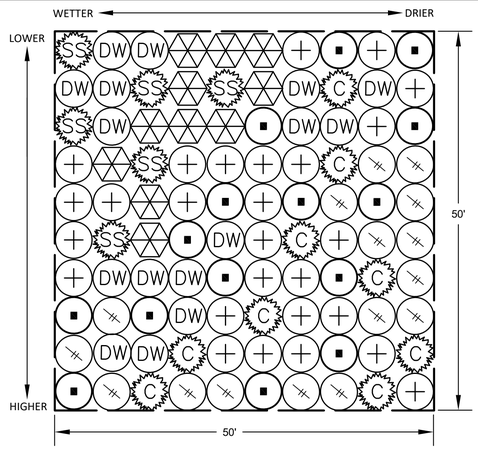
Wetland Creation Planting Plan

SHEET: 8 of 14



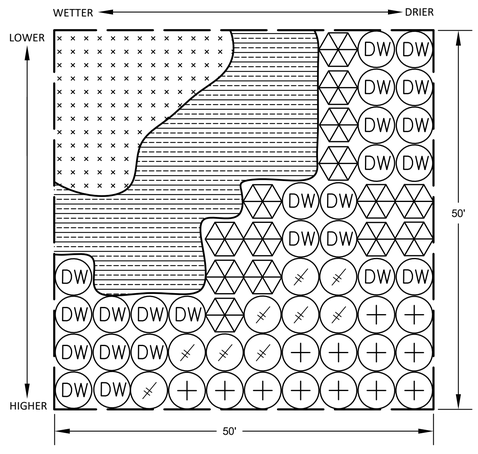
1/6 PLANTING SCHEMATIC #1 - WETLAND BUFFER

SCALE - 1:10



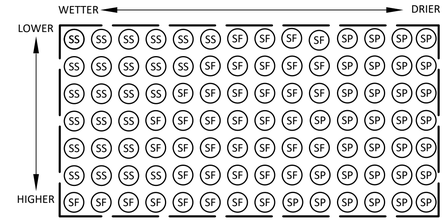
2/6 PLANTING SCHEMATIC #2 - PALUSTRINE FORESTED

SCALE - 1:10



3/6 PLANTING SCHEMATIC #3 - PALUSTRINE SCRUB-SHRUB

SCALE - 1:10



4/6 PLANTING SCHEMATIC #4 - PALUSTRINE EMERGENT

SCALE - 1:10

NOXIOUS WEED CONTROL:

PRIOR TO PLANT INSTALLATION, CONTROL NOXIOUS WEEDS WITHIN EACH PLANTING AREA. TARGET NOXIOUS WEED SPECIES SHALL INCLUDE THE FOLLOWING: ALL CLASS "A", "B", AND "C" NOXIOUS WEEDS (INCLUDING NON-REGULATED "B" AND "C" NOXIOUS WEEDS AND "WEEDS OF CONCERN") IDENTIFIED ON THE LATEST KING COUNTY NOXIOUS WEED LIST. DURING NOXIOUS WEED CONTROL WORK, EXISTING NATIVE VEGETATION SHALL BE PROTECTED FROM DAMAGE. ALL NOXIOUS WEED CONTROL CUTTINGS AND DEBRIS SHALL BE REMOVED FROM THE SITE.

CONTROL METHODS:

1. REDUCE TOP GROWTH OF NOXIOUS WEEDS. ACCEPTABLE METHODS INCLUDE: WALK BEHIND OR TRACTOR MOUNTED MOWER, EXCAVATOR WITH BUCKET AND THUMB, POWER SAW, BRUSH HOG, LINE TRIMMER, LOPPERS, CLIPPERS, HAND PULLING, OR APPROVED EQUAL.
2. GRUB OUT LARGE ROOT CROWNS AND MAJOR ROOTS BY HAND USING CLAW MATTOCK, PULASKI, OR APPROVED EQUAL.

PLANT INSTALLATION NOTES:

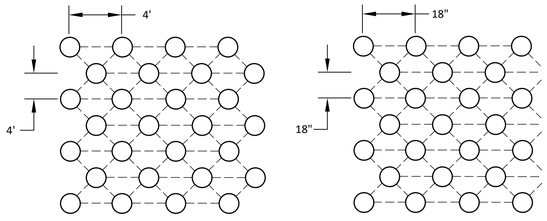
3. TOTAL PLANTED AREA = **48,852 SF**
4. PROTECT AND ACCOMMODATE EXISTING NATIVE VEGETATION WITHIN ALL PLANTING AREAS.
5. PRIOR TO PLANT INSTALLATION, CONTROL NOXIOUS WEEDS PER THE SPECIFICATIONS INCLUDED SHEET 1.
6. PRIOR TO PLANT INSTALLATION REMOVE ALL TRASH AND DEBRIS FROM PLANTING AREAS.
7. PLANT MATERIAL QUALITY AND LOCATIONS SHALL BE INSPECTED BY PLAN DESIGNER PRIOR TO INSTALLATION.
8. PLANT LOCATIONS SHOWN ARE APPROXIMATE. ADJUST PLANT LOCATIONS TO ACCOMMODATE SITE CONDITIONS AND/OR PER PLAN DESIGNER AT TIME OF INSTALLATION.
9. FOLLOWING PLANT INSTALLATION, PLACE MULCH AT BASE OF PLANTS TO A MINIMUM DEPTH OF 6 INCHES.

PLANT INSTALLATION TIMING:

PLANT INSTALLATION SHALL OCCUR BETWEEN **NOVEMBER 15** AND **MARCH 15**, UNLESS OTHERWISE APPROVED BY THE PLAN DESIGNER AND THE **CITY OF LAKE STEVENS**.

TEMPORARY IRRIGATION:

TEMPORARY IRRIGATION SHALL BE PROVIDED WITHIN PLANTED AREAS FOR A MINIMUM OF T**WO (2) GROWING SEASONS** FOLLOWING PLANT INSTALLATION. IRRIGATION SHALL BE PROVIDED BY AN ABOVE GROUND AUTOMATIC SPRINKLER OR AUTOMATIC DRIP IRRIGATION AND SHALL BE PROVIDED AT THE RATE OF ONCE PER WEEK RESULTING IN A MINIMUM RAINFALL EQUIVALENT OF 1 INCH FROM JUNE 15 THROUGH SEPTEMBER 15. IRRIGATION SHALL BE APPLIED IN A MANNER THAT MAINTAINS PLANT HEALTH, PREVENTS WILTING, AND PROMOTES DEEP PLANT ROOT SYSTEMS.

