

# GENERAL NOTES

- 1. CODE COMPLIANCE:** ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IMC, 2018 IFGC, 2018 IFB, 2018 UPC, 2018 IPMC, 2020 NEC, 2018 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES, ORDINANCES, AND COVENANTS OF THE JURISDICTION WHERE IT IS BUILT.
- 2. DIMENSIONS:** DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +/- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.
- 3. DOCUMENT REVIEW/VERIFICATION:** CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK.
- 4. ROUGH OPENINGS/BACKING:** VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.
- 5. FURRING:** PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.
- 6. GRADES:** VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).
- 7. FLOOR LINES:** "FLOOR LINE" REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.
- 8. REPETITIVE FEATURES:** OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.
- 9. DOORS:** DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.
- 10. WOOD MEMBERS IN CONTACT WITH CONCRETE AND/OR EXPOSED TO WEATHER:** TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 6" TYPICAL.
- 11. FRAMING:** ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C. & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C., UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS. EXISTING EXTERIOR WALLS ARE 2X4 STUDS @ 16" O.C. AND ARE TO REMAIN. NEW INTERMEDIATE FRAMING AT EXTERIOR WOOD WALLS REQUIRES HEADERS INSULATED WITH A MIN. R-10 INSULATION.
- 12. VENTILATION:** VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED. WSEC R402.4.1.2 REQUIRES THE DWELLING UNIT TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. TESTING MUST BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2. NEW CONSTRUCTION MAY BE ISOLATED FROM EXISTING STRUCTURE FOR TESTING.
- 13. FLUES:** FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.
- 14. DOWNSPOUTS:** LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.
- 15. OTHER DOCUMENTATION:** REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.
- 16. PROTECTION:** PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.
- 17. PERMITS:** SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT.
- 18. ROOFING:** PROVIDE NEW ROOFING.
- 19. EXHAUST DUCTS:** PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS. PROVIDE COMBUSTION AIR OPENINGS INTO FURNACE ROOM PER UMC 703.
- 20. APPLIANCES:** CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.
- 21. WATER FLOW:** SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.
- 22. SMOKE DETECTORS:** SMOKE & CARBON MONOXIDE THROUGHOUT NEW CONSTRUCTION, TO BE MONITORED PER FIRE DEPARTMENT REQUIREMENTS.
- 23. FIREBLOCKING:** FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION. PER 2015 IRC SECTION R302.11. SPECIFICALLY 1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS. 2) AT INTERSECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES. 3) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT T.O. & B.O. RUN. 4) AT OPENINGS AROUND VENTS, PIPES, ETC. AT CEILING AND FLOOR LEVEL.

# DUTY OF COOPERATION

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS. FAILURE TO DO SO SHALL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS ARE UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.

# PROJECT TEAM

**OWNER:** MITCHEL & WENDY MOUNGER  
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CONTACT: TOM HANSON

**INTERIOR DESIGNER:** SUSAN MARINELLO INTERIORS  
119 SOUTH MAIN STREET, SUITE #300  
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CONTACT: SUSAN MARINELLO

# PROJECT DATA

**PROJECT ADDRESS:** 4006 E MERCER WAY  
MERCER ISLAND, WA 98040

**PROPERTY TAX ID NUMBER:** 413190-005

**SCOPE OF WORK:** DEMOLITION OF EXISTING SINGLE FAMILY HOME AND CONSTRUCTION OF NEW 2 STORY SINGLE FAMILY HOME WITH PARTIAL BASEMENT AND ATTACHED GARAGE ON EXISTING SINGLE FAMILY RESIDENTIAL LOT.

**ZONING:** R-9.6

**CONSTRUCTION TYPE:** TYPE V-B

**SEISMIC ZONE:** 3

**NUMBER OF STORIES:** 2 STORY

**FIRE PROTECTION:** 13D FIRE SPRINKLER SYSTEM

**BUILDING HEIGHT:** 30 FT ABOVE AVERAGE BUILDING ELEVATION (FLAT ROOF)  
35 FT ABOVE AVERAGE BUILDING ELEVATION (SLOPED ROOF)

**LOT AREA:** 36,116 SF

**SETBACKS:** FRONT LOT LINE = 20 FT  
WATERFRONT LOT LINE = 50 FT  
SIDE LOT LINES = 15 FT,  
= 5 FT MIN. EACH

**GROSS FLOOR AREA:** LESSER OF 40.0% LOT AREA OR 8,000 SF = 8,000 SF

# LEGAL DESCRIPTION

PER STATUTORY WARRANTY DEED REC. NO. 20200423001396

LOT 1, LAKEHOLM ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 52, RECORDS OF KING COUNTY, WASHINGTON;

TOGETHER WITH SECOND CLASS SHORELANDS ADJACENT OR ABUTTING THEREON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

# 2018 WSEC CREDITS

MEDIUM DWELLING UNIT: 6.0 CREDITS REQUIRED  
DWELLING UNIT EXCEEDS 1,500 SQUARE FEET BUT IS LESS THAN 5,000 SQUARE FEET CONDITIONED SPACE.

CREDITS	OPTION	DESCRIPTION	0.5	5.2
1.0	1	HEAT PUMP W/ MIN HSPF OF 11 AND MAX 70.923 BTU/HR		
0.5	1.3	VERTICAL FENESTRATION U = 0.28 FLOOR R-38 SLAB ON GRADE R-10	1.5	3.5
1.5	2.3	REDUCE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAX. AT 50 PASCALS		
0.5	4.1	WHOLE HOUSE VENTILATION REQS MET W/ HEAT RECOVERY SYSTEM W/ MIN. EFFICIENCY OF 0.75, 125 CFM	0.5	7.1
		ALL NEW AND INSTALLED APPLIANCES (DISHWASHER, REFRIGERATOR, WASHING MACHINE, DRYER) SHALL BE ENERGY STAR RATED. DRYER TO BE VENTLESS DRYER WITH MIN CEF RATING OF 5.2		
		ALL SUPPLY AND RETURN DUCTS IN UNCONDITIONED ATTIC SHALL BE DEEPLY BURIED IN CEILING INSULATION		
		MECH EQUIPMENT LOCATED OUTSIDE OF CONDITIONED SPACE, MAX OF 10 LINER FEET OF RETURN DUCT AND 5 LINEAR FEET OF SUPPLY DUCT MAY BE OUTSIDE THE DEEPLY BURIED INSULATION		
		DUCT LEAKAGE SHALL BE LIMITED TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED AREA		
		AIR HANDLER(S) SHALL BE LOCATED WITHIN CONDITIONED SPACE		
TOTAL CREDITS			6 CREDITS	

# BUILDING AREA

	BASEMENT	MAIN FLOOR	SECOND FLOOR	HEATED SUB-TOTAL	BASEMENT MECH/ENTRY	OUTDOOR ROOM	ATTACHED GARAGE	GRAND TOTAL
PROPOSED HOUSE SF:	498 SF	2,150 SF	2,252 SF	4,900 SF	179 SF	817 SF	923 SF	6,819 SF

# LOT COVERAGE AND HARDSCAPE

LOT COVERAGE							HIGHEST EL.: 112.5' - LOWEST EL.: 18.0' ELEVATION DIFFERENCE= 94.5'			
	GROSS LOT S.F.	MAIN ROOF STRUCT.	COVERED PATIO/DECK	DRIVEWAY	GRAVEL DRIVEWAY	TOTAL LOT COVERAGE	% LOT COVERAGE			
PROPOSED LOT COVERAGE	36,116 SF	3,662 SF	763 SF	814 SF	422 SF	5,661 SF	15.7%			
% ALLOWED LOT COVERAGE						12,641 SF ALLOWABLE	35%			
SUBDIVIDED LOT COVERAGE	19,192 SF									
PROPOSED LOT COVERAGE	36,116 SF	3,662 SF	763 SF	814 SF	422 SF	5,661 SF	29.5%			
% ALLOWED LOT COVERAGE						6,717 SF ALLOWABLE	35%			
HARDSCAPE							LOT SLOPE IS 20.5%, WHICH IS LESS THAN 30% BUT MORE THAN 15%. SO LOT COVERAGE ALLOWED IS 35%.  ADDITIONAL 9% OF LOT SIZE WILL DETERMINE ALLOWABLE HARDSCAPE SURFACE			
	GROSS LOT S.F.	CONC ENTRY	PATIO /STAIRS	WALKWAY	AC/GARBAGE PAD	EXISTING DOCK	UNCOVERED 2ND FL DECK	PLANTER/CONC WALL/ROCKERY	TOTAL HARDSCAPE	% HARDSCAPE
PROPOSED HARDSCAPE	36,116 SF	53 SF	332 SF	169 SF	161 SF	32 SF	771 SF	113 SF	1,631 SF	4.5%
% ALLOWED HARDSCAPE									3,250.4 SF ALLOWABLE	9%
UNUSED LOT COVERAGE AVAILABLE FOR HARDSCAPE									6,836 SF AVAILABLE	
SUBDIVIDED LOT SIZE	19,192 SF									
PROPOSED HARDSCAPE	36,116 SF	53 SF	332 SF	169 SF	161 SF	32 SF	771 SF	113 SF	1,631 SF	8.5%
% ALLOWED HARDSCAPE									1,727.3 SF ALLOWABLE	9%
UNUSED LOT COVERAGE AVAILABLE FOR HARDSCAPE									2,783.3 SF AVAILABLE	

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- S3.2 STRUCTURAL DETAILS
- S3.3 STRUCTURAL DETAILS
- S3.4 STRUCTURAL DETAILS

# ENERGY NOTES

**CODE:** 2018 W.S.E.C. & 2015 IRC, WAC 51-11R

**CLIMATIC ZONE:** ZONE #4C -MARINE

**SPACE HEAT TYPE:** NATURAL GAS, FORCED AIR SYSTEM

**THERMAL STANDARDS:** UNLIMITED OPTION FOR OPENINGS:

**INSULATION VALUES:** WALLS: R-21  
FLAT ATTICS/CEILINGS: R-49  
VAULTED CEILINGS: R-38  
FLOORS (OVER UNHEATED SPACES): R-30  
SLAB-ON-GRADE: R-10

**PER WSEC R401.3, A CERTIFICATE IS REQUIRED TO BE POSTED WITHIN 3 FT OF THE ELECTRICAL PANEL. IT MUST INCLUDE THE FOLLOW: PREDOMINANT R-VALUES, U-VALUES OF FENESTRATION, RESULTS FROM DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING, AND EFFICIENCIES OF HEATING/COOLING/WATER HEATING EQUIPMENT.**

**AIR INFILTRATION:** MANUFACTURED DOORS/WINDOWS: CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE

**WHOLE HOUSE VENTILATION:** WHOLE HOUSE VENTILATION SYSTEM:  
a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN PROVIDING 320 CFM RUNNING INTERMITTENTLY PER 2015 IRC TABLE M1507.3.3 (1)(2). FAN SHALL BE LESS THAN .35 WATT PER CFM AND CONNECTED TO A 24 HOUR CLOCK TIMER AND HAVE A SONG RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.  
b. SYSTEM SHALL HAVE A 5"Ø SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS.  
c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTALLED IN AN EASILY ACCESSIBLE LOCATION.  
d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.  
e. AIRFLOW FOR WHOLE HOUSE EXHAUST FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS 1/2" ABOVE FINISHED FLOOR, TYP.

**PLUMBING FIXTURES:** ALL PLUMBING FIXTURES SHALL CONFORM TO RCW 19.27.170  
ALL TOILETS 1.6 GPM MAX URINALS 1.0 GPM MAX  
SHOWERHEADS <1.75 GPM  
LAVATORIES <1.0 GPM

**MOISTURE CONTROL:** WALLS: VAPOR RETARDER BONDED TO BATT INSULATION. INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH. OR, VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE)

**ATTICS/CEILINGS:** VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE). INSTALL CONTINUOUSLY

**CRAWL SPACE:** 6 MIL POLYETHYLENE

**VENTILATION:** ATTICS WITH LOOSE FILL: N.A. BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE ENCLOSED JOIST OR RAFTER SPACES: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION. TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION, MAINTAINING MINIMUM OF R-38.

**HEATING & COOLING:** GAS, PROPANE OR OIL-FIRED FURNACE WITH A MINIMUM AFUE OF 94% MAXIMUM OF 86.892 BTU/HR

**TEMP. CONTROL:** FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FARENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.

**DUCT INSULATION:** THERMALLY INSULATE ALL PLenums, DUCTS AND ENCLOSURES IN ACCORDANCE WITH SECTION R403.3.1 OF THE WASHINGTON STATE ENERGY CODE.  
a. ALL HEATING DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC.  
b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.

**LIGHTING:** RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE IC LISTED. A MIN. OF 75% OF PERMANENTLY INSTALLED LAMPS IN INTERIOR AND EXTERIOR LIGHTING FIXTURES MUST BE HIGH-EFFICACY LAMPS, PER WSEC R404.1.

**PIPE INSULATION:** ALL HOT WATER PIPES, AND NON-RECIRCULATING COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE, SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.

