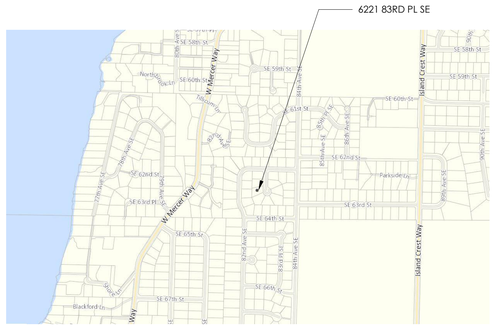


VICINITY MAP

SCALE: N.T.S.

ARCHITECTURAL NOTES:

(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS)

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL RESIDENTIAL CODE (2018 EDITION) WITH MERCER ISLAND AMENDMENTS.

2. CONTRACTOR: SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.

3. CONTRACTOR: SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

4. CONTRACTOR: SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

5. DRAWINGS: INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT/DESIGNER.

6. ALL WOOD PLATES: IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE. PROVIDE 2 LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC., AND CONCRETE OR MASONRY.

7. PRESSURE TREATED LUMBER: ALL FASTENERS AND CONNECTORS THAT ARE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED WITH A MINIMUM COATING OF G90 (.90oz/sf) PER ASTM A123 AND/OR ASTM A153. 304 OR 316 STAINLESS STEEL MAY BE SUBSTITUTED IN LIEU OF GALVANIZED PRODUCTS. NO STAINLESS STEEL PRODUCTS SHALL COME IN CONTACT WITH GALVANIZED PRODUCTS.

8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO WASHINGTON STATE ENERGY CODE (2018 EDITION).

* ALL INTERIOR WALLS TO BE 2x4 @ 24" O.C. (U.N.O.)
* ALL EXTERIOR WALLS 2x6 PER STRUCTURAL
* HEADERS PER STRUCTURAL
* WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
* PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
* PROVIDE SOLID BLOCKING OVER SUPPORTS.
* SEISMIC ANCHORAGE AND STRAPPING OF WATER HEATERS SHALL BE IN ACCORDANCE WITH SECTION 507.2 OF THE UNIFORM PLUMBING CODE.
* PROVIDE OUTDOOR COMBUSTION AIR FOR FURNACE AND WATER HEATER PER IRC G2407.6.

NO SEDIMENT SHALL BE TRACKED INTO THE STREET OR ONTO PAVED SURFACES. SEDIMENT SHALL BE REMOVED FROM TRUCKS AND EQUIPMENT PRIOR TO LEAVING THE SITE. IN THE EVENT OF FAILURE OF EROSION CONTROL SYSTEM RESULTING IN SEDIMENT BEING TRACKED ONTO PAVED SURFACES, THE CONTRACTOR SHALL IMMEDIATELY IMPLEMENT MEASURES TO CORRECT THE SITUATION, AND STREET SWEEPING SHALL BE EMPLOYED ON AN EMERGENCY BASIS. IF STREET SWEEPING VEHICLES ARE UTILIZED, THEY SHALL BE OF THE TYPE THAT ACTUALLY REMOVES SEDIMENT FROM THE PAVEMENT.

LIST OF DRAWINGS

GENERAL	
A0.0	COVERSHEET
A0.1	SITE PLAN
A0.2	FAR DIAGRAMS
SURVEY	
V1	TOPOGRAPHIC SURVEY
CIVIL	
C1	TREE PROTECTION PLAN TSEC-PLAN
C2	TREE PROTECTION PLAN TSEC-PLAN
C3	TESC DETAILS
C4	STORMWATER/UTILITY PLAN AND DETAILS
C5	STORMWATER/UTILITY PLAN AND DETAILS
C6	DETENTION PIPE SYSTEM DETAILS
C7	DETAILS
LANDSCAPE	
L1	REPLACEMENT TREE PLAN
L2	LANDSCAPE DETAILS & NOTES
ARCHITECTURAL	
A1.1	DEMO SITE PLAN
A1.2	SITE DIAGRAMS
A1.3	CRITICAL AREAS
A2.1	FLOOR PLANS
A2.2	FLOOR PLANS
A2.3	FLOOR PLANS
A2.4	FLOOR PLANS
A3.1	ELEVATIONS
A3.2	ELEVATIONS
A4.0	GLAZING SCHEDULE & WSEC NOTES
A4.1	ASSEMBLIES
A4.2	BUILDING SECTION
A4.3	BUILDING SECTION
A6.1	DETAILS
A6.3	WINDOW FLASHING
STRUCTURAL	
S 1.0	GENERAL STRUCTURAL NOTES
S 2.1	FOUNDATION PLAN
S 2.2	FIRST FLOOR FRAMING PLAN
S 2.3	SECOND FLOOR FRAMING PLAN
S 2.4	ROOF FRAMING PLAN
S 3.0	TYPICAL CONCRETE DETAILS
S 3.1	CONCRETE DETAILS
S 3.2	CONCRETE DETAILS
S 3.3	TYPICAL WOOD FRAMING DETAILS
S 4.1	WOOD FRAMING DETAILS
S 4.2	WOOD FRAMING DETAILS
S 5.0	STEEL DETAILS

Coombes Residence

6221 83rd Pl SE
Mercer Island

PROJECT INFORMATION

MUP #
BP #
PROJECT DESCRIPTION:
DEMO EXISTING SFR; CONSTRUCT NEW SFR WITH ATTACHED 2-CAR GARAGE AND 1 OPEN PARKING STALL

LEGAL DESCRIPTION:
LOT 22, BLOCK 1, MERCER VISTA, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 67 OF PLATS, PAGE 1, RECORDS OF KING COUNTY, WASHINGTON.

TAX # :
545420-0220

PROJECT TEAM

OWNER/ APPLICANT :
COOMBES DEVELOPMENT
4701 SW ADMIRAL WAY, SUITE 385
SEATTLE, WA 98116
P 206.420.7672

STRUCTURAL ENGINEER :
MALSAM TSANG STRUCTURAL ENGINEERING
122 S JACKSON ST #210
SEATTLE, WA 98104
P 206.789.6038

ARCHITECT/PROJECT CONTACT:
JULIAN WEBER ARCHITECTS, LTD
1257 S KING ST
SEATTLE, WA 98144
P 206.953.1305

LANDSCAPE ARCHITECT :
DEVIN PETERSON
ROOT OF DESIGN, LLC
7104 265TH ST NW, SUITE #218
STANWOOD, WA 98292
P 206.491.9545

SURVEYOR :
TERRANE
10801 MAIN STREET, SUITE 102
BELLEVUE, WA 98004
P 425.458.4488

CIVIL ENGINEER :
HAN PHAN
5130 SOUTH 166TH LANE
SEATAC, WA 98188
P 206.229.6422
PBG

PROJECT DATA

ZONE: R-9.6

LOT AREA: 10,248 SF

FLOOR AREA RATIO:
SEE SHEET A0.2 FOR DIAGRAM

GFA TABLE

FLOOR AREA LABEL	GFA	CHARGEABLE FLOOR AREA	EXEMPT PER
Basement	314 SF	314.36 SF	
Basement	808 SF	0.00 SF	MICC Title 19 -Appendix B
covered deck	333 SF	332.69 SF	
Garage	619 SF	619.44 SF	
Level 1	1,371 SF	1,371.30 SF	
Level 2	1,439 SF	1,438.74 SF	
stairs	107 SF	0.00 SF	MICC 19.02.020.D.2.c
TOTAL	4,992 SF	4,076.52 SF	

SETBACKS PER MIIC 19.02.020.C:

	REQUIRED	ACTUAL
FRONT	20'-0"	22'-7 1/2"
SIDE, NORTH	10'-0"	11'-0"
SIDE, SOUTH (>25' HEIGHT)	10'-0"	10'-8 1/2"
SIDE, SOUTH (<15' HEIGHT)	5'-0"	7'-6"
REAR	25'-0"	36'-10 1/4"

STRUCTURE HEIGHT LIMIT PER PER MIIC 19.02.020.E:
30' MAXIMUM HEIGHT
(SEE SHEET A1.2 FOR HEIGHT CALCULATION)

LOT COVERAGE PER MIIC 19.02.020.F:
EXISTING = 3,364 SF
PROPOSED = 3,995.21 SF
(SEE SHEET A1.2 FOR CALCUALTION)

JULIAN WEBER ARCHITECTS, LTD

1257 S King St
Seattle, WA 98144
203.953.1305

www.jwaseattle.com

9458 REGISTERED ARCHITECT
JULIAN R. WEBER
STATE OF WASHINGTON

COOMBES DEVELOPMENT

4701 SW ADMIRAL WAY, SUITE 385
SEATTLE, WA 98116
P 206.420.7672

Coombes Residence
6221 83rd Pl SE
Mercer Island

MUP #
BP #

Δ	Date	Description
	06.02.2022	Critical Area Submittal
	06.02.2022	BP Submittal

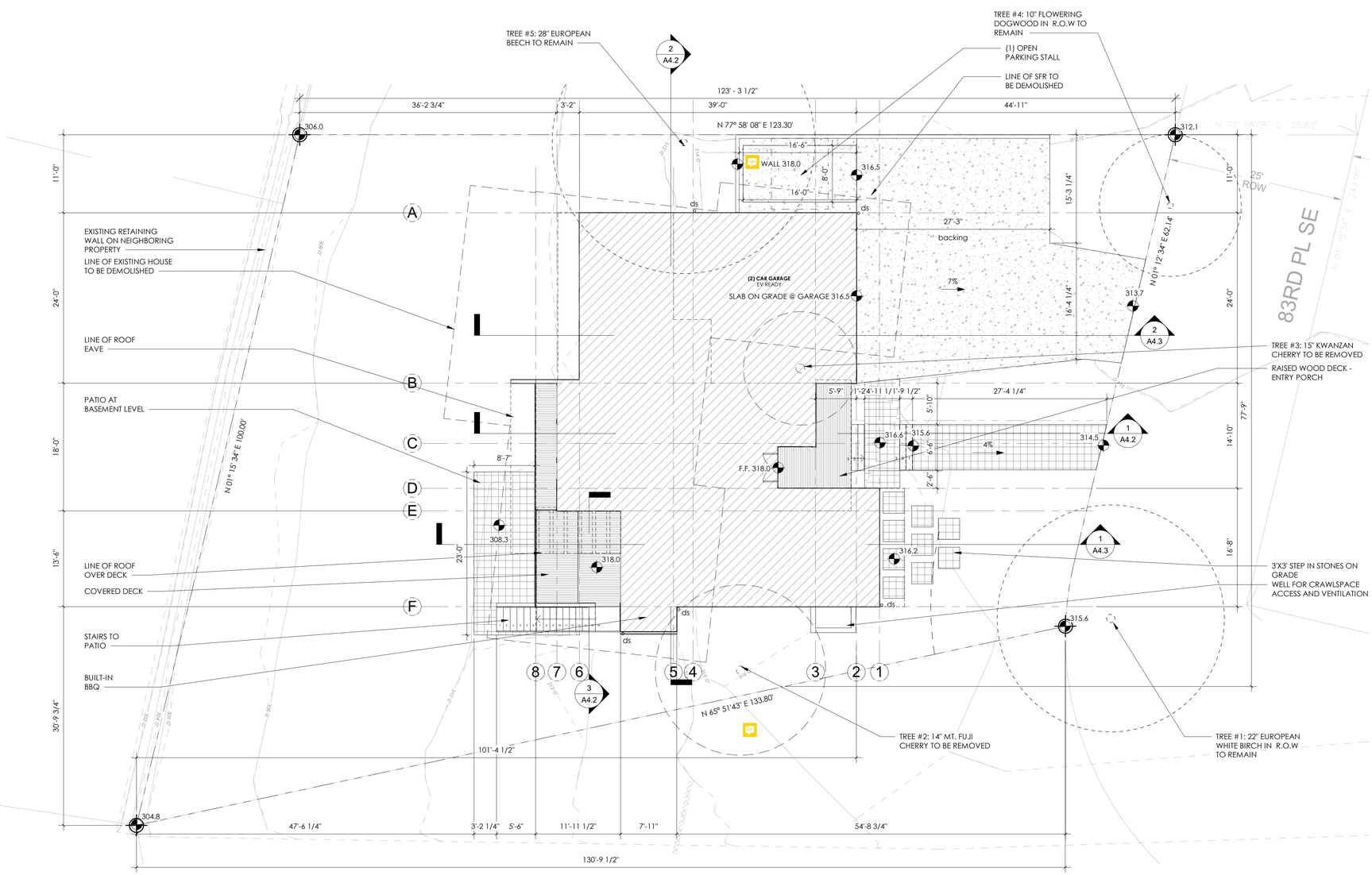
COVERSHEET

Scale **As indicated**
Date **04/29/2022**

A0.0

Project Number **JWA#611**

6/22/2022 11:22:42 AM



1 Site Plan

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

*PLEASE REFERENCE 1/A1.3 FOR AVERAGE BUILDING CALCULATIONS.
**PLEASE REFERENCE 1/A0.2 FOR BASEMENT FLOOR AREA CALCULATIONS.

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MUP #

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	06.02.2022	Critical Area Submittal
	06.02.2022	BP Submittal

SITE PLAN

Scale **1/8" = 1'-0"**
Date **04/29/2022**

A0.1

Project Number **JWA#611**

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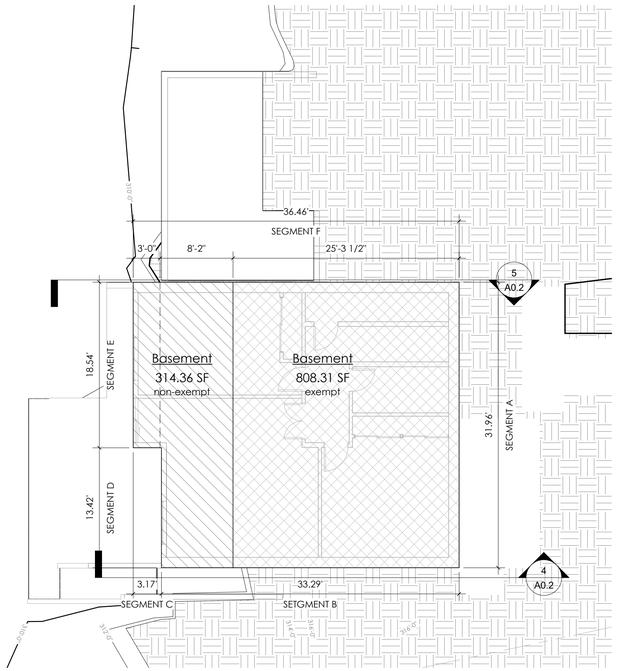
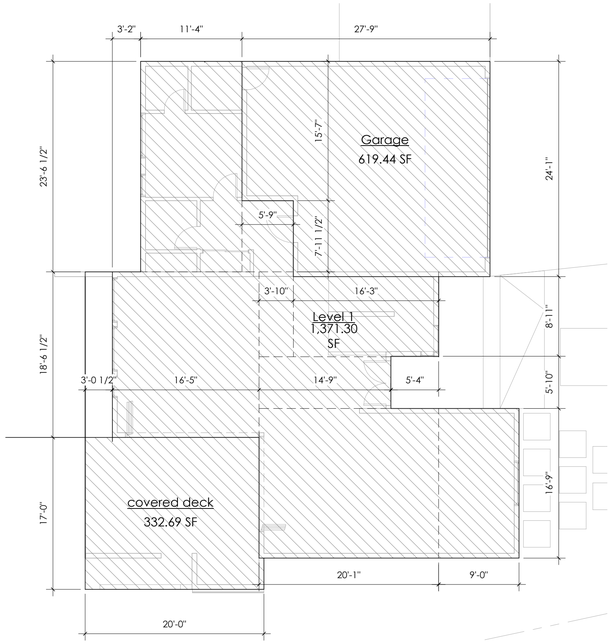


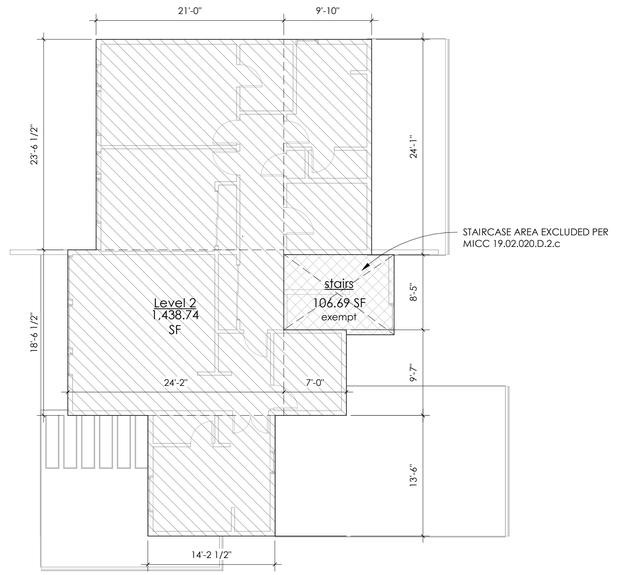
1 Basement

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



2 Level 1

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

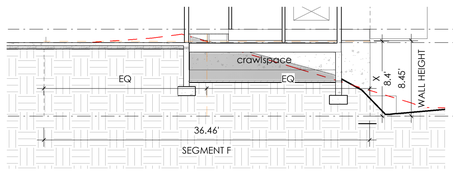


3 Level 2

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

4 SEGMENT B

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



5 SEGMENT F

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

MICC TITLE 19 - UNIFIED LAND DEVELOPMENT APPENDICES
APPENDIX B - BASEMENT FLOOR AREA CALCULATION

STEP 2 - WALL SEGMENT COVERAGE

A = 100%
B = 7.92'/8.5' x 100 = 93.18 %
C = 0 %
D = 0 %
E = 0 %
F = 8.4'/8.5' x 100 = 98.82 %

STEP 3 - (WALL LENGTH x %COVERAGE)

A = 31.96' x 100% = 3,196
B = 33.29' x 93.18 % = 3,101.96
C = 3.17 x 0 % = 0
D = 13.42' x 0 % = 0
E = 18.54' x 0 % = 0
F = 36.46' x 98.82 % = 3,602.98

TOTAL WALL LENGTH= 136.84'
TOTAL SUM = 9,900.94/100 = 99.01

STEP 4

99.01/136.84' = 0.72 x 100 = 72% AREA EXCLUDED

BASEMENT TOTAL GROSS FLOOR AREA = 1,122.66 SF
1,122.66 x 0.72 = 808.31 SF AREA EXCLUDED

FAR CALCULATION

LOT AREA	Base F.A.R.	ALLOWED	PROPOSED
10,284.00 SF	0.4	4,113.60 SF	4,077 SF

TOTAL EXISTING GFA = 4,477 SF REMOVED

GFA TABLE

FLOOR AREA LABEL	GFA	CHARGEABLE FLOOR AREA	EXEMPT PER
Basement	314 SF	314.36 SF	
Basement	808 SF	0.00 SF	MICC Title 19 -Appendix B
covered deck	333 SF	332.69 SF	
Garage	619 SF	619.44 SF	
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Mercer Island

MUP #

BP #

Δ	Date	Description
	06.02.2022	BP Submittal

FAR DIAGRAMS

Scale 1/8" = 1'-0"
Date 04/29/2022

A0.2

Project Number JWA#611

6/29/2022 11:22:45 AM

TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

LOT 22, BLOCK 1, MERCER VISTA, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 67 OF PLATS, PAGE 1, RECORDS OF KING COUNTY, WASHINGTON.

BASIS OF BEARINGS

N 03°26'44" W BETWEEN SURVEY MONUMENTS FOUND AND HELD AS SHOWN HEREON, AS CALCULATED PER R1.

REFERENCES

R1 MERCER VISTA, RECORDED IN VOL. 67 OF PLATS, PAGE 1, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD(88) PER CITY OF MERCER ISLAND BENCHMARK #4231
"SAC MON 83RD AVE SE, OPP HSE #6234"
ELEV=314.90'

SITE BM: SET NAIL W/SHINER IN ASPHALT NEAR S COR OF SITE DRIVE APRON, ELEV=314.19'

SURVEYOR'S NOTES

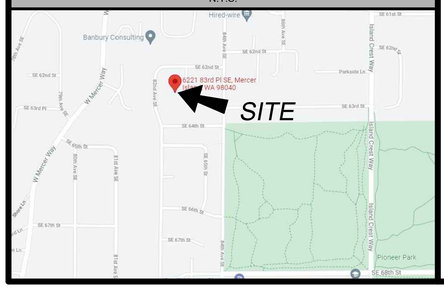
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN NOVEMBER OF 2021. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 545420-0220
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 10,284 S.F. (0.24 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
8. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND

BENCHMARK	SS	SEWER LINE	
ASPHALT SURFACE		SEWER MANHOLE	
BRICK SURFACE	SIZE TYPE	TREE (AS NOTED)	
BUILDING	W	WATER LINE	
CENTERLINE ROW	WM	WATER METER	
CONCRETE SURFACE	BIR	BIRCH	
RETAINING WALL	C.C.	CENTER CHANNEL	
DECK	CALC'D	CALCULATED	
GAS LINE	CH	CHERRY	
GAS METER	CONC	CONCRETE	
GUY ANCHOR	COR	CORNER	
HAND RAIL	DEC	DECIDUOUS	
HEDGE FOLIAGE LINE	ELEV	ELEVATION	
LUMINAIRE	FF	FINISH FLOOR	
MONUMENT IN CASE (FOUND)	LS#	LAND SURVEYOR NUMBER	
NAIL AS NOTED	MEAS	MEASURED	
POWER (OVERHEAD)	MON	MONUMENT	
POWER POLE	PROP	PROPERTY	
REBAR AS NOTED (FOUND)	(R)	RECORD DATA	
REBAR & CAP (SET)	SSMH	SANITARY SEWER MANHOLE	
ROCKERY	SSS	SANITARY SIDE SEWER	

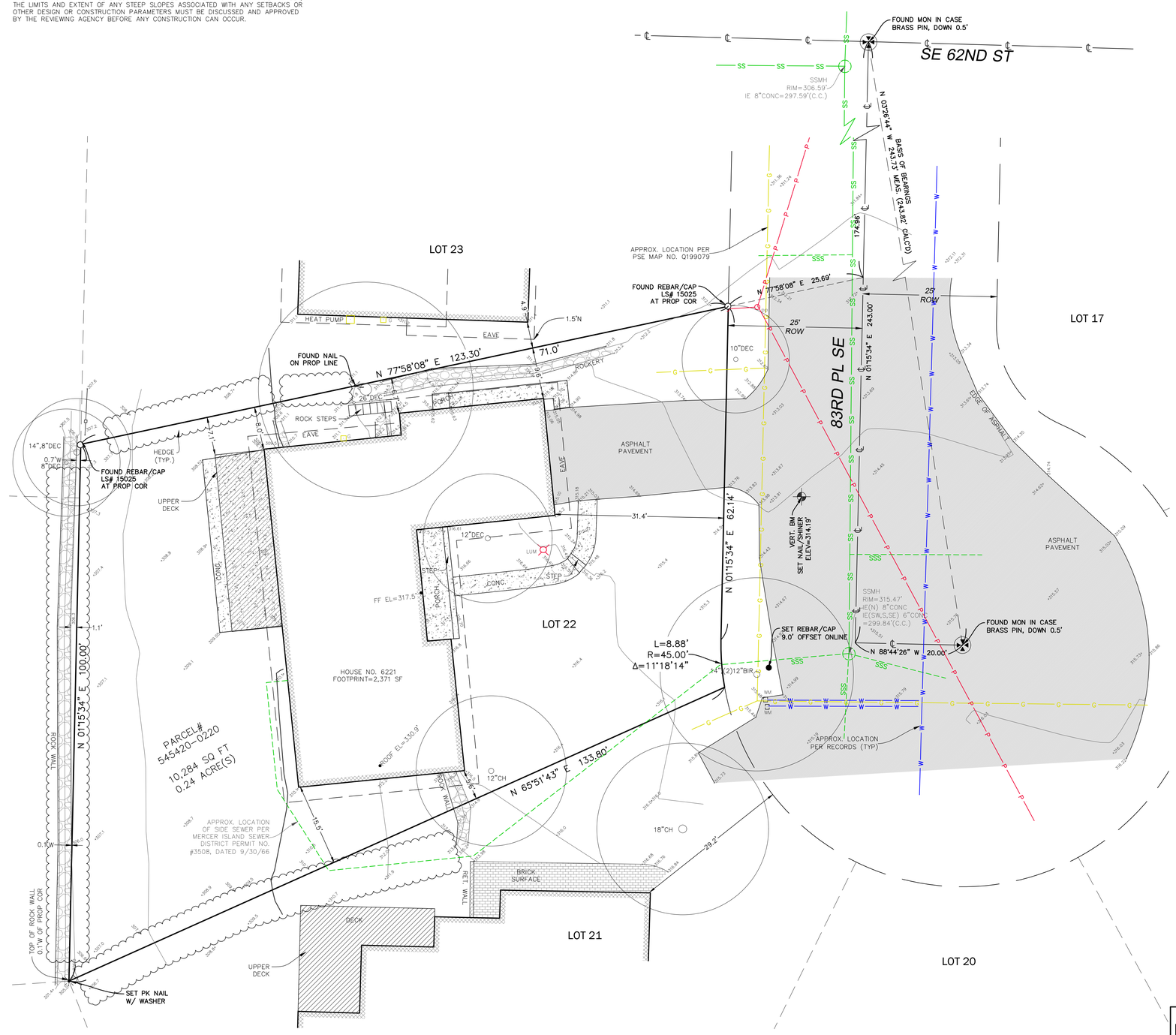
VICINITY MAP

N.T.S.



STEEP SLOPE/BUFFER DISCLAIMER:

THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.



(IN FEET)
1 INCH = 10 FT.

INDEXING INFORMATION

SE 1/4 SE 1/4
SECTION: 24
TOWNSHIP: 24N
RANGE: 04E, W.M.
COUNTY: KING

10801 Main Street, Suite 102
Bellevue, WA 98004
p: 425-458-4488 | e: info@terrane.net

We are the measure | terrane.net

TOPOGRAPHIC & BOUNDARY SURVEY
PARCEL NO. 545420-0220

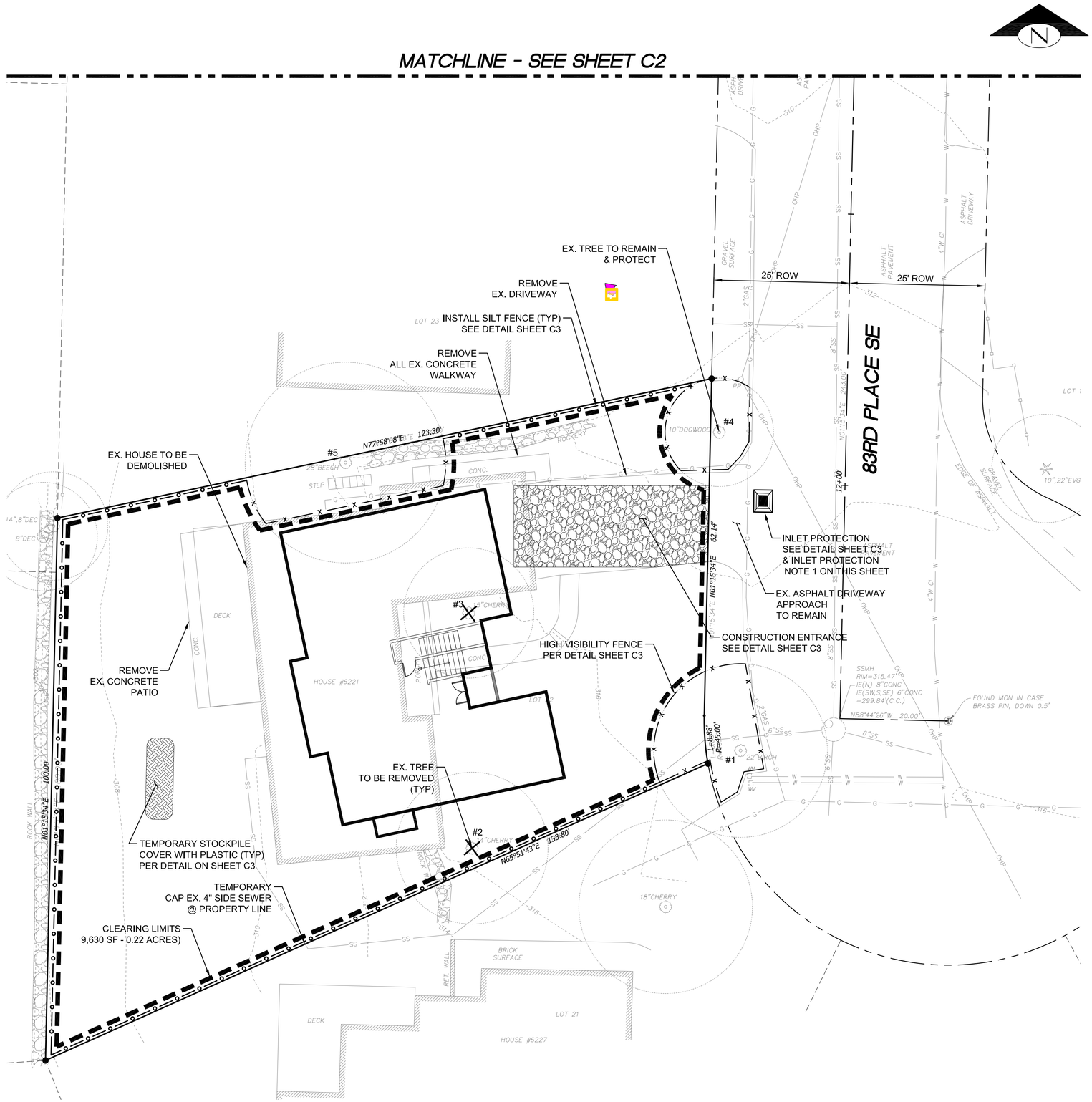
COOMBS DEVELOPMENT - 83RD PL SE
6221 83rd Pl SE
MERCER ISLAND, WA 98040

TERRANE

JOB NUMBER:	212419
DATE:	11/22/21
DRAFTED BY:	TLR
CHECKED BY:	SRM/RLS
SCALE:	1" = 10'

REVISION HISTORY

SHEET NUMBER
1 OF 1



TREE INVENTORY:

#1 - 14"	EUROPEAN WHITE BIRCH (BETULA PENDULA)	REGULATED-YES
#2 - 14"	MT. FUJI CHERRY (PRUNUS SERRULATA 'SHIROTAE')	REGULATED-YES
#3 - 15"	KWANZAN CHERRY (PRUNUS SERRULATA 'KWANZAN')	REGULATED-YES
#4 - 7"	FLOWERING DOGWOOD (CORNUS FLORIDA)	REGULATED-YES
#5 - 28"	EUROPEAN BEECH (FAGUS SYLVATICA L.)	REGULATED-YES

STABILIZE SOILS:

TEMPORARY COVER MEASURES SHALL BE PROVIDED WHEN NECESSARY TO PROTECT DISTURBED AREAS. THE INTENT OF THESE MEASURES IS TO PREVENT EROSION BY HAVING AS MUCH AREA AS POSSIBLE COVERED DURING ANY PERIOD OF PRECIPITATION. TOPSOIL LAYERS SHALL BE RETAINED AND PROTECTED TO THE MAXIMUM EXTENT FEASIBLE. ANY TOPSOIL THAT IS STOCKPILED ONSITE SHALL BE COVERED TO PREVENT EROSION AND SATURATION, AND SHALL BE REUSED IN LANDSCAPED AREAS UPON COMPLETION OF THE GROUND DISTURBING ACTIVITIES. TEMPORARY COVER SHALL BE INSTALLED IF AN AREA IS TO REMAIN UNWORKED FOR MORE THAN 7 DAYS DURING THE DRY SEASON (MAY 1 TO SEPTEMBER 30) OR FOR MORE THAN TWO CONSECUTIVE WORKING DAYS DURING THE WET SEASON (OCTOBER 1 TO APRIL 30). COVER METHODS INCLUDE THE USE OF SURFACE ROUGHENING, MULCH, EROSION CONTROL NETS AND BLANKETS, PLASTIC COVERING, SEEDING, AND SODDING. MULCH AND PLASTIC SHEETING ARE PRIMARILY INTENDED TO PROTECT DISTURBED AREAS FOR A SHORT PERIOD OF TIME, TYPICALLY DAYS TO A FEW MONTHS. SEEDING AND SODDING ARE MEASURES FOR AREAS THAT ARE TO REMAIN UNWORKED FOR MONTHS. EROSION NETS AND BLANKETS ARE TO BE USED IN CONJUNCTION WITH SEEDING STEEP SLOPES

GENERAL NOTE:

1. LAND CLEARING, GRADING, FILLING, AND FOUNDATION WORK ARE NOT PERMITTED BETWEEN OCTOBER 1ST AND APRIL 1ST. ANY WORK THAT IS PROPOSED DURING THE WET SEASON MUST SUBMIT A SEASONAL DEVELOPMENT LIMITATION WAIVER FOR APPROVAL BY THE BUILDING OFFICIAL

PROJECT ENGINEER'S CERTIFICATION:

I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR JABOODA HOMES RESIDENCE HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE STANDARD OF CARE AND EXPERTISE WHICH IS USUAL AND CUSTOMARY IN THIS COMMUNITY OF PROFESSIONAL ENGINEERS. I UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILILTY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMPS PREPARED BY ME.

INLET PROTECTION NOTE:

1. CONTRACTOR TO INSTALL INLET PROTECTION ON ALL CATCH BASINS DOWNSTREAM WITHIN 50'

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- RIGHT OF WAY LINE
- RIGHT OF WAY CENTERLINE
- PROPOSED STRUCTURE

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

HORIZONTAL GRAPHIC SCALE
10 5 0 5 10
1 inch = 10 ft.

REFERENCE SHEET NO. C1

SHEET 1 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

TREE PROTECTION PLAN TESC PLAN - 1

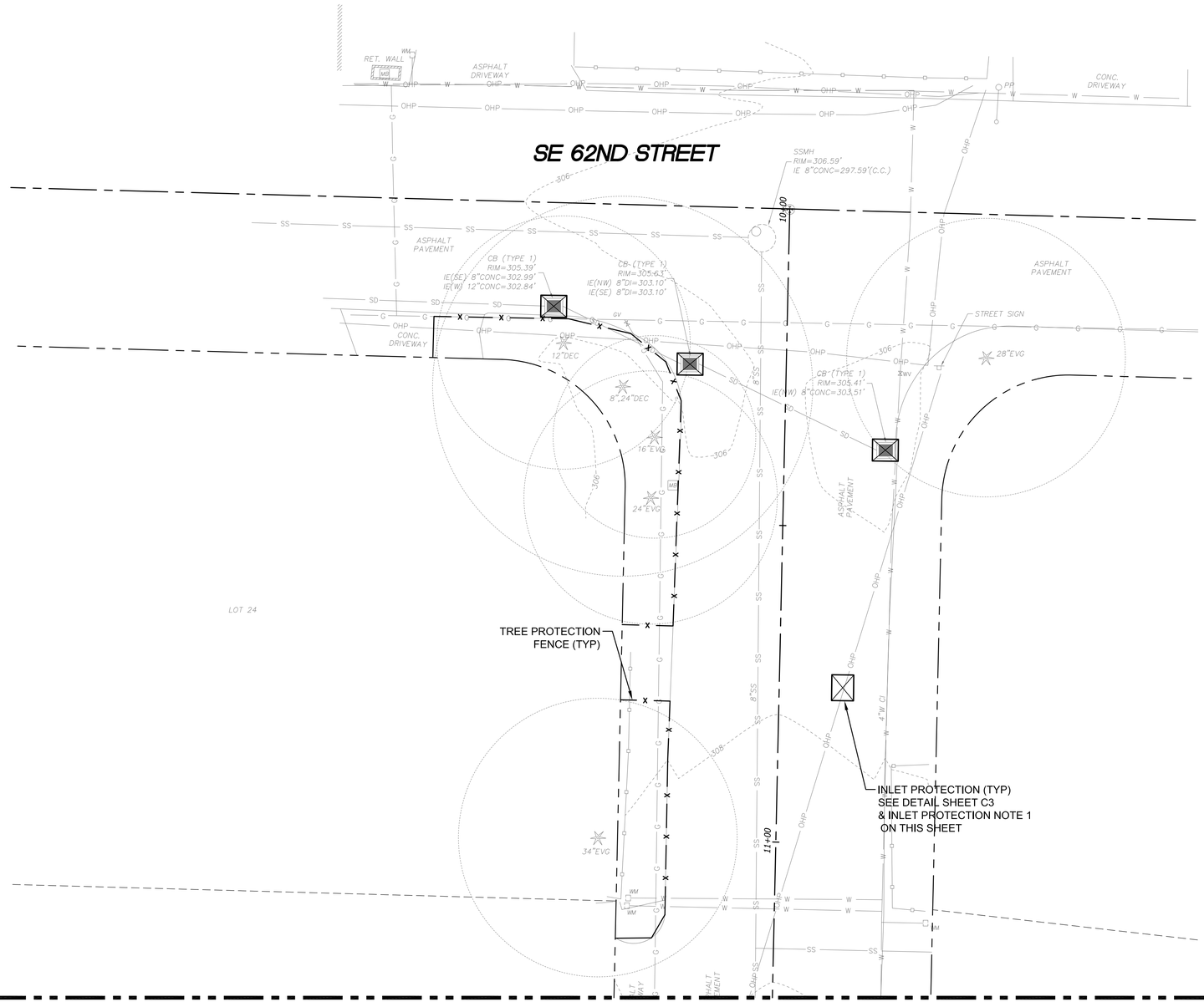
HAN H. PHAN
STATE OF WASHINGTON
42815
REGISTERED PROFESSIONAL ENGINEER

PBG
Land Development and Civil Engineering Consultants
5130 South 166th Lane
SeaTac, WA 98188
T (206) 229-6422

JOB NO.	ISSUE DATE
R22465	7-05-2022
DESIGNED BY:	L. PHAN
DRAWN BY:	L. PHAN
CHECKED BY:	H.H. PHAN
PROJ. MNGR:	H.H. PHAN

NO.	DATE	BY	REVISION DESCRIPTION

Jul 07, 2022 - 12:10pm Hon Phan L:\Working\R22465 - 6221 83rd Place SE (COOMBES Development)\CADD\Drawings\R22465-PS-C1.dwg Layout Name: C1



INLET PROTECTION NOTE:

1. CONTRACTOR TO INSTALL INLET PROTECTION ON ALL CATCH BASINS DOWNSTREAM WITHIN 50'

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- RIGHT OF WAY LINE
- RIGHT OF WAY CENTERLINE

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

HORIZONTAL GRAPHIC SCALE
10 5 0 5 10
1 inch = 10 ft.

