.....INTERNATIONAL BUILDING CODE - 2018 .....ASCE 7-16 MIN DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI

STRUCTURAL DESIGN STANDARDS (DESIGN SHALL CONFORM TO THE CURRENT EDITION UNDER THE APPLICABLE CODE)

.....ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY ....ACI 530/530.1 BLDG CODE REQUIREMENTS AND SPECS FOR MASONRY STRUCTURES (AND RELATED COMMENTARIES)

...ANSI/AISC 360-16 SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS ....AWS D1.1/D1.1M STRUCTURAL WELDING CODE-STEEL

APPLICABLE CODES/STANDARDS:

WIND DESIGN DATA:

## **BUILDING DESIGN LOADS/CRITERIA**

DESIGN LIVE LOADS:	
FLOOR FRAMING (RETAIL, OFFICE, RESTAURANT, RECREATIONAL)	100 psf
FLOOR FRAMING (RESIDENTIAL AREAS)	40 psf
STAIRWAYS, EXITS	100 psf
BALCONIES	75 psf
PRIVATE GARAGES (PASSENGER VEHICLES ONLY)	40 psf
INTERIOR PARTITION WALLS (UNIFORMLY DISTRIBUTED WEIGHT)	15 psf
CORRIDORS FIRST FLOOR	100 psf
CORRIDORS 2 nd 3rdFLOORS	40 psf
CORNICES	60 psf

SNOW LOADS & DESIGN DATA:	
DESIGN SNOW LOAD	42 psf (BALANCED SNOW LOA
FLAT ROOF SNOW LOAD (Pf) = (0.7*Ce*Ct*Is*Pg)	42 psf
SNOW EXPOSURE FACTOR (Ce)	1.0
SNOW LOAD IMPORTANCE FACTOR (Is)	1.0
ROOF THERMAL FACTOR (Ct)	1.0
GROUND SNOW (Pg)	60 psf
SLOPED ROOF FACTOR (Cs)	1.0

1.0
115 MPH
90 MPH
33 FT
В
ENCLOSED
0.720
1.0
METHOD 1 (SIMPLIFIED PROCEDURE)

NET PRESSURE COEFFICIENTS C <sub>net</sub>				
AREA	C + INTERNAL net	C - INTERNAL net		
	PRESSURE	PRESURE		
WINDWARD WALL	0,43	0,73		
LEEWARD WALL	-0,51	-0,21		
SIDEWALL	-0,66	-0,35		
PARAPET WINDWARD WALL	1,28			
PARAPET LEEWARD WALL	-0,85			
FLAT ROOF	-1,09	-0,79		
	•	•		

DESIGN WIND PRESSURES Pnet				
AREA	P + INTERNAL net	P - INTERNAL net		
, <u></u> .	PRESSURE	PRESURE		
WINDWARD WALL	10.5 psf	17.8 psf		
LEEWARD WALL	-12.4 psf	-5.1 psf		
SIDEWALL	-16.1 psf	-8.5 psf		
PARAPET WINDWARD WALL	31.2 psf			
PARAPET LEEWARD WALL	-20.7 psf			
FLAT ROOF	-26.6 psf	-19.3 psf		

EARTHQUAKE DESIGN DATA:		
OCCUPANCY CATEGORY		II
SEISMIC IMPORTANCE FACTOR (Ie)		1
MAPPED SPECTRAL ACCELERATIONS AT SHORT PERIODS (Ss	5)	0.045 g
MAPPED SPECTRAL ACCELERATIONS AT (1) SECOND PERIODS	S (S1)	0.038 g
SITE CLASSIFICATIONS		В
SITE COEFFICIENT (Fa)		1,0
SITE COEFFICIENT (Fv)		1,0
DESIGN SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIO	ODS (Sds)	0.030 g
DESIGN SPECTRAL RESPONSE COEFFICIENT AT (1) SECOND F	PERIODS (Sd1)	0.025 g
SEISMIC DESIGN CATEGORY		Α
BASIC SEISMIC-FORCE-RESISTING SYSTEM	LIGHT FRAME V	VOOD WALLS WITH
	STRUCTURAL WO	OD SHEAR PANELS

ANALYSIS PROCEDURE FOR SEISMIC DESIGN	EQUIVALENT LATERAL FORCE ANALYSI
SOIL DESIGN VALUES:	

SOIL UNIT WEIGHT 125 PCF (ASSI	JMED)
AT-REST (BASEMENT WALLS) 62,5 PSF/FT OF DEPTH (	ASSUME
PASSIVE 340 PSF (ASSI	UMED)
COEFFICIENT OF SLIDING FRICTION 0.30 (ASSL	JMED)
SUBGRADE MODULUS 260 PCI (ASSI	JMED)

...ALLOWABLE SOIL BEARING PRESSURE

REFER TO SOILS REPORT NO. 17002 DATED 2/10/2017 PREPARED BY ITCO ALLIED ENGINEERING CO. FOR DESCRIPTION OF SOIL CONDITIONS, GEOTECHNICAL RECOMMENDATIONS, AND DESIGN VALUES

3000 PSF

DEFLECTION LIMITS			
MEMBERS	LIVE	SNOW or WIND	DEAD + LIVE or SNOW
ROOF MEMBERS			
SUPPORTING GYPSUM BOARD CEILINGS	L/360	L/360	L/240
SUPPORTING FLEXIBLE CEILINGS	L/360	L/360	L/240
NOT SUPPORTING CEILING	L/240	L/240	L/180
SUPPORTING RIGID MATERIALS (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
FLOOR MEMBERS			
SUPPORTING RIGID MATERIALS (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
SUPPORTING GYPSUM BOARD CEILINGS	L/540	N/A	L/360
SUPPORTING FLEXIBLE MATERIALS	L/540	N/A	L/360
WOOD TRUSSES	L/480	L/360	L/240
LINTEL/HEADER/BEAM MEMBERS			
SUPPORTING RIGID MATERIALS (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
SUPPORTING FLEXIBLE MATERIALS (EIFS, SIDING, ETC.)	L/360	L/360	L/240
EXTERIOR WALLS			
WITH RIGID FINISHES (BRICK, MASONRY, ETC.)	N/A	L/600	N/A
WITH FLEXIBLE FINISHES (EIFS, SIDING, ETC.)	N/A	L/360	N/A

## MATERIAL STRENGTHS

CAST-IN-PLACE CONCRETE:

CAST-IN-PLACE CONCRETE	<b>=</b> :	
FOOTINGS		
MINIMUM COMPRESSIVE STRENGTH AT 28	DAYS	f'c = 3,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO	0.59	
MAXIMUM AGGREGATE SIZE	1 1/2"	
SLUMP LIMIT	5" +/-1	"
AIR CONTENT	NO	
EXTERIOR PIERS, WALLS, AND COLUMNS		
MINIMUM COMPRESSIVE STRENGTH AT 28	DAYS	f'c = 4,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO	0.48	
MAXIMUM AGGREGATE SIZE	3/4"	
SLUMP LIMIT	4" +/-1	"
AIR CONTENT	YES 4%	% to 6%
INTERIOR SLABS ON GRADE		
MINIMUM COMPRESSIVE STRENGTH AT 28	DAYS	f'c = 4,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO	0.48	
MAXIMUM AGGREGATE SIZE	3/4"	
SLUMP LIMIT	4" +/-1	"
AIR CONTENT	NO	
CONCRETE TOPPING		
MINIMUM COMPRESSIVE STRENGTH AT 28	DAYS	f'c = 4,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO	0.48	
MAXIMUM AGGREGATE SIZE	3/4"	
SLUMP LIMIT	4" +/-1	"
AIR CONTENT	NO	
STAIR LANDINGS AND TREADS		
MINIMUM COMPRESSIVE STRENGTH AT 28	DAYS	f'c = 4,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO	0.48	
MAXIMUM AGGREGATE SIZE	3/4"	
SLUMP LIMIT	4" +/-1	"
AIR CONTENT	NO	
EXTERIOR SLABS ON GRADE		
MINIMUM COMPRESSIVE STRENGTH AT 28		f'c = 4,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO		
MAXIMUM AGGREGATE SIZE	3/4"	
SLUMP LIMIT	4" +/-1	
AIR CONTENT	YES 49	% to 6%
SLURRY		
MINIMUM COMPRESSIVE STRENGTH AT 28		f'c = 1,000 PS
MAXIMUM WATER-CEMENTITIOUS RATIO		
MAXIMUM AGGREGATE SIZE	1 1/2"	
SLUMP LIMIT	6" +/-1	
AIR CONTENT	NO	

## STEEL/METAL:

REINFORCING STEEL:	
ALL ASTM A615, GRADE 60, DEFORMED	Fy = 60,000 PSI
STEEL WELDED WIRE REINFORCEMENT, FL	AT SHEETS Fy = 60,000 PSI

STRUCTURAL STEEL:	
ROLLED WIDE FLANGE SHAPES, ASTM AS	992 GRADE 50 Fy = 50,000 PSI
CHANNELS, ANGLES, AND S SHAPES, AS	TM A3 <b>6</b> y = 36,000 PSI
PLATE AND BAR, ASTM A36	Fy = 36,000 PSI
TUBE SHAPES, ASTM A500 GRADE B	Fy = 46,000 PSI
PIPE ASTM A53, TYPE E or S, GRADE B	Fy = 46,000 PSI
ALL OTHER ROLLED SHAPES, ASTM A36	Fy = 36,000 PSI

STRUCTURAL BOLTS:		
HIGH STRENGTH BOLTS, NUTS, & WASHI	ERS ASTM A325	
ZINC-COATED HIGH STRENGTH BOLTS, N	NUTS, <b>&amp;</b> STM A325	
WASHERS		
STAINLESS STEEL BOLTS, NUTS, & WASH	HERS ASTM F593	
SHEAR CONNECTORS (GRADES 1015 TH	RU 10240\$TM A108	
THREADED RODS	ASTM A36	
CLEVIS & TURNBLICKLES (GRADE 1035)	ASTM A108	

SHEAR CONNECTORS (GRADES 1015 THRU	J 102405 TM A108
THREADED RODS	ASTM A36
CLEVIS & TURNBUCKLES (GRADE 1035)	ASTM A108
EYE BOLTS & NUTS (GRADE 1030)	ASTM A108
ANCHOR BOLTS (GRADE 36)	ASTM F1554
WELDED CONNECTIONS:	

E70XX
E80XX FOR
WELDING REINF
f'm = 2,000 PSI

MASONRY MORTAR: .....TYPE "M" MORTAR BELOW GRADE

.....TYPE "M" or "S" ABOVE GRADE

GROUT BELOW BASE PLATES & BEARING PLATES: ....NONMETALLIC, SHRINKAGE-RESISTANT ASTM C1107 **FOUNDATION AND EARTHWORK:** 

1. ALL EXTERIOR FOOTINGS MUST BEAR BELOW LOCAL FROST LINE RELATIVE TO ADJACENT FINISH EXTERIOR GRADE.

2. DO NOT PLACE ANY FOOTINGS ON FROZEN SUBGRADE.

3. BACK FILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF FOUNDATION WALLS.

BE VERIFIED BY THE CONTRACTOR AND A SOILS ENGINEER AT THE TIME OF EXCAVATION.