# GROSS FLOOR AREA

	PROPOSED FLOOR AREA
BASEMENT	851 SF
MAIN FLOOR	1,964 SF
SECOND FLOOR	2,043 SF
12'-16" OPEN AREA (+150%)	102 SF
16' + OPEN AREA (+200%)	490 SF
GARAGE	981 SF
TOTAL	6,431 SF

PROPOSED LOT SIZE = 36,116 SF  
GFA THRESHOLD = 8,000 SF

PROPOSED GFA = 6,431 SF  
PROPOSED %GFA COVERAGE = 17.8%

PROPOSED GFA IS 6,431 SF OR 17.8%

PROPOSED SUBDIVIDED LOT SIZE = 19,192 SF  
GFA THRESHOLD = 8,000 SF

PROPOSED GFA = 6,431 SF  
PROPOSED %GFA COVERAGE = 33.5%

PROPOSED GFA IS 6,431 SF OR 33.5% FOR SUBDIVIDED LOT

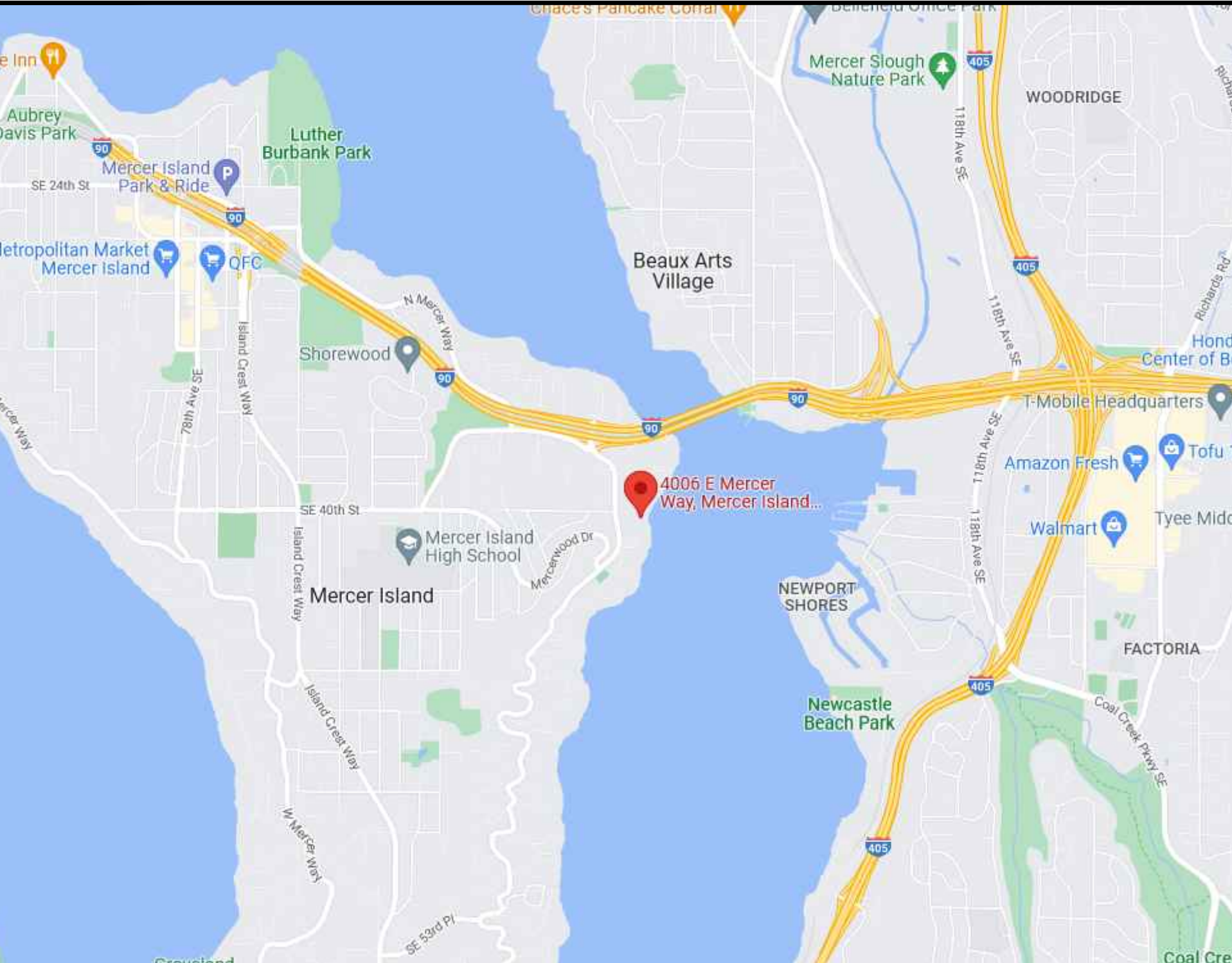
# NOXIOUS WEED REMOVAL

PER MICC 19.02.020(F)(3)(D), ALL JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, SHALL BE REMOVED FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION (F)(3)(A) OF THIS SECTION. NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED. PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

# SHORELINE IMPERVIOUS

IMPERVIOUS IN 10% ZONE (NO STRUCTURES!)	IMPERVIOUS IN 30% ZONE (STRUCTURES ALLOWED):
AREA OF ZONE: 2,162.9 SF	AREA OF ZONE: 2,112.3 SF
MAX IMPERVIOUS 10%: 216 SF	MAX IMPERVIOUS 30%: 633.7 SF
EXISTING WOOD BOAT RAMP: 124.5 SF	COVERED DECK: 553.1 SF
EXISTING STEPS: 0 SF	(E) CONCRETE: 6.2 SF
EXISTING CONCRETE PAD: 16.9 SF	(E) STEPS: 68.5 SF
EXISTING DOCK: 31.6 SF	(E) HOUSE: 413.2 SF
TOTAL: 173 SF	NEW SANDESET PAVERS: 69.6 SF
	TOTAL: 763 SF (25.0%)

# VICINITY MAP



STURMAN ARCHITECTS  
REGISTERED ARCHITECT  
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MOUNGER REMODEL  
4006 E MERCER WAY  
MERCER ISLAND, WA 98040

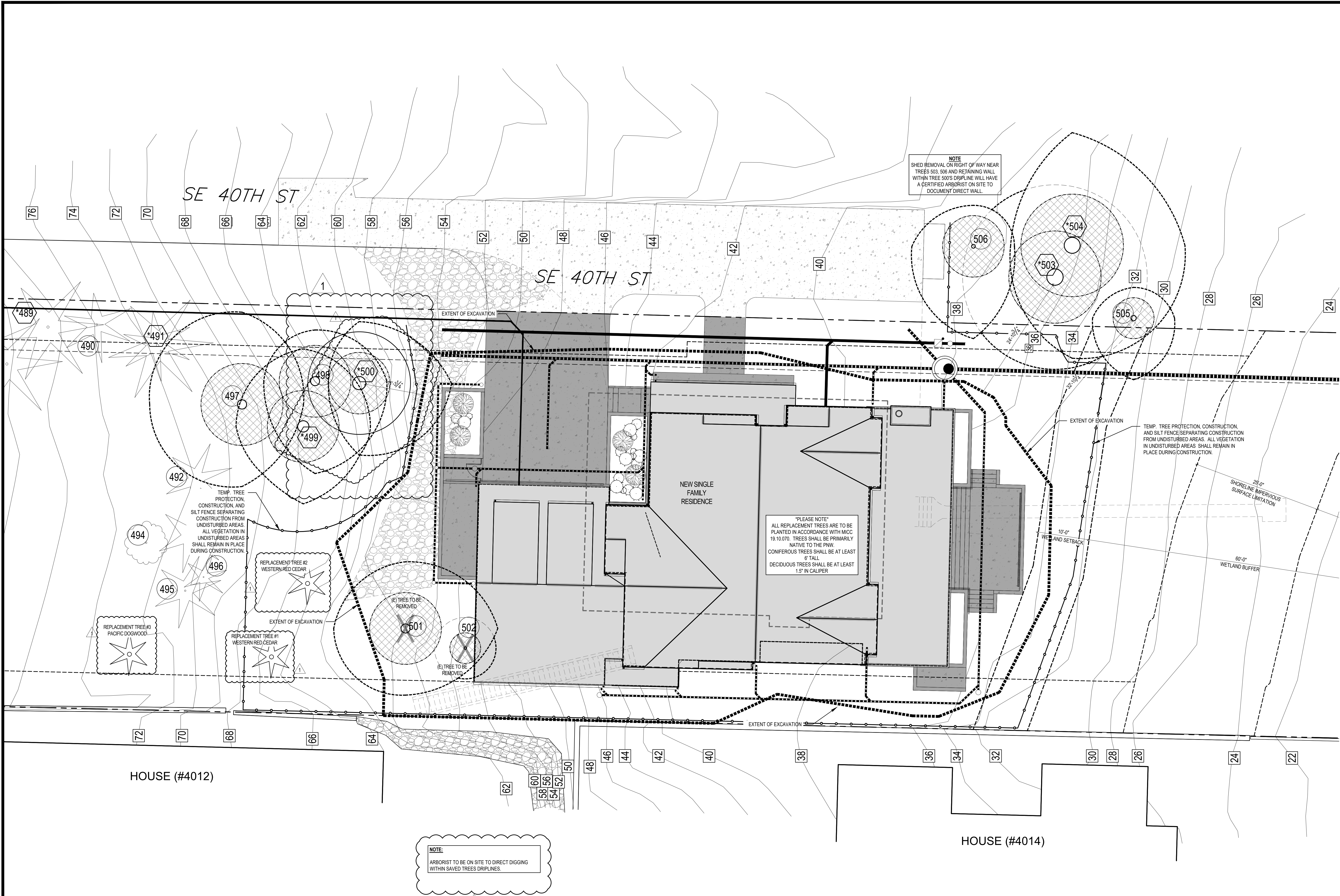
TITLE SHEET  
PROJECT DATA

REVISIONS:  
PLOT DATE: 8/8/2022  
DRAWN BY: JM  
CHECKED BY: BJS  
SHEET  
T1.0

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY  
PERMIT SET 5/2/2022







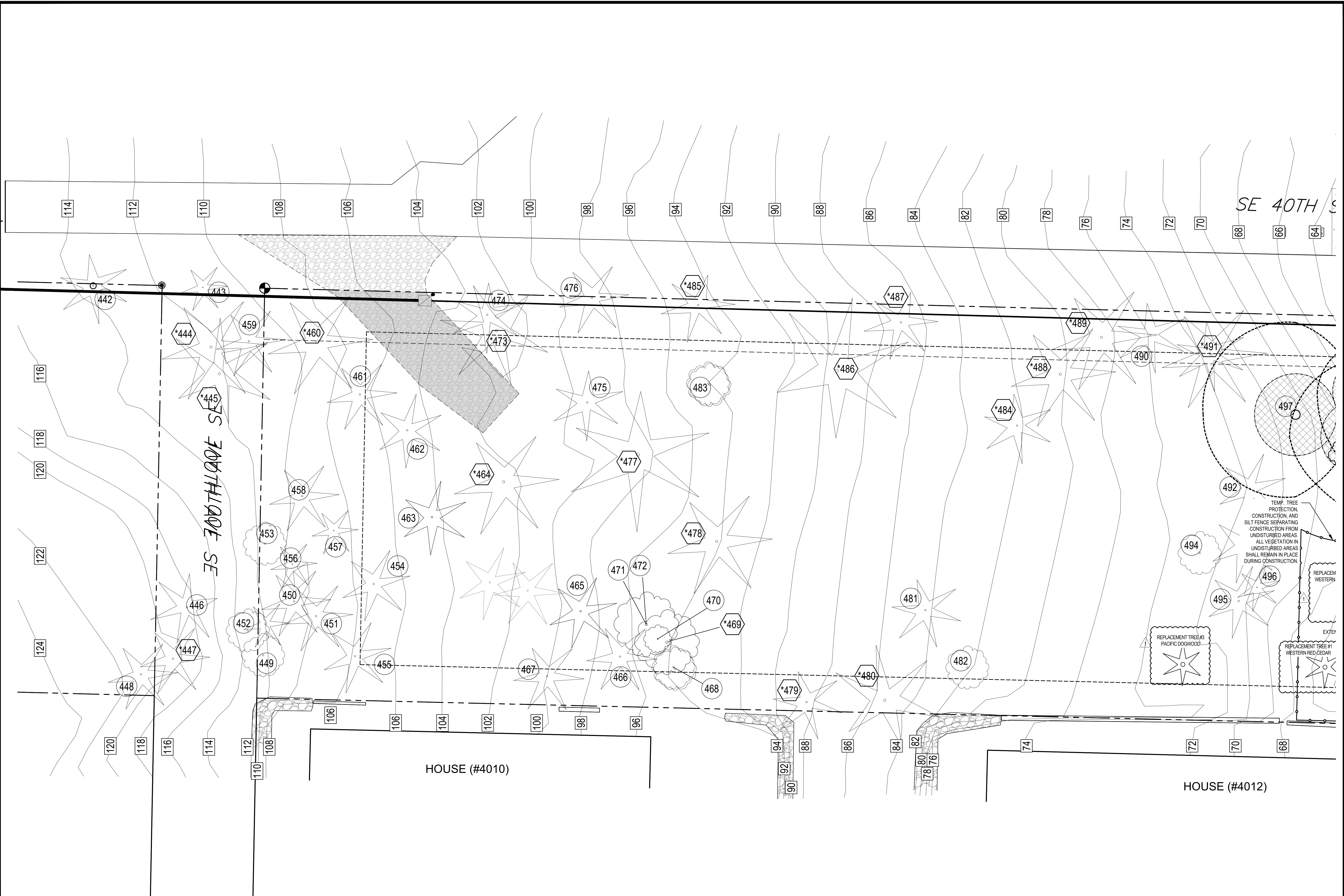
NOTE  
 SHED REMOVAL ON RIGHT OF WAY NEAR  
 TREES 503, 506 AND RETAINING WALL  
 WITHIN TREE 500'S DRIFLINE WILL HAVE  
 A CERTIFIED ARBORIST ON SITE TO  
 DOCUMENT DIRECT WALL.

\*PLEASE NOTE\*  
 ALL REPLACEMENT TREES ARE TO BE  
 PLANTED IN ACCORDANCE WITH MICC  
 19.10.070. TREES SHALL BE PRIMARILY  
 NATIVE TO THE PNW.  
 CONIFEROUS TREES SHALL BE AT LEAST  
 6' TALL.  
 DECIDUOUS TREES SHALL BE AT LEAST  
 1.5" IN CALIPER

NOTE:  
 ARBORIST TO BE ON SITE TO DIRECT DIGGING  
 WITHIN SAVED TREES DRIFLINES.

**1 TREE PLAN**  
 SCALE: 1/8" = 1'-0"

REVISIONS:	
▲	CORRECTION 1 2022-7-18
▲	
▲	
▲	
▲	
▲	
PLOT DATE:	8/8/2022
DRAWN BY:	KE
CHECKED BY:	BJS
SHEET	



SE 40TH ST  
 SE 700TH AVE SE

SE 40TH ST

HOUSE (#4010)

HOUSE (#4012)

N  
 2 TREE PLAN  
 SCALE: 1/8" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY  
 CORRECTION SET 8/8/2022

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REGISTERED ARCHITECT  
 BRADLEY J. STURMAN  
 STATE OF WASHINGTON

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4006 RESIDENCE  
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 MERCER ISLAND, WA 98040

TREE PLAN (CONT.)