REFERENCE SHEET NO.	SHEET
C2	2 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

TREE PROTECTION PLAN TESC PLAN - 2

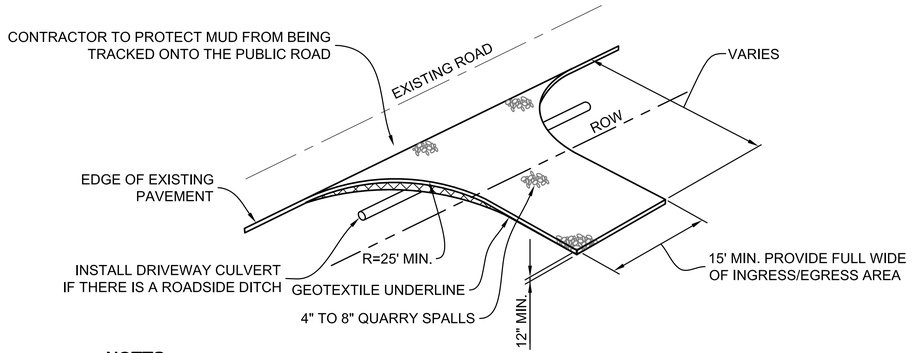
HAN H. PHAN
STATE OF WASHINGTON
42815
REGISTERED PROFESSIONAL ENGINEER

PBG
Land Development and Civil Engineering Consultants
5130 South 166th Lane
SeaTac, WA 98188
T (206) 229-6422

JOB NO.	ISSUE DATE
R22465	7-05-2022
DESIGNED BY:	L. PHAN
DRAWN BY:	L. PHAN
CHECKED BY:	H.H. PHAN
PROJ. MNGR:	H.H. PHAN

NO.	DATE	BY	REVISION DESCRIPTION

Jul 07, 2022 - 12:56pm Han Phan L:\Working\R22465 - 6221 83rd Place SE (COOMBES Development)\CADD\Drawings\R22465-PS-C2.dwg Layout Name: C2



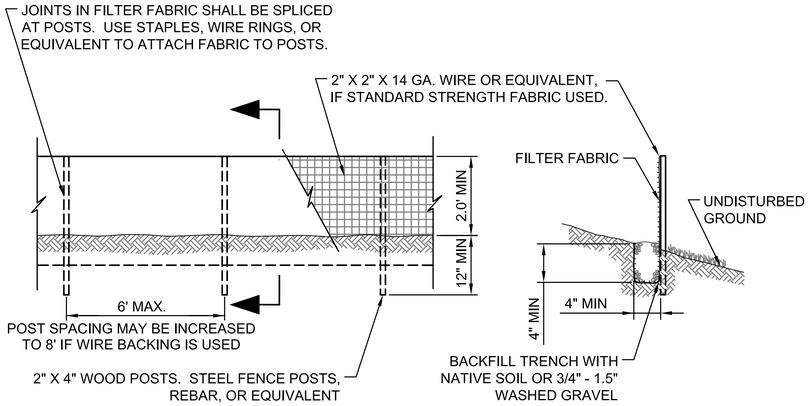
NOTES:

DRIVEWAYS SHALL BE PAVED TO THE EDGE OF RIGHT-OF-WAY PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY.

IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE ROAD.

CONSTRUCTION ENTRANCE DETAIL

SCALE: NONE

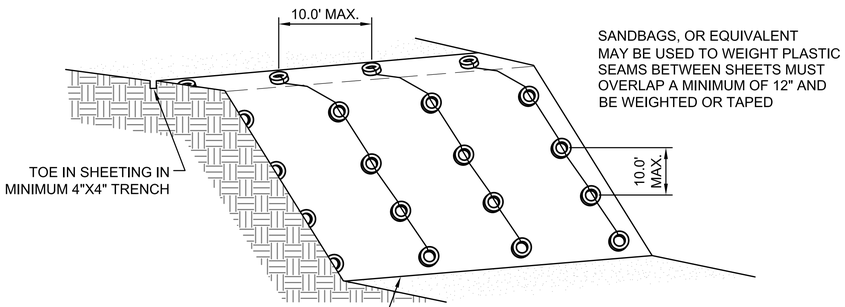


NOTES:

FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

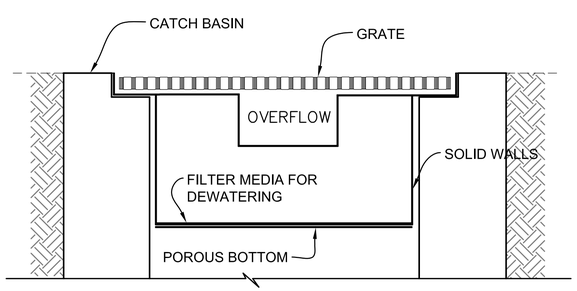
SILT FENCE DETAIL

SCALE: NONE



PLASTIC COVERING DETAIL

SCALE: NONE

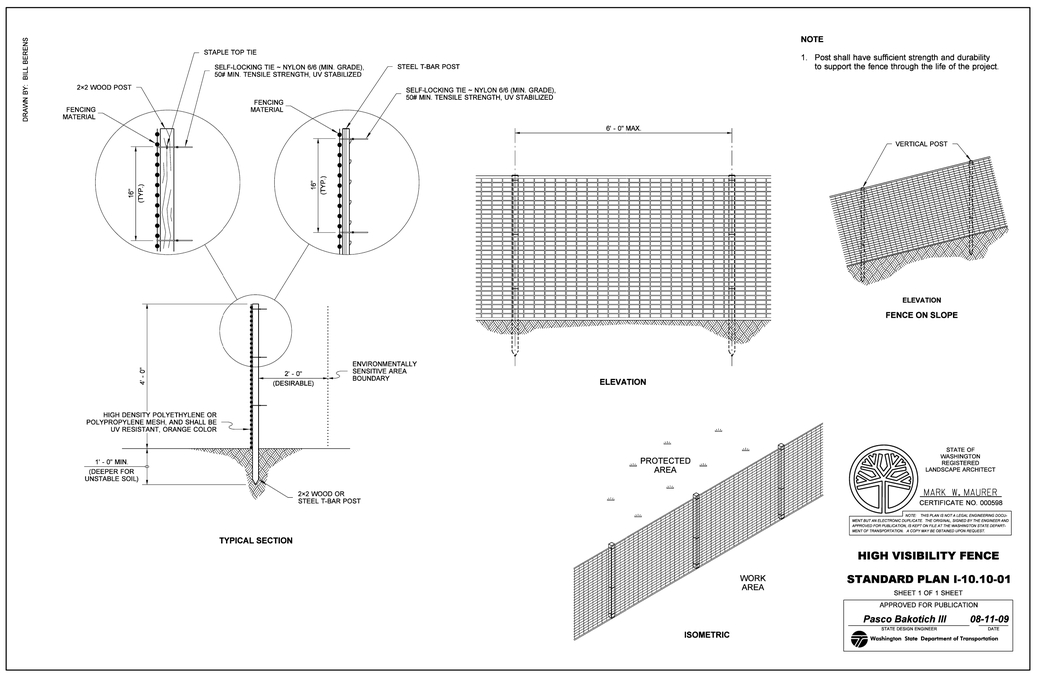


NOTES:

THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS A MIN. 0.5 CUBIC FEET OF STORAGE WITH THE MEANS TO DEWATER THE STORED SEDIMENT, PROVIDE AN OVERFLOW, AND CAN BE EASILY MAINTAINED.

INLET PROTECTION DETAIL

SCALE: NONE



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

REFERENCE SHEET NO.	SHEET
C3	3 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

TESC DETAILS

HAN H. PHAN
STATE OF WASHINGTON
42815
REGISTERED PROFESSIONAL ENGINEER

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5130 South 166th Lane
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NO.	DATE	BY	REVISION DESCRIPTION

JOB NO.	ISSUE DATE
R22465	7-05-2022

DESIGNED BY:	L. PHAN
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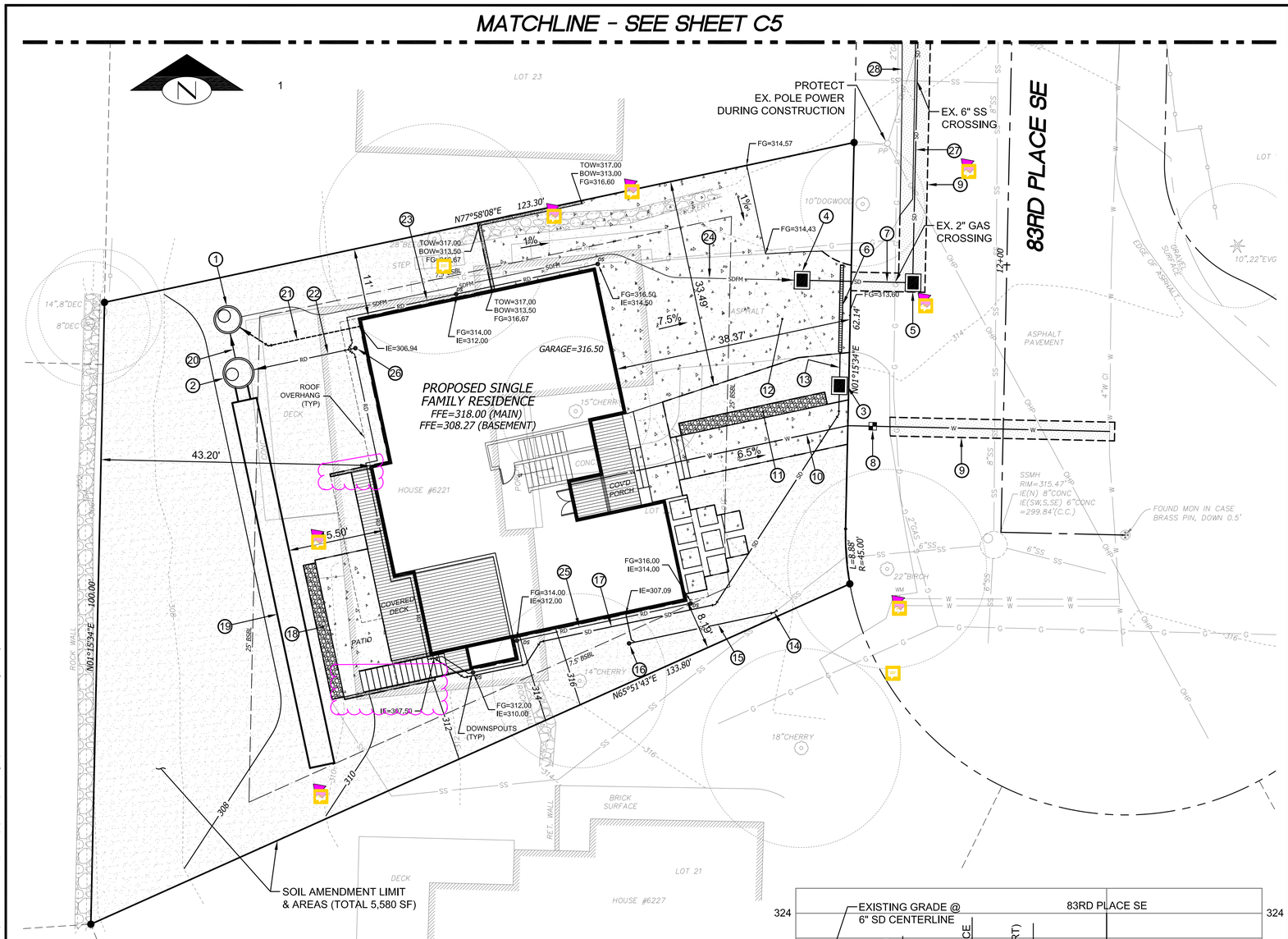


CONSTRUCTION NOTES:

1. INSTALL CB #3 TYPE 1 - 48" WITH SOLID LID & DUPLEX PUMP STATION PER DETAIL ON SHEET 7
   RIM=308.50
   IE (S)=303.42
   IE (SE)=304.00
   IE (E)=304.42
   SUMP=300.42
2. INSTALL CB #2 TYPE 2 - 54" WITH FLOW CONTROL & SOLID LOCKING LID PER DETAIL ON SHEET C6
   RIM=308.50
   IE (N,S)=303.50
   IE (E)=305.50
3. CB #1-TYPE 1 WITH SOLID LID & OIL SEPARATOR (RISER TEE)
   RIM=314.10
   IE (N)=311.70
   IE (S)=311.60
4. INSTALL CB #4-TYPE 1 WITH SOLID LID
   RIM=313.90
   IE (W)=312.75
   IE (E)=312.06
5. CB #5-TYPE 1 WITH SOLID LID
   RIM=313.25
   IE (W)=312.18
   IE (N)=312.08
6. 14' LONG x 5" WIDE SLOTTED DRAIN (DURA) H20 RATED TRAFFIC LID
   RIM=313.70
   IE=313.30
7. 15.5 LF 6" DI SD @ 1.00%
8. 1" WATER METER WITH 33 LF 2" SERVICE WATER SEE NOTE 1
9. SAWCUT & PAVEMENT PATCHING DETAILS TO BE APPROVED BY CITY INSPECTOR
10. 49 LF 1½" WATER SERVICE LINE (POLYETHYLENE PIPE SDR 7)
11. INSTALL 2' WIDE x 24' LONG x 18" DEEP GRAVEL STRIP FOR WALKWAY DISPERSION
12. 4" CEMENT CONC. PAVEMENT
13. 4 LF 4" DI SD @ 50.00%
14. CONNECT TO EX. 4" SIDE SEWER (FIELD VERIFY) SEE NOTE 2
15. 29 LF 4" SDR 35 PVC GRAVITY SIDE SEWER @ 2.00%
16. 4" SSCO #2
    IE=307.00
17. 89 LF 4" SDR 35 PVC SD @ 2.00% MIN. CONNECT TO 4" ROOF DRAIN LINE
18. INSTALL 2' WIDE x 20' LONG x 18" DEEP GRAVEL STRIP FOR PATIO DISPERSION
19. INSTALL 4' DIA. X 60' LONG CMP DETENTION TANK
    TOP=307.00
    BOTTOM=303.00
    PER DETAIL ON SHEET C6
20. INSTALL 4 LF 8" PVC SDR 35 @ 2.00%
21. 21 LF 4" SOLID SDR 35 PVC FOOTING DRAIN COLLECTOR @ 14.00%
22. 17 LF 6" SDR 35 PVC ROOF DRAIN COLLECTOR @ 3.00%
23. 46 LF 4" SDR 35 PVC ROOF DRAIN @ 2.00% MIN.
24. INSTALL 91 LF 2" PVC SCHEDULE 80 STORM DRAIN FORCE MAIN
25. 105 LF 4" SDR 35 PVC ROOF DRAIN @ 2.00% MIN.
26. 6" SDCO #1
    IE=306.01
27. 176 LF 6" DI SD @ 5.00%
28. 2' WIDE ASPHALT THICKENED EDGE

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- RIGHT OF WAY LINE
- RIGHT OF WAY CENTERLINE
- OVERHANG / EAVE
- PROPOSED STRUCTURE
- SOIL AMENDMENT AREA
- CEMENT CONCRETE PAVEMENT
- ASPHALT PAVEMENT

NOTES:

1. NEW WATER METER LOCATE 27.5' NORTH OF EXISTING WATER METER AND 4' EAST OF PROPERTY LINE. CONTRACTOR TO FIELD VERIFY THE EXISTING WATER LINE AND COORDINATE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION.
2. THE TV INSPECTOR OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN ON 83RD PLACE SE IS REQUIRED PRIOR TO ANY WORK RELATED TO THE SIDE SEWER. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS RQUIRED.

A BACKUP GENERATOR IS REQUIRED FOR THE FOOTING DRAIN PUMP SYSTEM

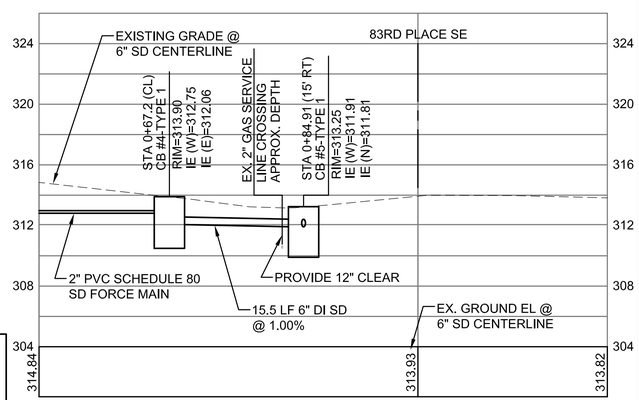
PRIVATE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY AND ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM

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

HORIZONTAL GRAPHIC SCALE
10 5 0 5 10
1 inch = 10 ft.

SOIL AMENDMENT NOTE:

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.



6" STORM DRAINAGE PROFILE

HORIZONTAL GRAPHIC SCALE
10 5 0 5 10
1 inch = 10 ft.

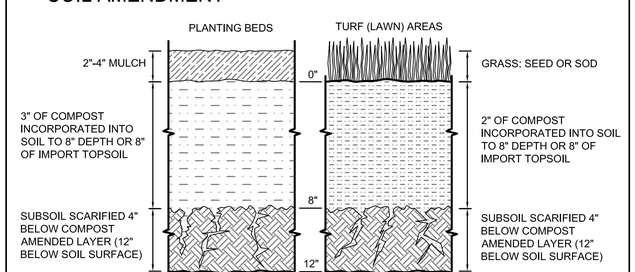
VERTICAL GRAPHIC SCALE
5 2.5 0 2.5 5
1 inch = 5 ft.

ESTIMATED COMPOST REQUIRED FOR SOIL AMENDMENT

4,437	(SQUARE FEET) X 0.0062 *** =	28	(CUBIC YARDS)
DISTURBED AREA REQUIRING AMENDMENT		REQUIRED COMPOST	

SOIL AMENDMENT

*** 2 INCH LAYER OF COMPOST (FT/12 INCH) X (CY/27 CF) = 0.0062



REFERENCE SHEET NO. C4

SHEET 4 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

STORMWATER / UTILITY PLAN AND DETAILS - 1

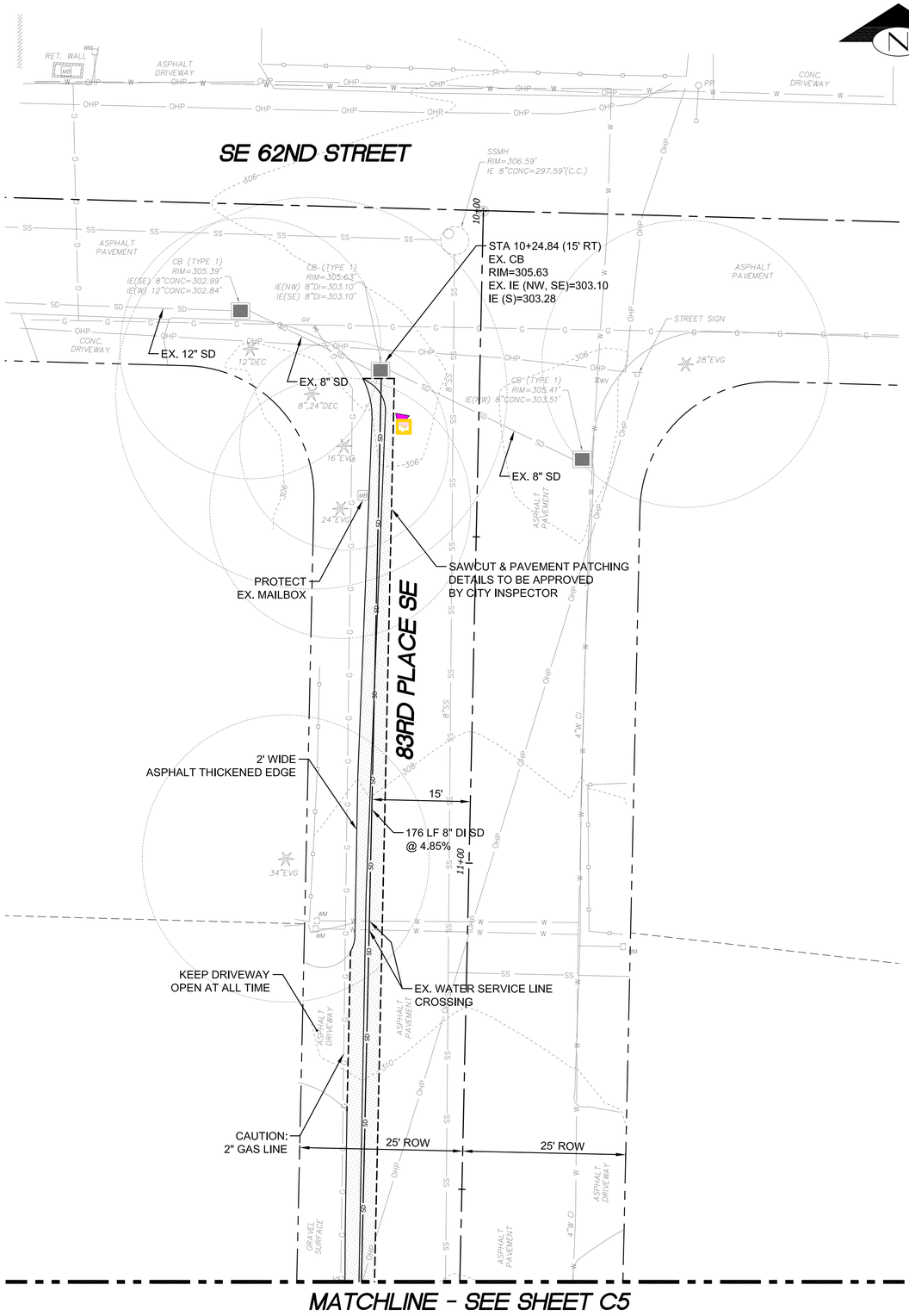
HAN H. PHAN — STATE OF WASHINGTON — 42815 — REGISTERED PROFESSIONAL ENGINEER

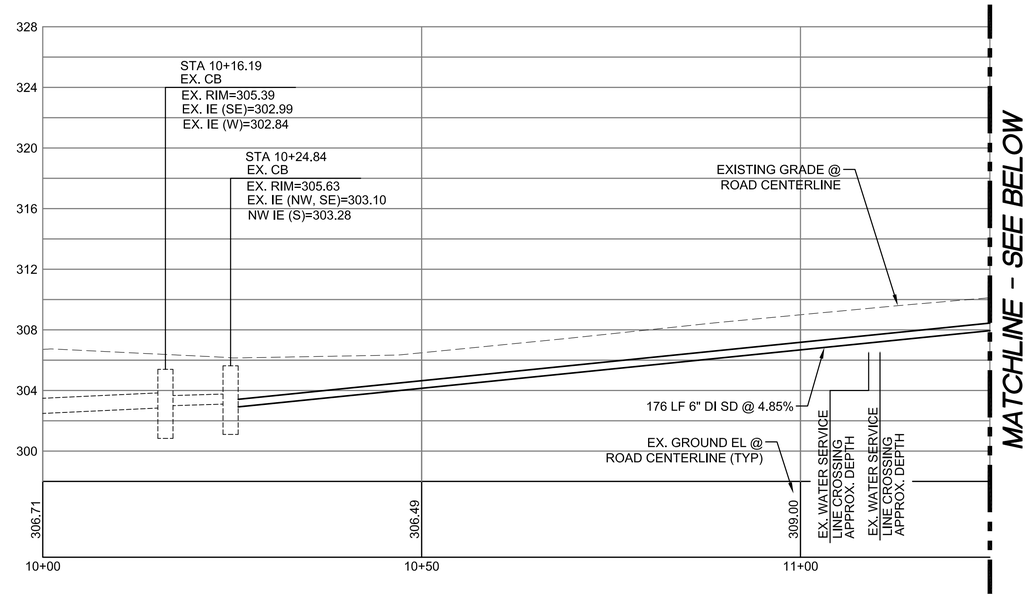
PBG
Land Development and Civil Engineering Consultants
5130 South 166th Lane
SeaTac, WA 98188
T (206) 229-6422

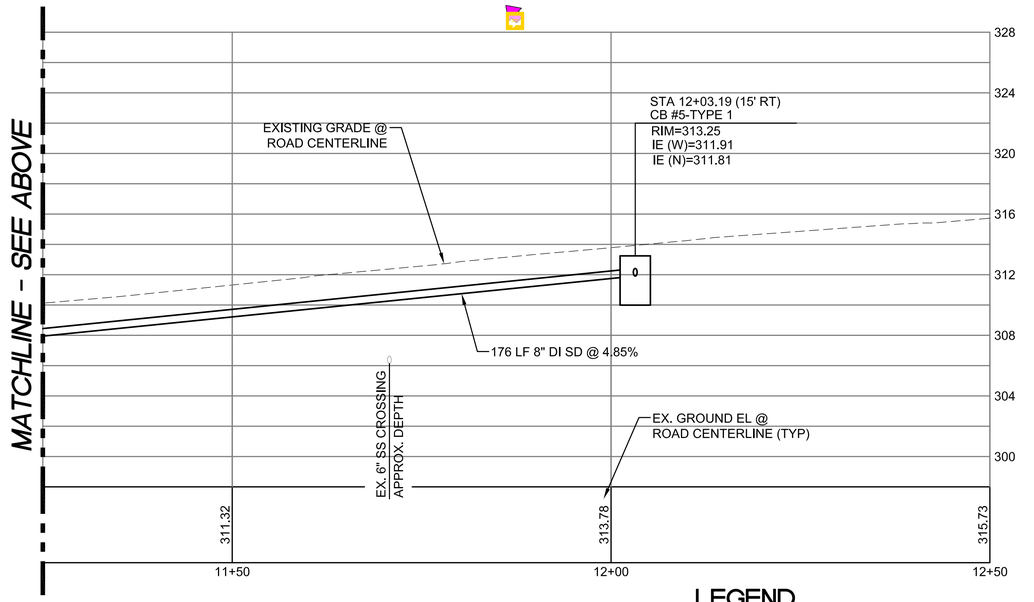
ISSUE DATE	7-05-2022
JOB NO.	R22465
DESIGNED BY:	L. PHAN
DRAWN BY:	L. PHAN
CHECKED BY:	H.H. PHAN
PROJ. MNGR:	H.H. PHAN

NO.	DATE	BY	REVISION DESCRIPTION

Jul 07, 2022 - 12:17pm Hon Phan L:\Working\R22465 - 6221 83rd Place SE (COOMBES Development)\CADD\Drawings\R22465-PS-C4.dwg Layout Name: C4







6" STORM DRAINAGE PROFILE

HORIZONTAL GRAPHIC SCALE
10 5 0 5 10
1 inch = 10 ft.

VERTICAL GRAPHIC SCALE
5 2.5 0 2.5 5
1 inch = 5 ft.

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- RIGHT OF WAY LINE
- RIGHT OF WAY CENTERLINE
- ASPHALT PAVEMENT

EXISTING CB NOTE:

IF THE EXISTING CATCH BASIN IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING CATCH BASIN IS REQUIRED.

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

HORIZONTAL GRAPHIC SCALE
10 5 0 5 10
1 inch = 10 ft.

REFERENCE SHEET NO. C5

SHEET 5 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

STORMWATER / UTILITY PLAN AND DETAILS - 2

HAN H. PHAN
STATE OF WASHINGTON
42815
REGISTERED PROFESSIONAL ENGINEER

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Land Development and Civil Engineering Consultants
5130 South 166th Lane
SeaTac, WA 98188
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JOB NO.	ISSUE DATE
R22465	7-05-2022
DESIGNED BY:	L. PHAN
DRAWN BY:	L. PHAN
CHECKED BY:	H.H. PHAN
PROJ. MNGR:	H.H. PHAN

NO.	DATE	BY	REVISION DESCRIPTION

Jul 07, 2022 - 12:44pm Hon Phan L:\Working\R22465 - 6221 83rd Place SE (COOMBES Development)\CADD\Drawings\R22465-PS-C5.dwg Layout Name: C5

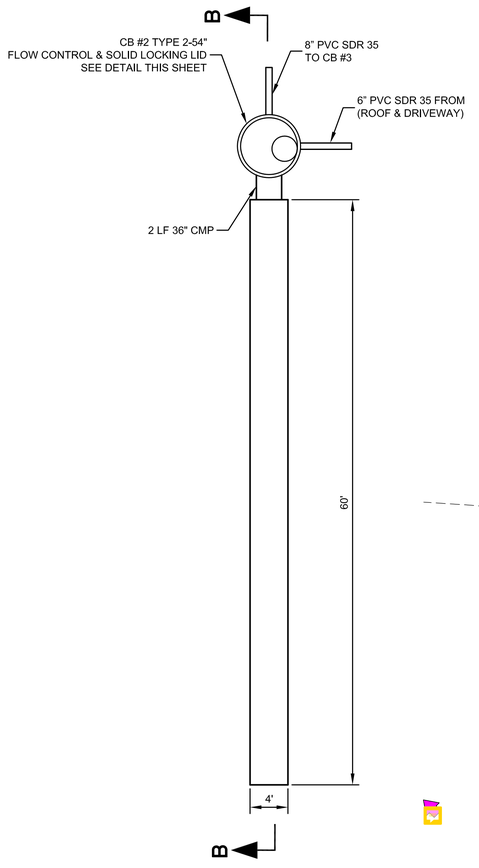
STANDARD DETENTION SYSTEM NOTES:

1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
2. RESPONSIBILITY FOR OPERATION AND MAINTANANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS REPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36), CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.

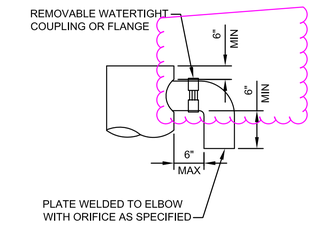
OWNER: JON COOMBES
ADDRESS: 6221 83RD PLACE SE
MERCER ISLAND, WA 98040
PERMIT #:
PREPARED BY: HAN PHAN, PE
PHONE: 206-229-6422
DATE: 5-05-2022

IMPERVIOUS SURFACE AREA (SF): 4,437
DETENTION PIPE DIA (INCH): 48
PIPE MATERIAL: CMP
DETENTION PIPE LENGTH (FT): 60
ORIFICE #1 DIA = 0.50 INCH, ELEV = 301.50
ORIFICE #2 DIA = 1.60 INCH, ELEV = 305.93

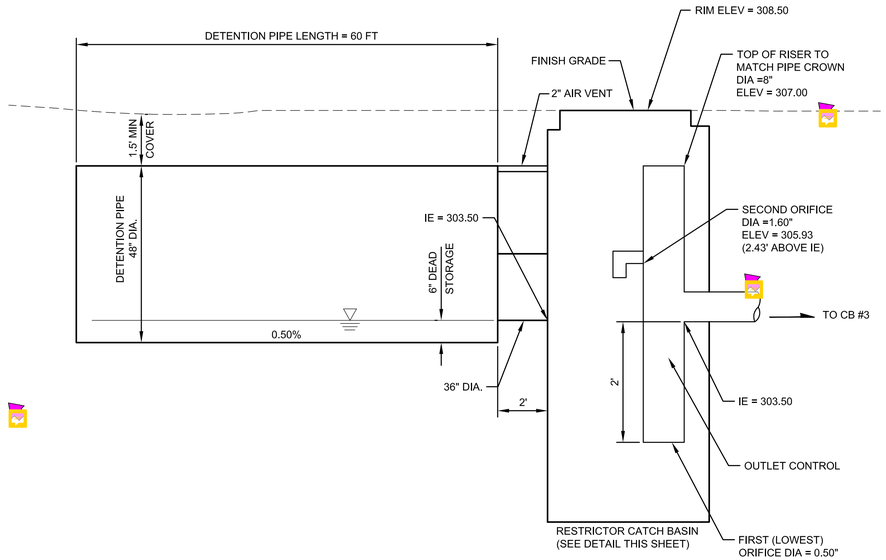
FOOTING DRAINS SHALL NOT BE CONNECTED TO DETENTION SYSTEM



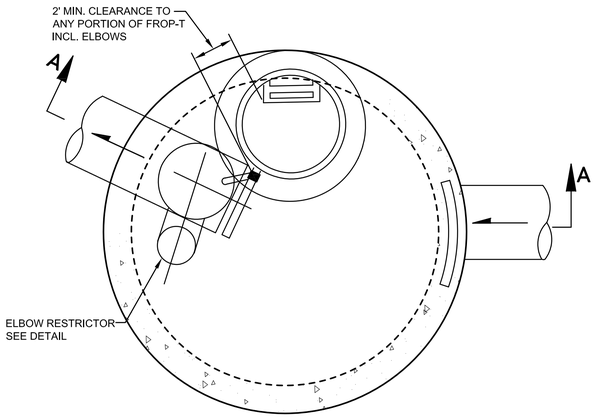
PLAN VIEW
NTS



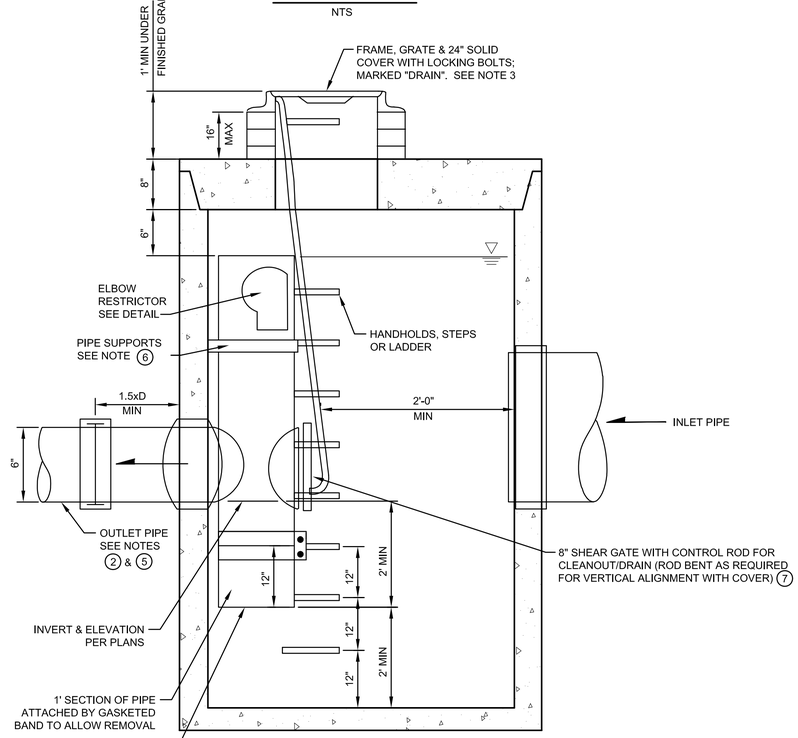
ELBOW RESTRICTOR DETAIL
NTS



PIPE DETENTION SYSTEM - PROFILE (SECTION B-B)
NTS



PLAN VIEW
NTS



SECTION A-A

RESTRICTOR CATCH BASIN DETAIL
NTS

RESTRICTOR CATCH BASIN NOTES:

1. USE A MINIMUM OF A 72" DIA. TYPE 2 CATCH BASIN WHEN CONNECTING PIPE MATERIAL IS CONCRETE OR LCPE. A 54" DIA. TYPE 2 CATCH BASIN MAY BE USED FOR OTHER CIRCULAR SINGLE WALL PIPE (SUCH AS CORRUGATED ALUMINUM PIPE).
2. OUTLET PIPE: MIN. 6".
3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZE PIP PARTS TO HAVE ASPHALT TREATMENT 1.
4. FRAME AND LADDER OR STEPS OFFSET SO:
   A. CLEANOUT GATE IS VISIBLE FROM TOP;
   B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
   C. FRAME IS CLEAR OF CURB.
5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS ¼ IN.
6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH ⅝ IN. STANLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WILL (MAXIMUM 3'-0" VERTICAL SPACING).
7. THE SHEAR GATE SHALL BE MADE ON ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. THE LIFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANCE AND THE GATE FLANCE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.