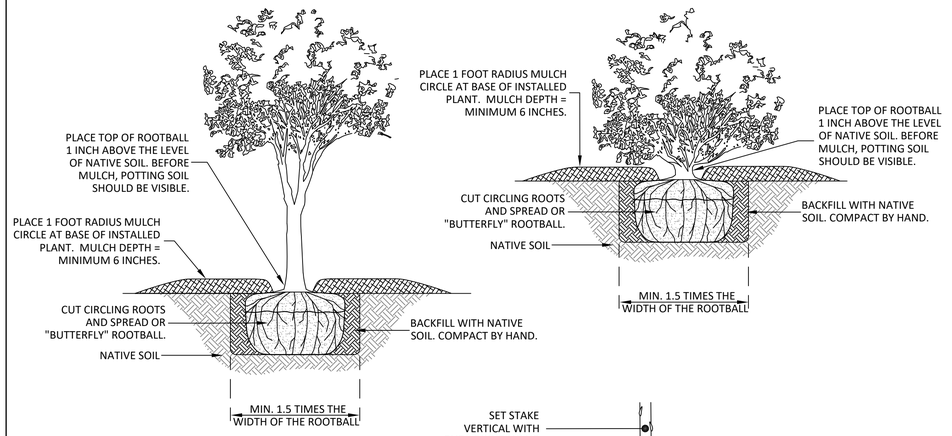


LIVE STAKE INSTALLATION SPACING | **EMERGENT PLUG INSTALLATION SPACING**

5/6 LIVE STAKE AND EMERGENT SPACING DETAILS

	COMMON NAME	SCIENTIFIC NAME	SIZE/FORM	QUANTITY REQUIRED FOR WETLAND CREATION
TREES				
	BIGLEAF MAPLE	*ACER MACROPHYLLUM*	2 GALLON CONTAINERIZED	6
	BLACK COTTONWOOD	*POPULUS BALSAMIFERA*	2 GALLON CONTAINERIZED	41
	SITKA SPRUCE	*PICEA SITCHENSIS*	2 GALLON CONTAINERIZED	16
	DOUGLAS-FIR	*PSEUDOTSUGA MENZIESII*	2 GALLON CONTAINERIZED	13
	WESTERN REDCEDAR	*THUJA PLICATA*	2 GALLON CONTAINERIZED	38
SHRUBS				
	VINE MAPLE	*ACER CIRCINATUM*	2 GALLON CONTAINERIZED	8
	REDOSIER DOGWOOD	*CORNUS SERICEA*	2 GALLON CONTAINERIZED	178
	TWINBERRY HONEYSUCKLE	*LONICERA INVOLUCRATA*	2 GALLON CONTAINERIZED	108
	INDIAN PLUM	*OEMLERIA CERASIFORMIS*	2 GALLON CONTAINERIZED	16
	RED-FLOWER CURRANT	*RIBES SANGUINEUM*	2 GALLON CONTAINERIZED	12
	BALDHIP ROSE	*ROSA GYMNOCARPA*	2 GALLON CONTAINERIZED	60
	NOOTKA ROSE	*ROSA NUTKANA*	2 GALLON CONTAINERIZED	50
	SALMONBERRY	*RUBUS SPECTABILIS*	2 GALLON CONTAINERIZED	163
	COMMON SNOWBERRY	*SYMPHORICARPOS ALBUS*	2 GALLON CONTAINERIZED	10
WILLOW STAKES				
	PACIFIC WILLOW	*SALIX LUCIDA*	4' LIVE STAKE	126
	SITKA WILLOW	*SALIX SITCHENSIS*	4' LIVE STAKE	225
EMERGENT PLUGS				
	SLOUGH SEDGE	*CAREX OBNUPTA*	10 IN³ PLUG	176
	CREEPING SPIKERUSH	*ELEOCHARIS PALUSTRIS*	10 IN³ PLUG	176
	SMALL-FRUITED BULRUSH	*SCIRPUS MICROCARPUS*	10 IN³ PLUG	177

6/6 PLANT SCHEDULE - WETLAND CREATION ONLY



MULCH SPECIFICATION:

MULCH SHALL BE COMMERCIALLY AVAILABLE "DOT WOOD CHIP MULCH" (WWW.CEDAR-GROVE.COM; 1-877-SOILS4U), ARBORIST CHIPS, OR APPROVED EQUAL. MULCH SHALL NOT CONTAIN RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO PLANT LIFE. MULCH SHALL NOT BE DERIVED FROM STUMP GRINDINGS AND SHALL NOT CONTAIN SOIL. HOG FUEL OR EQUAL IS NOT ACCEPTABLE. SUBJECT TO REVIEW BY THE PLAN DESIGNER, LOCAL ARBORIST AND/OR COMMERCIAL TREE TRIMMING COMPANIES MAY BE ALTERNATIVE ACCEPTABLE MATERIAL SOURCES.

7/6 PLANT INSTALLATION DETAILS

Sewall Wetland Consulting, Inc.
PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

PROJECT: CRITICAL AREA MITIGATION PLAN - LAKE STEVENS COSTCO STORE -

CLIENT: COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WASHINGTON 98027
(425) 313-8100

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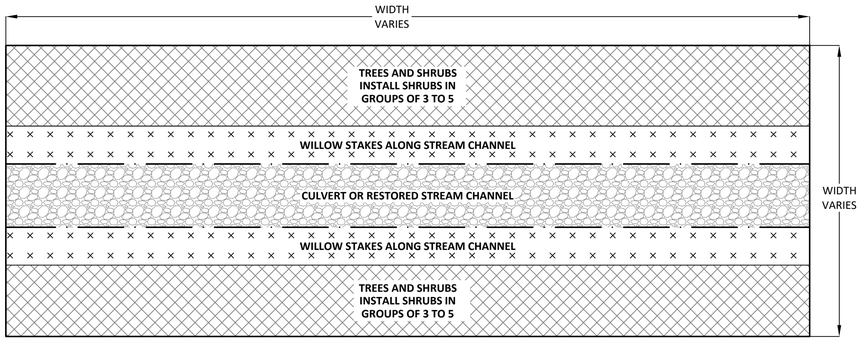
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NO.	DATE	NOTES
1.	11/20/2019	REVISED CULVERT REMOVAL
2.	01/20/2020	REVISED PER REVIEW COMMENTS; NEW SITE PLAN, & CULVERT DESIGN

NWS-2019-175
02/12/2020

Wetland Creation Notes and Details

SHEET: 9 of 14



COMMON NAME	SCIENTIFIC NAME	SIZE/FORM	QUANTITY	SPACING	QUANTITY REQUIRED PER PLANTING AREA						
TREES					**1**	**2**	**3**	**4**	**5**	**6A**	**6B**
BIGLEAF MAPLE	*ACER MACROPHYLLUM*	2 GALLON CONTAINERIZED	**2**	25 FT ON-CENTER							2
SHORE PINE	*PINUS CONTORTA*	2 GALLON CONTAINERIZED	**15**	25 FT ON-CENTER						5	10
BLACK COTTONWOOD	*POPULUS BALSAMIFERA*	2 GALLON CONTAINERIZED	**18**	25 FT ON-CENTER						3	15
DOUGLAS-FIR	*PSEUDOTSUGA MENZIESII*	2 GALLON CONTAINERIZED	**9**	25 FT ON-CENTER	2					2	5
WESTERN REDCEDAR	*THUJA PLICATA*	2 GALLON CONTAINERIZED	**5**	25 FT ON-CENTER				1			4
SHRUBS											
REDOSIER DOGWOOD	*CORNUS SERICEA*	2 GALLON CONTAINERIZED	**157**	4 FT ON-CENTER		12		9	10	26	100
INDIAN PLUM	*OEMLERIA CERASIFORMIS*	2 GALLON CONTAINERIZED	**113**	4 FT ON-CENTER	20					15	78
PACIFIC NINEBARK	*PHYSOCARPUS CAPITATUS*	2 GALLON CONTAINERIZED	**145**	4 FT ON-CENTER		12		4	4	25	100
RED-FLOWER CURRANT	*RIBES SANGUINEUM*	2 GALLON CONTAINERIZED	**120**	4 FT ON-CENTER	20					20	80
BALDHIP ROSE	*ROSA GYMNOCARPA*	2 GALLON CONTAINERIZED	**165**	4 FT ON-CENTER	20					35	110
SALMONBERRY	*RUBUS SPECTABILIS*	2 GALLON CONTAINERIZED	**164**	4 FT ON-CENTER	19					35	110
COMMON SNOWBERRY	*SYMPHORICARPOS ALBUS*	2 GALLON CONTAINERIZED	**196**	4 FT ON-CENTER	20					35	141
WILLOW STAKES											
PACIFIC WILLOW	*SALIX LUCIDA*	4' LIVE STAKE	**150**	4 FT ON-CENTER						50	100
SITKA WILLOW	*SALIX SITCHENSIS*	4' LIVE STAKE	**127**	4 FT ON-CENTER						26	101
EMERGENTS											
WAPATO	*SAGITTARIA SP.*	TUBER	**423**	18" ON-CENTER			423				

1/7 **CULVERT REPLACEMENT AND REMOVAL RESTORATION PLANTINGS**

PLANT INSTALLATION SPECIFICATIONS

PART 1: GENERAL

ALL WORK SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS SHOWN ON THESE DRAWINGS.

ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES, LAWS, AND ORDINANCES.

CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, LABOR, AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK SHOWN ON THESE DRAWINGS AND SHALL INCLUDE ALL TOOLS, MATERIALS, PERMITS, INSPECTIONS, TESTS, AND OTHER RELATED ITEMS.

WORK SHALL BE COMPLETED BY PERSONS EXPERIENCED IN THE CRITICAL AREA ENHANCEMENT WORK SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL RECOGNIZE THAT ACTUAL SITE CONDITIONS MAY VARY BASED ON SEASON AND/OR TIME OF YEAR.

CONTRACTOR SHALL ACCOMMODATE REALIZED AND ANTICIPATED SITE CONDITIONS WHEN COMPLETING THE WORK SHOWN ON THESE DRAWINGS.

