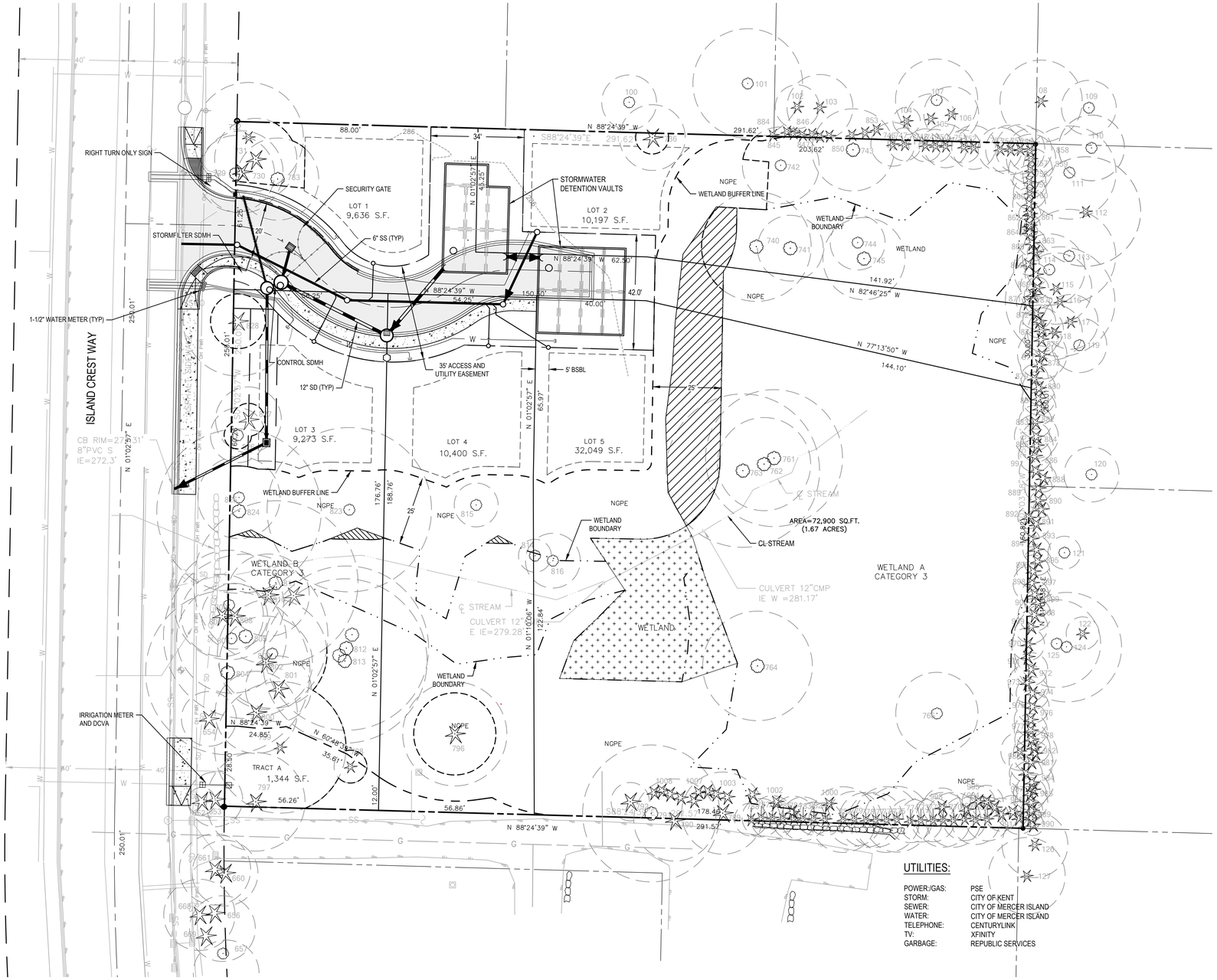
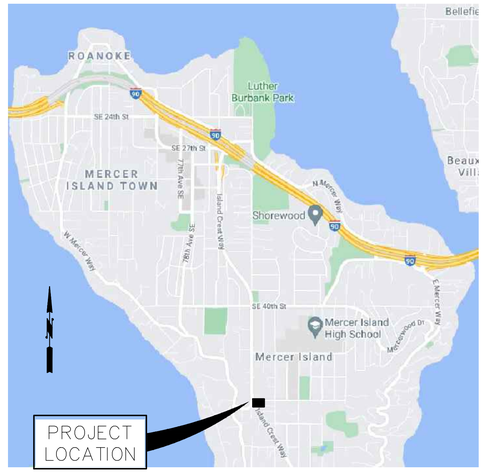
SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



UTILITIES:

POWER/GAS:	PSE
STORM:	CITY OF KENT
SEWER:	CITY OF MERCER ISLAND
WATER:	CITY OF MERCER ISLAND
TELEPHONE:	CENTURYLINK
TV:	XFINITY
GARBAGE:	REPUBLIC SERVICES



VICINITY MAP

NO SCALE

SURVEY INFORMATION

HORIZONTAL DATUM: NAD 83/2011, WASHINGTON COORDINATE SYSTEM, NORTH ZONE, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM: NAVD 88, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

BASIS OF BEARING: NORTH 01°02'57" EAST, BETWEEN THE NORTHWEST CORNER AND THE WEST QUARTER CORNER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN.

64.3 FEET FROM PROPERTY LINE TO FIRE HYDRANT.

LEGAL DESCRIPTION

THE NORTH 250 FEET OF THE SOUTH 500 FEET OF THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, EXCEPT FOR THE WEST 40 FEET.

UTILITIES:

POWER/GAS:	PSE
STORM:	CITY OF MERCER ISLAND
SEWER:	CITY OF MERCER ISLAND
WATER:	CITY OF MERCER ISLAND
TELEPHONE:	CENTURYLINK
TV:	CENTURY LINK, COMCAST
GARBAGE:	RECOLOGY

LEGEND

- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPERTY BOUNDARY
- PROPOSED STORM DRAIN
- PROPOSED SEWER MAIN
- PROPOSED WATER MAIN
- WETLAND BUFFER LINE
- TREE PROTECTION ZONE
- WETLAND AS BUFFER
- WETLAND TO BE REPLACED
- WETLAND REPLACEMENT AREA

SITE INFORMATION:

PARCEL(S):	1824069031
ADDRESS:	4320 ISLAND CREST WAY MERCER ISLAND, WA 98040
PARCEL AREA:	72,900± SF (1.67 AC)
ZONE:	R-9.6
SETBACK ZONE S-9.6:	
MIN. FRONT	20 FT.
MIN. SIDE	5 FT.
MIN. REAR	25 FT.
MAX SITE COVERAGE:	40%
MAX IMPERVIOUS COVERAGE:	40%
SR-4.5:	
PARKING REQUIRED:	2 SPACES
PARKING PROVIDED:	2 SPACES

PROJECT TEAM:

APPLICANT:	IHB ARCHITECHS IMAD BAHBAH 21620 84TH AVE. S., STE 200 KENT, WA 98032 253-468-7686
CIVIL ENGINEER:	FURR ENGINEERING SERVICES PLLC 4715 142ND PL SW UNIT#B EDMONDS, WA 98026 DEANFURR (206) 890-8291 FURRENGINEERING@GMAIL.COM
GEOTECHNICAL CONSULTANT	EARTH SOLUTIONS NW, LLC 15365 N.E. 90TH STREET SUITE 100 REDMOND, WA 98052 PHONE: (425) 449-4704 E-Mail: info@esnw.com
WETLAND BIOLOGIST AND ARBORIST:	THE WATERSHED COMPANY 750 SIXTH STREET SOUTH KIRKLAND, WA 98033 425-822-5242i
SURVEYOR:	PROFESSIONAL LAND SURVEYORS INC. 1595 NW GILMAN BLVD., #15 ISSAQUAH, WA 98027 425-313-9378
SUPPLEMENTAL AND TREE SURVEY:	JOHN CHRISTENSEN, PLS CHS ENGINEERS, LLC 12507 BEL-RED ROAD, SUITE 101 BELLEVUE, WA 98005 425-637-3693

DRAWING INDEX	
C1.0	COVER SHEET
C1.1	NOTES
	SURVEY
C2.0	TESC, DEMO, & TREE REMOVAL PLAN
C2.1	TESC NOTES & DETAILS
C3.0	GRADING & ROAD PLAN
C3.1	GRADING DETAILS
C3.2	EXCAVATION PLAN
C4.0	STORM WATER PLAN
C4.1	STORM DRAINAGE PROFILES
C4.2	STORM DETAILS
C4.3	STORM FILTER DETAIL
C4.4-C4.8	DETENTION VAULTS 1& 2
C5.0	SEWER & WATER PLAN
C5.1	SEWER PROFILE AND DETAILS
C6.0	SIGHT DISTANCE
C6.1	SIGHT DISTANCE PROFILE
C7.0	HORIZONTAL CONTROL PLAN
W1.0-W8.0	MITIGATION PLANS

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:

FURR ENGINEERING SERVICES PLLC. DOES NOT WARRANT THE TOPOGRAPHY, BOUNDARY, AND/OR EXISTING UTILITIES SHOWN ON THESE PLANS. IT IS THE CONTRACTORS' RESPONSIBILITY TO HAVE ALL EXISTING IMPROVEMENTS FIELD VERIFIED PRIOR TO CONSTRUCTION. ANY SUBSURFACE EXPLORATION OF EXISTING UNDERGROUND UTILITIES (POWER, WATER, SEWER, TELECOM, ETC.) SHALL BE PERFORMED BY THE CONTRACTOR. DISCREPANCIES BETWEEN WHAT IS SHOWN ON THE PLANS AND LOCATED BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF FURR ENGINEERING SERVICES PLLC.. PRIOR TO CONSTRUCTION ACTIVITIES.

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

20 10 0 20 40

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DEAN A. FURR — STATE OF WASHINGTON — 46932 — REGISTERED PROFESSIONAL ENGINEER

6/22/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

COVER

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
CITY OF MERCER ISLAND

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:	
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

Sheet Number

C1.0

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

GENERAL NOTES

1. THE LOCATION OF THE EXISTING UTILITIES SHOWN ON THE DRAWING ARE APPROXIMATE. LOCATION AND PROTECTION OF UNDERGROUND UTILITIES SHALL BE IN ACCORDANCE WITH CHAPTER 19.122 RCW. CALL 1-800-424-5555 AT LEAST TWO BUSINESS DAYS BEFORE ANY EXCAVATION.
2. CAUTION - EXTREME HAZARD - THE CONTRACTOR IS CAUTIONED THAT OVERHEAD ELECTRICAL SERVICE LINES ARE GENERALLY NOT SHOWN ON THE DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXTENT OF ANY HAZARD CREATED BY OVERHEAD ELECTRICAL POWER AND SHALL FOLLOW ANY APPLICABLE PROCEDURES AS REQUIRED BY LAW.
3. ALL SOILS, ORGANIC MATERIAL AND ASPHALT PAVING THAT IS EXCAVATED IS TO BE DISPOSED OF OFFSITE.
4. THE CONTRACTOR SHALL ARRANGE AND ATTEND A PRECONSTRUCTION CONFERENCE PRIOR TO THE START OF CONSTRUCTION AND SHALL SUBMIT TESC PLAN AT PRE-CONSTRUCTION CONFERENCE.
5. THESE PLANS REFER ONLY TO WORK OUTSIDE THE WETLAND OR WETLAND BUFFER. FOR INFORMATION REGARDING WORK PERFORMED INSIDE THE WETLAND OR WETLAND BUFFER, SEE THE WATERSHED COMPANY MITIGATION AND RESTORATION PLANS.
6. REFER TO ATTACHED DRAINAGE REPORT FOR STORMWATER DESIGN INFORMATION.
7. SEE CITY PLAT FILE NO. SUB17-015.
8. THE CITY ENGINEER, CODE OFFICIAL, OR THEIR AUTHORIZED DESIGNEE SHALL MONITOR CONSTRUCTION AS DEEMED APPROPRIATE AND WHEN PERMIT INSPECTIONS ARE REQUIRED. AT ANY TIME, ADDITIONAL DESIGN DRAWINGS AND/OR EVALUATION AND MONITORING BY A SOILS ENGINEER MAY BE REQUIRED TO DETAIL OR PROVIDE FOR CORRECTIONS TO THE WORK. EVALUATION AND/OR MONITORING BY THE CIVIL ENGINEER IS REQUIRED FOR THIS PROJECT WITH COPIES OF WRITTEN REPORTS PROVIDED TO THE CITY. ALL COSTS ASSOCIATED WITH THE INSTALLATION OF IMPROVEMENTS, (INCLUDING THE MONITORING AND EVALUATION OF CONSTRUCTION ACTIVITY BY THE CITY EMPLOYEES AND CONSULTANTS, AND THE COMPLETION OF ANY REQUIRED ADDITIONS OR CORRECTION TO THE DESIGN OR INSTALLATION OF THE IMPROVEMENTS) SHALL BE BORNE BY THE DEVELOPER, PROPERTY OWNER OR HIS ASSIGNEE.
9. ALL DAMAGE TO ADJACENT PROPERTIES OR PUBLIC RIGHTS-OF-WAY RESULTING FROM CONSTRUCTION (E.G., SILTATION, MUD, WATER, RUNOFF, ROADWAY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT OR HAULING) SHALL BE EXPEDITIOUSLY MITIGATED AND REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY. FAILURE TO MITIGATE AND REPAIR SAID DAMAGE, OR TO COMPLY WITH THE APPROVED CONSTRUCTION PLANS, THE PERMITS ISSUED BY CITY, OR THE CITY REQUIREMENT FOR CORRECTIVE ACTION SHALL BE CAUSE FOR THE ISSUANCE OF A "STOP WORK" ORDER, FORECLOSURE ON THE PLAT BOND/SECURITY, AND/OR OTHER MEASURES DEEMED APPROPRIATE BY THE CITY ENGINEER OR CODE OFFICIAL TO ENSURE QUALITY CONSTRUCTION AND PROTECT THE PUBLIC SAFETY.
10. ALL UTILITIES SERVING THE PLAT SHALL BE UNDERGROUND AND SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MERCER ISLAND ORDINANCES AND CONSTRUCTION STANDARDS.
11. CONSTRUCTION OF ALL IMPROVEMENTS FOR ACCESS, UTILITIES, STORM DRAINAGE, AND SITE WORK SHALL COMPLY WITH CURRENT CITY ORDINANCES AND THE REQUIREMENTS OF THE CITY ENGINEER.
12. A COPY OF THE CURRENT CITY OF MERCER ISLAND CONSTRUCTION STANDARDS SHALL BE MAINTAINED ON SITE AT ALL TIMES.
13. WORK IN PUBLIC RIGHT-OF-WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.

RECOMMENDATION

BASED UPON THE ABOVE NOTED FINDINGS OF FACT AND CONCLUSIONS OF LAW, SHORT SUBDIVISION APPLICATION SUB17-001, AS DEPICTED IN EXHIBIT 7, IS HEREBY PRELIMINARILY APPROVED. THIS DECISION IS FINAL, UNLESS APPEALED IN WRITING CONSISTENT WITH ADOPTED APPEAL PROCEDURES, MICC 19.15.020(J), AND ALL OTHER APPLICABLE APPEAL REGULATIONS.

RECOMMENDED CONDITIONS OF APPROVAL AND REGULATORY REQUIREMENTS

THE FOLLOWING CONDITIONS OF APPROVAL AND REGULATORY REQUIREMENTS SHALL BE BINDING ON THE "APPLICANT," WHICH SHALL INCLUDE OWNER OR OWNERS OF THE PROPERTY, HEIRS, ASSIGNS, AND SUCCESSORS.

GENERAL:

1. THE PROPOSED SUBDIVISION SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
2. A FINAL PLAT THAT IS SUBSTANTIALLY CONSISTENT WITH THE PRELIMINARY PLAT DRAWINGS ATTACHED AS EXHIBIT X) AND MEETING THE REQUIREMENTS OF MICC 19.08, SHALL BE SUBMITTED WITHIN FIVE YEARS OF PRELIMINARY APPROVAL FOR REVIEW AND APPROVAL BY THE CITY OF MERCER ISLAND CITY COUNCIL.
3. NO CONSTRUCTION OF STRUCTURES, UTILITIES, STORM DRAINAGE, GRADING, EXCAVATION, FILLING, OR LAND CLEARING ON ANY LAND WITHIN THE PROPOSED LONG SUBDIVISION SHALL BE ALLOWED PRIOR TO PRELIMINARY APPROVAL OF THE APPLICATION AND UNTIL THE APPLICANT HAS SECURED THE PERMITS REQUIRED UNDER THE MERCER ISLAND CITY CODE.

PLANNING:

4. PRIOR TO ISSUANCE OF THE SITE DEVELOPMENT PERMIT, THE APPLICANT SHALL SUBMIT A BOND QUANTITY WORKSHEET REFLECTING THE EXPECTED COST OF IMPLANTING THE MITIGATION PLAN, INCLUDING PLANT MATERIAL, MAINTENANCE AND MONITORING COSTS.
5. PRIOR TO THE ISSUANCE OF THE SITE DEVELOPMENT PERMIT, THE APPLICANT SHALL REVISE THE MITIGATION PLAN PERFORMANCE STANDARDS TO REQUIRE 30% COVER OF EMERGENT PLANTS BY YEAR 3 AND 60% COVER BY YEAR 5.
6. PRIOR TO ISSUANCE OF THE SITE DEVELOPMENT PERMIT, THE APPLICANT SHALL POST A FINANCIAL GUARANTEE IN THE AMOUNT ON 125% OF THE TOTAL SHOWN ON THE BOND QUANTITY WORKSHEET.
7. PRIOR TO ISSUANCE OF THE SITE DEVELOPMENT PERMIT, THE APPLICANT SHALL PROVIDE PROPOSED EASEMENT LANGUAGE FOR THE ACCESS EASEMENT SHARED BY THE PROPOSED LOTS FOR REVIEW AND APPROVAL BY THE CITY.
8. PRIOR TO THE RECORDING OF THE FINAL PLAT, THE APPLICANT SHALL IDENTIFY THE EXTENT, LIMITATIONS AND TERMS OF THE PROPOSED NATIVE GROWTH PROTECTION EASEMENT, OR EQUIVALENT RESTRICTION APPROVED BY THE CITY, ON THE FACE OF THE FINAL PLAT. DRAFT LANGUAGE SHALL BE PROVIDED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL PLAT APPROVAL.
9. AT BUILDING PERMIT APPLICATION, THE APPLICANT SHALL PAY SCHOOL IMPACT FEES BASED ON THE FEE SCHEDULE IN PLACE AT THE TIME OF APPLICATION. A CREDIT SHALL BE APPLIED FOR ANY DWELLING UNIT THAT EXISTS ON THE LAND WITHIN THE SUBDIVISION PRIOR TO THE SUBDIVISION IF THE DWELLING UNIT IS DEMOLISHED. THE CREDIT SHALL APPLY TO THE FIRST COMPLETE BUILDING PERMIT APPLICATION SUBMITTED TO THE CITY SUBSEQUENT TO DEMOLITION OF THE EXISTING DWELLING UNIT, UNLESS OTHERWISE ALLOCATED BY THE APPLICANT OF THE SUBDIVISION AS PART OF APPROVAL OF THE SUBDIVISION.
10. AT BUILDING PERMIT APPLICATION, THE APPLICANT SHALL PAY PARKS IMPACT FEES BASED ON THE FEE SCHEDULE IN PLACE AT THE TIME OF APPLICATION. A CREDIT SHALL BE APPLIED FOR ANY DWELLING UNIT THAT EXISTS ON THE LAND WITHIN THE SUBDIVISION PRIOR TO THE SUBDIVISION IF THE DWELLING UNIT IS DEMOLISHED. THE CREDIT SHALL APPLY TO THE FIRST COMPLETE BUILDING PERMIT APPLICATION SUBMITTED TO THE CITY SUBSEQUENT TO DEMOLITION OF THE EXISTING DWELLING UNIT, UNLESS OTHERWISE ALLOCATED BY THE APPLICANT OF THE SUBDIVISION AS PART OF APPROVAL OF THE SUBDIVISION.
11. AT BUILDING PERMIT APPLICATION FOR THE FUTURE RESIDENCES, THE APPLICANT SHALL PAY TRANSPORTATION IMPACT FEES BASED ON THE FEE SCHEDULE IN PLACE AT THE TIME OF APPLICATION. A CREDIT SHALL BE APPLIED FOR ANY DWELLING UNIT THAT EXISTS ON THE LAND WITHIN THE SUBDIVISION PRIOR TO THE SUBDIVISION IF THE DWELLING UNIT IS DEMOLISHED. THE CREDIT SHALL APPLY TO THE FIRST COMPLETE BUILDING PERMIT APPLICATION SUBMITTED TO THE CITY SUBSEQUENT TO DEMOLITION OF THE EXISTING DWELLING UNIT, UNLESS OTHERWISE ALLOCATED BY THE APPLICANT OF THE SUBDIVISION AS PART OF APPROVAL OF THE SUBDIVISION.
12. PRIOR TO FINAL INSPECTION OF PLAT IMPROVEMENTS CONSTRUCTED UNDER THE SITE DEVELOPMENT PERMIT, THE PLATTOR SHALL STABILIZE ALL DISTURBED AREAS WITH EROSION CONTROL MEASURES ACCEPTABLE TO THE CITY ENGINEER.
13. PRIOR TO FINAL INSPECTION OF PLAT IMPROVEMENTS CONSTRUCTED UNDER THE SITE DEVELOPMENT PERMIT, ALL PLANTINGS AS SHOWN ON THE MITIGATION AND RESTORATION PLAN PREPARED BY THE WATERSHED COMPANY, DATED APRIL 18, 2018 SHALL BE INSTALLED, INSPECTED AND APPROVED BY THE CITY, AND THE PLATTOR SHALL SUBMIT AS-BUILT PLANS TO THE CITY.

TREES:

14. ONLY TREES NEEDING TO BE REMOVED FOR SITE DEVELOPMENT IMPROVEMENTS MAY BE REMOVED AT SITE DEVELOPMENT PERMIT ISSUANCE. TREE REMOVAL SHALL BE CONSISTENT WITH THE TREE PRESERVATION PLAN ON SHEET W4.0 OR AS OTHERWISE APPROVED IN WRITING BY THE CITY ARBORIST.
15. ONLY TREES NEEDING TO BE REMOVED FOR FUTURE HOUSE CONSTRUCTION MAY BE REMOVED AT BUILDING PERMIT ISSUANCE. TREE REMOVAL SHALL BE CONSISTENT WITH THE TREE PRESERVATION PLAN ON SHEET W4.0 OF THE LONG PLAT MITIGATION AND RESTORATION PLAN DATED APRIL 18, 2018 OR AS OTHERWISE APPROVED IN WRITING BY THE CITY ARBORIST.
16. PRIOR TO SITE DEVELOPMENT PERMIT ISSUANCE, TREE PROTECTION FENCING SHALL BE INSTALLED CONSISTENT WITH SHEET C4 OF THE PLAN SET PREPARED BY CHS ENGINEERS DATED APRIL 18, 2018.
17. PRIOR TO RECORDING OF THE FINAL PLAT, THE APPLICANT SHALL INCLUDE A SHEET SHOWING THE LOCATIONS AND TREE NUMBERS OF TREES PROPOSED FOR RETENTION, CONSISTENT WITH THE APPROVED RETENTION PLAN.
CIVIL ENGINEERING:
18. EASEMENTS FOR SHARED ACCESS, UTILITIES, AND STORM DRAINAGE FACILITIES SHALL BE DEPICTED ON THE FACE OF THE FINAL PLAT. LANGUAGE WHICH INDICATES JOINT RIGHTS AND RESPONSIBILITIES OF EACH LOT WITH RESPECT TO ALL UTILITIES AND ROADWAYS SHALL BE SHOWN ALONG WITH INDIVIDUAL LOT JOINT MAINTENANCE EASEMENT AGREEMENTS (WHERE APPLICABLE) FOR ALL SHARED USAGE AND FILED WITH THE KING COUNTY RECORDER AND NOTED ON THE FINAL PLAT. THE EASEMENT SHALL INDICATE WHETHER IT IS PUBLIC OR PRIVATE, EXISTING OR PROPOSED.
19. DAMAGE TO ADJACENT PROPERTIES OR PUBLIC RIGHTS-OF-WAY RESULTING FROM CONSTRUCTION (E.G. SILTATION, MUD, RUNOFF, ROADWAY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT OR HAULING) SHALL BE EXPEDITIOUSLY MITIGATED AND REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY. FAILURE TO MITIGATE AND REPAIR SAID DAMAGE, OR TO COMPLY WITH THE APPROVED CONSTRUCTION PLANS, THE PERMITS ISSUED BY THE CITY, OR THE CITY REQUIREMENT FOR CORRECTIVE ACTION MAY BE CAUSE FOR THE ISSUANCE OF A "STOP WORK" ORDER, FORECLOSURE ON THE PLAT BOND/SECURITY, AND/OR OTHER MEASURES DEEMED APPROPRIATE BY THE CITY ENGINEER OR CODE OFFICIAL TO ENSURE CONSTRUCTION CONSISTENT WITH THE APPROVED PLANS AND PROTECTION OF PUBLIC SAFETY.
20. THE FINAL PLAT SHALL BE PREPARED IN CONFORMANCE WITH TITLE 58 RCW AND SURVEYS SHALL COMPLY WITH CHAPTER 332-130 WAC. SUBMIT USING MERCER ISLAND'S DATUM AND TIE THE PLAT TO AT LEAST TWO CITY MONUMENTS.
21. A CITY OF MERCER ISLAND TITLE BLOCK FOR APPROVAL SIGNATURES (CITY ENGINEER AND THE MAYOR) SHALL BE PROVIDED ON THE FINAL PLAT ALONG WITH THE DESIGNATED LONG PLAT NUMBER.
22. A FINAL TRAFFIC MEMORANDUM DOCUMENTING THE TRIP GENERATION AND SIGHT DISTANCE EVALUATION SHALL BE SUBMITTED AS A PART OF THE SITE DEVELOPMENT PERMIT SUBMITTAL PACKAGE. ALL MITIGATION MEASURES RECOMMENDED IN THE MEMORANDUM SHALL BE INCORPORATED INTO THE SITE DEVELOPMENT PERMIT.
23. CONSTRUCTION OF ALL IMPROVEMENTS FOR ACCESS, UTILITIES, STORM DRAINAGE, AND SITE WORK SHALL COMPLY WITH CURRENT CITY ORDINANCES AND THE REQUIREMENTS OF THE CITY ENGINEER.
24. ALL UTILITIES SERVING THE PLAT SHALL BE UNDER GROUNDED (MICC 19.08.040) AND SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CITY OF MERCER ISLAND ORDINANCES.
25. PLAT IMPROVEMENT PLANS PREPARED BY A WASHINGTON STATE LICENSED ENGINEER SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE CITY ENGINEER. THE IMPROVEMENT PLANS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
    - A. PLAT ACCESS ROAD - COMPLY WITH THE FIRE CODE REQUIREMENTS AND STANDARDS CONTAINED IN MICC 19.09.040. SITE DISTANCE MITIGATION MEASURES RECOMMENDED BY IN THE SITE DISTANCE EVALUATION.
    - B. TEMPORARY EROSION CONTROL MEASUREMENTS.
    - C. GRADING PLAN.
    - D. WATER MAIN, WATER METERS, AND APPURTENANCES
        - I. PROVIDE WATER SERVICES FOR EACH LOT. LOCATE WATER METERS OUTSIDE OF THE FUTURE DRIVEWAY AREAS AND ANY PAVED AREAS.
        - II. ABANDON ALL EXISTING WATER SERVICES CURRENTLY SERVING THE EXISTING LOT AT THE CITY WATER MAIN.
    - E. SANITARY SEWER AND APPURTENANCES
        - I. PROVIDE SEWER CONNECTIONS FOR EACH LOT. SHOW THE SANITARY SEWER STUB OUTS.
        - II. ABANDON ALL EXISTING SIDE SEWERS AT THE CITY SEWER MAIN.
        - III. THE SANITARY SEWER SYSTEM SERVING ALL LOTS WILL BE A PRIVATE SEWER SYSTEM.
    - F. STORMWATER
        - I. PROVIDE DRAINAGE IMPROVEMENTS IN COMPLIANCE WITH MICC 15.09.
        - II. SHOW THE STORM DRAINAGE STUB OUTS FOR ALL LOTS.
        - III. A DEPARTMENT OF ECOLOGY CONSTRUCTION GENERAL PERMIT IS REQUIRED FOR THIS PROJECT.
    - G. DRY UTILITIES I. SHOW THE PROPOSED DRY (POWER, GAS, ETC.) UTILITY CORRIDOR ON THE PLAN.
26. RIGHT OF WAY RESTORATION
    - A. THE EXISTING DRIVEWAY APRON IN THE CITY RIGHT OF WAY LOCATED AT THE SOUTH END OF THE PROPERTY FRONTAGE MUST BE REMOVED.
    - B. ROADWAY, SIDEWALK, AND CURB REPLACEMENT LIMITS SHALL BE DETERMINED BY THE CITY ENGINEER AND WILL LIKELY INCLUDE A FULL LANE WIDTH GRIND AND OVERLAY OF THE EXISTING ROADWAY SECTION ON ISLAND CREST WAY AND REPLACEMENT OF CURB/GUTTER/SIDEWALK ALONG THE ENTIRE FRONTAGE OF THE PROPERTY.
    - C. CLEARING AND GRADING WITHIN THE CITY RIGHT OF WAY TO ACHIEVE CLEAR SIGHT LINES FOR THE PROPOSED DRIVEWAY MUST BE REVIEWED AS A PART OF THE SITE DEVELOPMENT PERMIT. TRIMMING OF TREE BRANCHES SHALL ONLY BE PERFORMED UNDER THE DIRECTION OF A CERTIFIED ARBORIST.
27. ALL PLAT IMPROVEMENTS SHALL BE COMPLETED PRIOR TO FINAL PLAT APPROVAL OR BONDED AND COMPLETED PRIOR TO ISSUANCE OF BUILDING PERMITS WHEN ALLOWED BY THE CITY ENGINEER. A SURVEY GRADE AS-BUILT DRAWING IN PDF FORMAT THAT SHOWS ALL UTILITIES AND PLAT IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY ENGINEER UPON COMPLETION OF THE WORK.