REVISIONS:  
 CORRECTION 1 2022.7-18

PLOT DATE: 8/8/2022  
 DRAWN BY: JM  
 CHECKED BY: BJS

SHEET  
 A1.4

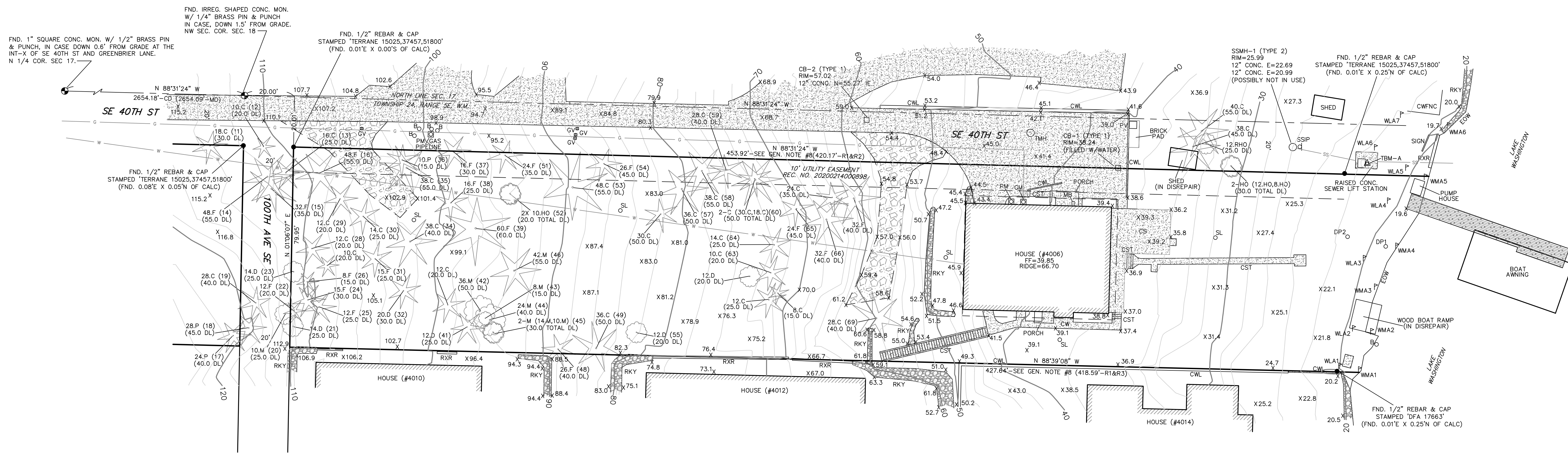
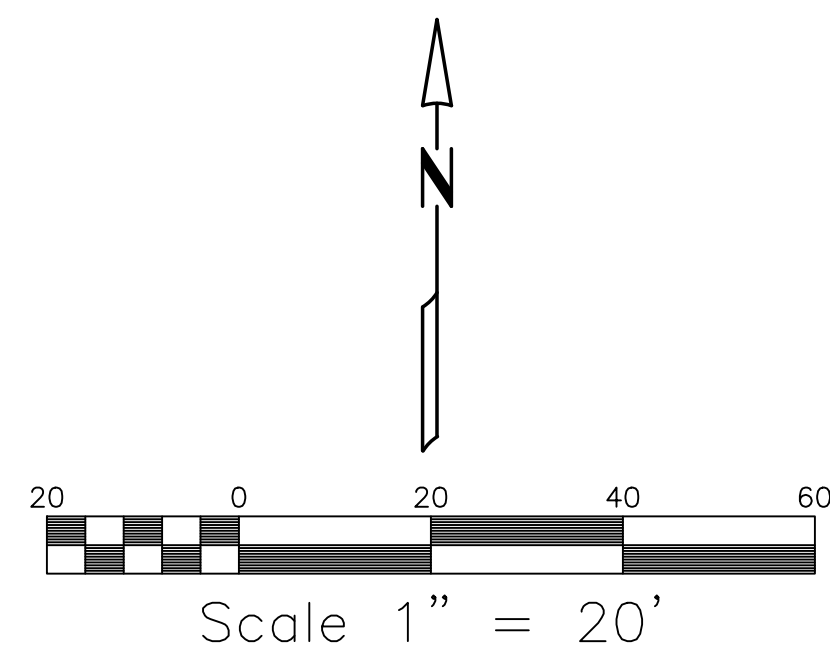
TEMP. TREE PROTECTION, CONSTRUCTION, AND SILT FENCE SEPARATING CONSTRUCTION FROM UNDISTURBED AREAS. ALL VEGETATION IN UNDISTURBED AREAS SHALL REMAIN IN PLACE DURING CONSTRUCTION.

REPLACEMENT TREE #3  
 PACIFIC DOGWOOD

REPLACEMENT TREE #1  
 WESTERN RED CEDAR

REPLACEMENT WESTERN

EXTEN



**MERIDIAN**

ASSUMED- BASIS OF BEARING N. LINE OF SEC. 17, T.24N, R.5E, W.M. AS SHOWN HEREON

**LEGEND:**

- FOUND MONUMENT AS DESCRIBED
- FOUND EXISTING PROP. COR. AS SHOWN
- ▲ TEMPORARY BENCHMARK AS SHOWN ON MAP
- B BOLLARD
- C CEDAR TREE
- CB CATCH BASIN
- CD CALCULATED DIMENSION
- CS CONCRETE SLAB
- CST CONCRETE STAIRS
- CW CONCRETE WALK
- CWL CONCRETE WALL
- CWFNC CHICKEN WIRE FENCE
- D DECIDUOUS TREE
- DL DRIP LINE
- DP DATA POINT
- EW EDGE OF WATER
- F FIR TREE
- FF FINISH FLOOR ELEVATION
- GM GAS METER
- GV GAS VALVE
- HO HOLLY TREE
- IE INVERT ELEVATION
- M MAPLE TREE
- MB MALBON
- MD MEASURED DIMENSION
- P PINE TREE
- PM POWER METER
- PV POWER VAULT
- RXR RAILROAD TIE WALL
- RHO RHODODENDRON TREE
- RKY ROCKERY
- SL SOIL LOG
- TMH TELEPHONE MANHOLE
- WM WATER METER
- WMA WATER LOCATION FLAG
- WLA WETLAND FLAG

**LEGAL DESCRIPTION**

PER STATUTORY WARRANTY DEED REC. NO. 20200423001396  
 LOT 1, LAKEHOLM ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 52, RECORDS OF KING COUNTY, WASHINGTON;  
 TOGETHER WITH SECOND CLASS SHORELANDS ADJACENT OR ABUTTING THEREON.  
 SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

**CONTOUR INTERVAL = 2'**

**EQUIPMENT & PROCEDURES**

FIELD SURVEY CONDUCTED USING A COMBINATION OF GPS USING A REFERENCE NETWORK AND A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. SURVEY PROCEDURES MEET OR EXCEED STATE STANDARDS AS SPECIFIED BY W.A.C. 332-130 WITH REGARD TO LINEAR AND ANGULAR CLOSURES. ALL MEASURING INSTRUMENTS FOR THIS SURVEY HAVE BEEN MAINTAINED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND HAVE BEEN COMPARED WITH A NATIONAL GEODETIC SURVEY CALIBRATED BASELINE WITHIN THE LAST 12 MONTHS.

**REFERENCES**

1. ALTA/NSPS LAND TITLE SURVEY BY TERRANE; PROVIDED BY CLIENT (R1)
2. RECORD OF SURVEY; VOL. 54 OF SURVEYS, PAGE 202; REC. NO. 198704019003 (R2)
3. RECORD OF SURVEY; VOL. 164 OF SURVEYS, PAGE 03; REC. NO. 20031029900002 (R3)

**GENERAL NOTES**

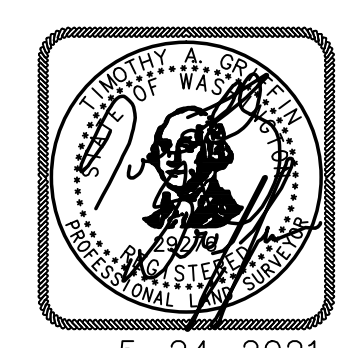
1. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
2. UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, TYEE SURVEYORS DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST. TREES MEASURED IN INCHES AT BREAST HEIGHT, DRIP LINES SHOWN ARE DIAMETER, IN FEET. (XX) IS NUMBER OF TREE TAG, IF AVAILABLE.
4. NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.
5. MAP SYMBOLS ARE NOT TO SCALE, AND ARE FOR GRAPHIC PURPOSES ONLY.
6. THIS SURVEY WAS CREATED USING A COMBINATION OF INTERNAL RECORDS, KING COUNTY RECORDS OF SURVEY NO'S. 20031029900002 & 198704019003 AND THE PLAT OF LAKEHOLM ADD.
7. THE INTENT OF THIS SURVEY IS TO AID WITH DESIGN/PLANNING FOR THIS SITE.
8. THE NORTH AND SOUTH PROPERTY LINES WERE CREATED FROM AND MATCH R1, R2, & R3 IN BEARING RELATIONSHIP BUT HAVE BEEN EXTENDED TO THE EDGE OF EXISTING LOCATIONS DONE BY TYEE SURVEYORS ON 5-20-2020.

**BENCHMARK & DATUM INFO**

VERTICAL DATUM: NAVD88  
 ORIGINAL BM: CITY OF MERCER ISLAND BM-MI 1074; FND. 1" SQUARE CONC. MON. W/ 1/2" BRASS SPIN & PUNCH, IN CASE DOWN 0.6' FROM GRADE AT THE INT-X OF SE 40TH ST AND GREENBRIER LANE. ELEV. = 305.67  
 TBM - A: CITY OF MERCER ISLAND BM-PS 12; FND. 2" BRASS DISC SURFACE MON. STAMPED 'CITY OF MERCER ISLAND GPS CONTROL' SET ON TOP OF A RAISED SEWER LIFT STATION VAULT NEAR THE NE CORNER OF THE SITE AS SHOWN ON MAP. ELEV. = 24.18

**HATCH LEGEND**

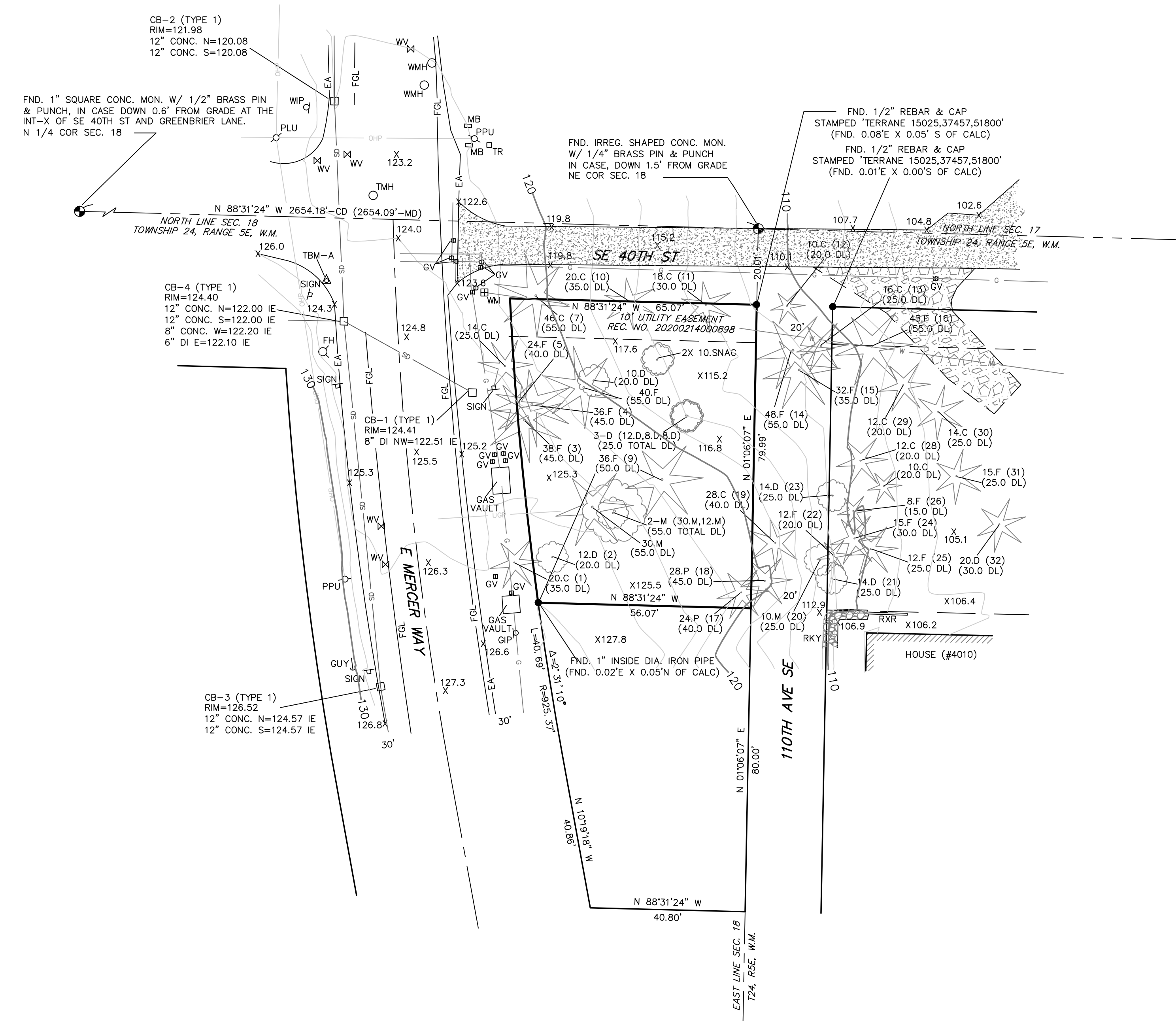
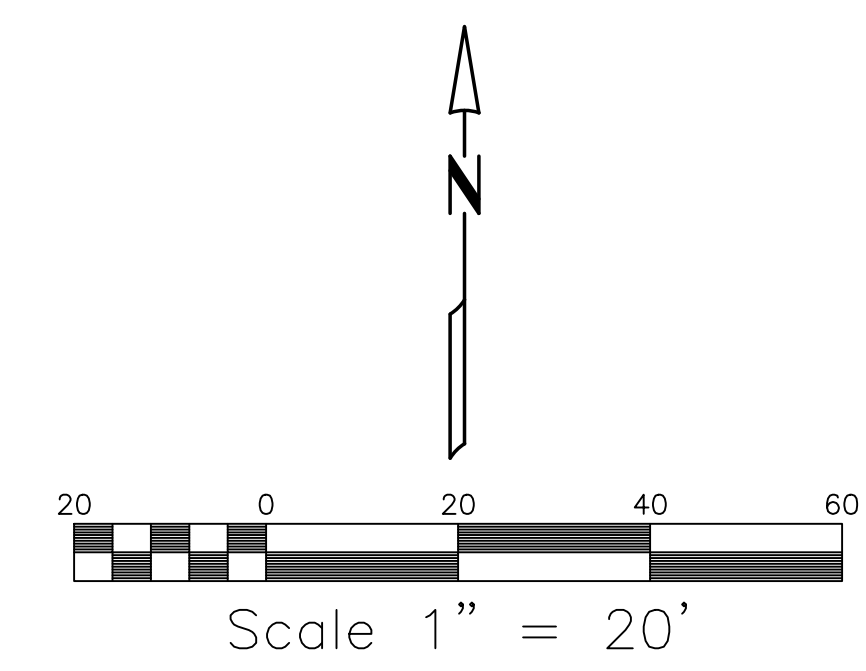
- DECK HATCH
- CONCRETE HATCH
- ROCKERY HATCH
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- SANITARY SEWER LINE
- SPOT ELEVATION
- CONIFER TREE
- DECIDUOUS TREE
- BUILDING HATCH
- GRAVEL HATCH