4. DO NOT PLACE BACK FILL AGAINST BASEMENT WALLS UNTIL THE TOP AND BOTTOM OF THE WALL ARE ADEQUATELY BRACED BY THE SLAB ON GRADE AND THE FLOOR FRAMING AT THE TOP OF THE WALL.

5. REMOVE ANY EXISTING CONCRETE 2'-0" BELOW NEW CONCRETE FOOTINGS AND SLABS ON GRADE, UNLESS NOTED OTHERWISE.

6. SHORING/OR UNDERPINNING SHALL BE DESIGNED TO LIMIT HORIZONTAL AND VERTICAL MOVEMENT OF EXISTING CONSTRUCTION TO 1/4" MAXIMUM IN ANY DIRECTION.

7. CENTER PIER AND COLUMN FOOTINGS ON COLUMN CENTERLINES AND WALL FOOTINGS ON WALL CENTERLINES UNLESS SPECIFICALLY NOTED

8. ALL BACK FILL WITHIN 3'-0" OF RETAINING WALLS AND BASEMENT WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL APPROVED BY A

SOILS ENGINEER AND COMPACTED TO 90% STANDARD PROCTOR. 9. TOP OF FOOTING ELEVATIONS SHOWN ON THESE CONSTRUCTION DOCUMENTS REPRESENT MINIMUM FOOTING DEPTHS FOR FROST PROTECTION AND BEST JUDGMENT OF A SUITABLE BEARING STRATUM. ACTUAL GRADE CONDITIONS AND SUITABLE BEARING STRATUM MUST

10.FOOTING EXCAVATIONS MUST EXTEND TO COMPETENT BEARING MATERIAL. CONTRACTOR SHALL HIRE A SOILS ENGINEER TO FIELD VERIFY NET ALLOWABLE SOIL BEARING CAPACITY STATED ON THESE CONSTRUCTION DOCUMENTS AND IN GEOTECHNICAL REPORT FOR THIS PROJECT. IF SUITABLE BEARING STRATUM DOES NOT EXIST AT FOOTING ELEVATIONS STATED ON CONSTRUCTION DOCUMENTS, EXCAVATIONS SHALL BE EXTENDED UNTIL SOIL WITH STATED BEARING CAPACITY IS REACHED. PLACE COMPACTED FILL BELOW FOOTINGS OR EXTEND FOOTINGS DOWN TO SUITABLE BEARING STRATUM. ENGINEERED FILL BELOW SLABS ON GRADE AND FOOTINGS SHALL BE FREE DRAINING GRANULAR MATERIAL COMPACTED TO 95% MODIFIED PROCTOR AND PLACED PER THE SOIL ENGINEERS RECOMMENDATIONS. ALL FIELD CONDITIONS THAT WILL AFFECT DESIGN AS PRESENTED MUST BE COORDINATED WITH STRUCTURAL ENGINEER.

11.REFER TO DESIGN DATA FOR DESCRIPTION OF SOIL CONDITIONS, GEOTECHNICAL RECOMMENDATIONS, AND DESIGN VALUES.

## **CONTINUITY:**

ALL REINFORCING SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE. CONTINUITY AT CORNERS AND INTERSECTIONS SHALL BE ACHIEVED USING CORNER BARS AND CONTACT LAP SPLICES, SEE TYPICAL DETAIL. CONTINUITY AT OTHER LOCATIONS MAY BE ACHIEVED USING CONTACT LAP SPLICES SHOWN ON APPROVED SHOP DRAWINGS. LOCATION OF LAP SPLICES SHALL BE SHOWN ON THE SHOP DRAWINGS. UNLESS NOTED OTHERWISE, THE FOLLOWING LAP SPLICES SHALL BE USED: (ALL LAP SPLICES ARE CLASS B SPLICES)

- /									
LOCATION:	#3	#4	#5	#6	#7	#8	#9	#10	#11
3,000 & 3,500 PSI CONCRETE:									
- TOP BARS (*):	21"	19"	35"	46"	71"	93"	118"	149"	184"
- OTHER BARS:	16"	22"(**)	27"	35"	55"	71"	91"	115"	142"
4,000 & 4,500 PSI CONCRETE:									
- TOP BARS (*):	16"	19"	25"	36"	61"	80"	102"	129"	159"
- OTHER BARS:	16"	16"(**)	19"	28"	47"	62"	78"	99"	123"

(\*) TOP BARS ARE HORIZONTAL REINFORCING WHERE MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE

(\*\*) FOR #4 EPOXY COATED REBAR, USE 27" SPLICE LENGTH AT 3,000 AND 3,500 PSI CONC. AND 19" AT 4,000 AND 4,500 PSI.

MECHANICAL CONNECTIONS MAY BE USED IN LIEU OF LAP SPLICES PROVIDED APPROVAL IS OBTAINED FROM THE ARCHITECT/ENGINEER. CONNECTIONS SHALL DEVELOP IN TENSION 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR. ALL MECHANICAL CONNECTIONS SHALL BE SHOWN ON THE SHOP DRAWINGS AND BE INSTALLED IN ACCORDANCE WITH THE MECHANICAL SPLICE PROPRIESTS WITH SHOP DRAWINGS. FOR MECHANICAL SPLICE PRODUCTS WITH SHOP DRAWINGS.

CAPITAL GROUP Developer: W Capital Group tyler@wcapitalgroupre.com | 608.345.9848





General Contractor: ROYAL CONSTRUCTION 3653 Greenway Street | Eau Claire, WI 54701 jim@royalbuilt.com | 715-225-6377





Structural Engineer: Structural Engineering Calle Apolonio Morales, 628036 Madrid, I.pereztato@xcengineering.xyz | +34 610 56 26 37



Structural Engineer: Structural Engineering 4729 Dale-Curtain Dr, McFarland, WI 53558 kfrey@ennovationbuilt.com



jhansen@hovlands-inc.com | 715.552.5595

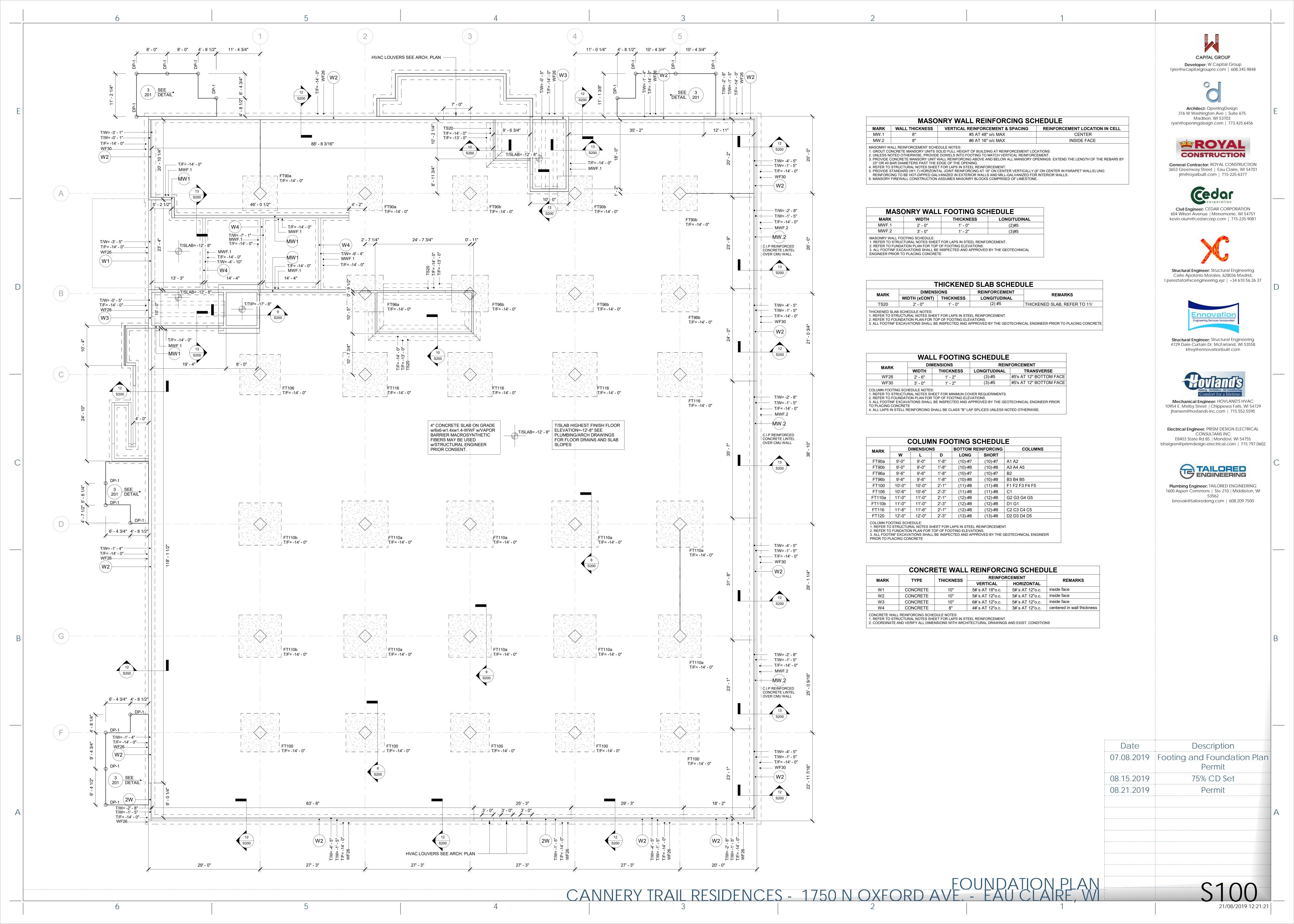
Electrical Engineer: PRISM DESIGN ELECTRICAL CONSULTANS INC E8403 State Rd 85 | Mondovi, WI 54755 bhalgren@prismdesign-electrical.com | 715.797.0602

