GENERAL NOTES

APPLICABLE CODES:
2018 WASHINGTON STATE BUILDING CODE (WSBC)
2018 WASHINGTON STATE RESIDENTIAL CODE (WSRC)
2018 WASHINGTON STATE EXISTING BUILDING CODE (WSEBC)
2018 WASHINGTON STATE FIRE CODE (WSFC)
2018 WASHINGTON STATE MECHANICAL CODE (WSMC)
FUEL GAS CODE 2018 OF WASHINGTON (WSFGC)
2018 WASHINGTON STATE ENERGY CODE (WSEC) - RESIDENTIAL PROVISIONS

GENERAL NOTES:
1. All work to comply with the Washington State Residential Code (WSRC)

2. All applicable codes, ordinances and minimum structural requirements take precedence over all drawings, notes and specifications.

3. Contractor must contact architect immediately upon discovery of any discrepancies within the contract documents; as well as any discrepancies between the contract documents and applicable codes. Contractor to contact architect for approval for any deviations from these plans.

4. Contractor to verify all dimensions, grades and existing conditions before proceeding with work.

5. Contractor shall visit the site and familiarize himself/herself with all aspects of the work prior to contracting with the owner to preform the work.

6. Contractor shall be responsible for acquiring all necessary permits for the work, except for the building permit which is the responsibility of the owner.

7. Repetitive features may be drawn only once, but shall be provided as if drawn in full. Repetitive notes may be called out only once and indicated as typical.

8. Dimensions are to face of framing or centerline of columns unless noted otherwise. Do not scale dimensions from drawings. Use dimensions on drawings and field verified measurements only. Notify the architect if conflicts exist.

9. The contractor is responsible for coordinating mechanical, electrical and plumbing contractors and notifying the architect of any discrepancies in framing prior to proceeding with work.

10. These drawings are design-build in the areas of mechanical, electrical and plumbing with architect's approval.

SITE WORK:
1. All excavation and fill shall be stored and protected such as to prevent run off of material to adjacent properties.

2. Footing drain to be separate from roof and impervious area drains.

3. Downspout drain to be 4" diameter tightline unless noted otherwise. Footing drain to be 2" diameter perforated pipe unless noted otherwise.

4. Contractor is responsible for complying with required septic and/or storm water detention systems.

EARTH WORK:
1. Extend excavation down to undisturbed soil of the specified strength with a minimum of 18" below lowest adjacent finish grade.

2. Compacted fill to be well graded and granular with not more than 5% passing a 200 sieve. Place in 8" loose lifts and compact to 95% modified density.

3. Backfill behind all retaining walls with free draining granular fill and provide for subsurface drainage, subject to field review by Geotechnical Engineer.

ENERGY NOTES:
1. All work to comply with Washington State Energy Code (WSEC).

2. Provide seals and weather-stripping.

3. Seal all tears and joints in insulation with approved tape.

4. All new fenestrations to be NFRC certified.

5. Ducts outside the conditioned space shall be insulated per WSEC R403. Provide weather barrier if located on the exterior of the building. All metal duct joints shall be taped.

6. Provide mechanical system piping insulation per WSEC R403.4.

7. Water heaters shall be installed, strapped & secured for seismic loads per WSRC M2005. Heaters shall meet ASHRAE 90-75 requirements.

8. WSEC R406.3 ENERGY CREDITS:

Medium Dwelling Unit: 6.0 credits

A. FUEL NORMALIZATION CREDITS (406.2):

SYSTEM TYPE	DESCRIPTION OF PRIMARY HEATING SOURCE	CREDITS
1	For an intial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(1)C or C403.3.2(2)	1.0 Credit

B. OPTIONS SELECTED (406.3)

1.2	Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.20.	1.0 Credit
2.2	Compliance based on R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum at 50 Pascals and All whole house ventilation requirements as determined by Section M1505.4 of the International Residential Code or Section 403.4.4 of the International Mechanical Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.65.	1.0 Credit
3.6*	Ductless split system heat pumps with no electric resistance heating in the primary living areas. A ductless heat pump system with a minimum HSPF of 10 shall be sized and installed to provide heat to entire dwelling unit at the design outdoor air temperature	2.0 Credits
5.3	Water heating system shall include one of the following: Energy Star rated gas or propane water heater with a minimum UEF of 0.91	1.0 Credit

9. Energy code: WSEC R406.2 Table R402.1.1 and Applied Energy Credits, new construction shall meet the minimum requirements insulation values unless noted otherwise:

TABLE 402.1 + ENERGY CREDITS

CLIMATE ZONE	5 AND MARINE 4	ENERGY CREDITS
FENESTRATION U-FACTOR	0.30	0.20
SKYLIGHT U-FACTOR	0.50	--
CEILING R-VALUE	49	--
WOOD FRAME WALL R-VALUE	21 int	--
FLOOR R-VALUE	30	--
BELOW GRADE WALL R-VALUE	10/15/21 int + 5TB	--
SLAB R-VALUE AND DEPTH	10, 2 FT	--

10. The builder shall complete and post an "Insulation Certificate for Residential Construction" within 3 feet of the electrical panel prior to final inspection.

11. A minimum of 75% of permanently installed lamps in lighting fixtures shall be high-efficacy lamps.

12. Moisture control shall be provided per WSEC R402.

VENTILATION NOTES:
1. All work to comply with the WSRC M1501.

2. Source specific fans shall be located in all kitchens, bathrooms, water closets and laundry facilities, indoor swimming pool, spa, and other rooms where excess water vapor or cooking odor is produced. Ventilation capacity shall be at least 50 C.F.M. for bathrooms and laundry rooms (intermittent use) and 100 C.F.M. for kitchens (intermittent use), per WSRC, Table M1507.4. Ducting shall terminate outside the building and shall be equipped with backdraft dampers.

3. Whole house ventilation system shall meet the requirements per WSRC M1507.3.4 using an exhaust fan. Ventilation system shall be capable of providing the volume of outdoor air specified in Table M1507.3.3 under normal operating conditions. Outdoor air shall be provided to all habitable rooms Fan shall have a sone rating of 1.5 or less measured at 0.1 inches water gauge.

4. Duct work shall conform to the WSMC.

CRAWL SPACES:
1. Provide a minimum net area of 1 square foot of ventilation area for each 150 square feet of under-floor space area. One such ventilation opening shall be within 3 feet of each corner of said building, per WSRC Section R408.1.

2. Ventilation openings shall be covered for their height and width with any of the materials specified in WSRC Section R408.2., the least dimension of which may not exceed 1/4 inch, per IRC Section R408.2.

3. Crawl space access shall be provided to all under-floor spaces. Access openings through the floor shall be a minimum of 18 x 24 inches. Openings through a perimeter wall shall be 16 x 24 inches. When any portion of the through wall access is below grade, an areaway of not less than 16 x 24 inches shall be provided. The bottom of the areaway shall be below the threshold of the access opening. Through wall access openings shall not be located under a door to the residence. Per WSRC Section R408.4.

PROTECTION AGAINST DECAY PER R317:
Which shall include the following locations but is not limited to:

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches or when wood girders are closer than 12 inches to the exposed ground in crawl spaces or unexcavated areas located within the periphery of the building foundation.

2. All wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from the exposed ground.

3. Sills and sleepers on a concrete or masonry slab that are in direct contact with the ground unless separated from such slab by an impervious moisture barrier.

4. The ends of wood girders entering exterior masonry or concrete walls having a clearance of less than 6 inches from the ground.

5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground.

6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such aws concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.

7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.

FIRE PROTECTION:
1. Smoke detectors shall be hardwired 110V with battery back up, per WSRC R 314. Smoke detectors shall be audible in all sleeping rooms over background noise levels with all intervening doors closed. Locate one smoke detector in each sleeping room, one outside sleeping rooms in common hallway, and minimum one per floor including basements.

2. Provide emergency escape & rescue openings per WSRC 310.1.
Basements with habitable space, and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms emergency egress shall be required in each sleeping room, but not in adjoining areas of the basement. The opening shall have a sill height of not more than 44 inches above the floor.

All emergency escape and rescue openings shall have a minimum clear opening of 5.7 square feet, with the exception of grade floor openings, which shall have a minimum net clear opening of 5 square feet. The minimum clear opening height shall be 24 inches. The minimum clear opening width shall be 20 inches. All openings shall be operable from the inside of the room without the use of keys or tools.

FIRE BLOCKING:
Provide Fire Blocking per WSRC R302.11 in places such as, but not limited to:

1. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs vertically at the ceiling and floor levels. Horizontally at intervals not exceeding 10 feet.

2. At all interconnections between concealed vertical and horizontal spaces such as that occur at soffits, drop ceilings and cove ceilings.

3. In concealed spaces between stair stringers at the top and bottom of the run.

4. At openings around vents, pipes and ducts at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion.

5. Provide fire blocking at eaves within 5'-0" of a property line.

6. Fire blocking shall be constructed with materials per WSRC R602.8.1.

7. Provide rock wool around all openings for vents, pipes, ducts, etc..

GLAZING NOTES:
1. Window glazing to have maximum U-value of 0.20.

2. Glazing shall meet the minimum location and requirements per WSRC Section 308.1 & 308.4. Glazing shall be provided with a manufacturer's label designating the type and thickness of glass and safety glass standard with which it complies, visible upon the final installation. Those hazardous locations include but are not limited to:
Glazing in locations subject to human impact such as in doors, glazing adjacent to a door, within a 24" arc of the door in a closed position, and whose bottom is less than 60" above the floor, glazing in doors and enclosures for bathtubs and showers, glazing in railings, glazing adjacent to stairways, landings and ramps within 36" horizontally of a walking surface when the exposed surface of the glass is less than 60" above the plane of the adjacent walking surface.

STAIRS:
1. Stairways to meet the minimum requirements per WSRC R311.7.

Stair Width:	36" min.
Tread Depth:	10" min.
Riser Height:	7 3/4" max.
Headroom:	6'-8" min.
Handrail Grasp:	1 1/4" min. to 2" max. for circular handrail (see R311.7.7.3 for other profiles)
Handrail Height:	34"-38"

2. Guards shall be provided for porches, balconies or raised floor surfaces located more than 30" above the floor or grade below. Guards shall be 36" in height or as required per R312.1. Required guards shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4" or more in diameter. Guards shall be designed to resist a 200 lb.. concentrated load on the top rail and 50 psf on all guardrail infill components.

EXISTING AVERAGE BUILDING ELEVATION CALCULATION

ELEV:	LENGTH:	306.0 X 19.8	+ 306.0 X 29.3	+ 305.5 X 45.0	+ 304.2 X 25.2	+ 301.3 X 25.3	+ 306.0 X 4.1
A	306.0	19.8					
B	306.0	29.3	19.8	+ 29.3	+ 45.0	+ 25.2	+ 25.3 + 4.1
C	305.5	45.0	6043.5	+ 8975.6	+ 13746.2	+ 7666.6	+ 7608.6 + 1260.7
D	304.2	25.2	148.7				
E	301.3	25.3					
F	306.0	4.1					

45303.1
148.7 AVERAGE GRADE = 304.7 <ELEVATION USED FOR CALCULATED AVERAGE

PROPOSED AVERAGE BUILDING ELEVATION CALCULATION

ELEV:	LENGTH:	306.0 X 19.8	+ 306.0 X 29.3	+ 306.0 X 28.5	+ 306.4 X 24.5	+ 307.1 X 24.0	+ 305.7 X 24.5	+ 305.1 X 2.5	+ 304.4 X 25.2	+ 301.3 X 35.3	+ 306.0 X 4.1
A	306.0	19.8	19.8	+ 29.3	+ 28.5	+ 24.5	+ 24.0	+ 24.5	+ 2.5	+ 25.2	+ 35.3 + 4.1
B	306.0	29.3									
C	306.0	28.5	6043.5	+ 8975.7	+ 8727.2	+ 7516.7	+ 7364.0	+ 7499.2	+ 762.7	+ 7675.1	+ 10622.0 + 1260.7
D	306.4	24.5	217.7								
E	307.1	24.0									
F	305.7	24.5									
G	305.1	2.5									
H	304.4	25.2									
I	301.3	35.3									
J	306.0	4.1									

66446.8
217.7 AVERAGE GRADE = 305.2

BASEMENT FLOOR AREA RATIO

SEGMENT	AREA	LENGTH	COVER	RESULT (LENGTH X COVERAGE)	
A	156.5	19.8	58.95 %	11.64	
B	232.25	29.3	59.2 %	17.36	
C	225.75	28.5	56.26 %	16.04	
D	194.25	24.5	63.71 %	15.63	
E	190	24.0	72.76 %	17.45	
F	194.25	24.5	56.76 %	13.92	
G	20	2.5	47.5 %	1.188	
H	199.75	25.2	38.42 %	9.686	
I	280.75	35.3	13.62 %	4.803	
J	31.75	4.1	59.06 %	2.433	
TOTALS		217.7		110.2	
BASEMENT FLOOR AREA:				2059.6 SQ.FT.	
PERCENTAGE OF BASEMENT BELOW GRADE:				50.59%	
AREA EXCLUDED FROM GROSS FLOOR AREA:				1042.2 SQ.FT.	

ARCHITECTURAL SYMBOL LEGEND

NORTH ARROW
REFERENCE ELEVATION
ELEVATION MARKER
PROPERTY MARKER (PROPERTY CORNER)
FLOOR TYPE & DIRECTION OR JOIST TYPE & SPACING
FLOOR REFERENCE
DOOR NUMBER
DOOR MARKER (SEE DOOR SCHEDULE)
INDICATES TEMPERED GLASS
WINDOW CENTER LINE
WINDOW LETTER
WINDOW MARKER (SEE WINDOW SCHEDULE)
DRAWING LETTER
SHEET REFERENCE
EXTERIOR ELEVATION MARKER
DRAWING LETTER
SHEET REFERENCE
INTERIOR ELEVATION MARKER
CUT DIRECTION
DRAWING NUMBER
SHEET REFERENCE
PATH FROM REFERENCED FLOOR LEVEL
SECTION MARKER
DRAWING NUMBER
SHEET REFERENCE
LIMITS OF DETAIL
DETAIL MARKER
SYMBOL & APPROX. LOCATION
50 CFM MIN. REQUIRED CUBIC FEET PER MINUTE
FAN SYMBOL
TREAD
NOSING
DIRECTION
UP
STAIR SYMBOL
CENTER LINE
HIDDEN LINE
PROPERTY LINE
ROOF LINE
BREAK LINE
ARCHITECTURAL LINE WORK

ABBREVIATIONS

A.B.	ANCHOR BOLT	(N)	NEW
A.F.F.	ABOVE FINISHED FLOOR	N/A	NET FREE AREA
CL	CENTERLINE	N.I.C.	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NUM.	NUMBER
CONC.	CONCRETE	NUM.^{2}	SQUARED
DIA.	DIAMETER	±NUM.	PLUS OR MINUS
DIM.	DIMENSION	NUM.Ø	DIAMETER
D.S.	DOWN SPOUT	NUM.°	DEGREES
EL.	ELECTRICAL	¼, ½, ¾	QUARTERS
EQ.	EQUAL	O.C.	ON CENTER
EXT.	EXTERIOR	PL	PROPERTY LINE
(E)	EXISTING	PLAM	PARALLAM
FCIC	FURNISH BY CONTRACTOR, INSTALL BY CONTRACTOR	P.LAM	PLASTIC LAMINATE
		PRE-MAN	PRE-MANUFACTURED
FDTN	FOUNDATION	PSF	POUNDS/ SQUARE FOOT
F.F.	FINISH FLOOR	PSI	POUNDS/ SQUARE INCH
FOIC	FURNISH BY OWNER, INSTALL BY CONTRACTOR	PSL	PARALLAL STRAND LUMBER
		P.T.	PRESSURE TREATED
FOIO	FURNISH BY OWNER, INSTALL BY OWNER	R-__	R-VALUE
		REBAR	REINFORCED BAR
GA.	GAUGE	REQ'D	REQUIRED
GALV.	GALVANIZED	SIM.	SIMILAR
G.L.B.	GLUE LAMINATED BEAM	SQ FT, SF	SQUARE FOOT
GPM	GALLONS PER MINUTE	SQ IN, SI	SQUARE INCH
GWB	GYPSUM WALL BOARD	T	TEMPERED GLASS
HDR.	HEADER	(TYP)	TYPICAL
HT.	HEIGHT	TBD	TO BE DETERMINED
INSUL.	INSULATION	U.N.O	UNLESS NOTED OTHERWISE
LSL	LAMINATED STRAND LUMBER	V.I.F.	VERIFY IN FIELD
L x W x H	LENGTH X WIDTH X HEIGHT	W/	WITH
MECH.	MECHANICAL	W/O	WITH OUT
MTL.	METAL	WD.	WIDTH

SITE PLAN LEGEND

PROPERTY LINE
SETBACK LINE
EDGE OF ROOF/ EAVE
EXISTING BUILDING OUTLINE
NEW BUILDING OUTLINE

GROSS FLOOR AREA CALCULATION:

ZONING: R-9.6
ALLOWED GFA: 8,000 SQUARE FEET OR 40% OF THE LOT AREA, WHICHEVER IS LESS.
BASEMENT PER FLOOR AREA RATIO: 1,017.6
MAIN FLOOR: 2,072
TOTAL: 3,089.6 SQ.FT.

