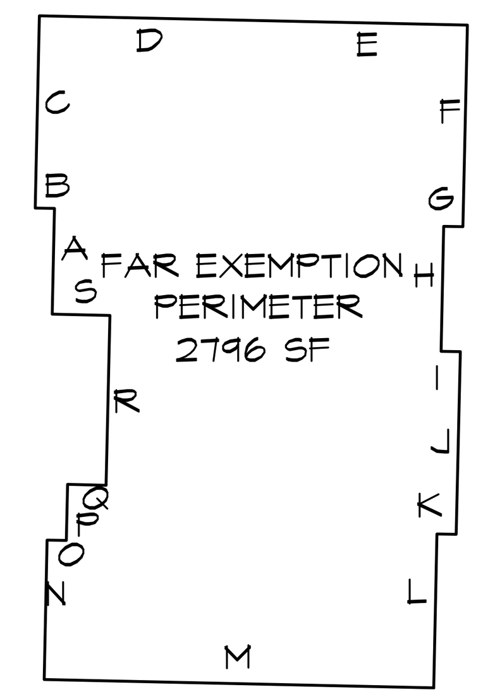
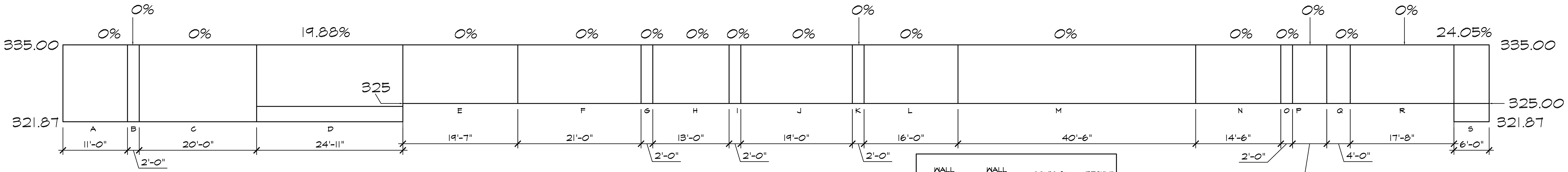
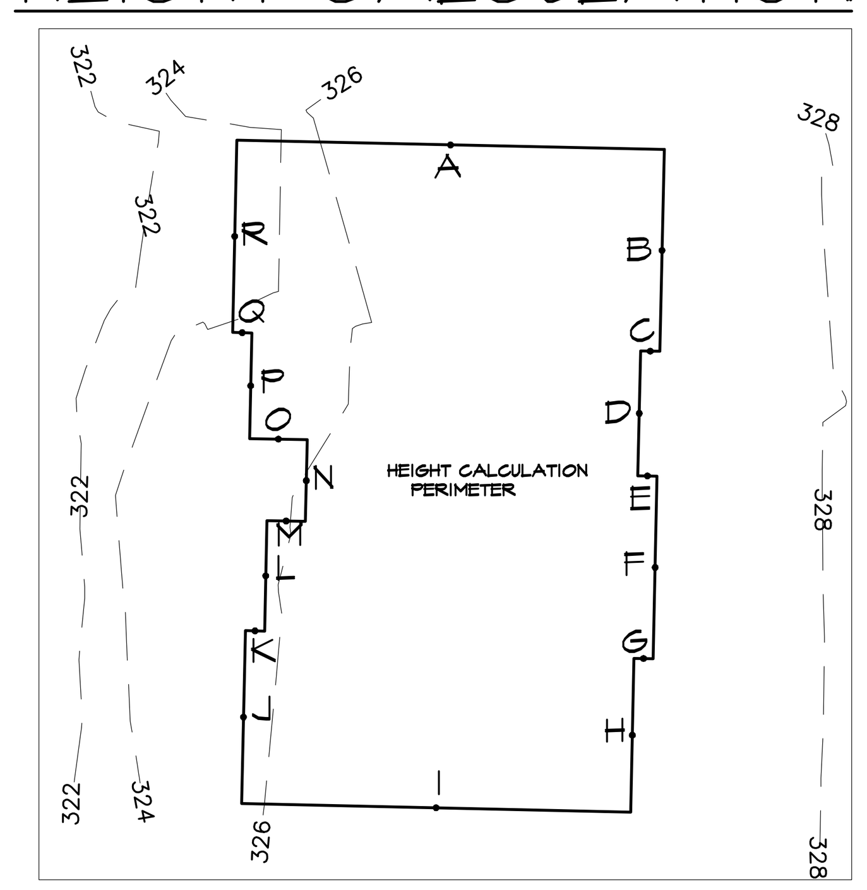




HEIGHT CALCULATION



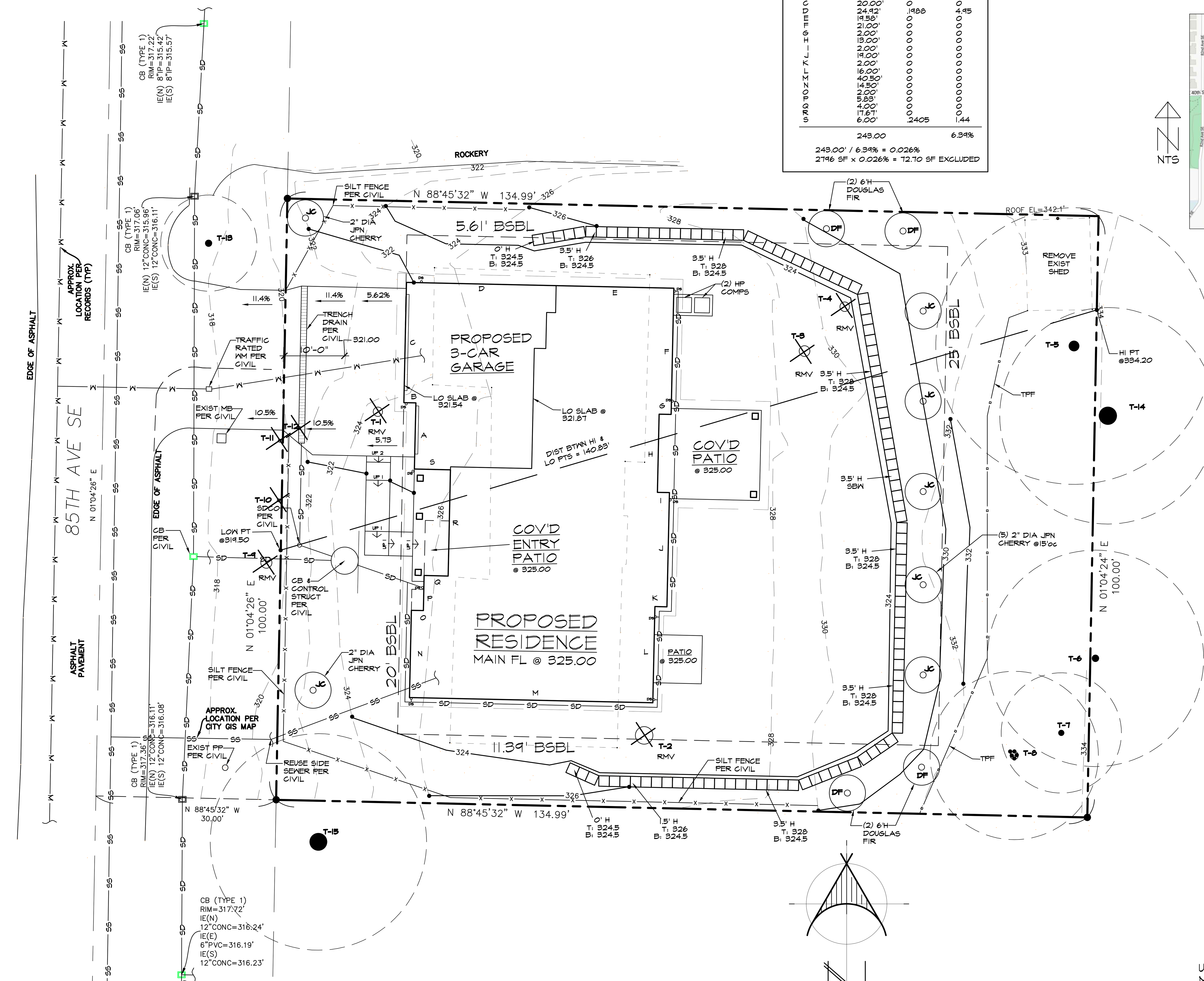
WALL SEGMENT	WALL LENGTH	* MIDPOINT ELEVATION	= PRODUCT
A	44.50	326.50	14529.25
B	21.00	327.40	6875.40
C	2.00	327.40	654.80
D	13.00	327.50	4257.50
E	2.00	327.50	655.00
F	19.00	327.50	6222.50
G	2.00	327.50	655.00
H	16.00	327.40	5238.40
I	40.50	326.70	13231.35
J	18.00	325.70	5862.60
K	2.00	325.80	651.60
L	11.50	325.80	3746.70
M	4.00	326.00	1304.00
N	8.50	326.00	2771.00
O	6.00	325.40	1952.40
P	11.00	324.90	3573.90
Q	2.00	324.30	648.60
R	20.00	323.40	6468.00
TOTALS:	243.00	5872.70	79298.00

AVERAGE EXG GRADE = TOTAL PRODUCTS/ TOTAL WALL LENGTHS:

79298.0 / 243.00 = 326.33 AVG. BLDG ELEV.
MAX HT. ALLOWABLE = + 30.00
MAX ELEVATION @ RIDGE = 356.33
PROPOSED RIDGE ELEVATION = - 355.70
PROPOSED RIDGE = 0.63 BELOW HT. LIMIT

WALL SEGMENT	WALL LENGTH	COV'G %	RESULT
A	11.00'	0	0
B	2.00'	0	0
C	20.00'	0	0
D	24.92'	.1988	4.95
E	19.58'	0	0
F	21.00'	0	0
G	2.00'	0	0
H	13.00'	0	0
I	2.00'	0	0
J	19.00'	0	0
K	2.00'	0	0
L	16.00'	0	0
M	40.50'	0	0
N	14.50'	0	0
O	2.00'	0	0
P	5.83'	0	0
Q	4.00'	0	0
R	17.67'	0	0
S	6.00'	.2405	1.44
	243.00		6.39%

243.00' / 6.39% = 0.026%
2796 SF x 0.026% = 72.70 SF EXCLUDED

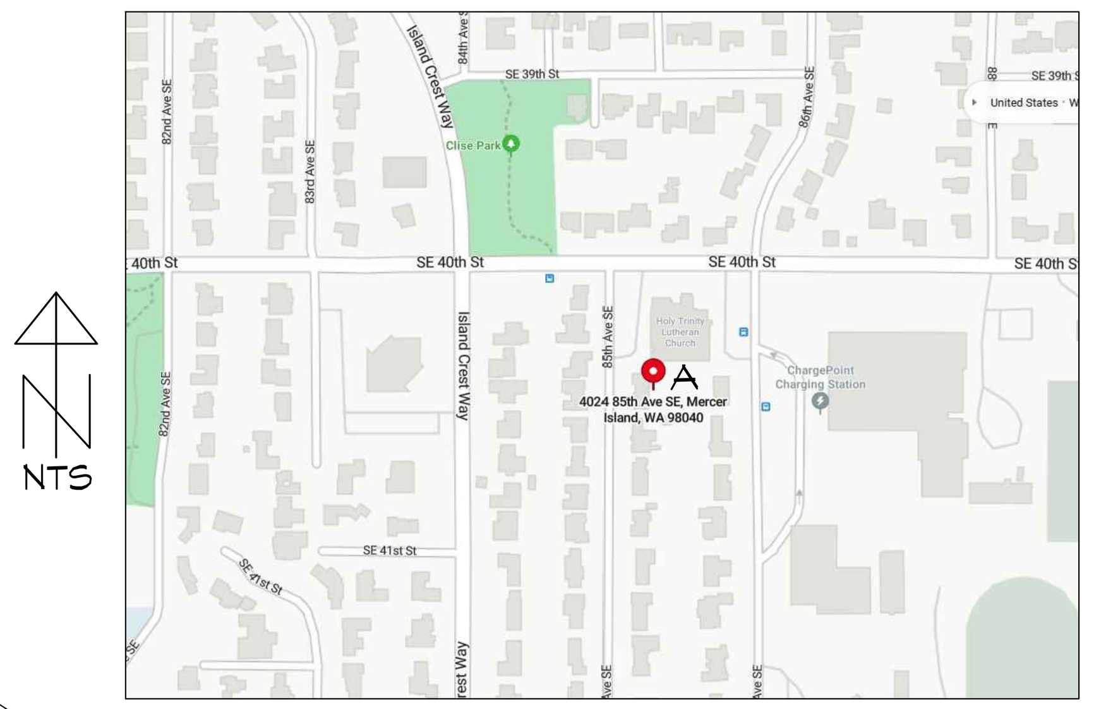


SITE PLAN

SCALE : 1" = 10'-0"

0 10 20 40

VICINITY MAP



A: SITE LOCATION

TREE SCHEDULE ON-SITE TREES

CATEGORY	GROVE	TREE NUMBER	DBH INCHES	SPECIES	DRIPLINE FEET	HEALTH	STRUCT	RETAIN
LARGE	NO	1	18.5	FLOWER CHERRY	17	2	2	NO
EXCEPTION	NO	2	35	WEST RED CEDAR	16	1	2	NO
LARGE	NO	3	21.5	GRAND FIR	20	1	1	NO
LARGE	NO	4	19	DOUGLAS FIR	22	1	1	NO
LARGE	NO	5	20	DEODAR CEDAR	23	1	2	YES
LARGE	NO	6	13.5	SCOTS PINE	18	1	2	OFFSITE
LARGE	NO	7	11	FLOWER CHERRY	10	3	3	YES
LARGE	NO	8	(5) 7-8	MAGNOLIA, TULIP	14	1	2	YES
LARGE	NO	9	11	FLOWER CHERRY	16	2	2	NO(OFFSITE)
SMALL	NO	10	6	JAPANESE MAPLE	12	1	2	NO(OFFSITE)
SMALL	NO	11	6	HOLLY	7	1	1	NO
SMALL	NO	12	6	PURPLELEAF PLUM	16	2	2	NO
LARGE	NO	13	13	BLUE SPRUCE	8	1	1	OFFSITE
EXCEPTION	NO	14	35	GRAND FIR	18	1	1	OFFSITE
EXCEPTION	NO	15	38	DEODAR CEDAR	18	1	1	OFFSITE
TOTAL REMOVED TREES <10" DBH:								2 (x1)
TOTAL REMOVED TREES 10" TO 24" DBH:								3 (x2)
TOTAL REMOVED TREES 24" TO 36" DBH:								1 (x3)
NEW PLANTED TREES REQ'D:								11
RETAIN 30% OF TREES WITH A DIAMETER 10" OR GREATER = 3/7								42.8%

CONIFEROUS REPLACEMENT TREES SHALL BE 6' TALL / DECIDUOUS TREES SHALL BE AT LEAST 1-1/2" CALIPER
PLANT (4) 6'H DOUGLAS FIR (PSEUDOTSUGA MENZIESII)
PLANT (7) 2" DIA JAPANESE CHERRY (PRUNUS SERRULATA)

OWNER

NW EASTSIDE BUILDERS LLC / JUSTIN LAGERS
PH: 206-453-5787
EM: JUSTIN@AMERICANCLASSICHOMES.COM

ARCHITECT

ARCHITECTS NW / JEFFREY DEROULET, RA
PH: 426-485-4900
EM: JEFFREY@ARCHITECTSNW.COM

STRUCTURAL ENGINEER

MEYERS ENGINEERING LLC / MARK MEYERS
PH: 253-858-3248
EM: MYENGINEER@CENTURYTEL.NET

CIVIL ENGINEER

DR STRONG / YOSHIO PIEDISCALZI, PE
PH: 425-827-3063
EM: YOSHIO.PIEDISCALZI@DRSTRONG.COM

GEOTECH ENGINEER

COBALT GEOSCIENCES / PHIL HABERMAN, PE
PH: 206-331-1097 / EM: PHIL@COBALTGEO.COM

ARBORIST

GREENFOREST, INC / FAVERO GREENFOREST
PH: 206-723-0656 /
EM: GREENFORESTINC@MINDSPRING.COM

ZONE
R-9.6

LEGAL DESCRIPTION
PARCEL# 545030-0155
L7 BK B MERCER CREST; KING CO, WA

LOT AREA
13,499 SF (0.30 AC) PER SURVEY

LOT COV'G

LOT AREA:	13499.00 SF
ROOF AREA:	3560.00 SF
PATIOS AND WALKS:	124.00 SF
VEHICUILAR USE AREA:	518.00 SF
TOTAL LOT COV'G AREA:	4202.00 SF
% OF LOT AREA:	31.13%
MAX % OF LOT AREA	40.00%

GROSS FLOOR AREA

UPPER FLOOR AREA:	2647.00 SF
MAIN FLOOR AREA:	2129.00 SF
GARAGE FLOOR AREA:	668.00 SF
BELOW GRADE GAR AREA EXEMPT:	-72.70 SF
TOTAL GROSS FLOOR AREA:	5371.3 SF
% OF LOT AREA:	39.79%
ALLOWED % OF LOT AREA:	40.00%

LOT SLOPE

HIGHEST ELEV POINT OF LOT:	334.20
LOWEST ELEV POINT OF LOT:	319.50
ELEVATION DIFFERENCE:	14.70'
HORIZ DIST BTWN HI & LOW PTS:	140.83'
LOT SLOPE:	10.44%
LOT COV'G MAX=	40.00%

5046 REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
3/6/25

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

DESIGNED BY: DWB DATE: 1/25
DRAWN BY: DWB DATE: 3/6/25
PROJECT MANAGER: JdeR
REVISED BY: DATE:
LATERAL BY: ME DATE: 4/22/25
LATERAL JOB NUMBER: 2608

A0
A10

ANW WOODINVILLE OFFICE JOB NUMBER:
250013

TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

LOT 7, BLOCK B, MERCER CREST, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 42 OF PLATS, AT PAGE 26, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

NAD 83(2011) WASHINGTON NORTH STATE PLANE COORDINATES PER CITY OF MERCER ISLAND SURVEY CONTROL POINTS NO. 1076 AND 1075, BEARS N 01°02'33" E BETWEEN FOUND MONUMENTS.

REFERENCES

R1. MERCER ISLAND LOT LINE ADJUSTMENT, BK 266 OF SURVEYS, PG 71, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD 88 PER CITY OF MERCER ISLAND CONTROL POINT NO. 1076
DESCRIPTION: CONC MON W/ BRASS PIN, IN CASE, DOWN 1.1'
LOCATION: INTX. OF 84TH AVE SE & SE 40TH ST
ELEVATION: 293.09'

SURVEYOR'S NOTES

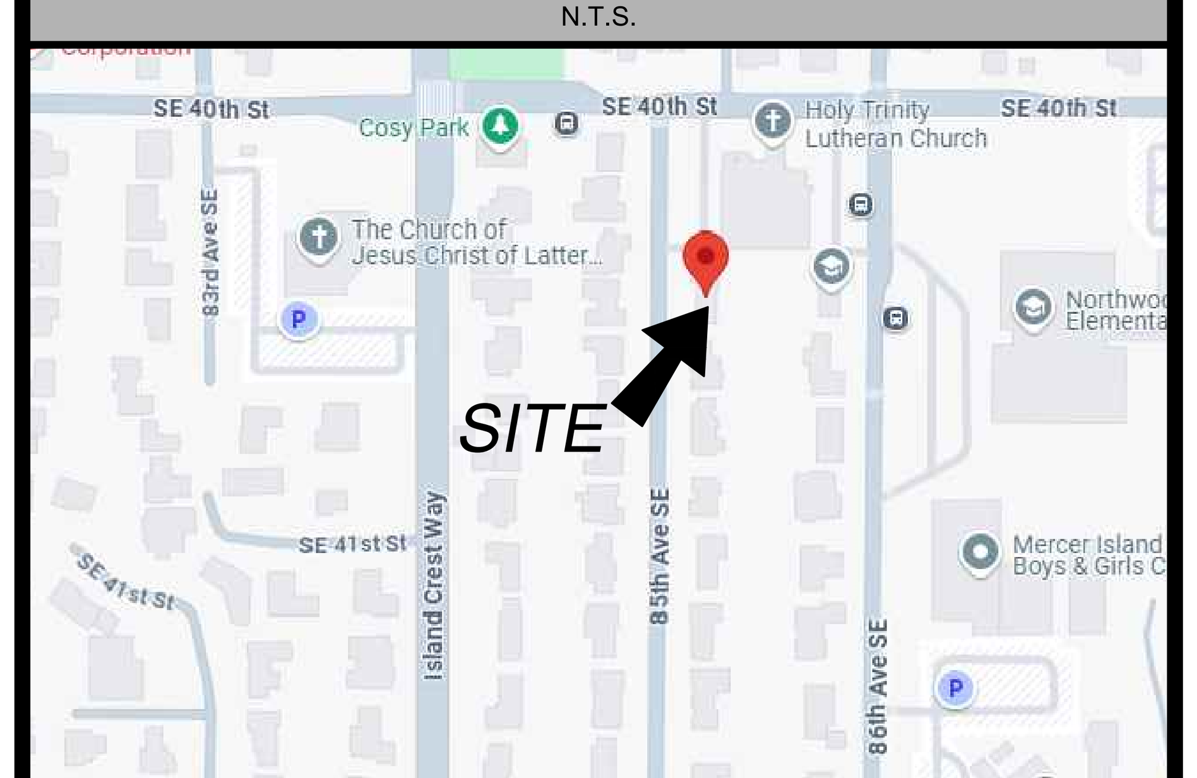
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JANUARY OF 2025. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY 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. 5450300155
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 13,499 S.F. (0.31 ACRES)
6. ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM CHICAGO TITLE INSURANCE COMPANY'S "COMMITMENT FOR TITLE INSURANCE", ORDER NO. 0284259-ETU, DATED DECEMBER 13, 2024. IN PREPARING THIS MAP, TERRANE, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS TERRANE, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED "COMMITMENT FOR TITLE INSURANCE". TERRANE, INC. HAS RELIED WHOLLY ON CHICAGO TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND TERRANE, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
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 3-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

	ASPHALT SURFACE		REBAR & CAP (SET)
	BUILDING		REBAR AS NOTED (FOUND)
	CENTERLINE ROW		RETAINING WALL
	CONCRETE SURFACE		RIGHT-OF-WAY LINES
	FENCE LINE (WOOD)		ROCKERY
	FIRE HYDRANT	SS	SEWER LINE
G	GAS LINE		SEWER MANHOLE
	HEDGE FOLIAGE LINE	SD	STORM DRAIN LINE
	INLET (TYPE 1)	SIZE TYPE	TREE (AS NOTED)
MB	MAILBOX (RESIDENTIAL)	W	WATER LINE
	MONUMENT (IN CASE, FOUND)	WM	WATER METER
P	POWER METER	COR	CORNER
P	POWER (OVERHEAD)	DEC	DECIDUOUS
PP	POWER POLE	MON	MONUMENT
	PROPERTY LINE (SUBJECT)	PROP	PROPERTY

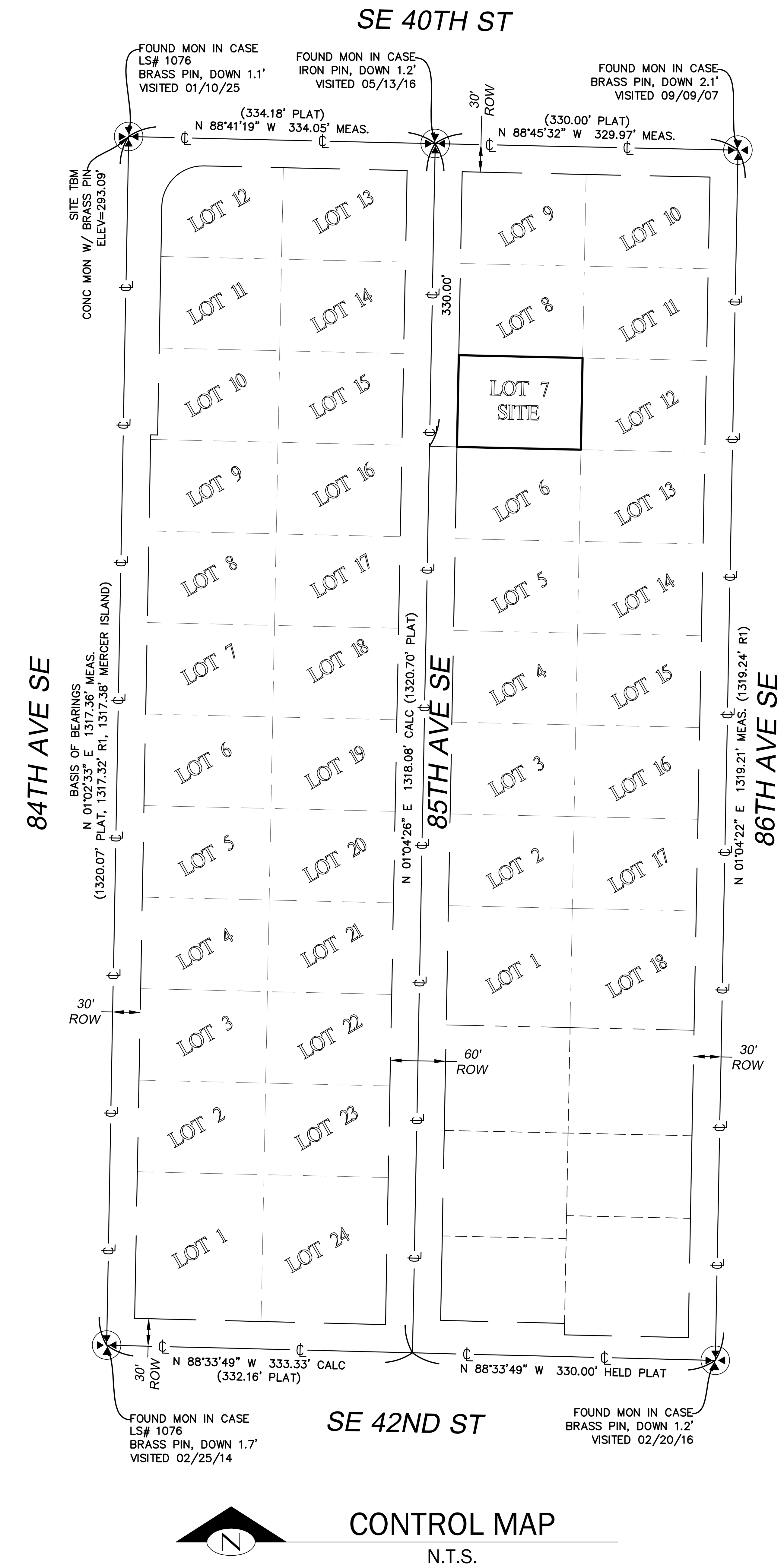
VICINITY MAP

N.T.S.



SCHEDULE B ITEMS

1. COVENANTS, CONDITIONS, RESTRICTIONS, RECITALS, RESERVATIONS, EASEMENTS, EASEMENT PROVISIONS, ENCROACHMENTS DEDICATIONS, BUILDING SETBACK LINES, NOTES, STATEMENTS, AND OTHER MATTERS, IF ANY, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH ON THE PLAT OF MERCER CREST:
RECORDING NO: 3611406
"CURRENT CONDITIONS SHOWN"
2. RIGHTS OF THE PUBLIC TO MAKE NECESSARY SLOPES FOR CUTS OR FILLS UPON THE LAND IN THE REASONABLE ORIGINAL GRADING OF STREETS, AVENUES, ALLEYS AND ROADS, AS DISCLOSED IN THE PLAT.
"CURRENT CONDITIONS SHOWN"
3. ENCROACHMENT LICENSE AGREEMENT, AND THE TERMS AND CONDITIONS THEREOF:
RECORDING DATE: DECEMBER 2, 2010
RECORDING NO.: 20101202001197
"DOES NOT AFFECT SUBJECT PARCEL"



CONTROL 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.

INDEXING INFORMATION

NW 1/4 NW 1/4	
SECTION:	18
TOWNSHIP:	24N
RANGE:	05E, W.M.
COUNTY:	KING

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TERRANE
11235 SE 6th St, Suite 130
Bellevue, WA 98004
p: 425-458-4488 | e: info@terrane.net

TOPOGRAPHIC & BOUNDARY SURVEY
PARCEL NO. 5450300155
4024 85TH AVE SE
4024 85TH AVENUE SOUTHEAST
MERCER ISLAND, WA 98040

JOB NUMBER:	250010
DATE:	01/22/25
DRAFTED BY:	AJU
CHECKED BY:	JPS
SCALE:	1" = 10'

REVISION HISTORY

SHEET NUMBER
1 OF 2

TOPOGRAPHIC & BOUNDARY SURVEY

LEGEND

	ASPHALT SURFACE		REBAR & CAP (SET)
	BUILDING		REBAR AS NOTED (FOUND)
	CENTERLINE ROW		RETAINING WALL
	CONCRETE SURFACE		RIGHT-OF-WAY LINES
	FENCE LINE (WOOD)		ROCKERY
	FIRE HYDRANT	SS	SEWER LINE
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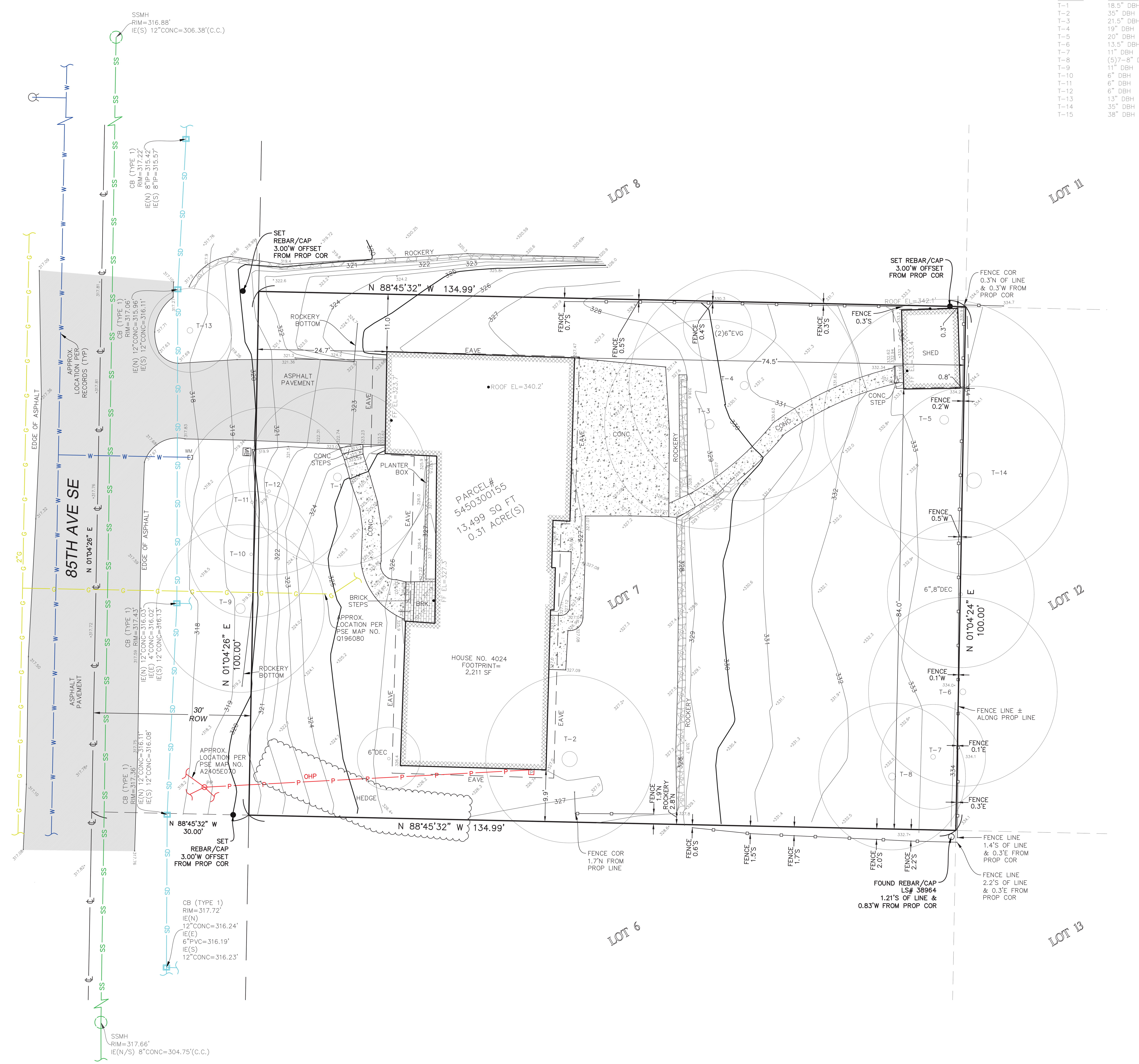
	HEDGE FOLIAGE LINE	SD	STORM DRAIN LINE
	INLET (TYPE 1)	SIZE TYPE	TREE (AS NOTED)
MB	MAILBOX (RESIDENTIAL)	W	WATER LINE
	MONUMENT (IN CASE, FOUND)	WM	WATER METER
P	POWER METER	COR	CORNER
P	POWER (OVERHEAD)	DEC	DECIDUOUS
PP	POWER POLE	MON	MONUMENT
	PROPERTY LINE (SUBJECT)	PROP	PROPERTY



TREE INVENTORY

PER ARBOR REPORT BY: FAVERO GREENFOREST
GREENFOREST, INC. CONSULTING ARBORIST
DATED: 01/09/25

NUMBER	DIAMETER	TYPE/NAME
T-1	18.5" DBH	FLOWERING CHERRY
T-2	35" DBH	WESTERN RED-CEDAR
T-3	21.5" DBH	GRAND FIR
T-4	19" DBH	DOUGLAS-FIR
T-5	20" DBH	DEODAR CEDAR
T-6	13.5" DBH	SCOTS PINE
T-7	11" DBH	FLOWERING CHERRY
T-8	(5)7-8" DBH	MAGNOLIA, TULIP
T-9	11" DBH	FLOWERING CHERRY
T-10	6" DBH	JAPANESE MAPLE
T-11	6" DBH	HOLLY
T-12	6" DBH	PURPLELEAF PLUM
T-13	13" DBH	BLUE SPRUCE
T-14	35" DBH	GRAND FIR
T-15	38" DBH	DEODAR CEDAR

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INDEXING INFORMATION

NW 1/4 NW 1/4
SECTION: 18
TOWNSHIP: 24N
RANGE: 05E, W.M.
COUNTY: KING

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TOPOGRAPHIC & BOUNDARY SURVEY
PARCEL NO. 5450300155
4024 85TH AVE SE
4024 85TH AVENUE SOUTHEAST
MERCER ISLAND, WA 98040

JEFFREY PASON SAVAGE, STATE OF WASHINGTON, PROFESSIONAL LAND SURVEYOR 52088 — 1/22/25

TERRANE
11235 SE 6th St, Suite 130
Bellevue, WA 98004
p: 425-458-4488 | e: info@terrane.net

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REVISION HISTORY

SHEET NUMBER

2 OF 2

NW 1/4 NW 1/4 SECTION 18, TOWNSHIP 24 N, RANGE 5 E, W.M.

