

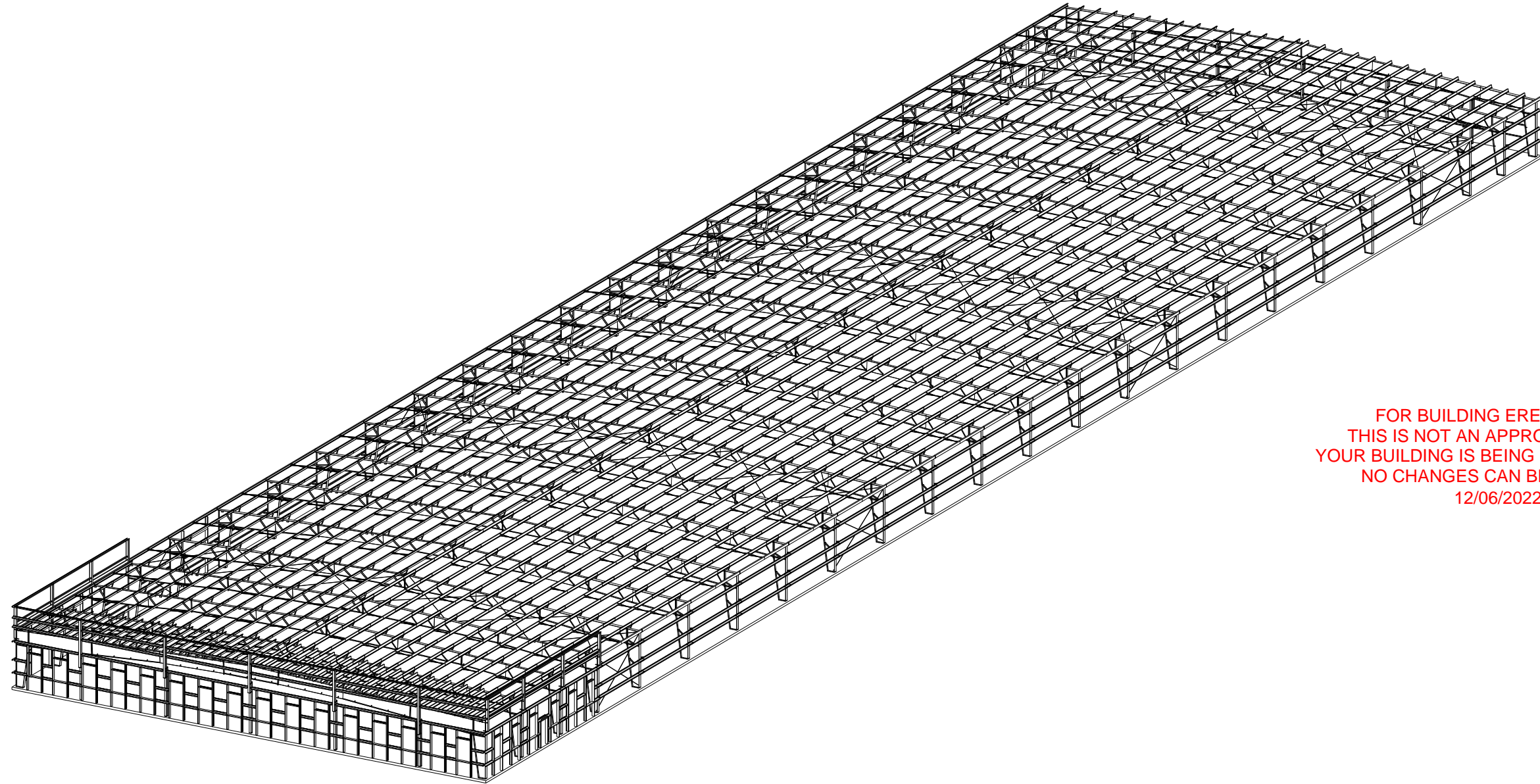
DRAWING TITLE	SHEET NUMBER
COVER SHEETS	C1 ~ C3
ANCHOR ROD PLANS	F1 ~ F2
PLANS AND ELEVATIONS	E1 ~ E16
STRUCTURAL DETAILS	D1 ~ D7
SHEETING PLANS	S1 ~ S10
SHEETING DETAILS	SD1 ~ SD15

NUCOR
BUILDING SYSTEMS GROUP
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MBMA
MEMBER

IAS
ACCREDITED
Metal Building Systems

12/01/2022 04:02:36pm



FOR BUILDING ERECTION
THIS IS NOT AN APPROVAL SET,
YOUR BUILDING IS BEING FABRICATED.
NO CHANGES CAN BE MADE.
12/06/2022

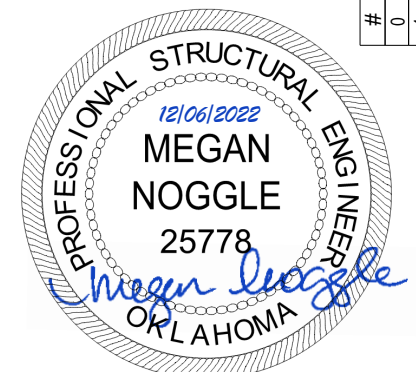
JOB NUMBER
T22E0442A
PROJECT NAME
Manuel Collision
501 Latta Rd., ADA, OK. 74820
BUYER NAME
Titan Construction

DRAWING STATUS
FOR CONSTRUCTION

SHEET
C1

DRAWING TITLE
COVERSHEET

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	ANCHOR RODS	TDN/FA	PRS	10/14/2022
1	PERMITS	JMP/HR	PRS	10/26/2022
2	FINALS	JMP/JIP	PRS	11/30/2022



GENERAL NOTES:

1. MATERIALS	ASTM DESCRIPTION	MATERIALS	ASTM DESCRIPTION
STRUCTURAL STEEL PLATE	AS529 / A572 / A1011	ROOF AND WALL SHEETING	A653 / A792
HOT ROLLED MILLS SHAPES	A36 / A529 / A572 / A500	BOLTS	A307 / A325 / A490
HSS ROUND	A500	CABLE	A475
HSS RECTANGULAR	A500	RODS	A529 / A572
COLD FORM SHAPES	A653 / A1011		

2. STRUCTURAL PRIMER NOTE:

SHOP COAT PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR A SHORT PERIOD OF TIME. STORAGE IN EXTREME COLD TEMPERATURES OR WINTER SNOW CONDITIONS, INCLUDING TRANSPORTATION ON SALTED OR CHEMICALLY TREATED ROADS WILL ADVERSELY AFFECT THE DURABILITY AND LONGEVITY OF THE PRIMER. THE COAT OF SHOP PRIMER DOES NOT PROVIDE THE UNIFORMITY OF APPEARANCE, OR THE DURABILITY AND CORROSION RESISTANCE OF A FIELD APPLIED FINISH COAT OF PAINT OVER A SHOP PRIMER. MINOR ABRASIONS TO THE SHOP COAT PRIMER CAUSED BY HANDLING, LOADING, SHIPPING, UNLOADING AND ERECTION ARE UNAVOIDABLE AND ARE NOT THE RESPONSIBILITY OF THE METAL BUILDING MANUFACTURER. METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR THE DETERIORATION OF THE PRIMER OR CORROSION THAT MAY RESULT FROM ATMOSPHERIC AND ENVIRONMENTAL CONDITIONS NOR THE COMPATIBILITY OF THE PRIMER TO ANY FIELD APPLIED COATING.

3. BUILDING ERECTION NOTES:

THE GENERAL CONTRACTOR AND/OR ERECTOR IS RESPONSIBLE TO SAFELY AND PROPERLY ERECT THE METAL BUILDING SYSTEM IN CONFORMANCE WITH THESE DRAWINGS, OSHA REQUIREMENTS AND EITHER MBMA OR CSA S16 STANDARDS PERTAINING TO PROPER ERECTION. TEMPORARY SUPPORTS SUCH AS GUYS, BRACES, FALSEWORK, CRIBBING OR OTHER ELEMENTS FOR ERECTION ARE TO BE DETERMINED, FURNISHED AND INSTALLED BY THE ERECTOR. THESE SUPPORTS MUST SECURE THE STEEL FRAMING, OR PARTLY ASSEMBLED STEEL FRAMING, AGAINST LOADS COMPARABLE IN INTENSITY TO THOSE FOR WHICH THE STRUCTURE WAS DESIGNED IN ADDITION TO LOADS RESULTING FROM THE ERECTION OPERATION. SECONDARY WALL AND ROOF FRAMING (PURLINS, GIRTS AND/OR JOIST) ARE NOT DESIGNED TO FUNCTION AS A WORKING PLATFORM OR TO PROVIDE AS AN ANCHORAGE POINT FOR A FALL ARREST /SAFETY TIE OFF.

4. SPECIAL INSPECTION:

SPECIAL INSPECTIONS AND TESTING THAT MAY BE REQUIRED BY GOVERNMENTAL OR OTHER AUTHORITY DURING CONSTRUCTION AND/OR STEEL FABRICATION COLLECTIVELY "INSPECTIONS" ARE NOT THE RESPONSIBILITY OF NBG, AND TO THE EXTENT REQUIRED IT SHALL BE THE RESPONSIBILITY OF THE BUILDER AND/OR OWNER. IN THE EVENT THE INSPECTIONS ARE REQUIRED, THE BUILDER AND/OR OWNER SHALL EMPLOY A THIRD PARTY QUALITY ASSURANCE TESTING AGENCY APPROVED BY THE RELEVANT AUTHORITY. IF SUCH REQUIREMENTS ARE NOT SPECIFICALLY INCLUDED IN NBG SALES DOCUMENTS, NO INSPECTIONS BY NBG OR AT ANY NBG FACILITY SHALL BE MADE. ALL NBG FACILITIES ARE ACCREDITED BY IAS AC472.

5. A325 & A490 BOLT TIGHTENING REQUIREMENTS :

IT IS THE RESPONSIBILITY OF THE ERECTOR TO ENSURE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE REGULATIONS. FOR PROJECTS IN THE UNITED STATES SEE THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS OR FOR PROJECTS IN CANADA, SEE THE CAN/CSA S16 LIMIT STATES DESIGN OF STEEL STRUCTURES FOR MORE INFORMATION.

THE FOLLOWING CRITERIA MAY BE USED TO DETERMINE THE BOLT TIGHTNESS (I.E., "SNUG-TIGHT" OR "FULLY-PRE-TENSIONED"), UNLESS REQUIRED OTHERWISE BY LOCAL JURISDICTION OR CONTRACT REQUIREMENTS:

- ALL A490 BOLTS SHALL BE "FULLY-PRE-TENSIONED".
- ALL A325 BOLTS IN PRIMARY FRAMING (RIGID FRAMES AND BRACING) MAY BE "SNUG-TIGHT", EXCEPT AS FOLLOWS: "FULLY-PRE-TENSION" A325 BOLTS IF:
 - BUILDING SUPPORTS A CRANE SYSTEM WITH A CAPACITY GREATER THAN 5 TONS.
 - BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT OR STRESS-REVERSALS ON THE CONNECTIONS. THE ENGINEER-OF-RECORD FOR THE PROJECT SHOULD BE CONSULTED TO EVALUATE FOR THIS CONDITION.
 - THE PROJECT SITE IS LOCATED IN A HIGH SEISMIC AREA. FOR IBC-BASED CODES, "HIGH SEISMIC AREA" IS DEFINED AS "SEISMIC DESIGN CATEGORY" OF "D", "E", OR "F". SEE THE "BUILDING LOADS" SECTION OF THIS PAGE FOR THE DEFINED SEISMIC DESIGN CATEGORY FOR THIS PROJECT.
 - ANY CONNECTION DESIGNATED IN THESE DRAWINGS AS "A325-SC". "SLIP-CRITICAL (SC)" CONNECTIONS MUST BE FREE OF PAINT, OIL, OR OTHER MATERIALS THAT REDUCE FRICTION AT CONTACT SURFACES. GALVANIZED OR LIGHTLY RUSTED SURFACES ARE ACCEPTABLE.
- IN CANADA, ALL A325 AND A490 BOLTS SHALL BE "FULLY PRE-TENSIONED", EXCEPT FOR SECONDARY MEMBERS (PURLINS, GIRTS, OPENING FRAMING, ETC.) AND FLANGE BRACES.

SECONDARY MEMBERS (PURLINS, GIRTS, OPENING FRAMING, ETC.) AND FLANGE BRACE CONNECTIONS MAY ALWAYS BE "SNUG-TIGHT", UNLESS INDICATED OTHERWISE IN THESE DRAWINGS.

5. GENERAL DESIGN NOTES :

- ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS ARE DESIGNED IN ACCORDANCE WITH ANSI/AISC 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" OR THE CAN/CSA S16 "LIMIT STATES DESIGN OF STEEL STRUCTURES", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
- ALL WELDING OF STRUCTURAL STEEL IS BASED ON EITHER AWS D1.1 "STRUCTURAL WELDING CODE - STEEL" OR CAN/CSA W59 "WELDED STEEL CONSTRUCTION (METAL ARC WELDING)", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
- ALL COLD FORMED MEMBERS ARE DESIGNED IN ACCORDANCE WITH ANSI/AISI S100 OR THE CAN/CSA S136 "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
- ALL WELDING OF COLD FORMED STEEL IS BASED ON AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL" OR CAN/CSA W59 "WELDED STEEL CONSTRUCTION (METAL ARC WELDING)", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
- ALL NUCOR BUILDING GROUP FACILITIES ARE IAS AC-472 ACCREDITED FOR DESIGN AND FABRICATION OF METAL BUILDING SYSTEMS. FOR PROJECTS IN CANADA, DESIGN AND FABRICATION ARE DONE ONLY IN FACILITIES THAT ARE ALSO CAN/CSA A660 AND W47.1 CERTIFIED.
- IF JOISTS ARE INCLUDED WITH THIS PROJECT, THEY ARE SUPPLIED AS A PART OF THE SYSTEMS ENGINEERED METAL BUILDING AND ARE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1926.758 OF OSHA SAFETY STANDARDS FOR STEEL ERECTION, DATED JANUARY 18, 2001.
- COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED THE ALLOWABLE BEARING STRESS OF CONCRETE THAT HAS A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.