FINAL PLAT NOTES

1. MAINTENANCE AND REPAIR OF THE PRIVATE SANITARY SEWER SYSTEM AND JOINT USE SIDE SEWERS (SEWER LINES FROM THE BUILDING TO THE PRIVATE SEWER MAIN), SHARED ROADS, ACCESS EASEMENTS, PUBLIC TRAIL, PRIVATE STORM DRAINAGE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNERS OF EACH LOT SERVED (WITH THE EXCEPTION THAT OWNERS OF ANY LOT WHICH IS LOWER IN ELEVATION SHALL NOT BE RESPONSIBLE FOR THAT PORTION OF A PRIVATE SIDE SEWER ABOVE THEIR CONNECTION). IF MAINTENANCE AND REPAIR OF ANY FACILITIES ENUMERATED ABOVE ARE NOT PERFORMED TO THE SATISFACTION OF THE CITY ENGINEER, AFTER A TIMELY DEMAND HAS BEEN MADE FOR SUCH ACTION, THE CITY OR ITS AGENT SHALL HAVE THE RIGHT TO ENTER UPON THE PREMISES AND PERFORM THE NECESSARY MAINTENANCE AND REPAIR TO PROTECT THE SAFETY AND GENERAL WELFARE OF THE PUBLIC AND SHALL HAVE THE RIGHT TO CHARGE THE OWNER OF EACH LOT AN EQUAL SHARE OF THE TOTAL MAINTENANCE AND REPAIR COSTS. THE CITY OR THE OWNER OF ANY LOT WITHIN THIS PLAT SHALL HAVE THE RIGHT TO BRING ACTION IN SUPERIOR COURT TO REQUIRE ANY MAINTENANCE OR REPAIR AND TO RECOVER THE COSTS INCURRED IN MAKING OR EFFECTING REPAIRS TO IMPROVEMENTS.
2. PRIVATE STORMWATER FACILITIES SHALL BE INSPECTED AND MAINTAINED IN CONFORMANCE WITH MICC 15.09.070.
3. ALL STAGING FOR CONSTRUCTION SHALL OCCUR ON SITE AND SHALL NOT BE LOCATED IN THE PUBLIC RIGHT-OF-WAY.
4. NO PERMANENT LANDSCAPING, STRUCTURES, OR FENCES SHALL BE PLACED ON OR WITHIN PUBLIC UTILITY, STORM DRAINAGE, OR PEDESTRIAN PATH EASEMENTS WITHOUT THE WRITTEN APPROVAL OF THE CITY ENGINEER.
5. IF IN THE OPINION OF THE CITY ENGINEER, UTILITIES OR STORM DRAINAGE FACILITIES REQUIRE MAINTENANCE, REPAIR OR REPLACEMENT, THE CITY OR ITS AGENT SHALL HAVE THE RIGHT TO ENTER THOSE LOTS ADJOINING THE FACILITY FOR THE PURPOSE OF MAINTAINING, REPAIRING, RELOCATING OR REPLACING SAID FACILITIES.
6. INSTALLATION OF LANDSCAPING AND/OR STRUCTURES INCLUDING TREES, SHRUBS, ROCKS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY WITHOUT AN APPROVED ENCROACHMENT LICENSE AGREEMENT FROM THE CITY PRIOR TO THE WORK OCCURRING (MICC 19.06.060).
7. NO TREE IDENTIFIED FOR RETENTION MAY BE REMOVED UNLESS OTHERWISE APPROVED BY THE CITY ARBORIST.
8. ALL DISTURBED AREAS OUTSIDE OF BUILDING FOOTPRINTS AND IMPERVIOUS SURFACES ON LOTS 3 AND 4 SHALL BE LANDSCAPED.
9. NO CHANGE MAY BE MADE TO THE CONFIGURATION OR MAINTENANCE REQUIREMENTS OF TRACT A WITHOUT EXPRESS APPROVAL FROM THE CITY.
10. ALL AREAS OUTSIDE OF BUILDING FOOTPRINTS AND IMPERVIOUS SURFACES SHALL BE LANDSCAPED PRIOR TO FINAL INSPECTION OF BUILDING PERMITS ON EACH LOT. (MICC 19.07.060(D)(1)(D))
11. THE APPLICANT SHALL INCLUDE A NOTE ADDRESSING MAINTENANCE AND OWNERSHIP OF TRACT A
12. THE APPLICANT SHALL INCLUDE A NOTE ADDRESSING MAINTENANCE OF THE NATIVE GROWTH PROTECTION EASEMENT.
13. SCHOOL, TRAFFIC AND PARK IMPACT FEES WILL BE DUE AT BUILDING PERMIT ISSUANCE OR MAY BE DEFERRED IN ACCORDANCE WITH MICC 19.17, 19.18, AND 19.19.

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:
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811 Know what's below. Call before you dig.

N

20 10 0 20 40
SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER
6/22/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title
NOTES

MERCER ISLAND — REVIEWED FOR CODE COMPLIANCE — July 05, 2023 — SITE COPY — PLANNING

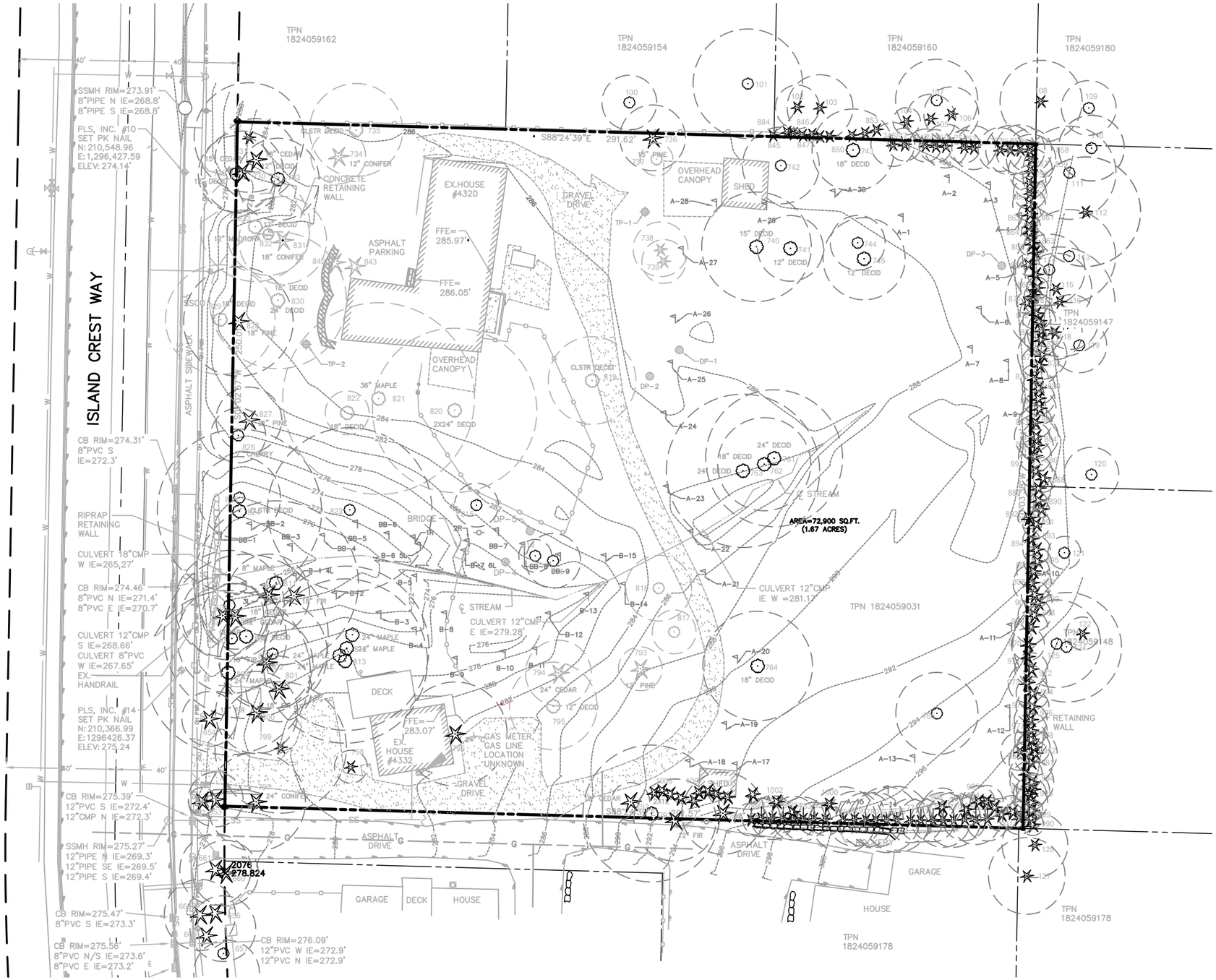
Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:	
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

Sheet Number
C1.1

A PORTION OF SW 1/4 OF THE NW 1/4 SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., KING COUNTY, WASHINGTON



20 10 0 20 40
SCALE IN FEET

PROPERTY INFORMATION

PARCEL #: 1824069031

PARCEL AREA: 72,900 ± SF (1.67 ACRES)

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SURVEY INFORMATION

HORIZONTAL DATUM: NAD 83/2011, WASHINGTON COORDINATE SYSTEM, NORTH ZONE, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM: NAVD 88, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

BASIS OF BEARING: NORTH 01°02'57" EAST, BETWEEN THE NORTHWEST CORNER AND THE WEST QUARTER CORNER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN.

64.3 FEET FROM PROPERTY LINE TO FIRE HYDRANT.

LEGAL DESCRIPTION

THE NORTH 250 FEET OF THE SOUTH 500 FEET OF THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, EXCEPT FOR THE WEST 40 FEET.

CITY OF MERCER ISLAND
REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
WASHINGTON

No.	Date	By	Ckd	Revision

BENJAMIN ZEHNER — STATE OF WASHINGTON — 40088 — REGISTERED PROFESSIONAL ENGINEER

Drawn: SS
Designed: BC
Checked: EZ
Approved: EZ

12507 Bel-Red RD., Suite 101, Bellevue, WA 98005
www.chsengineers.com Ph: 425-637-3693

4320 ISLAND CREST WAY – SHORT PLAT

PRELIMINARY PLAT

Sheet 9 Of —

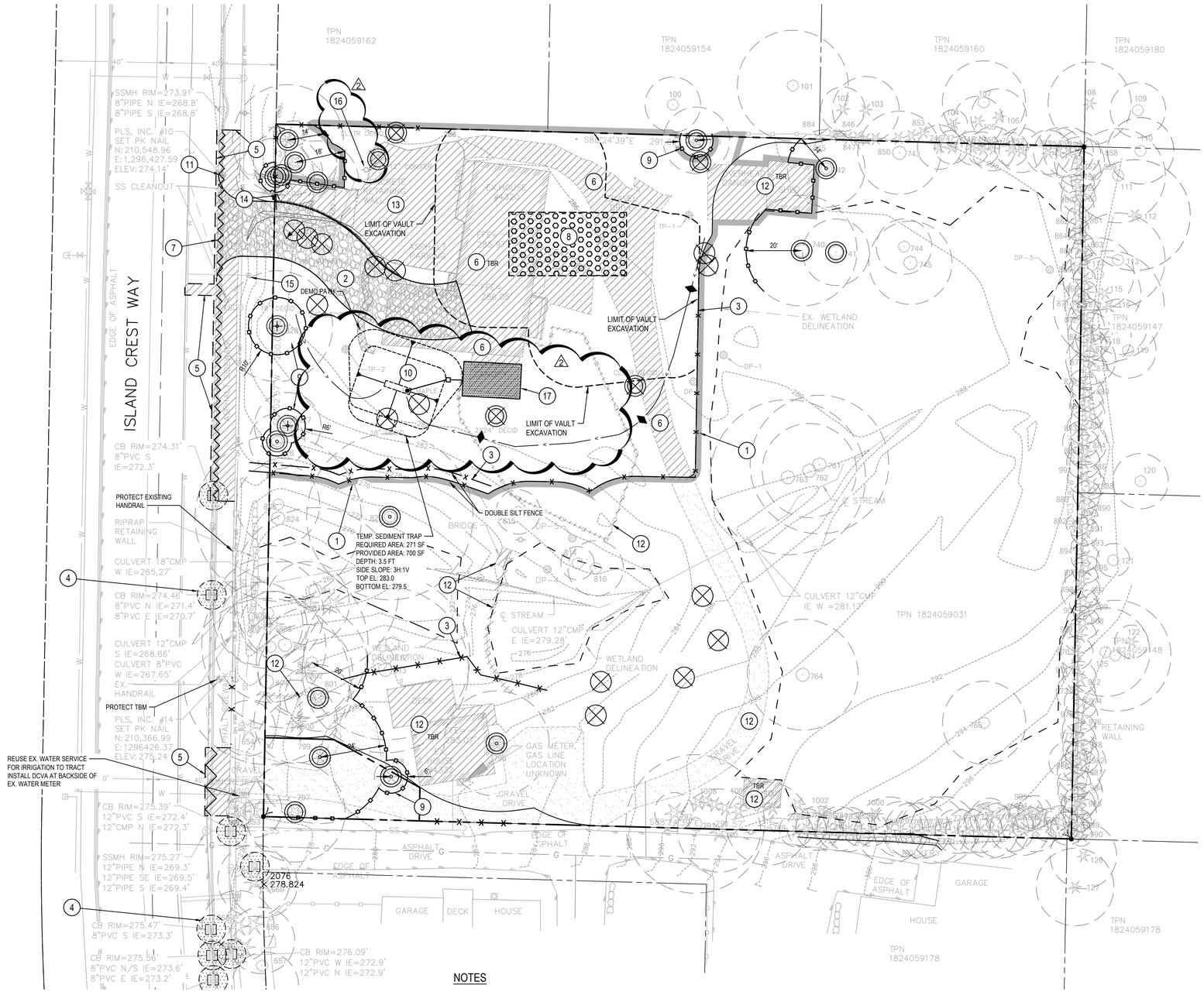
Job No. 691715

—

USER: Rachel Elliott PLOTTING DATE: 6/22/2023 FILE LOCATION: \\Mysloudpr2100\FES\FES Projects\2021\21084-Mercer Island Plat\DWG\21084_C1.0_COVER.dwg

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



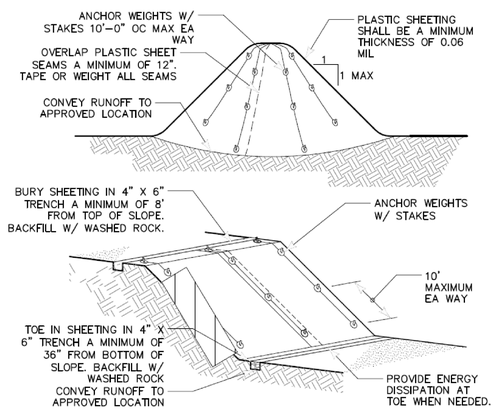
LEGEND

- REMOVE CURB & GUTTER
- HIGH VISIBILITY SILT FENCE
- LIMITS OF CLEARING AND GRADING
- STOCKPILE AREA
- TO BE REMOVED
- INLET PROTECTION
- CONSTRUCTION ACCESS
- SAWCUT LINE
- TREE PROTECTION FENCING - PER MITIGATION PLAN
- INTERCEPTOR SWALE WITH ROCK DAM
- EXISTING TREES TO REMAIN
- TREES TO BE REMOVED AFTER SITE DEVELOPMENT PERMIT IS APPROVED
- TREES TO BE REMOVED AFTER BUILDING PERMIT IS APPROVED
- EXISTING TREES TO REMAIN WITH TREE PROTECTION
- TREE TRUNK WRAP PER WATERSHED CO. PLANS SHEET W4.0

CONSTRUCTION NOTES

1. FLAG CLEARING LIMITS TO EXTENTS SHOWN ON THE PLAN.
2. EXISTING ASPHALT DRIVEWAY TO BE USED AS CONSTRUCTION ENTRANCE PER DETAIL ON SHEET C2.1
3. HIGH VISIBILITY SILT FENCE PER DETAIL ON SHEET C2.1
4. CATCH BASIN INSERT (TYP) PER DETAIL ON SHEET C2.1
5. SAWCUT - THE LIMITS OF PAVEMENT REMOVAL, SIDEWALK REMOVAL AND CURB/GUTTER REMOVAL SHALL BE DETERMINED BY THE CITY INSPECTOR.
6. DEMO AND REMOVE GRAVEL ROAD, ASPHALT PARKING, AND EXISTING STRUCTURES
7. REMOVE CURB & GUTTER - SIDEWALK WILL REMAIN OPEN TO PEDESTRIAN TRAFFIC; SPOTTER ASSIST WILL BE AVAILABLE DURING CONSTRUCTION HOURS.
8. COVERED STOCK PILE PER DETAIL THIS SHEET
9. TREE PROTECTION FENCING PER MITIGATION PLAN
10. SEDIMENT TRAP; SEE KING COUNTY DETAIL, SHEET C2.1 TEMPORARY UNTIL VAULT INSTALLATIONJ IS COMPLETE
11. REMOVE TEMPORARY BENCH MARK
12. REMOVE STRUCTURES AND FENCING OUTSIDE OF CLEARING LIMITS SEE WATERSHED PLANS FOR DEMO DETAILS
13. REMOVE CONCRETE RETAINING WALL
14. ABANDON SEWER AT MAIN AND REMOVE CLEAN OUT - LOCATION SHOWN IS PER TOPOGRAPHIC SURVEY.
15. ABANDON EX. WATER SERVICE AT MAIN, CLOSE CORP STOP AND CAP, REMOVE AS NECESSARY.
16. REMOVE EXISTING POWER POLE
17. ROLL-OFF POLY TANK 6,300 GAL W/PUMP STATION. SEE DETAIL SHEET C2.1

PLASTIC COVERED STOCKPILE C.3.4



EARTHWORK QUANTITIES

CUT = 264 CY
FILL = 27 CY
NET = 237 CY CUT

NOTES

1. SEE PLAN SET PREPARED BY THE WATERSHED COMPANY FOR TREE PRESERVATION AND WETLAND MITIGATION PLAN.
   NOTE REQUIREMENTS FOR DEMOLITION OF EXISTING SOUTHERLY HOUSE.
2. REFERENCE WATERSHED PLANS FOR CLEARING, GRADING AND DEMO WITHIN WETLAND BUFFER.
3. DEMOLITION WITHIN THE WETLAND TO BE PERFORMED WITHOUT HEAVY MACHINERY IN ORDER TO MINIMIZE WETLAND IMPACT.
4. TRIM TREE BRANCHES TO 6' AND REMOVE SHRUBS WITHIN SIGHT TRIANGLE, SEE SHEET C6.0 SIGHT DISTANCE PLAN.
5. SEE EXCAVATION PLAN, SHEET C3.2

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:
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811 Know what's below. Call before you dig.

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY

Registration

6/22/2023

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TESC, DEMOLITION, AND TREE REMOVAL

Revisions

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SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

TESC SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING.
2. FLAG OR FENCE CLEARING LIMITS.
3. POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
4. INSTALL CATCH BASIN PROTECTION.
5. INSTALL PERIMETER SILT FENCE PROTECTION.
6. INSTALL TREE PROTECTION.
7. CONSTRUCT SEDIMENT TRAP AND POLY TANK.
8. UTILIZE EXISTING DRIVEWAY FOR INTERIM DEMOLITION ACTIVITY CONSTRUCTION ENTRANCE.
9. DEMO EXISTING BUILDINGS.
10. ADJUST TREE PROTECTION FENCING AS NECESSARY AFTER DEMOLITION.
11. GRADE AND INSTALL NEW CONSTRUCTION ENTRANCE.
12. GRADE AND STABILIZE ACCESS ROAD ALIGNMENT.
13. EXCAVATE FOR VAULTS
14. CONSTRUCT PERMANENT STORMWATER FACILITY.
15. CONSTRUCT TEMPORARY SURFACE WATER CONTROLS AND UTILIZE PERMANENT STORM WATER FACILITIES.
16. CONSTRUCT WATER, SEWER AND DRY UTILITIES.
17. CONSTRUCT PERMANENT ACCESS ROAD & RELATED IMPROVEMENTS.
18. UPON COMPLETION OF THE PLAT IMPROVEMENTS, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE
19. MAINTAIN EROSION CONTROL MEASURE IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
20. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN \ ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
21. COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
22. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.

DEMOLITION NOTES

1. REFER TO PSCAA REGARDING BUILDING DEMOLITION AND ASBESTOS AND LEAD HAZARDS.
2. UTILIZE EX. DRIVEWAYS TO ACCESS SITE FOR BUILDING AND OTHER DEMOLITION ACTIVITIES.
3. COORDINATE WITH PSE TO SHUT DOWN AND DEMO EXISTING GAS AND POWER SERVICE.

TREE REMOVAL NOTES

1. ALL TREES NOT TAGGED FOR REMOVAL ARE TO REMAIN. TREES ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE PROTECTED VIA TREE PROTECTION FENCING. REFER TO WATERSHED PLANS FOR FENCING AND TRUNK PROTECTION DETAILS.
2. SEE ARBORIST'S REPORT FOR TREE SIZES AND SPECIES.

CLEARING & GRADING NOTES

1. CLEARING AND GRADING ACTIVITIES WILL AFFECT AN AREA GREATER THAN 1 ACRE. A D.O.E. GENERAL STORM WATER PERMIT IS REQUIRED. DEFINITION OF PROPOSED WETLAND BOUNDARY AND BUFFER AS WELL AS TREE REMOVAL, GRADING AND TESC WITHIN THE BUFFER AND WETLAND ARE PRESENTED IN THE WATERSHED CO.'S PLAN SET.

GENERAL NOTES

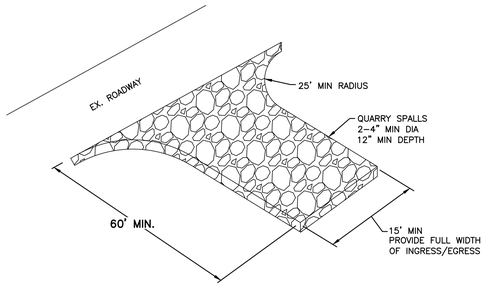
1. MITIGATED WETLAND & STREAM BOUNDARY & BUFFERS SHOWN. REFER TO THE WATERSHED CO. MITIGATION PLAN.

TESC NOTES

1. STOCKPILE AT EXISTING GRAVEL AREAS.
2. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR THE USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STRONG STORM EVENTS. IF THE FILTER BECOMES CLOGGED IT SHOULD BE REPLACED.
3. ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:
4. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP). EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIO-ENGINEERED SWALES.
5. CONSTRUCTION ACCESS SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
6. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR ANY OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
7. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
8. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT-OF-WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
9. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR DOWNSTREAM DRAINAGE.
10. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, STORM, AND SEWER SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
11. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
12. SILT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
13. MACHINERY ACCESS FOR DEMOLITION OF EX. SOUTHERLY HOUSE SHALL UTILIZE 5" WOOD CHIP MULCH OVERLAID WITH STEEL PLATE OR ¾ PLYWOOD TO PREVENT DISTURBANCE OF EX. TREE ROOTS.

CONSTRUCTION NOTES

1. ANY CHANGES TO APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
2. APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
3. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED.

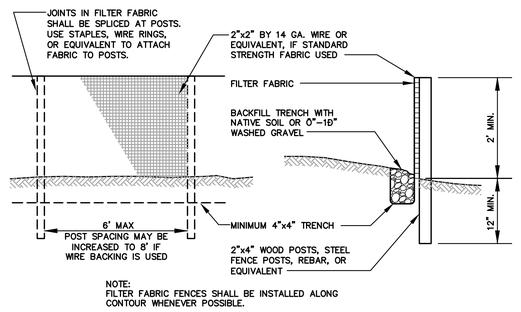


NOTES:

1. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
2. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT OFF SITE AND/OR ONTO PUBLIC RIGHT–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL QUARRY SPALLS AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OFF SITE AND/OR ONTO PUBLIC RIGHT–OF–WAY MUST BE REMOVED IMMEDIATELY.
3. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO LEAVING THE SITE. WHEN WASHING IS USED, IT SHALL BE DONE ON AN AREA STABILIZED WITH QUARRY SPALLS AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
4. INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

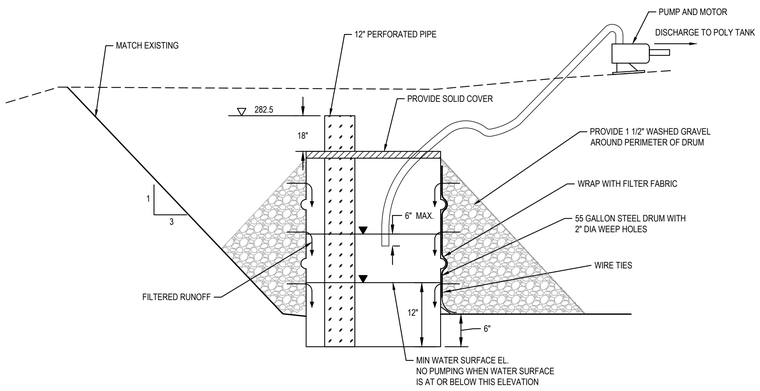
TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE



SILT FENCE

NOT TO SCALE



SEDIMENT CATCHMENT DETAIL

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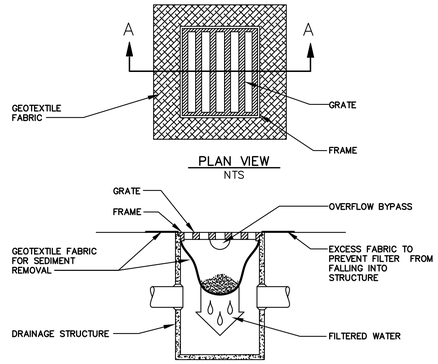
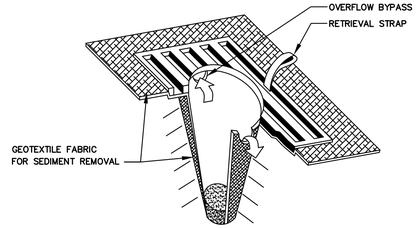


PLAN VIEW

NTS

SECTION A–A

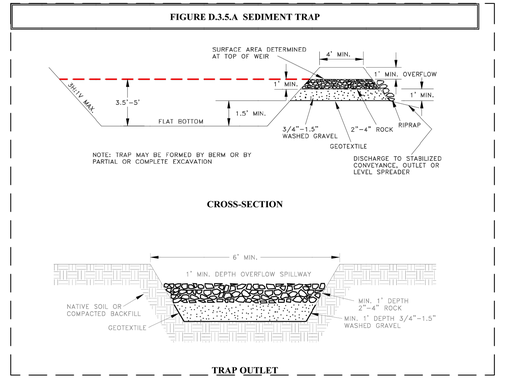
NTS



CATCH BASIN INSERT

NOT TO SCALE

FIGURE D.3.5.A SEDIMENT TRAP



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

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DAN A. FURR — STATE OF WASHINGTON — 46933 — REGISTERED PROFESSIONAL ENGINEER

6/22/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
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TESC NOTES

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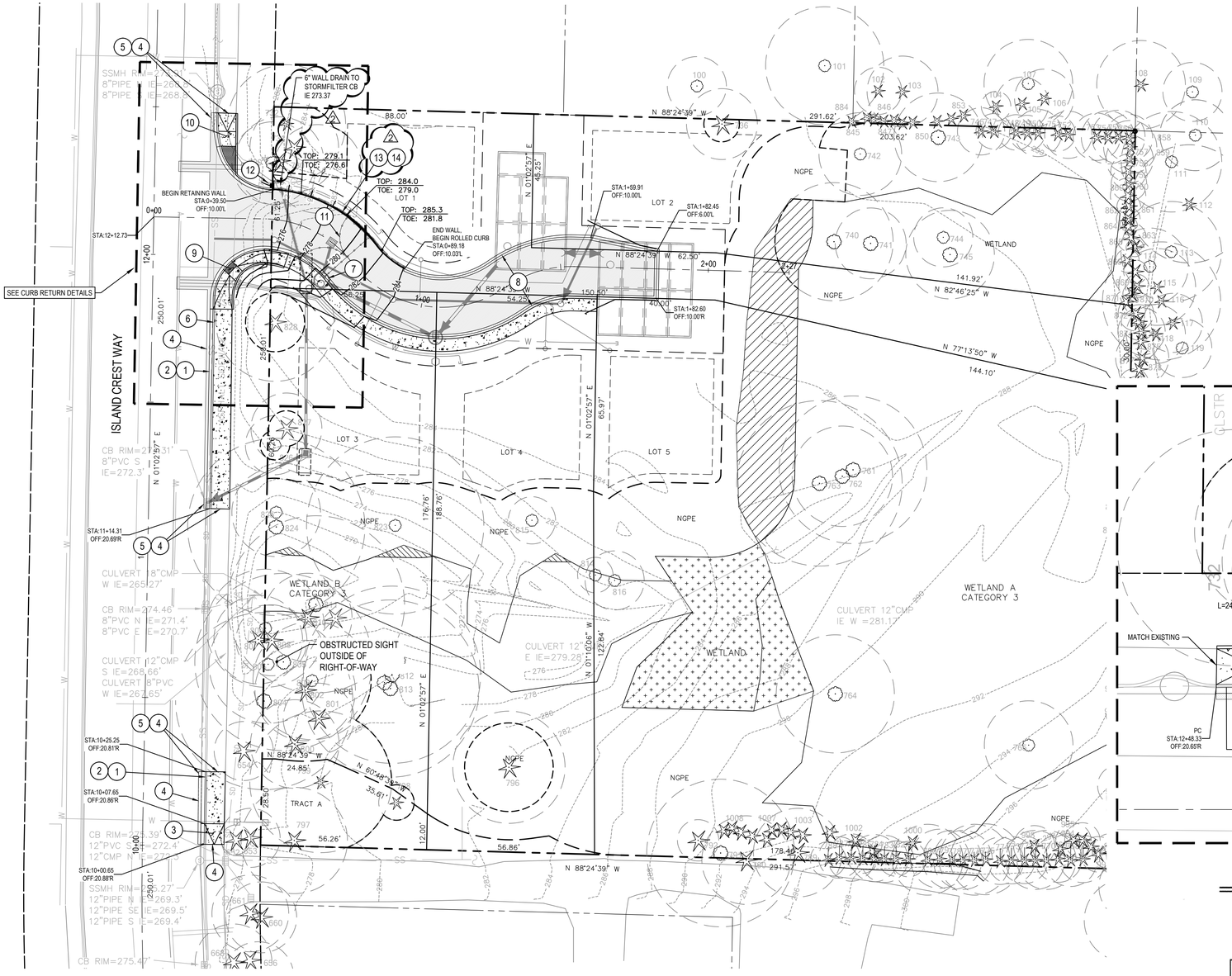
MERCERTECH PLAT



LEGEND

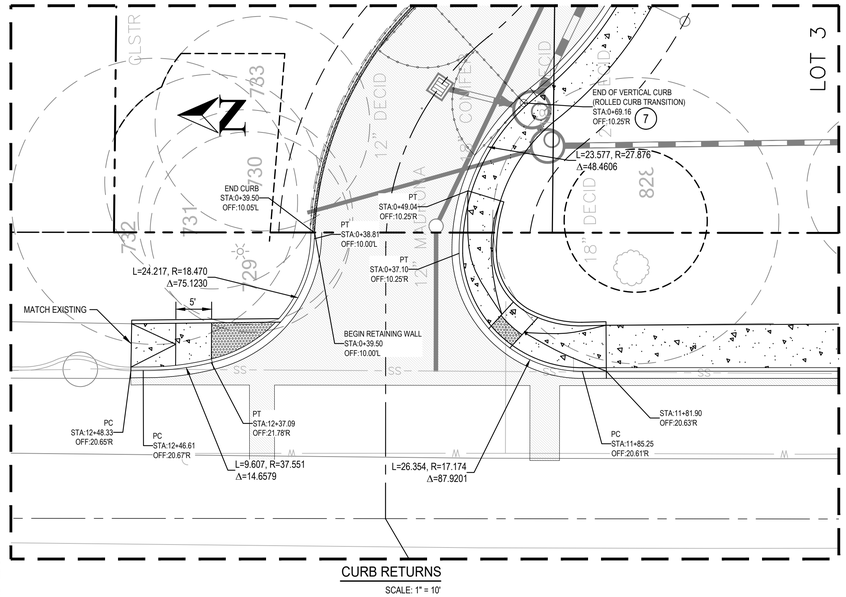
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPERTY BOUNDARY
- TREE PROTECTION ZONE
- WETLAND BUFFER LINE
- WETLAND AS BUFFER
- WETLAND TO BE REPLACED
- WETLAND REPLACEMENT AREA

CONSTRUCTION NOTES

1. CEMENT CONCRETE TRAFFIC CURB AND GUTTER. WSDOT STD PLAN F-10.12-04
2. CEMENT CONCRETE SIDEWALK. WSDOT STD PLAN F-30.10-04
3. CURB RAMP TO 7.5% DESIGN SLOPE, 8.3% MAX.
4. SAW CUT. ASPHALT: 1FT FROM EDGE OF EXISTING GUTTER; SIDEWALK, CURB/GUTTER SHOULD BE REMOVED TO NEXT CONCRETE JOINT
5. MATCH EXISTING CURB AND SIDEWALK
6. CEMENT CONCRETE CURB AND GUTTER PAN. WSDOT STD PLAN F-10.16-00
7. ROLLED CURB TO VERTICAL CURB TRANSITION
8. CURB 2, ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER. WSDOT STD PLAN F-10.18-02
9. PARALLEL CURB RAMP (TYPE A). WSDOT STD PLAN F-40.12-03
10. SINGLE DIRECTION CURB RAMP (TYPE A). WSDOT STD PLAN F-40.16-03
11. SECURITY FENCE BY OTHERS
12. MUTCD R3-5R RIGHT TURN ONLY SIGN; SEE DETAIL ON SHEET C3.1
13. LOCK + LOAD RETAINING WALL. SEE DETAILS ON SHEET C3.1
14. 4' HIGH CHAIN LINK FENCE, SEE DETAIL ON SHEET C3.1

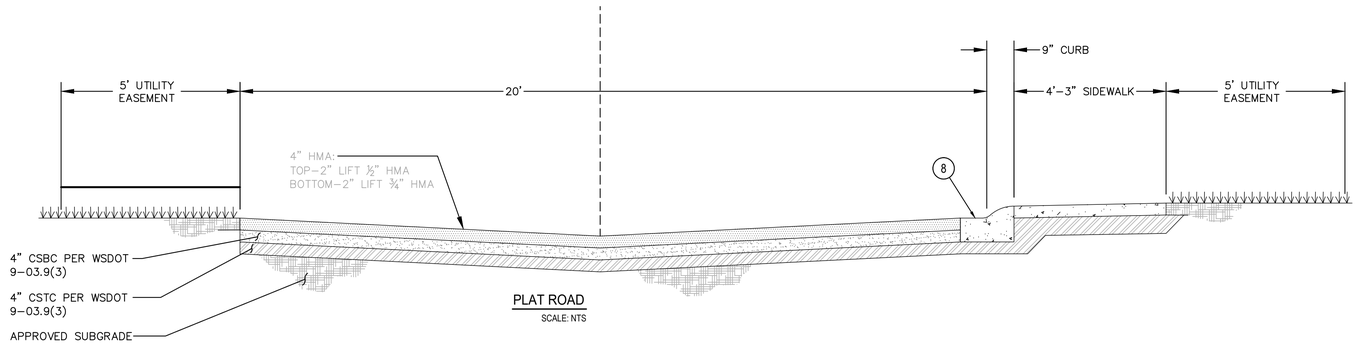
ROAD RESTORATION NOTE

1. THE LIMITS AND EXTENTS OF THE PAVEMENT IN THE PUBLIC RIGHT-OF-WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZING THE PROJECT.
2. IF DAMAGE OCCURS TO ADJACENT PROPERTIES CONTRACTOR TO REPLACE IN KIND OR BETTER AT NO EXPENSE TO THE CITY.