REFERENCE SHEET NO. C6
SHEET 6 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

DETENTION PIPE SYSTEM DETAILS

HAN H. PHAN STATE OF WASHINGTON 42815 REGISTERED PROFESSIONAL ENGINEER

PBG
Land Development and Civil Engineering Consultants
5130 South 166th Lane
SeaTac, WA 98188
T (206) 229-6422

JOB NO.	ISSUE DATE
R22465	7-05-2022
DESIGNED BY:	L. PHAN
DRAWN BY:	L. PHAN
CHECKED BY:	H.H. PHAN
PROJ. MNGR:	H.H. PHAN

NO.	DATE	BY	REVISION DESCRIPTION

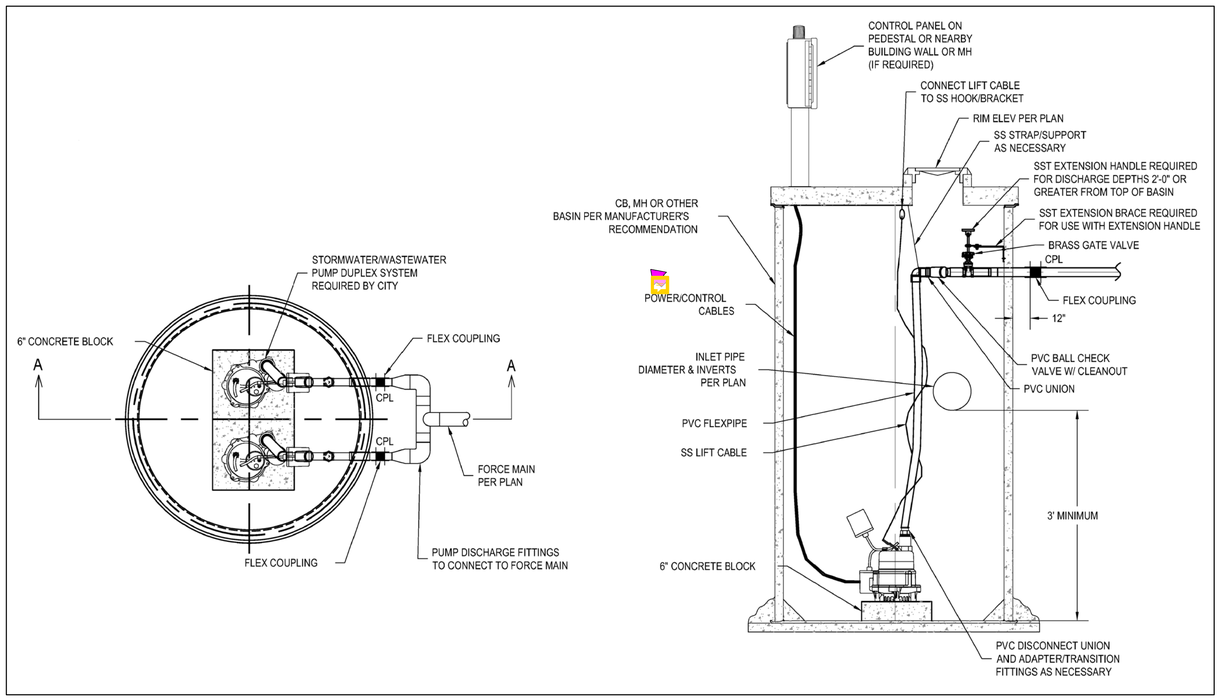
	New Impervious Area (sf)														
	500 to 1,000 sf			1,001 to 2,000 sf			2,001 to 3,000 sf			3,001 to 4,000 sf			4,001 to 5,000 sf		
	Detention Pipe Size (in.) and Length (ft)			Detention Pipe Size (in.) and Length (ft)			Detention Pipe Size (in.) and Length (ft)			Detention Pipe Size (in.) and Length (ft)			Detention Pipe Size (in.) and Length (ft)		
Soil Type*	36"	48"	60"	36"	48"	60"	36"	48"	60"	36"	48"	60"	36"	48"	60"
B	30	18	11	66	34	22	90	48	30	120	62	42	186	90	48
C	22	11	7	43	23	14	66	36	20	78	42	26	132	60	37

	Outlet Orifice Size and Design Height for Type B Soils Only														
Detention Pipe Size (in)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)
36	0.5	2.2	0.5	0.5	2.2	0.94	0.5	2.2	0.94	0.5	2.4	1.4	0.5	2.44	1.4
48	0.5	3.3	0.94	0.5	3.2	0.9	0.5	3.1	0.9	0.5	2.8	0.8	0.5	2.7	0.75
60	0.5	4.15	0.47	0.5	4.3	0.94	0.5	4.2	0.94	0.5	3.8	0.94	0.5	4.14	0.9

	Outlet Orifice Size and Design Height for Type C S oils Only														
Detention Pipe Size (in)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)[1]	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)
36	0.5	2	0.8	0.5	2.3	1.41	0.5	2.4	1.9	0.5	2.15	1.64	0.5	1.72	2.3
48	0.5	3.2	0.8	0.5	3.3	1.17	0.5	2.83	1.5	0.5	2.9	1.3	0.5	2.43	1.6
60	0.5	3.4	0.6	0.5	3.6	0.89	0.5	3.7	1.1	0.5	3.9	1.28	0.5	4.3	2.2

NEW IMPERVIOUS CALC.

ROOF AREA (INCLUDING OVERHANG):	2,693 SF
DRIVEWAY:	1,282 SF
WALKWAY & PATIO:	462 SF
TOTAL:	4,437 SF



DUPLEX PUMP STATION

SCALE: NONE

GENERAL DESCRIPTION	DUPLEX PARALLEL SUBMERSIBLE GRINDER PUMPS
DESIGN CALCULATIONS	FROM RATIONAL METHOD CALCULATION: PEAK INFLOWS: 25-YR = 41 GPM 100-YR = 46.8 GPM
DESIGN FLOW AND TDH	1 PUMP: 46.8 GPM @ 22.5' TDH 2 PUMP: 46.8 GPM @ 22.5' TDH
PUMP ELECTRICAL	1 HP, 1 PHASE, 115 V, WE SERIES (MODEL WE0511 HH OR EQ.)
PUMP CONTROLS	ALTERNATE PUMP STARTS, LOW AND HIGH LEVEL ALARM LIGHT
PUMP MOUNTING AND DISCHARGE	INCREASER TO 2" DISCHARGE WITH 2" UNION, CHECK VALVE, AND GATE VALVE FROM EACH PUMP
DISCHARGE MANIFOLD	2" x 2" DISCHARGE TO FORCE MAIN
FORCE MAIN & FITTINGS	2"
	FLOAT SPECIFICATIONS
REDUNDANT OFF AND LOW LEVEL ALARM	PER MANUFACTURE'S REQUIREMENTS
OFF	PER MANUFACTURE'S REQUIREMENTS
ON (1ST PUMP)	1.5' ABOVE OFF
ON (2ND PUMP)	2.5' ABOVE OFF
HIGH LEVEL ALARM	0.5' ABOVE 2ND PUMP ON
MIN. HEIGHT FROM HIGH LEVEL ALARM TO LOWEST INLET	0.5'

NOTES:
1. THESE SPECIFICATIONS ARE SCHEMATIC IN NATURE AND SHALL BE CONFIRMED BY SUPPLIER AND CONTRACTOR.
2. PUMP FLOATS/CONTROLS SHALL BE FIELD TESTED AND ADJUSTED TO ACHIEVE OPTIMUM PUMP CYCLE TIMES PER MANUFACTURE'S RECOMMENDATIONS.
3. EXPLOSION PROOF PUMPS, CONTROLS, AND ELECTRICAL COMPONENTS SHALL BE INSTALLED IF REQUIRED BY CODE.

STORM DRAIN DUPLEX PUMP STATION SPECIFICATIONS

REFERENCE SHEET NO. C7

SHEET 7 OF 7 SHEETS

COOMBES DEVELOPMENT
6221 83RD PLACE SE
MERCER ISLAND, WA 98040

DETAILS

HAN H. PHAN
STATE OF WASHINGTON
42815
REGISTERED
PROFESSIONAL ENGINEER

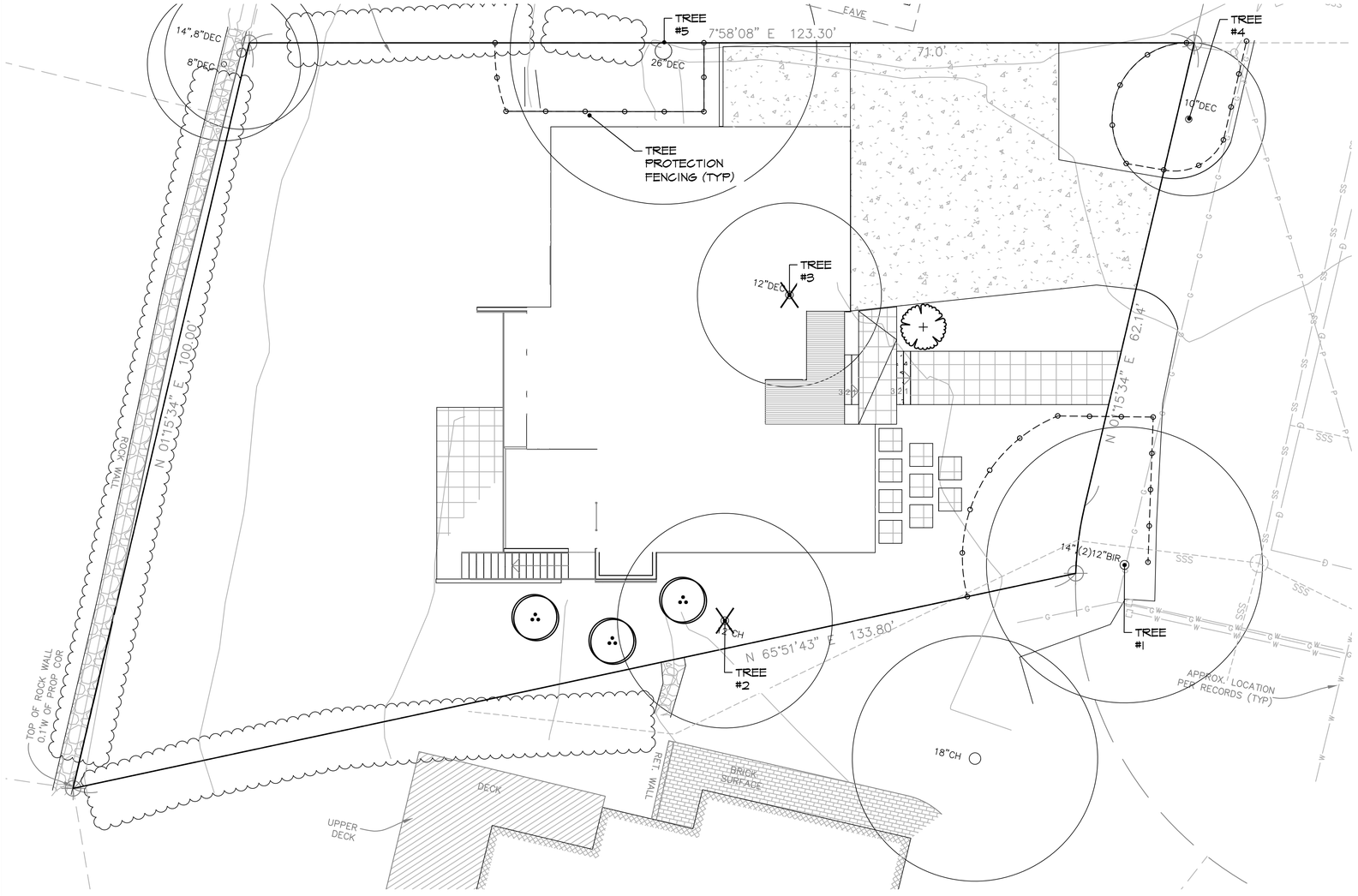
PBG
Land Development and Civil Engineering Consultants
5130 South 166th Lane
SeaTac, WA 98188
T (206) 229-6422

JOB NO.	ISSUE DATE
R22465	7-05-2022
DESIGNED BY:	L. PHAN
DRAWN BY:	L. PHAN
CHECKED BY:	H.H. PHAN
PROJ. MNGR:	H.H. PHAN

NO.	DATE	BY	REVISION DESCRIPTION

PLANT SCHEDULE

REPLACEMENT TREES	BOTANICAL / COMMON NAME	SIZE	QTY
	Acer circinatum / Vine Maple	1.5" Cal	3
	Acer japonicum 'Autumn Moon' / Autumn Moon Maple	1.5" Cal	1



Tree/ Tag #	Species Common Name	Species Scientific Name	DBH (inches)	Height (feet)	Drip-Line / Limits of Disturbance (feet) N	S	E	W	Condition	Regulated Yes/No	Exceptional Yes/No	Comments	Proposal
1	European white birch	*Betula pendula*	14,13,10 (22)	55	18/14	14	18	16/14	Fair-Good	Yes	No	fairly good form and vigor	Save
2	Mt. Fuji Cherry	*Prunus serrulata 'Shirotae'*	*14	20	8	12	12	6	Good	Yes	No	young specimen, close to house	Remove
3	Kwanzan cherry	*Prunus serrulata 'Kwanzan'*	15	22	10	6	8	8	Fair	Yes	No	topped in past, close to house	Remove
4	flowering dogwood	*Cornus florida*	7,5,4,4 (10)	16	10	10/7	6	8/7	Good	Yes	No	typical cluster, topped in past	Save
5	European beech	*Fagus sylvatica L.*	28	78	22	18/5	22/16	18/16	Good	Yes	No	good form, good vigor, close to house	Save
Neighboring Trees													
	Trees #1 and #5 possibly 'boundary line' trees												

* - caliper measurement at one-foot above ground
Drip-Line and Limits of Disturbance measurements from face of trunk
Calculated DBH: the DBH is parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2]).

NORTH

REPLACEMENT TREE PLAN

0 8 16 24 feet

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

PROJECT ARBORIST TO MONITOR ANY EXCAVATION WITHIN THE DRIPLINES OF RETAINED/OR IMPACTED TREES. CARE SHALL BE TAKEN WHEN WORKING NEAR TREES TO PROTECT SOILS AND SURFACE ROOTS THAT LIKELY EXTEND BEYOND THE DRIPLINE. COVER AREAS WITH A PROTECTIVE 6-8-INCH LAYER OF WOOD CHIPS OR HOG FUEL TO PROTECT SOILS FROM COMPACTION AND DAMAGED TO SURFACE ROOTS.

Tree Protection Measures

The following guidelines are recommended to ensure that the designated space set aside for the preserved trees are protected and construction impacts are kept to a minimum. Standards have been set forth under MICC 19.10.080. Please review these standards prior to any development activity.

- Tree protection fencing shall be erected per attached tree plan prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees.
- Excavation limits shall be laid out in paint on the ground to avoid over excavating.
- Excavations within the driplines shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts. A qualified tree professional shall monitor excavations when work is required and allowed within the drip-line or critical root zone.
- To establish sub grade for foundations, curbs and pavement sections near the trees, soil shall be removed parallel to the roots and not at 90-degree angles to avoid breaking and tearing roots that lead back to the trunk within the dripline. Any roots damaged during these excavations shall be hand-excavated and exposed to sound tissue and cut cleanly with a saw prior to backfilling or finishing areas.
- Areas excavated within the drip-line of retained trees shall be thoroughly irrigated weekly during dry periods.
- Preparations for final landscaping shall be accomplished by hand within the driplines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times.

CITY OF MERCER ISLAND
COMMUNITY PLANNING & DEVELOPMENT
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
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TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

EXCEPTIONAL TREES

Exceptional Trees- means a tree or group of trees that because of its unique historical, ecological or aesthetic value constitutes an important community resource. A tree that is rare or exceptional by virtue of its size, species, condition, cultural/historical importance, age, and/or contribution as part of a tree grove. Trees with a diameter of more than 36 inches, or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table shown in MICC 19.16 under Tree, Exceptional.

List the total number of trees for each category and the tree identification numbers from the arborist report.

Number of trees 36" or greater: 0
List tree numbers:

Number of trees 24" or greater (including 36" or greater): 1
List tree numbers: 5

Number of trees from Exceptional Tree Table (MICC 19.16): 0
List tree numbers:

LARGE REGULATED TREES

Large Regulated Trees- means any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Number of Large Regulated Trees on site: 5 (A)
List tree numbers: 1,2,3,4,5

Number of Large Regulated Trees on site proposed for removal: 2 (B)
List tree numbers: 2,3

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30%: 60 %

RIGHT OF WAY TREES

Right of Way Trees- means a tree that is located in the street right of way adjacent to the project property.

Number of Large Regulated Trees in right of way: 0
List tree numbers:

Number of Large Regulated Trees in right of way proposed for removal: 0

\\chfs1\share\CPD\FORMS\1Current Forms\Engineering Forms\TreeInventoryReplacementSubmittalInformation.docx 1/2019

List tree numbers:

Reason for removal:

TREE REPLACEMENT

Tree replacement- removed trees must be replaced based on the ratio in the table below. Replacement trees shall be conifers at least six feet tall and or deciduous at least one and one-half inches in diameter at base.

Diameter of Removed Tree (measured 4.5' above ground)	Tree replacement Ratio	Number of Trees Proposed for Removal	Number of Tree Required for Replacement Based on Size/Type
Less than 10"	1	0	0
10" up to 24"	2	2	4
Greater than 24" up to 36"	3	0	0
Greater than 36" and any Exceptional Tree	6	0	0
		TOTAL TREE REPLACEMENTS	4

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STATE OF WASHINGTON
DEVIN PETERSON
LICENSED LANDSCAPE ARCHITECT
LICENSE NO. 1222 EXP. 02/26/2024

Devin Peterson

PROJECT TITLE

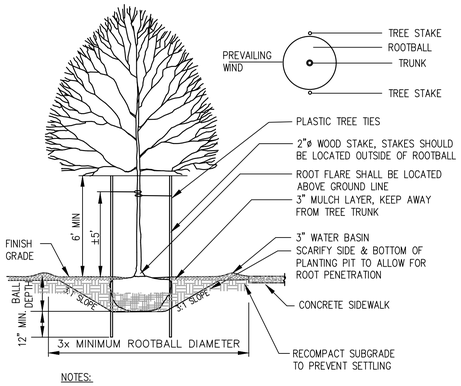
REPLACEMENT TREE PLAN

6221 83RD PL SE MERCER ISLAND, WA

DRAWN: ROD
DATE: 05.26.22
REVISED
DATE

1/8"=1'-0"

L1



NOTES:

1. TREE PIT SHALL NOT BE LESS THAN (3) TIMES ROOT BALL DIA.
2. CUT ALL TIES AND FOLD BACK BURLAP FROM UPPER 1/3 OF ROOT BALL
3. REMOVE ALL PLASTIC AND TWINE
4. TREE STAKES PERPENDICULAR TO THE PREVAILING WIND
5. PLANT TREES 2" HIGHER THAN DEPTH GROWN IN NURSERY

1 TYPICAL DECIDUOUS TREE PLANTING DETAIL

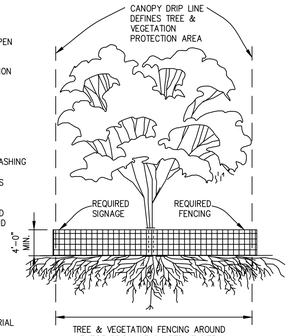
NTS

TREE PROTECTION FENCING AND SIGN

1. CHAIN LINK, WIRE MESH, OR SIMILAR OPEN RIGID MATERIAL (NO PLYWOOD)
2. MUST BE INSTALLED PRIOR TO DEMOLITION OR GROUND DISTURBANCE
3. KEPT IN PLACE FOR THE DURATION OF CONSTRUCTION
4. NO SOIL DISTURBANCE OR ACTIVITY ALLOWED WITHIN FENCED AREA: MATERIAL STORAGE/STOCKPILING, PARKING, EXCAVATION, DUMPING, OR WASHING
5. MODIFICATIONS OF THESE REQUIREMENTS BY APPROVAL OF DPD PLANNER ONLY
6. IF ROOTS GREATER THAN 2 INCH FOUND OUTSIDE OF FENCING, PROTECT BY HAND EXCAVATION AND, IF NECESSARY, CUT CLEANLY AND KEEP MOIST
7. USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS

VEGETATION PROTECTION

1. ORANGE MESH OR SIMILAR OPEN MATERIAL
2. MINIMIZE CONSTRUCTION ZONE
3. PROTECT VEGETATION OUTSIDE CONSTRUCTION ZONE WITH FENCING AS SHOWN
4. USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS



TREE & VEGETATION FENCING AROUND ENTIRE DRIP LINE ON PERMIT SITE. ALTERNATIVE TREE PROTECTION, IF APPROVED BY DPD, AS SHOWN ON SITE PLAN

2 TREE & VEGETATION PROTECTION

LANDSCAPE NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL OTHER SITE IMPROVEMENTS AND CONDITIONS PRIOR TO STARTING LANDSCAPE WORK.
2. CONTRACTOR SHALL USE CAUTION WHILE EXCAVATING TO AVOID DISTURBING ANY UTILITIES ENCOUNTERED. CONTRACTOR IS TO PROMPTLY ADVISE OWNER OF ANY DISTURBED UTILITIES. LOCATION SERVICE PHONE 1-800-424-5555.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPUTING SPECIFIC QUANTITIES OF GROUND COVERS AND PLANT MATERIALS UTILIZING ON-CENTER SPACING FOR PLANTS AS STATED ON THE LANDSCAPE PLAN AND MINIMUM PLANTING DISTANCES AS SPECIFIED BELOW IN THESE NOTES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE QUANTITIES OF PLANTS THAT ARE REPRESENTED BY SYMBOLS ON THE DRAWINGS.
5. SUBGRADE IS TO BE WITHIN ½" OF ONE FOOT AS PROVIDED BY OTHERS. ALL PLANTING AREAS TO BE CLEARED OF ALL CONSTRUCTION MATERIAL AND ROCKS AND STICKS LARGER THAN 2" DIAMETER.
6. 6" DEPTH TOPSOIL IN BED AREAS AND 4" IN ALL LAWN AREAS.
7. 2" DEPTH BARK IN ALL BED AREAS.
8. ALL PLANT MATERIAL SHALL BE FERTILIZED WITH AGRO TRANSPLANT FERTILIZER 4-2-2 PER MANUFACTURER'S SPECIFICATIONS.
9. ALL PLANT MATERIAL SHALL CONFORM TO AAN STANDARDS FOR NURSERY STOCK, LATEST EDITION. ANY REPLACEMENTS MADE AT ONCE.
   - 9.A. GENERAL: ALL PLANT MATERIAL FURNISHED SHALL BE HEALTHY REPRESENTATIVES, TYPICAL OF THEIR SPECIES OF VARIETY AND SHALL HAVE A NORMAL GROWTH HABIT. THEY SHALL BE FULL, WELL BRANCHED, WELL PROPORTIONED, AND HAVE A VIGOROUS, WELL DEVELOPED ROOT SYSTEM. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
   - 9.B. TREES, SHRUBS, AND GROUND COVER: QUANTITIES, SPECIES, AND VARIETIES, SIZES AND CONDITIONS AS SHOWN ON THE PLANTING PLAN. PLANTS TO BE HEALTHY, VIGOROUS, WELL FOLIATED WHEN IN LEAF. FREE OF DISEASE, INJURY, INSECTS, DECAY, HARMFUL DEFECTS, AND ALL WEEDS. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT OR OWNER.
10. ALUMINUM EDGING, PERMALOC OR APPROVED EQUAL, TO BE INSTALLED BETWEEN BARK AND COBBLE.

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Devin Peterson

PROJECT TITLE

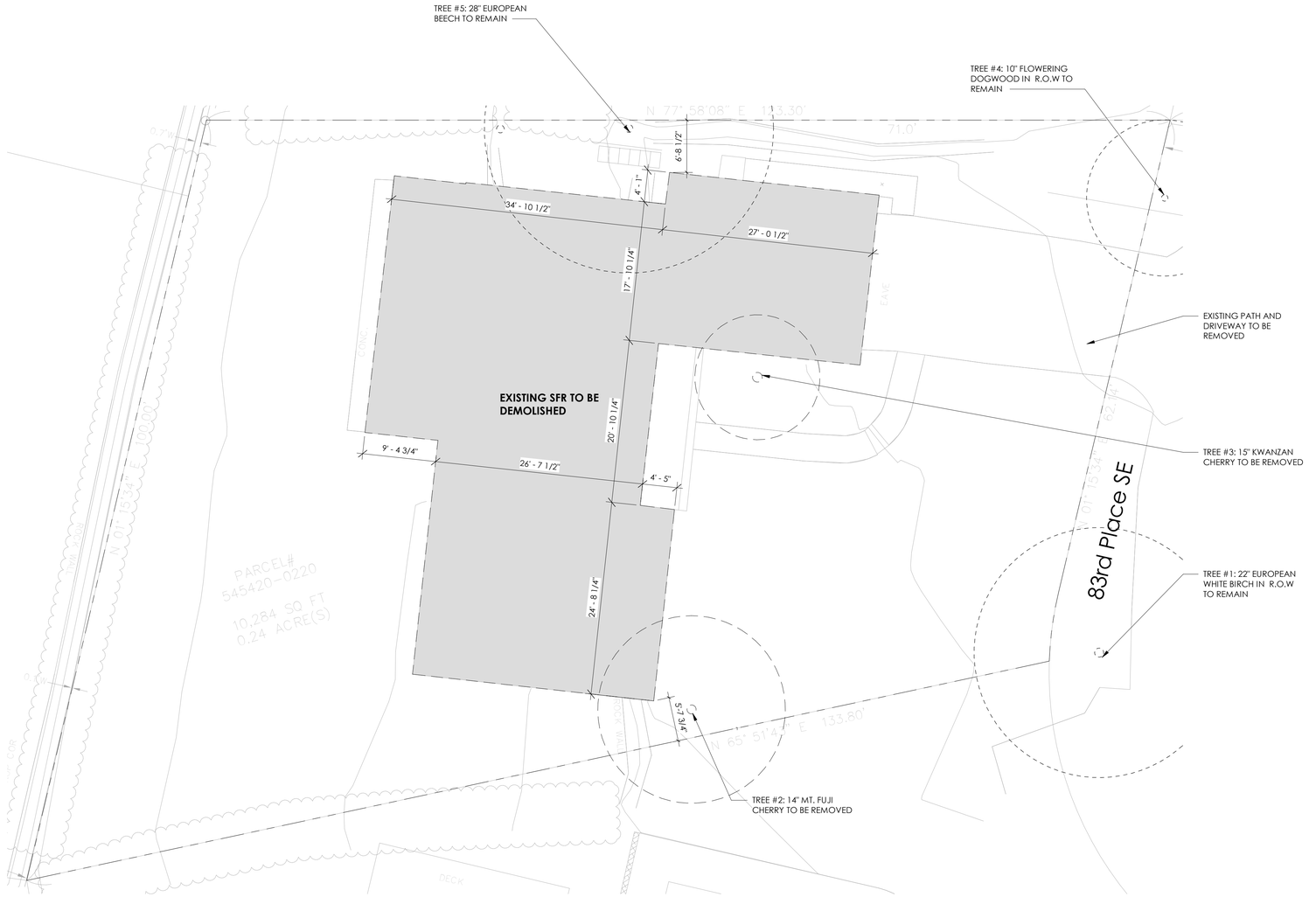
LANDSCAPE DETAILS & NOTES

6221 83RD PL SE MERCER ISLAND, WA

DRAWN	DATE
ROD	05.26.22
REVISED	DATE

NTS

L3



1 DEMO SITE PLAN

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

N

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Coombes Residence

6221 83rd Pl SE
Mercer Island

MUP #

BP #

Δ	Date	Description
	06.02.2022	BP Submittal

DEMO SITE PLAN

Scale **1/8" = 1'-0"**

Date **04/29/2022**

A1.1

Project Number **JWA#611**

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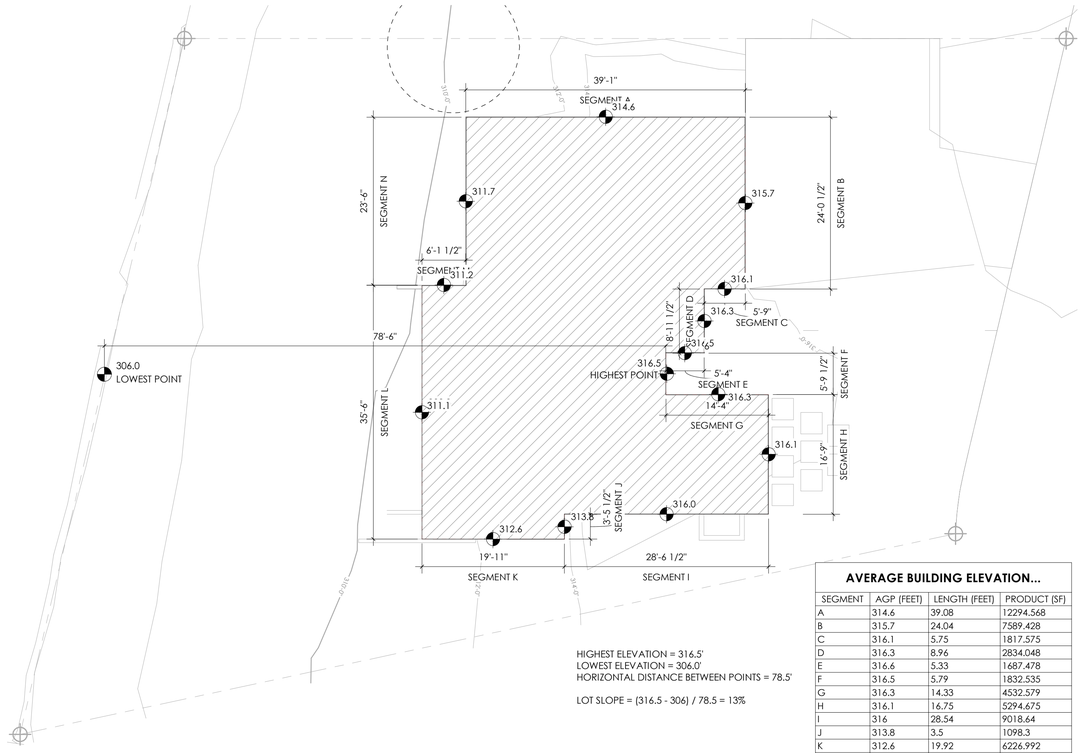


HIGHEST ELEVATION = 316.5'
LOWEST ELEVATION = 306.0'
HORIZONTAL DISTANCE BETWEEN POINTS = 78.5'

LOT SLOPE = (316.5 - 306) / 78.5 = 13%

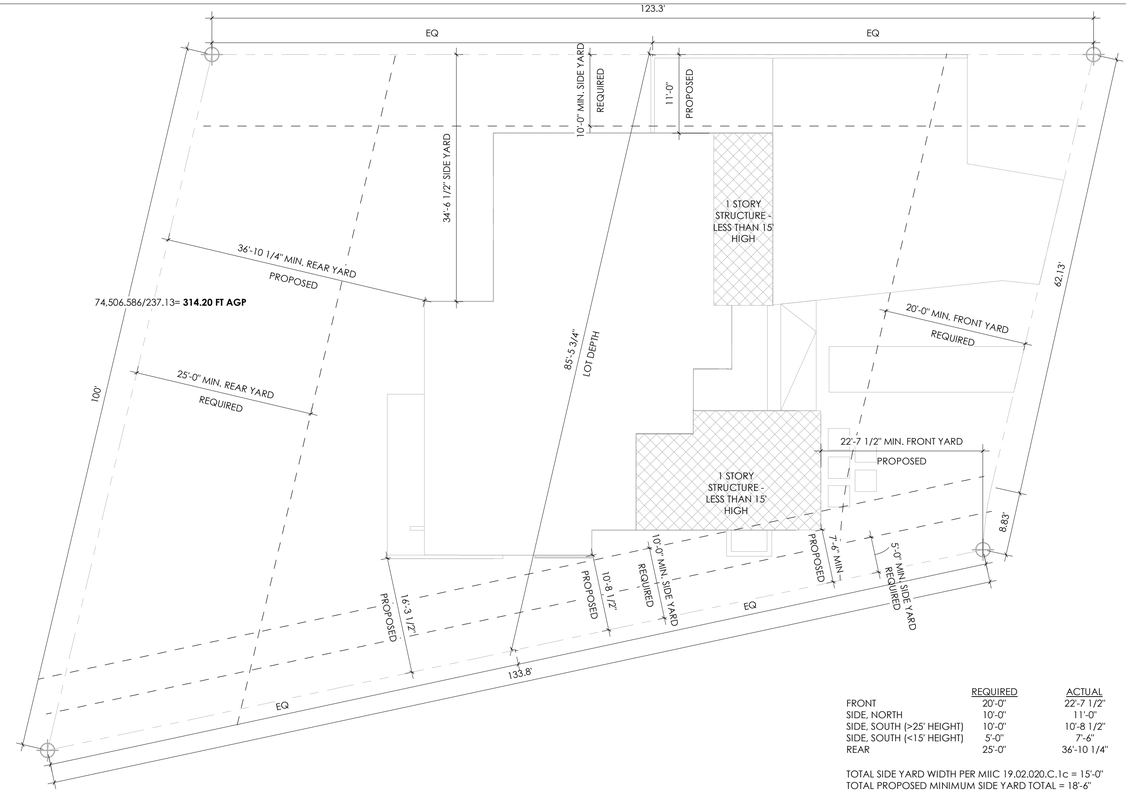
AVERAGE BUILDING ELEVATION...

SEGMENT	AGP (FEET)	LENGTH (FEET)	PRODUCT (SF)
A	314.6	39.08	12294.568
B	315.7	24.04	7589.428
C	316.1	5.75	1817.575
D	316.3	8.96	2834.048
E	316.6	5.33	1687.478
F	316.5	5.79	1832.535
G	316.3	14.33	4532.579
H	316.1	16.75	5294.675
I	316	28.54	9018.64
J	313.8	3.5	1098.3
K	312.6	19.92	6226.992
L	311.1	35.5	11044.05
M	311.2	6.14	1910.768
N	311.7	23.5	7324.95
	4404.6	237.13	74506.586

ABE = 74506.586 / 237.13 = 314.20'

1 Diagram_Average Building Elevation

SCALE: 1" = 10'-0"



	REQUIRED	ACTUAL
FRONT	20'-0"	22'-7 1/2"
SIDE, NORTH	10'-0"	11'-0"
SIDE, SOUTH (>25' HEIGHT)	10'-0"	10'-8 1/2"
SIDE, SOUTH (<15' HEIGHT)	5'-0"	7'-6"
REAR	25'-0"	36'-10 1/4"

TOTAL SIDE YARD WIDTH PER MIIC 19.02.020.C.1c = 15'-0"
TOTAL PROPOSED MINIMUM SIDE YARD TOTAL = 18'-6"

2 Diagram_Setbacks

SCALE: 1" = 10'-0"

LOT COVERAGE SUMMARY

Name	Area
DRIVEWAY	1,286.48 SF
SFR - ROOF AREA	2,708.73 SF
	3,995.21 SF

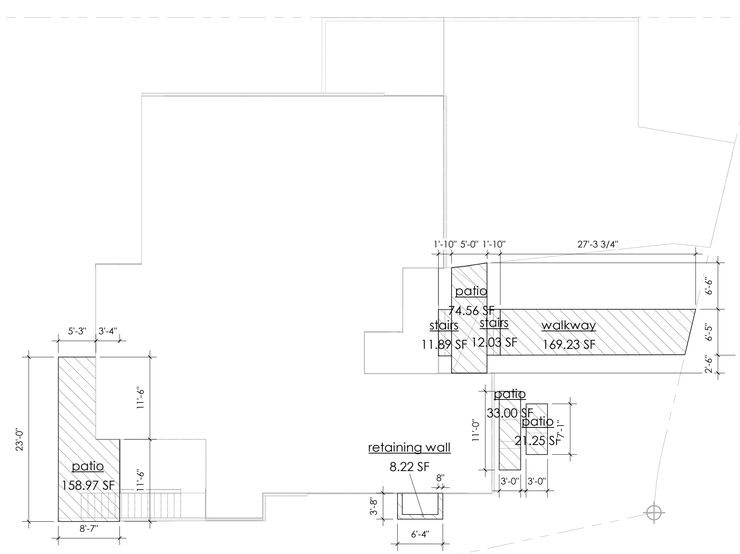
LOT COVERAGE ALLOWED FOR LOTS WITH LESS THAN 15% SLOPE = 40%

LOT SIZE = 10,248 SF x 40% = 4,113.6 SF ALLOWED
PROPOSED = 3,995.21 SF, **COMPLIES**

EXISTING LOT COVERAGE = 3,364 REMOVED

3 Diagram_LotCoverage

SCALE: 1" = 10'-0"



HARDSCAPE SUMMARY

Name	Area
patio	287.77 SF
retaining wall	8.22 SF
stairs	23.92 SF
walkway	169.23 SF
	489.15 SF

HARDSCAPE ALLOWED = 9%

LOT SIZE = 10,248 SF x 9% = 925.56 SF ALLOWED
PROPOSED = 489.15 SF, **COMPLIES**

EXISTING HARDSCAPE = 423 SF - REMOVED

4 Diagram_Hardscape

SCALE: 1" = 10'-0"

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MUP #
BP #

Δ	Date	Description
	06.02.2022	Critical Area Submittal
	06.02.2022	BP Submittal

SITE DIAGRAMS

Scale **1" = 10'-0"**
Date **04/29/2022**

A1.2

Project Number **JWA#611**

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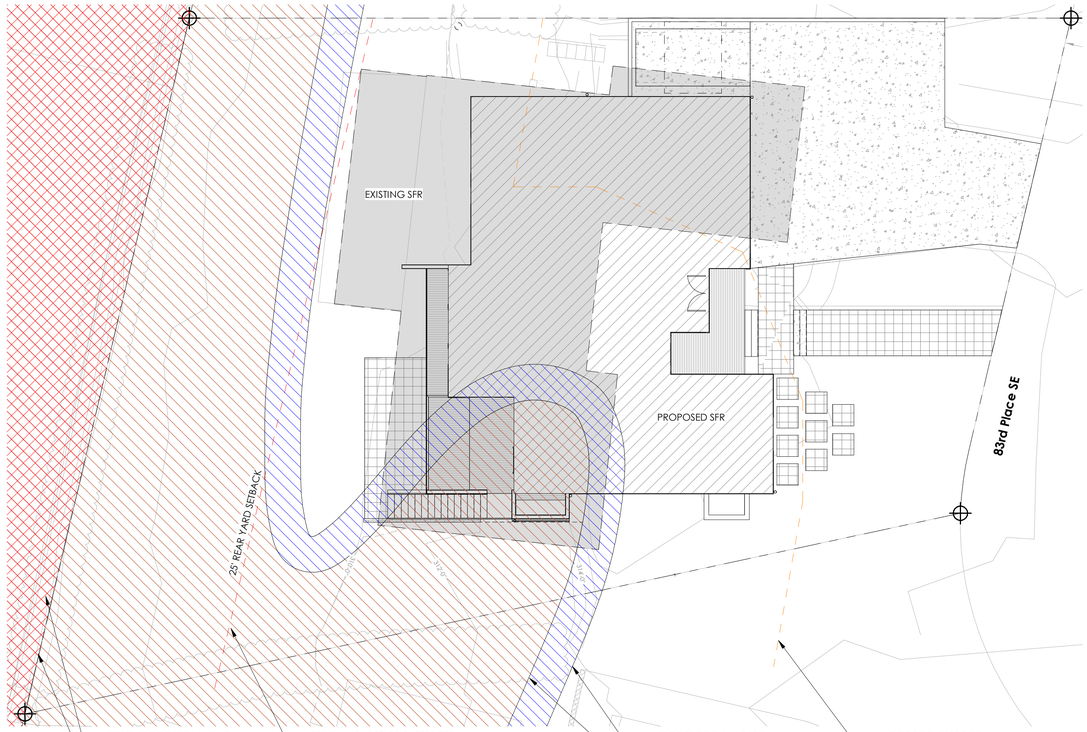

1 CRITICAL AREAS

CRITICAL AREA REVIEW UNDER PERMIT #CAO22-013

SCALE: 1" = 10'-0"

N

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CRITICAL AREAS

Scale 1" = 10'-0"

Date **04/29/2022**

A1.3

Project Number **JWA#611**

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CRAWLSPACE VENTILATION

WHOLE HOUSE VENTILATION TO CONFORM TO IRC R408

CRAWLSPACE 1 AREA: 285.5 SF
VENTILATION REQUIRED: (285.5 SF / 300) X 144 SI/SF = 137.04 SI

16" X 18" CRAWLSPACE VENT: 128 SI EA. - 25% REDUCTION = 96 SI each
TOTAL VENTILATION REQUIRED: 137.04 SI / 96 SI =1.4 VENTS

PROVIDE: (2) 16" X 8" CRAWLSPACE VENTS

CRAWLSPACE 2 AREA: 128.5 SF
VENTILATION REQUIRED: (128.5 SF / 300) X 144 SI/SF = 61.68 SI

16" X 18" CRAWLSPACE VENT: 128 SI EA. - 25% REDUCTION = 96 SI each
TOTAL VENTILATION REQUIRED: 61.68 SI / 96 SI =0.6 VENTS

PROVIDE: (2) 16" X 8" CRAWLSPACE VENTS

REQUIRED OPENINGS SHALL BE EVENLY SPACED TO PROVIDE CROSS VENTILATION OF THE SPACE EXCEPT ONE SIDE OF THE BUILDING SHALL BE PERMITTED TO HAVE NO VENTILATION OPENINGS.

