

Project Team

Wascha Studios LLC 815 Seattle Blvd. South #135 Seattle WA 98134

Phone: 206-818-2139

E-mail: sw@waschastudios.com Contact: Stephanie A. Wascha, AIA

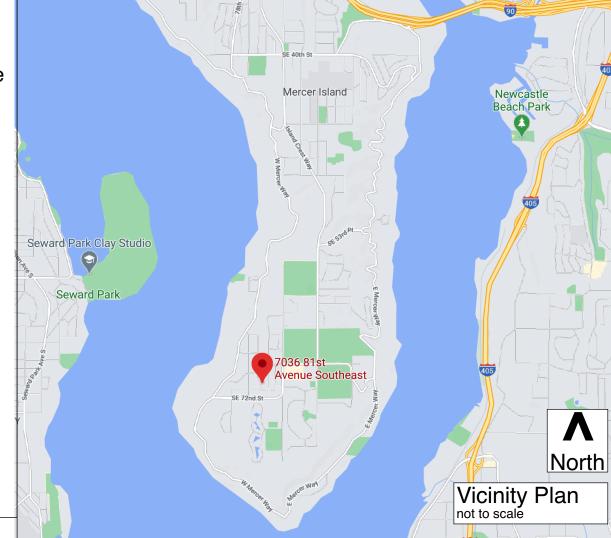
Harriott Valentine Engineering 1932 1st Ave ste 720 Seattle Phone: 206.624.4760 E-mail: hknuckles@harriottvalentine.com

Contact: Henry Knuckles Contractor Palmer Residential

405 S. Brandon St. Phone: 206.661.2031 E-mail: ron@palmerresidential.com

(N) ASPHALT-

Contact: Ron Palmer



126.05

General Notes

- 1. All work shall conform to the 2015 IRC and all other applicable codes and ordinances.
- 2. Do not scale drawings: use calculated dimensions only. Verify existing "as-built" dimensions as req'd. All dimensions are to face of stud unless noted otherwise.
- 3. Verify all rough-in dimensions and locations for equipment, fixtures etc. Provide all blocking, buck-outs, backing and jacks required for installation.
- 4. All wood in contact with concrete to be pressure treated.
- 5. All flashing to be galvanized, galvalume or factory finish to be approved by architect and owner.
- 6. Contractor shall verify all existing conditions prior to initiating any portion of the work.
- 7. Provide all protection, shoring and bracing as required by site conditions in order to maintain a safe job site and protect components to remain.
- 8. Stair and guardrail openings to be less than 4".
- 9. Tight line all affected drainage to approved drainage system.
- 10. All framing to be properly caulked, sealed, gasketed or otherwise treated to minimize air infiltration prior to sheathing and finishing.
- 11. All (new) smoke detectors to be hardwired to home's electrical system.

GRASS

NON-GABLED WALL HEIGHT

TO ADD UP TO 15', 5' MIN.

12.5' FROM GRADE: SIDE YARDS—

12. If subsurface water is encountered at any point, contact the owner's geotechnical engineer for recommendations before proceeding.

Applicable Codes

-Mercer Island Title 6

-2015 WA State Energy Code

- Fire: NFPA monitored household fire alarm per NFPA 72 for both the main residence and the ADU

Energy

Compliance path: PRESCRIPTIVE Requirements applicable to this project:

Vertical glazing: U .3 minimum Exterior wall: R-21 minimum Ceiling: R-49 minimum; R-38 single rafter Floors R-10 RIGID minimum

CREDITS:

1.5 credits needed

Option 3a, High efficiency HVAC 1 credit Carrier heat pump 25hce model single stage up to 14 seer 2 ton Carrier 59sc5 95% gas furnace 2 ton 40k

Option 5b, High efficiency Water heating 1 credit Tankless Navien 210s EF .99

Ventilation

WHOLE HOUSE VENTILATION 30CFM CONT. VENTING

Water Supply System Requirements
Required: 1" Meter size & 1.25" supply line (meter to house) VIF

Other Land Use Applications:
There will be an ADU application associated with the building permit

LULLE LULLE

Property Information

Project Type: ATTACHED ADU

Owners: CHAN REVOCABLE LIVING TRUST

Site Address: 7036 81ST AVE SE . MERCER ISLAND WA

Legal Description:

LOT 3, BLOCK 4, TWIN VIEW NO. 2, ACCORDING TO THE PLAT THEREOF RECORDED IN VOL 64 OF THE PLATS, PAGES 90 AND 91 IN KING COUNTY WA. Assessor Parcel Number: 873230-0204

Zoning: R9.6

Floor Areas

Main Residence (E) to remain Attached Garage

841 Sq Ft 487 Sq Ft

3175Sq Ft

Sheet Index

Cover Sheet, Site Plans, Permit Requirements

Cover Sheet and Site Plan A002 Tree Retention & Replanting

Survey

A003 CALCS Demolition Main Level Plan

A005 Schedules

Plans

Foundation Main Level Plan

A103 Roof Plan **Elevations**

N/S Elevation

E/W Elevation

Sections

A301 Sections **Details**

Structural Engineering

S1.0 Structural Notes

S2.0 Foundation Plan S2.1 Main Floor Framing

S2.2 Roof Framing

S3.0 Structural Details

S3.1 Structural Details S3.2 Structural Details

S4.0 Structural Details **Civil Engineering**

Site & Drainage Plan Sheets 1&2 TESC Plans Sheets 1&2

HEIGHT/SLOPE

LOWEST ELEV 278 HIGHEST ELEV 288 DIFFERENCE 10' LENGHT: DIAG DIST. ACROSS LOT 150' 6.7%

LINE OF (E) ROOF EAVE DET. TANK PER CIVIL-GRASS (E) MAIN RESIDENCE (1575SF) 8675 building pad = buildable area less setbacks & trees 35 **GRASS** req'd for retention EDGE OF ROOF-PT WOOD RAMP-OVERED PT WOOD DECK-(E) MAIN ENTRY TO MAIN_ RESIDENCE TO REMAIN -LINE OF (E) ROOF EAVE 🦯 LINE OF EAVE ABOVE SEE TREE MITIGATION PLAN-**GRASS** CONCRETE STAIR & RETAINING WALL PERVIOUS WALKWAY— LINE OF (E) SHED SLOPE DRIVEWAY TO ALLOW FOR PATH FROM STAIR TO STREET (E) MAIN ENTRY TO ADU < TO BE DÈMOLISHED minim GRADING AT DRIVEWAY, STAIR, &-- WATER RETENTION: 48 CY <u>INIT (900SF)</u> $\rightarrow \rightarrow \rightarrow \rightarrow \rightarrow$ ELEV=286.1 (1 uncovered pkg spot) (N) GARAGE (515SF) LINE OF (E) GARAGE (2 covered parking spots) TO BE DEMOLISHED (N) GARAGE LINE OF (E) ROOF ON

DEMOLISHED

LINE OF (E) ROOF ON GARAGE TO BE DEMOLISHED-

LINE OF ROOF EAVE-

REQ'D YARD

Site Plan - Soil Management Plan

WASCHA STUDIOS

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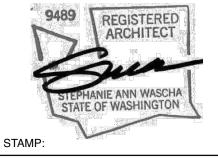
7036 81ST AVE SE MERCER ISLAND, WA

Proiect Number:

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1- MODIFICATIONS 12.11.20

Cover Sheet and Site

Tree #	On-site	Species	DBH"	Drpln rad'	Cndtn	Comments	Designation	Rmv	Rtn	
1	Acer macrophyllum, Big leaf maple		24.8	5E, 18NSW	Fair	Mal-pruned, poor balance of structure. See photo in report	Large	Х		
2		Cotinus, Smoke tree	2 -6"	12' North	Fair	Off-site large shrub or small tree. Heavy limb overhangs subject property driveway.	Non-reg		Х	
3		Prunus, cherry	approx 30"	15' North	Good	Seasonally defoliated, overhangs subject property.	Exceptional		Х	
4	Х	Azalea	Shrub	8'	Good	Very old Azalea that has grown into small, low-branched tree-form.	Non-reg		Х	
5	Х	Prunus, cherry	14.5	3'	Poor	Severely broken top, risk of further failure. See photo in report	Large		Х	
6	Х	Pinus nigra, Black pine	22.2	15'	Excellent	Excellent condition	Large		Х	
7		Chameocyparis, Goldthread cypress	apprx2-12"	10'	Fair/Poor	Sparesly foliated, out-competed, large Pyramidalis around base.	Large		Х	
8		Betula, Birch	apprx 14"	10	Poor	Significant dieback in tops, suspect Birch Bronze Borer infestation	Large		Х	
9	Х	Prunus, cherry	8.8	15' West	Poor	Old 10" stem cut off at base w/decay, broken top, poor structure	Non-reg		Х	
10		Psuedotsuga menenziesii, Douglas fir	apprx 15"	15'	Good	50% Live crwon ratio, located Off-site.	Large		Χ	
11		Betula, Birch	apprx 10"		Fir	Under canopy of Tree #10, may be one-tree at base with Tree #12	Large		Х	
12		Betula, Birch	apprx 10"		Fair	Under canopy of Tree #10, may be one-tree at base with Tree #11	Large		Х	
12		Security Brief	apprx 10"		Fair	Under canopy of Tree #10, may be one-tree at base with Tree #11	Large			Х

ISA Chan Tree Invntry 12292020(1).xlsx - Read-Only

SCALE: 1:0.81

DET. TANK PER

The following mitigation measures should be implemented prior to any clearing or grading activities. The following bulleted items should be included on the Tree Retention & Replanting plan sheet and/or other plan set pages that detail clearing and grading standards.

Thomas Quigley

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- Tree Protection Measures (TPM) should be 4' tall orange poly fencing, or equivalent, staked into place at the Limits of Disturbance (LOD), and as detailed in the referenced site plan.
- Signage shall be provided every 20' along the sections of TPM stating the fence provides a "Tree Protection Zone" – "No Soils, Building Materials or Equipment Allowed in Protection Zone". These signs should be 8.5" by 11.0" and made to be weather resistant.
- Any roots encountered during site clearing, grading, or excavation should be cleanly cut as-if it were a root from a tree scheduled for
- Root pruning, as needed, should be undertaken with care. Additional pruning standards are detailed in ANSI Standard A300 (Part8)-2013 Root Management.
- All exposed roots should be covered with moist native soil or a commercial compost or mulch product, sufficient to cover the freshly cut roots as soon as is reasonable following exposure.
- All bare soils around the retained trees should be covered with 3" of arborist wood chips or a commercial mulch material.
- If limb removal is needed in order to provide building clearance, such pruning should be undertaken by a tree professional and should be done with proper pruning equipment.

#5

#4

R3

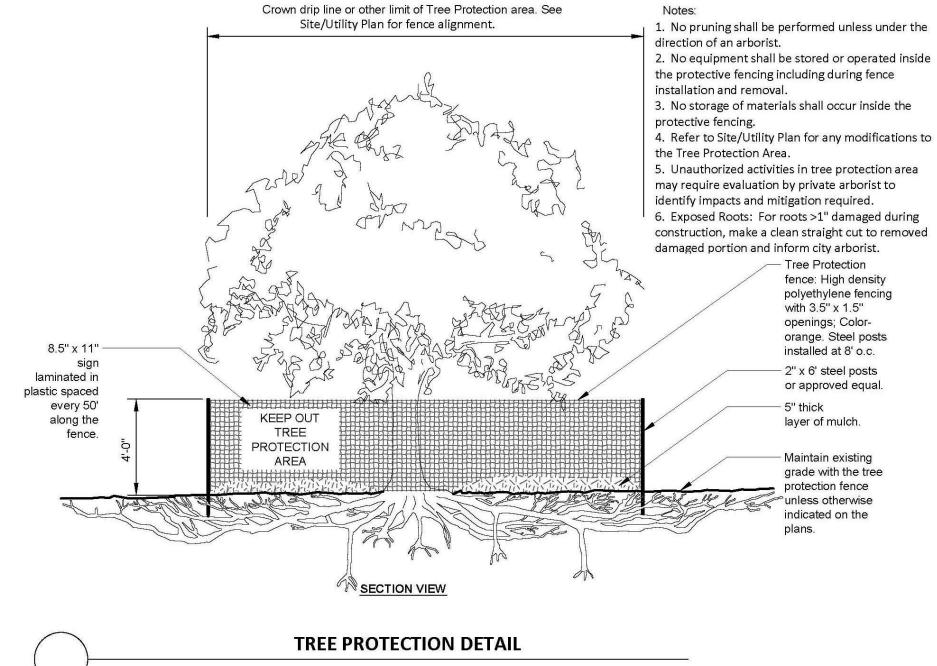
R2

• The on-site retained trees would benefit from additional summertime hydration, as may be possible.

#12

#11

#10



treeprotectionfencingdetail

SCHA STUDIOS | ARCHITECTURE

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MERCER ISLAND, WA

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except by agreement in writing and

**** LIMITS OF DISTURBANCE

DEMOLISH TREE

REPLACEMENT TREE 1: ACER PALMATUM, JAPANESE MAPLE 2" CALIPER

REPLACEMENT TREE 2: AMELANCHIER SERVICEBERRY 2" CALIPER

REPLACEMENT TREE 3: THUJA PLICATA WESTERN RED CEDAR 6' MIN

TREE PROTECTION: SEE DETAIL THIS SHEET

01- MODIFICATIONS 12.11.20

Tree Retention & Replanting

A002

Tree Retention & Replanting

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED RECORDING# 20120628001442)

LOT 3, BLOCK 4, TWIN VIEW NO. 2, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 64 OF PLATS, PAGES 90 AND 91, IN KING COUNTY, WASHINGTON.

BASIS OF BEARINGS

THE CENTERLINE N.E. 71ST ST. BEARING = NORTH 88°41'04" WEST PER R1.

REFERENCES

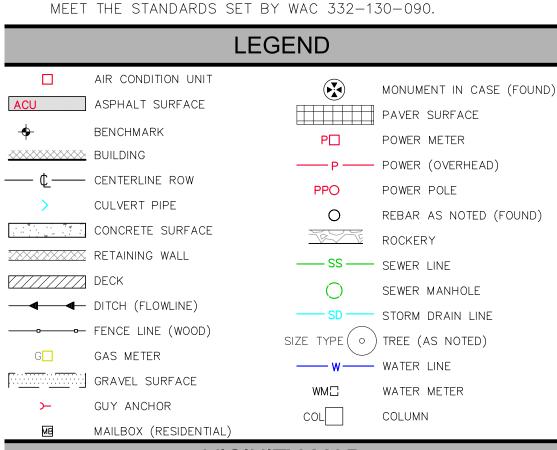
R1. PLAT OF TWIN VIEW NO.2, VOL.64, PAGES 90-91, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD88, PER GPS OBSERVATIONS.

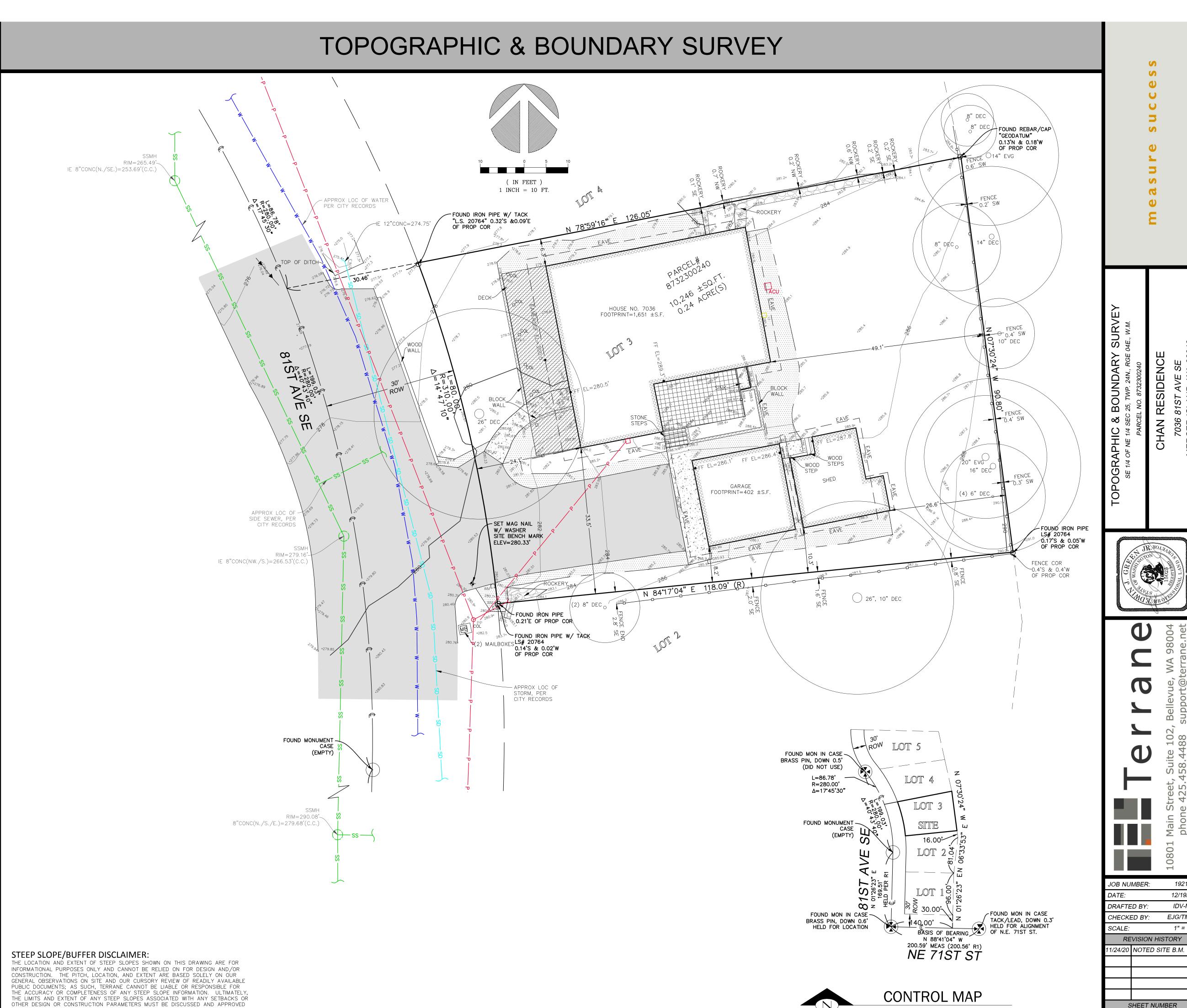
SURVEYOR'S NOTES

- 1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN DECEMBER OF 2019. 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. 873230-0240
- 5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 10,246 ±S.F. (0.24 ACRES)
- 6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
- 7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND





BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.