TAKE NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY, PERSONS, WORK IN PROGRESS, STRUCTURES, UTILITIES, WALKS, CURBS, AND PAVED SURFACES DURING WORK. FIELD LOCATE, VERIFY DEPTH OF, AND ADEQUATELY PROTECT ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF WORK. DAMAGE TO UTILITIES INCURRED OR ARISING FROM THIS CONTRACT SHALL BE PAID BY CONTRACTOR.

ALL AREAS OF WORK SHALL BE KEPT CLEAN, NEAT, AND ORDERLY AT ALL TIMES. ALL PAVED AREAS ARE TO BE CLEANED DAILY FOLLOWING WORK.

OWNER SHALL BE NOTIFIED IN WRITING OF DEVIATIONS TO OR CONFLICTS WITHIN THESE DRAWINGS AND/OR SITE CONDITIONS. EXTRA WORK ARISING FROM FAILURE TO DO SO SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

PRIOR TO START OF ANY WORK, CONTRACTOR SHALL REQUEST AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH OWNER.

PRIOR TO PRE-CONSTRUCTION CONFERENCE, CONTRACTOR SHALL ACCURATELY FLAG PLANTING AREA LIMITS IN A HIGHLY VISIBLE MANNER. FLAGGING SHALL BE MAINTAINED THROUGHOUT WORK UNTIL FINAL INSPECTION BY OWNER.

PART 2: MATERIALS

2.1 PLANT INSTALLATION

2.1.1 GENERAL

PLANT MATERIAL SIZE, QUALITY, AND QUANTITY SHALL MEET THE STANDARDS LISTED ON THESE DRAWINGS.

PLANT MATERIAL SHALL BE OF ACCEPTED SIZE STANDARDS AND PROPORTIONS AS SPECIFIED IN AMERICAN STANDARD NURSERY STOCK (LATEST EDITION). ALL PLANTS SHALL BE OF NORMAL HABIT OF GROWTH AND SHALL BE HEALTHY, VIGOROUS, AND FREE OF DISEASE, INSECT EGGS, ADULTS, AND LARVAE.

SCIENTIFIC NOMENCLATURE SHALL CONFORM TO STANDARD PLANT NAMES, LATEST EDITION. NAMES NOT PRESENT IN THIS LISTING SHALL CONFORM TO ACCEPTED SCIENTIFIC NOMENCLATURE IN THE NURSERY TRADE. FOR TREES AND SHRUBS, NO LESS THAN 10 PERCENT OF EACH VARIETY OR SPECIES SHALL BE ACCURATELY LABELED AT THE TIME OF DELIVERY TO THE SITE. WHERE LABELED, PLANT MATERIALS SHALL HAVE DURABLE, LEGIBLE LABELS STATING THE CORRECT SCIENTIFIC PLANT NAME.

OVERSIZE PLANT MATERIALS ARE ACCEPTABLE WITH APPROVAL OF THE OWNER, BUT WITHOUT AN INCREASE IN THE CONTRACT PRICE. PLANT MATERIALS OF A SIZE REDUCED FROM THOSE SPECIFIED WILL NOT BE PERMITTED. ANY PLANT SIZE CHANGE SHALL BE APPROVED BY OWNER PRIOR TO PLANT DELIVERY TO SITE.

PLANT MATERIALS SHALL BE PACKAGED WITH CARE FOR TRANSIT TO THE SITE. BRANCHES SHALL BE TIED BACK, AND BARK SHALL BE PROTECTED TO PREVENT DAMAGE FROM CHAFING BY ROPES AND WIRES. PLANT MATERIALS IN STORAGE SHALL BE PROTECTED FROM WEATHER AND PACKED TO PROVIDE PROTECTION.

PLANT MATERIAL DELIVERY SHALL BE TIMED APPROPRIATELY WITH INSTALLATION TO AVOID EXTENDED STORAGE OF LIVE MATERIALS ON-SITE.

A MINIMUM OF SEVEN (7) DAYS NOTICE SHALL BE PROVIDED TO THE OWNER PRIOR TO PLANT MATERIAL DELIVERY TO THE SITE. THE OWNER SHALL INSPECT ALL PLANT MATERIALS AT THE TIME OF DELIVERY. THE OWNER RESERVES THE RIGHT TO REQUIRE SUBSTITUTION OR REPLACEMENT OF PLANT MATERIALS DETERMINED TO BE DAMAGED OR OTHERWISE UNSUITABLE AT THE TIME OF DELIVERY TO THE SITE. ALL REJECTED PLANT MATERIAL SHALL BE REMOVED FROM THE SITE IMMEDIATELY.

ONCE ACCEPTED ON-SITE, PLANT MATERIALS SHALL BE PROTECTED AT ALL TIMES FROM THEFT, VANDALISM, AND DAMAGE, INCLUDING BUT NOT LIMITED TO THAT CAUSED BY ANIMALS, HUMANS, DROUGHT, WATER, FROST OR FREEZING CONDITIONS, AND WIND.

2.1.2 PLANT MATERIAL SOURCE

ACCEPTABLE PLANT MATERIAL SOURCES INCLUDE:

1. LOCAL NURSERIES. PLANTS SHALL BE DERIVED FROM STOCK ACCLIMATED TO WESTERN WASHINGTON ENVIRONMENTAL CONDITIONS, HAVING BEEN CONSISTENTLY CULTIVATED AND GROWN UNDER SIMILAR CONDITIONS. ACCEPTABLE PLANT SUPPLIERS INCLUDE STORM LAKE GROWERS ([360] 794-4842), CLARKS NATIVE TREES AND SHRUBS ([425] 337-3976), SOUND NATIVE PLANTS ([360] 352-4122), OR APPROVED EQUAL.

2.1.3 PLANT MATERIAL QUALITY

PLANT MATERIAL SHALL BE NORMAL IN PATTERN OF GROWTH, HEALTHY, WELL-BRANCHED AND HAVE ALL LEADERS AND BUDS INTACT. TREES SHALL NOT HAVE SUNSCALDS, DISFIGURING KNOTS, FRESH CUTS OF LIMBS, DAMAGED LEADERS, AND/OR DEFORMED TRUNKS.

PLANT MATERIALS SHALL BE NATIVE TO THE NORTHWEST, PREFERABLY THE PUGET SOUND REGION OF WASHINGTON STATE. PLANT MATERIALS SHALL BE PROPAGATED FROM NATIVE STOCK; NO CULTIVARS OR HORTICULTURAL VARIETIES ARE ALLOWED.

WHERE PROVIDED, CONTAINERIZED PLANT STOCK SHALL BE GROWN IN A CONTAINER LONG ENOUGH TO DEVELOP A ROOT SYSTEM THAT REACHES THE EDGES OF THE CONTAINER IN WHICH IT HAS GROWN. TREES AND SHRUBS SHALL BE WELL ROOTED AND SHALL HAVE SUFFICIENT ROOT MASS TO HOLD TOGETHER THE SOIL, IN WHICH PLANT IS GROWING, WHEN REMOVED FROM THE POT.

CONSERVATION GRADE PLANT STOCK IS NOT ACCEPTABLE FOR USE.

SALVAGED PLANTS ARE NOT ACCEPTABLE FOR USE.

2.2 MULCH

MULCH SHALL BE COMMERCIALLY AVAILABLE "DOT WOOD CHIP MULCH" (WWW.CEDAR-GROVE.COM; 1-877-SOILS4U), ARBORIST CHIPS, OR APPROVED EQUAL. MULCH SHALL NOT CONTAIN RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO PLANT LIFE. MULCH SHALL NOT BE DERIVED FROM STUMP GRINDINGS AND SHALL NOT CONTAIN SOIL. HOG FUEL OR EQUAL IS NOT ACCEPTABLE. SUBJECT TO REVIEW BY THE PLAN DESIGNER, LOCAL ARBORIST AND/OR COMMERCIAL TREE TRIMMING COMPANIES MAY BE ALTERNATIVE ACCEPTABLE MATERIAL SOURCES.

PART 3: EXECUTION

3.1 PLANT INSTALLATION

3.1.1 GENERAL

INSTALLATION OF PLANT MATERIALS SHALL OCCUR BETWEEN NOVEMBER 15 AND JANUARY 15. IF SCHEDULE OF PLANT PROCUREMENT OR SITE CONDITIONS REQUIRE INSTALLATION DURING ALTERNATIVE DATES, WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM OWNER PRIOR TO PLANT INSTALLATION.

PLANT MATERIAL INSTALLATION SHALL NOT OCCUR DURING FREEZING WEATHER OR WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET. PLANT MATERIALS HAVING FROZEN ROOTBALLS SHALL NOT BE INSTALLED UNTIL CONDITIONS ARE SUCH THAT PLANTS ARE EASILY REMOVED FROM CONTAINERS.