FLOOR PLAN NOTES:

* ALL INTERIOR WALLS TO BE 2x4 @ 24" O.C. (U.N.O.)
* ALL EXTERIOR WALLS 2x6 PER STRUCTURAL
* HEADERS PER STRUCTURAL
* WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
* PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
* PROVIDE SOLID BLOCKING OVER SUPPORTS.
* SEISMIC ANCHORAGE AND STRAPPING OF WATER HEATERS SHALL BE IN ACCORDANCE WITH SECTION 507.2 OF THE UNIFORM PLUMBING CODE
* PROVIDE OUTDOOR COMBUSTION AIR FOR FURNACE AND WATER HEATER PER IRC G2407.6.

CARBON MONOXIDE DETECTORS

CO

IRC R315.1 CARBON MONOXIDE ALARMS.

FOR NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATELY VICINITY OF THE BEDROOMS IN DWELLING UNITS AND ON EACH LEVEL OF THE DWELLING AND IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS.

SMOKE DETECTORS

SD

IRC R314.3 SMOKE ALARMS

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
1. IN EACH SLEEPING ROOM
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS, BUT NOT INCLUDING CRAWLSPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER FLOOR SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.
4. NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY THIS SECTION.

SMOKE DETECTORS TO BE HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.4.

VENTILATION SCHEDULE

WHOLE HOUSE VENTILATION TO CONFORM TO IRC SECTION M1505.4

1 100 CFM ON SWITCH

2 50 CFM ON SWITCH

3 90 CFM CONTINUOUSLY OPERATING WHOLE HOUSE FAN, SIZED PER TABLE IRC M1505.4.3(1)

MECHANICAL VENTILATING SYSTEMS IN BATHROOMS, LAUNDRY ROOMS AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST AIR SHALL BE AT LEAST THREE FEET FROM ANY OPENING INTO THE BUILDING PER IRC M1504.3

THE AIR REMOVED BY EVERY MECHANICAL EXHAUST SYSTEM SHALL BE DISCHARGED TO THE OUTDOORS IN ACCORDANCE WITH SECTION M1504.3.

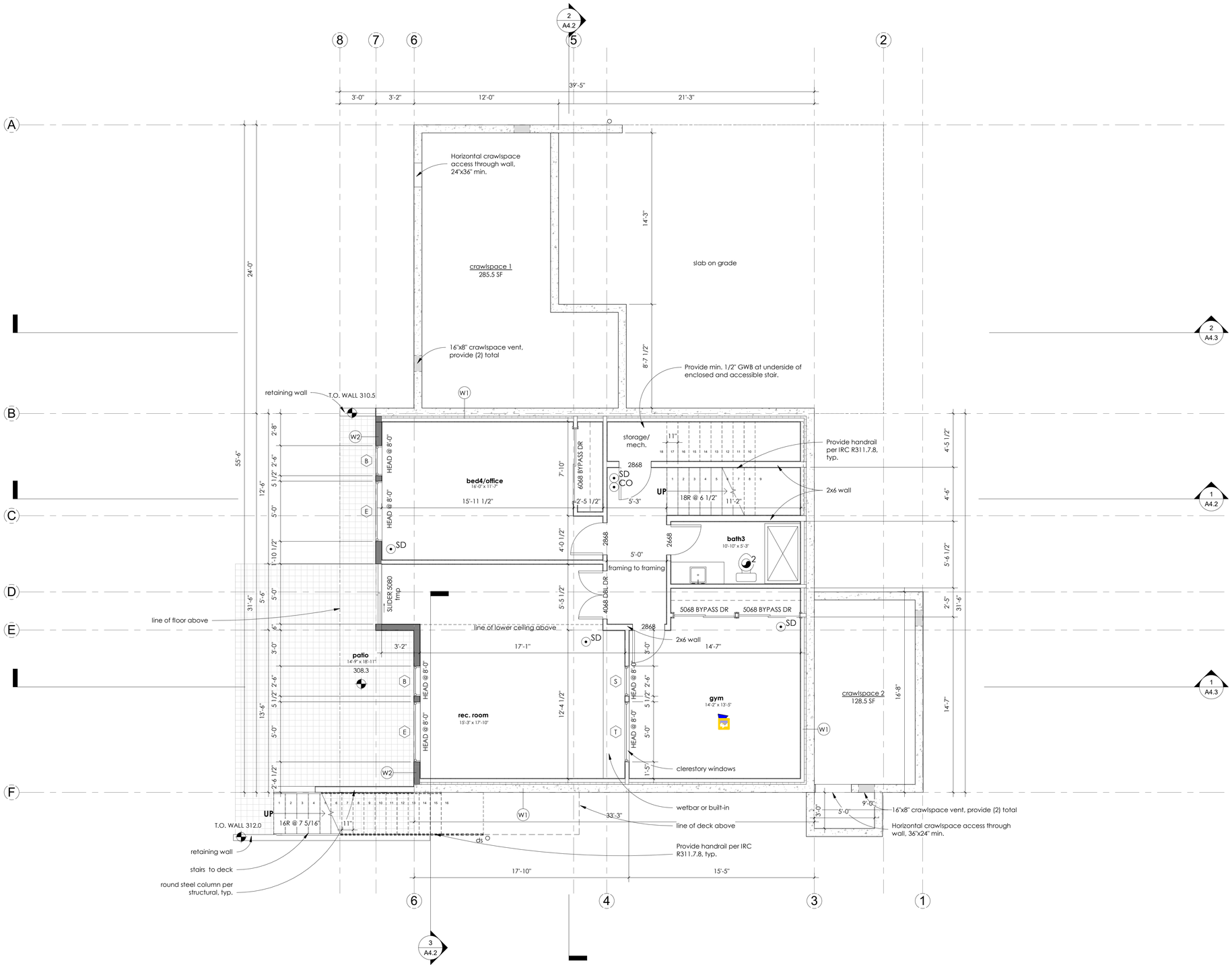
LOCAL EXHAUST SYSTEMS SHALL BE DESIGNED TO HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE DETERMINED IN ACCORDANCE WITH TABLE M1505.4.4.

Marketable AREA (PROPOSED)

FOR REFERENCE ONLY

Basement	1,123 SF
Level 1	1,383 SF
Level 2	1,546 SF
TOTAL:	4,051 SF

608 SF Garage
262 SF Covered deck



1 Basement

SCALE: 1/4" = 1'-0"

* NOT CEILING HEIGHT GREATER THAN 10 FT. PLEASE REFERENCE SECTIONS A4.2-3.

N

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Coombes Residence

6221 83rd Pl SE
Mercer Island

MUP #
BP #

Δ	Date	Description
	06.02.2022	BP Submittal

FLOOR PLANS

Scale 1/4" = 1'-0"
Date 04/29/2022

A2.1

Project Number JWA#611

6/22/2022 11:22:48 AM

GARAGE NOTES:

* THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GWB APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8" TYPE X GYPSUM BOARD OR EQUIVALENT. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2-INCH GYPSUM BOARD OR EQUIVALENT. SRC R302.6

* ...OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8" IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1 3/8" THICK, OR 20-MINUTE FIRE-RATED DOORS.SRC 302.5.1

* DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIALS AND SHALL HAVE NO OPENINGS INTO THE GARAGE. IRC R302.5.2

* SEISMIC ANCHORAGE AND STRAPPING OF WATER HEATERS SHALL BE IN ACCORDANCE WITH SECTION 507.2 OF THE UNIFORM PLUMBING CODE.

FLOOR PLAN NOTES:

* ALL INTERIOR WALLS TO BE 2x4 @ 24" O.C. (U.N.O.)
* ALL EXTERIOR WALLS 2x6 PER STRUCTURAL
* HEADERS PER STRUCTURAL
* WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
* PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
* PROVIDE SOLID BLOCKING OVER SUPPORTS.
* SEISMIC ANCHORAGE AND STRAPPING OF WATER HEATERS SHALL BE IN ACCORDANCE WITH SECTION 507.2 OF THE UNIFORM PLUMBING CODE
* PROVIDE OUTDOOR COMBUSTION AIR FOR FURNACE AND WATER HEATER PER IRC G2407.6.

CARBON MONOXIDE DETECTORS

CO

IRC R315.1 CARBON MONOXIDE ALARMS.

FOR NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATELY VICINITY OF THE BEDROOMS IN DWELLING UNITS AND ON EACH LEVEL OF THE DWELLING AND IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS.

SMOKE DETECTORS

SD

IRC R314.3 SMOKE ALARMS

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
1. IN EACH SLEEPING ROOM
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS, BUT NOT INCLUDING CRAWLSPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER FLOOR SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.
4. NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY THIS SECTION.

SMOKE DETECTORS TO BE HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.4.

HEAT DETECTORS

HD

A HEAT DETECTOR OR HEAT ALARM RATED FOR THE AMBIENT OUTDOOR TEMPERATURES AND HUMIDITY SHALL BE INSTALLED IN NEW GARAGES THAT ARE ATTACHED TO OR LOCATED UNDER NEW AND EXISTING DWELLINGS. HEAT DETECTORS AND HEAT ALARMS SHALL BE INSTALLED IN A CENTRAL LOCATION AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

HEAT DETECTORS AND HEAT ALARMS SHALL BE CONNECTED TO AN ALARM OR A SMOKE ALARM THAT IS INSTALLED IN THE DWELLING. ALARMS AND SMOKE ALARMS THAT ARE INSTALLED FOR THIS PURPOSE SHALL BE LOCATED IN A HALLWAY, ROOM, OR OTHER LOCATION THAT WILL PROVIDE OCCUPANT NOTIFICATION.

VENTILATION SCHEDULE

WHOLE HOUSE VENTILATION TO CONFORM TO IRC SECTION M1505.4

1 100 CFM ON SWITCH

2 50 CFM ON SWITCH

3 90 CFM CONTINUOUSLY OPERATING WHOLE HOUSE FAN, SIZED PER TABLE IRC M1505.4.3(1)

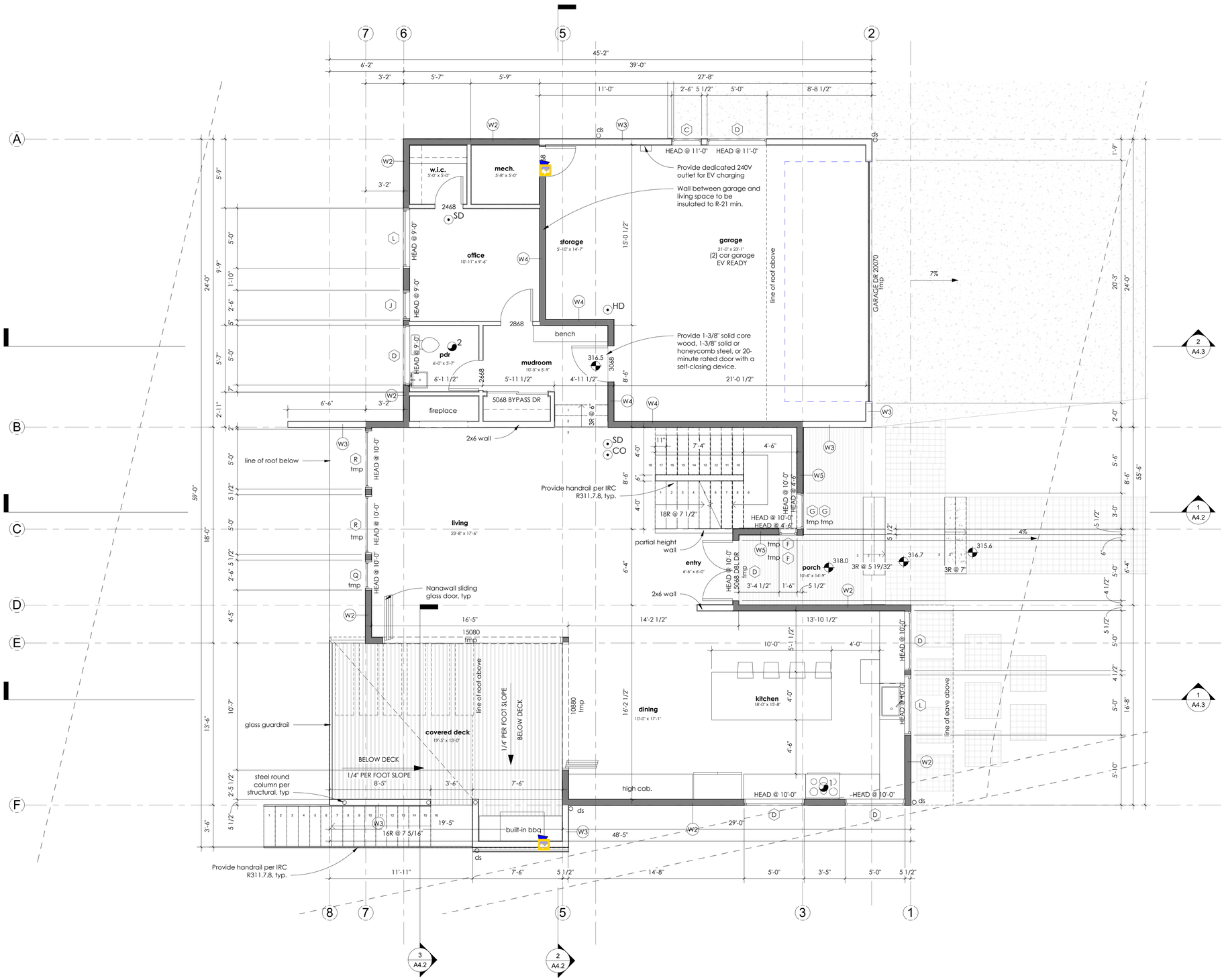
MECHANICAL VENTILATING SYSTEMS IN BATHROOMS, LAUNDRY ROOMS AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST AIR SHALL BE AT LEAST THREE FEET FROM ANY OPENING INTO THE BUILDING PER IRC M1504.3

THE AIR REMOVED BY EVERY MECHANICAL EXHAUST SYSTEM SHALL BE DISCHARGED TO THE OUTDOORS IN ACCORDANCE WITH SECTION M1504.3.

LOCAL EXHAUST SYSTEMS SHALL BE DESIGNED TO HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE DETERMINED IN ACCORDANCE WITH TABLE M1505.4.4.

ROOF DECK VENTILATION

UNVENTED ASSEMBLY TO COMPLY WITH IRC R806.5



1 Main Level

SCALE: 1/4" = 1'-0"

* NOT CEILING HEIGHT GREATER THAN 10 FT. PLEASE REFERENCE SECTIONS A4.2-3.

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FLOOR PLANS

Scale 1/4" = 1'-0"

Date 04/29/2022

A2.2

Project Number JWA#611

6/22/2022 11:22:50 AM

FLOOR PLAN NOTES:

* ALL INTERIOR WALLS TO BE 2x4 @ 24" O.C. (U.N.O.)
* ALL EXTERIOR WALLS 2x6 PER STRUCTURAL
* HEADERS PER STRUCTURAL
* WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
* PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
* PROVIDE SOLID BLOCKING OVER SUPPORTS.
* SEISMIC ANCHORAGE AND STRAPPING OF WATER HEATERS SHALL BE IN ACCORDANCE WITH SECTION 507.2 OF THE UNIFORM PLUMBING CODE
* PROVIDE OUTDOOR COMBUSTION AIR FOR FURNACE AND WATER HEATER PER IRC G2407.6.

SMOKE DETECTORS (SD)

IRC R314.3 SMOKE ALARMS

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
1. IN EACH SLEEPING ROOM
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS, BUT NOT INCLUDING CRAWLSPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER FLOOR SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.
4. NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY THIS SECTION.

SMOKE DETECTORS TO BE HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.4.

CARBON MONOXIDE DETECTORS (CO)

IRC R315.1 CARBON MONOXIDE ALARMS.

FOR NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATELY VICINITY OF THE BEDROOMS IN DWELLING UNITS AND ON EACH LEVEL OF THE DWELLING AND IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS.

VENTILATION SCHEDULE

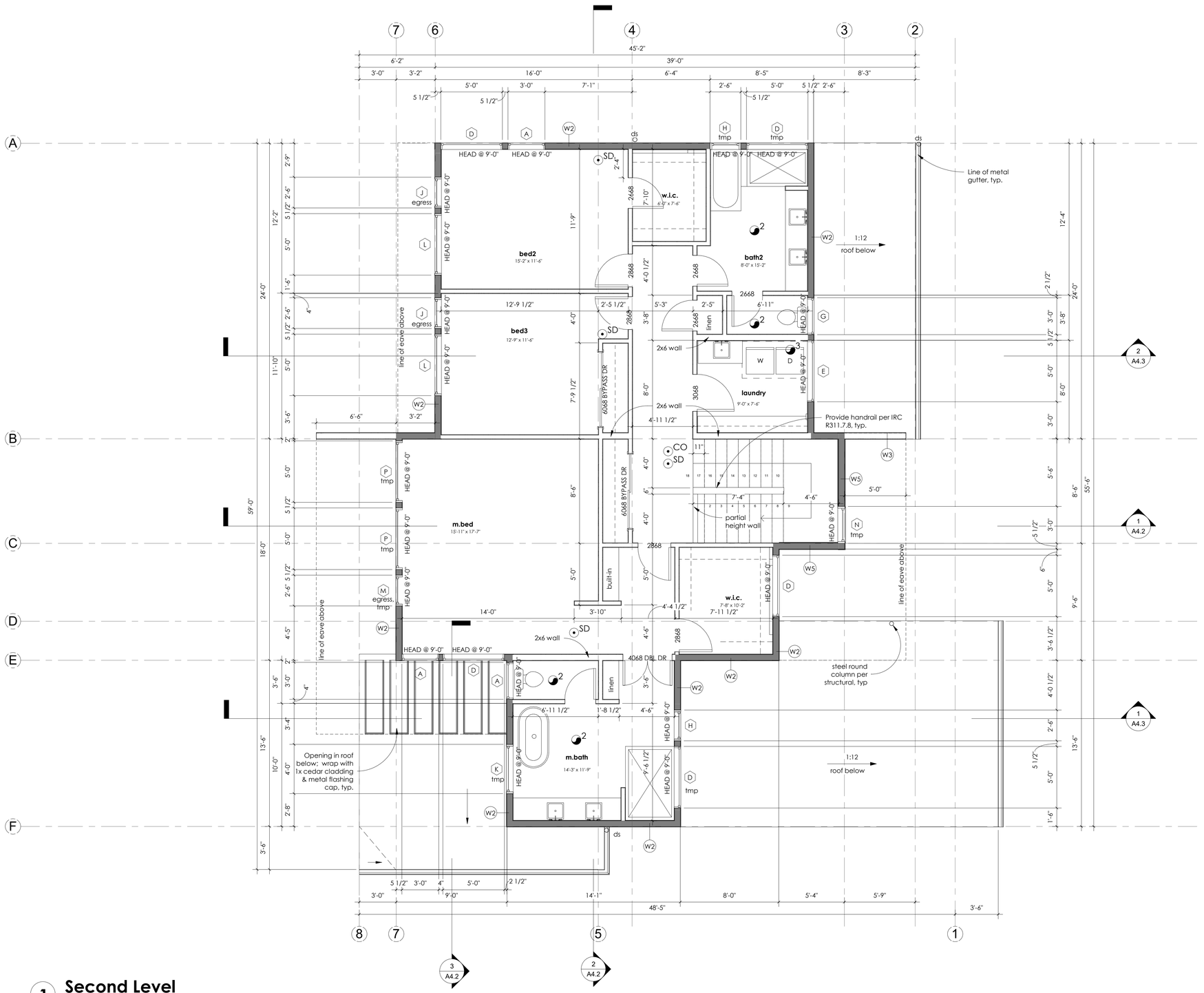
WHOLE HOUSE VENTILATION TO CONFORM TO IRC SECTION M1505.4

- (1) 100 CFM ON SWITCH
- (2) 50 CFM ON SWITCH
- (3) 90 CFM CONTINUOUSLY OPERATING WHOLE HOUSE FAN, SIZED PER TABLE IRC M1505.4.3(1)

MECHANICAL VENTILATING SYSTEMS IN BATHROOMS, LAUNDRY ROOMS AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST AIR SHALL BE AT LEAST THREE FEET FROM ANY OPENING INTO THE BUILDING PER IRC M1504.3

THE AIR REMOVED BY EVERY MECHANICAL EXHAUST SYSTEM SHALL BE DISCHARGED TO THE OUTDOORS IN ACCORDANCE WITH SECTION M1504.3.

LOCAL EXHAUST SYSTEMS SHALL BE DESIGNED TO HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE DETERMINED IN ACCORDANCE WITH TABLE M1505.4.4.



1 Second Level

SCALE: 1/4" = 1'-0"

* NOT CEILING HEIGHT GREATER THAN 10 FT. PLEASE REFERENCE SECTIONS A4.2-3.

N

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FLOOR PLANS

Scale 1/4" = 1'-0"

Date 04/29/2022

A2.3

Project Number JWA#611

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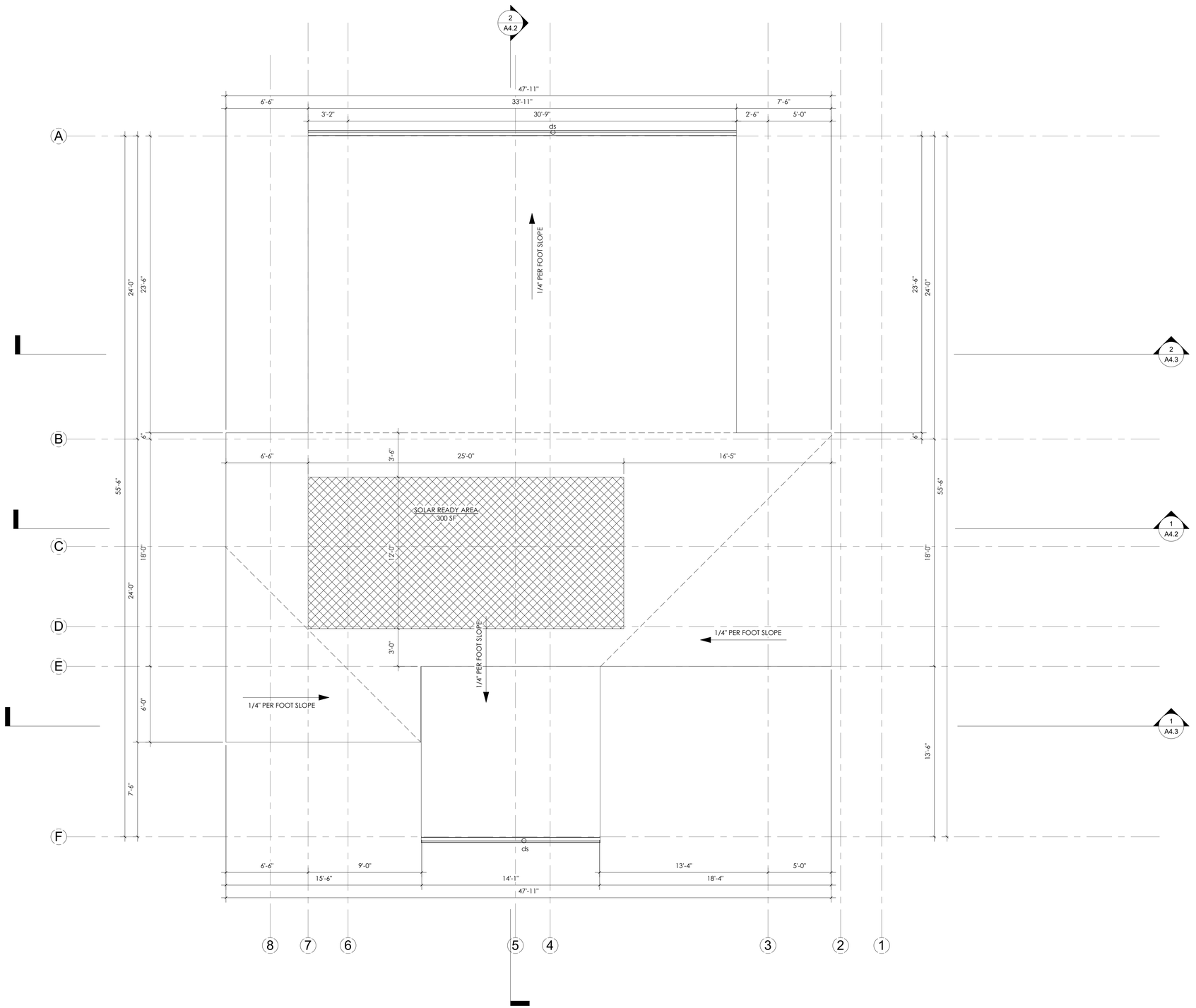

SOLAR-READY PROVISIONS

IRC T101: SOLAR-READY PROVISIONS

T101.1 NEW ONE AND TWO FAMILY DWELLINGS SHALL BE PROVIDED WITH A SOLAR-READY ZONE OF NOT LESS THAN 300 SQUARE FEET FOR EACH DWELLING UNIT. TOWNHOUSES SHALL BE PROVIDED WITH A SOLAR-READY ZONE OF NOT LESS THAN 150 SQUARE FEET FOR EACH DWELLING UNIT.

EXCEPTION: THE FOLLOWING DO NOT REQUIRE SOLAR-READY ZONES:

1. ONE AND TWO FAMILY DWELLING UNITS WITH LESS THAN 600 SF OF QUALIFYING ROOF AREA CONFORMING TO THE REQUIREMENTS OF SECTION T101.1.1.
2. INDIVIDUAL UNITS WITHIN TOWNHOUSE BUILDINGS THAT HAVE LESS THAN 300 SQUARE FEET OF QUALIFYING ROOF AREA PER UNIT CONFORMING TO THE REQUIREMENTS OF SECTION T101.1.1.
3. BUILDINGS WITH PERMANENTLY INSTALLED ON-SITE RENEWABLE ENERGY SYSTEMS.

T101.1.1 QUALIFYING ROOF AREA INCLUDES ALL ROOF AREAS OTHER THAN THE FOLLOWING:

1. ROOF AREAS ORIENTED WITHINH 45 DEGREES OF TRUE NORTH AND HAVING SLOPES GREATER THAN 2:12
2. ROOF AREAS SHADED BY EXISTING LANDFORMS, STRUCTURES OR TREES FOR MORE THAN 70 PERCENT OF THE DAYLIGHT HOURS ANNUALLY.
3. ROOF AREAS CONSISTING OF SKYLIGHTS, OCCUPIED DECKS, OR PLANTED AREAS
4. ACCESS OR SET-BACK AREAS REQUIRED BY THIS CODE OR THE APPLICABLE PROVISIONS OF THE IFC.

T103.1.1. SOLAR-READY ZONE AREA. NO SOLAR-READY ZONE MAY BE COMPRISED OF ONE SINGLE AREA OR OF MULTIPLE AREAS. *NO SOLAR READY ZONE SHALL BE LESS THAN 5 FEET IN ANY DIMENSION NOR LESS THAN 80 SF OF CONTIGUOUS AREA*

1 Roof plan

SCALE: 1/4" = 1'-0"

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FLOOR PLANS

Scale **1/4" = 1'-0"**

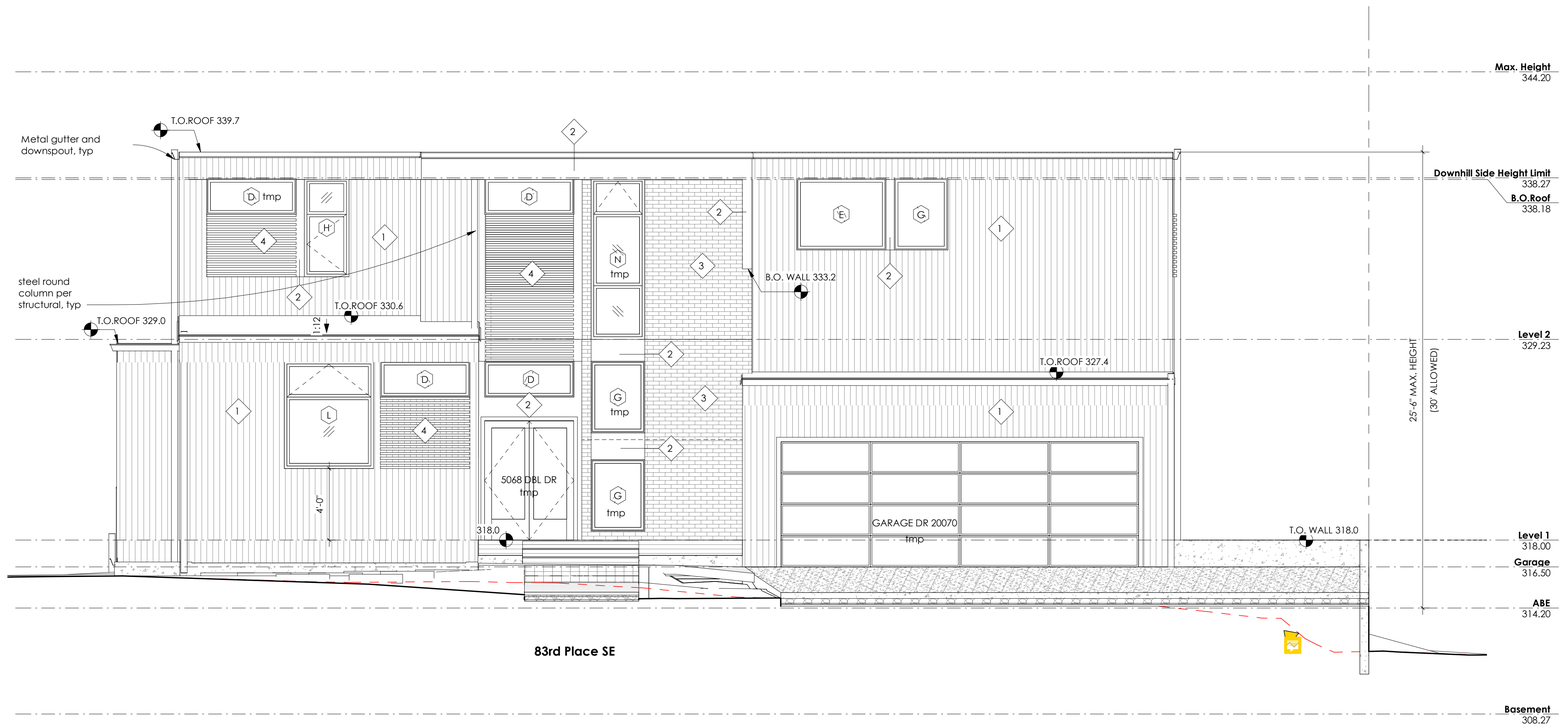
Date **04/29/2022**

A2.4

Project Number **JWA#611**

6/22/2022 11:22:51 AM

MATERIAL KEY	
1.	VERTICAL LAP SIDING 4" REVEAL - PAINTED BLACK
2.	4X8 HARDIE PANEL - PAINTED BLACK
3.	VENEER STONE
4.	OPEN JOINT TIMBER BOARDING RAINSCREEN
5.	8X4 HARDIE PANEL - PAINTED WHITE
6.	CEDAR T&G



1 East Elevation - 83rd Pl SE

SCALE: 1/4" = 1'-0"

2 West Elevation

SCALE: 1/4" = 1'-0"

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	06.02.2022	BP Submittal

ELEVATIONS

Scale **1/4" = 1'-0"**

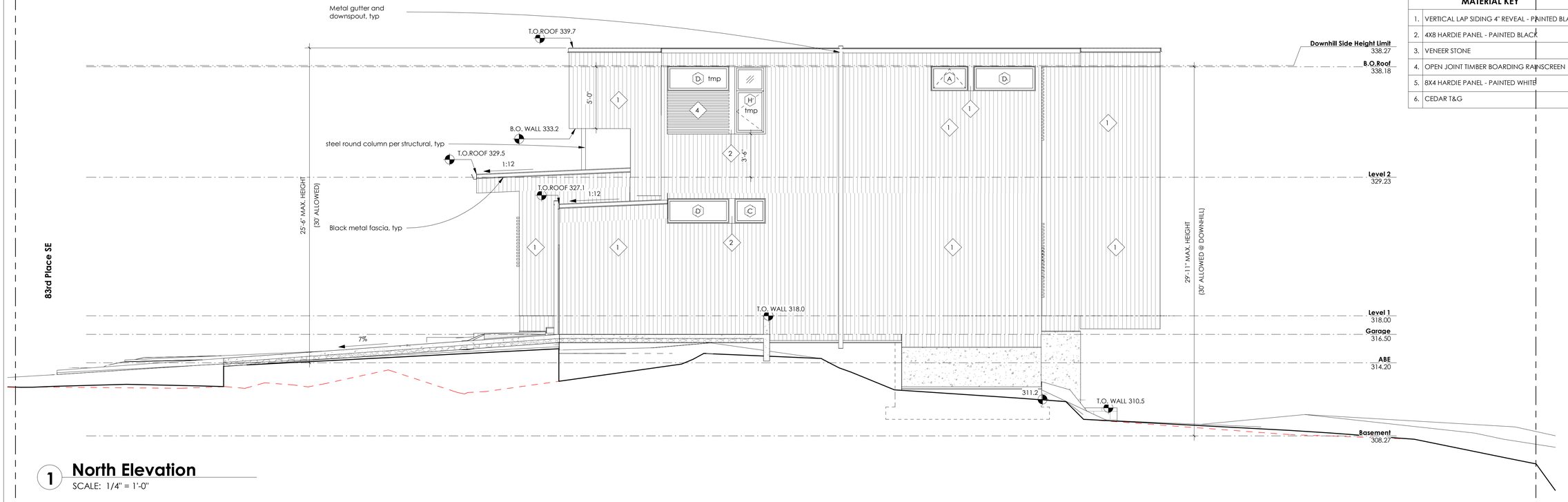
Date **04/29/2022**

A3.1

Project Number **JWA#611**

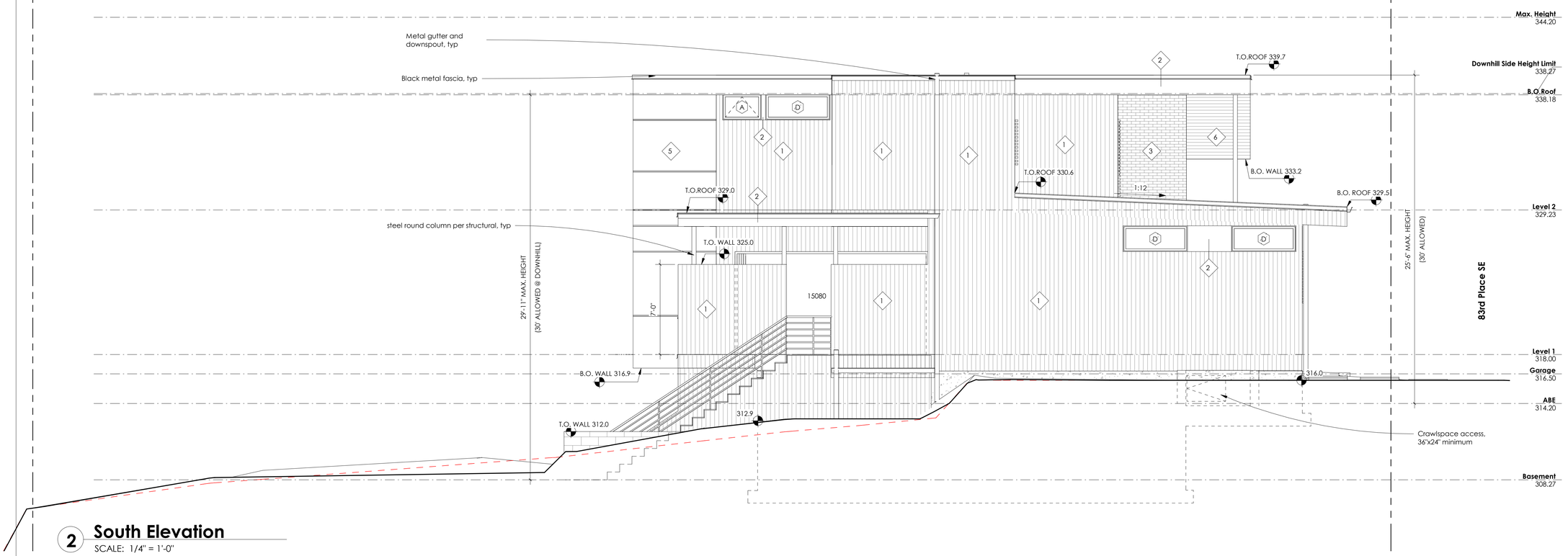
6/29/2022 11:22:53 AM

MATERIAL KEY	
1.	VERTICAL LAP SIDING 4" REVEAL - PAINTED BLACK
2.	4X8 HARDIE PANEL - PAINTED BLACK
3.	VENEER STONE
4.	OPEN JOINT TIMBER BOARDING RAINSCREEN
5.	8X4 HARDIE PANEL - PAINTED WHITE
6.	CEDAR T&G



1 North Elevation

SCALE: 1/4" = 1'-0"



2 South Elevation

SCALE: 1/4" = 1'-0"

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ELEVATIONS

Scale 1/4" = 1'-0"

Date 04/29/2022

A3.2

Project Number JWA#611

6/22/2022 11:22:54 AM

2018 WASHINGTON STATE ENERGY CODE (WSEC) NOTES

USE SYSTEM TYPE 2 FROM TABLE 406.2, AND USE OPTIONS (1.3, 3.5, 4.2, 5.5) FROM TABLE 406.3 FOR A TOTAL OF 6.0 CREDITS.