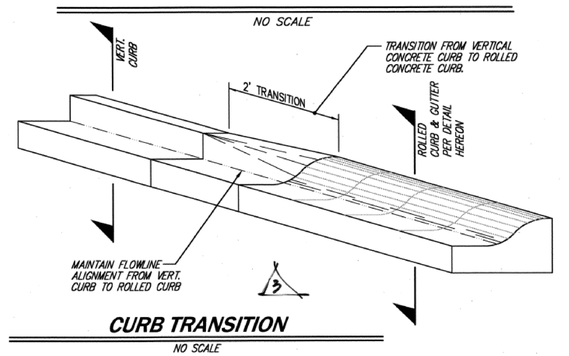
CURB RETURNS

SCALE: 1" = 10'



PLAT ROAD

SCALE: NTS



CURB TRANSITION

NO SCALE

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DEAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/22/2023

FURR ENGINEERING SERVICES,
4715 142nd Pl. SW #B,
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Sheet Title

GRADING AND ROAD PLAN

REVIEWED FOR CODE COMPLIANCE
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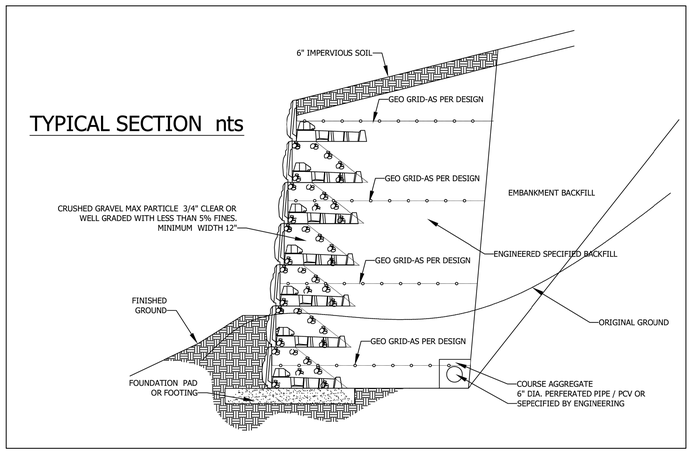
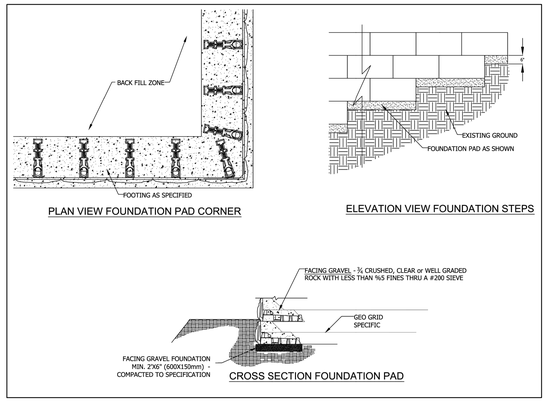
SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



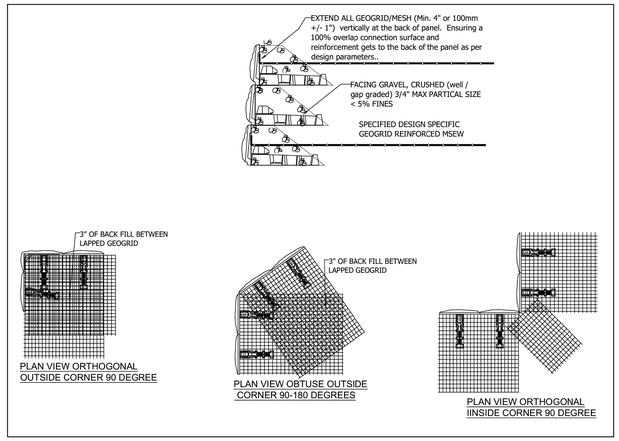
LOCK+LOAD RETAINING WALL
TYPICAL SECTION

NOT TO SCALE



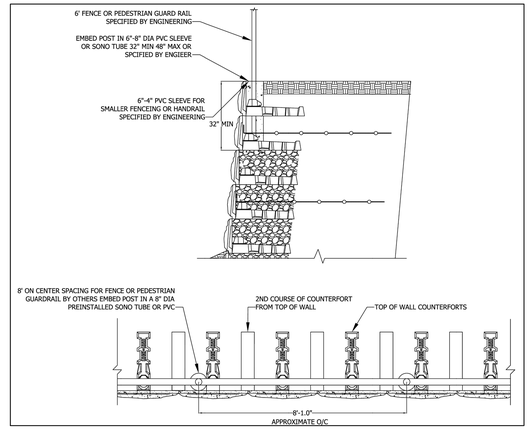
LOCK+LOAD RETAINING WALL
FOUNDATION PAD

NOT TO SCALE



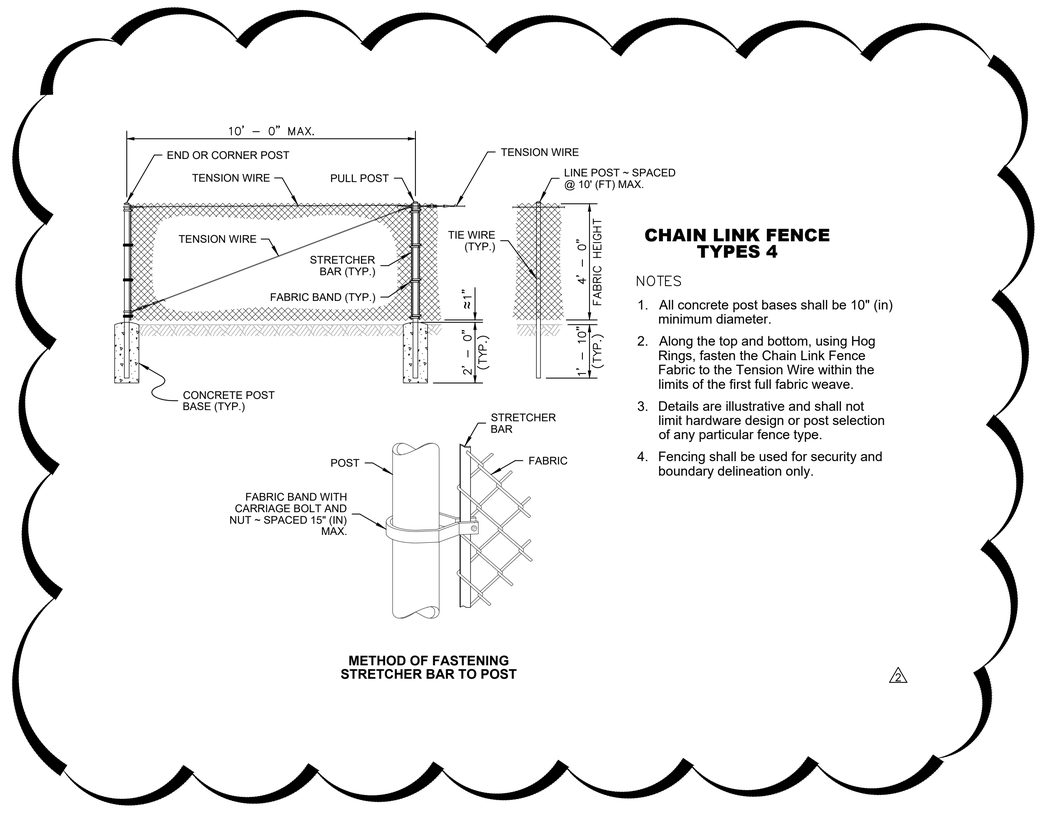
LOCK+LOAD RETAINING WALL
REINFORCEMENT LAYOUT

NOT TO SCALE



LOCK+LOAD RETAINING WALL
FENCE DETAIL

NOT TO SCALE

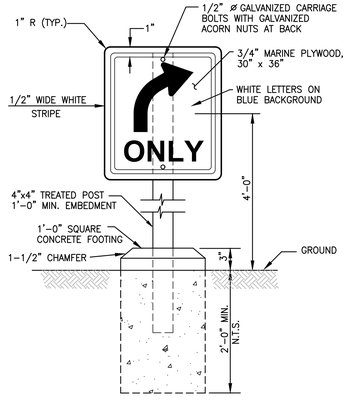


CHAIN LINK FENCE TYPES 4

NOTES

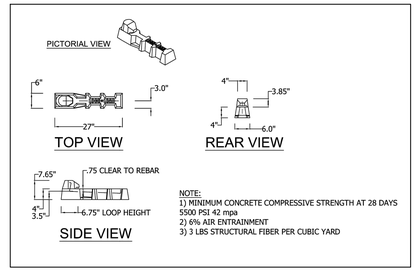
1. All concrete post bases shall be 10" (in) minimum diameter.
2. Along the top and bottom, using Hog Rings, fasten the Chain Link Fence Fabric to the Tension Wire within the limits of the first full fabric weave.
3. Details are illustrative and shall not limit hardware design or post selection of any particular fence type.
4. Fencing shall be used for security and boundary delineation only.

METHOD OF FASTENING STRETCHER BAR TO POST



R3-5R 'RIGHT TURN ONLY' SIGN DETAIL

NOT TO SCALE



LOCK+LOAD RETAINING WALL
STANDARD COUNTERFORT

NOT TO SCALE

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

20 10 0 20 40

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DEAN A. FURR — STATE OF WASHINGTON — 46933 — REGISTERED PROFESSIONAL ENGINEER

6/22/2023

FURR ENGINEERING SERVICES,
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

GRADING DETAILS

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
- NOTING -

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

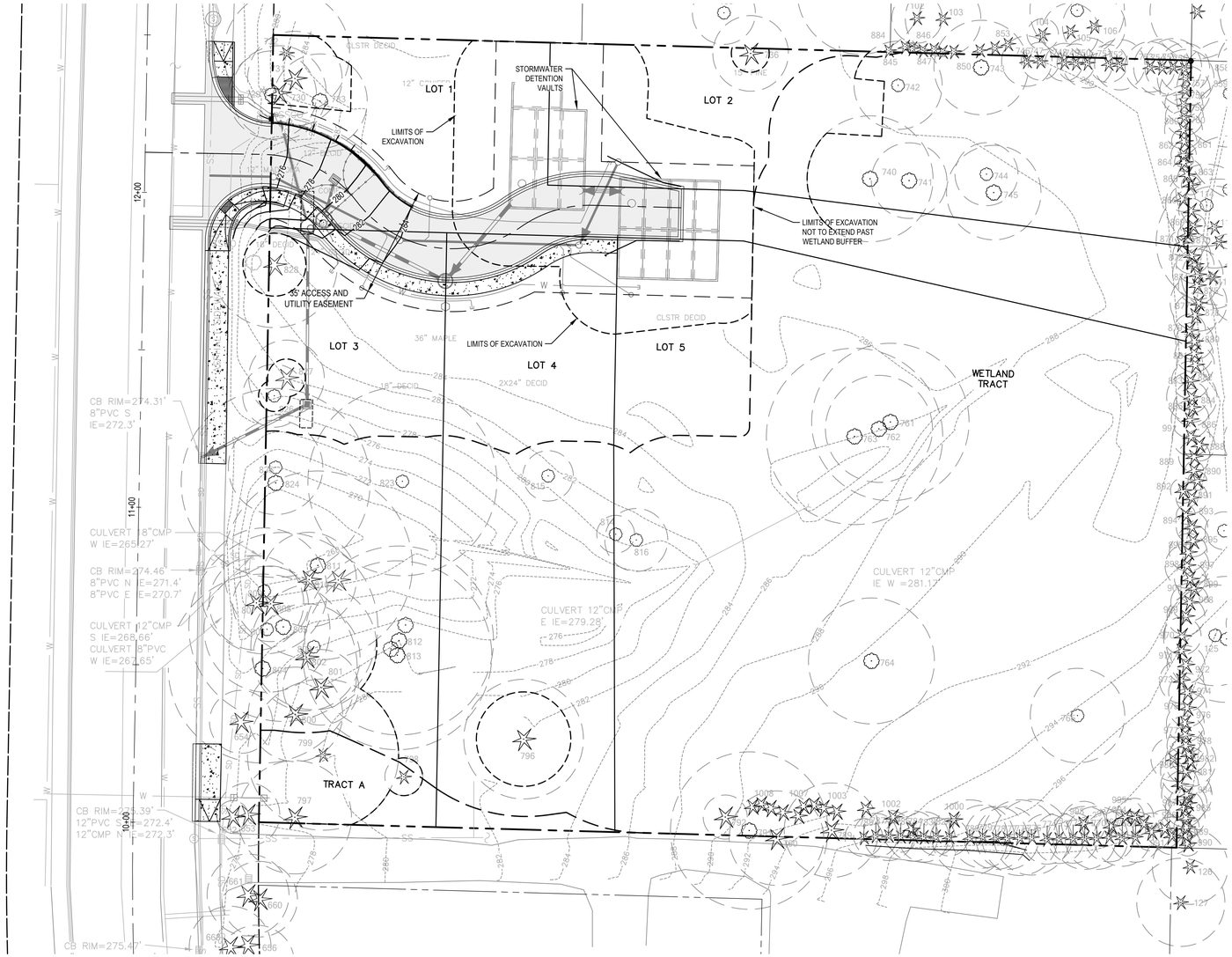
Scale:	
FES Project No:	2108
Date:	Sept 27, 202
Designed:	DAF
Drawn:	JAB
Checked:	DAF

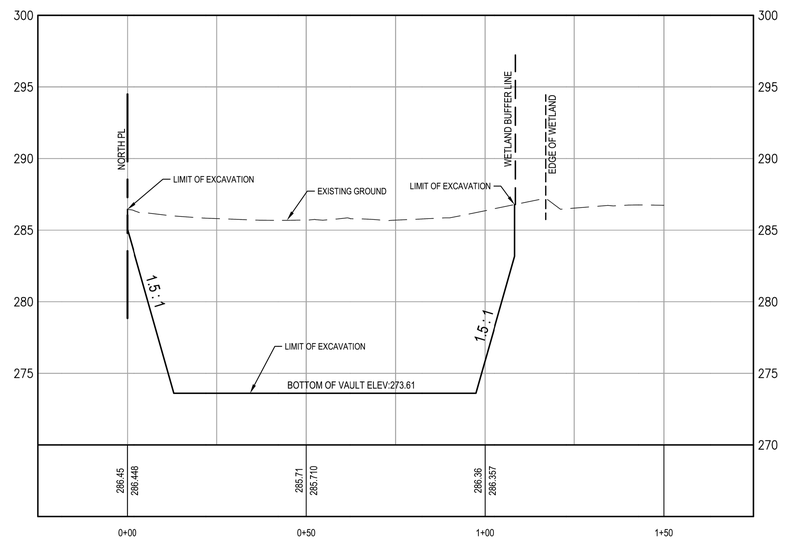
Sheet Number

C3.1

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT





VAULT EXCAVATION

SCALE: H:1"=20' ; V:1"=5'

LEGEND

- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPERTY BOUNDARY
- WETLAND BUFFER LINE
- LIMITS OF EXCAVATION

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:

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MERCER ISLAND, WA 98040

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6/22/2023

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Sheet Title

EXCAVATION PLAN

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY

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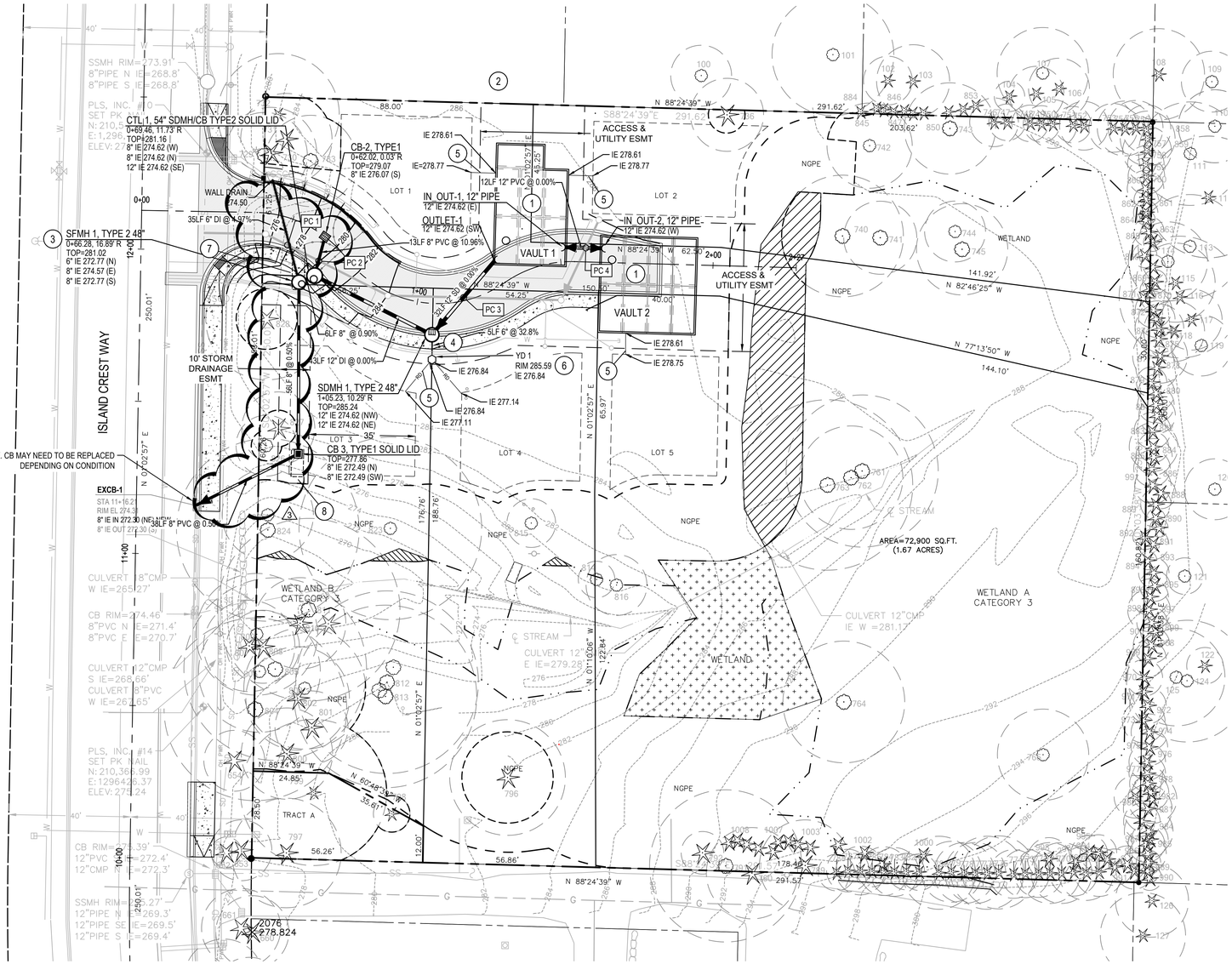
C3.2

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



CONSTRUCTION NOTES

1. DETENTION VAULTS - SEE DETAIL SHEET C4.4-C4.8
2. FLOW CONTROL STRUCTURE - SEE DETAIL SHEET C4.2
3. STORM FILTER MANHOLE - SEE DETAIL SHEET 4.3
4. 5 LF 6" PVC @ 2% MIN.
5. 4" ROOF DRAIN
6. YARD DRAIN - SEE DETAIL SHEET C4.2
7. DIRECTIONAL BORE ACCESS PIT; SEE HORIZONTAL BORING NOTE
8. DIRECTIONAL BORE RECEIVING PIT; SEE HORIZONTAL BORING NOTE

CROSSING TABLE - SEWER & STORM					
NO.	TOP OF SEWER PIPE ELEVATION	BOTTOM OF STORM PIPE ELEVATION	VERTICAL SEPARATION	BOTTOM OF SEWER PIPE ELEVATION	TOP OF STORM PIPE ELEVATION
PC 1	272.18	273.37	1.19FT		
PC 2	273.82	275.16	1.34 FT		
PC 3			3.40 FT	279.07	275.64
PC 4			6.49 FT	282.13	275.64

LEGEND

- CATCH BASIN TYPE 1
- CATCH BASIN TYPE 2
- YARD DRAIN
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPERTY BOUNDARY
- STORM DRAIN LINE
- ROOF DRAIN (6" @ 2% MIN.)
- WETLAND BUFFER LINE
- TREE PROTECTION ZONE
- WETLAND AS BUFFER
- WETLAND TO BE REPLACED
- WETLAND REPLACEMENT AREA

GENERAL NOTES

1. MITIGATED WETLAND & STREAM BOUNDARY & BUFFERS SHOWN. REFER TO THE WATERSHED CO. MITIGATION PLAN.

HORIZONTAL BORING NOTE

HORIZONTAL BORING ADJACENT TO AND WITHIN TREE ROOT ZONE SHOULD BE PERFORMED BY A QUALIFIED CONTRACTOR UNDER THE DIRECTION OF THE PROJECT ARBORIST AND THE CITY OF MERCER ISLAND ARBORIST IN ORDER TO COMPLY WITH TREE RETENTION REQUIREMENTS.

STORMWATER NOTES

1. ALL STORMWATER MAINS TO BE 8" SDR 35 PVC PIPE OR APPROVED EQUAL.
2. ROOF DOWNSPOUT STUBS SHALL BE 6" MIN SDR 35 PVC OR APPROVED EQUAL.
3. ROUTE FUTURE FOUNDATION DRAINS TO DAYLIGHT.
4. RAISE ALL STORM DRAINS, VALVE BOXES, MANHOLE COVERS AND MONUMENT COVERS TO MATCH ASPHALT FINISH GRADE. MONUMENT COVERS MUST BE RAISED WITHOUT DISTURBING MONUMENT. RISER EXTENSION CASTINGS ARE ACCEPTABLE.
5. DRIVEWAYS SHALL DRAIN TOWARDS ACCESS DRIVE OR OTHERWISE CONNECT TO ROOF DRAIN OR YARD DRAIN STUBS.
6. REFER TO DRAINAGE REPORT FOR SIZING INFORMATION.
7. BOTTOM OF BUILDING FOUNDATION FOR LOTS 1, 2 AND 5 MAX. ELEVATION 283.0.

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N

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DANIEL A. FURR — STATE OF WASHINGTON — 46933 — REGISTERED PROFESSIONAL ENGINEER

6/22/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

STORM WATER PLAN

REVIEWED FOR CODE COMPLIANCE July 05, 2023 SITE COPY PENDING

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

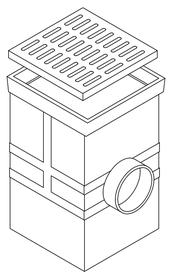
Scale:
FES Project No: 21084
Date: Sept 27, 2021
Designed: DAF
Drawn: JAB
Checked: DAF

Sheet Number

C4.0

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



#NDS 1210 12"x12" GRATE, GREY
#NDS 1210S 12"x12" GRATE, SAND
#NDS 1211 12"x12" GRATE, BLACK
#NDS 1212 12"x12" GRATE, GREEN
12"x12" GRATE FITS ALL CATCH BASINS, EXTENSIONS & ADAPTERS

PROVIDE:
#NDS 1216 6" EXTENSION
#NDS 1218 12" EXTENSION
AS REQUIRED.

#NDS 1213 12"x12" CATCHBASIN, SINGLE OUTLET
#NDS 1214 12"x12" CATCH BASIN, DOUBLE OUTLET

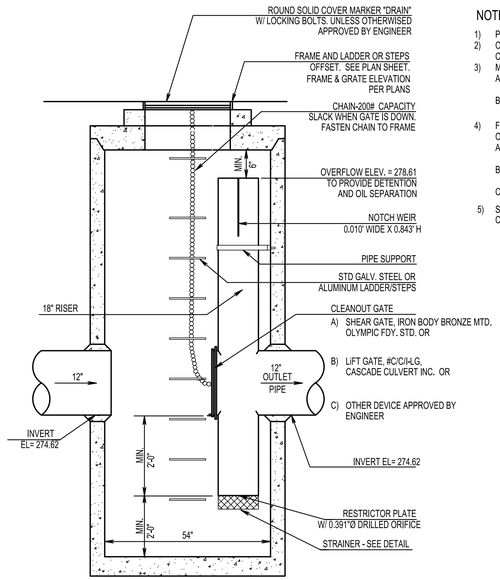
6" SD COUPLING SIZE, SINGLE OUTLET ACCOMODATES NDS 1212, 1211 OR 1210.
12"x12" GRATE AREA - 14" WITH 11" SQUARE BOTTOM.

12~4" SQUARE BOTTOM WITH 3" AREA BELOW OUTLET ALLOWS 363 CUBIC INCHES OF SUMP AREA. ADAPTABLE UP TO 8" PIPE OR DOWN TO 3" OR 4" PIPE.
6" SD COUPLING SIZE, DOUBLE OUTLET ACCOMODATES NDS 1212, 1211 OR 1210.
12"x12" GRATE AREA - 14" HIGH WITH 11" SQUARE BOTTOM.

12~4" SQUARE TOP WITH 3" AREA BELOW OUTLET ALLOWS 363 CUBIC INCHES OF SUMP AREA. ADAPTABLE UP TO 8" PIPE OR DOWN TO 3" TO 4" PIPE USING ADAPTER #643.

YARD DRAIN DETAIL

NO SCALE

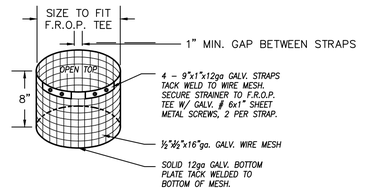


NOTES:

1) PIPE SIZES & SLOPES, SEE PLANS.
2) OUTLET CAPACITY NOT LESS THAN COMBINED INLETS
3) METAL PARTS:
   A) CORROSION RESISTANT OR GALVANIZED OR ALUMINIZED TYPE II,
   B) IF GALVANIZED STEEL PIPE, HAVE ASPHALT TREATMENT I.
4) FRAME & LADDER OR STEPS OFFSET SO:
   A) CLEANOUT GATE IS VISIBLE FROM TOP.
   B) CLIMBDOWN SPACE IS CLEAR OF RISER & CLEANOUT GATE.
   C) FRAME IS CLEAR OF CURB.
5) STRUCTURE SHALL BE A TYPE II CATCH BASIN MINIMUM.