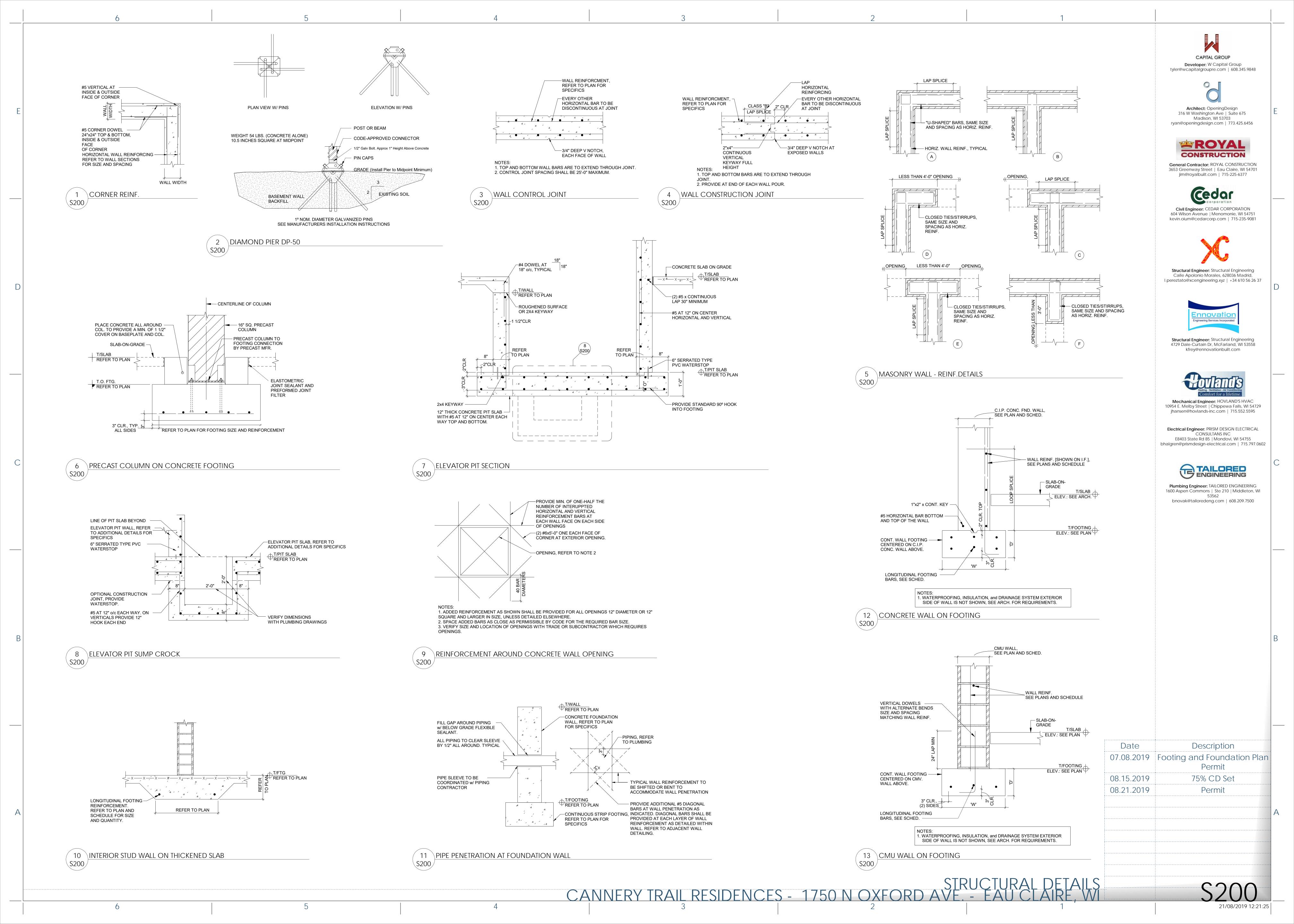


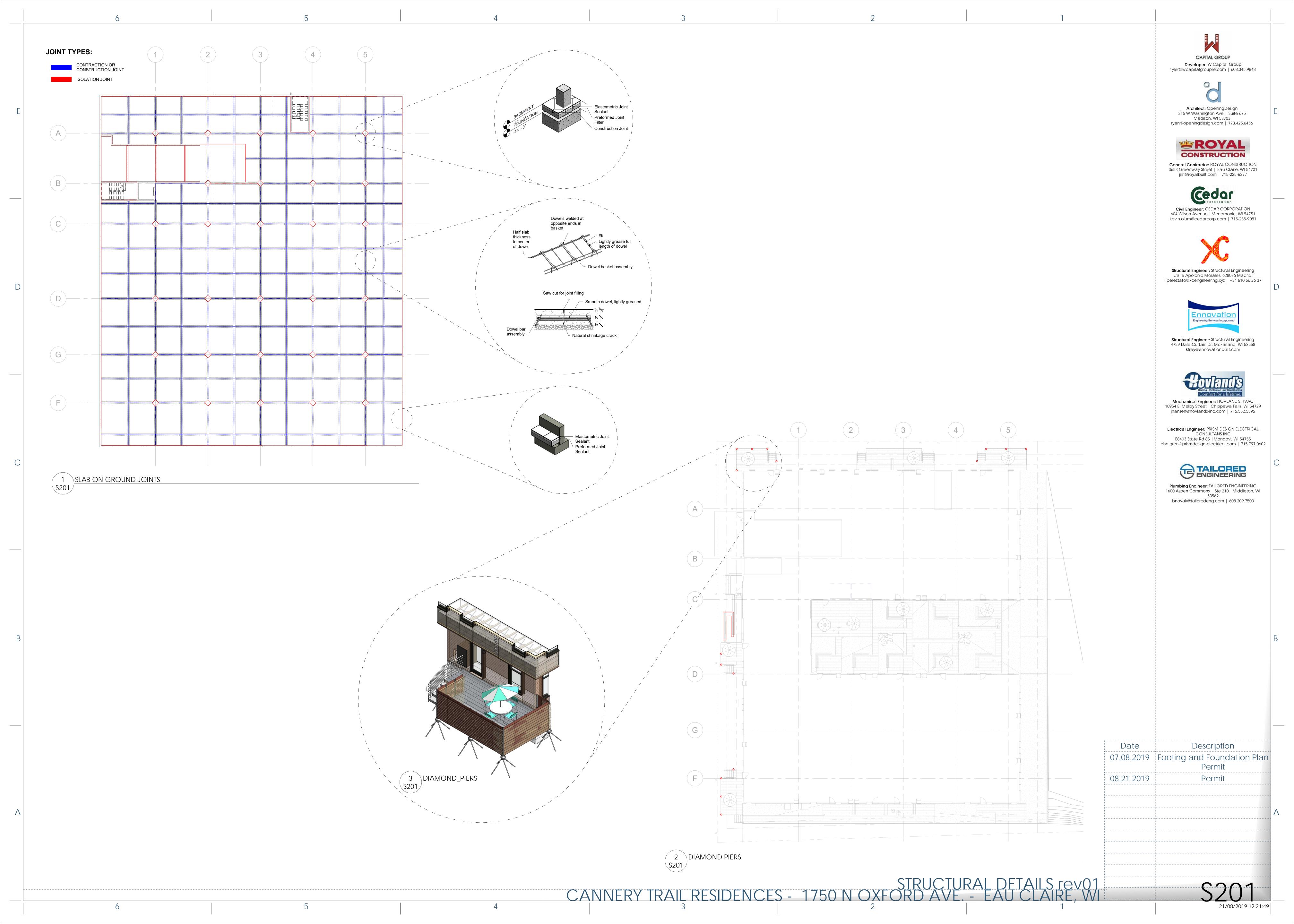
Plumbing Engineer: TAILORED ENGINEERING 1600 Aspen Commons | Ste 210 | Middleton, WI bnovak@tailoredeng.com | 608.209.7500

