NOTES - STEEL JOIST & GIRDERS

1. DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE AND THE GOVERNING EDITION OF IBC SECTION 2206.
2. PROVIDE BRIDGING AT ALL JOISTS PER SJI REQUIREMENTS (TYP). PROVIDE ADDITIONAL BOTTOM CHORD BRIDGING FOR STRESS REVERSAL NECESSARY TO RESIST UPLIFT AS SPECIFIED IN DESIGN INFORMATION.
3. ALL BAR JOISTS SHALL HAVE ONE SHOP COAT OF RUST INHIBITOR PRIMER PAINT CONFORMING TO SPECIFICATIONS. FIELD TOUCH UP ALL UNPAINTED AREAS AND WELD AREAS.
4. JOIST GIRDER PANEL LOADS INCLUDE LOADS FROM MECHANICAL ZONES.
5. JOIST GIRDER SELF WEIGHT IS NOT INCLUDED IN PANEL POINT LOADS. JOIST SUPPLIER TO ADD SELF WEIGHT INTO GIRDER DESIGN.
6. MECHANICAL SUPPLIER TO PROVIDE CURB DETAIL/DESIGN TO SPAN BETWEEN SUPPORTING JOISTS. IT IS THE RESPONSIBILITY OF THE MECHANICAL SUPPLIER TO VERIFY IF CURB NEEDS ADDITIONAL SUPPORTS BETWEEN JOISTS.
7. REFER TO PLAN FOR ANY ADDITIONAL LOADS. POINT LOADS SHOWN IN PLAN SHOULD BE DESIGNED AS AN ADD-LOAD AND BEND-CHECK LOAD.
8. ADD-LOADS ARE A SINGLE CONCENTRATED LOAD WHICH CAN OCCUR AT ANY PANEL POINT ALONG THE JOIST IN THE DESIGNATED AREA. THIS LOAD IS IN ADDITION TO ALL GRAVITY LOADS INDICATED ON PLANS.
9. BEND-CHECK LOADS ARE A SINGLE CONCENTRATED LOAD USED IN THE DESIGN OF THE JOIST TOP CHORD FOR THE ADDITIONAL BENDING STRESSES RESULTING FROM APPLYING THIS LOAD AT ANY LOCATION BETWEEN JOIST PANEL POINTS.
10. DEAD LOAD SHOWN IN THE DESIGN INFORMATION ACCOUNTS FOR A 5 PSF LOAD FOR WEIGHT OF JOISTS.
11. JOIST EXTENSIONS TO BE DESIGNED FOR SAME UNIFORM LOAD AS JOIST INCLUDING ANY ADDITIONAL DRIFT LOAD SHOWN IN THESE PLANS.
12. HANGING EQUIPMENT LOADS MUST BE SUPPORTED FROM TOP CHORD. EACH POINT LOAD ON THE JOIST MUST BE LESS THAN THE BEND CHECK LOAD SHOWN IN STEEL JOIST DESIGNER NOTES. WHERE HANGING EQUIPMENT IS OUTSIDE OF MECHANICAL ZONE, AN ADDITIONAL SUPPORT ANGLE SHALL BE PROVIDED TO TRANSFER LOAD TO NEAREST PANEL POINT.
13. COMBINED LOAD ON EACH JOIST FROM ROOF TOP EQUIPMENT AND INTERIOR HANGING EQUIPMENT SHALL NOT EXCEED THE ADD LOAD CALLED OUT IN THE STEEL JOIST DESIGNER NOTES

NOTES - STEEL DECK

1. STEEL DECK SHALL MEET THE CURRENT SPECIFICATIONS OF THE STEEL DECK INSTITUTE.
2. STEEL DECK SHALL BE THREE SPAN MINIMUM UNLESS NOTED OTHERWISE. PROVIDE (2) LAYERS OF DECK WHERE A SINGLE SPAN OR TWO SPAN CONDITION EXISTS. MAKE DECK ATTACHMENTS AFTER PLACEMENT OF BOTH LAYERS OF ROOF DECK, WHERE REQUIRED, AT SINGLE AND TWO SPAN CONDITIONS.
3. G60/G60 GALVANIZATION SHOULD BE USED WHERE GALANIZED DECK IS CALLED OUT IN THESE DRAWINGS.

NOTES - COLD-FORMED METAL FRAMING

1. ALL COLD FORMED STEEL MEMBERS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE GOVERNING EDITION FOR THE SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS BY THE AISI "AMERICAN IRON AND STEEL INSTITUTE".
2. SPLICES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED.
3. ALL CONNECTIONS SHALL BE MADE PER THE MANUFACTURER'S RECOMMENDATIONS AND ADEQUATE PER THE TYPE, SIZE, AND NUMBER OF MEMBERS BEING CONNECTED. STUDS SHALL BE PLUMBED, ALIGNED, AND SECURELY ATTACHED TO THE FLANGE OR WEBS OF BOTH UPPER AND LOWER TRACKS (PROVIDE FULL BEARING AGAINST THE INSIDE OF THE TRACK WEB, 1/16" MAX GAP).
4. ALL STUDS GALVANIZED WITH MINIMUM G60 COATING.
5. DEFLECTION CONDITIONS SHALL ALLOW FOR FRICTIONLESS, VERTICAL MOVEMENT. ALL CONNECTIONS REQUIRE A VALID ICC ES REPORT EQUIVALENT COMPLYING WITH ICC ACCEPTANCE CRITERIA (AC261).

NOTES - SHALLOW FOUNDATIONS

1. CONTRACTOR SHALL BE FULLY FAMILIAR WITH ALL ASPECTS OF THE SOILS REPORT BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL USE THE SOILS REPORT FOR SPECIFICATIONS AND DETAILS FOR PLACEMENT OF PERIMETER DRAINS, UNDER-SLAB DRAINS, AND ANY OTHER SOILS RELATED ITEMS.
3. CONTRACTOR SHALL REFER TO THE SOILS REPORT FOR ALL SOIL CONDITIONING REQUIREMENTS PRIOR TO PLACING BUILDING FOUNDATIONS.
4. ALL FOOTING EXCAVATIONS TO BE APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
5. ALL EXTERIOR AND PERIMETER FOOTINGS SHALL EXTEND BELOW FROST DEPTH, REFERENCE DESIGN INFORMATION FOR FROST DEPTH.

NOTES - FOUNDATION

1. CONTRACTOR SHALL BE FULLY FAMILIAR WITH IBC CHAPTER 18 FOR USE OF PRESUMPTIVE LOAD-BEARING CAPACITY.
2. CONTRACTOR SHALL USE IBC SPECIFICATIONS AND DETAILS FOR PLACEMENT OF PERIMETER DRAINS, UNDER-SLAB DRAINS, AND ANY OTHER SOILS RELATED ITEMS.
3. ALL FOUNDATIONS TO BEAR ON ORIGINAL, UNDISTURBED SOIL. REMOVE ANY MUD, ORGANIC SILT, ORGANIC CLAYS, PEAT OR UNPREPARED FILL PRIOR TO PLACING FOUNDATIONS.
4. ALL FOOTING EXCAVATIONS TO BE APPROVED BY A QUALIFIED GEOTECHICAL ENGINEER PRIOR TO PLACING CONCRETE.
5. ALL EXTERIOR AND PERIMETER FOOTINGS SHALL EXTEND BELOW FROST DEPTH, REFERENCE DESIGN INFORMATION FOR FROST DEPTH.

NOTES - CONCRETE

1. ALL CONCRETE CONSTRUCTION TO CONFORM TO ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", THE GOVERNING EDITION OF THE ACI 318, AND ACI "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" ACI 301, UNLESS NOTED OTHERWISE.
2. WATER REDUCING ADD MIXTURES ARE ALLOWED IN CONCRETE MIX DESIGNS.
3. SYNTHETIC MICRO-FIBERS ARE NOT ALLOWED UNLESS SPECIFICALLY NOTED IN THESE DRAWINGS.
4. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT THE EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.
5. REFERENCE ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIP SLOTS, REGLETS, MASONRY, ANCHORS, BRICK LEDGE ELEVATIONS AND FOR MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
6. REFERENCE ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES. WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
7. REFERENCE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DRAINS, SLEEVES, OUTLET BOXES, CONDUIT, ANCHORS, ETC.
8. CONTACT APEX ENGINEERS, INC. IF HOUSE KEEPING PADS OR INERTIA BASES ARE REQUIRED BEYOND WHAT IS SHOWN IN THE STRUCTURAL CONTRACT DOCUMENTS.
9. ALL REINFORCING STEEL TO BE DETAILED IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."
10. REINFORCING SHALL BE CONTINUOUS WHEREVER POSSIBLE. SPLICES AND LAPS TO CONFORM TO ACI 318. REFER TO CONCRETE REBAR SCHEDULE.
11. DOWELS IN FOOTING, WALLS, AND DRILLED PIERS MUST BE IN POSITION BEFORE PLACING CONCRETE WHENEVER POSSIBLE.
12. REFERENCE TYPICAL FOUNDATION DETAILS FOR INFORMATION ON REINFORCING REQUIREMENTS AT WALL AND SLAB OPENINGS.
13. REFERENCE TYPICAL FOUNDATION DETAILS FOR INFORMATION ON REINFORCING REQUIREMENTS AT CORNER AND TEE INTERSECTIONS.
14. PROVIDE VERTICAL CONTROL JOINTS ON ALL POURED CONCRETE WALLS AND BASEMENT WALLS, EXCEPT FOUNDATION STEM WALLS LOCATED IN THE GROUND. SPACE JOINTS AT 3 x WALL HEIGHT FOR WALLS LESS THAN 10'-0" AND WALL HEIGHT FOR TALLER WALLS. PROVIDE ADDITIONAL JOINT WITHIN 10'-0" OF CORNERS.
15. OPENINGS IN SLAB OF 1'-4" AND LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.