12/19/19

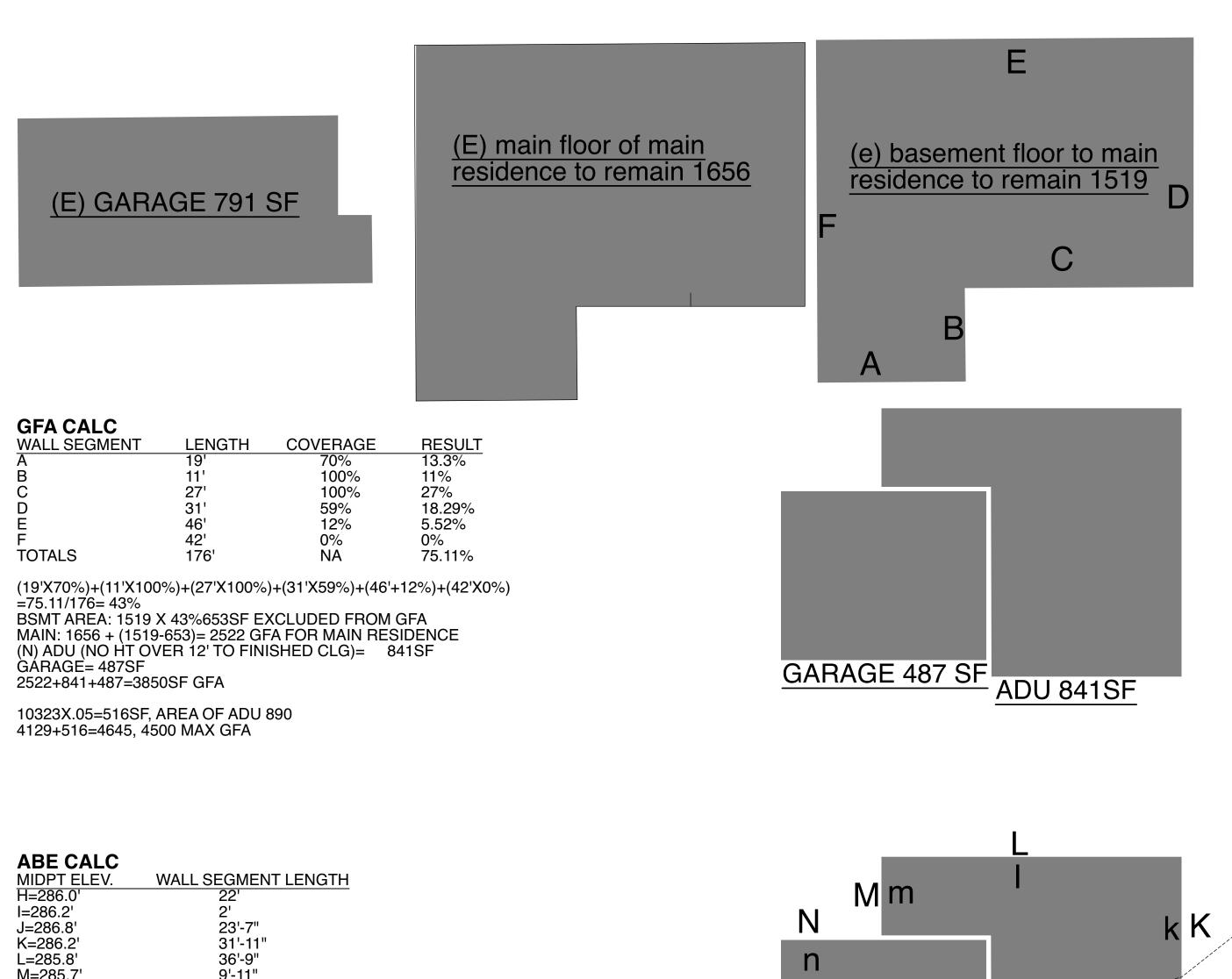
IDV-MD

1" = 10'

EJG/TMN

1 OF 1

N.T.S.



ABE CALC
MIDPT ELEV. WALL SEGMENT LENGTH
H=286.0' 22!
I=286.2' 2'
J=286.8' 23'-7"
K=286.2' 31'-11"
L=285.8' 36'-9"
M=285.7' 9-11"
N=285.7' 9-11"
N=285.9' 8-11"
O=285.9' 21'-0"

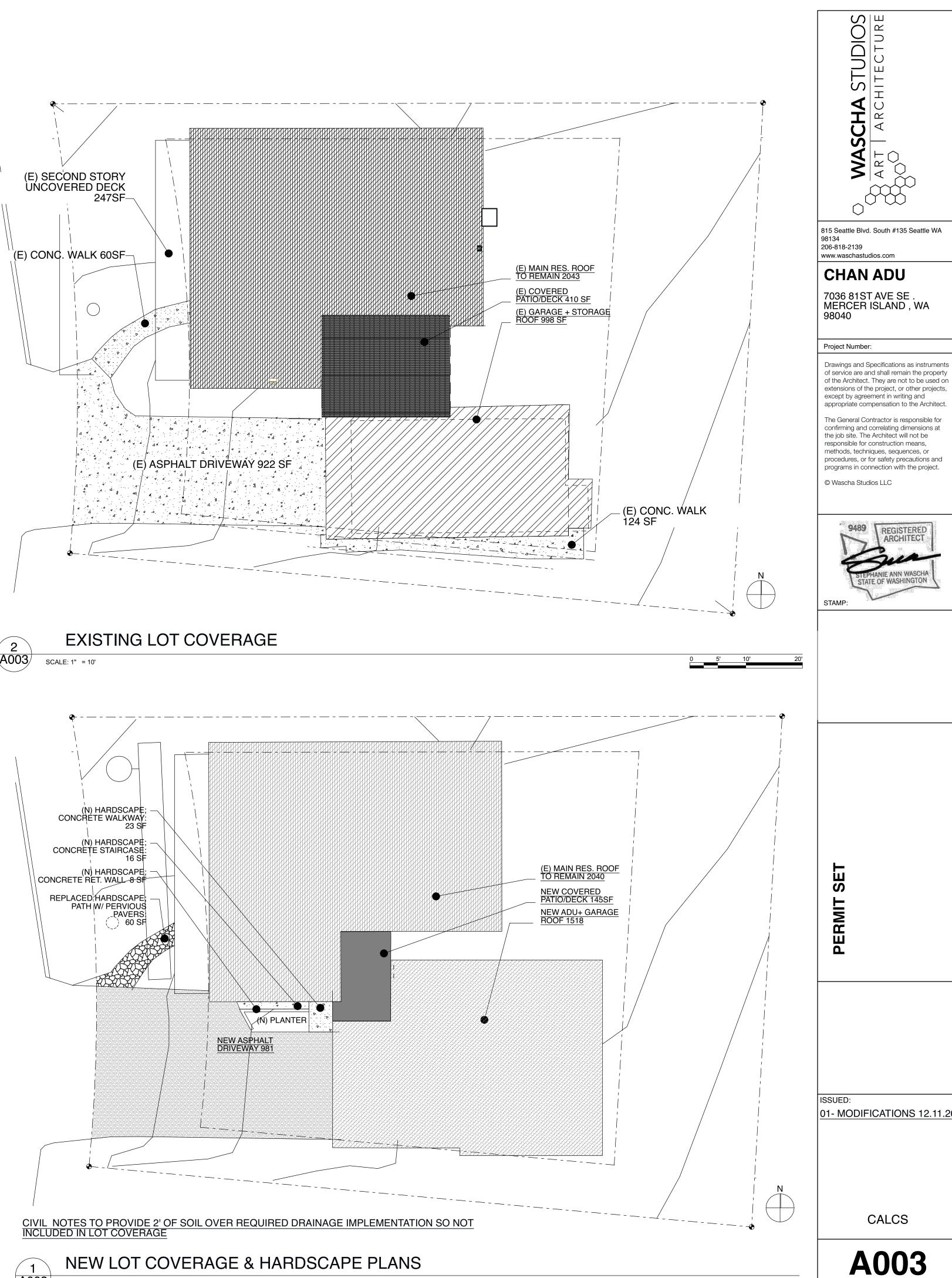
(286'x22)+(286.2'x2)+(286.8'x23'-7")+(286.2'x31'-11")+(285.8'x36'-9")+(285.7'x9'-11")+(285.9'x8'-11")+(285.9'x21'-0")
D=285.9' 22'+2'+23'-7"+31'-11"+36'-9"+9'-11"+8'-11"+21'

6292+572+6763+9134+10503+2833+2549+6004= 44650
156

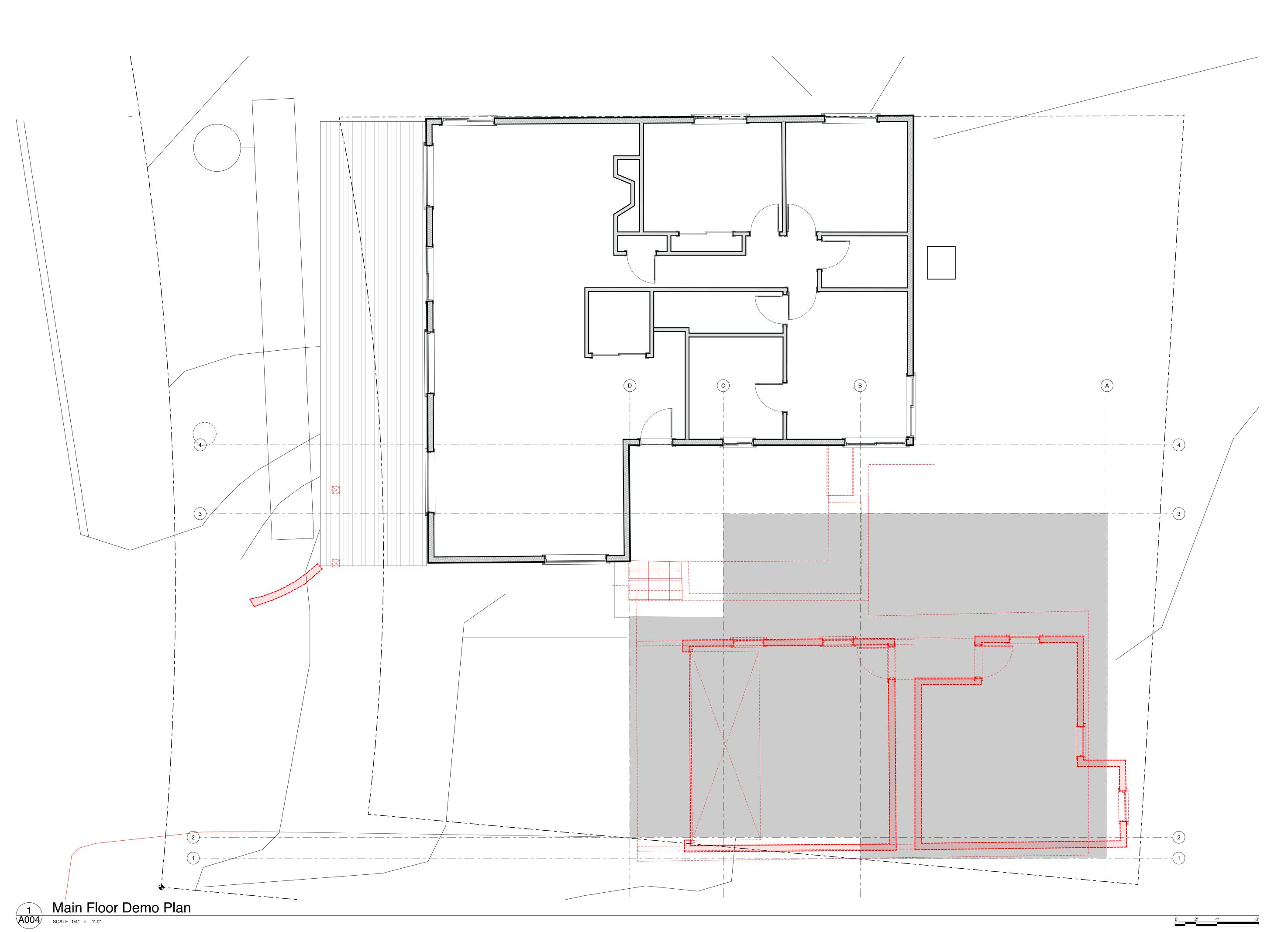
ABE"=286.2'

ABE"=286.2'





SCALE: 1" = 10'



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Demolition Main Level Plan

anged Unit	Element ID	Manufacturer	Туре	Width	Height	QTY.	Total VGA	U-value	VGAxU=	NFRC-Certification No.	Area (sq. ft.)	Egress	Tempered	Note
Ganged														
	D01	Undefined	Garage Door	18'-0"	8'-0"	1	0.00	.3	0.00		144.00	No	No	
	002	Undefined	Inswing Door	3'-0"	6'-8"	1	0.00	.3	0.00		20.00	No	No	20 MIN RATED
	004	Undefined	Inswing Door	3'-0"	6'-8"	1	0.00	.3	0.00		20.00	No	No	
	008	Undefined	Inswing Door	3'-0"	6'-8"	1	0.00	.3	0.00		20.00	No	No	
,	W01	Undefined	Fixed	2'-7 1/2"	2'-10 1/4"	1	0.00	.3	0.00		7.45	No	No	
,	N02	Undefined	Fixed	4'-0"	2'-0"	1	0.00	.3	0.00		8.00	No	Yes	
,	W03	Undefined	Fixed	4'-0"	2'-0"	1	0.00	.3	0.00		8.00	No	Yes	
,	N04	Undefined	Casement	2'-0"	5'-4"	1	0.00	.3	0.00		10.67	No	Yes	
,	N05	Undefined	Casement	2'-0"	5'-4"	1	0.00	.3	0.00		10.67	No	Yes	
,	N06	Undefined	Casement	2'-0"	5'-4"	1	0.00	.3	0.00		10.67	No	Yes	
,	N07	Undefined	Sliding Window	5'-0"	3'-0"	1	0.00	.3	0.00		15.00	No	No	
,	N08	Undefined	Double Awning	2'-0"	1'-6"	1	0.00	.3	0.00		3.00	No	No	
,	N09	Undefined	Double Awning	2'-0"	1'-6"	1	0.00	.3	0.00		3.00	No	No	
,	<i>N</i> 10	Undefined	Double Awning	2'-0"	1'-6"	1	0.00	.3	0.00		3.00	No	No	
,	W11	Undefined	Casement	2'-6"	4'-0"	1	0.00	.3	0.00		10.00	No	No	
,	N12	Undefined	Casement	2'-6"	4'-0"	1	0.00	.3	0.00		10.00	Yes	No	
,	N13	Undefined	Double Awning	2'-6"	2'-6"	1	0.00	.3	0.00		6.25	No	No	
,	N14	Undefined	Double Awning	2'-6"	2'-6"	1	0.00	.3	0.00		6.25	No	No	
,	N15	Undefined	Casement	2'-6"	4'-0"	1	0.00	.3	0.00		10.00	Yes	No	
,	<i>N</i> 16	Undefined	Fixed	2'-7 1/2"	4'-0"	1	0.00	.3	0.00		10.48	No	No	
,	N17	Undefined	Fixed	2'-7 1/2"	4'-0"	1	0.00	.3	0.00		10.48	No	No	
,	N18	Undefined	Fixed	2'-7 1/2"	4'-0"	1	0.00	.3	0.00		10.48	No	No	

Appliance Schedule			
Label	Manufacturer	Model	QTY. Note
SMOKE & CARBON DET.	Undefined	Undefined	11
Entry Hall			
SMOKE & CARBON DET.	Undefined	Undefined	2
Garage			
REFRIGERATOR	Undefined	Undefined	1
SMOKE & CARBON DET.	Undefined	Undefined	2
Kitchen			
HOOD	Undefined	Undefined	1
MICRO/CONVECTION	Undefined	Undefined	1
RANGE TOP	Undefined	Undefined	1
REFRIGERATOR	Undefined	Undefined	1
W/D	Undefined	Undefined	1
LA			
WASHER/ DRYER/ FAN	Undefined	Undefined	3
M.Bath			
FAN	Undefined	Undefined	1
M.Hall			
SMOKE & CARBON DET.	Undefined	Undefined	2
Office			
SMOKE DET	Undefined	Undefined	1
Powder			
FAN	Undefined	Undefined	1
Utility			
TANKLESS WATER HEATER	Undefined	Undefined	1
			30