FLOW CONTROL CB TYPE 2 54"

NO SCALE



STRAINER DETAIL

NO SCALE

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N

20 10 0 20 40
SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

STORM DETAILS

MERCER REVIEWED FOR CODE COMPLIANCE July 05, 2023 SITE COPY WASHINGTON

Revisions

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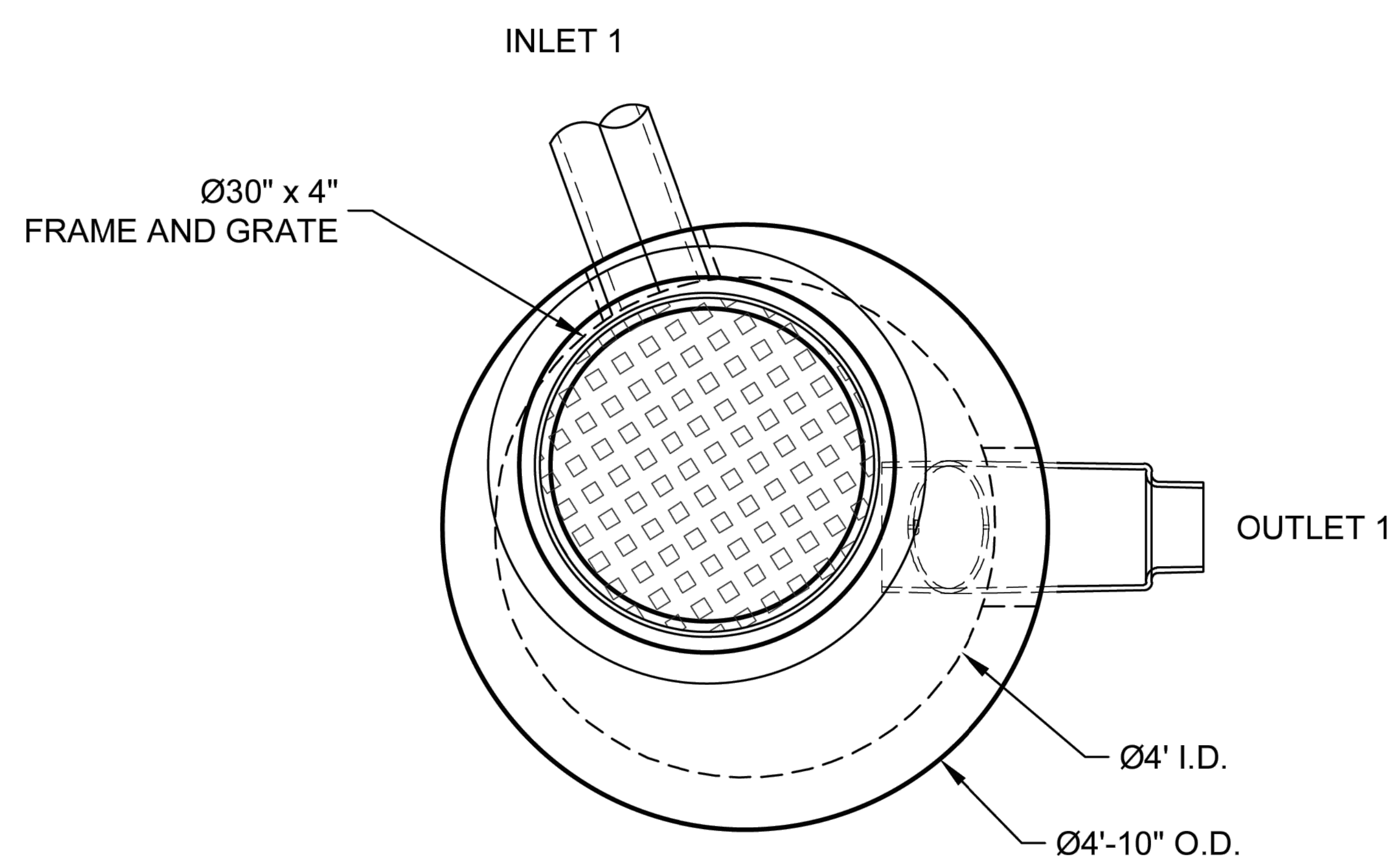
4.2

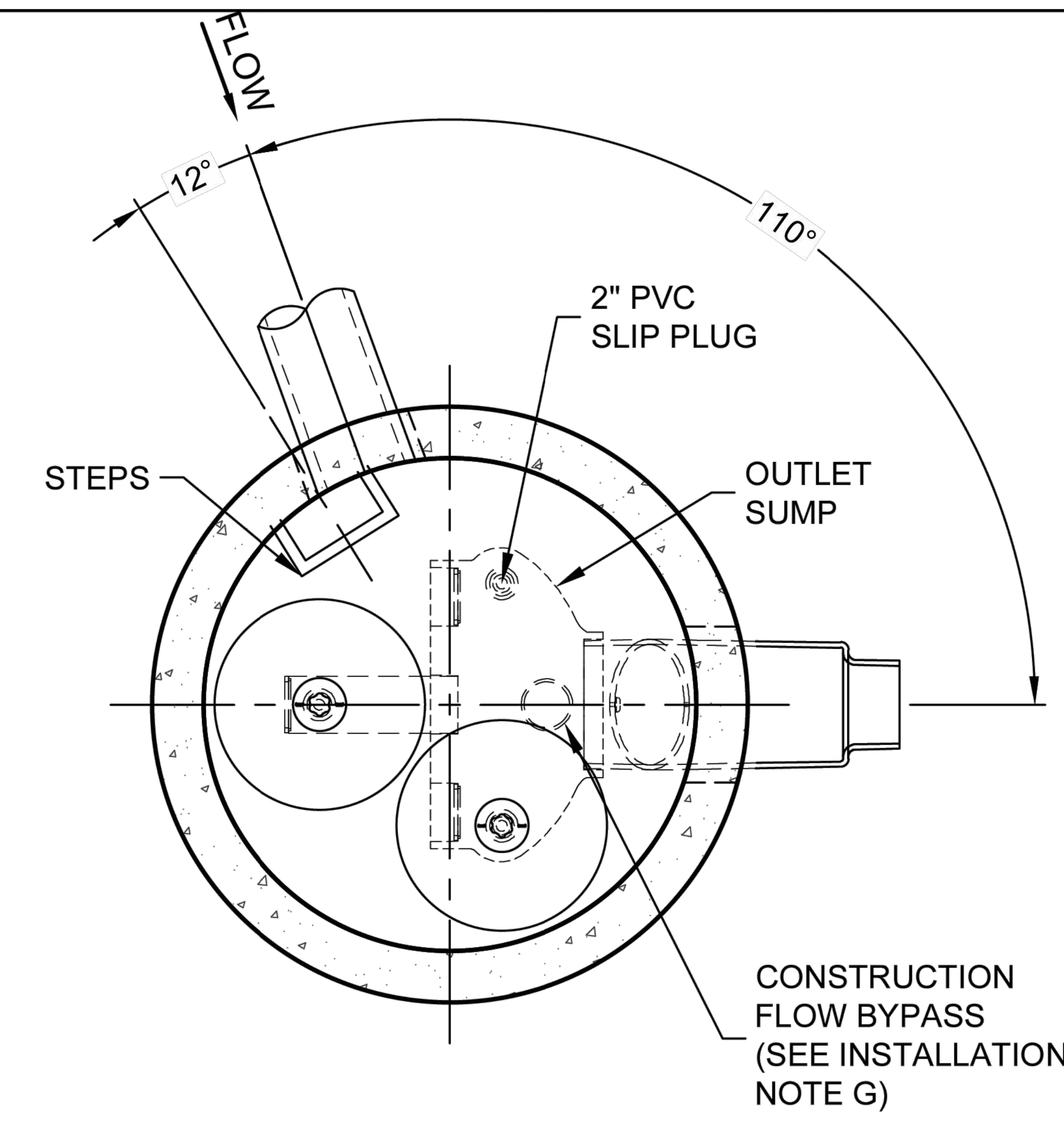
SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

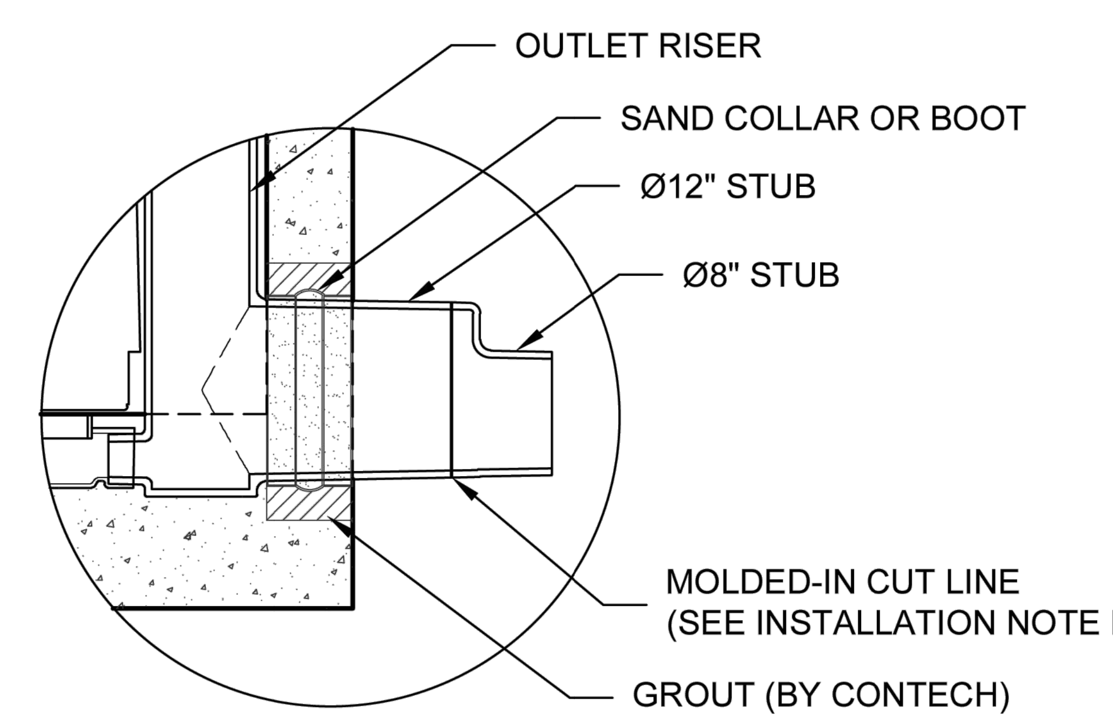


PLAN VIEW

CARTRIDGES AND FLOW KIT NOT SHOWN



SECTION A-A



OUTLET DETAIL

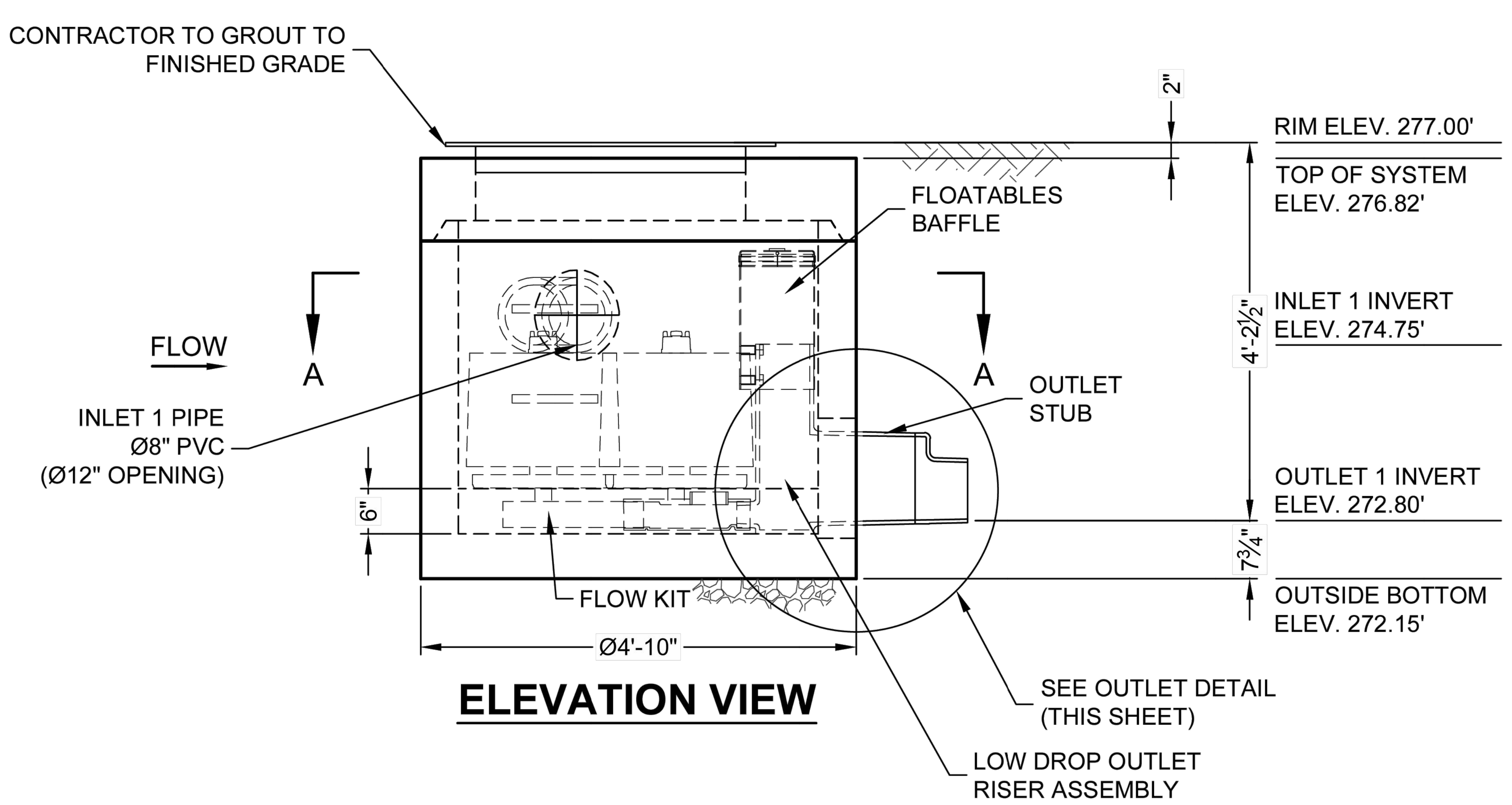
(ILLUSTRATION ONLY)

MATERIAL LIST (PROVIDED BY CONTECH)

COUNT	DESCRIPTION	INSTALLED BY
2	LOW DROP ZPG CARTRIDGE	CONTECH
3	5 GPM RESTRICTOR DISK (BLU)	CONTECH
1	2" PVC SLIP PLUG	CONTECH
1	40A FLOWKIT	CONTECH
1	LOW DROP OUTLET RISER ASSEMBLY	CONTECH
2	STEPS, P10CTS, LANE LADDER, OR EQUIV.	CONTECH
1	SEALANT FOR JOINTS (BY PRECASTER)	CONTRACTOR
1	Ø30" x 4" FRAME & GRATE, EJ#43600430A01, OR EQUIV.	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.014 CFS
PEAK FLOW RATE	0.281 CFS
RETURN PERIOD OF PEAK FLOW	100 YRS
FILTER MEDIA TYPE	ZPG



ELEVATION VIEW

PERFORMANCE SPECIFICATION

FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES.** FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **38 SECONDS**.
SPECIFIC FLOW RATE SHALL BE **1 GPM/SF (MAXIMUM).** SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM)**.

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S). ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET STUB AT MOLDED IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
G. CONTRACTOR TO INSTALL SUPPLIED PLUG IN CONSTRUCTION FLOW BYPASS WHEN SYSTEM IS BROUGHT ON LINE (PRESSURE FIT ONLY, DO NOT GLUE).

STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = 5500 LBS. OF 2 PIECES
BASE SECTION SHIPPED WITH CARTRIDGES INSTALLED
MAX FOOTPRINT = Ø4'-10"

CONTECH
PROPOSAL
DRAWING

CUZ001
LAYOUT 1A
5784 / CUZ

MARK	DATE	REVISION DESCRIPTION	BY

STORMFILTER SFMH48 - 569225-20
4320 ISLAND CREST WAY
MERCER ISLAND, WA
for SYSTEM: SFMH

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
StormFilter

DATE: 04/20/18	SCALE: 3/8" = 1'-0"
DESIGNED: MSG	DRAWN: SKJ
CHECKED:	APPROVED:
PROJECT No.: 569225	SEQUENCE No.: 20
SHEET: 1 OF 1	

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DEAN A. FURR
STATE OF WASHINGTON
46937
REGISTERED PROFESSIONAL ENGINEER
6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

STORM FILTER DETAIL

CITY OF MERCER ISLAND
REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY

Revisions

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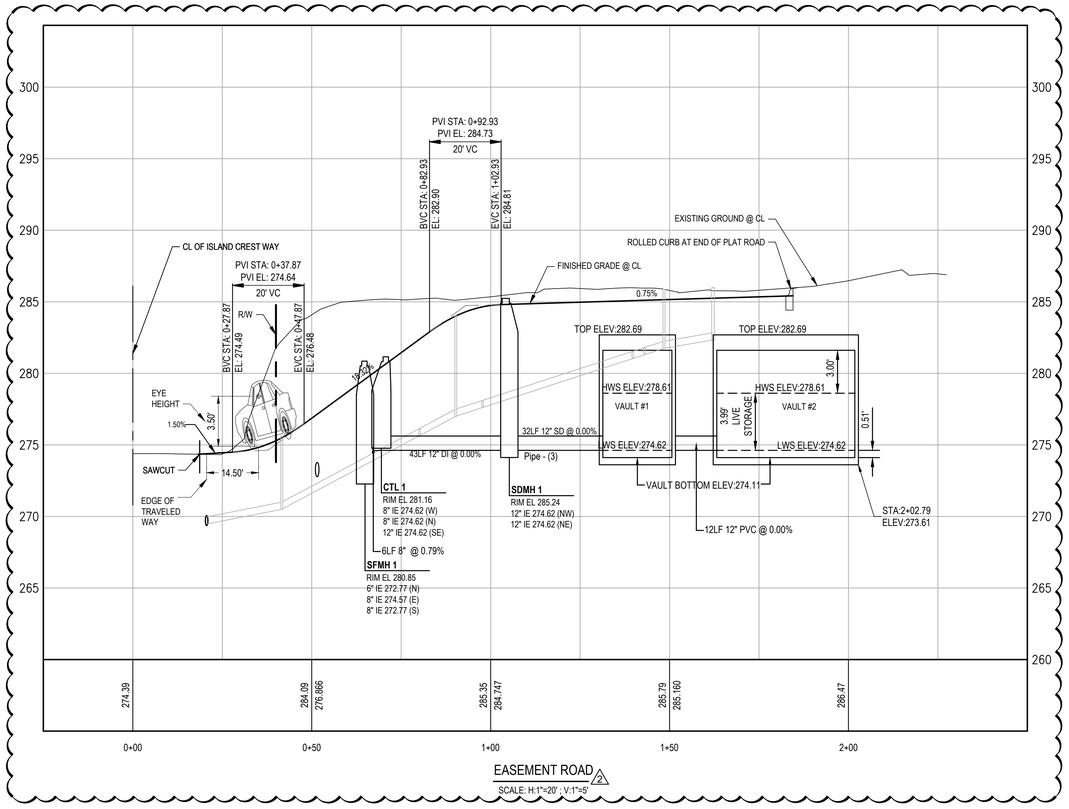
20 10 0 20 40
SCALE: 1 INCH = 20 FEET

Sheet Number

4.3

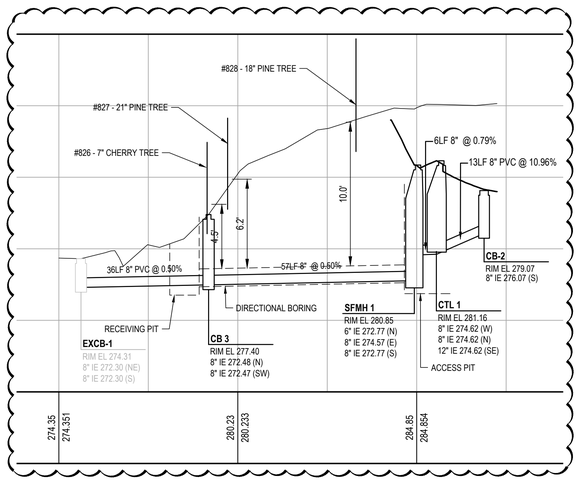
SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



EASEMENT ROAD 2

SCALE: H:1"=20' ; V:1"=5'



ISLAND CREST WAY (IN EASEMENT) 2

SCALE: H:1"=20' ; V:1"=5'

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:

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

N

20 10 0 20 40

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DANIEL A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

STORM DRAINAGE PROFILES

MERCER ISLAND REVIEWED FOR CODE COMPLIANCE July 05, 2023 SITE COPY

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

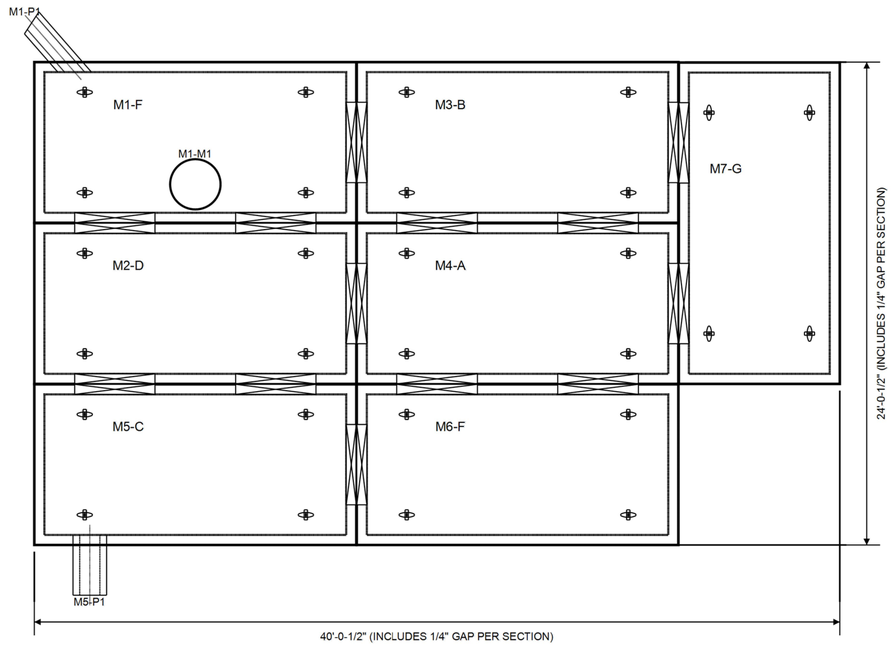
Scale:	
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	TJW
Checked:	DAF

Sheet Number

C4.1

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



PLAN VIEW
SCALE: 3/16" = 1'-0"

MODULE NOTES		
TYPE	QUANTITY	HEIGHT
F	2	8
D	1	8
B	1	8
A	1	8
C	1	8
G	1	8
TOTAL	7	
VOLUME	6,182	CUBIC FEET

PIPE SCHEDULE		
PIPE	SIZE	INVERT
M1-P1	12" RCP	0.00'
M5-P1	12" RCP	0.00'

MANHOLE SCHEDULE		
MANHOLE	TYPE	RIM
M1-M1	30" DIA. F&C	0.00'

DESIGN NOTES:
1. DESIGN LOADINGS:
   - A. AASHTO HS-20-44 W/ IMPACT.
   - C. ASSUMED WATER TABLE = BELOW BOTTOM OF PRECAST.
   - D. DRY LATERAL EARTH PRESSURE (EFP) = 45 PCF.
   - E. LATERAL LIVE LOAD SURCHARGE = 80 PSF (APPLIED TO 8' BELOW GRADE).
   - F. NO LATERAL SURCHARGE FROM ADJACENT BUILDINGS, WALL PIERS, OR FOUNDATIONS.
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 6,000 PSI.
3. STEEL REINFORCEMENT: REBAR, ASTM A-615 OR A-706, GRADE 60.
4. MESH REINFORCEMENT: ASTM A-1064, S1.2, GRADE 80.
5. CEMENT: ASTM C-150 SPECIFICATION.
6. STORMCAPTURE MODULE TYPE = DETENTION
7. REQUIRED BASE LAYER DEPTH = 2" SAND BEDDING LAYER.
8. REQUIRED NATIVE ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF. NATIVE SOIL SHOULD BE LEVEL/SCREEDED AND COMPACTED ADEQUATELY TO ALLOW FOR REQUIRED BEARING CAPACITY.
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   - B. ASTM C 891
   - C. ASTM C 913
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NOTES TO REVIEWING ENGINEER:
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Detention/ Infiltration

- PRELIMINARY – NOT FOR CONSTRUCTION

Oldcastle Infrastructure™ A CRH COMPANY

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STORMCAPTURE ®

SC2 DETENTION SYSTEM

CUSTOMER:
Furr Engineering Services

JOB NAME & LOCATION:
Mercertech Plat Detention - Vault 1 (Revision

DRAWING NUMBER	REVISION	SHEET
WSCDD-3051-0_SC2_DT	REV DATE 3/3022	1 OF 2

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:
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4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DEAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

DETENTION VAULT 1

MERCER ISLAND REVIEWED FOR CODE COMPLIANCE July 05, 2023 SITE COPY WASHINGTON

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

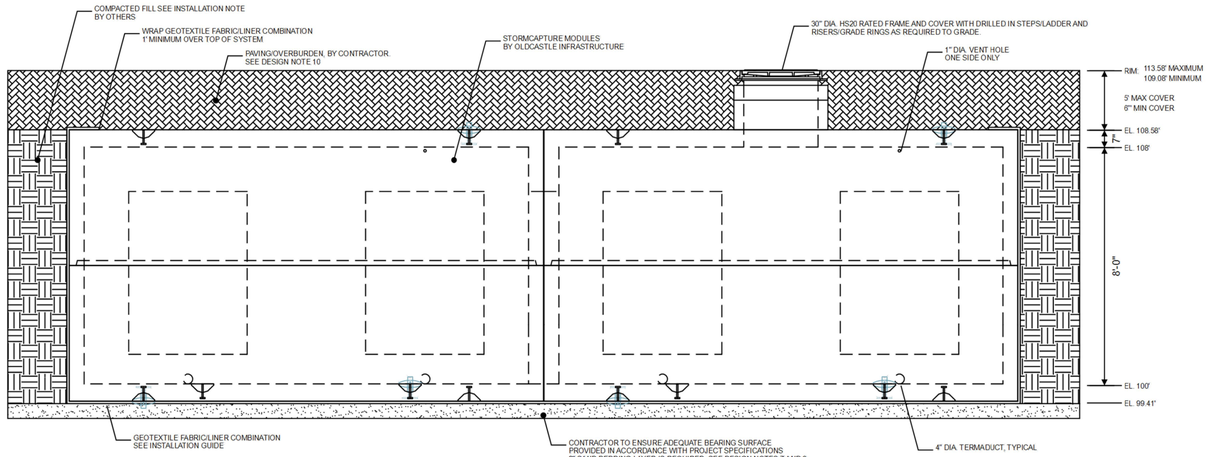
Scale:
FES Project No: 21084
Date: Sept 27, 2021
Designed: DAF
Drawn: JAB
Checked: DAF

Sheet Number

C4.4

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



TYPICAL ELEVATION
SCALE: 3/8" = 1'-0"

- PRELIMINARY – NOT FOR CONSTRUCTION

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STORMCAPTURE ®

SC2 DETENTION SYSTEM

CUSTOMER:
Furr Engineering Services

JOB NAME & LOCATION:
Mercertech Plat Detention - Vault 1 (Revision 1) - Mercer Island Washington

DRAWING NUMBER	REVISION	SHEET
WSCDD-3051-0_SC2_DT	REV DATE 3/3022	2 OF 2

Detention/ Infiltration

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:

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MERCER ISLAND, WA 98040

Key Plan

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DANIEL A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

DETENTION VAULT 1

CITY OF MERCER ISLAND — REVIEWED FOR CODE COMPLIANCE — July 05, 2023 — SITE COPY

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:

FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

Sheet Number

C4.5

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

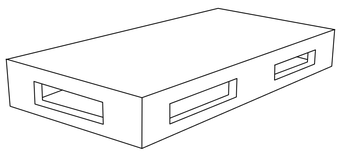
Module Sizes & Capacities

Modules are 8'x16' outside dimensions.
Capacity varies by configuration of openings.

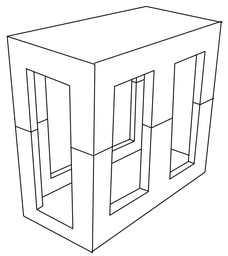
INSIDE DIMENSIONS (FT)	CAPACITY RANGE (FT3
7x15x2	210-212
7x15x3	315-325
7x15x4	420-442
7x15x5	525-559
7x15x6	630-678
7x15x7	735-793
7x15x8	840-910

INSIDE DIMENSIONS (FT)	CAPACITY RANGE (FT3
7x15x9	945-1,027
7x15x10	1,050-1,140
7x15x11	1,155 - 1,257
7x15x12	1,260 - 1,374
7x15x13	1,365 -1,491
7x15x14	1,470 - 1,608

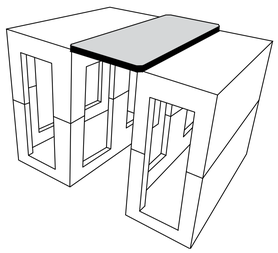
StormCapture Modules



SC1 - Single piece modules can be used for applications from 2' to 7' tall. Appropriate for cisterns, infiltration, detention and retention systems. SC1 modules are typically installed on minimally compacted gravel base, depending on specific project requirements.

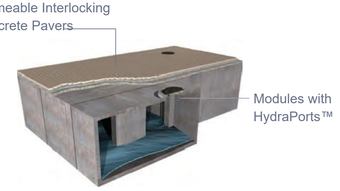


SC2 - Two piece modules can be used for applications from 7' to 14' tall for maximum storage capacity in a condensed footprint. Appropriate for cisterns, infiltration, detention and retention systems. SC2 modules are typically installed on compacted native subgrade.



Link Slab - Unique design allows for significant reduction in the quantity of modules and associated costs, while providing maximum storage capacity.

INSTALLED IN JUST ONE DAY



PERMECAPTURE

CISTERNS

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MERCER ISLAND, WA 98040

Key Plan

Registration

DANIEL A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER
6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

DETENTION VAULT DETAILS

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
KING COUNTY, WASHINGTON

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

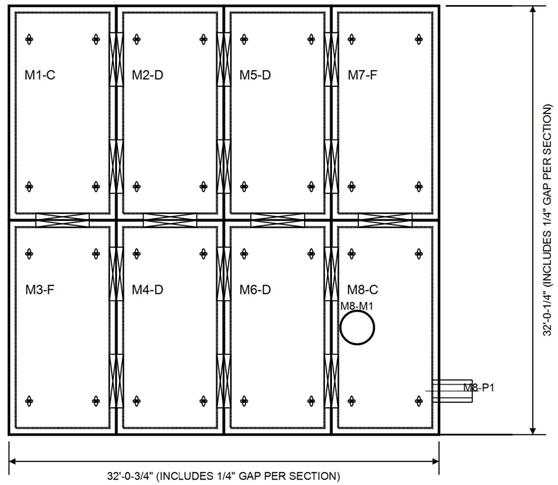
Scale:
FES Project No: 21084
Date: Sept 27, 2021
Designed: DAF
Drawn: JAB
Checked: DAF

Sheet Number

C4.6

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



PLAN VIEW
SCALE: 1/8" = 1'-0"

MODULE NOTES		
TYPE	QUANTITY	HEIGHT
C	2	8
D	4	8
F	2	8
TOTAL	8	
VOLUME	7,088	CUBIC FEET

PIPE SCHEDULE		
PIPE	SIZE	INVERT
M8-P1	12" RCP	0.00'

MANHOLE SCHEDULE		
MANHOLE	TYPE	RIM
M8-M1	30" DIA. F&C	0.00'

DESIGN NOTES:

1. DESIGN LOADINGS:
   - A. AASHTO HS-20-44 W/ IMPACT.
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   - D. DRY LATERAL EARTH PRESSURE (EFP) = 45 PCF.
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Detention/ Infiltration

- PRELIMINARY – NOT FOR CONSTRUCTION

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STORMCAPTURE ®

SC2 DETENTION SYSTEM

CUSTOMER:

Furr Engineering Services

JOB NAME & LOCATION:

Mercertech Plat Detention - Vault 2

DRAWING NUMBER	REVISION	SHEET
WSCDD-3055-0_SC2_DT	REV DATE 3/30/22	1 OF 2

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4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DEAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

DETENTION VAULT 2

REVIEWED FOR CODE COMPLIANCE July 05, 2023 SITE COPY

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:

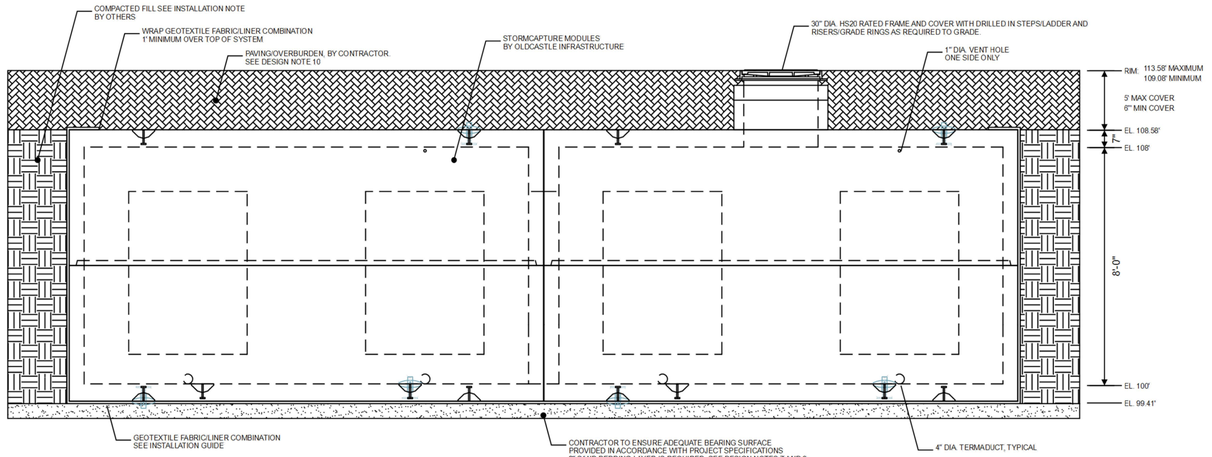
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

Sheet Number

C4.7

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



TYPICAL ELEVATION
SCALE: 3/8" = 1'-0"

- PRELIMINARY –
NOT FOR CONSTRUCTION

Oldcastle Infrastructure
A CRH COMPANY

Ph: 800.579.8819 | www.oldcastleinfrastructure.com/stormwater

STORMCAPTURE ®	
SC2 DETENTION SYSTEM	
CUSTOMER:	
Furr Engineering Services	
JOB NAME & LOCATION:	
Mercertech Plat Detention - Vault 2 (Revision1) - Mercer Island,Washington	
DRAWING NUMBER	REVISION / REV DATE 3/3022 / SHEET 2 OF 2
WSCDD-3055-0_SC2_DT	