NOTES - STEEL

1. ALL STRUCTURAL STEEL TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE GOVERNING EDITION OF THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
2. BOLTED CONNECTIONS: ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHT IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM F3125 GRADE A325 OR A490 BOLTS" PUBLISHED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.
3. WELDED CONNECTIONS: ALL WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING SOCIETY CODE" (AWS D1.1) PUBLISHED BY THE AMERICAN WELDING SOCIETY. ELECTRODES FOR WELDING SHALL COMPLY WITH THE REQUIREMENTS OF TABLE 3.1 OF (AWS D1.1). ALL WELDING TO BE DONE BY QUALIFIED WELDERS CONFORMING TO THE AMERICAN WELDING SOCIETY STANDARDS.
4. SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT THE WRITTEN APPROVAL OF APEX ENGINEERS, INC.
5. CHANGES IN SIZE OR POSITION OF THE STRUCTURAL ELEMENTS, AND HOLES, SLOTS, CUTS, ETC. THROUGH ANY MEMBER, ARE NOT PERMITTED UNLESS THEY ARE DETAILED ON THE APPROVED SHOP DRAWINGS.
6. NO FINAL BOLTING OR WELDING SHALL BE MADE UNTIL AS MUCH OF THE STRUCTURE AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
7. FABRICATE ALL BEAMS WITH THE MILL CAMBER UP UNO.
8. ALL VISIBLE WELDED CONNECTIONS ON ARCHITECTURAL ELEMENTS TO BE GROUND SMOOTH. DO NOT REDUCE THROAT SIZE OF WELD.
9. THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PERFORMANCE OF ALL CONNECTIONS NOT FULLY DESIGNED OR DETAILED IN THE CONTRACT DOCUMENTS. FABRICATOR TO PROVIDE ENGINEERED STAMPED SHOP DRAWINGS AND CALCULATIONS FOR ALL CONNECTIONS THAT DO NOT COMPLY WITH AISC STEEL CONSTRUCTION MANUAL CHAPTER 10 SIMPLE SHEAR CONNECTIONS.
10. STEEL MEMBERS ON THE EXTERIOR OF THE BUILDING OR EXPOSED TO SOIL MUST BE, AT A MINIMUM, PROPERLY PRIMED WITH RUST INHIBITING PRIMER AND PAINTED. STEEL MEMBERS COMPLETELY ENCLOSED IN BUILDING ENVELOPE DO NOT REQUIRE PRIMER OR PAINT, UNO. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL REQUIREMENTS OF EXPOSED STEEL.

NOTES - GENERAL

1. THESE DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
2. NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
3. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
5. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.
6. UNLESS OTHERWISE NOTED, FIREPROOFING METHODS AND MATERIALS FOR STRUCTURAL MEMBERS ARE NOT SHOWN ON STRUCTURAL DRAWINGS. REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FIRE RATING REQUIREMENTS, FIRE PROOFING METHODS AND MATERIALS.
7. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS SHOWN ON PLANS.
8. THE CONTRACTOR SHALL INFORM THE ARCHITECT/ENGINEER OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY FOR SUCH DEVIATION BY THE ARCHITECT/ENGINEER'S APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS HE HAS SPECIFICALLY INFORMED THE ARCHITECT/ENGINEER OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE ARCHITECT/ ENGINEER HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
9. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS, BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. PLANS AND/OR SPECIFICATIONS WILL BE CORRECTED, OR WRITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ARCHITECT/ENGINEER BEFORE THE AFFECTED WORK PROCEEDS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING, FABRICATION AND INSTALLATION. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS IN THE FIELD NECESSARY TO VERIFY OR SUPPLEMENT DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS AND HE SHALL VERIFY THAT ALL DIMENSIONS SHOWN ON THE SHOP DRAWINGS ARE COORDINATED WITH THE DIMENSIONS AND REQUIREMENTS OF THE CONTRACT DRAWINGS. REVIEW OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLETING THE WORK SUCCESSFULLY IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
11. SUBMIT PRINTS OR ELECTRONIC COPIES OF EACH SHOP DRAWINGS. REPRODUCIBLE COPIES OF CONTRACT DOCUMENTS SHALL NOT BE USED AS SHOP DRAWINGS. SHOP DRAWINGS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMISSION. CONTRACTOR STAMP SHOP DRAWINGS ACCEPTING RESPONSIBILITY FOR COORDINATION OF DIMENSIONS SHOWN IN THE CONTRACT DOCUMENTS, QUANTITIES AND COORDINATION WITH OTHER TRADES. DRAWINGS NOT BEARING CONTRACTOR'S STAMP MAY BE REJECTED AT THE DISCRETION OF THE ARCHITECT OR STRUCTURAL ENGINEER.
12. REVIEW AND RETURN OF SHOP DRAWINGS SHALL BE BASED ON A MINIMUM OF TEN (10) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE FROM RECEIPT OF SUBMISSION TO RETURN TO THE NEXT PARTY FOR THEIR ACTION. SHOP DRAWINGS SHOULD BE SUBMITTED INCREMENTALLY AS APPROPRIATE PACKAGES ARE PREPARED TO EQUALIZE THE WORKLOAD FOR REVIEW OF THE DRAWINGS. SUBMISSION OF A LARGE VOLUME OF SHOP DRAWINGS AT ONE TIME MAY RESULT IN REVIEW TIMES WHICH WILL EXCEED THOSE NOTED ABOVE. DEFINITION OF A "LARGE VOLUME" OF SHOP DRAWINGS IS SUBJECT TO INTERPRETATION.

NOTES - DEFERRED SUBMITTALS

1. THE ARCHITECT OR ENGINEER OF RECORD SHALL LIST THE DEFERRED SUBMITTALS ON THE PLANS FOR REVIEW BY THE BUILDING OFFICIAL.
2. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN THE GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING.
3. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
4. DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION AND THAT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.
5. DEFERRAL OF ANY SUBMITTAL ITEMS SHALL HAVE THE PRIOR APPROVAL OF THE BUILDING OFFICIAL.
6. SUBMITTALS SHALL INCLUDE DETAILED DRAWINGS OF EACH MEMBER AND ITS CONNECTIONS ALONG WITH SUPPORTING CALCULATIONS PREPARED UNDER THE SUPERVISION, BEARING THE SEAL AND SIGNATURE, OF A LICENSED PROFESSIONAL ENGINEER IN THE PROJECT JURISDICTION.
7. CONTRACTOR SHALL SUBMIT STRUCTURAL DEFERRED SUBMITTAL FOR THE FOLLOWING:

- PREFABRICATED WOOD TRUSSES
- STEEL GUARDRAILS AND HANDRAILS
- STEEL FABRICATED STAIRS AND LADDERS
- PRE-MANUFACTURED CANOPIES AND AWNINGS

NOTES - SHOP DRAWING SUBMITTALS

1. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS. SHOP DRAWING REVIEW IS INTENDED FOR VERIFICATION OF DESIGN CONCEPT CONVEYANCE AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY.
2. CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS SHALL BE CLOUDED BY MANUFACTURER/FABRICATOR. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNO.
3. SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS SHOWN INCORRECTLY OR OMITTED AND NOT FLAGGED BY THE ENGINEER DURING REVIEW ARE NOT TO BE CONSIDERED CHANGES TO THE CONTRACT DOCUMENTS.
4. THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY. DESIGNED SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER.
5. SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS. REPRODUCTION OF ANY PORTION OF THE CONTRACT DOCUMENTS FOR USE IN SUBMITTALS IS NOT PERMITTED AND MAY RESULT IN REJECTION.
6. THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANY TIME BEFORE OR AFTER SHOP DRAWING REVIEW.
7. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING:

- CONCRETE MIX DESIGN, MATERIALS, AND TEST REPORTS
- CONCRETE REINFORCING STEEL, HARDWARE, AND FASTENERS
- STRUCTURAL STEEL FRAMING
- STEEL JOISTS AND DECKING
- MASONRY MATERIALS, GROUT MIX DESIGN, REINFORCING, STATEMENT OF COMPRESSIVE STRENGTH
- ROUGH CARPENTRY HARDWARE, AND FASTENERS
- ENGINEERED WOOD FRAMING
- COLD-FORMED METAL FRAMING, HARDWARE, AND FASTENERS

MATERIAL SPECIFICATIONS

STEEL MATERIAL SPECIFICATIONS

STEEL MEMBERS	MATERIAL
WIDE FLANGE SHAPES (W)	ASTM A992
CHANNELS (C), ANGLES (L)	ASTM A36
PLATES	ASTM A36
HOLLOW STRUCTURAL SHAPES (HSS)	ASTM A500, GRADE C
HIGH STRENGTH BOLTS	ASTM F3125, GRADE A325
ANCHOR BOLTS (HEX-HEAD UNO)	ASTM F1554 (55 ksi) "S1"
EPOXY ANCHOR RODS	ASTM A36
STEEL DECK, PLAIN STEEL	ASTM A1008, (33 ksi)
STEEL DECK, GALVANIZED	ASTM A653, (33 ksi)
NON-SHRINK GROUT, COL. BASES	5000 psi (28 DAY STRENGTH)

CONCRETE & REINFORCING STEEL SPECIFICATIONS

MATERIAL	SPECIFICATION
REINFORCING BARS	ASTM A615, GRADE 60
WELDED REBAR	ASTM A706
WELDED WIRE FABRIC	ASTM A1064
PORTLAND CEMENT	ASTM C 150
FLY ASH	ASTM C 618, 15% MAX
CONCRETE AGGREGATES	ASTM C 33, 3/4" MAX AGG. SIZE.
EPOXY - THREADED ROD ANCHORS	HILTI HIT-HY 200 A OR SIMPSON SET 3G
EPOXY - REINFORCING BARS	HILTI HIT-HY 200 R OR SIMPSON SET 3G
REBAR CONDITION	**MINIMUM CONCRETE COVER**
FORMED SURFACES EXPOSED TO GROUND OR WEATHER	2"
UNFORMED SURFACE IN CONTACT WITH THE GROUND	3"
WALLS AND SLABS NOT EXPOSED TO GROUND OR WEATHER	1"
INTERIOR BEAMS AND COLUMNS (TO TIES OR STIRRUPS)	1 1/2"