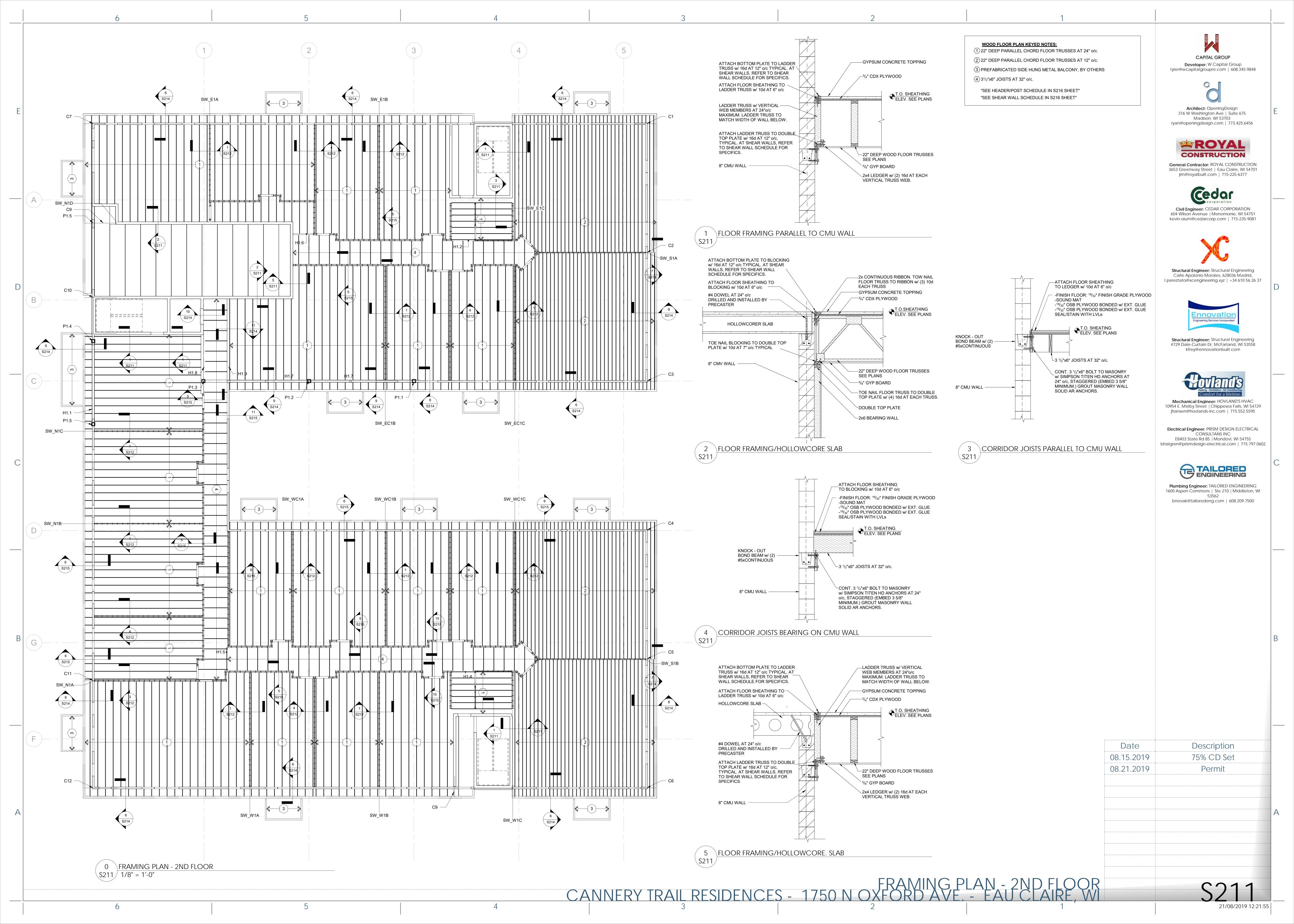
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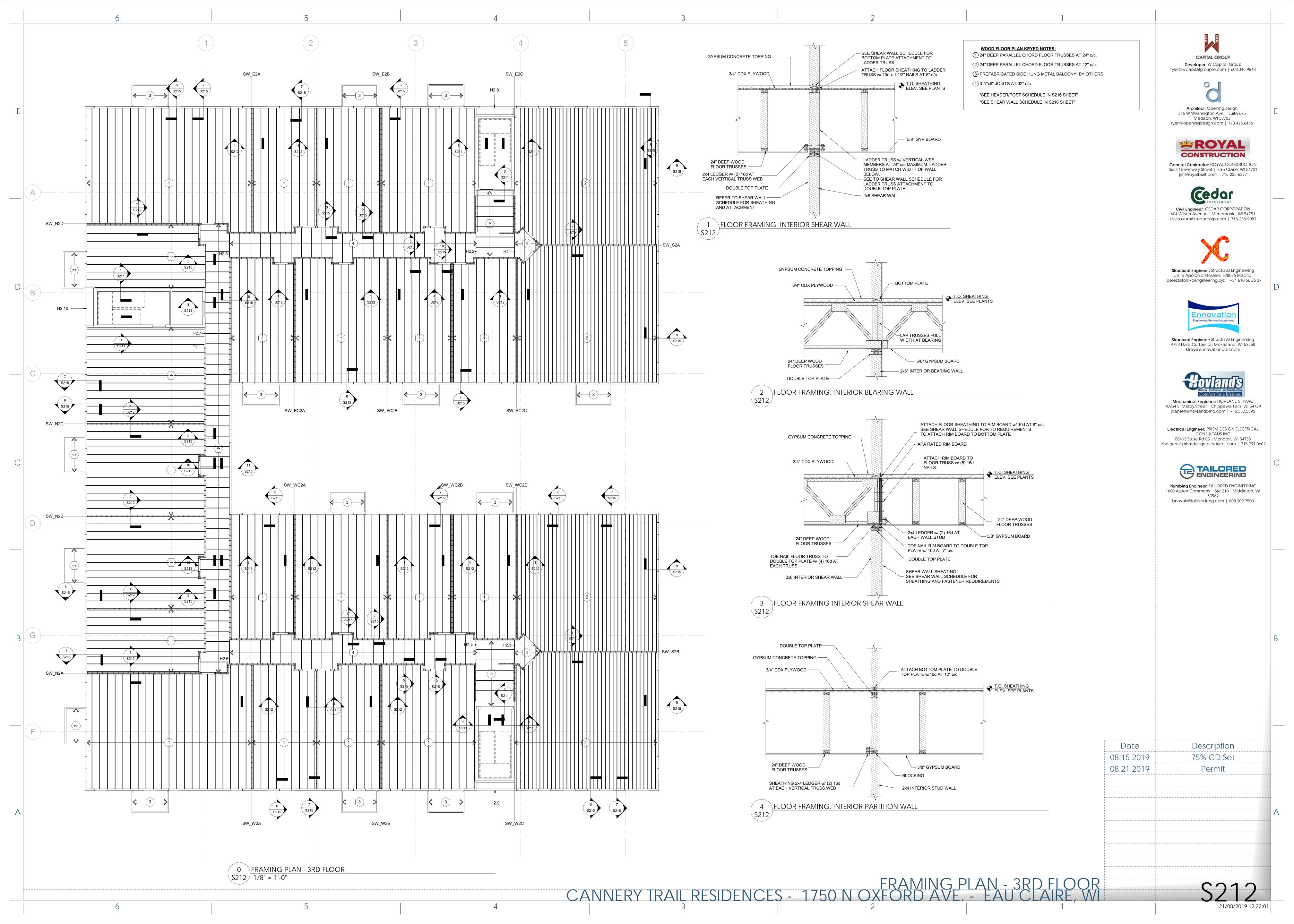
STRUCTURAL NOTES CANNERY TRAIL RESIDENCES - 1750 N OXFORD AVE. - EAU CLAIRE, WI

