DESIGN PARAMETERS

1. DESIGN CODES AND STANDARDS

   A. BUILDING CODE: IBC 2018
   RISK CATEGORY — II

   B. MATERIAL CODES AND STANDARDS
   DESIGN LOADS:
   ASCE/SEI 7-16 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
   CONCRETE:
   ACI 318-14 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   STEEL:
   AISC 360-16 - SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
   WOOD:
   ANSI/AWC NDS-2018 - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION

2. GRAVITY LOADS
   A. ROOF DEAD LOADS

ROOFING AND INSULATION	1.8 PSF
PLYWOOD DECK	3.2 PSF
MECH., ELEC. AND PLUMBING [AND SPRINKLERS]	6.0 PSF
CEILINGS	1.0 PSF
MISCELLANEOUS	2.0 PSF
TOTAL SUPERIMPOSED ROOF DEAD LOAD	14 PSF
ROOF STRUCTURE	ACTUAL WEIGHT
MINIMUM ROOF DEAD LOAD (TO BE USED WITH GROSS UPLIFT)	20 PSF

   C. LIVE LOADS (UNIFORM/CONCENTRATED)
   ROOF — 20 PSF / 300 LB

3. ROOF SNOW LOAD

A. GROUND SNOW LOAD, Pg	20 PSF
B. FLAT ROOF SNOW LOAD, Pf	14 PSF
C. SNOW EXPOSURE FACTOR, Ce	1.0
D. SNOW LOAD IMPORTANCE FACTOR, I	1.0
E. THERMAL FACTOR, Ct	1.0

4. WIND DESIGN DATA

A. ULTIMATE DESIGN WIND SPEED (3 SECOND GUST), Vult	109 MPH
B. WIND EXPOSURE CATEGORY	C
C. INTERNAL PRESSURE COEFFICIENT, GCpi	+/- 0.18
D. DESIGN WIND PRESSURE ON COMPONENTS AND CLADDING	

ROOF PRESSURES (1.0W)		
	EFFECTIVE WIND AREA	
	≤10 SQ. FT.	≥500 SQ. FT.
ZONE 1'	-41.3 PSF	-32.3 PSF
ZONE 1	-23.7 PSF	-23.7 PSF
ZONE 2	-54.5 PSF	-42.9 PSF
ZONE 3	-74.3 PSF	-51.0 PSF
ZONE 1, 2 & 3	16.0 PSF	16.0 PSF

WALL PRESSURES (1.0W)		
	EFFECTIVE WIND AREA	
	≤10 SQ. FT.	≥500 SQ. FT.
ZONE 4	-25.7 PSF	-19.8 PSF
ZONE 5	-31.6 PSF	-19.8 PSF
ZONE 4 & 5	23.7 PSF	17.8 PSF

NOTES:
1. RE: ASCE 7-16 FIGURES 30.3-1 AND 30.3-2A
2. REFER TO CODE FOR EFFECTIVE TRIBUTARY AREAS NOT LISTED
3. POSITIVE VALUES SIGNIFY PRESSURES ACTING TOWARD THE NOTED SURFACE AND NEGATIVE VALUES SIGNIFY PRESSURES ACTING AWAY FOR THE NOTED SURFACE

   E. WIDTH OF END ZONE — 3.0 FT

5. EARTHQUAKE DESIGN DATA

A. SEISMIC IMPORTANCE FACTOR, Ie	1.0
B. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER, Ss	10.6%
C. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER, S1	6.3%
D. SITE CLASS	D
E. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER, Sds	11.3%
F. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER, Sd1	10.1%
G. SEISMIC DESIGN CATEGORY	B
H. STRUCTURAL SYSTEM	
1.) VERTICAL ELEMENT TYPE	BUILDING FRAME SYSTEM
2.) BASIC SEISMIC FORCE-RESISTING SYSTEM TYPE	LIGHT FRAME (WOOD WALLS) WITH SHEAR PANELS - WOOD
3.) RESPONSE MODIFICATION FACTOR, R	6.5
4.) SEISMIC RESPONSE COEFFICIENT, Cs	0.016
5.) DESIGN BASE SHEAR, 1.0E	3.2k
J. ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

GENERAL NOTES

GENERAL

1. STRUCTURAL ELEMENTS ARE NON-SELF SUPPORTING AND REQUIRE INTERACTION WITH OTHER ELEMENTS FOR STABILITY AND RESISTANCE TO LATERAL FORCES. FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL PERMANENT BRACING, FLOOR AND ROOF DECKS, AND WALLS HAVE BEEN INSTALLED AND CONNECTIONS BETWEEN THESE ELEMENTS HAVE BEEN MADE.
2. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. UNLESS NOTED OTHERWISE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATION OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.
3. THE STRUCTURE HAS BEEN DESIGNED FOR THE INDICATED LOADS ONLY. USE OF HEAVY EQUIPMENT AND SCAFFOLDING, OR STORAGE OF MATERIALS THAT TRANSFER EXCESSIVE LOADS TO THE STRUCTURE SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE CALCULATIONS SIGN AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO VERIFY THE ADEQUACY OF THE STRUCTURE FOR ALL APPLIED CONSTRUCTION LOADS THAT EXCEED THE LOADS INDICATED IN THE CONSTRUCTION DOCUMENTS AND SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER-OF-RECORD PRIOR TO ANY CONSTRUCTION ACTIVITY.
4. THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUCTION WITH THE CONTRACT DRAWINGS. WHERE REQUIREMENTS INDICATED ON THE CONTRACT DRAWINGS DIFFER FROM THE SPECIFICATIONS, NOTIFY THE ARCHITECT AND THE ENGINEER-OF-RECORD.
5. STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO SHOP DRAWINGS AND WORK.
6. ALL WELDS SHALL BE PERFORMED BY QUALIFIED WELDERS IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (A.W.S) SPECIFICATIONS.
7. THE SIZE AND LOCATION OF EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE ARCHITECT AND THE ENGINEER-OF-RECORD. REFERENCE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR OPENING LOCATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
8. USE ONLY DIMENSIONS INDICATED IN THE CONTRACT DOCUMENTS. DO NOT SCALE CONTRACT DOCUMENTS OR USE ANY DIMENSIONS TAKEN FROM ELECTRONIC DRAWING FILES. CONTRACTOR SHALL COORDINATE IN-PLACE DIMENSIONS BASED ON TOLERANCES OF THE RESPECTIVE TRADES.

GENERAL NOTES

9. ASSUME EQUAL SPACING IF NOT INDICATED IN CONTRACT DOCUMENTS.
10. ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENTS AND SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST SEISMIC FORCES AS DETERMINED IN CHAPTER 13 OF ASCE 7.
11. REFERENCE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING PARTITION FRAMING. CONNECTION OF NON-LOAD BEARING PARTITION FRAMING TO THE PRIMARY STRUCTURE SHALL ALLOW FOR VERTICAL LIVE LOAD DEFLECTIONS OF THE FLOOR AND ROOF FRAMING.
12. CONTRACTOR SHALL COORDINATE ALL DIMENSIONS, OPENING, BLOCKOUTS, RECESSES, ELEVATIONS, ANCHOR RODS AND EMBED LOCATIONS PRIOR TO CONSTRUCTION.

FOUNDATIONS

1. FOUNDATION DESIGNS AND SUBGRADE PREPARATION NOTES ARE BASED ON THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT NUMBER 22-5193, BY: CFS ENGINEERING, LLC.DATED: 03/21/2022
2. FOOTING DESIGNS ARE BASED ON A NET [MAX] ALLOWABLE SOIL BEARING CAPACITY OF 2500 PSF.
3. CONTRACTOR AND TESTING LABORATORY REPRESENTATIVE SHALL READ THE GEOTECHNICAL REPORT AND BECOME THOROUGHLY FAMILIAR WITH SITE AND SUBGRADE INFORMATION GIVEN THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT QUANTITIES OF CUT AND FILL FOR ESTIMATING AND CONSTRUCTION. SUBGRADE SHALL BE PREPARED AS NOTED IN THE STRUCTURAL EARTH MOVING SPECIFICATION.
4. A QUALIFIED AND REGISTERED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND WORKING FOR THE TESTING LABORATORY, SHALL DETERMINE CONFORMANCE OF THE FOUNDATION BEARING STRATA WITH THE FOUNDATION DESIGN CRITERIA ABOVE, AND ALL OTHER CONTRACT DOCUMENTS. TESTING LABORATORY SHALL NOTIFY CONTRACTOR, ARCHITECT AND ENGINEER-OF-RECORD OF ANY CONDITIONS NOT IN ACCORDANCE WITH FOUNDATION DESIGN CRITERIA OR CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT QUANTITIES OF CUT AND FILL FOR ESTIMATING AND CONSTRUCTION.
6. AVOID DAMAGE TO UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER MAINS, SANITARY SEWERS AND BURIED CABLES WHICH MIGHT EXTEND ACROSS OR ADJOIN SITE.

CONCRETE

1. MINIMUM COMPRESSIVE STRENGTH (f'c) AT THE END OF 28 DAYS SHALL BE AS FOLLOWS:

A. FOOTINGS	4500 PSI
B. INTERIOR SLABS-ON-GRADE	3000 PSI

   MAXIMUM WATER/CEMENT RATIOS SHALL BE 0.45. CONCRETE SHALL BE NORMAL WEIGHT (145 PCF), UNLESS NOTED OTHERWISE.
2. EXTERIOR CONCRETE AND CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL BE AIR-ENTRAINED WITH 6% (±1.5%) ENTRAINED AIR BY VOLUME. DO NOT ALLOW AIR CONTENT OF TROWELED FINISHED FLOOR TO EXCEED 3%.
3. MATERIALS OR ADMIXTURES SHALL NOT CONTAIN ANY CALCIUM CHLORIDE.
4. REINFORCING STEEL SHALL MEET THE FOLLOWING:

	ASTM SPECIFICATION
A. DEFORMED BARS	A615, GRADE 60
B. WELDABLE DEFORMED BARS	A706, GRADE 60
C. WELDED WIRE REINFORCEMENT	A1064

5. PROVIDE MINIMUM CONCRETE CLEAR COVER FOR REINFORCEMENT PER ACI 318, UNLESS NOTED OTHERWISE.
6. WELDING SHALL MEET ANSI / AWS D1.1, STRUCTURAL WELDING CODE AND ANSI / AWS D1.4 "STRUCTURAL WELDING CODE FOR REINFORCING STEEL" LATEST REVISION. ELECTRODES FOR DEFORMED BAR ANCHORS SHALL BE 90 KSI, LOW HYDROGEN.
7. WHERE DOWELS ARE INDICATED BUT NOT SIZED, PROVIDE DOWELS THAT MATCH SIZE AND LOCATION OF MAIN REINFORCING STEEL AND LAP SPLICE WITH THE MAIN REINFORCING STEEL. REINFORCING STEEL SHALL BE SPLICED AS NOTED IN THE REINFORCING LAP SCHEDULE.
8. "C J " INDICATES SAW CUT CONTRACTION JOINT OR DOWELED CONSTRUCTION JOINT IN SLAB-ON-GRADE. REFERENCE CAST-IN-PLACE CONCRETE SPECIFICATION FOR ACCEPTED SAW CUT METHODS. SLAB POURS SHALL BE SEPARATED BY A DOWELED CONSTRUCTION JOINT. CONTRACTION/CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER-OF-RECORD.
9. PROVIDE CORNER BARS THAT MATCH AND LAP CONTINUOUS REINFORCEMENT SIZE AND QUANTITY AT INTERSECTIONS AND CORNERS OF WALLS AND FOUNDATIONS.
10. ANCHOR BOLTS AND EMBED PLATES SHALL BE TIED INTO THE REINFORCING STEEL CAGE AND HELD IN PLACE WITH A RIGID TEMPLATE TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRESS (Fy):

	YIELD	ASTM SPECIFICATION
A. BARS, PLATES, CHANNELS, ANGLES:	36 KSI	A36
B. SQUARE, RECTANGULAR HSS:	50 KSI	A500, GRADE C
C. ANCHOR RODS:	36 KSI, WELDABLE	F1554

2. BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4-INCH DIAMETER (MIN.) ASTM F3125, GRADE A325-N HIGH-STRENGTH BOLTS UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS.
3. ALL BOLTED JOINTS SHALL BE SNUG TIGHT UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS . FOR PRETENSIONED OR SLIP-CRITICAL JOINTS, THE METHOD OF INSTALLATION SHALL BE TURN-OF-NUT WITH MATCH MARKING, TWIST-OFF-TYPE TENSION CONTROL BOLT ASSEMBLIES (ASTM F3125, GRADE F1852), OR DIRECT TENSION INDICATORS (ASTM F959).
4. WELDING SHALL MEET ANSI / AWS D1.1, STRUCTURAL WELDING CODE LATEST REVISION. ELECTRODES SHALL BE 70 KSI, LOW HYDROGEN.
5. WELDS NOT SPECIFICALLY SIZED ON THE STRUCTURAL DRAWINGS SHALL BE THE MINIMUM SIZE PER THE LATEST AWS D1.1.
6. PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION. PROVIDE 1 1/2 INCH NON-SHRINK GROUT UNDER BASE PLATE AFTER ERECTION. USE 2 1/2 INCH NON-SHRINK GROUT WHEN COLUMN ANCHOR BOLTS ARE 1 1/4 INCH DIAMETER OR LARGER. NON-SHRINK GROUT SHALL BE NON-METALLIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
7. LEDGER ANGLES AND LINTELS IN EXTERIOR WALL SYSTEMS SHALL BE HOT DIP GALVANIZED PER ASTM A123.
8. ALL CONNECTIONS NOT FULLY DETAILED IN THE CONTRACT DOCUMENTS SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CONNECTION DESIGN ENGINEER SHALL BE EMPLOYED OR RETAINED BY THE STEEL FABRICATOR. THE DESIGN AND DETAILING SHALL COMPLY WITH ALL APPLICABLE CODES AND SPECIFICATION SECTIONS.
9. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL SHOWN IN THE CONTRACT DOCUMENTS. THESE COSTS SHALL INCLUDE, BUT ARE NOT LIMITED TO, MISCELLANEOUS STEEL ITEMS SHOWN ON THE STRUCTURAL, ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND IN THE SPECIFICATIONS.
10. AT ALL GALVANIZED OR PAINTED STEEL MEMBERS WITH FIELD WELDED CONNECTIONS, REMOVE GALVANIZING, PAINT OR PRIMER PRIOR TO FIELD WELDING AS REQUIRED. AFTER WELDING IS COMPLETE AND INSPECTOR APPROVED, PREPARE AND REPAINT THE FRAMING SURFACES.