Label	Manufacturer	Model	QTY. Note
Kitchen			
kitchen sink	Undefined	Undefined	1
M.Bath			
toilet w/ washlet	TOTO toilet with TOTO SW2034#01 C100 Electronic Bidet Toilet Seat	Undefined	1
vainty w/ 2 sinks/faucets	Undefined	Undefined	1
Powder			
toilet	Undefined	Undefined	1
vanity w/ sink/faucet	Undefined	Undefined	1
Shwr			
Hand held shwr/controls	Undefined	Undefined	1
			6

Label	From Zone	To Zone	Туре	Width	Height	Hardware Set	QTY Note
Level							
D03	<undefined></undefined>	Garage	Undefined	3'-0"	6'-8"	Undefined	1
D03	Garage	Garage	Undefined	3'-0"	6'-8"	Undefined	1
D05	Main Entry ADU	<undefined></undefined>	Sliding Door	4'-0"	6'-8"	Undefined	1
D06	LA	Entry Hall	Undefined	3'-0"	6'-8"	Undefined	1
D07	Entry Hall	Powder	Undefined	2'-6"	6'-8"	Undefined	1
D09	Kitchen	Office	Pocket Door	3'-0"	6'-8"	Undefined	1
D10	M.Hall	<undefined></undefined>	Undefined	3'-0"	6'-8"	Undefined	1
D11	M.Hall	M.Bath	Undefined	3'-0"	6'-8"	Undefined	1
D12	Linen	M.Hall	Undefined	2'-6"	6'-8"	Undefined	1

Skylight Schedule					
Label	Type	QTY.	Width	Height	Note
S1		1	2'-0"	3'-6"	U-VALUE .50 MIN
S2		1	2'-0"	3'-6"	U-VALUE .50 MIN
S3		1	2'-0"	3'-6"	U-VALUE .50 MIN
		3			

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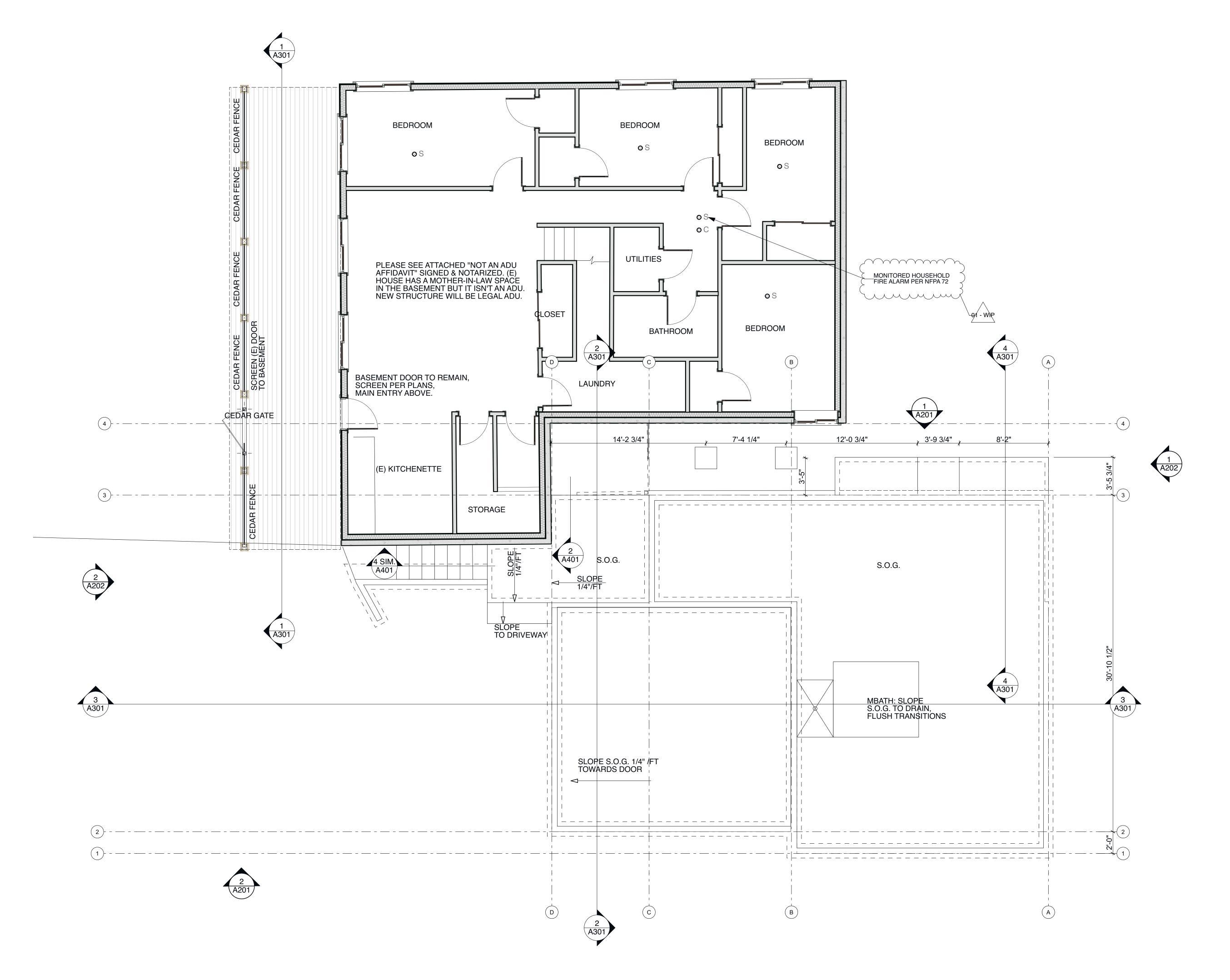
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Schedules



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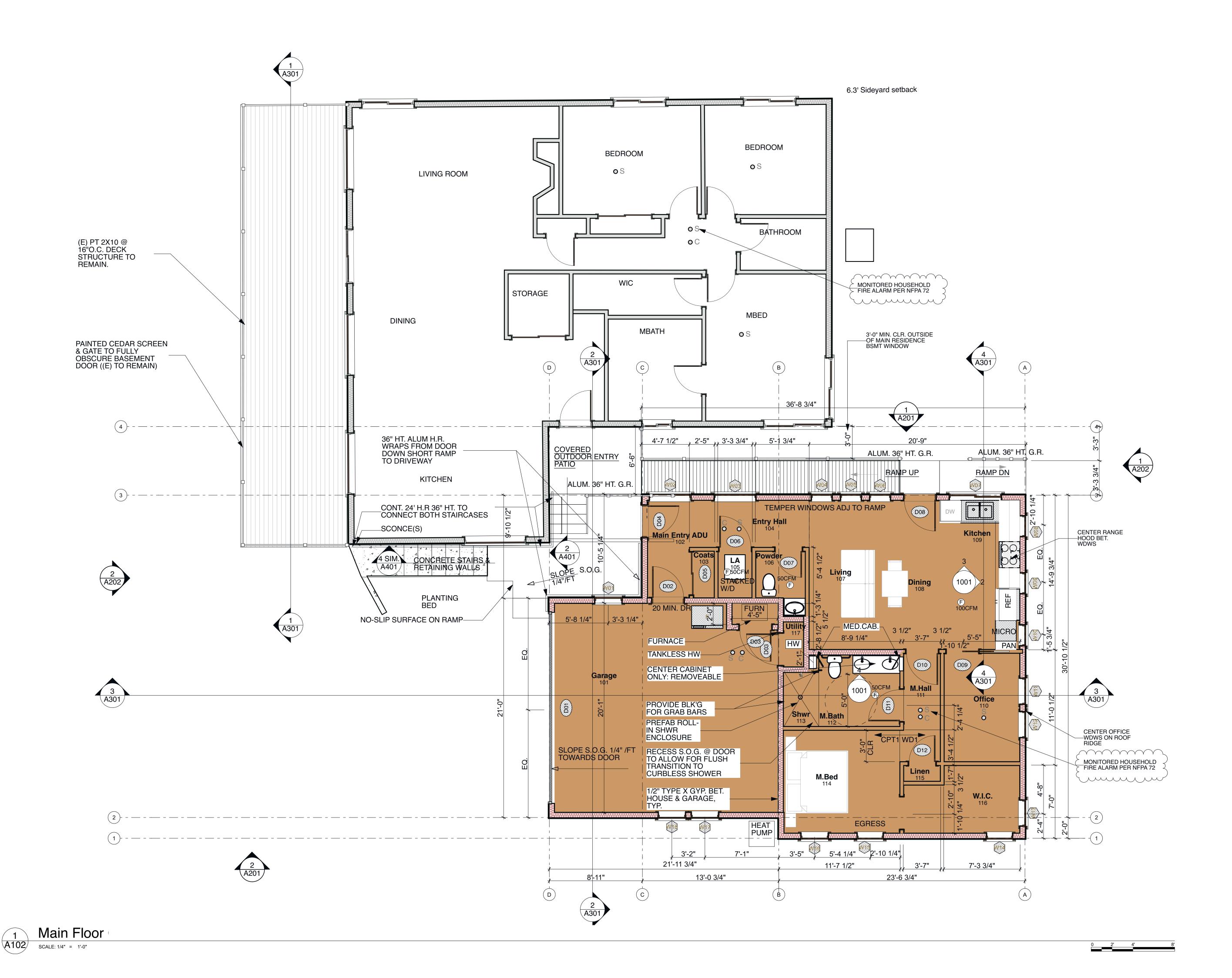


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Foundation

A101

Lower Level



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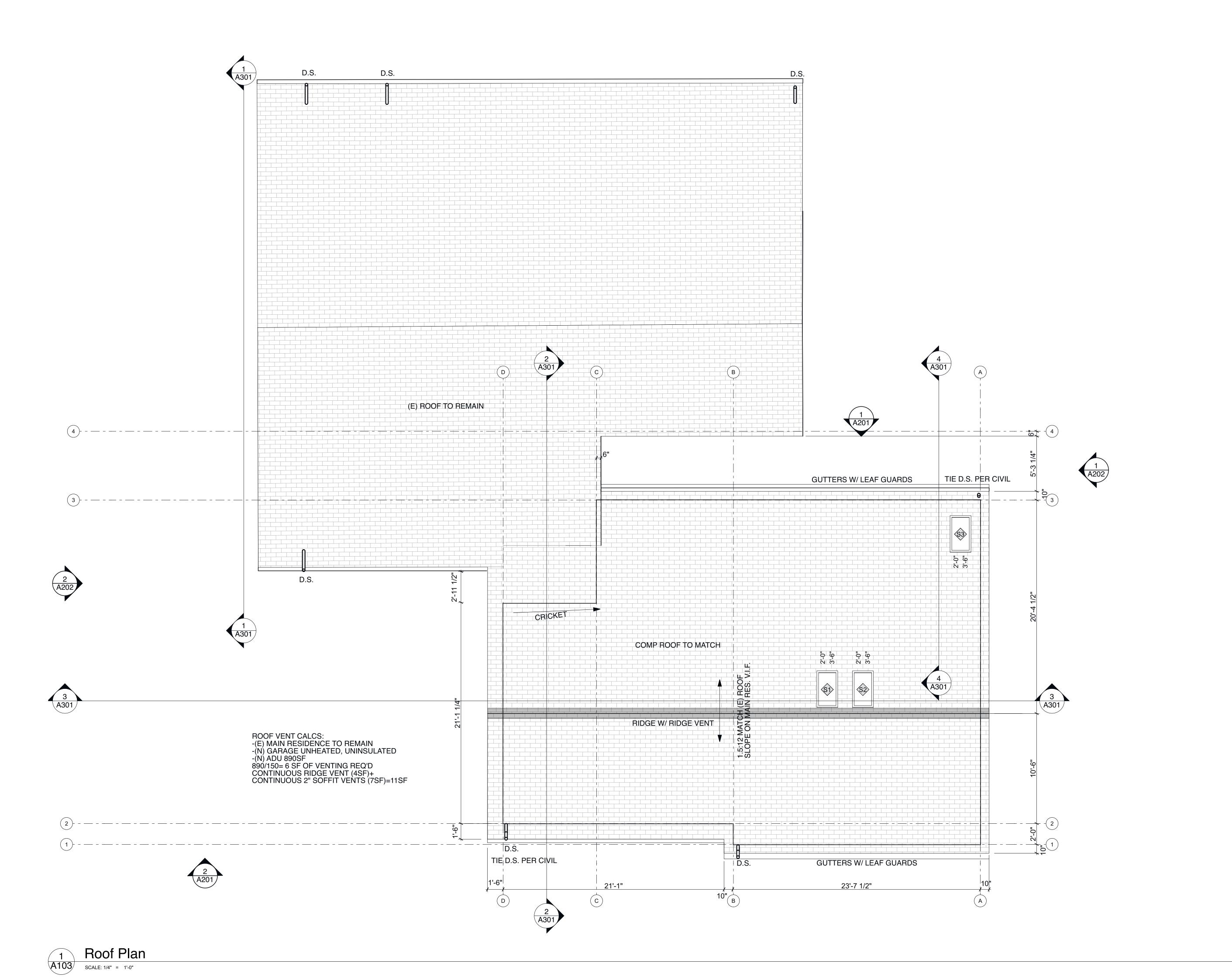
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Main Level Plan



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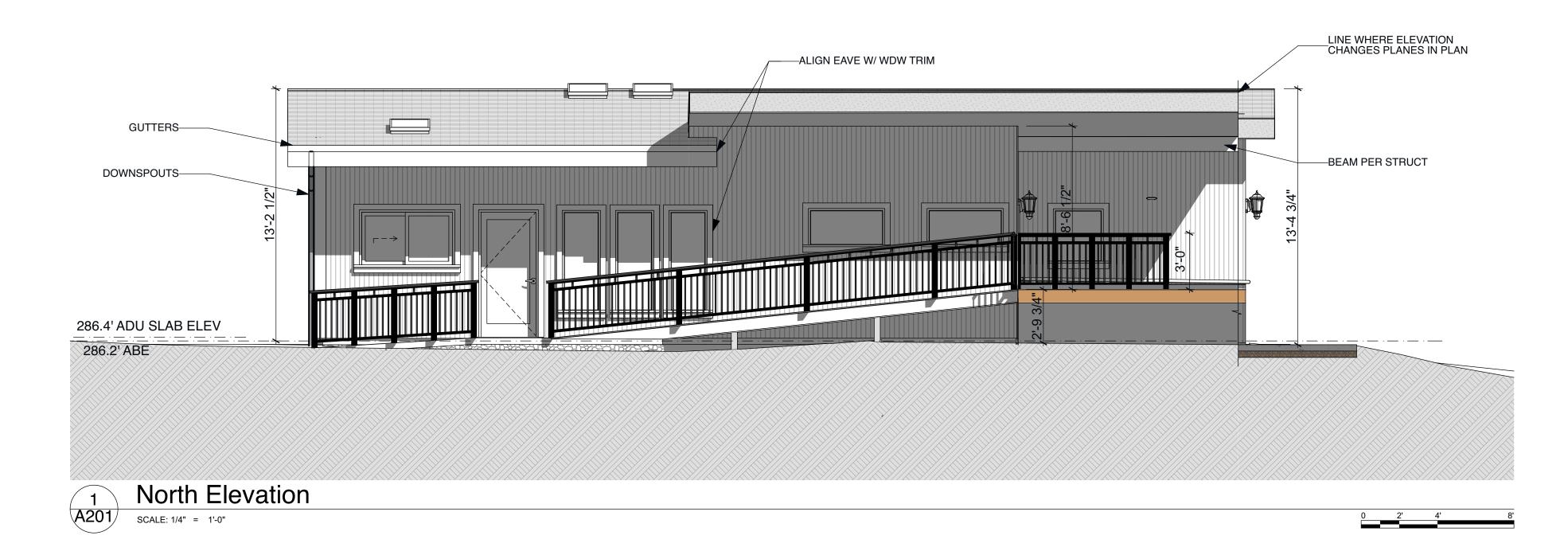
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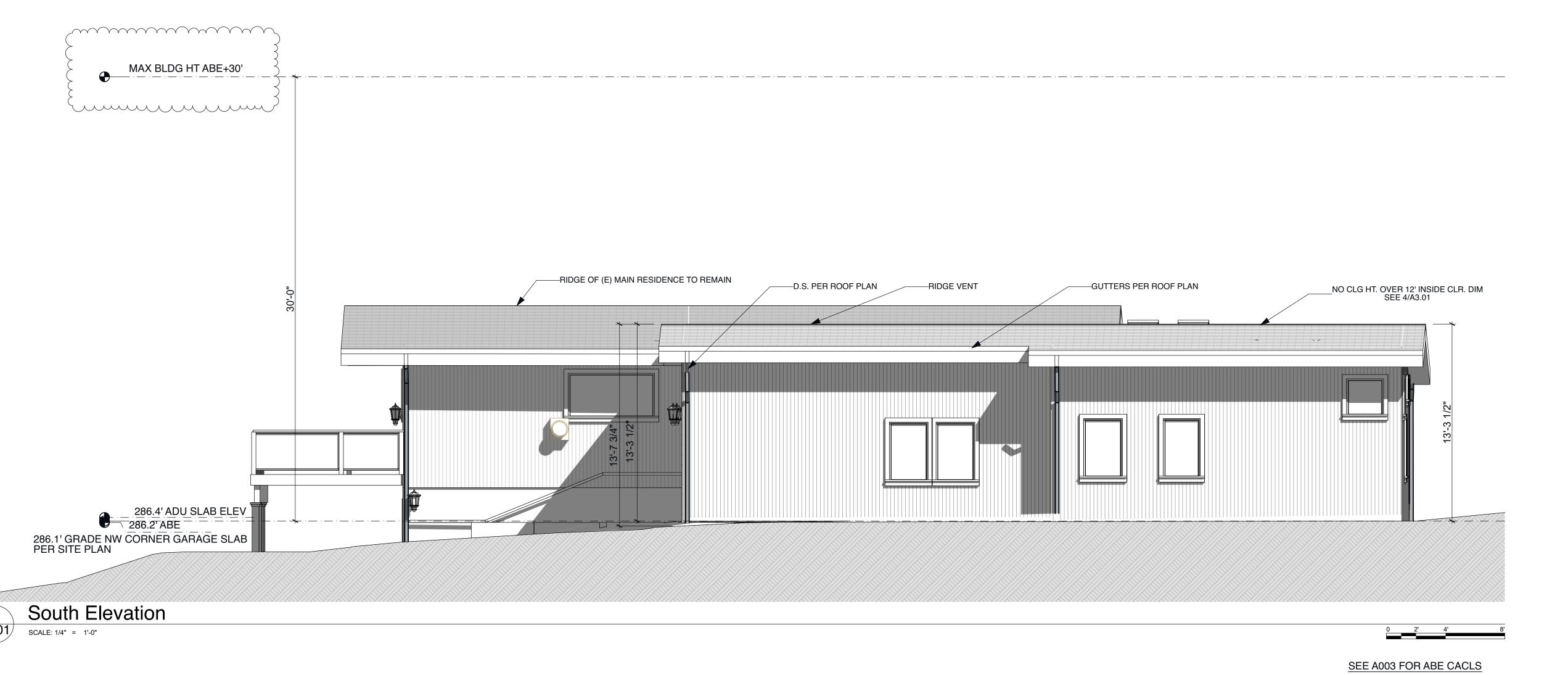
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Roof Plan