SYSTEM TYPE 2: (1.0 CREDITS)
Heat pump

SELECTED OPTION 1.3: (0.5 CREDITS)
Prescriptive compliance is based on Table R402.1.1 with the following modifications:
Vertical fenestration U = 0.28
Floor, R-38
Slab-on-grade, R-10 perimeter and under entire slab
Below-grade slab, R-10 perimeter and under entire slab

SELECTED OPTION 3.5: (1.5 CREDITS)
Air-source, centrally ducted heat pump with minimum HSPF of 11.0.

SELECSELECTED OPTION 4.2: (1.0 CREDIT)
HVAC equipment and associated duct system(s) installation shall comply with the requirements of Section R403.3.7.
Electric resistance heat and ductless heat pumps are not permitted under this option.

SELECTED OPTION 5.5: (2.0 CREDITS)
Water heating system shall include one of the following: ***Electric heat pump water heater meeting the standards of Tier III of NEEA's advanced water heating specification.***

A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNANCE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. A SAMPLE CERTIFICATE IS AVAILABLE AT: http://www.energy.wsu.edu/Documents/Compliance%20Certificate%202018%20WESC.pdf

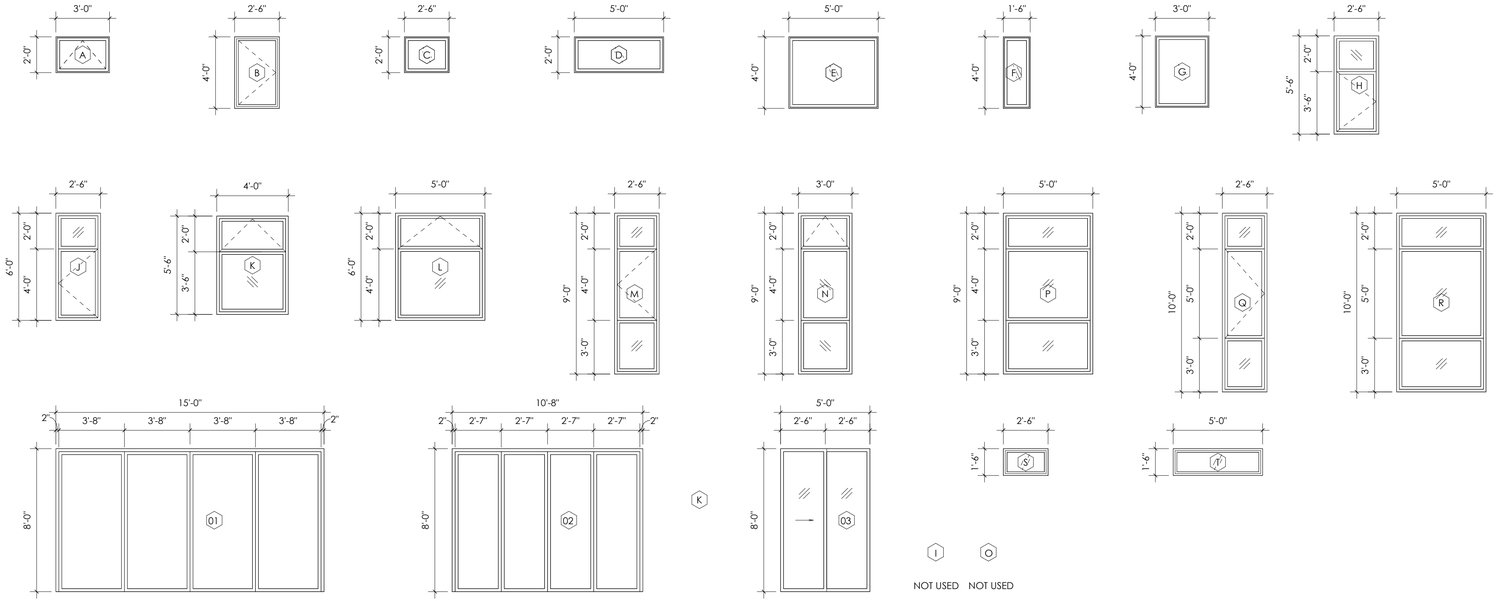
EACH DWELLING UNIT IS REQUIRED TO BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR THE REGULATION OF TEMPERATURE PER WSEC 403.1.1

DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. DUCT LEAKAGE SHALL BE LEAK TESTED IN ACCORDANCE WITH WSU RS-33 PER WSEC 403.2.2.

MECHANICAL SYSTEM PIPING CABLE OF CARRYING FLUIDS ABOVE 100 DEGREES FAHRENHEIT OR BELOW 55 DEGREES FAHRENHEIT SHALL BE INSULATED TO A MINIMUM OF R-6 PER WSEC R403.3.

A MINIMUM OF **90 PERCENT** OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICACY PER WSEC R404.1.

ALL NEW FENESTRATION TO BE NFRC CERTIFIED.



1 GLAZING KEY

SCALE: 1/4" = 1'-0"

NOTE: ALL FENESTRATION TO BE NFRC CERTIFIED. ALL U-VALUES SHOWN AS DEFAULT PER TABLE R301.1.3.

GLAZING SCHEDULE

Family and Type	Count	Location	Width	Height	U (BTU/h ft² °F)	Area	UA	Comments
A								
Awning: 2030	1	bed2	3'-0"	2'-0"	0.28	6.00 SF	1.68 SF	
Awning: 2030	1	m.bath	3'-0"	2'-0"	0.28	6.00 SF	1.68 SF	
Awning: 2030	1	m.bed	3'-0"	2'-0"	0.28	6.00 SF	1.68 SF	
3	3					18.00 SF	5.04 SF	
B								
Casement: 2640 csm L	1	bed4/office	2'-6"	4'-0"	0.28	10.00 SF	2.80 SF	egress
Casement: 2640 csm L	1	rec. room	2'-6"	4'-0"	0.28	10.00 SF	2.80 SF	
2	2					20.00 SF	5.60 SF	
C								
Fixed: 2620 fxd	1	garage	2'-6"	2'-0"	0.28	5.00 SF	1.40 SF	
1	1					5.00 SF	1.40 SF	
D								
Fixed: 5020 fxd	1	pdr	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	
Fixed: 5020 fxd	1	garage	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	
Fixed: 5020 fxd	1	bed2	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	
Fixed: 5020 fxd	1	bath2	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	tmp
Fixed: 5020 fxd	1	w.i.c.	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	
Fixed: 5020 fxd	1	m.bath	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	tmp
Fixed: 5020 fxd	3	kitchen	5'-0"	2'-0"	0.28	30.00 SF	8.40 SF	
Fixed: 5020 fxd	1	entry	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	
Fixed: 5020 fxd	1	m.bed	5'-0"	2'-0"	0.28	10.00 SF	2.80 SF	
11	11					110.00 SF	30.80 SF	
E								
Fixed: 5040 WN	1	bed4/office	5'-0"	4'-0"	0.28	20.00 SF	5.60 SF	
Fixed: 5040 WN	1	rec. room	5'-0"	4'-0"	0.28	20.00 SF	5.60 SF	
Fixed: 5040 WN	1	laundry	5'-0"	4'-0"	0.28	20.00 SF	5.60 SF	
3	3					60.00 SF	16.80 SF	
F								
Fixed: 1640 fxd	2	stairs	1'-6"	4'-0"	0.28	12.00 SF	3.36 SF	tmp
2	2					12.00 SF	3.36 SF	
G								
Fixed: 3040 fxd	1	bath2	3'-0"	4'-0"	0.28	12.00 SF	3.36 SF	
Fixed: 3040 fxd	2	stairs	3'-0"	4'-0"	0.28	24.00 SF	6.72 SF	tmp
3	3					36.00 SF	10.08 SF	
H								
Split Vertical: 2656 Casement L lower	1	bath2	2'-6"	5'-6"	0.28	13.75 SF	3.85 SF	tmp
Split Vertical: 2656 Casement L lower	1	m.bath	2'-6"	5'-6"	0.28	13.75 SF	3.85 SF	
2	2					27.50 SF	7.70 SF	
J								
Split Vertical: 2660 Casement L lower	1	office	2'-6"	6'-0"	0.28	15.00 SF	4.20 SF	
Split Vertical: 2660 Casement L lower	1	bed3	2'-6"	6'-0"	0.28	15.00 SF	4.20 SF	egress
Split Vertical: 2660 Casement L lower	1	bed2	2'-6"	6'-0"	0.28	15.00 SF	4.20 SF	egress
3	3					45.00 SF	12.60 SF	
K								
Split Vertical: 4056 grp	1	m.bath	4'-0"	5'-6"	0.28	22.00 SF	6.16 SF	tmp
1	1					22.00 SF	6.16 SF	

GLAZING SCHEDULE

Family and Type	Count	Location	Width	Height	U (BTU/h ft² °F)	Area	UA	Comments
L								
Split Vertical: 5060 grp	1	office	5'-0"	6'-0"	0.28	30.00 SF	8.40 SF	
Split Vertical: 5060 grp	1	bed3	5'-0"	6'-0"	0.28	30.00 SF	8.40 SF	
Split Vertical: 5060 grp	1	bed2	5'-0"	6'-0"	0.28	30.00 SF	8.40 SF	
Split Vertical: 5060 grp	1	kitchen	5'-0"	6'-0"	0.28	30.00 SF	8.40 SF	
4	4					120.00 SF	33.60 SF	
M								
Split Vertical - Three: 2690 grp	1	m.bed	2'-6"	9'-0"	0.28	22.50 SF	6.30 SF	egress, tmp
1	1					22.50 SF	6.30 SF	
N								
Split Vertical - Three: 3090 grp	1	stairs	3'-0"	9'-0"	0.28	27.00 SF	7.56 SF	tmp
1	1					27.00 SF	7.56 SF	
P								
Split Vertical - Three: 5090 grp	2	m.bed	5'-0"	9'-0"	0.28	90.00 SF	25.20 SF	tmp
2	2					90.00 SF	25.20 SF	
Q								
Split Vertical - Three: 26100 grp	1	living	2'-6"	10'-0"	0.28	25.00 SF	7.00 SF	tmp
1	1					25.00 SF	7.00 SF	
R								
Split Vertical - Three: 50100 grp	2	living	5'-0"	10'-0"	0.28	100.00 SF	28.00 SF	tmp
2	2					100.00 SF	28.00 SF	
S								
Fixed: 2616 fxd - interior	1	gym	2'-6"	1'-6"	0.00	3.75 SF	0.00 SF	
1	1					3.75 SF	0.00 SF	
T								
Fixed: 5016 fxd - interior	1	gym	5'-0"	1'-6"	0.00	7.50 SF	0.00 SF	
1	1					7.50 SF	0.00 SF	
Sum of Vertical Fenestration Area and UA	44					751.25 SF	207.20 SF	

SLIDING & FOLDING DOOR SCHEDULE

Family and Type	Count	Location	Width	Height	U (BTU/h ft² °F)	Area	UA	Comments
01								
EXT - Folding: 15080	1	living	15'-0"	8'-0"	0.28	120.00 SF	33.60 SF	tmp
02								
EXT - Folding: 10880	1	dining	10'-8"	8'-0"	0.28	85.33 SF	23.89 SF	tmp
03								
EXT - Slider: SLIDER 5080	1	rec. room	5'-0"	8'-0"	0.28	40.00 SF	11.20 SF	tmp
Sum of Sliding Door Area and UA	3					245.33 SF	68.69 SF	

SWINGING DOOR SCHEDULE

Family and Type	Count	Location	Width	Height	U (BTU/h ft² °F)	Area	UA	Comments
04								
ext - Swing - Double: 5068 DBL DR	1	entry	5'-0"	6'-8"	0.28	33.33 SF	9.33 SF	tmp
Sum of Exempt Swinging Door Area and UA	1					33.33 SF	9.33 SF	

TOTAL WINDOW COUNT

Type Mark	Family and Type	Count
A	Awning: 2030	3
B	Casement: 2640 csm L	2
C	Fixed: 2620 fxd	1
D	Fixed: 5020 fxd	11
E	Fixed: 5040 WN	3
F	Fixed: 1640 fxd	2
G	Fixed: 3040 fxd	3
H	Split Vertical: 2656 Casement L lower	2
J	Split Vertical: 2660 Casement L lower	3
K	Split Vertical: 4056 grp	1
L	Split Vertical: 5060 grp	4
M	Split Vertical - Three: 2690 grp	1
N	Split Vertical - Three: 3090 grp	1
P	Split Vertical - Three: 5090 grp	2
Q	Split Vertical - Three: 26100 grp	1
R	Split Vertical - Three: 50100 grp	2
S	Fixed: 2616 fxd - interior	1
T	Fixed: 5016 fxd - interior	1
TOTAL		44

TOTAL SUM OF FENESTRATION AREA AND UA: 989.91 SF 272.02

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Coombes Residence
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Mercer Island

MUP #
BP #

Δ	Date	Description
	06.02.2022	BP Submittal

GLAZING SCHEDULE & WSEC NOTES

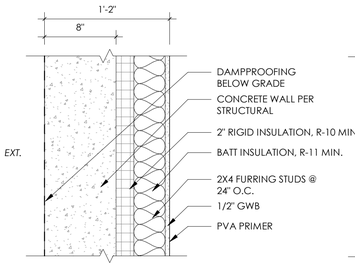
Scale 1/4" = 1'-0"
Date 04/29/2022

A4.0

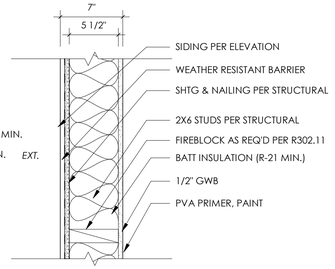
Project Number JWA#611

6/22/2022 11:22:55 AM

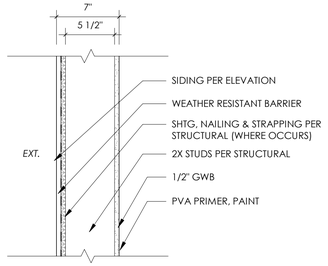
WALL ASSEMBLIES



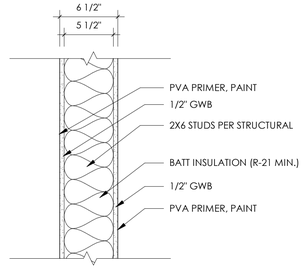
W1 **BELOW GRADE FURRED WALL**



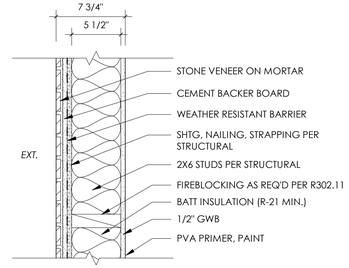
W2 **EXTERIOR WALL**



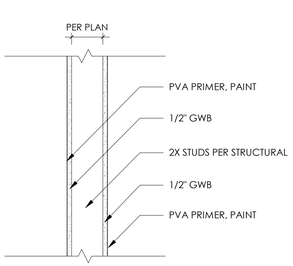
W3 **UNINSULATED EXTERIOR WALL**



W4 **WALL @ GARAGE/LIVING SPACE**

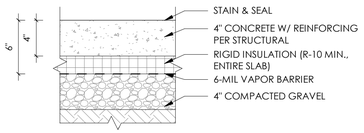


W5 **EXTERIOR WALL W/ STONE VENEER**

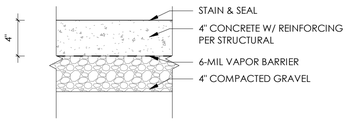


W6 **INTERIOR WALL**

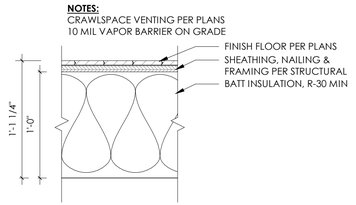
FLOOR ASSEMBLIES



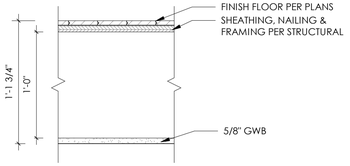
F1 **SLAB ON GRADE - INSULATED**



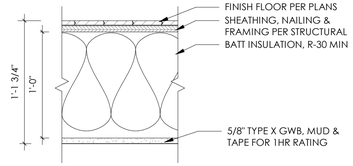
F2 **SLAB ON GRADE @ GARAGE**



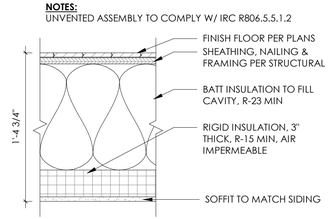
F3 **FLOOR OVER CRAWLSPACE**



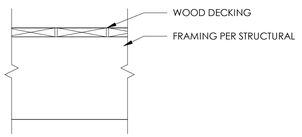
F4 **UPPER FLOOR**



F5 **FLOOR OVER GARAGE**

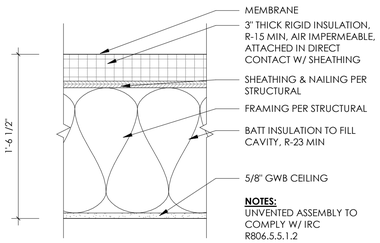


F6 **CANTILEVERED FLOOR - UNVENTED**

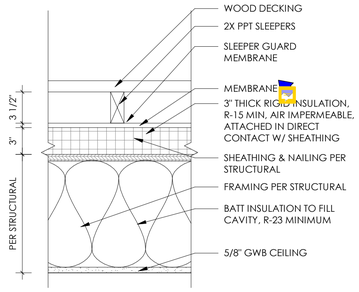


F7 **OPEN DECK**

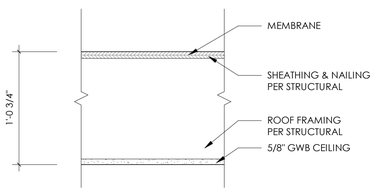
ROOF ASSEMBLIES



R1 **TJI - UNVENTED**



R2 **ROOF W/ DECKING**



R3 **2X12 UNHEATED SPACE**

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Coombes Residence

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Mercer Island

MUP #

BP #

Δ	Date	Description
	06.02.2022	BP Submittal

ASSEMBLIES

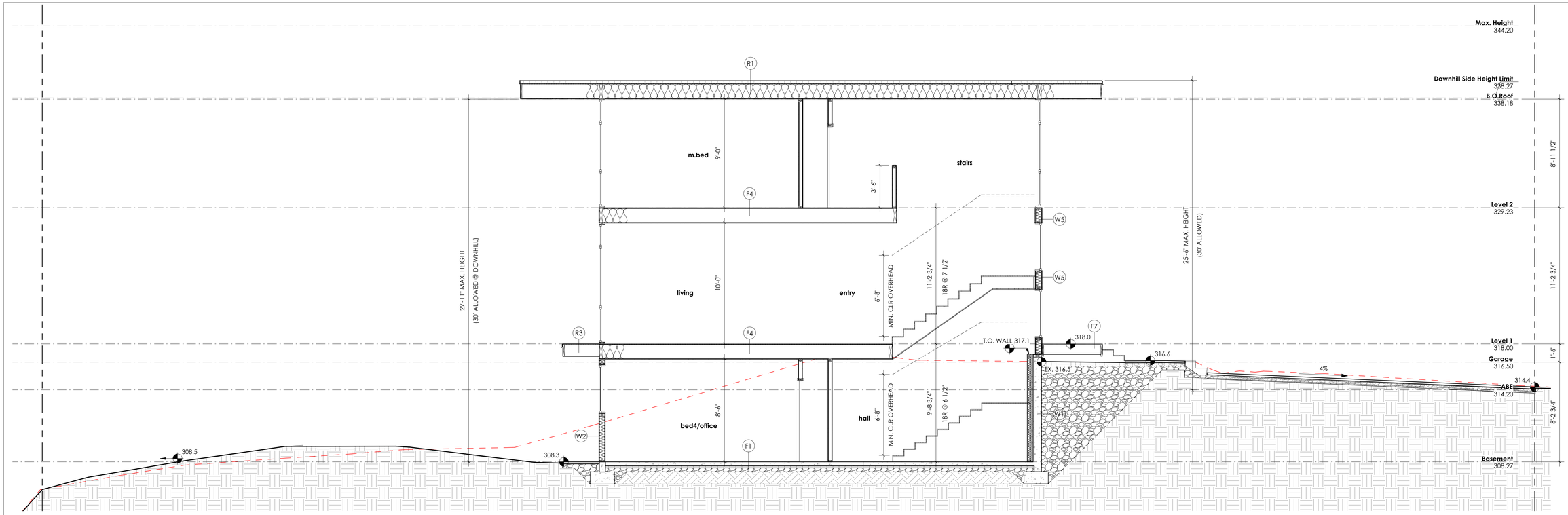
Scale **1 1/2" = 1'-0"**

Date **04/29/2022**

A4.1

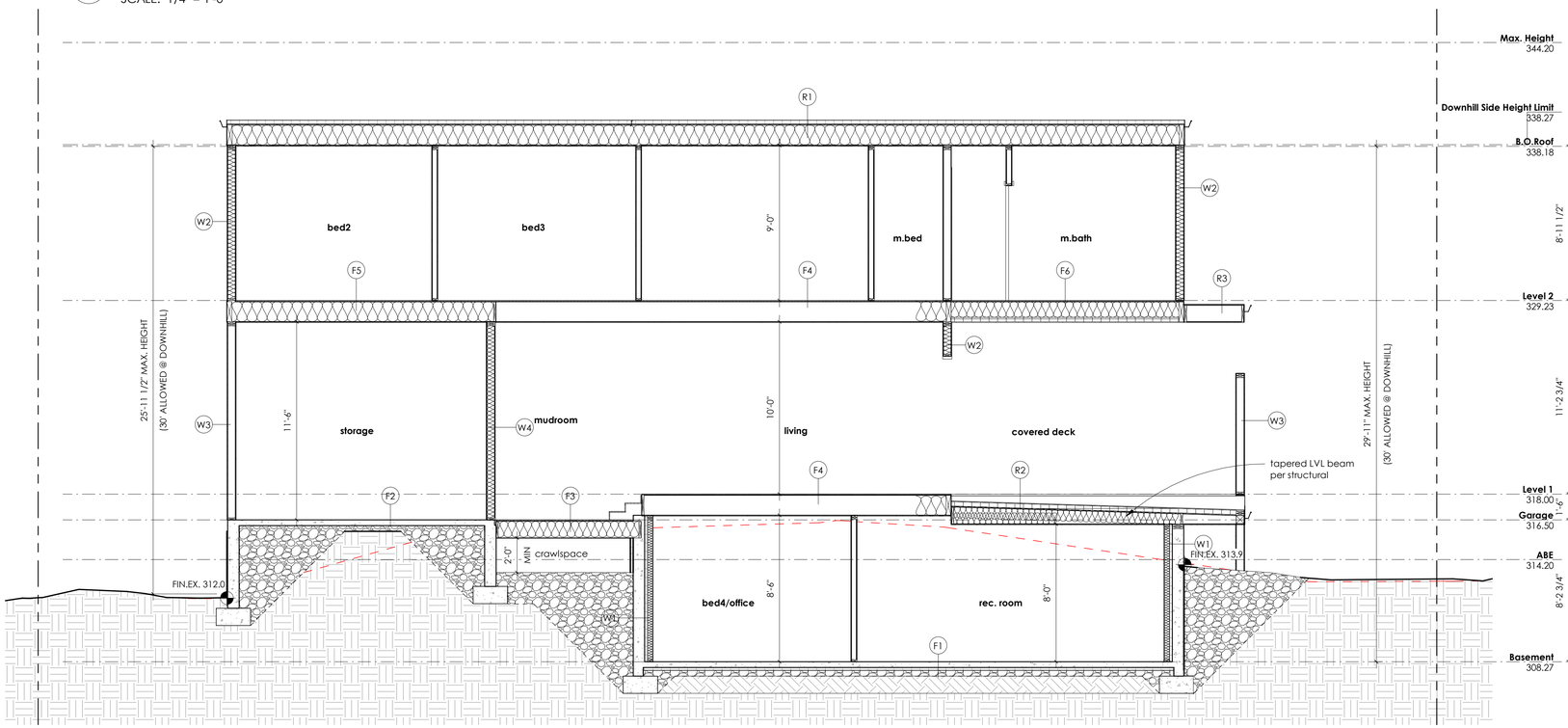
Project Number **JWA#611**

6/22/2022 11:22:57 AM



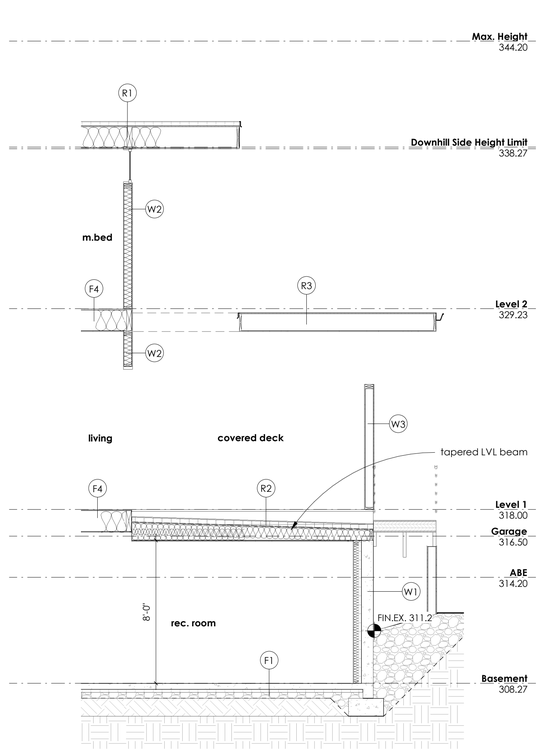
1 Section 1_ Stairs

SCALE: 1/4" = 1'-0"



2 Section 2

SCALE: 1/4" = 1'-0"



3 Partial Section 3 - Covered Deck

SCALE: 1/4" = 1'-0"

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MUP #

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BUILDING SECTION

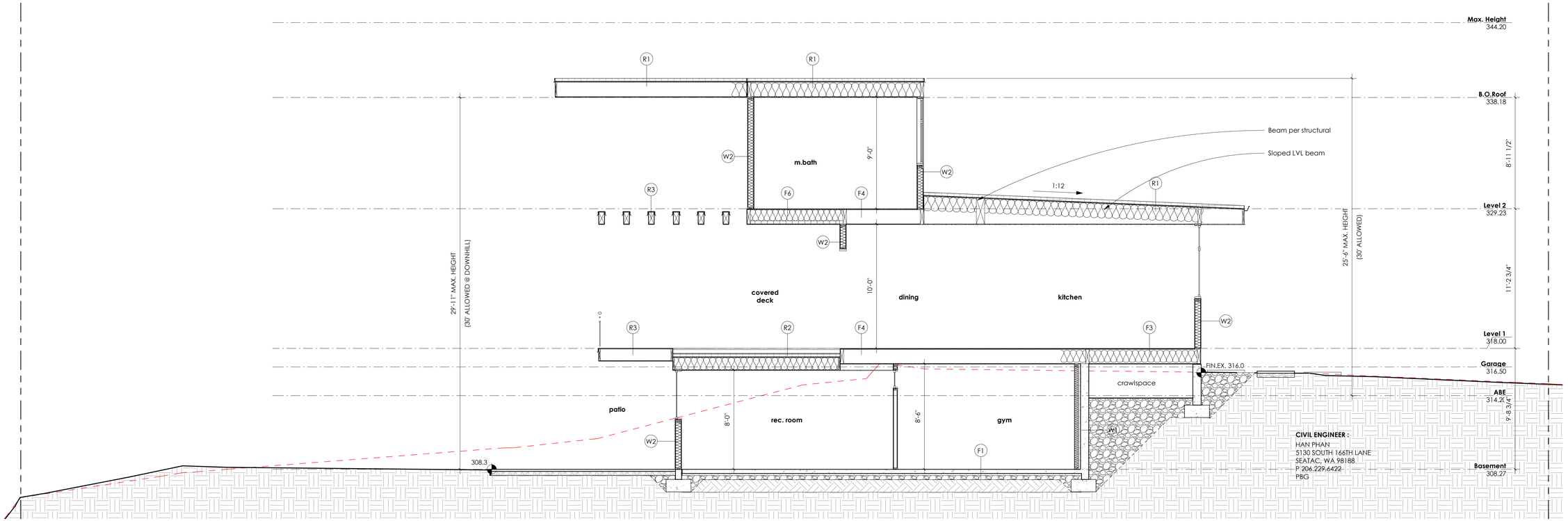
Scale 1/4" = 1'-0"

Date 04/29/2022

A4.2

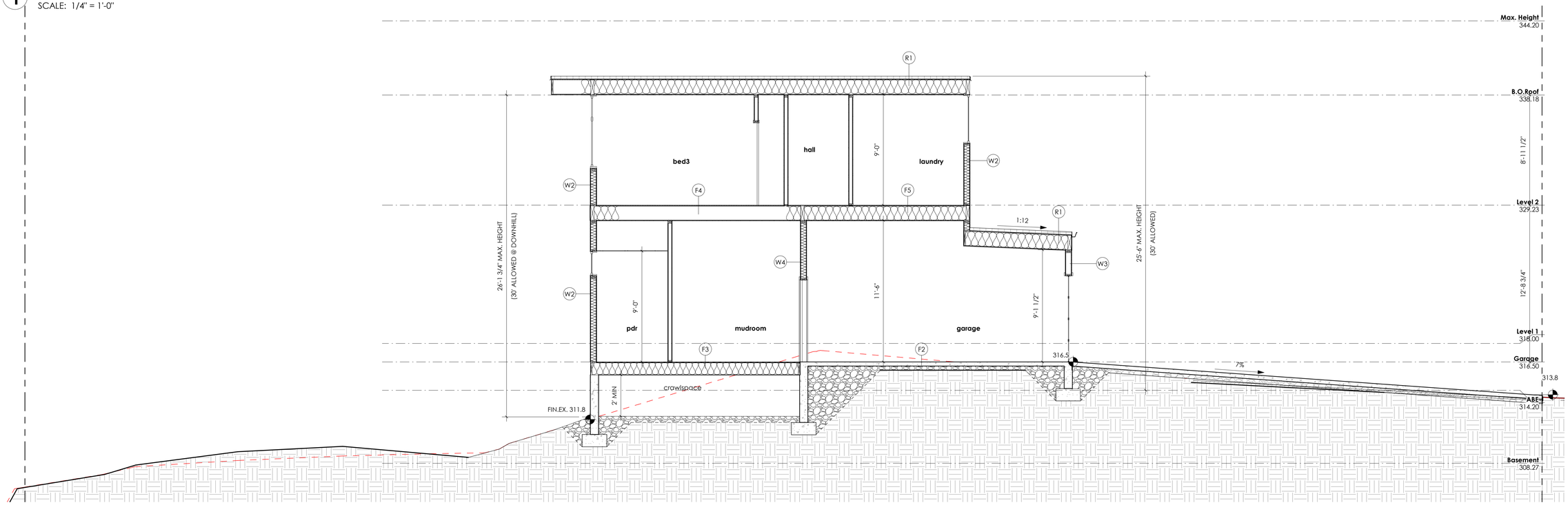
Project Number JWA#611

6/29/2022 11:25:59 AM



1 Section 4_ Covered Deck

SCALE: 1/4" = 1'-0"



2 Section 4_ Garage

SCALE: 1/4" = 1'-0"

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BUILDING SECTION

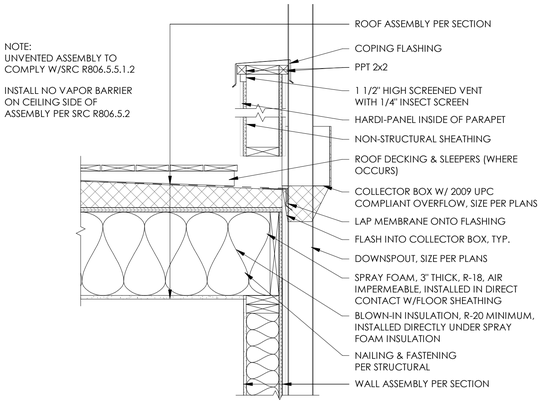
Scale 1/4" = 1'-0"

Date 04/29/2022

A4.3

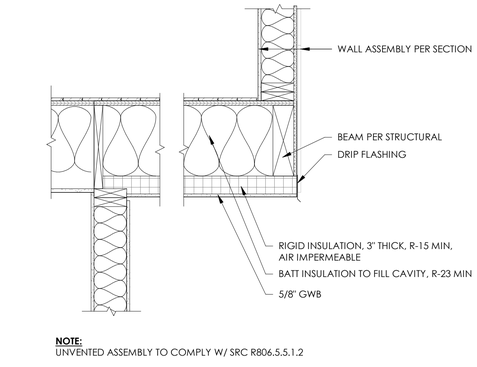
Project Number JWA#611

6/29/2022 11:23:00 AM



1 PARAPET - UNVENTED @ SCUPPER/GUTTER

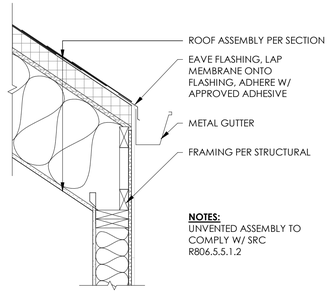
SCALE: 1" = 1'-0"



NOTE:
UNVENTED ASSEMBLY TO COMPLY W/ SRC R806.5.5.1.2

2 CANTILEVER - UNVENTED, 1 HOUR

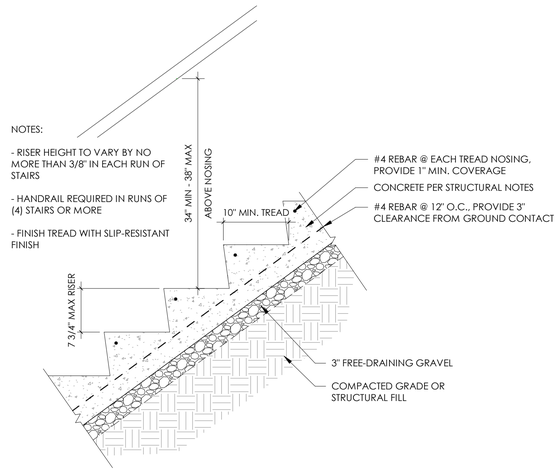
SCALE: 1" = 1'-0"