BUILDING INFO

FLOOR AREA TABULATION

	CATEGORY:	STORY:	CONDITIONED:	GROSS FLOOR AREA:
001	EXISTING BASEMENT	BASEMENT	HEATED	864.6
002	EXISTING BASEMENT GARAGE	BASEMENT	UNHEATED	350.4
003	GARAGE ADDITION	BASEMENT	UNHEATED	247.8
004	BASEMENT STORAGE	BASEMENT	UNHEATED	590.5
101	EXISTING 1ST FLOOR	MAIN FLOOR	HEATED	1,233.7
103	1ST FLOOR ADDITION	MAIN FLOOR	HEATED	838.3
				4,125.3 sq ft

BUILDING HEIGHT:

GRADE	304.7 (EXISTING)
MAX HT	30 FT = 5'-0" PITCHED ROOF
(E) HT	17'-11"
PROPOSED HT	17'-11" (NO CHANGE)

PROJECT INFO

PROPERTY OWNER:
MALLORY MANGINI + ZACH ZABOROWSKI
8429 SE 62ND ST ,
MERCER ISLAND, WA 98040
mallorymanginm@gmail.com
zzaborowski@seapfice.com

PROJECT CONTACT:
ANDREW PHILLIPS
CTA DESIGN BUILDERS, INC.
1101 N NORTHLAKE WAY
SEATTLE, WA 98103
206.286.1692
andrew@ctabuilds.com

PROJECT ADDRESS: 8429 SE 62ND ST, MERCER ISLAND, WA 98040

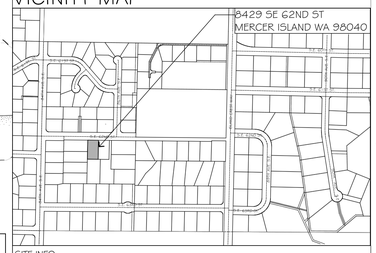
PARCEL #: 192405-9197

LEGAL DESCRIPTION: BEG AT PT 920.49 FT W OF NE COR OF S 1/2 OF SW 1/4 OF SW 1/4 TH S 01-16-54 W 158 FT TH N 89-25-53 W 75 FT TH N 01-16-54 E 158 FT TH S 89-25-53 E 75 FT TO BEG LESS N 25 FT FOR ST

CONSTRUCTION TYPE: V-B

PROJECT SCOPE: ADDITION & INTERIOR ALTERATIONS TO EXISTING SINGLE FAMILY RESIDENCE

VICINITY MAP



SITE INFO

ZONING:	R-9.6
BUILDING CODE:	V-B
LOT AREA:	110,019 SF
MAX LOT COVERAGE:	110,019 SF x .35 = 3,507 SF
MAX. IMPERVIOUS AREA:	110,019 SF x .40 = 4,007.6 (ALLOWED IMP. AREA LOTS < 15% = 40%)

LOT COVERAGE CALCULAION

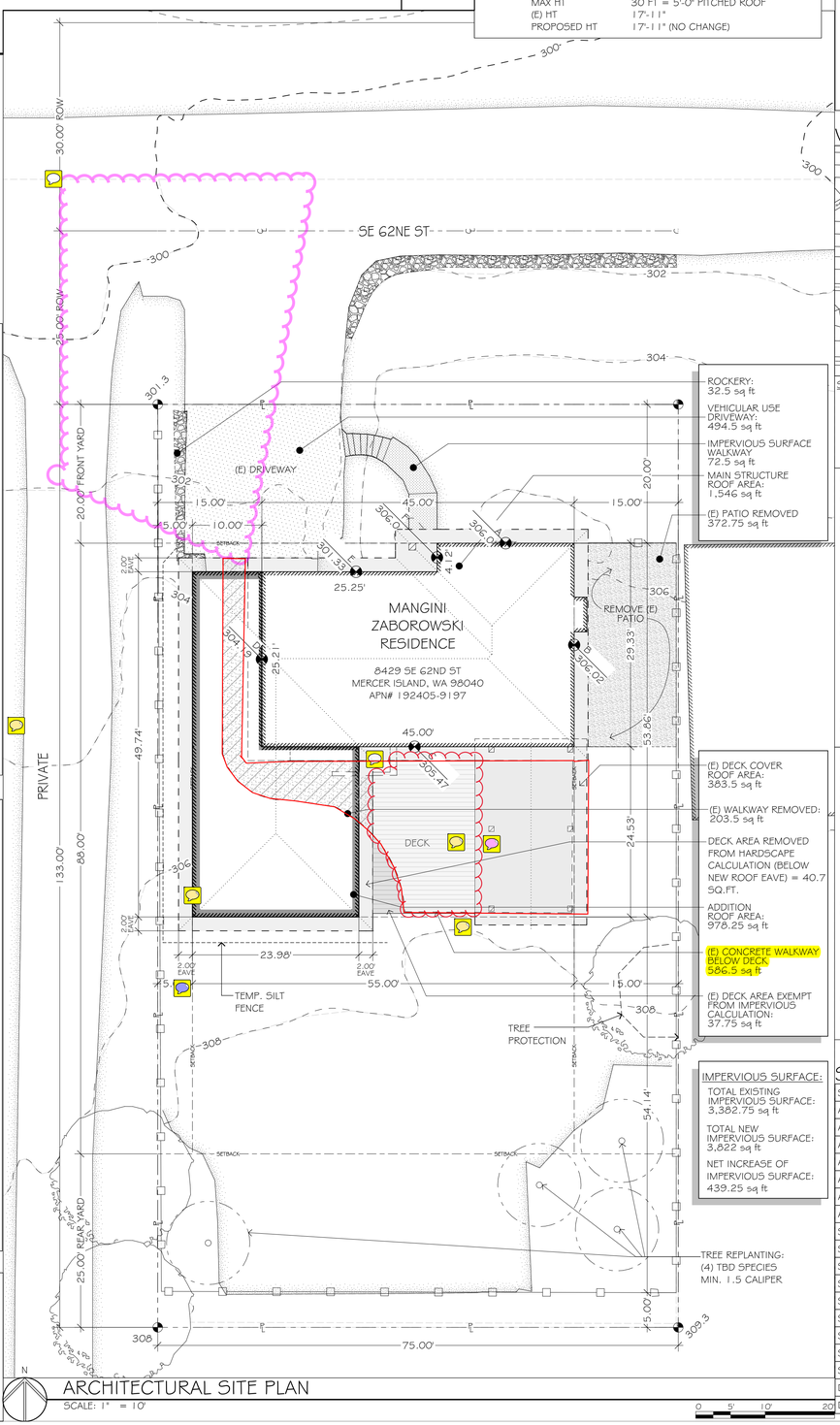
A. GROSS LOT AREA	110,019	SQUARE FEET
B. NET LOT AREA	110,019	SQUARE FEET
C. ALLOWED LOT COVERAGE AREA	3,507	SQUARE FEET
D. ALLOWED LOT COVERAGE	40	% OF LOT
E. EXISTING LOT COVERAGE:		
1. MAIN STRUCTURE ROOF AREA	1,546	SQUARE FEET
2. ACCESSORY BUILDING ROOF AREA	--	SQUARE FEET
3. VEHICULAR USE (DRIVEWAY, PAVED ACCESS EASEMENTS (PORTION USED BY THE LOT FOR ACCESS), PARKING	494.5	SQUARE FEET
4. COVERED PATIOS AND COVERED DECKS	583.5	SQUARE FEET
5. TOTAL EXISTING LOT COVERAGE AREA (1 +E3+E4)	2,424	SQUARE FEET
F. (TOTAL LOT COVERAGE AREA REMOVED)	--	SQUARE FEET
G. PROPOSED ADJUSTMENT FOR SINGLE STORY (AREA)	--	SQUARE FEET
H. PROPOSED ADJUSTMENT FOR FLAG LOT	--	SQUARE FEET
I. TOTAL NEW LOT COVERAGE AREA:		
1. MAIN STRUCTURE ROOF AREA	976.25	SQUARE FEET
2. ACCESSORY STRUCTURE ROOF AREA	--	SQUARE FEET
3. VEHICULAR USE (DRIVEWAY, PAVED ACCESS EASEMENT (PORTION USED BY THE LOT FOR ACCESS), PARKING	--	SQUARE FEET
4. COVERED PATIOS AND COVERED DECKS	--	SQUARE FEET
5. TOTAL NEW LOT COVERAGE AREA (I1 + I2 + I3 + I4)	976.25	SQUARE FEET
J. TOTAL PROJECT LOT COVERAGE AREA = (E5 - F) + I5	3402.25	SQUARE FEET
K. PROPOSED LOT COVERAGE AREA = (J/B) X 100	34.0	% OF LOT
LOT COVERAGE CALCULATIONS SHOWN ON PLAN SHEET	#A0.	

HARDSCAPE CALCULATIONS

A. GROSS LOT AREA	110,019	SQUARE FEET
B. NET LOT AREA	110,019	SQUARE FEET
C. AREA BORROWED FROM LOT COVERAGE		SQUARE FEET
D. ALLOWED HARDSCAPE AREA = 9% OF LOT AREA + C	9.0	% OF LOT
E. ALLOWED HARDSCAPE AREA	901.71	SQUARE FEET
F. TOTAL EXISTING HARDSCAPE AREA:		
1. UNCOVERED DECKS	37.75	SQUARE FEET
2. UNCOVERED PATIOS	372.5	SQUARE FEET
3. WALKWAYS	862.5	SQUARE FEET
4. STAIRS	--	SQUARE FEET
5. ROCKERIES AND RETAINING WALLS	32.5	SQUARE FEET
6. OTHER	--	SQUARE FEET
7. TOTAL EXISTING HARDSCAPE AREA (F1+F2+F3+F4+F5+F6)	1305.5	SQUARE FEET
G. (TOTAL HARDSCAPE AREA REMOVED)	576.25	SQUARE FEET
H. TOTAL NEW HARDSCAPE AREA:		
1. UNCOVERED DECKS	--	SQUARE FEET
2. UNCOVERED PATIOS	--	SQUARE FEET
3. WALKWAYS	--	SQUARE FEET
4. STAIRS	--	SQUARE FEET
5. ROCKERIES AND RETAINING WALLS	--	SQUARE FEET
6. OTHER	--	SQUARE FEET
7. TOTAL NEW HARDSCAPE AREA (H1+H2+H3+H4+H5+H6)	--	SQUARE FEET
I. TOTAL PROJECT HARDSCAPE AREA = (F7 - G) + H7	729.25	SQUARE FEET
J. TOTAL PROJECT HARDSCAPE AREA = (I/B)X100	7.3	% OF LOT
HARDSCAPE CALCULATIONS SHOWN ON PLAN SHEET	#A0	

ARCHITECTURAL SITE PLAN

SCALE: 1" = 10'



IMPERVIOUS SURFACE:
TOTAL EXISTING IMPERVIOUS SURFACE: 3,382.75 sq ft
TOTAL NEW IMPERVIOUS SURFACE: 3,822 sq ft
NET INCREASE OF IMPERVIOUS SURFACE: 439.25 sq ft

WSEC COMPLIANCE CERTIFICATE

2018 WSEC Residential Energy Compliance Certificate (Effective February 1, 2021)

Property Address: 8429 SE 62ND ST
Builder/registered design professional name: CTA DESIGN BUILDERS, INC.
Builder/reg. design pro. signature:
Conditioned Floor Area: ft² (per building permit)

R-Values (R303.1.1)

Ceiling/ Attic: Vaulted: R-____ Attic: R-____
Walls: Above grade: R-____ Below, int. R-____ Below, ext. R-____
Floors: Over unconditioned Space R-____ Slab on grade floor R-____
Fully insulated Slab? Y / N (Circle One)
Doors: R-____ R-____ ,R-____

U-Factors for Windows, Skylights and Doors (R303.1.3):
Average area weighted U-value from Glazing Worksheet Average U- =____

Fuel Normalization (Tables R406.2) and Energy Credits (Table R406.3)
System Type Number (1 to 5)_____(Select One)
Energy Credits selected (1 to 7)_____,
Fuel Normalization Credit_____+ Total Energy Credits_____= Total Credits _____,

Heating, Cooling & Domestic Hot Water

System	Type (Manufacturer and Model Number)	Efficiency
Heating		
Cooling		
DHW		
Drain water heat recovery		

Onsite Renewable Energy Electric Power System
System Type_____System design capacity_____kW
Rated annual generation_____kWh/yr

Appliances	Manufacturer and Model	Energy Star? (Circle one)
Dish washer		Y or N
Refrigerator		Y or N
Washer		Y or N
Dryer	Vented or Unvented? If vented, CEF rating ____	

Gas fireplace / heating stove (Section R402.4.2) Fireplace efficiency (FE)____,
Heating or Decorative? (Circle one)

HVAC System Duct Leakage Testing (R403.3) — Circle One

All ductwork and air handler in conditioned space? (See Option 4.2)	Y or N
All ductwork in unconditioned spaces buried and tested at 3% leakage, and air handler in conditioned space? (See option 4.1)	Y or N
All ductwork & air handler outside conditioned space insulated to a minimum R-8?	Y or N
Air handler present at duct leakage test? (Total leakage 4% if yes, 3% if no)	Y or N
HVAC leakage to outside test conducted at final?	Y or N
Do HVAC duct leakage tests include QPS and time stamp verification?	Y or N
HVAC system leakage test calculated design target:	_____CFM @ 25 Pa
HVAC system leakage test measured results:	_____CFM @ 25 Pa

Dwelling Unit Leakage Testing (R402.4.1.2)

Dwelling unit leakage test calculated design target:	_____ACH @ 50 Pa
Dwelling unit leakage test measured results:	_____ACH @ 50 Pa
Whole Building Leakage test (R2 corridor only) design target:	_____ACH @ 50 Pa
Whole Building Leakage test (R2 corridor only) results:	_____ACH @ 50 Pa
Do building leakage tests include GPS and time stamp verification?	Y or N

Whole House Ventilation System Mechanical Flow Rates (M1505.4 IRC-WA) — Circle one

Are the system controls correctly labeled?	Y or N
The Whole House Ventilation (WHV) system operation and maintenance (O&M) instructions were provided to the property owner?	Y or N
Provided to:_____on_____(date)	
Whole House Ventilation System Type: (Circle one)	
(1) Whole house exhaust fan, location_____	
(2) Balanced HRV/ ERV, location_____	
For R2 low-rise, serves more than one unit?	Y or N
(3) Supply or HRV WHV integral to the air handler. Describe system control sequence of operations or reference to design submittal:_____	
Specify run-time:_____hours per day	_____CFM
WHV calculated design minimum flow rate at commissioning: Exhaust____CFM, Supply_____CFM	
Do WHV flow tests include GPS & time stamp for verification?	Y or N
HRV/ ERV sensible heat recovery efficiency?_____	
Commissioning Notes:	

Other Mandatory Requirements — Circle one

All other mandatory requirements of WSEC-R have been met?	Y or N

SHEET INDEX

PROJECT TRACKING

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SITE PLAN & PROJECT INFO

A0

CTA Design Builders, Inc.
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SEATTLE, WA 98103
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ARCHITECTURE STAMP

6003 REGISTERED ARCHITECT
JULIA ANN CAMPBELL
STATE OF WASHINGTON

MANGINI ZABOROWSKI RESIDENCE
8429 SE 62ND ST
MERCER ISLAND, WA 98040

DEMO PLAN NOTES

1. REMOVE ALL EXISTING CONSTRUCTION AND FINISHES NECESSARY FOR THE COMPLETION OF THE WORK AS DEPICTED ON THE DRAWINGS INCLUDING, BUT NOT LIMITED TO, ITEMS SHOWN ON THE PLANS WITH DASHED LINES. NECESSARY DISCONNECTS AND ALTERATIONS TO EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INCLUDED. PATCH AS REQUIRED. ALL CONSTRUCTION TO REMAIN IN ACCORDANCE WITH THE CONTRACT DRAWINGS. REMOVAL AND DISPOSAL OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. VERIFY WITH OWNER THE DISPOSAL AND REMOVAL OF ANY COMPONENTS OF SALVAGEABLE VALUE.
2. ALL REMOVAL AND SALVAGE, UNLESS SPECIFICALLY NOTED OR REQUESTED BY THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
3. REMOVE ONLY NON-LOAD BEARING CONSTRUCTION AND PARTITIONS. CONTRACTOR TO VERIFY, PRIOR TO REMOVAL, THAT NO STRUCTURAL COMPONENTS, I.E. BEARING WALLS, BEAMS, HEADERS, ETC. SUPPORTING FLOOR, ROOF OR CEILING JOISTS ARE DESIGNATED FOR REMOVAL. CONTACT THE ARCHITECT PRIOR TO REMOVAL OF ANY CONSTRUCTION IN QUESTION OR DEVIATING FROM THE DESIGN INTENT. CONTRACTOR'S NON-CONTACT OF ARCHITECT PRIOR TO REMOVAL OF ANY WORK INDICATES HIS COMPLETE UNDERSTANDING THAT NO LOAD BEARING OR STRUCTURAL WORK IS BEING ALTERED UNDER THIS CONTRACT. ALL STRUCTURAL SYSTEMS SHALL BE MAINTAINED AND SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE DESIGN LOADS AND TO RESIST THE DEFORMATION CAUSED BY SUCH LOADS, INCLUDING BUT NOT LIMITED TO SOIL PRESSURE, SURCHARGE, HYDROSTATIC HEAD AND IMPACT LOADS AS APPLICABLE.
4. PATCH ALL FINISHES TO MATCH EXISTING. THIS INCLUDES BUT IS NOT LIMITED TO, GYPSUM BOARD, PLASTER, ACOUSTIC SYSTEMS, WOOD TRIM, COVERS, BASE, PANELS, RAILS AND WAINSCOT. VERIFY MATCH OF NEW FINISH MATERIALS TO EXISTING IN COLOR, TEXTURE, THICKNESS, CUT, ETC. TO SATISFACTION OF OWNER PRIOR TO INSTALLATION. PROVIDE OTHER MATERIALS TO MATCH EXISTING WHEN REQUIRED. TO BE APPROVED BY OWNER.
5. PATCH EXISTING WALLS GYPSUM DRYWALL OR PLASTER TO MATCH EXISTING OF SUFFICIENT THICKNESS TO MAINTAIN UNIFORM WALL THICKNESS. ALL EXPOSED PORTIONS OF WALL SHALL BE FINISHED WITH THREE (3) COATES OF SPACKLING, SANDED AND LEFT IN A PAINT READY CONDITION.
6. WHERE APPLICABLE, LEVEL ALL EXISTING FLOORS AS REQUIRED TO RECEIVE NEW FLOOR FINISHES. INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHES SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER. MATCH EXISTING WHEREVER POSSIBLE.

FIRE SPRINKLER SYSTEM NOTES:

1. PROVIDE COMPLETE RESIDENTIAL SPRINKLER SYSTEM PER NFPA 13D THROUGHOUT THE RESIDENCE IN ACCORDANCE WITH APPENDIX Q
2. INCREASE WATER METER TO 1" MINIMUM.
3. PROVIDE DOUBLE BACKFLOW, FLOW SWITCH GAUGE AND DRAIN.
4. PROVIDE FLUSH MOUNTED 155 DEGREE QUICK RESPONSE RESIDENTIAL SPRINKLER HEADS WITHIN THE ENTIRE HOUSE.
5. PROVIDE CPVC PIPING CONCEALED IN ATTIC AND JOIST SPACES.
6. PROVIDE APPROVED SPRINKLER SYSTEM PLANS AND PERMIT PER THE CITY OF THE CITY OF MERCER ISLAND.
7. SMOKE DETECTORS AND/OR SOUNDERS MUST ACTIVATE UPON WATERFLOW OF THE FIRE SPRINKLER SYSTEM.