WOOD FRAMING

1. WOOD FRAMING SHALL MEET THE NDS MINIMUM STRESS PROPERTIES UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS
   A. DOUGLAS FIR SOUTH #2 OR BETTER, PER THE NDS
   B. GLULAM BEAMS: 24F-V4 DF/DF, PER THE NDS
   . 1. E = 1,800,000 PSI
   C. LAMINATED VENEER LUMBER (LVL):
   . 1. Fb = 2,600 PSI
   . 2. Ft = 1,555 PSI
   . 3. Fc = 2,510 PSI (PARALLEL TO GRAIN)
   . 4. Fc = 750 PSI (PERPENDICULAR TO GRAIN)
   . 5. Fv = 285 PSI (PARALLEL TO GRAIN)
   . 6. E = 2,000,000 PSI
2. PROVIDE SIMPSON STRONG-TIE CONNECTORS OR EQUIVALENT FOR WOOD FRAMING CONNECTING TO SUPPORTING MEMBERS. INSTALL WITH MANUFACTURER'S SPECIFIED FASTENERS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. SUBSTITUTION REQUESTS FOR CONNECTORS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS AS REQUIRED BY THE BUILDING CODE.

GENERAL NOTES

3. ALL ROOF, FLOOR AND EXTERIOR WALL SHEATHING SHALL BE APA RATED EXPOSURE 1 SHEATHING [U.N.O.] AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY.
4. INSTALL ROOF AND FLOOR SHEATHING WITH THE LONG DIMENSION OF THE PANEL PERPENDICULAR TO SUPPORTS UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS, AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER END JOINTS, UNLESS NOTED OTHERWISE. SPACE PANELS 1/8" APART AT EDGES AND ENDS.
5. ALL ROOF SHEATHING SHALL HAVE A MINIMUM THICKNESS OF 15/32 INCH WITH A SPAN RATING OF AT LEAST 32/16 AND BE FASTENED TO ROOF FRAMING NAILED WITH 8d GALVANIZED COMMON NAILS AT 6" O.C. AT PANEL EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. 8d COMMON NAILS SHALL HAVE A MINIMUM 0.131 INCH DIAMETER AND 1 3/8 INCH MINIMUM PENETRATION INTO SUPPORTING FRAMING.
6. ALL EXTERIOR WALL SHEATHING SHALL HAVE A MINIMUM THICKNESS OF 5/16 INCH AND BE FASTENED TO WALL STUDS WITH 6d GALVANIZED COMMON NAILS AT 6 INCHES ON CENTER AT EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. [PROVIDE BLOCKING AT UNSUPPORTED PANEL EDGES]. 6d COMMON NAILS SHALL HAVE A MINIMUM 0.113 INCH DIAMETER AND 1 1/4 INCH MINIMUM PENETRATION INTO SUPPORTING FRAMING.
7. INSTALL ALL JOISTS, RAFTERS, HEADERS AND BEAMS CROWN UP.
8. REFERENCE DETAILS FOR CUTTING, BORING OR NOTCHING OF FRAMING MEMBERS, WALL STUDS AND TOP PLATES.
9. FASTEN PLIES OF ENGINEERED WOOD PRODUCTS TOGETHER PER THE MANUFACTURER'S RECOMMENDATIONS OR AS DETAILED IN THE CONSTRUCTION DOCUMENTS. REFERENCE BUILT-UP COLUMN AND BEAM DETAILS FOR NAILED BUILT-UP COLUMN AND BEAM REQUIREMENTS. SPLICES IN MULTIPLE BUILT-UP MEMBERS ARE NOT PERMITTED, U.N.O.
10. PROVIDE SLIP CONNECTION AT TOP OF ALL NON-LOAD BEARING WALLS TO ALLOW FOR 1 1/2" DEFLECTION OF FRAMING ABOVE.
11. ALL WOOD IN CONTACT WITH CONCRETE AND EXTERIOR MASONRY SHALL BE PRESERVATIVE TREATED.
12. ALL STEEL CONNECTORS AND FASTENERS USED WITH PRESERVATIVE TREATED WOOD SHALL BE GALVANIZED (G90).
13. NAILING SHALL COMPLY WITH REQUIREMENTS OF NAILING SCHEDULE UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS.
14. ALL NAILS SHOWN ON PLAN ARE 'COMMON', UNLESS NOTED OTHERWISE. REFERENCE NAIL SIZE SCHEDULE FOR REQUIRED COMMON NAIL SIZES.

SHOP-FABRICATED WOOD TRUSSES

1. ALL TRUSSES SHALL BE PRE-ENGINEERED AND SHOP FABRICATED. TRUSSES AND CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST REVISION OF THE AF&PA N.D.S. TRUSSES SHALL CONFORM TO THE SPACING, DIMENSIONS AND CONFIGURATIONS SPECIFIED IN THESE NOTES AND ON THE PLANS AND SHALL BE DESIGNED FOR ALL SPECIFIED LOADS. FRAMING PLANS INDICATE THE REQUIRED BASIC TRUSS LAYOUT. SIGNIFICANT DEVIATIONS FROM THESE PLANS WILL NOT BE PERMITTED.

2 TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCULATIONS AND SHOP DRAWINGS, INCLUDING AN ERECTION DRAWING SHOWING TRUSS LAYOUT PREPARED AS NOTED IN THE DEFERERED SUBMITTAL NOTE.

3. ROOF TRUSS DESIGN LOADS (ASD):
   A. TOP CHORD
   . 1. ROOF LIVE LOAD = 20 PSF
   . 2. DEAD LOAD = 9 PSF
   . 3. SNOW LOAD = JOIST LOADING DIAGRAMS.
   B. BOTTOM CHORD
   . 1. DEAD LOAD = 8 PSF
   . 2. LIVE LOAD = AS REQUIRED PER GOVERNING BUILDING CODE
   C. SELF WEIGHT OF THE TRUSSES SHALL BE ADDED TO THE ABOVE LOADS.
   D. WIND LOADS = RE: DESIGN PARAMETERS
   E. ROOF TRUSS SHALL BE DESIGNED TO LIMIT THE MAXIMUM LIVE LOAD DEFLECTION TO SPAN/240 AND MAXIMUM TOTAL LOAD DEFLECTION TO SPAN/180
   F. REFERENCE PLANS AND DETAILS FOR ADDITIONAL DESIGN LOADS OR SHEAR TRUSS/BLOCKING REQUIREMENTS
4. TRUSS TOP CHORD SHALL BE DOUGLAS FIR SOUTH OR SOUTHERN PINE.
5. TRUSSES SHALL BE FABRICATED WITH MINIMUM 20 GAUGE TRUSS PLATES HAVING A MINIMUM WOOD PENETRATION OF 0.37 INCH.
6. TRUSSES AND CONNECTOR PLATES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/TPI 1: NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION.
7. TRUSS BEARING POINTS SHALL BE PINNED FOR THE DESIGN OF THE TRUSSES.
8. CEILINGS WILL NOT BRACE BOTTOM CHORDS. TRUSS MANUFACTURER SHALL DESIGN PERMANENT BOTTOM CHORD BRIDGING TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
9. TRUSS DESIGNER SHALL DESIGN AND SPECIFY THE TRUSS TO TRUSS AND THE TRUSS TO SUPPORT CONNECTIONS, U.N.O. ON THE DETAILS.
10. PROPER ERECTION BRACING SHALL BE INSTALLED TO HOLD THE TRUSSES TRUE AND PLUMB AND IN SAFE CONDITION UNTIL PERMANENT TRUSS BRACING AND BRIDGING HAVE BEEN INSTALLED TO FORM A STRUCTURALLY SOUND FRAMING SYSTEM. ALL ERECTION AND PERMANENT BRACING SHALL BE INSTALLED AND ALL COMPONENTS PERMANENTLY FASTENED BEFORE THE APPLICATION OF ANY LOADS TO THE TRUSSES. ALL BRACING SHALL BE DESIGNED BY MANUFACTURER AND INDICATED ON SHOP DRAWINGS. ALL PREFABRICATED WOOD TRUSSES ARE TO BE INSTALLED IN ACCORDANCE WITH THE BUILDING COMPONENT SAFETY INFORMATION (BCSI), "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES".
11. TRUSS MANUFACTURER SHALL ARRANGE TRUSS WEB MEMBERS AS REQUIRED BY DESIGN. REFERENCE ARCH. AND MECH. DRAWINGS FOR DUCT LAYOUT. PROVIDE CHASES IN TRUSSES TO ACCOMODATE DUCTS AS REQUIRED.
12. DO NOT CUT, NOTCH OR OTHERWISE ALTER THE TRUSSES WITHOUT WRITTEN PERMISSION FROM THE FABRICATOR AND THE STRUCTURAL ENGINEER OR RECORD.

POST INSTALLED ANCHORS

1. ANCHORS SHALL ONLY BE INSTALLED WHERE SPECIFIED ON THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO INSTALLING POST INSTALLED ANCHORS IN PLACE OF MISSING OR MIS-PLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REINFORCING. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE EOR PRIOR TO COMPLETION OF WORK.
2. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA WITH DESIGN VALUES AND PHYSICAL PROPERTIES FOR ALL POST INSTALLED ANCHORS. ADDITIONALLY, THE CONTRACTOR SHALL SUBMIT CERTIFIED ICC ES OR ESR REPORTS WHICH VERIFY COMPLIANCE WITH THE SPECIFIED CRITERIA.
3. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED ON THE CONTRACT DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS AS REQUIRED BY THE BUILDING CODE.
4. ALL HOLES SHALL BE DRILLED, DRY AND CLEANED AND ANCHORS SHALL BE INSTALLED IN ACCORDANCE PER ANCHOR MANUFACTURER'S WRITTEN SPECIFICATIONS. THE LATEST VERSION OF THE WRITTEN SPECIFICATION SHALL BE ON-SITE AND FOLLOWED DURING THE INSTALLATION OF THE ANCHORS.
5. THE ANCHOR EMBEDMENT DEPTH SHALL BE DEFINED AS THE DEPTH FROM THE SURFACE FACE OF THE LOAD BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN FULLY INSTALLED INTO THE HOLE PER MANUFACTURER'S SPECIFICATIONS.
6. ANCHORS EXPOSED TO WEATHER SHALL BE STAINLESS STEEL.
7. CONTRACTOR SHALL FOLLOW THE LATEST VERSION OF MANUFACTURER'S SPECIFICATION DURING INSTALLATION OF ANCHORS.
8. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED BY PERSONNEL CERTIFIED BY THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.

DEFERRED STRUCTURAL SUBMITTALS (IBC 2018 SECTION 107.3.4.1)

1. THE FOLLOWING STRUCTURAL COMPONENTS SHALL BE DESIGNED AND SUBMITTED BY OTHERS FOR APPROVAL IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
   A. STRUCTURAL STEEL CONNECTIONS OF FRAMING AND BRACING ELEMENTS.
   B. STEEL, SELF-SUPPORTING STAIRS.
2. DOCUMENTS FOR DEFERRED STRUCTURAL SUBMITTAL ITEMS SHALL BE DESIGNED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER-OF-RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL AS REQUESTED WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED FOR DESIGN LOADS AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN CRITERIA OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

wallace

Wallace Engineering
Structural Consultants, Inc.