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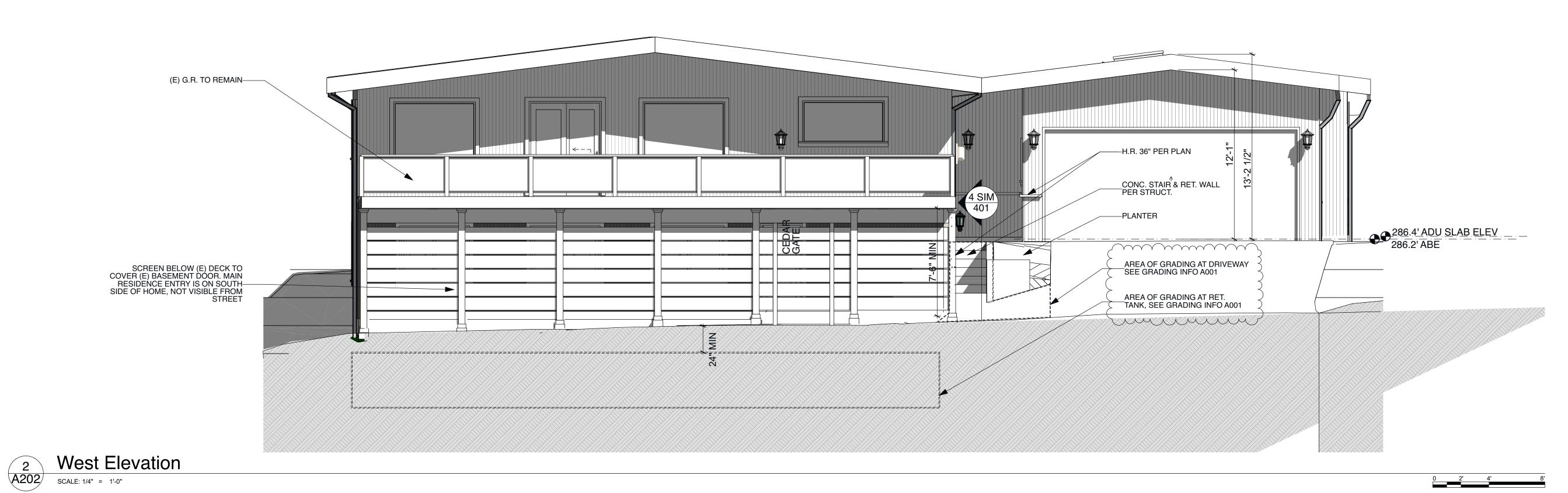
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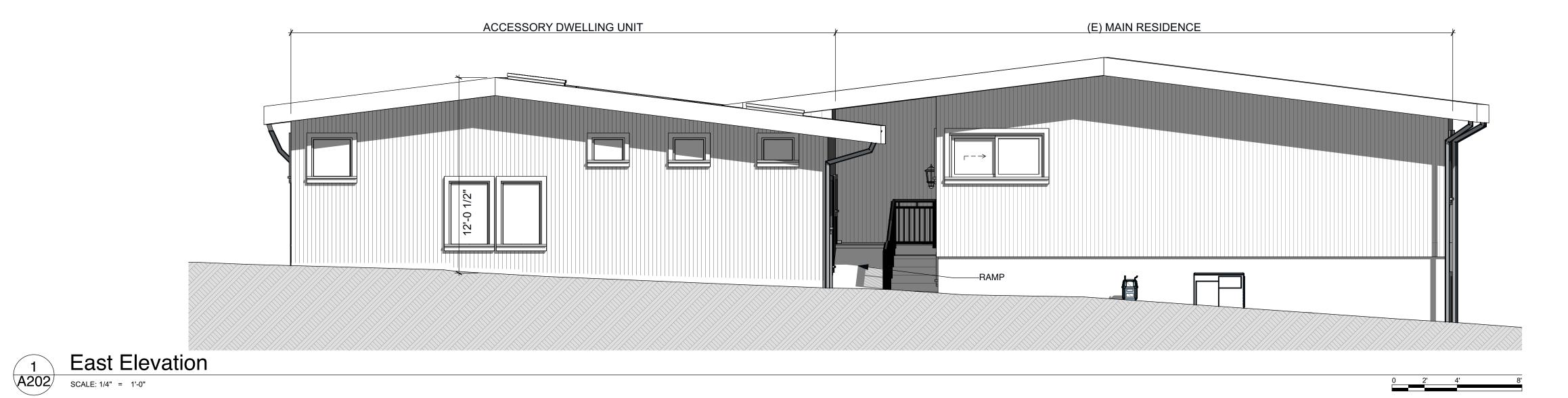
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01- MODIFICATIONS 12.11.20

N/S Elevation





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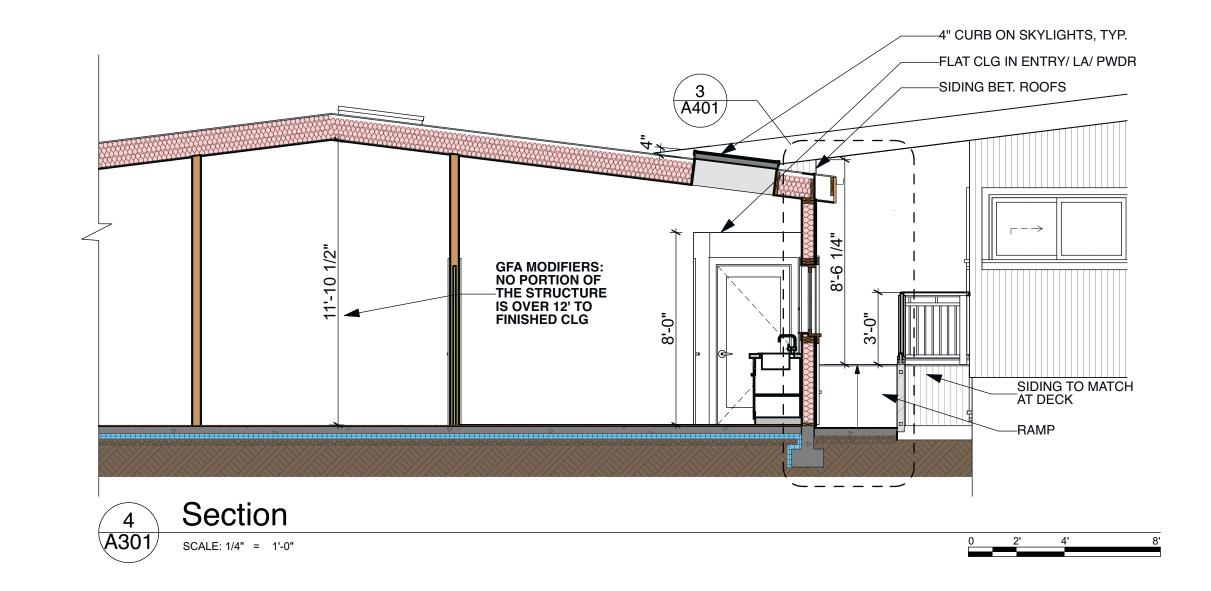
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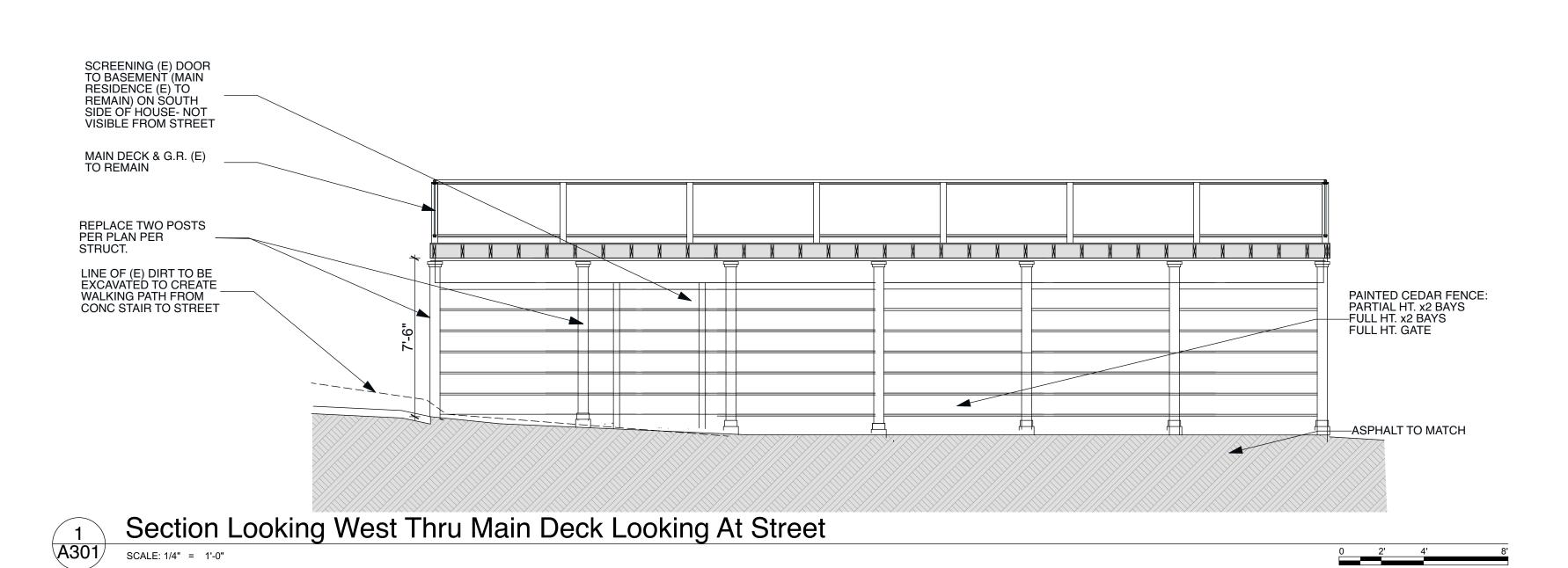
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01- MODIFICATIONS 12.11.20

E/W Elevation

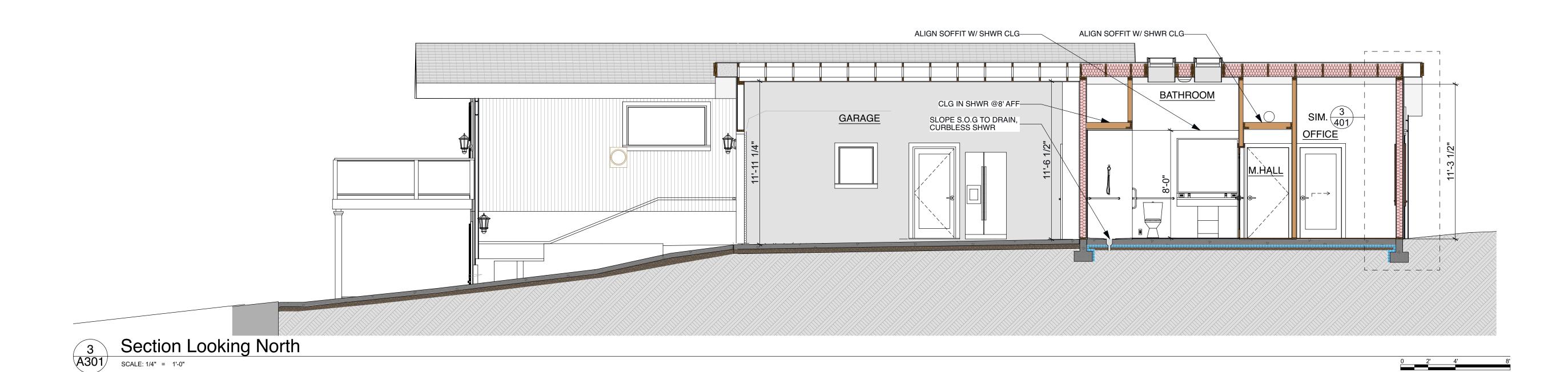




FUR DOWN BEAM, WRAP W/ CEDAR TRIM & PAINT TO MATCH TRUSSES PER MANUF @ GARAGE— VISIBLE EAVES TO MATCH
(E) MAIN RESIDENCE —CONT. 36" HT. G.R. PER PLAN ROOF OVER RAMP
BEYOND PER PLAN SCREEN PORCH BASE W/ SIDING TO MATCH, TYP. BOTH SIDES

Section Thru Garage Looking East

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



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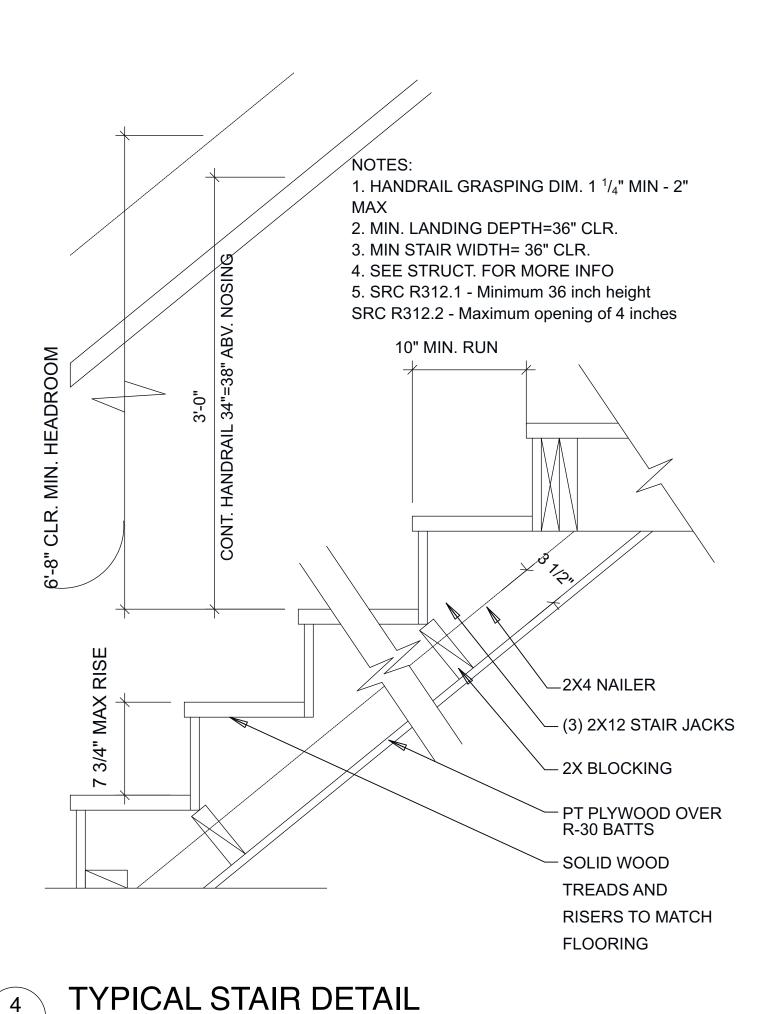
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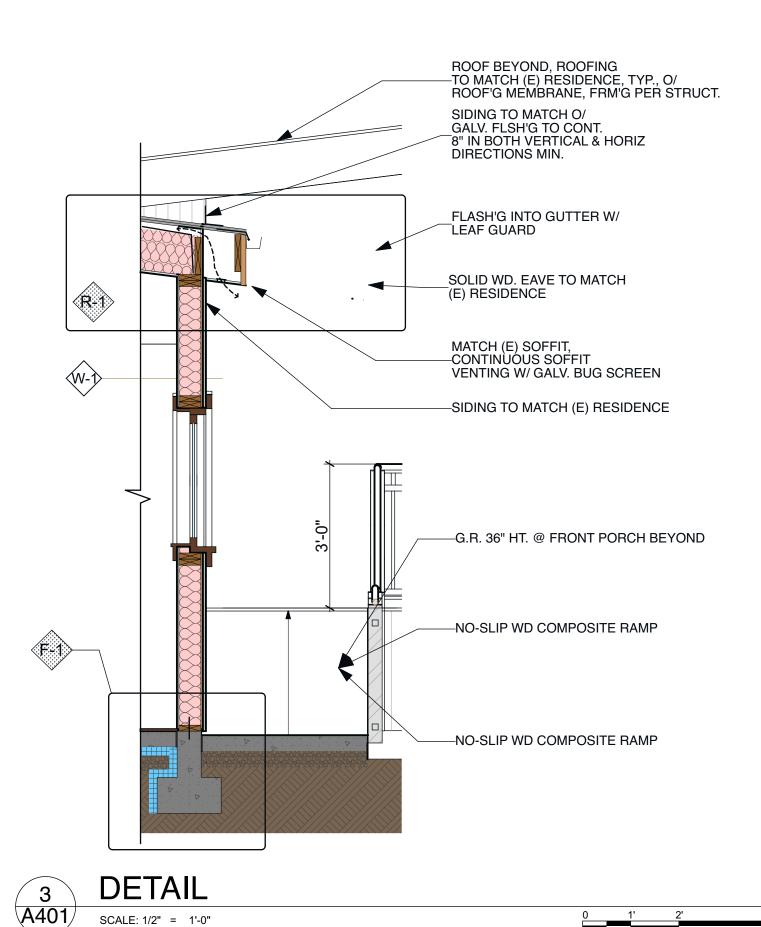