PLANT MATERIAL STORED ON-SITE SHALL BE ORGANIZED IN ROWS AND MAINTAINED AND PROTECTED AT NO ADDITIONAL COST.

PLANT MATERIAL THAT CANNOT BE PLANTED WITHIN ONE (1) DAY AFTER DELIVERY TO THE SITE SHALL BE "HEELED-IN" OR OTHERWISE STORED TEMPORARILY IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES IN A MANNER THAT DOES NOT COMPROMISE THE HEALTH OF THE PLANT MATERIALS. PLANT STORAGE SHALL NOT BE LONGER THAN FOUR (4) WEEKS.

PLANT MATERIALS STORED UNDER TEMPORARY CONDITIONS SHALL BE KEPT MOIST AND PROTECTED FROM ADVERSE WEATHER CONDITIONS.

A MINIMUM OF SEVEN (7) DAYS NOTICE SHALL BE PROVIDED TO THE OWNER PRIOR TO PLANT INSTALLATION. THE OWNER SHALL BE KEPT INFORMED AS TO DAILY WORK PROGRESS THROUGHOUT PLANT INSTALLATION.

PLANT LOCATIONS SHALL BE AS DEPICTED ON SHEET 2, SUBJECT TO RELATED DRAWING NOTES. THE OWNER SHALL REVIEW ALL PLANT LOCATIONS PRIOR TO PLANT MATERIAL INSTALLATION. THE OWNER RESERVES THE RIGHT TO ADJUST PLANT MATERIAL LOCATION(S) WITHIN PLANTING AREAS PRIOR TO PLANT MATERIAL INSTALLATION.

PLANT MATERIALS SHALL NOT BE DRAGGED WITHOUT PROPER ROOT AND/OR BRANCH PROTECTION. CONTAINERIZED PLANT MATERIALS SHALL BE LIFTED BY CONTAINER ONLY. PLANT MATERIALS SHALL NOT BE DROPPED OR ROOT SYSTEMS DAMAGED.

PLANT MATERIALS SHALL BE INSTALLED AS PER APPLICABLE NOTES AND DETAILS DEPICTED ON THIS DRAWING SET.

ALL PLANTS SHALL BE THOROUGHLY WATERED WITHIN 24 HOURS AFTER PLANTING.

ALL PLANTS SHALL BE MARKED WITH HIGH VISIBILITY FLAGGING AFTER PLANT INSTALLATION. FLAGGING SHALL BE ATTACHED TO THE MAIN STEM, LEADER, OR BRANCH OF THE AFFECTED PLANT.

3.1.2 INSTALLATION

EXCAVATE A PLANTING HOLE PER THE APPLICABLE DETAILS SHOWN ON THESE DRAWINGS.

REMOVE PLANT FROM CONTAINER WITH ROOTBALL COMPLETELY INTACT. IF CONTAINER STOCK IS ROOTBOUND, SLASH ROOTS VERTICALLY WITH A SHARP KNIFE ALONG THE OUTSIDE OF ROOTBALL A MINIMUM OF THREE (3) PLACES BEFORE PLANTING. IF PLANT HAS MINOR ROOT DAMAGE, ROOT-PRUNE AS NECESSARY TO REMOVE BROKEN OR DAMAGED ROOTS.

INSERT ROOTBALL INTO PLANTING HOLE WITHOUT BENDING OR DAMAGING THE ROOTS. SPREAD OR "BUTTERFLY" ROOTBALL AND PLACE ROOT COLLAR ABOVE THE FINISHED GRADE.

USE MOIST, PULVERIZED, NATIVE SOIL FOR BACKFILLING, ENSURING THAT GOOD CONTACT WITH ROOTBALL IS MADE. FROZEN, MUDDY, AND/OR EXCESSIVELY ROCKY MIXTURES SHALL NOT BE USED FOR BACKFILLING. IF BACKFILL IS UNSUITABLE, COMMERCIALLY AVAILABLE TOPSOIL WITH A HIGH ORGANIC CONTENT MAY BE USED TO PROPERLY BACKFILL PLANTING HOLE.

MIDWAY THROUGH THE BACKFILL PROCESS, WATER THOROUGHLY TO SETTLE SOIL.

COMPLETE BACKFILL AT FINISHED GRADE AND ENSURE THE PLANT IS AT PROPER ALIGNMENT. WATER AGAIN TO SETTLE SOIL AND ADD ADDITIONAL BACKFILL AS NECESSARY IF ROOTS BECOME EXPOSED.

FLAG EACH INSTALLED PLANT.

3.2 MULCH

PLACE MULCH AROUND THE BASE OF EACH INSTALLED PLANTS INCREASE TO A MINIMUM APPLIED DEPTH TO 6 INCHES. MULCH SHALL NOT TOUCH STEMS OF INSTALLED PLANTS.

PART 4: PROVISIONAL ACCEPTANCE

AFTER COMPLETION OF THE PLANT INSTALLATION WORK COVERED BY THESE DRAWINGS, AN INSPECTION SHALL BE REQUESTED FROM THE OWNER. WHEN WORK COVERED BY THESE DRAWINGS IS COMPLETE AS DETERMINED BY OWNER, PROVISIONAL ACCEPTANCE WILL BE CERTIFIED IN WRITING BY THE OWNER.

PART 5: MAINTENANCE

CONTRACTOR SHALL MAINTAIN PLANTED AREAS UNTIL GUARANTEE PERIOD ACCEPTANCE IS GIVEN. MAINTENANCE SHALL INCLUDE, WEEDING AROUND THE BASE OF INSTALLED PLANTS, PRUNING OF INSTALLED PLANTS, AND REPLACEMENT OF PLANTS THAT APPEAR TO BE IN DISTRESS. CONTROL IS REQUIRED OF ALL CLASS "A", "B" AND "C" NOXIOUS WEEDS IDENTIFIED ON THE LATEST KING COUNTY NOXIOUS WEED CONTROL LIST AS WELL AS THE FOLLOWING ADDITIONAL SPECIES: ENGLISH IVY (*HEDERA HELIX*), ENGLISH HOLLY (*ILEX AQUIFOLIUM*), HIMALAYAN BLACKBERRY (*RUBUS ARMENIACUS*), AND CUTLEAF BLACKBERRY (*R. LACINIATUS*). A MAINTENANCE PLAN SHALL BE PROVIDED BY CONTRACTOR THAT DESCRIBES, IN DETAIL, THE SPECIFIC MAINTENANCE PROGRAM DEVELOPED TO SATISFY THE MAINTENANCE REQUIREMENTS OF THIS PLAN. A MAINTENANCE PLAN SHALL BE APPROVED BY OWNER PRIOR TO ISSUANCE OF PROVISIONAL ACCEPTANCE.

PART 6: GUARANTEE

6.1 GENERAL

PLANTS SHALL BE GUARANTEED FOR ONE YEAR AGAINST DEFECTS OF MATERIALS AND WORKMANSHIP. THE GUARANTEE PERIOD BEGINS AT THE DATE OF THE PROVISIONAL ACCEPTANCE AND SHALL EXTEND FOR ONE YEAR.

THE GUARANTEE REQUIREMENTS SHALL BE APPLICABLE TO ANY GROWING CONDITIONS THROUGH WHICH PLANTS OF LIKE KIND COULD BE EXPECTED TO SURVIVE AND ANY DEFORMITY OR CAUSE OF DEATH, WHICH COULD BE ATTRIBUTED TO, OR AFFECTED BY, THE PHYSIOLOGICAL CONDITIONS OF THE INSTALLED PLANT. THIS GUARANTEE SHALL NOT APPLY TO PLANT LOSSES DUE TO ABNORMAL WEATHER CONDITIONS SUCH AS FLOODS, EXCESSIVE WIND DAMAGE, DROUGHT, SEVERE FREEZING, OR ABNORMAL RAINS, AS DETERMINED BY THE OWNER. INSTALLED PLANT MATERIALS SHALL BE MAINTAINED DURING THE GUARANTEE PERIOD IN GENERAL ACCORDANCE WITH THE APPROVED MAINTENANCE PLAN PROVIDED BY THE CONTRACTOR.