6. GLOSSARY OF ABBREVIATIONS:

A.B. = ANCHOR RODS	MAX = MAXIMUM	REQD = REQUIRED
BS = BOTH SIDES	M.B. = MACHINE BOLTS	REV. = REVISION
B.U. = BUILT-UP	MBS = METAL BUILDING SUPPLIER	SIM = SIMILAR
DIA = DIAMETER	TBD = TO BE DETERMINED	SL = STEEL LINE
FLG = FLANGE	N/A = NOT APPLICABLE	N.S. = NEAR SIDE
F.S. = FAR SIDE	NIC = NOT IN CONTRACT	MIN = MINIMUM
GA. = GAUGE	SLV = SHORT LEG VERTICAL	TYP = TYPICAL
H.S.B. = HIGH STRENGTH BOLTS	O.A.L. = OVERALL LENGTH	PL = PLATE
HT. = HEIGHT	O.C. = ON CENTER	
LLV = LONG LEG VERTICAL	U.N.O. = UNLESS NOTED OTHERWISE	
?? = PART MARK TO BE DETERMINED AND WILL BE UPDATED ON CONSTRUCTION DRAWINGS		

THE DRAWINGS AND THE METAL BUILDING THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER'S SEAL PERTAINS ONLY TO THE REQUIREMENTS LISTED HEREIN FOR THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED OR ENGAGED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.

BUILDING LOADS:

DESIGN CODE: IBC 2015
 BUILDING END USE: 3F - COMMERCIAL GARAGES AND SERVICE STATIONS (AUTO)
 MBMA OCCUPANCY CLASS: II - STANDARD BUILDINGS

ROOF LIVE LOAD: 20.00
 NOT REDUCIBLE PER CODE

GROUND SNOW LOAD: 10.00
 SNOW EXPOSURE FACTOR, CE: 1.00
 SNOW IMPORTANCE FACTOR, IS: 1.00

SEISMIC INFORMATION: Ss: 0.214 S1: 0.074
 SEISMIC SDS/SD1: 0.228 / 0.118
 SITE CLASS: D
 SEISMIC IMP. FACTOR IE: 1.00
 SEISMIC DESIGN CATEGORY: B
 ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
 BASIC SFRS: NOT DETAILED FOR SEISMIC

WIND (MPH): (VULT) / (VASD): 115 MPH / 89 MPH
 ***C & C PRESSURES (PSF): 27 PSF / -36 PSF
 EXPOSURE: C
 UL90: No

*PRIMARY STRUCTURAL NOT INCLUDED
 ***ULTIMATE DESIGN WIND PRESSURES TO BE USED FOR WALL EXTERIOR COMPONENT AND CLADDING MATERIALS NOT PROVIDED BY NUCOR BUILDING SYSTEMS.

NAME	BUILDING A
ROOF DEAD (PSF)*	3.0
PRIMARY COLLATERAL (PSF)	5.0
SECONDARY COLLATERAL (PSF)	5.0
SNOW CT	1.0
SNOW CS	1.00
ROOF SNOW PS (PSF)	7.00
ROOF SNOW **PM (PSF)	10.00
WIND ENCLOSURE	ENCLOSED
GCPI	+/- 0.18
SEISMIC R	3.00
SEISMIC CS	0.076
BASE SHEAR (KIPS)	79

Project Notes:

1) COLLATERAL DEAD LOADS, UNLESS OTHERWISE NOTED, ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED. WHEN SUSPENDED SPRINKLER SYSTEMS, LIGHTING, HVAC EQUIPMENT, CEILINGS, ETC., ARE SUSPENDED FROM ROOF MEMBERS, CONSULT THE M.B.S. IF THESE CONCENTRATED LOAD EXCEED 500 POUNDS (USING THE WEB MOUNT DETAIL), OR 200 POUNDS (USING THE FLANGE MOUNT DETAIL), OR IF INDIVIDUAL MEMBERS ARE LOADED SIGNIFICANTLY MORE THAN OTHERS.

2) THE DESIGN OF STRUCTURAL MEMBERS SUPPORTING GRAVITY LOADS IS CONTROLLED BY THE MORE CRITICAL EFFECT OF ROOF LIVE LOAD OR ROOF SNOW LOAD, AS DETERMINED BY THE APPLICABLE CODE.

3) **PM IS BASED ON THE MINIMUM ROOF SNOW LOAD CALCULATED PER BUILDING CODE OR THE CONTRACT SPECIFIED ROOF SNOW LOAD, WHICHEVER IS GREATER. THIS VALUE, PM, IS ONLY APPLIED IN COMBINATION WITH THE DEAD AND COLLATERAL LOADS. ROOF SNOW IN OTHER LOADING CONDITIONS IS DETERMINED PER THE SPECIFIED BUILDING CODE.

4) FOR OCCUPANCY (RISK) CATEGORY I OR II, IBC PROVISIONS INDICATE THAT SINGLE-STORY BUILDINGS SHALL HAVE "NO DRIFT LIMIT" PROVIDED THAT INTERIOR WALLS, PARTITIONS, CEILINGS AND EXTERIOR WALL SYSTEMS HAVE BEEN DESIGNED TO ACCOMMODATE THE SEISMIC STORY DRIFTS. INTERIOR WALLS, PARTITIONS, CEILINGS OR EXTERIOR WALL SYSTEMS NOT PROVIDED BY THE METAL BUILDING MANUFACTURER SHALL BE DESIGNED AND DETAILED BY OTHERS TO ACCOMMODATE THE SEISMIC STORY DRIFTS. SEISMIC DRIFT VALUES MAY BE OBTAINED FROM THE METAL BUILDING MANUFACTURER.

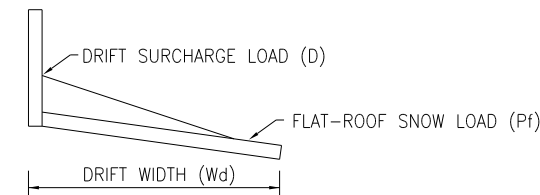
5) THIS BUILDING SYSTEM DESIGN IS BASED ON UNIFORMLY APPLYING THE CONTRACT-SPECIFIED LIVE LOAD AND ROOF SNOW LOAD. IN ADDITION, THE DESIGN IS BASED ON APPLYING A CODE-DEFINED LIVE LOAD (INCLUDING APPLICABLE REDUCTIONS) AND A CODE-DEFINED SNOW LOAD (BASED ON CONTRACT-SPECIFIED GROUND SNOW) FOR ALL PARTIAL LOADING AND UNBALANCED SNOW LOAD CONDITIONS.

6) IF SNOW GUARDS OR OTHER DEVICES INTENDED TO HOLD SNOW AND/OR ICE ACCUMULATION ON THE ROOF SYSTEM ARE TO BE USED ON THIS PROJECT, THEY MUST BE INSTALLED UNDER THE GUIDANCE OF THE PROJECT "ENGINEER OF RECORD" (EOR), NOT THE METAL BUILDING MANUFACTURER, SO AS NOT TO EXCEED THE DESIGN ROOF SNOW LOAD ON THIS PROJECT.

7) FRAMED OPENINGS HAVE BEEN DESIGNED TO SUPPORT WIND LOAD NORMAL TO THE WALL BASED ON THE STANDARD BUILDING CODE CRITERIA. FRAMED OPENINGS HAVE NOT BEEN DESIGNED FOR ANY ADDITIONAL MOMENT OR CATENARY FORCES FROM THE DOOR. ANY CHANGE TO THE INFORMATION SHOWN HERE WILL REQUIRE AN ENGINEERING INVESTIGATION AND POSSIBLE BUILDING REINFORCEMENT.

8) THE FRAME AT FRAME LINE 25 IS DESIGNED FOR A FUTURE EXPANSION OF 25'-0" FROM THE CENTERLINE OF THE EXISTING END FRAME TO THE CENTERLINE OF THE FUTURE FRAME. DUE TO THE UNLIMITED AMOUNT OF EXPANSION THAT THIS STRUCTURE COULD EXPERIENCE, THE APPLIED SEISMIC LOADINGS HAVE BEEN DEVELOPED IN ACCORDANCE WITH THE ABOVE REFERENCED BUILDING CODE, CONSIDERING ONLY THE CURRENT BUILDING LENGTH, PLUS ONE ADDITIONAL BAY (TOTAL LENGTH = 565'-0"). ANY ADDITIONAL BUILDING EXPANSION BEYOND THIS LENGTH WILL REQUIRE AN INVESTIGATION AND POSSIBLE REINFORCEMENT.

THE BUILDING CODE REQUIRES CONSIDERATION OF SNOW SURCHARGES FOR ANY LOWER ROOF OF A STRUCTURE WITHIN 20 FT. OF A HIGHER STRUCTURE. INFORMATION PROVIDED TO THE METAL BUILDING MANUFACTURER INDICATES SNOW SURCHARGES MUST BE CONSIDERED IN THE METAL BUILDING DESIGN AS SHOWN BELOW.



THE CONDITIONS AT THE FOLLOWING LOCATIONS PRODUCE DRIFT SURCHARGE LOADS:

- LOCATION: FL-1 D(psf):69.05 Pf(psf):7.0 Wd(ft):18.05
- LOCATION:FL-B,H D(psf):.37 Pf(psf):7.0 Wd(ft):9.7
- LOCATION:_____ D(psf):_____ Pf(psf):_____ Wd(ft):_____
- LOCATION:_____ D(psf):_____ Pf(psf):_____ Wd(ft):_____

MBMA BUILDING SYSTEMS GROUP
NUCOR BUILDING SYSTEMS GROUP
IAS ACCREDITED Metal Building Systems INC. 02153339p1m
 11/30/2022
 JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 501 Latta Rd., ADA, OK. 74820
 BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION
 DRAWING TITLE: BUILDING SHEET 1
 SHEET: C2
 DATE: 10/26/2022
 DATE: 11/30/2022
 PERMITS: JMP / HR
 FINALS: JMP / JIP
 PRS

BUILDING A

PRIMARY AND SECONDARY STEEL PRIMER COLOR

GRAY PRIMER

ROOF SHEETING

TYPE: CFR, 24 GAGE, FINISH: GALVALUME

ROOF PANEL CLIP TYPE: TALL SLIDING CLIPS

THERMAL BLOCKS: YES EPS FOAM SPACERS: NO

ROOF INSULATION(NOT BY NBS). THICKNESS: R-19 (6 3/8")- SINGLE LAYER FIBERGLASS

FRONT SIDE WALL ROOF LINE TRIM. COLOR: CHARCOAL

BACK SIDE WALL ROOF LINE TRIM. COLOR: CHARCOAL

RIGHT END WALL ROOF LINE TRIM. COLOR: CHARCOAL

LEFT END WALL ROOF LINE TRIM. COLOR: PEARL GRAY

GUTTERS. COLOR: CHARCOAL

DOWNSPOUTS. COLOR: CHARCOAL

WALL SHEETING

TYPE: CLASSIC WALL, 26 GAGE, FINISH: PEARL GRAY

WALL CORNER TRIM. COLOR: CHARCOAL

WALL FRAMED OPENINGS. TRIM COLOR: CHARCOAL




WALL FRAMED OPENINGS. COVER TRIM COLOR: CHARCOAL

WALL INSULATION(NOT BY NBS). THICKNESS: R-19 (6 3/8") SINGLE LAYER FIBERGLASS

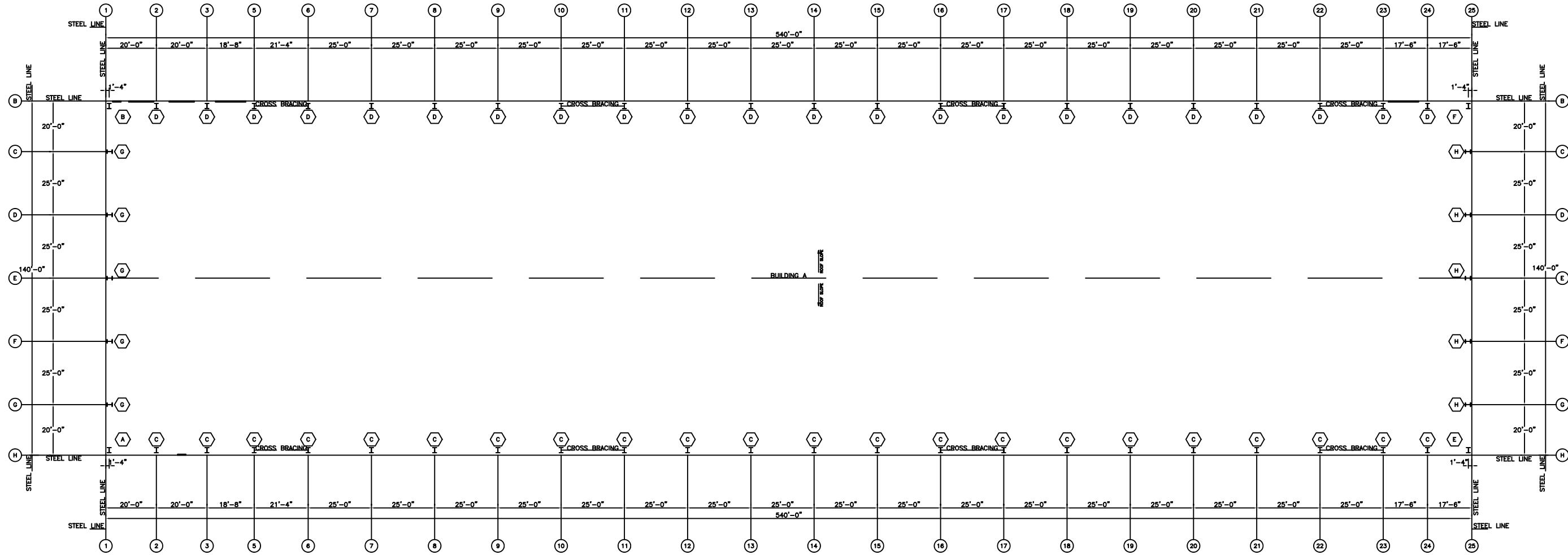
BUILDING OPTIONS

(2) 6070 PREASSEMBLED WALKDOOR (DOUBLE ACTIVE). COLOR: WHITE

(14) 3070 PREASSEMBLED WALKDOORS. COLOR: WHITE

JOB NUMBER T22E0442A		DRAWING STATUS FOR CONSTRUCTION		
PROJECT NAME Manuel Collision		DRAWING TITLE BUILDING SHEET 2		
BUYER NAME Titan Construction		SHEET C3		
501 Latta Rd., ADA, OK. 74820		11/30/2022		
PHONE: (972) 524-5407		10/26/2022		
FAX: (972) 524-5417		11/30/2022		
  				
#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

ANCHOR BOLT SCHEDULE			
QTY	SIZE	PROJECTION	GRADE
288	1.25"	5.00" FROM BOTTOM OF BPL	F1554 Gr 55
40	0.75"	3.00" FROM BOTTOM OF BPL	F1554 Gr 55



ANCHOR ROD PLAN

ANCHOR BOLT PLAN GENERAL NOTES

AN1: THE SPECIFIED ANCHOR ROD DIAMETER ASSUMES 1554 GRADE 36 UNLESS NOTED OTHERWISE. ANCHOR ROD MATERIAL OF EQUAL DIAMETER MEETING OR EXCEEDING THE STRENGTH REQUIREMENTS SET FORTH ON THESE DRAWINGS MAY BE UTILIZED AT THE DISCRETION OF THE FOUNDATION DESIGN ENGINEER. ANCHOR ROD EMBEDMENT LENGTH SHALL BE DETERMINED BY THE FOUNDATION DESIGN ENGINEER.