5-24-2021

SITE ADDRESS: 4006 E MERCER WAY  
 PARCEL NUMBER: 413190-0005  
 NW1/4, NW1/4, SEC. 17, T. 24 N., R. 5 E., W.M.  
 CITY OF MERCER ISLAND, WASHINGTON

TOPOGRAPHIC SURVEY for <b>MITCH MOUNGER</b>		
4006 E MERCER WAY      MERCER ISLAND, WASHINGTON 98040		
Tye Surveyors PROFESSIONAL LAND SURVEYORS 10007 GREENWOOD AV. N. SEATTLE, WA. 98133 206-525-3660		
DRAWN BY: AA	DATE: 5-24-2021	JOB NO.: 20057
CHKD BY: TG	SCALE: 1" = 20'	SHEET: 1 OF 2



**MERIDIAN**  
 ASSUMED— BASIS OF BEARING N. LINE OF SEC. 18, T.24N, R.5E, W.M. AS SHOWN HEREON

- LEGEND:**
- FOUND MONUMENT AS DESCRIBED
  - FOUND EXISTING PROP. COR. AS SHOWN
  - △ TEMPORARY BENCHMARK AS SHOWN ON MAP
- |     |                      |     |                               |
|-----|----------------------|-----|-------------------------------|
| C   | CEDAR TREE           | MD  | MEASURED DIMENSION            |
| CB  | CATCH BASIN          | P   | PINE TREE                     |
| CD  | CALCULATED DIMENSION | PM  | POWER METER                   |
| D   | DECIDUOUS TREE       | PPU | POWER POLE W/UNDERGD.         |
| DL  | DRIP LINE            | PPL | POWER POLE W/LIGHT            |
| EA  | EDGE ASPHALT         | PLU | POWER POLE W/LIGHT + UNDERGD. |
| F   | FIR TREE             | PV  | POWER VAULT                   |
| FGL | FOG LINE             | RXR | RAILROAD TIE WALL             |
| GIP | GAS INDICATOR POST   | RHO | RHOODENDRON TREE              |
| GUY | GUY WIRE             | RKY | ROCKERY                       |
| GV  | GAS VALVE            | TMH | TELEPHONE MANHOLE             |
| IE  | INVERT ELEVATION     | TR  | TELEPHONE RISER               |
| M   | MAPLE TREE           | WIP | WATER INDICATOR POST          |
| MB  | MAILBOX              | WM  | WATER METER                   |
- 
- |  |                |  |                |
|--|----------------|--|----------------|
|  | ROCKERY HATCH  |  | BUILDING HATCH |
|  | CONCRETE HATCH |  | GRAVEL HATCH   |
- 
- |        |                             |
|--------|-----------------------------|
|        | UGP— UNDERGROUND POWER LINE |
|        | GHP— OVERHEAD POWER LINE    |
|        | UGL— UNDERGROUND GAS LINE   |
|        | UWL— UNDERGROUND WATER LINE |
| XXXX.X | SPOT ELEVATION              |
|        | CONIFER TREE                |
|        | DECIDUOUS TREE              |

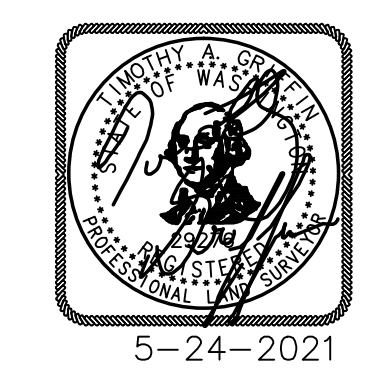
**CONTOUR INTERVAL = 2'**

**BENCHMARK & DATUM INFO**  
 VERTICAL DATUM: NAVD88  
 ORIGINAL BM: CITY OF MERCER ISLAND BM-MI 1074: FND. 1" SQUARE CONC. MON. W/ 1/2" BRASS SPIN & PUNCH, IN CASE DOWN 0.6' FROM GRADE AT THE INT-X OF SE 40TH ST AND GREENBRIER LANE  
 ELEV. = 305.67  
 TBM - A: MAG NAIL SET AT IN THE SW QUAD OF THE INT-X OF E MERCER WAY & SE 40TH ST.  
 ELEV. = 124.31

**LEGAL DESCRIPTION**  
 (PER FIDELITY NATIONAL TITLE COMPANY EXHIBIT 'A', ORDER NO. 611232976)  
 THE NORTH 80 FEET OF THE SOUTH 160 FEET OF THE NORTH 180 FEET OF THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, LYING EAST OF EAST MERCER WAY.

- GENERAL NOTES**
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
  - UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, TYEE SURVEYORS DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST.
  - TREE SIZES MEASURED IN INCHES AT BREAST HEIGHT. DL = DRIP LINE DIAMETER IN FEET WITH A DESIGNATION OF (XX) FOR THE TREE TAG NUMBER IF MARKED ON TREE.
  - NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.
  - MAP SYMBOLS ARE NOT TO SCALE, AND ARE FOR GRAPHIC PURPOSES ONLY.
  - THIS SURVEY WAS CREATED USING A COMBINATION OF INTERNAL RECORDS AND KING COUNTY RECORDS OF SURVEY NO'S. 20031029900002 & 198704019003.
  - THE INTENT OF THIS SURVEY IS TO AID WITH DESIGN/PLANNING FOR THIS SITE.

**EQUIPMENT & PROCEDURES**  
 FIELD SURVEY CONDUCTED USING A COMBINATION OF GPS USING A REFERENCE NETWORK AND A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. SURVEY PROCEDURES MEET OR EXCEED STATE STANDARDS AS SPECIFIED BY W.A.C. 332-130 WITH REGARD TO LINEAR AND ANGULAR CLOSURES. ALL MEASURING INSTRUMENTS FOR THIS SURVEY HAVE BEEN MAINTAINED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND HAVE BEEN COMPARED WITH A NATIONAL GEODETIC SURVEY CALIBRATED BASELINE WITHIN THE LAST 12 MONTHS.



PARCEL NUMBER: 182405-9028  
 NE1/4, NE1/4, SEC. 18, T. 24 N., R. 5 E., W.M.  
 CITY OF MERCER ISLAND, WASHINGTON

TOPOGRAPHIC SURVEY for <b>MITCH MOUNGER</b>		<b>Tyee Surveyors</b> PROFESSIONAL LAND SURVEYORS 10007 GREENWOOD AV. N. SEATTLE, WA. 98133 206-525-3660	
DRAWN BY: AA	DATE: 5-24-2021	JOB NO.:	20057
CHKD BY: TG	SCALE: 1" = 20'	SHEET:	2 OF 2
4006 E MERCER WAY		MERCER ISLAND, WASHINGTON 98040	



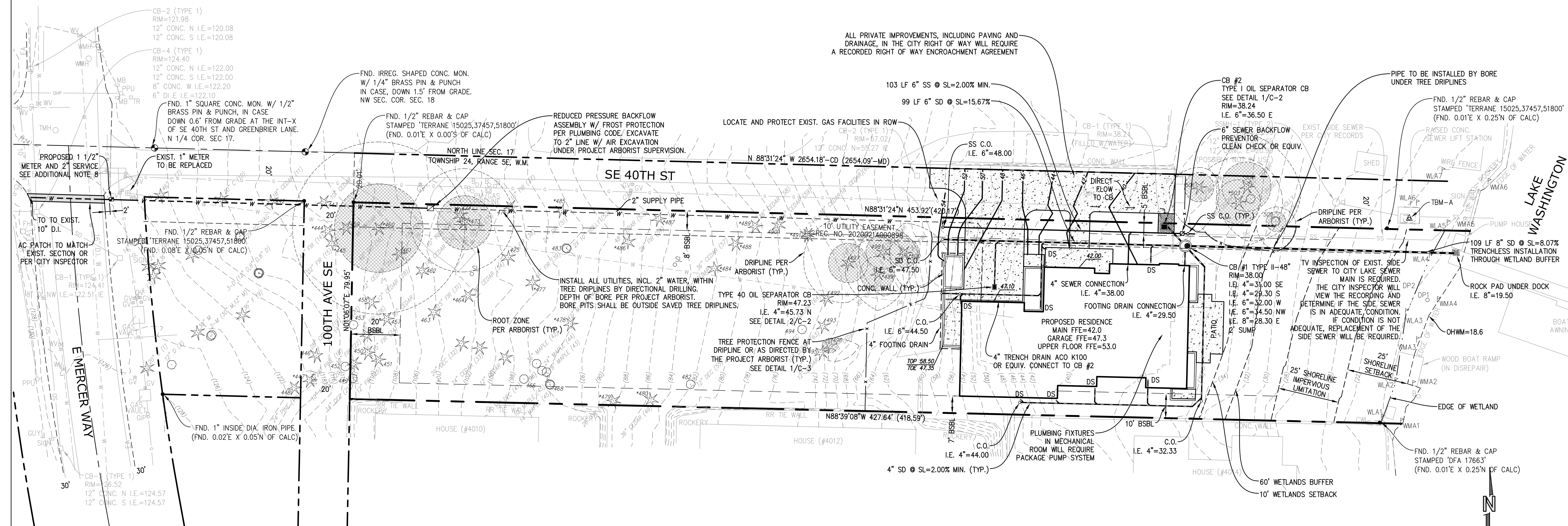




NO.	DATE	REVISION
1	09/25/20	PERMIT SUBMITTAL
2	07/14/21	BIDS SCOPE CHANGE & CITY COMMENTS
3	10/18/21	WALL REVISION
4	02/07/22	CITY COMMENTS
5	04/29/22	RENSED BUILDING
6	06/06/22	CITY COMMENTS

N. BOSSOFF, P.E.
PROJECT MANAGER
DESIGNED: NB
DRAWN: TKB
SARC-2002
JOB NUMBER
SARC-2002.pln.dwg
FILE NAME

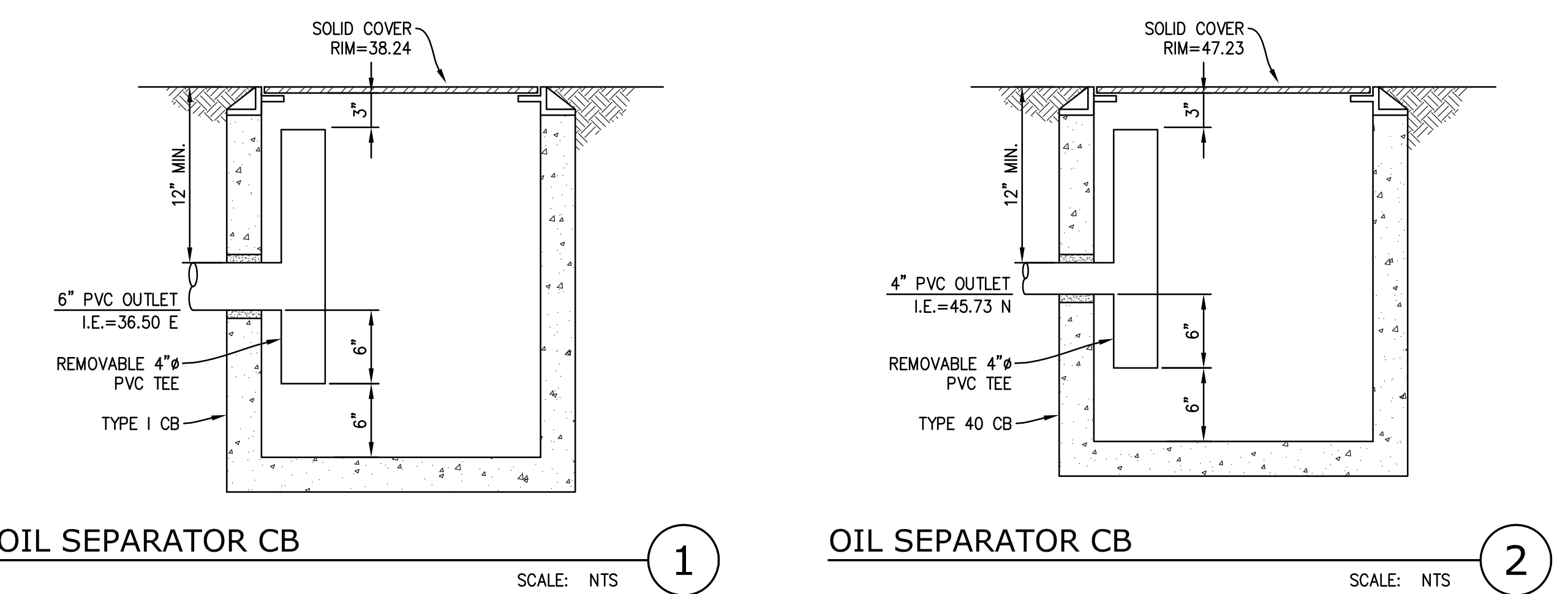


**POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES**

- A. SOIL RETENTION, RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.
- B. SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
- A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
  - MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
  - USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
    - THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
    - CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220. THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.
- C. IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
- LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
  - AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PREAPPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
  - STOCKPILE EXISTING TOPSOIL DURING GRADING AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
  - IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