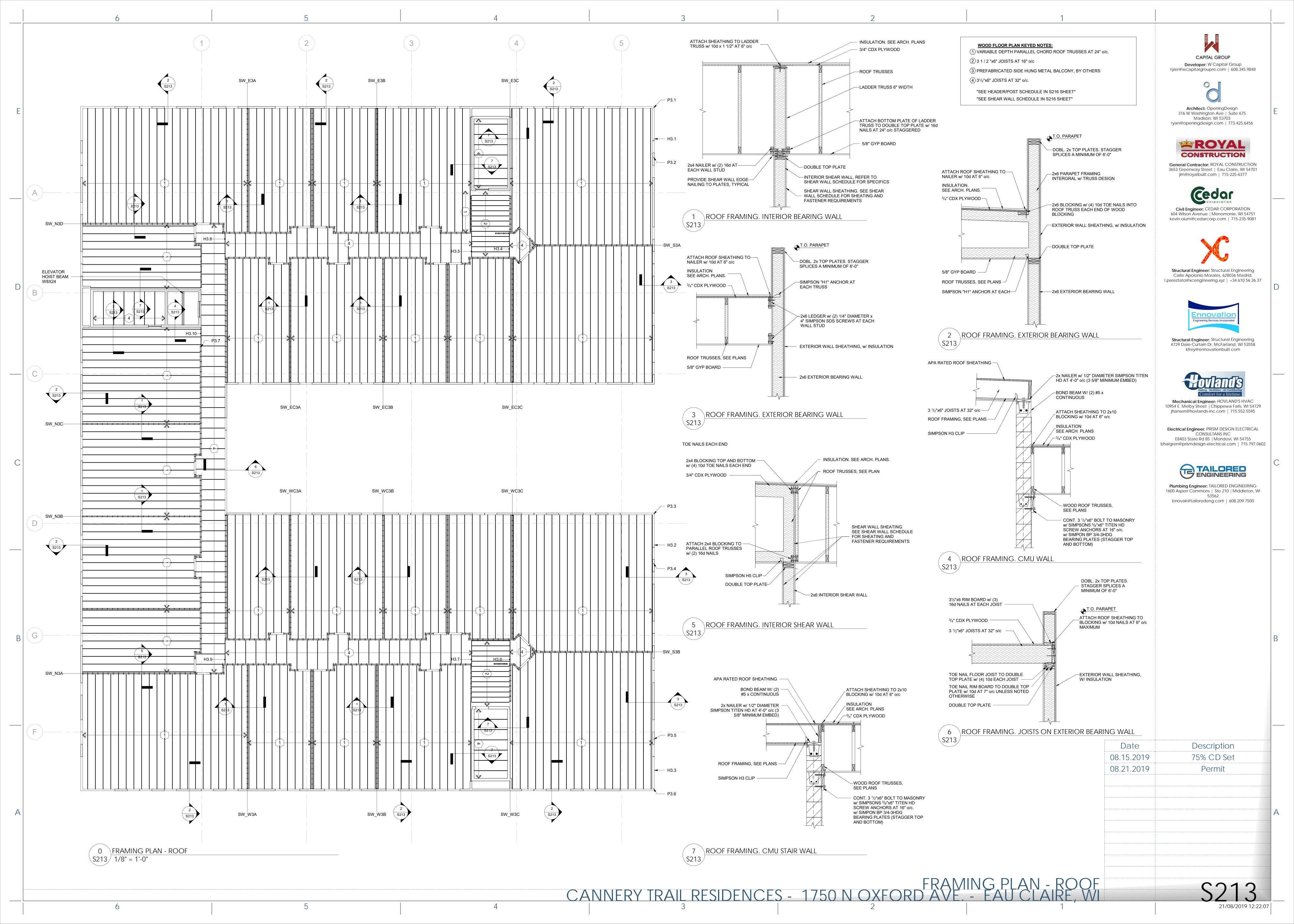


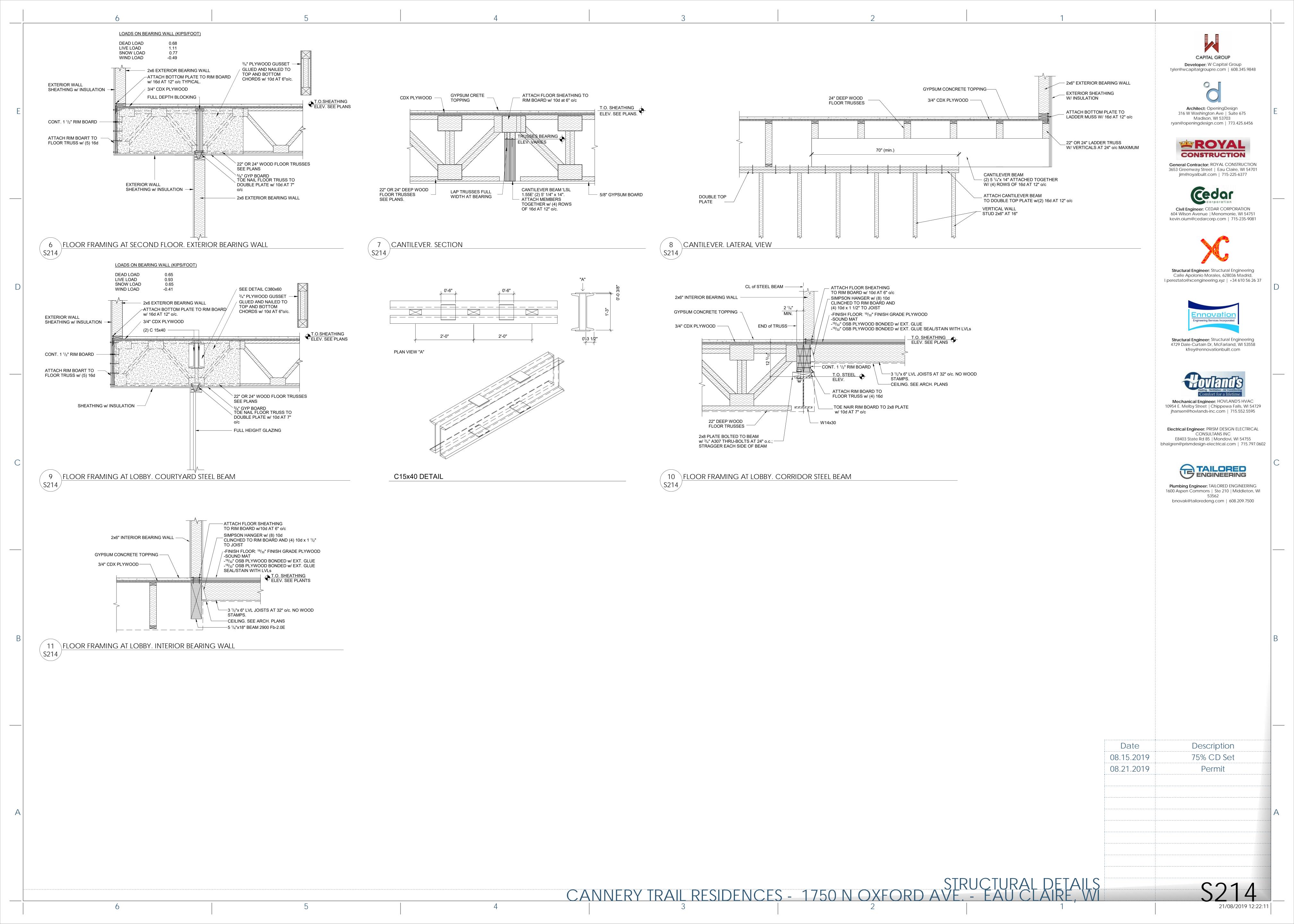


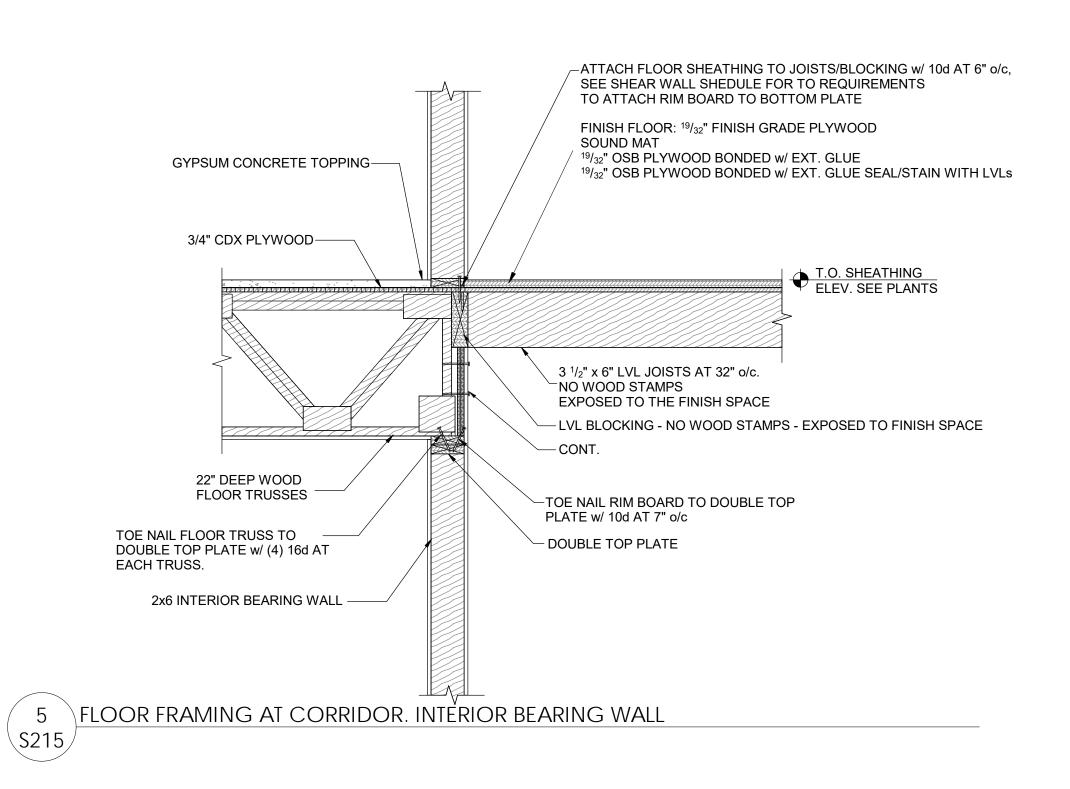












ATTACH FLOOR SHEATHING TO

RIM BOARD w/ 10d AT 6" o/c

\_\_ 3/4" CDX PLYWOOD

- GYPSUM CONCRETE TOPPING

-24" DEEP WOOD FLOOR TRUSSES

— 5/8" GYPSUM BOARD

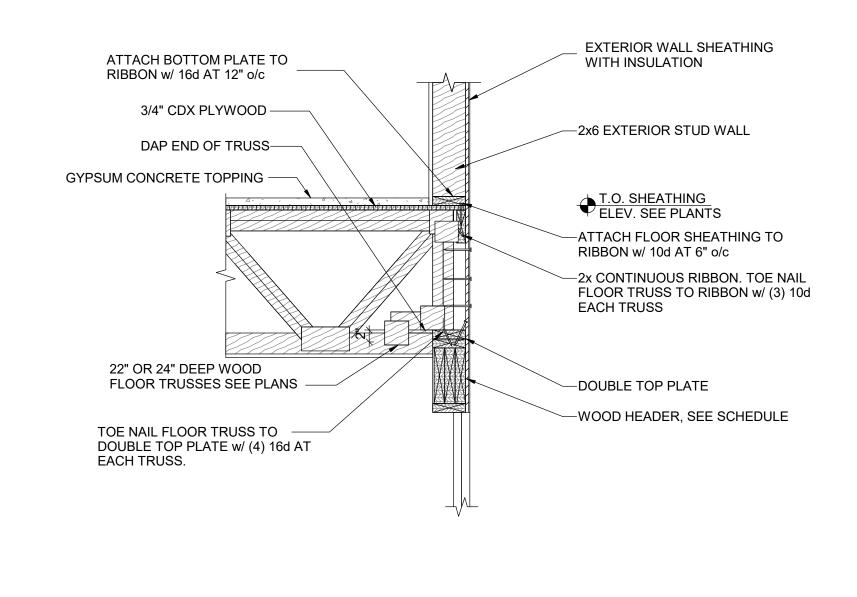
- DOUBLE TOP PLATE

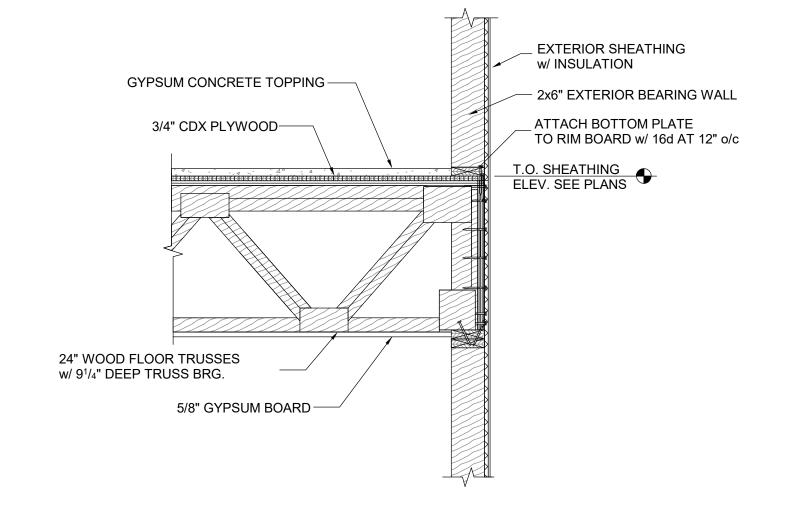
\_ 2x4 LEDGER w/ (2) 16d AT

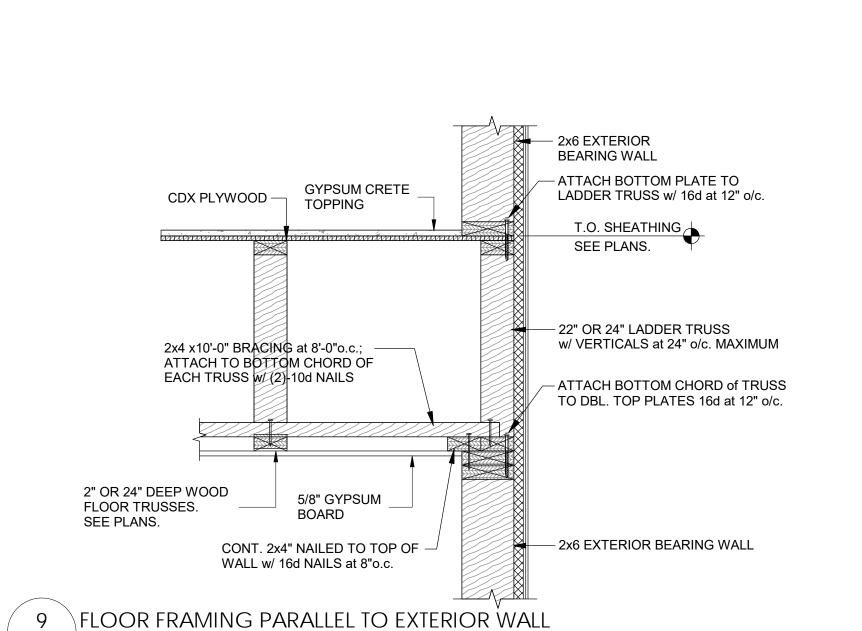
EACH WALL STUD

T.O. SHEATHING ELEV. SEE PLANTS

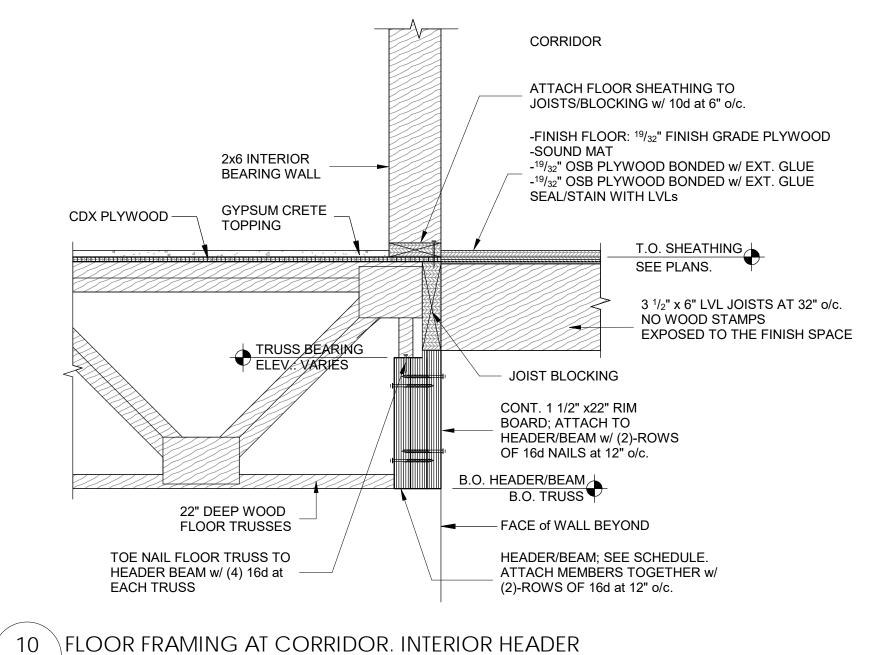