Detention/ Infiltration

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6/1/2023

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4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

DETENTION VAULT 2

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
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CITY OF MERCER ISLAND

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:

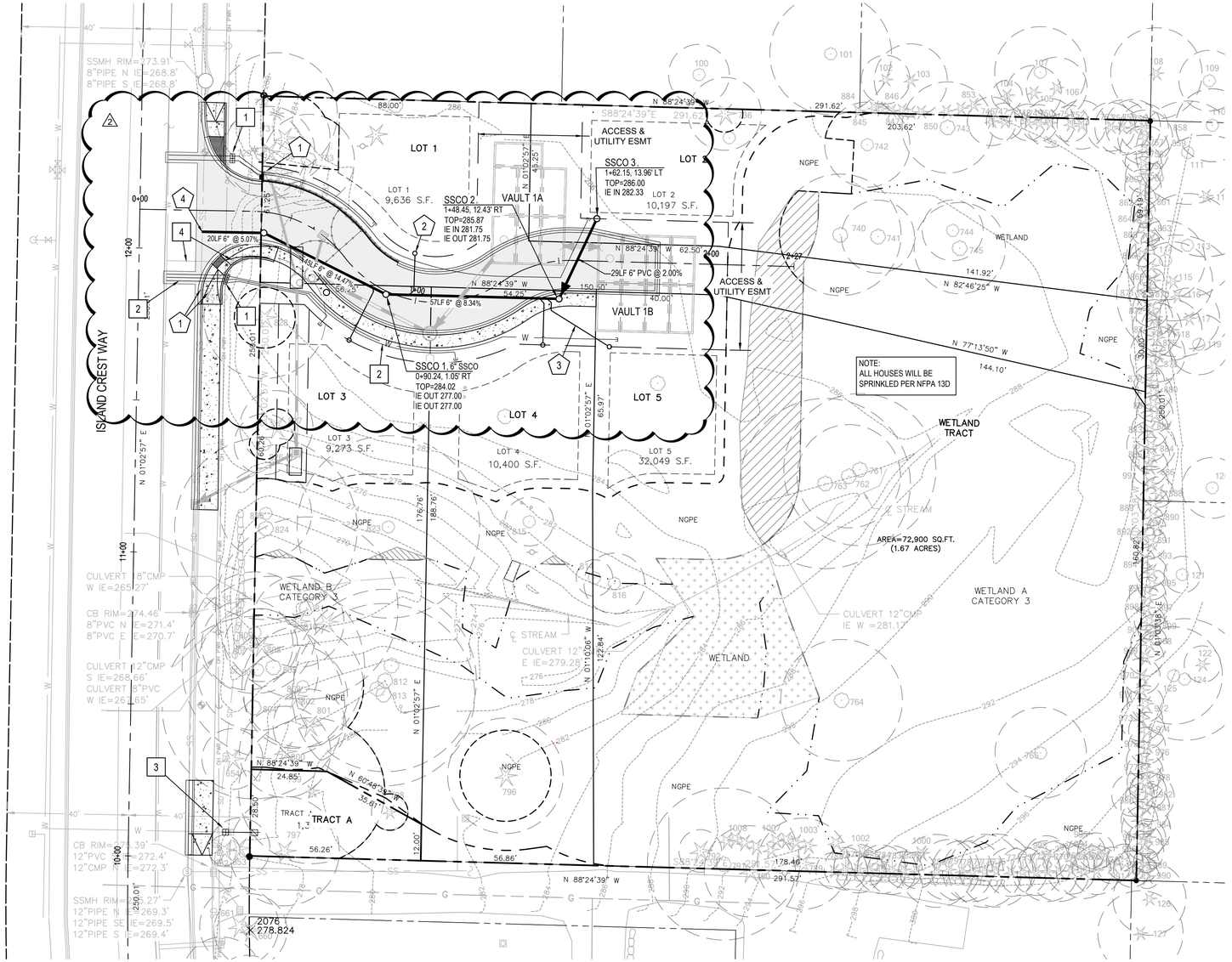
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

Sheet Number

C4.8

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT



WATER INSTALLATION NOTES

1. 1" WATER METER PER DETAIL SHEET C5.1
2. 1-1/2" WATER SERVICE LINES AND 1-1/2" WATER SUPPLY LINES (TYP)
3. UPGRADE EX. 5/8" WATER METER TO 1". REUSE EX. WATER SERVICE FOR IRRIGATION TO TRACT. INSTALL DCVA AT BACKSIDE OF RIGHT OF WAY
4. REMOVE EX METER AND ABANDON EX WATER SERVICE

SEWER INSTALLATION NOTES

1. REMOVE EXISTING SSCO - ABANDON EXISTING SS 6" STUB
2. 6" SSCO PER COMI DETAIL S-19 SHEET C5.2 (TYP)
3. 6" PVC PIPE (TYP) SEE TABLE BELOW
4. CONNECT TO EXISTING MAIN PER COMI DETAIL S-17 SHEET C5.1

LEGEND

- CATCH BASIN TYPE 1
- CATCH BASIN TYPE 2
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPERTY BOUNDARY
- STORM DRAIN LINE
- ROOF DRAIN (RD)
- WETLAND BUFFER LINE
- TREE PROTECTION ZONE
- SANITARY SEWER SERVICE (SS)
- SEWER SERVICE CLEANOUT
- WATER SERVICE AND METER
- IRRIGATION METER

SIDE SEWER SERVICE TABLE			
LOT #	SSCO IE	IE AT 6"	SLOPE
1	282.56	277.63	35.5%
3	281.00	276.27	24.1%
4	282.56	281.86	4.5%
5	283.00	281.91	4.0%

WATER NOTES

1. INSTALL ALL WATER METERS PER DETAIL W-13. ALL WATER METERS SHALL BE 1" AND SERVED BY INDIVIDUAL SERVICE LINES. INSTALL 1" TYPE K SOFT COPPER TUBING BETWEEN EX. WATER MAIN AND EACH METER. PRIVATE WATER SERVICE LINES SHALL BE 1.5" DR 9 OR 11 HDPE. SLEEVES WHERE SHOWN SHALL BE 4" SDR 35 PVC OR APPROVED EQUAL.
2. CONSTRUCTION OF ALL WATER FACILITIES SHALL CONFORM TO THE CITY OF MERCER ISLAND REQUIREMENTS AND STANDARD DETAILS.
3. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
4. LOCATE WATER SERVICE STUB, AT EDGE OF EASEMENT OR WHERE OTHERWISE SHOWN.
5. WATER SERVICE INSTALLATION FOR LOTS 1 AND 2 SHALL BE PERFORMED TO ENSURE RETENTION OF THE ADJACENT TREES. AIR TRENCHING, HAND EXCAVATION, AND/OR TRENCHLESS METHODS MAY BE REQUIRED. COORDINATE METER LOCATION AND INSTALLATION WITH THE CITY AND PROJECT ARBORIST.

SEWER NOTES

1. CONSTRUCTION OF ALL SEWER FACILITIES SHALL CONFORM TO THE CITY OF MERCER ISLAND REQUIREMENTS AND STANDARD DETAILS DATED JUNE 5, 2009, INCORPORATED BY REFERENCE.
2. 6" SIDE SEWER CONNECTION AND STUB PER CITY OF MERCER ISLAND STANDARD DETAIL S-17.
3. SEWER PIPE BEDDING PER CITY STANDARD DETAIL S-4, BACKFILL PER S-3.
4. CLEANOUTS PER DETAIL S-19.
5. LOCATE SEWER STUB AT EDGE OF EASEMENT.
6. ALL INDIVIDUAL SIDE SEWERS SHALL HAVE 2% SLOPE.

GENERAL NOTES

1. MITIGATED WETLAND & STREAM BOUNDARY & BUFFERS SHOWN. REFER TO THE WATERSHED CO. MITIGATION PLAN.

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:
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811 Know what's below. Call before you dig.

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DAN A. FURR — STATE OF WASHINGTON — 46932 — REGISTERED PROFESSIONAL ENGINEER

6/22/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

SEWER & WATER PLAN

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
PENDING

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

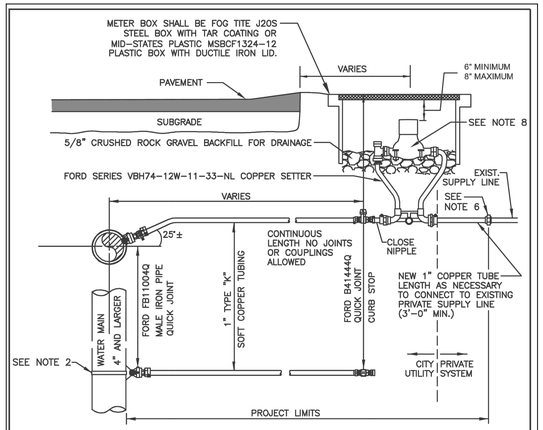
Scale:
FES Project No: 21084
Date: Sept 27, 2021
Designed: DAF
Drawn: JAB
Checked: DAF

Sheet Number

C5.0

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

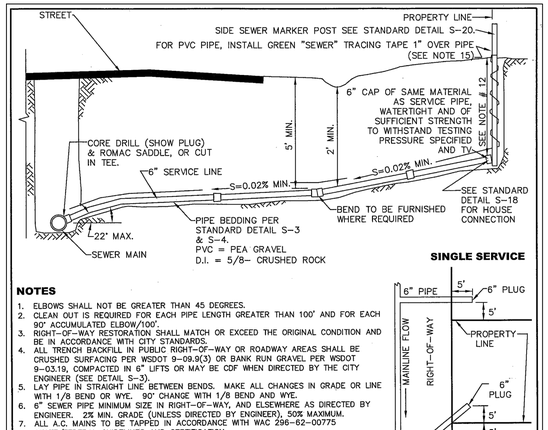


NOTES

1. WATER SERVICES SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT DATED 01/04/2014.
2. ON EXISTING WATER MAINS USE NYLON COATED D.I. SADDLE WITH STAINLESS STEEL DOUBLE STRAPS, ROMAC 202NS, OR APPROVED EQUAL.
3. MINIMUM DISTANCE BETWEEN CORP STOPS SHALL BE 18". MINIMUM DISTANCE BETWEEN TAPS, BETWEEN CORP STOP AND PIPE ENDS SHALL BE 24", ALL HORIZONTALLY STAGGERED.
4. PLASTIC METER BOXES SHALL NOT BE INSTALLED WITHIN ROADWAY, SIDEWALK, OR DRIVEWAYS.
5. UPON CITY ENGINEER'S APPROVAL, METER BOXES ARE ALLOWED TO BE INSTALLED IN PORTLAND CEMENT CONCRETE PAVEMENT OR SIDEWALK.
6. WHEN CONNECTING TO EXISTING PRIVATE SUPPLY LINE CONTAINING FERROUS METAL, PROVIDE INSULATING COUPLING (DB SERIES WITH C21 SERIES ADAPTERS) AND PROVIDE REDUCER AS NECESSARY TO MATCH EXISTING PRIVATE SUPPLY LINE DIAMETER.
7. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN AND STRAIGHT TO WATER METER, UNLESS OTHERWISE APPROVED BY CITY ENGINEER. PROVIDE WINDING SLACK IN THE SERVICE LINE BETWEEN THE MAIN AND WATER METER.
8. WATER METER SUPPLIED BY CITY.
9. ALL FITTINGS TO BE BRASS COMPRESSION TYPE, FORD QUICK JOINT OR EQUAL.
10. NO SERVICE CONNECTIONS BETWEEN BLOW-OFF AND END OF MAIN.

CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
1" WATER METER INSTALLATION

02-05-2021	NO SCALE	W-13
REV DATE		APPROVED



NOTES

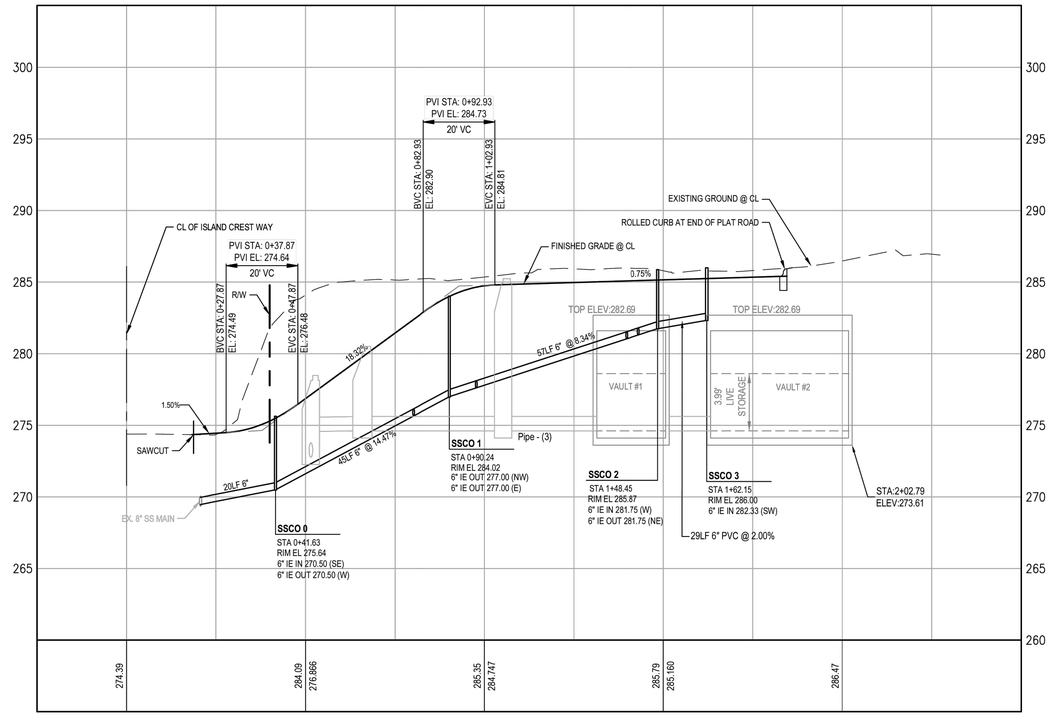
1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARDS.
4. ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS OR MAY BE CDF WHEN DIRECTED BY THE CITY ENGINEER (SEE DETAIL S-3).
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MIN. GRADE (UNLESS DIRECTED BY ENGINEER), 50% MAXIMUM.
7. ALL A.C. MAINS TO BE TAPPED IN ACCORDANCE WITH WAC 296-62-00775 STATE/FEDERAL GUIDELINES AND CERTIFICATION.
8. CONSTRUCTION IN RIGHT-OF-WAY MUST BE DONE BY A REGISTERED AND LICENSED CONTRACTOR.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY SEWER ORDINANCES.
10. WHERE CITY ENGINEER ALLOWS SIDE SEWER CONNECTIONS TO MANHOLE, INVERT OF SIDE SEWER SHALL BE EQUAL TO OR ABOVE MAIN SEWER CROWN, BUT NOT TO EXCEED 18" ABOVE INVERT OF MAIN SEWER.
11. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MIN. OF 6" DEEP AT PROPERTY LINE, OR 5' LOWER THAN THE LOWEST ELEVATION, WHICH EVER IS LOWER.
12. ALL PIPE MATERIALS NOT TO STANDARDS WILL BE ABANDONED AND REPLACED WITH DUCTILE IRON OR PVC PIPE OF THE SAME SIZE.
13. IF A BUILDING SEWER IS TO SERVE MORE THAN ONE PROPERTY, BY JOINT AGREEMENT OF THE OWNERS, AN APPROVED EASEMENT INSURING THAT ALL PROPERTIES INVOLVED SHALL HAVE PERPETUAL USE OF THE SIDE SEWER, HAVING PROVISIONS FOR OPERATION, MAINTENANCE, RECONSTRUCTION AND FOR ACCESS FOR REPAIR PURPOSES, SHALL BE SIGNED BY THE OWNERS. THIS EASEMENT SHALL BE RECORDED WITH THE COUNTY AUDITOR. A SIX INCH (MINIMUM) DIAMETER PIPE SHALL BE USED FOR THE COMMON LINE AND A SIX INCH CLEANOUT EXTENDING TO WITHIN 12 INCHES OF THE GROUND SURFACE SHALL BE PROVIDED AT THE WYE WHERE THE UPPER GRADE CONNECTIONS ARE MADE. BACKWATER VALVES SHALL BE INSTALLED ON SERVICE LINES UPSTREAM OF THE CONNECTION TO THE SHARED SIDE SEWER.
14. THE CITY ENGINEER MAY REQUIRE BACKWATER VALVES ON SIDE SEWERS WHEN DEEMED NECESSARY. THE EFFECTIVE OPERATION AND MAINTENANCE OF ANY BACKWATER VALVE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE SIDE SEWER.
15. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

SINGLE SERVICE

DOUBLE SERVICE

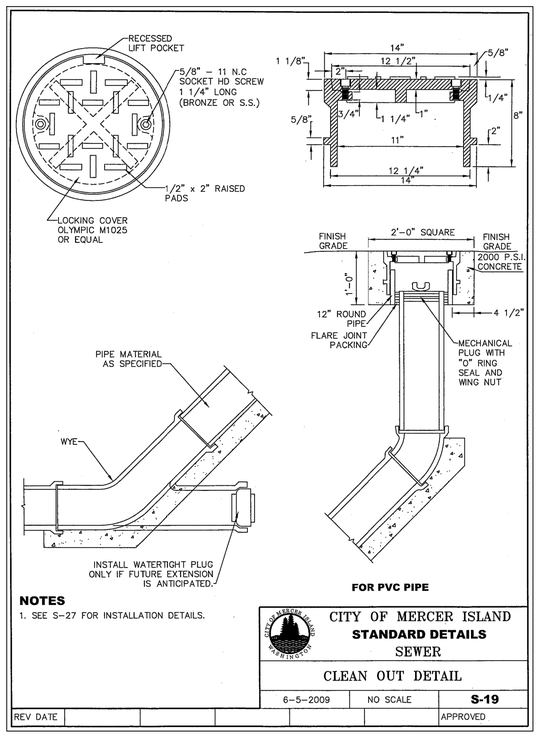
CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CONNECTION AND STUB

6-5-2009	NO SCALE	S-17
REV DATE		APPROVED



SEWER PROFILE

H: 1"=20' V: 1"=5'



FOR PVC PIPE

NOTES

1. SEE S-27 FOR INSTALLATION DETAILS.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
CLEAN OUT DETAIL

6-5-2009	NO SCALE	S-19
REV DATE		APPROVED

TOPOGRAPHY, BOUNDARY, AND UTILITIES STATEMENT:

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

N

20 10 0 20 40

SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

PROFILE AND DETAILS

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
MERCER ISLAND, WASHINGTON

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:	
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

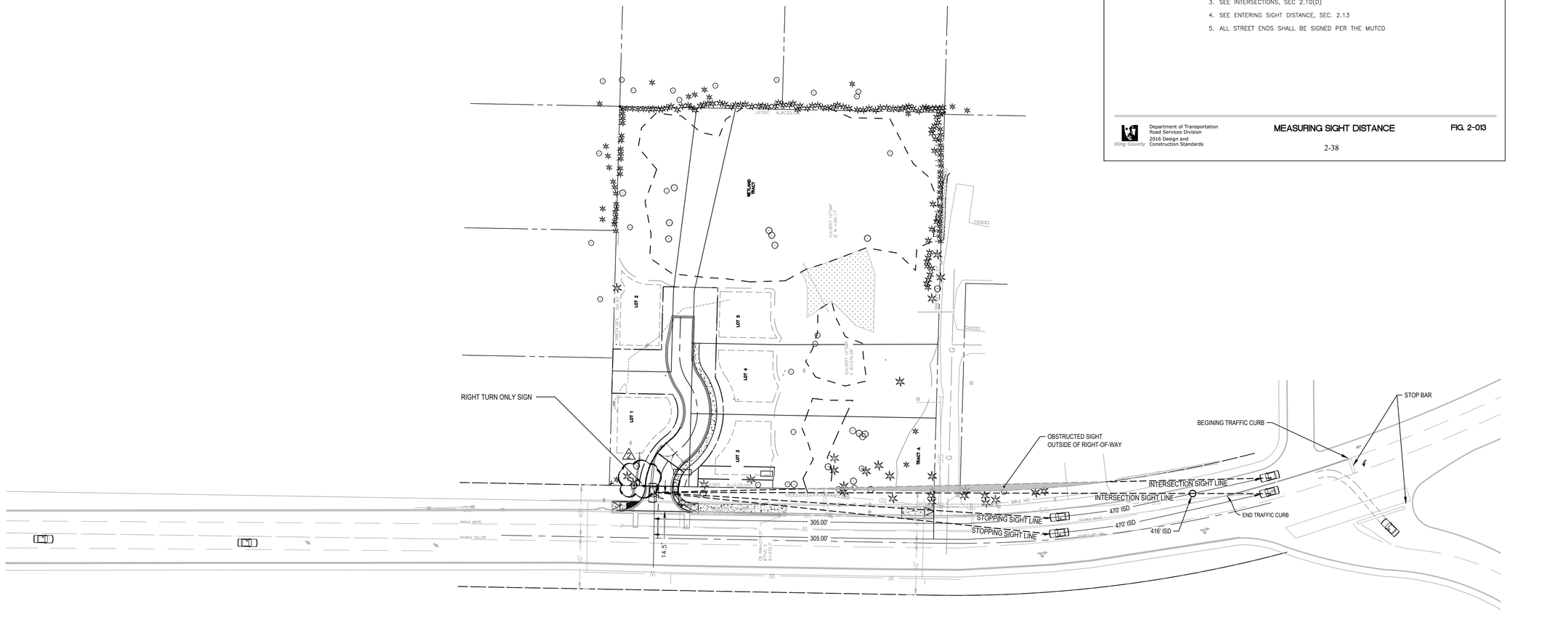
Sheet Number

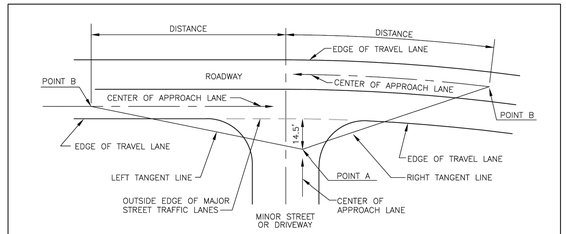
5.1

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

	STOPPING SIGHT DISTANCE				INTERSECTION SIGHT DISTANCE		MULTI-LANE ADJUSTMENT	
DESIGN SPEED (MI/H)	BRAKE REACTION DISTANCE (FT)	BRAKING DISTANCE ON LEVEL (FT)	CALCULATED (FT)	DESIGN (FT)	CALCULATED (FT)	DESIGN (FT)	ADJUSTMENT LENGTH	DESIGN (FT)
40	147.00	153.60	300.60	305.00	441.00	445.00	25.00	470.00





NOTES:

1. PARKING STRIPS OR LANES DESIGNATED FOR PARKING ONLY ARE OUTSIDE THIS REFERENCE LINE AND ARE NOT INCLUDED IN THE MAJOR STREET TRAFFIC LANES.
2. SEE STOPPING SIGHT DISTANCE SEC. 2.12
3. SEE INTERSECTIONS, SEC 2.10(D)
4. SEE ENTERING SIGHT DISTANCE, SEC. 2.13
5. ALL STREET ENDS SHALL BE SIGNED PER THE MUTCD

King County Department of Transportation
Road Services Division
2016 Design and Construction Standards

MEASURING SIGHT DISTANCE FIG. 2-013

2-38

N

30 15 0 30 60

SCALE: 1 INCH = 30 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES,
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

SIGHT DISTANCE PLAN

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
KIRKLAND WASHINGTON

Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:
FES Project No: 2108
Date: Sept 27, 202
Designed: DAF
Drawn: JAB
Checked: DAF

Sheet Number

C6.0

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.

MERCERTECH PLAT

	STOPPING SIGHT DISTANCE				INTERSECTION SIGHT DISTANCE		MULTI-LANE ADJUSTMENT	
DESIGN SPEED (MI/H)	BRAKE REACTION DISTANCE (FT)	BRAKING DISTANCE ON LEVEL (FT)	CALCULATED (FT)	DESIGN (FT)	CALCULATED (FT)	DESIGN (FT)	ADJUSTMENT LENGTH	DESIGN (FT)
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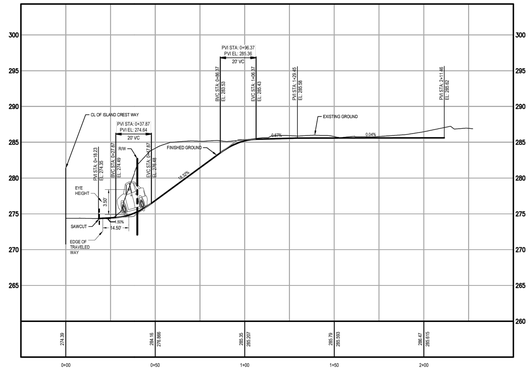
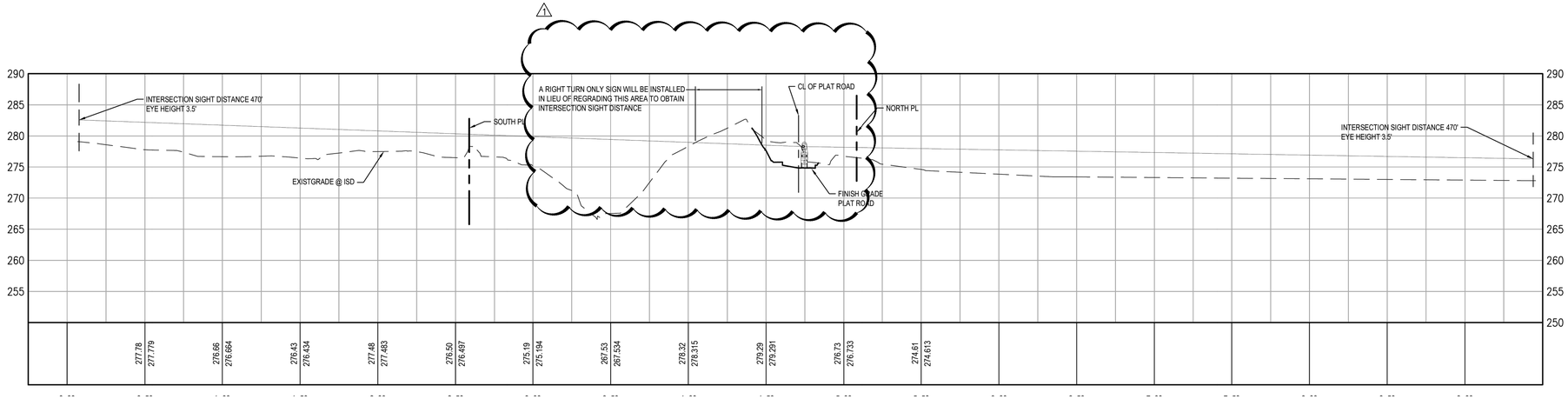


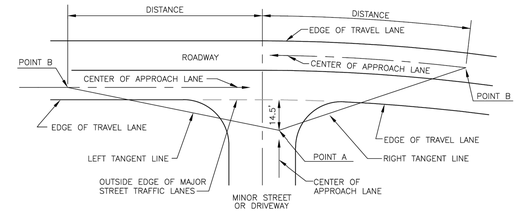
PLAT ROAD

H: 1"=40' V 1"=10'



ISLAND CREST WAY ISD

H: 1"=40' V 1"=10'



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2. SEE STOPPING SIGHT DISTANCE SEC. 2.12
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5. ALL STREET ENDS SHALL BE SIGNED PER THE MUTCD

King County Department of Transportation Road Services Division 2016 Design and Construction Standards

MEASURING SIGHT DISTANCE

FIG. 2-013

2-38

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

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DANIEL A. FURR — STATE OF WASHINGTON — 46933 — REGISTERED PROFESSIONAL ENGINEER

6/1/2023

FURR ENGINEERING SERVICES,
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title

SIGHT DISTANCE PROFILE

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
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Revisions

1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

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FES Project No: 2108

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Designed: DAF

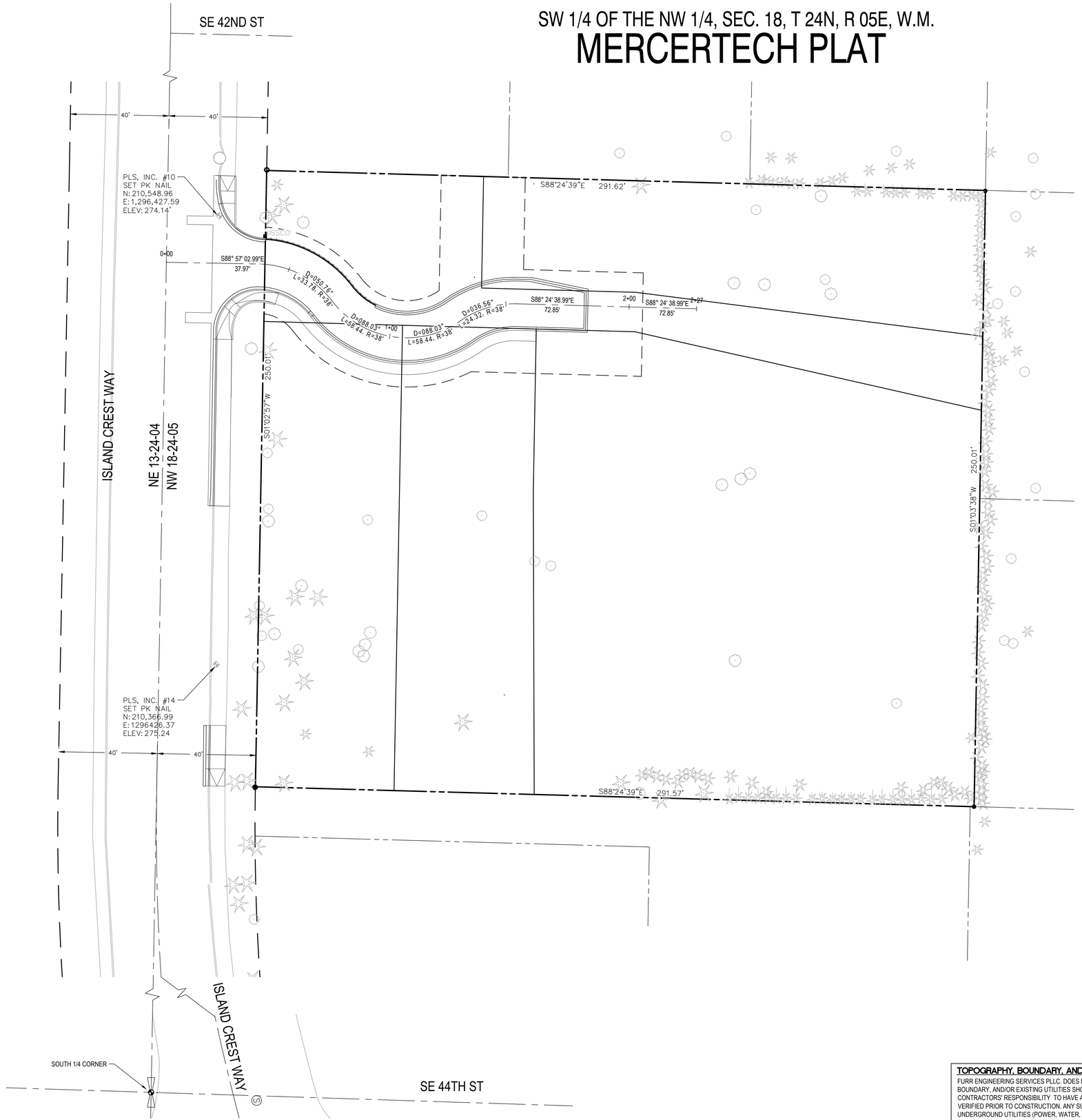
Drawn: JAB

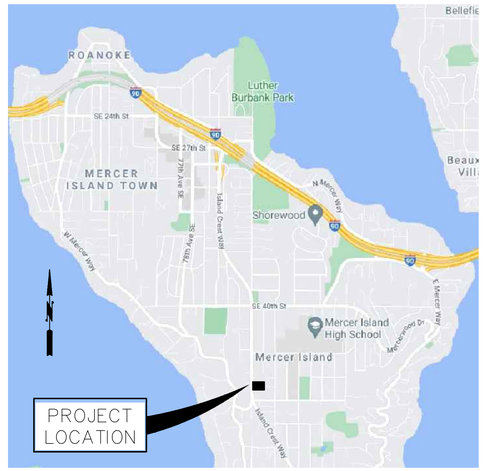
Checked: DAF

Sheet Number

C6.1

SW 1/4 OF THE NW 1/4, SEC. 18, T 24N, R 05E, W.M.
MERCERTECH PLAT





VICINITY MAP
NO SCALE

SURVEY INFORMATION

HORIZONTAL DATUM: NAD 83/2011, WASHINGTON COORDINATE SYSTEM, NORTH ZONE, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM: NAVD 88, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

BASIS OF BEARING: NORTH 01°02'57" EAST, BETWEEN THE NORTHWEST CORNER AND THE WEST QUARTER CORNER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN.