AN2: METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR PROJECT FOUNDATION DESIGN. THE FOUNDATION DESIGN IS THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER, FAMILIAR WITH LOCAL SITE CONDITIONS.

AN3: ANCHOR RODS, NUTS, FLAT WASHERS FOR ANCHOR RODS, EXPANSION BOLTS, AND CONCRETE/MASONRY EMBEDMENT PLATES ARE NOT BY METAL BUILDING MANUFACTURER.

AN4: THE ANCHOR ROD LOCATIONS PROVIDED BY METAL BUILDING MANUFACTURER SATISFY PERTINENT REQUIREMENTS FOR THE DESIGN OF THE MATERIALS SUPPLIED BY THE METAL BUILDING MANUFACTURER. IT IS THE RESPONSIBILITY OF THE FOUNDATION ENGINEER TO MAKE CERTAIN THAT SUFFICIENT EDGE DISTANCE IS PROVIDED FOR ALL ANCHOR RODS IN THE DETAILS OF THE FOUNDATION DESIGN

AN5: DRAWINGS ARE NOT TO SCALE. SEE DETAILS FOR COLUMN ORIENTATION.

AN6: THE ANCHOR ROD PLAN INDICATES WHERE THE ANCHOR RODS ARE TO BE PLACED AS WELL AS THE FOOTPRINT OF THE METAL BUILDING. IT IS ESSENTIAL THAT THESE ANCHOR ROD PATTERNS BE FOLLOWED. IF THESE SETTINGS DIFFER FROM THE ARCHITECTURAL FOUNDATION PLANS, THE METAL BUILDING MANUFACTURER MUST BE CONTACTED IMMEDIATELY - BEFORE CONCRETE IS PLACED.

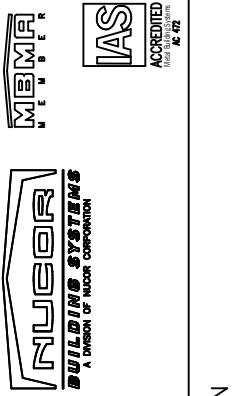
AN7: "SINGLE" CEE COLUMNS SHALL BE ORIENTED WITH THE "TOES" TOWARD THE LOW EAVE UNLESS NOTED OTHERWISE.

AN8: ALL DIMENSIONS ARE OUT TO OUT OF STEEL. IF CONCRETE NOTCH IS REQUIRED THEN THE REQUIRED DIMENSION SHOULD BE ADDED TO OBTAIN THE OUT TO OUT OF CONCRETE DIMENSIONS.

AN9: FINISH FLOOR ELEVATION = 100'-0" BOTTOM OF BASEPLATE = 100'-0" UNLESS NOTED OTHERWISE

ANCHOR BOLT SETTING NOTE

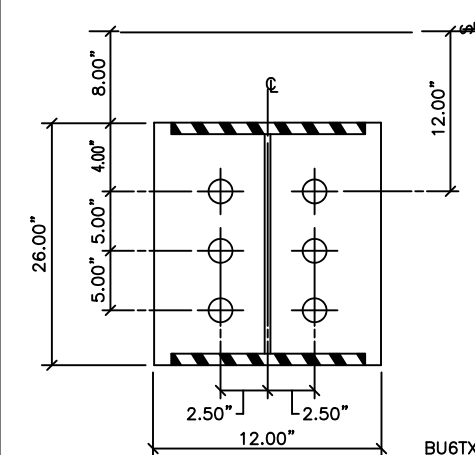
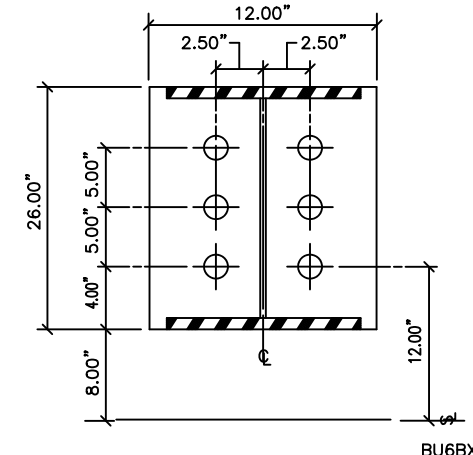
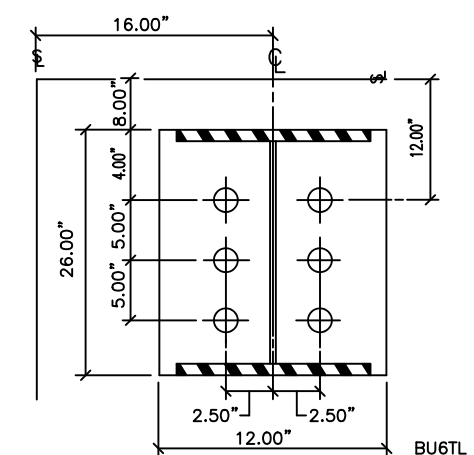
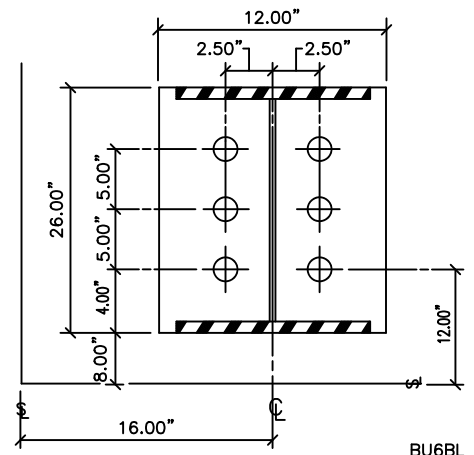
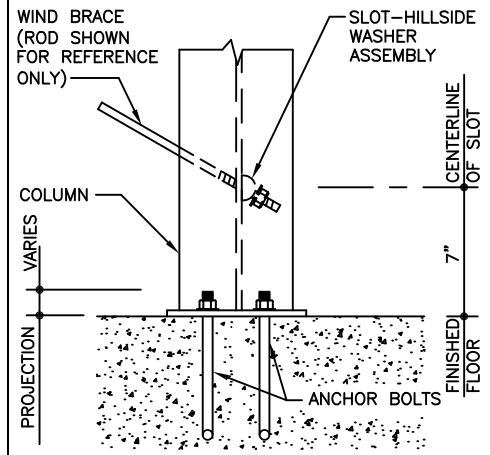
THE ANCHOR BOLT SETTINGS SHOWN ON THESE DRAWINGS NOT ONLY INDICATE WHERE THE ANCHOR BOLTS ARE TO BE PLACED, BUT ALSO THE FOOTPRINT OF THE METAL BUILDING. IT IS ESSENTIAL THAT THESE BOLT PATTERNS BE FOLLOWED. IN THE EVENT THAT THESE SETTINGS DIFFER FROM THE ARCHITECTURAL FOUNDATION PLANS, THE METAL BUILDING MANUFACTURER MUST BE CONTACTED IMMEDIATELY, BEFORE CONCRETE IS PLACED.



JOB NUMBER	T22E0442A
PROJECT NAME	MANUEL COLLISION
ADDRESS	501 LATTA RD. ADA, OK 74820
CUSTOMER NAME	TITAN CONSTRUCTION
DRAWING STATUS	FOR CONSTRUCTION
SHEET	F1
DRAWING TITLE	ANCHOR ROD PLAN

#	RELEASE/REVISION	DATE	ENG	DWY/CHK
0	ANCHOR RODS	10/14/2022		IDM/FA
1	PERMITS	10/26/2022		JMP/HR
2	FINALS	11/04/2022	PRS	JMP/JIP

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BASEPLATE LENGTH SHOWN IN ANCHOR BOLT DRAWINGS IS SUBJECT TO BE +/- 1".

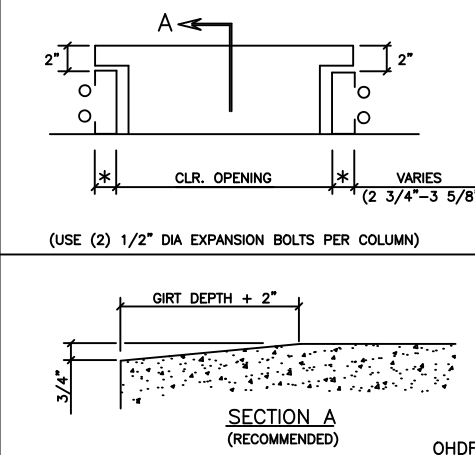
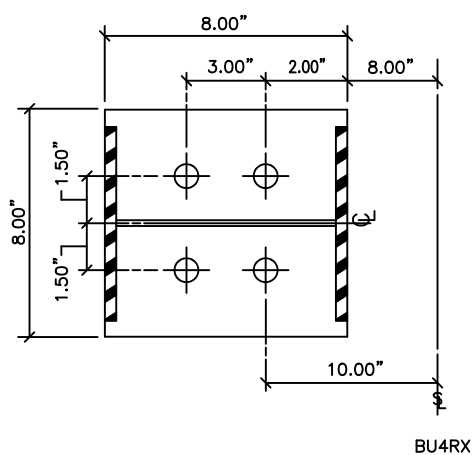
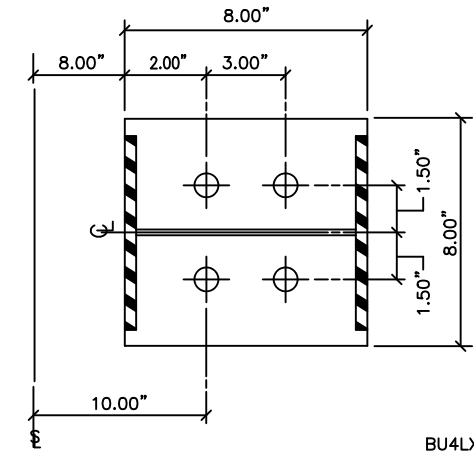
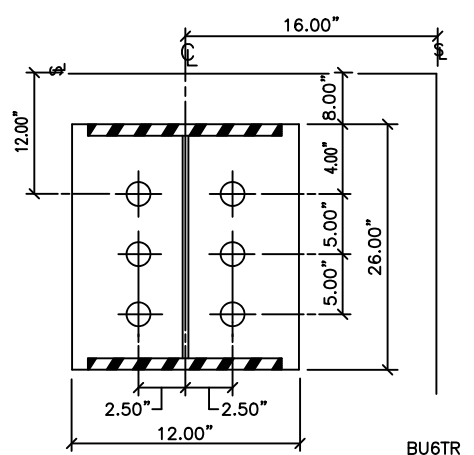
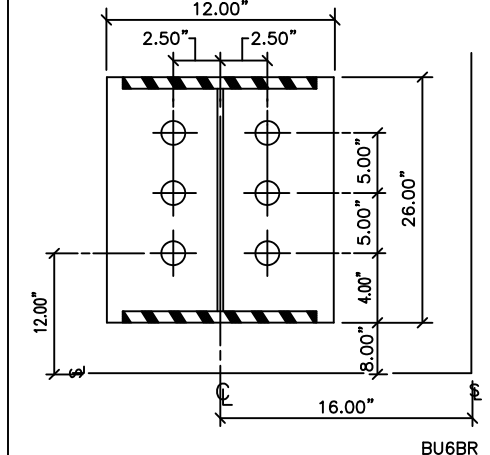
TYPICAL COLUMN BASE PLATE DETAIL AT SLOT-HILLSIDE WASHER LOCATION