NOTES:
UNVENTED ASSEMBLY TO COMPLY W/ SRC R806.5.5.1.2

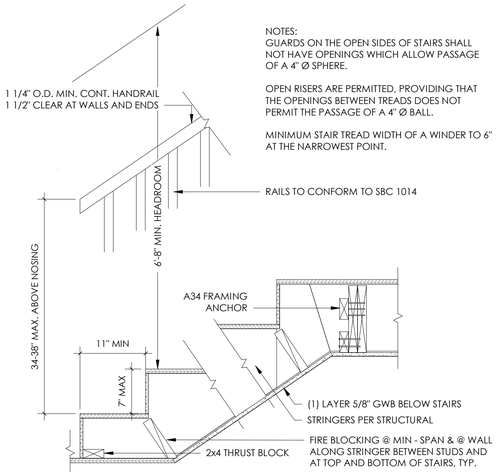
3 UNVENTED EAVE

SCALE: 1" = 1'-0"



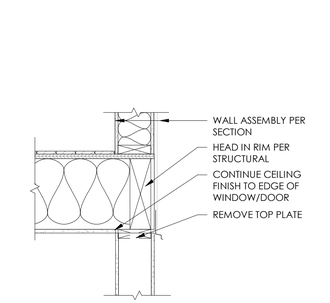
4 CONCRETE STEPS ON GRADE

SCALE: 1" = 1'-0"



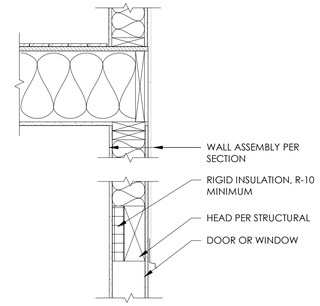
5 STAIR, MIN. 11" TREAD

SCALE: 1" = 1'-0"



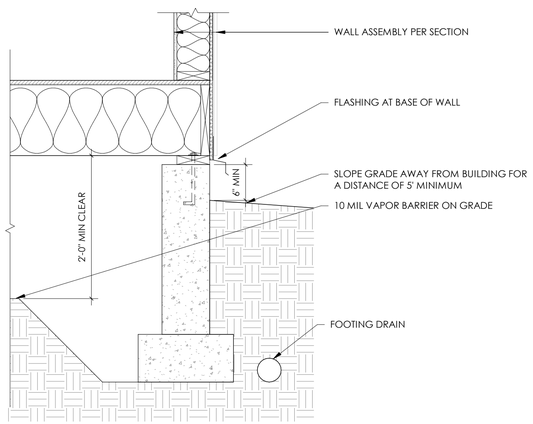
6 HEAD IN RIM

SCALE: 1" = 1'-0"



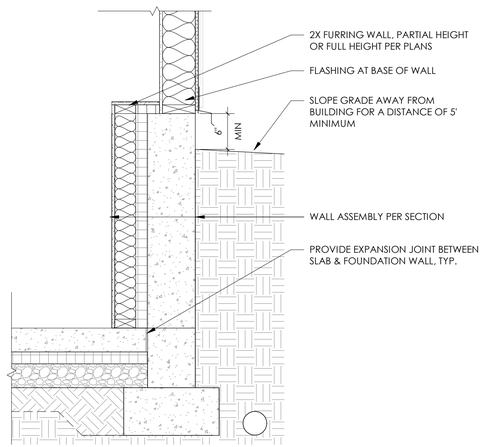
7 HEADER

SCALE: 1" = 1'-0"



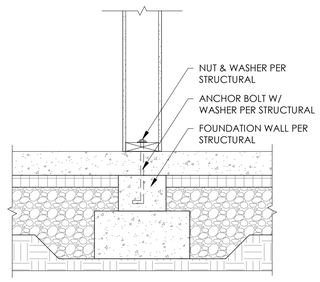
8 FOUNDATION WALL @ CRAWLSPACE

SCALE: 1" = 1'-0"



9 FOUNDATION WALL W/ FURRING

SCALE: 1" = 1'-0"



10 SLAB @ INTERIOR FOOTING

SCALE: 1" = 1'-0"

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	06.02.2022	BP Submittal

DETAILS

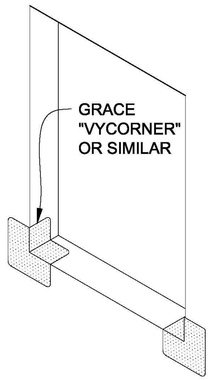
Scale 1" = 1'-0"
Date 04/29/2022

A6.1

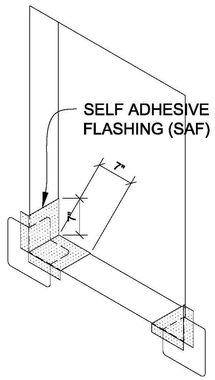
Project Number JWA#611

6/29/2022 11:25:01 AM

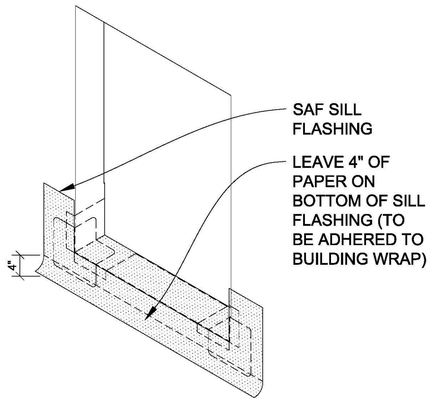
STEP 1 - VYCORNER



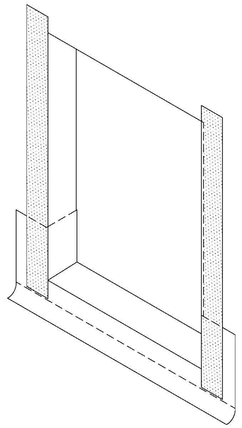
STEP 2 - SAF TABS



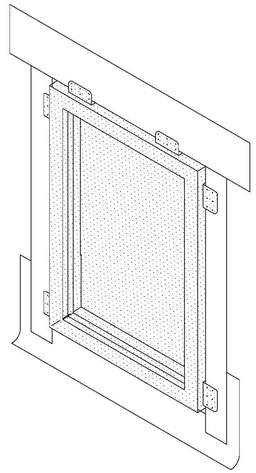
STEP 3 - SAF SILL



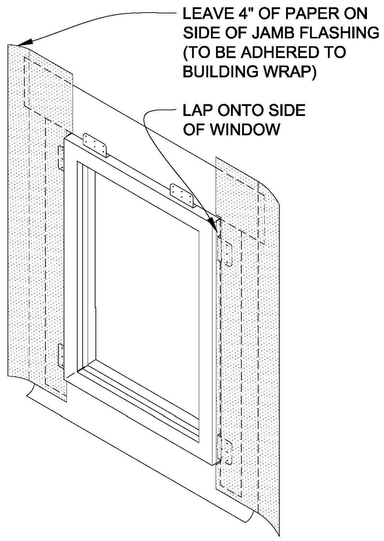
STEP 4 - SAF JAMB



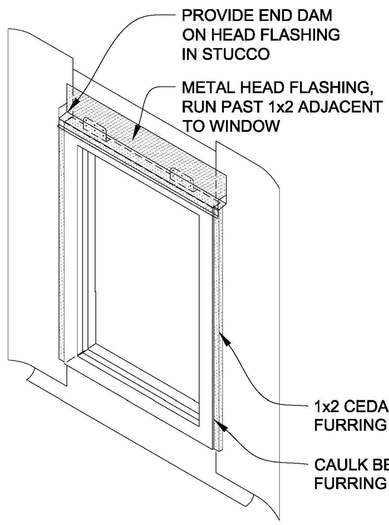
STEP 5 - WINDOW



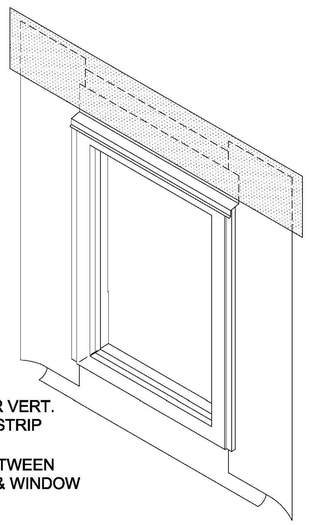
STEP 6 - SECOND SAF JAMB



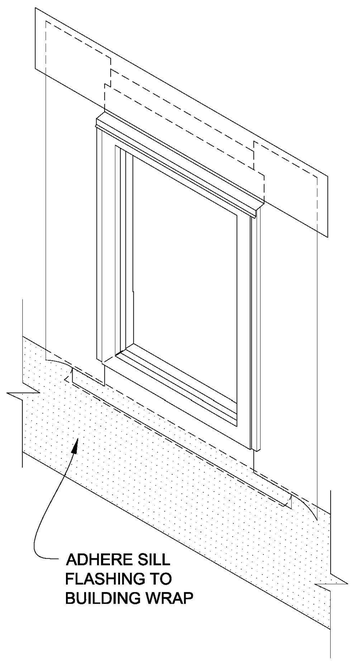
STEP 7 - METAL HEAD FLASHING

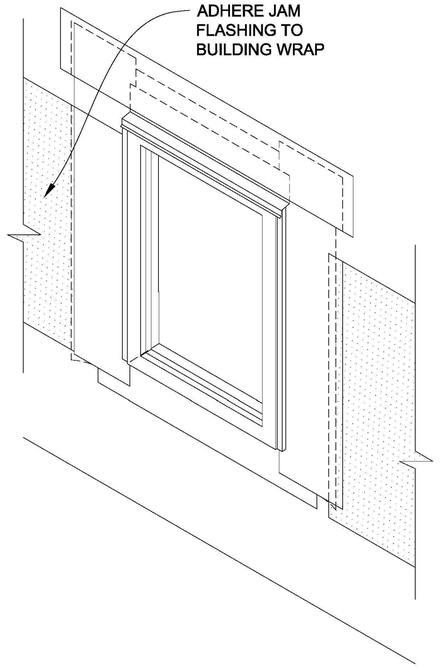


STEP 8 - SAF HEAD FLASHING



STEP 9 - BUILDING WRAP





1 WINDOW FLASHING INSTALLATION

SCALE: 1" = 1'-0"

NOTE: HOSE TEST FIRST WINDOW INSTALLED TO TEST FOR WATER INFILTRATION

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Mercer Island

MUP #

BP #

Δ	Date	Description
	06.02.2022	BP Submittal

WINDOW FLASHING

Scale 1" = 1'-0"

Date 04/29/2022

A6.3

Project Number JWA#611

6/29/2022 11:23:01 AM

GENERAL STRUCTURAL NOTES

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION.

2. DESIGN LOADING CRITERIA

FLOOR LIVE LOAD (RESIDENTIAL)		40 PSF
FLOOR LIVE LOAD (RESIDENTIAL DECKS AND BALCONIES)		60 PSF
SNOW		25 PSF
WIND		METHOD - DIRECTIONAL PROCEDURE Kzt=1.6, GCpi=0.18, 110 MPH (RISK CATEGORY II), EXPOSURE "B"
EARTHQUAKE	ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS SDC D, SITE CLASS D, Ie=1.0, Ss=1.464, S1=0.507, Sds=1.171, Sd1=NULL, Cs=0.180, R=6.5, SEISMIC DESIGN BASE SHEAR Vsx=20.56 KIPS	

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTIONS, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION."

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTOR'S WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

9. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION FOR THE INSPECTORS USE AND REFERENCE.

10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

    STRUCTURAL STEEL

    CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8"= 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENTS AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH REINFORCEMENT SHOP DRAWINGS.

    APPROVED SETS OF SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT AS REQUIRED BY THE JURISDICTION. IF THERE IS A DOUBT WHETHER OR NOT A POST-PERMIT SUBMITTAL IS NECESSARY OR WILL BE ACCEPTED, CONSULT THE BUILDING CODE REVIEWER FOR THE ORIGINAL PERMIT. NO DRAWING SHOULD BE SUBMITTED TO THE BUILDING OFFICIAL THAT STILL BEARS THE DISPOSITION OF "REVISE AND RESUBMIT" OR SIMILAR LANGUAGE.

11. SHOP DRAWING REVIEW OF DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND (1)COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN (2)WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE BUILDING OFFICIAL AS REQUIRED BY THE JURISDICTION.

    SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

QUALITY ASSURANCE

12. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110, 1704 AND 1705 OF THE IBC BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION SHALL BE PERFORMED.

    STRUCTURAL STEEL FABRICATION AND ERECTION — PER AISC 360

GEOTECHNICAL

13. ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

    FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 18" BELOW ADJACENT FINISHED GRADE. FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE, UNO.

    BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE.

ALLOWABLE SOIL PRESSURE	1500 PSF
LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	50 PCF/35 PCF
TRAFFIC SURCHARGE	70 PSF
COEFFICIENT OF FRICTION	0.35

CONCRETE

14. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 318 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3000 PSI. SLUMP OF CONCRETE SHALL NOT EXCEED 6". STRUCTURAL DESIGN IS BASED ON A CONCRETE STRENGTH OF f'c = 2500 PSI, THEREFORE NO CONCRETE STRENGTH TESTING REQUIRED. CONCRETE EXPOSURE CATEGORIES ARE F1, S0, W0, AND C1.

    ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.3.1.

15. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, fy = 60 KSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy = 40 KSI. WELDED WIRE WIRE FABRIC SHALL CONFORM TO ASTM A1064. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, fy = 60 KSI.

16. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #6 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

    NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

17. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER)	2"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER)	1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS	1-1/2"
SLABS AND WALLS (INT FACE)	GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

ANCHORAGE

18. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" EPOXY ADHESIVE AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2508 AND IAMPO-UES REPORT ER-265. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A36, UNO.

19. HEAVY DUTY THREADED CONCRETE ANCHORS SPECIFIED ON THE DRAWINGS SHALL BE "TITEN HD SCREW ANCHOR" AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2713 AND ESR-1056, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

20. EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "STRONG-BOLT 2" ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT CONFORMANCE TO ICC-ES REPORT ESR-3037 AND IAPMO-UES REPORT ER-240, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

21. DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE (PDPWL-300MG, 0.145" DIAMETER, UNO) AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2138. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1", UNO. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE.

WOOD

22. ALL 2x LUMBER SHALL BE KILN DRIED OR MC-19, AND ALL LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2x AND 3x MEMBERS)	HEM-FIR NO 2 OR SPRUCE-PINE-FIR NO 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4x MEMBERS)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fb = 900 PSI
BEAMS	(6x AND LARGER)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fb = 875 PSI
POSTS	(4x MEMBERS)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6x AND LARGER)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 600 PSI
STUDS, PLATES AND MISC FRAMING		HEM-FIR NO 2 OR SPRUCE-PINE-FIR NO 2

23. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. ALL CANTILEVER GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. GLUED LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 3, L2D GRADE, Fc = 2300 PSI, Fb = 2000 PSI, E = 1900 KSI.

24. MANUFACTURED LUMBER, PSL, LVL, AND LSL, SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL PSL, LVL, AND LSL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1387 USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PSL (2.0E)	Fb = 2900 PSI	E = 2000 KSI	Fv = 290 PSI
LVL (2.0E)	Fb = 2600 PSI	E = 2000 KSI	Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI	E = 1550 KSI	Fv = 310 PSI
PSL COLUMN (1.8E)	Fc = 2500 PSI	E = 1800 KSI	Fv = 190 PSI

    DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

    MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

25. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION", ANSI/TPI 1 BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD	25 PSF
TOP CHORD DEAD LOAD	10 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
TOTAL LOAD	40 PSF
WIND UPLIFT (TOP CHORD)	10 PSF
BOTTOM CHORD LIVE LOAD (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)	10 PSF

    REFER TO PLAN FOR ADDITIONAL LOADING

    TRUSSES SHALL BE DESIGNED TO NOT ALLOW LIMITED STORAGE PER IBC TABLE 1607.1. WEBS SHALL BE CONFIGURED SO THAT ALL OPENINGS ARE SMALLER THAN 24" WIDE x 42" HIGH.

    WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC, SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS, USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ROOF OVER-FRAMING, ETC SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

26. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

27. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS-1 OR PS-2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

    WALL SHEATHING SHALL BE 7/16" or 1/2" (NOMINAL) WITH SPAN RATING 24/0

    FLOOR SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

    WATERPROOF DECK SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

    FLAT ROOF SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

    ROOF SHEATHING SHALL BE 1/2" or 7/16" (NOMINAL) WITH SPAN RATING 32/16 FOR ROOFS WITH A PITCH GREATER THAN 2:12

    REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

28. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2)LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

29. PRESSURE TREATED WOOD (INCLUDES PRESERVATIVE AND FIRE TREATED) SHALL BE TREATED PER AWPA STANDARDS. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO RETENTION OF 0.25 PCF. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. SODIUM BORATE (SBX) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS WITHOUT AMMONIA IN DIRECT CONTACT WITH ACQ-A TO A RETENTION LEVEL OF 0.40 PCF), CBA-A (UP TO A RETENTION LEVEL OF 0.41 PCF), CA-B (UP TO A RETENTION LEVEL OF 0.21 PCF), SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS WITH AMMONIA IN DIRECT CONTACT WITH ACQ-A (OVER A RETENTION LEVEL OF 0.40 PCF), CBA-A (OVER A RETENTION LEVEL OF 0.41 PCF), CA-B (OVER A RETENTION LEVEL OF 0.21 PCF), OR WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.

30. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

    ALL 2x JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "IUS" SERIES JOIST HANGERS. ALL DOUBLE-JOISTS BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIU" SERIES JOIST HANGERS.

    WHERE CONNECTOR STRAPS CONNECT (2)MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

    ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

31. WOOD FASTENERS

    A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	TYPE	LENGTH	DIAMETER
8d	COMMON	2-1/2"	0.131"
10d	GUN	3"	0.131"
12d	GUN	3-1/4"	0.131"
16d	GUN	3-1/2"	0.131"

    IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

    NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

    B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2018 EDITION) WITH A LEAD BORE HOLE OF 60-70% OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS. BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE PLATES/MEMBERS. BOLTS SHALL NOT BE FORCIBLY DRIVEN.

    C. SDS AND SDWS SCREWS CALLED OUT ON PLAN ARE TIMBER SCREWS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY. SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. EQUIVALENT SCREWS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. LAG SCREWS ARE NOT AN EQUIVALENT SUBSTITUTION.

32. WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS NOTED OTHERWISE ON THE PLANS:

    A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC, THE AITC "TIMBER CONSTRUCTION MANUAL", AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, SHALL CONFORM TO TABLE 2304.10.1. OF THE IBC, UNO. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

    B. WALL FRAMING: REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16"oc, UNO. (2)STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. (2)2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS IN STRUCTURAL WALLS, UNO. NAIL MULTI-MEMBER HEADERS WITH (2)ROWS 10d AT 12"oc. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

    ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE AND BOTTOM PLATE TO EACH STUD WITH (3)10d NAILS. FACE NAIL DOUBLE TOP PLATES WITH 10d AT 12"oc AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE (12)10d NAILS AT 4"oc EACH SIDE OF JOINT. AT TOP PLATE INTERSECTIONS PROVIDE (3)10d FACE NAILS.

    ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH (2)ROWS OF 12d NAILS AT 16"oc, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"oc EMBEDDED 7" MINIMUM, UNO. THERE SHALL BE A MINIMUM OF (2)BOLTS PER PLATE SECTION WITH (1)BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4-1/2" FROM EACH END OF THE PLATE SECTION. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH (2)ROWS OF 10d AT 16"oc. UNLESS NOTED OTHERWISE, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH #6 x 1-1/4" TYPE S OR W SCREWS AT 12"oc. UNLESS NOTED OTHERWISE, 7/16" OR 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS AT 6"oc AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS AT 12"oc. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

    C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS, UNO. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL TIMBER JOISTS TO SUPPORTS WITH (3)10d NAILS AND NAIL TJI JOISTS TO SUPPORTS WITH (2)10d NAILS. ATTACH JOISTS TO BEAMS WITH SIMPSON JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH (2)ROWS 10d AT 12"oc. TOENAIL RIM JOIST TO TOP PLATE WITH 10d AT 6"oc. TOENAIL BLOCKING BETWEEN JOISTS TO TOP PLATE WITH (3)10d NAILS.

    UNLESS NOTED OTHERWISE ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS WITH END JOINTS STAGGERED, AND NAILED AT 6"oc WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12"oc TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 10d AT 12"oc, UNO.

33. NOTCHES AND HOLES IN WOOD FRAMING:

    A. SAWN LUMBER JOISTS AND RAFTERS: NOTCHES AT THE ENDS OF JOISTS SHALL NOT EXCEED 1/4 THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED 1/6 THE JOIST DEPTH, BE LONGER THAN 1/3 THE JOIST DEPTH, OR BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. HOLES SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER SHALL NOT EXCEED 1/3 THE JOIST DEPTH. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2)TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL BE LOCATED A MINIMUM OF 2" FROM ANY NOTCH.

    B. EXTERIOR AND BEARING WALLS: WOOD STUDS ARE PERMITTED TO BE NOTCHED TO A DEPTH NOT EXCEEDING 1/4 OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH IS PERMITTED IN WOOD STUDS. HOLES SHALL NOT BE WITHIN 5/8" TO THE EDGE OF THE STUD. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2)TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL NOT BE LOCATED AT THE SAME SECTION AS A NOTCH.

    C. CUTS, NOTCHES, AND HOLES IN MANUFACTURED LUMBER, PREFABRICATED PLYWOOD WEB JOISTS, AND PREFABRICATED TRUSSES ARE PROHIBITED EXCEPT WHERE NOTED ON STRUCTURAL PLANS OR PERMITTED BY MANUFACTURER'S RECOMMENDATIONS.

34. ELECTRICAL, MECHANICAL, PLUMBING, AND DRAINAGE SYSTEMS SHALL BE DESIGNED TO ACCOMMODATE THE DIFFERENTIAL SHRINKAGE OR MOVEMENT OF THE WOOD STRUCTURE (3/8" PER FLOOR).

35. DEFLECTION OF CANTILEVERS SHALL BE CLOSELY MONITORED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR TO VERIFY AND ENSURE ALL POST CAPS AND POST BEARING CONDITIONS ARE INSTALLED IN STRICT CONFORMANCE TO THE STRUCTURAL PLANS. CANTILEVERS IN WOOD FRAMING CAN DEFLECT UP TO 1/8" PER FOOT (I.E. 4' CANTILEVER MAY DEFLECT 1/2"). IF DEFLECTION EXCEEDS 1/8" PER FOOT NOTIFY STRUCTURAL ENGINEER IMMEDIATELY. BEFORE FINISHES ARE INSTALLED, FLOORS AT OR ABOVE CANTILEVERS MAY REQUIRE LEVELING COMPOUND AND SOFFITS FURRED TO MAKE THEM LEVEL.

GENERAL STRUCTURAL NOTES CONTINUED ON SHEET S1.1
FOR ABBREVIATIONS SEE SHEET S1.1

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Plotted Date: May 26, 2022 - 3:44pm

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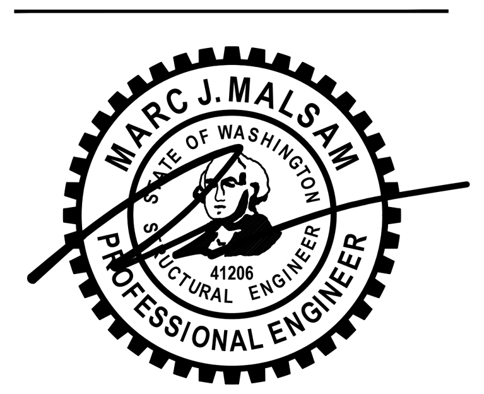

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GENERAL STRUCTURAL NOTES

S1.0

SCALE - NTS

GENERAL STRUCTURAL NOTES (CONTINUED)

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

MASONRY

36. ADHERED MASONRY VENEER, 2-5/8" MAXIMUM THICKNESS AND 15 PSF MAXIMUM UNIT WEIGHT, SHALL BE ADHERED TO BACKING WALLS PER SECTION 1404.10 OF THE IBC. ADHERED MASONRY SHALL BE ABLE TO DEVELOP A SHEAR STRENGTH OF 50 PSI MINIMUM BETWEEN THE BACKING AND THE UNIT IN ACCORDANCE WITH ASTM C482 OR SHALL BE ADHERED PER ARTICLE 3.3C OF TMS 602-16.

STEEL

37. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON:

A. AISC 360 AND CHAPTER 22 OF THE INTERNATIONAL BUILDING CODE.

B. APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, AMENDED AS NOTED IN THE CONTRACT DOCUMENTS, BY THE DELETION OF PARAGRAPH 4.4.1, AND REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN PARAGRAPH 3.1.

C. SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS.

38. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	Fy
A. WIDE FLANGE SHAPES	A992	50 KSI
B. HP-SHAPES	A572 (GRADE 50)	50 KSI
C. OTHER SHAPES, PLATES, AND RODS	A36	36 KSI
D. STRUCTURAL PIPE	A53 (GRADE B)	35 KSI
E. HOLLOW STRUCTURAL SECTIONS:		
SQUARE OR RECTANGULAR	A500 (GRADE C)	50 KSI
ROUND	A500 (GRADE C)	46 KSI
F. CONVENTIONAL HIGH-STRENGTH BOLTS (3/4"ROUND, UNO)	F3125 (GRADE A325)	
G. COMMON BOLTS (WOOD APPLICATIONS)	A307	
H. ANCHOR BOLTS	F1554 (GRADE 36)	
I. HEADED SHEAR STUDS	A108	

39. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

40. ALL A325 CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A PERSON USING AN ORDINARY SPUD WRENCH.

41. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES(F) AND 40 FT-LBS AT 70 DEGREES(F), AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

ABBREVIATIONS

±	PLUS OR MINUS	ES	EACH SIDE	OD	OUTSIDE DIAMETER
Ø	DIAMETER	EW	EACH WAY	OF	OUTSIDE FACE
AB	ANCHOR BOLT	EXP	EXPANSION	OPNG	OPENING
ABV	ABOVE	EXT	EXTERIOR	OPP	OPPOSITE
ADDL	ADDITIONAL	FDN	FOUNDATION	OSB	ORIENTED STRAND BOARD
AFF	ABOVE FINISHED FLOOR	FF	FINISHED FLOOR	PAF	POWDER ACTUATED FASTENER
ALT	ALTERNATE	FIN	FINISH	PEN	PENETRATION
APPROX	APPROXIMATELY	FLR	FLOOR	PERP	PERPENDICULAR
ARCH	ARCHITECT, ARCHITECTURAL	FRMG	FRAMING	PL	PLATE
BLDG	BUILDING	FRP	FIBER REINFORCED PLASTIC	PL	PROPERTY LINE
BLKG	BLOCKING	FS	FAR SIDE	PLF	POUNDS PER LINEAR FOOT
BLW	BELOW	FT	FEET	PLY	PLYWOOD
BM	BEAM	FTG	FOOTING	PREFAB	PREFABRICATED
BMU	BRICK MASONRY UNIT	GA	GAGE, GAUGE	PRELIM	PRELIMINARY
BOE	BOTTOM OF EXCAVATION	GALV	GALVANIZED	PSF	POUNDS PER SQUARE FOOT
BOT	BOTTOM	GL	GLUE LAMINATED TIMBER	PSI	POUNDS PER SQUARE INCH
BRG	BEARING	GR	GRADE	PSL	PARALLEL STRAND LUMBER
BSMT	BASEMENT	GT	GIRDER TRUSS	PT	PRESSURE TREATED LUMBER
BTWN	BETWEEN	GWB	GYPSUM WALLBOARD	P-T	POST-TENSIONED
C	CAMBER	HD	HOLDOWN	R	RADIUS
CBF	CONCENTRICALLY BRACED FRAME	HDR	HEADER	REF	REFERENCE
CGS	CENTER GRAVITY OF STEEL	HF	HEM FIR	REINF	REINFORCING
CIP	CAST IN PLACE	HGR	HANGER	REQD	REQUIRED
CJ	CONTROL JOINT	HM	HIP MASTER	RET	RETAINING
CJP	COMPLETE JOINT PENETRATION	HORIZ	HORIZONTAL	RO	ROUGH OPENING
℄	CENTERLINE	HSS	HOLLOW STRUCTURAL SECTION	SCHED	SCHEDULE
CLG	CEILING	HT	HEIGHT	SECT	SECTION
CLR	CLEAR	IBC	INTERNATIONAL BUILDING CODE	SF	SQUARE FOOT
CMU	CONCRETE MASONRY UNIT	ID	INSIDE DIAMETER	SHTG	SHEATHING
COL	COLUMN	IE	INVERT ELEVATION	SIM	SIMILAR
CONC	CONCRETE	IF	INSIDE FACE	SOG	SLAB ON GRADE
CONN	CONNECTION	IN	INCH	SPEC	SPECIFICATIONS
CONST	CONSTRUCTION	INSUL	INSULATION	SQ	SQUARE
CONT	CONTINUOUS	IRC	INTERNATIONAL RESIDENTIAL CODE	SR	STUD RAIL
COORD	COORDINATE	INT	INTERIOR	SS	STAINLESS STEEL
CP	COMPLETE PENETRATION	JST	JOIST	STAGG	STAGGER/STAGGERED
CTR	CENTER	K	KIPS (1000 POUNDS)	STD	STANDARD
CTRD	CENTERED	KP	KING POST	STIFF	STIFFENER
CY	CUBIC YARD	KSF	KIPS PER SQ FT	STL	STEEL
DBL	DOUBLE	L	ANGLE	STRUCT	STRUCTURAL
DEMO	DEMOLISH	L	LENGTH	SW	SHEARWALL
DET	DETAIL	LBS	POUNDS	SYM	SYMMETRICAL
DEV	DEVELOPMENT	LF	LINEAL FOOT	T&G	TONGUE AND GROOVE
DF	DOUGLAS FIR	LL	LIVE LOAD	TDS	TIE DOWN SYSTEM
DIA	DIAMETER	LLH	LONG LEG HORIZONTAL	TEMP	TEMPORARY
DIAG	DIAGONAL	LLV	LONG LEG VERTICAL	THK	THICKNESS
DIM	DIMENSION	LOC	LOCATE, LOCATION	THKD	THICKENED
DIST	DISTRIBUTED	LONG	LONGITUDINAL	THRD	THREADED
DL	DEAD LOAD	LSH	LONG SLOTTED HOLE	THRU	THROUGH
DN	DOWN	LSL	LAMINATED STRUCTURAL LUMBER	TOW	TOP OF WALL
DO	DITTO	LVL	LAMINATED VENEER LUMBER	TPL	TRIPLE
DP	DEEP/DEPTH	MAT	MATERIAL	TRANSV	TRANSVERSE
DS	DRAG STRUT	MAX	MAXIMUM	TYP	TYPICAL
DWGS	DRAWINGS	MB	MACHINE BOLT	UNO	UNLESS NOTED OTHERWISE
(E)	EXISTING	MECH	MECHANICAL	VERT	VERTICAL
EA	EACH	MFR	MANUFACTURE	VIF	VERIFY IN FIELD
EE	EACH END	MIN	MINIMUM	W	WIDE OR WIDTH
EF	EACH FACE	MISC	MISCELLANEOUS	w/	WITH
EL	ELEVATION	MRF	MOMENT RESISTANT FRAME	w/o	WITHOUT
ELEV	ELEVATOR	MTL	METAL	WD	WOOD
EMBED	EMBEDMENT	NO	NUMBER	WHS	WELDED HEADED STUD
ENGR	ENGINEER	NOM	NOMINAL	WP	WORKING POINT
EQ	EQUAL	NS	NEAR SIDE	WTS	WELDED THREADED STUD
EQUIP	EQUIPMENT	NTS	NOT TO SCALE	WWM	WELDED WIRE MESH
EQUIV	EQUIVALENT	oc	ON CENTER		

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GENERAL STRUCTURAL NOTES

S1.1
SCALE - NTS

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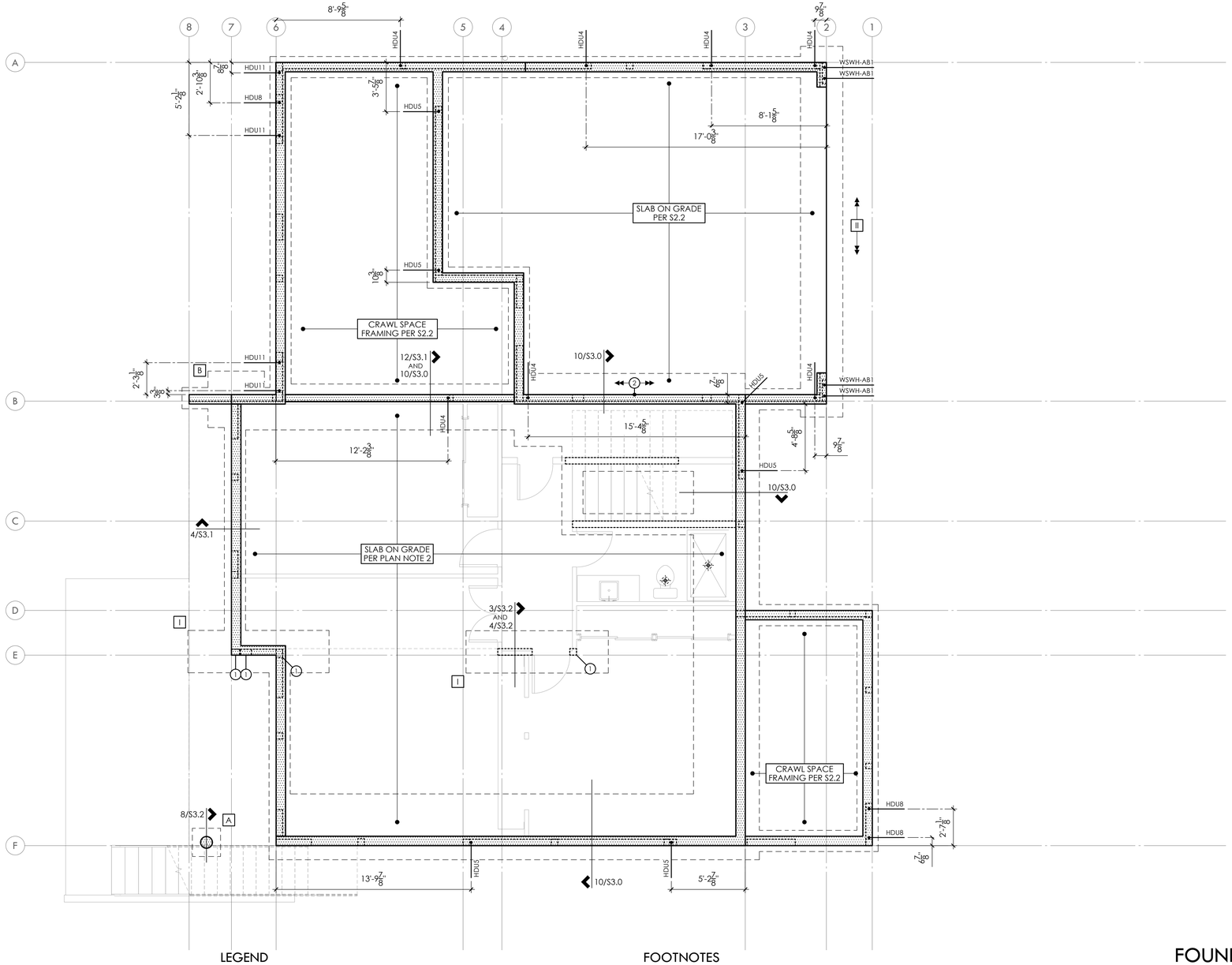

PLAN NOTES

1. BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, UNO.
2. SLAB ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH 6x6 W1.4 x W1.4 WWM CENTERED IN SLAB. PROVIDE RIGID INSULATION AT INTERIOR SPACES AND VAPOR BARRIER BELOW SLAB PER ARCHITECTURAL DRAWINGS OVER 4" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL PER SOILS ENGINEER.
3. REFER TO SHEET S3.0 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
4. STHD HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF STRAP. HDU HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF ANCHOR BOLT. DIMENSIONS ARE BASED OFF OF DRAWINGS PROVIDED BY THE ARCHITECT AND SHOULD BE VERIFIED.
5. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
6. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

LEGEND

- CONCRETE WALL BELOW
- STRUCTURAL WALL ABOVE
- SPAN AND EXTENTS
- HEADER/BEAM BELOW FRAMING - TYP
- (x) NUMBER OF BUILT UP STUDS
- PLUMBING PENETRATION ABOVE
- * HORIZ CS16 x 3'-0" - BEAM TO BEAM

FOOTNOTES

1. POST ABOVE TO BEAR DIRECTLY ON FOUNDATION w/ (2)LAYERS OF BUILDING PAPER AND (2)A35 TO BOTTOM PLATE
2. CONSTRUCT RETAINING WALL FOR H+2' PER 10/S3.0 FOR VEHICULAR SURCHARGE

FOUNDATION PLAN

BASEMENT WALLS SHOWN DASHED

N

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
A	2'-0" SQ x 8" DP	(3)#4 EW BOT
B	4'-0" SQ x 16" DP	(7)#4 EW BOT
I	CONT 3'-0" W x 10'-0" L x 16" DP	#5 AT 8"oc BOT
II	CONT 3'-0" W x 18" DP	#5 AT 6"oc TOP AND BOT

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FOUNDATION PLAN

S2.1

SCALE - 1/4" = 1'-0"