64.3 FEET FROM PROPERTY LINE TO FIRE HYDRANT.

LEGAL DESCRIPTION

THE NORTH 250 FEET OF THE SOUTH 500 FEET OF THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, EXCEPT FOR THE WEST 40 FEET.

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

N

20 10 0 20 40
SCALE: 1 INCH = 20 FEET

4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

Key Plan

Registration

DEAN A. FURR — STATE OF WASHINGTON — 46937 — REGISTERED PROFESSIONAL ENGINEER
6/1/2023

FURR ENGINEERING SERVICES, PLLC
4715 142nd Pl. SW #B,
Edmonds, WA 98026
ph 206.890.8291

Sheet Title
HORIZONTAL CONTROL PLAN

MARCER ISLAND WASHINGTON
REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY

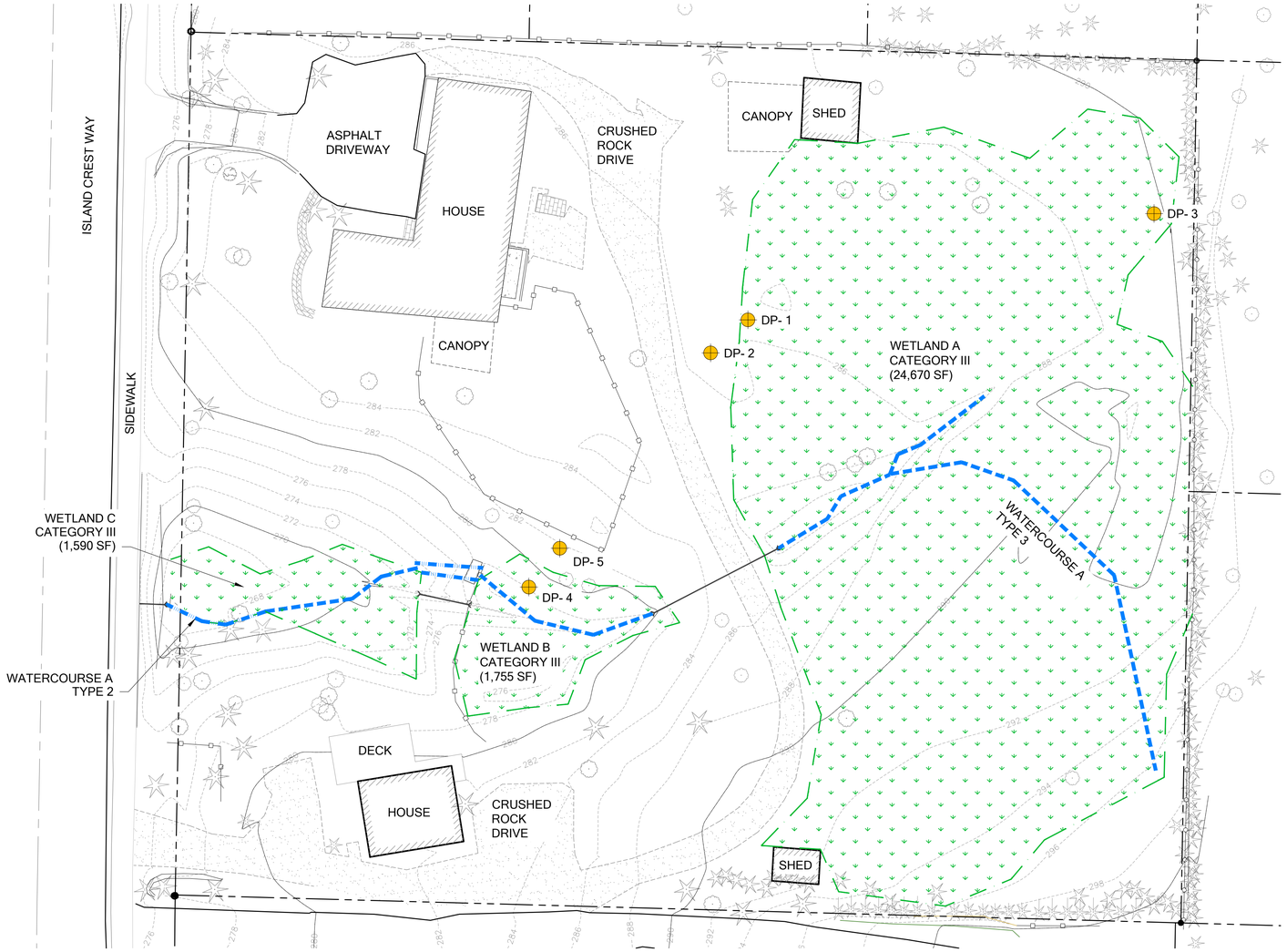
Revisions

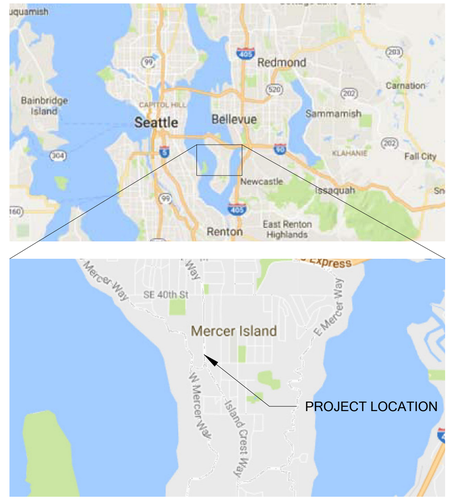
1	03/30/22	REVISED PER CITY COMMENTS
2	06/03/22	REVISED PER CITY COMMENTS
3	05/23/23	REVISED PER CITY COMMENTS

Scale:	
FES Project No:	21084
Date:	Sept 27, 2021
Designed:	DAF
Drawn:	JAB
Checked:	DAF

Sheet Number
C7.0

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN





VICINITY MAPS

LEGEND

- PARCEL BOUNDARY
- EXISTING CONTOUR
- WETLAND BOUNDARY (DELINEATED)
- DATA POINT
- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- EXISTING TREE
- CULVERT (QTY. 3)

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY

SHEET INDEX

W1.0	EXISTING CONDITIONS
W2.0	IMPACTS PLAN
W3.0	RESTORATION AND MITIGATION PLAN
W4.0	TREE PRESERVATION PLAN
W4.1	TREE INVENTORY TABLES 1-3
W4.2	TREE INVENTORY TABLES 4-6
W4.3	TREE INVENTORY TABLE 7 AND TREE PRESERVATION DETAILS
W5.0	TESC AND SITE PREPARATION PLAN
W5.1	TESC DETAILS AND INVASIVE SPECIES REMOVAL NOTES
W6.0	WETLAND CREATION AREA GRADING PLAN
W7.0	PLANTING PLAN
W7.1	TYPICAL PLANTING SCHEDULES
W7.2	PLANT INSTALLATION DETAILS AND NOTES
W8.0	MITIGATION AND RESTORATION NOTES

NOTES

1. CRITICAL AREAS DELINEATED BY THE WATERSHED COMPANY ON SEPTEMBER 21, 2016.
2. ONLY LEFT BANK OF WATERCOURSE A DELINEATED WITHIN WETLAND C.
3. SURVEY RECEIVED FROM PLS, INC. 1595 NW GILMAN BOULEVARD, #15 ISSAQUAH, WA 98027. (425) 313-9378.

NFC

NOT FOR CONSTRUCTION

EXISTING CONDITIONS

0 10' 20' 40' 80'

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

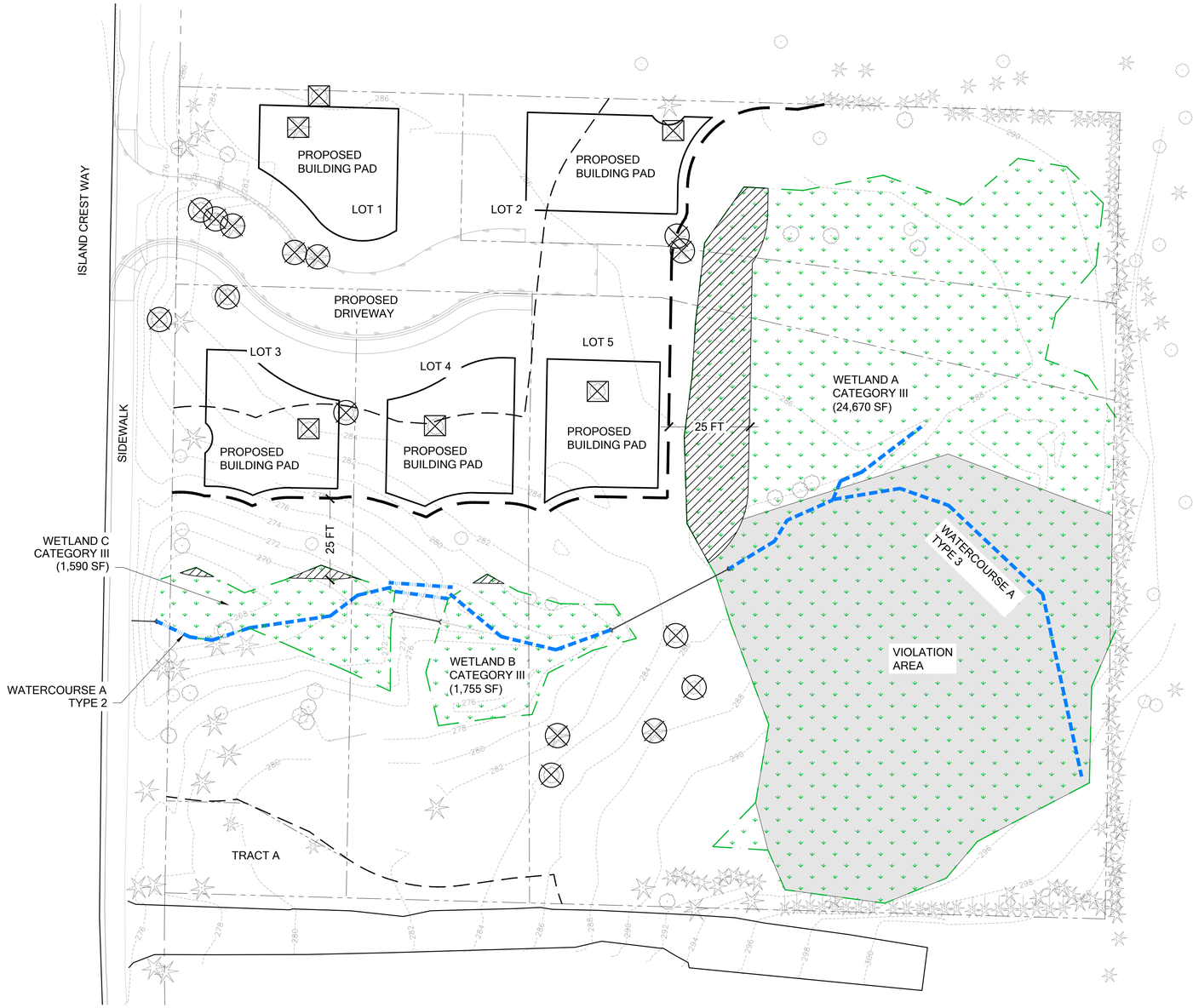
SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER: 160905
SHEET NUMBER: W1.0 OF 14

DATE 10/27/17 | PRINTED BY ROEN HOHLFELD | FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG



LEGEND

EXISTING FEATURES

- EXISTING CONTOUR
- WETLAND BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- VIOLATION AREA (12,748 SF)
- EXISTING TREE

PROPOSED FEATURES

- PROPOSED PROPERTY BOUNDARY
- WETLAND/WATERCOURSE BUFFER (50 FT)
- REDUCED WETLAND/WATERCOURSE BUFFER (25 FT)
- TREE TO BE REMOVED WITH PLAT IMPROVEMENTS (QTY. 15)
- TREE TO BE REMOVED WITH HOME CONSTRUCTION (QTY.6)
- WETLAND AS BUFFER (1,988 SF)

IMPACT CALCULATIONS

IMPACT	AREA (SF)
WETLAND VIOLATION	12,748
WETLAND AS BUFFER	1,988
TOTAL IMPACTS	**14,736**

NOTES

1. SEE SHEETS 34.0-W4.3 FOR TREE PRESERVATION INFORMATION.
2. WETLAND VIOLATION AREA PER NOTICE OF CORRECTION FROM CITY OF MERCER ISLAND, DATED AUGUST 10, 2016.
3. EXISTING WETLAND VIOLATION AREA EXTRAPOLATED FROM 2012 AND 2015 KING COUNTY IMAP AERIAL PHOTOGRAPHY. ADDITIONALLY, SEE INVOICE IN REQUEST FOR INFORMATION #1 LETTER FROM THE WATERSHED COMPANY, DATED APRIL 13, 2013.
4. SEE CIVIL PLANS FOR PROPOSED GRADING OUTSIDE MITIGATION AREA.

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY

NFC
NOT FOR CONSTRUCTION

IMPACTS PLAN

0 10' 20' 40' 80'

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

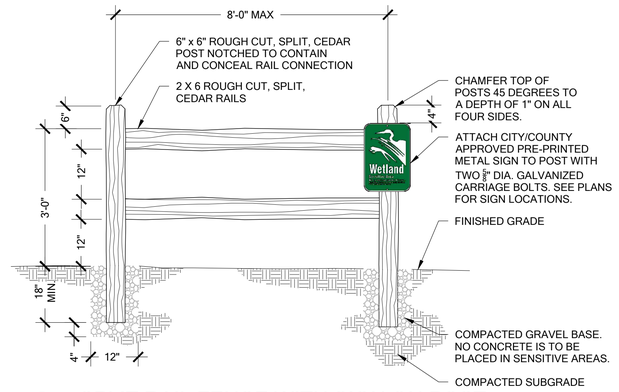
SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER:
160905
SHEET NUMBER:
W2.0 OF 14

DATE 10/27/17 PRINTED BY ROEN HOHLFELD FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG



A SPLIT RAIL FENCE WITH SIGN ON POST

Scale: NTS

LEGEND

EXISTING FEATURES

- EXISTING CONTOUR
- WETLAND BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- EXISTING TREE

PROPOSED FEATURES

- PROPOSED PROPERTY BOUNDARY
- WETLAND/WATERCOURSE AREA BUFFER (50 FT)
- REDUCED WETLAND/WATERCOURSE BUFFER (25 FT)
- TREE TO BE REMOVED WITH PLAT IMPROVEMENTS (QTY. 15)
- TREE TO BE REMOVED WITH HOME CONSTRUCTION (QTY.6)
- EXISTING STRUCTURES AND DRIVEWAY TO BE REMOVED WITHIN BUFFER (5,703 SF)
- CULVERT TO BE REMOVED (QTY. 2)
- WETLAND CREATION AREA (2,305 SF)
- WETLAND RESTORATION AREA (24,670 SF)
- BUFFER MITIGATION AREA (21,080 SF)
- SPLIT RAIL FENCE WITH SIGN ON POST (A / W3.0)

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
CITY OF MERCER ISLAND, WASHINGTON

MITIGATION CALCULATIONS

MIITGATION	AREA (SF)
BUFFER RESTORATION	21,080
WETLAND RESTORATION	24,670
WETLAND CREATION	2,305
TOTAL MITIGATION	**48,054**

NFC

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RESTORATION AND MITIGATION PLAN

0 10' 20' 40' 80'

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PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

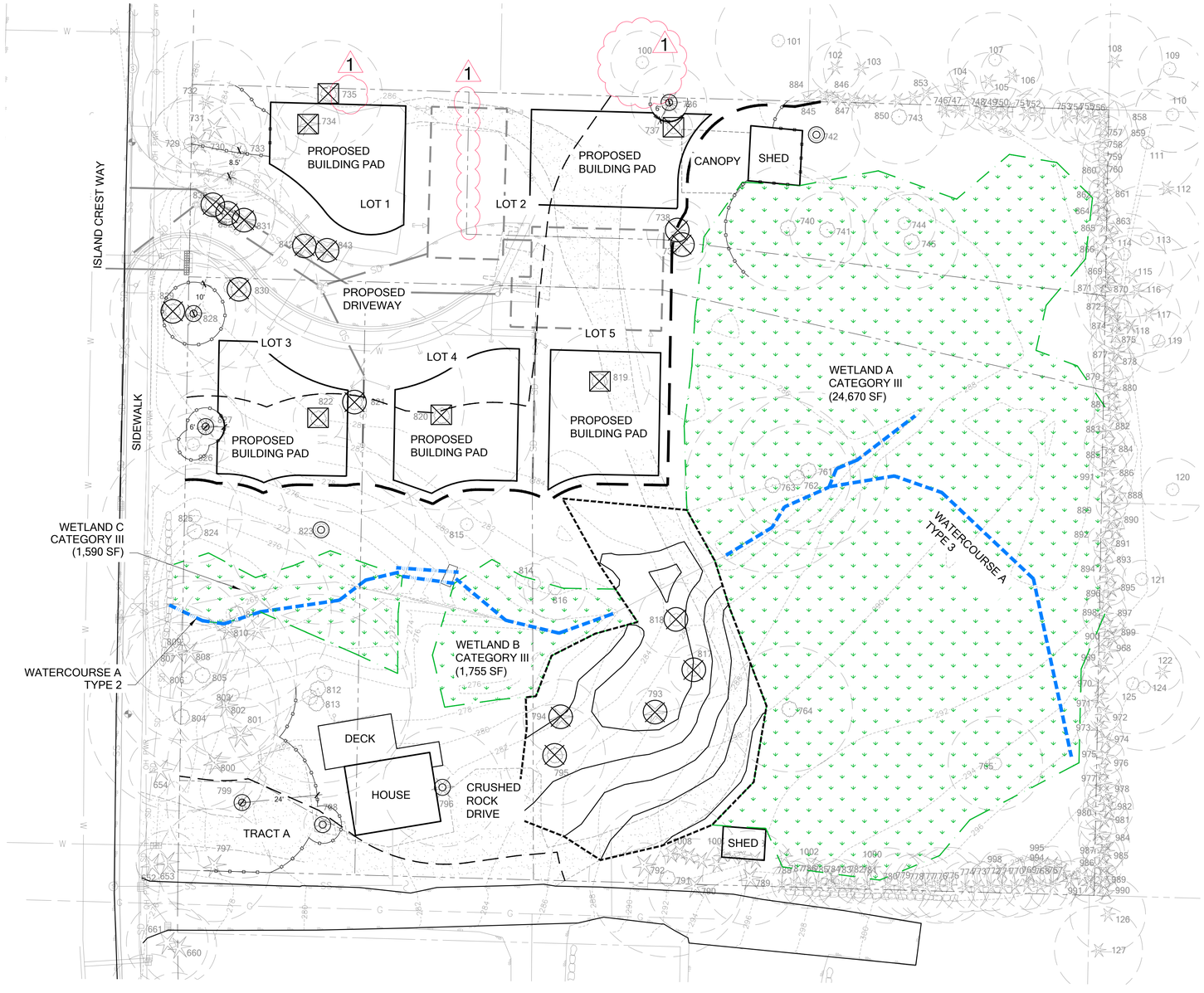
SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER: 160905
SHEET NUMBER: W3.0 OF 14

PRINTED BY: ROEN HOHLFELD
DATE: 10/27/17
FILENAME: 160905 MERCER ISLAND CHIU MITIGATION PLAN DWG



LEGEND

EXISTING FEATURES

- EXISTING CONTOUR
- WETLAND BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- EXISTING TREE

PROPOSED FEATURES

- 284 PROPOSED CONTOUR (WETLAND CREATION AREA)
- WETLAND/WATERCOURSE BUFFER (50 FT)
- REDUCED WETLAND/WATERCOURSE BUFFER (25 FT)
- TREE TO BE REMOVED WITH PLAT IMPROVEMENTS (QTY. 15)
- TREE TO BE REMOVED WITH HOME CONSTRUCTION (QTY.6)
- TREE TRUNK WRAP (B W4.3)
- 1 TREE PROTECTION FENCING (C W4.3)
- 1 APPROX. LIMITS OF GRADING (WETLAND CREATION AREA)

NOTES

1. QUANTITIES OF TREES TO BE REMOVED IN THE TREE RETENTION LEGEND REFLECT TOTAL TREES THAT WILL REQUIRE REMOVAL AS PART OF THE SITE DEVELOPMENT.
2. PER MICC 19.16.010, A SIGNIFICANT TREE IS ANY CONIFER THAT IS MORE THAN SIX FEET TALL OR ANY DECIDUOUS TREE WITH A DIAMETER OF SIX INCHES OR MORE.
3. TREES DESIGNATED FOR REMOVAL WITHIN TREE PROTECTION FENCE SHOULD BE SNAGGED OR FLUSH CUT TO MINIMIZE ROOT DAMAGE TO REMAINING TREES. DO NOT REMOVE TREES DESIGNATED FOR REMOVAL WITHIN TREE PROTECTION FENCING AREA BY PUSHING OVER WITH MACHINERY.
4. CONSTRUCTION WITHIN TREE PROTECTION FENCING SHALL BE COMPLETED BY HAND, MAINTAINING EXISTING GRADE UNLESS OTHERWISE INDICATED ON THE CIVIL PLANS.
5. EXISTING TREES TO REMAIN SHALL NOT BE DISTURBED DURING DEMOLITION OF EXISTING STRUCTURES OR CONSTRUCTION OF PROPOSED FEATURES. THIS INCLUDES DAMAGES TO TREE TRUNK, ROOTS, AND LIMBS. IF TREE LIMBS RESTRICT VERTICAL LIMITS OF DEMOLITION MACHINERY, A CERTIFIED ARBORIST MAY LIFT CANOPY BY PRUNING LIMBS UP TRUNK.
6. MACHINERY ACCESS FOR DEMOLITION OF EXISTING SOUTHERLY HOUSE SHALL UTILIZE 5" OF WOOD CHIP MULCH OVERLAID WITH STEEL PLATE OR $\frac{3}{4}$ INCH PLYWOOD TO PREVENT DISTURBANCE OF EXISTING TREE ROOTS.

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
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TREE PRESERVATION PLAN

0 10' 20' 40' 80'

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MERCERTECH INTERNATIONAL LLC
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PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER: 160905

SHEET NUMBER: W4.0 OF 14

DATE 10/27/17 | PRINTED BY ROEN HOHLFELD | FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG

MERCER ISLAND CHIU Table Issued: 4/9/2018
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	NOTES
100	Malus domestica (Apple)	D	1	**10**	25	10	3	N	
101	Prunus emarginata (Bitter cherry)	D	1	**14**	55	20	4	N	broken main leader at 50'
102	Pinus monticola (Western white pine)	E	1	**6**	30	8	2	N	
103	Pinus monticola (Western white pine)	E	1	**5**	30	12	2	N	
104	Picea sitchensis (Sitka spruce)	E	1	**2**	20	5	2	N	
105	Tsuga canadensis (Canadian hemlock)	E	1	**7**	40	9	2	N	
106	Tsuga canadensis (Canadian hemlock)	E	1	**5**	30	10	2	N	
107	Sorbus aucuparia (European mountain ash)	D	1	**12**	50	15	3	N	
108	Cedrus deodara (Deodar cedar)	E	1	**13**	55	15	3	N	
109	Prunus avium <cultivated> (Fruiting Cherry)	D	1	**14**	30	10	4	N	sig. ivy on trunk
110	Crataegus monogyna (Common hawthorn)	D	3	**8**	20	12	3	N	
111	Fraxinus latifolia (Oregon ash)	D	1	**13**	50	17	3	N	
112	Pseudotsuga menziesii (Douglas-fir)	E	1	**27**	85	20	3	N	
113	Fraxinus latifolia (Oregon ash)	D	1	**12**	45	17	3	N	
114	Gleditsia triacanthos (Honeylocust)	D	1	**10**	40	13	3	N	
115	Thuja plicata (Western red cedar)	E	1	**14**	40	13	4	N	chlorotic foliage
116	Thuja plicata (Western red cedar)	E	2	**15**	50	20	3	N	flagging
117	Thuja plicata (Western red cedar)	E	1	**10**	50	10	3	N	
118	Thuja plicata (Western red cedar)	E	1	**10**	35	10	3	N	
119	Acer macrophyllum (Bigleaf maple)	D	1	**28**	75	29	3	N	
120	Thuja plicata (Western red cedar)	E	1	**10**	40	10	4	N	chlorotic foliage, stressed cone crop
121	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	6	3	N	
122	Thuja plicata (Western red cedar)	E	1	**6**	15	6	3	N	
123	Betula pendula (European white birch)	D	1	**15**	40	15	3	N	
124	Betula pendula (European white birch)	D	1	**14**	60	20	3	N	
125	Betula pendula (European white birch)	D	1	**9**	50	16	3	N	leader failure
126	Thuja plicata (Western red cedar)	E	1	**18**	50	12	3	N	
127	Thuja plicata (Western red cedar)	E	1	**18**	50	14	3	N	
128	Prunus avium <cultivated> (Fruiting Cherry)	D	1	**7**	25	15	3	N	
129	Prunus avium <cultivated> (Fruiting Cherry)	D	1	**7**	17	12	4	N	decay in trunk; necrotic foliage; deadwood
130	Prunus avium <cultivated> (Fruiting Cherry)	D	1	**8**	17	15	4	N	deadwood; chlorotic foliage
131	Prunus avium <cultivated> (Fruiting Cherry)	D	1	**14**	18	12	4	N	significant ivy on trunk
132	Pseudotsuga menziesii (Douglas-fir)	E	1	**15**	26	16	4	N	topped for utility lines; significant ivy on trunk
652	Pseudotsuga menziesii (Douglas-fir)	E	1	**6**	15	5	3	N	topped for power line
653	Tsuga heterophylla (Western hemlock)	E	1	**8**	15	10	4	N	
654	Pseudotsuga menziesii (Douglas-fir)	E	1	**4**	20	10	3	N	growing into power lines
655	Pinus sylvestris (Scots pine)	E	1	**14**	50	15	3	N	
656	Prunus cerasifera 'thunderdoud' (Cherry plum)	D	2	**16**	30	20	4	N	poor branch form
657	Quercus palustris (Pin oak)	D	1	**28**	70	26	2	N	ivy on trunk
658	Pseudotsuga menziesii (Douglas-fir)	E	1	**8**	49	12	2	N	
659	Pinus sylvestris (Scots pine)	E	1	**15**	50	10	4	N	necrotic foliage

A TREE INVENTORY TABLE (1 OF 7)
Scale: NTS

MERCER ISLAND CHIU Table Issued: 4/9/2018
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	1 NOTES
660	Pseudotsuga menziesii (Douglas-fir)	E	1	**15**	65	12	3	N	
661	Pseudotsuga menziesii (Douglas-fir)	E	1	**18**	75	13	3	N	self corected lean
668	Pinus sylvestris (Scots pine)	E	1	**11**	30	13	4	N	topped for utility line
669	Pseudotsuga menziesii (Douglas-fir)	E	1	**8**	20	12	4	N	topped for utility line
670	Pseudotsuga menziesii (Douglas-fir)	E	1	**12**	20	20	4	N	topped for utility line; poor root flare
671	Pseudotsuga menziesii (Douglas-fir)	E	1	**5**	25	8	3	N	
672	Pseudotsuga menziesii (Douglas-fir)	E	1	**8**	20	15	4	N	topped for utility line
729	Arbutus menziesii (Pacific madrone)	E	1	**10**	50	14	3	N	50% of dripline impervius
730	Thuja plicata (Western red cedar)	E	1	**15**	40	15	3	N	retaining wall 1-ft from trunk
731	Thuja plicata (Western red cedar)	E	4	**16**	45	15	3	N	included bark
732	Arbutus menziesii (Pacific madrone)	E	1	**6**	15	20	4	N	not on survey
733	Arbutus menziesii (Pacific madrone)	E	1	**12**	55	15	3	N	3-ft from retaining wall; ivy on trunk; self-corrected lean
734	Picea abies (Norway spruce)	E	1	**13**	45	10	4	Y	low lcr
735	Betula pendula (European white birch)	D	3	**26**	60	17	3	Y	ivy on trunk; co-dominant from base
736	Pinus sylvestris (Scots pine)	E	1	**14**	17	12	3	N	phototropically oriented
737	Ginkgo biloba (Maidenhair tree)	D	1	**5**	20	6	2	Y	not on survey
738	×Hesperotropsis leylandii (Leyland cypress)	E	1	**8**	25	10	2	Y	
739	×Hesperotropsis leylandii (Leyland cypress)	E	1	**6**	25	8	2	Y	
740	Prunus domestica (Plum)	D	1	**16**	40	20	4	N	low lcr
741	Prunus domestica (Plum)	D	1	**10**	35	12	4	N	low lcr
742	Prunus domestica (Plum)	D	1	**8**	20	14	3	Y	low lcr; not on survey
743	Prunus domestica (Plum)	D	1	**17**	60	15	3	Y	
744	Prunus domestica (Plum)	D	2	**10**	35	10	4	N	low lcr; not on survey
745	Prunus domestica (Plum)	D	1	**12**	40	15	4	N	virginia creeper on trunk
746	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	13	8	3	N	base at 2'=5.4"; not on survey
747	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	6	3	N	base at 2'=7.5"; not on survey
748	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	6	3	N	base at 2'=4.5"; not on survey
749	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	6	3	N	base at 2'=5.2"; not on survey
750	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	18	8	3	N	base at 2'=5.8"; not on survey
751	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	6	3	N	base at 2'=4"; not on survey
752	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	15	8	3	N	base at 2'=5.3"; not on survey
753	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	8	3	N	base at 2'=5"; not on survey
754	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	20	9	3	N	base at 2'=6"; not on survey
755	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	15	9	3	N	base at 2'=5.8"; not on survey
756	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	8	3	N	base at 2'=5"; not on survey
757	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	9	3	N	base at 2'=4.7"; not on survey
758	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	8	3	N	base at 2'=4.4"; not on survey
759	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	18	6	3	N	base at 2'=5.4"; not on survey
760	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	12	6	3	N	base at 2'=4"; not on survey
761	Alnus rubra (Red alder)	D	2	**26**	60	25	3	N	
762	Alnus rubra (Red alder)	D	1	**9**	60	17	3	N	