4024 85TH AVE SE RESIDENCE

TESC LEGEND:

FOR ADDITIONAL TESC DETAILS REFER TO DOE 2012 SWMMWW

- CL — CONSTRUCTION LIMITS, TO BE FLAGGED OR FENCED WHEN NO SILT FENCE IS PROPOSED (BMP C103)
- SF — SILT FENCE IS PROPOSED (BMP C233)
- STRAW WATTLES (BMP C235)
- CE — STABILIZED CONSTRUCTION ENTRANCE (BMP C105)
- IP — INLET PROTECTION (BMP C220)
- DC — DUST CONTROL (BMP C140)
- MU — MULCHING, MATTING, & COMPOST BLANKETS (BMP C121, BMP C125)
- PS — PERMANENT SEEDING AND PLANTING (BMP C120)
- SA — POST-CONSTRUCTION SOIL AMENDMENT QUALITY & DEPTH (BMP C120)
- CH — CONCRETE HANDLING (BMP C151)
- PC — PLASTIC COVERING (BMP C123)
- TREE TO BE REMOVED
- TREE TO BE SAVED. PROVIDE TREE PROTECTION FENCING PER ARBORIST RECOMMENDATIONS

SURVEY NOTES:

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JANUARY OF 2025. 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. 5450300155

5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 13,499 S.F. (0.31 ACRES)

6. ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM CHICAGO TITLE INSURANCE COMPANY'S "COMMITMENT FOR TITLE INSURANCE", ORDER NO. 0284259-ETU, DATED DECEMBER 13, 2024. IN PREPARING THIS MAP, TERRANE, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS TERRANE, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED "COMMITMENT FOR TITLE INSURANCE". TERRANE, INC. HAS RELIED WHOLLY ON CHICAGO TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND TERRANE, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

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CONSTRUCTION SEQUENCE

1. ARRANGE AND ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY INSPECTOR.
2. FLAG OR FENCE CLEARING LIMITS.
3. CALL ONE-CALL UTILITY LOCATE SERVICE PRIOR TO ANY EXCAVATION WORK.
4. GRADE ACCESS ROAD & CONSTRUCT/INSTALL ROCK CONSTRUCTION ENTRANCE IF NECESSARY.
5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
6. INSTALL SHORING WALL.
7. CONSTRUCT RESIDENCE AND OTHER SITE IMPROVEMENTS.
8. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OR COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
9. MAINTAIN ACCESS TO OFF-SITE ROADS AND DRIVEWAYS AT ALL TIMES DURING THE DURATION OF THE PROJECT.
10. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
11. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
12. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
13. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
14. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED IF APPROPRIATE AFTER ACCEPTANCE BY INSPECTOR.

BASIS OF BEARINGS: (BY SURVEYOR)

NAD 83(2011) WASHINGTON NORTH STATE PLANE COORDINATES PER CITY OF MERCER ISLAND SURVEY CONTROL POINTS NO. 1076 AND 1075, BEARS N 01°02'33" E BETWEEN FOUND MONUMENTS.

REFERENCES: (BY SURVEYOR)

1. R1. MERCER ISLAND LOT LINE ADJUSTMENT, BK 266 OF SURVEYS, PG 71, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM: (BY SURVEYOR)

1. NAVD 88 PER CITY OF MERCER ISLAND CONTROL POINT NO. 1076
DESCRIPTION: CONC MON W/ BRASS PIN, IN CASE, DOWN 1.1'
LOCATION: INTX. OF 84TH AVE SE & SE 40TH ST
ELEVATION: 293.09'

LEGAL DESCRIPTION: (BY SURVEYOR)

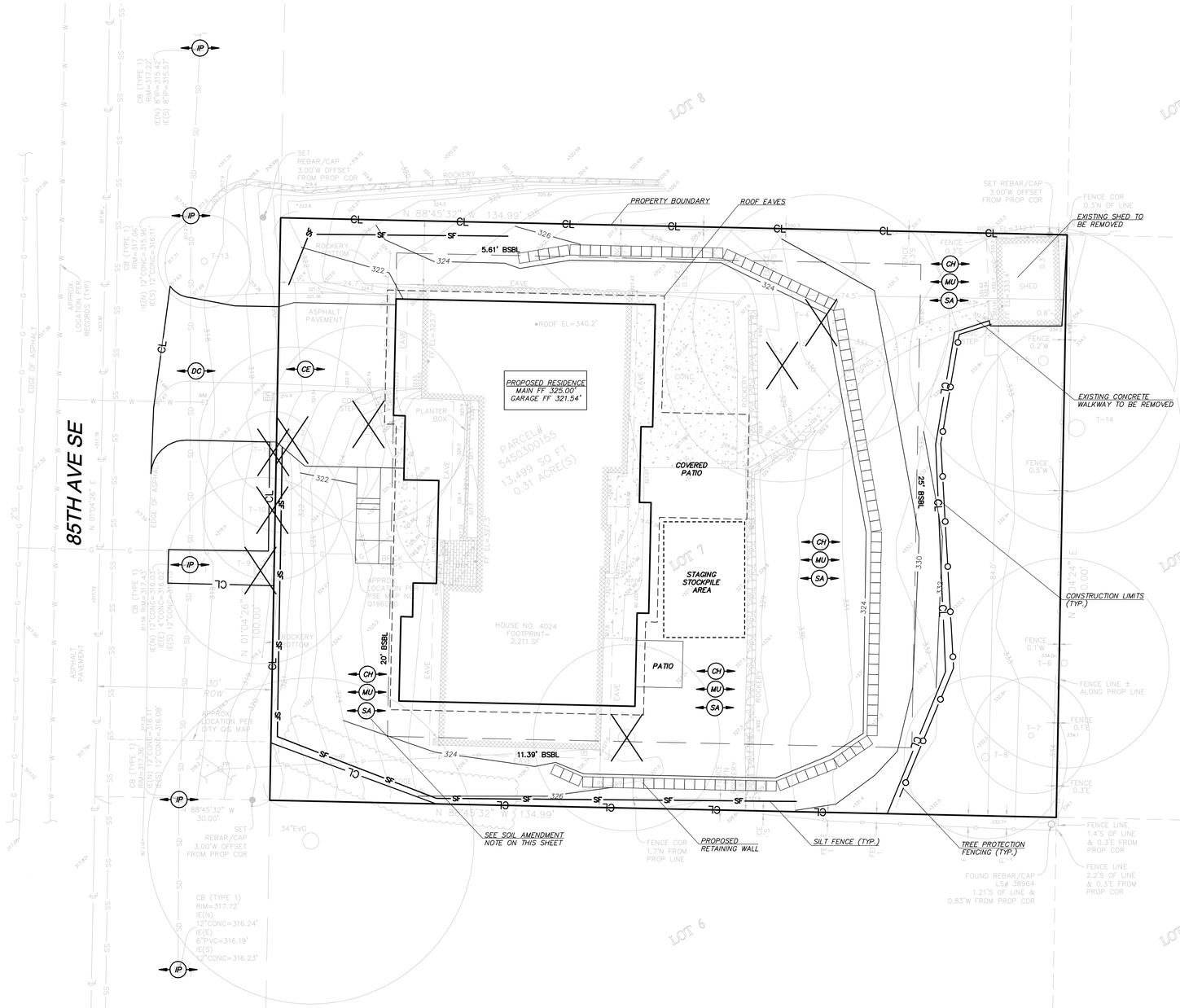
LOT 7, BLOCK B, MERCER CREST, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 42 OF PLATS, AT PAGE 26, RECORDS OF KING COUNTY, WASHINGTON.

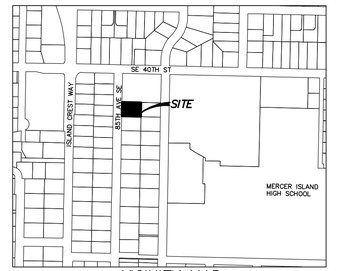
SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

GENERAL EROSION CONTROL NOTES:

ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.

AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE STABILIZED WITH COMPOST AMENDED SOILS AND HYDROSEEDING OR SOD.





VICINITY MAP
1"=500'

PROJECT CONTACTS:

OWNER/APPLICANT	NW EASTSIDE BUILDERS, LLC 9675 SE 36TH ST, SUITE 105 MERCER ISLAND, WASHINGTON 98040 CONTACT: JUSTIN LAGERS JUSTIN@AMERICANCLASSICHOMES.COM (253) 405-5587
ARCHITECT	ARCHITECTS NW, INC 18915 142ND AVE NE, SUITE 100 WOODINVILLE, WASHINGTON 98072 (425) 485-4900 CONTACT: JEFFREY DEROULET JEFFREY@ARCHITECTSNW.COM
CIVIL ENGINEER	D.R. STRONG CONSULTING ENGINEERS, INC. 620 7TH AVENUE KIRKLAND, WASHINGTON 98033 (425) 827-3063 CONTACT: YOSHIO L. PIEDISCALZI, P.E. YOSHIO.PIEDISCALZI@DRSTRONG.COM
SURVEYOR	TERRANE 10801 MAIN STREET, SUITE 102 BELLEVUE, WASHINGTON 98004 (425) 458-4488 CONTACT: JACOB GOODMAN MILLER INFO@TERRANE.NET
GEOTECHNICAL ENGINEER	COBALT GEOSCIENCES, LLC P.O. BOX 1792 NORTH BEND, WA 98045 (206) 331-1097 CONTACT: PHIL HABERMAN, P.E.

SHEET INDEX:

HARDSCAPE AREA CALCULATIONS:

GROSS LOT AREA:	13,499 S.F.	(±0.310 ACRES)
NET LOT AREA:	13,499 S.F.	(±0.310 ACRES)
ALLOWED HARDSCAPE AREA (9%):	1,215 S.F.	(±0.028 ACRES)
TOTAL EX. HARDSCAPE AREAS ON LOT:		
UNCOVERED PATIOS	650	S.F.
WALKWAYS	148	S.F.
STAIRS	170	S.F.
RETAINING WALLS	12	S.F.
TOTAL EX.	980	S.F.
TOTAL EX. HARDSCAPE AREAS TO REMAIN:		
UNCOVERED PATIOS	0	S.F.
WALKWAYS	0	S.F.
STAIRS	0	S.F.
RETAINING WALLS	0	S.F.
TOTAL EX.	0	S.F.
TOTAL NEW HARDSCAPE AREAS ON LOT:		
UNCOVERED PATIOS	32	S.F.
WALKWAYS	0	S.F.
STAIRS	76	S.F.
RETAINING WALLS	325	S.F.
TOTAL NEW	433	S.F.

TOTAL PROJECT HARDSCAPE AREA: 433 S.F. (3.21%)

SOIL AMENDMENT NOTE:

AREA (A): STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8-INCHES. PROVIDE A TOTAL OF 15 C.Y. OF AMENDMENT OVER AN AREA OF 600 S.F.

P.E. CERTIFICATION FOR SECTION B:

I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR 4024 85TH AVE SE 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 FOR PROFESSIONAL ENGINEERS. I UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILITY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMPS PREPARED BY ME.

ON-SITE SOILS:

THE ENTIRE SITE CONTAINS ARENTS, ALDERWOOD MATERIAL (AmC) SOILS PER THE NRCS SOIL MAP

GRADING NOTE:

TOTAL AREA TO BE DISTURBED ON-SITE.....10,465 S.F.

TOTAL AREA TO BE DISTURBED OFF-SITE.....493 S.F.

TOTAL AREA TO BE DISTURBED FOR PROJECT.. 10,958 S.F.

FILL SHALL CONSIST OF SUITABLE MATERIAL ORIGINATING FROM THE SITE OR FROM AN APPROVED SUPPLIER.

NORTH
GRAPHIC SCALE
0 5 10 20
1 INCH = 10 FT.

SITE VOLUME CALCULATIONS

CUT VOLUME (CU. YDS.)	FILL VOLUME (CU. YDS.)	NET VOLUME (CU. YDS.)
1,202	118	1,084 CUT

ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL EARTHWORK QUANTITIES.
THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL OR VAULT EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE RESTRICTIONS.

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

4024 85TH AVE SE
MERCER ISLAND RESIDENCE

TESC PLAN
4024 85TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 5450300155

NW EASTSIDE BUILDERS, LLC
9675 SE 36TH STREET, SUITE 105
MERCER ISLAND WA 98040
253-405-5587

STATE OF WASHINGTON
YOSHIO L. PIEDISCALZI
52232
REGISTERED PROFESSIONAL ENGINEER
5-5-2025

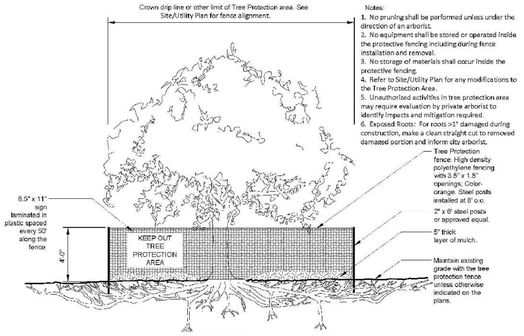
DATE	REVISION	APR

DRAFTED BY: ECM
DESIGNED BY: ECM
PROJECT ENGINEER: YLP
DATE: 02.24.2025
PROJECT NO.: 25001

DRAWING: C1
SHEET: 1 OF 5

NW 1/4 NW 1/4 SECTION 18, TOWNSHIP 24 N, RANGE 5 E, W.M.

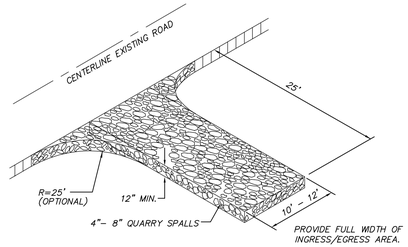
4024 85TH AVE SE RESIDENCE



Notes:
1. No pruning shall be performed unless under the direction of an arborist.
2. No equipment shall be stored or operated inside the protective fencing including during fence installation and removal.
3. No storage of materials shall occur inside the protective fencing.
4. Refer to Site/Utility Plan for any modifications to the Tree Protection Area.
5. Unauthorized activities in tree protection area may require evaluation by private arborist to identify impacts and mitigation required.
6. Exposed Roots: For roots >1" damaged during construction, make a clean straight cut to removed damaged portion and inform city arborist.

TREE PROTECTION FENCING

NTS

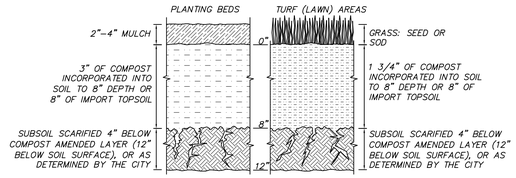


DRIVEWAYS SHALL BE PAVED TO THE EDGE OF R–O–W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY

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

GRAVEL CONSTRUCTION ENTRANCE

NTS



SOIL AMENDMENT

PER BMP T5.13

NTS

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
10. ALL SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETING UNTIL SUCH TIME THAT THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED AND LOCATED SUCH THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ONTO ADJOINING PROPERTIES.
11. ALL EXPOSED SOIL AREAS SHALL BE COVERED OR PROTECTED USING AN APPROPRIATE BMP, STABILIZE DENUDED AREAS OF THE SITE BY MULCHING, SEEDING, PLANTING, OR SODDING.
12. ALL ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATION BUFFER STRIPS, SEDIMENT BARRIERS, OR FILTERS, DIKES, MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S.
13. PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OFF–SITE. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE–ERODED.
14. ALL INSTALLED EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED REGULARLY BY THE GENERAL CONTRACTOR ESPECIALLY AFTER ANY LARGE STORM. MAINTENANCE, INCLUDING REMOVAL AND PROPER DISPOSAL OF SEDIMENT SHOULD BE A NECESSARY TO INSURE THAT SEDIMENT AND EROSION IS CONTROLLED ON SITE.

SOIL AMENDMENT NOTES

•SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

•SOIL QUALITY: ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLANTING BEDS WITH 2–4 INCHES OF ORGANIC MATERIAL.
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
   A. THE ORGANIC CONTENT FOR "PRE–APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION (BMP T7.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65% AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
   B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220–B, TESTING PARAMETERS, IN WAC 173–350–220.

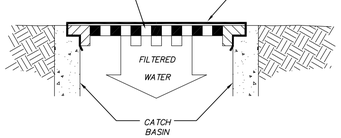
THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

•IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE–APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE–APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

MAINTENANCE:
•ESTABLISH SOIL QUALITY AND DEPTH TOWARD THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECT FROM COMPACTION, SUCH AS FROM LARGE MACHINERY USE, AND FROM EROSION.
•PLANT VEGETATION AND MULCH THE AMENDED SOIL AREA AFTER INSTALLATION.
•LEAVE PLANT DEBRIS OR ITS EQUIVALENT ON THE SOIL SURFACE TO REPLENISH ORGANIC MATTER.
•REDUCE AND ADJUST, WHERE POSSIBLE, THE USE OF IRRIGATION, FERTILIZERS, HERBICIDES AND PESTICIDES, RATHER THAN CONTINUING TO IMPLEMENT FORMERLY ESTABLISHED PRACTICES.



CATCH BASIN INSERT MAINTENANCE STANDARDS

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR HAULED OFF SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE–THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASINS PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOR RESULT IN EROSION OF SLOPES.

CATCH BASIN INLET FILTER

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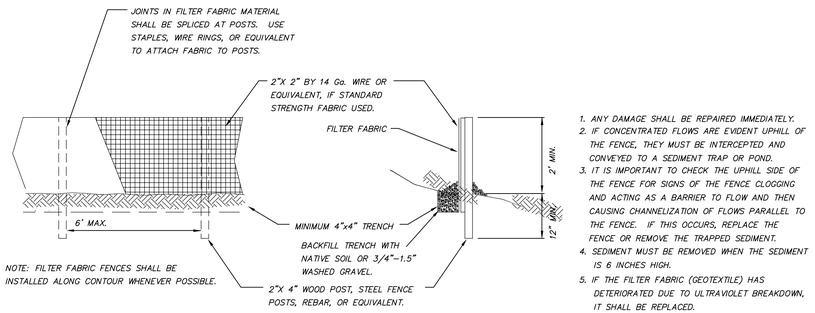


NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

SILT FENCE DETAIL

NTS

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

4024 85TH AVE SE
MERCER ISLAND RESIDENCE

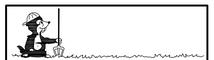
TESC DETAILS
4024 85TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 5450300155

NW EASTSIDE BUILDERS, LLC
9675 SE 36TH STREET, SUITE 105
MERCER ISLAND WA 98040
253-405-5587

DATE	REVISION	APR

DRAFTED BY: ECM
DESIGNED BY: ECM
PROJECT ENGINEER: YLP
DATE: 02.24.2025
PROJECT NO.: 25001

DRAWING: C2
SHEET: 2 OF 5



NW 1/4 NW 1/4 SECTION 18, TOWNSHIP 24 N, RANGE 5 E, W.M.

4024 85TH AVE SE RESIDENCE

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 MAINTENANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY 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 SPECIFICATIONS 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.
4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

STANDARD DETENTION SYSTEM NOTES:

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RESTRICTOR CATCH BASIN NOTES:

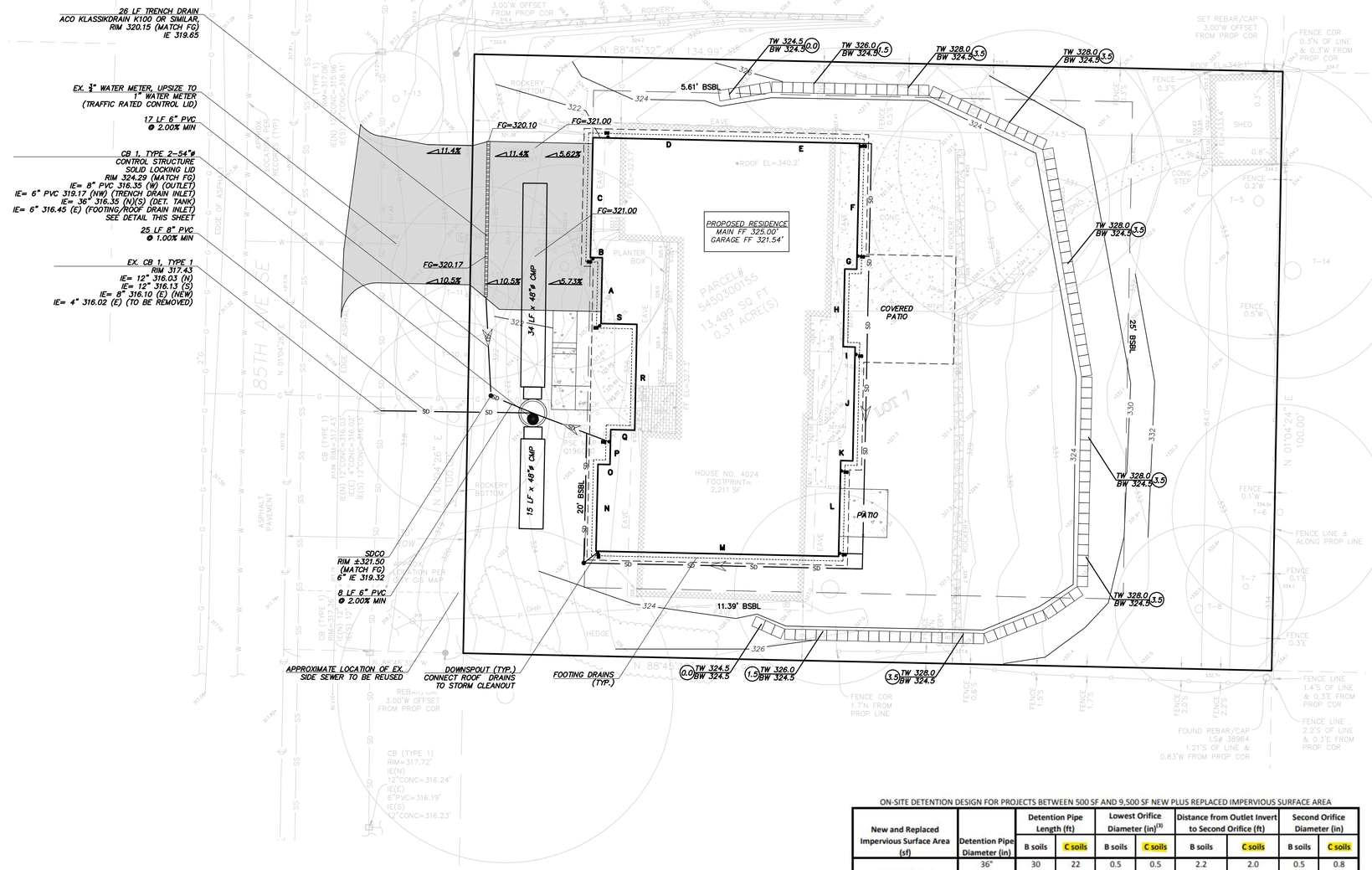
1. USE A MINIMUM OF A 72 IN. DIAM. TYPE 2 CATCH BASIN WHEN CONNECTING PIPE MATERIAL IS CONCRETE OR LCPE. A 54 IN. DIAM. TYPE 2 CATCH BASIN MAY BE USED FOR OTHER CIRCULAR SINGLE WALL PIPE (SUCH AS CORRUGATED ALUMINUM PIPE).
2. OUTLET PIPE: MIN. 6 INCH.
3. METAL PARTS: CORROSION RESISTANT NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE 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 1/4 IN.
6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'-0" VERTICAL SPACING).
7. THE SHEAR GATE SHALL BE MADE OF 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 SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION). IT MAY BE SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. 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.
8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FEET.

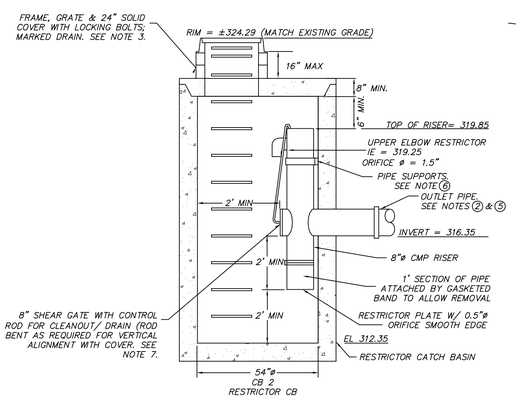
GENERAL NOTES:

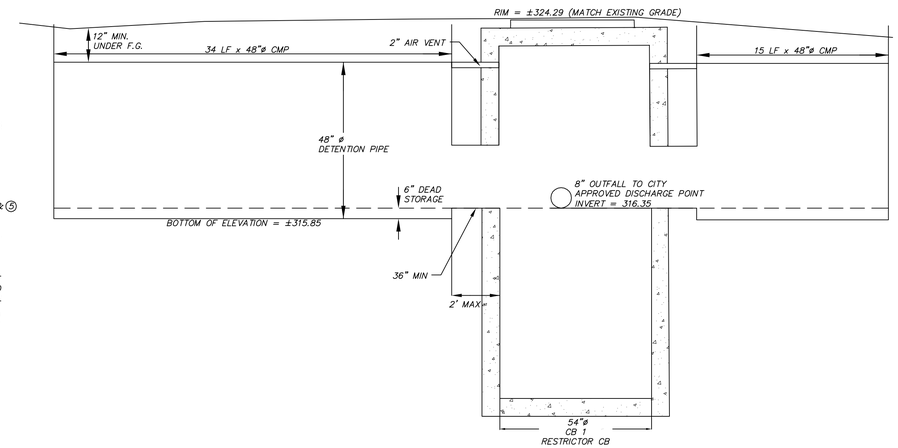
1. SITE PLAN AS PROVIDED BY ARCHITECT ON FEBRUARY 22, 2025.
2. GRADING PLAN AS PROVIDED BY ARCHITECT AND SHOWN HERE FOR REFERENCE.
3. CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
4. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.
5. ALWAYS CALL 811 BEFORE YOU DIG.

STORM DRAINAGE NOTES:

1. ROOF DRAINS SHALL BE 6" PVC SDR 35 TIGHTLINE WITH A MINIMUM SLOPE OF 2.00%.
2. FOOTING/WALL DRAINS SHALL BE 4" PERFORATED PVC WRAPPED IN FILTER FABRIC PER CITY STANDARDS.
3. FOOTING/WALL DRAINAGE SYSTEMS AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING/WALL DRAINAGE SYSTEM AND DOWN SLOPE OF THE BUILDING FOUNDATION.
4. USE SAND COLLARS AT CB CONNECTIONS TO PVC PIPE.
5. PROVIDE TRAFFIC RATED GRATES IN ALL PARKING AREAS.
6. PROVIDE SLEEVES THROUGH ALL WALLS/ ROCKERIES.
7. SEE ARCHITECTURAL PLAN SET FOR VEGETATED ROOF SPECIFICATIONS.
8. ALL DRAIN LIDS SHALL HAVE DECORATIVE GRATE COVERS. IRON AGE OR EQUAL PER ARCHITECTURAL SPECIFICATION.







ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA

New and Replaced Impervious Surface Area (sf)	Detention Pipe Diameter (in)	Detention Pipe Length (ft)		Lowest Orifice Diameter (in)[3]		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
		B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
500 to 1,000 sf	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
1,001 to 2,000 sf	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
2,001 to 3,000 sf	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
3,001 to 4,000 sf	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3
4,001 to 5,000 sf	36"	134	91	0.5	0.5	2.8	2.2	1.7	1.5
	48"	73	49	0.5	0.5	3.6	2.9	1.6	1.5
	60"	46	31	0.5	0.5	4.6	3.5	1.6	1.3

LAWN AND LANDSCAPE AREA 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.

BUILDING HEIGHT CALCS:

A. AVERAGE BUILDING ELEVATION (ABE)	
CALCULATIONS LOCATED ON SHEET:	#0000
B. ALLOWABLE BUILDING HEIGHT (ABE+30)	356.33 FT
C. PROPOSED BUILDING HEIGHT	355.20 FT
D. BENCHMARK ELEVATION	293.09 FT
E. DESCRIBE BENCHMARK LOCATION	TBM 'A'
F. SLOPING LOT-MAX HEIGHT OF TOP EXTERIOR WALL FACADE ABOVE LOWEST EXISTING GRADE (30-FT MAX):	35'-8.4"

STORMWATER CALCULATION AREAS NOTE:

LOT AREA: 13,500 S.F. (±0.310 ACRES)
PROJECT AREA: 10,958 S.F. (0.252 ACRES)

EX. IMPERVIOUS AREAS ON LOT:		
DRIVEWAY	394	S.F.
ROOF AREA	2,374	S.F.
SIDEWALKS/PATIOS	980	S.F.
TOTAL EX.	3,748	S.F.