Structural and Civil Consultants
123 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5858, 800.364.5858

CLARKITECTURE
BUILDINGS THAT MEAN BUSINESS.
CLARKITECTURE.NET
(310) 302-4472

PROJECT INFO

CLIENT:

COVENANT GROUP, LLC

PROJECT:

BUILDING SHELL - LEE'S SUMMIT, MO - CHIPMAN RD

ADDRESS:

400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

PROJECT NO: 267

MAIN CONTACT

CHRISTOPHER CLARK, AIA, NCARB
7701 E KELLOGG DR, STE 630
WICHITA, KS 67207
(316) 302-4472
chris@clarkitecture.net

DEVELOPER

COVENANT REAL ESTATE GROUP
2499 PASO VERDE PKWY SUITE 145 - HENDERSON, NV 89074 - 714.845.8000

SHEET INFO

ISSUE DATE : 03/31/2022

ISSUED FOR:PERMIT SET

REVISION SCHEDULE

NO	DESCRIPTION	DATE

STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/05/2022

Missouri COA #001268

GENERAL NOTES

S0.1

IBC 2018 REQUIRED SPECIAL INSPECTIONS

			FREQUENCY OF INSPECTION	
			CONTINUOUS	PERIODIC
		STEEL CONSTRUCTION - STRUCTURAL STEEL (IBC SECTION 1705.2.1)		
1.		SPECIAL INSPECTION AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS, STRUCTURES AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360-16.		
		CONCRETE CONSTRUCTION (IBC TABLE 1705.3)		
1.		INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	---	X
2.		REINFORCING BAR WELDING:		
	A.	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706;	---	X
	B.	INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND	---	X
	C.	INSPECT ALL OTHER WELDS	X	
3.		INSPECT ANCHORS CAST IN CONCRETE.	---	X
4.		INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. (a)		
	A.	ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	
	B.	MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4 A.		X
5.		VERIFY USE OF REQUIRED DESIGN MIX.	---	X
6.		PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---
7.		INSPECT CONCRETE AND SHOTCRETE PLACEMENT OF PROPER APPLICATION TECHNIQUES.	X	---
8.		VERIFY MAINTENANCE OF SPECIFIED CUREING TEMPERATURE AND TECHNIQUES.	---	X
9.		INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X
		a. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, CONTACT THE STRUCTURAL ENGINEER-OF-RECORD FOR SPECIAL INSPECTION REQUIREMENTS.		
		WOOD CONSTRUCTION - IBC SECTION 1705.5		
1.		SPECIAL INSPECTION OF THE FABRICATION PROCESS OF PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 1704.2.5. SPECIAL INSPECTION OF SITE BUILT ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 1705.5		
2.		INSPECTION OF WOOD STRUCTURAL PANEL SHEATHING GRADE AND THICKNESS.	---	X
3.		VERIFICATION OF THE NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AGREES WITH THE APPROVED CONSTRUCTION DOCUMENTS. (required at wood high load diaphragms designed in accordance with 2306.2.)	---	X
4.		VERIFICATION OF THE NAIL OR STAPLE DIAMETER AND LENGTH, THE NUMBER OF FASTENER LINES AND THE SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS AGREES WITH THE APPROVED CONSTRUCTION DOCUMENTS.	---	X
5.		VERIFICATION THAT THE INSTALLATION OF THE PERMANENT INDIVIDUAL TRUSS RESTRAINT/BACKING HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE FOR WOOD TRUSSES WITH OVERALL HEIGHTS OF 60 INCHES OR GREATER.	---	X
6.		VERIFICATION THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE AT METAL-PLATE-CONNECTED WOOD TRUSSES WITH A CLEAR SPAN OF 60'-0" OR GREATER.	---	X
		SOILS (IBC TABLE 1705.6)		
1.		VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2.		VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3.		PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4.		VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5.		PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X
		** CONTINUOUS SPECIAL INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.		
		** PERIODIC SPECIAL INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.		

AISC 360-16 SPECIAL INSPECTION REQUIREMENTS

1. QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.
2. QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS.
3. NONDESTRUCTIVE TESTING (NDT) SHALL BE PERFORMED BY THE AGENCY OR FIRM RESPONSIBLE FOR QUALITY ASSURANCE (QA).
4. THE QUALITY ASSURANCE INSPECTOR (QAI) SHALL REVIEW MATERIAL TEST REPORTS AND CERTIFICATIONS AS LISTED IN SECTION N3.2 FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
5. FOR WORK PERFORMED BY APPROVED FABRICATORS AND ERECTORS:
   A. QA INSPECTIONS, MAY BE WAIVED WHEN THE WORK IS PERFORMED IN A FABRICATING SHOP OR BY AN ERECTOR APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ) TO PERFORM THE WORK WITHOUT QA.
   B. NDT OF WELDS COMPLETED IN AN APPROVED FABRICATOR'S SHOP MAY BE PERFORMED BY THAT FABRICATOR WHEN APPROVED BY THE AHJ. WHEN THE FABRICATOR PERFORMS THE NDT, THE QA AGENCY SHALL REVIEW THE FABRICATOR'S NDT REPORTS.
   C. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AHJ STATING THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE FABRICATOR ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
   D. AT COMPLETION OF ERECTION, THE APPROVED ERECTOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AHJ STATING THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE ERECTOR ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

AISC 360-16, CHAPTER N SPECIAL INSPECTION REQUIREMENTS

			FREQUENCY OF INSPECTION	
			PERFORM	OBSERVE
		N5.4 - INSPECTION OF WELDING		
		AISC 360-16, TABLE N5.4-1 - INSPECTION TASKS PRIOR TO WELDING		
1.		WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	---	X
2.		WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X	---
3.		MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	---
4.		MATERIAL IDENTIFICATION (TYPE/GRADE)	---	X
5.		WELDER IDENTIFICATION SYSTEM (a)	---	X
6.		FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)		
	A.	JOINT PREPARATION	---	X
	B.	DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)	---	X
	C.	CLEANLINESS (CONDITION OF STEEL SURFACES)	---	X
	D.	TACKING (TACK WELD QUALITY AND LOCATION)	---	X
	E.	BACKING TYPE AND FIT (IF APPLICABLE)	---	X
7.		FIT-UP OF CJP GROOVE WELDS OF HSS, T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY)		
	A.	JOINT PREPARATIONS	---	X
	B.	DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)	---	X
	C.	CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
	D.	TACKING (TACK WELD QUALITY AND LOCATION)	---	X
8.		CONFIGURATION AND FINISH OF ACCESS HOLES	---	X
9.		FIT-UP OF FILLET WELDS		
	A.	DIMENSIONS (ALIGNMENT, GAPS AT ROOT)	---	X
	B.	CLEANLINESS (CONDITION OF STEEL SURFACES)	---	X
	C.	TACKING (TACK WELD QUALITY AND LOCATION)	---	X
		AISC 360-16, TABLE N5.4-2 - INSPECTIONS DURING WELDING		
1.		CONTROL AND HANDLING OF WELDING CONSUMABLES		
	A.	PACKAGING	---	X
	B.	EXPOSURE CONTROL	---	X
2.		NO WELDING OVER CRACKED TACK WELDS	---	X
3.		ENVIRONMENTAL CONDITIONS		
	A.	WIND SPEED WITHIN LIMITS	---	X
	B.	PRECIPITATION AND TEMPERATURE	---	X
4.		WELDING PROCEDURE SPECIFICATION (WPS) FOLLOWED		
	A.	SETTINGS ON WELDING EQUIPMENT	---	X
	B.	TRAVEL SPEED	---	X
	C.	SELECTED WELDING MATERIALS	---	X
	D.	SHIELDING GAS TYPE / FLOW RATE	---	X
	E.	PREHEAT APPLIED	---	X
	F.	INTERPASS TEMPERTURE MAINTAINED (MIN./MAX.)	---	X
	G.	PROPER POSITION (F, V, H, OH)	---	X
5.		WELDING TECHNIQUES		
	A.	INTERPASS AND FINAL CLEANING	---	X
	B.	EACH PASS WITHIN PROFILE LIMITATIONS	---	X
	C.	EACH PASS MEETS QUALITY REQUIREMENTS	---	X
6.		PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X	---
		AISC 360-16, TABLE N5.4-3 - INSPECTION TASKS AFTER WELDING		
1.		WELDS CLEANED	---	X
2.		SIZE, LENGTH AND LOCATION OF WELDS	X	---
3.		WELDS MEET VISUAL ACCEPTANCE CRITERIA		
	A.	CRACK PROHIBITION	X	---
	B.	WELD/BASE-METAL FUSION	X	---
	C.	CRATER CROSS SECTION	X	---
	D.	WELD PROFILES	X	---
	E.	WELD SIZE	X	---
	F.	UNDERCUT	X	---
	G.	POROSITY	X	---
4.		ARC STRIKES	X	---
5.		k-AREA (b)	X	---
6.		WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES (c)	X	---
7.		BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	---
8.		REPAIR ACTIVITIES	X	---
9.		DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	---
10.		NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	---	X
11.		ULTRASONIC TESTING (UT) ON ALL CJP GROOVE WELDS IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16 INCH THICK OR GREATER (required in Risk Catgory III or IV)	X	---
12.		ULTRASONIC TESTING (UT) ON 10% OF CJP GROOVE WELDS IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16 INCH THICK OR GREATER (required in Risk Catgory II)	---	X
13.		THERMALLY CUT SURFACES OF ACCESS HOLES SHALL BE TESTED USING MAGNETIC PARTICLE TESTING (MT) OR PENETRANT TESTING (PT), WHEN FLANGE THICKNESS EXCEEDS 2 INCHES FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2 INCHES FOR BUILT-UP SHAPES	X	---
14.		(see AISC 360-16, section N5-5c for additional special inspections for welded joints subject to fatigue)		
	(a)	THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW STRESS TYPE.		
	(b)	WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, VISUALLY INSPECT THE WEB k-AREA FOR CRACKS WITHIN 3 INCHES OF THE WELD.		
	(c)	AFTER ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES HAVE BEEN WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE PER CRACKS.		
		** PERFORM - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.		
		** OBSERVE - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.		
		N5.6 - INSPECTION OF HIGH-STRENGTH BOLTS		
		AISC 360-16, TABLE N5.6-1 - INSPECTION TASKS PRIOR TO BOLTING		
1.		MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	X	---
2.		FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	---	X
3.		CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH) IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE	---	X
4.		CORRECT BOLTING PROCEDURES SELECTED FOR JOINT DETAIL	---	X
5.		CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	---	X
6.		PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	X	X
7.		PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	---	X

AISC 360-16, CHAPTER N SPECIAL INSPECTION REQUIREMENTS

			FREQUENCY OF INSPECTION	
			PERFORM	OBSERVE
		AISC 360-16, TABLE N5.6-2 - INSPECTIONS DURING BOLTING		
1.		FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	---	X
2.		JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	---	X
3.		FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	---	X
4.		FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	---	X
		AISC 360-16, TABLE N5.6-3 - INSPECTIONS AFTER BOLTING		
1.		DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X	---
		** PERFORM - PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.		
		** OBSERVE - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.		
		N5.7 - OTHER INSPECTION TASKS		
1.		INSPECTION OF GALVANIZED STEEL STRUCTURAL MAIN MEMBERS EXPOSED CUT SURFACES OF GALVANIZED MAIN MEMBERS AND EXPOSED CORNERS OF HSS SHALL BE VISUALLY INSPECTED FOR CRACKS SUBSEQUENT TO GALVANIZING.	X	---
		N5.8 - OTHER INSPECTION TASKS		
1.		INSPECT THE STEEL TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS.	X	---
2.		INSPECT THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE, SHALL BE VERIFIED AND DOCUMENTED PRIOR TO PLACEMENT OF CONCRETE	X	---
		** PERFORM - PERFORM THESE TASKS FOR EACH CONNECTION.		
		** OBSERVE - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.		

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Wallace Engineering
Structural Consultants, Inc.

Structural and Civil Consultants
123 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5858, 800.364.5858

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PROJECT INFO

CLIENT:

COVENANT GROUP, LLC

PROJECT:

BUILDING SHELL - LEE'S SUMMIT, MO - CHIPMAN RD

ADDRESS:

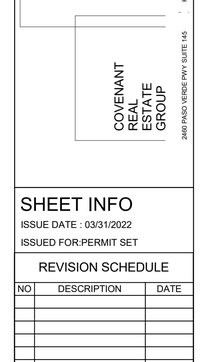
400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

PROJECT NO: 267

MAIN CONTACT

CHRISTOPHER CLARK, AIA, NCARB
7701 E KELLOGG DR, STE 630
WICHITA, KS 67207
(316) 302-4472
chris@clarkitecture.net

DEVELOPER



SHEET INFO

ISSUE DATE : 03/31/2022

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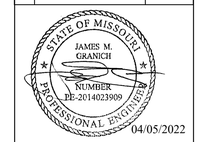
REVISION SCHEDULE

NO	DESCRIPTION	DATE



04/05/2022

Missouri COA #001268

STRUCTURAL SPECIAL INSPECTIONS (IBC 2018)

S0.2

FOOTING SCHEDULE								
MARK	SIZE			BOTTOM REINFORCING		TOP REINFORCING		NOTES
	LENGTH	WIDTH	THICKNESS	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE	
F3.0	3' - 0"	3' - 0"	2' - 6"	(5) #5	(5) #5	(5) #5	(5) #5	
F4.0	4' - 0"	4' - 0"	2' - 6"	(5) #5	(5) #5	(5) #5	(5) #5	

WALL FRAMING NOTES:

1. VERIFY ALL WALL OPENING AND INTERIOR WALL DIMENSIONS AND LOCATIONS WITH ARCHITECTURAL DRAWINGS.
2. ALL EXTERIOR LOAD BEARING WALLS SHALL BE 2x6 AT 16", U.N.O.
3. TOP PLATES SHALL BE (2) 2x6 AND BE SPLICED.
4. NON-LOAD BEARING WALLS SHALL BE 2x4 MIN, RE: ARCH FOR WALL TYPES.
5. RE: GENERAL NOTES FOR EXTERIOR WALL SHEATHING.
6. RE:5/S4.1 FOR SHEATHING AT SHEAR WALLS.
7. RE:1/S4.0 FOR TYPICAL NAILING SCHEDULE.