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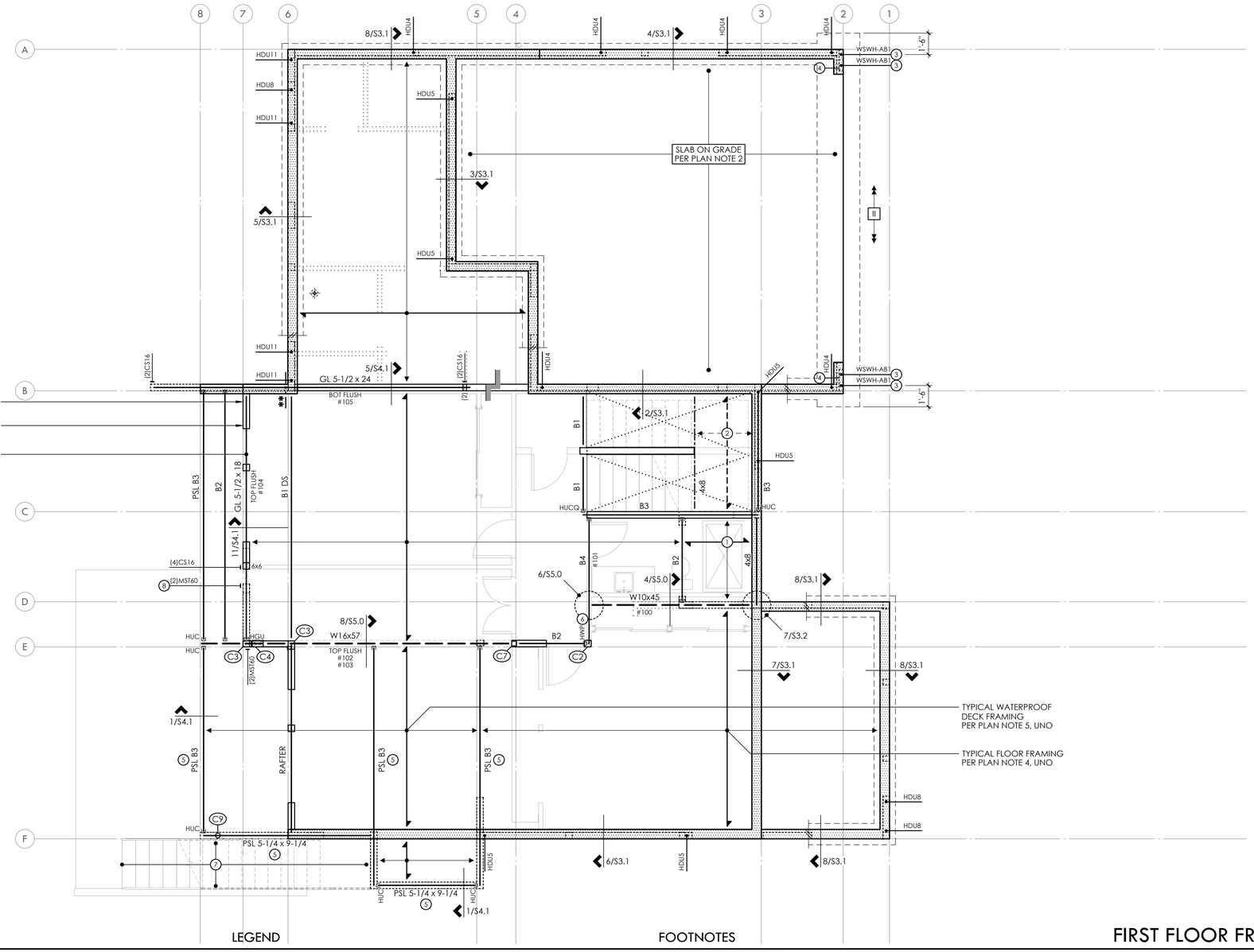

COLUMN SCHEDULE

MARK	SIZE	TOP	BOT	AT STEEL
C1	PSL 5-1/4 x 5-1/4	(2)A35	(2)A35	-
C2	PSL 5-1/4 x 5-1/4	ECCQ	Ⓐ	-
C3	PSL 5-1/4 x 7	-	Ⓐ	7/S5.0
C4	PSL 5-1/4 x 9-1/4	(2)A35	Ⓐ	-
C5	PSL 5-1/4 x 9-1/4	-	(2)A35	7/S5.0
C6	HSS 4x4x1/4	-	12/S5.0	12/S5.0
C7	HSS 4x4x1/4	-	3/S3.2 & 4/S3.2	12/S5.0
C8	HSS 4Ø x 0.22	3/S5.0	2/S5.0	-
C9	HSS 4Ø x 0.22	3/S5.0	8/S3.2	-

Ⓐ POST TO BEAR DIRECTLY ON FOUNDATION WALL w/ (2)LAYERS OF BUILDING PAPER AND (2)A35 TO SILL PLATE

PLAN NOTES

1. BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, UNO.
2. SLAB ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH 6x6 W1.4 x W1.4 WWM CENTERED IN SLAB. PROVIDE RIGID INSULATION AT INTERIOR SPACES AND VAPOR BARRIER BELOW SLAB PER ARCHITECTURAL DRAWINGS OVER 4" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL PER SOILS ENGINEER.
3. REFER TO SHEET S3.0 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
4. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER TJI's PER JOIST SCHEDULE, UNO. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
5. TYPICAL WATER PROOF DECK FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER LVL 1-3/4 x 11-7/8 AT 16"oc, UNO. JOISTS CAN BE TAPERED TO A MIN DEPTH OF 8".
6. GLUE AND NAIL FLOOR SHEATHING w/ 8d AT 6"oc AT FRAMED PANEL EDGES AND AT 12"oc IN THE FIELD, UNO.
7. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6, UNO.
8. ALL REQUIRED HEADERS ARE SHOWN ON PLAN AND SHALL BE (2)2x8, UNO. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
9. PROVIDE (2)BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
10. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
11. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
12. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
13. STHD HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF STRAP. HDU HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF ANCHOR BOLT. DIMENSIONS ARE BASED OFF OF DRAWINGS PROVIDED BY THE ARCHITECT AND SHOULD BE VERIFIED.
14. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
15. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

LEGEND

- CONCRETE WALL BELOW
- STRUCTURAL WALL BELOW
- STRUCTURAL WALL ABOVE
- SPAN AND EXTENTS
- HEADER/BEAM BELOW FRAMING - TYP
- (x) NUMBER OF BUILT UP STUDS
- PLUMBING PENETRATION ABOVE
- * HORIZ CS16 x 3'-0" - BEAM TO BEAM
- ** (2)HORIZ CS16 x 3'-0" - BEAM TO BEAM

FOOTNOTES

1. WATER PROOF DECK FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 2x10's AT 24"oc, UNO. JOISTS CAN BE TAPERED TO A MIN DEPTH OF 8"
2. LANDING FRAMING CONSISTS OF 2x8's AT 16"oc w/ LUS HANGER TO 2X LEDGER w/ (2)0.22"Ø x6" SDWS TIMBER SCREWS AT 16"oc INTO EA STUD
3. LOCATE ANCHOR BOLT FOR WSWH ABOVE USING WSWH-RT ANCHOR BOLT TEMPLATE - PROVIDE WSWH-HSR EXTENSION KIT AS REQUIRED TO EXTEND TO FOOTING BELOW w/ 12" EMBEDMENT
4. PROVIDE ADDITIONAL STEMWALL REINFORCEMENT AT WSWH PER MANUFACTURER'S REQUIREMENTS
5. NOTCH AND TAPER BEAM TO MATCH JOIST DEPTH - 8" MIN, NO OVERCUTS
6. OFFSET TOP FLANGE HANGER
7. PREFABRICATED STAIR ASSEMBLY BY OTHERS BY DEFERRED SUBMITTAL
8. INSTALL HOLDOWN STRAP TO FACE OF BEAM FOR FULL DEPTH OF BEAM

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
A	2'-0" SQ x 8" DP	(3)#4 EW BOT
B	4'-0" SQ x 16" DP	(7)#4 EW BOT
I	CONT 3'-0" W x 10'-0" L x 16" DP	#5 AT 8"oc BOT
II	CONT 3'-0" W x 18" DP	#5 AT 6"oc TOP AND BOT

FIRST FLOOR FRAMING PLAN

FIRST FLOOR WALLS SHOWN DASHED
BASEMENT WALLS SHOWN SOLID

FLUSH BEAM SCHEDULE

MARK	SIZE①	BRG STUDS	HANGER
B1	LSL 1-3/4 x 11-7/8	2	HUS1.81/10
B2	GL 3-1/2 x 11-7/8 OR LSL 3-1/2 x 11-7/8	2 2	HHUS410② HHUS410
B3	GL 5-1/2 x 11-7/8 OR PSL 5-1/4 x 11-7/8	3 3	HGUS5.50/10 HGUS5.50/10
B4	PSL 7 x 11-7/8	4	HGUS7.25/10

① ALL GLULAM BEAMS ARE 24F-V4 - UNO
② PROVIDE HUC410 WHERE REQUIRED - UNO

JOIST SCHEDULE①②

MAX LENGTH	SIZE	SPACING	FACE MOUNT HANGER	TOP FLANGE HANGER
18'-0"	11-7/8" TJI 110	16"oc	IUS1.81/11.88	ITS1.81/11.88
18'-9"	11-7/8" TJI 210	16"oc	IUS2.06/11.88	ITS2.06/11.88
19'-3"	11-7/8" TJI 230	16"oc	IUS2.37/11.88	ITS2.37/11.88
20'-0"	11-7/8" TJI 360	16"oc	IUS2.37/11.88	ITS2.37/11.88
22'-0"	11-7/8" TJI 560	16"oc	IUS3.56/11.88	ITS3.56/11.88

① DESIGN BASED ON DL=15 PSF, LL=40 PSF, Δ_{LL} < L/480, TJ-PRO RATING OF 40
② SHEETROCK CEILING APPLIED TO BOTTOM FACE OF JOISTS

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SEATTLE, WA 98104 - 206.789.6038

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MERCER ISLAND, WA

PROJECT NO	0329.2022.01.01
PROJECT MANAGER	WAC
DRAWN	JSD
ENGINEER	BLAKE RASSILYER
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REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

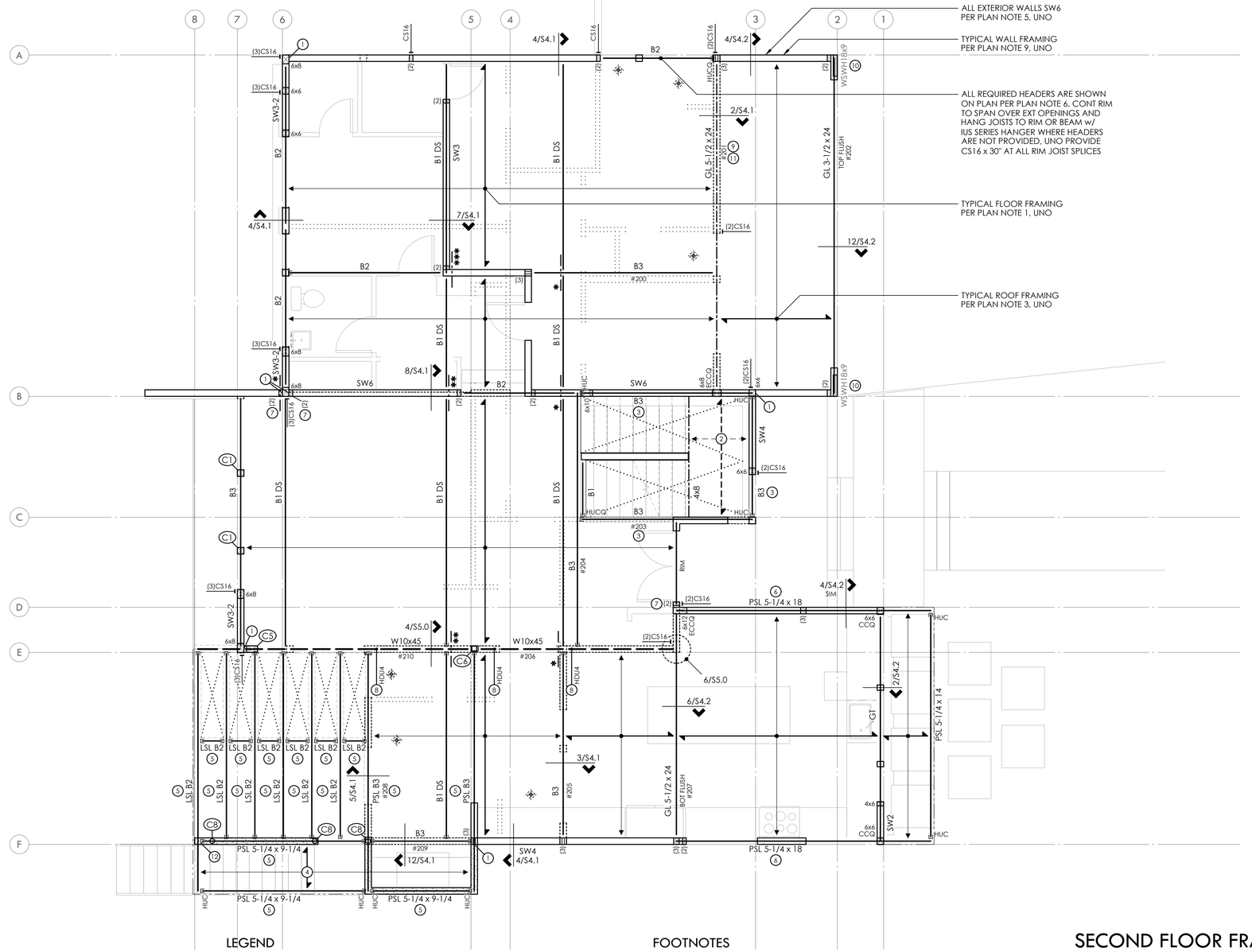
ARCH	JULIAN WEBER ARCH + DESIGN
	206.953.1305
CLIENT	COOMBES DEVELOPMENT

FIRST FLOOR FRAMING PLAN

S2.2

SCALE - 1/4" = 1'-0"

Printed by: kaleja
Printed Date: May 26, 2022 - 3:44pm



COLUMN SCHEDULE

MARK	SIZE	TOP	BOT	AT STEEL
C1	PSL 5-1/4 x 5-1/4	(2)A35	(2)A35	-
C2	PSL 5-1/4 x 5-1/4	ECCQ	Ⓐ	-
C3	PSL 5-1/4 x 7	-	Ⓐ	7/S5.0
C4	PSL 5-1/4 x 9-1/4	(2)A35	Ⓐ	-
C5	PSL 5-1/4 x 9-1/4	-	(2)A35	7/S5.0
C6	HSS 4x4x1/4	-	12/S5.0	12/S5.0
C7	HSS 4x4x1/4	-	3/S3.2 & 4/S3.2	12/S5.0
C8	HSS 4Ø x 0.22	3/S5.0	2/S5.0	-
C9	HSS 4Ø x 0.22	3/S5.0	8/S3.2	-

Ⓐ POST TO BEAR DIRECTLY ON FOUNDATION WALL w/ (2)LAYERS OF BUILDING PAPER AND (2)A35 TO SILL PLATE

PLAN NOTES

1. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER TJI's PER JOIST SCHEDULE, UNO. PROVIDE DBL JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
2. GLUE AND NAIL FLOOR SHEATHING w/ 8d AT 6"oc AT FRAMED PANEL EDGES AND OVER SHEAR-WALLS AND AT 12"oc IN FIELD, UNO.
3. TYPICAL ROOF FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER PRE-MANUFACTURED TRUSSES AT 24"oc, UNO. TOP CHORD OF TRUSS TO SLOPE A MIN OF 1/4" PER 1'-0". TRUSSES TO BE A MIN DEPTH OF 14". PROVIDE H2.5A AT EACH END OF ALL TRUSSES, AND H2.5A EACH SIDE OF ALL MULTIPLE TRUSSES, UNO. REFER TO ARCH DRAWINGS FOR TRUSS PROFILE.
4. NAIL ROOF SHEATHING w/ 8d AT 6"oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12"oc IN THE FIELD, UNO.
5. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6, UNO.
6. ALL REQUIRED HEADERS ARE SHOWN ON PLAN AND SHALL BE (2)2x8, UNO. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
7. PROVIDE (2)BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
8. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
9. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
10. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
11. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
12. DO NOT SCALE DRAWINGS. REFER TO ARCH DRAWINGS FOR ALL DIMENSIONS.

LEGEND

- STRUCTURAL WALL BELOW
- STRUCTURAL WALL ABOVE
- PARTIAL HEIGHT WALL FRAMED WITH 2x6's AT 16"oc w/ HGA10KT BOT EACH STUD
- SPAN AND EXTENTS
- HEADER/BEAM BELOW FRAMING - TYP
- (x) NUMBER OF BUILT UP STUDS
- PLUMBING PENETRATION ABOVE
- * HORIZ CS16 x 3'-0" - BEAM TO BEAM
- ** (2)HORIZ CS16 x 3'-0" - BEAM TO BEAM
- *** (3)HORIZ CS16 x 3'-0" - BEAM TO BEAM
- DS DRAG STRUT - NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF MEMBER
- GT GIRDER TRUSS

FOOTNOTES

1. SHEARWALL SHEATHING CONTINUOUS THRU WALL INTERSECTION
2. LANDING FRAMING CONSISTS OF 2x8's AT 16"oc w/ LUS HANGER TO 2X LEDGER w/ (2)0.22"Øx6" SDWS TIMBER SCREWS AT 16"oc INTO EA STUD
3. PROVIDE 0.22"Ø x 6" SDWS TIMBER SCREWS AT 16"oc THRU DOUBLE TOP PLATE INTO BEAM
4. TYPICAL ROOF FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 2x12's AT 24"oc, UNO. RAFTERS CAN BE TAPERED TO A MIN DEPTH OF 8"
5. NOTCH AND TAPER BEAM TO MATCH JOIST DEPTH - 8" MIN, NO OVERCUTS
6. NOTCH AND TAPER BEAM TO MATCH JOIST DEPTH - 14" MIN, NO OVERCUTS
7. PROVIDE 0.22"Ø x 6" SDWS TIMBER SCREWS AT 12"oc THRU DOUBLE STUDS INTO POST (6 TOTAL)
8. PROVIDE ALL-THREAD TO MATCH AB SIZE IN HOLDOWN SCHEDULE - WELD TO TOP OF STEEL BEAM PER DETAIL 1/S5.0
9. BEAM BOTTOM FLUSH WITH ROOF FRAMING
10. FIELD TRIM SIMPSON STRONG WALL HIGH STRENGTH WOOD SHEARWALL AS REQUIRED AND CONNECT TO BEAM w/ WSWH-TP AND WSWH-PS PER MANUFACTURER'S REQUIREMENTS AND IN ACCORDANCE w/ ESR-2652 - REFER DETAIL 10/S4.1
11. INSTALL 2x PLATES w/ 10d AT 4"oc FOR ENTIRE LENGTH OF BEAM AS REQUIRED
12. INSTALL HUCQ HANGER UPSIDE DOWN

SECOND FLOOR FRAMING PLAN

SECOND FLOOR WALLS SHOWN DASHED
FIRST FLOOR WALLS SHOWN SOLID

N

FLUSH BEAM SCHEDULE

MARK	SIZE①	BRG STUDS	HANGER
B1	LSL 1-3/4 x 11-7/8	2	HUS1.81/10
B2	GL 3-1/2 x 11-7/8 OR LSL 3-1/2 x 11-7/8	2 2	HHUS410② HHUS410
B3	GL 5-1/2 x 11-7/8 OR PSL 5-1/4 x 11-7/8	3 3	HGUS5.50/10 HGUS5.50/10
B4	PSL 7 x 11-7/8	4	HGUS7.25/10

① ALL GLULAM BEAMS ARE 24F-V4 - UNO
② PROVIDE HUC410 WHERE REQUIRED - UNO

JOIST SCHEDULE①②

MAX LENGTH	SIZE	SPACING	FACE MOUNT HANGER	TOP FLANGE HANGER
18'-0"	11-7/8" TJI 110	16"oc	IUS1.81/11.88	ITS1.81/11.88
18'-9"	11-7/8" TJI 210	16"oc	IUS2.06/11.88	ITS2.06/11.88
19'-3"	11-7/8" TJI 230	16"oc	IUS2.37/11.88	ITS2.37/11.88
20'-0"	11-7/8" TJI 360	16"oc	IUS2.37/11.88	ITS2.37/11.88
22'-0"	11-7/8" TJI 560	16"oc	IUS3.56/11.88	ITS3.56/11.88

① DESIGN BASED ON DL=15 PSF, LL=40 PSF, Δ_{LL} < L/480. TJ-PRO RATING OF 40
② SHEETROCK CEILING APPLIED TO BOTTOM FACE OF JOISTS

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6221 83RD PL SE
MERCER ISLAND, WA

MARC J. MALSAM — STATE OF WASHINGTON — 41306 — REGISTERED STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT NO 0329.2022.01.01
PROJECT MANAGER WAC
DRAWN JSD
ENGINEER BLAKE RASSILYER
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REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

ARCH JULIAN WEBER ARCH + DESIGN
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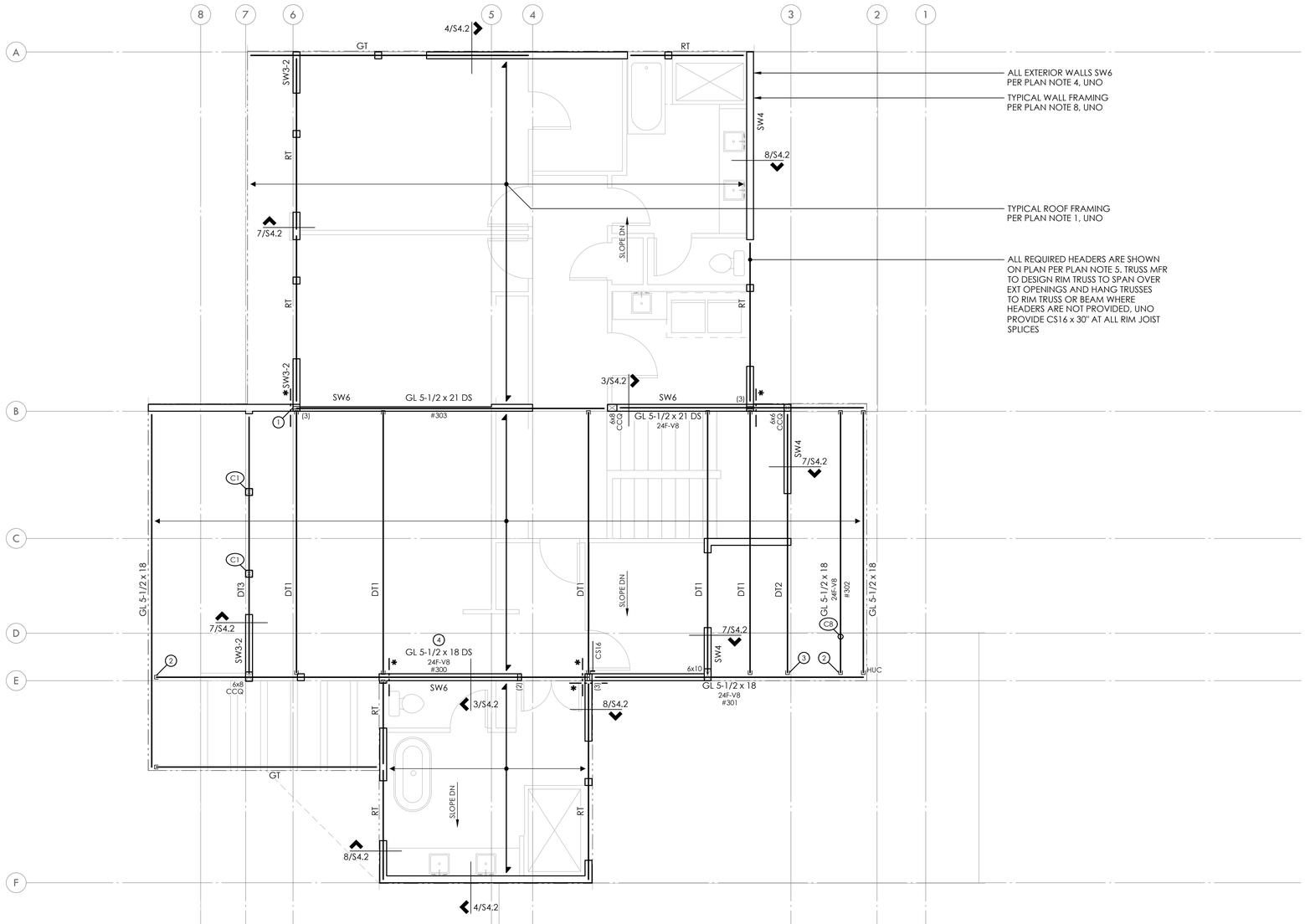
CLIENT COOMBES DEVELOPMENT

SECOND FLOOR FRAMING PLAN

S2.3

SCALE - 1/4" = 1'-0"

Printed By: tobyj
Printed Date: Friday, May 26, 2022 - 3:44pm



PLAN NOTES

1. TYPICAL ROOF FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER PRE-MANUFACTURED TRUSSES AT 24"oc, UNO. TOP CHORD OF TRUSS TO SLOPE A MIN OF 1/4" PER 1'-0". TRUSSES TO BE A MIN DEPTH OF 14". PROVIDE H2.5A AT EACH END OF ALL TRUSSES, AND H2.5A EACH SIDE OF ALL MULTIPLE TRUSSES, UNO. REFER TO ARCH DRAWINGS FOR TRUSS PROFILE.
2. TYPICAL CRICKET ROOF FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 2x SLEEPERS AT 24"oc. TOENAIL SLEEPERS w/ (2)10d AT 24"oc OVER TYPICAL ROOF FRAMING. PROVIDE VENTING HOLES BELOW CRICKET ROOF FRAMING AS REQUIRED.
3. NAIL ROOF SHEATHING w/ 8d AT 6" oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12"oc IN FIELD, UNO.
4. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6, UNO.
5. ALL REQUIRED HEADERS ARE SHOWN ON PLAN AND SHALL BE (2)2x8, UNO. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
6. PROVIDE (2)BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS, BEAMS, AND GIRDER TRUSSES 6'-0" IN LENGTH AND OVER, UNO.
7. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
8. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
9. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
10. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
11. DO NOT SCALE DRAWINGS. REFER TO ARCH DRAWINGS FOR ALL DIMENSIONS.

LEGEND

	STRUCTURAL WALL BELOW
	SPAN AND EXTENTS
	HEADER/BEAM BELOW FRAMING - TYP
SLOPE DN	DIRECTION OF SLOPE
(x)	NUMBER OF BUILT UP STUDS
	HORIZ CS16 x 3'-0" - TRUSS TO TRUSS/TOP PLATE TO TOP PLATE
DS	DRAG STRUT - NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF MEMBER
DT	DRAG TRUSS - NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF TRUSS
GT	GIRDER TRUSS
RT	RIM TRUSS

FOOTNOTES

1. SHEARWALL SHEATHING CONTINUOUS THRU WALL INTERSECTION
2. INSTALL HUCQ HANGER UPSIDE DOWN
3. HANGER PER TRUSS MANUFACTURER
4. INSTALL 2x PLATES w/ 10d AT 4"oc FOR ENTIRE LENGTH OF BEAM AS REQUIRED TO FLUSH UNDERSIDE OF ROOF SHEATHING

DRAG TRUSS SCHEDULE

MARK	LOAD TRANSFER ①②
DT1	1.0 KIPS
DT2	1.5 KIPS
DT3	2.0 KIPS

① TRUSS MFR TO DESIGN TRUSS TO TRANSFER LISTED LOAD FROM TOP TO BOT CHORD

② NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF MEMBER

ROOF FRAMING PLAN

SECOND FLOOR WALLS SHOWN SOLID

N

COLUMN SCHEDULE

MARK	SIZE	TOP	BOT	AT STEEL
C1	PSL 5-1/4 x 5-1/4	(2)A35	(2)A35	-
C2	PSL 5-1/4 x 5-1/4	ECCQ	Ⓐ	-
C3	PSL 5-1/4 x 7	-	Ⓐ	7/S5.0
C4	PSL 5-1/4 x 9-1/4	(2)A35	Ⓐ	-
C5	PSL 5-1/4 x 9-1/4	-	(2)A35	7/S5.0
C6	HSS 4x4x1/4	-	12/S5.0	12/S5.0
C7	HSS 4x4x1/4	-	3/S3.2 & 4/S3.2	12/S5.0
C8	HSS 4Ø x 0.22	3/S5.0	2/S5.0	-
C9	HSS 4Ø x 0.22	3/S5.0	8/S3.2	-

Ⓐ POST TO BEAR DIRECTLY ON FOUNDATION WALL w/ (2)LAYERS OF BUILDING PAPER AND (2)A35 TO SILL PLATE

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MARC J. MALSAM
STATE OF WASHINGTON
41206
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT NO	0329.2022.01.01
PROJECT MANAGER	WAC
DRAWN	JSD
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	BLAKER@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

ARCH	JULIAN WEBER ARCH + DESIGN
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CLIENT	COOMBES DEVELOPMENT

ROOF FRAMING PLAN

S2.4

SCALE - 1/4" = 1'-0"

Plotted By: Ilaby
Plotted Date/Time: Jul 26, 2022 - 3:44pm

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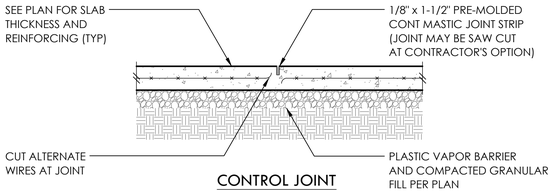
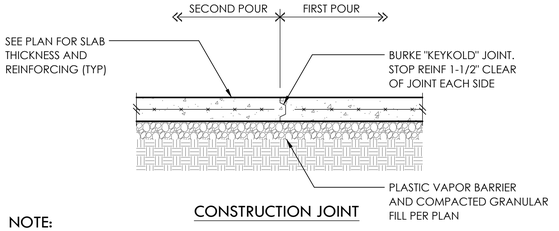
MERCER ISLAND, WA



CONTROL JOINT

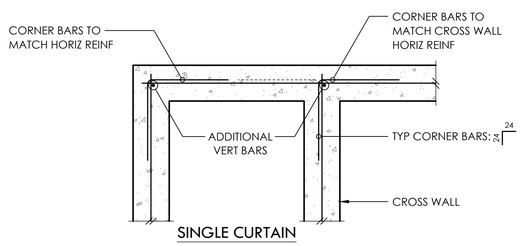


CONSTRUCTION JOINT

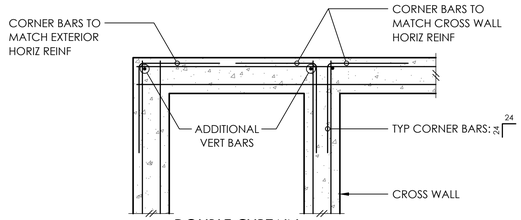
NOTE:

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 200 SQUARE FEET OR LESS. AREAS TO BE APPROX SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

TYPICAL SLAB JOINTS 3

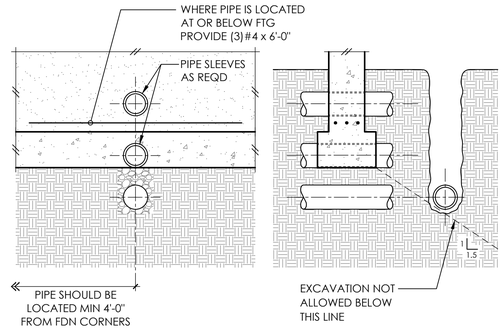


SINGLE CURTAIN

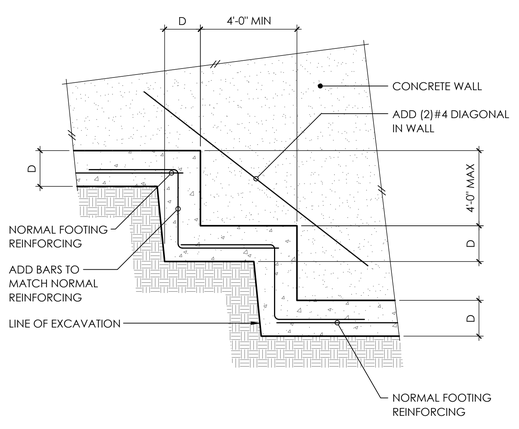


DOUBLE CURTAIN

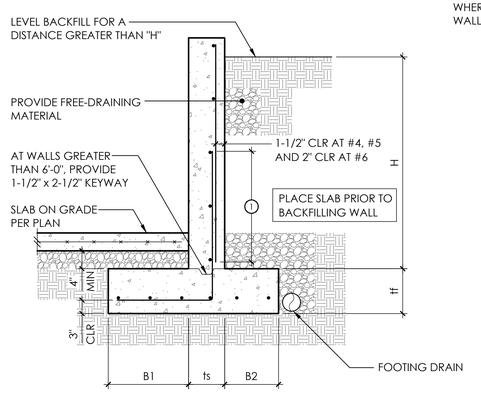
TYP CORNER BARS AT CONCRETE WALLS AND FTGS 4



PIPE AND TRENCH LOCATIONS 7



TYPICAL STEPPED FOOTING 8



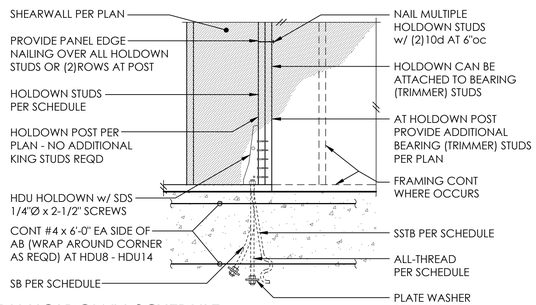
① LAP SPLICE - #4 = 32", #5 = 40", #6 = 48"

NOTE:

WHERE RETAINED SOIL SUPPORTS A DRIVE SURFACE WITHIN A DISTANCE 'H' FROM THE FACE OF CONCRETE WALL, PROVIDE FOOTING, WALL, AND REINFORCING FOR A WALL 2'-0" HIGHER THAN ACTUAL 'H'(H+2)

H	B1	ts	B2	tf	STEM REINF		FTG REINF
					VERT	HORIZ	LONG
4'-0"	1'-6"	6"	5"	9"	#4 AT 18"oc	#4 AT 16"oc	(3)#4
	1'-3"	8"	5"	9"	#4 AT 18"oc	#4 AT 12"oc	(3)#4
5'-0"	1'-9"	6"	9"	10"	#4 AT 18"oc	#4 AT 16"oc	(4)#4
	1'-9"	8"	5"	10"	#4 AT 18"oc	#4 AT 12"oc	(4)#4
6'-0"	2'-3"	6"	9"	10"	#4 AT 16"oc	#4 AT 16"oc	(4)#4
	2'-0"	8"	9"	10"	#4 AT 18"oc	#4 AT 12"oc	(4)#4
7'-0"	2'-3"	8"	1'-0"	10"	#4 AT 11"oc	#4 AT 12"oc	(5)#4
8'-0"	3'-0"	8"	1'-0"	12"	#4 AT 9"oc	#4 AT 12"oc	(7)#4
9'-0"	3'-6"	8"	1'-0"	12"	#5 AT 12"oc	#4 AT 12"oc	(5)#5
10'-0"	3'-6"	8"	1'-6"	15"	#5 AT 10"oc	#4 AT 12"oc	(7)#5
11'-0"	4'-0"	10"	1'-6"	15"	#6 AT 12"oc	#4 AT 9"oc	(7)#5
12'-0"	4'-6"	10"	1'-6"	15"	#6 AT 9"oc	#4 AT 9"oc	(8)#5

RETAINING WALL SCHEDULE w/ SLAB 10

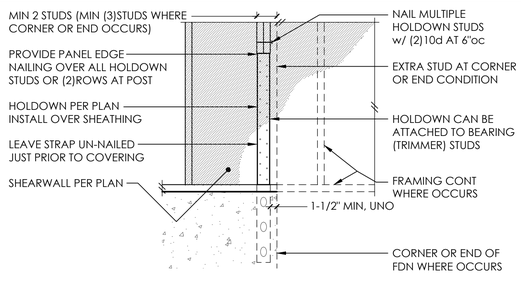


HDU HOLDOWN SCHEDULE

PLAN MARK	AT STEMWALL		AT FOOTING①②			HD POST③	
	AB	EMBED	ALL-THREAD	WASHER	EMBED	4x WALL	6x WALL
HDU2	5/8"Ø - SSTB16(L)	12-5/8"	5/8"Ø	1-3/4"SQ x 1/2	9"	(2)2x4	(2)2x6
HDU4	5/8"Ø - SB5/8 x 24	18"	5/8"Ø	1-3/4"SQ x 1/2	9"	(2)2x4	(2)2x6
HDU5	5/8"Ø - SB5/8 x 24	18"	5/8"Ø	1-3/4"SQ x 1/2	9"	(2)2x4	(2)2x6
HDU8	7/8"Ø - SB7/8 x 24	18"	7/8"Ø	2-1/2"SQ x 1/2	12"	4x6	6x6
HDU11	1"Ø - SB1 x 30④	24"	1"Ø	3"SQ x 5/8	12"	4x8	6x6
HDU14	-	-	1"Ø	3"SQ x 5/8	12"	4x12	6x8

① ALL HOLDOWN ANCHOR BOLTS THAT NEED TO BE EMBEDDED INTO FOOTING ARE SPECIFICALLY SHOWN ON PLAN
② A307 ALL-THRD w/ PLATE WASHER PER SCHEDULE AND DOUBLE NUT BOT OR EQUIVALENT SIMPSON PAB
③ MINIMUM SIZE OF POST UNO ON FRAMING PLANS
④ REQUIRES MINIMUM 8" THICK CONCRETE WALL