NEW & REPLACED IMPERVIOUS AREAS ON LOT:		
DRIVEWAY	518	S.F.
SIDEWALKS/PATIO	124	S.F.
ROOF AREA	3,560	S.F.
TOTAL PROP.	4,202	S.F.
OFFSITE P.G.I.S	493	S.F.
NEW/REPLACED P.G.I.S.	1,016	S.F.

NORTH
GRAPHIC SCALE
0 5 10 20
1 INCH = 10 FT.

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

4024 85TH AVE SE
MERCER ISLAND RESIDENCE

STORM DRAINAGE PLAN

4024 85TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 5450300155

NW EASTSIDE BUILDERS, LLC
9675 SE 36TH STREET, SUITE 105
MERCER ISLAND WA 98040
253-405-5587

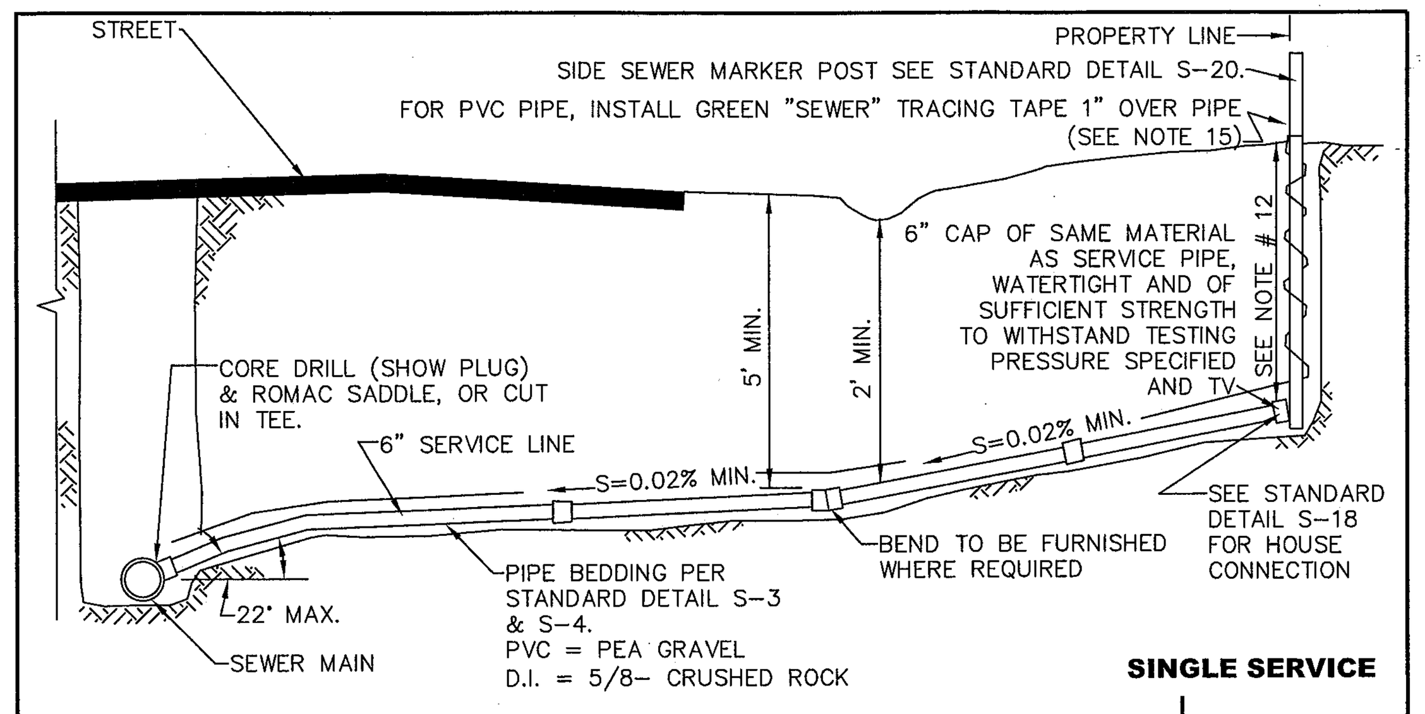
PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 22222 — REGISTERED — 5-5-2025

DATE	REVISION	APR

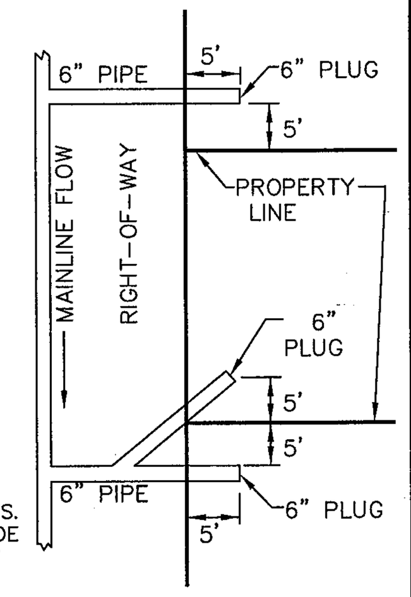
DRAFTED BY: ECM
DESIGNED BY: ECM
PROJECT ENGINEER: YLP
DATE: 02.24.2025
PROJECT NO.: 25001

DRAWING: C3
SHEET: 3 OF 5

4024 85TH AVE SE RESIDENCE



SINGLE SERVICE



DOUBLE SERVICE

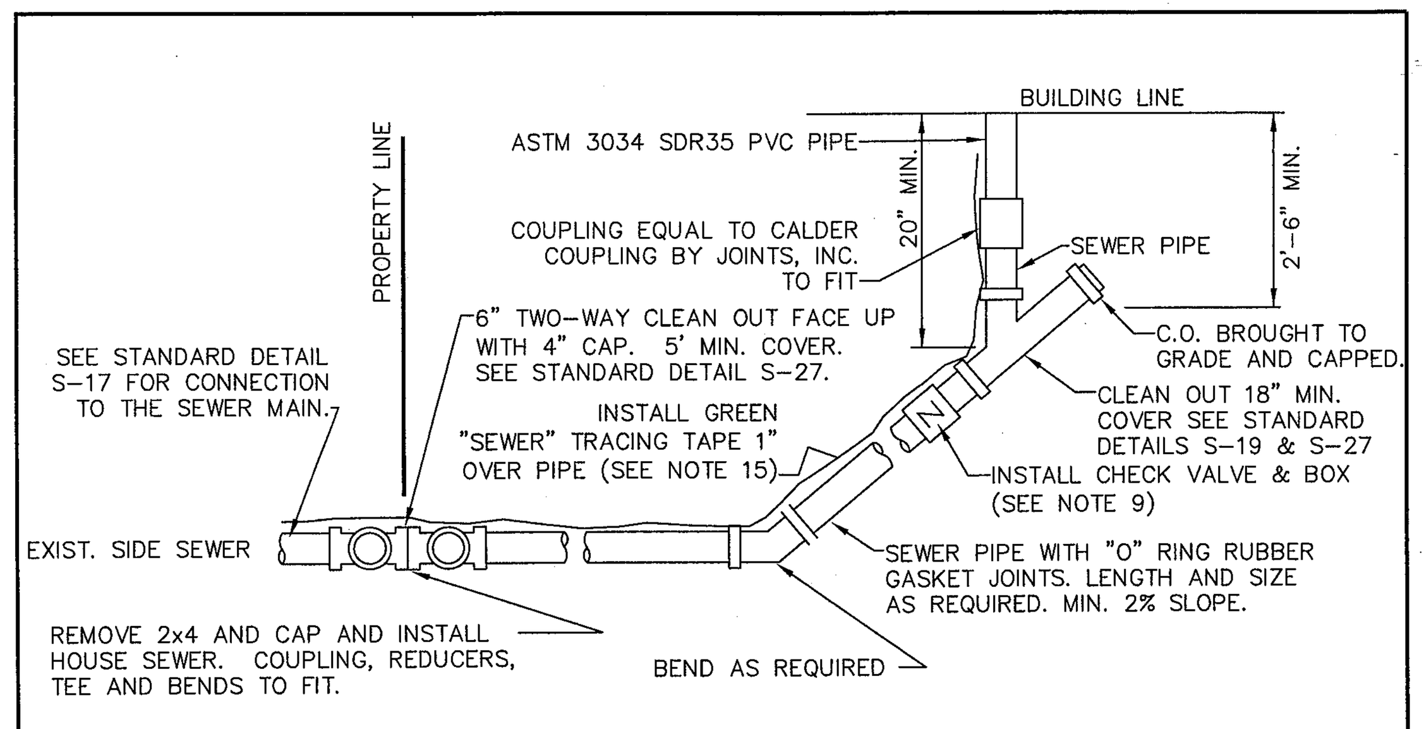
NOTES

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

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

6-5-2009	NO SCALE	S-17

REV DATE						APPROVED



BUILDING CONNECTION

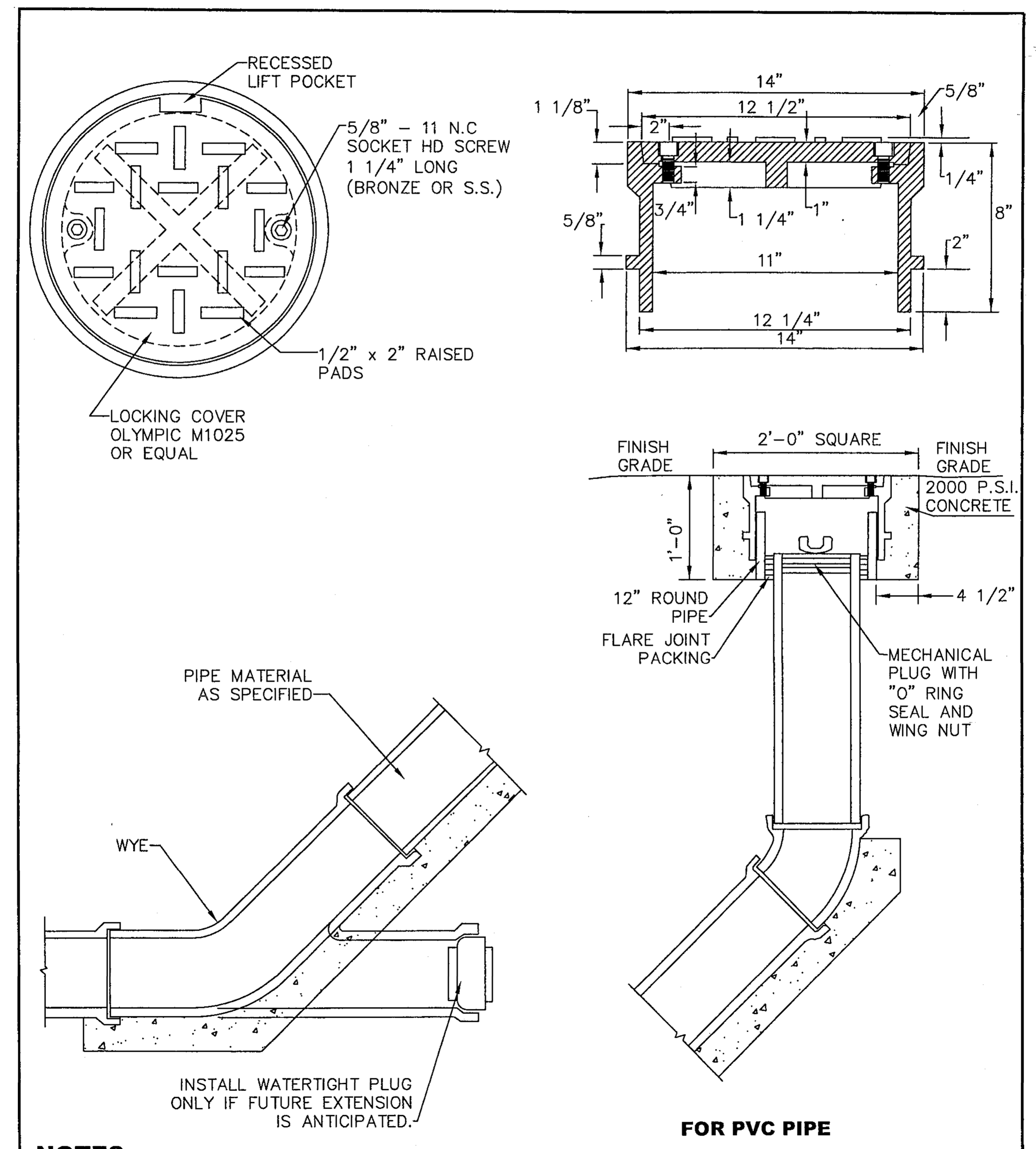
NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
4. 18" MINIMUM COVERAGE OVER PIPE.
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH $\frac{1}{8}$ BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
8. ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
9. BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
   A. IF CONNECTED TO A SHARED SIDE SEWER.
   B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
   C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
10. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
11. THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
    6" – WITHIN THE PUBLIC RIGHT-OF-WAY.
    4" – SINGLE FAMILY RESIDENCES.
    6" – 2 TO 6 SINGLE FAMILY RESIDENCES.
    6" – BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
12. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
HOUSE SEWER CONNECTION

6-5-2009	NO SCALE	S-18

REV DATE						APPROVED



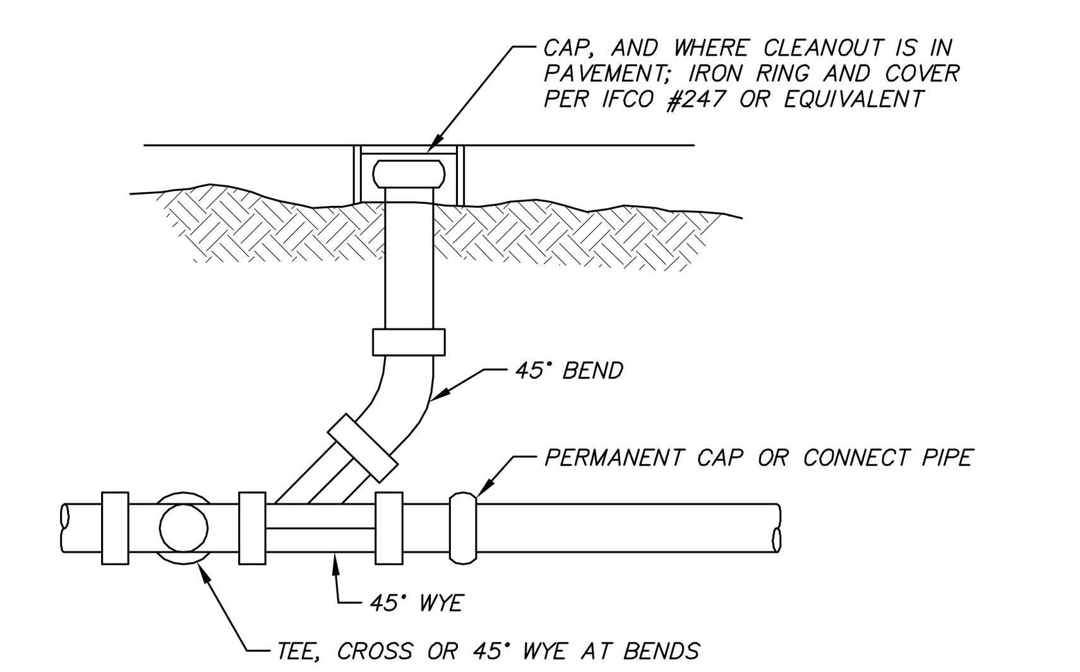
NOTES

1. SEE S-27 FOR INSTALLATION DETAILS.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
CLEAN OUT DETAIL

6-5-2009	NO SCALE	S-19

REV DATE						APPROVED

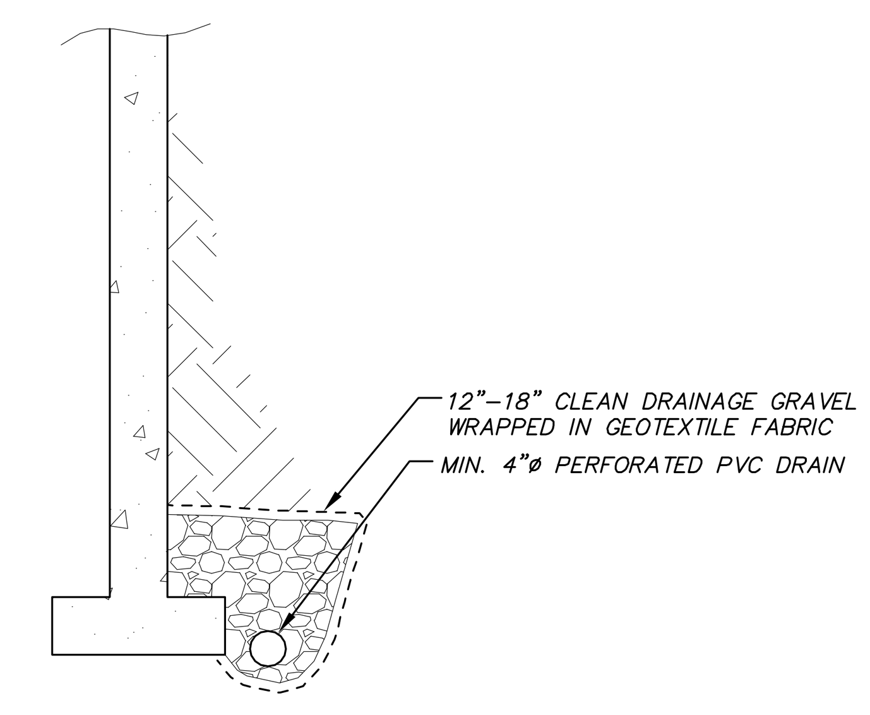


STORM DRAIN CLEAN-OUT

NTS

SIDE SEWER NOTES:

1. FOUR-INCH (4") PIPE MUST BE LAID AT A MINIMUM 2% GRADE. SIX-INCH (6") PIPE MUST BE LAID AT A MINIMUM 1.2% GRADE.
2. SIDE SEWERS MUST NOT BE CLOSER THAN 30" TO ANY FOUNDATION WALL OR OUTER LINE OF ANY FOOTINGS, PILINGS, OR BUILDING SUPPORTS. A CLEAN-OUT MUST BE INSTALLED AT THE CONNECTION, AND MUST BE 36" FROM THE FOUNDATION.
3. MINIMUM COVER MUST BE 42" IN THE PUBLIC RIGHT-OF-WAY, 30" IN PRIVATE ROADWAYS AND UNDER DITCHES, AND 18" ON PRIVATE PROPERTY.
4. SEWER MAINS MAY BE CORED OR A "T" INSTALLED IN THE MAIN LINE WHERE NO SEWER STUB EXISTS.
5. SIDE SEWERS WHEN USING OPEN CUT CONSTRUCTION METHODS MUST BE BEDDED WITH IMPORTED MATERIAL TO 4" BELOW AND 6" ABOVE THE INSTALLED PIPE. THE BROAD, "BELL" ENDS OF PIPE MUST BE LAID UPHILL.
6. IMPORTED BACKFILL MATERIAL WILL BE REQUIRED IN ALL PAVED AREAS AND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY IN 1 FT. LIFTS. IN PUBLIC RIGHT OF WAY, ONLY SELECT MATERIAL (5/8" MINUS C.R.) WILL BE ALLOWED FOR BEDDING AND BACKFILL.
7. PARALLEL SEWER AND WATER SERVICE LINES MUST BE AT LEAST 4 FEET APART WHEN LAID HORIZONTALLY, AND AT LEAST 2 FEET APART WHEN LAID VERTICALLY, WITH THE SEWER THE DEEPER OF THE TWO LINES. IF THE LINES MUST CROSS, THEY MUST CROSS AT 90 DEGREES TO ONE ANOTHER AND HAVE AT LEAST 2 FEET OF VERTICAL CLEARANCE.
8. ALL CHANGES IN DIRECTION MUST BE MADE WITH 1/8 BENDS (45 DEGREES), 1/16 BENDS (22 ½ DEGREES), OR "Y" BRANCHES WITH THE STRAIGHT-THROUGH OPENING PLUGGED FOR CLEAN-OUT. NO MORE THAN TWO BENDS ARE PERMITTED BETWEEN CLEAN-OUTS, WHICH MUST BE PLACED AT LEAST EVERY 100 FEET. CLEAN-OUTS MUST EXTEND TO WITHIN 12" OF THE FINISHED GRADE AND CAPPED WITH A WATER-TIGHT PLUG. CLEAN-OUTS IN PAVED AREAS, PATIOS, OR SIDEWALKS MUST HAVE CAST IRON FRAMES AND COVERS WITH LOCKING LIDS SET TO FINISHED PAVED GRADE.
9. PIPE MATERIALS: ASTM 3034 SDR 35 PVC PIPE, FUSED SOLID WALL HDPE, SCHEDULE 40 ABS, DIP OR CIP (UP TO 8 FT. DEPTH). OVER 8 FT. DEPTH AND SLOPES MORE THAN 20%, DIP, CIP, OR FUSED SOLID WALL HDPE ARE REQUIRED.
10. BEDDING MATERIAL FOR OPEN CUT CONSTRUCTION MUST BE PEA GRAVEL, SAND, CONTROL DENSITY FILL (CDF), OR 5/8" MINUS C.R.
11. SELECT BACKFILL MATERIAL SHALL BE 5/8" MINUS C.R. OR CONTROL DENSITY FILL (CDF).
12. IMPORTED BACKFILL MATERIAL SHALL BE BANK RUN GRAVEL OR PIT RUN GRAVEL FROM AN APPROVED SUPPLIER MEETING APWA/WSDOT GRADATION SPECIFICATIONS. NOT ALLOWED IN RIGHT-OF-WAY.
13. RUBBER GASKETS MUST BE USED WHEN APPROPRIATE.
14. RIGID COUPLINGS MUST BE USED FOR CONNECTIONS TO EXISTING STUBS IN RIGHT-OF-WAY.
15. A STAINLESS STEEL STRAP AND SADDLE (ROMAC) MUST BE USED FOR CORING.
16. TESTING: THE RATE OF LEAKAGE MUST NOT EXCEED THE FOLLOWING AMOUNTS PER 100 FT. OF PIPE:
    4" PIPE 1.6 GAL/HR 6" PIPE 2.4 GAL/HR
17. INSPECTION IS REQUIRED PRIOR TO BACKFILLING. THE CITY REQUIRES AT LEAST 24 HOURS NOTICE PRIOR TO INSPECTIONS.



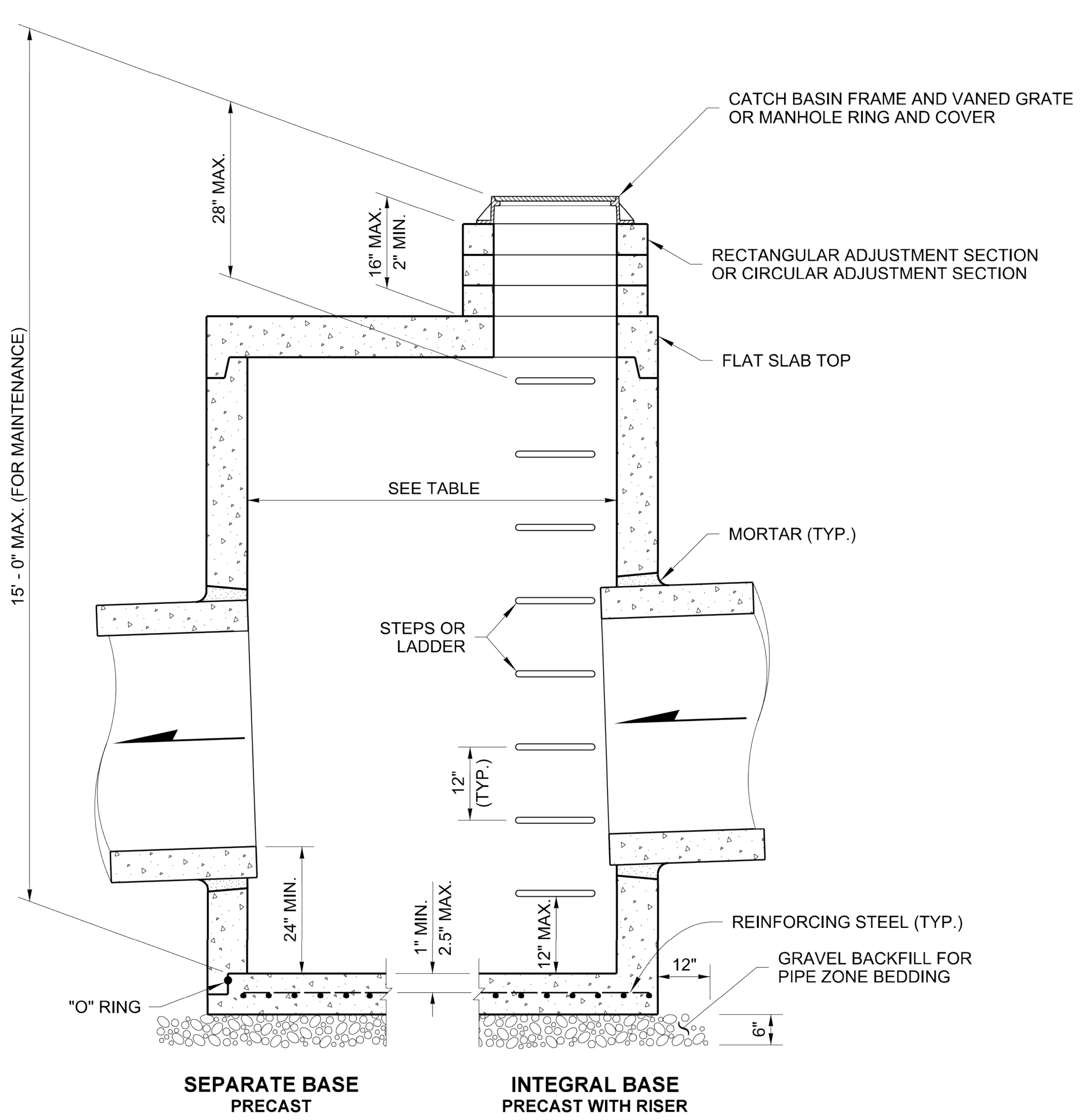
WALL DRAINS

NTS

WALL DRAIN NOTES:

1. GRADE DRAIN PIPE TO DIRECT WATER TO PROPOSED COLLECTION SYSTEM AS SHOWN ON PLAN SHEETS.
2. FOOTING/WALL DRAINAGE SYSTEMS AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING/WALL DRAINAGE SYSTEM AND DOWN SLOPE OF THE FOOTING/WALL.

DRAWN BY: FERN LIDDELL



SEPARATE BASE
PRECAST

INTEGRAL BASE
PRECAST WITH RISER
(48" (IN) - 72" (IN) ONLY)

NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3.**

CATCH BASIN DIMENSIONS

CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES

CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ① PP ④	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

① Corrugated Polyethylene Storm Sewer Pipe (See **Standard Specification Section 9-05.20**)
② (See **Standard Specification Section 9-05.12(1)**)
③ (See **Standard Specification Section 9-05.12(2)**)
④ Polypropylene Pipe (See **Standard Specification Section 9-05.24**)

JULIE HEILMAN – STATE OF WASHINGTON – 41819 – REGISTERED PROFESSIONAL ENGINEER
Heilman, Julie
Feb 20 2018 12:49 PM
cosign

CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Mar 2 2018 10:01 AM
cosign
STATE DESIGN ENGINEER
Washington State Department of Transportation

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

4024 85TH AVE SE
MERCER ISLAND RESIDENCE

NOTES AND DETAILS

4024 85TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 5450300155

NW EASTSIDE BUILDERS, LLC

9675 SE 36TH STREET, SUITE 105
MERCER ISLAND WA 98040
253-405-5587

YOSHIO L. PIEDISCALZI – STATE OF WASHINGTON – 53232 – REGISTERED PROFESSIONAL ENGINEER
5-5-2025

DATE	REVISION	APR

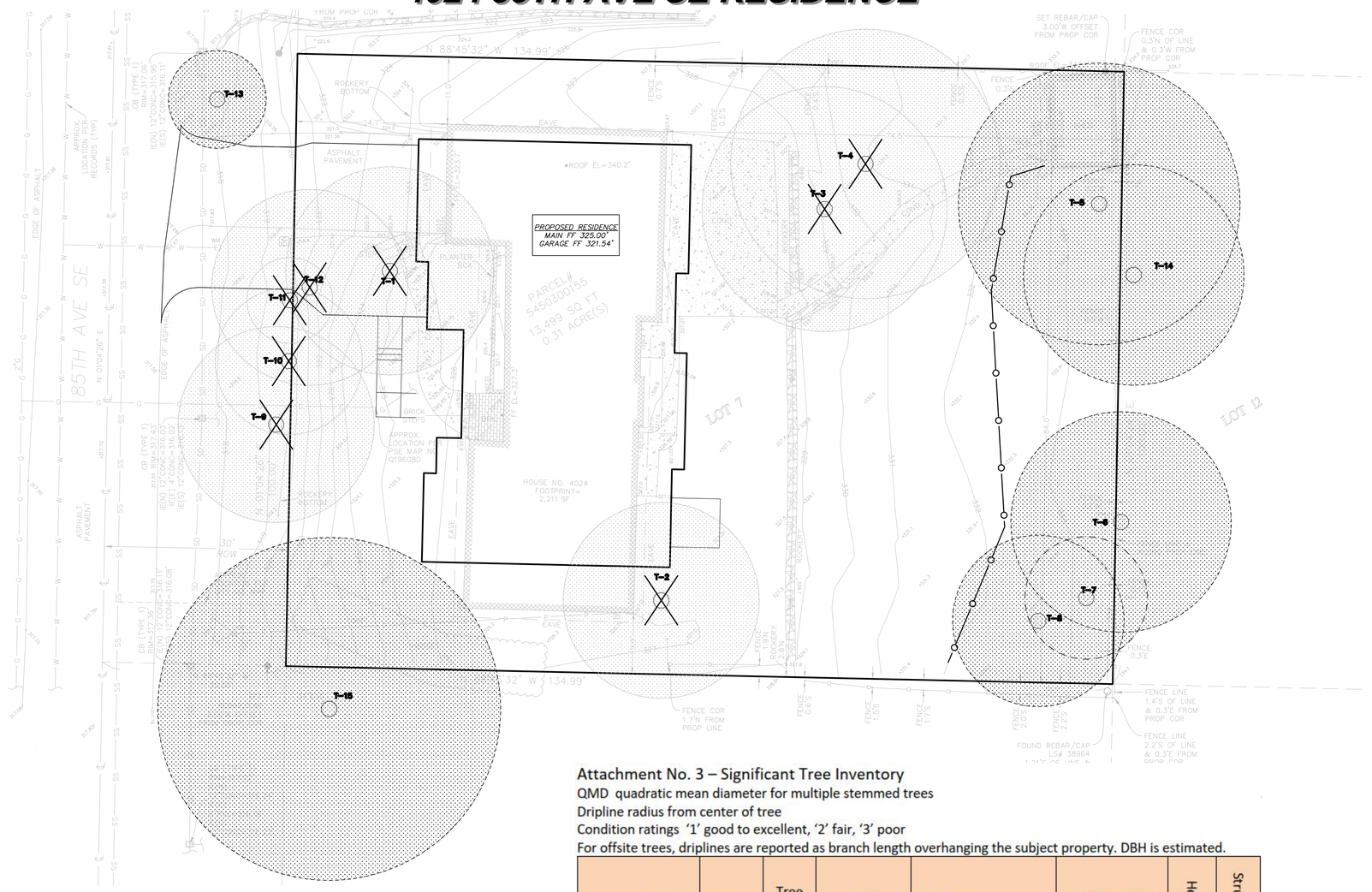
DRAFTED BY: ECM
DESIGNED BY: ECM
PROJECT ENGINEER: YLP
DATE: 02.24.2025
PROJECT NO.: 25001

NW 1/4 NW 1/4 SECTION 18, TOWNSHIP 24 N, RANGE 5 E, W.M.