LEGEND:

BP-X	=	BASE PLATE,
C.J.	=	CONTROL JOINT,
FX	=	FOOTING MARK RE: FOOTING SCHEDULE
S.L.	=	OUTSIDE FACE OF STUD
✱	=	HOLD DOWN ANCHOR, RE:3/S4.1
SW-X	=	SHEAR WALL, RE:5/S4.1
A	=	PROVIDE (2) #4 x5'-0" BARS AT MID DEPTH AT ALL RE-ENTRANT CORNERS

FOUNDATION NOTES:

1. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR CONSTRUCTION CONSIDERATIONS. CONTRACTOR SHALL COORDINATE SLAB DESIGN WITH CONSTRUCTION NEEDS. THE SLAB DESIGN INDICATED ON THESE DRAWINGS IS CONSIDERED A MINIMUM. SUBMIT CHANGES TO THE SLAB DESIGN TO E.O.R. FOR REVIEW.
2. CONTRACTOR SHALL SUBMIT ANY LIFT, CRANE OR OTHER CONSTRUCTION EQUIPMENT CUT SHEETS TO THE E.O.R. FOR INDEPENDENT ANALYSIS AT NO COST TO THE OWNER FOR THE USE OF SUCH EQUIPMENT ON THE SLAB.
3. TOP OF FOOTING ELEVATION = 1'-0" BELOW T.O. SLAB UNLESS NOTED OTHERWISE.
4. ALL PIPING OR CONDUITS THAT OCCUR THROUGH OR UNDER A GRADE BEAM OR FOOTING SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT (RE:7/S3.0 AND RE:8/S3.0).
5. RE:1/S3.0 FOR REINFORCING LAP SCHEDULE.
6. PROVIDE CORNER BARS IN FOUNDATIONS. RE:9/S3.0 .
7. CONTRACTOR SHALL COORDINATE SHEARWALL POST ANCHOR BOLT EMBEDMENTS WITH THE FOUNDATIONS PRIOR TO POURING.
8. RE: ARCH/MEP DRAWINGS FOR LOCATIONS OF FLOOR DRAINS.
9. FOOTING STEP, RE:6/S3.0

HSS STEEL COLUMN SIZE
HSS6x6x1/2
BP-1
BASE PLATE,
FOOTING, RE: PLAN AND SCHEDULE
FX.X

4" CONCRETE SLAB REINF. WITH 6x6-W1.4xW1.4 W.W.F. PLACED AT MID SLAB OVER 15 MIL VAPOR RETARDER OVER 4" WELL GRADED CLEAN CRUSHED STONE OVER 20" OF LOW VOLUME CHANGE OVER COMPACTED STRUCTURAL FILL MATERIAL. FINISH FLOOR ELEV.=100'-0" (CIVIL RE: ELEV.=1006.50')(REFER TO GEOTECHNICAL REPORT IN THE GENERAL NOTES FOR ADDITIONAL RECOMMENDATIONS.)

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

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CHRISTOPHER CLARK, AIA, NCARB
7701 E KELLOGG DR, STE 630
WICHITA, KS 67207
(316) 302-4472
chris@clarkitecture.net

DEVELOPER

COVENANT REAL ESTATE GROUP
2460 PASO VERDE PKWY SUITE 145 · HENDERSON, NV 89074 · 714.845.8500

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STATE OF MISSOURI
JAMES M. GRANICH
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FOUNDATION PLAN

S1.0

ROOF FRAMING NOTES:

1. RE: ARCH/MEP DRAWINGS FOR LOCATIONS OF ROOFTOP OPENINGS AND EQUIPMENT.
2. TRUSS BEARING ELEVATION VARIES, RE: PLAN
3. ACTUAL TRUSS LAYOUT TO BE DETERMINED BY THE TRUSS MFR. PROVIDE LAYOUT AS REQUIRED TO MATCH ARCH. ROOF LINES. TRUSS SPACING SHALL NOT EXCEED 24" O.C., RE: S001 FOR PREFABRICATED WOOD TRUSS INFORMATION AND DESIGN LOADINGS AND RE:6/S4.1 FOR SNOW DRIFT.
4. RE: GENERAL NOTES FOR ROOF SHEATHING, RE:4/S4.1 FOR NAILING DIAGRAM.
5. ROOF ACCESS LADDER SHALL BE PER THE GENERAL CONTRACTOR

WALL FRAMING NOTES:

1. VERIFY ALL WALL OPENING AND WALL DIMENSIONS AND LOCATIONS WITH ARCHITECTURAL DRAWINGS
2. ALL EXTERIOR LOAD BEARING WALLS SHALL BE 2x6 AT 16", U.N.O. CENTER STUDS UNDER EA. TRUSS, RE:14/S4.0
3. TOP PLATES SHALL BE (2) 2x6 AND BE SPLICED.
4. NON-LOAD BEARING WALLS SHALL BE 2x4, RE: ARCH FOR WALL TYPES
5. RE: GENERAL NOTES FOR EXTERIOR WALL SHEATHING
6. RE:5/S4.1 FOR SHEATHING AT SHEAR WALLS
7. RE:1/S4.0 FOR TYPICAL NAILING SCHEDULE
8. TRUSS SUPPLIER SHALL COORDINATE TRUSS DESIGN WITH MEP EQUIPMENT

PLAN REFERENCE NOTES:

(A) PROVIDE FLAT 2x BLOCKING BETWEEN TRUSSES AND ATTACH ROOF SHEATHING WITH 10d NAILS AT 6" O.C. INSTALL CONT SIMPSON CMST14 COIL STRAP OVER BLOCKING.

(B) TRUSS SUPPLIER TO DESIGN SHEAR PANEL BLOCKING TO TRANSFER AXIAL TENSION/COMPRESSION (PLF) OF 305 PLF (0.6W/0.7E) FOR THE LENGTH OF THE SHEAR WALL BELOW.

(C) TRUSS SUPPLIER TO DESIGN SHEAR PANEL BLOCKING TO TRANSFER AXIAL TENSION/COMPRESSION (PLF) OF 255 PLF (0.6W/0.7E) FOR THE LENGTH OF THE SHEAR WALL BELOW

(D) TRUSS SUPPLIER TO DESIGN SHEAR PANEL BLOCKING TO TRANSFER AXIAL TENSION/COMPRESSION (PLF) OF 90 PLF (0.6W/0.7E) FOR THE LENGTH OF THE SHEAR WALL BELOW

(E) CANOPY, RE: ARCH FOR EXTENTS, RE: GC FOR DESIGN AND ATTACHMENT

(F) PARAPET CANOPY SHALL BE INTEGRAL WITH THE ROOF TRUSS FRAMING

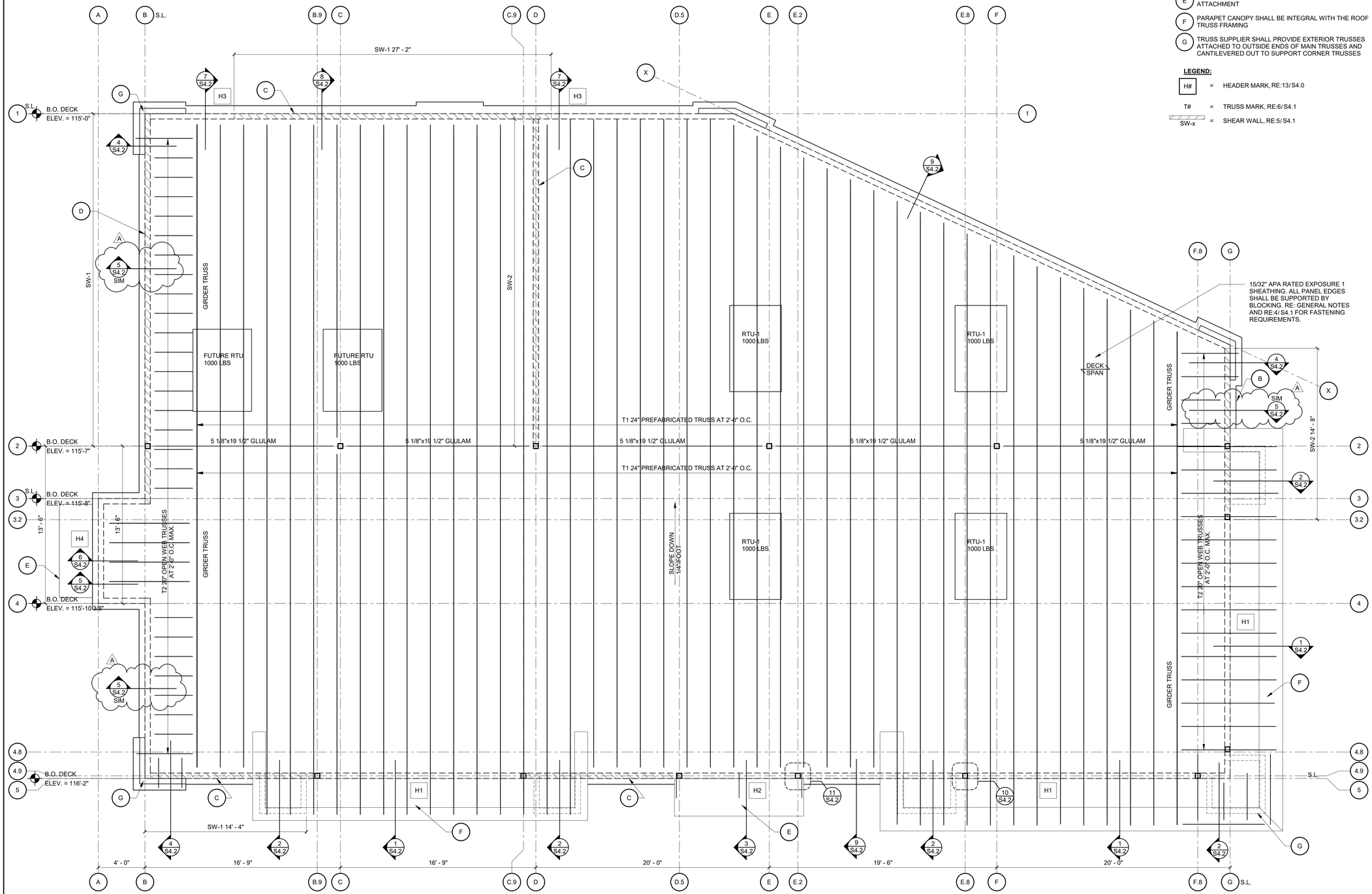
(G) TRUSS SUPPLIER SHALL PROVIDE EXTERIOR TRUSSES ATTACHED TO OUTSIDE ENDS OF MAIN TRUSSES AND CANTILEVERED OUT TO SUPPORT CORNER TRUSSES

LEGEND:

H# = HEADER MARK, RE:13/S4.0

T# = TRUSS MARK, RE:6/S4.1

SW-x = SHEAR WALL, RE:5/S4.1



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

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Structural Consultants, Inc.

Structural and Civil Consultants
123 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5858, 800.364.5858

CLARKITECTURE
BUILDINGS THAT MEAN BUSINESS.