A (6) 1.25" Ø ANCHOR BOLTS WITH A 5" PROJECTION

B (6) 1.25" Ø ANCHOR BOLTS WITH A 5" PROJECTION

C (6) 1.25" Ø ANCHOR BOLTS WITH A 5" PROJECTION

D (6) 1.25" Ø ANCHOR BOLTS WITH A 5" PROJECTION



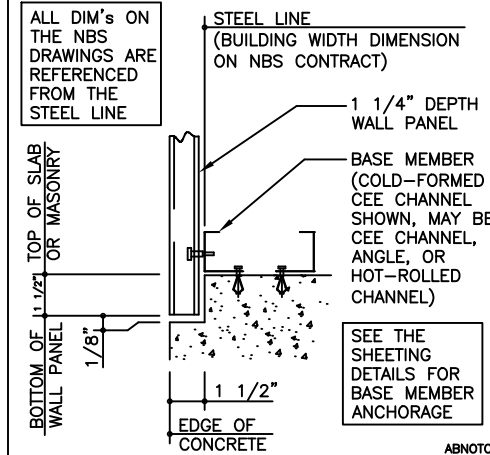
E (6) 1.25" Ø ANCHOR BOLTS WITH A 5" PROJECTION

F (6) 1.25" Ø ANCHOR BOLTS WITH A 5" PROJECTION

G (4) 0.75" Ø ANCHOR BOLTS WITH A 3" PROJECTION

H (4) 0.75" Ø ANCHOR BOLTS WITH A 3" PROJECTION

TYPICAL OVERHEAD DOOR FRAMED OPENING



CONCRETE NOTCH DETAIL

MEMBER IAS ACCREDITED

NUSCOR BUILDING SYSTEMS A DIVISION OF NUCOR CORPORATION

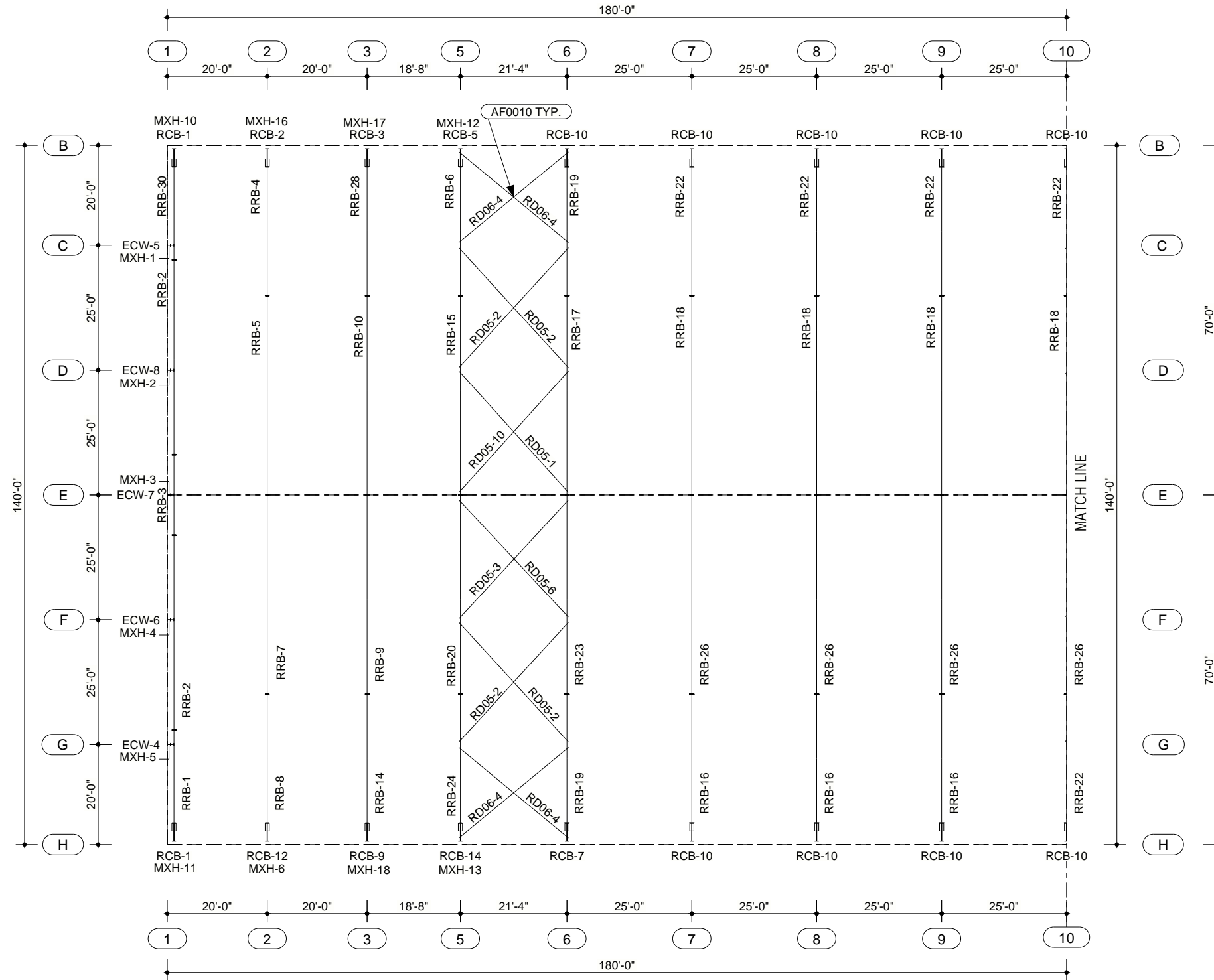
JOB NUMBER T22E0442A PROJECT NAME MANUEL COLLISION ADDRESS 501 LATTA RD. ADA, OK 74820 CUSTOMER NAME TITAN CONSTRUCTION DRAWING STATUS FOR CONSTRUCTION SHEET F2

DRAWING TITLE BASE PLATE DETAILS

#	RELEASE/REVISION	DATE	ENG	DWN/CHK	DATE
0	ANCHOR BOLTS	10/14/2022		TDN/FA	10/14/2022
1	PERMITS	10/26/2022		JMP/HR	10/26/2022
2	FINALS	11/04/2022		JMP/JIP	11/04/2022

THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE MANUFACTURER AND DOES NOT HAVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSIDERED AS SUCH.

RD=ROD BRACING CA=CABLE BRACING	
CODE	DIAMETER
02	1/4"
03	3/8"
04	1/2"
05	5/8"
06	3/4"
07	7/8"
08	1"
09	1 1/8"
10	1 1/4"



PRIMARY FRAMING SHAKEOUT PLAN (LINES 1-10)

SHAKEOUT PLAN GENERAL NOTES:

SH1: PLACE WELDED METAL TAGGED END OF RAFTER TOWARD LOW EAVE.
 RAFTERS CENTERED ON RIDGE; IF NOT SYMMETRICAL, *** INDICATES THE TAGGED END.
 OTHERWISE, THEY ARE SYMMETRICAL AND CAN BE ORIENTED EITHER DIRECTION.
 REFERENCE CROSS SECTIONS FOR ORIENTATION OF INTERIOR COLUMNS.

NUCOR
MEMBER
BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417

JOB NUMBER: T22E042A
 PROJECT NAME: Manuel Collision
 BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION

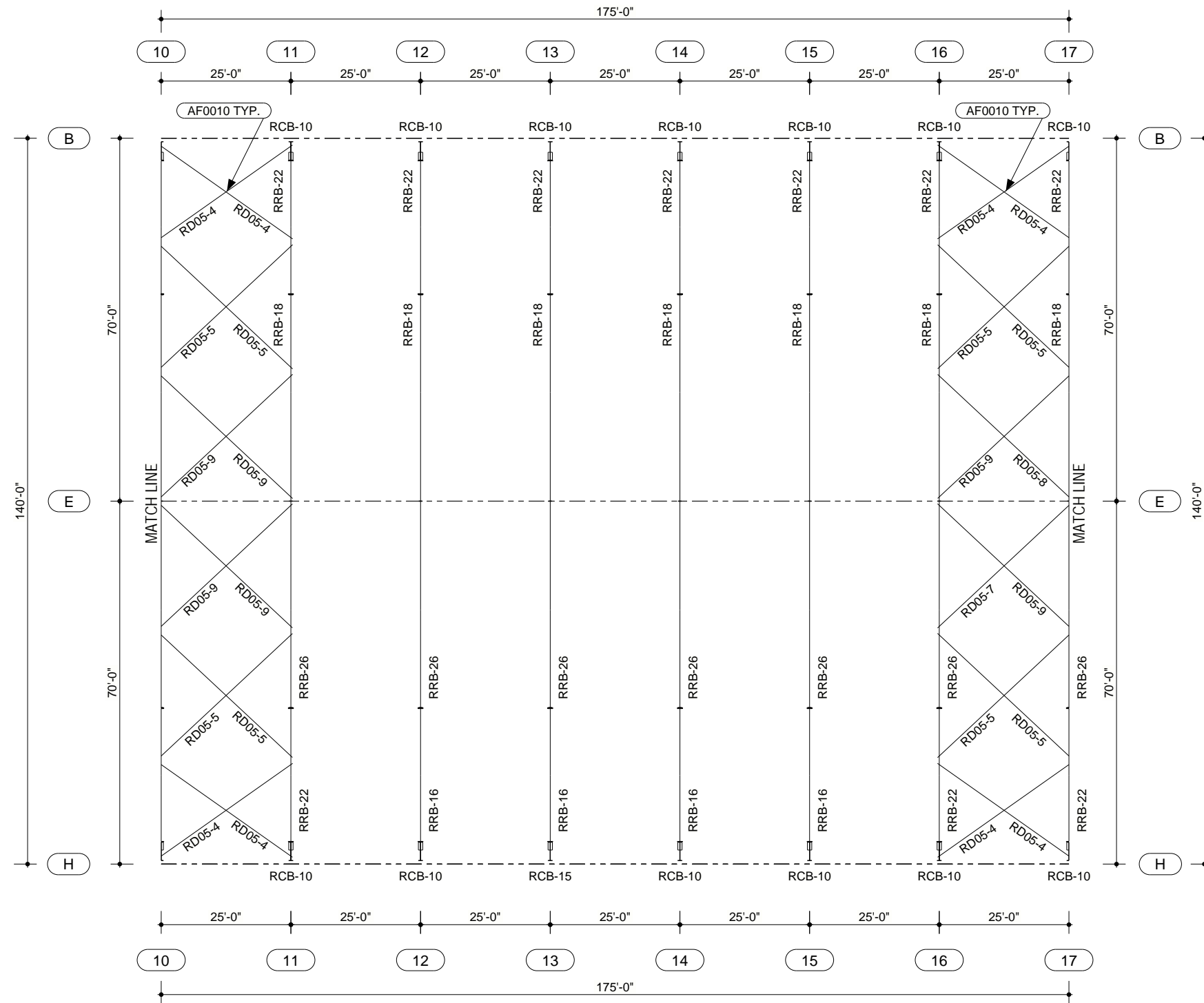
501 Latta Rd., ADA, OK. 74820

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR		10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

DRAWING TITLE: PRIMARY FRAMING SHAKEOUT PLAN (LINES 1-10)
 SHEET: E1
 11/30/2022 02:53:38pm



RD=ROD BRACING CA=CABLE BRACING	
CODE	DIAMETER
02	1/4"
03	3/8"
04	1/2"
05	5/8"
06	3/4"
07	7/8"
08	1"
09	1 1/8"
10	1 1/4"



PRIMARY FRAMING SHAKEOUT PLAN (LINES 10-17)

SHAKEOUT PLAN GENERAL NOTES:

SH1: PLACE WELDED METAL TAGGED END OF RAFTER TOWARD LOW EAVE.
 RAFTERS CENTERED ON RIDGE; IF NOT SYMMETRICAL, "T" INDICATES THE TAGGED END.
 OTHERWISE, THEY ARE SYMMETRICAL AND CAN BE ORIENTED EITHER DIRECTION.
 REFERENCE CROSS SECTIONS FOR ORIENTATION OF INTERIOR COLUMNS.

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MBMA
 MEMBER

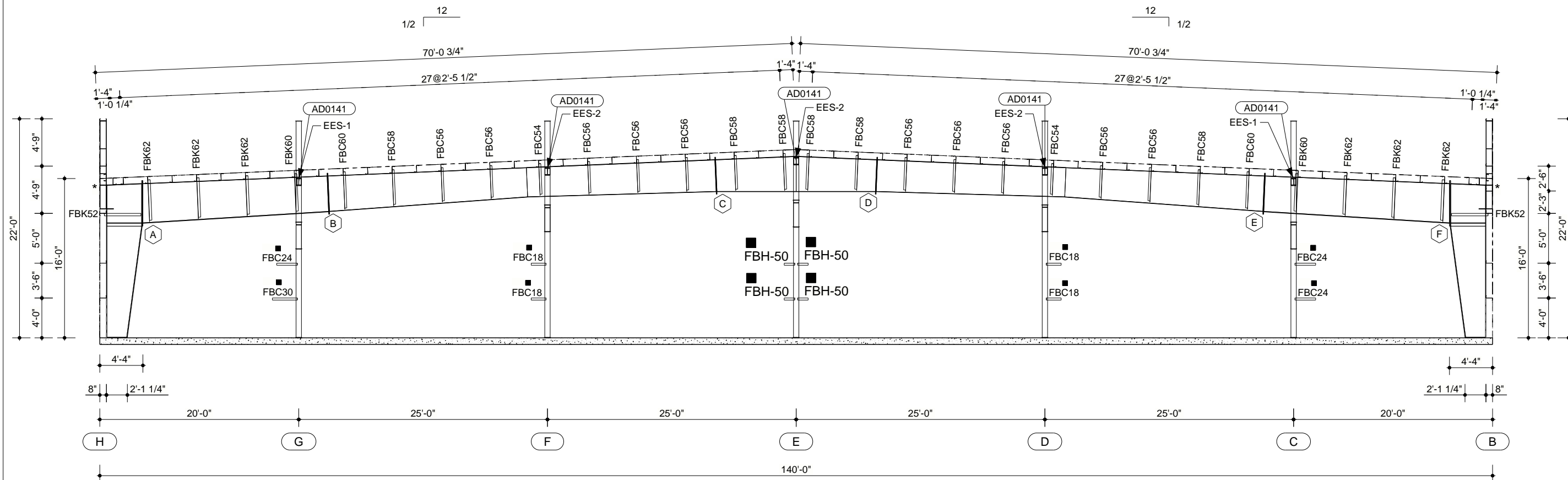
IAS
 ACCREDITED
 Steel Framing Systems
 MC 02

JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 501 Latta Rd., ADA, OK. 74820
 BUYER NAME: Titan Construction

DRAWING STATUS: FOR CONSTRUCTION
 DRAWING TITLE: PRIMARY FRAMING SHAKEOUT PLAN (LINES 10-17)
 SHEET: E2
 DATE: 11/30/2022

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

SPLICE BOLT TABLE						
SPLICE	BOLTS DESCRIPTION	BOLT #	NUT #	CLEAR TO F.F.	PLATE SIZE	PLATE SIZE
A	(16) 1" X 3 1/4" A325	H0640	H0330	11'-6"	10" X 3/4	10" X 3/4
B	(8) 7/8" X 3" A325	H0635	H0325	12'-4 13/16"	8" X 1/2	10" X 5/8
C	(8) 7/8" X 3" A325	H0635	H0325	14'-5 1/16"	10" X 1/2	8" X 1/2
D	(8) 7/8" X 3" A325	H0635	H0325	14'-5 1/16"	8" X 1/2	10" X 1/2
E	(8) 7/8" X 3" A325	H0635	H0325	12'-4 13/16"	8" X 1/2	10" X 5/8
F	(16) 1" X 3 1/4" A325	H0640	H0330	11'-6"	10" X 3/4	10" X 3/4



RIGID CROSS SECTION AT LINE 1

FRAME CROSS SECTION GENERAL NOTES

FN1: FOR COLUMN AND RAFTER MARK NUMBERS, SEE SHAKEOUT PLAN.
FN2: (2) INDICATES THAT FLANGE BRACING IS REQUIRED ON BOTH SIDES OF THE FRAME.
FN3: IF (2) IS NOT INDICATED, ONLY ONE FLANGE BRACE IS REQUIRED AND CAN BE LOCATED ON EITHER SIDE OF THE FRAME.

FN4: FOR EXPANDABLE ENDWALL RIGID FRAMES, IF FLANGE BRACING IS REQUIRED ON BOTH SIDES (2) OF AN EXPANDABLE END FRAME, THE OPPOSITE SIDE FLANGE BRACE WILL HAVE TO BE INSTALLED AT THE TIME OF EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.

FN5: *** INDICATES THE LONG SIDE OF THE INTERIOR COLUMNS. COLUMNS AT THE RIDGE ARE TYPICALLY "FLAT-TOP" COLUMNS, UNLESS INDICATED BY THE *** SYMBOL.
FN6: RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.

FN7: ■ INDICATES FBL01 AND FBN01 CLIPS ARE REQUIRED. REFERENCE FLANGE BRACE DETAILS.