FLOOR PLAN LEGEND

- WALL TO BE DEMOLISHED
- EXISTING WALL TO REMAIN
- NEW EXTERIOR WALL: 2x6 WOOD STUDS @ 16" o.c. TYP. COVER INT. SIDE w/ 1/2" GWB EXTERIOR PLYWOOD SHEATHING PER STRUCTURAL.
- NEW INTERIOR WALL: 2x4 WOOD STUDS @ 16" o.c. TYP. COVER EA. SIDE w/ 1/2" GWB
- DENOTES WALLS WITH 1-HR FIRE RATING. SEE DETAIL #DrgID(ref)/#LayID(ref).
- ROOF LINE
- (CO) SMOKE DETECTOR (INTERCONNECTED)
- (SD) SMOKE AND CARBON MONOXIDE DETECTOR (COMBO)

PLAN NOTES:

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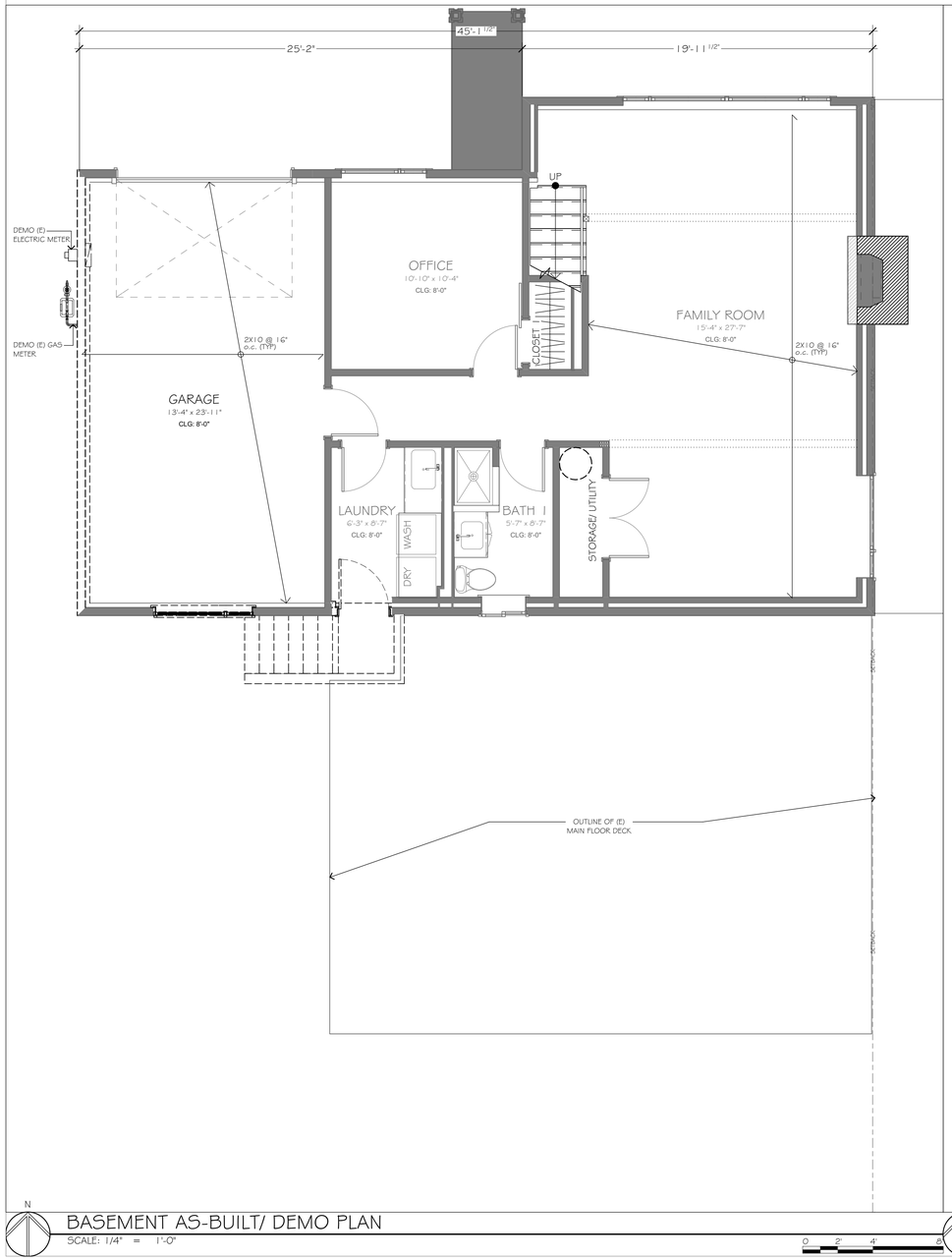
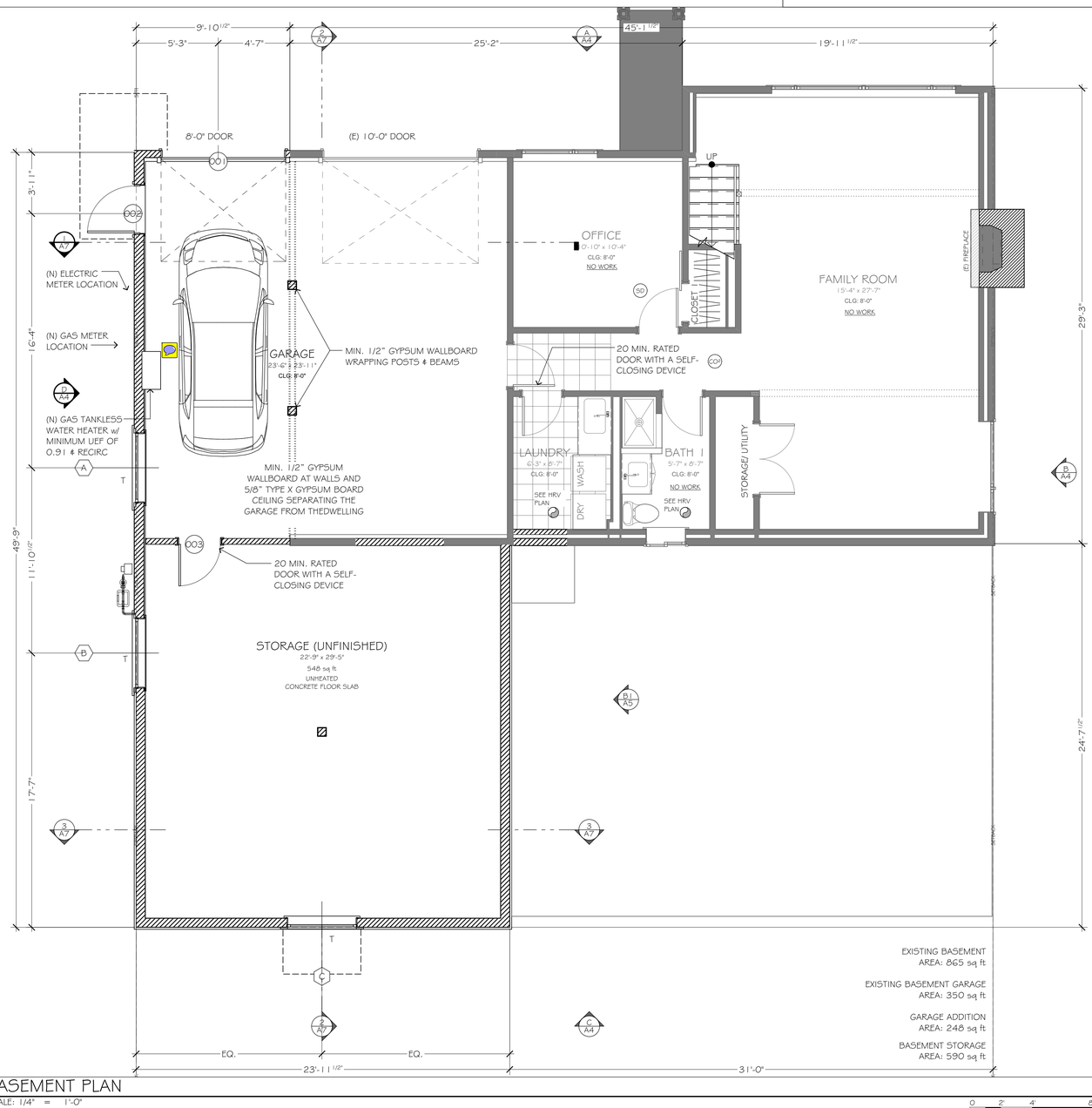
2. BUILDER SHALL COMPLETE & POST AN 'INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION' WITHIN 3 FEET OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION.
3. EXISTING CEILING, WALL, AND FLOOR CAVITIES OPENED DURING CONSTRUCTION SHALL BE FILED WITH NEW INSULATION. 2X4 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-15. 2X6 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-21.
4. EXHAUST FANS SHALL TERMINATE OUTDOORS AND NOT IN ATTICS, SOFFITS, RIDGE VENTS OR CRAWL SPACES.
5. T = TEMPERED GLASS



BASEMENT AS-BUILT/ DEMO PLAN
SCALE: 1/4" = 1'-0"



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

EXISTING BASEMENT
AREA: 865 sq ft

EXISTING BASEMENT GARAGE
AREA: 350 sq ft

GARAGE ADDITION
AREA: 248 sq ft

BASEMENT STORAGE
AREA: 590 sq ft

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BASEMENT PLANS

A1

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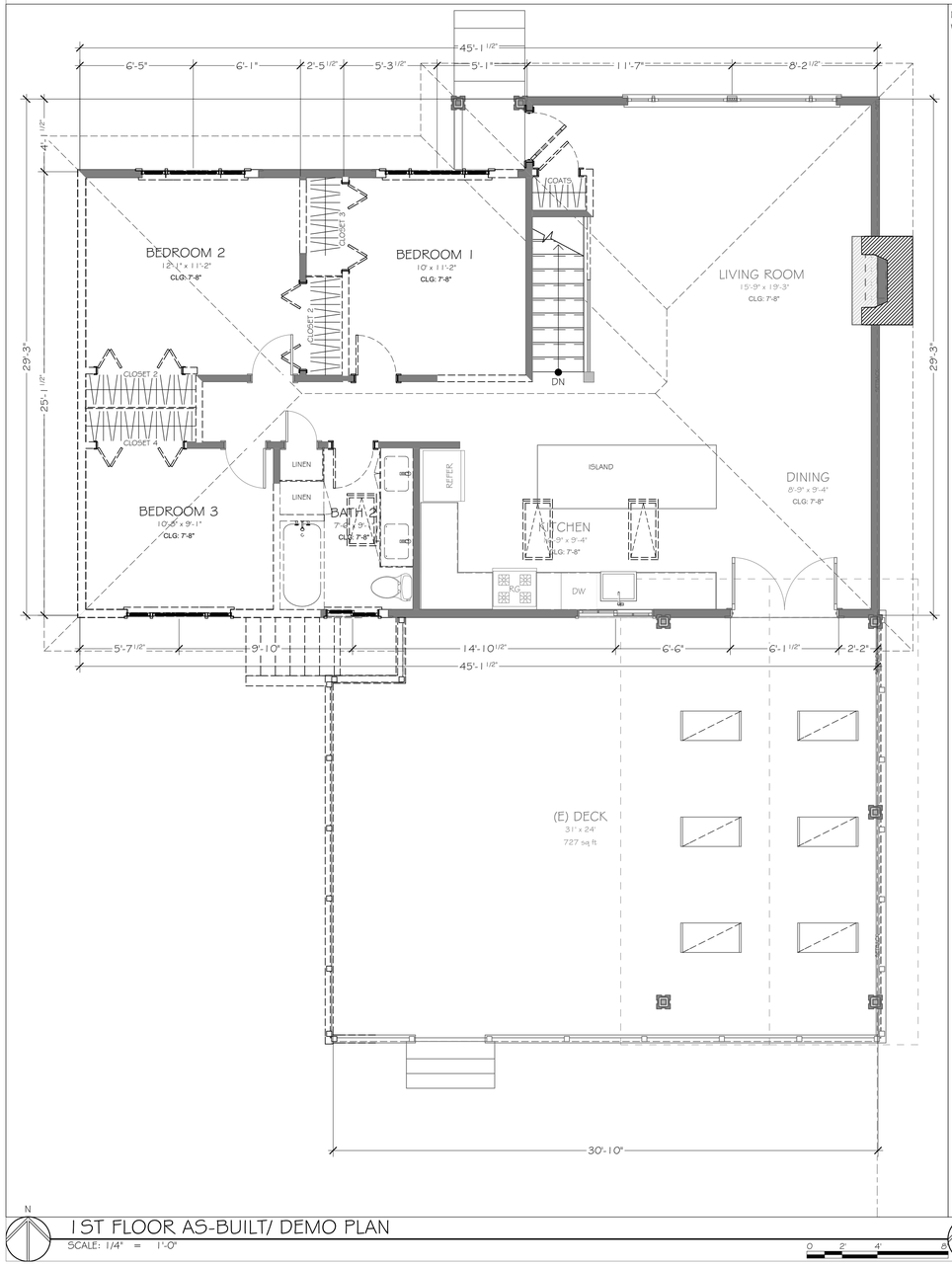
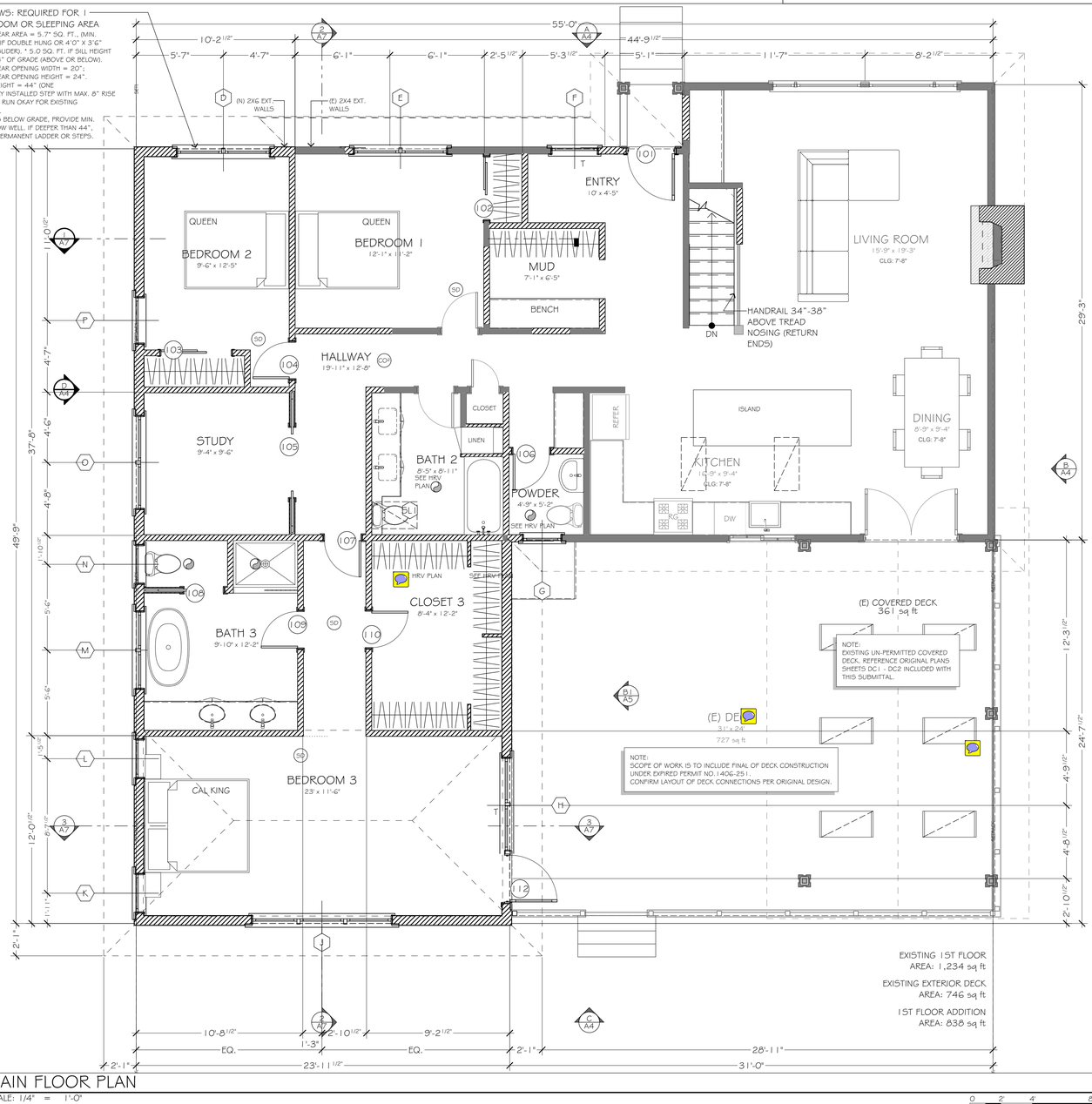


1ST FLOOR AS-BUILT/ DEMO PLAN

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

EGRESS WINDOWS: REQUIRED FOR 1 WINDOW/ BEDROOM OR SLEEPING AREA

A. MIN. NET CLEAR AREA = 5.7" SQ. FT., (MIN. 3'0" X 4'6". IF DOUBLE HUNG OR 4'0" X 3'6" WINDOW IF SLIDER). * 5.0 SQ. FT. IF SILL HEIGHT IS WITHIN 44" OF GRADE (ABOVE OR BELOW).
B. MIN. NET CLEAR OPENING WIDTH = 20". MIN. NET CLEAR OPENING HEIGHT = 24".
C. MAX. SILL HEIGHT = 44" (ONE PERMANENTLY INSTALLED STEP WITH MAX. 8" RISE AND MIN. 9" RUN OKAY FOR EXISTING BEDROOMS).
D. WHEN SILL IS BELOW GRADE, PROVIDE MIN. 3'X3' WINDOW WELL. IF DEEPER THAN 44", PROVIDE A PERMANENT LADDER OR STEPS.