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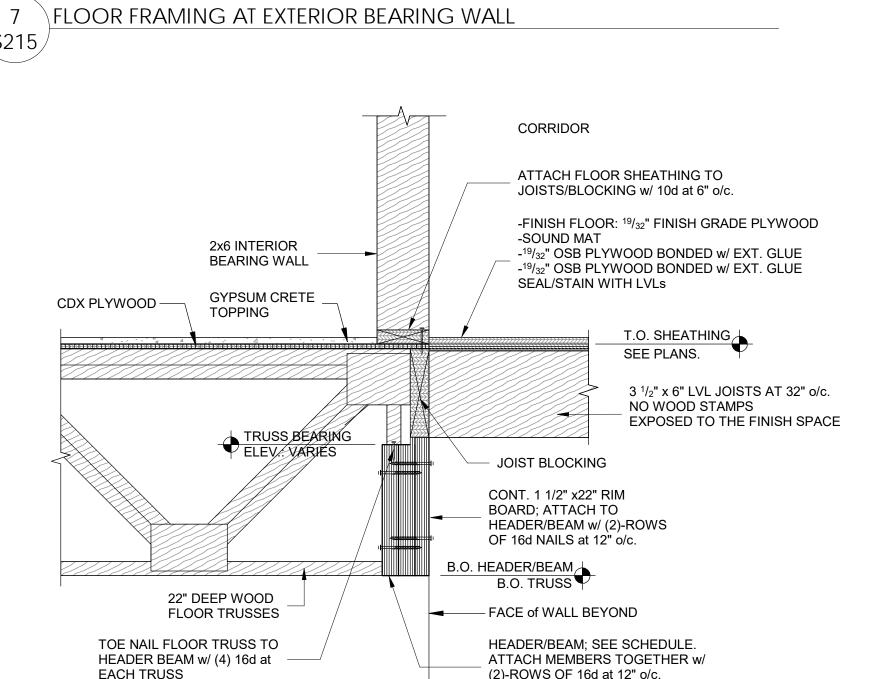




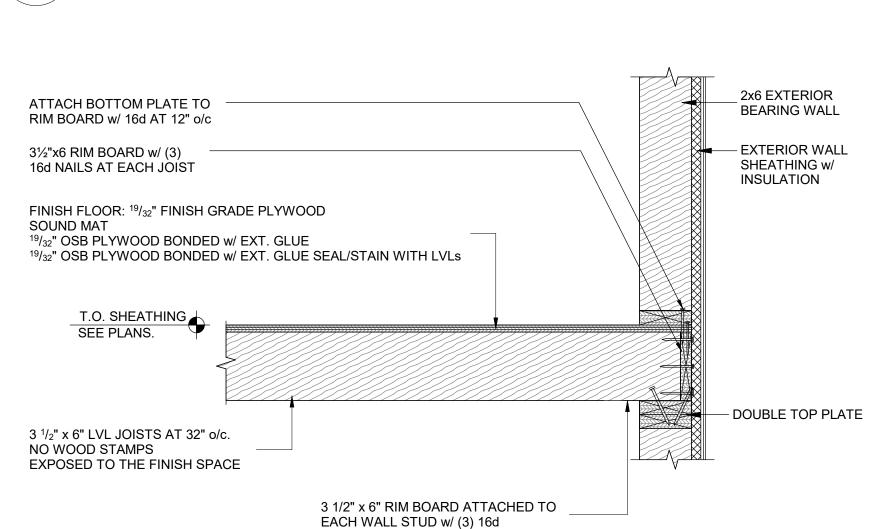


FLOOR FRAMING AT EXTERIOR WALL BEARING ON HEADER









FLOOR FRAMING AT CORRIDOR. PLATFORM FRAMING AT INTERIOR BEARING WALL

ATTACH BOTTOM PLATE TO

RIM BOARD w/ 16d AT 12" o/c

-FINISH FLOOR: 19/32" FINISH GRADE PLYWOOD

-19/32" OSB PLYWOOD BONDED w/ EXT. GLUE

-19/<sub>32</sub>" OSB PLYWOOD BONDED w/ EXT. GLUE

TOE NAIL RIM BOARD TO DOUBLE TOP

PLATE w/ 10d AT 7" o/c UNLESS NOTED

3 <sup>1</sup>/<sub>2</sub>" x 6" LVL JOISTS AT 32" o/c.