11



LSTHD/STHD HOLDOWN SCHEDULE

PLAN MARK	NAILS①	HD POST②
LSTHD8(RJ)	(20)16d SINKERS	DBL STUD
STHD10(RJ)	(28)16d SINKERS	DBL STUD
STHD14(RJ)	(30)16d SINKERS	DBL STUD

① 16d SINKERS = 0.148"Ø x 3-1/4"
② MINIMUM SIZE OF POST UNO ON FRAMING PLANS

12

MARC J. MALSAM — STATE OF WASHINGTON — 41206 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT NO	0329.2022.01.01
PROJECT MANAGER	WAC
DRAWN	JSD
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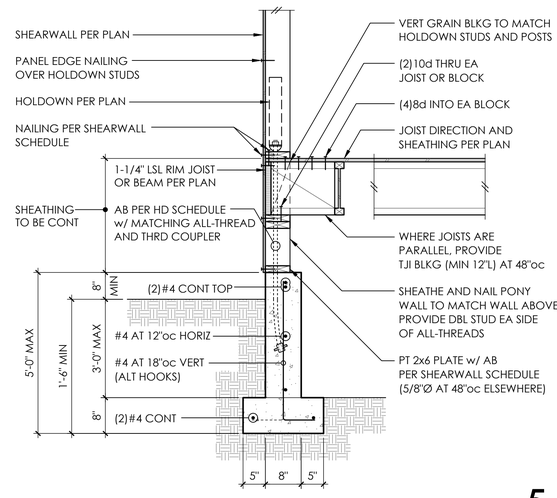
REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

ARCH	JULIAN WEBER ARCH + DESIGN
	206.953.1305
CLIENT	COOMBES DEVELOPMENT

TYPICAL CONCRETE DETAILS

S3.0
SCALE - 3/4" = 1'-0"

Printed by: bobp
Printed Date: May 26, 2022 - 3:44pm



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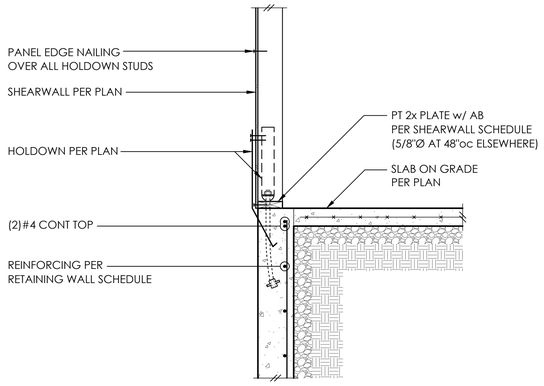

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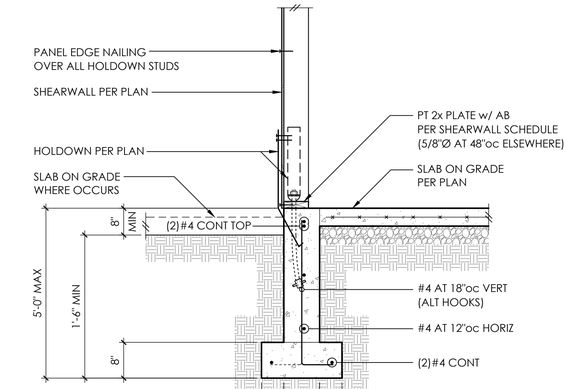

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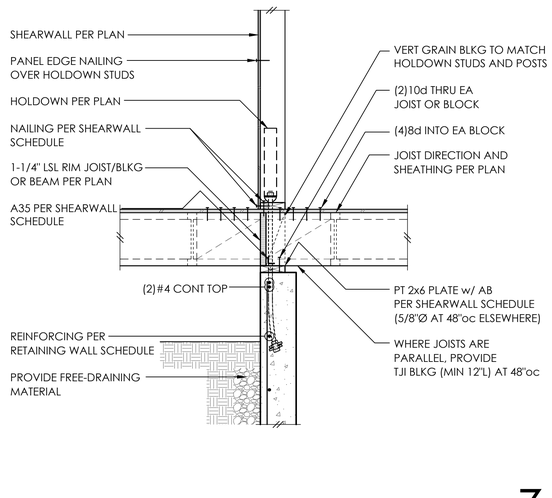

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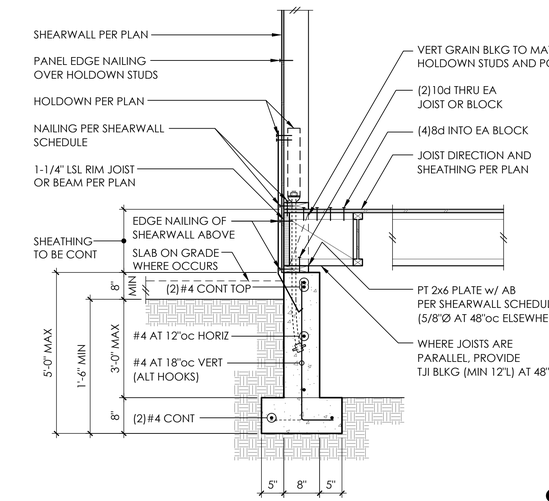

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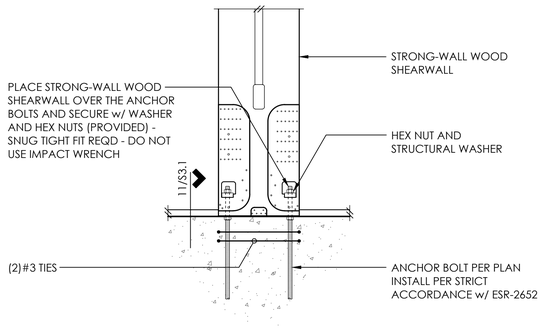
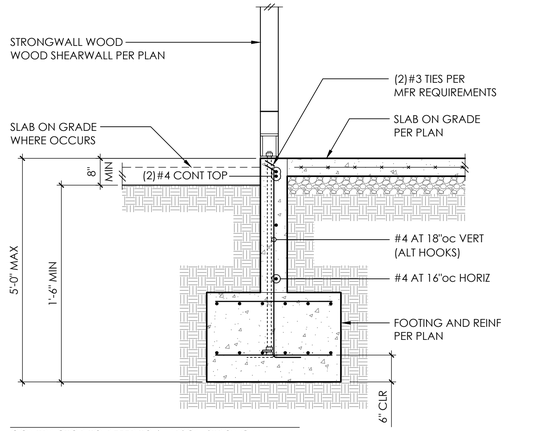


CONTRACTOR TO REFER TO SIMPSON STRONG WALL SHOP DRAWINGS AND PRODUCT INSTALLATION GUIDELINES TO ENSURE INSTALLATION CONFORMANCE

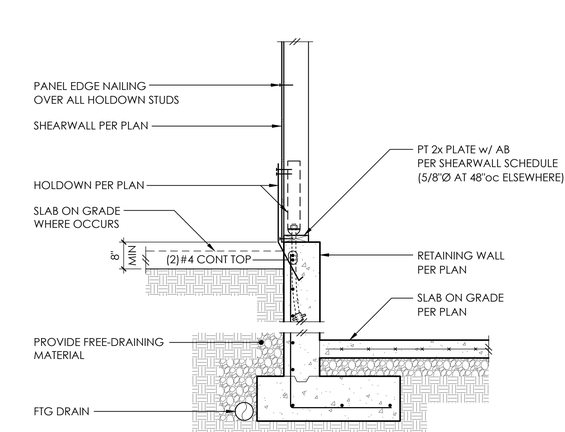
10



CONTRACTOR TO REFER TO SIMPSON STRONG WALL SHOP DRAWINGS AND PRODUCT INSTALLATION GUIDELINES TO ENSURE INSTALLATION CONFORMANCE

INSTALL SIMPSON STRONGWALL AND ANCHORAGE IN STRICT ACCORDANCE w/ ESR-2652

11



12

MALSAM TSANG STRUCTURAL ENGINEERING
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6221 83RD PL SE
MERCER ISLAND, WA

MARC J. MALSAM
STATE OF WASHINGTON
41206
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT NO	0329.2022.01.01
PROJECT MANAGER	WAC
DRAWN	JSD
ENGINEER	BLAKE RASSILYER
	206.602.5452
	BLAKER@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

ARCH	JULIAN WEBER ARCH + DESIGN
	206.953.1305
CLIENT	COOMBES DEVELOPMENT

CONCRETE DETAILS

S3.1
SCALE - 3/4" = 1'-0"

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Printed Date: May 26, 2022 - 3:44pm

1

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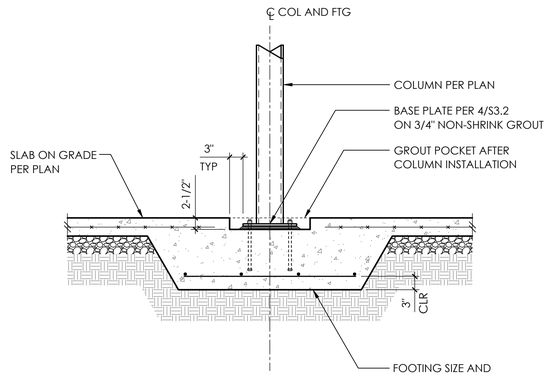

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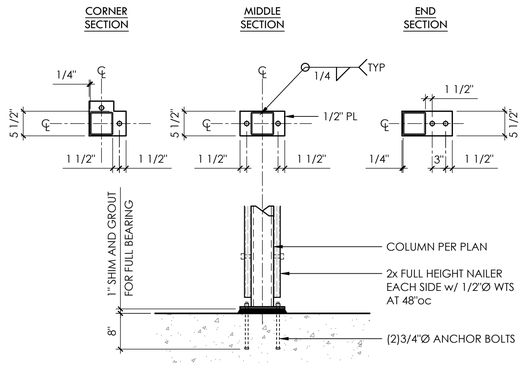

BASEPLATE - HSS COLUMN 4

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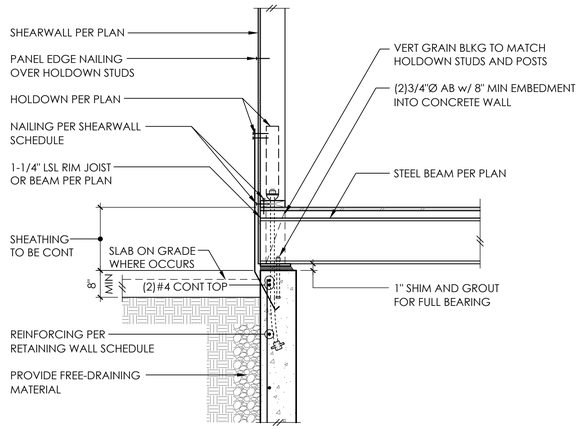

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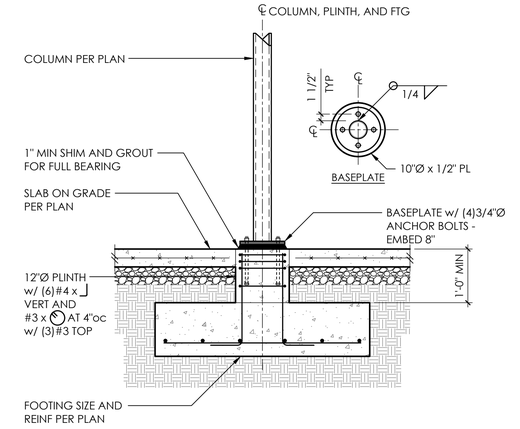

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REV	DESCRIPTION	DATE
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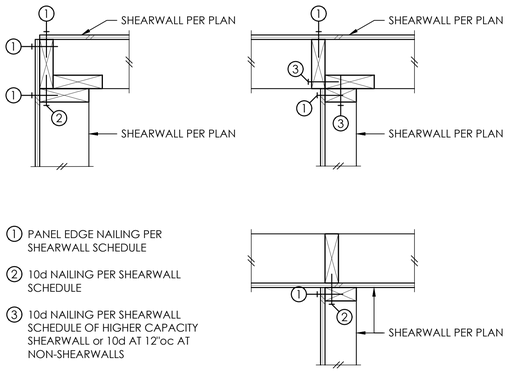
CLIENT	COOMBES DEVELOPMENT

CONCRETE DETAILS

S3.2

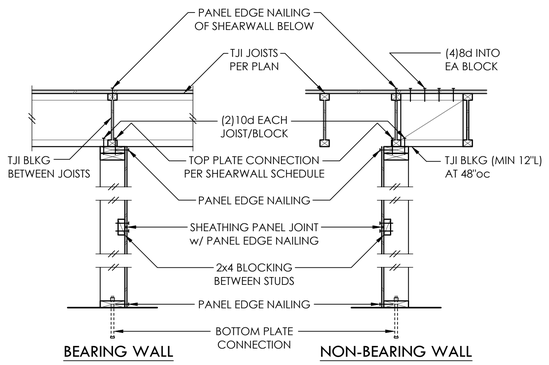
SCALE - 3/4" = 1'-0"



1. PANEL EDGE NAILING PER SHEARWALL SCHEDULE
2. 10d NAILING PER SHEARWALL SCHEDULE
3. 10d NAILING PER SHEARWALL SCHEDULE OF HIGHER CAPACITY SHEARWALL or 10d AT 12"oc AT NON-SHEARWALLS

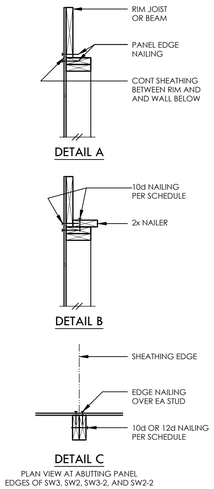
SCALE: 1-1/2" = 1'-0"

TYPICAL SHEARWALL INTERSECTIONS 1



NOTE:
SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS, UNO

TYPICAL SHEARWALL CONSTRUCTION 2



PLAN VIEW AT ABUTTING PANEL EDGES OF SW3, SW2, SW3-2, AND SW2-2

SHEARWALL SCHEDULE①②③④⑤⑥⑦

MARK	SHEATHING	PANEL EDGE NAILING	TOP PLATE CONNECTION TJI	TOP PLATE CONNECTION RIM/BEAM ⑤	BASE PLATE CONNECTION AT WOOD	BASE PLATE CONNECTION AT CONCRETE
SW6	1/2" PLY or 7/16" OSB	8d AT 6"oc	10d AT 6"oc	A35 AT 30"oc ⑦	12d AT 6"oc	5/8"Ø AB AT 48"oc
SW4	1/2" PLY or 7/16" OSB	8d AT 4"oc	10d AT 4"oc	A35 AT 18"oc ⑦	12d AT 4"oc	5/8"Ø AB AT 42"oc
SW3 ④	1/2" PLY or 7/16" OSB	8d AT 3"oc	(2)ROWS 10d AT 6"oc	A35 AT 16"oc ⑦	(2)ROWS 12d AT 6"oc	5/8"Ø AB AT 36"oc
SW2 ④	1/2" PLY or 7/16" OSB	8d AT 2"oc	(2)ROWS 10d AT 4"oc	A35 AT 12"oc ⑦	(2)ROWS 12d AT 4"oc	5/8"Ø AB AT 24"oc
SW3-2④	1/2" PLY or 7/16" OSB EA SIDE	8d AT 3"oc EA SIDE	N/A	A35 AT 8"oc	(2)ROWS 12d AT 3"oc	5/8"Ø AB AT 18"oc
SW2-2④	1/2" PLY or 7/16" OSB EA SIDE	8d AT 2"oc EA SIDE	N/A	A35 AT 6"oc	(3)ROWS 12d AT 3"oc	5/8"Ø AB AT 12"oc

① BLOCK PANEL EDGES WITH 2x4 LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d AT 12"oc.

② 8d NAILS SHALL BE 0.131"Ø x 2-1/2", 10d NAILS SHALL BE 0.131"Ø x 3", AND 12d NAILS SHALL BE 0.131"Ø x 3-1/4".

③ EMBED ANCHOR BOLTS AT LEAST 7". ALL BOLTS SHALL HAVE 3" x 3" x 0.229" PLATE WASHERS. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) w/ SHEATHING. AT 2x6 SW3-2 AND SW2-2 WALLS, PROVIDE 4-1/2" x 3" x 0.229" PLATE WASHERS CENTERED ON PLATE.

④ 3x STUDS OR DBL STUDS NAILED TOGETHER w/ 10d OR 12d NAILING IS REQD AT ABUTTING PANEL EDGES OF SW3, SW2, SW3-2, AND SW2-2. REFER TO DETAIL C. WHERE 3x STUDS ARE USED, STAGGER NAILS AT ADJOINING PANEL EDGES. ABUTTING PANEL EDGES SHALL BE OFFSET EACH SIDE OF WALL AT SW3-2 AND SW2-2.

⑤ TWO STUDS MINIMUM OR POST PER PLAN ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.

⑥ ALL EXTERIOR WALLS SHALL BE SW6, UNLESS NOTED OTHERWISE.

⑦ NAILS SHALL NOT BE SPACED LESS THAN 3/8" FROM EDGES OF SHEATHING. SHEATHING NAILS SHALL BE DRIVEN SO THEIR HEADS ARE FLUSH WITH SHEATHING (NOT COUNTERSUNK).

⑧ LTP4's INSTALLED OVER SHEATHING WITH 8d (0.131"Ø x 2-1/2") NAILS MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.

⑨ A35's OR LTP4's MAY BE ELIMINATED PER DETAIL A OR DETAIL B.

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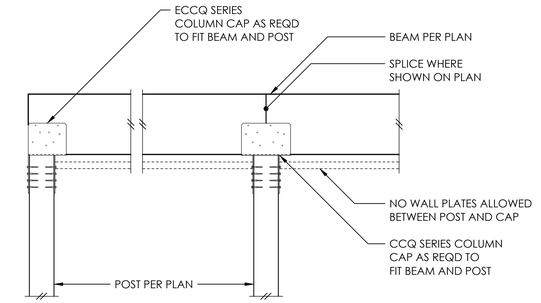

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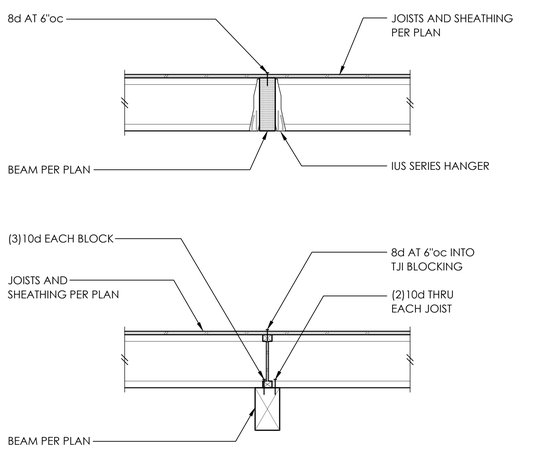
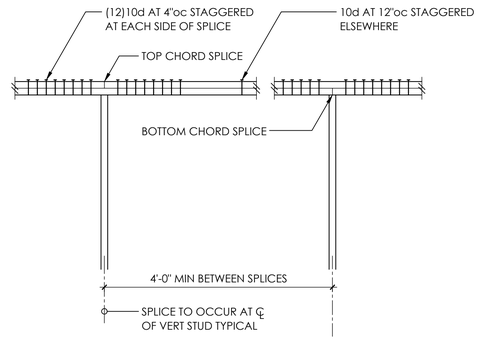


TYPICAL FLUSH AND DROPPED BEAM 6

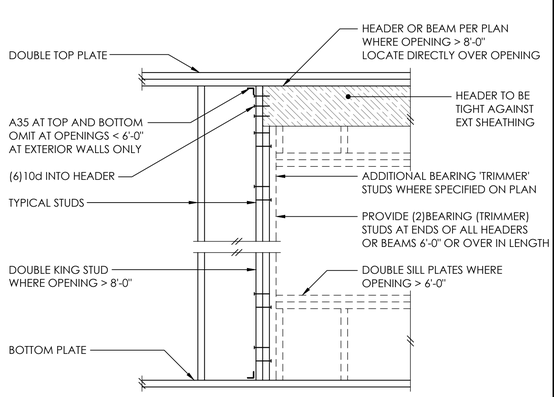


NOTE:
1. NAILING AT TOP PLATE SPLICES MAY BE ELIMINATED w/ CS16 x 30"

2. WHERE VERTICAL PENETRATIONS THRU PLATE EXCEED 1" FOR A 4x WALL OR 3" FOR A 6x WALL - PROVIDE CS16 x 30" AT TOP PLATE

3. MINIMUM EDGE DISTANCE FOR VERTICAL PENETRATIONS THRU TOP PLATE IS 1-1/4"

AT SHEARWALLS
TYPICAL TOP PLATE SPLICE 7



TYPICAL HEADER SUPPORT 8

Plotted By: kelp
Plotted Date: May 26, 2022 - 3:44pm

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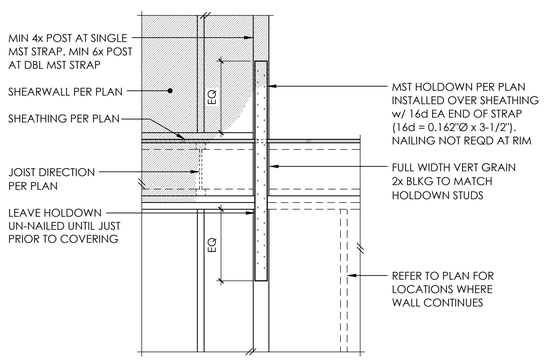
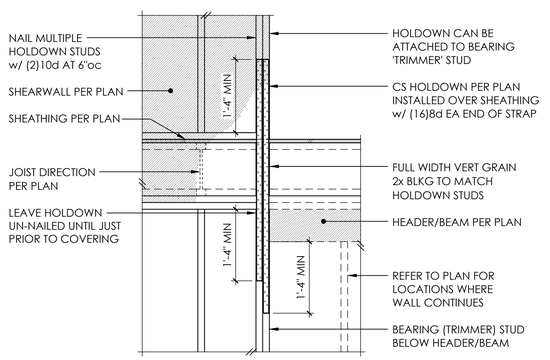


TYPICAL MST HOLDOWN 11



TYPICAL CS16 HOLDOWN 12

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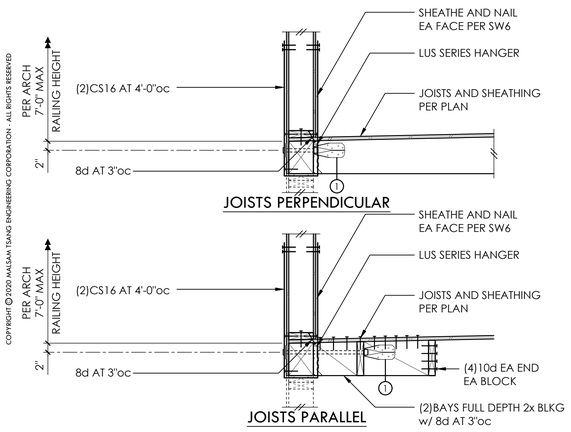
REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

ARCH	JULIAN WEBER ARCH + DESIGN
	206.953.1305
CLIENT	COOMBES DEVELOPMENT

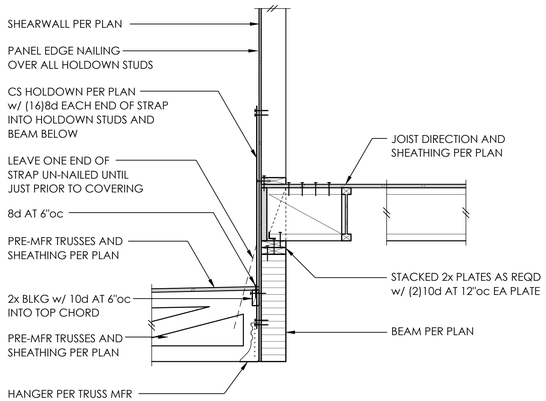
TYPICAL WOOD FRAMING DETAILS

S4.0
SCALE - 3/4" = 1'-0"



1 DTT2Z TOP w/ 1/2"Ø THREADED ROD w/ 3" SQ WASHER AT 2'-0"oc - ATTACH TO SECOND BAY OF BLKG AT PARALLEL CASE

1



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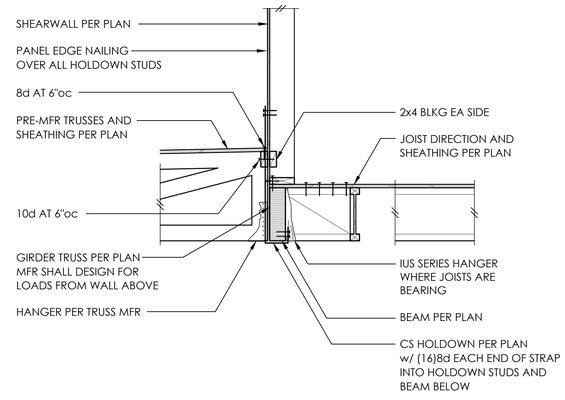

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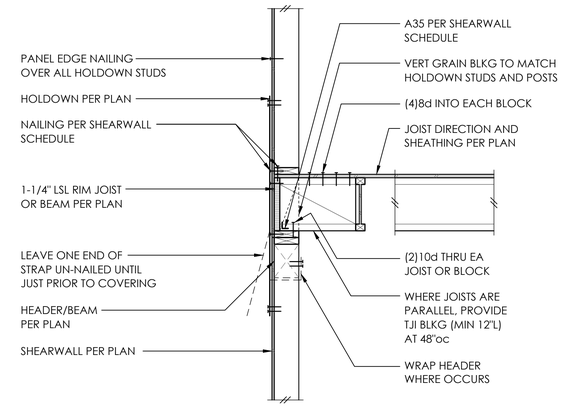

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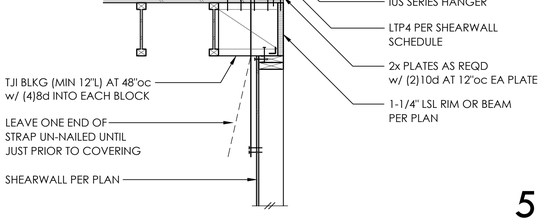

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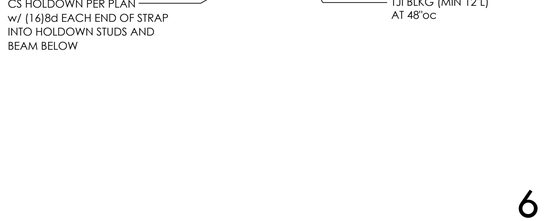

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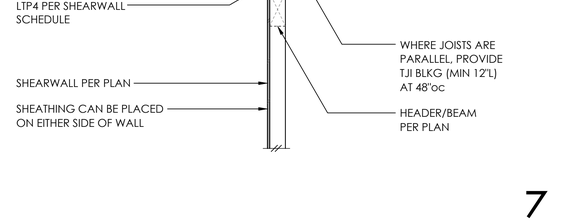

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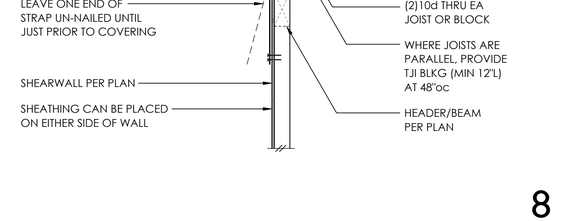

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INSTALL SIMPSON STRONGWALL AND ANCHORAGE IN STRICT ACCORDANCE w/ ESR-2652

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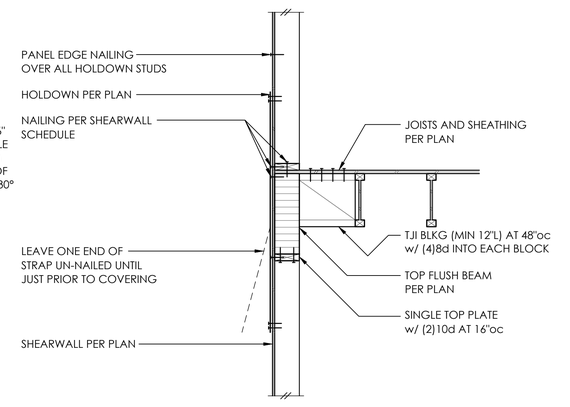

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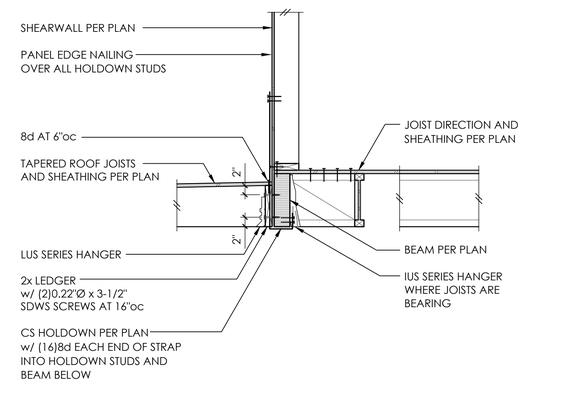

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MERCER ISLAND, WA

MARC J. MALSAM — STATE OF WASHINGTON — 41596 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT NO	0329.2022.01.01
PROJECT MANAGER	WAC
DRAWN	JSD
ENGINEER	BLAKE RASSILYER
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	BLAKER@MALSAM-TSANG.COM

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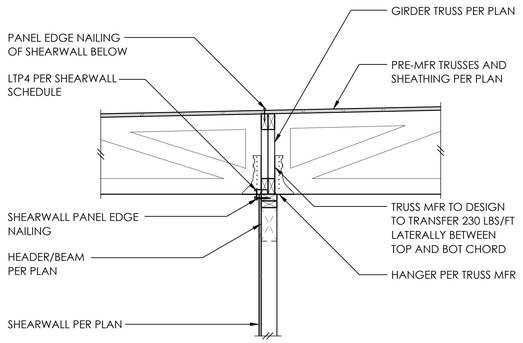
WOOD FRAMING DETAILS

S4.1

SCALE - 3/4" = 1'-0"



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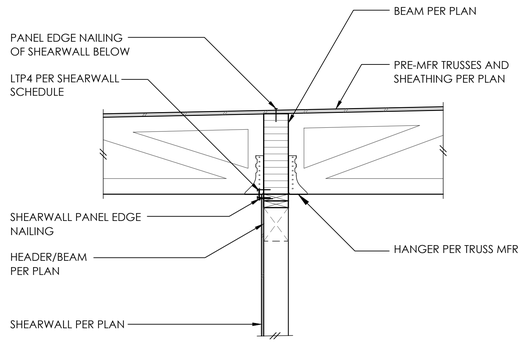

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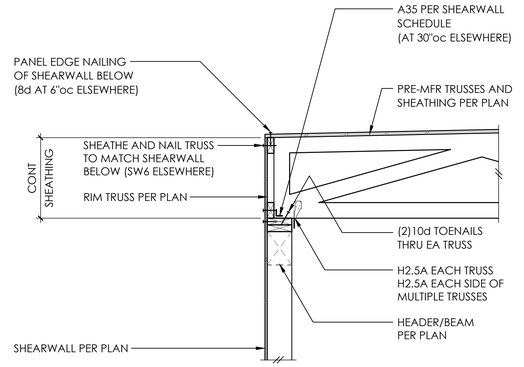

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FOR CALLOUTS IN COMMON REFER 4/S4.2

12

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PROJECT MANAGER WAC
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REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

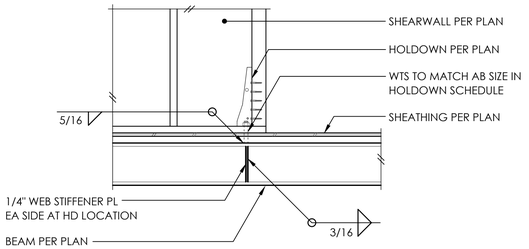
ARCH JULIAN WEBER ARCH + DESIGN
206.953.1305
CLIENT COOMBES DEVELOPMENT

WOOD FRAMING DETAILS

S4.2

SCALE - 3/4" = 1'-0"

Plotted By: kaap
Plotted Date: May 26, 2022 - 3:44pm



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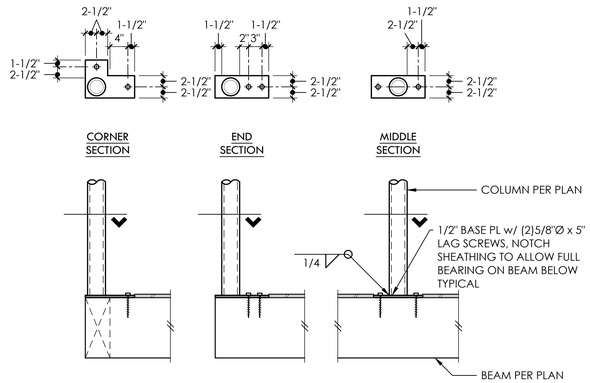
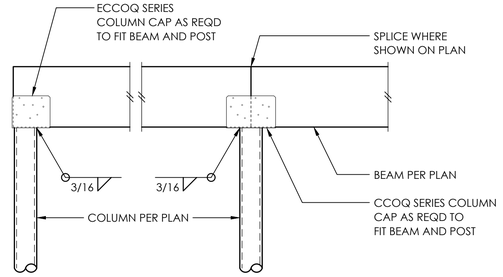
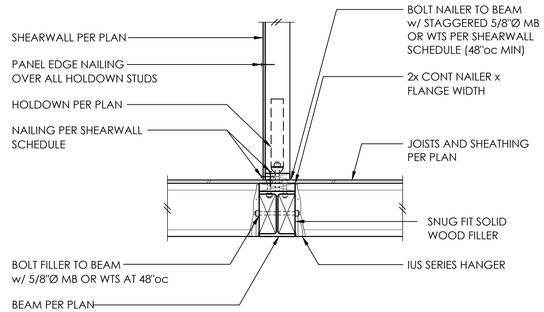


TYPICAL STEEL COLUMN TO WOOD BEAM BELOW 2

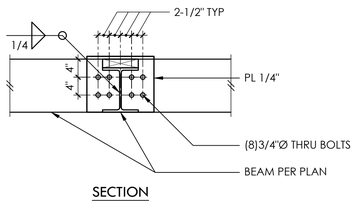


TYPICAL CCOQ / ECCOQ COLUMN CAP 3



4

PLAN VIEW



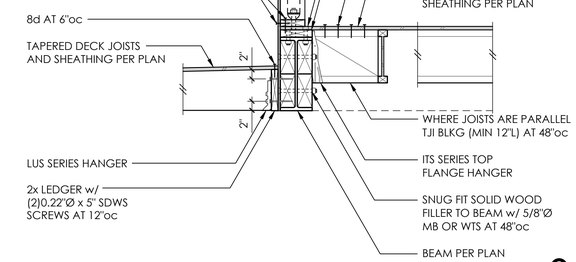
SECTION

5

TYPICAL STEEL TO WOOD BEAM CONNECTION 6

ELEVATION
SCALE: 1-1/2" = 1'-0"

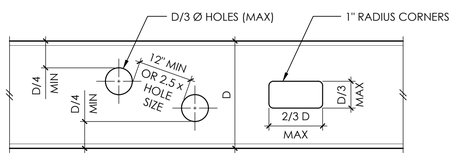
7



8

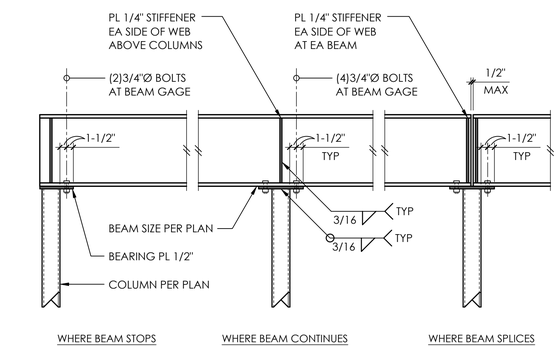
9

10



1. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL BEAM PENETRATIONS w/ MECHANICAL DRAWINGS. ALL PENETRATIONS LARGER THAN 2"Ø SHALL BE SHOWN ON SHOP DRAWINGS OR SKETCHES AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. FIELD CUTTING NOT PERMITTED WITHOUT APPROVAL.
2. OPENINGS MAY OCCUR IN MIDDLE HALF OF BEAM LENGTH ONLY.
3. NO CUTTING MAY OCCUR IN TOP OR BOTTOM QUARTER OF BEAM DEPTH.
4. ADJACENT OPENINGS MUST BE SPACED AT THE GREATER OF, 12" OR 2.5 x LARGER OPENING SIZE, EDGE TO EDGE.
5. MAXIMUM SIZES OF OPENINGS SHALL BE D/3 Ø OR D/3 x 2D/3 AS SHOWN.
6. NO OPENINGS SHALL OCCUR WITHIN 12" OF AN ADJACENT BEAM CONNECTION.
7. REQUIRED OPENINGS NOT MEETING ABOVE CRITERIA SHALL BE SUBMITTED TO ENGINEER FOR REINFORCING DESIGN.

TYPICAL STEEL BEAM PENETRATIONS 11



WHERE BEAM STOPS WHERE BEAM CONTINUES WHERE BEAM SPLICES

NOTE

BEARING PLATE THICKNESS SHALL BE 3/4" WHERE DEPTH OF SUPPORTED MEMBER EXCEEDS 24"

12

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MARC J. MALSAM
STATE OF WASHINGTON
41206
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT NO	0329.2022.01.01
PROJECT MANAGER	WAC
DRAWN	JSD
ENGINEER	BLAKE RASSLYER
	206.602.5452
	BLAKER@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
	PERMIT SET	5.27.22

ARCH	JULIAN WEBER ARCH + DESIGN
	206.953.1305
CLIENT	COOMBES DEVELOPMENT

STEEL DETAILS

S5.0

SCALE - 3/4" = 1'-0"