EXISTING 1ST FLOOR AREA: 1,234 sq ft

EXISTING EXTERIOR DECK AREA: 746 sq ft

1ST FLOOR ADDITION AREA: 838 sq ft

MAIN FLOOR PLAN

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

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MAIN FLOOR PLANS

A2

DOOR SCHEDULE

ID	SIZE W	SIZE HT	THICKNESS	OPERATION	HARDWARE	U-VALUE	NOTES
BASEMENT							
001	96"	80"	2"	GARAGE DOOR	GARAGE DOOR		PROVIDE OPENER
002	36"	80"	1-3/4"	RK	ENTRY SET W/ DEADBOLT		
003	32"	80"	1-3/8"	LH	LOCKSET		20 MINUTE RATED FIRE DOOR w/ CLOSER
MAIN FLOOR							
101	36"	80"	1-3/4"	RH	ENTRY SET W/ DEADBOLT	0.20	
102	48"	80"	1-3/8"	BYPASSING	CLOSET DUMMY		
103	54"	80"	1-3/8"	BYPASSING	CLOSET DUMMY		
104	28"	80"	1-3/8"	RH	PRIVACY		
105	54"	80"	1-3/8"	PAIR	POCKET		
106	28"	80"	1-3/8"	LH	PRIVACY		
107	28"	80"	1-3/8"	RH	PRIVACY		
108	30"	80"	1-3/8"	POCKET	POCKET/ PRIVACY		
109	28"	80"	1-3/8"	LH	PRIVACY		
110	28"	80"	1-3/8"	LH	PASSAGE		
112	36"	80"	1-3/4"	LH	ENTRY SET W/ DEADBOLT	0.20	

WINDOW SCHEDULE

ID	SIZE W	SIZE H	OPERATION	GLAZING	EGRESS	TEMP.	U-VALUE	AREA:	NOTES:
BASEMENT									
A	54"	24"	AWNING			YES	0.20	9.0	
B	54"	24"	AWNING			YES	0.20	9.0	
C	54"	24"	AWNING			YES	0.20 MAX.	9.0	
MAIN FLOOR									
D	72"	60"	DBL MULLED SH		YES		0.20 MAX.	30.0	
E	72"	60"	DBL MULLED SH		YES		0.20 MAX.	30.0	
F	36"	60"	SH			YES	0.20 MAX.	15.0	
G	30"	30"	SH				0.20	6.3	
H	72"	48"	DBL MULLED SH			YES	0.20 MAX.	24.0	
J	108"	60"	TRIPLE MULLED SH		YES		0.20 MAX.	45.0	
K	30"	48"	SH				0.20 MAX.	10.0	
L	30"	48"	SH				0.20 MAX.	10.0	
M	60"	60"	DBL MULLED SH	OBSCURE		YES	0.20 MAX.	25.0	
N	30"	30"	SH				0.20 MAX.	6.3	
O	72"	60"	DBL MULLED SH				0.20 MAX.	30.0	
P	36"	60"	SH		YES		0.20 MAX.	15.0	

SKYLIGHT SCHEDULE

ID	WIDTH	HEIGHT	OPERATION	U-VALUE	NOTES
SL1	20"	36"			
SL4	20"	36"			

DOOR & WINDOW NOTES

1. UNIT SIZES LISTED.
2. ALL WINDOWS TO BE "NFRC"-CERTIFIED.
3. ALL WINDOWS TO BE MILGARD ULTRA SERIES, WHITE INTERIOR, WHITE EXTERIOR.
4. WINDOW/DOOR SWINGS PER PLANS & ELEVATIONS.
5. VERIFY EXISTING DOOR ROUGH OPENINGS WHERE APPLICABLE.
6. ALL WINDOW/DOOR HEAD HEIGHTS SHALL ALIGN. MATCH EXISTING HEAD HEIGHTS AS APPLICABLE.
7. CONTRACTOR TO CONFIRM ALL WINDOW ROUGH OPENING DIMENSIONS AND JAMB DEPTHS BEFORE PLACING WINDOW ORDER.
8. MULL WINDOWS PER PLAN & SCHEDULE.
9. CASEMENT OR AWNING WINDOWS USED FOR EGRESS MUST INCLUDE HARDWARE THAT ALLOWS WINDOW TO BE OPEN MIN. OF 90 DEGREES & PROVIDE FULL WIDTH CLEARANCE IN FULLY OPEN POSITION.
10. PROVIDE FALL PROTECTION ON ALL OPERABLE WINDOWS WHERE THE SILL HEIGHT ABV. FINISHED GRADE ON THE EXTERIOR SIDE OF THE WINDOW EXCEEDS 72", AND THE SILL HEIGHT ON THE INTERIOR IS LESS THAN 24" (36" IBC).

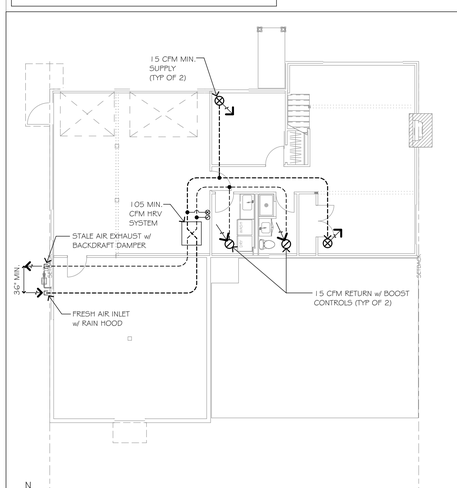
HRV SYSTEM NOTES:

1. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY HEAT RECOVERY VENTILATOR (HRV), IN ACCORDANCE WITH M1507.3.7 REQUIREMENTS.
2. MINIMUM FLOW RATINGS SHALL BE NOT LESS THAN THAT SPECIFIED IN TABLE 1507.3.3(1).
3. INSTALLATION SHALL ADHERE TO MANUFACTURER REQUIREMENTS.
4. ALL DUCT WORK IN HEAT RECOVERY SYSTEMS SHALL BE SIZED AND INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.
5. SYSTEMS SHALL HAVE A FILTER ON THE UPSTREAM SIDE OF THE HEAT EXCHANGER IN BOTH THE INTAKE AND EXHAUST AIRSTREAMS WITH A MINIMUM EFFICIENCY RATING VALUE MERV-6.
6. ALL SUPPLY DUCTS IN THE CONDITIONED SPACE INSTALLED UPSTREAM OF THE HEAT EXCHANGER SHALL BE INSULATED TO A MINIMUM OF R-4.
7. OUTDOOR AIR INLETS SHALL BE SCREENED OR OTHERWISE PROTECTED FROM ENTRY BY LEAVES OR OTHER MATERIAL.
8. OUTDOOR AIR INLETS SHALL BE LOCATED SO AS NOT TO TAKE AIR FROM THE FOLLOWING AREAS:
   - A. CLOSER THAN 10 FEET FROM AN APPLIANCE VENT OUTLET, UNLESS SUCH VENT OUTLET IS 3 FEET ABOVE THE OUTDOOR AIR INLET.
   - B. WHERE IT WILL PICK UP OBJECTIONABLE ODORS, FUMES OR FLAMMABLE VAPORS.
   - C. A HAZARDOUS OR UNSANITARY LOCATION.
   - D. A ROOM OR SPACE HAVING ANY FUEL-BURNING APPLIANCES THEREIN.
   - E. CLOSER THAN 10 FEET FROM A VENT OPENING OF A PLUMBING DRAINAGE SYSTEM UNLESS THE VENT OPENING IS AT LEAST 3 FEET ABOVE THE AIR INLET.
   - F. ATTICS, CRAWL SPACES, OR GARAGES.

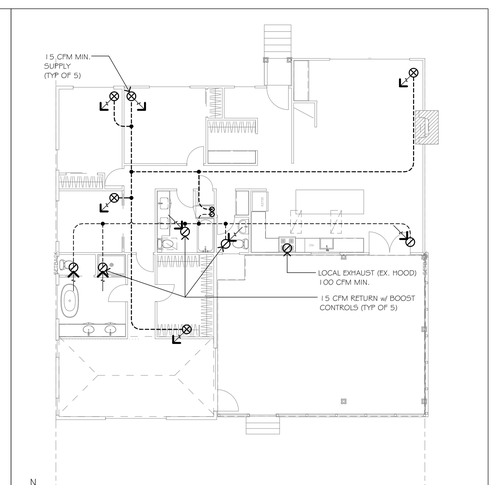
⊗ HRV SUPPLY

⊘ HRV EXHAUST

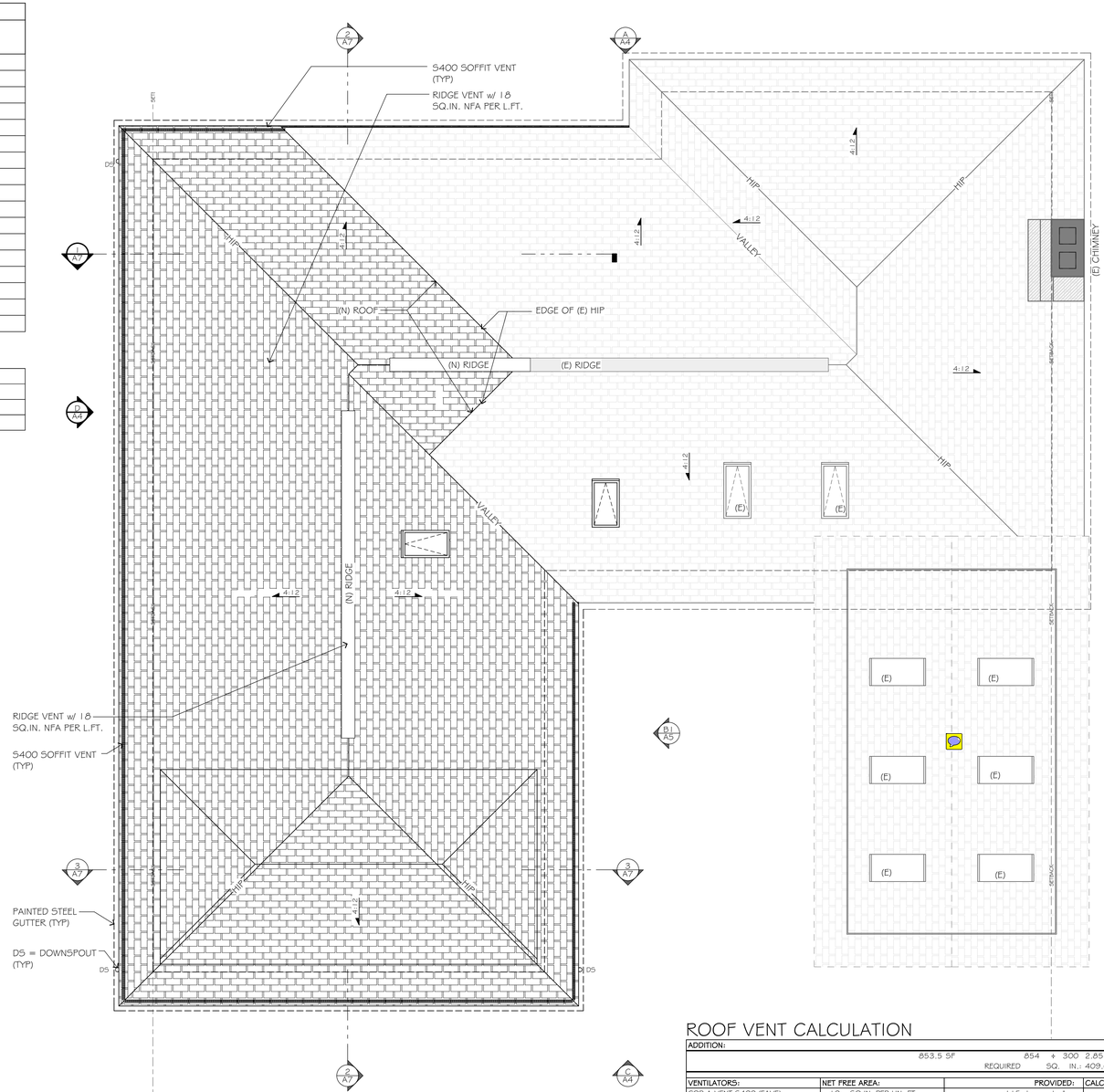
	QTY:	CFM (MIN)	CFM (TOTAL)
EXHAUST	7	15	105
SUPPLY	7	15	105
CFM REQ'D PER TABLE M1507.3.3(1):			75



BASEMENT HRV PLAN
SCALE: 3/32" = 1'-0"



MAIN FLOOR HRV PLAN
SCALE: 3/32" = 1'-0"



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

ROOF VENT CALCULATION

ADDITION:

853.5 SF 854 ÷ 300 2.85

REQUIRED SQ. IN.: 409.68

VENTILATORS:	NET FREE AREA:	PROVIDED:	CALCULATED
COR-A-VENT S400 (EAVE)	10 SQ.IN. PER LIN. FT.	115 '- 1 "	1150.8
RIDGE VENT	18 SQ.IN. PER LINEAL FEET	28 '- 11 "	520.5
		TOTAL PROVIDED:	1671.3

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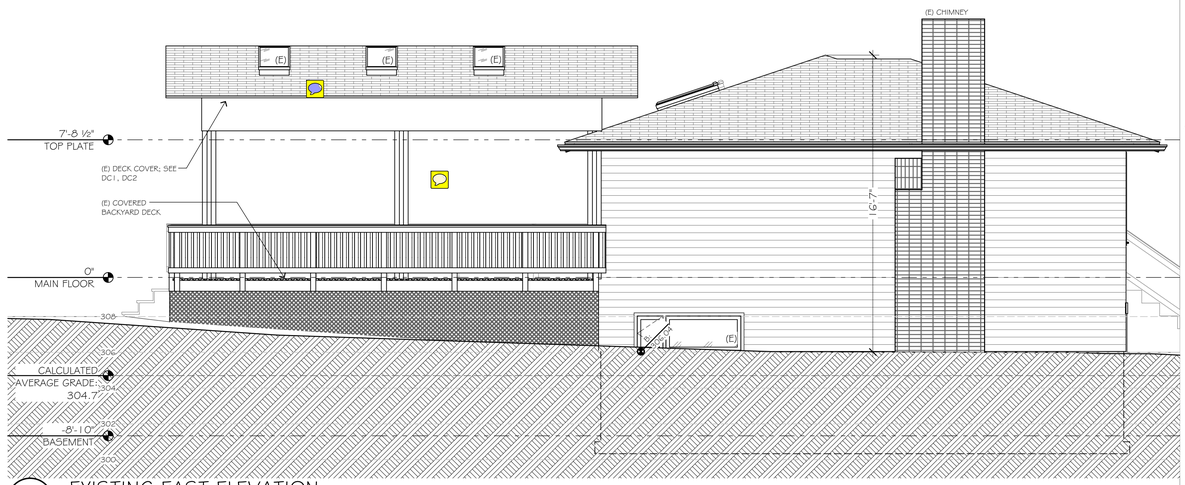
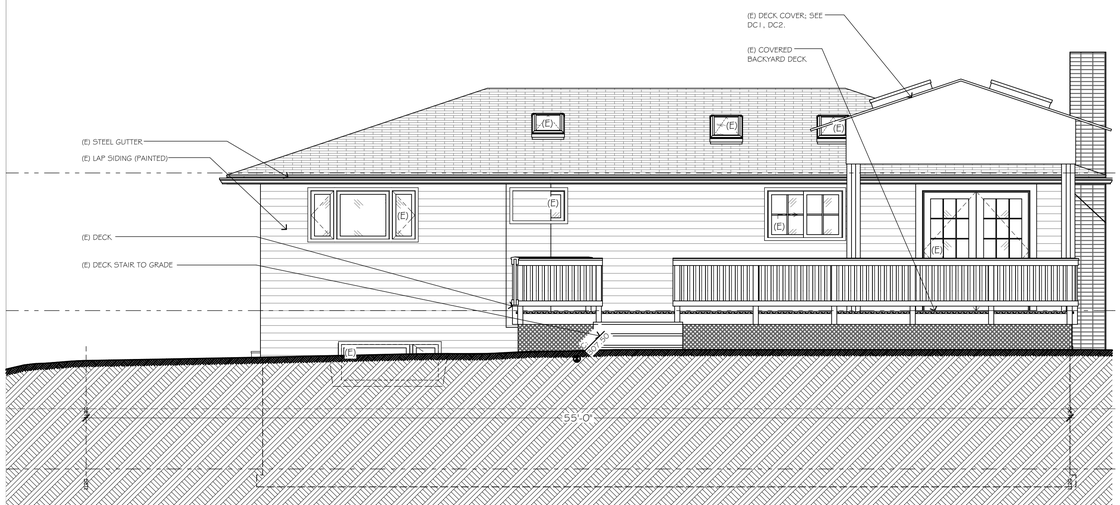
PROPOSED ROOF PLAN, SCHEDULES

A3

A EXISTING NORTH ELEVATION
SCALE: 1/4" = 1'-0"



B EXISTING EAST ELEVATION
SCALE: 1/4" = 1'-0"



C EXISTING SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

D EXISTING WEST ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

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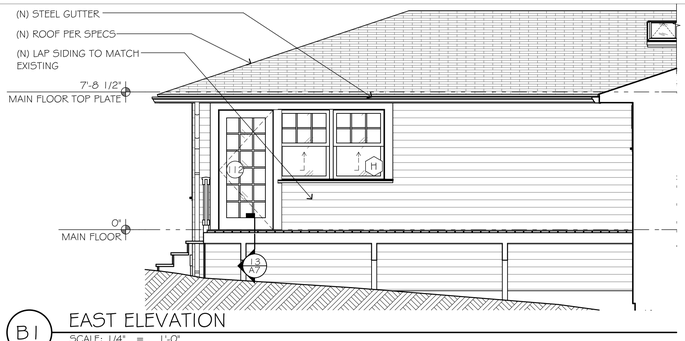
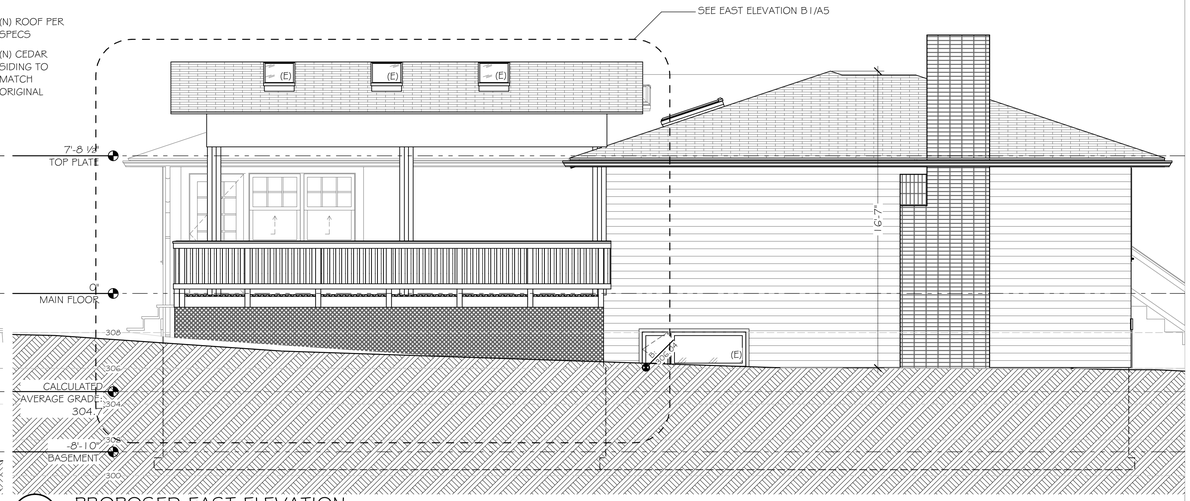
EXISTING ELEVATIONS

A4



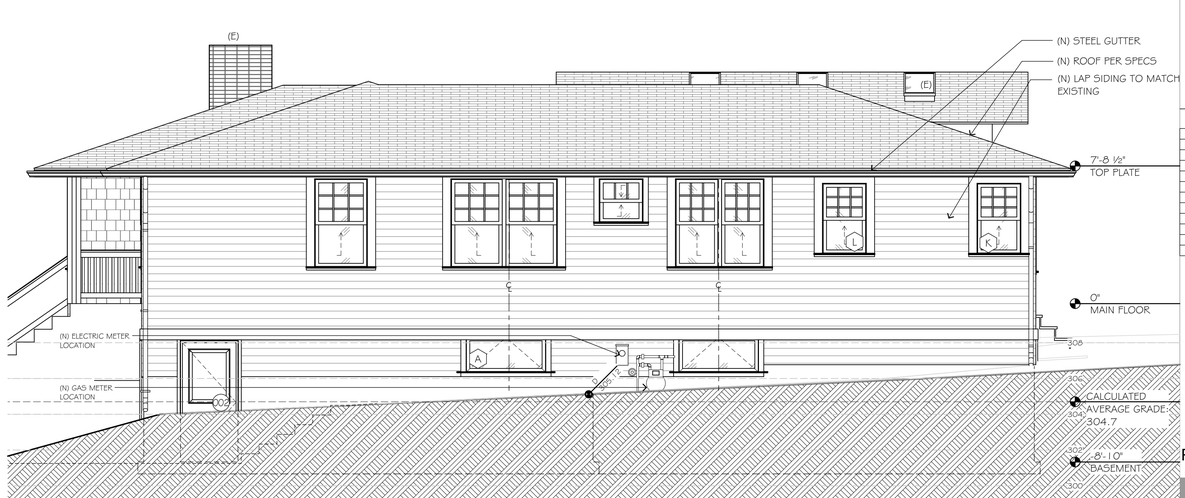
B1 EAST ELEVATION
SCALE: 1/4" = 1'-0"