EXPOSED TO THE FINISH SPACE

TOE NAIL FLOOR JOIST TO DOUBLE

2x6 INTERIOR STUD WALL

TOP PLATE w/ (4) 10d EACH JOIST

NO WOOD STAMPS

31/2"x6 RIM BOARD w/ (3)

SEAL/STAIN WITH LVLs

-SOUND MAT

OTHERWISE

16d NAILS AT EACH JOIST





STRUCTURAL DETAILS CANNERY TRAIL RESIDENCES - 1750 N OXFORD AVE. - EAU CLAIRE, WI

S215

3653 Greenway Street | Eau Claire, WI 54701 jim@royalbuilt.com | 715-225-6377 Civil Engineer: CEDAR CORPORATION

kevin.oium@cedarcorp.com | 715-235-9081

Structural Engineer: Structural Engineering

604 Wilson Avenue | Menomonie, WI 54751

CAPITAL GROUP Developer: W Capital Group

tyler@wcapitalgroupre.com | 608.345.9848

Architect: OpeningDesign

316 W Washington Ave | Suite 675

Madison, WI 53703

ryan@openingdesign.com | 773.425.6456

General Contractor: ROYAL CONSTRUCTION





Structural Engineer: Structural Engineering

4729 Dale-Curtain Dr, McFarland, WI 53558

kfrey@ennovationbuilt.com

Electrical Engineer: PRISM DESIGN ELECTRICAL CONSULTANS INC E8403 State Rd 85 | Mondovi, WI 54755

Mechanical Engineer: HOVLAND'S HVAC

10954 E. Melby Street | Chippewa Falls, WI 54729

bhalgren@prismdesign-electrical.com | 715.797.0602

jhansen@hovlands-inc.com | 715.552.5595



					WOOD SHEAR WALL SCHEDULE							Bottom plate attachment		
Shear wall	Sheathing material	Panel thickness	Blocking	Minimum fastener penetration in framing member or blocking	Fastener type and size	Panel edge fastener spacing	Nominal unit shear capacity vw	Hold-down anchor capacity	Hold down studs	Hold down anchor type	Number of bolts (1 in diameter, 4 inch embedment depth)		Bottom plate attachment (floor to floor)	
ID SW_N3A	Wood structural	(in) 3/8	YES	(in)	8d	(in)	(plf)	(kip)	(1)	Simpson HDU4-SDS2.5	_	-	wood screws 20 (d= 0.32 in) at 25 in.	
	panels – sheathing  Wood structural												o/c; 30 fasteners in 2 rows.  16d (d= 0.268 in) nails at 24 in.	
SW_N3B 	panels – sheathing  Wood structural	3/8	NO	1-3/8	8d	6	560	-	-	-	-	-	o/c; 16 fasteners in 1 row.  16d (d= 0.268 in) nails at 21 in.	
SW_N3C	panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	-	-	o/c; 35 fasteners in 2 rows.	
SW_N3D	Wood structural panels – sheathing	3/8	YES	1-3/8	8d	4	840	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.	
SW_N2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	4	(2)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.	
SW_N2B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	-	-	-	-	-	16d (d= 0.268 in) nails at 13 in. o/c; 28 fasteners in 1 row.	
SW_N2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	1	(1)	Simpson HDU4-SDS2.5	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 59 fasteners in 2 rows.	
SW_N2D	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	4	(2)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.	
SW_N1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	(3)	Simpson HDU11-SDS2.5	10	36	SDWS log screw (d= 0.197 in) at 12 in o/c; 58 fasteners in 2 rows.	
SW_N1B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	-	-	-	11	36	16d (d= 0.268 in) nails at 19 in. o/c; 39 fasteners in 2 rows.	
SW_N1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	3	(1)	Simpson HDU4-SDS2.5	11	36	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.	
SW_N1D	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	(3)	Simpson HDU11-SDS2.5	10	36	SDWS log screw (d= 0.197 in) at 12 in o/c; 60 fasteners in 2 rows.	
SW_S3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_S3B	Wood structural	19/32	YES	1-1/2	10d	6	950	2	(1)	Simpson HDU4-SDS2.5	_	_	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_S2A	panels – sheathing  Wood structural	19/32	YES	1-1/2	10d	3	1860	6	(2)	Simpson	_	_	SDWS log screw (d= 0.197 in) at 13 in	
SW_S2B	panels – sheathing  Wood structural	19/32	YES	1-1/2	10d	3	1860	6		HDU11-SDS2.5 Simpson			o/c; 54 fasteners in 2 rows.  SDWS log screw (d= 0.197 in) at 13 in	
	panels – sheathing  Wood structural								(2)	HDU11-SDS2.5	-	-	o/c; 54 fasteners in 2 rows.  SDWS log screw (d= 0.197 in) at 8 in.	
SW_S1A	panels – sheathing  Wood structural	19/32	YES	1-1/2	10d	2	2435	11	(4)	Simpson HD19	10	36	o/c; 76 fasteners in 2 rows.	
SW_S1B	panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	(4)	Simpson HD19	10	36	SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.	
SW_E3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.	
SW_E3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	_	-	-	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.	
SW_E3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 15 in o/c; 32 fasteners in 2 rows.	
SW_E2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	(3)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 11 in o/c; 64 fasteners in 2 rows.	
SW_E2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	1	(1)	Simpson HDU4-SDS2.5	-	-	16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.	
SW_E2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	(4)	Simpson HD19	-	-	SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.	
SW_E1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	13	(4)	Simpson HD19	7	36	SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.	
SW_E1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	11	36	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_E1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	9	(3)	Simpson HD19	11	36	SDWS log screw (d= 0.197 in) at 10 in o/c; 72 fasteners in 2 rows.	
SW_W3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.	
SW_W3B	Wood structural	3/8	NO	1-3/8	8d	6	560	_	_	_	_	_	16d (d= 0.268 in) nails at 12 in.	
SW_W3C	panels – sheathing   Wood structural	19/32	YES	1-1/2	10d	4	1430	6	(2)	Simpson	_	_	o/c; 30 fasteners in 1 row.  SDWS log screw (d= 0.197 in) at 15 in.	
SW_W2A	panels – sheathing   Wood structural	19/32	YES	1-1/2	10d	3	1860	7	(3)	HDU11-SDS2.5 Simpson			o/c; 32 fasteners in 2 rows.  SDWS log screw (d= 0.197 in) at 11 in.	
	panels – sheathing  Wood structural	][								HDU11-SDS2.5		-	o/c; 64 fasteners in 2 rows.  16d (d= 0.268 in) nails at 14 in.	
SW_W2B	panels – sheathing	3/8	NO	1-3/8	8d	6	560	1	(1)	Simpson HDU4-SDS2.5	-	-	o/c; 51 fasteners in 2 rows.	
SW_W2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	(4)	Simpson HD19	-	-	SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.	
SW_W1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	13	(4)	Simpson HD19	9	30	SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.	
SW_W1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	11	36	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_W1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	9	(3)	Simpson HD19	11	36	SDWS log screw (d= 0.197 in) at 10 in o/c; 72 fasteners in 2 rows.	
SW_EC3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	0	-	-	-	-	16d (d= 0.268 in) nails at 18 in. o/c; 42 fasteners in 2 rows.	
SW_EC3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 60 in. o/c; 7 fasteners in 1 row.	
SW_EC3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.	
SW_EC2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_EC2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_EC2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 12 in o/c; 58 fasteners in 2 rows.	
SW_EC1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	(4)	Simpson HD19	6	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.	
SW_EC1B	Wood structural	3/8	NO	1-3/8	8d	6	560	_	_	_	11	36	16d (d= 0.268 in) nails at 22 in. o/c;	
SW_EC1C	panels – sheathing  Wood structural	19/32	YES	1-3/6	10d	2	2435	11	(4)	Simpson HD19	11	36	17 fasteners in 1 row.  SDWS log screw (d= 0.197 in) at 9 in.	
	panels – sheathing  Wood structural								(4)	Jimpson 115 13		30	o/c; 82 fasteners in 2 rows.  16d (d= 0.268 in) nails at 18 in.	
SW_WC3A	panels – sheathing  Wood structural	19/32	YES	1-1/2	10d	6	950	0	_	<u> </u>	-	-	o/c; 42 fasteners in 2 rows.	
SW_WC3B	panels – sheathing	3/8	NO	1-3/8	8d	0	560	-	-	-	-	-	o/c; 7 fasteners in 1 row.	
SW_WC3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.	
SW_WC2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_WC2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	_	-	-	_	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_WC2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	6	(2)	Simpson HDU11-SDS2.5	_	_	SDWS log screw (d= 0.197 in) at 12 in o/c; 58 fasteners in 2 rows.	
SW_WC1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	(4)	Simpson HD19	6	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.	
SW_WC1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	11	36	16d (d= 0.268 in) nails at 22 in. o/c; 17 fasteners in 1 row.	
													1	