NUCOR
BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417

MBMA
 MEMBER

IAS
 ACCREDITED
 INSTEEL BUILDING SYSTEMS
 MEMBER

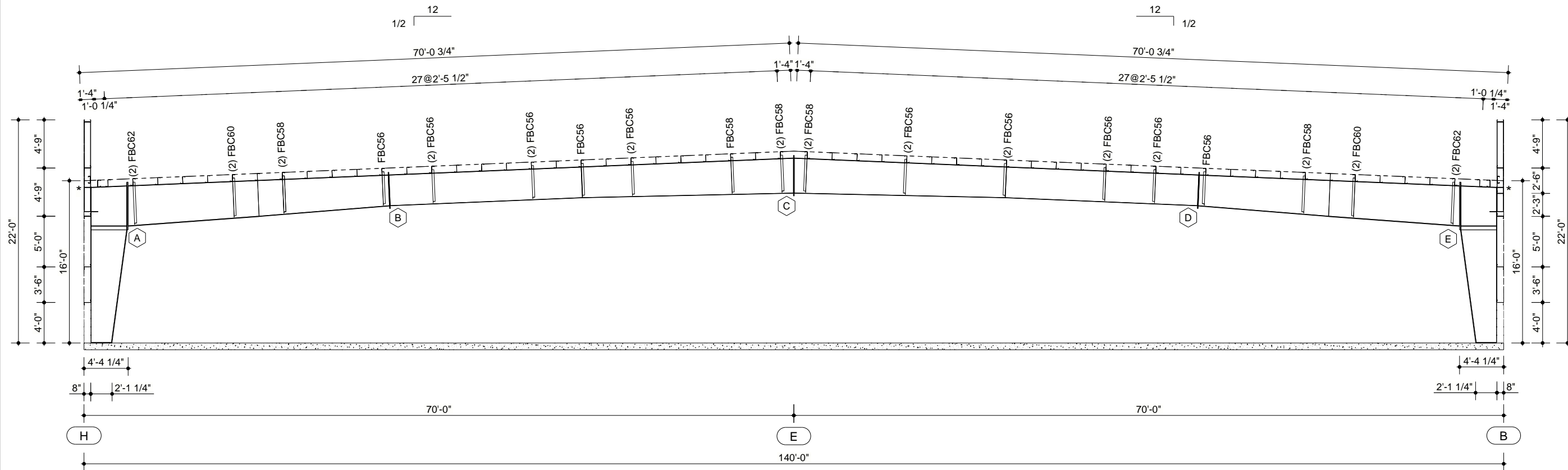
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JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 BUYER NAME: 501 Latta Rd., ADA, OK. 74820
 BUYER NAME: Titan Construction

DRAWING TITLE: RIGID CROSS SECTION AT LINE 1
 DRAWING STATUS: FOR CONSTRUCTION
 SHEET: E4
 DATE: 10/26/2022
 11/30/2022

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

SPLICE BOLT TABLE						
SPLICE	BOLTS DESCRIPTION	BOLT #	NUT #	CLEAR TO F.F.	PLATE SIZE	PLATE SIZE
A	(16) 1 1/4" X 3 1/2" A325	H0660	H0340	11'-6 1/16"	10" X 3/4	10" X 1"
B	(8) 7/8" X 3" A325	H0635	H0325	13'-3"	10" X 1/2	8" X 1/2
C	(8) 7/8" X 3" A325	H0635	H0325	14'-5 15/16"	8" X 1/2	8" X 1/2
D	(8) 7/8" X 3" A325	H0635	H0325	13'-3"	10" X 1/2	8" X 1/2
E	(16) 1 1/4" X 3 1/2" A325	H0660	H0340	11'-6 1/16"	10" X 3/4	10" X 1"



RIGID CROSS SECTION AT LINE 2

MAMA
MEMBER

NUCOR
BUILDING SYSTEMS GROUP

PHONE: (972) 524-5407
FAX: (972) 524-5417

IAS
ACCREDITED
After Training System
No. 02

11/30/2022 02:53:47 PM

JOB NUMBER: T22E042A
PROJECT NAME: Manuel Collision
501 Latta Rd., ADA, OK. 74820
BUYER NAME: Titan Construction

DRAWING STATUS: FOR CONSTRUCTION
DRAWING TITLE: RIGID CROSS SECTION AT LINE 2
SHEET: E5
DATE: 11/30/2022

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

FRAME CROSS SECTION GENERAL NOTES

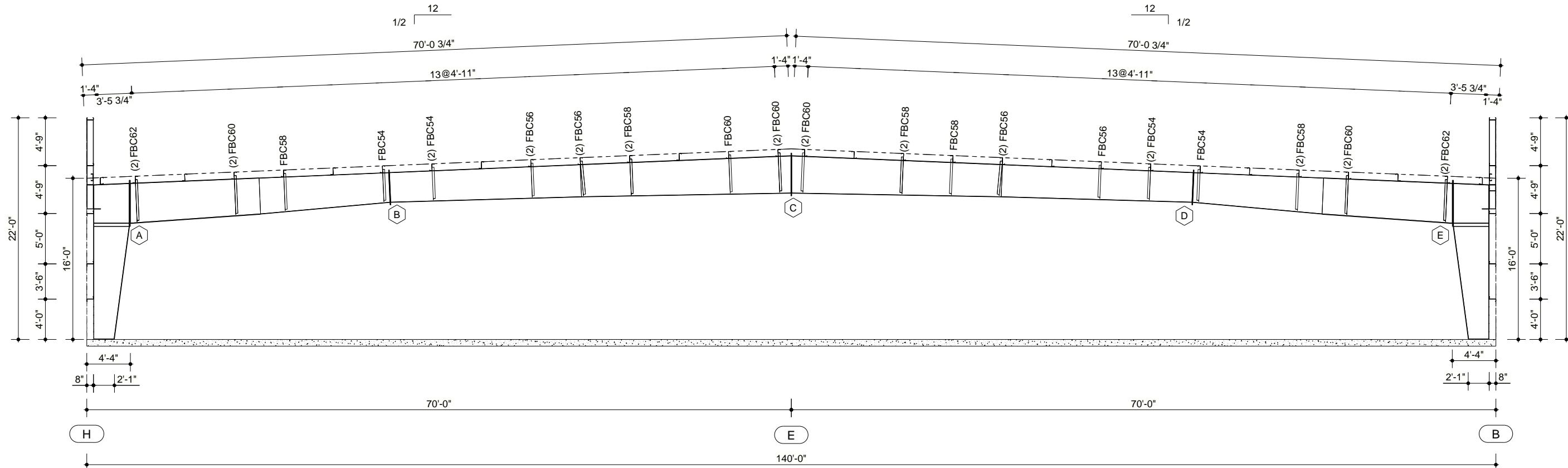
FN1: FOR COLUMN AND RAFTER MARK NUMBERS, SEE SHAKEOUT PLAN.
FN2: (2) INDICATES THAT FLANGE BRACING IS REQUIRED ON BOTH SIDES OF THE FRAME.
FN3: IF (2) IS NOT INDICATED, ONLY ONE FLANGE BRACE IS REQUIRED AND CAN BE LOCATED ON EITHER SIDE OF THE FRAME.

FN4: FOR EXPANDABLE ENDWALL RIGID FRAMES, IF FLANGE BRACING IS REQUIRED ON BOTH SIDES (2) OF AN EXPANDABLE END FRAME, THE OPPOSITE SIDE FLANGE BRACE WILL HAVE TO BE INSTALLED AT THE TIME OF EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.

FN5: "*" INDICATES THE LONG SIDE OF THE INTERIOR COLUMNS. COLUMNS AT THE RIDGE ARE TYPICALLY "FLAT-TOP" COLUMNS, UNLESS INDICATED BY THE "*" SYMBOL.
FN6: RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.

FN7: "■" INDICATES FBL01 AND FBN01 CLIPS ARE REQUIRED. REFERENCE FLANGE BRACE DETAILS.

SPLICE BOLT TABLE						
SPLICE	BOLTS DESCRIPTION	BOLT #	NUT #	CLEAR TO F.F.	PLATE SIZE	PLATE SIZE
A	(12) 1" X 3 1/4" A325	H0640	H0330	11'-6"	10" X 3/4	8" X 3/4
B	(8) 7/8" X 3" A325	H0635	H0325	13'-4 1/8"	8" X 1/2	10" X 1/2
C	(8) 7/8" X 3" A325	H0635	H0325	14'-2 15/16"	10" X 1/2	10" X 1/2
D	(8) 7/8" X 3" A325	H0635	H0325	13'-4 1/8"	8" X 1/2	10" X 1/2
E	(12) 1" X 3 1/4" A325	H0640	H0330	11'-6"	10" X 3/4	8" X 3/4



RIGID CROSS SECTION AT LINES 3 & 5

NUCOR
BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417

MAMA
 MEMBER

IAS
 ACCREDITED
 Iron Building Systems
 11/30/2022 02:53:48pm

JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION

501 Latta Rd., ADA, OK. 74820

DRAWING TITLE: RIGID CROSS SECTION AT LINES 3 & 5

DATE: 10/26/2022
 SHEET: E6

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
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1	FINALS	JMP / JIP	PRS	11/30/2022

FRAME CROSS SECTION GENERAL NOTES

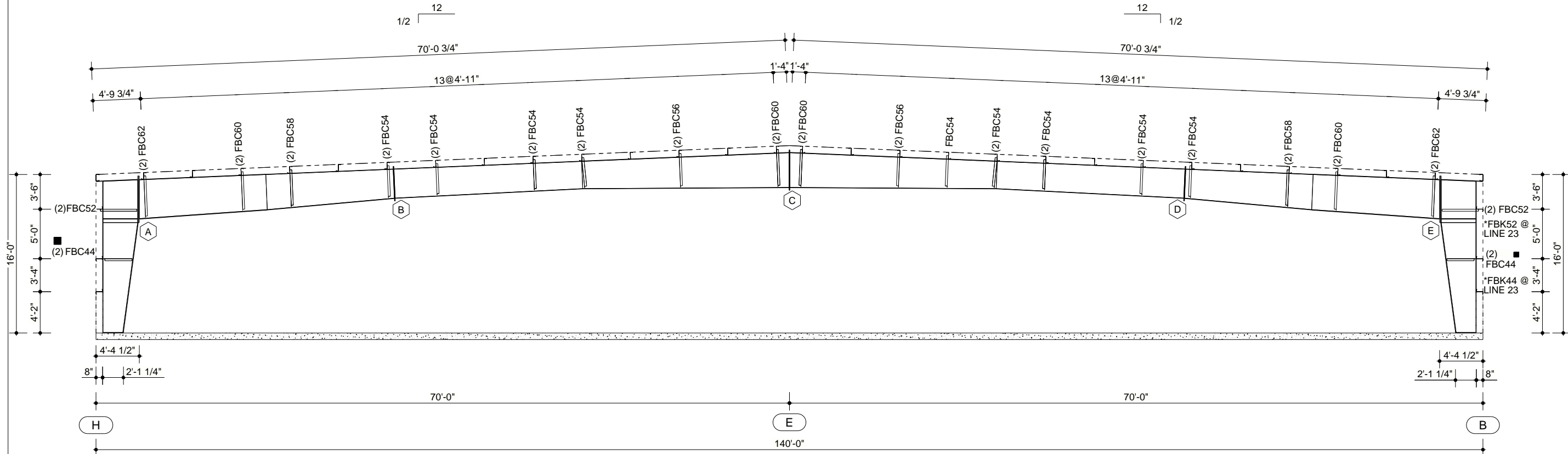
FN1: FOR COLUMN AND RAFTER MARK NUMBERS, SEE SHAKEOUT PLAN.
FN2: (2) INDICATES THAT FLANGE BRACING IS REQUIRED ON BOTH SIDES OF THE FRAME.
FN3: IF (2) IS NOT INDICATED, ONLY ONE FLANGE BRACE IS REQUIRED AND CAN BE LOCATED ON EITHER SIDE OF THE FRAME.

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FN7: "■" INDICATES FBL01 AND FBN01 CLIPS ARE REQUIRED. REFERENCE FLANGE BRACE DETAILS.

SPLICE BOLT TABLE						
SPLICE	BOLTS DESCRIPTION	BOLT #	NUT #	CLEAR TO F.F.	PLATE SIZE	PLATE SIZE
A	(12) 1 1/4" X 3 1/2" A325	H0660	H0340	11'-5 15/16"	1'-0" X 1"	10" X 1"
B	(8) 7/8" X 3" A325	H0635	H0325	13'-3 7/8"	8" X 1/2"	1'-0" X 1/2"
C	(8) 7/8" X 3" A325	H0635	H0325	14'-4 13/16"	8" X 1/2"	8" X 1/2"
D	(8) 7/8" X 3" A325	H0635	H0325	13'-3 7/8"	10" X 1/2"	1'-0" X 1/2"
E	(12) 1 1/4" X 3 1/2" A325	H0660	H0340	11'-5 15/16"	1'-0" X 1"	10" X 1"



RIGID CROSS SECTION AT LINES 6-23

MAMA
 BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417
NUCOR
 BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417
IAS
 ACCREDITED
 11/30/2022 02:53:50pm

JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 BUYER NAME: 501 Latta Rd., ADA, OK. 74820
 BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION
 DRAWING TITLE: RIGID CROSS SECTION AT LINES 6-23
 SHEET: E7
 DATE: 10/26/2022
 11/30/2022

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

FRAME CROSS SECTION GENERAL NOTES

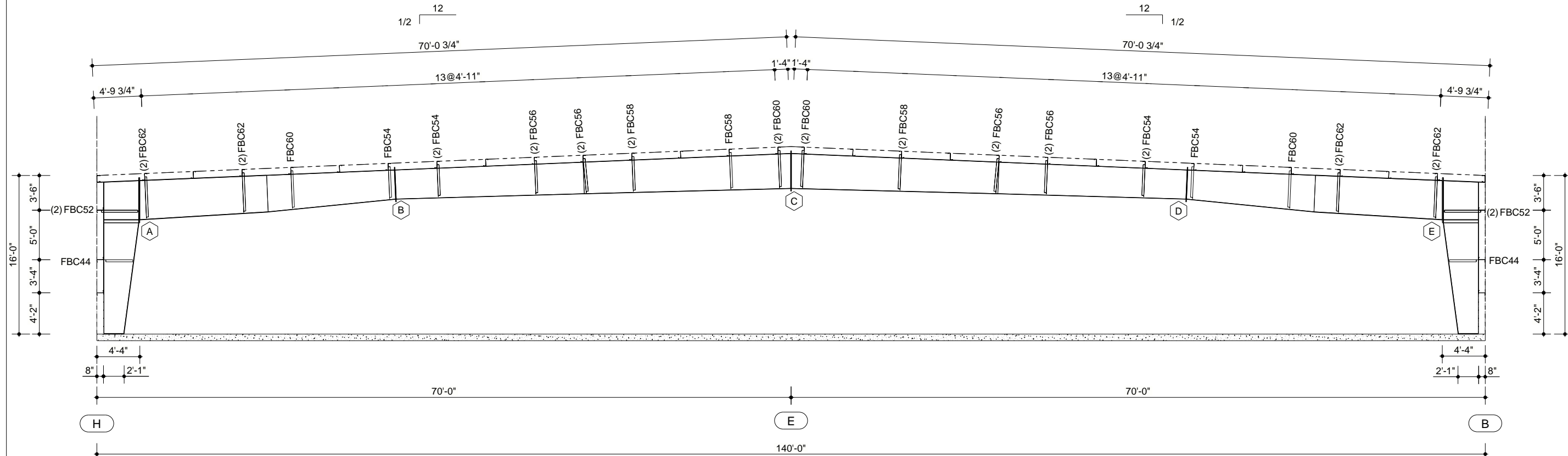
FN1: FOR COLUMN AND RAFTER MARK NUMBERS, SEE SHAKEOUT PLAN.
FN2: (2) INDICATES THAT FLANGE BRACING IS REQUIRED ON BOTH SIDES OF THE FRAME.
FN3: IF (2) IS NOT INDICATED, ONLY ONE FLANGE BRACE IS REQUIRED AND CAN BE LOCATED ON EITHER SIDE OF THE FRAME.