THE OWNER MAY REQUIRE REPLACEMENT OF DEAD OR DEFECTIVE PLANTS PRIOR TO THE END OF THE GUARANTEE PERIOD AT NO ADDITIONAL COST. WHERE REQUIRED, PLANTS SHALL BE REPLACED WITH THE SPECIES AND SIZE AS INDICATED IN THE PLANT SCHEDULE AND ACCORDING TO THE PLANTING DETAILS AND SPECIFICATIONS SHOWN ON THESE DRAWINGS UNLESS OTHERWISE DIRECTED IN WRITING BY THE OWNER. UNLESS OTHERWISE APPROVED, REPLACEMENT PLANTS SHALL BE MADE WITHIN SEVEN (7) DAYS OF NOTIFICATION FROM OWNER.

THE CONTRACTOR HAS THE RIGHT DURING THE ENTIRE WARRANTY PERIOD TO ENTER UPON THE PROPERTY FOR INSPECTION AND CURATIVE TREATMENT OF ANY MATERIAL NEEDING SUCH AND WHICH ARE STILL UNDER WARRANTY. THE OWNER SHALL BE NOTIFIED IN ADVANCE OF ANY CORRECTIVE TREATMENT MEASURES SO AS TO ARRANGE FOR CONVENIENT ACCESS TO THE AREA. CURATIVE WORK SHALL OCCUR AS SOON AS POSSIBLE AFTER DEFICIENCIES BECOME APPARENT AND WEATHER AND SEASON PERMIT.

AFTER EACH PLANT REPLACEMENT, IF ANY, A MARKED PLANTING PLAN SHOWING THE LOCATION OF EACH ITEM REPLACED AT THAT TIME SHALL BE PROVIDED TO OWNER. REPLACEMENT PLANTS SHALL BE MARKED WITH COLORED SURVEY FLAGGING AND SHALL BE GUARANTEED FOR ONE FULL YEAR FOLLOWING PLANTING.

6.2 SURVIVORSHIP

ANY INSTALLED TREE OR SHRUB THAT IS GREATER TO OR EQUAL TO 25 PERCENT DEAD OR DISFIGURED WILL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO ADDITIONAL CHARGE. A TREE WILL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK OR WHEN A MINIMUM OF 25 PERCENT OF THE CROWN IS DEAD. PLANTS WILL BE CONSIDERED DISFIGURED WHEN EXCESSIVE DEAD WOOD HAS BEEN REMOVED OR WHEN THE SYMMETRY OR TYPICAL HABIT OF GROWTH HAS BEEN IMPAIRED BY THE REMOVAL OF THE DEAD WOOD.

6.3 GUARANTEE PERIOD ACCEPTANCE

ONE YEAR AFTER PROVISIONAL ACCEPTANCE, A FINAL INSPECTION OF THE WORK COVERED BY THIS CONTRACT SHALL BE REQUESTED BY CONTRACTOR FROM OWNER. INSTALLED PLANTS THAT ARE DETERMINED TO BE DEAD OR OTHERWISE NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE OWNER, SHALL BE REMOVED FROM THE SITE AND SHALL BE REPLACED AS SOON AS CONDITIONS PERMIT. UPON COMPLETION OF THESE REQUIREMENTS, GUARANTEE PERIOD ACCEPTANCE WILL BE CERTIFIED IN WRITING BY THE OWNER.

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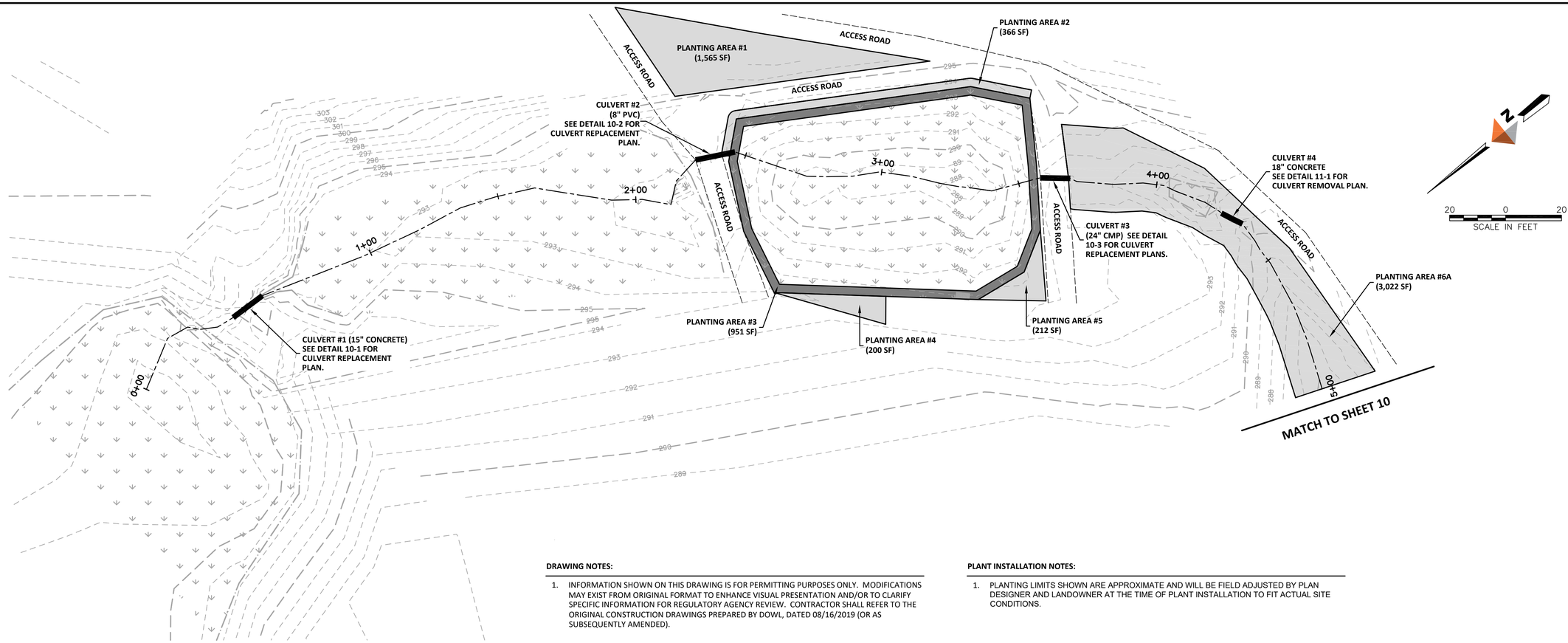
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NWS-2019-175
02/12/2020

Plant Installation Specifications

SHEET: 10 of 14

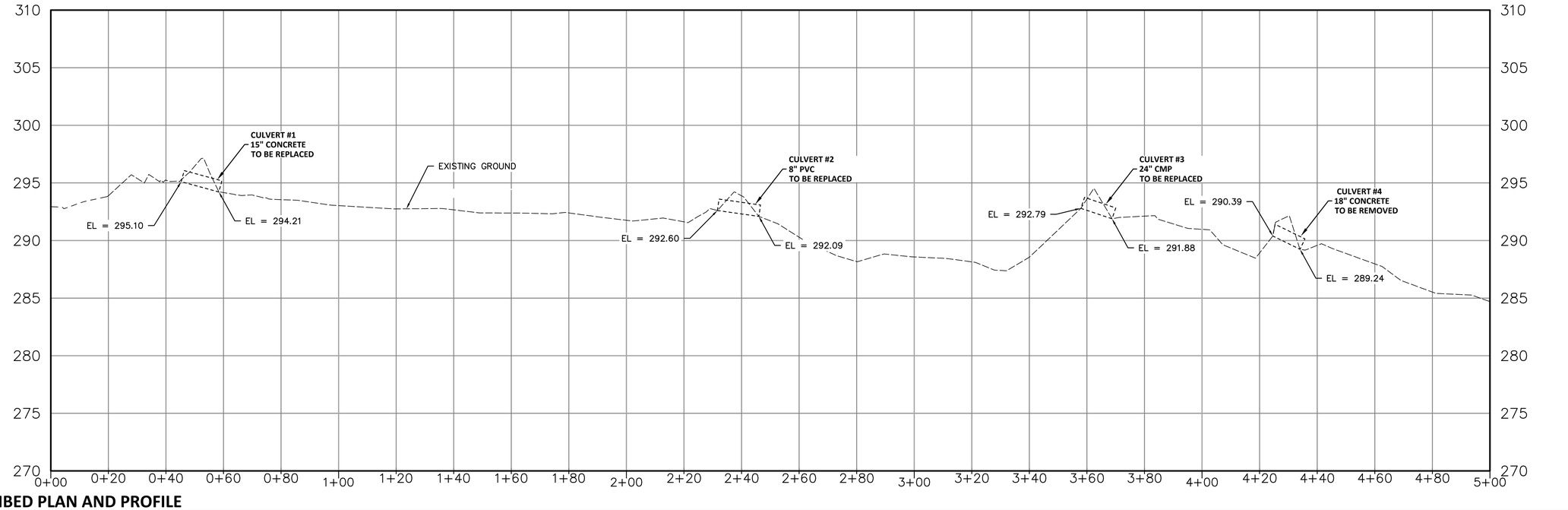


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PLANT INSTALLATION NOTES:

1. PLANTING LIMITS SHOWN ARE APPROXIMATE AND WILL BE FIELD ADJUSTED BY PLAN DESIGNER AND LANDOWNER AT THE TIME OF PLANT INSTALLATION TO FIT ACTUAL SITE CONDITIONS.