A PROPOSED NORTH ELEVATION
SCALE: 1/4" = 1'-0"



B PROPOSED EAST ELEVATION
SCALE: 1/4" = 1'-0"

C PROPOSED SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



D PROPOSED WEST ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

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PROJECT TRACKING

TYPE	ISSUE DATE	REVISION
PERMIT SET	11/1/2021	--
CD SET		

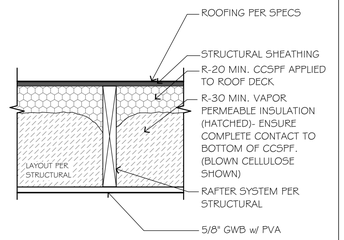
PROPOSED ELEVATIONS

A5

CLOSED-CELL SPRAY-POLYURETHANE FOAM (CCSPF) INSULATION NOTES:

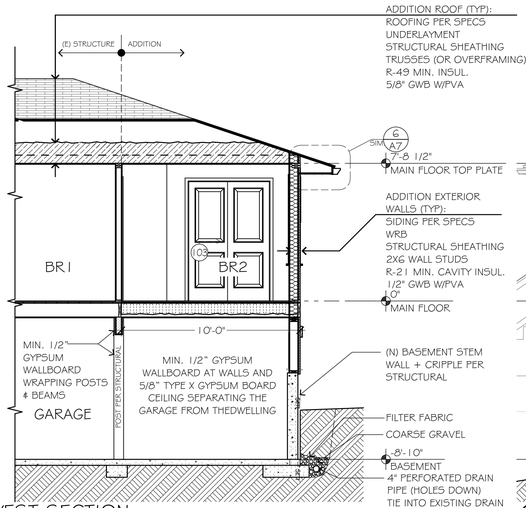
1. WOOD FRAMING AND SHEATHING IN WHICH FOAM IS TO BE APPLIED TO SHALL HAVE A MOISTURE CONTENT LESS THAN 18%. INSTALLER TO VERIFY.
2. THE INSTALLER MUST PROVIDE THE FIELD INSPECTOR WITH A LETTER CERTIFYING THAT THE INSTALLATION WAS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE TESTING EVALUATION REPORT, AND INCLUDE THE DATE, PRODUCT NAME, INSTALLER'S NAME AND ADDRESS, COMPANY NAME, AND PROJECT ADDRESS.
3. THE PRODUCT SHALL HAVE A MAXIMUM FLAME-SPREAD INDEX OF 75 AND A MAXIMUM SMOKE-DEVELOPED INDEX OF 450 (R 316.3, 2603.3).
4. A THERMAL BARRIER, AT LEAST EQUIVALENT TO 1/2-INCH GYPSUM BOARD, SHALL SEPARATE FOAM INSULATION FROM INTERIOR SPACES (R316.4, 2603.4).
5. WHERE FIRE-RATED ASSEMBLIES ARE REQUIRED, SPRAY APPLIED FOAM MAY ONLY BE USED IF THE TESTING EVALUATION REPORT INCLUDES DETAILS FOR TESTED FIRE-RATED ASSEMBLIES.
6. THE SUBSTITUTION OF SPRAY-APPLIED FOAM FOR OTHER TYPES OF INSULATION IN TESTED ASSEMBLIES IS NOT ALLOWED.
7. FOR TYPES I, II, III AND IV CONSTRUCTION, THE TESTING EVALUATION REPORT MUST SPECIFICALLY ADDRESS PROVISIONS OF 2603.5 REGARDING EXTERIOR WALLS AND 2603.6 FOR ROOFS. SEE ALSO THE "SPECIAL APPROVAL" EXCEPTION IN SECTION 2603.10.
8. BUILDING ENVELOPE ASSEMBLIES SHALL HAVE VAPOR RETARDERS IN ACCORDANCE WITH R702.7 OR 1405.3, UNLESS THE TESTING EVALUATION REPORT STATES THAT THE INSULATION HAS A PERM RATING OF 1.0 OR LESS.

4 CCSPF NOTES
SCALE: 1 1/2"= 1'-0"

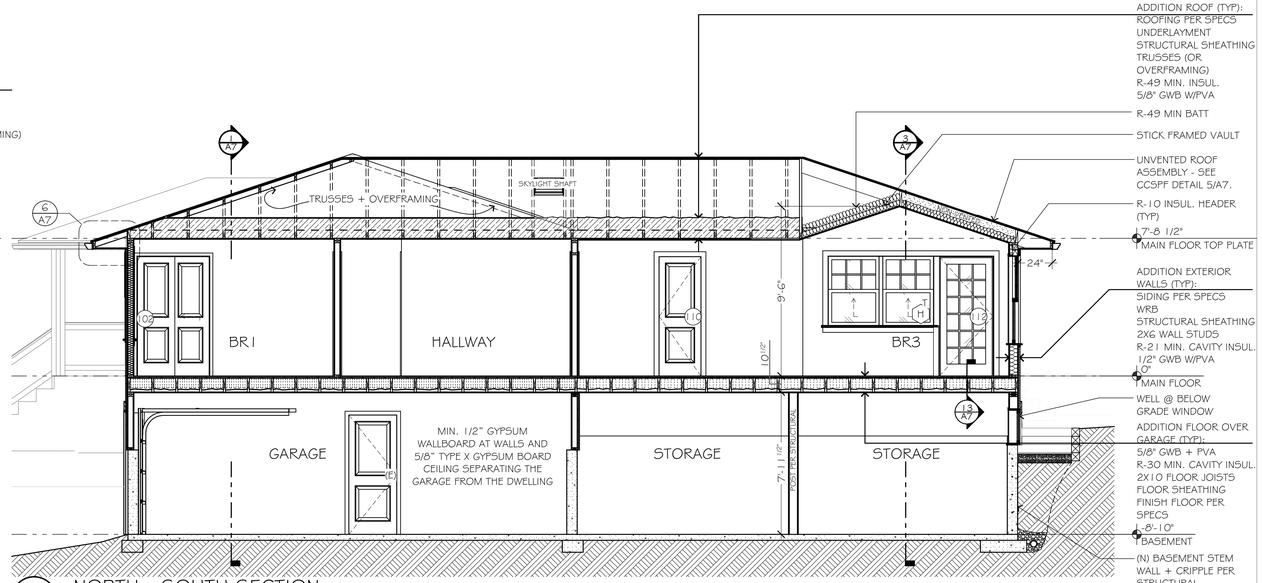


NOTES:
*CCSPF = CLOSED CELL SPRAY POLYURETHANE
*STRUCTURAL SHEATHING TO BE AIR SEALED.
*MOISTURE CONTENT IN ROOF STRUCTURE < 18% PRIOR TO COVERING.

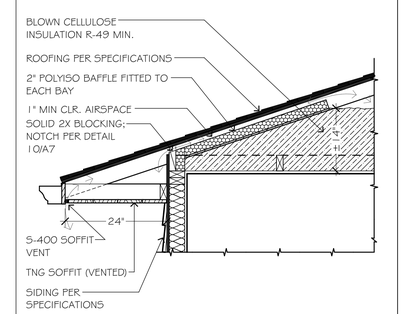
5 CCSPF INSULATION DETAIL
SCALE: 1 1/2"= 1'-0"



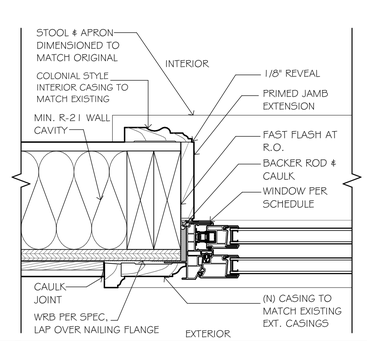
1 EAST - WEST SECTION
SCALE: 1/4" = 1'-0"



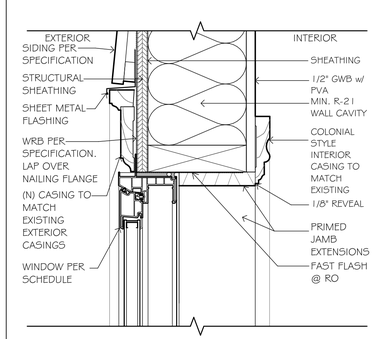
2 NORTH - SOUTH SECTION
SCALE: 1/4" = 1'-0"



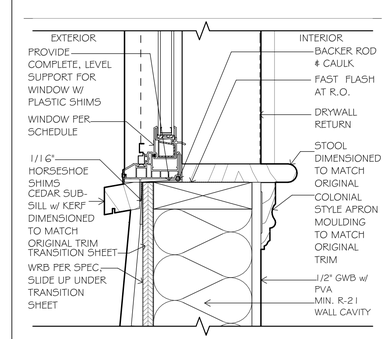
6 SOFFIT DETAIL
SCALE: 3/4" = 1'-0"



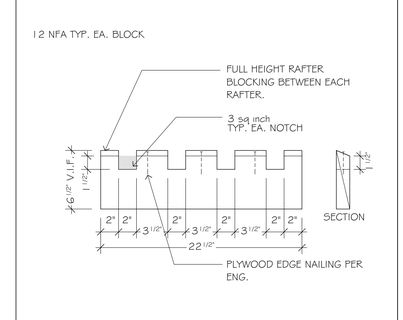
7 WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"



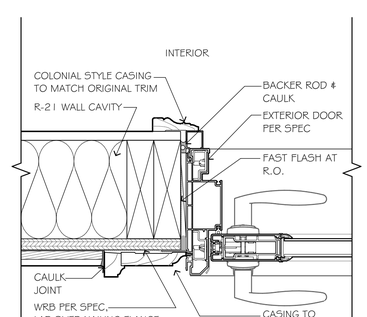
8 WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"



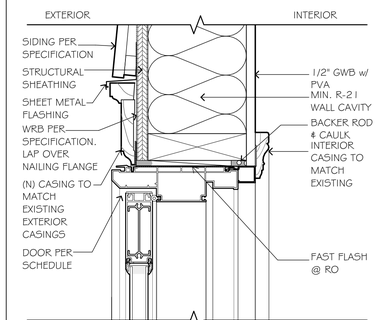
9 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



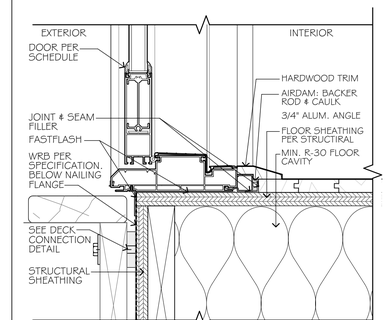
10 BLOCKING VENT DETAIL
SCALE: 1 1/2"= 1'-0"



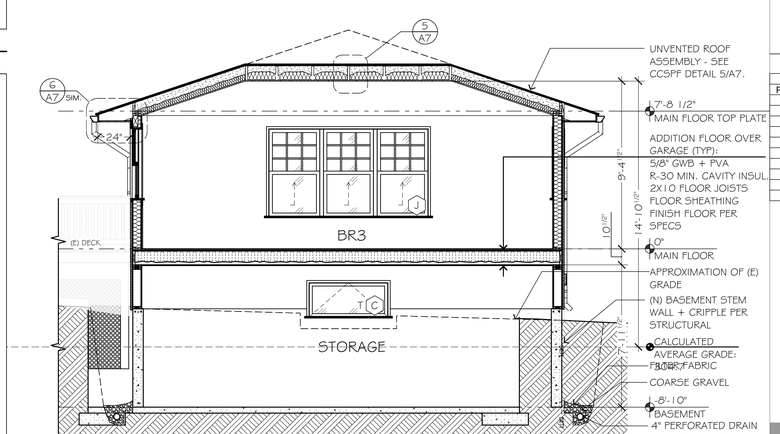
11 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



12 DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



13 DOOR SILL @ DECK DETAIL
SCALE: 3" = 1'-0"



3 EAST - WEST SECTION
SCALE: 1/4" = 1'-0"

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SECTIONS

A7

General Structural Notes

The Following Apply Unless Noted Otherwise on the Drawings

Criteria

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2018 INTERNATIONAL BUILDING CODE.
2. DESIGN LOAD CRITERIA

ROOF LIVE LOAD	20 PSF
FLOOR LIVE LOAD (RESIDENTIAL)	40 PSF
SNOW	Pf=25 PSF
WIND	Iw=1.0, GCpi=0.18, 100 MPH (ULTIMATE), EXPOSURE "B", KZT=1.0
EARTHQUAKE	
ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL SYSTEM:	LIGHT FRAMED SHEAR WALLS
BASE SHEAR (ULTIMATE)	V=14 KIPS
SITE CRITERIA	SITE CLASS=D, Ss=1.461, Sds=0.974, S1=0.506, SD1=0.604, Cs=0.150 SDC D, Ie=1.0, R=6.5

   SEE PLANS FOR ADDITIONAL LOADING CRITERIA
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 BE VERIFIED.
5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.
9. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

   CONNECTOR PLATE WOOD ROOF TRUSSES

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

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

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

Quality Assurance

1. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1704 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION IS REQUIRED OF THE FOLLOWING TYPES OF CONSTRUCTION:

EXPANSION BOLTS AND THREADED EXPANSION INSERTS	PER MANUFACTURER
EPOXY GROUTED INSTALLATIONS	PER MANUFACTURER

Geotechnical

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

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

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

ALLOWABLE SOIL PRESSURE	2000 PSF
LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	55 PCF/35 PCF
COEFICIENT OF FRICTION	
(FACTOR OF SAFETY OF 1.5 INCLUDED)	0.3

Renovation

1. DEMOLITION: 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. 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.
2. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED.
   A. ALL NEW OPENINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
   B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.
   C. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE.
   D. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, DOWELS EPOXY GROUTED INTO EXISTING CONCRETE SHALL BE PROVIDED TO MATCH HORIZONTAL REINFORCING, UNLESS OTHERWISE NOTED ON PLANS.
3. CONTRACTOR SHALL CHECK FOR DRYROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

Concrete

1. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905, 1906 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c=3,000 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. (STRUCTURAL DESIGN OF FOUNDATION IS BASED ON f'c=2,500 PSI, PER IBC 1705.3.2.3, SPECIAL INSPECTION IS NOT REQUIRED.)
2. THE MINIMUM AMOUNTS OF CEMENT MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE 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 1903.1. 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 TO THE CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.
3. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318 TABLE 4.2.1 MODERATE EXPOSURE.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy=60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy=40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, fy=60,000 PSI.
5. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL REINFORCEMENTS IN ACCORDANCE WITH "THE REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE." PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

   NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
6. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

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

7. CONCRETE WALL REINFORCING - PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

6" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL 1 CURTAIN
8" WALLS	#4 @ 12 HORIZ.	#4 @ 18 VERTICAL 1 CURTAIN

8. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.
9. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

Anchorage

1. EXPANSION ANCHORS SHALL CONFORM TO ONE OF THE FOLLOWING:
   A. EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "KWIK BOLT TZ2" AS MANUFACTURED BY THE HILTI CORP., INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-4266 FOR CONCRETE OR ESR-4561 FOR MASONRY, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SUBSTITUTES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
   B. EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE STRONG-BOLT 2 ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
2. EPOXY ANCHORS SHALL CONFORM TO ONE OF THE FOLLOWING:
   A. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "HIT RE 500 V3" AS MANUFACTURED BY HILTI CORP. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-3814. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED.
   B. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED.

Wood

1. FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO.17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS:	(2X & 3X MEMBERS)	HEM-FIR NO. 2
	MINIMUM BASE VALUE, Fb=850 PSI	
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2
	MINIMUM BASE VALUE, Fb=900 PSI	
BEAMS:	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1
	MINIMUM BASE VALUE, Fb=1350 PSI	
POSTS:	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2
	MINIMUM BASE VALUE, Fc=1350 PSI	
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1
	MINIMUM BASE VALUE, Fc=1000 PSI	
STUDS, PLATES & MISC. FRAMING:		DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

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

PSL (2.2E)	Fb=2900 PSI, E=2000 KSI, Fv=290 PSI
LVL (1.9E)	Fb=2600 PSI ,E=1900 KSI, Fv=285 PSI
LSL (1.55E)	Fb=2325 PSI ,E=1550 KSI, Fv=310 PSI

   DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE WEYERHAEUSER 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.

   MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.
3. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD	25 PSF
TOP CHORD DEAD LOAD	10 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
TOTAL LOAD	40 PSF
WIND UPLIFT (TOP CHORD)	5 PSF
BOTTOM CHORD LIVE LOAD	10 PSF

   (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURENTLY WITH THE ROOF LIVE LOAD)

   WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BE SIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC., SHOWN ON THE DRAWINGS. THE EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.
4. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.
   A. ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.
   B. FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.
   C. WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.
   D. REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.
5. 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.
6. PRESSURE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO A RETENTION OF 0.25 PCF. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO A RETENTION OF 0.60 PCF. SODIUM BORATE (SBX) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS IN DIRECT CONTACT WITH ACQ-A, CBA-A, CA-B, OR SBX TREATED WOOD SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS IN DIRECT CONTACT WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.
7. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

   ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

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

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

Wood(Cont.)

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

SIZE	LENGTH	DIAMETER
8d	2-1/2"	0.131"
10d	3"	0.148"
16d BOX	3-1/2"	0.135"

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

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

   B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2018 EDITION) WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.
9. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:
   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 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
   B. WALL FRAMING: REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

      ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE 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 @ 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4" O.C. EACH SIDE JOINT.

      ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @12" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.
   C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS 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 SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

      UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" ON-CENTER UNLESS OTHERWISE NOTED.