CONCRETE MIX DESIGN REQUIREMENTS

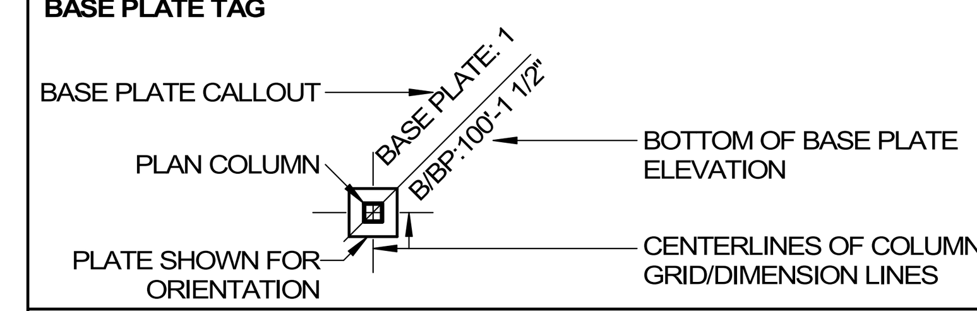
CONCRETE USE	WEIGHT	28 DAY f'c	CEMENT TYPE	MAX W/C RATIO	SLUMP (+/- 1")	% AIR
FOOTINGS/PIERS	NW	3500 psi	I/II	0.55	5"	6% MAX
FOUNDATION WALLS	NW	3500 psi	I/II	0.50	4"	6% +/- 1%
INT. SLAB-ON-GRADE	NW	4000 psi	I/II	0.45	5"	3% MAX

SYMBOLS / ABBREVIATIONS

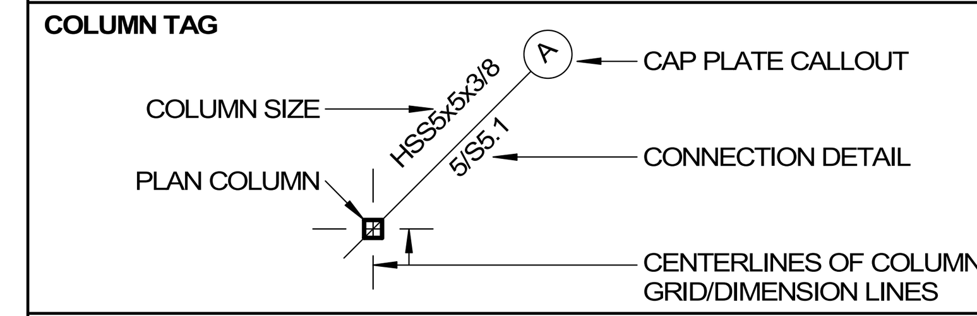
SYMBOL/TAG	DESCRIPTION	APPLIES TO
X / SX.X	DETAIL ON SHEET / SHEET NUMBER	DETAILS, SECTIONS, & ELEVATIONS
T.O.W. = XXX' - XX" B.O.W. = XXX' - XX"	ELEVATION (TOP) ELEVATION (BOTTOM)	FOUNDATION WALLS AND LEDGES (SIM)
T.O.X. XXX' - XX"	ELEVATION MARK	LEVELS, SPOT ELEVATIONS, & PLAN ELEVATIONS
T.O.S. = XXX' - XX"	TOP OF STEEL ELEVATION	PLAN VIEW NOTATIONS
JST BRG = XXX' - XX"	JOIST BEARING ELEVATION	PLAN VIEW NOTATIONS
X (triangle)	REVISION MARK	SHEET REVISIONS

ABV	DEFINITION	ABV	DEFINITION
AB	ANCHOR BOLT	SIM	SIMILAR CONDITION
CJ	CONTRACTION JOINT	STD	STANDARD
CL	CENTERLINE	TOC	TOP OF CONCRETE
DIA	DIAMETER	TOD	TOP OF DECK
EOD	EDGE OF DECK ANGLE	TOL	TOP OF LEDGE
EOS	EDGE OF SLAB	TOM	TOP OF MASONRY
EXT	EXTERIOR	TOS	TOP OF STEEL
GA	GAUGE	TOW	TOP OF WALL
HAS	HEADED ANCHOR STUDS	TYP	TYPICAL CONDITION
OC	ON CENTER	UNO	UNLESS NOTED OTHERWISE
PAF	POWDER ACTUATED FASTNR	WP	WORK POINT

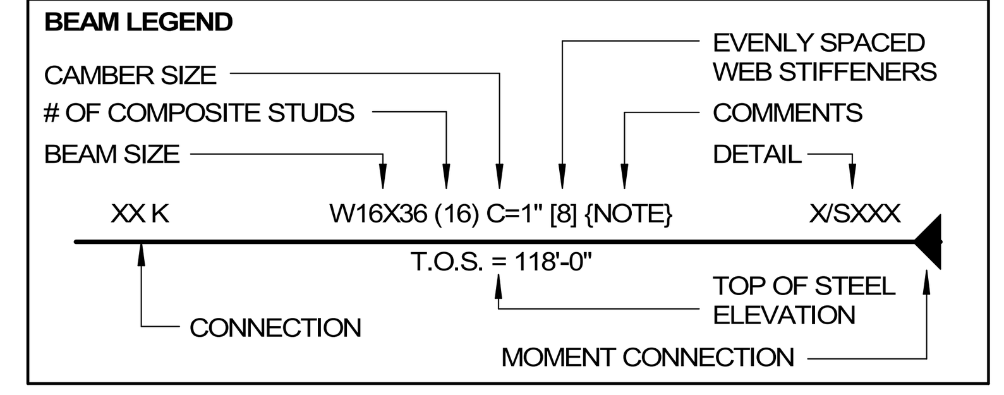
BASE PLATE TAG



COLUMN TAG



BEAM LEGEND



DESIGN INFORMATION

BUILDING CODE:

2018 INTERNATIONAL BUILDING CODE AS ADOPTED AND/OR AMENDED BY LOCAL BUILDING CODES

SOILS INFORMATION:

THE FOUNDATION DESIGN PROVIDED IS BASED OFF OF A MINIMUM ALLOWABLE PRESUMPTIVE LOAD-BEARING VALUE AS INDICATED BY IBC TABLE 1806.2 IN LIEU OF A SITE BASE GEOTECHNICAL EVALUATION. IT IS RECOMMENDED THAT A QUALIFIED GEOTECHNICAL ENGINEER BE RETAINED TO VERIFY THESE ASSUMPTIONS PRIOR TO CONSTRUCTION. BY USE OF THIS FOUNDATION DESIGN WITHOUT PROVIDING SUCH VERIFICATION, APEX WILL NOT BE LIABLE FOR THIS DESIGN PARAMETER, AND THE OWNER SHALL ACCEPT ALL RISKS ASSOCIATED WITH DAMAGE TO THE STRUCTURE AS A RESULT OF EXPANSIVE, COMPRESSIBLE, SHIFTING AND/OR DIFFERENTIAL MOVEMENT AS A RESULT OF DIFFERING SUBGRADE CONDITIONS BETWEEN EXISTING AND NEW FOUNDATION ELEMENTS.

FROST DEPTH	48"
PRESUMPTIVE LOAD-BEARING PRESSURE	1500 psf
WIND DESIGN DATA:	**Main Building**
OCCUPANCY CATEGORY	II
ULTIMATE WIND SPEED (3 SECOND GUST), V	115 mph
WIND EXPOSURE CATEGORY	C
VELOCITY PRESSURE, q_z	26.1 psf
INTERNAL PRESSURE COEFFICIENT, GC_{pi}	+/-0.18
WIND DESIGN COMPONENTS & CLADDING DATA:	**Main Building**
EDGE REGION, a	6' - 5"

WALL ZONES	10 SF	20 SF	50 SF	100 SF	200 SF
4 & 5	31 psf	29 psf	28 psf	26 psf	25 psf
4	-33 psf	-32 psf	-30 psf	-29 psf	-27 psf
5	-41 psf	-38 psf	-35 psf	-32 psf	-29 psf
ROOF ZONES	**10 SF**	**20 SF**	**50 SF**	**100 SF**	**200 SF**
All Zones	23 psf	20 psf	16 psf	16 psf	16 psf
1	-41 psf	-36 psf	-30 psf	-26 psf	-26 psf
2e, 2r & 3	-57 psf	-51 psf	-43 psf	-37 psf	-31 psf
1 OH	-50 psf	-49 psf	-48 psf	-48 psf	-47 psf
2e & 2r OH	-64 psf	-61 psf	-58 psf	-55 psf	-52 psf
3 OH	-76 psf	-68 psf	-56 psf	-48 psf	-39 psf

SEISMIC DESIGN SITE DATA:	
SPECTRAL RESPONSE COEFFICIENTS	S_S = 0.596
	S_1 = 0.103
SITE CLASS (PER SOILS REPORT)	D
DESIGN SPECTRAL RESPONSE ACCELERATIONS	S_{DS} = 0.526
	S_{D1} = 0.164
SEISMIC ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
SEISMIC DESIGN BUILDING DATA:	**Main Building**
LATERAL SYSTEM: A. BEARING WALL SYSTEMS, No. 15. LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE OR STEEL SHEETS	
RESPONSE MODIFICATION, R	6.50
DEF. AMPLIFICATION FACTOR, C_d	4.00
OVERSTRENGTH FACTOR, Ω	3.00
SEISMIC RESPONSE COEF., C_s	0.081
SEISMIC BASE SHEAR, V	0.7 kip
SEISMIC DESIGN CATEGORY	D
SEISMIC RISK CATEGORY	II
ROOF SNOW LOAD DATA:	Main Building
GROUND SNOW LOAD, P_g	105 psf
SNOW LOAD IMPORTANCE FACTOR, I_s	1.00
SNOW EXPOSURE FACTOR, C_e	1.00
THERMAL FACTOR, C_t	1.00
FLAT ROOF SNOW LOAD, P_f	74 psf
SLOPE FACTOR, C_s	0.73
SLOPED ROOF SNOW LOAD, P_s	54 psf
MINIMUM SNOW LOAD, P_m	0 psf