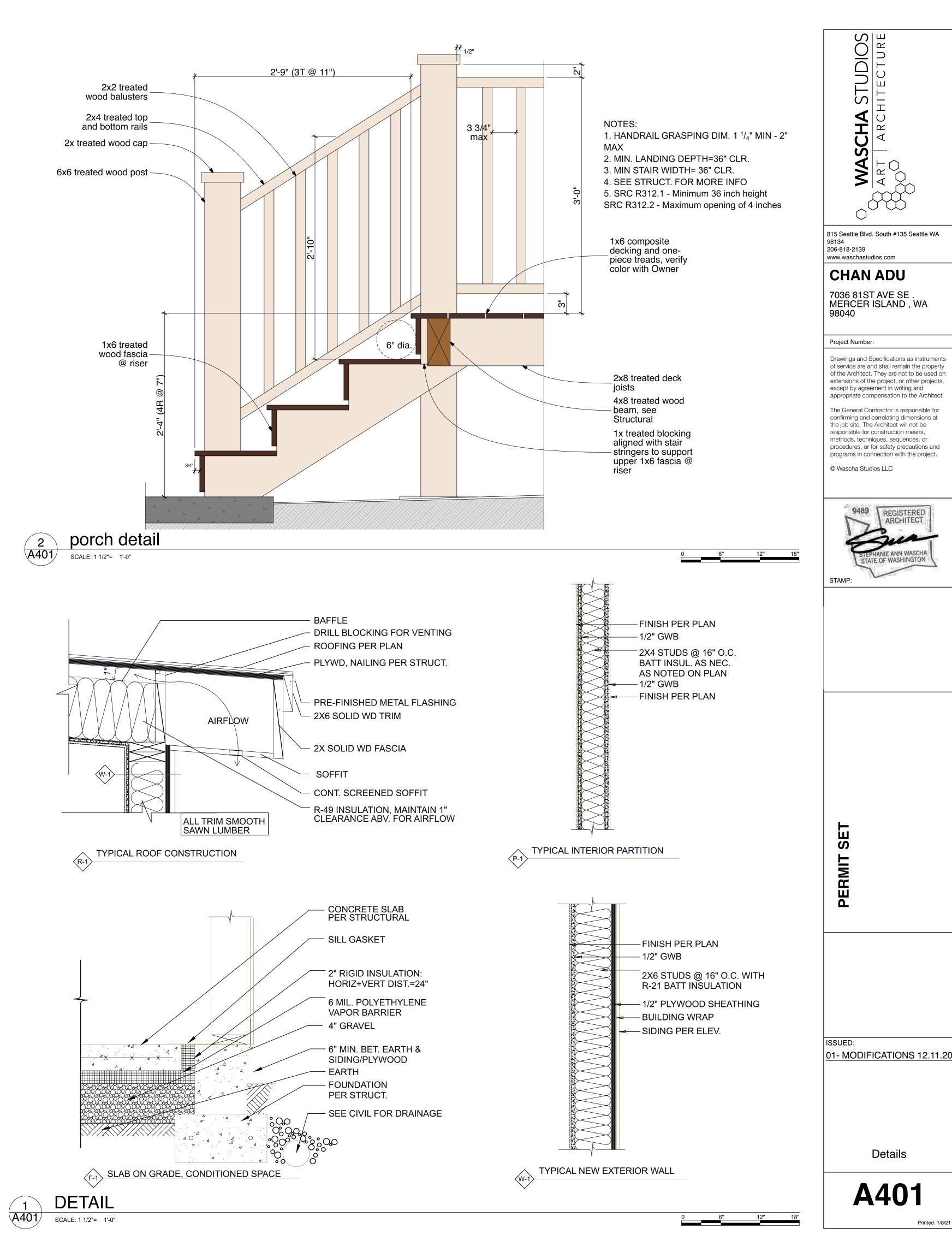
01- MODIFICATIONS 12.11.20

Sections



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





Details

GENERAL STRUCTURAL NOTES (THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (2012 EDITION), & SEATTLE BUILDING CODE MODIFICATIONS TO THE INTERNATIONAL BUILDING CODE.

2. DESIGN LOADING CRITERIA:

FLAAR LIVE LAAR (REGIRENTIAL)

FLOOR LIVE LOAD	(RESIDENTIAL).
WIND IMPORTANCE WIND EXPOSURE	D (3-SECOND GUST)
SEISMIC IMPORTA SEISMIC USE GRO MAPPED SPECTRAL SPECTRAL RESPON SEISMIC FORCE R DESIGN BASE SHE SEISMIC RESPONS SEISMIC DESIGN RESPONSE MODIFI	

REFERENCE: USGS NATIONAL SEISMIC HAZARD MAPPING PROJECT, 2002 DATA

- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 4. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST VERIFIED. CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION. THE CONTRACTOR SHALL BRING ALL CONFLICTS AND DISCREPANICES TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- 5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE RETAINED UNDAMAGED WHERE NOTED ON THE PLANS. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF. ALL NEW OPENINGS THROUGH EXISTING CONCRETE OR MASONRY WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
- 6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONCONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

GEOTECHNICAL

8. FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 18" BELOW ADJACENT FINISHED GRADE. UNLESS NOTED OTHERWISE, FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE.

CONCRETE

9. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORD-ANCE WITH IBC SECTION 1905 AND ACI 301. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF F'C = 2,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS.

THE MINIMUM AMOUNTS OF CEMENT AND MAXIMUM AMOUNTS OF WATER MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE SEATTLE DEPARTMENT OF PLANNING AND DEVELOPMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE CONCRETE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH IBC 1905. 3. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904. 2. 1 OF THE INTERNATIONAL BUILDING CODE.

- 10. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
- 11. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318-02. LAP ALL CONTINUOUS REINFORCEMENT 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

ANCHORAGE

- 13. EPOXY-GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 2508.
- 14. TITEN HD ANCHORS SPECIFIED ON THE DRAWINGS SHALL CONSIST OF "TITEN HD" HEAVY DUTY SCREW ANCHORS AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 2713.

WOOD

JOISTS: (2X MEMBERS)

15. FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CON-FORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

HEM-FIR NO. 2

MINIMUM BASE VALUE, FB = 850 PSI DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FB = 1000 PSI
DOUGLAS FIR NO. 2 MINIMUM BASE VALUE, FB = 900 PSI
DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FB = 1350 PSI
DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FC = 1000 PSI

2X6 STUDS AND PLATES: HEM-FIR NO. 3/ STUD GRADE

2X AND 3X T & G DECKING HEM-FIR COMMERICAL DEX,
MINIMUM BASE VALUE. FB = 1350 PSI

STUDS. PLATES & MISC. FRAMING: DOUGLAS FIR OR HEM-FIR STANDARD GRADE

- 16. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND AITC STANDARDS IN A CITY OF SEATTLE CERTIFIED PLANT. EACH MEMBER SHALL BEAR AN AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC CERTIFICATE OF CONFORMANCE. CERTIFICATES OF CONFORMANCE MUST BE MADE AVAILABLE TO BUILDING INSPECTORS. CITY INSPECTION IS REQUIRED PRIOR TO COVERING GLUED LAMINATED MEMBERS. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, FB = 2,400 PSI, FV = 165 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, FB = 2,400 PSI, FV = 165 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 2,000 RADIUS, UNLESS SHOWN OTHERWISE. ALL COLUMNS SHALL BE DOUGLAS FIR COMBINATION NO. 5, FC = 2400 PSI, E = 2.0 X 10E6 PSI.
- 17. ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE ICC REPORT AND GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.

SL FB = 2900 PSI E = 2000 KSI FV = 290 PSI ESR-1387 SL FB = 2250 PSI E = 1500 KSI FV = 285 PSI ESR-1387 VL FB = 2600 PSI E = 1800 KSI FV = 285 PSI ESR-1387

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

- ALL PROPOSED HOLE SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.
- 18. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAUSER CORPORATION AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.
 - ALL HOLES SHALL CONFORM TO THE MANUFACTURERS SPECIFICATIONS. IF THREE OR FEWER HOLES ARE PROPOSED FOR A SINGLE JOIST, HOLES SHALL CONFORM TO THE WEYERHAUSER ILEVEL TJI ALLOWABLE HOLE CHART. IF MORE THEN THREE HOLES ARE PROPOSED FOR ONE SINGLE JOIST, ALL HOLE SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.
- 19. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH APA STANDARDS. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND SPAN RATING MAY BE USED IN LIEU OF PLYWOOD.
 - A. ROOF SHEATHING SHALL BE 1/2" (NOM.) WITH SPAN RATING 24/0.

 B. FLOOR SHEATHING SHALL BE 3/4" (NOM.) WITH SPAN RATING 40/20.

 C. WALL SHEATHING SHALL BE 1/2" (NOM.) WITH SPAN RATING 24/0.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING.

- 20. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE—
 TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED
 BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR
 MASONRY. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF
 A ROOF OR EAVE SHALL BE AN APPROVED WOOD OF NATURAL RESISTANCE TO DECAY
 OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS
 GIRDERS, JOISTS, AND DECKING; OR VERTICAL MEMBERS SUCH AS POSTS, POLES,
 AND COLUMNS.
- 21. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR MOST RECENT CATALOG. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED. PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UN-LESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEA-SONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. HANGERS IN DIRECT CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE EITHER STAINLESS STEEL (SST300), POST HOT-DIPPED GALVANIZED(HDG) OR GALVANIZED WITH A MINI-MUM OF 1.850Z ZINC PER SQUARE INCH (ZMAX). UNLESS NOTED OTHERWISE. ALL LUMBER JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS, AND ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITT" OR "IUT" SERIES JOIST HANGERS.
- 22. NAILS NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6D	2"	0. 113"
8D	2-1/2"	0. 131"
10D	3"	0. 148"
12D	3-1/4"	0. 148"
16D	3_1 /2"	0 162"

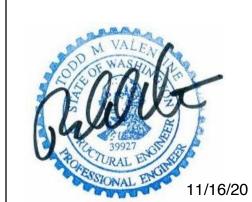
IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL. NAILS SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

- 23. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN:
 - A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

- B. WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2X4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2X6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. TWO 2X8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COL-UMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16D NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16D NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16D AT 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE SIX 16D NAILS AT 4" O.C. EACH SIDE OF JOINT. ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16D NAILS AT 12" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS (WITH 7" MINIMUM EMBEDMENT)@ 4'-0" O.C. UNLESS INDICATED OTHERWISE. INDIVI-DUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 16D @ 12" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH NAILS AT 7" O.C. USE 5D COOLER NAILS FOR 1/2" GWB AND 6D COOLER NAILS FOR 5/8" GWB. WHEN NOT OTHERWISE NOTED, PROVIDE 1/2" (NOM.) APA RATED SHEATHING (SPAN RATING 24/0) ON EXTERIOR SURFACES NAILED AT ALL PANEL EDGES (BLOCK UNSUPPORTED EDGES) TOP AND BOTTOM PLATES WITH 8D @ 6" O.C. AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8D @ 12" O.C. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS.
- C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH METAL JOIST HANGERS IN ACCORDANCE WITH TIMBER CONNECTOR NOTE. NAIL ALL MULTI-JOIST BEAMS TO-GETHER WITH 16D @ 12" O.C. STAGGERED. UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS @ 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" O.C. TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ALL ROOF AND FLOOR SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16D @ 12" O.C. UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.

HV

Harriott Valentine Engineers Inc. 1932 First Avenue, Suite 720 Seattle, Washington 98101-2447 tel 206 624 4760 fax 206 447 6971 www.harriottvalentine.com



Project Contact

Henry Nuckles tel 206 624 4760 ex. 32 fax 206 447 6971 hnuckles@harriottvalentine.com