FN4: FOR EXPANDABLE ENDWALL RIGID FRAMES, IF FLANGE BRACING IS REQUIRED ON BOTH SIDES (2) OF AN EXPANDABLE END FRAME, THE OPPOSITE SIDE FLANGE BRACE WILL HAVE TO BE INSTALLED AT THE TIME OF EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.

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FN6: RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.

FN7: "■" INDICATES FBL01 AND FBN01 CLIPS ARE REQUIRED. REFERENCE FLANGE BRACE DETAILS.

SPLICE BOLT TABLE						
SPLICE	BOLTS DESCRIPTION	BOLT #	NUT #	CLEAR TO F.F.	PLATE SIZE	PLATE SIZE
A	(12) 1" X 3 1/4" A325	H0640	H0330	11'-6 1/8"	10" X 3/4	10" X 3/4
B	(8) 7/8" X 3" A325	H0635	H0325	13'-4"	8" X 3/8	10" X 1/2
C	(12) 7/8" X 3" A325	H0635	H0325	14'-5 1/16"	8" X 1/2	8" X 1/2
D	(8) 7/8" X 3" A325	H0635	H0325	13'-4"	8" X 3/8	10" X 1/2
E	(12) 1" X 3 1/4" A325	H0640	H0330	11'-6 1/8"	10" X 3/4	10" X 3/4



RIGID CROSS SECTION AT LINE 24

FRAME CROSS SECTION GENERAL NOTES

FN1: FOR COLUMN AND RAFTER MARK NUMBERS, SEE SHAKEOUT PLAN.
FN2: (2) INDICATES THAT FLANGE BRACING IS REQUIRED ON BOTH SIDES (2) OF AN EXPANDABLE END FRAME, THE OPPOSITE SIDE FLANGE BRACE WILL HAVE TO BE INSTALLED AT THE TIME OF EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.
FN3: IF (2) IS NOT INDICATED, ONLY ONE FLANGE BRACE IS REQUIRED AND CAN BE LOCATED ON EITHER SIDE OF THE FRAME.

FN4: FOR EXPANDABLE ENDWALL RIGID FRAMES, IF FLANGE BRACING IS REQUIRED ON BOTH SIDES (2) OF AN EXPANDABLE END FRAME, THE OPPOSITE SIDE FLANGE BRACE WILL HAVE TO BE INSTALLED AT THE TIME OF EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.

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FN7: ■ INDICATES FBL01 AND FBN01 CLIPS ARE REQUIRED. REFERENCE FLANGE BRACE DETAILS.

NUCOR
BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417

MAMA
 MEMBER

IAS
 ACCREDITED
 Iron Working Systems
 No. 02

11/30/2022 02:53:52pm

JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 501 Latta Rd., ADA, OK. 74820
 BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION

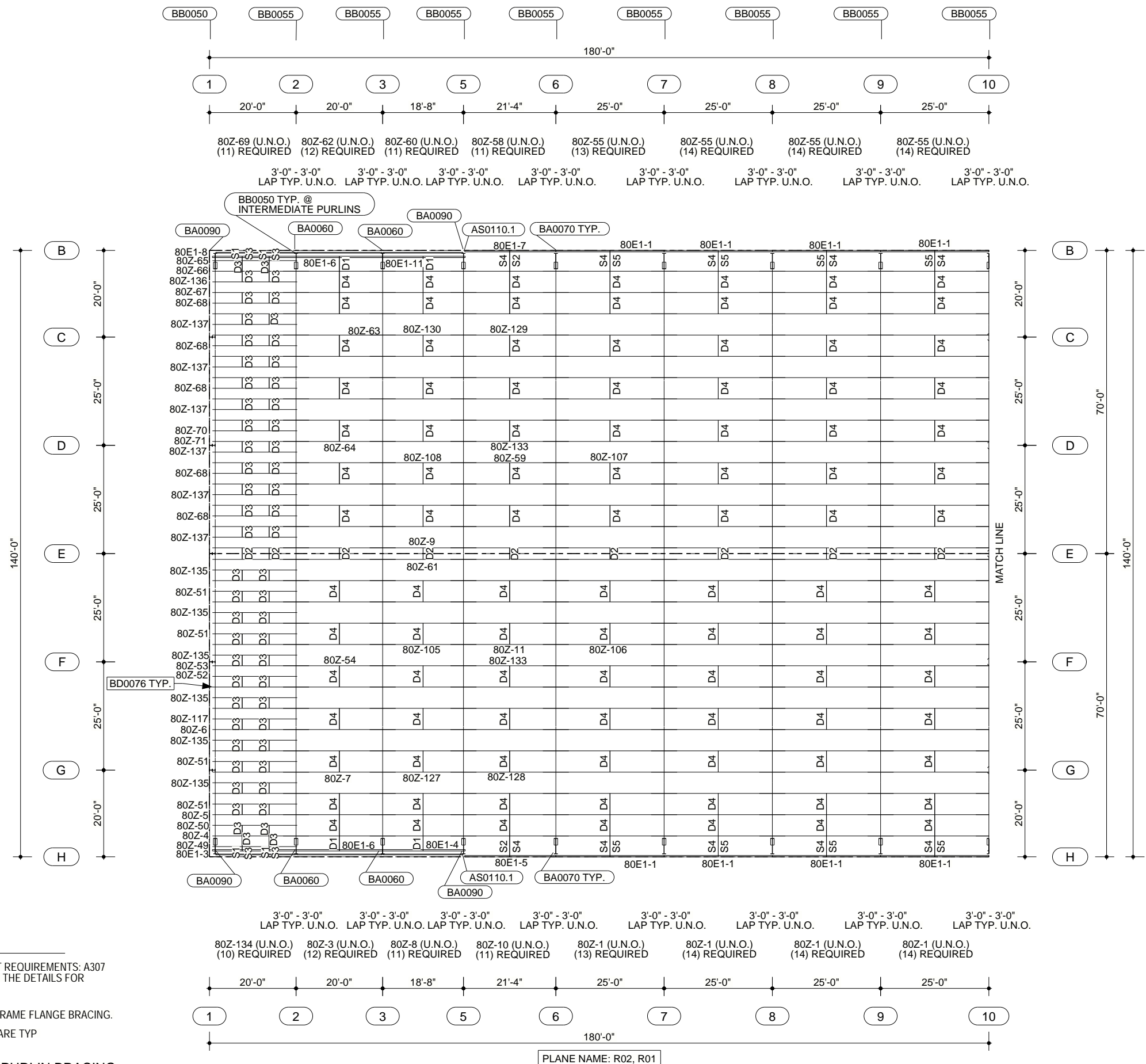
DRAWING TITLE: RIGID CROSS SECTION AT LINE 24

SHEET: E8

DATE: 10/26/2022

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

SHORTENED MARKS	SHOWN	ACTUAL
D1	(2)PB842	
D2	(2)PBR105	
D3	(2)PBX-3	
D4	(2)PBX-6	
S1	PBX-1	
S2	PBX-10	
S3	PBX-2	
S4	PBX-7	
S5	PBX-8	



Notes:

PURLIN AND EAVE STRUT CONNECTION BOLT REQUIREMENTS: A307 AND A325 BOLTS ARE BOTH USED. REFER TO THE DETAILS FOR SPECIFIC REQUIREMENTS

SEE CROSS SECTION DRAWINGS FOR MAIN FRAME FLANGE BRACING.

DETAIL NUMBERS LISTED ABOVE EACH LINE ARE TYP AT THAT FRAME LINE U.N.O.

REFER TO DETAIL BE0001 FOR PURLIN BRACING

ROOF FRAMING PLAN

MBMA
MEMBER

IAS
ACCREDITED
Steel Building Systems
INC. OF

NUCOR
BUILDING SYSTEMS GROUP

PHONE: (972) 524-5407
FAX: (972) 524-5417

JOB NUMBER: T22E0442A
PROJECT NAME: Manuel Collision
501 Latta Rd., ADA, OK. 74820
BUYER NAME: Titan Construction

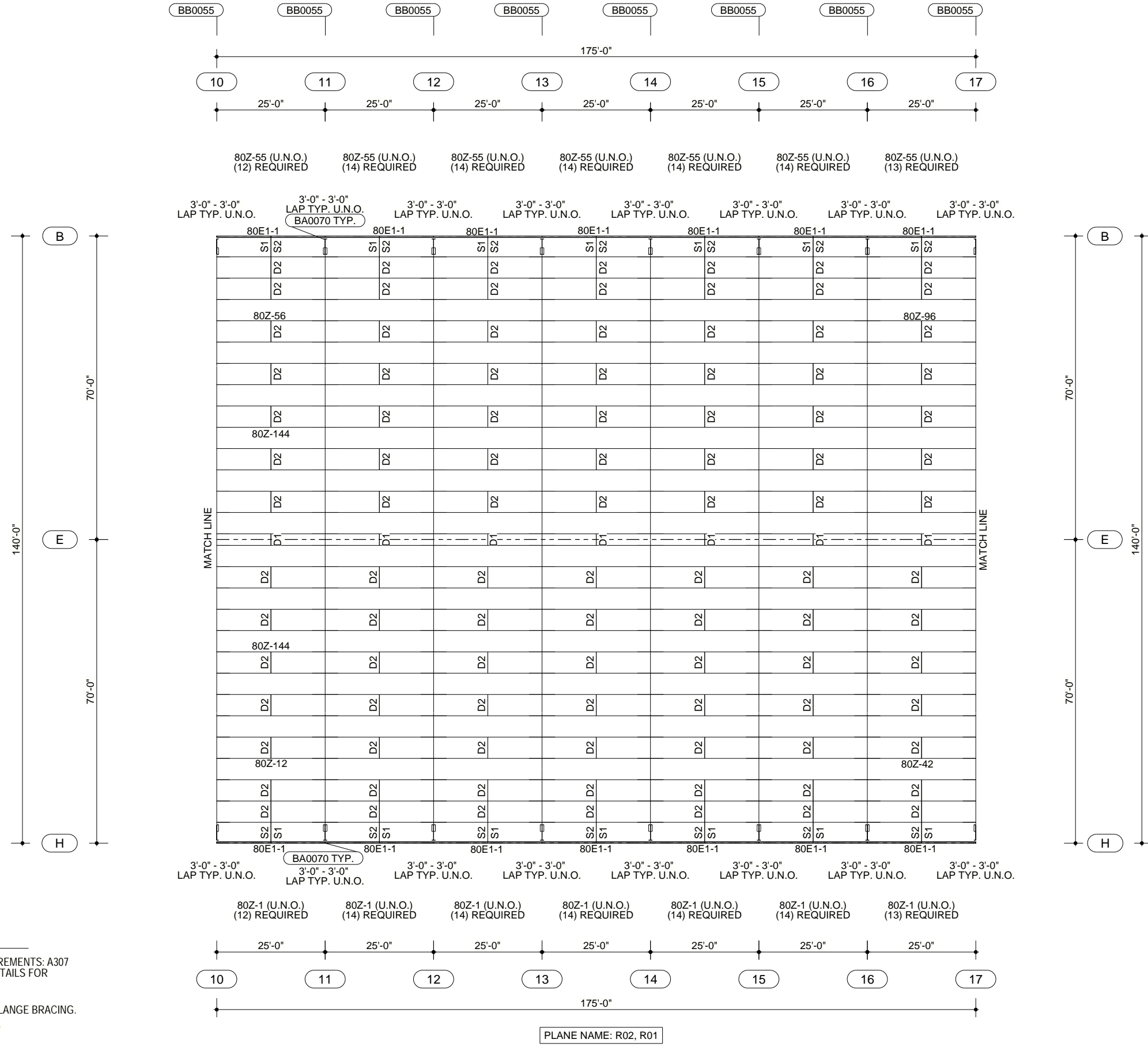
DRAWING STATUS: FOR CONSTRUCTION
DRAWING TITLE: ROOF FRAMING PLAN

DATE: 10/26/2022
SHEET: E10

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

11/30/2022 02:54:23pm

SHORTENED MARKS	
SHOWN	ACTUAL
D1	(2)PBR105
D2	(2)PBX-6
S1	PBX-7
S2	PBX-8



Notes:

PURLIN AND EAVE STRUT CONNECTION BOLT REQUIREMENTS: A307 AND A325 BOLTS ARE BOTH USED. REFER TO THE DETAILS FOR SPECIFIC REQUIREMENTS

SEE CROSS SECTION DRAWINGS FOR MAIN FRAME FLANGE BRACING.

DETAIL NUMBERS LISTED ABOVE EACH LINE ARE TYP AT THAT FRAME LINE U.N.O.