CLARKITECTURE.NET
(316) 302-4472

PROJECT INFO

CLIENT:

COVENANT GROUP, LLC

PROJECT:

BUILDING SHELL - LEE'S SUMMIT, MO - CHIPMAN RD

ADDRESS:

400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

PROJECT NO: 267

MAIN CONTACT

CHRISTOPHER CLARK, AIA, NCARB
7701 E KELLOGG DR, STE 630
WICHITA, KS 67207
(316) 302-4472
chris@clarkitecture.net

DEVELOPER

COVENANT REAL ESTATE GROUP
2460 PASO VERDE PKY SUITE 145 · HENDERSON, NV 89074 · 714.845.6500

SHEET INFO

ISSUE DATE : 03/31/2022

ISSUED FOR:PERMIT SET

REVISION SCHEDULE

NO	DATE	DESCRIPTION
A	04/29/2022	MISC CHANGES

STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/29/2022
Missouri COA #001268

FRAMING PLAN

S2.0

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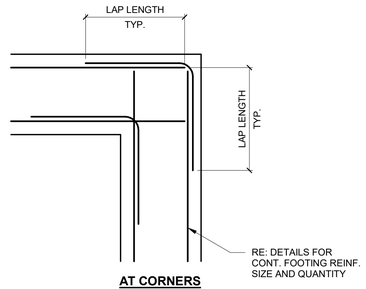
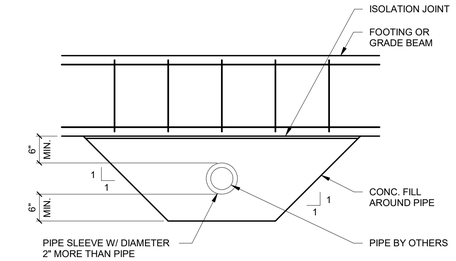
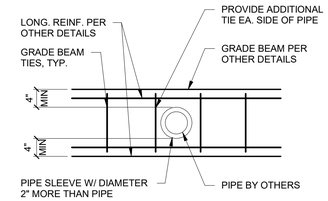


AT CORRENS

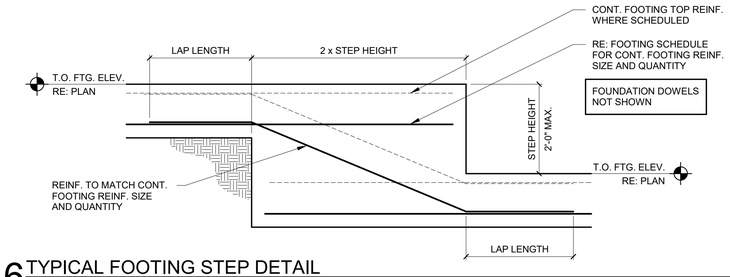
9 TYPICAL CORNER BAR DETAIL
3/4" = 1'-0"



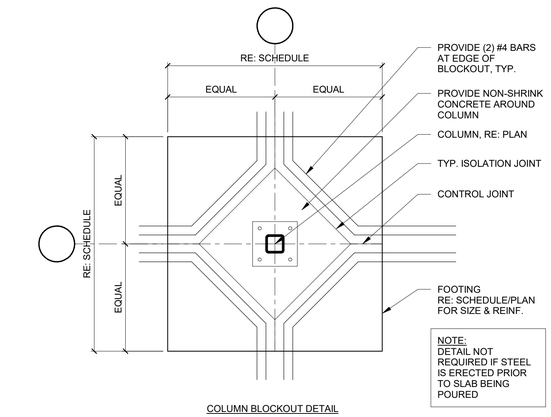
8 PIPE UNDER GRADE BEAM DETAIL
3/4" = 1'-0"



7 PIPE THRU GRADE BEAM DETAIL
3/4" = 1'-0"

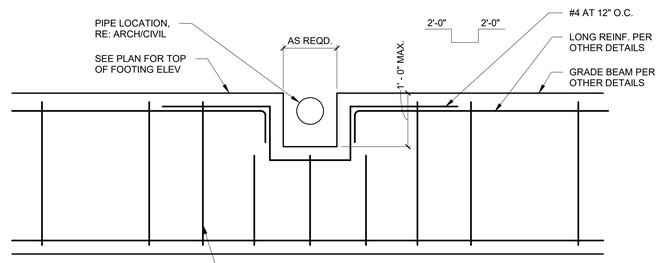


6 TYPICAL FOOTING STEP DETAIL
3/4" = 1'-0"

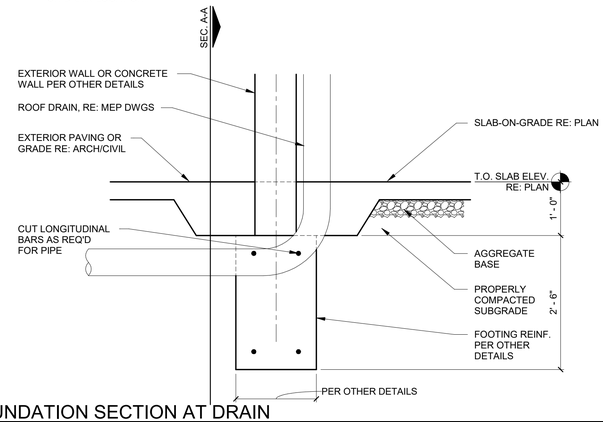


COLUMN BLOCKOUT DETAIL

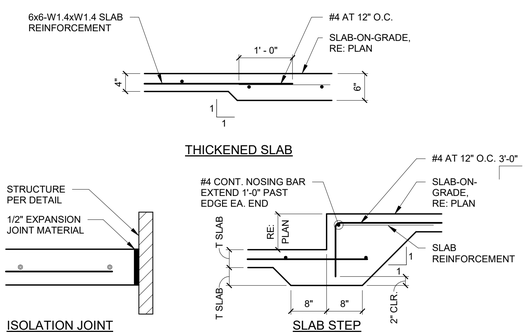
5 COLUMN BLOCKOUT DETAIL
3/4" = 1'-0"



SECTION A-A



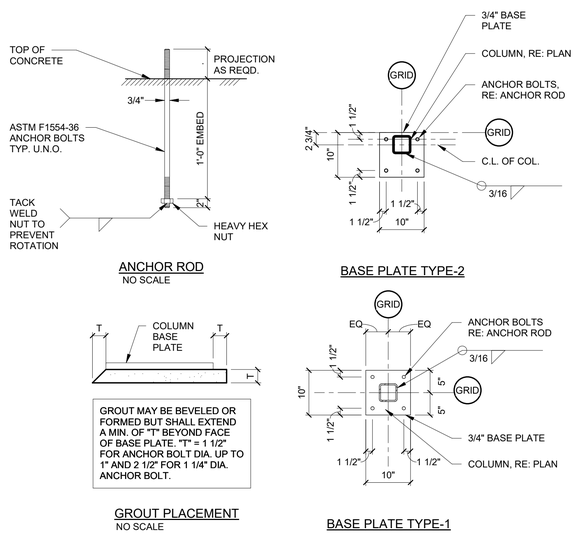
4 FOUNDATION SECTION AT DRAIN
3/4" = 1'-0"



CONSTRUCTION JOINT (CONST. JT.)

CONTROL JOINT (C.J.)

3 SLAB-ON-GRADE JOINT DETAILS
3/4" = 1'-0"



ANCHOR ROD
NO SCALE

BASE PLATE TYPE-2

GROUT PLACEMENT
NO SCALE

BASE PLATE TYPE-1

2 ANCHOR ROD AND BASE PLATE DIAGRAMS
3/4" = 1'-0"

CONCRETE REINFORCING LAP LENGTH SCHEDULE

BAR SIZE	STRUCTURAL ELEMENT MINIMUM COMPRESSIVE STRENGTH (f'c)					
	3000psi		4000psi		4500psi	
	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER
#3	28"	22"	25"	19"	23"	18"
#4	38"	29"	33"	25"	31"	24"
#5	47"	36"	41"	31"	38"	30"
#6	56"	43"	49"	37"	46"	35"
#7	81"	63"	71"	54"	67"	51"
#8	93"	72"	81"	62"	76"	59"
#9	105"	81"	91"	70"	86"	66"
#10	118"	91"	102"	79"	96"	74"

NOTES:
1. LAP LENGTH FOR TOP BARS SHALL BE USED WHEN MORE THAN 12 INCHES OF FRESH CONCRETE IS PLACED BELOW HORIZONTAL REINFORCEMENT.

1 CONCRETE REINFORCING LAP SCHEDULE
3/4" = 1'-0"

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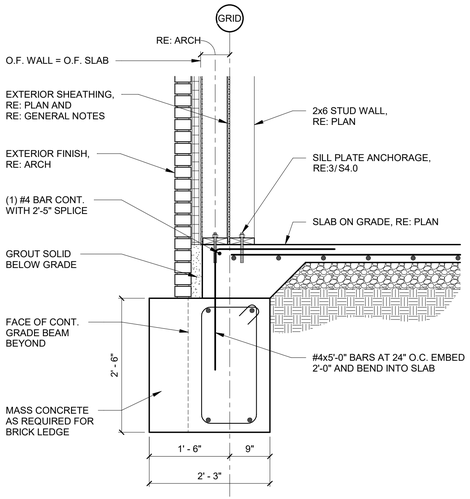
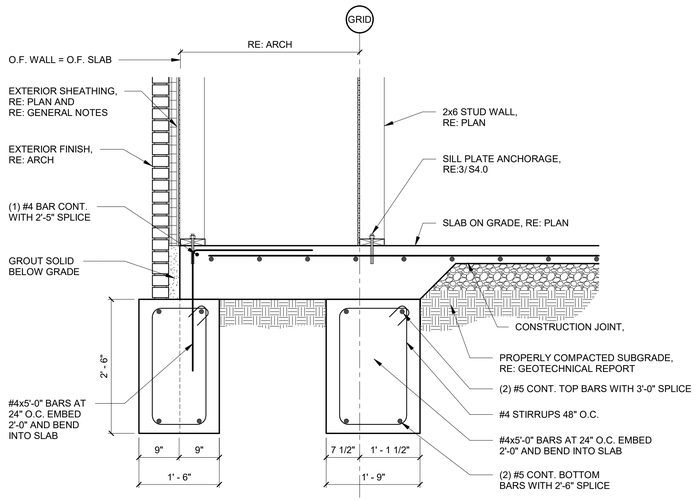
FOUNDATION DETAILS

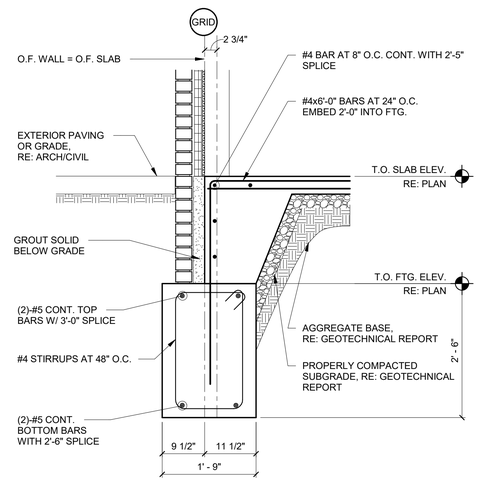
S3.0



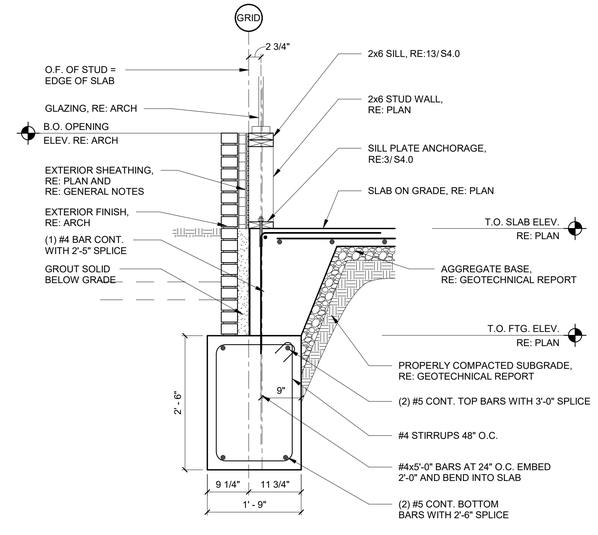
8 THICKENED FOOTING SECTION
3/4" = 1'-0"



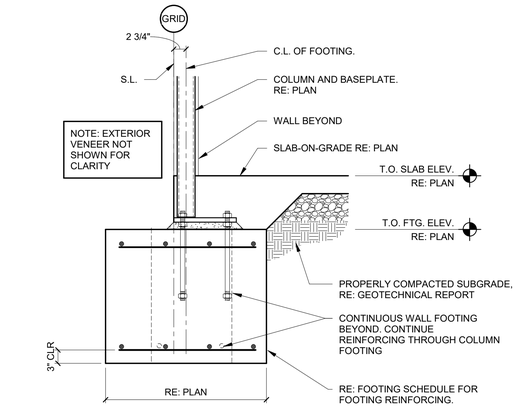
7 PILASTER SECTION
3/4" = 1'-0"



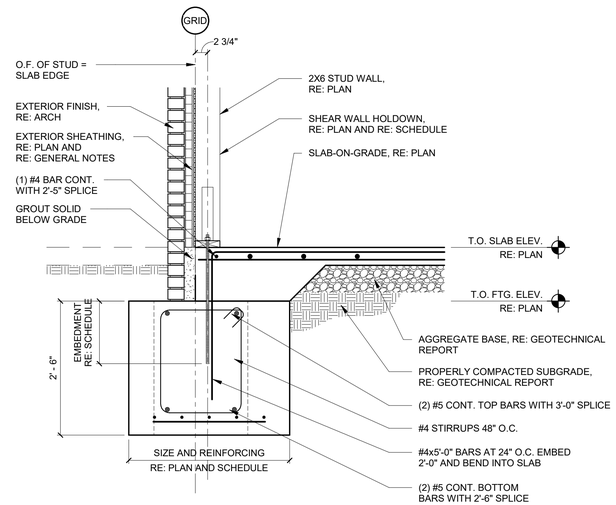
6 FOUNDATION SECTION
3/4" = 1'-0"