Project Architect

Wascha Studios
815 Seattle Blvd South #135

Seattle WA 98134

Project

Chan ADU

7036 81st Ave SE

Mercer Island, WA 98040

Issue Date	Issue Description
11/16/20	Permit Submittal
-	

Building Department Approval

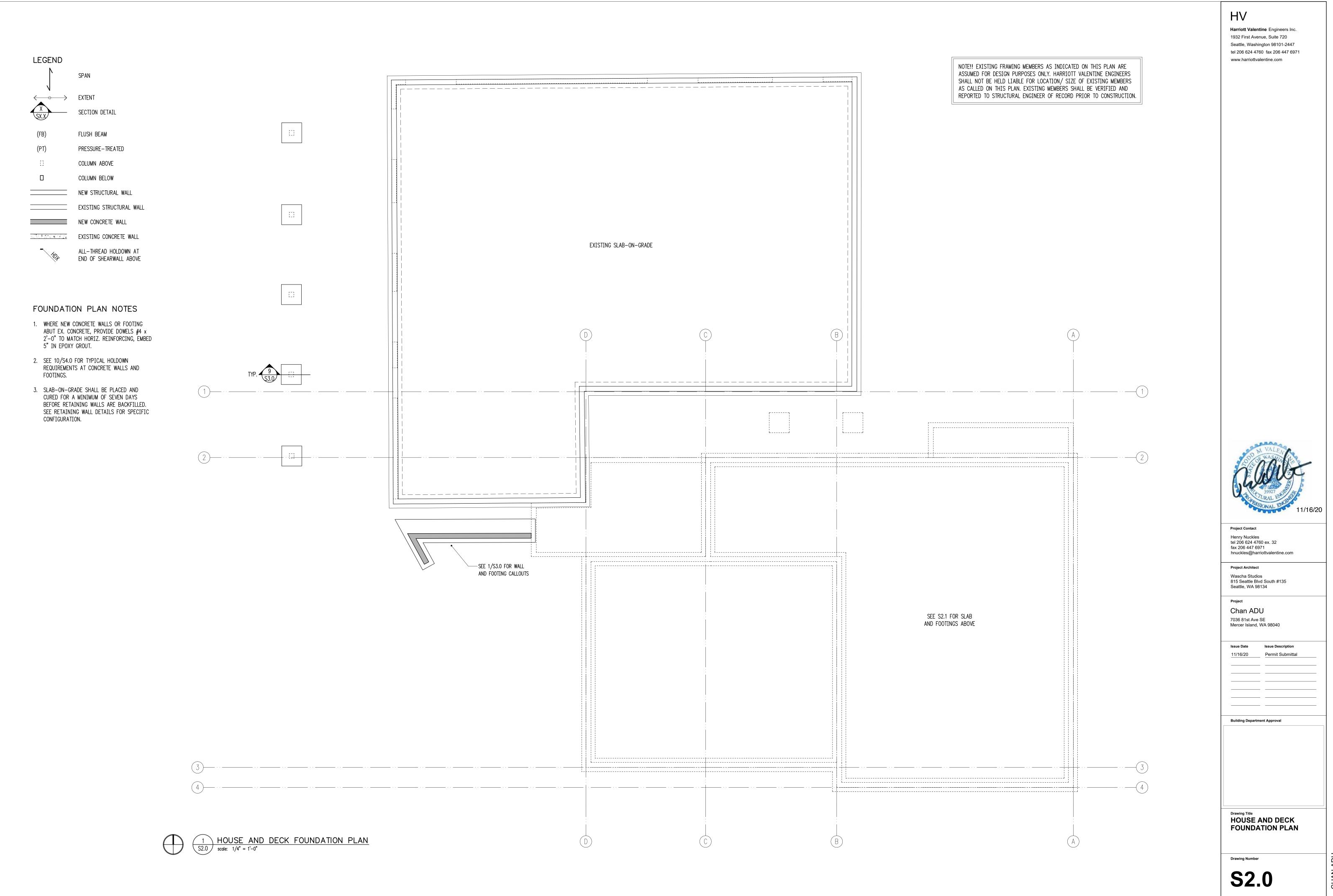
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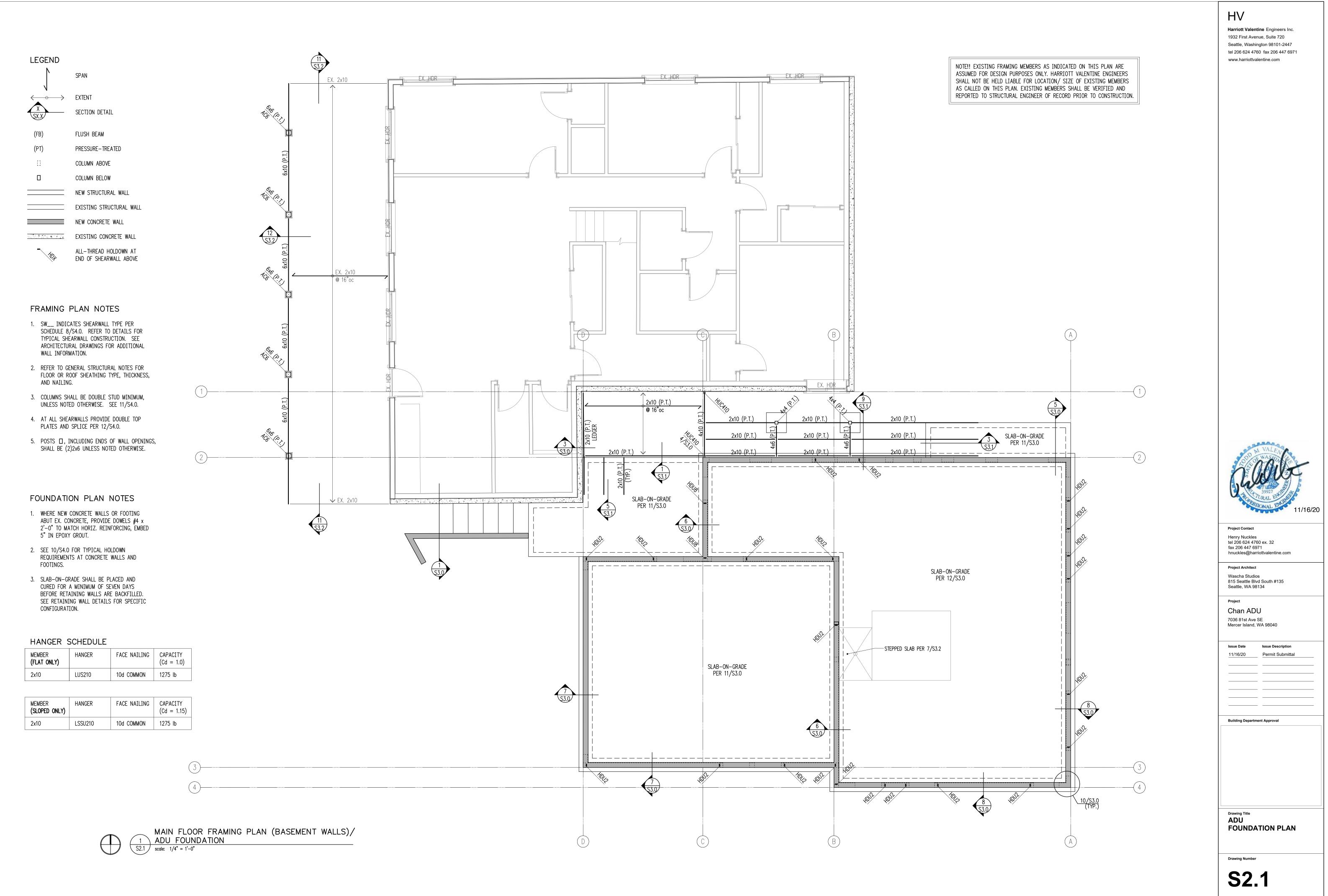
GENERAL STRUCTURAL

NOTES

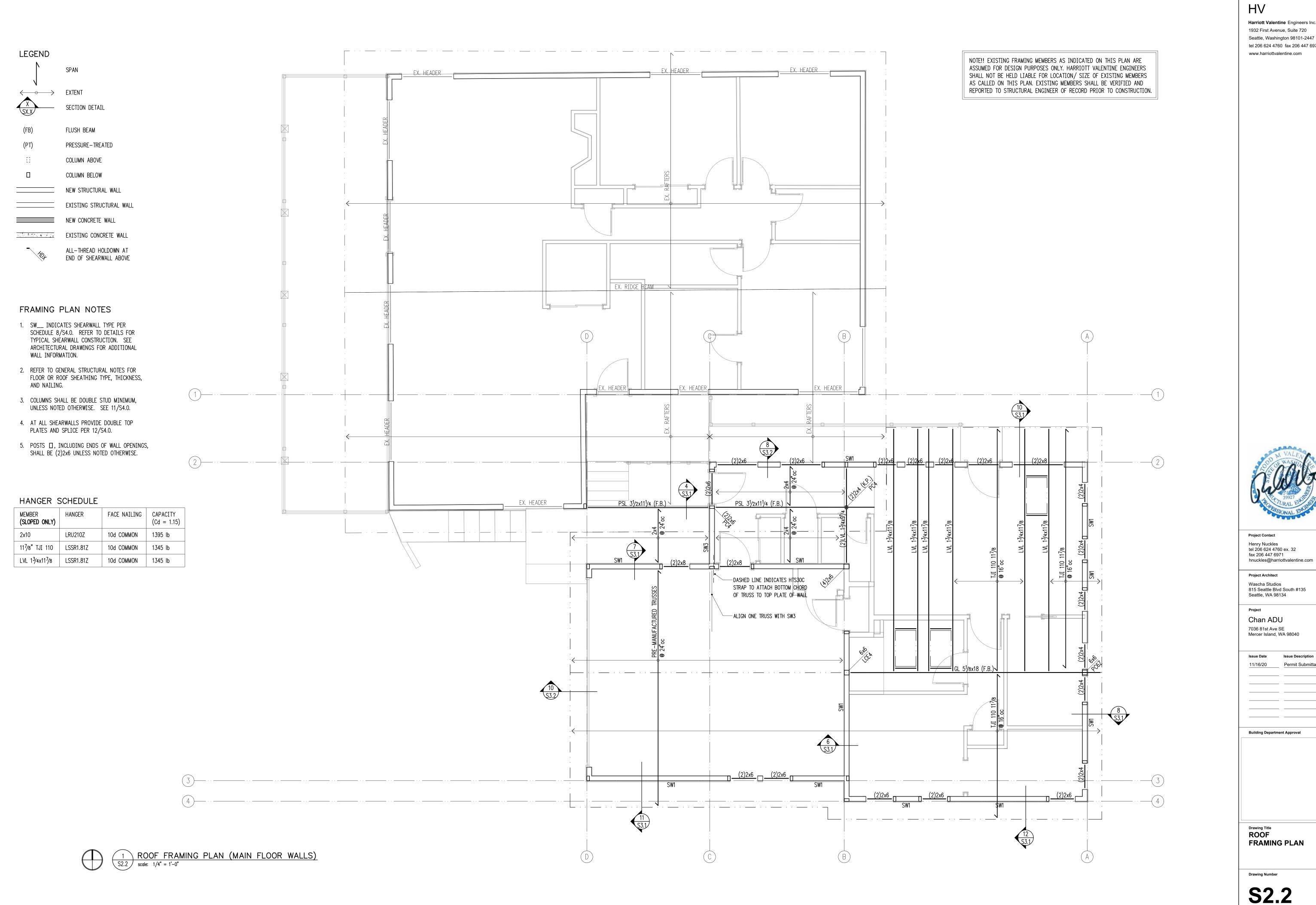
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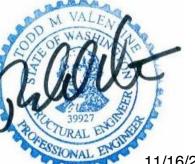




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Harriott Valentine Engineers Inc. 1932 First Avenue, Suite 720 Seattle, Washington 98101-2447 tel 206 624 4760 fax 206 447 6971 www.harriottvalentine.com



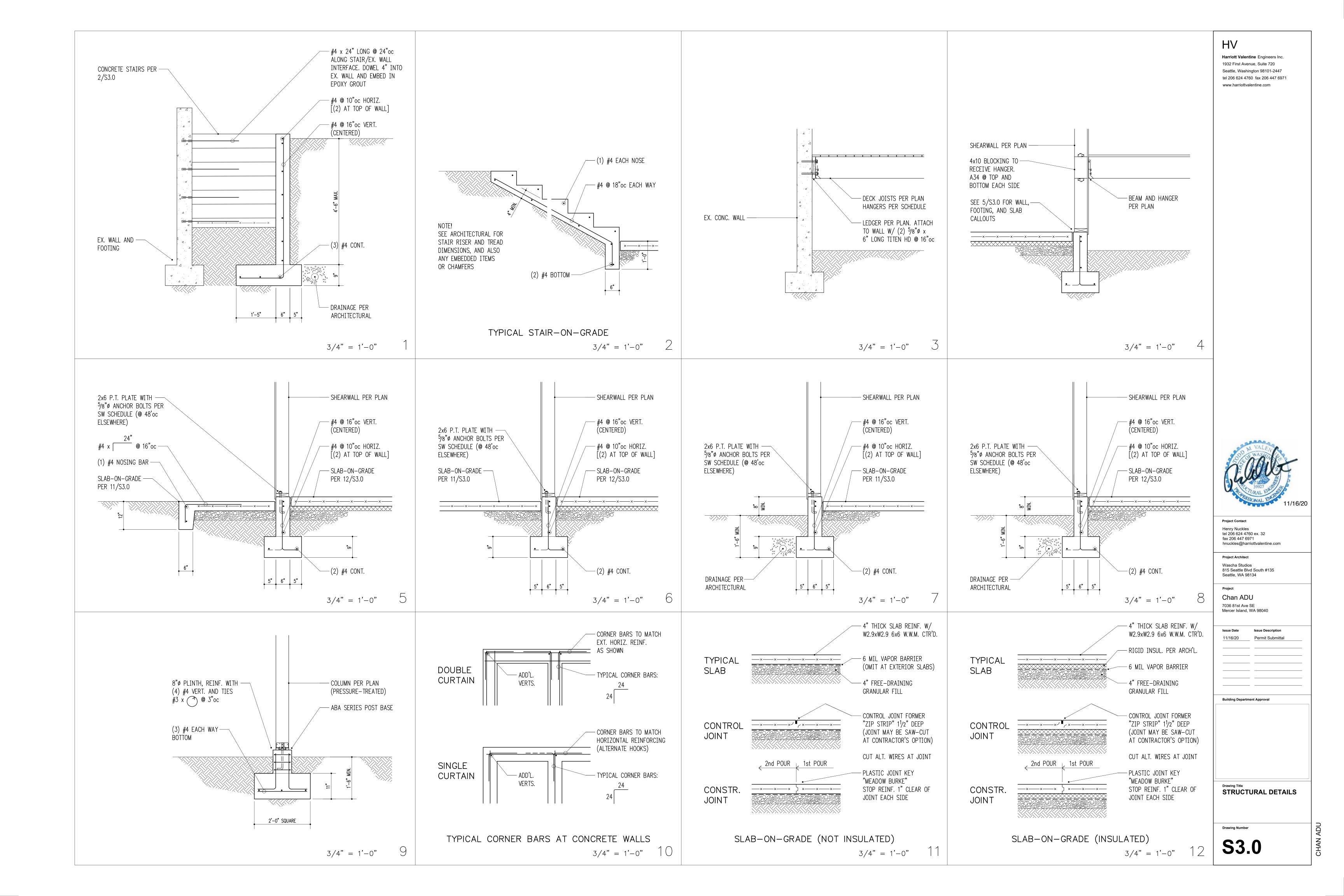
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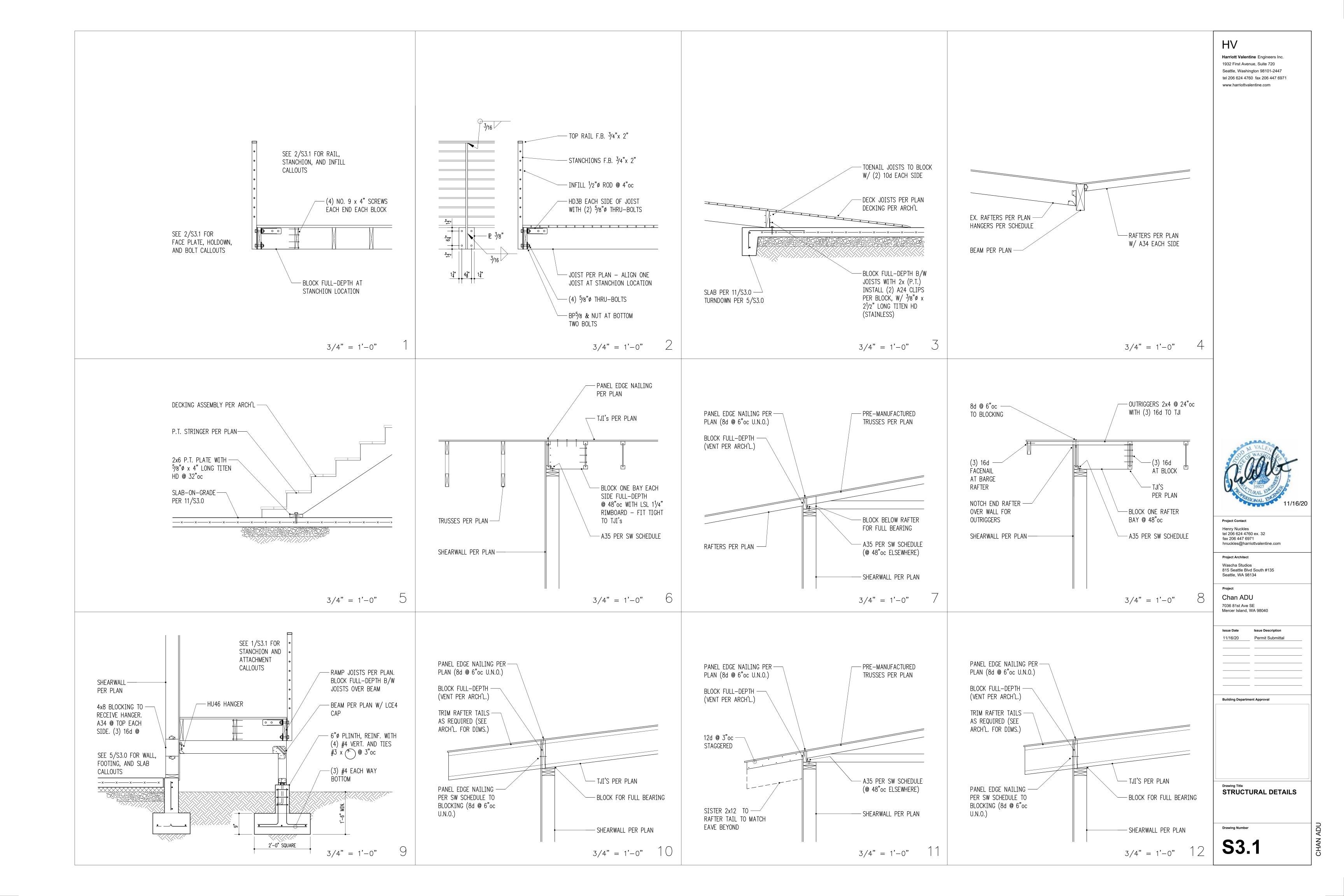
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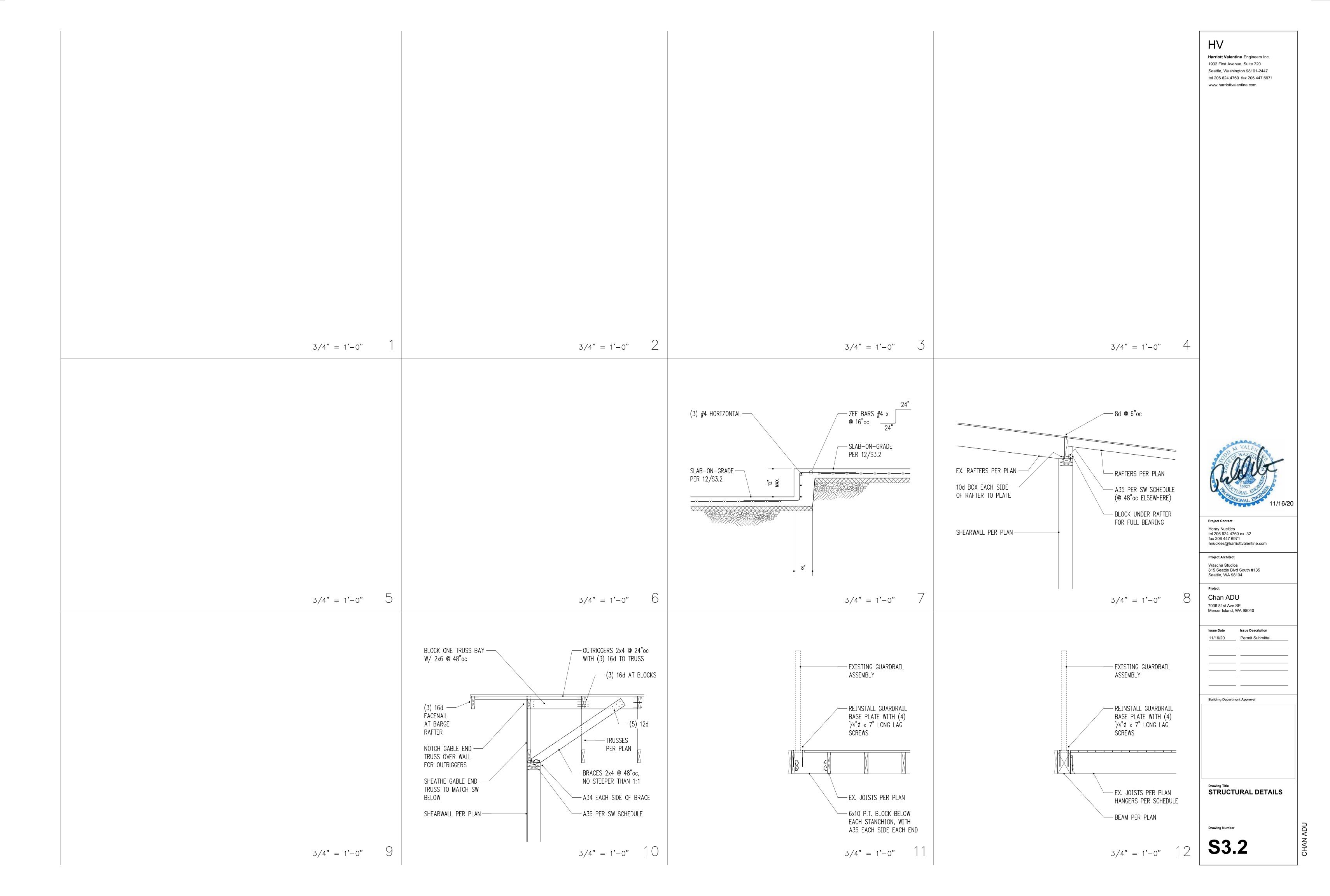
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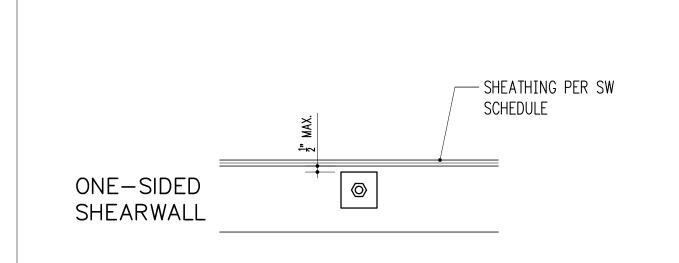
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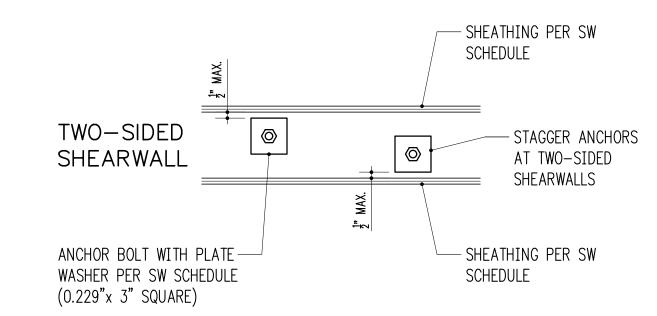
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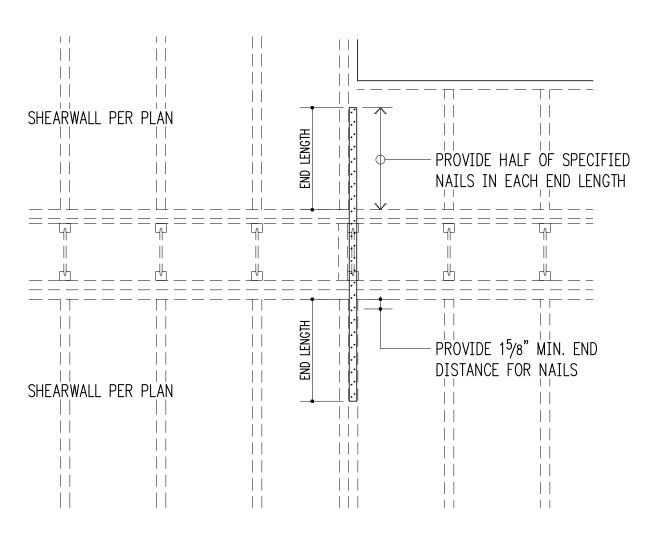