GRAVITY LOAD DATA:

OCCUPANCY OR USE	LOADS UNIFORM	LOADS POINT
FLOOR DEAD LOADS		
• TYPICAL FLOOR	34 psf	N/A
FLOOR LIVE LOADS		
• FIRST FLOOR	100 psf	1000 lbs
• HANDRAILS AND GUARDRAILS	50 plf	200 lbs
• STAIRS AND EXIT WAYS	100 psf	300 lbs
• UPPER FLOORS	75 psf	1000 lbs
• WHOLESALE, ALL FLOORS	125 psf	1000 lbs
ROOF DEAD LOADS		
• TYPICAL ROOF	29 psf	N/A
ROOF LIVE LOADS		
• ROOF: ORDINARY FLAT, PITCHED, AND CURVED	20 psf	

Reviewed for Code Compliance 08/15/2022

STUDIO DH architecture
1300 JACKSON STREET, SUITE 200, GOLDEN CO 80401
PHONE: 303.458.9600 FAX: 303.458.9666

APEX ENGINEERS, INC.
2701 LAWRENCE ST. UNIT 19
DENVER, CO 80205
720.588.3222
www.apex-engineers.com

Christy's Sports Steamboat

2305 Mt. Werner Circle
Steamboat Springs CO 80487

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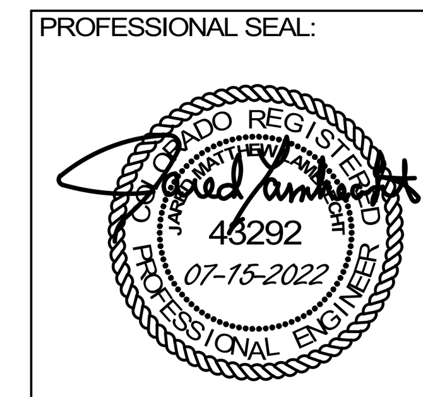


REV. #	ISSUED FOR	DATE
	BID REVISIONS	06/08/2022

JOB NUMBER:	Project Number
APEX JOB NUMBER:	43526
DESIGNED BY:	Rodney Miller
APPROVED BY:	JML
DATE:	07-15-2022
SHEET TITLE:	GENERAL NOTES AND SPECIFICATIONS
SHEET:	S100

SDI TABLE 1.1

INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT:		
TASK	QC	QA
A. VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS.	P	P
B. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES.	P	P

SDI TABLE 1.2

INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT		
TASK	QC	QA
A. VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS.	P	P
B. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS.	N/A	P
C. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES.	P	P

SDI TABLE 1.3

INSPECTION OR EXECUTION TASKS PRIOR TO WELDING		
TASK	QC	QA
A. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.	O	O
B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	O	O
C. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
D. CHECK WELDING EQUIPMENT.	O	O

SDI TABLE 1.4

INSPECTION OR EXECUTION TASKS DURING WELDING		
TASK	QC	QA
A. USE OF QUALIFIED WELDERS.	O	O
B. CONTROL AND HANDLING OF WELDING CONSUMABLES.	O	O
C. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	O	O
D. WPS FOLLOWED	O	O

SDI TABLE 1.5

INSPECTION OR EXECUTION TASKS AFTER WELDING		
TASK	QC	QA
A. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS.	P	P
B. WELDS MEET VISUAL ACCEPTANCE CRITERIA.	P	P
C. VERIFY REPAIR ACTIVITIES.	P	P
D. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS.	P	P

SDI TABLE 1.6

INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING		
TASK	QC	QA
A. MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS.	O	O
B. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION.	O	O
C.PROPER STORAGE FOR MECHANICAL FASTENERS.	O	O

SDI TABLE 1.7

INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING		
TASK	QC	QA
A. FASTENERS ARE POSITIONED AS REQUIRED.	O	O
B. FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.	O	O

SDI TABLE 1.8

INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING		
TASK	QC	QA
A. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS.	P	P
B. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS.	P	P
C. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS.	P	P
D. VERIFY REPAIR ACTIVITIES.	P	P
E. DOCUMENT ACCEPTANCES OR REJECTION OF MECHANICAL FASTENERS.	P	P

AISC TABLE N5.4-1

INSPECTION TASKS PRIOR TO WELDING	QC	QA
1. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P
2. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P
3. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
4. WELDER IDENTIFICATION SYSTEM[1]	O	O
5. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	O	O
6. CONFIGURATION AND FINISH OF ACCESS HOLES	O	O
7. FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O	O
8. CHECK WELDING EQUIPMENT	O	-

[1] *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*

AISC TABLE N5.4-2

INSPECTION TASKS DURING WELDING	QC	QA
1. USE OF QUALIFIED WELDERS	O	O
2. CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	O	O
3. NO WELDING OVER CRACKED TACK WELDS	O	O
4. ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	O	O
5. WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)	O	O
6. WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O	O

AISC TABLE N5.4-3

INSPECTION TASKS AFTER WELDING	QC	QA
1. WELDS CLEANED	O	O
2. SIZE, LENGTH AND LOCATION OF WELDS	P	P
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	P	P
4. ARC STRIKES	P	P
5. K-AREA[1]	P	P
6. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
7. REPAIR ACTIVITIES	P	P
8. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P

[1] *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 IN. (75 MM) OF THE WELD*

AISC TABLE N5.6-1

INSPECTION TASKS PRIOR TO BOLTING	QC	QA
1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P
2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
3. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LEINGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O
4. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
5. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O
6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O
7. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O

AISC TABLE N5.6-2

INSPECTION TASKS DURING BOLTING	QC	QA
1. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O
2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O
3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O

AISC TABLE N5.6-3

INSPECTION TASKS AFTER BOLTING	QC	QA
1. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P

AISC TABLE N6.1

INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT	QC	QA
1. PLACEMENT AND INSTALLATION OF STEEL DECK	P	P
2. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P
3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P	P

STATEMENT OF SPECIAL INSPECTION

IBC CODE REFERENCE	CONSTRUCTION TYPE	FREQUENCY CONT.	FREQUENCY PER.
1705.2	STEEL CONSTRUCTION		
1705.6	SOILS		
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
1705.11.2	COLD-FORMED STEEL FRAMING		
1. MATERIAL VERIFICATION:			
A. MEMBER SIZE AND THICKNESS TO MATCH CONTRACT DOCUMENTS INCLUDING TRACKS, STUDS, ASSEMBLIES, CONNECTORS.			X
B. FASTENER MATERIAL AND COMPONENTS			X
2. INSPECTION OF INSTALLATION			
A. INSPECT MEMBER LAYOUT, CONNECTION, ORIENTATION			X
B. SPECIAL INSPECTION REQUIRED FOR FASTENERS PER MANUFACTURER.			X
C. INSPECTION PRIOR TO SHEATHING: VERIFY FLANGES ARE INTACT, STUDS ARE NOT CUT OR SPLICED.			X
3. INSPECTION OF WELDING.			X
1705.14	SPRAYED FIRE-RESISTANT MATERIALS		
1. STRUCTURAL MEMBER SURFACE CONDITIONS.			X
2. APPLICATION.			X
3. THICKNESS.			X
4. DENSITY.			X
5. BOND STRENGTH.			X

STATEMENT OF SPECIAL INSPECTION

IBC CODE REFERENCE	CONSTRUCTION TYPE	FREQUENCY CONT.	FREQUENCY PER.
1705.2	STEEL CONSTRUCTION		
1705.2.1	STRUCTURAL STEEL		
1. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360. **(REFER TO AISC CHARTS ON THIS SHEET)**			
1705.2.2	COLD-FORMED STEEL DECK		
1. SPECIAL INSPECTIONS AND QUALIFIACTIONS OF WELDING SPECIAL INSPECTORS FOR COLD-FORMED STEEL FLOOR AND ROOF DECK SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF SDI QA/QC. **(REFER TO SDI CHARTS ON THIS SHEET)**			
1705.2.3	OPEN-WEB STEEL JOIST AND JOIST GIRDERS		
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS:			
A. END CONNECTIONS - WELDING OR BOLTED			X
B. BRIDGING - HORIZONTAL OR DIAGONAL.			
1. STANDARD BRIDGING			X
2. BRIDGING THAT DIFFERS FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207.1			X
1705.3	REINFORCED CONCRETE		
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.			X
2. INSPECTION OF REINFORCING STEEL WELDING:			
A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.			X
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"			X
C. INSPECT ALL OTHER WELDS		X	
3. INSPECTION OF ANCHORS CAST IN CONCRETE:			X
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.			
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. VERIFYING USE OF REQUIRED MIX DESIGN			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. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.		X	
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.			X
9. INSPECTION OF PRESTRESSED CONCRETE:			
A. APPLICATION OF PRESTRESSING FORCES.		X	
B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.		X	
10. ERECTION OF PRECAST CONCRETE MEMBERS.			X
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORING.			X
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.			X
SPECIAL INSPECTION AGENCY TO PERFORM TESTS AT SEVEN (7) DAYS AND AT TWENTY EIGHT (28) DAYS. A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF AT LEAST TWO (2) 6"x12" CYLINDERS OR AT LEAST THREE (3) 4"x8" CYLINDERS MADE FROM THE SAME SAMPLE OF CONCRETE. HOLD ONE ADDITIONAL CYLINDER IN RESERVE UNTIL PROJECT IS COMPLETED. TESTING LABORATORY IS TO FURNISH ARCHITECT/ENGINEER WITH TEST RESULTS PROMPTLY.			
FREQUENCY OF TESTING IS TO BE IN ACCORDANCE WITH ACI 318:			
A. AT LEAST ONCE EACH DAY A GIVEN CLASS IS PLACED			
B. AT LEAST ONCE FOR EACH 150 CUBIC YDS OF EACH CLASS PLACED EACH DAY			
C. AT LEAST ONCE FOR EACH 5000 SQFT OR SLAB WALL OR SURFACE AREA PLACED EACH DAY.			
1705.4	REINFORCED MASONRY		
1. SPECIAL INSPECTIONS AND TESTS OF MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE QUALITY ASSURANCE PROGRAM REQUIREMENTS OF TMS 402 AND TMS 602. **(REFER TO TMS CHARTS ON THIS SHEET)**			