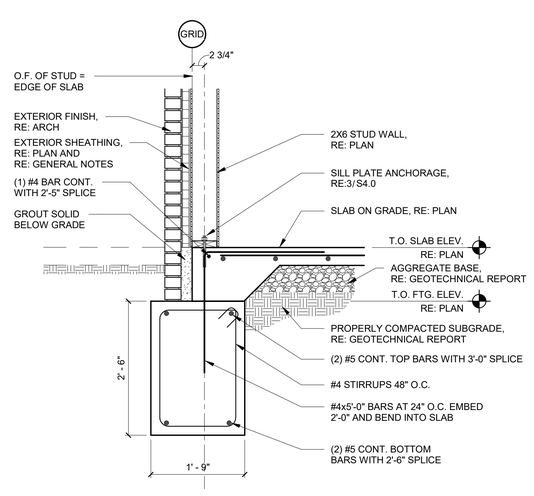
5 GRADE BEAM SECTION AT WINDOW
3/4" = 1'-0"



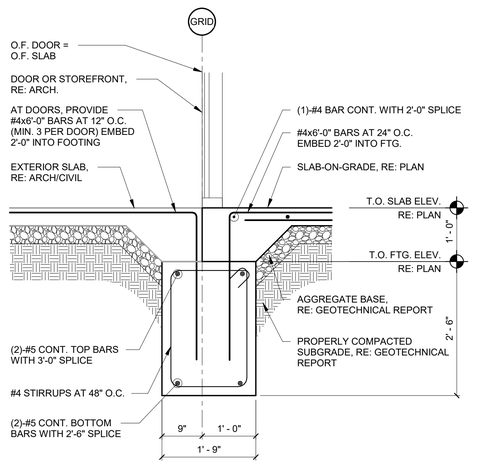
4 EXTERIOR WALL AT COLUMN
3/4" = 1'-0"



3 SHEAR WALL FOUNDATION SECTION
3/4" = 1'-0"



2 GRADE BEAM SECTION AT WALL
3/4" = 1'-0"



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

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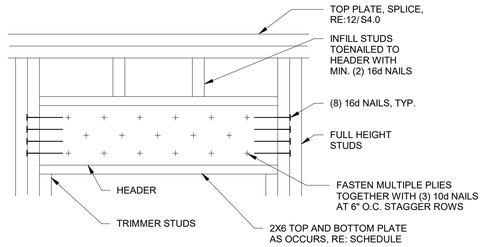
FOUNDATION DETAILS

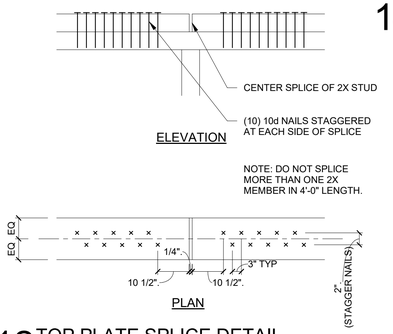
S3.1

HEADER SCHEDULE					
TAG	MAX OPENING WIDTH	HEADER	TRIMMER STUDS	FULL HEIGHT STUDS	SILL
H1	19'-6"	(3) 1 1/2x18 LVL	(2) 2X6	HSS5x5x3/8	(2) 2X6
H2	10'-0"	(3) 1 1/2x14 LVL	(1) 2X6	HSS5x5x3/8	(2) 2X6
H3	4'-0"	(3) 2X6	(1) 2X6	(2) 2X6	(1) 2X6
H4	7'-0"	(3) 2X10	(1) 2X6	(2) 2X6	(2) 2X6

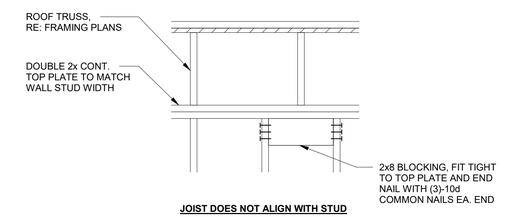
NOTES:RE:10/ S4.2 FOR HEADER ATTACHMENT TO STEEL COLUMN



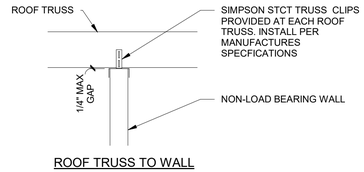
13 BEARING WALL HEADER SCHEDULE
1" = 1'-0"

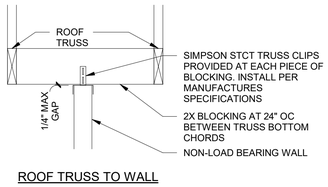


12 TOP PLATE SPLICE DETAIL
1" = 1'-0"

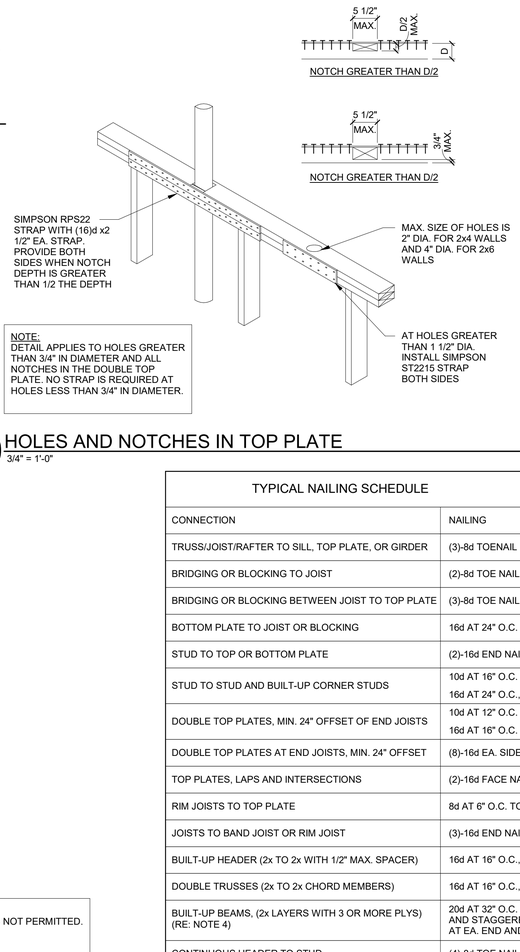


14 BEARING WALL FRAMING ALIGNMENT
NTS





11 INTERIOR WALL BRACING DETAIL
3/4" = 1'-0"



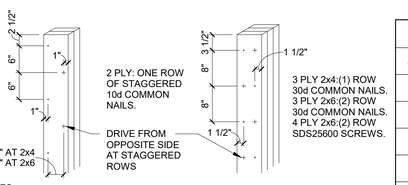
NOTE:
DETAIL APPLIES TO HOLES GREATER THAN 3/4" IN DIAMETER AND ALL NOTCHES IN THE DOUBLE TOP PLATE. NO STRAP IS REQUIRED AT HOLES LESS THAN 3/4" IN DIAMETER.

10 HOLES AND NOTCHES IN TOP PLATE
3/4" = 1'-0"

TYPICAL NAILING SCHEDULE	
CONNECTION	NAILING
TRUSS/JOIST/RAFTER TO SILL, TOP PLATE, OR GIRDER	(3)-8d TOENAIL
BRIDGING OR BLOCKING TO JOIST	(2)-8d TOE NAIL EA. END
BRIDGING OR BLOCKING BETWEEN JOIST TO TOP PLATE	(3)-8d TOE NAIL EA. END
BOTTOM PLATE TO JOIST OR BLOCKING	16d AT 24" O.C.
STUD TO TOP OR BOTTOM PLATE	(2)-16d END NAIL / (4)-8d TOE NAIL
STUD TO STUD AND BUILT-UP CORNER STUDS	10d AT 16" O.C. FACE NAIL OR 16d AT 24" O.C., FACE NAIL
DOUBLE TOP PLATES, MIN. 24" OFFSET OF END JOISTS	10d AT 12" O.C. FACE NAIL 16d AT 16" O.C. FACE NAIL
DOUBLE TOP PLATES AT END JOISTS, MIN. 24" OFFSET	(8)-16d EA. SIDE OF JOINT FACE NAIL
TOP PLATES, LAPS AND INTERSECTIONS	(2)-16d FACE NAIL
RIM JOISTS TO TOP PLATE	8d AT 6" O.C. TOE NAIL
JOISTS TO BAND JOIST OR RIM JOIST	(3)-16d END NAIL
BUILT-UP HEADER (2x TO 2x WITH 1/2" MAX. SPACER)	16d AT 16" O.C., FACE NAIL EA. EDGE
DOUBLE TRUSSES (2x TO 2x CHORD MEMBERS)	16d AT 16" O.C., FACE NAIL EA. CHORD
BUILT-UP BEAMS, (2x LAYERS WITH 3 OR MORE PLYS) (RE: NOTE 4)	20d AT 32" O.C. FACE NAIL AT TOP AND BOTTOM AND STAGGERED ON OPPOSITE SIDES. TWO NAILS AT EA. END AND AT EA. SPLICE
CONTINUOUS HEADER TO STUD	(4)-8d TOE NAIL
CEILING JOIST TO TOP PLATE	(3)-8d TOE NAIL
CEILING JOIST LAP OF PARTITION	(3)-16d FACE NAIL
CEILING JOIST TO PARALLEL RAFTERS	AS REQUIRED PER IBC
COLLAR TIE TO PARALLEL RAFTERS	(3)-10d FACE NAIL
RAFTER TO 2x RIDGE BEAM	(2) 16d END NAIL/(3) 10d TOENAIL
RAFTER TO VALLEY OR HIP RAFTER	(2) 16d END NAIL/(3) 10d TOENAIL
1" BRACE TO EA. STUD PLATE	(2)-8d FACE NAIL
LEDGER STRIP	(3) 16d FACE NAIL AT EA. JOIST
1"x6" SUBFLOOR OR LESS	(2)-8d FACE NAIL, EA. JOIST
WIDER THAN 1"x6" SUBFLOOR	(2)-8d FACE NAIL, EA. JOIST
2" SUBFLOOR TO JOIST OR GIRDER	(2)-16d BLIND AND FACE NAIL
2" PLANKS	(2)-16d FACE NAIL EA. BEARING
1"x6" SHEATHING	(2)-8d FACE NAIL EA. BEARING
1"x8" AND WIDER SHEATHING	(3)-8d FACE NAIL EA. BEARING

NOTE:
1. THE ABOVE ARE MIN. NAILING REQUIREMENTS. REFER TO GENERAL NOTES, DETAILS, AND SCHEDULES FOR MORE STRINGENT REQUIREMENTS.
2. RE: IBC FASTENING SCHEDULE FOR MINIMUM WOOD FASTENING REQUIREMENTS NOT SHOWN.
3. PROVIDE ADDITIONAL ROW OF NAILS WHEN DEPTH IS 14" OR GREATER.
4. PROVIDE HOT-DIPPED ZINC-COATED GALVANIZED NAILS AT EXTERIOR FACE OF WALLS.
5. RE: GENERAL NOTES AND SHEAR WALL SCHEDULE FOR SHEATHING ATTACHMENT.

1 TYPICAL NAILING SCHEDULE
3/4" = 1'-0"



NOTES:
1. CONNECT BUILT-UP POSTS WITH NAILS OR BOLTS TO ALLOW FINISHED MEMBER TO ACT COMPOSITELY. COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NDS, BUT IN NO CASE LESS THAN THE FOLLOWING.
   - (2) PLY 2x4: (1) ROW OF STAGGERED 10d COMMON NAILS AT 12" O.C, SPACED AT 11/2" HORIZ. AND 6" VERT. CENTERED ON MEMBER, WITH ADJACENT NAILS DRIVEN FROM OPPOSITE SIDES OF THE BUILT-UP MEMBER.
   - (2) PLY 2x6: (1) ROW OF STAGGERED 10d COMMON NAILS AT 12" O.C, SPACED AT 21/2" HORIZ. AND 6" VERT. CENTERED ON MEMBER, WITH ADJACENT NAILS DRIVEN FROM OPPOSITE SIDES OF THE BUILT-UP MEMBER.
   - (3) PLY 2x4: (1) ROW OF STAGGERED 30d COMMON NAILS AT 16" O.C, SPACED AT 11/2" HORIZ. AND 8" VERT. CENTERED ON MEMBER, WITH ADJACENT NAILS DRIVEN FROM OPPOSITE SIDES OF THE BUILT-UP MEMBER.
   - (3) PLY 2x6: (2) ROWS OF 30d COMMON NAILS AT 8" O.C EA. SIDE, SPACED AT 11/2" HORIZ. FROM EDGE.
   - (4) PLY 2x6: (2) ROWS OF SIMPSON SDS25600 SCREWS AT 8" O.C EA. SIDE, SPACED AT 11/2" HORIZ. FROM EDGE.
2. "+" DENOTES NAIL LOCATIONS DRIVEN FROM BACK FACE OF ADDITIONAL NAILS WHERE (2) ROWS OF NAILS ARE REQUIRED.