TYPICAL SHEARWALL ANCHOR BOLT PLACEMENT 1-1/2" = 1'-0" 3/4" = 1'-0"

STRAP SCHEDULE (NOT ALL USED)

END LENGTH	NAILS	NAIL SPACING
44"	(98) 10d x 3"	1 ³ /4"
34"	(76) 10d x 3"	1 ³ /4"
25"	(58) 12d x 3 ¹ /4"	11/2"
19"	(36) 8d x 2 ¹ /2"	2 ¹ /16"
14"	(26) 8d x 2 ¹ /2"	2 ¹ /16"
12"	(22) 8d x 2 ¹ /2"	2 ¹ /16"
9"	(16) 8d x 2 ¹ /2"	2 ¹ /16"
8"	(14) 8d x 2 ¹ /2"	2 ¹ /16"
	44" 34" 25" 19" 14" 12" 9"	44" (98) 10d x 3" 34" (76) 10d x 3" 25" (58) 12d x 3½4" 19" (36) 8d x 2½2" 14" (26) 8d x 2½2" 12" (22) 8d x 2½2" 9" (16) 8d x 2½2"

- 1. 10d AND 12d DIAMETER = 0.148"; 8d DIAMETER = 0.131".
- 2. USE HALF OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED (i.e. IN EACH END LENGTH).

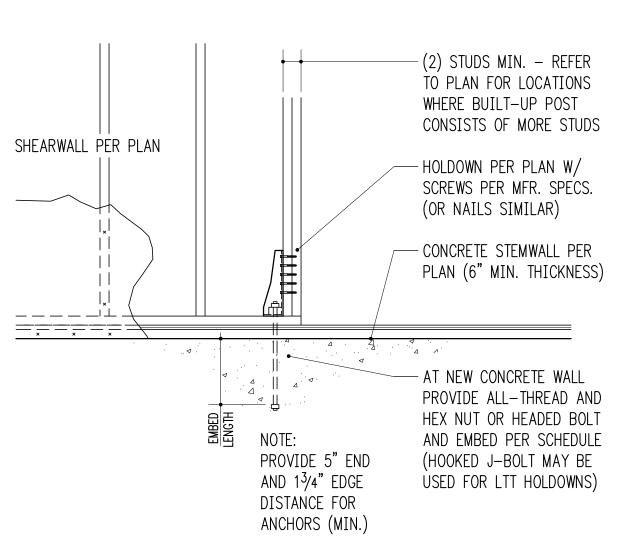


TYPICAL STRAP HOLDOWN AT FLOOR 3/4" = 1'-0"

HOLDOWN SCHEDULE

MARK	ARK FASTENERS TO STUDS ¹		EMBEDME	SSTB ⁵	
		DIA. ²	EP0XY ³	CAST-IN ⁴	
HDU2	(6) ¹ /4"ø x 2 ¹ /2" SCREWS	5/8"	N/A	12"	SSTB16
HDU8	(20) ¹ / ₄ "ø x 2 ¹ / ₂ " SCREWS	7/8"	N/A	9"	N/A

- 1. 10d AND 12d DIAMETER = 0.148"; 16d DIAMETER = 0.162". SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- 2. PROVIDE A36 OR A307 ALL-THREAD AT EPOXY AND CAST-IN ANCHORS.
- 3. PROVIDE SIMPSON "SET-XP" EPOXY PER GENERAL STRUCTURAL NOTES. SPECIAL INSPECTION IS REQUIRED.
- 4. AT CAST-IN ANCHORS PROVIDE HEAVY HEX NUT AT BOTTOM OF ALL-THREAD.
- 5. AT 3x SILL PLATES, PROVIDE LONGER SSTBL MODELS.



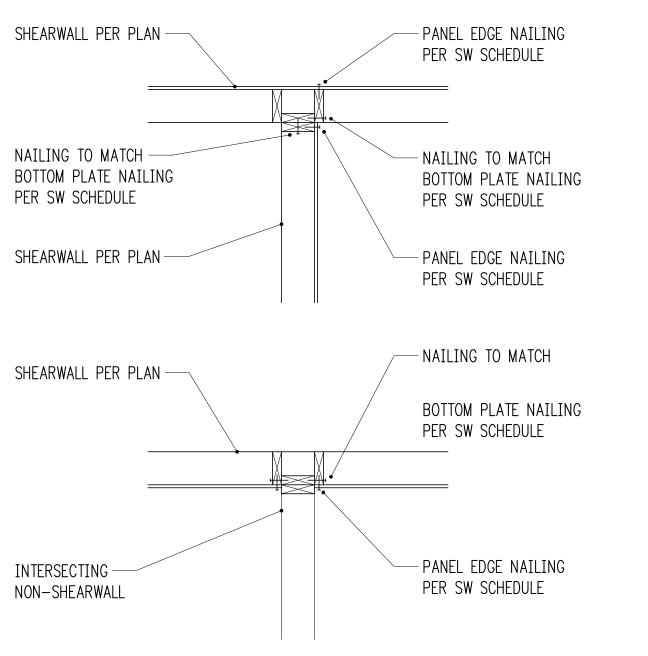
TYPICAL HOLDOWN AT CONCRETE

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

SHEARWALL SCHEDULE (NOT ALL USED ON PLANS)

MARK	SHEATHING ¹	STUDS AT ABUTTING PANEL EDGES ²	PANEL EDGE NAILING ^{3,4}	RIM JOIST OR BLOCKING TO TOP PLATE		BOTTOM PLATE ATTACHMENT		
				SOLID RIM	TJI RIM	BOTTOM PLATE TO RIM JOIST BELOW 4	ANCHOR BOLT TO CONCRETE 5	SILL PLATE AT FOUND.
SW1	15/32" CDX PLYWOOD	2x	8d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	16d @ 6"oc	⁵ /8"ø @ 48"oc	2x
SW2	15/32" CDX PLYWOOD	2x	8d @ 4"oc	A35 @ 15"oc	16d @ 4"oc	16d @ 4"oc	⁵ /8"ø @ 32"oc	2x
SW3	15/32" CDX PLYWOOD	3x	8d @ 3"oc	A35 @ 12"oc	N/A - USE SOLID RIM	16d @ 3"oc	⁵ /8"ø @ 16"oc	2x
SW4	15/32" CDX PLYWOOD	3x	8d @ 2"oc	A35 @ 9"oc	N/A - USE SOLID RIM	16d @ 2"oc	⁵ /8"ø @ 12"oc	2x
SW5	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 3"oc	A35 @ 6"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 3"oc	⁵ /8"ø @ 12"oc	3x
SW6	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 2"oc	A35 @ 4 ¹ /2"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 2"oc	⁵ /8"ø @ 12"oc	3x

- 1. WALL SHEATHING SHALL CONSIST OF APA RATED PLYWOOD WITH SPAN RATING 24/0. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF PANELS. 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" CDX.
- 2. STUDS AT ABUTTING PANEL EDGES MAY CONSIST OF (2)2x STUDS IN PLACE OF 3x STUDS NAIL (2)2x STUDS TOGETHER WITH BOTTOM PLATE ATTACHMENT NAILING.
- 3. BLOCK ALL PANEL EDGES W/ 2x4 FLAT, ATTACH W/ PANEL EDGE NAILING. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING. INTERMEDIATE STUDS SHALL BE 2x STUDS. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH 8d @ 12"oc.
- 4. 8d NAILS SHALL BE 0.131" DIAMETER x $2\frac{1}{2}$ " (COMMON). 16d NAILS SHALL BE 0.135" DIAMETER x $3\frac{1}{2}$ " (BOX).
- ANCHORS TO CONCRETE SHALL CONSIST OF CAST-IN-PLACE ANCHOR BOLTS, EXPANSION BOLTS, EPOXY GROUTED ALL-THREADS, OR TITEN HD HEAVY DUTY SCREW ANCHORS. CAST-IN-PLACE ANCHOR BOLTS HAVE A 7" EMBED AND SHALL BE J-BOLTS OR SHALL HAVE A HEX NUT AT THE BOTTOM END. EXPANSION BOLTS SHALL HAVE 5" EMBED AND SHALL NOT BE USED AT STEM WALL LOCATIONS WITH EDGE DISTANCE LESS THAN 5" (INSTEAD, USE EPOXY GROUTED ALL—THREADS OR TITEN HD ANCHORS). EPOXY GROUTED ANCHORS SHALL HAVE 5" EMBED AND 21/2" MIN. EDGE DISTANCE. TITEN HD ANCHORS SHALL HAVE 31/2" EMBED AND 13/4" MIN. EDGE DISTANCE. AT ALL ANCHOR BOLTS, PROVIDE STEEL PLATE WASHERS THAT ARE A MINIMUM OF 0.229" (3 GAUGE) x 3"x 3" (SIMPSON BP5/8-3 OR SIMILAR). PLACE BOLTS PER ANCHOR BOLT PLACEMENT DETAIL.





TYPICAL MULTIPLE-STUD POST CONSTRUCTION

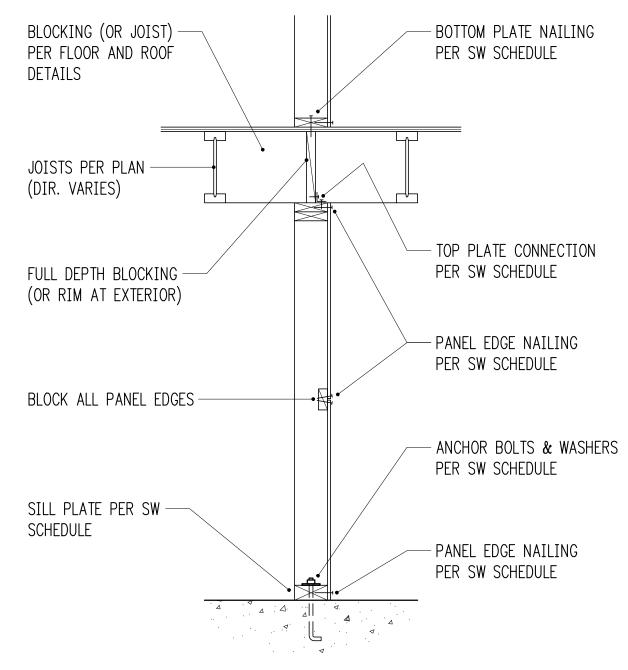
- TYPICAL DOUBLE TOP PLATE

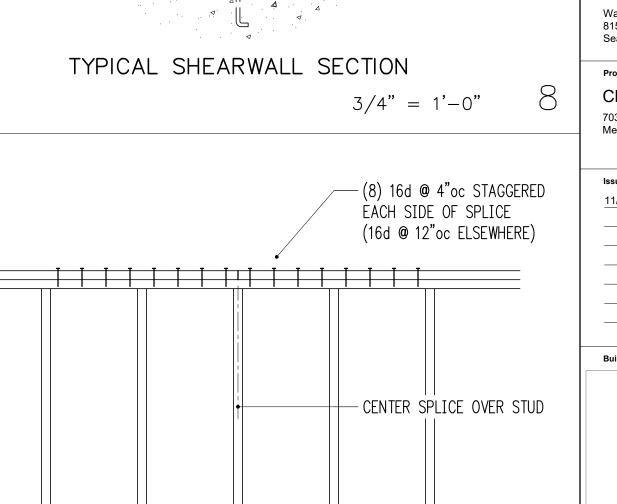
- BEAM OR HEADER PER PLAN

- MULTI-STUD PER PLAN WITH

NAILING PER GEN. NOTES

3/4" = 1'-0" 11



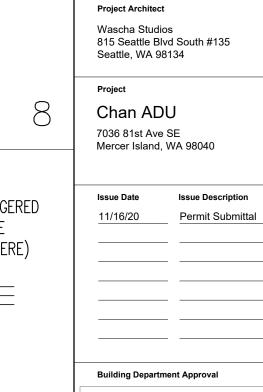


6'-0" MIN. BETWEEN SPLICES

TYPICAL TOP PLATE SPLICE CONSTRUCTION

3/4" = 1'-0"

