

20TH AVE S

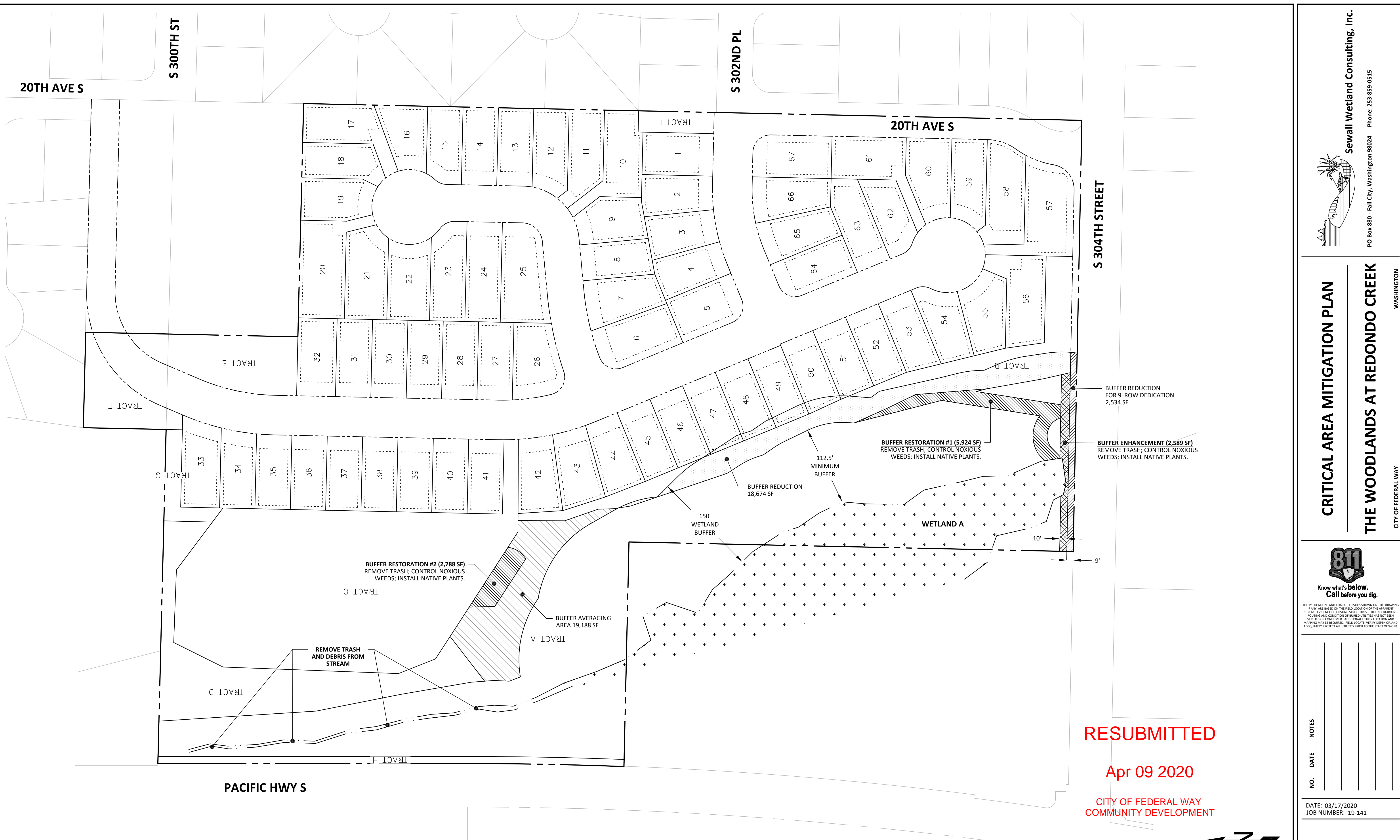
S 300TH ST

S 302ND PL

20TH AVE S

S 304TH STREET

PACIFIC HWY S



RESUBMITTED

Apr 09 2020

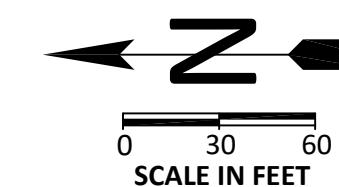
CITY OF FEDERAL WAY
COMMUNITY DEVELOPMENT

DRAWING REFERENCE:

THE SITE PLAN USED TO PREPARE THIS PLAN WAS PROVIDED BY ESM CONSULTING ENGINEERS, LLC. BASE DRAWINGS HAVE BEEN MODIFIED FROM THEIR ORIGINAL FORMAT TO ENHANCE VISUAL PRESENTATION AND/OR TO CLARIFY SPECIFIC INFORMATION.