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Mangini Zaborowski Residence

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No.	Date	Issue
	--/--/--	Permit

Sheet Contents

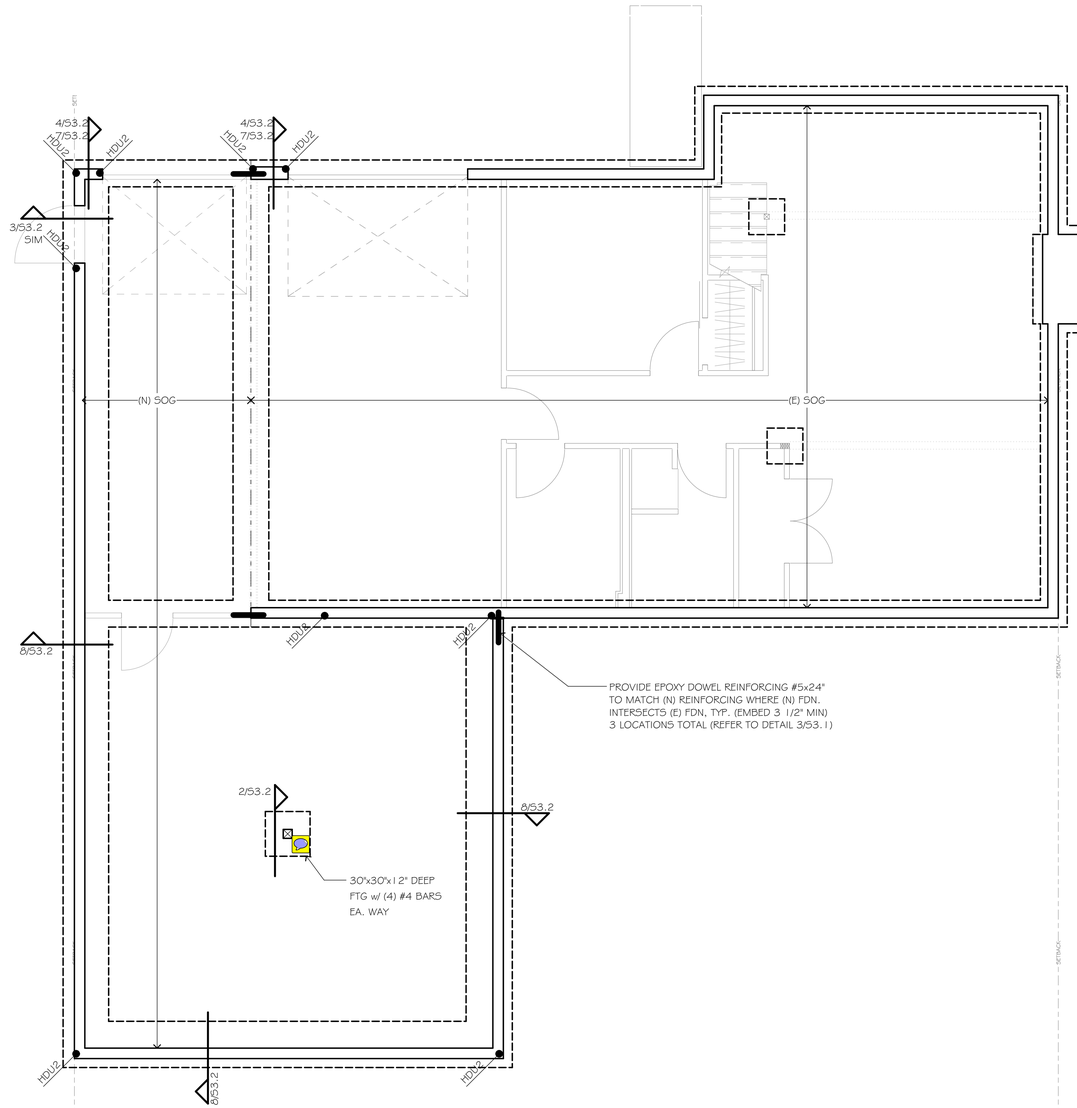
General Structural Notes

Sheet No.

S1.1

Foundation Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1).
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS UNLESS SPECIFICALLY NOTED ON STRUCTURAL PLANS.
3. ALL FOOTINGS SHALL BEAR ON FIRM, NATIVE SOIL.
4. PROVIDE DRAINAGE BEHIND ALL FOUNDATION WALLS.
5. REINFORCE FOOTING AND WALL CORNERS AND INTERSECTIONS PER 11/S3.1.
6. "HDU#" REFERS TO HOLDOWNS PER 9/S3.1.
7. REFER TO 4/S3.1 WHERE PIPES PENETRATE FOUNDATION.
8. CONTRACTOR TO VERIFY TOP OF FOOTING ELEVATION w/ ARCHITECTURAL PLANS.
9. 4" CONCRETE SLAB ON GRADE REINFORCED WITH #3 @ 12" OC EACH WAY, CENTERED IN SLAB. PROVIDE A BASE OF 4" COMPACTED, CLEAN 3/4" MINUS GRAVEL COVERED WITH 4 MIL. VAPOR BARRIER. PROVIDE JOINTS PER 7/S3.1.



N

FOUNDATION PLAN

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

0 2' 4' 8'

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STATE OF WASHINGTON

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PROJECT TRACKING

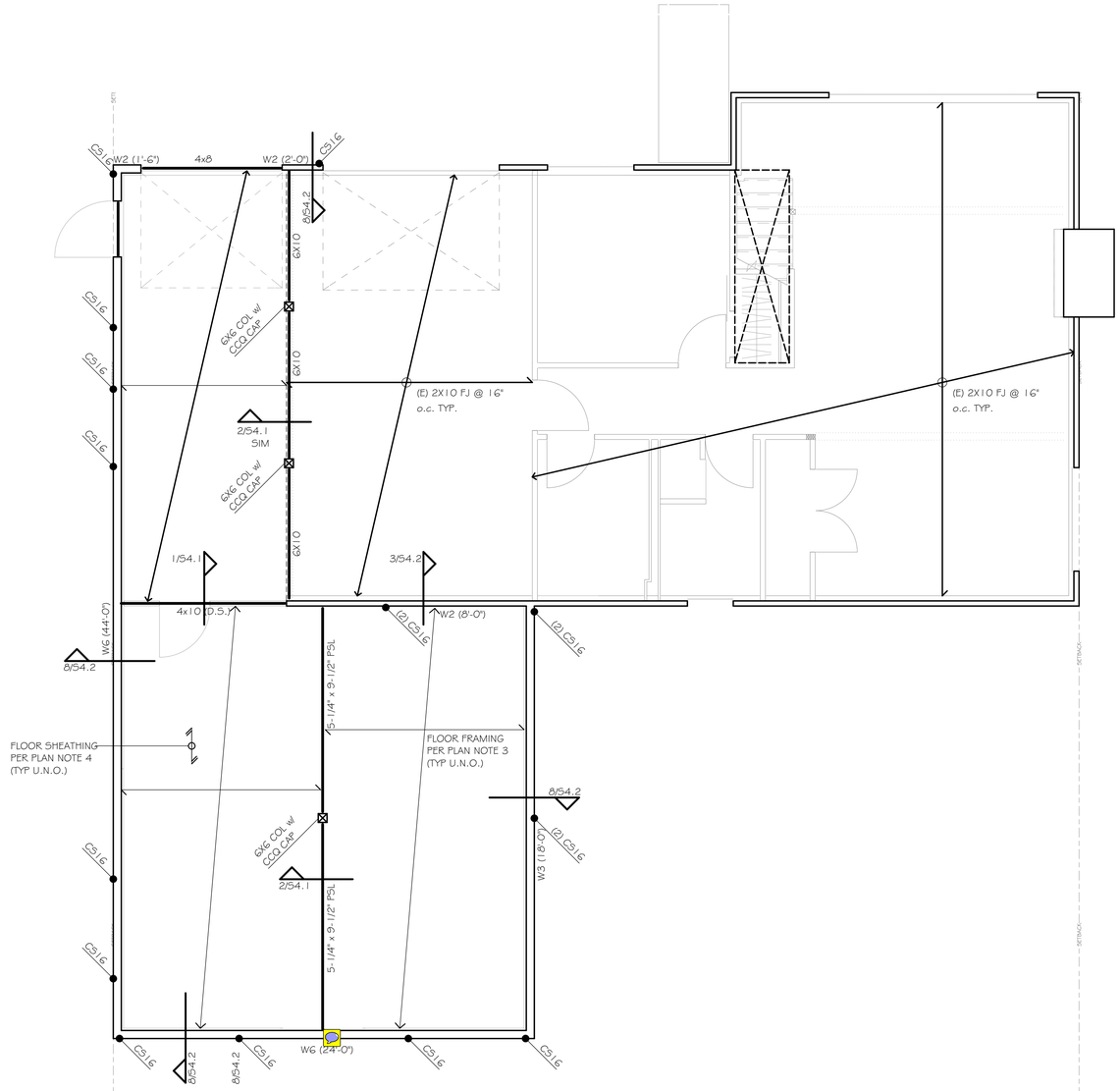
TYPE	ISSUE DATE	REVISION
PERMIT SET	11/1/2021	--
CD SET		

FOUNDATION PLAN

S2.0

1st Floor Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1)
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS UNLESS SPECIFICALLY NOTED ON STRUCTURAL PLANS.
3. FLOOR FRAMING WHERE INDICATED TO BE 2x10 @ 16" O.C. (U.N.O.).
4. FLOOR SHEATHING SHALL BE 3/4" T&G PLYWOOD SHEATHING WITH 48/24 SPAN RATING. NAIL FRAMED PANEL EDGES w/ 8d COMMON (0.131" DIA. x 2 ½") @ 6" O.C., FIELD @ 12" O.C. (REFER TO 9/S4.1)
5. "W#" REFERS TO SHEARWALL TYPE PER 3/S4.1 & 7/S4.1. ALL OTHER NON-DESIGNATED EXTERIOR WALLS SHALL BE SHEARWALL TYPE W6. WHERE INDICATED, "(x-x)" REFERS TO MINIMUM SHEARWALL LENGTH. COORDINATE ACTUAL LENGTH WITH ARCHITECTURAL.
6. "CS16" REFERS TO HOLDOWNS PER 4/S4.2.
7. PROVIDE TOP PLATE SPLICES PER S/S4.1
8. REFER TO 11/S4.1 AT SHEARWALL INTERSECTIONS.
9. ALL HEADERS NOT NOTED OTHERWISE ON PLAN SHALL BE (2) 2x8 (REFER TO 6/S4.1).
10. "D.S." REFERS TO DRAG STRUT. NAIL FLOOR SHEATHING TO DRAG STRUT WITH (2) ROWS OF 8d COMMON (0.131" DIA. x 2 ½") @ 4" O.C. (REFER TO 1/S4.1)
11. CONTRACTOR TO VERIFY THAT ALL POSTS HAVE CONTINUOUS BEARING THROUGH TO THE FOUNDATION.



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FIRST FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"

0 2' 4'

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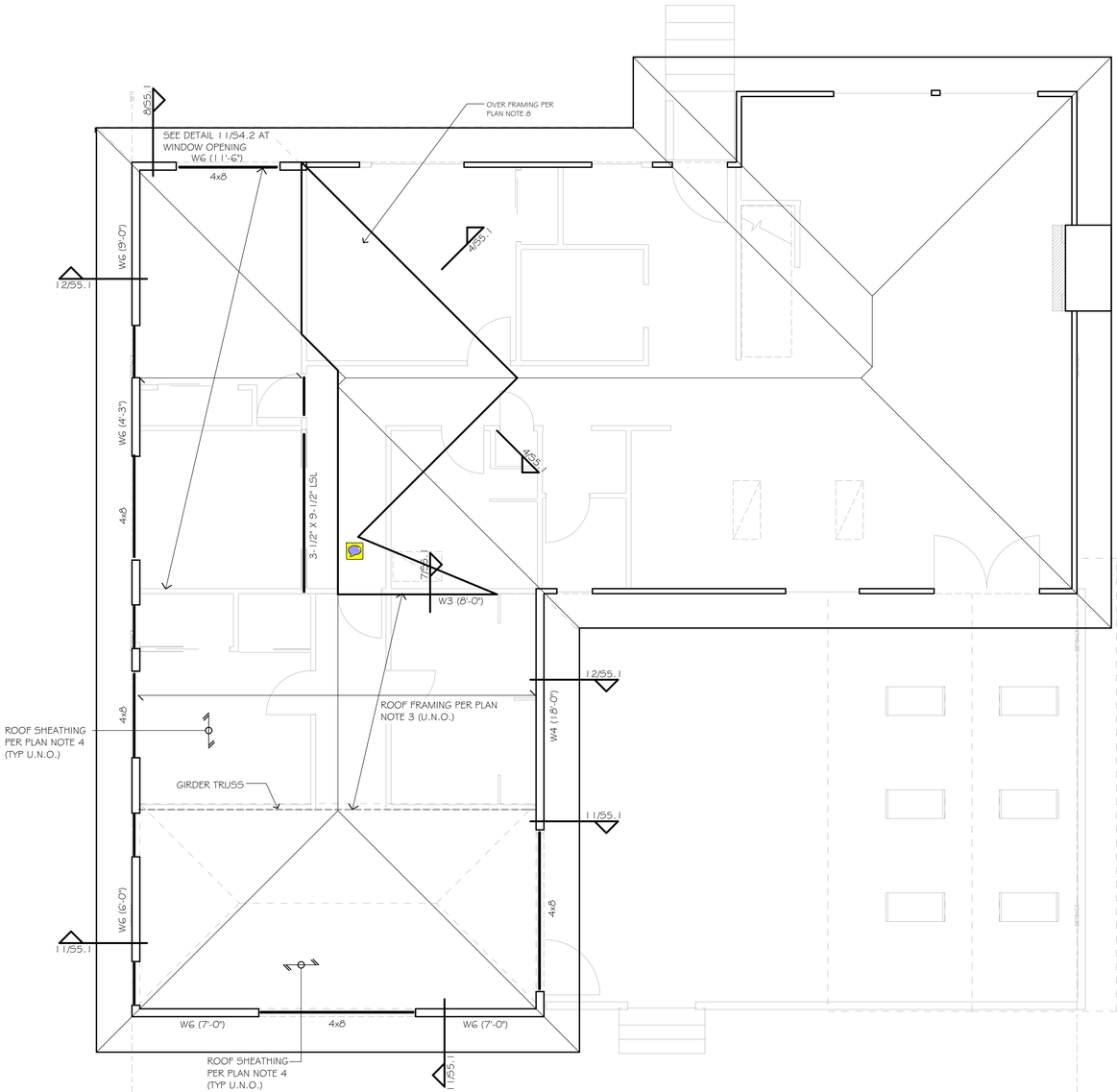
CD SET		

1ST FLOOR FRAMING PLAN

S2.1

Roof Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1)
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS UNLESS SPECIFICALLY NOTED ON STRUCTURAL PLANS.
3. ROOF FRAMING SHALL BE PRE-MANUFACTURED ROOF TRUSSES @ 24" O.C. (TRUSS DESIGN BY OTHERS).
4. ROOF SHEATHING SHALL BE 5/8" CDX PLYWOOD SHEATHING WITH 40/20 SPAN RATING. NAIL FRAMED PANEL EDGES w/ 8d COMMON (0.131" DIA. x 2 ½") @ 6" O.C., FIELD @ 12" O.C. (REFER TO 9/S4.1)
5. "W#" REFERS TO SHEARWALL TYPE PER 3/S4.1 & 7/S4.1. ALL OTHER NON-DESIGNATED EXTERIOR WALLS SHALL BE SHEARWALL TYPE W6. WHERE INDICATED, "(x'-x")" REFERS TO MINIMUM SHEARWALL LENGTH. COORDINATE ACTUAL LENGTH WITH ARCHITECTURAL.
6. ALL HEADERS AT ROOF NOT NOTED OTHERWISE ON PLAN SHALL BE (2) 2x8. (REFER TO DETAIL 6/S4.1)
7. PROVIDE TOP PLATE SPLICES PER 5/S4.1
8. WHERE OVERFRAMING IS INDICATED, OVERFRAME WITH 2x6 @ 24" O.C. w/ 4'-0" MAX SPAN. (REFER TO DETAIL 4/S5.1 FOR CONNECTION OF OVERFRAMING TO PRIMARY ROOF)
9. REFER TO 11/S4.1 AT SHEARWALL INTERSECTIONS.



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ROOF FRAMING PLAN

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

0 2' 4' 8'

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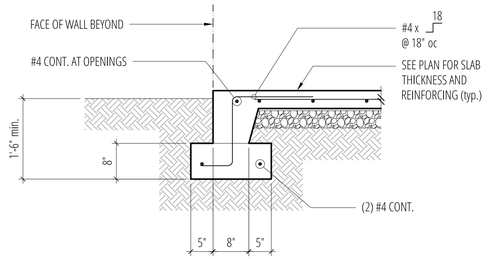
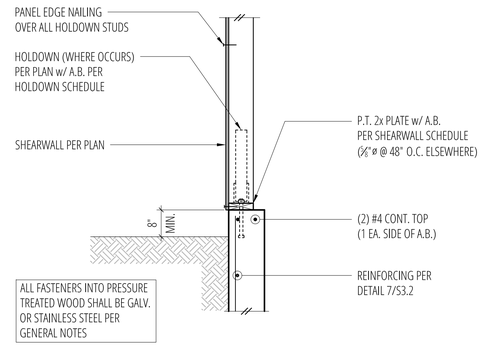
ROOF FRAMING PLAN

S2.2

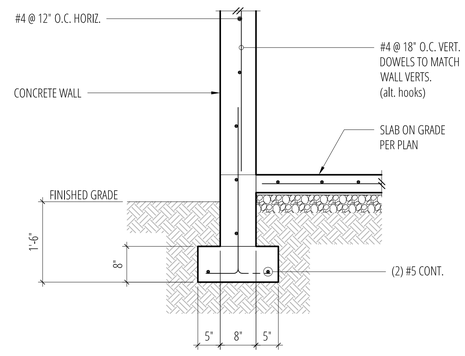




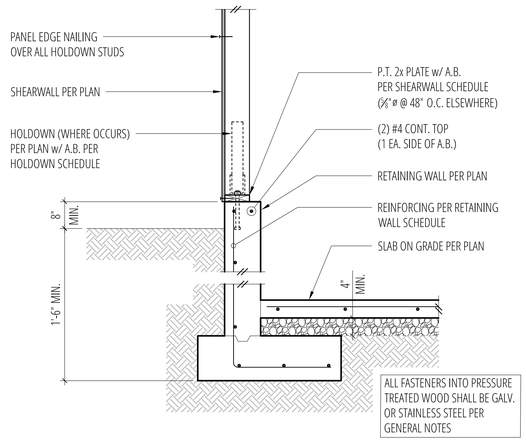
1 SCALE: 3/4"=1'-0"

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

3 Typical Turned-Down Slab Edge
SCALE: 3/4"=1'-0"



4 Typical Stud Wall at Top of Concrete Wall
SCALE: 3/4"=1'-0"

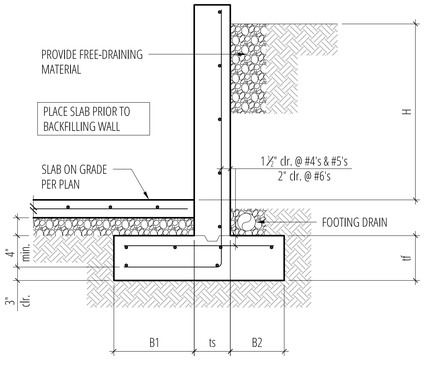


5 SCALE: 3/4"=1'-0"

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

7 Typical Exterior Concrete Wall Footing
SCALE: 3/4"=1'-0"

8 Exterior Wall w/ Slab on Grade at Retaining Wall
SCALE: 3/4"=1'-0"



RETAINING WALL SCHEDULE w/ SLAB

H (ft.)	B1	ts	B2	tf	STEM REINFORCING		FOOTING REINFORCING	
					VERT.	HORIZ.	TOP	LONGIT.
3'-0"	5"	8"	5"	8"	#4 @ 18" O.C.	#4 @ 12" O.C.	-	(2) #4
4'-0"	1'-0"	8"	5"	8"	#4 @ 18" O.C.	#4 @ 12" O.C.	-	(2) #4
5'-0"	1'-6"	8"	5"	10"	#4 @ 18" O.C.	#4 @ 12" O.C.	-	(3) #4
6'-0"	2'-0"	8"	5"	10"	#4 @ 18" O.C.	#4 @ 12" O.C.	-	(4) #4
7'-0"	2'-3"	8"	9"	10"	#4 @ 12" O.C.	#4 @ 12" O.C.	-	(5) #4
8'-0"	2'-9"	8"	1'-0"	12"	#5 @ 12" O.C.	#4 @ 12" O.C.	#5 @ 18" O.C.	(5) #5
9'-0"	3'-3"	8"	1'-3"	13"	#5 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 18" O.C.	(6) #5
10'-0"	3'-9"	8"	1'-6"	15"	#6 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 18" O.C.	(7) #5

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

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

11 Retaining Wall Schedule (grade 40 reinforcing)
SCALE: 3/4"=1'-0"

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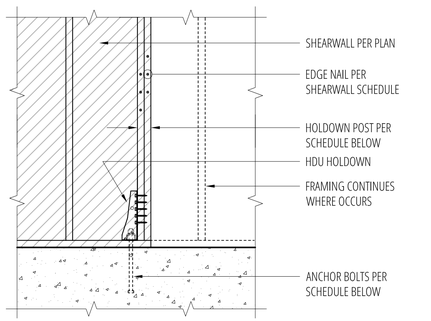
Sheet Contents

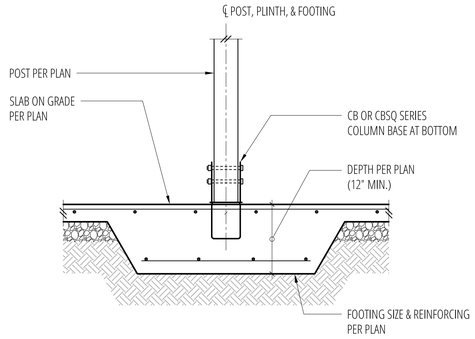
CONCRETE DETAILS

Sheet No.