REFER TO DETAIL BE0001 FOR PURLIN BRACING

ROOF FRAMING PLAN

NUCOR
BUILDING SYSTEMS GROUP

PHONE: (972) 524-5407
FAX: (972) 524-5417

BUYER NAME: Titan Construction

MBMA
MEMBER

IAS
ACCREDITED
Steel Framing Systems

11/30/2022 02:54:43pm

JOB NUMBER: T22E0442A
PROJECT NAME: Manuel Collision
501 Latta Rd., ADA, OK. 74820

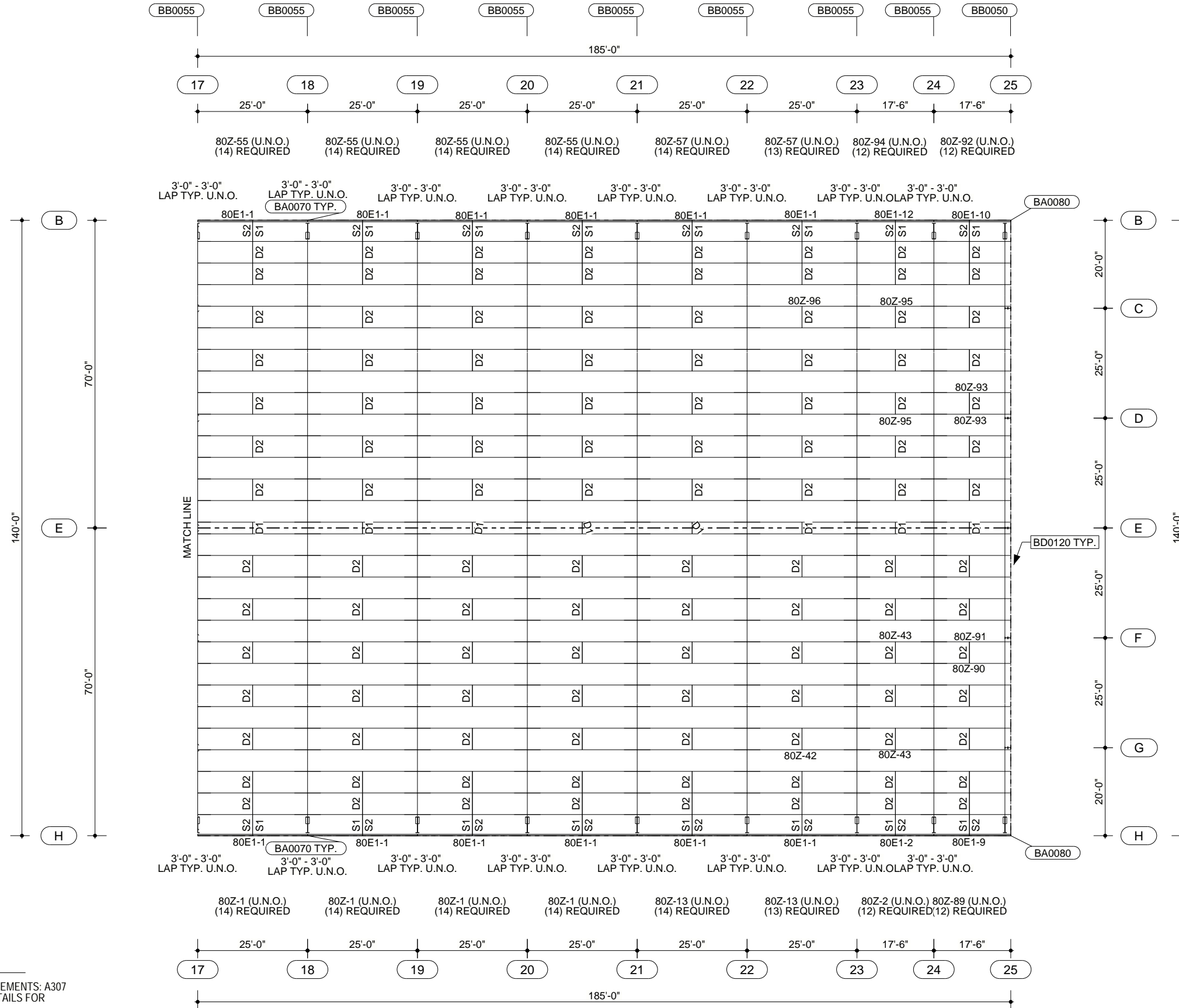
DRAWING TITLE: ROOF FRAMING PLAN

DRAWING STATUS: FOR CONSTRUCTION

SHEET: E11

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

SHORTENED MARKS	
SHOWN	ACTUAL
D1	(2)PBR105
D2	(2)PBX-6
S1	PBX-7
S2	PBX-8



Notes:

PURLIN AND EAVE STRUT CONNECTION BOLT REQUIREMENTS: A307 AND A325 BOLTS ARE BOTH USED. REFER TO THE DETAILS FOR SPECIFIC REQUIREMENTS

SEE CROSS SECTION DRAWINGS FOR MAIN FRAME FLANGE BRACING.

DETAIL NUMBERS LISTED ABOVE EACH LINE ARE TYP AT THAT FRAME LINE U.N.O.

REFER TO DETAIL BE0001 FOR PURLIN BRACING

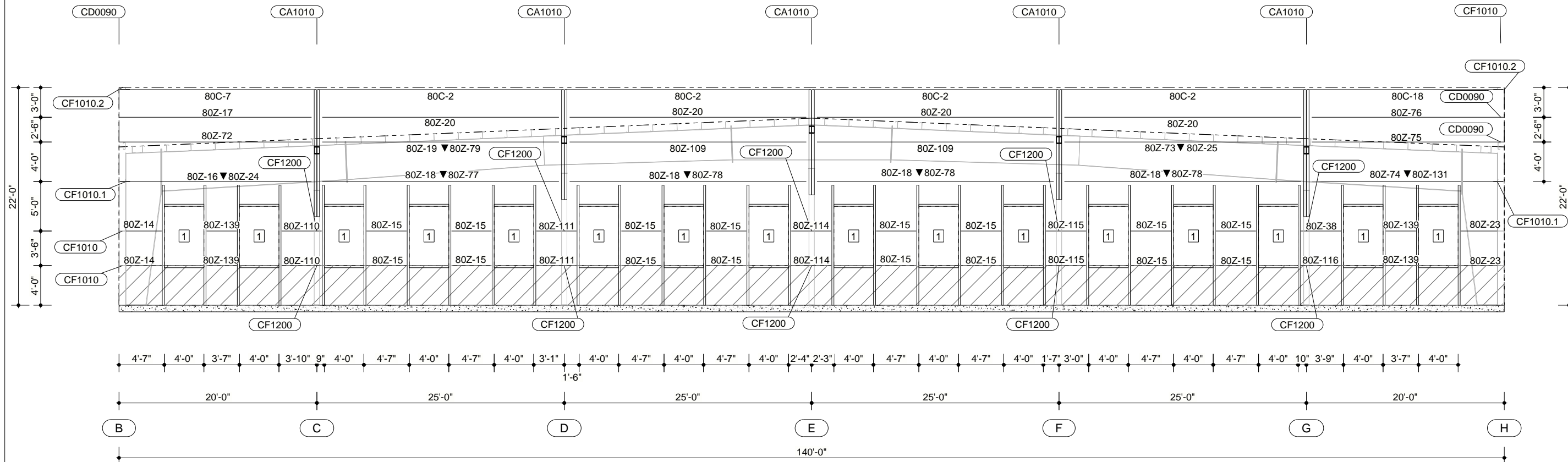
PLANE NAME: R02, R01
ROOF FRAMING PLAN

NUCOR
 BUILDING SYSTEMS GROUP
 PHONE: (972) 524-5407
 FAX: (972) 524-5417
 IAS
 ACCREDITED
 MEMBER
 11/30/2022 02:55:29pm

JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 BUYER NAME: 501 Latta Rd., ADA, OK. 74820
 BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION
 DRAWING TITLE: ROOF FRAMING PLAN
 SHEET: E12
 DATE: 10/26/2022
 11/30/2022

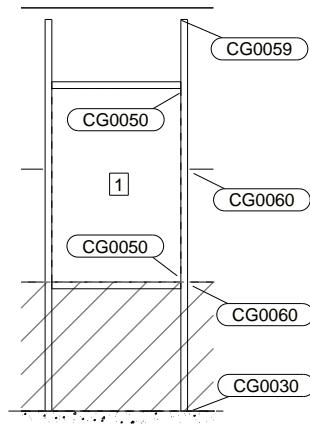
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0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

FRAMED OPENING TABLE									
MARK	WIDTH	HEIGHT	HEADER	DRUM SUPPORT	LEFT JAMB	RIGHT JAMB	SILL	SILL HEIGHT	FIELD LOCATED
1	4'-0"	6'-0"	80C-4 (80C060)		80C-8 (80C060)	80C-8 (80C060)	80C-4 (80C060)	4'-0"	N



PLANE NAME: W01

ENDWALL FRAMING ELEVATION AT LINE 1



4'-0" X 6'-0"

WALL ELEVATION GENERAL NOTES

WN1: SEE CROSS SECTION FOR MAIN FRAME FLANGE BRACING.
 WN2: SEE WALL FRAMING DETAILS FOR STANDARD GIRT ORIENTATION DETAIL.
 WN3: RD_ INDICATES ROD BRACING. SEE PRIMARY DETAILS FOR ROD BRACING ASSEMBLY.

WN4: CA_ INDICATES CABLE BRACING. SEE PRIMARY DETAILS FOR CABLE BRACING ASSEMBLY.
 WN5: CUT AND DRILL GIRTS AS NECESSARY FOR FIELD LOCATED FRAMED OPENINGS.
 WN6: AT FLUSH OR INSET GIRT CONDITIONS, FIELD SLOT GIRT WEBS TO ALLOW PASSAGE OF ROD BRACING. SEE PRIMARY DETAILS FOR GUIDELINES.

WN7: DETAIL NUMBERS LISTED ABOVE EACH LINE ARE TYP AT THAT FRAME LINE U.N.O.
 WN8: ▼ INDICATES NESTED GIRT. SEE DETAIL CM_____.
 WN9: GIRT, PURLIN, AND CLEAR UNDER DIMENSIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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MEMBER

NUCOR
BUILDING SYSTEMS GROUP

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Metal Building Systems
by IBR

JOB NUMBER: T22E0442A
PROJECT NAME: Manuel Collision
BUYER NAME: 501 Latta Rd., ADA, OK. 74820
BUYER NAME: Titan Construction

DRAWING STATUS: FOR CONSTRUCTION

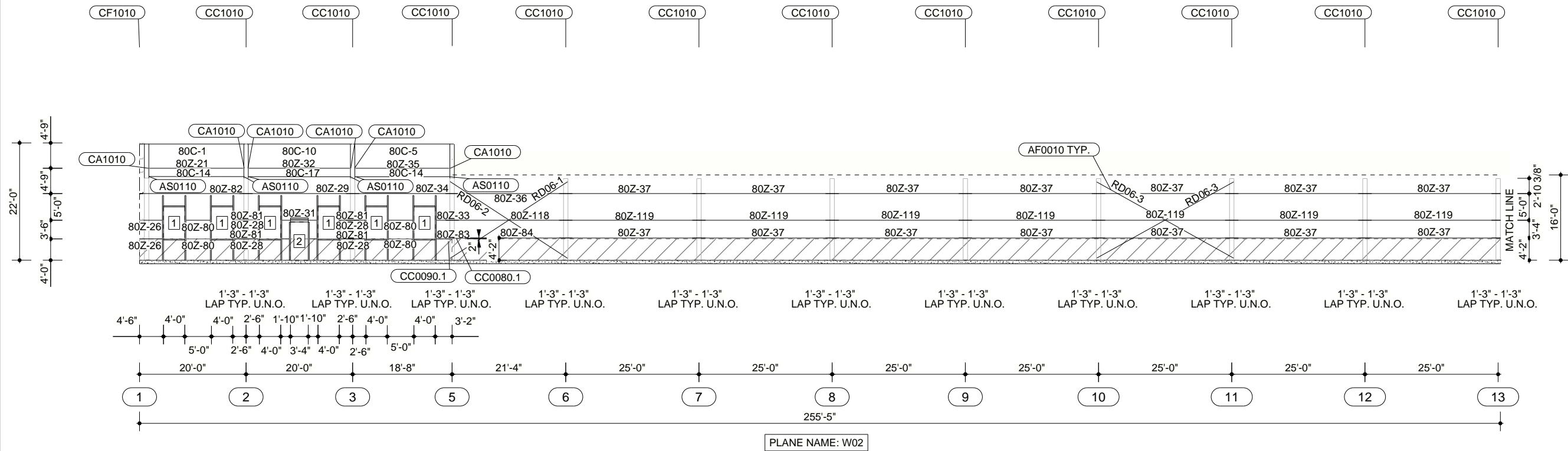
DRAWING TITLE: ENDWALL FRAMING ELEVATION AT LINE 1

SHEET: E13

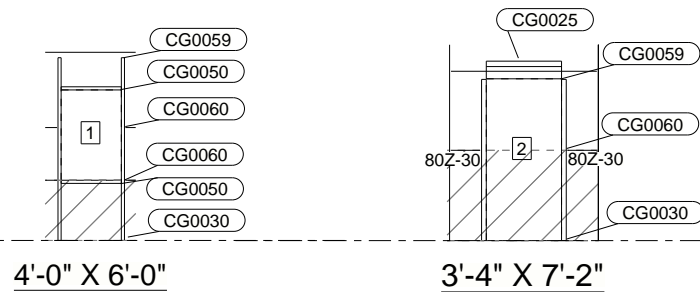
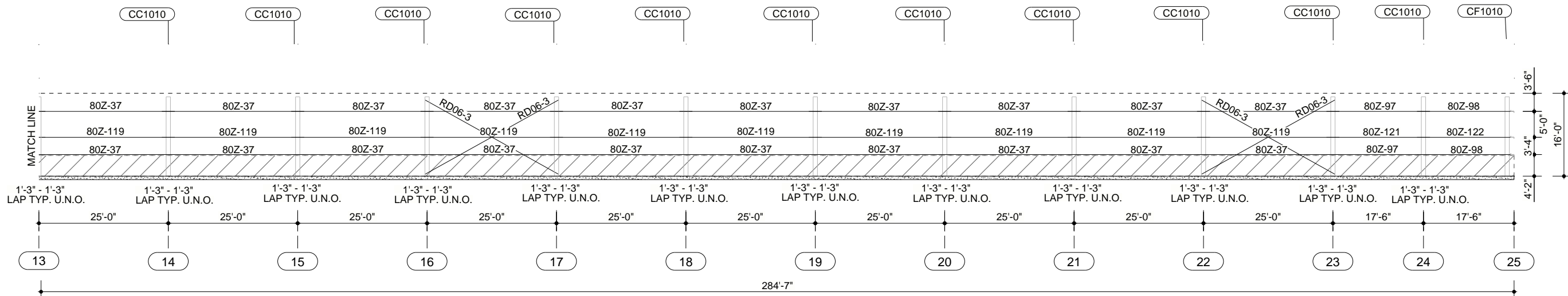
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0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022

11/30/2022 02:55:33pm

FRAMED OPENING TABLE									
MARK	WIDTH	HEIGHT	HEADER	DRUM SUPPORT	LEFT JAMB	RIGHT JAMB	SILL	SILL HEIGHT	FIELD LOCATED
1	4'-0"	6'-0"	80C-4 (80C060)		80C-8 (80C060)	80C-8 (80C060)	80C-4 (80C060)	4'-0"	N
2	3'-4"	7'-2"	HW8-1 (HW8)		80C-6 (80C060)	80C-6 (80C060)			N



SIDEWALL FRAMING ELEVATION AT LINE H



SIDEWALL FRAMING ELEVATION AT LINE H

WALL ELEVATION GENERAL NOTES

WN1: SEE CROSS SECTION FOR MAIN FRAME FLANGE BRACING.
 WN2: SEE WALL FRAMING DETAILS FOR STANDARD GIRT ORIENTATION DETAIL.
 WN3: RD_ INDICATES ROD BRACING. SEE PRIMARY DETAILS FOR ROD BRACING ASSEMBLY.