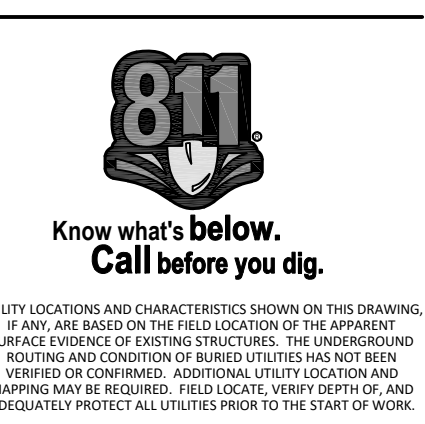
MITIGATION TIMING:

THE MITIGATION SHOWN ON THIS PLAN SHALL BE COMPLETED CONCURRENTLY WITH PROJECT CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE CITY OF FEDERAL WAY.



FILE NO. 19-105072-00 SU

CRITICAL AREA MITIGATION PLAN
THE WOODLANDS AT REDONDO CREEK
 CITY OF FEDERAL WAY WASHINGTON



NO.	DATE	NOTES

DATE: 03/17/2020
JOB NUMBER: 19-141

GENERAL CONSTRUCTION NOTES:

- CONSTRUCTION SHALL CONFORM TO ALL **CITY OF FEDERAL WAY** CODES, ORDINANCES, AND REGULATIONS.
- BEFORE THE START OF ANY CONSTRUCTION, A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN **CITY OF FEDERAL WAY**, THE OWNER, AND THE PLAN DESIGNER.
- A COPY OF THESE APPROVED DRAWINGS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 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.
- 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 FEDERAL WAY** STANDARDS.
- 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 PER **CITY OF FEDERAL WAY**.

RECOMMENDED CONSTRUCTION SEQUENCE:

- FLAG WORK AREA LIMITS.
- REQUEST AND ATTEND A PRE-CONSTRUCTION MEETING WITH OWNER.
- REMOVE TRASH AND DEBRIS FROM EACH WORK AREA.
- INSTALL NATIVE PLANTS.
- INSTALL MULCH.
- INSTALL TEMPORARY IRRIGATION SYSTEM.
- CLEAN-UP AND DEMOBILIZE FROM SITE.
- REQUEST FROM AND ATTEND INSPECTION WITH OWNER.
- CONTRACTOR TO PROVIDE 1 YEAR OF MAINTENANCE UNDER DIRECTION OF OWNER.
- OWNER TO COMPLETE 5 YEARS OF MONITORING.

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. ACCEPTABLE CONTROL METHODS INCLUDE THE FOLLOWING:

- 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.
- GRUB OUT LARGE ROOT CROWNS AND MAJOR ROOTS BY HAND USING CLAW MATTOCK, PULASKI, OR APPROVED EQUAL.

PLANT INSTALLATION NOTES:

- PLANT MATERIAL QUALITY AND LOCATIONS SHALL BE INSPECTED BY PLAN DESIGNER OR OWNER PRIOR TO INSTALLATION.
- PLANT LOCATIONS SHOWN ARE APPROXIMATE. ADJUST PLANT LOCATIONS TO ACCOMMODATE SITE CONDITIONS, TO PRESERVE AND PROTECT EXISTING NATIVE VEGETATION, AND/OR PER PLAN DESIGNER AT TIME OF INSTALLATION.
- FOLLOWING PLANT INSTALLATION, PLACE MULCH AT THE BASE OF EACH PLANT PER DETAILS.