STREAMBED PLAN AND PROFILE

1/9

DESIGN BY DOWL, DATED 08/16/2019; MODIFIED BY CEDAROCK CONSULTANTS, INC.

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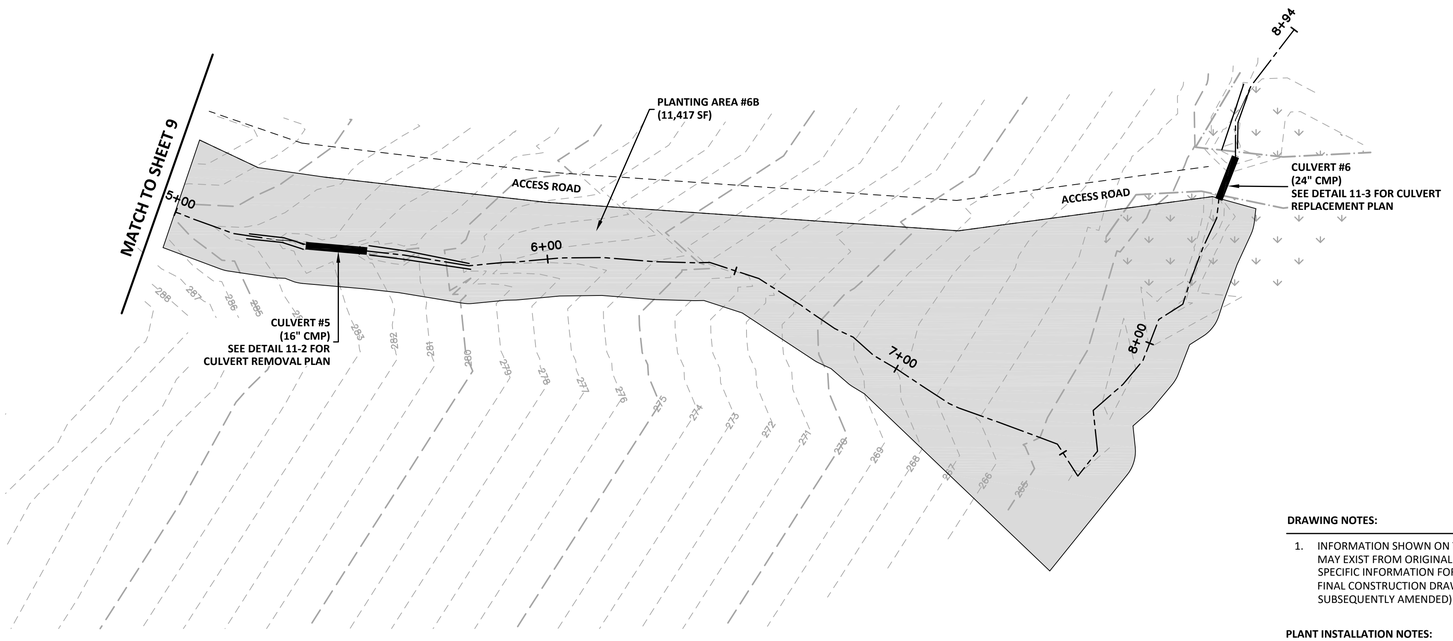
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Streambed Plan and Profile #1

SHEET: 11 of 14



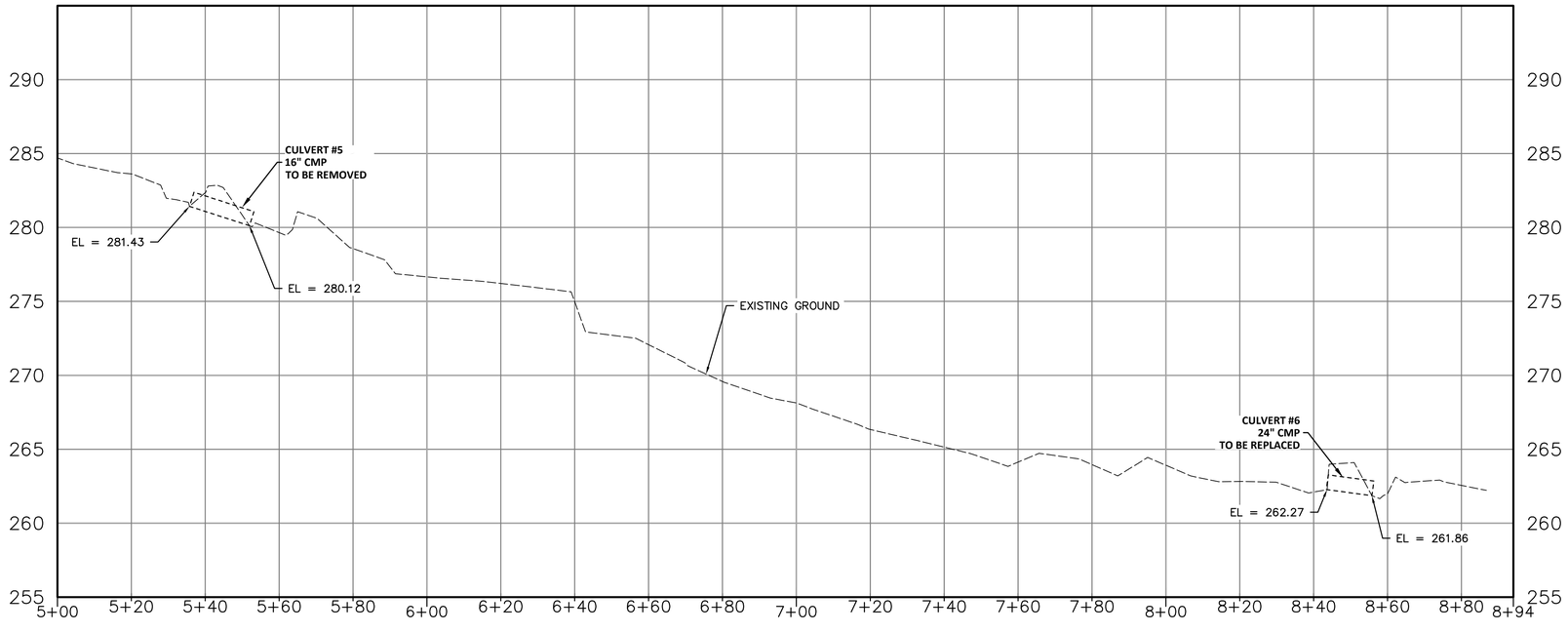


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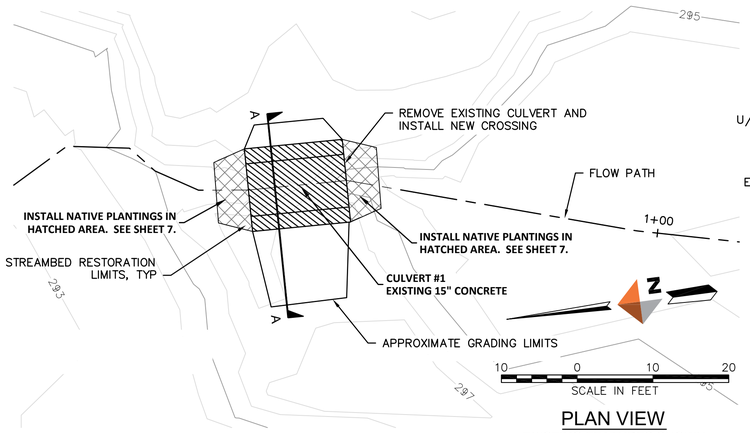
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NO.	DATE	NOTES
1.	11/20/2019	REVISED CULVERT REMOVAL
2.	01/20/2020	REVISED PER REVIEW COMMENTS; NEW SITE PLAN, & CULVERT DESIGN