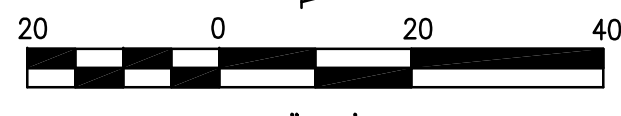
**ADDITIONAL NOTES:**

- ALL CONSTRUCTION MATERIALS AND PRACTICE SHALL CONFORM TO THE CITY OF MERCER ISLAND STANDARDS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS.
- EXISTING UTILITIES AS SHOWN ARE FROM CITY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO IDENTIFY, LOCATE AND PROTECT ABOVE AND BELOW GRADE UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AND SHALL MAINTAIN THE NECESSARY SAFEGUARDS AND MANAGE THE CONSTRUCTION SO AS TO PREVENT WATERBORNE SEDIMENTS FROM LEAVING THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
- ON-SITE PRIVATE STORM AND SEWER PIPE SHALL BE SOLVENT WELDED SCHEDULE 40 PVC OR PVC ASTM D3034 SDR35 UNLESS SHOWN OTHERWISE. PVC PIPE LAID AT A SLOPE IN EXCESS OF 20% SHALL BE SOLVENT WELDED SCHEDULE 40 PVC. STORM PIPE IN THE RIGHT-OF-WAY SHALL BE HIGH-DENSITY POLYETHYLENE DOUBLE-WALLED SMOOTH INTERIOR PIPE SUCH AS ADS N-12 OR EQUIVALENT. FOOTING DRAINS SHALL BE INSTALLED AROUND THE BASE OF ALL FOUNDATION FOOTINGS THAT ENCLOSE A CRAWL SPACE, CELLAR, BASEMENT, GARAGE OR OTHER BUILDING SPACE. FOOTING DRAINS SHALL BE PERFORATED 4-INCH DIAMETER PVC CONFORMING TO D2729, PERFORATIONS DOWN, PLACED BEHIND AND AT THE BASE OF WALL FOOTINGS, AND EMBEDDED IN 12 TO 18 INCHES OF CLEAN CRUSHED ROCK OR PEA GRAVEL WRAPPED IN A LAYER OF FILTER FABRIC (MIRAFI 140N OR EQUIVALENT). A MINIMUM 18-INCH-WIDE ZONE OF FREE DRAINING GRANULAR BACKFILL (I.E. PEA GRAVEL OR WASHED ROCK) SHALL BE PLACED ADJACENT THE WALL AND FOR THE FULL HEIGHT OF THE WALL. ALTERNATIVELY, A COMPOSITE DRAINAGE MATERIAL, SUCH AS MIRADRAIN 6000, MAY BE USED IN LIEU OF THE CLEAN CRUSHED ROCK OR PEA GRAVEL. THE DRAINPIPE AT THE BASE OF THE WALL SHOULD BE GRADED TO DIRECT WATER TO THE OUTLET. TIE THE FOOTING DRAIN INTO THE STORM LINE AT A LOCATION WHERE THE FOOTING DRAIN ELEVATION IS AT LEAST 12-INCHES ABOVE THE STORM LINE. SEE ALSO THE GEOTECHNICAL REPORT BY PANGE0, JULY 7, 2020.
- EXISTING SIDE SEWER AND STORM DRAIN DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY CONSTRUCTION, INCLUDING BUILDING CONSTRUCTION. REPORT CONFLICTS WITH PROPOSED CONSTRUCTION TO ENGINEER. NEW SIDE SEWER CONNECTION TO MAIN OR SEWER EJECTOR PUMP MAY BE NECESSARY FOR BASEMENT.
- PROPOSED METER LOCATION, IF SHOWN, IS APPROXIMATE. CONTRACTOR TO COORDINATE EXACT LOCATION OF NEW SERVICE/METER/ SUPPLY LINE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION.
- EACH DOWNSPOUT SHALL CONNECT TO A RIGID NON-PERFORATED PIPE AT THE BUILDING PERIMETER. UNDER NO CIRCUMSTANCES SHALL DOWNSPOUTS CONNECT DIRECTLY TO THE PERFORATED FOOTING DRAIN.
- USE SAND COLLARS FOR PVC PIPE CONNECTIONS TO MANHOLES.
- VERTICAL BENDS ON THE STORM DRAINS MAY BE NECESSARY TO MAINTAIN MIN. 1.5' SOIL COVER OVER PIPE. MAX. PIPE BENDS TO BE 45°.
- DOWNSPOUT LOCATIONS SHOWN ARE PRELIMINARY. REFER TO ARCHITECTURAL PLANS FOR FINAL DOWNSPOUT LOCATIONS.
- AN UNDERSLAB DRAINAGE SYSTEM MAY BE NECESSARY DEPENDENT ON GEOTECHNICAL EVALUATION BY OTHERS.
- WINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED PER SECTION R310.2.3.2 OF THE INTERNATIONAL RESIDENTIAL CODE. A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHERE THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP 1 SOILS, AS DETAILED IN TABLE R405.1 OF THE IRC.



OIL SEPARATOR CB 1 SCALE: NTS

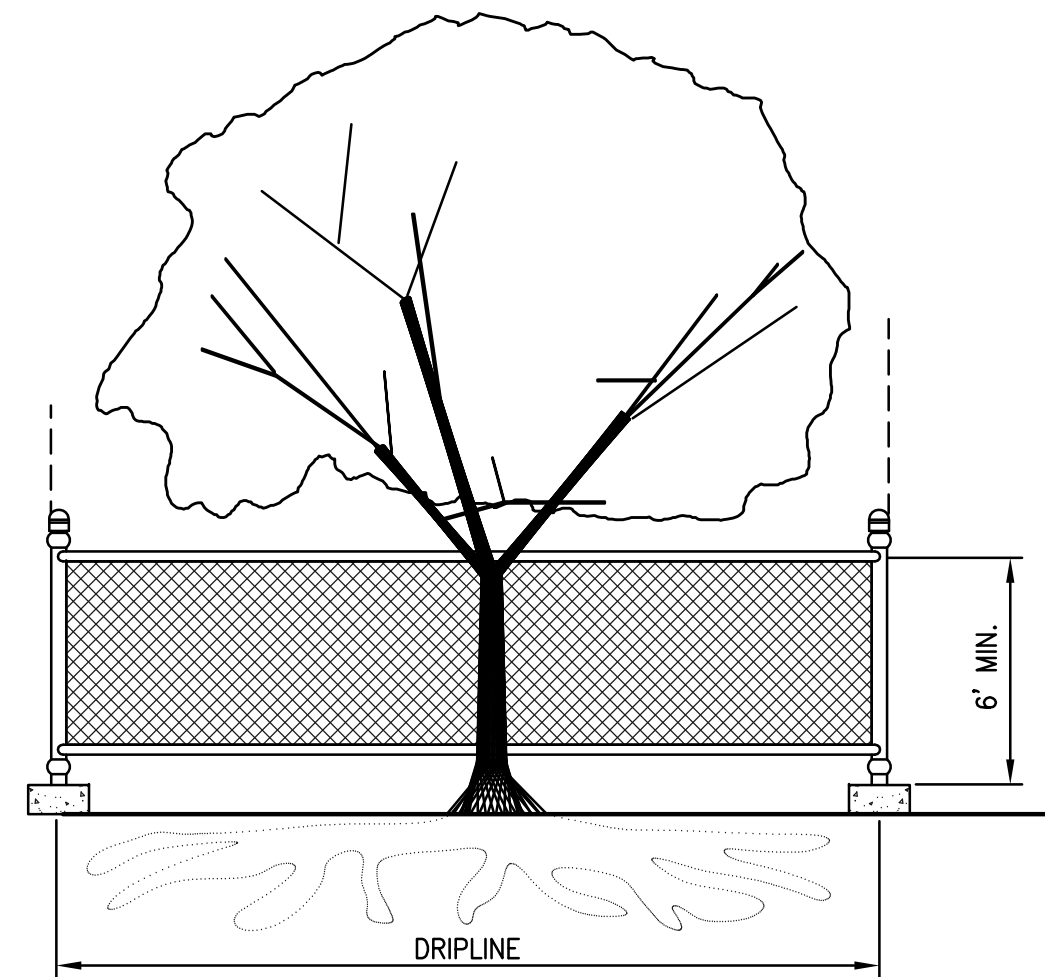
OIL SEPARATOR CB 2 SCALE: NTS



**MOUNGER RESIDENCE**  
**4006 E MERCER WAY**  
**WASHINGTON**  
**MERCER ISLAND**

TITLE: DRAINAGE PLAN

SHEET: C-2



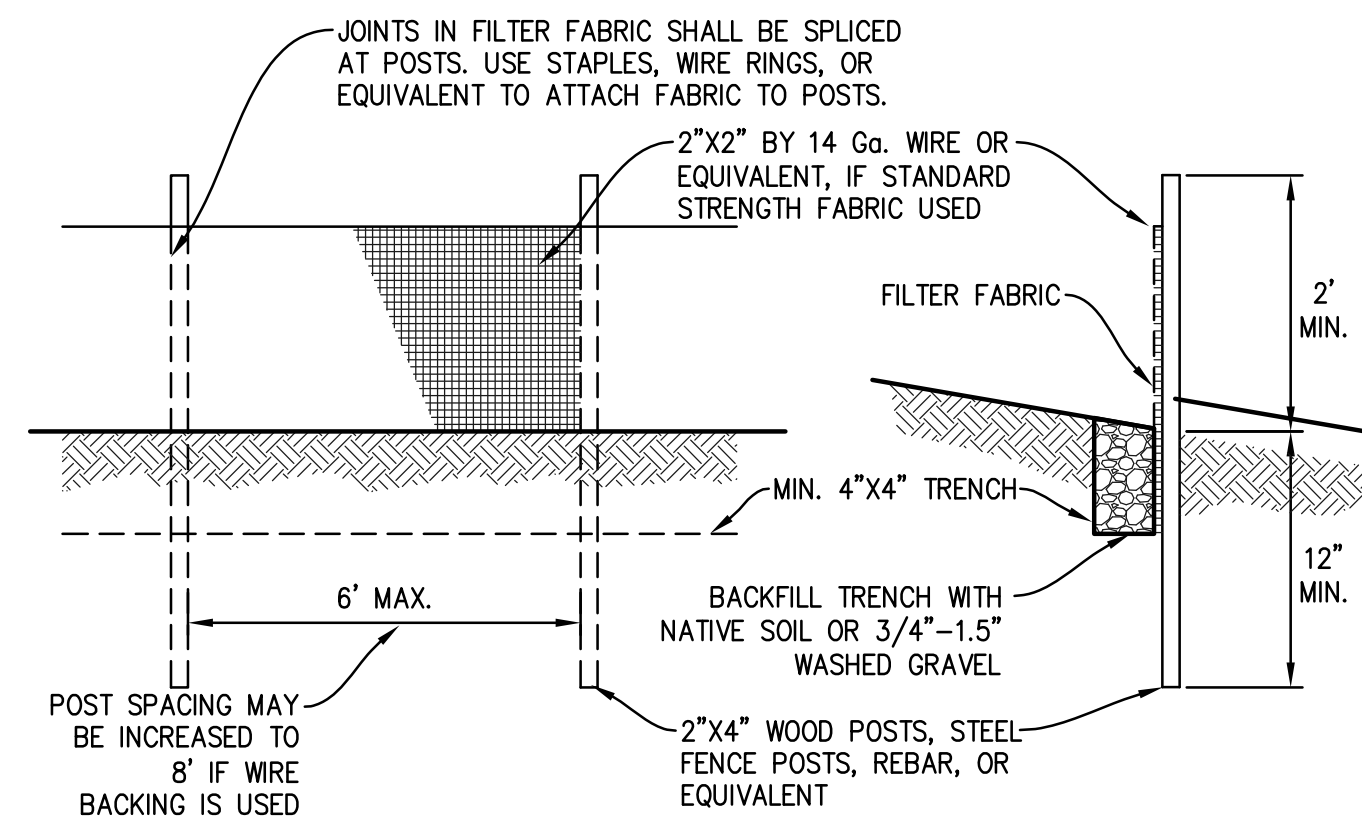
**TREE PROTECTION DURING CONSTRUCTION**

- 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIROLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.
- WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.

**TREE PROTECTION**

SCALE: NTS

1



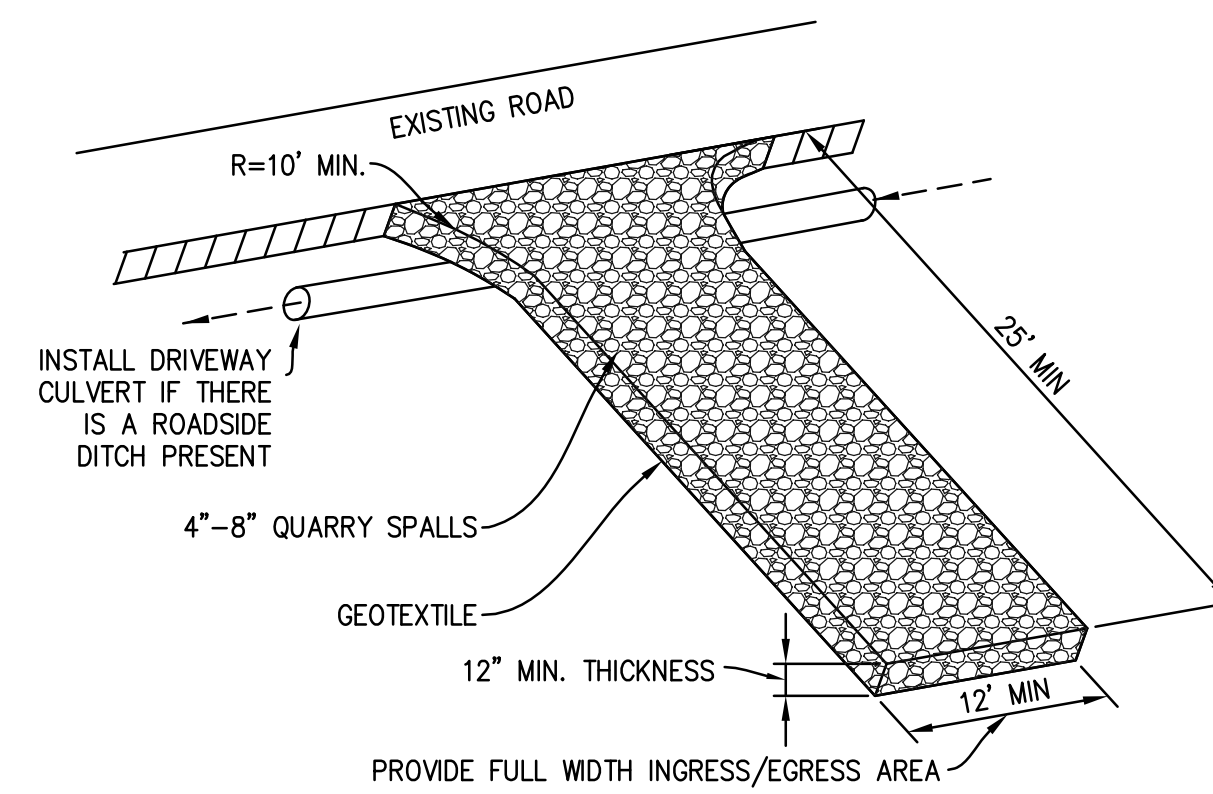
**MAINTENANCE STANDARDS**

- ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGN OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCUR, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH.
- IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

**SILT FENCE**

SCALE: NTS

2



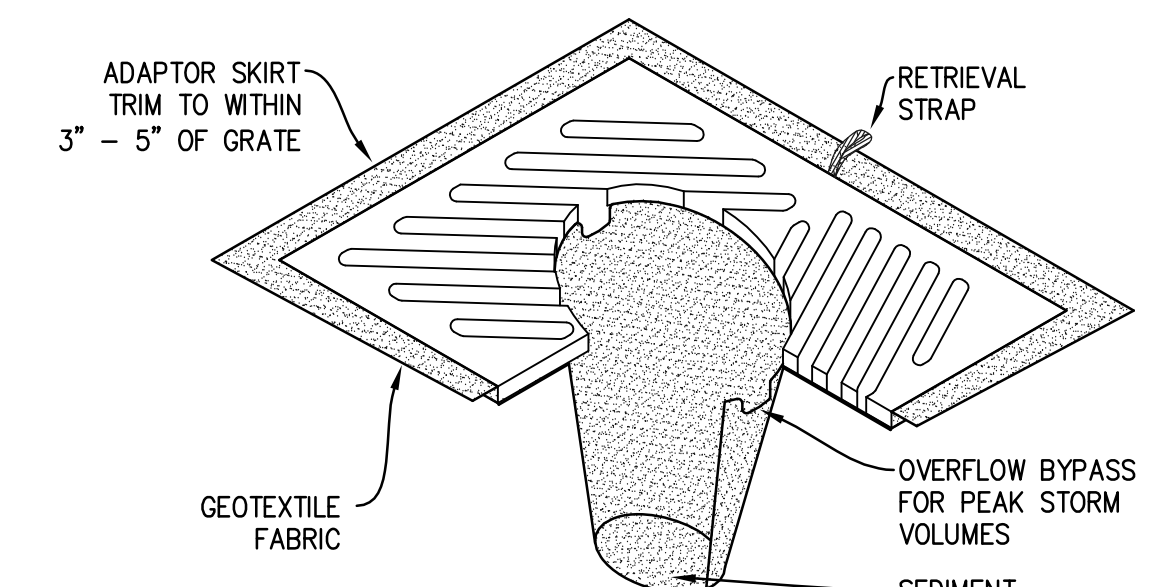
**MAINTENANCE STANDARDS**

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
- ANY ROCK SPALLS THAT ARE LOOSEENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC.