B TREE INVENTORY TABLE (2 OF 7)
Scale: NTS

MERCER ISLAND CHIU Table Issued: 4/9/2018
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	NOTES
763	Alnus rubra (Red alder)	D	4	**32**	65	28	3	N	
764	Prunus armeniaca (Apricot)	D	1	**14**	55	20	4	N	low lcr
765	Prunus armeniaca (Apricot)	D	1	**9**	50	15	4	N	low lcr; ivy on trunk; not on survey
766	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	12	6	3	N	base at 2'=4.3"; not on survey
767	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	25	8	3	N	base at 2'=5"; not on survey
768	×Hesperotropsis leylandii (Leyland cypress)	E	1	**6**	25	9	3	N	base at 2'=6.5"; not on survey
769	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	25	8	3	N	base at 2'=6.2"; not on survey
770	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	25	10	3	N	base at 2'=5.3"; not on survey
771	×Hesperotropsis leylandii (Leyland cypress)	E	1	**6**	25	10	3	N	base at 2'=6.7"; not on survey
772	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	30	8	3	N	base at 2'=5"; not on survey
773	×Hesperotropsis leylandii (Leyland cypress)	E	1	**6**	25	8	3	N	base at 2'=6.5"; not on survey
774	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	18	8	3	N	base at 2'=5.5"; not on survey
775	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	25	12	3	N	base at 2'=4.8"; not on survey
776	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	12	3	N	base at 2'=4.8"; not on survey
777	×Hesperotropsis leylandii (Leyland cypress)	E	1	**6**	20	10	3	N	base at 2'=6.5"; not on survey
778	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	10	3	N	base at 2'=4.6"; not on survey
779	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	25	10	3	N	base at 2'=6.4"; not on survey
780	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	20	12	3	N	base at 2'=5.8"; not on survey
781	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	18	6	3	N	base at 2'=5.5"; not on survey
782	×Hesperotropsis leylandii (Leyland cypress)	E	1	**5**	20	6	3	N	base at 2'=5.5"; not on survey
783	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	8	3	N	base at 2'=5"; not on survey
784	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	8	3	N	base at 2'=5.2"; not on survey
785	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	5	3	N	
786	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	17	8	3	N	base at 2'=4.3"; not on survey
787	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	7	3	N	base at 2'=5"; not on survey
788	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	6	3	N	base at 2'=4.8"; not on survey
789	Pseudotsuga menziesii (Douglas-fir)	E	1	**18**	50	15	3	N	30% impervious within dripline
790	Pseudotsuga menziesii (Douglas-fir)	E	1	**14**	20	15	4	N	topped at 20-ft for powerlines, 50% impervious in dripline
791	Betula pendula (European white birch)	D	2	**18**	35	25	4	N	included bark
792	Thuja plicata (Western red cedar)	E	1	**19**	55	7	3	N	codominate at 30'
793	Cunninghamia lanceolata (China fir)	E	1	**13**	30	8	2	Y	
794	Thuja plicata (Western red cedar)	E	1	**20**	45	12	2	Y	ivy on trunk
795	Prunus domestica (Plum)	D	1	**11**	45	16	3	Y	trunk wound at base with good response growth
796	Pinus monticola (Western white pine)	E	1	**26**	65	19	2	N	50% of dripline is a house
797	Pseudotsuga menziesii (Douglas-fir)	E	1	**22**	20	18	4	N	limited root zone; topped at 20'; fungi on trunk
798	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	6	3	N	base at 2'=4.1"; not on survey
799	Cedrus deodara (Deodar cedar)	E	1	**25**	65	24	2	N	not on survey
800	Pseudotsuga menziesii (Douglas-fir)	E	1	**16**	60	15	3	N	
801	Cedrus deodara (Deodar cedar)	E	1	**16**	55	12	4	N	suppressed canopy
802	Pseudotsuga menziesii (Douglas-fir)	E	1	**19**	65	17	4	N	self-corrected lean; low lcr
803	Acer macrophyllum (Bigleaf maple)	D	1	**22**	70	20	3	N	not on survey

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C TREE INVENTORY TABLE (3 OF 7)
Scale: NTS

TREE INVENTORY TABLES 1-3

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NOT FOR CONSTRUCTION

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER: 160905
SHEET NUMBER: W4.1 OF 14

DATE 10/27/17 PRINTED BY ROEN HOHLFELD FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG

MERCER ISLAND CHIU
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

Table Issued: 4/9/2018

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN) ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	NOTES
804	Acer macrophyllum (Bigleaf maple)	D	1	**28**	65	30	3	N	12-in cavity at 10'; potential circling root; 10-degree lean to the south
805	Acer macrophyllum (Bigleaf maple)	D	1	**18**	70	30	3	N	
806	Acer macrophyllum (Bigleaf maple)	D	1	**7**	30	20	4	N	not on survey; phototropic lean
807	Thuja plicata (Western red cedar)	E	1	**18**	70	15	3	N	
808	Thuja plicata (Western red cedar)	E	1	**13**	40	12	3	N	suppressed canopy; pistol butt trunk
809	Acer macrophyllum (Bigleaf maple)	D	2	**11**	20	20	4	N	co-dominant; topped at 12'; not on survey
810	Thuja plicata (Western red cedar)	E	1	**21**	60	15	3	N	rooting branches that look like separate trees growing
811	Acer macrophyllum (Bigleaf maple)	D	1	**21**	70	30	3	N	trunk cavity 6-in in dia.; codominate at 15-ft
812	Acer macrophyllum (Bigleaf maple)	D	1	**22**	60	30	3	N	scaffold branch failure at 25-ft with good response growth
813	Acer macrophyllum (Bigleaf maple)	D	3	**39**	70	30	3	N	co-dominant at base; included bark; significant trunk wound
814	Alnus rubra (Red alder)	D	1	**4**	15	6	3	N	base at 2'=4.3'; not on survey
815	Prunus domestica (Plum)	D	1	**14**	20	8	4	N	poor pruning history; ivy on trunk; not on survey
816	Alnus rubra (Red alder)	D	1	**5**	20	10	3	N	not on survey
817	Pyrus domestica (Common pear)	D	1	**5**	15	8	4	Y	base at 2'=5.8"; not on survey
818	Fraxinus latifolia (Oregon ash)	D	1	**10**	30	12	3	Y	topped at 10-ft; not on survey
819	Styrax japonicus (Japanese snowbell)	D	6	**20**	25	16	4	Y	additional DBH-8", 6"
820	Castanea dentata (American chestnut)	D	2	**44**	70	30	3	Y	
821	Acer macrophyllum (Bigleaf maple)	D	1	**34**	75	35	2	Y	
822	Thuja plicata (Western red cedar)	E	1	**17**	50	8	2	Y	
823	Acer macrophyllum (Bigleaf maple)	D	1	**32**	70	30	3	N	co-dominant at 6'; not on survey
824	Acer macrophyllum (Bigleaf maple)	D	5	**32**	80	30	3	N	additional DBH-7"
825	Crataegus monogyna (Common hawthorn)	D	2	**7**	25	15	3	N	not on survey
826	Prunus emarginata (Bitter cherry)	D	1	**7**	40	10	3	N	not on survey
827	Pinus nigra (Austrian pine)	E	1	**21**	50	12	4	N	co-dominant at 20'; included bark; low LCR
828	Pinus sylvestris (Scots pine)	E	1	**18**	65	20	3	N	
829	Acer macrophyllum (Bigleaf maple)	D	1	**14**	15	20	4	Y	co-dominant at 10'; topped at 15' for power lines
830	Betula pendula (European white birch)	D	2	**25**	65	25	3	Y	
831	Pinus sylvestris (Scots pine)	E	1	**21**	70	16	3	Y	co-dominant at 15'; included bark; circling root
832	Arbutus menziesii (Pacific madrone)	E	2	**8**	25	15	3	Y	
833	Acer macrophyllum (Bigleaf maple)	D	1	**10**	50	20	3	Y	pistol-butt trunk
842	Thuja plicata (Western red cedar)	E	1	**1**	10	2	2	N	
843	Pseudotsuga menziesii (Douglas-fir)	E	1	**1**	8	3	3	N	se lean, self corected
844	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	6	3	N	
845	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	5	3	N	
846	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	5	4	N	topped at 10'
847	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	6	3	N	
848	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	18	5	3	N	
849	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	5	3	N	
850	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	18	5	2	N	
851	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	15	4	3	N	
852	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	5	3	N	

A TREE INVENTORY TABLE (4 OF 7)
Scale: NTS

MERCER ISLAND CHIU
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

Table Issued: 4/9/2018

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN) ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	NOTES
853	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	5	3	N	
854	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	8	3	N	
855	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	18	6	3	N	
856	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	6	3	N	
857	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	5	3	N	
858	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	7	3	N	
859	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	20	6	3	N	
860	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	15	6	3	N	
861	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	12	4	3	N	
862	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	14	4	3	N	
863	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	18	5	3	N	
864	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	13	3	3	N	
865	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	12	3	3	N	
866	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	13	4	3	N	
867	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	10	5	3	N	suppressed
869	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	8	4	3	N	
870	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	10	3	3	N	suppressed
871	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	11	4	3	N	
872	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	10	6	3	N	suppressed
873	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	14	5	3	N	
874	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	8	3	N	
875	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	20	6	3	N	
876	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	5	3	N	
877	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	9	3	N	
878	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	7	3	N	
879	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	22	5	3	N	
880	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	6	3	N	
881	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	6	6	3	N	
882	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	6	3	N	
883	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	17	8	3	N	
884	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	5	4	N	chlorotic foliage
885	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	6	3	N	
886	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	12	6	4	N	chlorotic foliage
887	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	17	5	3	N	
888	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	5	3	N	
889	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	15	10	3	N	
890	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	10	3	3	N	
891	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	10	5	3	N	
892	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	10	4	3	N	
893	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	13	3	3	N	
894	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	18	5	3	N	

B TREE INVENTORY TABLE (5 OF 7)
Scale: NTS

MERCER ISLAND CHIU
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

Table Issued: 4/9/2018

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN) ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	NOTES
895	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	13	5	3	N	
896	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	18	6	3	N	
897	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	7	3	N	
898	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	5	3	N	
899	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	18	5	3	N	
900	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	5	3	N	
968	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	12	6	3	N	
969	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	6	3	N	
970	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	20	6	3	N	
971	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	6	3	N	
972	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	6	4	N	sig trunk wound on ne side
973	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	7	3	N	
974	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	6	3	N	
975	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	18	6	4	N	trunk wound on ne side
976	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	6	3	N	
977	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	14	6	4	N	trunk wounds
978	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	6	3	N	
979	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	13	8	3	N	
980	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	22	7	3	N	
981	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	8	3	N	
982	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	8	3	N	
983	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	17	6	3	N	
984	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	22	8	3	N	
985	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	21	6	3	N	
986	×Hesperotropsis leylandii (Leyland cypress)	E	1	**4**	20	6	3	N	
987	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	6	3	N	
988	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	18	7	3	N	
989	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	12	4	4	N	suppressed
990	×Hesperotropsis leylandii (Leyland cypress)	E	2	**1**	9	4	4	N	
991	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	8	6	4	N	
992	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	7	4	4	N	
993	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	15	6	3	N	
994	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	6	3	N	
995	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	6	3	N	
996	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	13	6	3	N	
997	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	7	3	N	
998	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	7	3	N	
999	×Hesperotropsis leylandii (Leyland cypress)	E	2	**2**	15	6	3	N	
1000	×Hesperotropsis leylandii (Leyland cypress)	E	2	**3**	15	6	3	N	
1001	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	6	3	N	
1002	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	25	8	3	N	

C TREE INVENTORY TABLE (6 OF 7)
Scale: NTS

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TREE INVENTORY TABLES 4-6

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
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Science & Design

MERCER ISLAND CHIU LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER: 160905
SHEET NUMBER: W4.2 OF 14

DATE 10/27/17 | PRINTED BY ROEN HOHLFELD | FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG

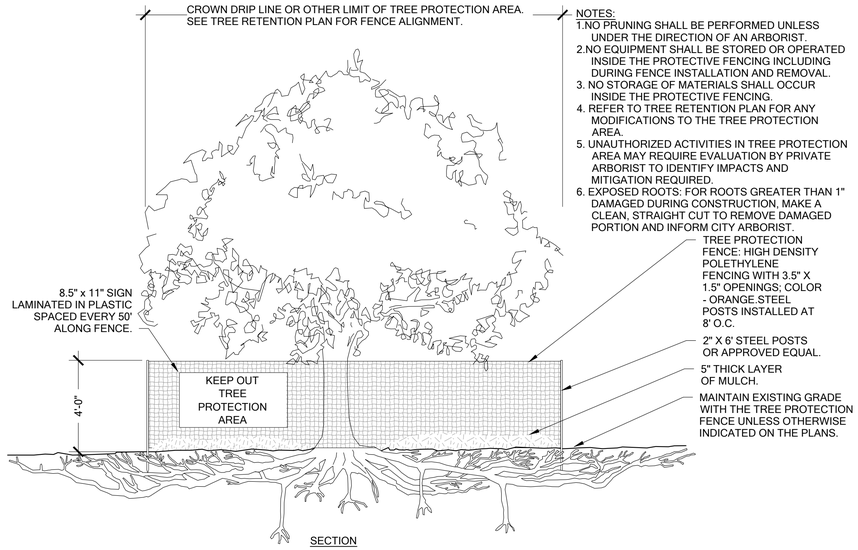
MERCER ISLAND CHIU
4320 Island Crest Way, Mercer Island, WA 98040 Site Visit: 5/16/2017 and 8/24/2017
parcel # 1824059031

Table Issued: 4/9/2018

TAG #	TREE NAME	E/V / DEC	# STEMS	CONIFER DBH (IN, ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	REMOVE (Y/N)	NOTES
1003	×Hesperotropsis leylandii (Leyland cypress)	E	2	**3**	17	6	3	N	
1004	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	6	3	N	
1005	×Hesperotropsis leylandii (Leyland cypress)	E	1	**3**	20	6	3	N	
1006	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	20	6	3	N	
1007	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	13	5	3	N	
1008	×Hesperotropsis leylandii (Leyland cypress)	E	1	**2**	15	5	3	N	
1009	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	10	4	3	N	
1010	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	7	3	4	N	
1011	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	12	4	3	N	
1012	×Hesperotropsis leylandii (Leyland cypress)	E	1	**1**	6	5	4	N	trunk wound
1013	×Hesperotropsis leylandii (Leyland cypress)		1	**0**	6	3	4	N	trunk wound

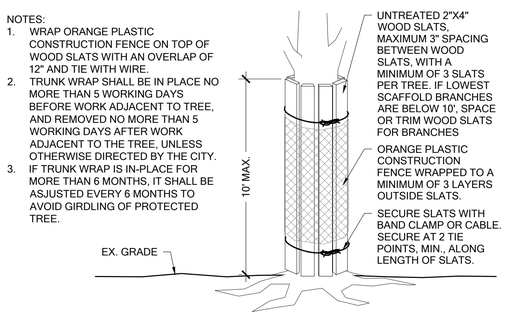
A TREE INVENTORY TABLE (7 OF 7)

Scale: NTS



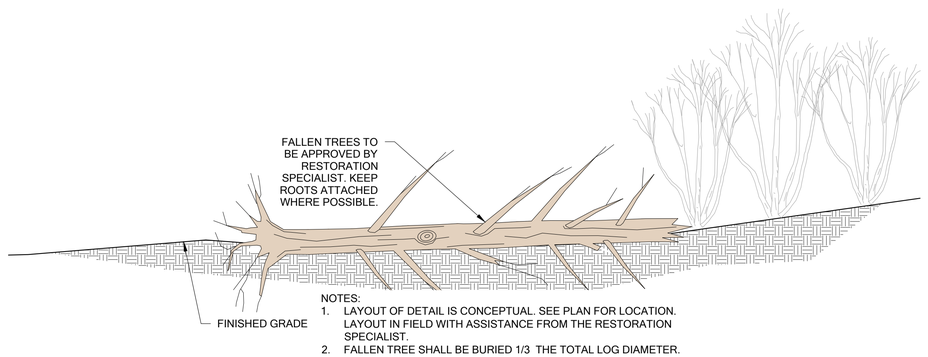
C TREE PROTECTION FENCING

Scale: NTS



B TREE TRUNK WRAP

Scale: NTS



D LARGE WOODY DEBRIS

Scale: NTS

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July 05, 2023
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TREE INVENTORY TABLE 7 AND TREE PRESERVATION DETAILS

THE WATERSHED COMPANY
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Science & Design

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
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PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER:
160905
SHEET NUMBER:
W4.3 OF 14

DATE 10/27/17 | PRINTED BY ROEN HOHLFELD | FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN DWG

TESC NOTES - ALL AREAS

1. CONTRACTOR TO VERIFY TEMPORARY HIGH VISIBILITY FENCE IS INSTALLED AROUND THE LIMITS OF WORK PRE-CONSTRUCTION.
2. SEE SHEETS W4.0-4.3 FOR TREE PRESERVATION INFORMAITON.
3. SURVEY AND STAKE THE LIMITS OF WETLAND BUFFER ENHANCEMENT AREA PRE-CONSTRUCTION.
4. INSTALL SILT FENCE AND FIBER ROLL AS SHOWN ON THIS SHEET. MITIGATION CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS AS NEEDED TO ASSURE PROPER TESC MEASURES ARE IN-PLACE.

SOIL PREPARATION NOTES - WETLAND RESTORATION PLANTING AREAS

1. REMOVE ALL WOOD CHIPS PLACED IN WETLAND AND DISPOSE OF OFF-SITE. WOOD CHIP REMOVAL IS TO BE DONE WITHOUT MECHANIZED TOOLS.
2. REMOVE INVASIVE PLANT SPECIES AS SPECIFIED IN INVASIVE SPECIES REMOVAL NOTES ON W5.1.
3. PLANT PER W7.0-W7.2.
4. INSTALL MULCH RINGS 4" DEEP WITH RADIUS OF 18" FROM PLANT STEM. SEE PLANTING PLAN FOR PLANT TYPE AND SPACING.

SOIL PREPARATION NOTES - WETLAND BUFFER PLANTING AREAS

1. REMOVE INVASIVE PLANT SPECIES AS SPECIFIED ON W5.1.
2. BACKFILL ANY DIVOTS WITH TOPSOIL TO RETURN TO EXISTING GRADE.
3. PLANT PER W7.0-7.2.
4. INSTALL MULCH RINGS 4" DEEP WITH RADIUS OF 18" FROM PLANT STEM. SEE PLANTING PLAN FOR PLANT TYPE AND SPACING.

LEGEND

EXISTING FEATURES

- EXISTING CONTOUR
- WETLAND BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- EXISTING TREE

PROPOSED FEATURES

- 284 PROPOSED CONTOUR (WETLAND CREATION AREA)
- WETLAND/WATERCOURSE BUFFER (50 FT)
- REDUCED COMBINED WETLAND/WATERCOURSE BUFFER (25 FT)
- WETLAND CREATION AREA (2,305 SF)
- WETLAND RESTORATION AREA (24,670 SF)
- BUFFER MITIGATION AREA (21,080 SF)
- FIBER ROLL (B / W5.1)
- SILT FENCE (A / W5.1)

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
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TESC AND SITE PREPARATION PLAN

0 10' 20' 40' 80'

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
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3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER: 160905
SHEET NUMBER: W5.0 OF 14

PRINTED BY: RODEN HOHLFELD
DATE: 10/27/17
FILENAME: 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG

INVASIVE SPECIES REMOVAL NOTES:

NOXIOUS WEED REMOVAL & CONTROL PROTOCOLS

NOTE:

1. ALL INVASIVE PLANTS TO BE DISPOSED OF OFF-SITE. NO INVASIVE SPECIES SHALL BE CHIPPED FOR REUSE AS MULCH.
2. THIS PLAN ADDRESSES INVASIVE SPECIES REMOVAL WITHIN CRITICAL AREAS AND BUFFERS. PRIOR TO PROJECT COMPLETION, ALL INVASIVE SPECIES ON THE PARCEL WILL BE REMOVED. 1

REMOVE REED CANARYGRASS:

1. DIG WITH HAND TOOLS ALL REED CANARYGRASS RHIZOMES FROM THE PLANTING AREA.
2. REED CANARYGRASS CAN RESPROUT FROM BELOW-GROUND PORTIONS, SO ALL RHIZOMES SHALL BE GRUBBED OUT. AROUND SIGNIFICANT VEGETATION TO REMAIN, REED CANARYGRASS SHALL BE GRUBBED OUT BY HAND TO MINIMIZE DISRUPTION TO ADJACENT ROOTS.
3. AFTER REED CANARYGRASS HAS BEEN REMOVED, AREA SHOULD BE MULCHED AND PLANTED PER PLAN.
4. DISPOSE OF REMOVED MATERIAL OFF SITE AT A PROFESSIONAL FACILITY.

REMOVE HIMALAYAN/EVERGREEN BLACKBERRY:

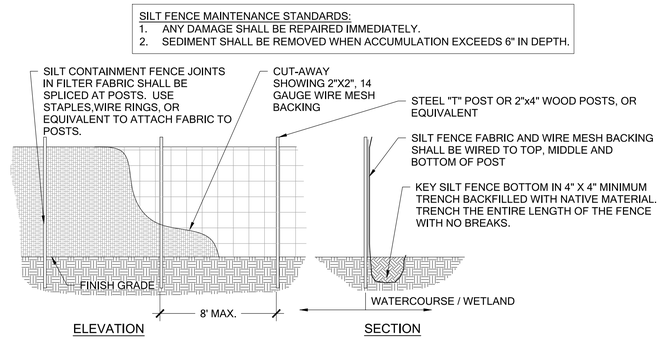
1. CUT ABOVE GROUND PORTION OF BLACKBERRY AND REMOVE OFFSITE. ENSURE THAT NO NATIVE PLANTS ARE REMOVED.
2. CANES SHALL BE REMOVED FROM CANOPY OF TREES TO REMAIN TO THE EXTENT FEASIBLE AS DETERMINED BY THE RESTORATION SPECIALIST.
3. DIG UP OR PULL THE REMAINING ROOT BALL. ENSURE THAT NO NATIVE PLANT ROOTS ARE DAMAGED.
4. REPLACE ANY DIVOTS CREATED WHEN REMOVING THE PLANT WITH APPROVED TOPSOIL.
5. ALL CANES SHALL BE CUT BACK AND REMOVED WITHIN THE TEN (10) FEET ADJACENT TO THE PLANTING AREA, INCLUDING TREE CANOPY. CANES SHALL BE PULLED AND DISPOSED OF OFF-SITE.
6. REVEGETATE PER PLANTING PLAN. COVER WITH WOOD CHIP MULCH FOUR INCHES DEEP.
7. MONITOR SITE THROUGHOUT GROWING SEASON FOR EMERGING CANES AND GRUB OUT AND REMOVE ANY NEW PLANTS. CONTINUE TO CUT BACK CANES TEN (10) FEET FROM THE PLANTING AREA.

REMOVE ENGLISH IVY:

1. PHYSICALLY REMOVE ALL ENGLISH IVY VINES AND ROOTS FROM THE PLANTING AREA.
2. IF GROWING ON TREE TRUNKS, CUT VINES TO HEIGHT OF 4' OFF GROUND AND AROUND THE BASE OF EACH TREE, TO PREVENT THE IVY FROM GIRDLING. DO NOT PULL DOWN FROM TREE CROWNS. REMOVE STANDING VINES FROM THE LOWER 4' OF EVERY TREE TRUNK THAT CONTAINS ANY IVY.
3. IVY CAN RESPROUT FROM BELOW-GROUND PORTIONS, SO ALL ROOTS SHALL BE GRUBBED OUT BY HAND TO MINIMIZE DISRUPTION TO ADJACENT ROOTS.
4. AFTER IVY HAS BEEN REMOVED, AREA SHOULD BE MULCHED AND PLANTED PER PLAN.
5. DISPOSE OF REMOVED MATERIAL PROPERLY OFF SITE.

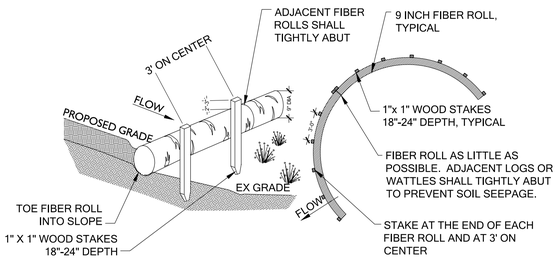
REMOVE JAPANESE KNOT WEED:

1. STAKE OUT INVASIVE CONTROL AREA AND VERIFY WITH RESTORATION SPECIALIST. INVASIVE PLANTS OTHER THAN KNOTWEED THAT IS NOT IN CONCENTRATED AREA ARE TO BE FLAGGED THROUGHOUT THE SITE AND THEN VERIFIED BY THE RESTORATION SPECIALIST FOR REMOVAL.
2. CUT STEMS CLOSE TO THE GROUND TWICE A MONTH OR MORE BETWEEN AT LEAST APRIL AND AUGUST, AND THEN ONCE A MONTH OR MORE UNTIL THE FIRST FROST, OVER 3-5 CONSECUTIVE YEARS. USE A MACHETE, LOPPERS, OR PRUNING SHEARS. BE SURE NOT TO SCATTER STEMS OR ROOT FRAGMENTS.
3. BE SURE THAT ALL PIECES OF STEMS AND CUT KNOTWEED ARE DISPOSED OF OFF-SITE PROPERLY TO PREVENT RE-INFESTATION.
4. CUT ANY FLOWERS THAT HAVE APPEARED IN THE SHORT GROW BACK PERIOD.
5. TO ERADICATE THE KNOTWEED, EITHER SMOTHER CANES AT START OF PROJECT AND ON A REGULAR BASIS DURING THE GROWING SEASON, OR CUT AND REMOVE VEGETATED GROWTH REGULARLY DURING THE GROWING SEASON TO DEPLETE ENERGY STORES IN THE PLANT.
6. MONITOR KNOTWEED INFESTATION AND REPEAT AS NEW STARTS BEGIN TO COME BACK ONE MORE TIME BEFORE THE FIRST FROST.



A SILT FENCE

Scale: NTS



NOTES

1. FIBER ROLL SHALL BE INSTALLED PRIOR TO START OF WORK.
2. FIBER ROLL SHALL BE 9 INCH IN DIAMETER.
3. STAKING: WOODEN STAKES ARE RECOMMENDED TO SECURE THE FIBER ROLL. BE SURE TO USE A STAKE THAT IS LONG ENOUGH TO PROTRUDE SEVERAL INCHES ABOVE THE COIR LOG OR STRAW WATTLE: 18" IS A GOOD LENGTH FOR HARD, ROCKY SOIL; FOR SOFT LOAMY SOIL USE A 24" STAKE.
4. WHEN INSTALLING RUNNING LENGTHS OF FIBER ROLL, BUTT THE SECOND LOG TIGHTLY AGAINST THE FIRST; DO NOT OVERLAP THE ENDS.
5. STAKE THE FIBER ROLLS AT EACH END AND THREE (3) FEET ON CENTER. STAKES SHOULD BE DRIVEN OUTSIDE THE FIBER ROLL, BUT CLOSE ENOUGH TO HOLD IT IN PLACE. LEAVE 2 - 3 INCHES OF THE STAKE PROTRUDING ABOVE THE FIBER ROLL. A HEAVY SEDIMENT LOAD WILL TEND TO PICK UP THE FIBER ROLL AND COULD PULL IT OFF THE STAKES IF THEY ARE DRIVEN DOWN TOO LOW.
6. WHEN FIBER ROLL IS USED FOR FLAT GROUND APPLICATIONS, DRIVE THE STAKES STRAIGHT DOWN; WHEN INSTALLING FIBER ROLL ON SLOPES, DRIVE THE STAKES PERPENDICULAR TO THE SLOPE. DRIVE THE FIRST END STAKE OF THE SECOND FIBER ROLL AT AN ANGLE TOWARD THE FIRST FIBER ROLL IN ORDER TO HELP ABUT THEM TIGHTLY TOGETHER.

B FIBER ROLL

Scale: NTS

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July 05, 2023
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CITY OF MERCER ISLAND

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TESC DETAILS AND INVASIVE SPECIES REMOVAL NOTES

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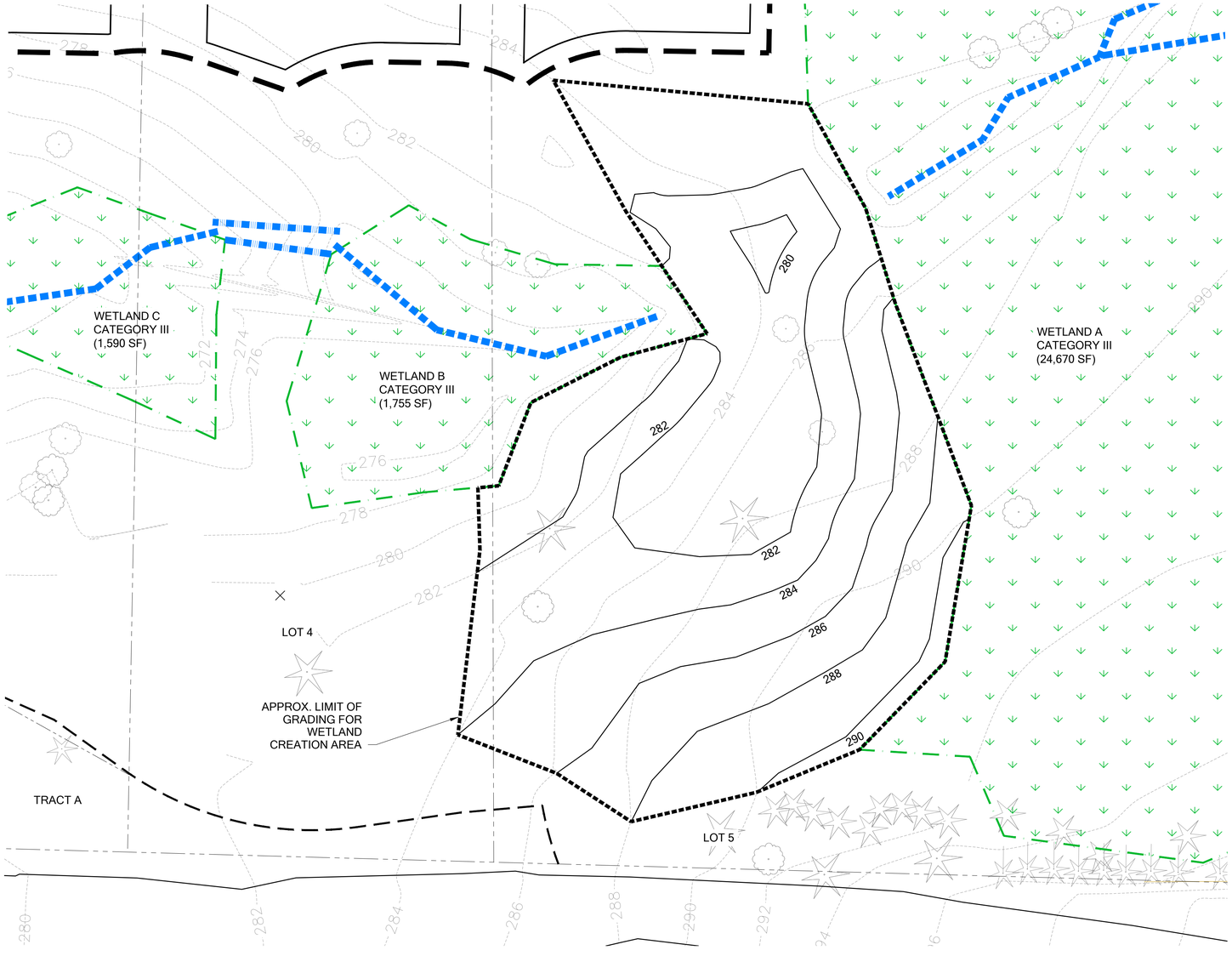

LEGEND

EXISTING FEATURES

- EXISTING CONTOUR
- WETLAND BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- EXISTING TREE

PROPOSED FEATURES

- 284 PROPOSED CONTOUR
- WETLAND/WATERCOURSE BUFFER (50 FT)
- REDUCED WETLAND/WATERCOURSE BUFFER (25 FT)
- APPROX. LIMIT OF GRADING

PRELIMINARY GRADING SEQUENCE FOR WETLAND CREATION AREA

1. MECHANIZED EXCAVATION SHALL BE AVOIDED IN WETLAND AND STREAM.
2. REMOVE ROAD BED TO MATCH ADJACENT GRADES.
3. CONDUCT SUBSURFACE EVALUATION BY GEOTECHNICAL ENGINEER TO DETERMINE DEPTH OF ADDITIONAL ROAD BED EXCAVATION.
4. COMPLETE ROAD BED EXCAVATION PER GEOTECHNICAL ENGINEER RECOMMENDATIONS.
5. BACKFILL ROAD BED EXCAVATION AREA WITH APPROVED WETLAND SOILS TO ACHIEVE PROPOSED GRADES.
6. COMPLETE PROPOSED GRADING.