4024 85TH AVE SE RESIDENCE

LEGEND:

- VIABLE TREE
- TREE TO BE REMOVED
- DRIPLINE OF VIABLE TREE TO BE RETAINED
- DRIPLINE OF VIABLE TREE TO BE REMOVED
- TREE PROTECTION FENCING (SEE SHEET C2 FOR DETAIL)



TREE RETENTION CALCULATION

TOTAL NUMBER OF EXCEPTIONAL TREES:	1
TOTAL LARGE TREES:	6
TOTAL SMALL TREES:	1
TOTAL VIABLE ONSITE TREES:	7
REQUIRED: 30% VIABLE TREES:	2.1
PROPOSED VIABLE TREES RETAINED:	3

TREE PROTECTION NOTES

PRIOR TO CONSTRUCTION, THE FOLLOWING MEASURES SHOULD BE TAKEN TO ENSURE THAT TREES ARE NOT DAMAGED.

1) PROJECT MANAGERS SHOULD REVIEW THE CONTENTS OF THIS REPORT, INCLUDING THE INTERNATIONAL SOCIETY OF ARBORICULTURE'S RECOMMENDED TREE PROTECTION MEASURES FOUND BELOW UNDER SECTIONS 7 AND 8 OF THIS REPORT. INFORMATION CONTAINED HEREIN SHOULD BE RELAYED TO WORKERS AND SUBCONTRACTORS.

2) ONCE THE MULCH HAS BEEN APPLIED, TREE PROTECTION FENCING SHOULD BE INSTALLED PER THE ISA RECOMMENDED TREE PROTECTION FENCING DETAIL BELOW.

Attachment No. 3 – Significant Tree Inventory

QMD quadratic mean diameter for multiple stemmed trees
Dripline radius from center of tree
Condition ratings '1' good to excellent, '2' fair, '3' poor
For offsite trees, driplines are reported as branch length overhanging the subject property. DBH is estimated.

Category	Grove	Tree No.	DBH	Species	Dripline (R')	Health	Structure
Large	No	1	18.5"	Flowering cherry	17'	2	2
Exceptional	No	2	35"	Western red-cedar	16'	1	2
Large	No	3	21.5"	Grand fir	20'	1	1
Large	No	4	19"	Douglas-fir	22'	1	1
Large	No	5	20"	Deodar cedar	23'	1	2
Large	No	6	13.5"	Scots pine	18'	1	2
Large	No	7	11"	Flowering cherry	10'	3	3
Large	No	8	(5) 7-8"	Magnolia, Tulip	14'	1	2
Large	No	9	11"	Flowering cherry	16'	2	2
Small	No	10	6"	Japanese maple	12'	1	2
Small	No	11	6"	Holly	7'	1	1
Small	No	12	6"	Purpleleaf plum	16'	2	2
Large	No	13	13"	Blue spruce	8'	1	1
Exceptional	No	14	35"	Grand fir	18'	1	1
Exceptional	No	15	38"	Deodar cedar	18'	1	1

NORTH
GRAPHIC SCALE
0 5 10 20
1 INCH = 10 FT.

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(ID,MT,ND,OR,WA)

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

4024 85TH AVE SE
MERCER ISLAND RESIDENCE

TREE RETENTION AND PLANTING PLAN

4024 85TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 5450300155

NW EASTSIDE BUILDERS, LLC

9675 SE 36TH STREET, SUITE 105
MERCER ISLAND WA 98040
253-405-5587

REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
53233
5-5-2025

APP
REVISION
DATE

DRAFTED BY: ECM
DESIGNED BY: ECM
PROJECT ENGINEER: YLP
DATE: 02.24.2025
PROJECT NO.: 25001

DRAWING: C5
SHEET: 5 OF 5

ENERGY CODE

2021 WASHINGTON STATE ENERGY CODE/ IECC (WSEC)
ALL CLIMATE ZONES - TABLE R402.1.3
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT [A]

	PRESCRIPTIVE	EFFICIENT BUILDING ENVELOPE OPTION 1.2
FENESTRATION U-FACTOR [B]	0.30	0.25
SKYLIGHT [B] U-FACTOR	0.50	0.50
CEILING R-VALUE [E]	60	60
WOOD FRAME WALL [G,I] R-VALUE	20+5 OR 13+10	20+5 OR 13+10
FLOOR R-VALUE	30	38
BELOW GRADE WALL [C,H] R-VALUE	10/15/21 INT + 5TB	10/15/21 INT + 10TB
SLAB [D,F] R-VALUE & DEPTH	10, 4 FT.	10, ENTIRE SLAB

TABLE R402.1.1 FOOTNOTES
FOR SI: 1 FOOT = 304.8 MM, CI = CONTINUOUS INSULATION, INT. = INTERMEDIATE FRAMING.

[A] R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE COMPRESSED R-VALUE OF THE INSULATION FROM APPENDIX TABLE A101.4 SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

[B] THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS.

[C] "10/15/21 +5TB" MEANS R-10 CONTINUOUS INSULATION ON THE EXTERIOR OF THE WALL, OR R-15 CONTINUOUS INSULATION ON THE INTERIOR OF THE WALL, OR R-21 CAVITY INSULATION PLUS A THERMAL BREAK BETWEEN THE SLAB AND THE BASEMENT WALL AT THE INTERIOR OF THE BASEMENT WALL. "10/15/21 +5TB" SHALL BE PERMITTED TO BE MET WITH R-13 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE WALL. "5TB" MEANS R-5 THERMAL BREAK BETWEEN FLOOR SLAB AND BASEMENT WALL.

[D] R-10 CONTINUOUS INSULATION IS REQUIRED UNDER HEATED SLAB ON GRADE FLOORS. SEE R402.2.9.1.

[E] FOR SINGLE RAFTER- OR JOIST- VAULTED CEILINGS, THE INSULATION MAY BE REDUCED TO R-38 IF THE FULL INSULATION DEPTH EXTENDS OVER THE TOP PLATE OF THE EXTERIOR WALL.

[F] R-7.5 CONTINUOUS INSULATION INSTALLED OVER AN EXISTING SLAB IS DEEMED TO BE EQUIVALENT TO THE REQUIRED PERIMETER SLAB INSULATION WHEN APPLIED TO EXISTING SLABS COMPLYING WITH SECTION R503.1.1. IF FOAM PLASTIC IS USED, IT SHALL MEET THE REQUIREMENTS FOR THE THERMAL BARRIERS PROTECTING FOAM PLASTICS.

[G] FOR LOG STRUCTURES DEVELOPED IN COMPLIANCE WITH STANDARD ICC 400, LOG WALLS SHALL MEET THE REQUIREMENTS FOR CLIMATE ZONE 5 OF ICC 400.

[H] INT. (INTERMEDIATE FRAMING) DENOTES FRAMING AND INSULATION AS DESCRIBED IN SECTION A103.2.2 INCLUDING STANDARD FRAMING 16 INCHES ON CENTER, 78 PERCENT OF THE WALL CAVITY INSULATED AND HEADERS INSULATED WITH A MINIMUM OF R-10 INSULATION.

[I] THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION. THEREFORE, AS AN EXAMPLE, "R13+10" MEANS R-13 CAVITY INSLATION PLUS R-10 CONTINUOUS INSULATION.

[J] A MAXIMUM U-FACTOR OF 0.32 SHALL APPLY TO VERTICAL FENESTRATION PRODUCTS INSTALLED IN BUILDINGS LOCATED ABOVE 4000 FEET IN ELEVATION ABOVE SEA LEVEL, OR IN WINDBORNE DEBRIS REGIONS WHERE PROTECTION OF OPENINGS IS REQUIRED UNDER SECTION R301.2.1.2 OF THE INTERNATIONAL RESIDENTIAL CODE.

1. A CERTIFICATE COMPLYING WITH 2021 WSEC R401.3 IS REQUIRED TO BE COMPLETED BY THE BUILDER OR APPROVED PARTY AND PERMANENTLY POSTED.
2. AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM.
3. ALL PERMANENTLY INSTALLED LIGHTING FIXTURES, EXCLUDING KITCHEN APPLIANCES, SHALL CONTAIN ONLY HIGH-EFFICACY LIGHTING SOURCES.

WHOLE HOUSE VENTILATION

WHOLE HOUSE VENTILATION SYSTEM TO BE DESIGNED PER WSBC AMENDMENTS TO 2021 IRC SECTION M1505.4.4.

SEE "WHOLE HOUSE VENTILATION" ON THE SCHEDULE SHEET FOR SELECTED OPTION.

WHOLE-HOUSE MECHANICAL VENTILATION AIRFLOW RATE PER EQUATION 15-1 (M1505.4.3)

VENTILATION QUALITY ADJUSTMENT PER EQUATION 15-2 (M1505.4.3.1)

IRC TABLE M1505.4.3(2)
INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS [AB]

RUN TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	50%	66%	75%	100%
FACTOR	2	1.5	1.3	1.0

A. FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE DETERMINED BY INTERPOLATION.
B. EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.

MECHANICAL

GENERAL
SOLID FUEL BURNING APPLIANCES INCLUDE AIRTIGHT STOVES, FIREPLACE STOVES, ROOM HEATERS, FACTORY BUILT FIREPLACES AND FIREPLACE INSERTS. ALL SOLID FUEL BURNING APPLIANCES SHALL COMPLY WITH THE PROVISIONS OF I.R.C. R1006.6

HEATING
EACH DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A TEMPERATURE OF 68 DEGREES FAHRENHEIT AT A HEIGHT OF 3'-0" ABOVE THE FLOOR AND TWO FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS WHEN THE OUTSIDE TEMPERATURE IS AS SET FORTH IN THE 2021 W.S.E.C.

DEFINITION OF BUILDING THERMAL ENVELOPE FROM THE 2021 WASHINGTON STATE ENERGY CODE:

> THE BELOW-GRADE WALLS, ABOVE-GRADE WALLS, FLOORS, CEILINGS, ROOF, AND ANY OTHER BUILDING ELEMENT ASSEMBLIES THAT ENCLOSE CONDITIONED SPACE OR PROVIDES A BOUNDARY BETWEEN CONDITIONED SPACE AND EXEMPT OR UNCONDITIONED SPACE.

1. FUEL BURNING APPLIANCES LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN AIR FROM OUTDOORS, MEETING THE PROVISIONS OF IRC G2407
2. FUEL BURNING APPLIANCES LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2021 IRC.
3. DUCTWORK LOCATION SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2021 IRC.
4. COMBUSTION AIR TO MEET THE REQUIREMENTS OF I.R.C. M1701.1

ALL WARM AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY PER CHAPTER M1302 OF THE 2021 IRC.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT PER EXCEPTIONS IN IRC G2406.2

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GASES MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS.

HEATING AND COOLING APPLIANCES LOCATED IN A GARAGE AND WHICH GENERATE A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR SURFACE.

FIRE DAMPERS NEED NOT BE INSTALLED IN AIR DUCTS PASSING THROUGH THE WALL, FLOOR OR CEILING SEPARATING A RESIDENCE (R-3 OCCUPANCY) FROM A GARAGE, PROVIDED SUCH DUCTS WITHIN THE GARAGE ARE CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN 0.019" (NO. 26 GALVANIZED SHEET GAUGE) AND HAVE NO OPENINGS INTO THE GARAGE

EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM COMPLYING WITH CHAPTER 18 OF THE 2021 IRC.

EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT OR TYPE BW GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MANUFACTURERS INSTALLATION INSTRUCTIONS AND THE REQUIREMENTS PER CHAPTER 24 OF THE 2021 IRC.

A TYPE B OR BW GAS VENT SHALL TERMINATE PER CHAPTER 24 OF THE 2021 IRC.

VENT CONNECTORS SHALL BE INSTALLED WITHIN THE SPACE OR AREA IN WHICH THE APPLIANCE IS LOCATED AND SHALL BE CONNECTED TO A CHIMNEY OR VENT IN SUCH A MANNER AS TO MAINTAIN THE CLEARANCE TO COMBUSTIBLES PER SECTION M1803 OF THE 2021 IRC.

HEATING EQUIPMENT
ALL HEATING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT (NAECA) AND BE SO LABELED. EQUIPMENT SHALL ALSO COMPLY WITH SECTION M1411 OF THE 2021 IRC

DUCTWORK
1. DUCT SYSTEMS OR FACTORY BUILT AIR DUCTS SHALL BE OF METAL AS SET FORTH BY TABLE 1601.1.1 OF THE 2021 IRC.
2. RECTANGULAR, FLAT, OVAL AND ROUND DUCT JOINTS AND SEAMS SHALL BE AIRTIGHT PER SECTION M1601.4.1 OF THE 2021 IRC.
3. INSTALLATION OF DUCTS SHALL COMPLY WITH SECTION M1601.4 OF THE 2021 IRC.
4. DUCT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH SECTION M1601.3 OF THE 2021 IRC.
5. FINAL DUCT LEAKAGE AFFIDAVIT IS TO BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO FINAL INSPECTION. DUCT LEAKAGE AND SEALING REQUIREMENTS IN 2021 W.S.E.C. SECTION R403.3.4 THRU R403.3.6 TO BE MET.
6. DUCTS INSULATED TO A MINIMUM R-8 INSULATION IN UNCONDITIONED SPACES PER W.S.E.C. SECTION R403.3.1

CARPENTRY

GENERAL
ALL FRAMING SHALL COMPLY WITH THE APPLICABLE SECTION(S) OF THE 2021 IBC/IRC.
PRESSURE TREATED WOOD REQUIRED IN LOCATIONS LISTED IN IRC R317.1

- 2" MINIMUM VERTICAL CLEARANCE BETWEEN WOOD & CONCRETE STEPS, PORCH SLABS, PATIO SLABS & OTHER SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.
- 6" MINIMUM CLEARANCE BETWEEN WOOD AND EARTH.
- 8" MINIMUM CLEARANCE BETWEEN UNTREATED MUDSILLS AND EARTH.
- 12" MINIMUM CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
- 18" MINIMUM CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

LOADING

ROOF	15 PSF DEAD LOAD	+	25 PSF LIVE LOAD	=	40 PSF
ROOF w/ SOLAR PANELS	20 PSF DEAD LOAD	+	25 PSF LIVE LOAD	=	45 PSF
FLOOR TRUSSES	15 PSF DEAD LOAD	+	40 PSF LIVE LOAD	=	55 PSF
FLOOR	10 PSF DEAD LOAD	+	40 PSF LIVE LOAD	=	50 PSF
CEILING	5 PSF DEAD LOAD	+	10 PSF LIVE LOAD	=	15 PSF
DECK	10 PSF DEAD LOAD	+	60 PSF LIVE LOAD	=	70 PSF
INTERIOR PARTITION				=	7 PSF
EXTERIOR PARTITION				=	10 PSF

WOOD BEARING ON OR INSTALLED WITHIN ½" OF MASONRY OR CONCRETE TO BE TREATED WITH AN APPROVED PRESERVATIVE. SOLID BLOCKING OF NOT LESS THAN 2x THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS. ANCHOR BOLTS TO BE PER SHEAR WALL SCHEDULE AND FOUNDATION PLAN. 7" MINIMUM EMBEDMENT. ALL METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS SHALL BE STRONG TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY.

PROVIDE FIREBLOCKING IN CONCEALED SPACES OF STUD WALLS & PARTITIONS, INCLUDING FURRED SPACES & PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:

1. VERTICALLY AT THE CEILING & FLOOR LEVELS.
2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.

PROVIDE FIREBLOCKING AT OTHER LOCATIONS PER 2021 IRC R302.11.

INSULATION & MOISTURE PROTECTION

GENERAL
UNLESS NOTED OTHERWISE, INSULATION SHALL CONFORM TO THE WASHINGTON STATE ENERGY CODES. INSULATION BAFFLES TO MAINTAIN 1" CLEAR SPACE ABOVE INSULATION. BAFFLES TO EXTEND 6" ABOVE BATT INSULATION & 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND BATHTUBS, SHOWERS, PARTITIONS AND CORNERS. PROVIDE FACE STAPLED BATTS OR FRICTION FIT FACED BATTS. PROVIDE 4 MIL (0.004") POLYETHYLENE VAPOR BARRIER AT WALLS OR USE CLASS II PRIMER. PROVIDE R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

INFILTRATION CONTROL
1. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS, AND ROOF, AND ALL OTHERS SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CAULKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR INFILTRATION.
2. ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR INFILTRATION AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED "FIRE-RATED" AND MUST MEET THE ABOVE REQUIREMENT.
3. ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO ADMIT AIR INFILTRATION INTO OR FROM THE BUILDING ENVELOPE WHICH SHALL BE SUBSTANTIATED BY TESTING TO STANDARD ASTM E 283.73. SITE BUILT AND MILLWORK SHOP MADE WOODEN SASH ARE EXEMPT FROM TESTING BUT SHALL BE WEATHER-STRIPPED, CAULKED AND MORE TIGHTLY FITTING.
4. RECESSED LIGHT FIXTURES TO LIMIT AIR LEAKAGE PER W.S.E.C.

PIPING FOR HOT WATER / STEAM SYSTEMS OF PIPING FOR CONTINUOUSLY CIRCULATING HOT WATER SERVICE IS REQUIRED TO BE INSULATED PER THE W.S.E.C. HOT WATER PIPING SHALL BE INSULATED TO A MINIMUM OF R-3 PER W.S.E.C. R403.5.3. MECHANICAL SYSTEM PIPING SHALL BE INSULATED TO A MINIMUM R-6 PER W.S.E.C. R403.4

VAPOR BARRIERS / GROUND COVERS
AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS. INSET STAPLED BATTS WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE, STAPLES SHALL BE PLACED NOT MORE THAN 8" O.C. AND GAPS BETWEEN THE FACING AND THE FRAMING SHALL NOT EXCEED 1/16"

VAPOR RETARDERS AT WALLS PER IRC R702.7

A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

DOORS, WINDOWS AND SKYLIGHTS

GENERAL
THE REQUIRED EGRESS DOOR MAY HAVE A MAXIMUM 7 ¾" STEP ON THE EXTERIOR SIDE FROM TOP OF THE THRESHOLD TO A MINIMUM 36" DEEP LANDING ON THE EXTERIOR SIDE OF THE DOOR. PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING, PER R311.3.1 OTHER EXTERIOR DOORS MAY HAVE A MAXIMUM (2) 7 ¾" STEPS TO A MIN. 36" DEEP LANDING. ALL GLAZING SHALL MEET THE REQUIREMENTS OF THE 2021 W.S.E.C. TABLE R402.1.3 UNLESS NOTED OTHERWISE. ALL SKYLIGHTS AND SKYWALLS SHALL HAVE LAMINATED GLASS UNLESS NOTED OTHERWISE. ALL BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. MINIMUM NET CLEAR OPERABLE WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24", MAXIMUM HEIGHT FROM FLOOR OF 44" MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING. OPERABLE WINDOWS WITH A SILL OF MORE THAN 72" ABOVE FINISHED THE GRADE OR SURFACE BELOW, TO BE A MINIMUM OF 24" ABOVE ADJACENT FINISHED FLOOR.

SAFETY GLAZING LOCATIONS PER 2021 IRC SECTION R308.4
R308.4.1 GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD DOORS.

R308.4.2 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR & THE GLAZING IS EITHER WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION OR ON A WALL LESS THAN 180 DEGREES FROM THE PLANE OF THE DOOR IN A CLOSED POSITION & WITHIN 24 INCHES OF THE HINGE SIDE OF AN IN-SWINGING DOOR.

R308.4.3 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
1. THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS LARGER THAN 9 SQUARE FEET;
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR;
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR; AND
4. ONE OR MORE WALKING SURFACES ARE WITHIN 36" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.

R308.4.4 GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE.

R308.4.5 GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR ADJACENT TO HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.

R308.4.6 GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES (914 MM) ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS.

R08.4.7 GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60" HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING.

FOR EXCEPTIONS SEE IRC SECTION R308.4

GENERAL

PLANS COMPLY WITH THE 2021 INTERNATIONAL RESIDENTIAL CODE.

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN MADE. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ALL DISCREPANCIES TO THE ARCHITECT AT THE TIME THEY ARE NOTED. DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

CODES:
ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION SHALL BE FOLLOWED
1. 2021 INTERNATIONAL RESIDENTIAL CODE (IRC) WITH WASHINGTON STATE AMENDMENTS (WSA) EXCEPT CHAPTERS 11 AND 25 THROUGH 42 ARE NOT ADOPTED. APPENDICES F,Q, & U ARE ADOPTED.
2. 2021 INTERNATIONAL BUILDING CODE (IBC) WITH WASHINGTON STATE AMENDMENTS (WSA)
3. 2021 INTERNATIONAL MECHANICAL CODE (IMC) WITH WASHINGTON STATE AMENDMENTS (WSA)
4. 2021 UNIFORM PLUMBING CODE (UPC) WITH WASHINGTON STATE AMENDMENTS.
5. 2021 INTERNATIONAL FIRE CODE WITH WASHINGTON STATE AMENDMENTS.
6. 2021 WASHINGTON STATE ENERGY CODE, RESIDENTIAL PROVISIONS (WSEC).

LOCAL JURISDICTION REQUIRES DWELLING UNIT FIRE SPRINKLER SYSTEM PER IRC APPENDIX U
☐ YES
☒ NO

SITE WORK

GENERAL
ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. ALL BACK FILL MATERIAL SHALL BE THOROUGHLY COMPACTED. FOUNDATION VENTS SHALL NOT INTERFERE WITH THE DIRECT LOAD PATH OF COLUMNS.

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDER-LAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	SUMMER DESIGN TEMP
	SPEED (MPH)	TOPO-GRAPHIC EFFECTS	SPECIAL WIND REGION	WIND-BORNE DEBRIS ZONE		WEATHERING	FROST LINE DEPTH	TERMITE					
25	110	NO	NO	NO	D2	MODERATE	12"	SLIGHT TO MODERATE	24	NO	NA	113	53
EQUIVALENT FLUID PRESSURE = 35 P.C.F. (UNRESTRAINED WALLS) 50 P.C.F. (RESTRAINED WALLS)													

SHEET INDEX

5046 REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
3/6/25

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18915-142ND AVENUE NE SUITE 100 WOODINVILLE, WA 98072
OFFICE: (425) 485-4900 FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100 WWW.ARCHITECTSNW.COM

NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

DESIGNED BY: DWB DATE: 1/25
DRAWN BY: DWB DATE: 3/6/25
PROJECT MANAGER: JdeR
REVISED BY: DATE:
LATERAL BY: ME DATE: 4/22/25
LATERAL JOB NUMBER: 2608

A1 / A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013

INTERMEDIATE WALL FRAMING

(WSEC A103.2.2)

STUDS SHALL BE FRAMED 16 INCHES ON CENTER WITH DOUBLE TOP PLATE AND SINGLE BOTTOM PLATE.

CORNERS USE TWO STUDS OR OTHER MEANS OF FULLY-INSULATED CORNERS. EACH OPENING IS FRAMED USING TWO STUDS.

HEADERS CONSIST OF DOUBLE 2x MATERIALS WITH R-10 INSULATION.

INTERIOR PARTITION WALL / EXTERIOR WALL INTERSECTIONS ARE FULLY INSULATED IN THE EXTERIOR WALL.

ADVANCED ROOF FRAMING

MFR TRUSSES @24"oc. W/ R-49 INSUL TO F.O. EXT WALL

1 W.S.E.C. SCHEDULES

SCALE: NOT TO SCALE

EXHAUST RATES

WSBC AMENDMENTS TO 2021 IRC SECTION M1505

SYMBOL	LOCATION	MINIMUM FAN REQUIREMENTS
◐ A	Bath, Powder	Minimum 50 cfm Intermittent, 20 cfm Continuous (IRC TABLE M1505.4.4(1))
◐ B	Kitchen	INTERMITTENT-OPEN OR ENCLOSED KITCHEN Hood over electric range 65% CE or 160 CFM. Hood over combustion range 80% CE or 250 CFM. CONTINUOUS-ENCLOSED KITCHENS 5 ACH based on kitchen volume.
◐ C	Whole House Fan	Flow rate per WHOLE-HOUSE MECHANICAL VENTILATION schedule

All fans to vent to outside. All other requirements of the 2021 WSEC and the WSBC amendments to the 2021 IRC section M1505 must be met.

ALARM SCHEDULE

2021 IRC SECTIONS R314 & R315

SYMBOL	DESCRIPTION	REQUIREMENTS
(SA)	Smoke Alarm	*110 V interconnected w/ battery backup. *Installed on each floor, in each sleeping room, and outside each separate sleeping area. Installed not less than 3 ft from the door of a bath which contains a tub or shower unless this prevents placement in a required location. *Listed in accordance with UL 217 and to comply with NFPA 72.
(SA)(CM)	Combination Smoke Alarm & Carbon Monoxide Alarm	*Installed on each floor, outside of each separate sleeping area in the immediate vicinity of the bedrooms, and in a bedroom that contains a gas fireplace in the bedroom or adjacent bathroom. *Smoke alarm requirements per above. *Combination smoke & carbon monoxide alarms listed in accordance with UL 217 & UL 2034.
(HD)	Heat Detector	*A heat detector or heat alarm to be installed in a central location in the garage and per the manufacturer's instructions. * Heat detector shall be interconnected to an alarm installed in the dwelling unit.

PRESCRIPTIVE ENERGY CODE COMPLIANCE

This project will use the requirements of the Prescriptive Path below and incorporate the minimum values listed. In addition, based on the size of the structure, the appropriate number of additional credits are checked.

ALL CLIMATE ZONES - TABLE R402.1.3

	Prescriptive	U-Factor Path	E.B.E. Option 1.2
Fenestration U-Factor^{b}	0.30	0.30	0.25
Skylight U-Factor^{b}	0.50	0.50	0.50
Ceiling R-Value^{e}	60	0.024	60
Wood Frame Wall R-Value^{g,i}	20+5 or 13+10	0.056	20+5 or 13+10
Floor R-Value	30	0.029	38
Below Grade Wall R-Value^{c,h}	10/15/21 int + 5TB	0.035	10/15/21 int + 5TB
Slab^{d,f} R-Value & Depth	10, 4 ft	0.540	10, entire slab

See Table R402.1.2 for U-Factor path footnotes.

See Table R402.1.3 footnotes included on Sheet A1.

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 & R406.3 so as to achieve the following minimum number of credits:

☐ **1. Small Dwelling Unit: 5.0 credits**

Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are greater than 500 square feet of heated floor area but less than 1500 square feet.

☑ **2. Medium Dwelling Unit: 8.0 credits**

All dwelling units that are not included in #1 or #3.

☐ **3. Large Dwelling Unit: 9.0 credits**

Dwelling units exceeding 5000 square feet of conditioned floor area.

☐ **4. Additions 150 square feet to 500 square feet: 2.0 credits**

ENERGY CREDIT SUMMARY TABLES

Heating Options	Fuel Normalization Descriptions	Credits	
1	Combustion heating, equipment per Table C403.3.2(5) or (6)	0.0	☐
2	Heat pump with supplemental heating	1.5	☐
3	Electric resistance heat only - forced air or zonal	0.5	☐
4	Heat pump without supplemental heating	3.0	☑
5	Electric resistance w/ mini-split heat pump or 2kw max capacity	2.0	☐

Energy Options	Energy Credit Option Descriptions	Credits	
1.1	Efficient Building Envelope	0.5	☐
1.2	Efficient Building Envelope	1.0	☐
1.3	Efficient Building Envelope	1.5	☐
1.4	Efficient Building Envelope	2.5	☐
2.1	Air Leakage Control and Efficient Ventilation	1.0	☐
2.2	Air Leakage Control and Efficient Ventilation	1.5	☑
2.3	Air Leakage Control and Efficient Ventilation	2.0	☐
3.1	High Efficiency HVAC	1.0	☐
3.2	High Efficiency HVAC	0.5	☐
3.3	High Efficiency HVAC	0.5	☐
3.4	High Efficiency HVAC	1.5	☐
3.5	High Efficiency HVAC	1.5	☐
3.6	High Efficiency HVAC	1.0	☑
3.7	High Efficiency HVAC	2.0	☐
3.8	High Efficiency HVAC	1.0	☐
3.9	High Efficiency HVAC	1.5	☐
3.10	High Efficiency HVAC	2.5	☐
3.11	High Efficiency HVAC	0.5	☐
4.1	High Efficiency HVAC Distribution System	0.5	☐
5.1	Efficient Water Heating	0.5	☐
5.2	Efficient Water Heating	0.5	☑
5.3	Efficient Water Heating	0.5	☐
5.4	Efficient Water Heating	1.0	☐
5.5	Efficient Water Heating	1.5	☐
5.6	Efficient Water Heating	2.0	☑
5.7	Efficient Water Heating	2.5	☐
5.8	Efficient Water Heating	2.5	☐
6.1	Renewable Electric Energy (0.5 credits per 600kwh, 4.5 max)	0.0	☐
7.1	Appliance Package	0.5	☐
Total Credits		**8.0**	

WINDOW, SKYLIGHT & DOOR SCHEDULE

CONDITIONED FLOOR AREA: 4550 — SUM OF UA FOR HEATING SYSTEM SIZING: 233.6

SUM OF ALL GLAZING AREAS FROM BELOW: 901

EXEMPT DOOR AND WINDOW

ROOM		U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
	EXEMPT SWING DR (24 S.F. MAX.)					0.00	0.00
	EXEMPT WINDOW (15 S.F. MAX.)					0.00	0.00
	SUM OF AREA AND UA FOR HEATING SYSTEM SIZE ONLY:					**0.0**	**0.0**

EXTERIOR DOORS (OPAQUE)

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
FOYER	FR DOOR	SG	0.27	2	3.00	8.00	48.00	12.96
BR5/GUEST	SGD	SG	0.30	1	8.00	8.00	64.00	19.20
DINING	SGD	SG	0.30	1	12.00	8.00	96.00	
GARAGE	DOOR		0.16	1	2.66	8.00	21.28	
		SUM OF AREA AND UA:					**229.3**	**32.2**
		AREA WEIGHTED U = UA/AREA:						**0.14**

VERTICAL GLAZING

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
PDR	S HUNG	SG	0.30	1	2.00	3.00	6.00	1.80
DEN	SLIDER		0.30	2	4.00	6.00	48.00	14.40
DEN	SLIDER		0.30	2	3.00	5.00	30.00	9.00
BA4	S HUNG	SG	0.30	1	2.00	3.00	6.00	1.80
GREAT	SLIDER		0.30	2	6.00	6.00	72.00	21.60
KITCHEN	SLIDER	SG	0.30	1	5.00	4.50	22.50	6.75
PREP	SLIDER	SG	0.30	1	3.00	4.50	13.50	4.05
MUD	S HUNG		0.30	1	2.00	3.00	6.00	1.80
							0.00	0.00
STAIR	PICTURE	SG	0.30	2	4.00	5.00	40.00	12.00
MBA	S HUNG	SG	0.30	2	3.00	5.00	30.00	9.00
MBR	S HUNG	EGRESS	0.30	2	2.50	5.00	25.00	7.50
MBR	PICTURE		0.30	1	5.00	5.00	25.00	7.50
MBR	PICTURE	TRANSOM	0.30	1	5.00	2.00	10.00	3.00
MBR	S HUNG		0.30	2	2.00	4.50	18.00	5.40
WIC	PICTURE	TRANSOM	0.30	1	8.00	1.00	8.00	2.40
LDY	SLIDER	SG	0.30	1	3.00	4.50	13.50	4.05
OPEN	PICTURE		0.30	4	3.00	5.00	60.00	18.00
OPEN	PICTURE		0.30	2	5.50	5.00	55.00	16.50
BR3	S HUNG	EGRESS	0.30	2	3.00	5.00	30.00	9.00
BR2	S HUNG	EGRESS	0.30	2	3.00	5.00	30.00	9.00
BA2	S HUNG	SG	0.30	1	2.00	3.00	6.00	1.80
BONUS	S HUNG		0.30	2	2.00	5.00	20.00	6.00
BONUS	S HUNG		0.30	2	2.50	5.00	25.00	7.50
BONUS	PICTURE		0.30	1	6.00	5.00	30.00	9.00
BONUS	PICTURE	TRANSOM	0.30	1	6.00	2.00	12.00	3.60
BR4	S HUNG	EGRESS	0.30	2	3.00	5.00	30.00	9.00
		SUM OF AREA AND UA:					**671.50**	**201.45**
		AREA WEIGHTED U = UA/AREA:						**0.30**

OVERHEAD GLAZING

ROOM	TYPE		U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
	SKYLIGHT		0.50				0.00	0.00
	SKYLIGHT		0.50				0.00	0.00
	SKYLIGHT		0.50				0.00	0.00
	SKYLIGHT		0.50				0.00	0.00
		SUM OF AREA AND UA:					**0.00**	**0.00**
		AREA WEIGHTED U = UA/AREA:						**0.00**

VERTICAL GLAZING IN UNHEATED SPACES

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA
GARAGE	S HUNG		0.30	3	2.00	3.00	18.00
							0.00
							0.00
		SUM OF VERTICAL GLAZING IN UNHEATED SPACES:					**18.00**

(not included in sum of all glazing above)

WHOLE-HOUSE MECHANICAL VENTILATION (PRESCRIPTIVE)

WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH SECTIONS M1505.4.1 THROUGH M1505.4.4 (WASHINGTON STATE AMENDMENTS)

- ☐ WHOLE-HOUSE VENTILATION USING EXHAUST FANS (M1505.4.1.2)
- ☐ WHOLE-HOUSE VENTILATION USING SUPPLY FANS (M1505.4.1.3)
- ☐ WHOLE-HOUSE VENTILATION SYSTEM, BALANCED (M1505.4.1.4)
- ☑ WHOLE-HOUSE VENTILATION USING AIR HANDLER INTEGRATED SUPPLY (M1505.4.1.5)

MECHANICAL VENTILATION AIRFLOW RATE PER EQUATION 15-1 (M1505.4.3) 90.5 CFM (CONTINUOUS)

VENTILATION QUALITY ADJUSTMENT PER EQUATION 15-2 (M1505.4.3.1)

- ☑ BALANCED & DISTRIBUTED (1.0 COEFFICIENT)
- ☐ BALANCED & NOT DISTRIBUTED (1.25 COEFFICIENT)
- ☐ NOT BALANCED & DISTRIBUTED (1.25 COEFFICIENT
- ☐ NOT BALANCED & NOT DISTRIBUTED (1.5 COEFFICIENT)

ADJUSTED MECHANICAL VENTILATION AIRFLOW RATE 90.5 CFM (CONTINUOUS)

INTERMITTENT OFF OPERATION (M1505.4.3.2)

RUN-TIME % IN EACH 4-HOUR SEGMENT

- ☐ 50 PERCENT
- ☐ 66 PERCEINT
- ☑ 75 PERCENT
- ☐ 100 PERCENT

INTERMITTENT FLOW RATE 117.65 CFM

AIR LEAKAGE

Components of the building thermal envelope as listed in TABLE R402.4.1.1 shall be installed per manufacturer's specifications to limit air leakage rate to not exceed 1.5 air changes per hour (ACH)

AIR LEAKAGE CALCULATION (maximum blower test CFM)		$CFM_{50-calc}$		ACTUAL Blower test result	
maximum ACH	$CFM_{50-calc}$ = BLDG VOL (ft^3) X 1.5 ACH / 60 min =	1054	cfm		cfm

ROOF VENTILATION

Standard Truss / Scissor Truss Roof Framing Assembly:

Roof Area :	**2840** s.f.	
Ventilation Required:	2840 s.f. x 144 / 300 =	1363.2 s.i. Req'd

Provide between 40% & 50% of the total required ventilation no more than 3 ft below the ridge or the highest point of the space. Remainder to be installed at eave vents.