**ROCK CONSTRUCTION ENTRANCE**

SCALE: NTS

3



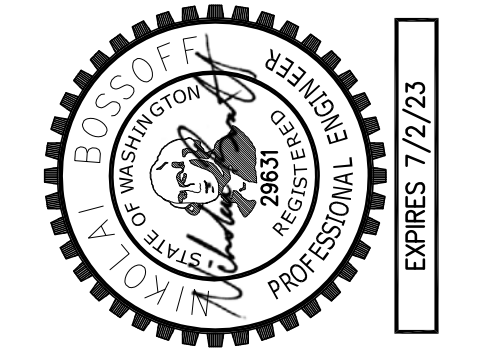
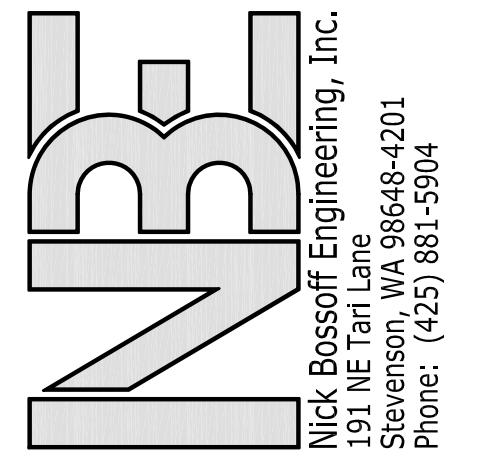
**NOTES**

- INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
- SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
- SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

**CB INSERT**

SCALE: NTS

4



NO.	DATE	REVISION
1	09/25/20	PERMIT SUBMITTAL
2	07/14/21	BIDS SCOPE CHANGE & CITY COMMENTS
3	10/18/21	WALL REVISION
4	02/07/22	CITY COMMENTS
5	04/29/22	REVISED BUILDING
6	08/08/22	CITY COMMENTS

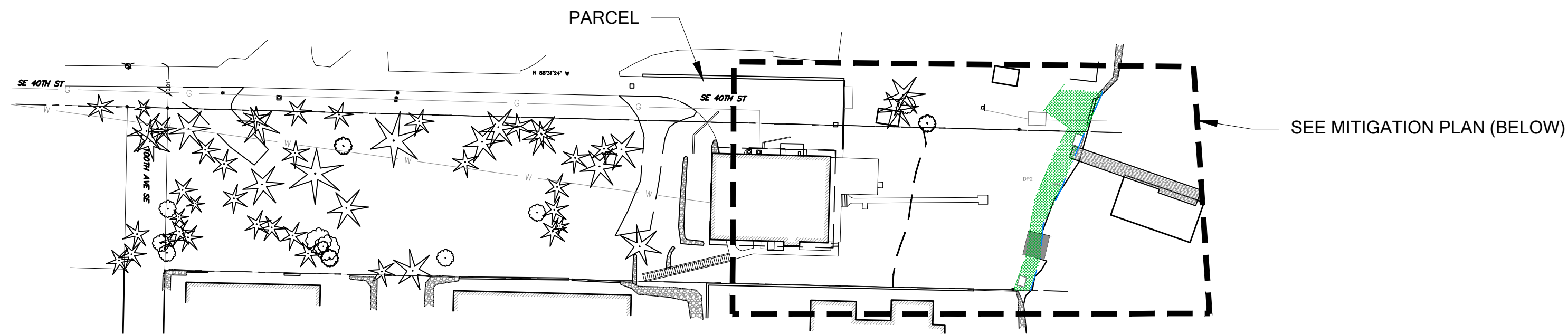
N. BOSSOFF, P.E.
PROJECT MANAGER:
DESIGNED: TKB
DRAWN: SARC-2002
JOB NUMBER: SARC-2002pln.dwg
FILE NAME:

**MOUNGER RESIDENCE**  
**4006 E MERCER WAY**  
 MERCER ISLAND  
 WASHINGTON

TITLE:  
**DETAILS**

SHEET:  
**C-3**

# MOUNGER RESIDENCE



## PARCEL OVERVIEW

SCALE 1"= 50'

### LEGEND

- PARCEL BOUNDARY
- DELINEATED OHWM
- DATA POINT
- WETLAND FLAGS
- DELINEATED WETLAND BOUNDARY
- SHORELINE SETBACK (50 FT)
- SHORELINE BUFFER (25 FT)
- WETLAND BUFFER (60 FT)
- WETLAND BUFFER BSBL

### MITIGATION LEGEND

- PRE-EXISTING IMPACT IN WETLAND
- 20' SHORELINE ENHANCEMENT (770 SF)
- SHORELINE ENHANCEMENT OVER WETLAND (481 SF)

### MITIGATION AREA NOTES

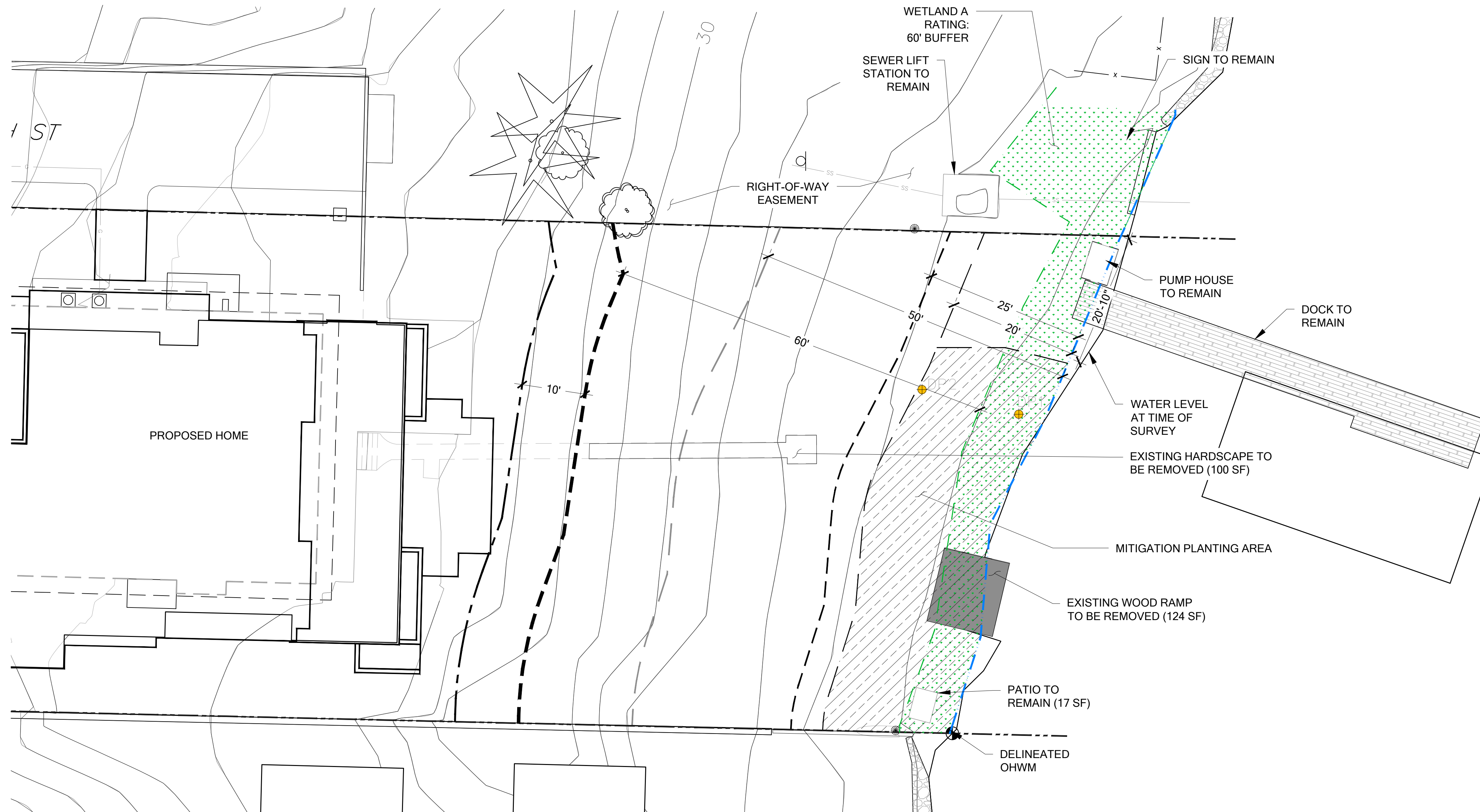
1. TOTAL AREA WITHIN 20 FT OF THE OHWM = 1,668 SF
2. TOTAL PLANTED SHORELINE AREA = 75% = 1,251 SF
3. TOTAL ACCESS AREA = 25% = 417 SF

### SHEET INDEX

- W1 MITIGATION PLAN AND PARCEL OVERVIEW
- W2 PLANTING PLAN AND SCHEDULE
- W3 MITIGATION DETAILS AND NOTES

### NOTES

1. WETLAND AND OHWM DELINEATED BY THE WATERSHED COMPANY ON MAY 19, 2020
2. SITE PLAN PROVIDED BY STURMAN ARCHITECTS; 103RD AVENUE NE, SUITE 203, BELLEVUE, WA 98004 (425) 451-7003



## MITIGATION PLAN

SCALE 1:10



**PERMIT SET**

NOT FOR CONSTRUCTION

-

**MOUNGER RESIDENCE**  
**SHORELINE MITIGATION PLAN**  
**PREPARED FOR: BRAD STURMAN**

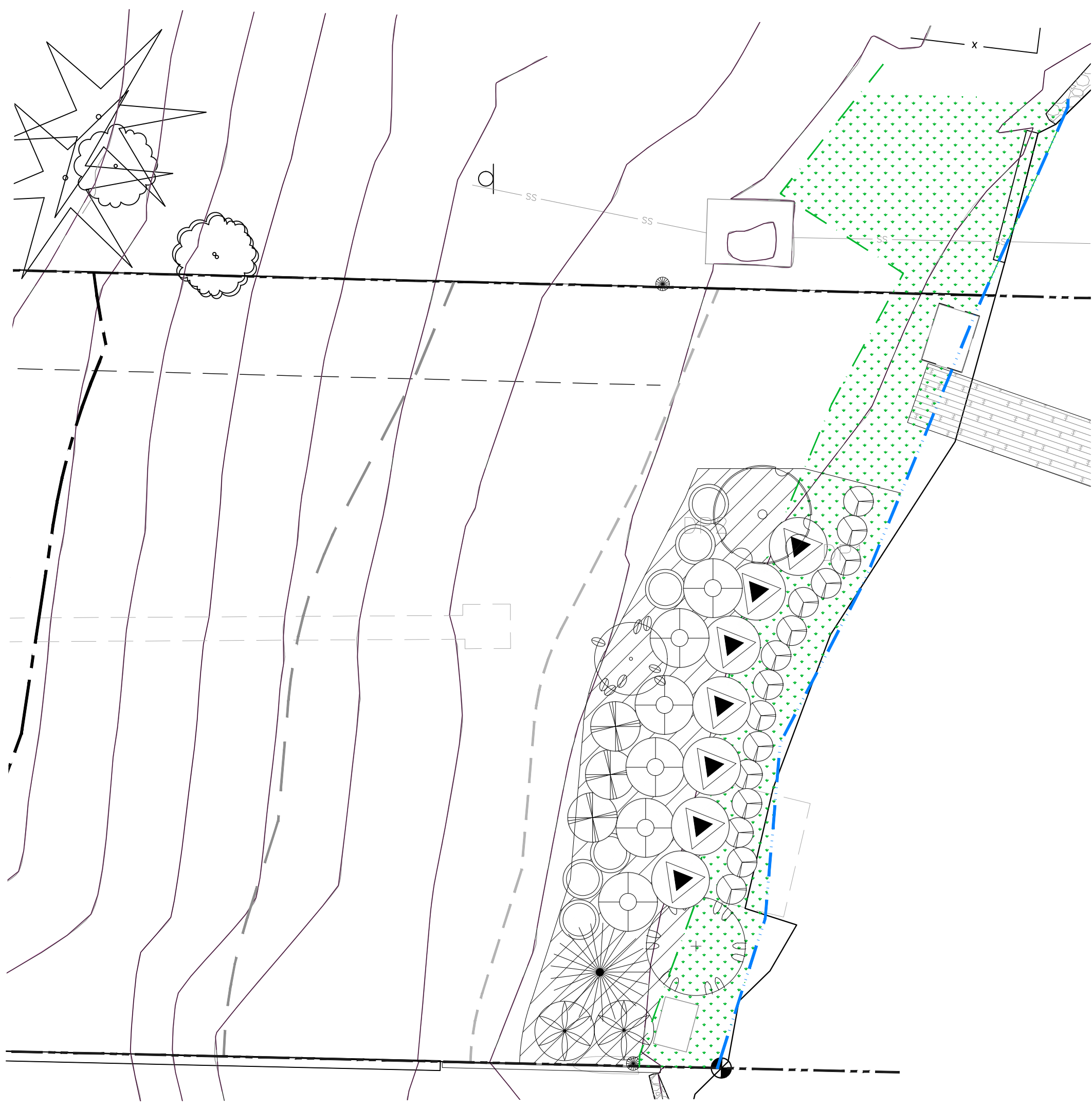
4006 EAST MERCER WAY  
 MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS		BY	DATE	DESCRIPTION
1	08-20-2020	AS/MF	MITIGATION PLANTING PLAN	
2	06-07-2021	AF	MITIGATION PLANTING PLAN REVISED	
	04-28-2022	AF	MITIGATION PLAN REVISED	