NOTES

1. SEE CIVIL ENGINEER PLANS FOR ALL GRADING PLANS OUTSIDE OF WETLAND CREATION AREA.
2. GRADING SHOWN IS CONCEPTUAL AND SUPERFICIAL IN NATURE. SUBSURFACE EVALUATION IS REQUIRED TO ASSESS DRAINAGE CONDITION.

WETLAND CREATION AREA GRADING PLAN

0 5' 10' 20' 40'

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LEGEND

EXISTING FEATURES

- EXISTING CONTOUR
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- WATERCOURSE BOUNDARY (DELINEATED)
- WATERCOURSE BOUNDARY (APPROX.)
- EXISTING TREE

PROPOSED FEATURES

- 284 PROPOSED CONTOUR
- WETLAND/WATERCOURSE AREA BUFFER (50 FT)
- REDUCED WETLAND/WATERCOURSE BUFFER (25 FT)
- WETLAND CREATION PLANTING (2,305SF)
- WETLAND RESTORATION PLANTING (24,670 SF)
- BUFFER MITIGATION PLANTING (21,080 SF)

NOTES

1. SEE SHEET W7.1 FOR PLANTING SCHEDULE.

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PLANTING PLAN

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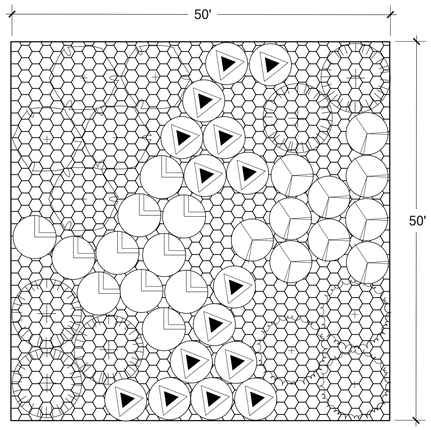
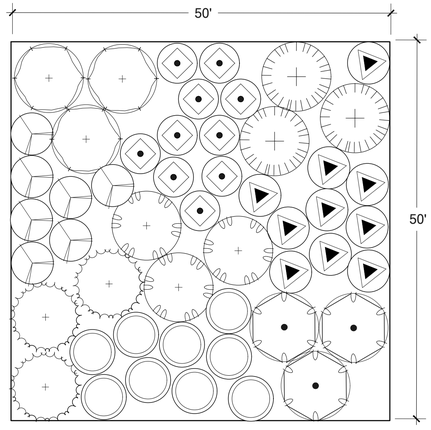
WETLAND CREATION CANDIDATE PLANT SCHEDULE (2,305 SF)

TREES*	QTY	SPACING	SIZE	NOTE
ALNUS RUBRA / RED ALDER	3	9' O.C.	2 GAL.	ALL PLANTS TO BE FULL AND WELL ROOTED
PICEA SITCHENSIS / SITKA SPRUCE	3	9' O.C.	2 GAL.	
THUJA PLICATA / WESTERN REDCEDAR	4	9' O.C.	2 GAL.	
SHRUBS				
CORNUS SERICEA / REDTWIG DOGWOD	10	6' O.C.	1 GAL.	
PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	10	6' O.C.	1 GAL.	
RUBUS SPECTABILIS / SALMONBERRY	10	6' O.C.	1 GAL.	
GROUNDCOVER**				
**SPECIES TO BE PLACED IN GROUPS OF 9 - 15 AND SPACED TRIANGULARLY				
CAREX OBNUPTA / SLOUGH SEDGE	165	24" O.C.	4" POT	
JUNCUS EFFUSUS/ SOFT RUSH	165	24" O.C.	4" POT	
SCIRPUS MICROCARPUS / SMALL-FRUITED BULRUSH	165	24" O.C.	4" POT	



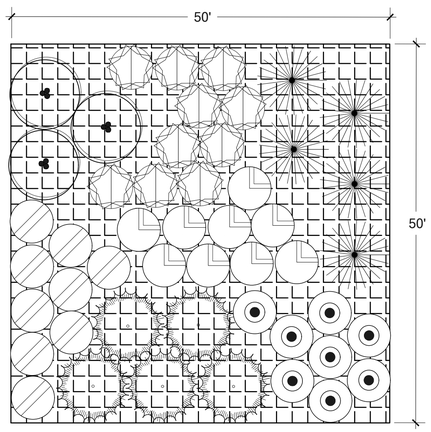
WETLAND RESTORATION CANDIDATE PLANT SCHEDULE (24,670 SF)

TREES*	QTY	SPACING	SIZE	NOTE
SALIX LUCIDA / PACIFIC WILLOW	31	9' O.C.	6' TALL	ALL PLANTS TO BE FULL AND WELL ROOTED
SALIX SITCHENSIS / SITKA WILLOW	30	9' O.C.	2 GAL.	
PICEA SITCHENSIS / SITKA SPRUCE	31	9' O.C.	6' TALL	
PRUNUS EMARGINATA / BITTER CHERRY	31	9' O.C.	6' TALL	
THUJA PLICATA / WESTERN REDCEDAR	31	9' O.C.	6' TALL	
SHRUBS				
CORNUS SERICEA / REDTWIG DOGWOOD	90	6' O.C.	1 GAL.	
PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	90	6' O.C.	1 GAL.	
ROSA PISOCARPA / CLUSTER ROSE	90	6' O.C.	1 GAL.	
SPIRAEA DOUGLASII / HARDHACK	90	6' O.C.	1 GAL.	



BUFFER MITIGATION CANDIDATE PLANT SCHEDULE (21,080 SF)

TREES*	QTY	SPACING	SIZE	NOTE
ACER MACROPHYLLUM / BIG-LEAF MAPLE	35	9' O.C.	2 GAL.	ALL PLANTS TO BE FULL AND WELL ROOTED
PSEUDOTSUGA MENZIESII / DOUGLAS-FIR	35	9' O.C.	2 GAL.	
TSUGA HETEROPHYLLA / WESTERN HEMLOCK	35	9' O.C.	2 GAL.	
SHRUBS				
OEMLERIA CERASIFORMIS / OSOBERRY	75	6' O.C.	1 GAL.	
SAMBUCUS RACEMOSA / RED ELDERBERRY	75	6' O.C.	1 GAL.	
CORYLUS CORNUTA / BEAKED HAZELNUT	75	6' O.C.	1 GAL.	
RUBUS SPECTABILIS / SALMONBERRY	75	6' O.C.	1 GAL.	
GROUNDCOVER**				
**SPECIES TO BE PLACED IN GROUPS OF 9 - 15 AND SPACED TRIANGULARLY				
FRAGARIA CHILOENSIS / COASTAL STRAWBERRY	600	3' O.C.	4" POT	
POLYSTICHUM MUNITUM / WESTERN SWORDFERN	600	3' O.C.	4" POT	
MAHONIA NERVOSA / LOW OREGON GRAPE	600	3' O.C.	4" POT	



TYPICAL PLANTING SCHEDULES

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PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

QUALITY ASSURANCE
1. PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
2. PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
3. TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
4. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS
1. PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC..; SPRIGS, PLUGS, AND LINERS.
2. CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
2. SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
3. IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
4. SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION
1. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
2. PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
3. THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS
1. PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
2. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
3. WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

SUBMITTALS

PROPOSED PLANT SOURCES
1. WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES
1. PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
2. HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION
CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS
1. TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
2. SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
3. HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
4. LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY
PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

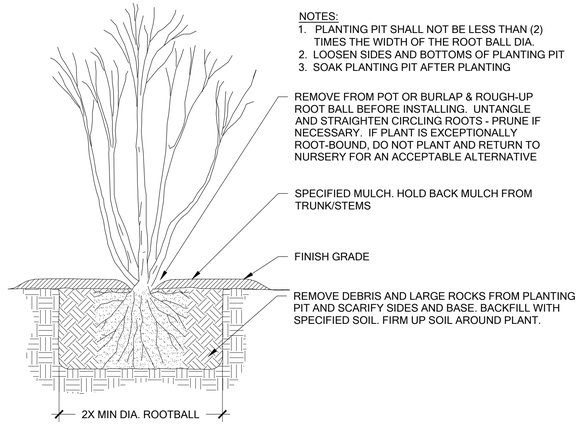
REPLACEMENT
1. PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
2. PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

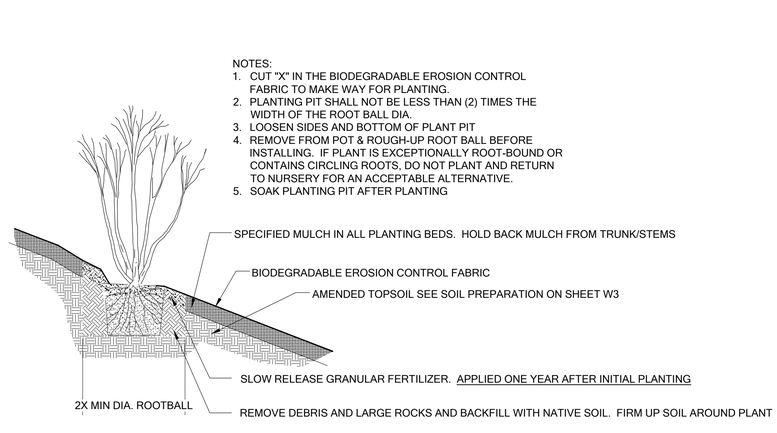
GENERAL
1. PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES
SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

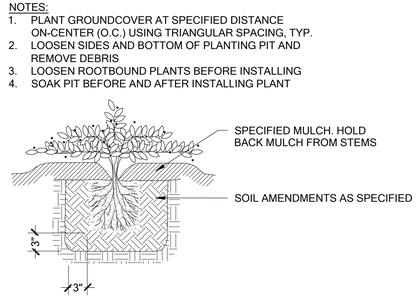
ROOT TREATMENT
1. CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
2. PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
3. ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.



A TREE AND SHRUB PLANTING
Scale: NTS



B TREE AND SHRUB PLANTING ON A SLOPE
Scale: NTS



C GROUNDCOVER PLANTING
Scale: NTS

NFC
NOT FOR CONSTRUCTION

PLANT INSTALLATION DETAILS AND NOTES

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

MERCERTECH INTERNATIONAL LLC
LONG PLAT MITIGATION AND RESTORATION PLAN
PREPARED FOR ALAN CHIU
PARCEL # 1824059031
4320 ISLAND CREST WAY
MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-29-17	30% SUBMITTAL - PREAPP	LV
2	10/17/17	30% SUBMITTAL - PREAPP 2	RH
3	10/27/17	30% SUBMITTAL - APPLICAITON	RH
4	04/18/18	CITY COMMENT RESPONSE 1	RH

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: MD
DESIGNED: LV, RH
DRAFTED: LV, RH
CHECKED: LV, AM
JOB NUMBER:
160905
SHEET NUMBER:
W7.2 OF 14

FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN DWG
PRINTED BY ROEN HOHLFELD
DATE 10/27/17

MITIGATION / RESTORATION SPECIFICATIONS

PROJECT SUMMARY

THIS PLAN HAS BEEN PREPARED 1) TO RESTORE PREVIOUSLY ALTERED AREAS SUBJECT TO A NOTICE OF CORRECTION AND 2) TO MITIGATE WETLAND AND WATERCOURSE BUFFER IMPACTS ASSOCIATED WITH THE PROPOSED SUBDIVISION.

THE NOTICE OF CORRECTION INDICATED THAT FILL MATERIAL SUCH AS WOOD CHIPS HAD BEEN PLACED ON THE SUBJECT PROPERTY, AND THAT TREES AND SHRUBBY VEGETATION HAVE BEEN CLEARED OVER TIME. THE AREA SUBJECT TO THE NOTICE OF CORRECTION APPEARS TO HAVE BEEN APPLIED TO APPROXIMATELY 12,748 SQUARE FEET OF THE SUBJECT PROPERTY. RESTORATION OF THE AREA SUBJECT TO THE NOTICE OF CORRECTION INCLUDES REMOVAL OF THE WOOD CHIPS AND NON-NATIVE AND INVASIVE PLANT SPECIES, AND THE INSTALLATION OF A NATIVE TREE, SHRUB AND GROUNDCOVER PLANT COMMUNITY.

THE PROJECT PROPOSES BUFFER REDUCTION WITH ENHANCEMENT IN AREAS ADJACENT TO THE PROPOSED RESIDENTIAL DEVELOPMENT. ENHANCEMENT OF THE EXISTING DEGRADED BUFFER AREAS WILL INCLUDE THE REMOVAL OF NON-NATIVE AND INVASIVE SPECIES, AND THE INSTALLATION OF A NATIVE TREE, SHRUB AND GROUNDCOVER PLANT COMMUNITY.

THE PROPOSED BUFFER REDUCTION INCLUDES 1,988 SQUARE FEET OF WETLAND AS BUFFER. TO MITIGATE FOR THE WETLAND AS BUFFER, THE CREATION OF 2,305 SQUARE FEET OF WETLAND IS PROPOSED. THE WETLAND CREATION AREA WILL BE PLANTED WITH A NATIVE TREE, SHRUB AND EMERGENT PLANT COMMUNITY.

WORK SEQUENCE (SEE MATERIALS SECTION FOR MATERIAL INFORMATION)

A RESTORATION SPECIALIST SHALL MAKE SITE VISITS TO VERIFY THE FOLLOWING PROJECT MILESTONES:

1. BEFORE BEGINNING CONSTRUCTION WORK, ESTABLISH AND DEFINE THE WORK AREA. IDENTIFY AND DEMARCATE THE LIMITS OF PROJECT GRADING AND CLEARING WITH HIGH VISIBILITY FENCING OR SIMILAR MEANS.
2. INSTALL TEMPORARY EROSION CONTROL MEASURES AS IDENTIFIED ON THE TESC PLANS.
3. CLEAR AND GRUB THE MITIGATION AND RESTORATION AREAS. CLEARING AND GRUBBING IN WETLAND AND WATERCOURSE AREAS TO BE PERFORMED USING HAND TOOLS ONLY. INVASIVE SPECIES AREA TO BE REMOVED FROM ENTIRE SITE.
4. REMOVE PREVIOUSLY PLACED WOOD CHIPS FROM VIOLATION AREA. REMOVAL TO BE PERFORMED USING HAND TOOLS ONLY.
5. SURVEY AND PAINT PROPOSED 1-FOOT CONTOURS AND STAKE CUT/FILL DEPTHS WITHIN THE WETLAND CREATION AREA BASED ON THE APPROVED PLAN SET.
6. EXCAVATE AS NECESSARY TO TIE INTO THE SURROUNDING GRADE AND CREATE WETLAND TOPOGRAPHY. ALL EXCAVATED MATERIAL NOT NEEDED FOR RE-USE IS TO BE DISPOSED OF OFFSITE. OVER-EXCAVATION MAY BE RECOMMENDED TO ACCOMMODATE THE PLACEMENT OF TOPSOIL AND/OR COMPOST AMENDMENTS. EQUIPMENT USED TO CONDUCT EXCAVATION WOULD LIKELY INCLUDE TRACKED EXCAVATORS AND DUMP TRUCKS.
7. UNDER THE DIRECTION OF THE RESTORATION SPECIALIST, PERFORM FINISHING TOUCHES ON THE WETLAND AND RESTORATION AREAS. COMPLETE ANY ADDITIONAL TOUCH-UP WORK AS DIRECTED.
8. PRIOR TO FINISH GRADING, THE RESTORATION SPECIALIST SHALL INSPECT THE SOIL CONDITION AND DETERMINE IF SOIL AMENDMENTS OTHER THAN COMPOST ARE NECESSARY.
9. INCORPORATE 5 INCHES OF COMPOST INTO THE FINISH GRADE OF THE WETLAND CREATION AREA. SEE SHEET W3 FOR SOIL PREPARATION NOTES.
10. INCORPORATE 3 INCHES OF COMPOST INTO THE FINISH GRADE OF THE BUFFER AREAS, INCLUDING THE RESTORED PORTION OF THE CONSTRUCTION ACCESS AREAS. SEE SHEET W3 FOR SOIL PREPARATION NOTES.
11. LAYOUT PLANTS PER SEQ W7
12. INSTALL NATIVE PLANTS PER PLANTING DETAILS ON SHEET W8.
    A. NATIVE PLANT INSTALLATION SHALL OCCUR DURING THE DORMANT SEASON (OCTOBER 15TH THROUGH MARCH 1ST) IN FROST-FREE PERIODS ONLY.
    B. LAYOUT PLANT MATERIAL PER PLAN FOR INSPECTION BY THE RESTORATION SPECIALIST. PLANT SUBSTITUTIONS WILL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE RESTORATION SPECIALIST.
    C. INSTALL PLANTS PER PLANTING DETAILS
13. WATER EACH PLANT THOROUGHLY TO REMOVE AIR POCKETS.
14. INSTALL A TEMPORARY IRRIGATION SYSTEM CAPABLE OF SUPPLYING AT LEAST 1-INCH OF WATER PER WEEK TO THE ENTIRE PLANTED AREA OUTSIDE WETLAND DURING THE DRY SEASON (JUNE 1ST THROUGH SEPTEMBER 30TH).
15. ONE YEAR AFTER INITIAL PLANTING, APPLY A SLOW-RELEASE, PHOSPHOROUS-FREE, GRANULAR FERTILIZER TO EACH INSTALLED PLANT.
16. PLANT GROUNDCOVERS IN WETLAND RESTORATION AREA IN YEAR 3 AFTER INVASIVE PLANTS HAVE BEEN SUCCESSFULLY MANAGED.

MAINTENANCE

THE SITE SHALL BE MAINTAINED FOR FIVE YEARS FOLLOWING SUCCESSFUL INSTALLATION.

1. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISITS IN THE FOLLOWING DORMANT SEASON (OCTOBER 15 - MARCH 1). REPLACEMENT SHALL BE OF THE SAME SPECIES AND SIZE PER PLAN UNLESS OTHERWISE APPROVED BY THE RESTORATION SPECIALIST.
2. GENERAL WEEDING FOR ALL PLANTED AREAS
    A. AT LEAST TWICE ANNUALLY, REMOVE COMPETING GRASSES AND WEEDS FROM AROUND THE BASE OF EACH INSTALLED PLANT TO A RADIUS OF 12 INCHES. WEEDING SHOULD OCCUR AT LEAST ONCE IN THE SPRING AND ONCE IN THE SUMMER. THOROUGH WEEDING WILL RESULT IN LOWER PLANT MORTALITY AND ASSOCIATED PLANT REPLACEMENT COSTS.
    B. MORE FREQUENT WEEDING MAY BE NECESSARY DEPENDING ON WEED CONDITIONS THAT DEVELOP AFTER PLANT INSTALLATION.
    C. NOXIOUS WEEDS MUST BE REMOVED FROM THE ENTIRE MITIGATION AREA, AT LEAST TWICE ANNUALLY.
    D. DO NOT USE STRING TRIMMERS IN THE VICINITY OF INSTALLED PLANTS, AS THEY MAY DAMAGE OR KILL THE PLANTS.
3. MAINTAIN A FOUR-INCH-THICK LAYER OF WOODCHIP MULCH ACROSS THE ENTIRE BUFFER MITIGATION PLANTING AREA. MULCH SHOULD BE PULLED BACK TWO INCHES FROM THE PLANT STEMS. 4. INSPECT AND REPAIR THE IRRIGATION SYSTEM AS NECESSARY EACH SPRING. DURING AT LEAST THE FIRST TWO GROWING SEASONS, MAKE SURE THAT THE ENTIRE PLANTING AREA RECEIVES A MINIMUM OF ONE INCH OF WATER PER WEEK FROM JUNE 1ST THROUGH SEPTEMBER 30TH.

GOALS

1. RESTORE 24,670 SQUARE FEET OF DEGRADED WETLAND AREA.
    A. CREATE A DENSE, NATIVE TREE AND SHRUB COMMUNITY.
    B. REMOVE NON-NATIVE AND INVASIVE PLANT SPECIES FROM THE WETLAND RESTORATION AREA.
2. ENHANCE 21,080 SQUARE FEET OF DEGRADED BUFFER AREA.
    A. CREATE A DENSE, NATIVE TREE AND SHRUB COMMUNITY.
    B. REMOVE NON-NATIVE AND INVASIVE PLANT SPECIES FROM THE ENTIRE SITE.
3. CREATE 2,303 SQUARE FEET OF ADDITIONAL WETLAND AREA.
    A. CREATE A DENSE, NATIVE SHRUB AND EMERGENT COMMUNITY.
    B. REMOVE NON-NATIVE AND INVASIVE PLANT SPECIES FROM THE WETLAND CREATION AREA.
4. RE-ESTABLISH HISTORIC STREAM/WETLAND CONDITIONS BY DAYLIGHTING PIPED WATERCOURSE AND REMOVING DRIVEWAY.

PERFORMANCE STANDARDS

THE FOLLOWING PERFORMANCE STANDARDS WILL BE USED TO GAUGE THE SUCCESS OF THE PROJECT OVER TIME. IF ALL PERFORMANCE STANDARDS HAVE BEEN SATISFIED BY THE END OF YEAR FIVE, THE PROJECT SHALL BE CONSIDERED COMPLETE AND THE CITY OF MERCER ISLAND SHALL RELEASE THE PERFORMANCE BOND (IF REQUIRED).

1. SURVIVAL:
    A. ACHIEVE 100% SURVIVAL OF INSTALLED PLANTS BY THE END OF YEAR 1.
    B. ACHIEVE 80% SURVIVAL OF INSTALLED WOODY PLANTS BY THE END OF YEAR 2.

    THIS STANDARD CAN BE MET THROUGH PLANT ESTABLISHMENT OR THROUGH REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
2. COVER:
    A. ACHIEVE 60% COVER OF NATIVE TREES AND SHRUBS BY YEAR 3 WITHIN PLANTED WETLAND AND BUFFER AREAS. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.
    B. ACHIEVE 10% COVER OF NATIVE EMERGENT PLANTS WITHIN THE CREATED WETLAND AREA BY YEAR 3.
    C. ACHIEVE 80% COVER OF NATIVE TREES AND SHRUBS BY YEAR 5 WITHIN PLANTED WETLAND AND BUFFER AREAS. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.
    D. ACHIEVE 30% COVER OF NATIVE EMERGENT PLANTS WITHIN WETLAND AREAS BY YEAR 5.
3. DIVERSITY:
    A. ESTABLISH AT LEAST THREE NATIVE TREE SPECIES, FIVE NATIVE SHRUB SPECIES, AND TWO NATIVE GROUNDCOVERS WITHIN THE WETLAND RESTORATION AND BUFFER MITIGATION AREAS. VOLUNTEER SPECIES MAY COUNT TOWARDS THIS STANDARD.
    B. ESTABLISH AT LEAST TWO NATIVE TREE SPECIES, THREE NATIVE SHRUB SPECIES, AND TWO NATIVE GROUNDCOVERS WITHIN THE WETLAND CREATION AREA.

    ESTABLISHMENT IS DEFINED AS FIVE OR MORE INDIVIDUAL PLANTS OF THE SAME SPECIES ALIVE AND HEALTHY.
4. INVASIVE COVER: NO MORE THAN 10% COVER BY INVASIVE WEED SPECIES WITHIN ALL PLANTED AREAS IN ANY MONITORING YEAR.
5. HYDROLOGY STANDARD (WETLAND CREATION AREA ONLY):
    A. EVIDENCE OF WETLAND HYDROLOGY IN THE WETLAND CREATION AREA. SOIL SATURATION WITHIN THE UPPER 12 INCHES OF THE SOIL SURFACE, PRESENT FOR TWO CONSECUTIVE WEEKS DURING THE GROWING SEASON (MARCH 1ST TO OCTOBER 15TH) DURING EACH MONITORING YEAR AS MEASURED PER THE PROTOCOL IN THE MONITORING METHODS SECTION, BELOW.
6. HYDRIC SOIL STANDARD (WETLAND CREATION AREA ONLY):
    A. HYDRIC SOILS WILL BE ASSUMED PRESENT IF THE HYDROLOGY STANDARD IS MET.

MONITORING

PRIOR TO THE COMMENCEMENT OF THE MONITORING PHASE, AN AS-BUILT PLAN DOCUMENTING THE SUCCESSFUL INSTALLATION OF THE PROJECT WILL BE SUBMITTED TO THE CITY OF MERCER ISLAND. IF NECESSARY, THE AS-BUILT REPORT MAY INCLUDE A MARK-UP OF THE ORIGINAL PLAN THAT NOTES ANY SIGNIFICANT CHANGES OR SUBSTITUTIONS THAT OCCURRED. DURING THE AS-BUILT INSPECTION, THE RESTORATION SPECIALIST WILL ESTABLISH AT LEAST FOUR PERMANENT PHOTO-POINTS.

DURING THE AS-BUILT INSPECTION, THE RESTORATION SPECIALIST SHALL INSTALL AT LEAST TWO REPRESENTATIVELY LOCATED SHALLOW GROUNDWATER WELLS IN THE WETLAND CREATION AREA. GROUNDWATER WELLS SHALL BE INSTALLED TO A MINIMUM DEPTH OF 24 INCHES. WELLS TO BE CONSTRUCTED OF 2-INCH DIAMETER PVC PIPE WITH CAPS. BELOW GROUND PORTIONS ARE TO BE PERFORATED WITH ¼" HOLES SPACED NO FARTHER THAN ½" APART. ALTERNATIVELY, AUTOMATED GROUNDWATER MONITORING DATA LOGGING DEVICES MAY BE USED IN-LIEU OF MANUALLY MONITORED WELLS.

THE SITE WILL BE MONITORED TWICE ANNUALLY FOR FIVE YEARS BEGINNING WITH APPROVAL OF THE AS-BUILT REPORT. EACH SPRING THE RESTORATION SPECIALIST WILL CONDUCT A BRIEF MAINTENANCE INSPECTION FOLLOWED BY A MEMO SUMMARIZING MAINTENANCE ITEMS NECESSARY FOR THE UPCOMING GROWING SEASON. THE FORMAL LATE-SEASON MONITORING INSPECTION WILL TAKE PLACE ONCE ANNUALLY DURING LATE SUMMER OR EARLY FALL. DURING EACH LATE-SEASON MONITORING INSPECTION, THE FOLLOWING DATA WILL BE COLLECTED:

1. PERCENT SURVIVAL OF ALL INSTALLED PLANTINGS, INCLUDING SPECIES SPECIFIC COUNTS OF INSTALLED TREE AND SHRUB PLANTINGS (NOTE: GROUNDCOVER PLANTS COUNTED IN YEAR-1 ONLY, FOR WARRANTY PURPOSES).
2. NATIVE WOODY COVER AS DETERMINED USING VISUAL COVER CLASS ESTIMATES.
3. NATIVE GROUNDCOVER PLANT COVER AS DETERMINED USING VISUAL COVER CLASS ESTIMATES.
4. ESTIMATES OF INVASIVE HERBACEOUS PLANTS OR GROUNDCOVER USING VISUAL COVER ESTIMATES.
5. THE SPECIES COMPOSITION, NOTING WHETHER A SPECIES IS NATIVE OR EXOTIC AND WHETHER PLANTS WERE INSTALLED OR ARE VOLUNTEERS.
6. THE GENERAL HEALTH AND VIGOR OF THE INSTALLED VEGETATION.
7. PHOTOGRAPHS FROM FIXED PHOTO-POINTS ESTABLISHED DURING THE AS-BUILT INSPECTION.
8. ANY EVIDENCE OF WILDLIFE USAGE.
9. DEPTH OF GROUNDWATER BELOW THE SOIL SURFACE SHALL BE RECORDED AT ESTABLISHED WELLS IN THE WETLAND CREATION AREA.

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY TO THE CITY. REPORTS SHALL DOCUMENT THE CONDITIONS OF THE SITE, INCLUDING QUANTITATIVE DATA COLLECTED DURING THE MONITORING INSPECTION, AND SHALL PROVIDE MAINTENANCE RECOMMENDATIONS THAT MAY BE NECESSARY TO HELP THE SITE ACHIEVE THE STATED PERFORMANCE STANDARDS.

CONTINGENCY PLAN

IF ANY MONITORING REPORT REVEALS THAT THE RESTORATION PLAN HAS FAILED IN WHOLE OR IN PART, AND SHOULD THAT FAILURE BE BEYOND THE SCOPE OF ROUTINE MAINTENANCE, THE APPLICANT WILL SUBMIT A CONTINGENCY PLAN TO THE CITY OF MERCER ISLAND FOR APPROVAL. THIS PLAN MAY INCLUDE REPLANTING, SOIL AMENDMENTS OR TOPDRESSING, SUBSTITUTIONS FOR SPECIES SELECTED IN THE ORIGINAL PLAN, AND ADAPTIVE WEED CONTROL METHODS.

MATERIALS

1. WOODCHIP MULCH: "ARBORIST CHIPS" (CHIPPED WOODY MATERIAL) APPROXIMATELY ONE TO THREE INCHES IN MAXIMUM DIMENSION (NOT SAWDUST). THIS MATERIAL IS COMMONLY AVAILABLE IN LARGE QUANTITIES FROM ARBORISTS OR TREE-PRUNING COMPANIES. THIS MATERIAL IS SOLD AS "ANIMAL FRIENDLY HOG FUEL" AT PACIFIC TOPSOILS [(800) 884-7645]. MULCH SHALL NOT CONTAIN APPRECIABLE QUANTITIES OF GARBAGE, PLASTIC, METAL, SOIL, AND DIMENSIONAL LUMBER OR CONSTRUCTION/DEMOLITION DEBRIS. APPROX. QUANTITY REQUIRED: 60 CUBIC YARDS.
2. COMPOST: CEDAR GROVE COMPOST OR EQUIVALENT "COMPOSTED MATERIAL" PER WASHINGTON ADMIN. CODE 173-350-220. QUANTITY REQUIRED: 35 CUBIC YARDS
3. FERTILIZER: SLOW-RELEASE, PHOSPHOROUS-FREE GRANULAR FERTILIZER. MOST COMMERCIAL NURSERIES CARRY THIS PRODUCT. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR USE. KEEP FERTILIZER IN WEATHER-TIGHT CONTAINER WHILE ON-SITE. FERTILIZER IS ONLY TO BE APPLIED IN YEARS TWO AND THREE, NOT IN YEAR ONE.
4. RESTORATION SPECIALIST: QUALIFIED PROFESSIONAL ABLE TO EVALUATE AND MONITOR THE CONSTRUCTION OF ENVIRONMENTAL RESTORATION PROJECTS.
5. FERTILIZER (FOR NEAR AQUATIC ENVIRONMENTS): SLOW-RELEASE, PHOSPHOROUS-FREE GRANULAR FERTILIZER. LABEL MUST INDICATE THAT PRODUCT IS SAFE FOR AQUATIC ENVIRONMENTS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR USE. KEEP FERTILIZER IN WEATHER-TIGHT CONTAINER WHILE ON-SITE. FERTILIZER IS ONLY TO BE APPLIED IN YEARS TWO AND THREE, NOT IN YEAR ONE.

REVIEWED FOR CODE COMPLIANCE
July 05, 2023
SITE COPY
CITY OF MERCER ISLAND, WASHINGTON

NFC
NOT FOR CONSTRUCTION

MITIGATION AND RESTORATION NOTES

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750 Sixth Street South
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DATE 10/27/17 | PRINTED BY ROEN HOHLFELD | FILENAME 160905 MERCER ISLAND CHIU MITIGATION PLAN.DWG