STUDIO DH architecture
1300 JACKSON STREET, SUITE 200, GOLDEN, CO 80401
PHONE: 303.459.9000 FAX: 303.459.9990

APEX ENGINEERS INC.
2701 LAWRENCE ST. UNIT 19
DENVER, CO 80205
720.588.3222
www.apex-engineers.com

Christy's Sports Steamboat
2305 Mt. Werner Circle
Steamboat Springs CO 80487

PROFESSIONAL SEAL:

COLORADO REGISTERED PROFESSIONAL ENGINEER
Rodney Miller
43292
07-15-2022

REV. #	DATE	BID REVISIONS	ISSUED FOR
	06/09/2022		

JOB NUMBER: Project Number
APEX JOB NUMBER: 43526
DESIGNED BY: Rodney Miller
APPROVED BY: JML
DATE: 07-15-2022
SHEET TITLE: SPECIAL INSPECTIONS

SHEET: S110

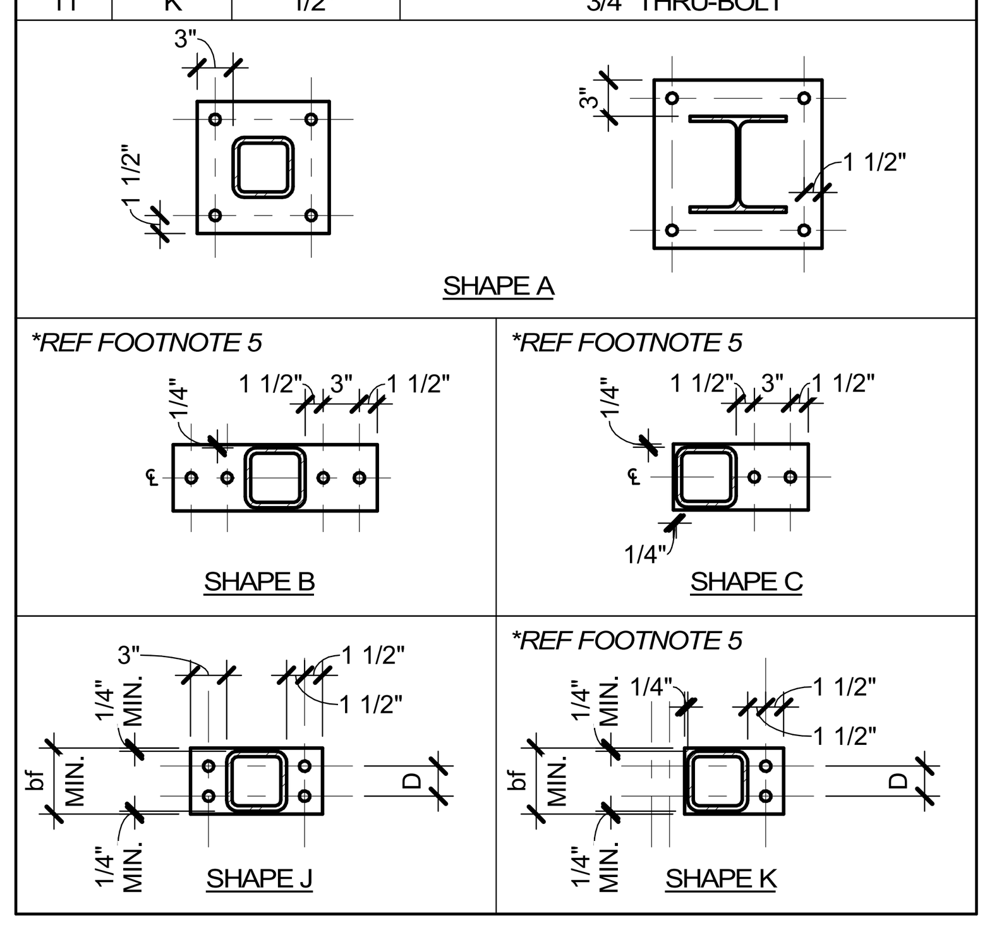
SCHEDULE - BASE PLATE

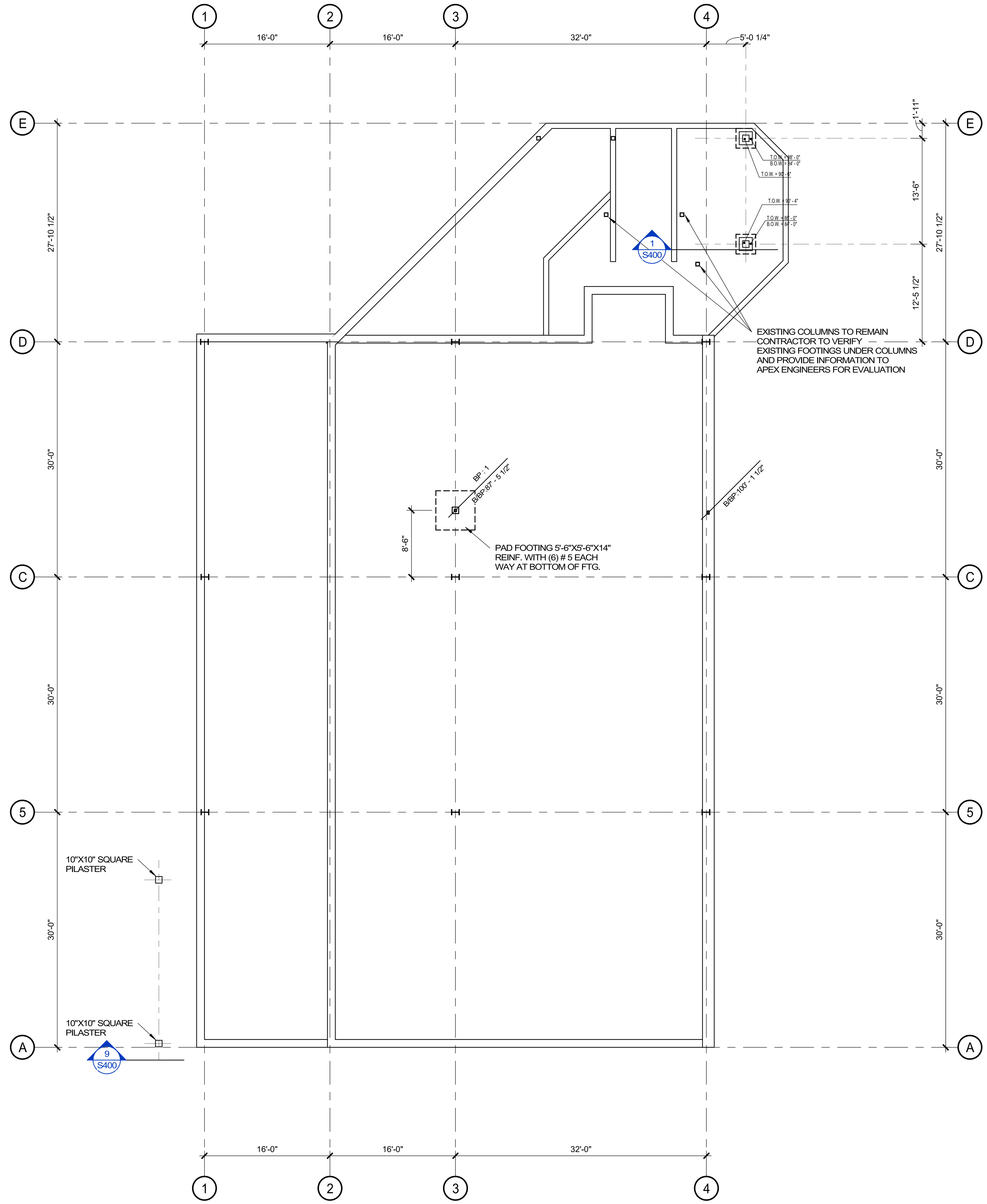
NOTES:
1. PROVIDE 5/16" FILLET WELD AT COLUMN TO BASE PLATE CONNECTION.
2. CAST-IN PLACE ANCHORS TO BE HEX-HEAD ASTM F1554 (55 KSI) UNO.
3. POST INSTALLED EPOXY ANCHORS TO BE THREADED ROD (55 KSI) INSTALLED IN HILTI HIT-HY 200 EPOXY OR SIMPSON SET XP EPOXY UNO.
4. POST INSTALLED HILTI HUS-EZ ANCHORS TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS.
5. BASE PLATE *CONDITION REQUIRES COLUMNS BE DESIGNATED AS POSTS* AND SHALL BE TEMPORARILY BRACED DURING ERECTION PER OSHA PART 1926, BY OTHERS. BRACING MAY BE REMOVED ONCE ATTACHMENTS TO MAIN STRUCTURE ARE COMPLETE.
6. MAXIMUM SIZES OF ANCHOR-ROD HOLES IN BASE PLATES SHALL FOLLOW TABLE 14-2 OF THE AISC MANUAL. AN ADEQUATE WASHER SHOULD BE PROVIDED FOR EACH ANCHOR ROD.
7. PLATE WASHERS **MUST BE WELDED** TO THE BASE PLATE AT SHEAR TRANSFER CONDITIONS (I.E. MOMENT FRAME AND BRACED FRAME COLUMNS). PROVIDE 1/4" FILLET WELD ALL AROUND.