PLANT MATERIAL SPECIFICATIONS:

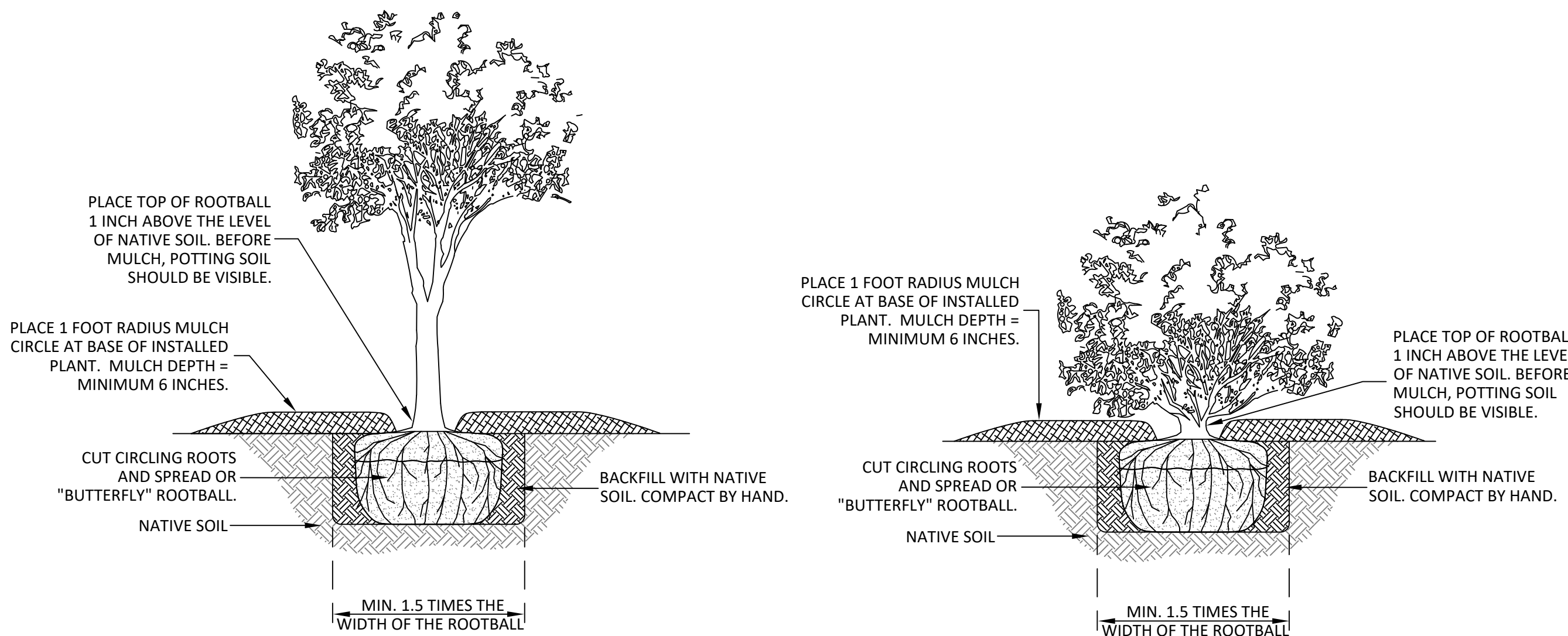
- PLANTS SHALL BE DERIVED FROM STOCK ACCLIMATED TO WESTERN WASHINGTON ENVIRONMENTAL CONDITIONS.
- PLANTS SHALL BE NATIVE TO THE PACIFIC NORTHWEST, PREFERABLY THE PUGET SOUND REGION OF WASHINGTON STATE. PLANTS SHALL BE PROPAGATED FROM NATIVE STOCK. SALVAGED PLANTS ARE ACCEPTABLE.
- SEE FOLLOWING WEBSITE FOR NATIVE PLANT SUPPLIERS: [HTTP://WWW.KINGCOUNTY.GOV/SERVICES/ENVIRONMENT/STEWARDSHIP/NW-YARD-AND-GARDEN/NATIVE-PLANT-NURSERIES-WASHINGTON.ASPX](http://www.kingcounty.gov/services/environment/stewardship/nw-yard-and-garden/native-plant-nurseries-washington.aspx)
- PLANTS 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.
- 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.

MULCH SPECIFICATION:

MULCH SHALL BE COMMERCIALY AVAILABLE "**MEDIUM MULCH**" ([WWW.PACIFICTOPSOILS.COM](http://www.pacifictopsoils.com); **425-337-2700**), 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 ([WWW.DROPCHIP.IN](http://www.dropchip.in)).

TEMPORARY IRRIGATION:

TEMPORARY IRRIGATION SHALL BE PROVIDED FOR **TWO (2) GROWING SEASONS** FOLLOWING PLANT INSTALLATION. IRRIGATION SHALL PROVIDE A MINIMUM RAINFALL EQUIVALENT OF **1 INCH** PER WEEK 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.