Upper Roof Ventilation:		
AF50 Roof Jack (10" x 7") =		50.00 s.i. each.
Upper Ventilation MINIMUM =	1363.2 s.i. x 0.4 / s.i. of each vent =	11 vents
Upper Ventilation MAXIMUM =	1363.2 s.i. x 0.5 / s.i. of each vent =	13 vents
Provide:	**11** -10"x7" roof jacks. Ventilation =	550.00 s.i.
Ventilation area remainder for eave vents =	813.20 s.i.	(Req'd vent-Upper vent)

Eave Ventilation:		
Birdblocking: (3)2.25" dia holes per bay =	5.96 s.i. per l.f. - 25% reduction =	4.47 s.i. per l.f.
Eave Ventilation Required =	813.20 s.i. / 4.47 s.i. per l.f. =	181.92 l.f.
Provide Minimum :	182 l.f. birdblocking. Ventilation =	813.54 s.i.
Minimum Ventilation Provided =	**1363.54 s.i. IS GREATER THAN :**	**1363.2 s.i. Req'd**

SIMPLE HEATING SYSTEM SIZE

This heating system sizing is based on the Prescriptive Requirements of the 2021 Washington State Energy Code. This is for heating only. ACCA procedures for sizing cooling systems should be used to determing cooling.

Indoor Design Temperature			70			
Outdoor Design Temperature			24			
Design Temperature Difference						
Indoor - Outdoor Design Temp			46			
Conditioned Floor Area			4550			
Conditioned Volume			42143			
Glazing						
Sum of UA from Glazing Schedule					233.6	
Attic	**U-Factor**	**X**	**Area**	**=**	**UA**	
R-60 STD	0.025					
Other: R-49 ADV	0.020		2840		56.80	
Single Rafter or Joist Vaulted Ceilings	**U-Factor**	**X**	**Area**	**=**	**UA**	
R-38	0.026					
Other:						
Above Grade Walls	**U-Factor**	**X**	**Area**	**=**	**UA**	
R-21 INT + R-10 hdrs	0.056		3484		195.10	
Other:	0.043					
Floors	**U-Factor**	**X**	**Area**	**=**	**UA**	
R-30	0.029		2585		74.97	
Other:	0.025					
Below Grade Walls	**U-Factor**	**X**	**Area**	**=**	**UA**	
R-21 Interior	0.035					
R-10 Continuous exterior	0.064					
Other:						
Slab Below Grade	**F-factor**	**X**	**Length**	**=**	**UA**	
R-10 Thermal break	0.5					
Other:						
Slab on Grade	**F-factor**	**X**	**Length**	**=**	**UA**	
R-10 2' perimeter	0.54					
R-10 Fully insulated	0.36					
Other:						
Sum of UA					560.48	
Envelope Heat Load					25782	Btu / Hour
Sum of UA X Design Temperature Difference						
Air Leakage Heat Load					20937	Btu / Hour
((Volume X 0.6) X Design Outdoor Temp) X .018))						
Building Design Heat Load					46719	Btu / Hour
Air Leakage + Envelope Heat Loss						
Building and Duct Heat Load			1.1		51391	Btu / Hour
Maximum Heat Equipment Output			1.25		64238	Btu / Hour

Use 1.1 if ducts are located in unconditioned space: Sum of Building Heat Loss X 1.1

Use 1 if ducts are located in conditioned space: Sum of Building Heat Loss X 1

Use 1.4 for forced air furnace: Building & Duct Heat Loss x 1.4

Use 1.25 for heat pump: Building & Duct Heat Loss x 1.25

FOUNDATION VENTILATION

Crawlspace Area:	1981 s.f.		
Ventilation Required:	1981 s.f. / 300 =		950.88 s.i. Req'd
Use:	14" x 7"	Foundation Vents	
Vent Area =	98 s.i. - 25% reduct.,1/4"mesh =		73.5 s.i.
Vents Required =	950.88 s.i. / Vent Area =		12.94 s.i.
Provide : 13	14" x 7"	Vents, Area =	955.5 s.i.
Ventilation Provided =	955.50 s.i. is Greater than		950.88 s.i. Req'd
Use: 13	**14" x 7"**	**Foundation Vents**	

*** FOUNDATION VENTS SHALL NOT INTERFERE WITH DIRECT LOAD PATH OF COLUMNS**

*** INSTALL 6 MIL BLACK POLYETHYLENE VAPOR RETARDER GROUND COVER**

*** REQUIRED OPENINGS SHALL BE EVENLY PLACED TO PROVIDE CROSS VENTILATION, EXCEPT ONE SIDE OF THE BUILDING SHALL BE PERMITTED TO HAVE NO VENTS.**

VAPOR RETARDER

FLOOR	☐	4 MIL POLY	☐	FACE STAPLED BACKED BATTS	☒	PLYWOOD W/ EXT. GLUE
WALL	☐	4 MIL POLY	☐	FACE STAPLED BACKED BATTS	☒	CLASS 2 PRIMER
RIM JOIST	☐	4 MIL POLY	☒	FOIL-FACE STAPLED BACKED BATTS	☐	CLASS 2 PRIMER
CEILING	☐	4 MIL POLY	☐	FACE STAPLED BACKED BATTS	☒	CLASS 2 PRIMER

BASE LATEX PRIMER (CLASS II)

Plans to use Benjamin Moor Super latex vapor barrier primer sealer 260, class II, rated at .5 perms. This product is convenient, inexpensive and meets the code requirement for a class II vapor retarder.

ALTERNATE LATEX PRIMERS (to be chosesn by builder if necessary)

DIRECT PAINT SALES WASHINGTON PRO-GYP PERM PRIME	☐
SHERWIN WILLIAMS INTERIOR LATEX PRIMER/FINISH MOISTURE VAPOR BARRIER	☐
RODDA PAINT VAPOR SHIELD	☐
BENJAMIN MOORE SUPER SPEC LATEX VAPOR BARRIER PRIMER SEALER 260	☒
PSI PRIME-PERM VAPOR BARRIER	☐

5046
REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
3/6/25

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
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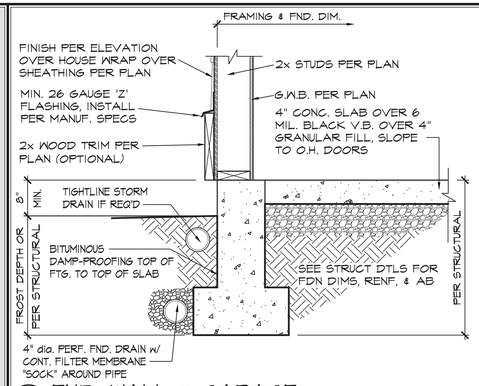
NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

DESIGNED BY: DWB DATE: 1/25
DRAWN BY: DWB DATE: 3/6/25
PROJECT MANAGER: JdeR
REVISED BY: DATE:
LATERAL BY: ME DATE: 4/22/25
LATERAL JOB NUMBER: 2608

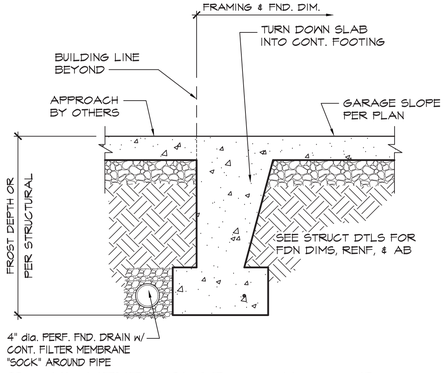
A2
A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013

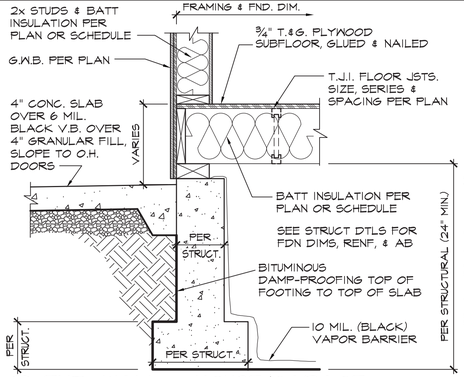
1 FND. WALL @ GARAGE
SCALE: 1" = 1'-0"



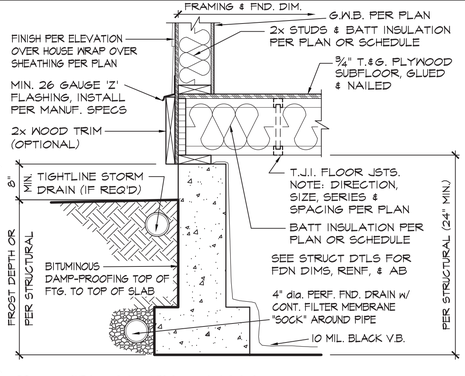
2 THICKENED SLAB @ O.H. DOOR
SCALE: 1" = 1'-0"



3 FND. WALL @ HOUSE/GARAGE
SCALE: 1" = 1'-0"

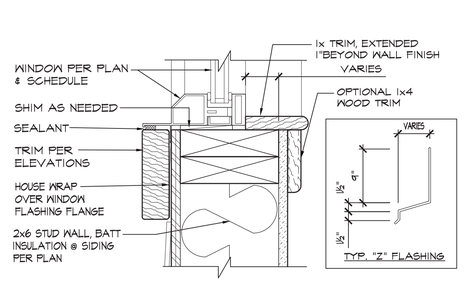


4 TYPICAL FND. WALL
SCALE: 1" = 1'-0" T.J.I.

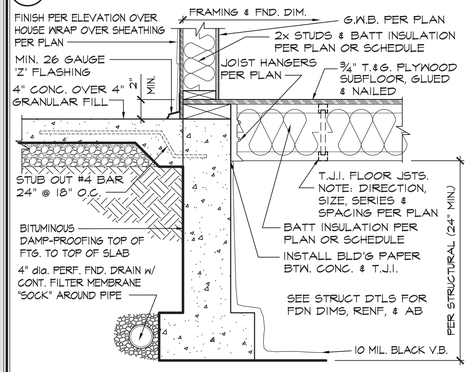


NOTE: FOUNDATION/ROOF DETAILS SHOWN ON THIS SHEET ARE FOR ARCHITECTURAL PURPOSES ONLY. SEE STRUCTURAL SHEETS FOR:
-STEM WALL WIDTH
-FOOTINGS
-REBAR & REINFORCEMENT
-MUD-SILL & ANCHOR BOLTS
-SHEAR WALLS & SHEATHING
-NAILING & CONNECTIONS

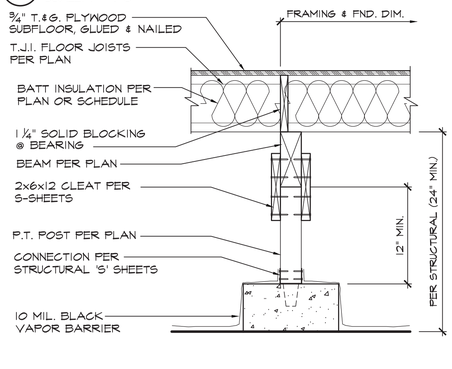
5 E.O.R. NOTE
SCALE: 1" = 1'-0"



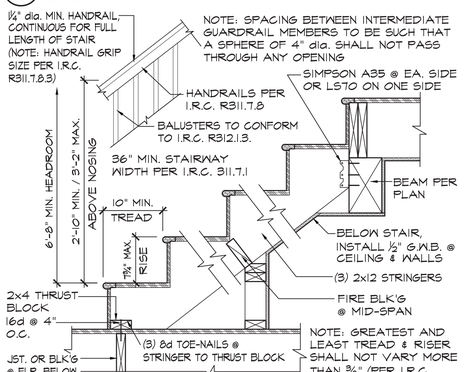
6 RAISED FND. WALL @ SLAB
SCALE: 1" = 1'-0" T.J.I.



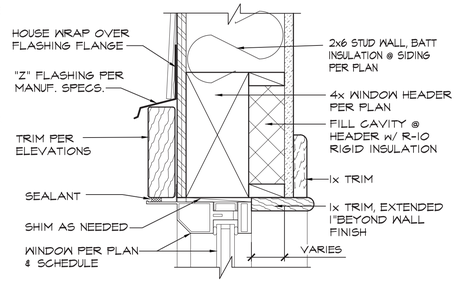
7 CONTINUOUS FOOTING
SCALE: 1" = 1'-0"



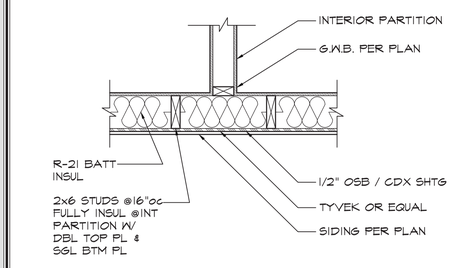
8 INTERIOR STAIR
SCALE: 1" = 1'-0" @ FLOOR/CRAWL SPACE BELOW



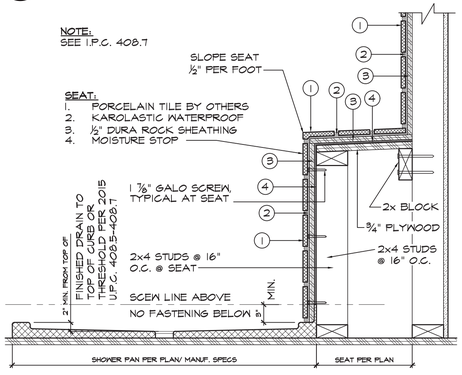
9 TYP. WINDOW HEADER & SILL
SCALE: NOT TO SCALE



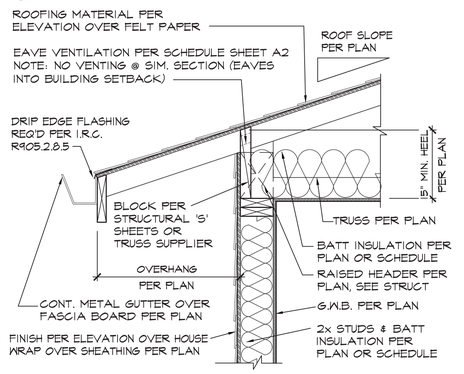
10 INTERMEDIATE WALL FRAMING
SCALE: 1" = 1'-0"



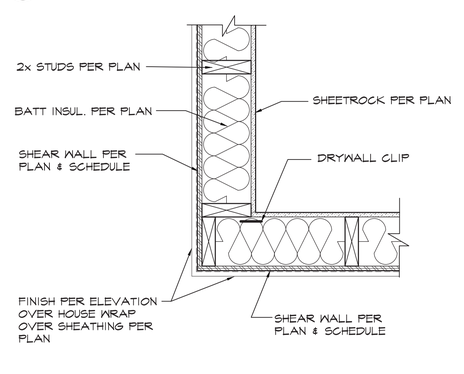
11 SHOWER SEAT
SCALE: 1" = 1'-0"



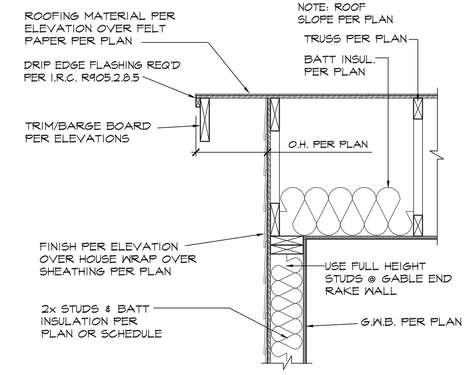
12 TRUSS HEEL @ FLAT CEILING/EAVE
SCALE: 1" = 1'-0"



13 INSULATED CORNER FRAMING
SCALE: 1" = 1'-0"



14 GABLE END DETAIL
SCALE: 1" = 1'-0"



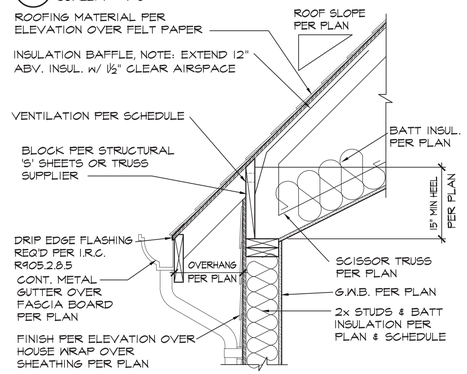
15 NOT USED
SCALE: 1" = 1'-0"

16 NOT USED
SCALE: 1" = 1'-0"

17 NOT USED
SCALE: 1" = 1'-0"

18 NOT USED
SCALE: 1" = 1'-0"

19 SLOPED CEILING @ EAVE
SCALE: 1" = 1'-0" w/ HEEL



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REGISTERED ARCHITECT 5046 JEFFREY P. HERCULEY DATE OF EXPIRATION 3/6/25

NW EASTSIDE BUILDERS LLC

4024 - 85TH AVE SE, MERCER ISLAND

PLAN M4551A3F-0

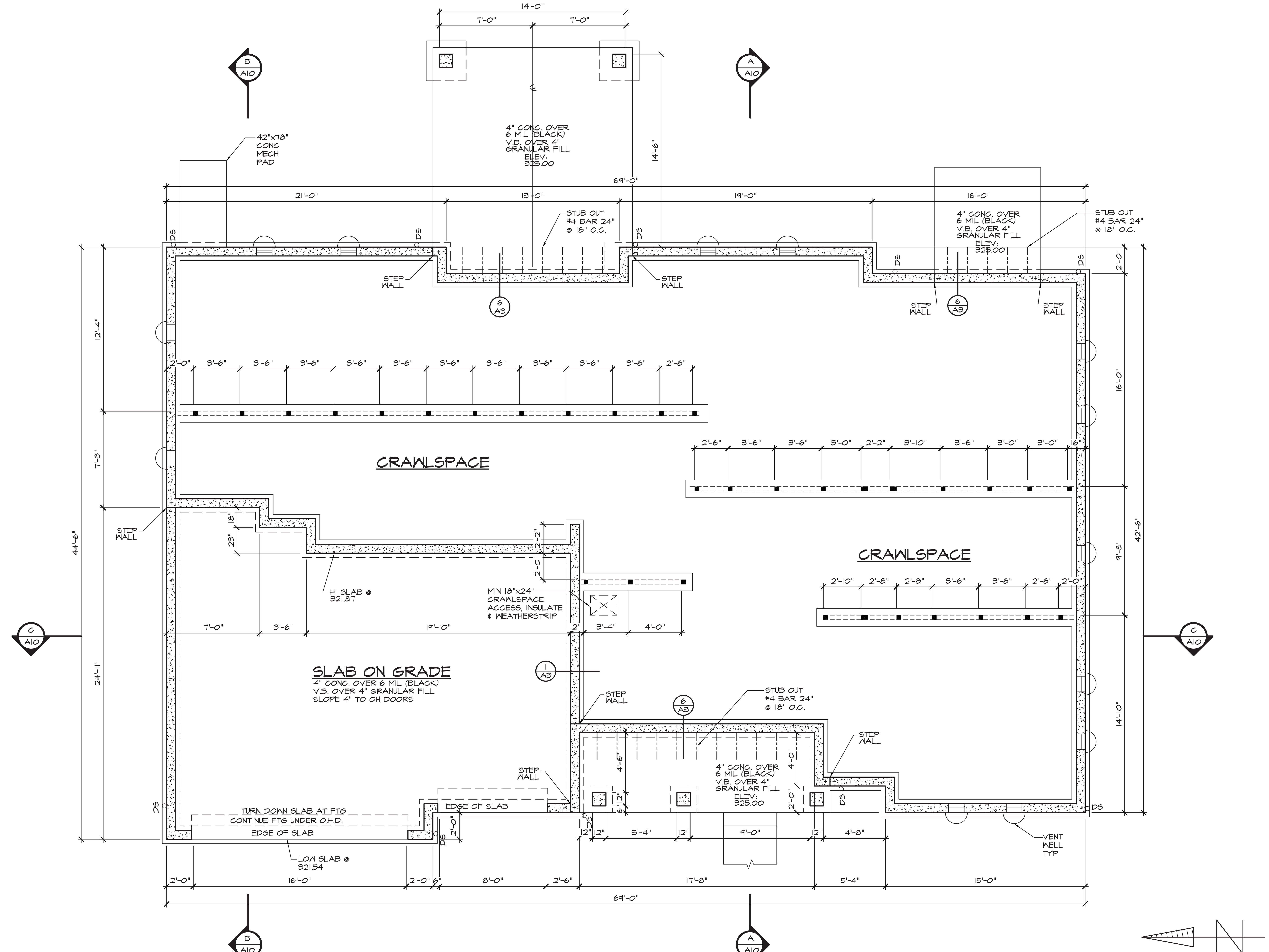
DESIGNED BY:	DATE:
DWB	1/25
DRAWN BY:	DATE:
DWB	3/6/25

PROJECT MANAGER: JdeR
REVISED BY: DATE:

LATERAL BY: ME 4/22/25
LATERAL JOB NUMBER: 2608

A3 / A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013



FOUNDATION VENTING & CSA PLAN

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

REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
3/6/25

ARCHITECTS NORTHWEST
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NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-O

DESIGNED BY:	DATE:
DWB	1/25
DRAWN BY:	DATE:
DWB	3/6/25

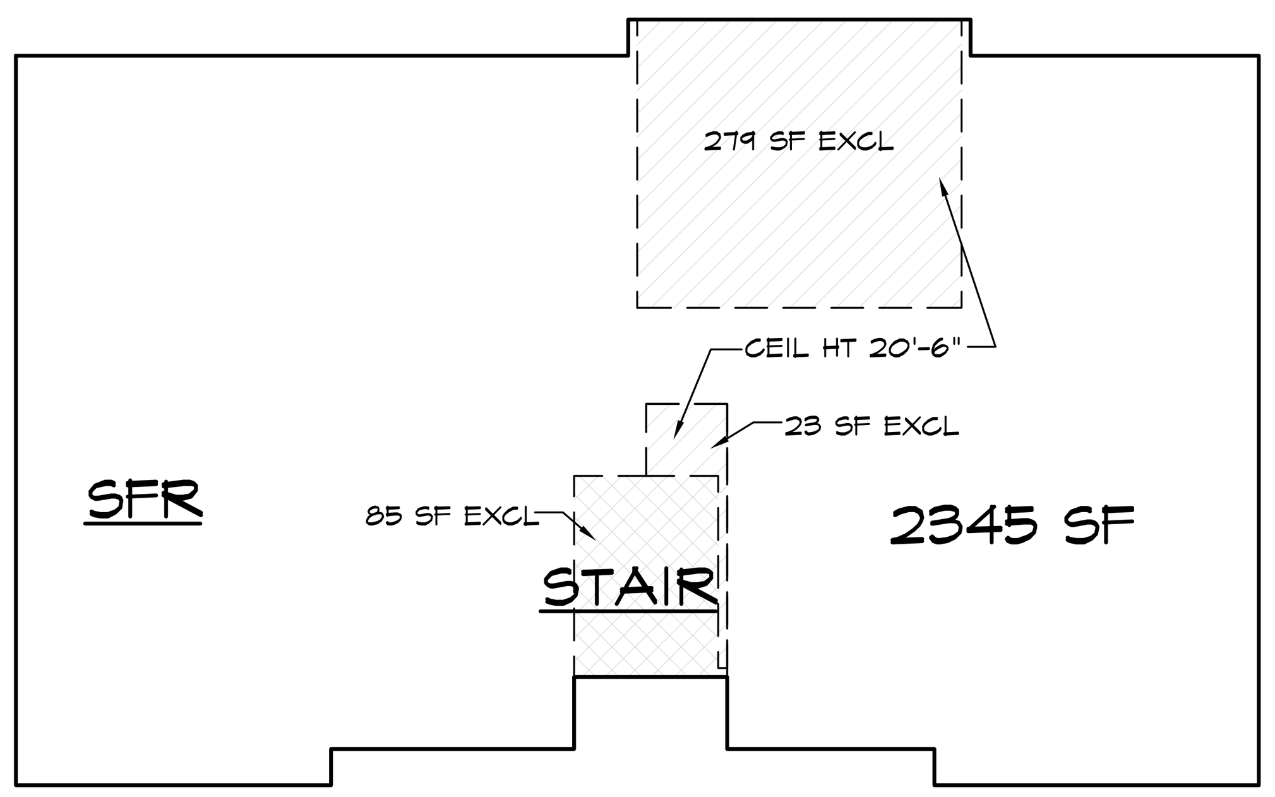
PROJECT MANAGER: JdeR
REVISED BY: DATE:

LATERAL BY: ME DATE: 4/22/25
LATERAL JOB NUMBER: 2608

A4 / A10

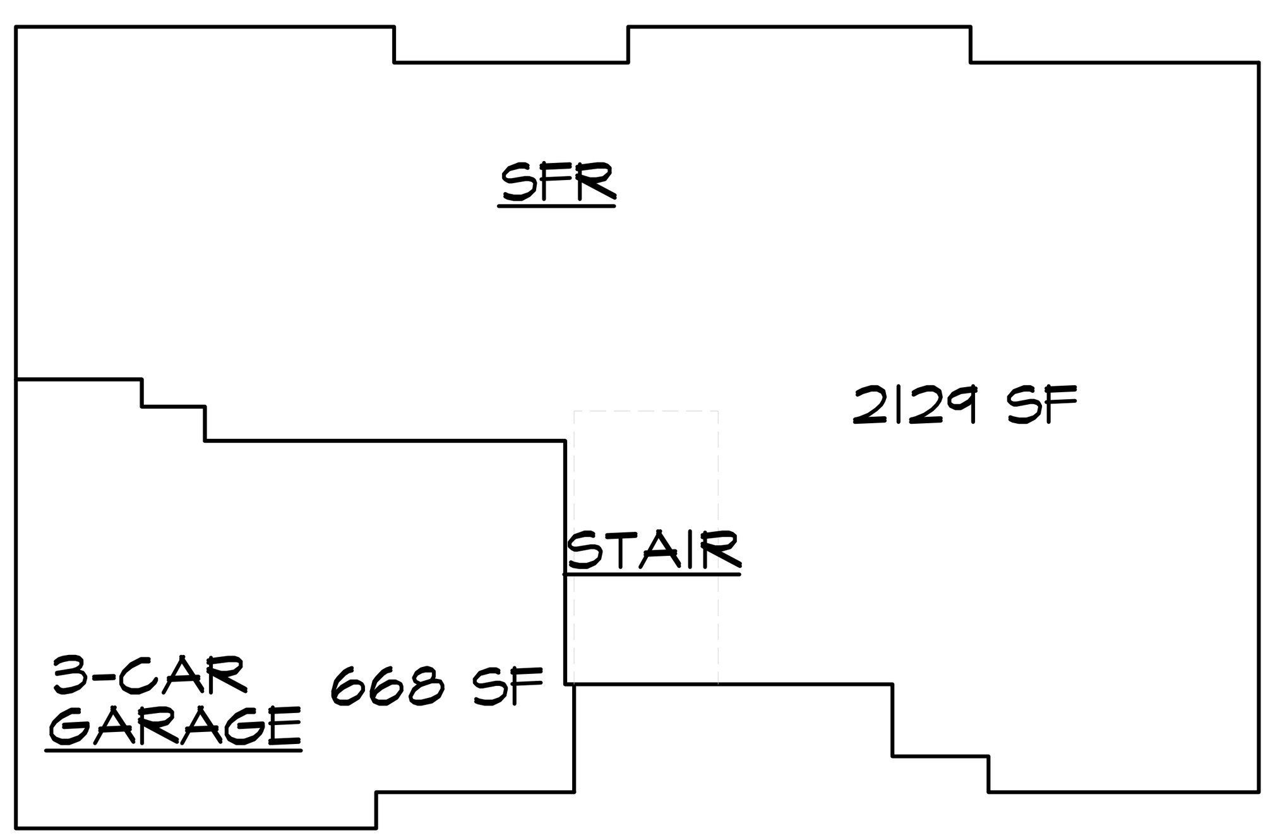
ANW WOODINVILLE OFFICE JOB NUMBER: 250013

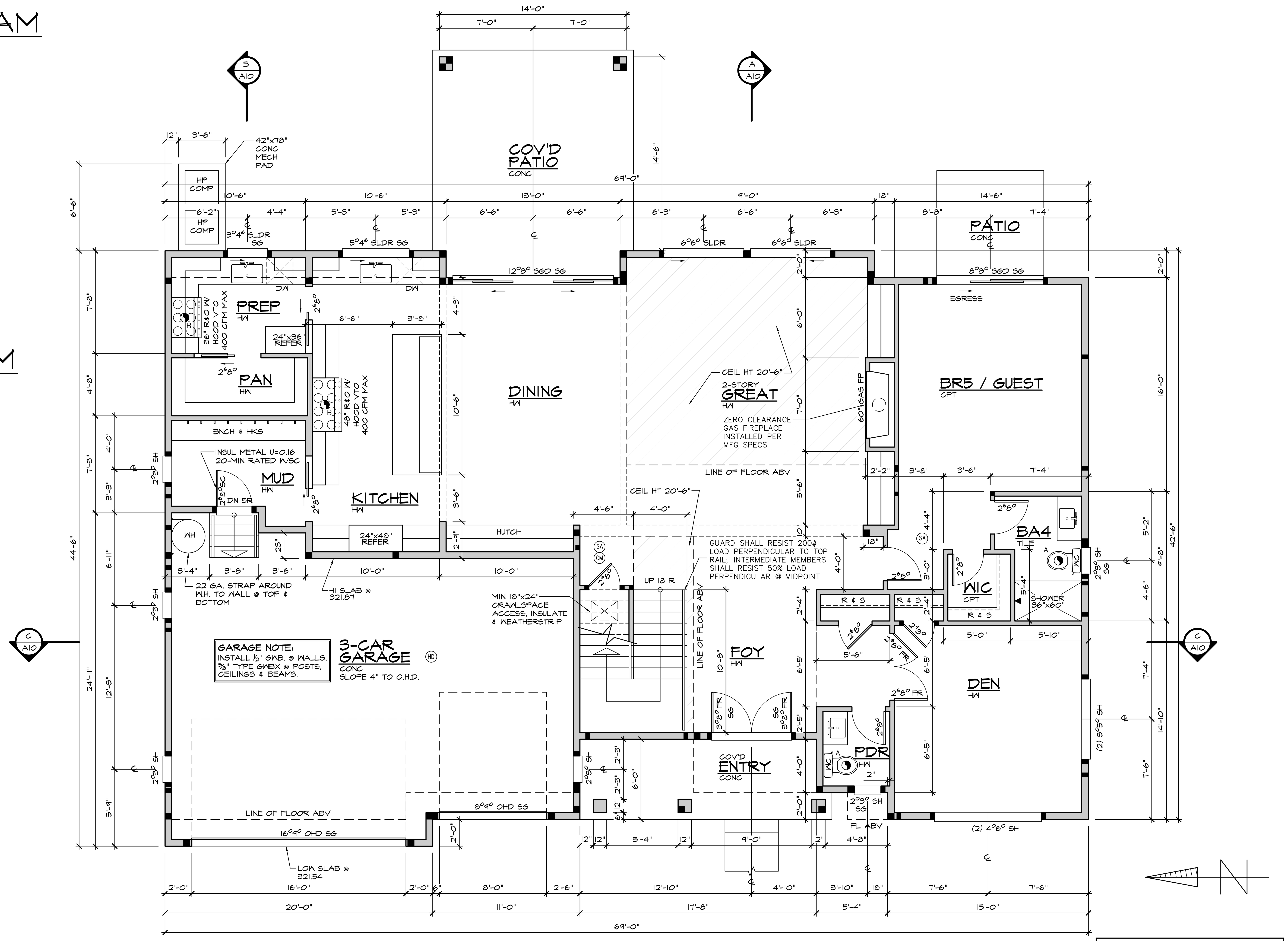
GFA UPPER FLR DIAGRAM



GFA = 2732- 279 - 85- 23 = 2345 SF

GFA MAIN FLR DIAGRAM





MAIN FLOOR PLAN

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

AREA SUMMARY	
UPPER FLOOR:	2345 SF
MAIN FLOOR:	2129 SF
TOTAL HEATED AREA:	4474 SF
COV'D PATIO:	251 SF
ENTRY:	154 SF
GARAGE:	668 SF

GFA AREA SUMMARY	
UPPER FLOOR:	2647 SF
MAIN FLOOR:	2129 SF
GARAGE:	596 SF
TOTAL FAR AREA:	5372 SF

REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
3/6/25

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NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

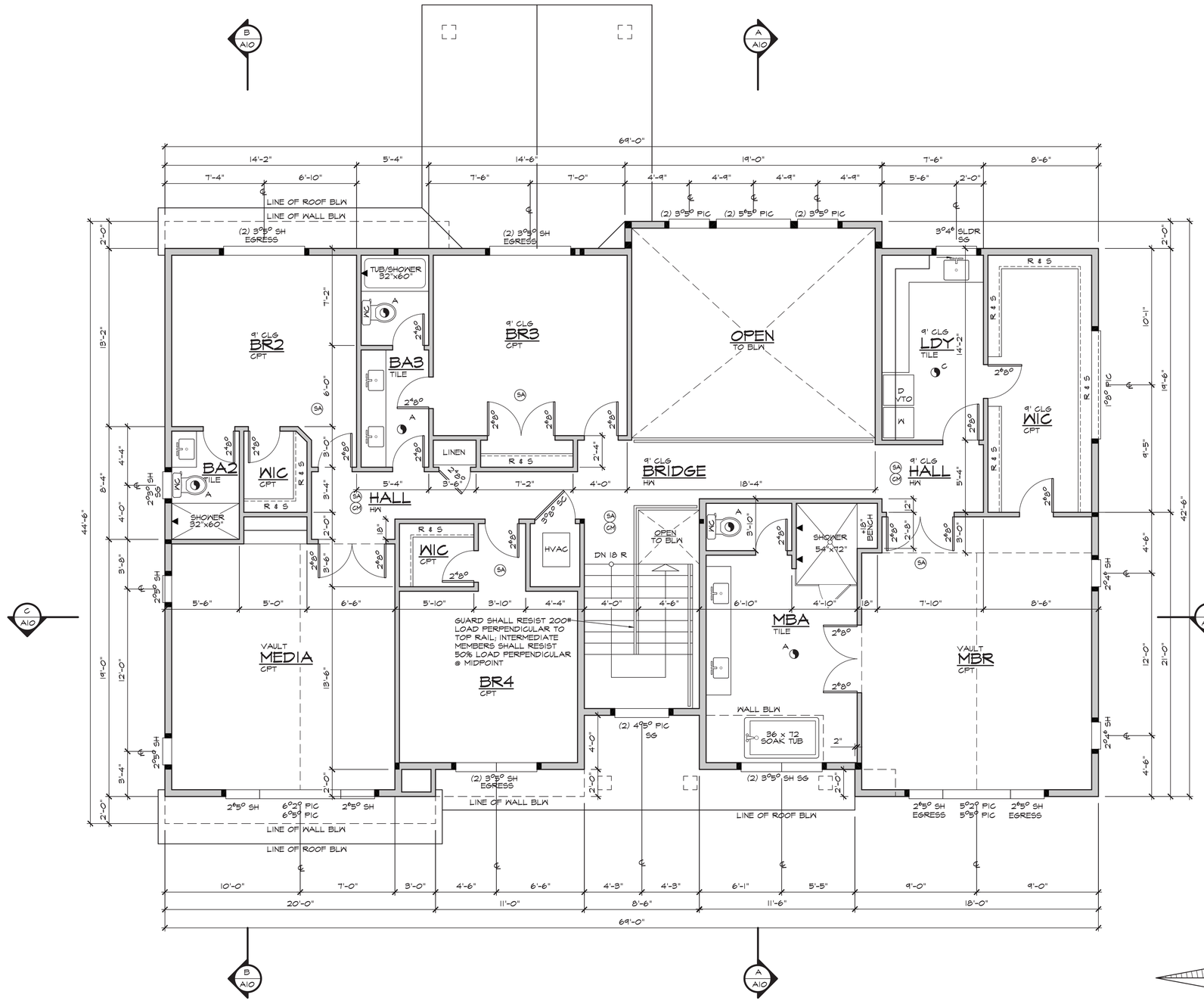
DESIGNED BY:	DATE:
DWB	1/25
DRAWN BY:	DATE:
DWB	3/6/25

PROJECT MANAGER: JdeR
REVISED BY: DATE:

LATERAL BY: ME DATE: 4/22/25
LATERAL JOB NUMBER: 2608

A5 / A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013



UPPER FLOOR PLAN

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

REGISTERED ARCHITECT
5046
JEFFREY P. HAROLT
STATE OF WASHINGTON
3/6/25

ARCHITECTS NORTHWEST
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NW EASTSIDE BUILDERS LLC

4024 - 85TH AVE SE, MERCER ISLAND

PLAN M4551A3F-O

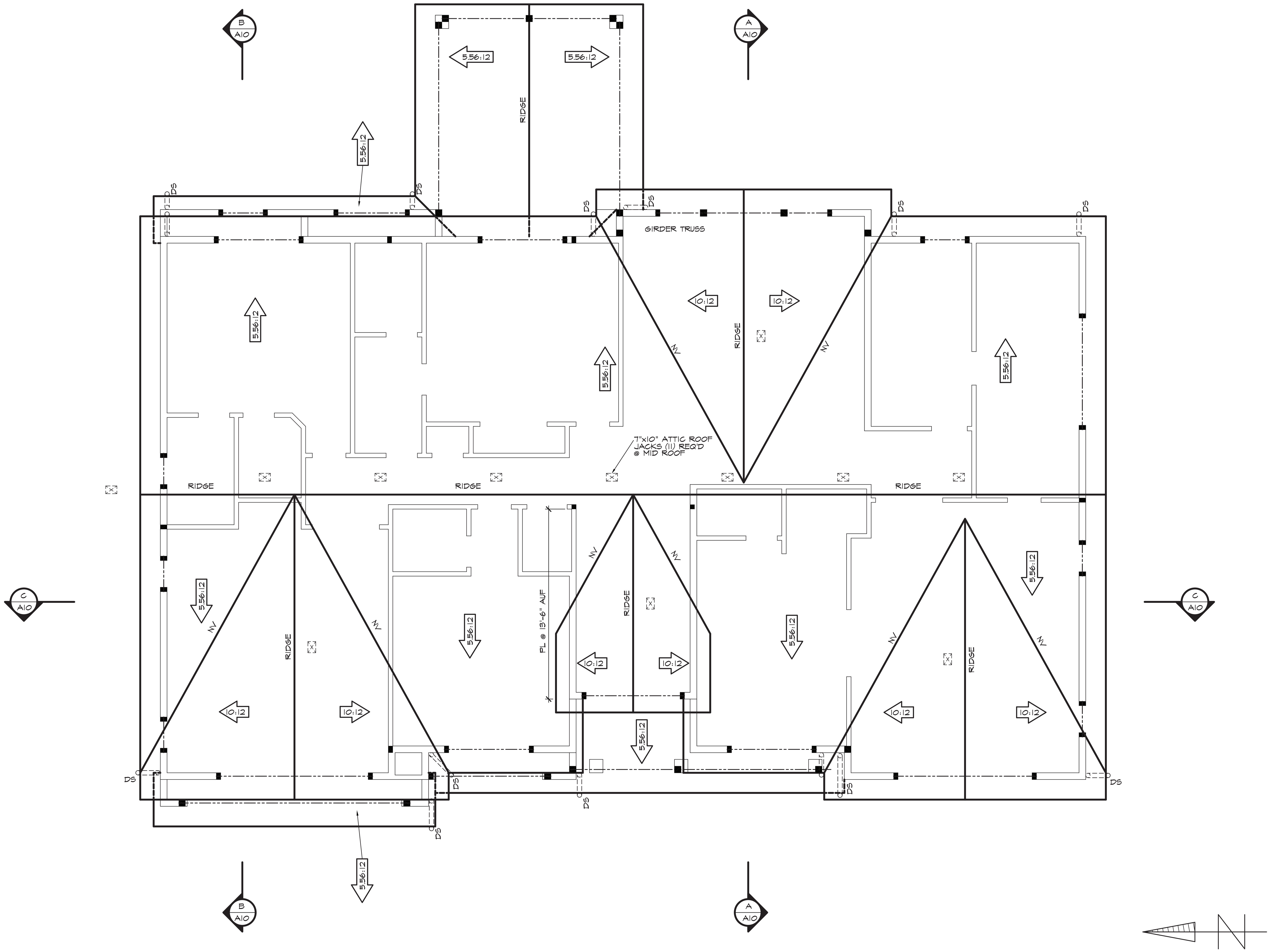
DESIGNED BY:	DATE:
DWB	1/25
DRAWN BY:	DATE:
DWB	3/6/25

PROJECT MANAGER: JGR
REVISED BY: DATE:

LATERAL BY: DATE:
ME 4/22/25
LATERAL JOB NUMBER: 2608

A6
A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013



ROOF GEOMETRY & VENTING PLAN

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

ARCHITECTS NORTHWEST

REGISTERED ARCHITECT 5046 JEFFREY P. deROULET STATE OF WASHINGTON 3/6/25

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NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

DESIGNED BY:	DATE:
DWB	1/25
DRAWN BY:	DATE:
DWB	3/6/25

PROJECT MANAGER: JdeR
REVISED BY: DATE:

LATERAL BY:	DATE:
ME	4/22/25

LATERAL JOB NUMBER: 2608

A7 / A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013

FRONT (W) ELEVATION

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

REAR (E) ELEVATION

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

REGISTERED ARCHITECT
5046
JEFFREY P. deROULET
STATE OF WASHINGTON
3/6/25

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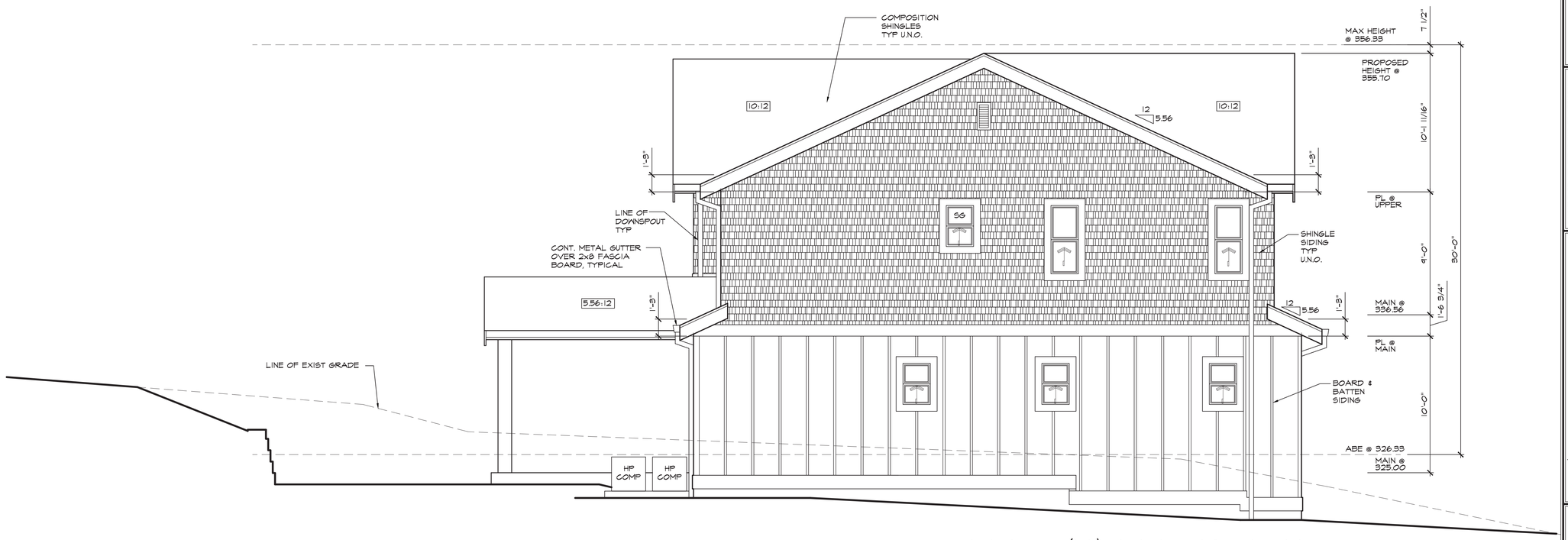
NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

DESIGNED BY: DWB DATE: 1/25
DRAWN BY: DWB DATE: 3/6/25
PROJECT MANAGER: JdeR
REVISED BY: DATE:
LATERAL BY: ME DATE: 4/22/25
LATERAL JOB NUMBER: 2608

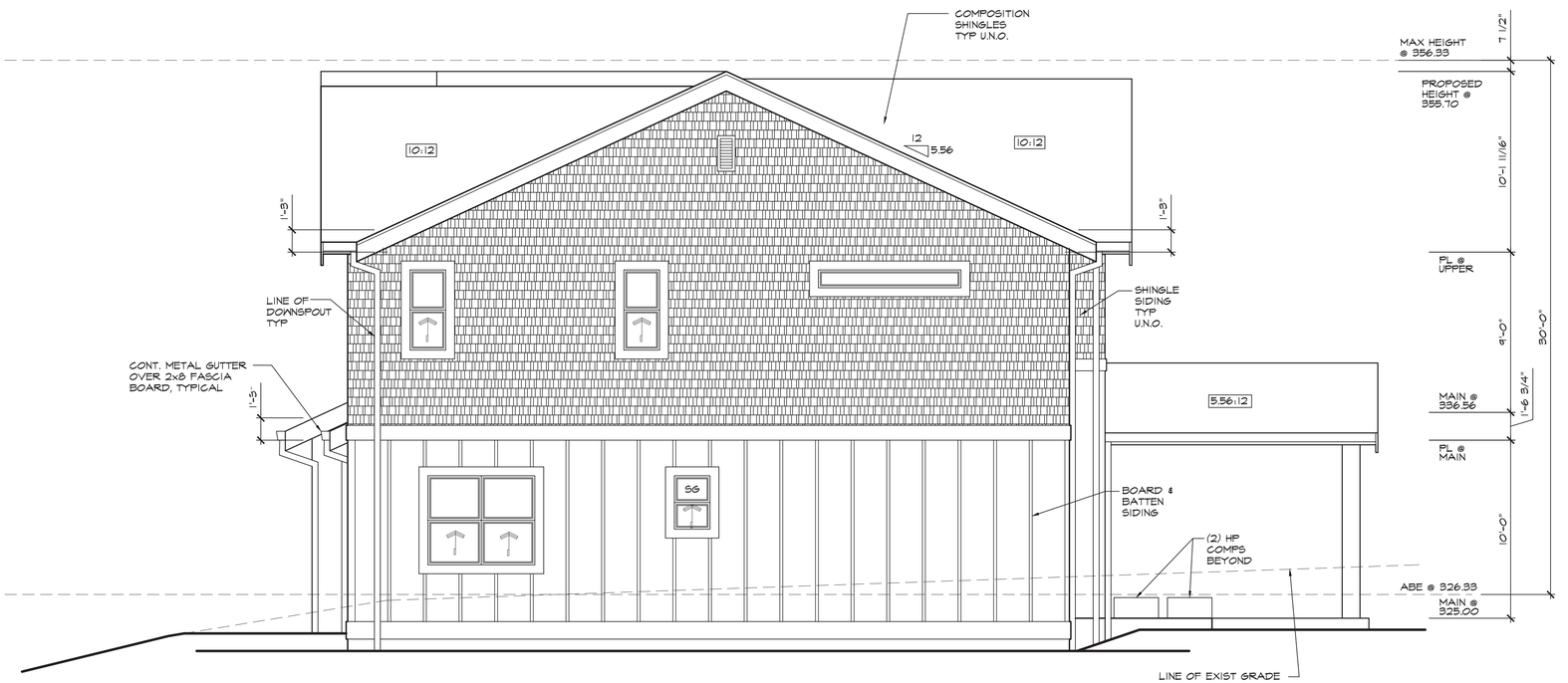
A8 / A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013



LEFT (N) ELEVATION

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



RIGHT (S) ELEVATION

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

REGISTERED ARCHITECT
5046
JEFFREY P. HAROLT
STATE OF WASHINGTON
3/6/25

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NW EASTSIDE BUILDERS LLC

4024 - 85TH AVE SE, MERCER ISLAND

PLAN M4551A3F-O

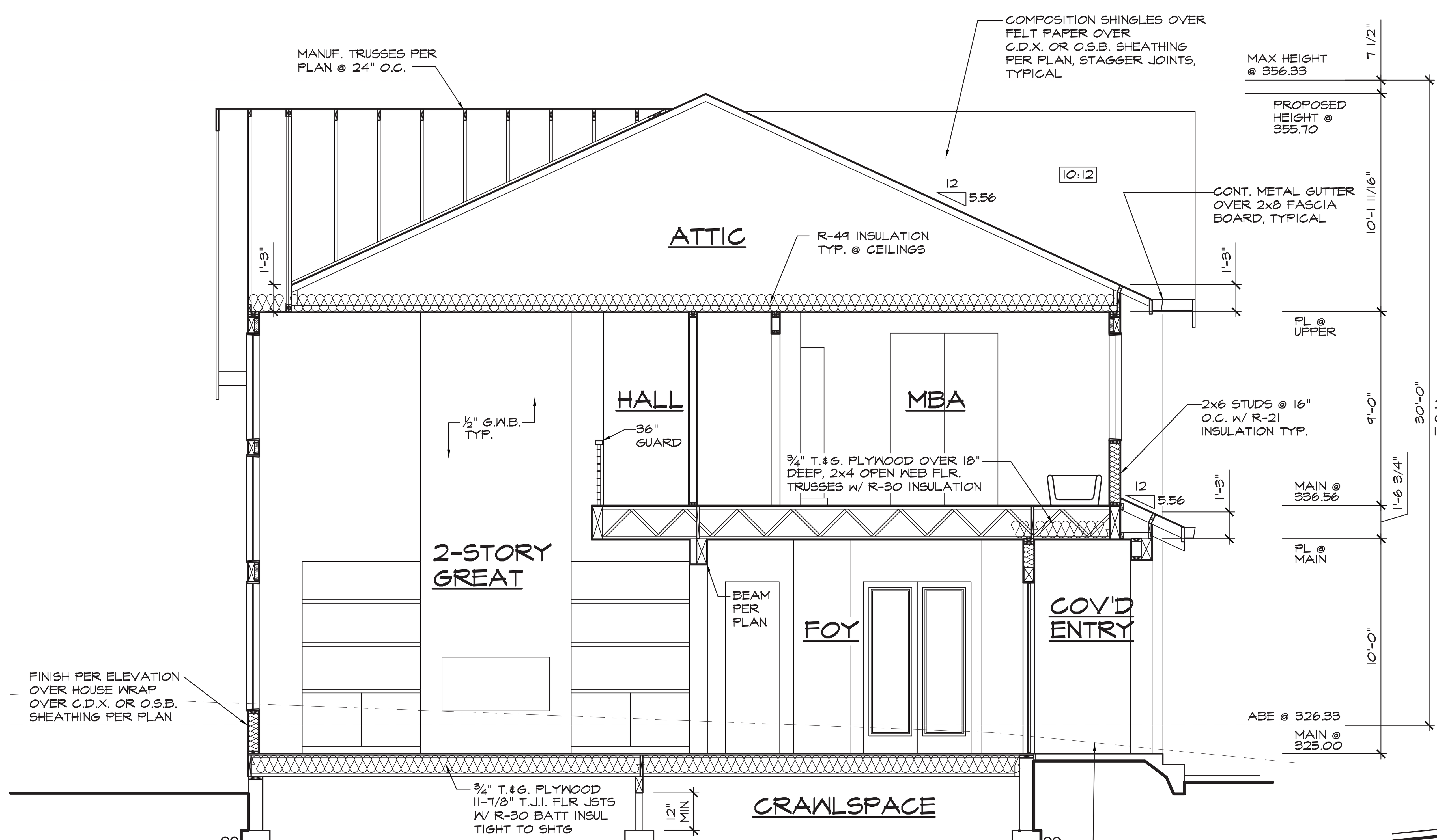
DESIGNED BY: DNB	DATE: 1/25
DRAWN BY: DNB	DATE: 3/6/25
PROJECT MANAGER: JdeR	
REVISED BY:	DATE:
LATERAL BY: ME	DATE: 4/22/25
LATERAL JOB NUMBER: 2608	

A9
A10

ANW WOODINVILLE OFFICE JOB NUMBER: 250013

BUILDING SECTION C

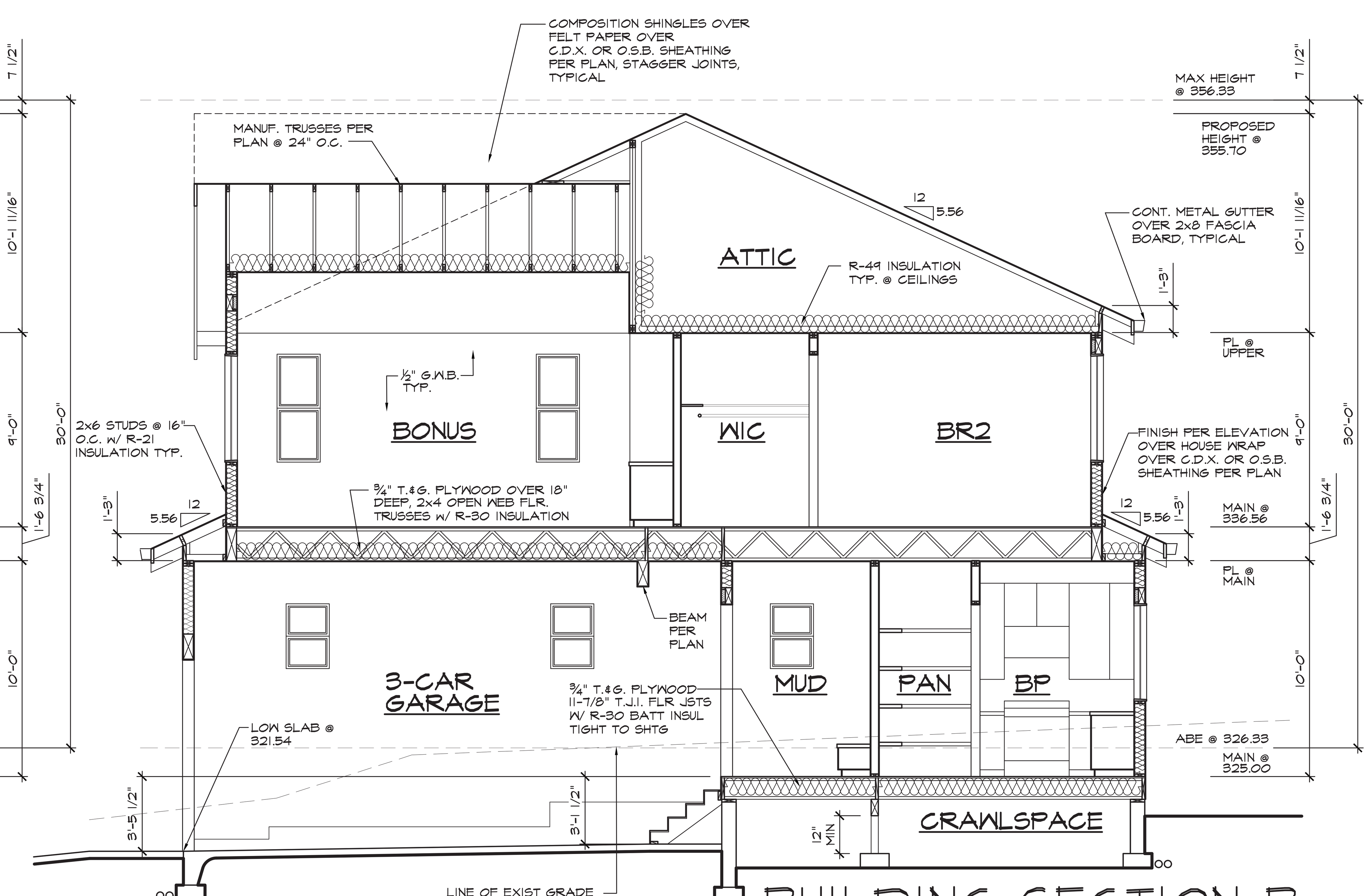
SCALE: 1/4" = 1'-0"



BUILDING SECTION A

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

LINE OF EXIST GRADE



BUILDING SECTION B

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

REGISTERED ARCHITECT 5046 JEFFREY P. deROULET STATE OF WASHINGTON 3/6/25

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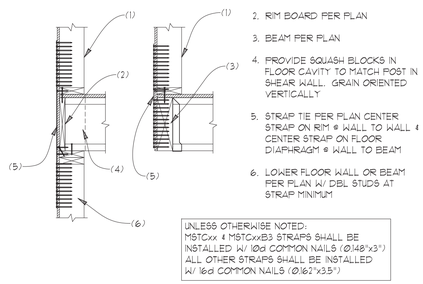
NW EASTSIDE BUILDERS LLC
4024 - 85TH AVE SE, MERCER ISLAND
PLAN M4551A3F-0

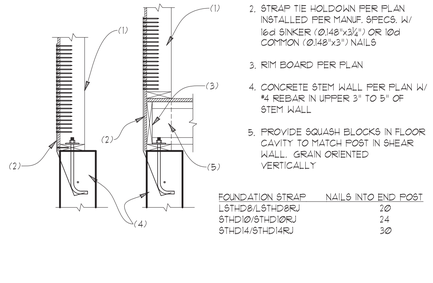
DESIGNED BY: DWB	DATE: 1/25
DRAWN BY: DWB	DATE: 3/6/25
PROJECT MANAGER: JdeR	
REVISED BY:	DATE:
LATERAL BY: ME	DATE: 4/22/25
LATERAL JOB NUMBER: 2608	

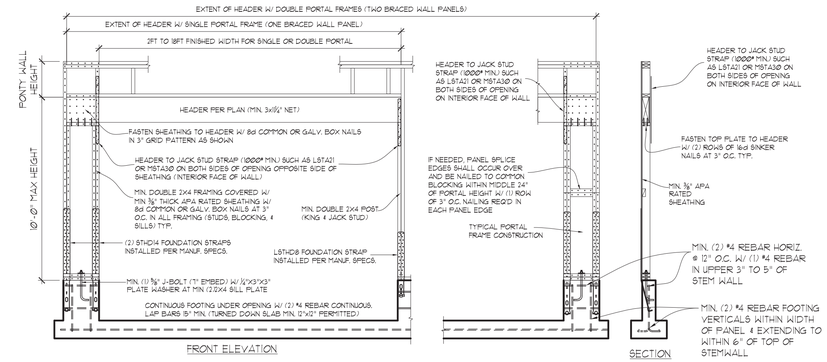
A10

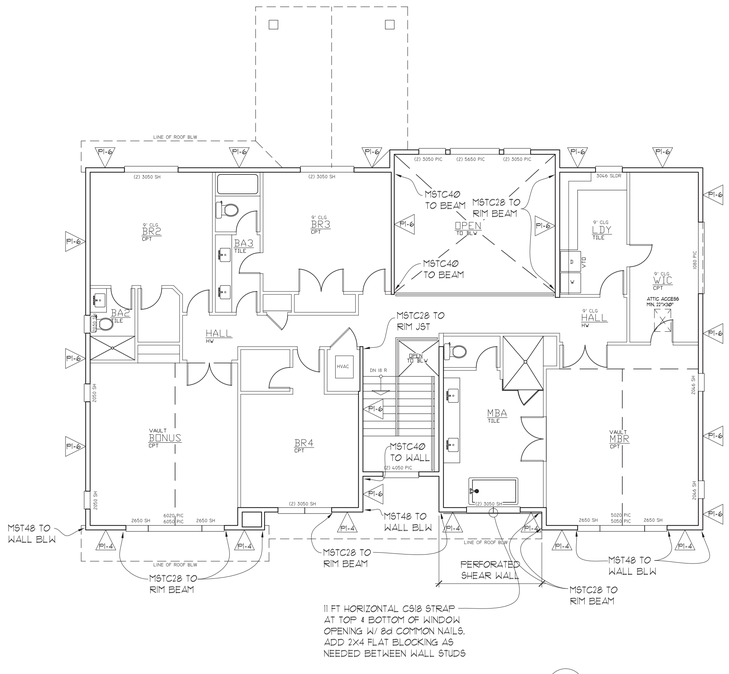
A10

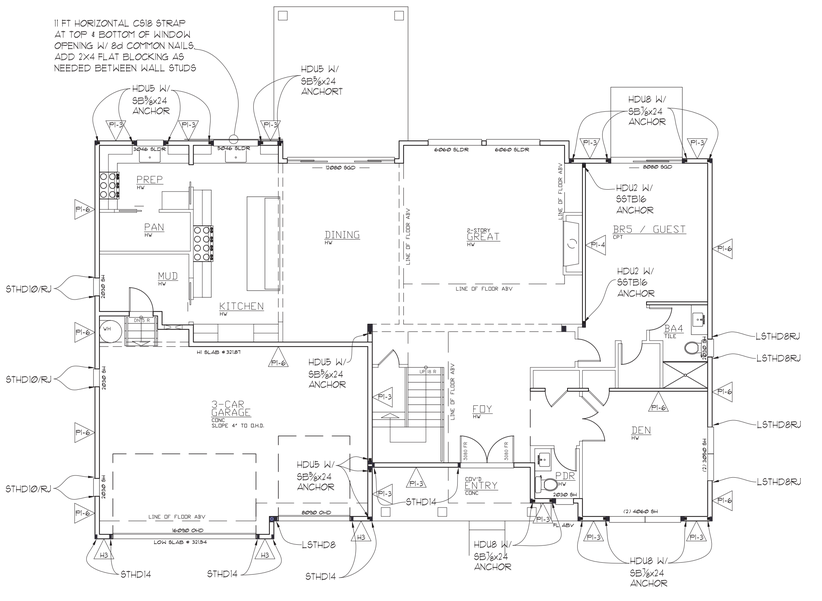
ANW WOODINVILLE OFFICE JOB NUMBER: 250013











BUILDING CODE: 2021 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), AND BY REFERENCE, THE 2021 INTERNATION RESIDENTIAL CODE (IRC) AS AMENDED BY LOCAL JURISDICTION.