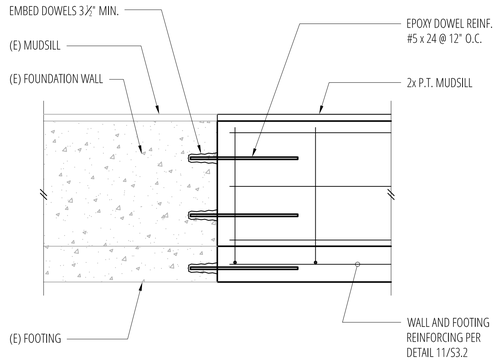
S3.2



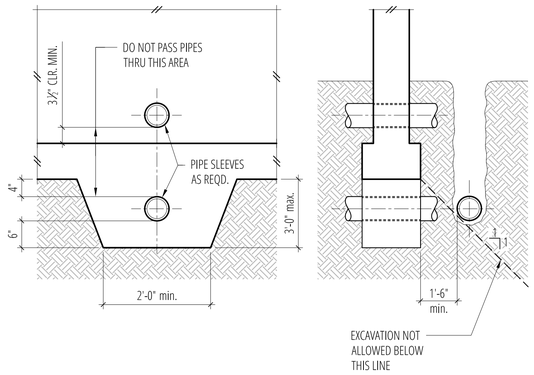
1 SCALE: 3/4"=1'-0"



2 Post Footing w/ Slab on Grade
SCALE: 3/4"=1'-0"



3 Epoxy Dowel Connection at (E) Foundation
SCALE: 3/4"=1'-0"



4 Pipe and Trench Locations
SCALE: 3/4"=1'-0"

REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE

FOR F'c = 2500 psi, GRADE 60 REINFORCING

I — MINIMUM STRAIGHT DEVELOPMENT LENGTH (ℓd)

BAR SIZE	TOP BARS	OTHER BARS
#3	23"	18"
#4	31"	24"
#5	40"	30"
#6	47"	36"
#7	68"	53"
#8	78"	60"
#9	88"	68"
#10	99"	77"
#11	110"	85"

II — MINIMUM LAP SPLICE LENGTHS (ℓs)

BAR SIZE	TOP BARS	OTHER BARS
#3	31"	23"
#4	41"	31"
#5	51"	40"
#6	62"	47"
#7	89"	68"
#8	102"	78"
#9	114"	88"
#10	130"	99"
#11	143"	110"

TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.

IF CLEAR CONCRETE COVER IS NOT GREATER THAN THE DIAMETER OF THE BAR, OR THE CENTER TO CENTER SPACING IS NOT GREATER THAN 3 BAR DIAMTERS, THEN LENGTHS SHALL BE INCREASED BY 50%

III — MINIMUM EMBEDMENT LENGTHS (ℓdh) FOR STANDARD END HOOKS

BAR SIZE	LENGTH
#3	7"
#4	9"
#5	11"
#6	13"
#7	14"
#8	17"
#9	19"
#10	21"
#11	24"

1. SIDE COVER MUST BE EQUAL TO OR GREATER THAN 2½"
2. END COVER FOR 90° HOOKS MUST BE EQUAL TO OR GREATER THAN 2"

Holdown Schedule

Plan Mark	Screws	Anchor Bolt ②	A.B. Embed	Holdown Post ①		Capacity #
				IF 2x4	IF 2x6	
HDU2-SDS2.5	(6) SDS¼" x 2½"	SSTB16	12 7/8"	(2) 2x4	4x6	2215/3075
HDU4-SDS2.5	(10) SDS¼" x 2½"	SB⅝ x 24	18"	4x4	4x6	4565
HDU5-SDS2.5	(14) SDS¼" x 2½"	SB⅝ x 24	18"	4x4	4x6	5645

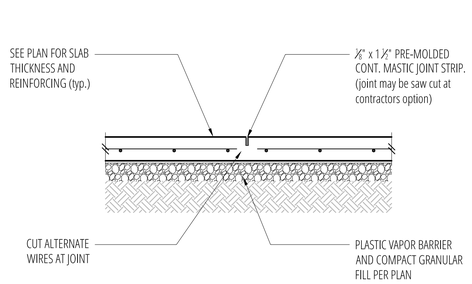
① MINIMUM SIZE OF POST AT END OF WALL UNLESS NOTED OTHERWISE ON FRAMING PLANS.

② "SSTB" & "SB" REFER TO ANCHOR BOLTS BY SIMPSON STRONG-TIE. INSTALL PER MANUFACTURER.

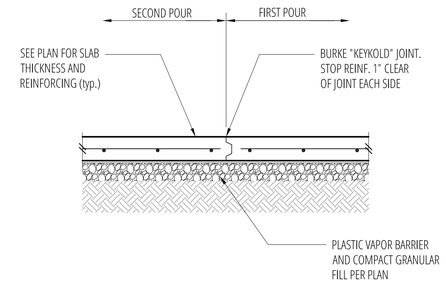
③ AT (E) FOUNDATION, PROVIDE EPOXY GROUTTED THREADED ROD (DIA. PER MAUNFACTURER) EMBED 12"

9 HDU Holdown Schedule
SCALE: 3/4"=1'-0"

10 Lap Splice and Development Schedule
SCALE: 3/4"=1'-0"



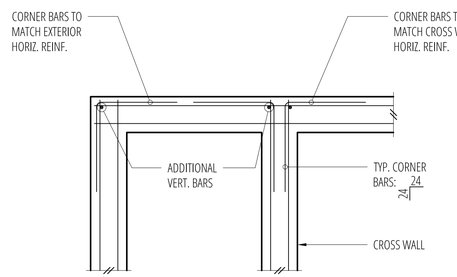
CONTROL JOINT



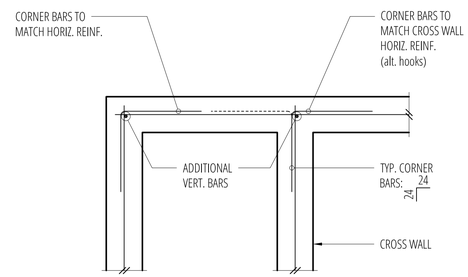
CONSTRUCTION JOINT

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 400 SQUARE FEET OR LESS. AREAS TO BE APPROX. SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

7 Typical Slab Joints
SCALE: 3/4"=1'-0"



DOUBLE CURTAIN



SINGLE CURTAIN

11 Typical Corner Bars at Concrete Walls and Footings
SCALE: 3/4"=1'-0"

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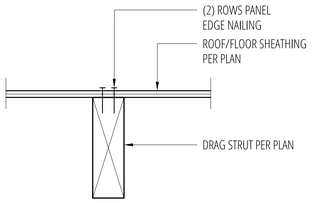
Mangini Zaborowski Residence

8429 SE 62nd Street
Mercer Island, WA 98040

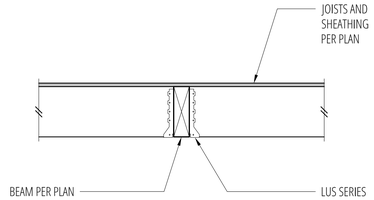
No.	Date	Issue
	--/--/--	Permit

Sheet Contents: CONCRETE DETAILS

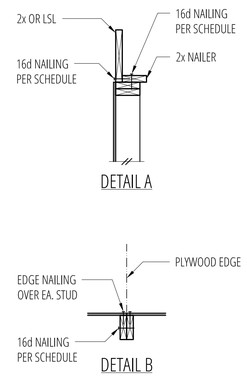
Sheet No.: S3.1



1 Typical Drag Strut
SCALE: 3/4"=1'-0"



2 Typical Flush Beam / Header
SCALE: 3/4"=1'-0"

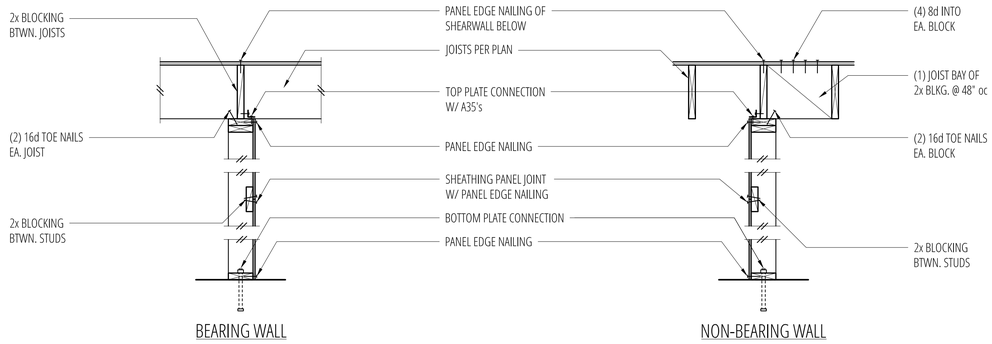


SHEARWALL SCHEDULE ①②③⑤⑥⑦

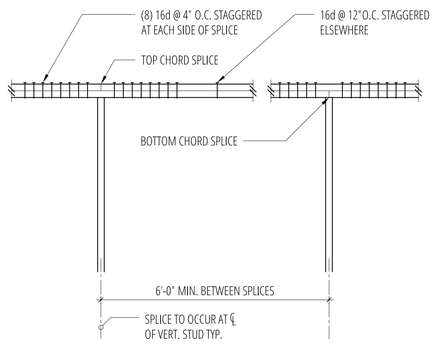
MARK	SHEATHING	PANEL EDGE NAILING	TOP PLATE CONNECTION		BASE PLATE CONNECTION	
			IF TJI	IF 2x OR LSL ⑧⑨	AT WOOD	AT CONCRETE
W6	15/32" CDX PLYWOOD	8d @ 6" OC	16d @ 6" OC	A35 @ 24" OC	16d @ 6" OC	5/8" ø A.B. @ 48" OC
W4	15/32" CDX PLYWOOD	8d @ 4" OC	16d @ 4" OC	A35 @ 16" OC	16d @ 4" OC	5/8" ø A.B. @ 32" OC
W3 ④	15/32" CDX PLYWOOD	8d @ 3" OC	(2) ROWS 16d @ 6" OC	A35 @ 12" OC	16d @ 3" OC ⑩	5/8" ø A.B. @ 16" OC
W2 ④	15/32" CDX PLYWOOD	8d @ 2" OC	(2) ROWS 16d @ 4 1/2" OC	A35 @ 9" OC	(2) ROWS 16d @ 4 1/2" OC ⑩	5/8" ø A.B. @ 12" OC

1. BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12" o.c.
2. 8d NAILS SHALL BE 0.131" ø x 2 1/2" (common) - 16d NAILS SHALL BE 0.135" ø x 3 1/2" (box)
3. EMBED ANCHOR BOLTS AT LEAST 7" EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" PLATE WASHERS. EXTEND TO WITHIN 1/2" OF THE PLYWOOD SHEATHING.
4. 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
5. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
6. ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
7. 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX.
8. LTP4's MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
9. A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
10. STAGGER NAILS IN ROW W/ 1/2" MIN. OFFSET.
11. MINIMUM OFFSET BETWEEN ROWS 1/2, AND MINIMUM RIM OR JOIST 3 1/2" WIDE.

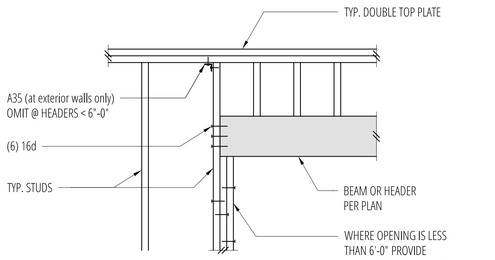
3 Shearwall Schedule
SCALE: 3/4"=1'-0"



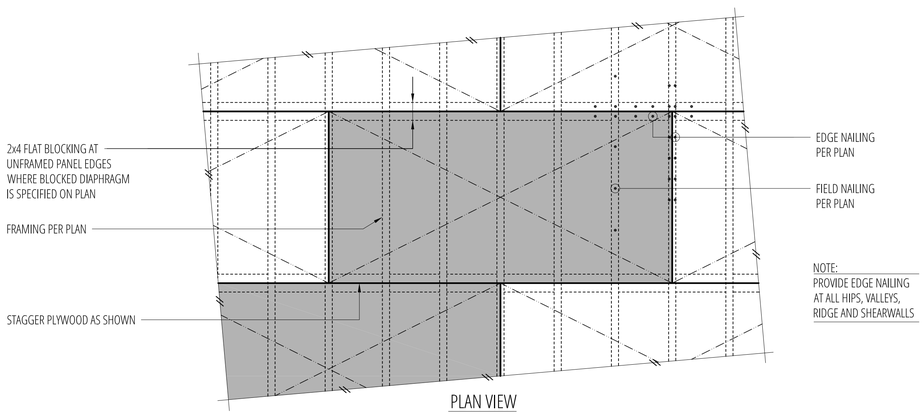
NOTE:
SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS, NOT OTHERWISE NOTED



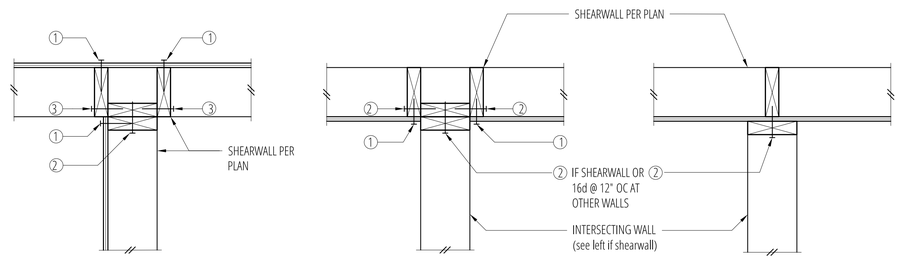
5 Typical Top Plate Splice
SCALE: 3/4"=1'-0"



6 Typical Header Support
SCALE: 3/4"=1'-0"



9 Typical Diaphragm Sheathing and Nailing
SCALE: 3/4"=1'-0"



① PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE

② BASE PLATE NAILING PER SHEARWALL SCHEDULE

③ 16d @ 8" OC

7 Typical Shearwall Construction
SCALE: 3/4"=1'-0"

11 Typical Shearwall Intersection
SCALE: 3/4"=1'-0"

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No.	Date	Issue
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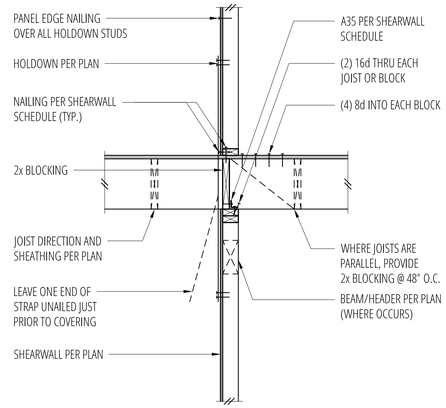
Sheet Contents

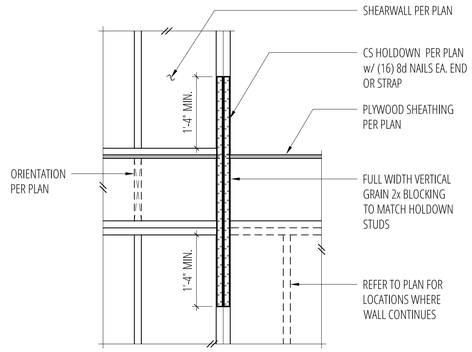
FLOOR FRAMING
DETAILS

Sheet No.

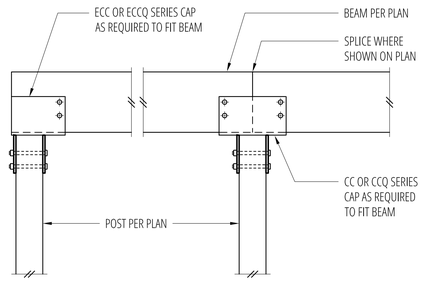
S4.1



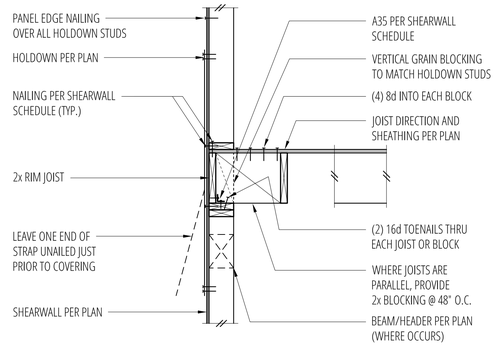
3 Interior Shearwall
SCALE: 3/4"=1'-0"



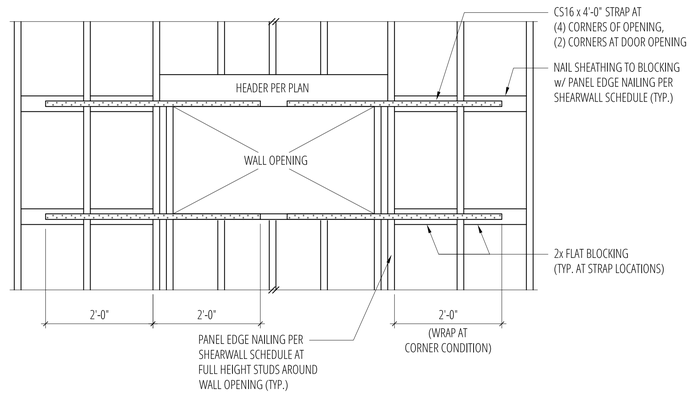
4 Typical CS Holdown at Floor
SCALE: 3/4"=1'-0"



7 CC/CCQ Series Connection
SCALE: 3/4"=1'-0"



8 Exterior Floor Framing
SCALE: 3/4"=1'-0"



11 Straps at Wall Opening (Above and Below)
SCALE: 3/4"=1'-0"

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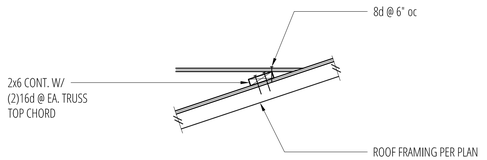
Sheet Contents

FLOOR FRAMING
DETAILS

Sheet No.