4	
WOOD FLOOR PLAN NOTES:  1. TYPICAL FLOOR CONSTRUCTION: 1" GYPSUM CONCRETE TOPPING (120 MAXIMUM DENSITY) ON 3/4" TONGUE & GROOVE APA RATED WOOD FLO 2. SHEATHING (PLYWOOD OR OSB). GLUE & SCREW FLOOR SHEATHING TO FLOOR STRUCTURE. SHEATHING TO BE ATTACHED TO FLOOR MEMBER SIMPSON STRONG-TIE STRONG-DRIVE WSNTL FASTENERS ON A 6"/6" o/ (EDGE/FIELD).	OOR O WOOD IS w/
3. TYPICAL STAIR LANDING CONSTRUCTION: 3/4" TONGUE & GROOVE APA WOOD FLOOR SHEATHING (PLYWOOD OR OSB). GLUE & SCREW FLOOR SHEATHING TO WOOD FLOOR STRUCTURE. SHEATHING TO BE ATTACH FLOOR MEMBERS w/ SIMPSON STRONG-TIE STRONG-DRIVE WSNTL FAS A 6"/6" o/c PATTERN (EDGE/FIELD).	t ED TO
4. REFER TO ARCHITECTURAL DRAWINGS FOR STAIR FRAMING AND CONF	-IGURATION.
5. "HPX" DENOTES A WOOD HEADER/POST CONSTRUCTION. REFER TO WOOD HEADER/POST SCHEDULE FOR HEADER & POST DESIGNATION.	OOD
6. "WPX" DENOTES A WOOD POST. REFER TO WOOD HEADER/POST SCHE WOOD POST DESIGNATION ONLY.	DULE FOR
7. ALL EXTERIOR WOOD STUD WALLS SHALL HAVE (1) LAYER OF 1/2" APA SHEATHING (PLYWOOD OR OSB) ON THE EXTERIOR WALL FACE. REFER STANDARD DETAILS FOR TYPICAL BEARING WALL CONSTRUCTION AND ATTACHMENT. IF WALL IS NOT SPECIFICALLY DESIGNATED AS A SHEAR ATTACH SHEATHING TO WALL STUDS w/ 10d COMMON NAILS ON 6"/12" F (EDGES/FIELD). NAILS TO HAVE A MINIMUM PENETRATION INTO FRAMIN OF 1-1/2".	R TO SHEATHING WALL, PATTERN
8. REFER TO TYPICAL WOOD WALL DETAILS FOR FRAMING AROUND AN OI THROUGH A WOOD STUD BEARING WALL.	PENING
9. REFER TO EXTERIOR MISCELLANEOUS VENEER LINTEL SCHEDULE FOR OPENINGS IN EXTERIOR VENEER.	ALL
10. ALL WOOD POSTS SHALL LINE UP FLOOR TO FLOOR DOWN TO THE TOI CONCRETE FOUNDATION WALL OR TOP OF PRECAST PLANK LEVEL. PR SOLID BLOCKING OF SAME SIZE AS POST IN TRUSS SPACES.	
11. AT INTERIOR BEARING WALLS WHERE FLOOR TRUSSES BEAR ON WALL EITHER SIDE, LAP TRUSSES AND BEAR EACH TRUSS FULL WIDTH OF W. TYPICAL.	-
12. PROVIDE 2x6 STRONGBACK BRIDGING FULL LENGTH OF BUILDING. NAIL VERTICAL TRUSS WEB w/ (3) 16d NAILS. PROVIDE BRIDGING EQUALLY SALONG TRUSS SPAN AS REQUIRED BY DESIGN.	
13. AT EXTERIOR DECKS, PROVIDE COMPOSITE OR PRESSURE TREATED 5, DECKING.	/4" WOOD
14. ALL WOOD HEADERS SHOWN IN STUD WALLS ARE DROPPED HEADERS BE PLACED AT WALL OPENING HT UNLESS NOTED OTHERWISE. REFER DRAWINGS FOR OPENING HEIGHTS. ALL OTHER HEADERS SHALL BE FL	TO ARCH

WOOD SHEARWALL SHEARWALL LOCATION
GRAPHICAL WOOD HEADER  FLOOR WOOD FRAMING
WOOD HEADER DESIGNATION  WOOD HEADER DESIGNATION
WOOD POST GT GRAPHICAL BEARING POST
WOOD GIRDER INTERIOR TRUSS BEARING/SHEARWALL
WOOD FLOOR FRAMING LEGEND

**WOOD FRAMING** 

DRAWINGS FOR OPENING HEIGHTS. ALL OTHER HEADERS SHALL BE FLUSH w/

THROUGH BOND BEAMS AND EXTEND FULL HEIGHT OF THE WALL. GROUT CORES SOLID AT ALL VERTICAL REINFORCING.

15.ALL VERTICAL MASONRY WALL REINFORCEMENT SHALL RUN CONTINUOUS

16." MW-X I INDICATES MASONRY WALL REINFORCEMENT TYPE. REFER TO SCHEDULE FOR SIZE & SPACING.

18.(XXX'-XX") INDICATES THE TOP OF STEEL BEAM ELEVATION.

17. GROUT MASONRY CORES SOLID AT ALL MECHANICAL ANCHOR LOCATIONS,

BOTTOM OF FLOOR FRAMING, TYPICAL.

LAMINATED STRAND LUMBER (LSL	-)					
$E = 1.55 \times 10^6 \text{ psi}$						
F <sub>b</sub> = 2360 psi						
F <sub>v</sub> = 410 psi						
F <sub>ct</sub> = 875 psi	(perpendicular to grain)					
LAMINATED VENEER LUMBER (LVL	_)					
$E = 2.0 \times 10^6 \text{ psi}$						
F <sub>b</sub> = 2900 psi						
F <sub>v</sub> = 285 psi						
F <sub>ct</sub> = 750 psi	(perpendicular to grain)					
DIMENSIONAL LUMBER						
WALL STUDS: Hem-Fir S	stud or better					
WALL PLATES: Hem-Fir	No 1 or better					
POSTS/COLUMNS: SPRI	UCE-PINE-FIR No. 2 or better					
FLOOR SHEATHING						
WOOD STRUCTURAL PA	ANEL					
F <sub>b</sub> S= 444 lb-in/ft of width	F <sub>b</sub> S= 444 lb-in/ft of width					
$F_s = 215 \text{ lb/ft of width}$						

		WOOD FRA		EADER/POST SCHEDULE	
MARK	MATERIAL	WIDTH	DEPTH	BEARING	REMARKS
		(in)	(in)		
				Headers	
H3.1, H3.2, H3.3	LVL	1.75	14	P3.1 to P3.6	Third floor enclosed balconies. South facade.
H3.4 to H3.9	LVL	3.50	7.25	2x6 stud	Bearing stud width will match wall studs width. Joists attached wi heavy concealed joist ties
H3.10	LVL	3.50	14	P3.7/CMU wall	Notched in CMU wall
H2.1 to H2.6	LVL	3.50	7.25	2x6 stud	Bearing stud width will match wall studs width. Joists attached wi heavy concealed joist ties
H2.7	LVL	3.50	14	P2.1/CMU wall	Notched in CMU wall
H2.8 to H2.10	LVL	3.50	18	Adjacent trusses	
H1.1	ASTM A992 steel	(2) C15x50	15	P1.4, P1.5	
H1.2 to H1.6	LVL	3.5000	7.25	2x6 stud	Bearing stud width will match wall studs width. Joists attached wi heavy concealed joist ties
H1.7	ASTM A992 steel	(2) C15x50	15	P1.1, P1.2, P1.3	
H1.8	ASTM A992 steel	W14x30	14	P1.3, CMU wall	
H1.9	LVL	5.25	18	H17, bearing wall	
Facade headers (span < 3.5 feet)	LSL	3.50	7.25	"1 Jack stud(s) and 2 King studs on each side of the opening."	Applicable on any floor
First floor facade headers (3.5 < span < 7 feet)	LSL	3.50	14	"2 Jack stud(s) and 4 King studs on each side of the opening."	
Second floor facade headers (3.5 < span < 7 feet)	LSL	3.50	11.875	"2 Jack stud(s) and 4 King studs on each side of the opening."	
Third floor facade headers (3.5 < span < 7 feet)	LSL	1.75	11.875	"2 Jack stud(s) and 2 King studs on each side of the opening."	
First floor facade headers (3.5 < span < 10 feet)	LSL	5.25	16	"2 Jack stud(s) and 6 King studs on each side of the opening."	
Second floor facade headers (3.5 < span < 10 feet)	LSL	3.50	18	"2 Jack stud(s) and 6 King studs on each side of the opening."	
Third floor facade headers (3.5 < span < 10 feet)	LSL	1.75	18	"2 Jack stud(s) and 3 King studs on each side of the opening."	
Door headers (span < 4.0 feet)	LSL	5.25	14	"1 Jack stud(s) and 3 King studs on each side of the opening."	Applicable on any floor
			С	antilevers	
C2,C5	LVL	2x5.25	14	SW_S1A and SW_S1B shear walls	
C1, C3, C4, C6	LVL	5.25	14	facade bearing walls	
C7, C8	LVL	5.25	14	facade bearing walls	
C9	LVL	5.25	18	SW_N2D shear wall	At shear wall bottom
C10	LVL	3.50	18	CMU wall	Bolted to masonry
C11	LVL	5.25	14	SW_N1A shear wall	
				Posts	
P3.1 to p3.6	saw lumber	6	6		Third floor enclosed balconies. South facade.
P3.7	saw lumber	4	6		
P2.1	saw lumber	4	6		
P1.1, P1.2, P1.3	A500 Rect. HSS Grade B	HSS8x8x3/16			
P1.4	A500 Rect. HSS Grade B	HSS8x8x3/16			
P1.5	A500 Rect. HSS Grade B	HSS8x8x3/16			

BEARING WALL SCHEDULE											
		Stud dimensions	Spacing (in)	Top plates	Bottom plate	Truss spacing	Remarks				
		(in)	(in)			(in)					
	1st floor	2x6	9.6	(2) 2x6"	2x6"	12/24					
Facade	2nd floor	2x6	9.6	(2) 2x6"	2x6"	12/24					
	3rd floor	2x6	19.2	(3) 2x6"	2x6"	24					
·											
	1st floor	2x6	9.6	(2) 2x6"	2x6"	12/24	Rest of the bearing walls				
Interior	IST HOOL	2x6	6.4	(2) 2x6"	2x6"	12/24	SW-S1A and SW-S1B				
Interior —	2nd floor	2x6	9.6	(2) 2x6"	2x6"	12/24					
	3rd floor	2x6	19.2	(3) 2x6"	2x6"	24					













Structural Engineer: Structural Engineering 4729 Dale-Curtain Dr, McFarland, WI 53558





Electrical Engineer: PRISM DESIGN ELECTRICAL CONSULTANS INC E8403 State Rd 85 | Mondovi, WI 54755 bhalgren@prismdesign-electrical.com | 715.797.0602



**Plumbing Engineer:** TAILORED ENGINEERING 1600 Aspen Commons | Ste 210 | Middleton, WI bnovak@tailoredeng.com | 608.209.7500

Date	Description
08.15.2019	75% CD Set
08.21.2019	Permit

STRUCTURAL NOTES CANNERY TRAIL RESIDENCES - 1750 N OXFORD AVE. - EAU CLAIRE, WI

ryan@openingdesign.com | 773.425.6456

General Contractor: ROYAL CONSTRUCTION 3653 Greenway Street | Eau Claire, WI 54701 jim@royalbuilt.com | 715-225-6377