5 BUILT-UP POSTS
3/4" = 1'-0"

JOIST HANGER SCHEDULE		
JOIST SIZE	FACE MOUNT HANGER	TOP FLANGE HANGER
2x4	LUS24	PF24
2x6	LUS26	JB26
2x8	LUS26	JB28
2x10	LUS28	JB210A
2x12	LUS210	JB212A
(2) 2x8	LUS28-2	HUS28-2TF
(2) 2x10	LUS28-2	HUS210-2TF
(2) 2x12	LUS28-2	HUS212-2TF

NOTES:
1. THE ABOVE ARE MIN. HANGER REQUIREMENTS. REFER TO DETAILS FOR FRAMING MEMBERS NOT SHOWN.
2. ALL JOIST HANGERS BY SIMPSON STRONG-TIE CO. INC.
3. ONLY USE FACE MOUNTED HANGERS WHERE ALL FACE NAILING CAN BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
4. FILL ALL HOLES WITH FASTENERS AS RECOMMENDED BY THE MANUFACTURER.
5. PROVIDE CONCEALED FASTENERS AND FINISH FOR EXPOSED CONNECTORS TO COMPLY WITH ARCHITECT'S OR OWNER'S REQUIREMENTS.

4 FRAMING HANGER SCHEDULE
3/4" = 1'-0"

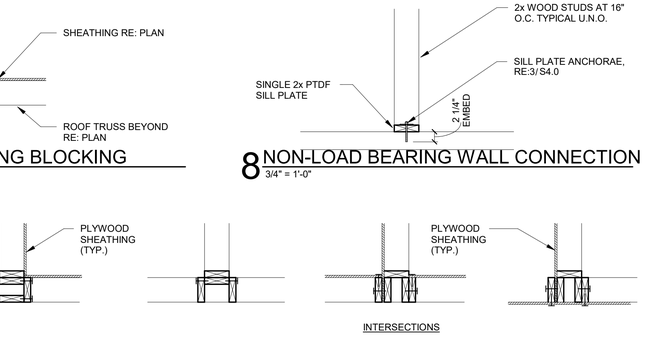
SILL PLATE ANCHOR SCHEDULE AT NON-SHEAR WALLS				
ATTACHMENT ANCHOR TYPE	EMBEDMENT	LOCATION AND SPACING		
		EXTERIOR WALLS	INTERIOR BEARING WALLS	INTERIOR NON LOAD BEARING WALLS
5/8" DIA. CONCRETE SCREW ANCHORS	6"	48" O.C.	72" O.C.	N/A
5/8" DIA. HEADED ANCHOR BOLTS	7"	48" O.C.	72" O.C.	N/A
1/2" DIA. EXPANSION ANCHORS	2 1/4"	N/A	72" O.C.	N/A
0.177" DIA P.A.F.	1 1/2"	N/A	24" O.C. STAGGERED	48" O.C. STAGGERED
0.099" DIA P.A.F.	1"	N/A	12" O.C. STAGGERED	12" O.C. STAGGERED

NOTES:
1. EACH SILL PLATE SHALL HAVE (2) ANCHORS MIN.
2. LOCATE ANCHOR BOLTS 12" MAX. FROM SILL PLATE ENDS. LOCATE P.A.F. 6" MAX. FROM SILL PLATE ENDS.
3. DO NOT OVERSIZE HOLES IN SILL PLATE.
4. EXPANSION ANCHORS SHALL NOT BE ALLOWED WITHIN 6 INCHES OF SLAB EDGE.
5. ALL HARDWARE IN CONTACT WITH PRESSURE TREATED FRAMING SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL.
6. RE: SHEAR WALL SCHEDULE FOR SILL PLATE ANCHORS AT SHEAR WALLS.

3 SILL PLATE ANCHOR SCHEDULE AT NON-SHEAR WALLS
3/4" = 1'-0"

EQUIVALENT PNEUMATIC OR "POWER" DRIVEN NAIL SIZES	
6d COMMON	0.113" DIA. x 2"
8d COMMON	0.131" DIA. x 2 1/2"
10d COMMON	0.148" DIA. x 3"
12d COMMON	0.148" DIA. x 3 1/4"
16d COMMON	0.162" DIA. x 3 1/2"
20d COMMON	0.192" DIA. x 4"
30d COMMON	0.207" DIA. x 4 1/2"

2 EQUIVALENT NAIL SIZE SCHEDULE
3/4" = 1'-0"

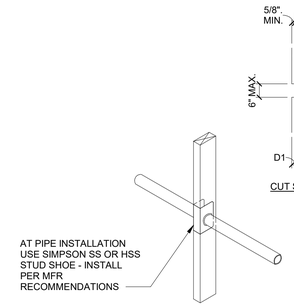


9 TYPICAL WALL FRAMING BLOCKING
3/4" = 1'-0"

8 NON-LOAD BEARING WALL CONNECTION
3/4" = 1'-0"

NOTE:
ALL STUDS SHOWN ARE 2x

7 TYPICAL WALL FRAMING CONNECTION
3/4" = 1'-0"



STUD SIZE	BEARING WALLS		NON-BEARIGN WALLS	
	MAX. D1 NOTCH	MAX D2 HOLE DIA.	MAX. D1 NOTCH	MAX D2 HOLE DIA.
2x4 AND 3x4	7/8"	1 3/8"	1 3/8"	2"
2x6	1 3/8"	2 3/16"	2 3/16"	3 1/4"
2x8	1 3/4"	2 7/8"	2 7/8"	4 1/4"

NOTES:
1. NOTCHING AT SHEARWALL END POSTS IS NOT PERMITTED.
2. CUT DIMENSION SHALL NOT EXCEED VALUES SHOWN IN TABLE.
   - EXCEPTION: 2" DIA. PIPE THROUGH 2x4 AND 2x6 WALLS MAY HAVE NOTCH DIMENSION (D1) UP TO 2 1/2" WHERE SIMPSON HSS STUD SHOE IS INSTALLED PER MFR. RECOMMENDATIONS.
3. HOLE AND NOTCH SIZES FOR NON-BEARING WALLS MAY BE USED FOR BEARING WALL AT DOUBLED STUDS, PROVIDED NOT MORE THAN 2 SUCCESSIVE STUDS ARE SO BOARD OR NOTCHED.

6 TYPICAL NOTCH AT WOOD STUD
3/4" = 1'-0"

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Structural Consultants, Inc.

Structural and Civil Consultants
123 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5858, 800.364.5858

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PROJECT NO: 267

MAIN CONTACT

CHRISTOPHER CLARK, AIA, NCARB
7701 E KELLOGG DR, STE 630
WICHITA, KS 67207
(316) 302-4472
chris@clarkitecture.net

DEVELOPER

COVENANT REAL ESTATE GROUP
2499 PASO VERDE PKWY SUITE 145 - HENDERSON, NV 89074 - 714.845.8500

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NO	DESCRIPTION	DATE

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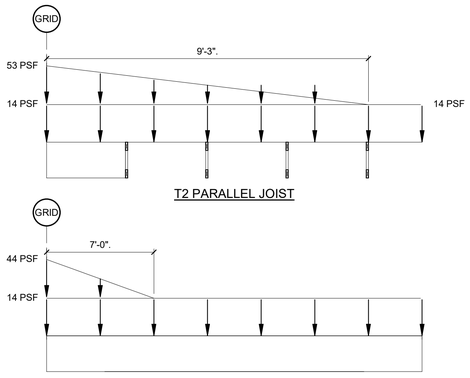
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER
04/05/2022
Missouri COA #001268

FRAMING DETAILS

S4.0



T2 PARALLEL JOIST

T1 PERPENDICULAR JOIST

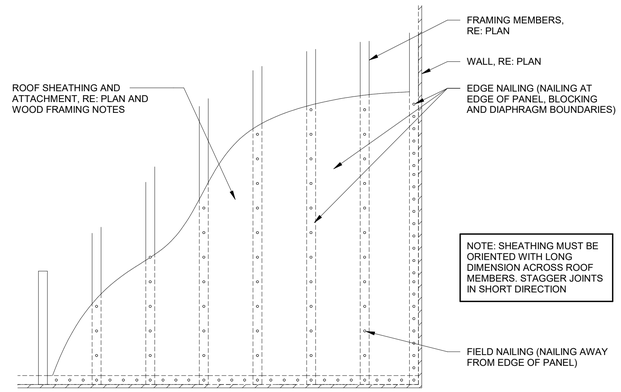
NOTES:
1. ROOF TRUSSES SHALL BE DESIGNED FOR THE CODE LOADING SPECIFIED WITHIN THE GENERAL NOTES. SNOW DRIFT SHALL BE PER THE LOADING SPECIFIED ABOVE.

6 JOIST SNOW DRIFT
1/4" = 1'-0"

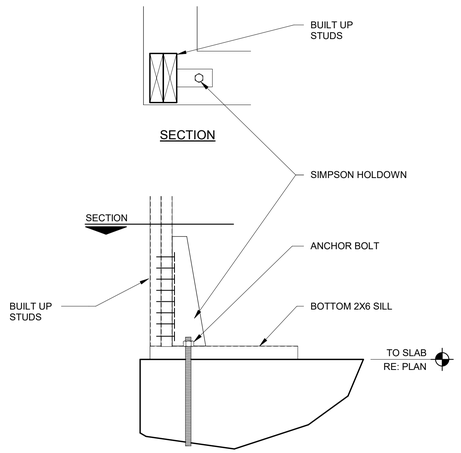
SHEAR WALL SCHEDULE						
MARK	SHEATHING PANEL	NAILING		ANCHORS		
		AT PANEL EDGES AND BOUNDARIES	AT INTERMEDIATE FRAMING MEMBERS	SILL PLATE TO CONCRETE	HOLDOWN ANCHORS (RE: PLANS FOR LOCATIONS)	BUILT-UP END STUDS
SW1	5/16" WOOD STRUCTURAL PANEL ONE SIDE	6d AT 6" O.C.	6d AT 12" O.C.	5/8" DIA. SIMPSON TITEN HD ANCHOR AT 48" O.C. WITH 6" EMBEDMENT	(1) SIMPSON HDU4-SDS2.5 HOLDOWN WITH 5/8" DIA. HILTI HIT-HY 200 ADHESIVE WITH 12" EMBEDMENT	(2) 2x6
SW2	5/16" WOOD STRUCTURAL PANEL ONE SIDE	6d AT 4" O.C.	6d AT 12" O.C.	5/8" DIA. SIMPSON TITEN HD ANCHOR AT 48" O.C. WITH 6" EMBEDMENT	(1) SIMPSON HDU5-SDS2.5 HOLDOWN WITH 5/8" DIA. HILTI HIT-HY 200 ADHESIVE WITH 12" EMBEDMENT	(2) 2x6

NOTES:
1. RE: PLANS FOR ANCHOR BOLT AND HOLDOWN LOCATIONS.
2. ALL SHEATHING TO BE APA RATED, EXPOSURE I.
3. HOLDDOWN EMBEDMENT DOES NOT INCLUDE SLAB-ON-GRADE THICKNESS

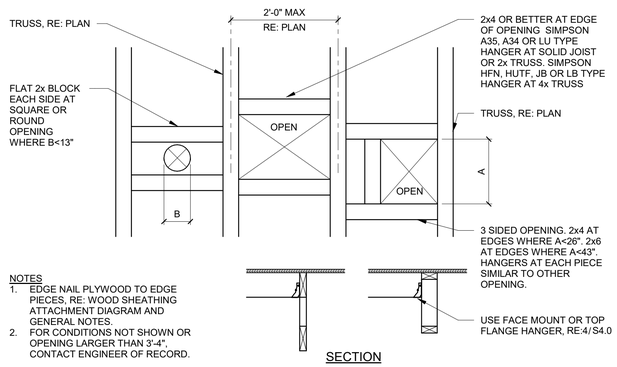
5 SHEAR WALL SCHEDULE
3/4" = 1'-0"