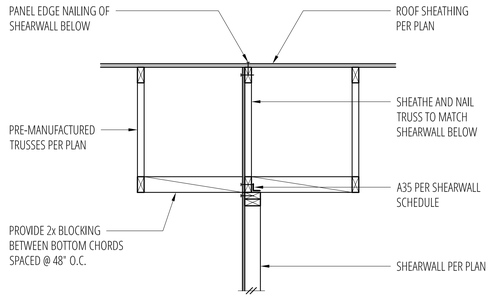
S4.2



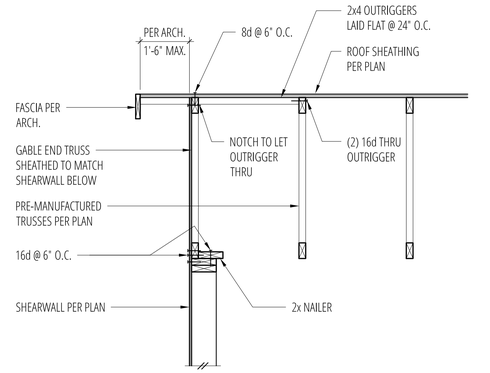
1
SCALE: 3/4"=1'-0"

2
SCALE: 3/4"=1'-0"

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



4 Overframing Connection
SCALE: 3/4"=1'-0"

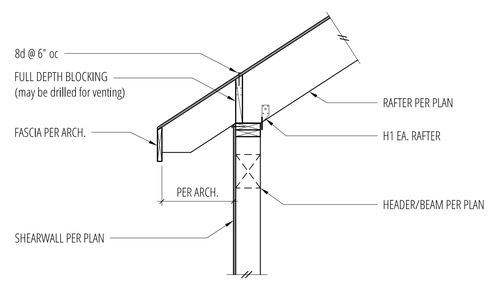


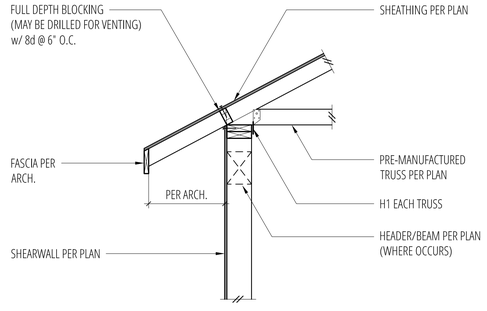
5
SCALE: 3/4"=1'-0"

6
SCALE: 3/4"=1'-0"

7 Shearwall Extension Thru Truss Depth (Parallel to Truss)
SCALE: 3/4"=1'-0"

8 Exterior Non-Bearing Wall at Roof
SCALE: 3/4"=1'-0"





9
SCALE: 3/4"=1'-0"

10
SCALE: 3/4"=1'-0"

11 Exterior Bearing Wall At Roof
SCALE: 3/4"=1'-0"

12 Exterior Bearing Wall at Roof
SCALE: 3/4"=1'-0"

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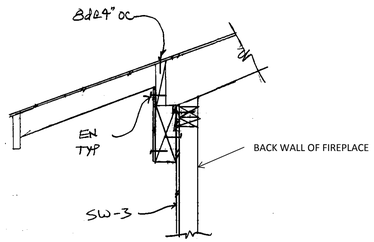
Sheet Contents
ROOF FRAMING DETAILS

Sheet No.
S5.1



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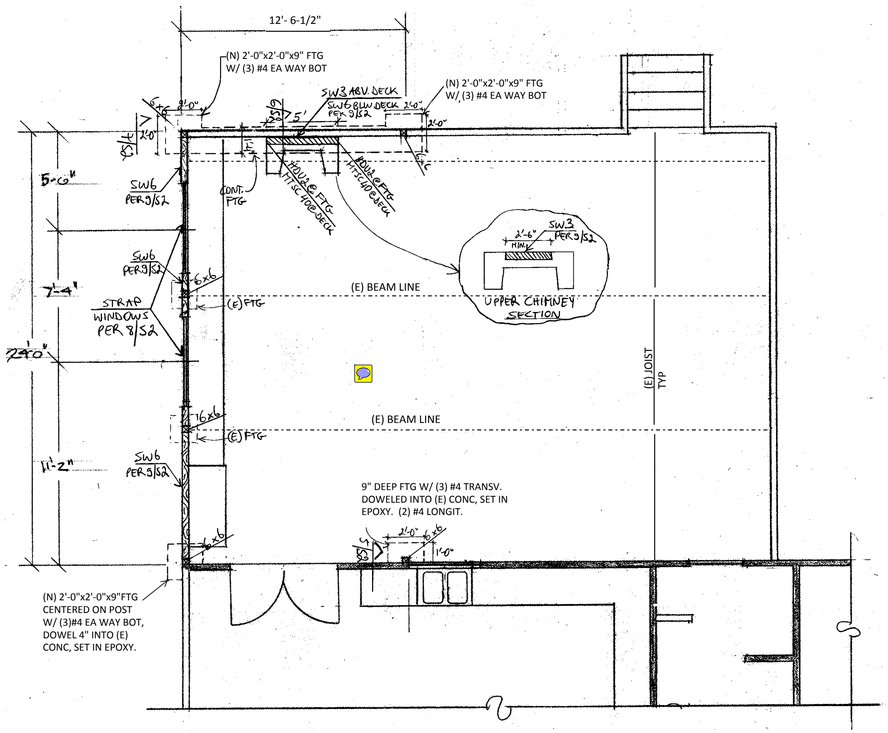
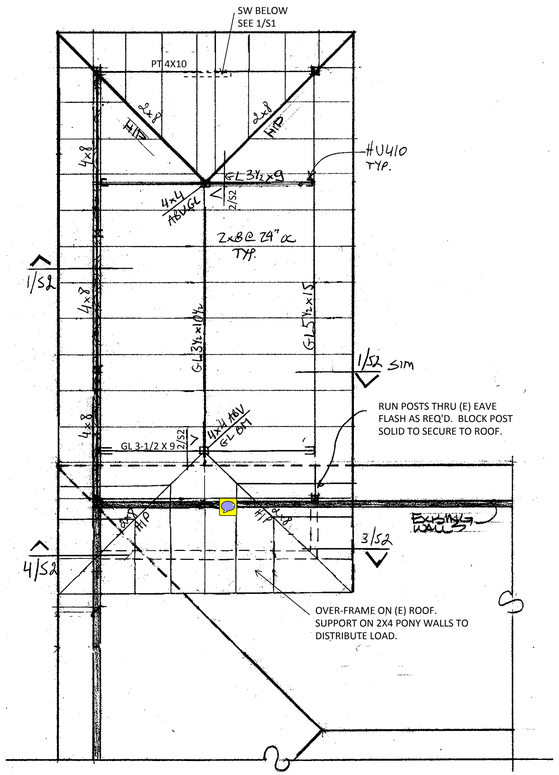


FLOOR / FOUNDATION PLAN 1/4"=1'-0"



ROOF FRAMING PLAN 1/4"=1'-0"

STRUCTURAL NOTES

DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2012 INTERNATIONAL BUILDING CODE.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION.

CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURAL COMPONENTS OF THE NEW AND EXISTING STRUCTURE UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

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

DESIGN LOADS

ROOF SNOW	25 PSF
ROOF DL	12 PSF
FLOOR LL	60 PSF
FLOOR DL	15PSF

WIND DESIGN CRITERIA

WIND (ASCE 7-10) 110 MPH (3 sec gust), EXPOSURE "B", Kzt = 1.6

SEISMIC DESIGN CRITERIA

EARTHQUAKE (ASCE 7-10) SITE CLASS D
OCCUPANCY CATEGORY II (Ie = 1.0)
SEISMIC DESIGN CATEGORY D
Ss =1.457g, S1 = 0.55g
Sds=0.971g, Sd1 =0.559g
R=6.5
V = 0.136W = 1.1k
EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL LOADS ARE RESISTED BY STRUCTURAL PANEL SHEAR WALLS AND DIAPHRAGMS

SOIL BEARING 1500 PSF (ASSUMED)

CARPENTRY

POST - 6X, 8X	DOUG-FIR #2, Fb = 850 PSI
FRAMING – 2X, 4X	HEM-FIR #2, Fb = 850 PSI
GLU-LAM	24F-V4

FRAMING HARDWARE DESIGNATIONS ARE SIMPSON STRONG-TIE. USE FULL AMOUNT OF FASTENERS SPECIFIED BY MFR. HARDWARE IN CONTACT WITH PESERVATIVE TREATED WOOD SHALL BE Z-MAX OR HOT-DIPPED GALVANIZED.

FRAMING NAILING SHALL CONFORM TO TABLE 2304.9.1 OF THE 2012 IBC UNO.

HEADERS SHALL BEAR ON (2) 2X TRIM STUDS.

ROOF SHEATHING: 1/2" PLYWOOD OR OSB, 24/0, EXT GRADE
NAIL ROOF SHEATHING WITH 8d COMMON (.131 x 2-1/2" DIA) @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

CONCRETE

COMPRESSIVE STRENGTH @ 28 DAYS = 2500 PSI. PROVIDE A MINIMUM OF 5 SACKS CEMENT PER CUBIC YARD. CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED.
REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
MINIMUM CONCRETE COVER:
1. CONCRETE CAST AGAINST EARTH – 3"
2. CONCRETE EXPOSED TO EARTH OR WEATHER – 1-1/2"

REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318 (LATEST EDITION). LAP ALL CONTINUOUS REINFORCEMENT 32". PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS. LAP CORNER BARS.

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

ALL HOOKS SHALL BE "STANDARD" IN ACCORDANCE WITH ACI 318.

FOUNDATIONS

FOUNDATIONS SHALL BEAR ON FIRM NATIVE SOILS OR COMPACTED STRUCTURAL FILL.

CLEAN EXCAVATIONS OF LOOSE SOIL PRIOR TO PLACING CONCRETE.

HOLD-DOWNS

HDU2 5/8" DIA THREADED ROD,
9" EMBED

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Fax:206.456.3076
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23024
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PROJECT

Bloom Residence
Deck Cover
8429 SE 62nd ST
Mercer Island, WA

REVISIONS

NO.	DATE

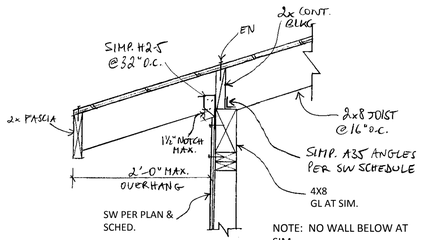
12/2/14 DATE	14-204 JOB #
AM DESIGN	FPP CHECKED
LMS DRAWN	AS NOTED SCALE

SHEET TITLE

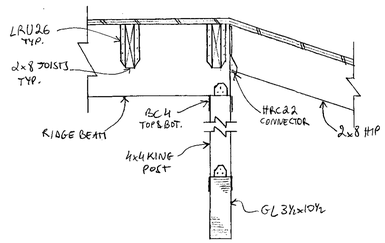
FRAMING/
FOUNDATION
PLANS
NOTES

SHEET NO.

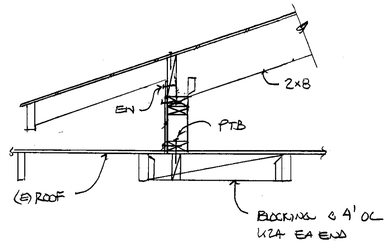
S1



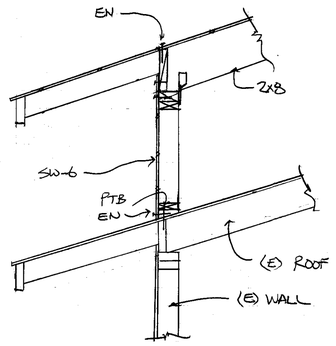
1- ROOF EAVE SECTION AT WALL 1"=1'-0"



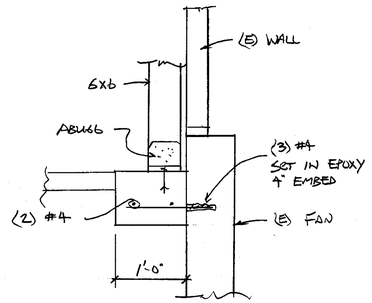
2- ROOF SECTION 1"=1'-0"



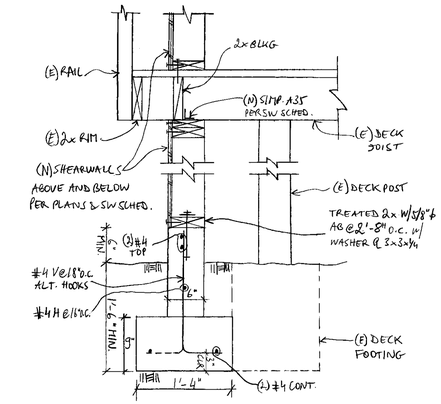
3- SECTION 1"=1'-0"



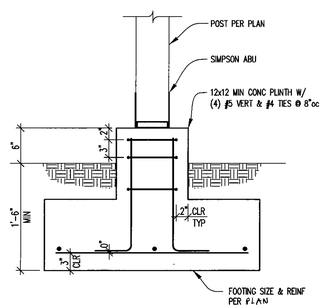
4- SECTION 1"=1'-0"



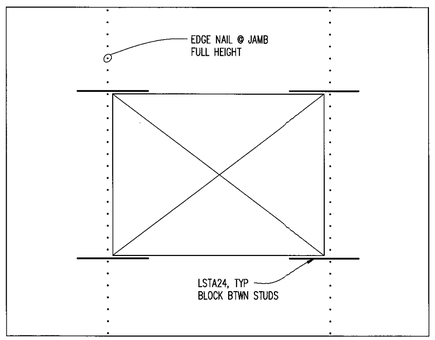
5- SECTION 1"=1'-0"



6- FOUNDATION SECTION 1"=1'-0"



7- TYP COLUMN FOOTING 1"=1'-0"



8- STRAP AT OPENING 1"=1'-0"

SHEAR WALL SCHEDULE (HEM FIR LUMBER WITH 8d NAILS)

MARK	SHEATHING (NOTES 1,2,3,4,8)		LATERAL TIE PLATE OR (NOTE 5)	WALL PLATE TO BLOCKING NAILING (NOTES 5,9)	⅝"ø ANCHOR BOLT SPACING (NOTE 8)	ALLOWABLE SHEAR CAPACITY (PLF)(NOTE 7)	STUDS (MIN) (NOTE 7)	BLOCKING/ FDN PLATE (MIN) (NOTE 7)
	APPLICATION	PANEL EDGE NAIL SPACING (NOTE 9)						
SW-6	ONE SIDE	8d @ 6"oc	LTP4 @ 24"oc	16d @ 6"oc	48"oc	240	2x	2x
SW-4	ONE SIDE	8d @ 4"oc	LTP4 @ 16"oc	16d @ 4"oc	32"oc	350	2x	2x
SW-3	ONE SIDE	8d @ 3"oc	LTP4 @ 12"oc	16d @ 3"oc	24"oc	455	3x	3x
SW-2	ONE SIDE	10d @ 2"oc	LTP4 @ 6"oc	16d @ 2"oc	16"oc	595	3x	3x

* ALLOWABLE VALUE IS REDUCED FROM IBC TABLE FOR FRAMING SIZE.

NOTES:
1. SHEATHING SHALL BE 15/32" OR ½" PLY, TYP UNO.
2. SHEATHING SHALL BE APPLIED DIRECTLY TO FRAMING.
3. PROVIDE SOLID BLOCKING AT ALL SHEATHING PANEL EDGES.
4. PROVIDE 8d @ 12"oc AT ALL INTERMEDIATE SUPPORTS (FIELD NAIL), TYP UNO.
5. LATERAL TIE PLATES OR WALL PLATE TO BLOCKING NAILING IS REQUIRED WHERE SHEATHING IS DISCONTINUOUS, i.e., WHERE ADJACENT SHEATHING EDGES ARE NOT NAILED TO THE SAME PIECE OF FRAMING. TOE NAILING IS NOT PERMITTED. LATERAL TIE PLATES MAY BE SUBSTITUTED FOR WALL PLATE TO BLOCKING NAILING. INSTALL LATERAL TIE PLATES OVER APA RATED SHEATHING PANELS. USE COMMON NAILS OR EQUIVALENT NAILS SUPPLIED BY CONNECTOR MANUFACTURER FOR LATERAL TIE PLATES. A35 FRAMING ANCHORS MAY BE SUBSTITUTED FOR LATERAL TIE PLATES AT SPACING SHOWN ABOVE.
6. WHERE SHEATHING IS APPLIED TO BOTH SIDES, STAGGER PLYWOOD JOINTS SO THAT JOINTS ON EACH SIDE OF THE WALL DO NOT OCCUR AT THE SAME STUD. PROVIDE 3x BLOCKING/FOUNDATION PLATES FOR ALL DOUBLE SHEATHED WALLS.
7. PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF WALLS NOTED ON PLANS. ENDS OF WALLS ARE DESIGNATED BY EXTERIOR OF BUILDING, CORRIDORS, OR DOORWAYS. PROVIDE HOLDOWNS PER PLANS AT EACH END OF WALL, UNO. PROVIDE EDGE NAILING TO STUD(S) GRIPPED BY HOLDOWN.
8. CRITERIA: 2012 IBC
   HEM FIR LUMBER
   2500 psi CONCRETE MINIMUM
   ASTM A307 ANCHOR BOLTS WITH 2¾" EDGE DISTANCE IN CONCRETE AND 7" MINIMUM EMBEDMENT;
   USE ⅝"ø EXP ANCHORS W/ MIN 4" EMBED @ EXISTING CONCRETE.

9- SHEARWALL DETAIL NTS

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PROJECT

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Mercer Island, WA

REVISIONS

NO.	DATE

12/2/14 DATE	14-204 JOB #
AM DESIGN	FPP CHECKED
LMS DRAWN	AS NOTED SCALE

SHEET TITLE

DETAILS

SHEET NO.

S2