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

PROJECT MANAGER: RK  
DESIGNED: RK/MF  
DRAFTED: AS/MF/AF  
CHECKED: RK

JOB NUMBER:  
200509  
SHEET NUMBER:  
**W1 OF 3**



### PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

- QUALITY ASSURANCE**
- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
  - 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).
  - TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
  - 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**

- 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.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

**SUBSTITUTIONS**

- 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.
- SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
- 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.
- 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**

- 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.
- 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.
- 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**

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- 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.
- 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**
- 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**

- 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.
- HAVE COPIES OF VENDOR'S OR GROWER'S 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**

- 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.
- 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.
- 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.
- 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**

- 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.
- PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

**PLANT MATERIAL**

**GENERAL**

- 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.
- 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**

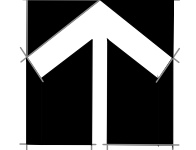
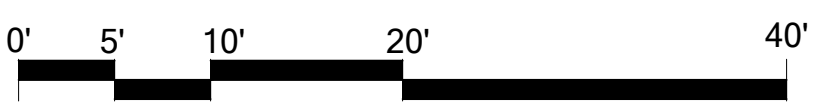
- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS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

### PLANT SCHEDULE

TREES	COMMON / BOTANICAL NAME	SIZE	QTY	GROUND COVER	COMMON / BOTANICAL NAME	SIZE	SPACING	QTY	REMARKS
	PAPER BIRCH / <i>BETULA Papyrifera</i>	1.5" CAL	1		GOATSBEARD / <i>ARUNCUS SYLVESTER</i>	1 GAL.	24" O.C.	25	PLANT IN SAME-SPECIES GROUPINGS OF 3-9 PLANTS
	OREGON ASH / <i>FRAXINUS LATIFOLIA</i>	5 GAL.	1		TUFTED HAIRGRASS / <i>DESCHAMPSIA CESPITOSA</i>	1 GAL.	24" O.C.	25	
	SHORE PINE / <i>PINUS CONTORTA</i>	6 FT B&B	1		SMALL-FRUITED BULRUSH / <i>SCIRPUS MICROCARPUS</i>	4" POT/PLUG	24" O.C.	25	
	VINE MAPLE / <i>ACER CIRCINATUM</i>	10 GAL.	1		WESTERN COLUMBINE / <i>AQUILEGIA FORMOSA</i>	1 GAL.	24" O.C.	12	PLANT IN SAME SPECIES GROUPINGS 5-9 PLANTS IN CLUSTERS THROUGHOUT PLANTING BED
	CORNUS SERICEA 'KELSEY' / RED-TWIG DOGWOOD	1 GAL.	15		SWORD FERN / <i>POLYSTICHUM MUNITUM</i>	1 GAL.	24" O.C.	24	
	PACIFIC BAYBERRY / <i>MORELLA CALIFORNICA</i>	5 GAL.	2		OREGON STONECROP / <i>SEDUM OREGONUM</i>	4" POT	15" O.C.	32	
	MOCK ORANGE / <i>PHILADELPHUS LEWISII</i>	1 GAL.	6		TOUGH-LEAF IRIS / <i>IRIS TENAX</i>	1 GAL.	24" O.C.	12	
	CLUSTERED WILD ROSE / <i>ROSA PISOCARPA</i>	1 GAL.	7						
	ROSE SPIREA / <i>SPIRAEA DENSIFLORA</i>	1 GAL.	6						
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL.	3						

## PLANTING PLAN AND SCHEDULE

SCALE 1:10



**NOTES**

- SEE SHEET W3 FOR SITE PREPARATION AND PLANTING DETAILS.

# PERMIT SET

NOT FOR CONSTRUCTION

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08-20-2020	MITIGATION PLANTING PLAN	AS/MF
2	06-07-2021	MITIGATION PLANTING PLAN REVISED	AF
	04-28-2022	MITIGATION PLANTING PLAN REVISED	AF

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

PROJECT MANAGER: RK  
DESIGNED: RK/MF  
DRAFTED: AS/MF/AF  
CHECKED: RK

JOB NUMBER: 200509  
SHEET NUMBER: W2 OF 3

**MOUNGER RESIDENCE**  
**SHORELINE MITIGATION PLAN**  
**PREPARED FOR: BRAD STURMAN**  
  
 4006 EAST MERCER WAY  
 MERCER ISLAND, WA 98040



750 Sixth Street South  
Kirkland WA 98033

p 425.822.5242  
www.watershedco.com

Science & Design

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**MITIGATION SPECIFICATIONS**

**OVERVIEW**

A COMPREHENSIVE FIVE-YEAR MAINTENANCE AND MONITORING PLAN IS INCLUDED AS PART OF THE SHORELINE AND WETLAND/WETLAND BUFFER ENHANCEMENT. THE PLAN SPECIFIES APPROPRIATE SPECIES FOR PLANTING AND PLANTING TECHNIQUES, DESCRIBES PROPER MAINTENANCE ACTIVITIES, AND SETS FORTH PERFORMANCE STANDARDS TO BE MET YEARLY DURING MONITORING. THIS WILL ENSURE THAT ENHANCEMENT/RESTORATION PLANTINGS WILL BE MAINTAINED, MONITORED, AND SUCCESSFULLY ESTABLISHED WITHIN THE FIRST FIVE YEARS FOLLOWING IMPLEMENTATION.

PROPOSED RESTORATION BEGINS WITH INCORPORATING COMPOST INTO THE BUFFER ENHANCEMENT AREA. NO COMPOST SHALL BE APPLIED IN THE WETLAND. THIS WILL BE FOLLOWED BY INSTALLATION OF THREE NATIVE TREE SPECIES, SEVEN NATIVE SHRUB SPECIES, AND EIGHT NATIVE GROUNDCOVER SPECIES SUITABLE TO THE SITE. THE PLAN CALLS FOR NEW PLANTINGS WITHIN THE INNER 20-FOOT SHORELINE SETBACK AREA, INCLUDING WITHIN WETLAND A AND THE OVERLAPPING SHORELINE SETBACK/WETLAND A BUFFER. NATIVE PLANTINGS ARE INTENDED TO INCREASE NATIVE PLANT COVER, IMPROVE NATIVE SPECIES DIVERSITY, IMPROVE VEGETATIVE SCREENING, INCREASE VEGETATIVE STRUCTURE, AND PROVIDE FOOD AND OTHER HABITAT RESOURCES FOR WILDLIFE.

**GOALS**

ENHANCE SHORELINE BUFFERS.

- a. REDUCE THE AMOUNT OF IMPERVIOUS SURFACE AREA WITHIN THE WETLAND BUFFER AND SHORELINE SETBACK.
- b. ESTABLISH DENSE AND DIVERSE NATIVE TREE, SHRUB, AND GROUNDCOVER VEGETATION THROUGHOUT THE MITIGATION AREA.

**PERFORMANCE STANDARDS**

THE STANDARDS LISTED BELOW WILL BE USED TO JUDGE THE SUCCESS OF THE PLAN OVER TIME. IF THE STANDARDS ARE MET AT THE END OF THE FIVE-YEAR MONITORING PERIOD, THE CITY SHALL ISSUE RELEASE OF THE PERFORMANCE BOND.

1. SURVIVAL:
  - a. 100% SURVIVAL OF ALL INSTALLED TREES AND SHRUBS AT THE END OF YEAR-1. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
  - b. 80% SURVIVAL OF ALL INSTALLED TREES AND SHRUBS AT THE END OF YEAR 2. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
2. NATIVE VEGETATION COVER IN PLANTED AREAS:
  - a. ACHIEVE AT LEAST 60% COVER OF NATIVE TREES, SHRUBS, AND GROUNDCOVERS IN PLANTED AREAS BY THE END OF YEAR 3. VOLUNTEER SPECIES MAY COUNT TOWARD THIS STANDARD.
  - b. ACHIEVE AT LEAST 80% COVER OF NATIVE TREES, SHRUBS, AND GROUNDCOVERS IN PLANTED AREAS BY THE END OF YEAR 5. VOLUNTEER SPECIES MAY COUNT TOWARD THIS STANDARD.
3. DIVERSITY: A MINIMUM OF TWO TREE SPECIES, FIVE SHRUB SPECIES, AND FIVE EMERGENT SPECIES WILL BE PRESENT IN THE MITIGATION AREA IN YEARS 3 - 5.
4. INVASIVE SPECIES STANDARD: NO MORE THAN 10% COVER OF INVASIVE SPECIES IN THE PLANTING AREA IN ANY MONITORING YEAR. INVASIVE SPECIES ARE DEFINED AS ANY CLASS A, B, OR C NOXIOUS WEEDS AS LISTED BY THE KING COUNTY NOXIOUS WEED CONTROL BOARD.

**MONITORING METHODS**

THIS MONITORING PROGRAM IS DESIGNED TO TRACK THE SUCCESS OF THE MITIGATION SITE OVER TIME BY MEASURING THE DEGREE TO WHICH THE PERFORMANCE STANDARDS LISTED ABOVE ARE BEING MET. AN AS-BUILT PLAN WILL BE PREPARED WITHIN 30 DAYS OF SUBSTANTIALLY COMPLETE CONSTRUCTION OF THE MITIGATION AREAS. THE AS-BUILT PLAN WILL DOCUMENT CONFORMANCE WITH THESE PLANS AND WILL DISCLOSE ANY SUBSTITUTIONS OR OTHER NON-CRITICAL DEPARTURES. THE AS-BUILT PLAN WILL ESTABLISH BASELINE PLANT INSTALLATION QUANTITIES AND PHOTOPOINTS THAT WILL BE USED THROUGHOUT THE MONITORING PERIOD TO VISUALLY DOCUMENT SITE CHANGES OVER TIME.

MONITORING WILL OCCUR ANNUALLY FOR FIVE YEARS. THE INSPECTION WILL OCCUR IN LATE SUMMER OR FALL AND WILL RECORD THE FOLLOWING AND BE SUBMITTED IN AN ANNUAL REPORT TO THE CITY:

1. COUNTS OF SURVIVING AND DEAD/DYING PLANTS BY SPECIES IN THE PLANTING AREAS.
2. ESTIMATES OF NATIVE SPECIES COVER USING COVER CLASS METHOD.
3. ESTIMATES OF INVASIVE SPECIES COVER USING COVER CLASS METHOD.
4. PHOTOGRAPHIC DOCUMENTATION AT PERMANENT PHOTOPOINTS.
5. RECOMMENDATIONS FOR MAINTENANCE IN THE MITIGATION AREAS.
6. RECOMMENDATIONS FOR REPLACEMENT OF ALL DEAD OR DYING PLANT MATERIAL WITH SAME OR LIKE SPECIES AND NUMBER AS ON THE APPROVED PLAN.

**CONSTRUCTION NOTES AND SPECIFICATIONS**

**GENERAL NOTES**

THE RESTORATION SPECIALIST WILL OVERSEE THE FOLLOWING:

1. CLEARING, SOIL DECOMPACTION, AND COMPOST INCORPORATION;
2. INVASIVE WEED CLEARING; AND
3. PLANT MATERIAL INSPECTION.
  - a) PLANT DELIVERY INSPECTION.
  - b) 100% PLANT INSTALLATION INSPECTION.

**WORK SEQUENCE**

1. CLEAR THE PLANTING AREA OF ALL INVASIVE SPECIES USING HAND TOOLS.
2. ROTO-TILL THREE INCHES OF COMPOST INTO THE UPPER 9 INCHES OF THE SOIL IN BUFFER AREAS ONLY. DO NOT APPLY COMPOST WITHIN THE WETLAND AREA.
3. ALL PLANT INSTALLATION WILL TAKE PLACE DURING THE DORMANT SEASON (OCTOBER 15<sup>TH</sup> TO MARCH 1<sup>ST</sup>).
4. LAYOUT VEGETATION TO BE INSTALLED PER THE PLANTING PLAN AND PLANT SCHEDULE.
5. PREPARE A PLANTING PIT FOR EACH PLANT AND INSTALL PER THE PLANTING DETAILS.
6. MULCH EACH TREE AND SHRUB WITH A CIRCULAR WOOD CHIP MULCH RING, FOUR INCHES THICK AND EXTENDING SIX INCHES FROM THE BASE OF THE PLANT (12-INCH DIAMETER) IN THE BUFFER AREAS ONLY. DO NOT APPLY MULCH IN WETLAND AREA. ALTERNATIVELY, A BLANKET MULCH APPLICATION MAY BE APPLIED TO THE ENTIRE RESTORATION AREA.

**MAINTENANCE**

THIS SITE WILL BE MAINTAINED FOR FIVE YEARS FOLLOWING COMPLETION OF THE PLANT INSTALLATION.