NWS-2019-175
02/12/2020

Streambed Plan and Profile #2

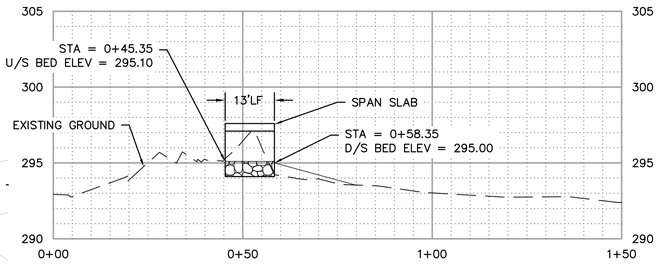
SHEET: 12 of 14

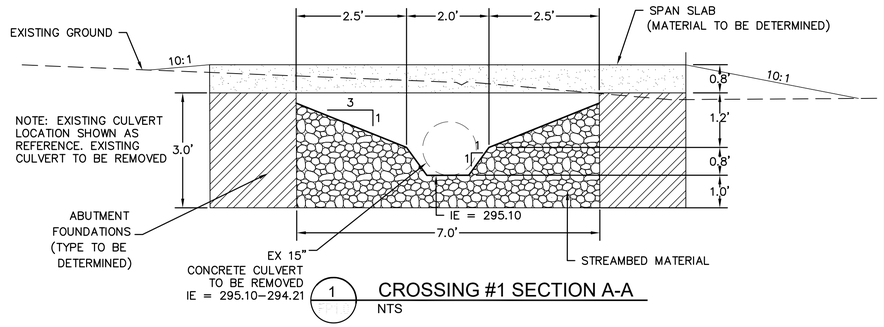


PLAN VIEW
EXISTING FEATURES SHOWN IN GREY, PROPOSED IN BLACK

STREAM PROFILE - CROSSING #1

SCALE 1"=20' (H); 1"=5' (V)





1 CRUSSING #1 SECTION A-A
NTS

CONSTRUCTION BMP NOTES:

1. ALL WORK BELOW OHW TO INCLUDE CULVERT REMOVAL CULVERT CONSTRUCTION, AND NEW CHANNEL CONSTRUCTION SHALL OCCUR IN A DRY WATERCOURSE AFTER ALL FLOW HAS CEASED FOR THE SUMMER.
2. UPLAND GRADING SHALL BE COMPLETED USING BMPS FROM THE CURRENT DOE STORMWATER MANUAL.
3. EACH SITE AND THE ACCESS PATHWAYS SHALL BE SEEDED OR OTHERWISE PROTECTED FROM EROSION IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION AND PRIOR TO PLANTING.

DETAIL NOTES:

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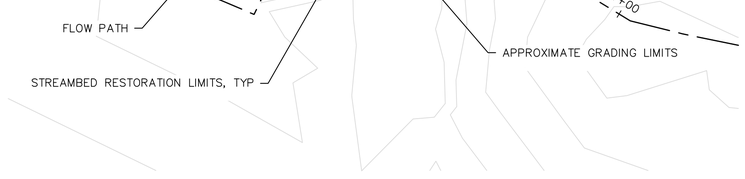
STREAM GRAVEL MIX SPECIFICATION:

ROCK SIZE	% OF MIX
COARSE SAND	40
PEA-GRAVEL (1/4" - 3/8")	30
3/4" ROUND RIVER ROCK	20
2" ROUND RIVER ROCK	10

STREAM GRAVEL SHALL CONSIST OF HARD, DURABLE PIECES OF ROUNDED GRAVEL/RIVER ROCK AND SHALL BE THOROUGHLY WASHED UNTIL RUNOFF FROM THE MATERIAL IS CLEAN BEFORE INSTALLATION. STREAM GRAVEL SHALL BE LAID ON THE NATIVE SOIL TO A DEPTH OF 3 TO 4 INCHES

1/10 CULVERT #1 - CULVERT REPLACEMENT

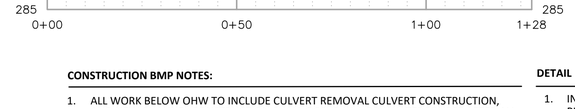
DESIGN BY DOWL



PLAN VIEW
EXISTING FEATURES SHOWN IN GREY, PROPOSED IN BLACK

STREAM PROFILE - CROSSING #2

SCALE 1"=20' (H); 1"=5' (V)





2 CROSSING #2 SECTION A-A
NTS

CONSTRUCTION BMP NOTES:

1. ALL WORK BELOW OHW TO INCLUDE CULVERT REMOVAL CULVERT CONSTRUCTION, AND NEW CHANNEL CONSTRUCTION SHALL OCCUR IN A DRY WATERCOURSE AFTER ALL FLOW HAS CEASED FOR THE SUMMER.
2. UPLAND GRADING SHALL BE COMPLETED USING BMPS FROM THE CURRENT DOE STORMWATER MANUAL.
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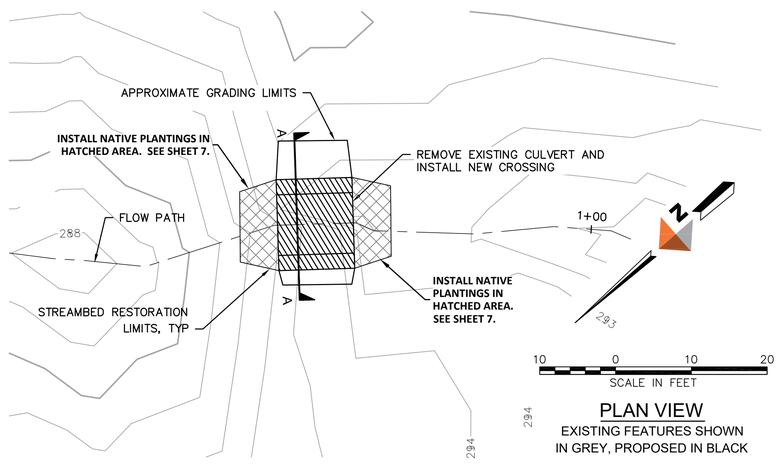
STREAM GRAVEL MIX SPECIFICATION:

ROCK SIZE	% OF MIX
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3/4" ROUND RIVER ROCK	20
2" ROUND RIVER ROCK	10

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2/10 CULVERT #2 - CULVERT REPLACEMENT

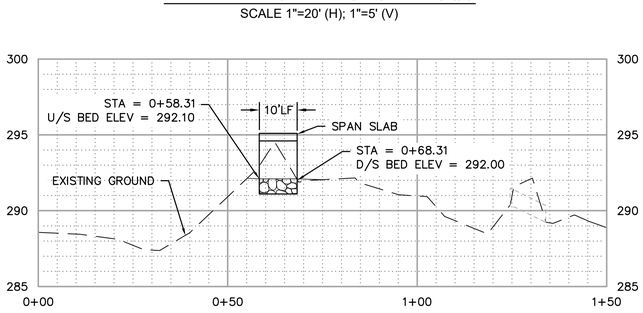
DESIGN BY DOWL

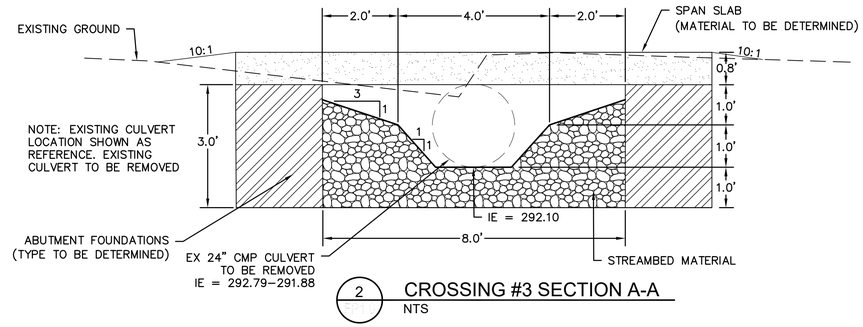


PLAN VIEW
EXISTING FEATURES SHOWN IN GREY, PROPOSED IN BLACK

STREAM PROFILE - CROSSING #3

SCALE 1"=20' (H); 1"=5' (V)