4 WOOD SHEATHING ATTACHMENT DIAGRAM
3/4" = 1'-0"

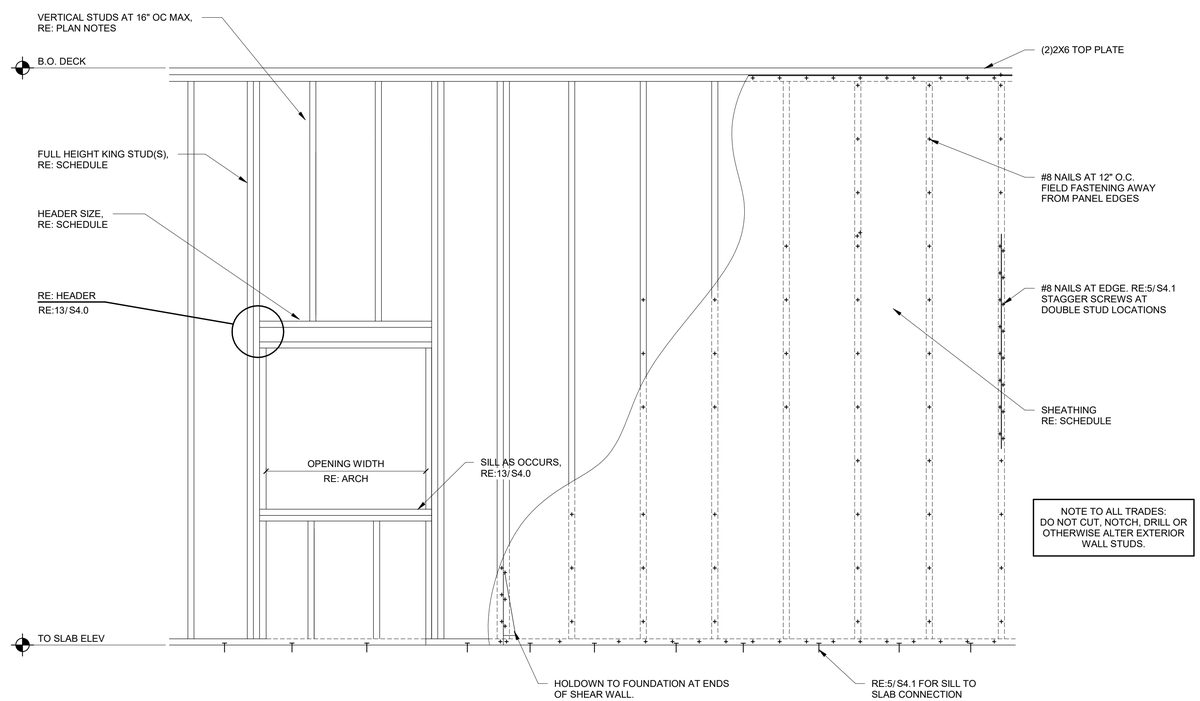


3 SHEAR WALL HOLDOWN
1 1/2" = 1'-0"



NOTES
1. EDGE NAIL PLYWOOD TO EDGE PIECES, RE: WOOD SHEATHING ATTACHMENT DIAGRAM AND GENERAL NOTES.
2. FOR CONDITIONS NOT SHOWN OR OPENING LARGER THAN 3'-4", CONTACT ENGINEER OF RECORD.

2 SMALL OPENING IN PLYWOOD DECK
3/4" = 1'-0"



SHEAR WALL NOTES:
1. SEE HOLDOWN ANCHOR DETAIL, RE:3/S4.1 FOR ADDITIONAL INFORMATION.
2. WALL STUDS SHALL BE CONTINUOUS FROM BOTTOM TO TOP.
3. SHEAR WALL HOLDOWNS LOCATED AT EACH WALL CORNER. RE: FOUNDATION PLAN

1 WOOD STRUCTURAL WALL ELEVATION
3/4" = 1'-0"

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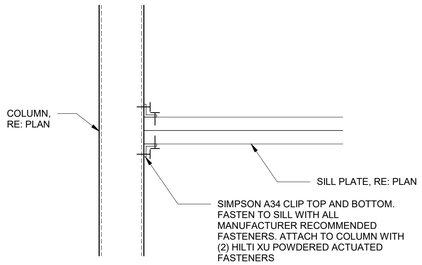
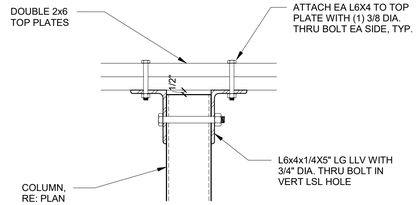
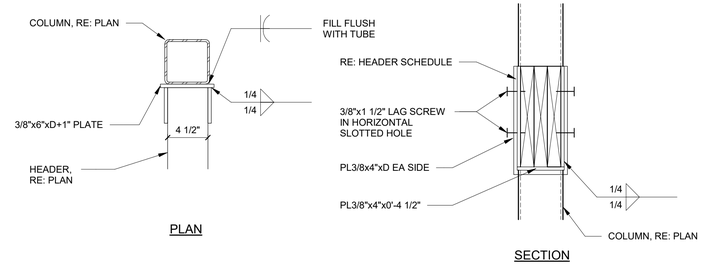


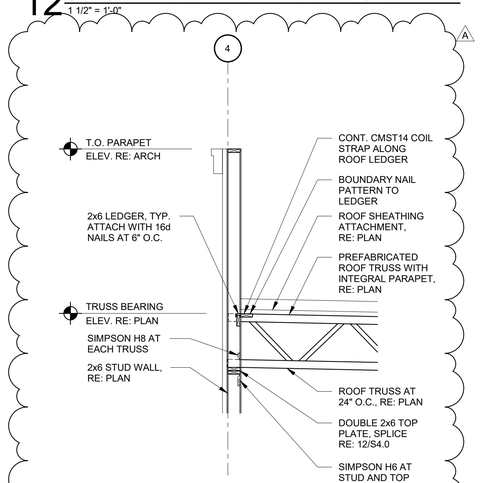
12 COLUMN TO SILL PLATE CONNECTION
1 1/2" = 1'-0"



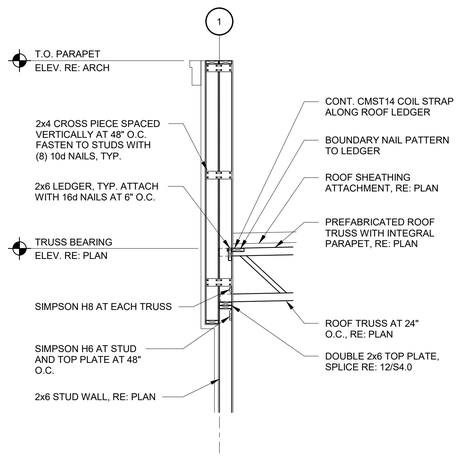
11 COLUMN TO TOP PLATE CONNECTION
1 1/2" = 1'-0"



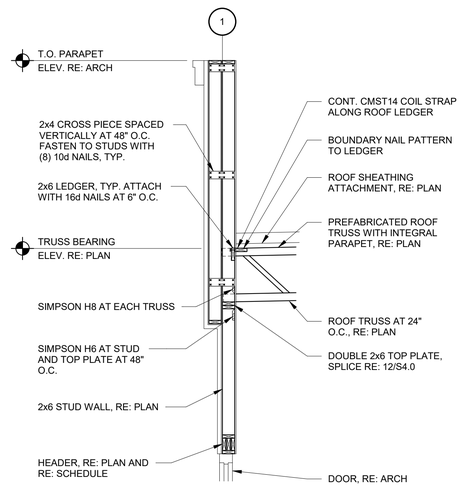
10 HEADER TO STEEL CONNECTION
1 1/2" = 1'-0"



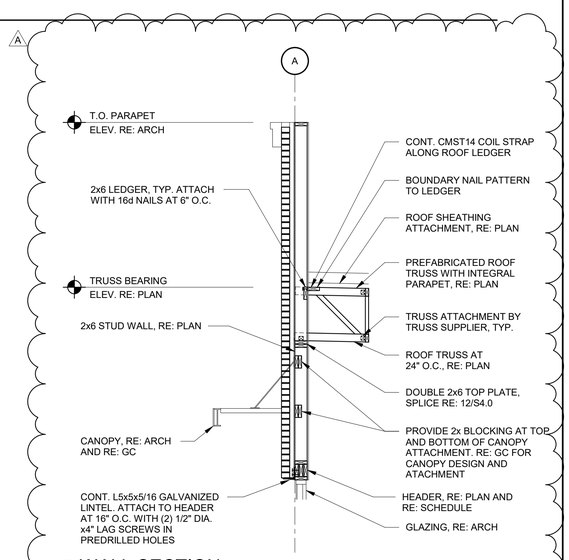
9 WALL SECTION
3/8" = 1'-0"



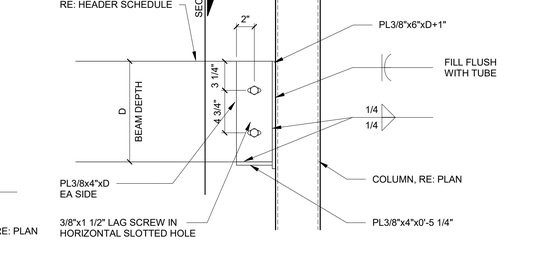
8 WALL SECTION
3/8" = 1'-0"

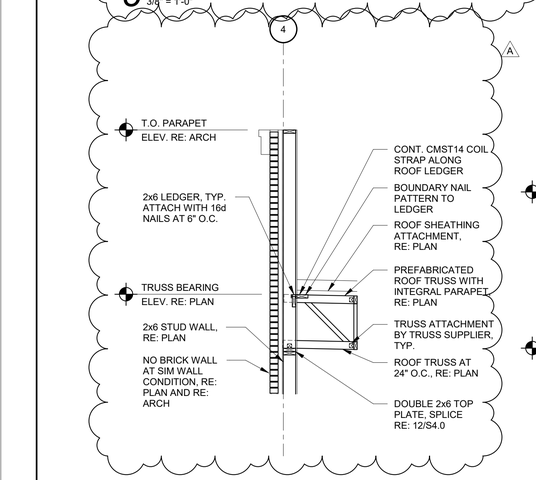


7 WALL SECTION
3/8" = 1'-0"

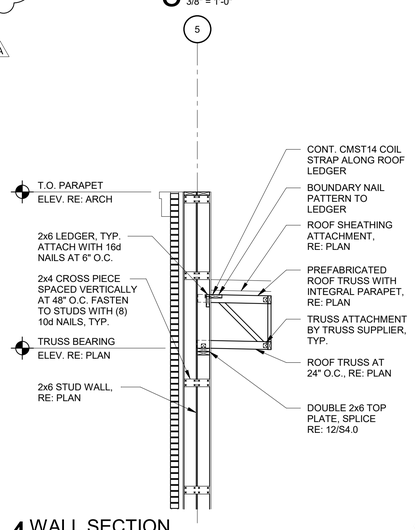


6 WALL SECTION
3/8" = 1'-0"

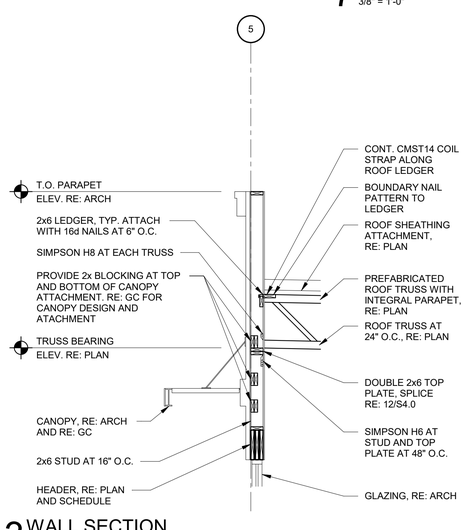




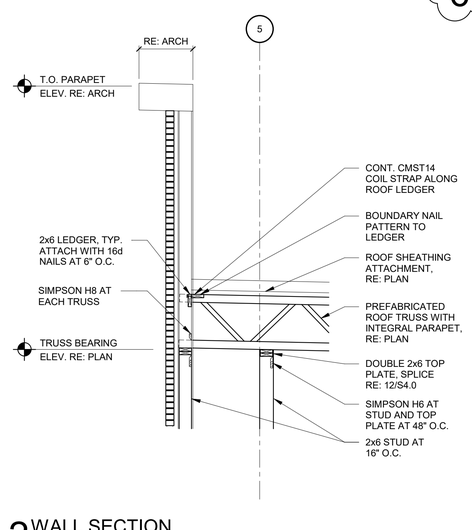
5 WALL SECTION
3/8" = 1'-0"



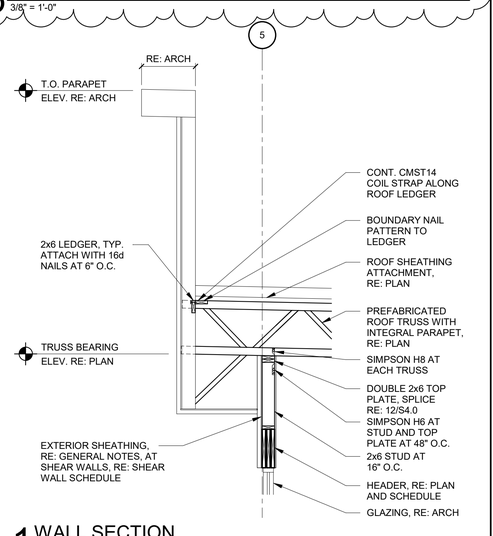
4 WALL SECTION
3/8" = 1'-0"



3 WALL SECTION
3/8" = 1'-0"



2 WALL SECTION
3/8" = 1'-0"



1 WALL SECTION
3/8" = 1'-0"

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S4.2