D = VARIES, COORDINATED WITH BEAM FLANGE WIDTH.
bf = WIDTH OF BEAM FLANGE.

PLATE TYPE	SHAPE	PLATE THICKNESS	A. BOLT DIAMETER	ANCHOR BOLT EMBED	
				HEX-HEAD	POST INSTALLED
1	A	1"	3/4"	12"	8"
2	B	1"	3/4"	12"	8"
3	C	3/4"	3/4"	12"	8"

PLATE TYPE	SHAPE	PLATE THICKNESS	BOLTS
10	J	1/2"	3/4" THRU-BOLT
11	K	1/2"	3/4" THRU-BOLT





STUDIO DH architecture
1300 JACKSON STREET, SUITE 200, GOLDEN CO 80401
PHONE: 303.458.9600 FAX: 303.458.9668

APEX ENGINEERS, INC.
2701 LAWRENCE ST. UNIT 19
DENVER, CO 80205
720.588.3222
www.apex-engineers.com

Christy's Sports Steamboat

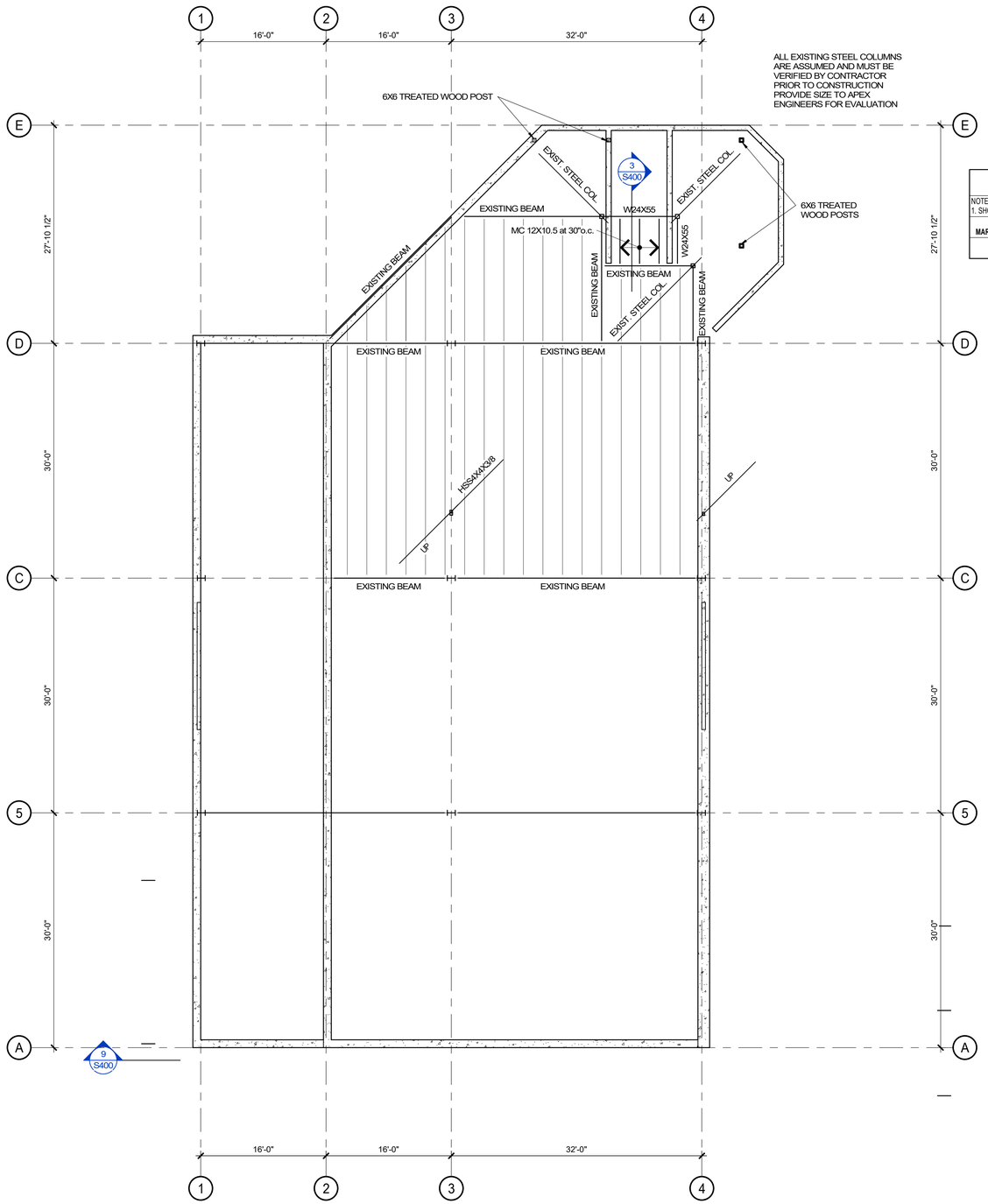
2305 Mt. Werner Circle
Steamboat Springs CO 80487

PROFESSIONAL SEAL:
43292
07-15-2022
PROFESSIONAL ENGINEER

DATE	ISSUED FOR	REV. #
06/08/2022	BID REVISIONS	

JOB NUMBER: Project Number
APEX JOB NUMBER: 43526
DESIGNED BY: Rodney Miller
APPROVED BY: JML
DATE: 07-15-2022
SHEET TITLE: FOUNDATION WALL PLAN

SHEET: S200



FIRST FLOOR FRAMING PLAN

1/8" = 1'-0"

SCHEDULE - SLAB ON METAL DECK

NOTES:
1. SHORE COMPOSITE DECK PER MANUFACTURER'S SPECIFICATIONS DURING INSTALLATION, BY OTHERS, UNO.

MARK	SLAB THICKNESS	WEIGHT CLASS	SLAB REINFORCING	DECK TYPE	SUPPORT ATTACHMENT	SIDE LAP FASTENERS	DECK FINISH	EDGE ANGLE / PERIMETER ATTACHMENT	DECK SHORING
	4" (TOTAL DEPTH)	NW	6X6 W2.1XW2.1 W.W.F.	1" C (24 GA)	(33/4) WELDS WITH WELDING WASHERS	(4) #10 TEK SCREWS	GALVANIZED/ GALVANIZED	5/8"DIA. PUDDLE WELDS at 6'o.c.	NOT REQUIRED

Reviewed for Code Compliance
08/15/2022

STUDIO DH architecture
1300 JACKSON STREET, SUITE 200, GOLDEN, CO 80401
PHONE: 303.459.9900 FAX: 303.459.9990

APEX ENGINEERS, INC.
2701 LAWRENCE ST. UNIT 19
DENVER, CO 80205
720.588.3222
www.apex-engineers.com

Christy's Sports Steamboat

2305 Mt. Werner Circle
Steamboat Springs CO 80487

PROFESSIONAL SEAL:

COLORADO REGISTERED PROFESSIONAL ENGINEER
Jeffrey Miller
43292
07-15-2022
PROFESSIONAL ENGINEER

REV. #	ISSUED FOR	DATE
	BID REVISIONS	06/08/2022

JOB NUMBER: Project Number
APEX JOB NUMBER: 43526
DESIGNED BY: Rodney Miller
APPROVED BY: JML
DATE: 07-15-2022
SHEET TITLE: MAIN LEVEL FRAMING PLAN