S4.0



STRUCTURAL DETAILS



HV

Harriott Valentine Engineers Inc

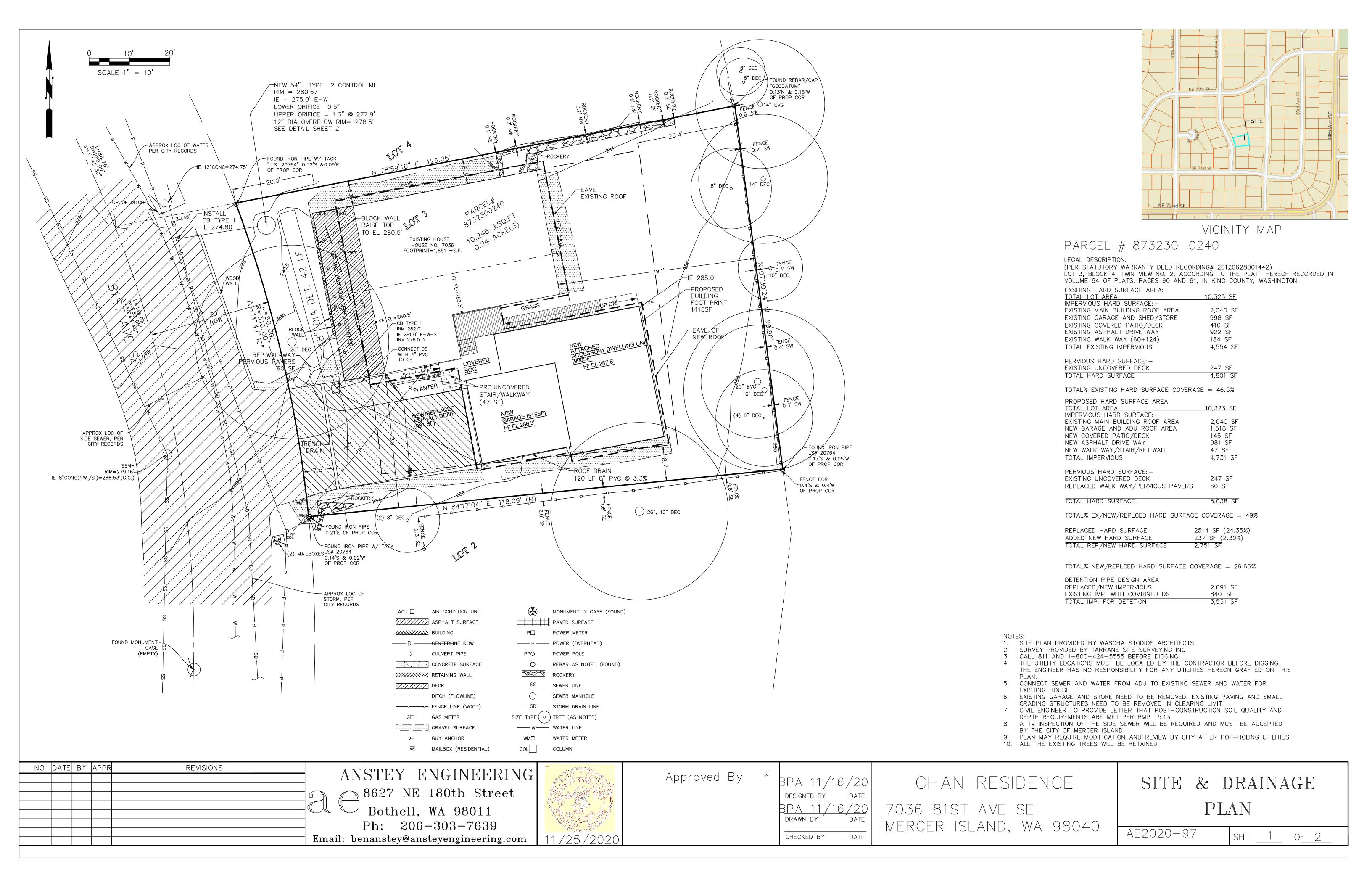
tel 206 624 4760 fax 206 447 6971

1932 First Avenue, Suite 720 Seattle, Washington 98101-2447

www.harriottvalentine.com

815 Seattle Blvd South #135

Mercer Island, WA 98040



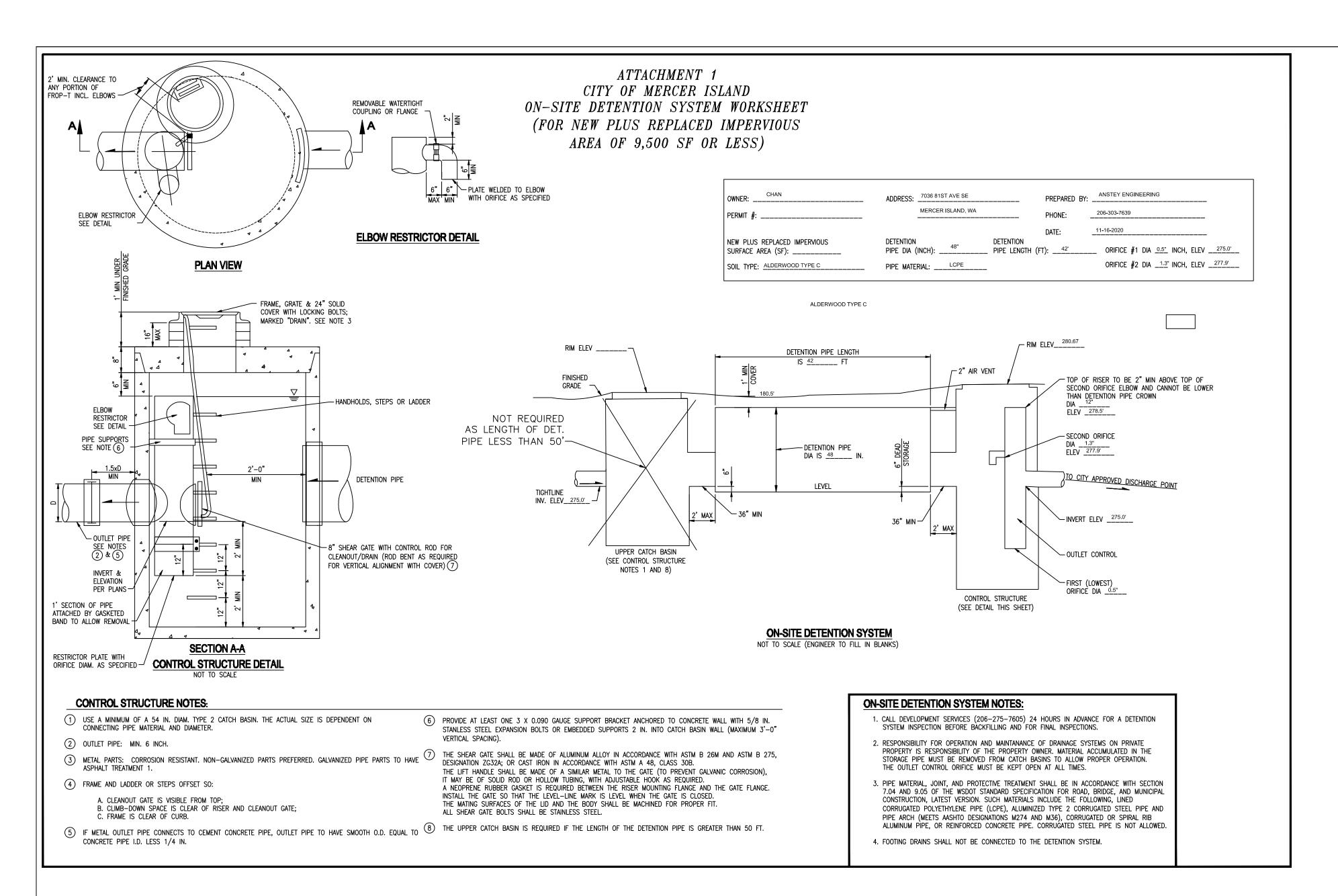


Table 1

ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA Distance from Outlet Invert New and Replaced Impervious Surface Area B soils 500 to 1,000 sf 1,001 to 2,000 sf 2,001 to 3,000 sf 3,001 to 4,000 sf 4,001 to 5,000 sf 3.6 2.9 5,001 to 6,000 sf 6,001 to 7,000 sf 7,001 to 8,000 sf 8,001 to 8,500 sf⁽¹⁾ 2.9 8,501 to 9,000 sf NA (1) 9,001 to 9,500 sf⁽²⁾

- Minimum Requirement #7 (Flow Control) is required when the 100-year flow frequency causes a 0.15 cubic feet per second increase (when modeled in WWHM with a 15-minute timestep). Breakpoints shown in this table are based on a flat slope (0-5%). The 100-year flow frequency will need to be evaluated on a site-specific basis for projects on moderate (5-15%) or steep (> 15%) slopes. Soil type to be determined by geotechnical analysis or soil map. Basis of Sizing Assumptions:

- Sizing includes a Volume Correction Factor of 120%.
- Upper bound contributing area used for sizing. ⁽¹⁾On Type B soils, new plus replaced impervious surface areas
- exceeding 8,500 sf trigger Minimum Requirement #7 (Flow Control) (2) On Type C soils, new plus replaced impervious surface areas
- exceeding 9,500 sf trigger Minimum Requirement #7 (Flow Control)
- (3) Minimum orifice diameter = 0.5 inches
- in = inch ft = feet

48" TYPE C

sf = square feet

storm = 3 in; 100-year, 24-hour storm = 4 in Predeveloped = second growth forest (CN = 72 for Type B soils, CN = 81 for Type C soils)

Sized per MR#5 in the Stormwater Management Manual for

Developed = impervious (CN = 98) 0.5 foot of sediment storage in detention pipe

Puget Sound Basin (1992 Ecology Manual)

2-year, 24-hour storm = 2 in; 10-year, 24-hour

SBUH, Type 1A, 24-hour hydrograph

Overland slope = 5%

5" PRO SERIES STRUCTURAL FOAM POLYOLEFIN LIGHT TRAFFIC CHANNEL GRATE WITH UV INHIBITORS - SECTION AT 5" PRO SERIES 2" ASPHALT NEW FELT EXPANSION JOINT 6" CRUSHED STONE -— EXISTING SOILS #3 OR #4 REBAR STAKE SUSPENSION METHOD. LENGTH OF STAKE 1. CHANNELS TO BE INSTALLED WITH GRATE, GRATE TO BE PROTECTED FROM CONCRETE POUR 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS 3. DO NOT SCALE DRAWING. 4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. 5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE. PRO SERIES CHANNEL DRAIN SYSTEM 5" PRO SERIES INSTALLATION DETAIL - LOAD CLASS 'A' & 'B' - 4" ENCASEMENT REBAR SUSPENSION W/ ASPHALT REVISION DATE 3-5-2015



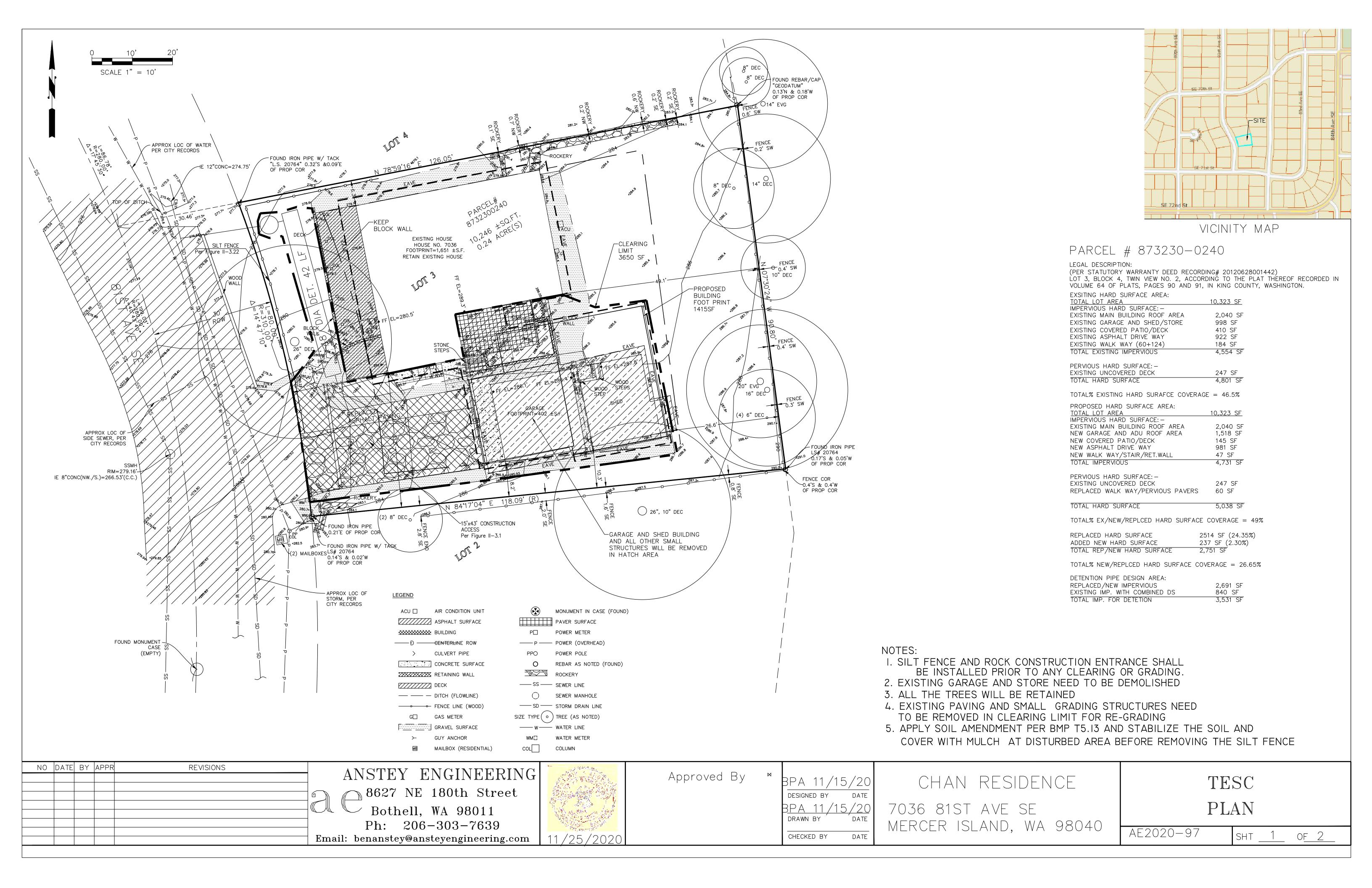
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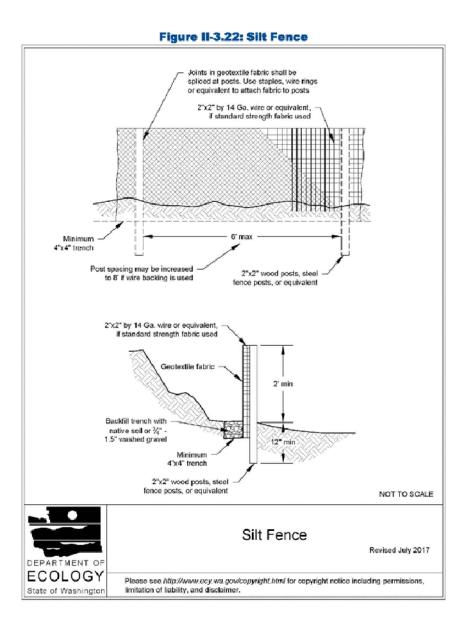
BPA 11/16/20 DESIGNED BY BPA 11/16/20 DRAWN BY DATE CHECKED BY DATE

CHAN RESIDENCE 7036 81ST AVE SE MERCER ISLAND, WA 98040 SITE & DRAINAGE PLAN DETAILS

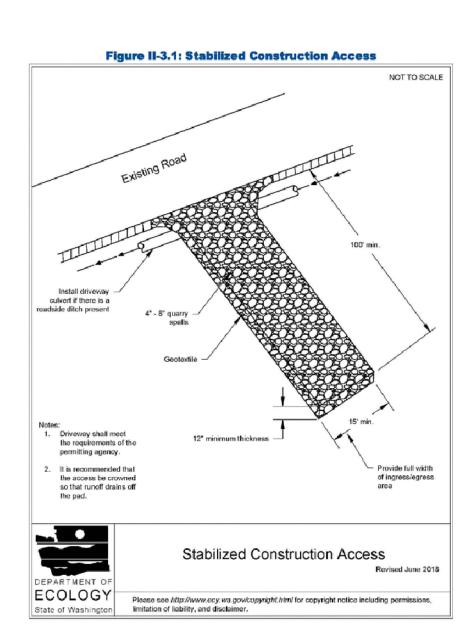
AE2020-97 SHT <u>2</u> OF <u>2</u>

NO	DATE	BY	APPR	REVISIONS	
					ANSTEY ENGINEERING
					8627 NE 180th Street
					Bothell, WA 98011
					Ph: 206-303-7639
					Email: benanstey@ansteyengineering.com



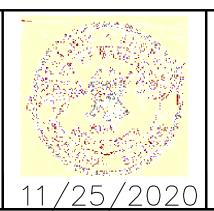


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NO DATE BY APPR REVISIONS ANSTEY ENGINEERING 8627 NE 180th Street Bothell, WA 98011 Ph: 206-303-7639 Email: benanstey@ansteyengineering.com



Approved By

BPA 11/15/20 DESIGNED BY BPA 11/15/20 drawn by date CHECKED BY

CHAN RESIDENCE 7036 81ST AVE SE MERCER ISLAND, WA 98040 TESC STD DETAILS AND STD NOTES

AE2020-97 SHT <u>2</u> O<u>F 2</u>

RECOMMENDED CONSTRUCTION SEQUENCE:

- 1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
- 2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
- 3. FLAG OR FENCE CLEARING LIMITS. 4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
- 5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
- 6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.). 7. CONSTRUCT SEDIMENT PONDS AND TRAPS.
- 8. GRADE AND STABILIZE CONSTRUCTION ROADS.

MORE THAN 30 DAYS.

- 9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
- 10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- 11. RELOCATE SURFACE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC
- 12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
- 13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE. 14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR
- 15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

EROSION CONTROL STANDARD NOTES:

- 1. APPROVAL OF THIS EROSION/SEDIMENTATION 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).
- 2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- 3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- 4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- 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 TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- 6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- 7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
- 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.
- 9.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 ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.