ROOF LIVE LOAD = 25 PSF SNOW (GROUND SNOW = 30 PSF)
ROOF DEAD LOAD = 15 PSF
FLOOR LIVE LOAD = 40 PSF (30 PSF AT SLEEPING AREAS)
FLOOR DEAD LOAD = 15 PSF
BALCONIES & DECKS = 60 PSF (LIVE LOAD) + 10 PSF (DEAD LOAD)
WIND SPEED (NOMINAL 3 SEC GUST) = 100 MPH FOR RISK CATEGORY II, EXPOSURE "B", Kzt=1.00
SOIL SITE CLASS "C" , SEISMIC CATEGORY D1/D2, Ss=1.50, Sds=1.00
OCCUPANCY GROUP: R-3 CONSTRUCTION TYPE: V-B

CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO ARCHITECT AND/OR ENGINEER OF RECORD FOR RESOLUTION PRIOR TO COMMENCING WORK. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS ARCHITECT AND/OR ENGINEER OF RECORD ARE NOT RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR

DEFERRED SUBMITTAL ITEMS

THE FOLLOWING IS A LIST OF ITEMS THAT ARE NOT INCLUDED IN THIS PLAN AND SHOULD BE PROVIDED BY THE BUILDER AT TIME OF APPLICATION FOR PERMIT OR AS A DEFERRED SUBMITTAL ITEM:

- ALTERNATIVE I-JOIST/BEAM MANUFACTURER PLANS.
- MANUFACTURED TRUSS DESIGNS AND LAYOUTS

GENERAL

FOUNDATION DESIGN IS BASED ON AN ALLOWABLE SOIL BEARING OF 3000 PSF. EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACKFILL TO BE THOROUGHLY COMPACTED.

BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 0.229"x3"x3" PLATE WASHERS. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.

FOUNDATION SILL BOLTS (MIN. 7" EMBED.) TO BE 5/8" DIAMETER AT 6'-0" O.C. (4'-0" AT BUILDINGS OVER 2 STORIES) U.N.O.
METAL FRAMING CONNECTORS TO BE MANUFACTURED BY SIMPSON STRONG-TIE OR USP STEEL CONNECTORS

CONCRETE

MINIMUM COMPRESSIVE STRENGTH OF CONCRETE:

TYPE OR LOCATIONS OF CONCRETE CONSTRUCTION	MINIMUM COMPRESSIVE STRENGTH (f'c) AT 28 DAYS
	MODERATE WEATHERING POTENTIAL
BASEMENT WALLS, FOUNDATION FOOTINGS, BASEMENT SLABS, & INTERIOR SLABS ON GRADE (EXCEPT GARAGE) NOT EXPOSED TO THE WEATHER	2,500 psi
BASEMENT WALLS, FOUNDATION WALLS, EXTERIOR WALLS, PORCHES, STEPS, GARAGE & CARPORT SLABS, & OTHER CONCRETE WORK EXPOSED TO THE WEATHER	3,000 psi (6% air entrained +/- 1%)

CONCRETE MIXTURE SHALL CONTAIN AT LEAST OF 5½ SACKS OF CEMENT PER CUBIC YARD
CONCRETE "BATCH TICKET" SHALL BE AVAILABLE ON SITE FOR REVIEW BY BUILDING OFFICIAL
VERTICAL REINFORCING STEEL TO COMPLY WITH ASTM A615 GRADE 40 (GRADE 60 AT WALLS RETAINING MORE THAN 4FT OF SOIL)

CARPENTRY

GENERAL

ALL NAILING TO COMPLY WITH REQUIREMENTS OF IRC TABLE R602.3(1) AND/OR IBC TABLE 2304.10.1
ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED. FIELD CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESSURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. PER IRC 319.3. FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER.
6" MIN. CLEARANCE BETWEEN WOOD AND EARTH.
12" MIN. CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
18" MIN. CLEARANCE BETWEEN FLOOR JOIST AND EARTH.

FASTENER DIMENSIONS

ALL NAILS SPECIFIED ON THIS PLAN SHALL BE OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX L OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS)
8d COMMON (0.131" DIA., 2-1/2" LENGTH), 8d BOX (0.113" DIA, 2-1/2" LONG), 10d COMMON (0.148" DIA., 3" LONG)
10d BOX (0.128" DIA., 3" LENGTH), 16d COMMON (0.162" DIA, 3-1/2" LONG), 16d SINKER (0.148 DIA, 3-1/4" LONG)
5d COOLER (0.086" DIA., 1-5/8" LONG), 6d COOLER (0.092" DIA., 1-7/8" LONG)

LUMBER GRADES

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN PRODUCTS ASSOCIATION OR THE WEST COST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING UNADJUSTED MINIMUM DESIGN PROPERTIES, UNLESS NOTED OTHERWISE.

JOISTS:	WOOD TYPE:
2X4 to 2X8	DF-L #2 - Fb=900 psi, Fv=180 psi, Fc=1350 psi, E=1600000psi
2X10 OR LARGER	DF-L #2 - Fb=900 psi, Fv=180 psi, Fc=1350 psi, E=1600000psi
BEAM	
4X	DF-L #2 - Fb=900 psi, Fv=180 psi, Fc=1350 psi, E=1600000psi
6X OR LARGER	DF-L #1 - Fb=1350 psi, Fv=170 psi, Fc=925 psi, E=1600000psi
STUDS	
2X4 & 2X6	DF STUD - Fb=700 psi, Fv=180 psi, Fc=850 psi, E=1400000psi
2X8 OR LARGER	DF-L #2 - Fb=900 psi, Fv=180 psi, Fc=1350 psi, E=1600000psi
POSTS	
4X4	DF-L #2 - Fb=900 psi, Fv=180 psi, Fc=1350 psi, E=1600000psi
4X6	DF-L #2 - Fb=900 psi, Fv=180 psi, Fc=1350 psi, E=1600000psi
6X6 OR LARGER	DF-L #1 - Fb=1200 psi, Fv=170 psi, Fc=1000 psi, E=1600000psi

GLUED-LAMINATED BEAM (GLB)

SHALL BE 24F-V4 FOR SINGLE SPANS & 24F-V8 FOR CONTINUOUS OR CANTILEVER SPANS WITH THE FOLLOWING MINIMUM PROPERTIES:
Fb = 2,400 PSI, Fv = 165 PSI, Fc = 650 PSI (PERPENDICULAR), E = 1,800,000 PSI.

ENGINEERED WOOD BEAMS AND I-JOIST

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL BY BUILDING OFFICIAL. DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST ICC EVALUATION REPORT.

BEAMS DESIGNATED AS "LSL" SHALL HAVE THE MINIMUM PROPERTIES:
Fb = 2,325 PSI, Fv = 310 PSI, Fc = 800 PSI (PERPENDICULAR), E = 1,550,000 PSI.

BEAMS DESIGNATED AS "LVL" SHALL HAVE THE MINIMUM PROPERTIES:
Fb = 2,600 PSI, Fv = 285 PSI, Fc = 750 PSI (PERPENDICULAR), E = 1,900,000 PSI.

BEAMS DESIGNATED AS "PSL" SHALL HAVE THE MINIMUM PROPERTIES:
Fb = 2,900 PSI, Fv = 290 PSI, Fc = 750 PSI (PERPENDICULAR), E = 2,000,000 PSI.

CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS.
DEFLECTION SHALL BE LIMTED AS FOLLOWS:
FLOOR LIVE LOAD MAXIMUM = L/480, FLOOR TOTAL LOAD MAXIMUM = L/240.

PREFABRICATED WOOD TRUSSES:

PRE-FABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOADS & IMPOSED DEAD LOADS AS STATED IN THE GENERAL NOTES. TRUSSES SHALL BE DESIGNED & STAMPED BY A REGISTERED DESIGN PROFESSIONAL AND FABRICATED ONLY FROM THOSE DESIGNS. NON-BEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD W/ AN APPROVED FASTENER (SUCH AS SIMPSON STC) TO ENSURE THAT THE TRUSS BOTTOM CHORD DOES NOT BEAR ON THE WALL. ALL PERMANENT TRUSS MEMBER BRACING SHALL BE INSTALLED PER THE TRUSS DESIGN DRAWINGS.

ROOF/WALL/FLOOR SHEATHING

ROOF SHEATHING SHALL BE MINIMUM 7/16 APA RATED SHEATHING W/ 24/16 SPAN INDEX W/ 6" O.C. NAILING AT EDGES & FIELD OF PANEL. WALL SHEATHING, INCLUDING GABLES, SHALL BE 7/16 APA RATED SHEATHING W/ 24/0 SPAN INDEX MINIMUM. FLOOR SHEATHING SHALL BE MINIMUM 23/32 APA RATED STURD-I-FLOOR T&G SHEATHING W/ 48/24 SPAN INDEX MINIMUM U.N.O.. MINIMUM NAILING FOR WALL & FLOOR SHALL BE 8d COMMON NAILS @ 6" O.C. @ PANEL EDGES & 12" O.C. IN PANEL FIELD U.N.O. ON SHEAR WALL SCHEDULE. ROOF AND FLOOR SHEATHING SHALL BE LAID OUT W/ LONG DIMENSION PERPENDICULAR TO FRAMING MEMBERS W/ END LAPS STAGGERED. WALL SHEATHING, INCLUDING GABLES, SHALL BE FULLY BLOCKED & EDGE NAILED AT ALL UNSUPPORTED SHEATHING PANEL EDGES.

STAIR FRAMING

UNLESS NOTED OTHERWISE SPECIFIED, TYPICAL STAIR FRAMING SHALL CONSIST OF 2X12 STAIR STRINGERS SPACED AT NO MORE THAN 18" O.C. AND REINFORCED W/ 2X6 SCABS ATTACHED W/ 10d COMMON NAILS STAGGERED AT 8" O.C.. STRINGERS SHALL BE SUPPORTED AT UPPER END BY BEARING ON TOP PLATE OF WALL OR APPROVED CONNECTOR TO FLOOR BEAM SUCH AS SIMPSON LRU OR LSC. LANDINGS SHALL CONSIST OF CONVENTIONAL PLATFORM FRAMING W/ MINIMUM 2X6 JOISTS @ 16" O.C.

SHEAR WALL SCHEDULE

WALL MARK	SHEATHING (MINIMUM)	EDGE NAILING	FIELD NAILING	FRAMING @ ADJOINING PANEL EDGES	SOLE PLATE NAILING (STAGGER)	MINIMUM RIM BOARD OR BLOCKING WIDTH BELOW WALL	SILL PLATE	ANCHOR BOLT DIA. & SPACING
P1-6	7/16 SHEATHING ONE SIDE	8d (0.131"x2.5") AT 6" O.C.	12" O.C.	2X	(1) ROW 16d SINKER (0.148"x3¼") @ 8" O.C.	1.25" LSL (1.3E) UNLESS NOTED OTHERWISE	2X	5/8" DIA. @ 64" O.C.
P1-4	7/16 SHEATHING ONE SIDE	8d (0.131"x2.5") AT 4" O.C.	12" O.C.	2X	(1) ROW 16d SINKER (0.148"x3¼") @ 6" O.C.	1.25" LSL (1.3E) UNLESS NOTED OTHERWISE	2X	5/8" DIA. @ 48" O.C.
P1-3	7/16 SHEATHING ONE SIDE	8d (0.131"x2.5") AT 3" O.C.	12" O.C.	2X	(1) ROW 16d SINKER (0.148"x3¼") @ 4" O.C.	1.75" LSL (1.55E) UNLESS NOTED OTHERWISE	2X	5/8" DIA. @ 32" O.C.
H3	7/16 SHEATHING ONE SIDE	SEE DETAIL H3 ON SHEET S1 FOR FRAMING CONFIGURATION & SPECIFICATION OF NAILING, STRAPS, & HOLDOWNS (REFER TO APA TECHNICAL TOPIC TT-100, "A PORTAL FRAME W/ HOLDOWNS FOR ENGINEERED APPLICATIONS")						

1. FRAMING SHALL BE 2X DOUG-FIR @ 16" O.C. MAX UNLESS NOTED OTHERWISE IN SCHEDULE.

2. SHEATHING PANELS MAY BE LAYED VERTICAL OR HORIZONTAL. BLOCK ALL ADJOINING HORIZONTAL EDGES W/ 2x OR 3x BLOCKING PER SCHEDULE

3. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEARWALLS SHALL RECEIVE APA RATED SHEATHING OR ALL VENEER PLYWOOD SIDING OF EQUIVALENT THICKNESS AT POINT OF FASTENING ON PANEL EDGES, FULLY BLOCKED WITH MINIMUM NAILING OF 8d (0.131"x2.5") @ 6" O.C. EDGE & 12" O.C. FIELD.

4. NAILING APPLIES TO ALL STUDS, TOP PLATES, SOLE PLATES, SILL PLATES, & BLOCKING. PANEL EDGE AND SILL/SOLE PLATE NAILING SHALL BE STAGGERED

5. ANCHOR BOLT SPACING IS 6'-0" O.C. (4'-0" AT BUILDINGS OVER 2 STORIES) UNLESS NOTED OTHERWISE IN SCHEDULE. MINIMUM OF 2 ANCHOR BOLTS PER PIECE OF FOUNDATION PLATE. ANCHOR BOLTS SPACED NO GREATER THAN 12" AND NO LESS THAN 7 TIMES THE ANCHOR BOLT DIAMETER AT ENDS AND SPLICES. PROVIDE 0.229"x3"x3" WASHERS AT ANCHOR BOLTS. PLATE WASHERS SHALL EXTEND TO WITHIN ½" OF THE SHEATHED EDGE OF THE SILL PLATE ON WALLS W/ EDGE NAILING AT 4" O.C. OR TIGHTER. DIAGONALLY SLOTTED WASHERS MAY BE USED W/ A STANDARD CUT WASHER PROVIDED BETWEEN PLATE WASHER & NUT. DO NOT RECESS BOLTS.

6. ALL NAILS FOR SHEAR WALLS SHALL BE COMMON OR GALVANIZED BOX NAILS (U.N.O.) ALL SPECIFIED NAILS SHALL HAVE THE FOLLOWING DIMENSIONS: 8d (0.131" DIA x 2.5" LONG), 10d (0.148" DIA x 3" LONG), 16d COMMON (0.162" DIA x 3.5" LONG), 16d SINKER (0.148" DIA x 3.25" LONG)

7. IN LIEU OF 3X STUDS OR BLOCKING AT ADJOINING PANEL EDGES, 2-2X'S FACE NAILED W/ 10d COMMON NAILS (0.148" DIA x 3" LONG) STAGGERED AT THE SAME SPACING AS PANEL EDGE NAILING MAY BE SUBSTITUTED. SHEATHING EDGES SHALL BE CENTERED BETWEEN THE 2-2x MEMBERS (SHALL NOT APPLY TO WALLS SHEATHED ON BOTH SIDES UNLESS ADJOINING PANEL EDGES ARE STAGGERED ON OPPOSITE FACES)

8. HOLDDOWNS AND STRAPS OF EQUIVALENT CAPACITY (W/ CURRENT ICC EVALUATION REPORT OR SIMILAR) MAY ONLY BE SUBSTITUTED FOR THOSE SPECIFIED ON PLAN WITH PRIOR APPROVAL OF BUILDING OFFICIAL OR ENGINEER OF RECORD.

9. BLOCKING IN FLOOR JOIST CAVITY IS REQUIRED AT ENDS OF SHEAR WALLS WHERE FULL BEARING IS NOT PROVIDED BY THE FRAMING BELOW. BLOCKING SHALL HAVE WOOD GRAIN ORIENTED VERTICALLY UNLESS NOTED OTHERWISE.

10. SIMPSON MASAP MUDSILL ANCHORS, MAY BE SUBSTITUTED (1) FOR (1) AT 2X SILL PLATES FOR THE ⅝" DIA. SILL PLATE ANCHOR BOLTS SPECIFIED.

PERFORATED SHEAR WALLS: CONTINUE SHEAR WALL SHEATHING ABOVE AND BELOW ALL OPENINGS BETWEEN FULL HEIGHT WALL SEGMENTS WITH NAILING AS SHOWN IN SHEAR WALL SCHEDULE. ANY INCREASE TO HEIGHT OR WIDTH OF WINDOW OPENING MUST BE APPROVED BY ENGINEER OF RECORD.

1. UPPER FLOOR WALL PER PLAN W/ DBL STUDS AT STRAP MINIMUM
2. RIM BOARD PER PLAN
3. BEAM PER PLAN
4. PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY
5. STRAP TIE PER PLAN CENTER STRAP ON RIM @ WALL TO WALL & CENTER STRAP ON FLOOR DIAPHRAGM @ WALL TO BEAM
6. LOWER FLOOR WALL OR BEAM PER PLAN W/ DBL STUDS AT STRAP MINIMUM

UNLESS OTHERWISE NOTED:
MSTCxx & MSTCxxB3 STRAPS SHALL BE INSTALLED W/ 10d COMMON NAILS (0.148"x3")
ALL OTHER STRAPS SHALL BE INSTALLED W/ 16d COMMON NAILS (0.162"x3.5")

H1 TYPICAL STRAP TIE @ UPPER FLOORS

SCALE: ¾"=1'

1. DBL 2X STUDS MINIMUM AT HOLDOWN UNLESS NOTED OTHERWISE
2. STRAP TIE HOLDOWN PER PLAN INSTALLED PER MANUF. SPECS. W/ 16d SINKER (0.148"x3¼") OR 10d COMMON (0.148"x3") NAILS
3. RIM BOARD PER PLAN
4. CONCRETE STEM WALL PER PLAN W/ #4 REBAR IN UPPER 3" TO 5" OF STEM WALL
5. PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY

FOUNDATION STRAP	NAILS INTO END POST
LSTHD8/LSTHD8RJ	20
STHD10/STHD10RJ	24
STHD14/STHD14RJ	30

H2 TYPICAL STRAP TIE HOLDOWN

SCALE: ¾"=1'

H3 PORTAL FRAME CONSTRUCTION (FIELD BUILT)

SCALE: NTS

UPPER FLOOR SHEAR WALL KEY PLAN

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

MAIN FLOOR SHEAR WALL KEY PLAN

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

STRUCTURAL PLANS

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MARK R. MYERS
37172

Digitally signed
by Mark Myers
Date: 2025.04.22
14:03:13 -07'00'

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4-22-2025
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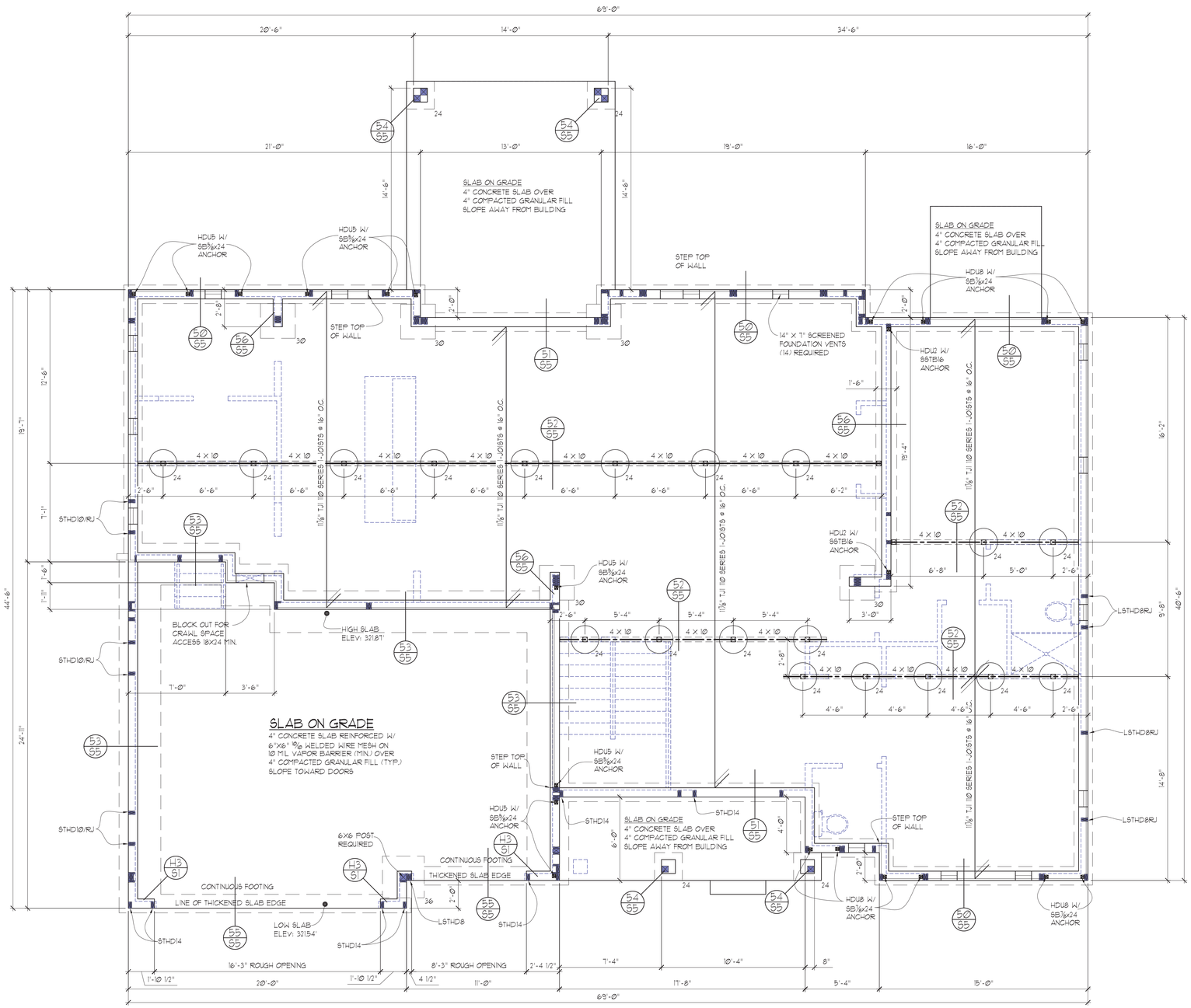
PROJECT #:
2608



FOOTING SCHEDULE

NOTE: USE MIN. 6" WIDE POST BELOW BEAM SPLICES
USE P.T. 4 X 4 POSTS BELOW 4 X BEAMS U.N.O.
USE P.T. 6 X 6 POST BELOW 6 X BEAMS U.N.O.

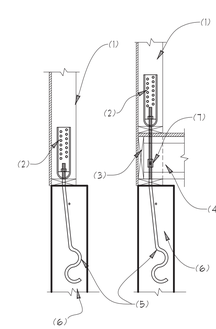
● 24	P.T. POST ON 24" DIA. X 10" THICK PLAIN CONC. FOOTING
■ 24	P.T. POST ON 24" X 24" X 10" THICK CONC. FOOTING W/ 2- # 4 BARS EACH WAY
■ 30	P.T. POST ON 30" X 30" X 12" THICK CONC. FOOTING W/ 3- # 5 BARS EACH WAY
■ 36	P.T. POST ON 36" X 36" X 12" THICK CONC. FOOTING W/ 3- # 5 BARS EACH WAY
■ 42	P.T. POST ON 42" X 42" X 12" THICK CONC. FOOTING W/ 4- # 5 BARS EACH WAY

FOOTING SIZES BASED ON 3000 PSF SOIL BEARING CAPACITY

FOUNDATION/FLOOR FRAMING PLAN

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

- ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED
- SOFFIT, VENT, AND INSULATE ALL CANTILEVERED AREAS
- PROVIDE SOLID BLOCKING OVER SUPPORTS
- ALL FOOTINGS TO REST ON UNDISTURBED SOIL
- PROVIDE COPY OF CONCRETE "BATCH TICKET" ON SITE FOR REVIEW BY BUILDING OFFICIAL
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- PROVIDE SUPPLEMENTAL BLOCKING IN FLOOR CAVITY BELOW SUPPORT POSTS FOR GIRDERS, BEAMS, AND END POSTS FOR SHEAR WALLS TO MATCH FULL WIDTH OF POSTS IN WALL ABV. W/ GRAIN ORIENTED VERTICALLY



1. DBL 2X STUDS MINIMUM AT HOLDOWN UNLES NOTED OTHERWISE
2. ANCHOR BOLT STYLE HOLDOWN PER PLAN INSTALLED PER MANUF. SPECS.
3. RIM BOARD PER PLAN
4. PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY
5. ANCHOR BOLT INSTALLED PER MANUF. SPECS. (SEE BELOW FOR SIZE PER HOLDOWN) MAINTAIN 5" CLEARANCE FROM ENDTN VENTS.
6. CONCRETE STEM WALL PER PLAN
7. EXTEND ANCHOR BOLT W/ COUPLER NUT & ALL THREAD ROD

ANCHOR	EMBED.
SSTB16 (DIA. = 5/8")	12 5/8"
SSTB20 (DIA. = 5/8")	16 5/8"
SSTB24 (DIA. = 5/8")	20 5/8"
SSTB28 (DIA. = 7/8")	24 1/8"
SSTB34, SSTB36 (DIA. = 7/8")	28 1/8"
SB7/8x24, SB7/8x24	18"
SBI/x30	24"

H4 TYPICAL ANCHOR BOLT HOLDOWN
SCALE: 3/4"=1'

STRUCTURAL PLANS

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DATE: 4-22-2025
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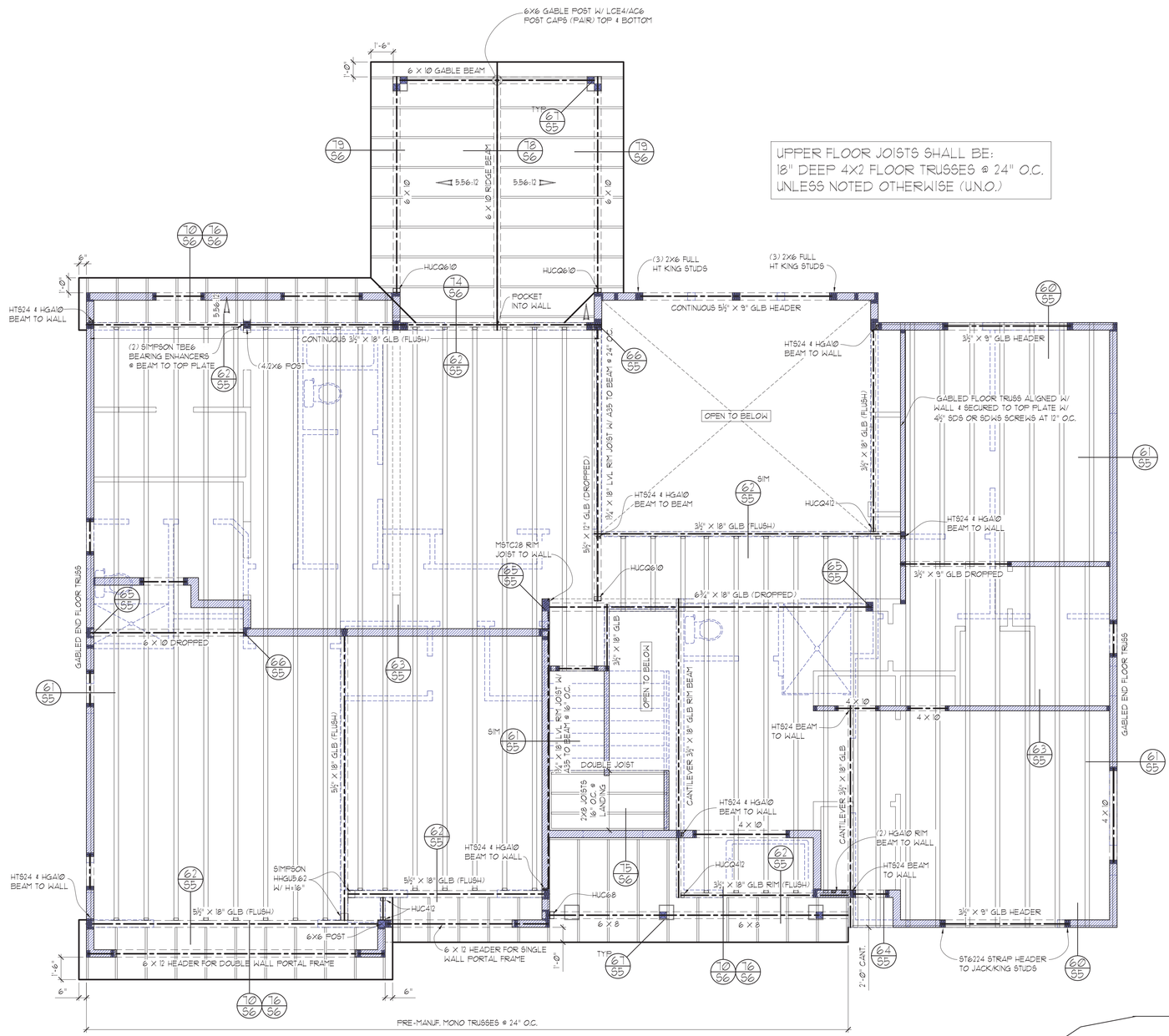
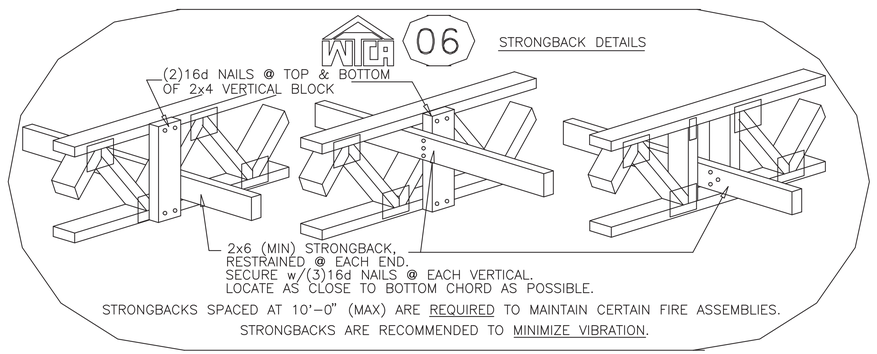
PROJECT #: 2608



UPPER FLOOR FRAMING PLAN

SCALE : ¼"= 1'-Ø"

- SOFFIT, VENT, AND INSULATE ALL CANTILEVERED AREAS
- EXTERIOR WALLS TO BE 2X6 AT 16" O.C., U.N.O.
- ALL DOOR/WINDOW HEADERS AT THIS LEVEL TO BE 4X10 DF #2 AT BEARING WALLS , U.N.O., 6'-0" MAX. SPAN
- INTERIOR PARTITIONS TO BE 2X4 AT 16" O.C. (2X6 @ PLUMBING WALLS) U.N.O.
- HEADERS 8FT OR LONGER SHALL BE PROVIDED W/ (2) TRIMMER (JACK) STUDS AT EACH END U.N.O.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- PROVIDE SUPPLEMENTAL BLOCKING IN FLOOR CAVITY BELOW SUPPORT POSTS FOR GIRDERS, BEAMS, AND END POSTS FOR SHEAR WALLS TO MATCH FULL WIDTH OF POSTS IN WALL ABV. W/ GRAIN ORIENTED VERTICALLY AND PROVIDE MATCHING POSTS IN WALL BELOW UNLESS LARGER POSTS ARE SPECIFIED ON PLAN
- RAILINGS AND POSTS FOR GUARDS AT STAIR OPENINGS SHALL RESIST 200 LB LOAD IN ANY DIRECTION APPLIED AT TOP. INFILL PICKETS SHALL RESIST 50 LB LOAD OVER 1 SQ FT AT ANY LOCATION. MANUFACTURER SPECIFICATIONS FOR PROPRIETARY GUARD/RAILING SYSTEMS SHALL BE ON SITE FOR INSPECTION.