SHEET: S210

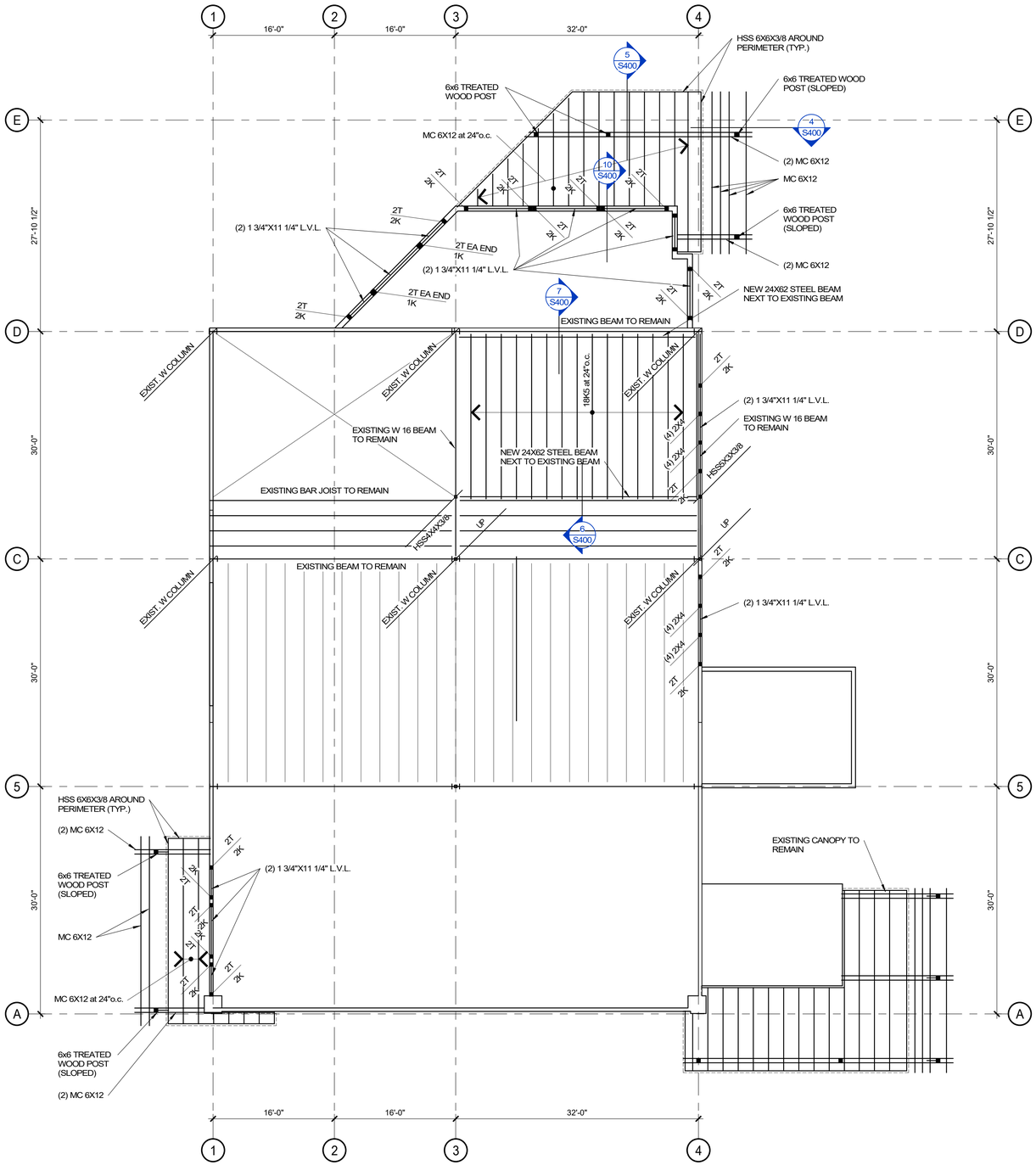
SCHEDULE - SLAB ON METAL DECK

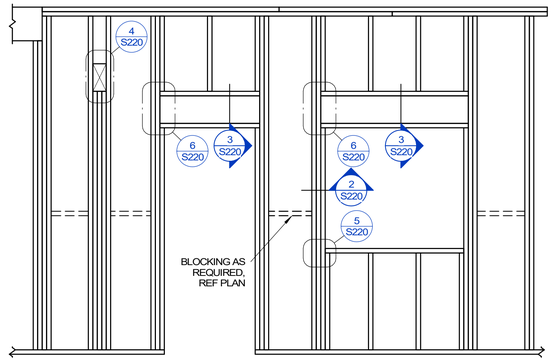
NOTES:
1. SHORE COMPOSITE DECK PER MANUFACTURER'S SPECIFICATIONS DURING INSTALLATION, BY OTHERS, UNO.

MARK	SLAB THICKNESS	WEIGHT CLASS	SLAB REINFORCING	DECK TYPE	SUPPORT ATTACHMENT	SIDE LAP FASTENERS	DECK FINISH	EDGE ANGLE / PERIMETER ATTACHMENT	DECK SHORING
	4" (TOTAL DEPTH)	NW	6X6 W2.1XW2.1 W.W.F.	1" C (24 GA)	(33/4) WELDS WITH WELDING WASHERS	(4) #10 TEK SCREWS	GALVANIZED/ GALVANIZED	5/8"DIA. PUDDLE WELDS at 6'o.c.	NOT REQUIRED

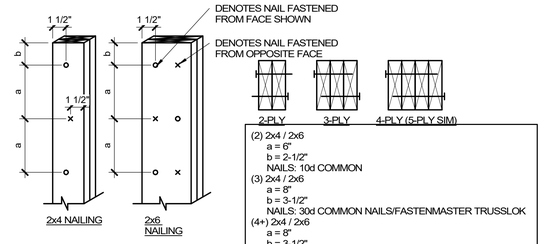
SCHEDULE - METAL DECK

MARK	DECK TYPE	SUPPORT ATTACHMENT	SIDE LAP FASTENERS	DECK FINISH	EDGE ANGLE / PERIMETER ATTACHMENT
RD1	1 1/2" B (22 GA)	(36/7) 5/8" PUDDLE WELDS	(5) #10 TEK SCREWS	PAINTED / PAINTED	L4X4X3/8/



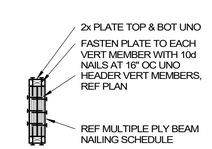


1 | S220 TYPICAL WOOD FRAMED WALL
1/2" = 1'-0"



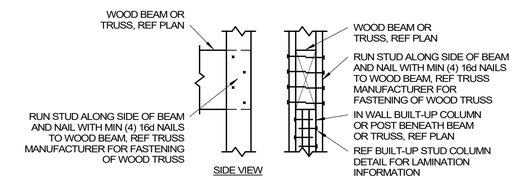
NOTES:
1. ADJACENT NAILS ARE DRIVEN FROM OPPOSITE SIDES OF COLUMN.
2. ALL NAILS/SCREWS SHALL PENETRATE ALL LAMINATIONS AND AT LEAST 75% OF THE OUTERMOST LAMINATION
3. REFERENCE MINIMUM FASTENER LENGTH
   (2) 2x - 2 5/8" (2) 1 3/4" - 3 1/16"
   (3) 2x - 4 1/8" (3) 1 3/4" - 4 13/16"
   (4) 2x - 5 5/8" (4) 1 3/4" - 6 9/16"
   (5) 2x - 7 1/8" (5) 1 3/4" - 8 5/16"

2 | S220 TYPICAL BUILT-UP STUD COLUMN
1 1/2" = 1'-0"

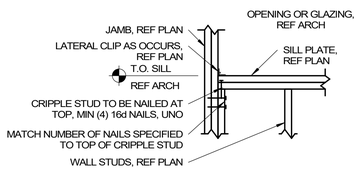


HEADERS MEMBERS

3 | S220 TYPICAL WOOD HEADER DETAIL
3/4" = 1'-0"



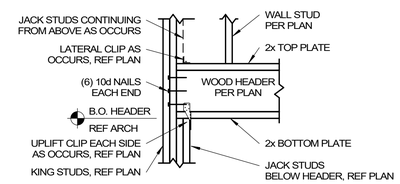
4 | S220 BEAM OR TRUSS AT STUD WALL
3/4" = 1'-0"



SCHEDULE - WOOD SILL

OPENING WIDTH	CONNECTION
UP TO 3'-4"	(4) 16d NAILS
3'-5" TO 10'-0"	(2) SIMPSON A35 [(1) T&B]

5 | S220 TYPICAL SILL DETAIL
3/4" = 1'-0"



SCHEDULE - WOOD JAMB

OPENING WIDTH	UPLIFT CLIP	LATERAL CLIP
UP TO 3'-4"	N/A	N/A
3'-5" TO 10'-0"	SIMPSON H2.5A EA SIDE	SIMPSON A35

6 | S220 TYPICAL JAMB DETAIL
3/4" = 1'-0"

STUDIO DH architecture
1300 JACKSON STREET, SUITE 200, GOLDEN, CO 80401
PHONE: 303.459.9000 FAX: 303.459.9990

APEX ENGINEERS, INC.
2701 LAWRENCE ST. UNIT 19
DENVER, CO 80205
720.588.3222
www.apex-engineers.com

Christy's Sports Steamboat

2305 Mt. Werner Circle
Steamboat Springs CO 80487

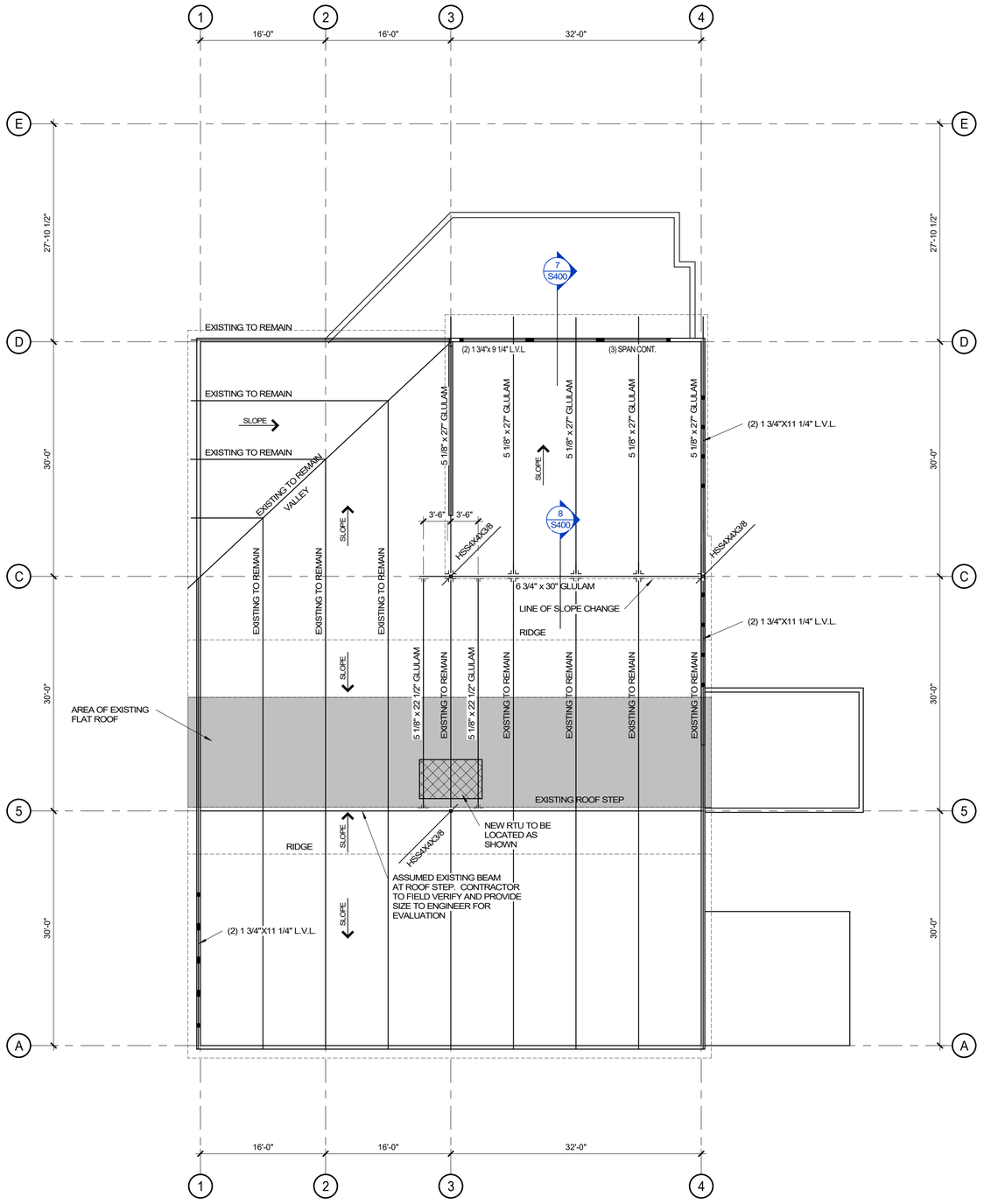
PROFESSIONAL SEAL:

COLORADO REGISTERED Rodney Miller 43292 07-15-2022 PROFESSIONAL ENGINEER

REV. #	DATE	ISSUED FOR
	06/08/2022	BID REVISIONS

JOB NUMBER: Project Number
APEX JOB NUMBER: 43526
DESIGNED BY: Rodney Miller
APPROVED BY: JML
DATE: 07-15-2022
SHEET TITLE: SECOND FLOOR FRAMING PLAN

SHEET: S220



FOURTH FLOOR FRAMING PLAN

1/8" = 1'-0"

SCHEDULE - ROOF SHEATHING

TYPE	SHEATHING TYPE	SUPPORT ATTACHMENT (EDGE / FIELD)	BLOCKED
	5/8" APA RATED ROOF SHEATHING	10d NAILS at 6"o.c. EDGE/12"o.c. FIELD	YES

Reviewed for Code Compliance

08/15/2022

STUDIO DH architecture
1300 JACKSON STREET, SUITE 200, GOLDEN, CO 80401
PHONE: 303.459.9900 FAX: 303.459.9990

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2701 LAWRENCE ST. UNIT 19
DENVER, CO 80205
720.588.3222
www.apex-engineers.com

Christy's Sports Steamboat

2305 Mt. Werner Circle
Steamboat Springs CO 80487

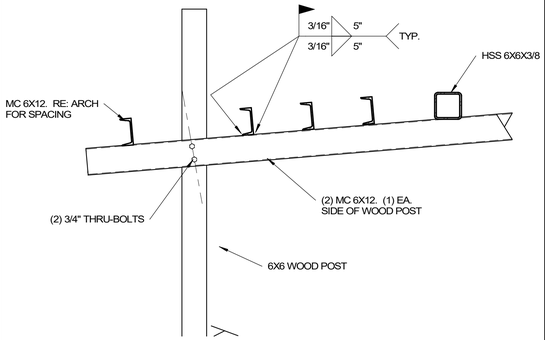
PROFESSIONAL SEAL:

COLORADO REGISTERED PROFESSIONAL ENGINEER
Jared Campbell
43292
07-15-2022
PROFESSIONAL ENGINEER

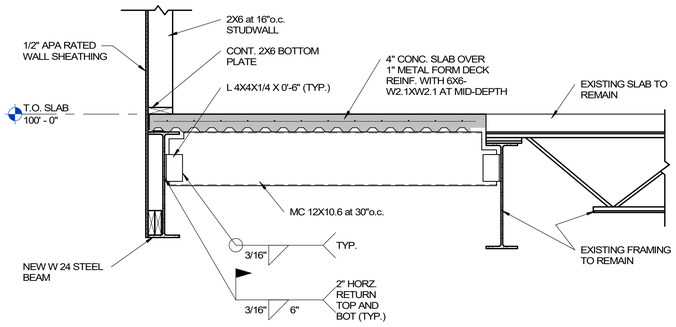
REV. #	ISSUED FOR	DATE
	BID REVISIONS	06/08/2022

JOB NUMBER: Project Number
APEX JOB NUMBER: 43526
DESIGNED BY: Rodney Miller
APPROVED BY: JML
DATE: 07-15-2022
SHEET TITLE: ROOF FRAMING PLAN

SHEET: S230

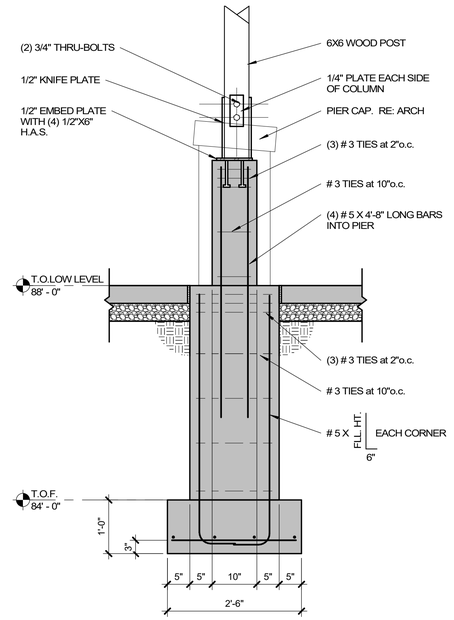


4 FRAMING DETAIL
S400 3/4" = 1'-0"

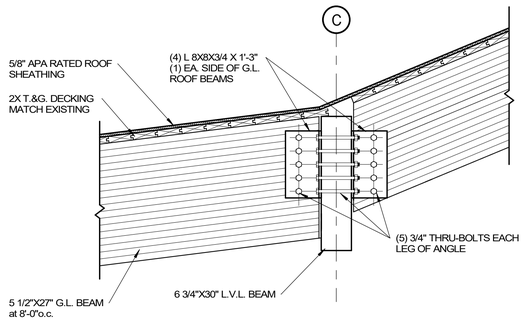


3 FRAMING DETAIL
S400 3/4" = 1'-0"

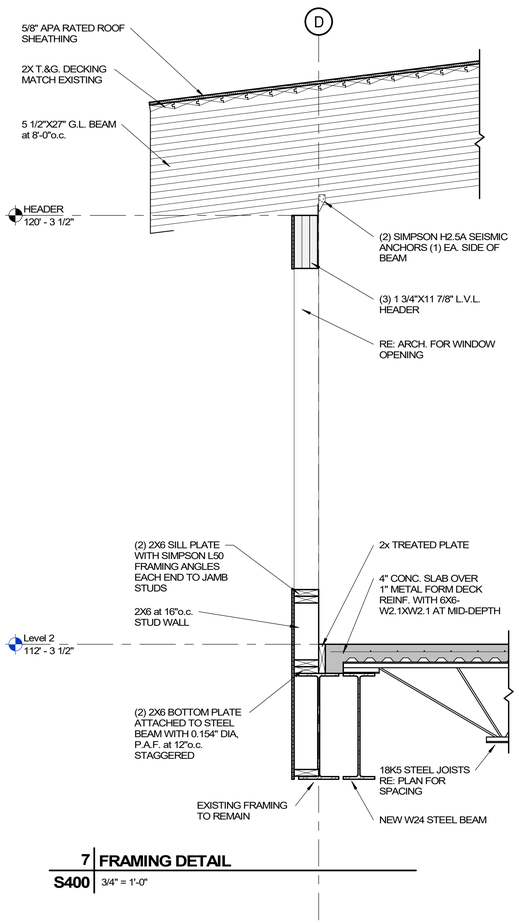
NOT USED



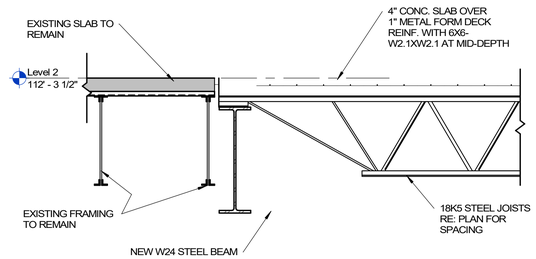
1 FOUNDATION DETAIL
S400 3/4" = 1'-0"



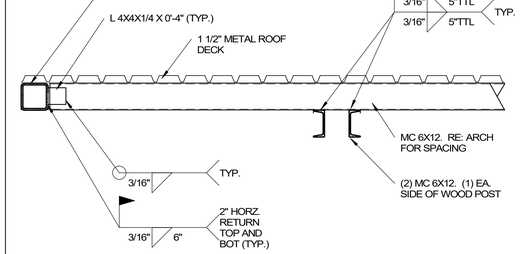
8 FRAMING DETAIL
S400 3/4" = 1'-0"



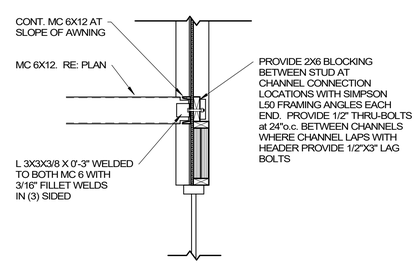
7 FRAMING DETAIL
S400 3/4" = 1'-0"



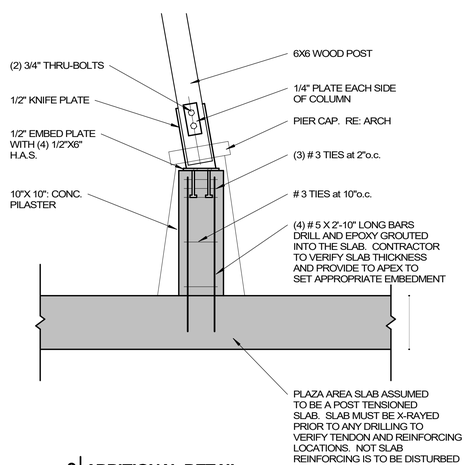
6 FRAMING DETAIL
S400 3/4" = 1'-0"



5 FRAMING DETAIL
S400 3/4" = 1'-0"



10 FRAMING DETAIL
S400 3/4" = 1'-0"



9 ADDITIONAL DETAIL
S400 3/4" = 1'-0"

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PHONE: 303.459.9900 FAX: 303.459.9990

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	06/08/2022	BID REVISIONS

JOB NUMBER: Project Number
APEX JOB NUMBER: 43526
DESIGNED BY: Rodney Miller
APPROVED BY: JML
DATE: 07-15-2022
SHEET TITLE: WALL SECTIONS

SHEET: S400