1 PLANT INSTALLATION DETAILS

TABLE 1: MITIGATION PLAN GOALS, MONITORING SCHEDULE, PERFORMANCE STANDARDS

ENVIRONMENTAL GOALS & OBJECTIVES:	MONITORING SCHEDULE:	PERFORMANCE STANDARDS:
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, 4, & 5 FOLLOWING PLANT INSTALLATION	<ol style="list-style-type: none"> PLANT SURVIVAL: <ul style="list-style-type: none"> 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. NATIVE PLANT COVERAGE: <ul style="list-style-type: none"> 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. NATIVE PLANT DIVERSITY: <ul style="list-style-type: none"> AFTER THE FIFTH GROWING SEASON, A MINIMUM OF FIVE DIFFERENT PLANT SPECIES WILL BE ESTABLISHED WITHIN BUFFER AREAS.
TO LIMIT NOXIOUS WEED SPECIES WITHIN THE AREAS SHOWN ON THIS PLAN.	LATE SUMMER YEARS 1, 2, 3, 4, & 5 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.

PLANT SCHEDULE:

COMMON NAME	SCIENTIFIC NAME	SIZE/FORM	SPACING	BUFFER ENHANCEMENT (2,589 SF)	QUANTITY BUFFER RESTORATION #1 (5,978 SF)	BUFFER RESTORATION #2 (2,788 SF)
BIGLEAF MAPLE	<i>ACER MACROPHYLLUM</i>	2 GALLON	9' OC	5	15	5
DOUGLAS-FIR	<i>PSEUDOTSUGA MENZIESII</i>	2 GALLON	9' OC	10	25	15
WESTERN REDCEDAR	<i>THUJA PLICATA</i>	2 GALLON	9' OC	17	32	14
VINE MAPLE	<i>ACER CIRCINATUM</i>	2 GALLON	6' OC	5	28	9
INDIAN PLUM	<i>OEMLERIA CERASFORMIS</i>	2 GALLON	6' OC	20	40	20
SALMONBERRY	<i>RUBUS SPECTABILIS</i>	2 GALLON	6' OC	20	50	20
SNOWBERRY	<i>SYMPHORICARPOS ALBUS</i>	2 GALLON	6' OC	28	50	30
			TOTAL:	105	240	113

MONITORING 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 FEDERAL WAY** NO LATER THAN **30 DAYS** FROM THE DATE THAT THE WORK SHOWN ON THIS PLAN HAS BEEN COMPLETED.

ANNUAL MONITORING

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 FEDERAL WAY** NO LATER THAN **30 DAYS** FOLLOWING EACH MONITORING ASSESSMENT.

THE PURPOSE OF ANNUAL MONITORING 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:

- 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.
- 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 FEDERAL WAY** TO DEVELOP A CONTINGENCY PLAN TO ADDRESS THE DEFICIENCY(IES). CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ACTIONS:

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

SUCH CONTINGENCY PLAN SHALL BE SUBMITTED TO THE **CITY OF FEDERAL WAY** BY JANUARY 31 OF ANY YEAR WHEN DEFICIENCIES ARE DISCOVERED. UNLESS OTHERWISE APPROVED BY THE **CITY OF FEDERAL WAY**, ACTIONS SPECIFIED ON AN APPROVED CONTINGENCY PLAN MUST BE COMPLETED WITHIN 60 DAYS. IF THE FAILURE IS SUBSTANTIAL, THE **CITY OF FEDERAL WAY** 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.



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CRITICAL AREA MITIGATION PLAN

THE WOODLANDS AT REDONDO CREEK

WASHINGTON

CITY OF FEDERAL WAY



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 APPLICABLE SURFACE EVIDENCE OF EXISTING STRUCTURES. THE UNDERGROUND RECORDING CONDITION OF BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED. ADDITIONAL UTILITY LOCATION AND MARKING MAY BE REQUIRED. FIELD LOCATE, VERIFY DEPTH OF, AND ADEQUATELY PROTECT ALL UTILITIES PRIOR TO THE START OF WORK.

NO. DATE NOTES

DATE: 03/17/2020
JOB NUMBER: 19-141

NOTES, DETAILS, & MONITORING PLAN

SHEET:

2 OF 2

FILE NO. 19-105072-00 SU