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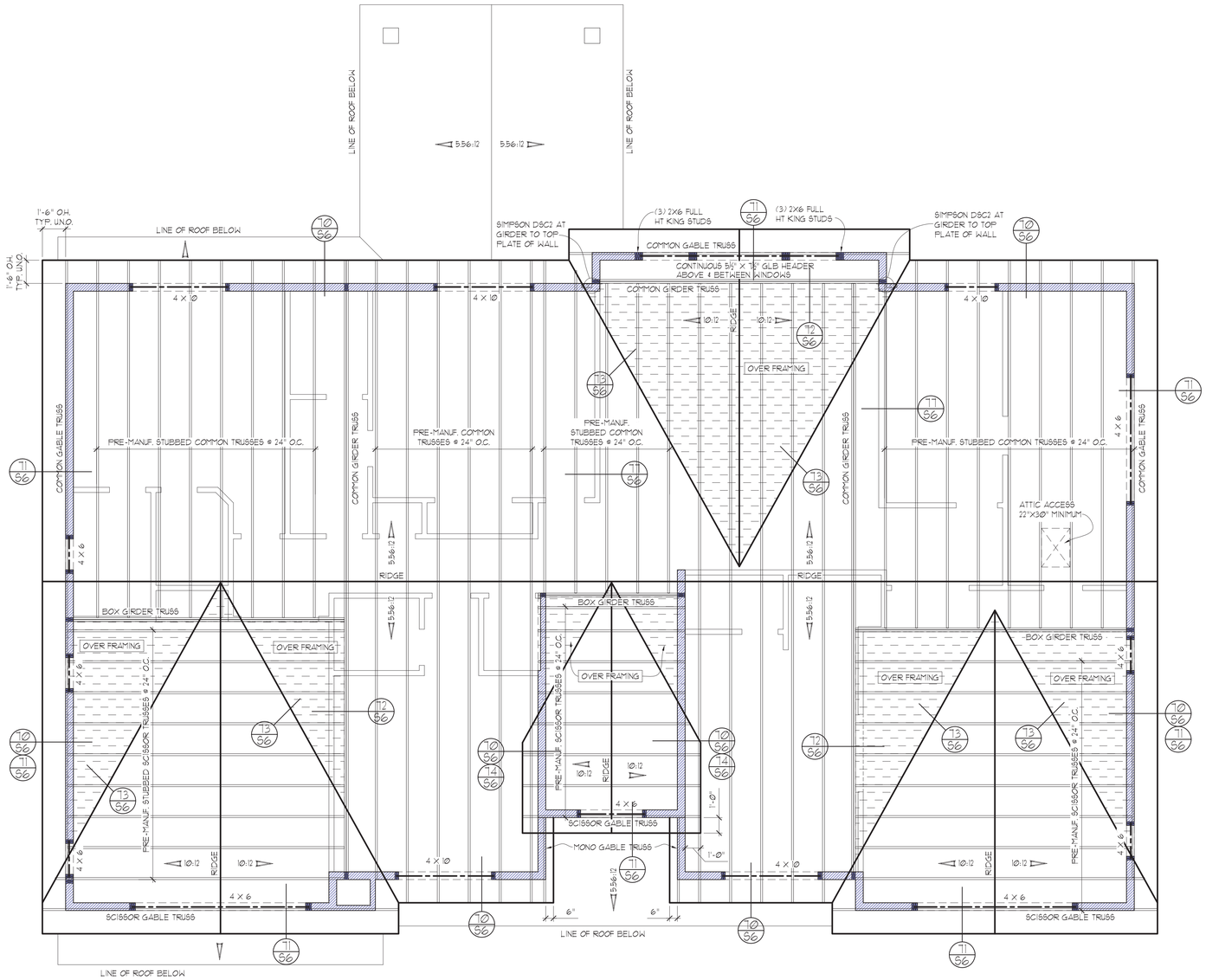

ROOF FRAMING PLAN

SCALE : ¼" = 1'-0"

- PROVIDE VENTED BLOCKING AT REQUIRED TRUSS/RAFTER BAYS
- ALL MANUFACTURED TRUSSES:
  - * SHALL HAVE DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION
  - * SHALL NOT BE FIELD ALTERED WITHOUT ENGINEER'S APPROVAL
  - * SHALL BE INSTALLED AND BRACED TO MANUFACTURER'S SPECIFICATION
  - * SHALL CARRY MANUFACTURER'S STAMP ON EACH TRUSS
- ALL BEAMS AND HEADERS AT THIS LEVEL TO BE 4X10 DF #2 AT BEARING WALLS, U.N.O., 6'-0" MAX. SPAN
- HEADERS 8FT OR LONGER SHALL BE PROVIDED W/ (2) TRIMMER (JACK) STUDS AT EACH END U.N.O.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- PROVIDE SUPPLEMENTAL BLOCKING IN FLOOR CAVITY BELOW SUPPORT POSTS FOR GIRDERS, BEAMS, AND END POSTS FOR SHEAR WALLS TO MATCH FULL WIDTH OF POSTS IN WALL ABV. W/ GRAIN ORIENTED VERTICALLY AND PROVIDE MATCHING POSTS IN WALL BELOW UNLESS LARGER POSTS ARE SPECIFIED ON PLAN

STRUCTURAL PLANS

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BUILDING DEPT. APPROVAL STAMPS:

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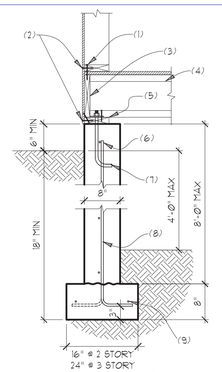
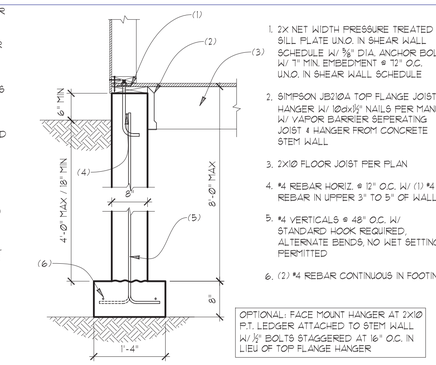


1. BASE PLATE NAILING PER SHEAR WALL SCHEDULE
2. SHEAR WALL EDGE NAILING PER SHEAR WALL SCHEDULE
3. SOLID CONTINUOUS RIM BOARD TOE NAILED TO SILL W/ 8d NAILS @ 6" O.C. SECURE RIM TO EACH JOIST W/ (3) 8d NAILS
4. FLOOR JOIST PER PLAN SECURED TO SILL PLATE W/ (2) 8d NAILS
5. 2X PRESSURE TREATED SILL PLATE U.N.O. IN SHEAR WALL SCHEDULE
6. *4 REBAR HORIZ. @ 12" O.C. W/ (1) *4 REBAR IN UPPER 3" TO 5"
7. 5/8" DIA. ANCHOR BOLT @ 72" O.C. U.N.O. IN SHEAR WALL SCHEDULE W/ 7" MIN. EMBEDMENT
8. *4 VERTICALS @ 48" O.C. W/ STANDARD HOOK REQUIRED, ALTERNATE BENDS, NO WET SETTING PERMITTED
9. (2) *4 REBAR CONTINUOUS IN FOOTING

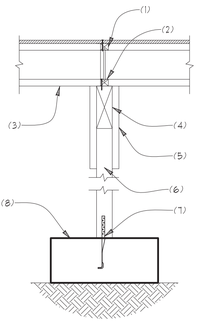
50 8" FOUNDATION STEM WALL
SCALE: 3/4"=1'



1. 2X NET WIDTH PRESSURE TREATED SILL PLATE U.N.O. IN SHEAR WALL SCHEDULE W/ 5/8" DIA. ANCHOR BOLT W/ 7" MIN. EMBEDMENT @ 72" O.C. U.N.O. IN SHEAR WALL SCHEDULE
2. SIMPSON JB2I0A TOP FLANGE JOIST HANGER W/ I0dx1½" NAILS PER MANUF. W/ VAPOR BARRIER SEPERATING JOIST & HANGER FROM CONCRETE STEM WALL
3. 2X10 FLOOR JOIST PER PLAN
4. *4 REBAR HORIZ. @ 12" O.C. W/ (1) *4 REBAR IN UPPER 3" TO 5" OF WALL
5. *4 VERTICALS @ 48" O.C. W/ STANDARD HOOK REQUIRED, ALTERNATE BENDS, NO WET SETTING PERMITTED
6. (2) *4 REBAR CONTINUOUS IN FOOTING

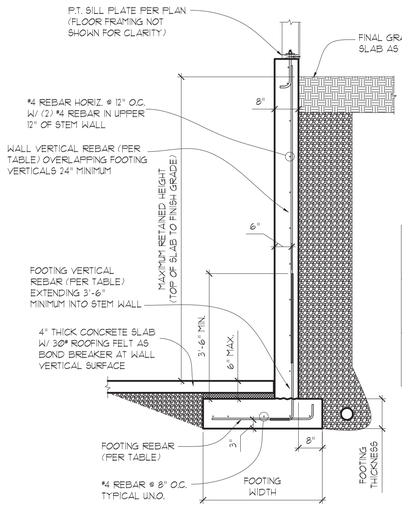
OPTIONAL: FACE MOUNT HANGER AT 2X10 P.T. LEDGER ATTACHED TO STEM WALL W/ ½" BOLTS STAGGERED AT 16" O.C. IN LIEU OF TOP FLANGE HANGER

51 8" STEM WALL AT DROPPED JOISTS
SCALE: 3/4"=1'



1. I-JOIST BLOCKING REQUIRED AT BEARING OR SHEAR WALLS ABOVE OR WHEN JOISTS ARE NOT CONTINUOUS AT BEAM
2. SECURE BLOCKING TO BEAM W/ 8d NAILS @ 6" O.C.
3. I-JOIST PER PLAN
4. BEAM PER PLAN
5. 2X OR SHEATHING CLEATS BOTH SIDES TO SECURE BEAM TO POST (3) I0d NAILS PER CLEAT PER MEMBER
6. 4X OR 6X TREATED POST (4X6 MIN AT BEAM SPLICE)
7. SIMPSON MABI5 ANCHOR W/ I0dx1½" COMMON NAILS (0.148"x1.5") TO POST
8. ISOLATED OR CONTINUOUS SPREAD FOOTING PER PLAN

52 INTERIOR FOOTING @ BEAM LINE
SCALE: 3/4"=1'

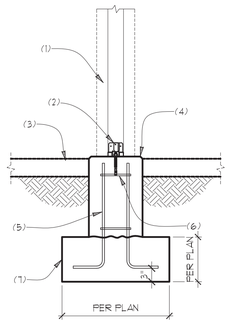


DESIGN CRITERIA :
3000 PSF ALLOWABLE SOIL BEARING PRESSURE
35 PCF ACTIVE EARTH PRESSURE
250 PCF PASSIVE EARTH PRESSURE
0.40 COEFFICIENT OF FRICTION

BACKFILL FOUNDATION WALLS WITH 18" OF PROPERLY COMPACTED GRANULAR FILL CONTAINING LESS THAN 5% FINES, TO WITHIN 12" OF FINAL GRADE (COMPACT TO 92% OF MAX DRY DENSITY PER MODIFIED PROCTOR METHOD)
INSTALL 4" DIA. PERFORATED SMOOTH PVC FOOTING DRAINS ALONG THE BASE OF THE DRAINAGE ZONE BEHIND THE WALL TO DIRECT ANY ACCUMULATED WATER TO AN APPROPRIATE DISCHARGE. A NONWOVEN GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE DRAINAGE MATERIAL AND THE REMAINING WALL BACKFILL. FILTER FABRIC SHALL EXTEND OVER THE TOP OF THE DRAINAGE MATERIAL.

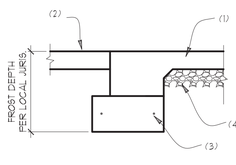
RETAINED HEIGHT	FOOTING WIDTH	FOOTING VERTICAL REBAR	FOOTING REBAR	WALL VERTICAL REBAR	FOOTING THICKNESS
3'-0"	2'-0"	*4 REBAR @ 10" O.C.	N/A	*4 REBAR @ 12" O.C.	10"
5'-0"	2'-8"	*4 REBAR @ 10" O.C.	*4 REBAR @ 10" O.C.	*4 REBAR @ 10" O.C.	10"

53 CANTILEVER RETAINING WALL
SCALE: 1/2"=1'



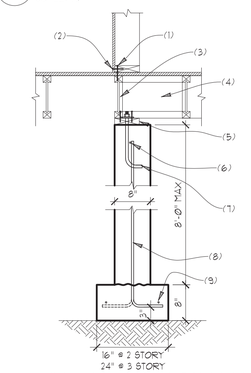
1. WOOD POST W/ ARCHITECTURAL COVER PER PLAN
2. SIMPSON ABUZ OR CPTZ POST BASE WITH CAST IN PLACE OR EPOXIED ANCHOR PER MANUF. SPECS.
3. FINISHED GRADE OR SLAB AS OCCURS
4. OPTIONAL 12" DIA OR SQUARE CONCRETE PEDESTAL
5. (4) *4 VERTICALS W/ STANDARD HOOK AT CONCRETE PEDESTAL
6. *3 TIES AT 8" O.C.
7. ISOLATED OR CONTINUOUS FOOTING PER PLAN

54 FOOTING AT WOOD COLUMN
SCALE: 3/4"=1'



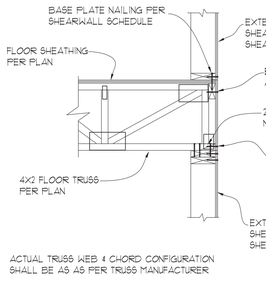
1. 4" CONCRETE SLAB PER PLAN W/ THICKENED EDGE AT DOOR OPENING
2. FINISH GRADE OR SLAB AS OCCURS
3. (2) *4 REBAR IN CONTINUOUS FOOTING
4. 4" COMPACTED GRANULAR FILL

55 THICKENED SLAB EDGE AT GARAGE
SCALE: 3/4"=1'



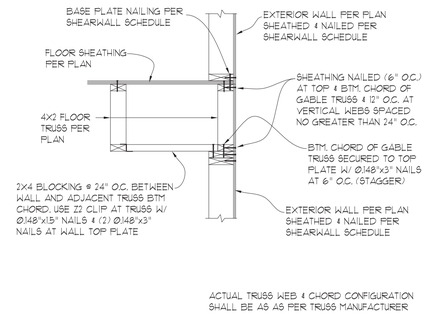
1. BASE PLATE NAILING PER SHEAR WALL SCHEDULE
2. SHEAR WALL EDGE NAILING PER SHEAR WALL SCHEDULE
3. I-JOIST NAILED TO SILL W/ 8d NAILS @ 6" O.C.
4. FLOOR JOIST BLOCKING AT FLOOR SHEATHING PANEL EDGES (48" O.C.) SECURED TO SILL PLATE W/ (2) 8d NAILS
5. 2X PRESSURE TREATED SILL PLATE U.N.O. IN SHEAR WALL SCHEDULE
6. *4 REBAR HORIZ. @ 12" O.C. W/ (1) *4 REBAR IN UPPER 3" TO 5"
7. 5/8" DIA. ANCHOR BOLT @ 72" O.C. U.N.O. IN SHEAR WALL SCHEDULE W/ 7" MIN. EMBEDMENT
8. *4 VERTICALS @ 48" O.C. W/ STANDARD HOOK REQUIRED, ALTERNATE BENDS, NO WET SETTING PERMITTED
9. (2) *4 REBAR CONTINUOUS IN FOOTING

56 8" FOUNDATION STEM WALL
SCALE: 3/4"=1'



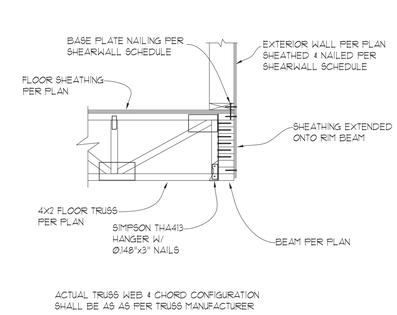
ACTUAL TRUSS WEB & CHORD CONFIGURATION SHALL BE AS AS PER TRUSS MANUFACTURER

60 4X2 TRUSS AT EXTERIOR WALL
SCALE: 3/4"=1'



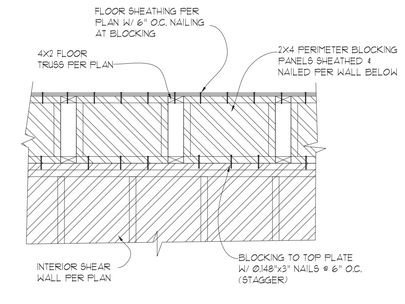
ACTUAL TRUSS WEB & CHORD CONFIGURATION SHALL BE AS AS PER TRUSS MANUFACTURER

61 4X2 GABLED TRUSS
SCALE: 3/4"=1'

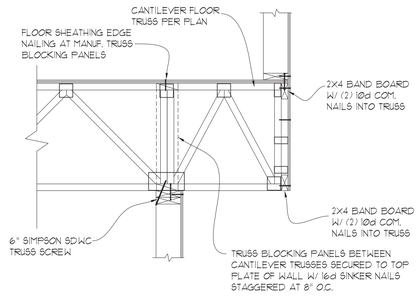


ACTUAL TRUSS WEB & CHORD CONFIGURATION SHALL BE AS AS PER TRUSS MANUFACTURER

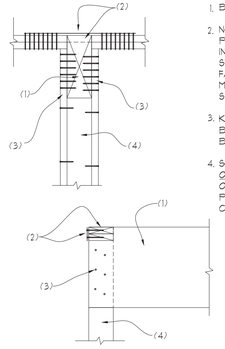
62 4X2 TRUSS W/ HANGER AT RIM BEAM
SCALE: 3/4"=1'



63 TRUSS BLOCKING @ INT. WALL
SCALE: 3/4"=1'

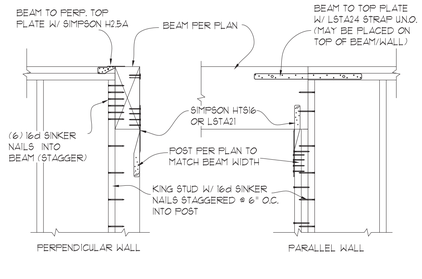


64 CANTILEVER FLOOR TRUSS BEARING
SCALE: 3/4"=1'

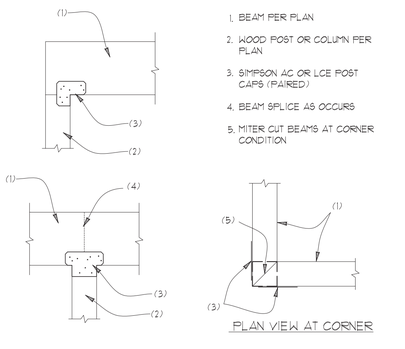


1. BEAM PER PLAN
2. NOTCH BEAM FOR CONTINUOUS TOP 2X PLATE OF DOUBLE 2X PLATE OR INSTALL SIMPSON CMSTC16 OR MSTC28 STRAP ON TOP FACE OR EXTERIOR FACE OF DISCONTINUOUS PLATES W/ MINIMUM (8) 16d SINKER NAILS EACH SIDE OF BREAK IN TOP PLATE.
3. KING STUD W/ (6)-16d SINKER NAILS TO BEAM (STAGGERED) EACH SIDE AT BEAM & 8" O.C. STAGGERED TO POST
4. SOLID POST TO MATCH WIDTH OF BEAM OR BUILT UP 2X STUDS W/ PLYWOOD OR OSB FILLER AS NEEDED. (NAIL PLIES OF BUILT UP 2X POST WITH I0d COMMON NAILS @ 12" O.C. (STAGGERED)

65 BEAM POCKET AT WALL
SCALE: 3/4"=1'



66 BEAM POCKET AT CORNER
SCALE: 3/4"=1'



1. BEAM PER PLAN
2. WOOD POST OR COLUMN PER PLAN
3. SIMPSON AC OR LCE POST CAPS (PAIRED)
4. BEAM SPLICE AS OCCURS
5. MITER CUT BEAMS AT CORNER CONDITION

PLAN VIEW AT CORNER

67 WOOD BEAM AT WOOD POST
SCALE: 3/4"=1'

STRUCTURAL PLANS

PLAN M4551A3F-0
4025 85th AVE SE
MERCER ISLAND, WA

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3206 50th Street Court, Ste. 210-B
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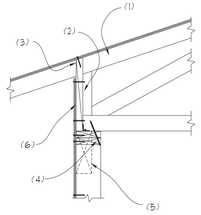
MARK R. MYERS — STATE OF WASHINGTON — 19792 — REGISTERED PROFESSIONAL ENGINEER

BUILDING DEPT. APPROVAL STAMPS:

REVISION:	INIT:	DATE:

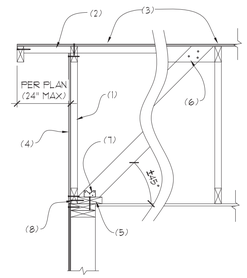
S5

DATE: 4-22-2025
INIT: MM
PROJECT #: 2608



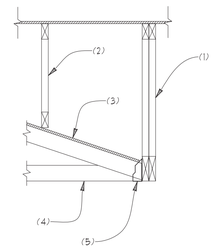
1. RAISED HEEL TRUSS W/ ROOF SHEATHING PER PLAN
2. 2X12 OR 1¾" LSL OR PRE-MANUF TRUSS BLOCKING W/ SIMPSON A35 FRAMING ANGLE TO TOP PLATE
3. ROOF DIAPHRAGM EDGE NAILING
4. 6" SIMPSON SDWC TRUSS SCREW AT EACH TRUSS INSTALLED PER MANUFACTURER'S SPECS.
5. STUD WALL OR BEAM PER PLAN
6. WALL SHEATHING CONTINUOUS TO UNDERSIDE OF TRUSS CHORD

70 RAISED HEEL ROOF TRUSS AT BEARING
SCALE: ¾"=1'



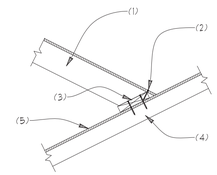
1. GABLE END TRUSS W/ VERTICALS @ 24" O.C. & TOP CHORD DESIGNED TO BE NOTCHED FOR OUTRIGGERS.
2. 2x4 FLAT OUTRIGGER @ 48" O.C. W/ FASCIA BOARD (1X MIN.) SECURED TO END6 W/ (2) 10d NAILS
3. ROOF SHEATHING AT 24" O.C. ROOF TRUSSES W/ DIAPHRAGM EDGE NAILING TO GABLE TRUSS
4. FULLY SHEATH GABLE END TRUSS W/ EXTERIOR WALL SHEATHING PER PLAN W/ EDGE NAILING AT TOP & BOTTOM CHORD
5. 2x6 CONTINUOUS BACKER BOARD SECURED TO TOP PLATE W/ 10d NAILS @ 6" O.C.
6. 2X6 DIAGONAL BRACE @ 8FT O.C. SECURED AT UPPER END TO 2X4 BLOCKING W/ (3) 10d NAILS
7. SIMPSON A34 AT 2X6 DIAGONAL BRACE TO 2X6 BACKER BOARD
8. ATTACH GABLE TRUSS TO BACKER BOARD W/ 10d NAILS @ 6" O.C.

71 GABLE END TRUSS
SCALE: ¾"=1'



1. GIRDER TRUSS PER PLAN
2. VALLEY TRUSSES OR CONVENTIONAL OVER FRAMING. WHERE VALLEY TRUSSES ARE USED SECURE VALLEY TRUSS TO SUPPORTING ROOF FRAMING W/ SIMPSON VTCR CLIPS @ 48" O.C.
3. ROOF SHEATHING CONTINUOUS BELOW OVERFRAMING. TRUSS TOP CHORDS W/O SHEATHING SHALL BE BRACED W/ 2x4 @ 24" O.C. ATTACHED W/ (2) 10d NAILS PER TRUSS
4. ROOF TRUSS PER PLAN
5. SIMPSON HUS26 OR USP THD26 FACE MOUNT HANGER U.N.O. PER TRUSS MANUF.

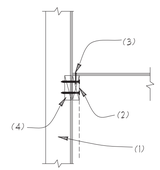
72 GIRDER TRUSS AT OVERFRAMING
SCALE: ¾"=1'



1. CONVENTIONAL 2x OVER FRAMING @ 24" O.C. W/ (4) 16d TOE NAILS TO VALLEY PLATE (SEE BELOW FOR RECOMMENDED SIZES BASED ON SPAN)
2. EDGE NAILING
3. 2x VALLEY BOARD TO MATCH RAFTER W/ (2) 16d NAILS PER TRUSS
4. ROOF TRUSS TOP CHORD OR RAFTER PER PLAN
5. CONTINUOUS SHEATHING BENEATH OVERFRAMING OR 2x4 BRACING @ 24" O.C. W/ 2-16d NAILS PER TRUSS.

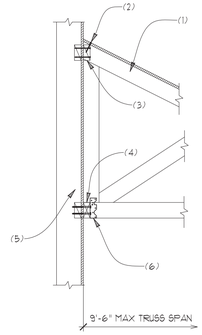
FOR RAFTER SPANS BELOW USE THE FOLLOWING SIZES:
0'-0" TO 6'-7" 2x4
6'-8" TO 9'-7" 2x6
9'-8" TO 12'-2" 2x8
12'-3" TO 14'-10" 2x10
14'-11" TO 17'-3" 2x12
(ASSUMES RAFTERS @ 24" O.C. LL=30PSF & DL=10PSF PER TABLE R802.5.1(3) FOR HF #2)

73 VALLEY FRAMING
SCALE: ¾"=1'



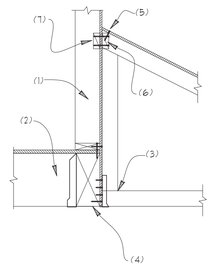
1. EXTERIOR STUD WALL PER PLAN
2. RAFTER, TRUSS TOP CHORD, OR 2X6 LEDGER SECURED TO WALL W/ (2) 4" SIMPSON SDWS SCREWS PER WALL STUD (16" O.C.)
3. ROOF DIAPHRAGM EDGE NAILING PER PLAN
4. 2X6 BLOCKING BETWEEN STUDS

74 ROOF DIAPHRAGM TO WALL
SCALE: ¾"=1'



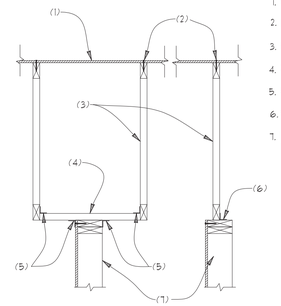
1. TRUSS W/ ROOF SHEATHING PER PLAN TO BEAR ON LEDGER
2. EDGE NAILING
3. 2x BLOCKING ATTACHED W/ (2) 16d NAILS PER STUD
4. CONTINUOUS 2x LEDGER W/ (2) ½"x4" LAG SCREWS PER STUD
5. 2x STUD WALL PER PLAN (STUDS @ 16" O.C.)
6. SIMPSON A35 FRAMING ANGLE AT EACH TRUSS

75 MONO TRUSS TO WALL
SCALE: ¾"=1'



1. 2x STUD WALL W/ EXTERIO WALL SHEATHING PER PLAN
2. FLOOR FRAMIN G POER PLAN
3. JACK/MONO TRUSS PER PLAN W/ LUS HANGER TO RIM
4. BEAM PER PLAN
5. ROOF DIAPHRAGM EDGE NAILING PER PLAN
6. 2X BLOCKING BETWEEN TRUSSES ATTACHED TO WALL W/ 10d NAILS STAGGERED AT 6" O.C.
7. 2X BLOCKING BETWEEN STUDS

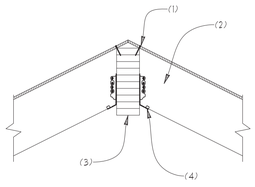
76 MONO TRUSS TO WALL AT BEAM
SCALE: ¾"=1'



1. ROOF SHEATHING PER PLAN
2. EDGE NAILING WHERE APPLIES
3. ROOF TRUSSES PER PLAN
4. 2x6 FLAT BLOCKING @ 12" O.C.
5. SIMPSON A35 AT EACH BLOCK
6. SIMPSON A35 @ 12" O.C.
7. INTERIOR SHEAR WALL PER PLAN

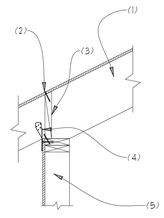
77 ROOF SHEAR TRANSFER @ INT. WALL
SCALE: ¾"=1'

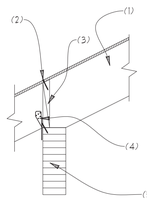
1. EDGE NAILING
2. 2x RAFTER W/ ROOF SHEATHING PER PLAN
3. BEAM PER PLAN
4. SIMPSON LRU RAFTER HANGER



78 RAFTERS AT RIDGE BEAM
SCALE: ¾"=1'

1. 2x RAFTER W/ ROOF SHEATHING PER PLAN
2. EDGE NAILING
3. 2x BLOCKING TOE NAILED TO TOP PLATE W/ (3) 8d NAILS
4. SIMPSON H2.5A CLIP AT EACH RAFTER
5. 2x STUD WALL OR BEAM PER PLAN





79 RAFTER AT WALL
SCALE: ¾"=1'

STRUCTURAL PLANS

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BUILDING DEPT. APPROVAL STAMPS:

REVISION:	INIT:	DATE:

S6

DATE: 4-22-2025
INIT: MM
PROJECT #: 2608