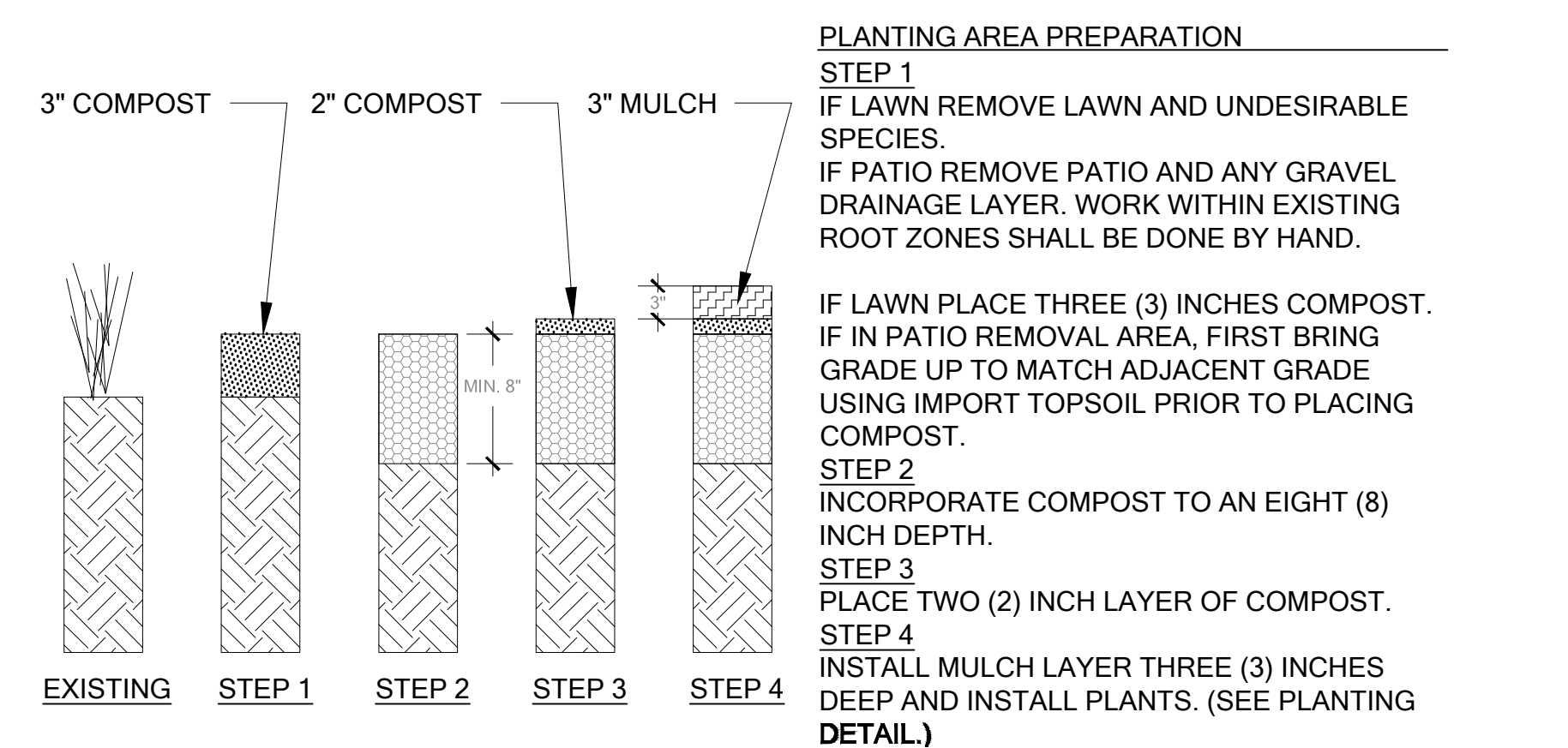
1. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISIT DURING THE UPCOMING FALL DORMANT SEASON (OCTOBER 15<sup>TH</sup> TO MARCH 1<sup>ST</sup>).
2. INVASIVE SPECIES MAINTENANCE PLAN: HIMALAYAN BLACKBERRY, ENGLISH IVY, ENGLISH LAUREL, AND OTHER INVASIVE WOODY VEGETATION WILL BE GRUBBED OUT BY HAND ON AN ONGOING BASIS, WITH CARE TAKEN TO GRUB OUT ROOTS EXCEPT WHERE SUCH WORK WILL JEOPARDIZE THE ROOTS OF INSTALLED OR VOLUNTEER NATIVE PLANTS.
3. AT LEAST TWICE YEARLY, REMOVE BY HAND ALL COMPETING WEEDS AND WEED ROOTS FROM BENEATH EACH INSTALLED PLANT AND ANY DESIRABLE VOLUNTEER VEGETATION TO A DISTANCE OF 12 INCHES FROM THE MAIN PLANT STEM. WEEDING SHOULD OCCUR AS NEEDED DURING THE SPRING AND SUMMER. FREQUENT WEEDING WILL RESULT IN LOWER MORTALITY AND LOWER PLANT REPLACEMENT COSTS.
4. DO NOT WEED THE AREA NEAR THE PLANT BASES WITH STRING TRIMMER (WEED WHACKER). NATIVE PLANTS ARE EASILY DAMAGED OR KILLED, AND WEEDS EASILY RECOVER AFTER TRIMMING.
5. MULCH THE WEEDED AREAS BENEATH EACH PLANT WITH WOOD CHIP MULCH AS NECESSARY TO MAINTAIN A MINIMUM 4-INCH-THICK, 12-INCH-DIAMETER MULCH RING.
6. THE TEMPORARY IRRIGATION SYSTEM WILL BE OPERATED TO ENSURE THAT PLANTS RECEIVE A MINIMUM OF ONE INCH OF WATER PER WEEK FROM JUNE 1<sup>ST</sup> THROUGH SEPTEMBER 30<sup>TH</sup> FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION. IRRIGATION BEYOND THE SECOND YEAR MAY BE NEEDED BASED ON SITE PERFORMANCE OR SIGNIFICANT REPLANTING.

**CONTINGENCY PLAN**

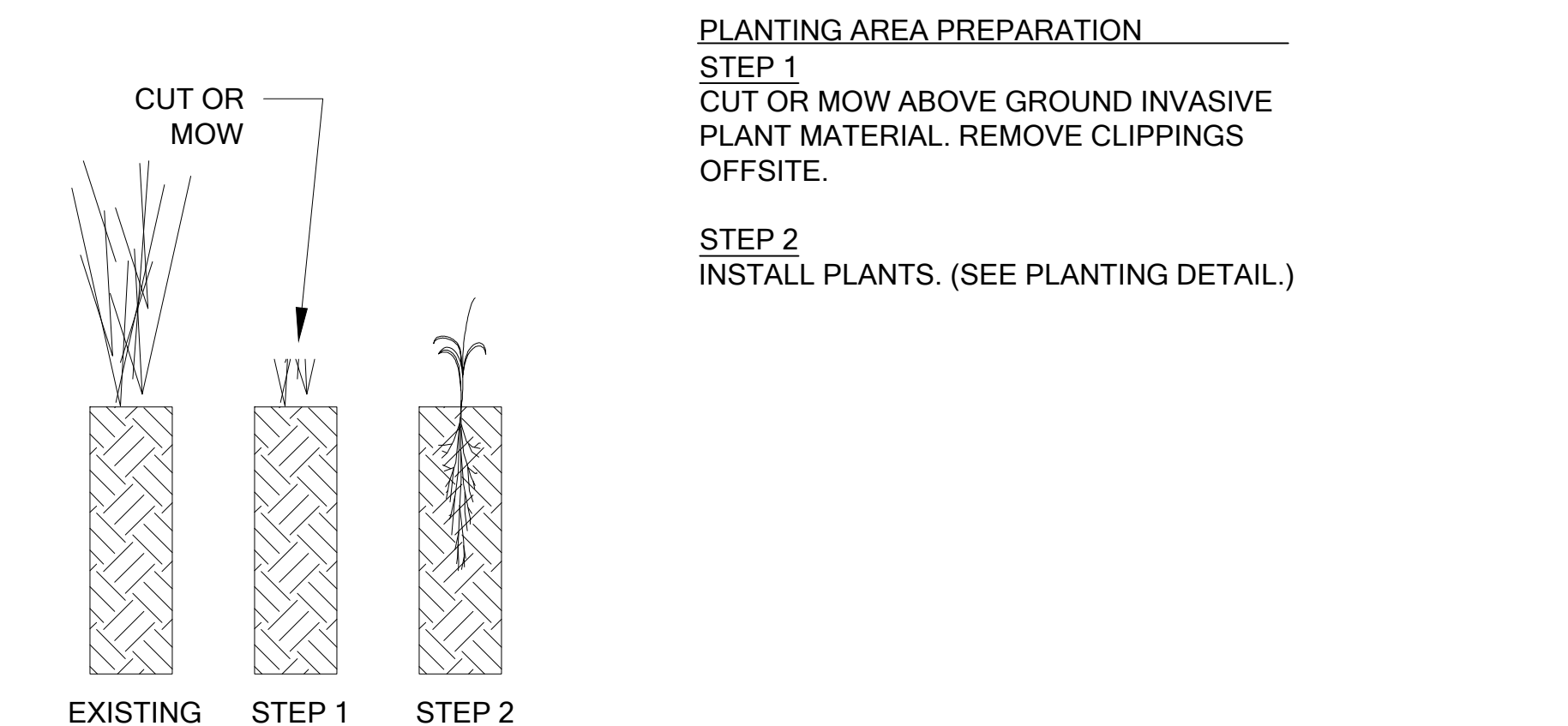
IF ALL OR PART OF THE MITIGATION AREA FAILS TO ESTABLISH ACCORDING TO THE GOALS AND PERFORMANCE STANDARDS, A CONTINGENCY PLAN SHALL BE DEVELOPED. CONTINGENCY MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO, PLANT SPECIES SUBSTITUTIONS, SOIL AMENDMENTS, HERBIVORE EXCLUSION FENCING, MODIFIED IRRIGATION SCHEDULE, AND ADAPTIVE WEED MANAGEMENT.

**MATERIAL SPECIFICATIONS AND DEFINITIONS**

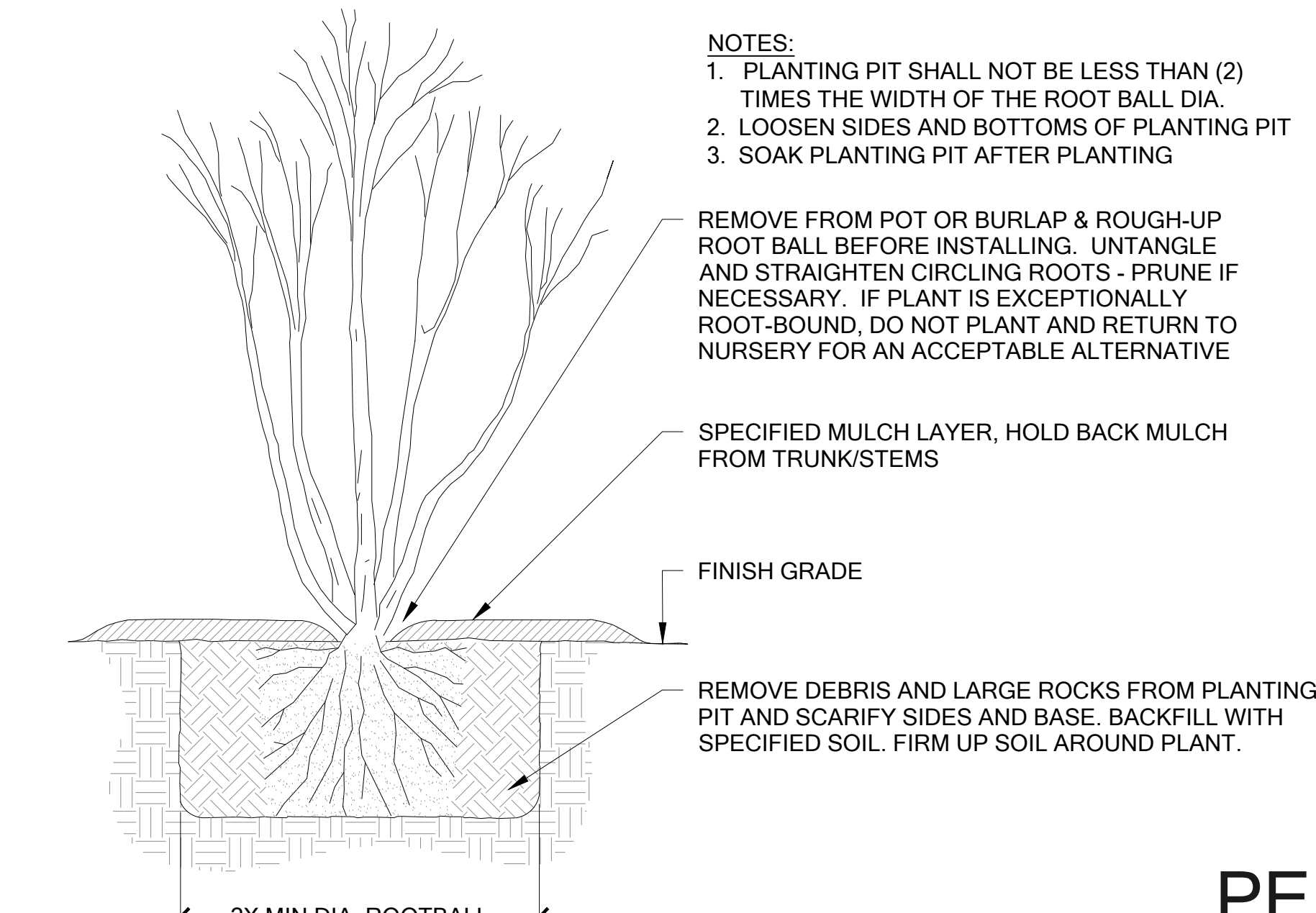
1. IRRIGATION SYSTEM: AUTOMATED SYSTEM CAPABLE OF DELIVERING AT LEAST ONE INCH OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION.
2. RESTORATION PROFESSIONAL: WATERSHED COMPANY [(425) 822-5242] PERSONNEL, OR OTHER PERSONS QUALIFIED TO EVALUATE ENVIRONMENTAL RESTORATION PROJECTS.
3. WOOD CHIP MULCH: ARBORIST CHIPS (CHIPPED WOODY MATERIAL) APPROXIMATELY 1 TO 3 INCHES IN MAXIMUM DIMENSION (NOT SAWDUST OR COARSE HOG FUEL). 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 MUST NOT CONTAIN APPRECIABLE QUANTITIES OF GARBAGE, PLASTIC, METAL, SOIL, AND DIMENSIONAL LUMBER OR CONSTRUCTION/DEMOLITION DEBRIS. QUANTITY REQUIRED: 17 CUBIC YARDS.
4. COMPOST: CEDAR GROVE COMPOST OR EQUIVALENT "COMPOSTED MATERIAL" PER WASHINGTON ADMIN. CODE 173-350-220. QUANTITY REQUIRED: 28 CUBIC YARDS.



**A BUFFER MITIGATION AREA SITE PREPARATION** SEE SHEET W1 Scale: NTS



**B WETLAND MITIGATION AREA SITE PREPARATION** SEE SHEET W1 Scale: NTS



**C CONTAINER PLANTING DETAIL** Scale: NTS

**MITIGATION DETAILS AND NOTES**

**PERMIT SET**  
 NOT FOR CONSTRUCTION

**MOUNGER RESIDENCE**  
**SHORELINE MITIGATION PLAN**  
 PREPARED FOR: BRAD STURMAN  
 4006 EAST MERCER WAY  
 MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS		BY	DATE	DESCRIPTION
1	AS/MF	08-20-2020	MITIGATION PLANTING PLAN	
2	AF	06-07-2021	MITIGATION PLANTING PLAN REVISED	
	AF	04-28-2022	MITIGATION PLANTING PLAN REVISED	

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

PROJECT MANAGER: RK  
 DESIGNED: RK/MF  
 DRAFTED: AS/MF/AF  
 CHECKED: RK

JOB NUMBER: 200509  
 SHEET NUMBER: W3 OF 3