2 CROSSING #3 SECTION A-A
NTS

CONSTRUCTION BMP NOTES:

1. ALL WORK BELOW OHW TO INCLUDE CULVERT REMOVAL CULVERT CONSTRUCTION, AND NEW CHANNEL CONSTRUCTION SHALL OCCUR IN A DRY WATERCOURSE AFTER ALL FLOW HAS CEASED FOR THE SUMMER.
2. UPLAND GRADING SHALL BE COMPLETED USING BMPS FROM THE CURRENT DOE STORMWATER MANUAL.
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STREAM GRAVEL MIX SPECIFICATION:

ROCK SIZE	% OF MIX
COARSE SAND	40
PEA-GRAVEL (1/4" - 3/8")	30
3/4" ROUND RIVER ROCK	20
2" ROUND RIVER ROCK	10

STREAM GRAVEL SHALL CONSIST OF HARD, DURABLE PIECES OF ROUNDED GRAVEL/RIVER ROCK AND SHALL BE THOROUGHLY WASHED UNTIL RUNOFF FROM THE MATERIAL IS CLEAN BEFORE INSTALLATION. STREAM GRAVEL SHALL BE LAID ON THE NATIVE SOIL TO A DEPTH OF 3 TO 4 INCHES

3/10 CULVERT #3 - CULVERT REPLACEMENT

DESIGN BY DOWL

Sewall Wetland Consulting, Inc.
PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

PROJECT: CRITICAL AREA MITIGATION PLAN - LAKE STEVENS COSTCO STORE -

CLIENT: COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WASHINGTON 98027
(425) 313-8100

NO.	DATE	NOTES
1.	11/20/2019	REVISED CULVERT REMOVAL
2.	01/20/2020	REVISED PER REVIEW COMMENTS
		NEW SITE PLAN, & CULVERT DESIGN

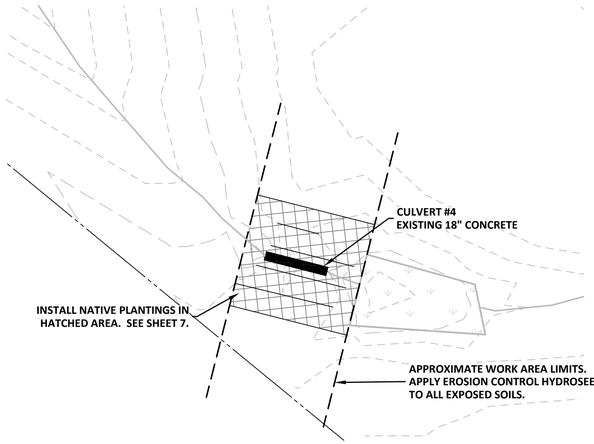
Know what's **below.** **Call** before you dig.

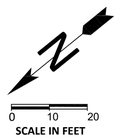
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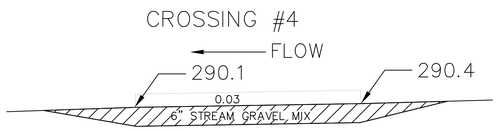
NWS-2019-175
02/12/2020

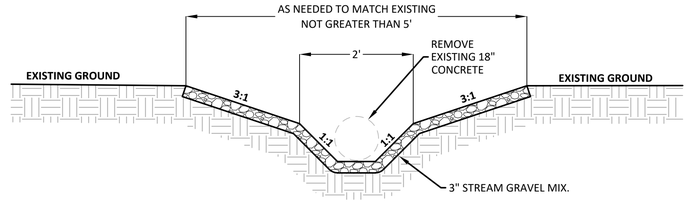
Culvert Details #1

SHEET: 13 of 14









CONSTRUCTION BMP NOTES:

1. ALL WORK BELOW OHW TO INCLUDE CULVERT REMOVAL CULVERT CONSTRUCTION, AND NEW CHANNEL CONSTRUCTION SHALL OCCUR IN A DRY WATERCOURSE AFTER ALL FLOW HAS CEASED FOR THE SUMMER.
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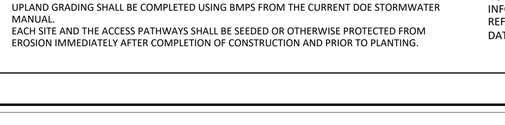
STREAM GRAVEL MIX SPECIFICATION:

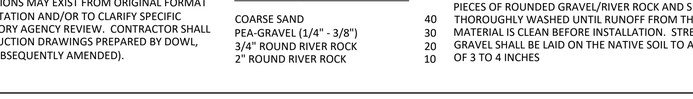
ROCK SIZE	% OF MIX
COARSE SAND	40
PEA-GRAVEL (1/4" - 3/8")	30
3/4" ROUND RIVER ROCK	20
4"-6" ROUND RIVER ROCK	10

STREAM GRAVEL SHALL CONSIST OF HARD, DURABLE PIECES OF ROUNDED GRAVEL/RIVER ROCK AND SHALL BE THOROUGHLY WASHED UNTIL RUNOFF FROM THE MATERIAL IS CLEAN BEFORE INSTALLATION. STREAM GRAVEL SHALL BE LAID ON THE NATIVE SOIL TO A MINIMUM DEPTH OF 6 INCHES.

1/11 CULVERT #4 -CULVERT REMOVAL

DESIGN BY CEDAROCK CONSULTANTS, INC.





CONSTRUCTION BMP NOTES:

1. ALL WORK BELOW OHW TO INCLUDE CULVERT REMOVAL CULVERT CONSTRUCTION, AND NEW CHANNEL CONSTRUCTION SHALL OCCUR IN A DRY WATERCOURSE AFTER ALL FLOW HAS CEASED FOR THE SUMMER.
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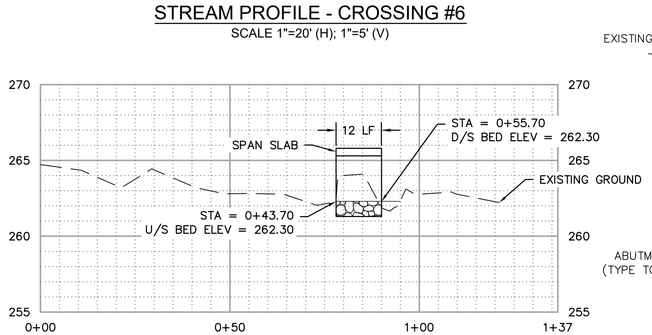
STREAM GRAVEL MIX SPECIFICATION:

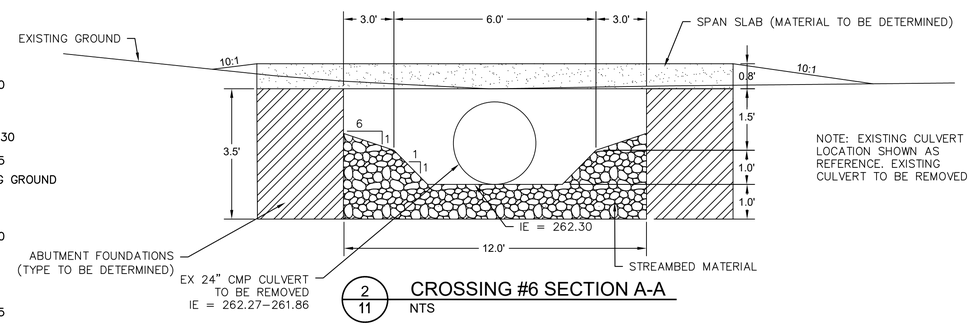
ROCK SIZE	% OF MIX
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2/11 CULVERT #5 - CULVERT REMOVAL

DESIGN BY CEDAROCK CONSULTANTS, INC.





2/11 CROSSING #6 SECTION A-A
NTS

CONSTRUCTION BMP NOTES:

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3/11 CULVERT #6 - CULVERT REPLACEMENT

DESIGN BY DOWL

Sewall Wetland Consulting, Inc.
PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

PROJECT: CRITICAL AREA MITIGATION PLAN - LAKE STEVENS COSTCO STORE -

CLIENT: COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WASHINGTON 98027
(425) 313-8100

NO.	DATE	NOTES
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2.	01/20/2020	REVISED PER REVIEW COMMENTS; NEW SITE PLAN, & CULVERT DESIGN

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NWS-2019-175
02/12/2020

Culvert Details #2

SHEET: 14 of 14