WN4: CA_ INDICATES CABLE BRACING. SEE PRIMARY DETAILS FOR CABLE BRACING ASSEMBLY.
 WN5: CUT AND DRILL GIRTS AS NECESSARY FOR FIELD SLOT LOCATED FRAMED OPENINGS.
 WN6: AT FLUSH OR INSET GIRT CONDITIONS, FIELD SLOT GIRT WEBS TO ALLOW PASSAGE OF ROD BRACING. SEE PRIMARY DETAILS FOR GUIDELINES.

WN7: DETAIL NUMBERS LISTED ABOVE EACH LINE ARE TYP AT THAT FRAME LINE U.N.O.
 WN8: ▼ INDICATES NESTED GIRT. SEE DETAIL CM.
 WN9: GIRT, PURLIN, AND CLEAR UNDER DIMENSIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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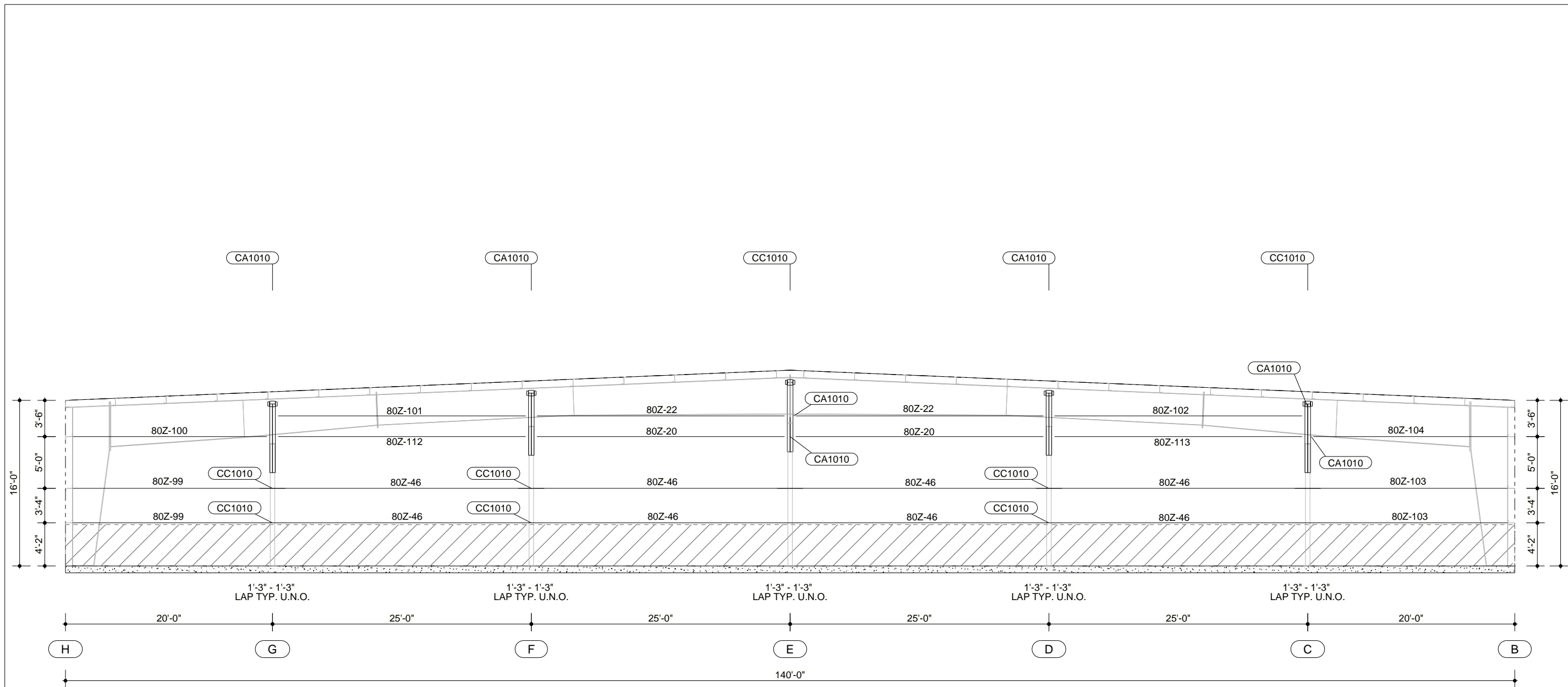
MBAMA
 ACCREDITED
 IAS

JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 BUYER NAME: 501 Latta Rd., ADA, OK. 74820
 BUYER PHONE: (972) 524-5407
 BUYER FAX: (972) 524-5417

BUYER NAME: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION
 DRAWING TITLE: SIDEWALL FRAMING ELEVATION AT LINE H
 SHEET: E14
 DATE: 10/26/2022
 DATE: 11/30/2022

| RELEASE / REVISION | DWN / CHK | ENG | DATE
 0 | PERMITS | JMP / HR | PRS | 10/26/2022
 1 | FINALS | JMP / JIP | PRS | 11/30/2022

11/30/2022 02:55:45pm



PLANE NAME: W03

ENDWALL FRAMING ELEVATION AT LINE 25

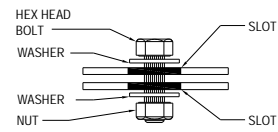
WALL ELEVATION GENERAL NOTES

WN1: SEE CROSS SECTION FOR MAIN FRAME FLANGE BRACING.
WN2: SEE WALL FRAMING DETAILS FOR STANDARD GIRT ORIENTATION DETAIL.
WN3: RD_ INDICATES ROD BRACING. SEE PRIMARY DETAILS FOR ROD BRACING ASSEMBLY.

WN4: CA_ INDICATES CABLE BRACING. SEE PRIMARY DETAILS FOR CABLE BRACING ASSEMBLY.
WN5: CUT AND DRILL GIRTS AS NECESSARY FOR FIELD LOCATED FRAMED OPENINGS.
WN6: AT FLUSH OR INSET GIRT CONDITIONS, FIELD SLOT GIRT WEBS TO ALLOW PASSAGE OF ROD BRACING. SEE PRIMARY DETAILS FOR GUIDELINES.

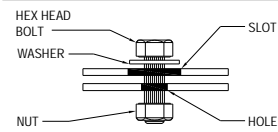
WN7: DETAIL NUMBERS LISTED ABOVE EACH LINE ARE TYP AT THAT FRAME LINE U.N.O.
WN8: ▼ INDICATES NESTED GIRT. SEE DETAIL CM_____.
WN9: GIRT, PURLIN, AND CLEAR UNDER DIMENSIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	PERMITS	JMP / HR	PRS	10/26/2022
1	FINALS	JMP / JIP	PRS	11/30/2022



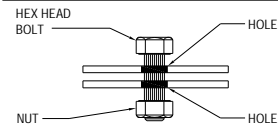
SLOT TO SLOT CONNECTIONS

WASHERS REQUIRED ON BOTH SIDES OF MATERIAL IF SLOTS ARE ON BOTH SIDES. (EXCEPTION: SEE DETAIL AT RIGHT FOR LAPPED ZEE MEMBERS)



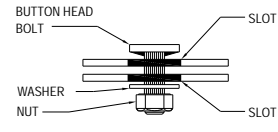
SLOT TO HOLE CONNECTIONS

ONE WASHER REQUIRED ON SLOTTED SIDE ONLY.



HOLE TO HOLE CONNECTIONS

NO WASHERS REQUIRED WHEN SLOTS ARE NOT USED.



SLOT TO SLOT CONNECTIONS

WASHER REQUIRED AT NUT SIDE ONLY FOR BUTTON HEAD BOLTS. (BUTTON HEAD BOLTS HAVE MATERIAL GRABBING FINS UNDER THE HEAD, A WASHER IS NOT NEEDED ON BOLT HEAD SIDE).

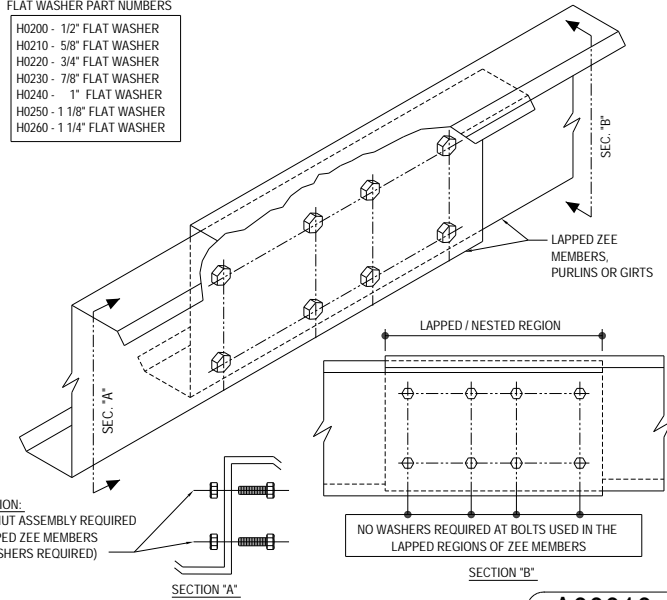
WASHER REQUIREMENTS ERECTOR NOTE

(UNLESS NOTED OTHERWISE ON DRAWINGS)

FLAT WASHER PART NUMBERS

- H0200 - 1/2" FLAT WASHER
- H0210 - 5/8" FLAT WASHER
- H0220 - 3/4" FLAT WASHER
- H0230 - 7/8" FLAT WASHER
- H0240 - 1" FLAT WASHER
- H0250 - 1 1/8" FLAT WASHER
- H0260 - 1 1/4" FLAT WASHER

EXCEPTION:
BOLT / NUT ASSEMBLY REQUIRED
AT LAPPED ZEE MEMBERS
(NO WASHERS REQUIRED)



FIELD WELD REQUIREMENTS ERECTOR NOTE

(UNLESS NOTED OTHERWISE ON DRAWINGS)

ALL FIELD WELDING MUST BE PERFORMED BY AWS/CWB CERTIFIED WELDERS WHO ARE QUALIFIED FOR THE WELDING PROCESSES AND POSITIONS INDICATED. ALL WORK MUST BE COMPLETED AND INSPECTED IN ACCORDANCE WITH THE APPLICABLE AWS/CWB SPECIFICATIONS. WELD ELECTRODES USED FOR THE SMAW (OR STICK) WELD PROCESS MUST BE 70 KSI/483 MPa MATERIAL AND LOW HYDROGEN CONTENT.

FIELD WELDING GALVANIZED STEEL RECOMMENDATIONS

PREPARATION OF WELD AREA

AWS D-19.0, WELDING ZINC COATED STEEL, CALLS FOR WELDS TO BE MADE ON STEEL THAT IS FREE OF ZINC IN THE AREA TO BE WELDED. FOR GALVANIZED STRUCTURAL COMPONENTS, THE ZINC COATING SHOULD BE REMOVED AT LEAST ONE TO FOUR INCHES (2.5-10 CM) FROM EITHER SIDE OF THE INTENDED WELD ZONE AND ON BOTH SIDES OF THE WORKPIECE. GRINDING BACK THE ZINC COATING IS THE PREFERRED AND MOST COMMON METHOD; BURNING THE ZINC AWAY OR PUSHING BACK THE MOLTEN ZINC FROM THE WELD AREA ALSO ARE EFFECTIVE.

TOUCH-UP OF WELD AREA

WELDING ON GALVANIZED SURFACES DESTROYS THE ZINC COATING ON AND AROUND THE WELD AREA. RESTORATION OF THE AREA WILL BE PERFORMED IN ACCORDANCE WITH ASTM A 780. STANDARD PRACTICE FOR REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT-DIP GALVANIZED COATINGS, WHICH SPECIFIES THE USE OF PAINTS CONTAINING ZINC DUST, ZINC-BASED SOLDER OR SPRAYED ZINC. ALL TOUCHUP AND REPAIR METHODS ARE CAPABLE OF BUILDING A PROTECTIVE LAYER TO THE THICKNESS REQUIRED BY ASTM A 780.

SAFETY & HEALTH

WHEN WELDING DIRECTLY ON GALVANIZED STEEL IS UNAVOIDABLE, OSHA PERMISSIBLE EXPOSURE LIMITS (PELS) MAY BE EXCEEDED AND EVERY PRECAUTION, INCLUDING HIGH-VELOCITY CIRCULATING FANS WITH FILTERS, AIR RESPIRATORS AND FUME-EXTRACTION SYSTEMS SUGGESTED BY AWS, SHOULD BE EMPLOYED.

FUMES FROM WELDING GALVANIZED STEEL CAN CONTAIN ZINC, IRON AND LEAD. FUME COMPOSITION TYPICALLY DEPENDS ON THE COMPOSITION OF MATERIALS USED, AS WELL AS THE HEAT APPLIED BY THE PARTICULAR WELDING PROCESS. IN ANY EVENT, GOOD VENTILATION MINIMIZES THE AMOUNT OF EXPOSURE TO FUMES.

PRIOR TO WELDING ON ANY METAL, CONSULT ANSI/ASCE 7-49.1, SAFETY IN WELDING, CUTTING AND ALLIED PROCESSES, WHICH CONTAINS INFORMATION ON THE PROTECTION OF PERSONNEL AND THE GENERAL AREA, VENTILATION AND FIRE PREVENTION.

INFORMATION COURTESY OF AMERICAN GALVANIZERS ASSOCIATION

A00020

STANDARD ANGLE SCHEDULE

MAEO ANG. (SLOPE) 4" / 5"	EAVE ANGLE GALVANIZED 4" x 5" x 120"	MAL01 LINER LOW EAVE ANGLE GALVANIZED 6" x 7-3/4" x 120"	6" / 7-3/4"
MAFO ANG. (SLOPE) 5" / 8"	EAVE ANGLE GALVANIZED 5" x 8" x 120"	MALO LINER EAVE ANGLE GALVANIZED 3" x 3" x 120"	3" / 3"
MAG01 2-1/2"	GIRT ANGLE GALVANIZED 1" x 2-1/2" x 12"	MAL LINER EAVE ANGLE GALVANIZED 3" x 5" x 120"	3" / 5"
MAG02 2-1/2"	GIRT ANGLE GALVANIZED 1" x 2-1/2" x 24"	MAL1 LINER EAVE ANGLE GALVANIZED 3" x 7-3/4" x 120"	3" / 7-3/4"
MAG03 2-1/2"	GIRT ANGLE GALVANIZED 1" x 2-1/2" x 30"	MAP01 RAKE PARAPET ANGLE GALVANIZED 2" x 12" x 120"	2" / 12"
MAG10 2-1/2"	GIRT ANGLE GALVANIZED 1" x 2-1/2" x 120"	MAP02 RAKE PARAPET ANGLE GALVANIZED 6" x 6" x 120"	6" / 6"
MAHO ANG. (SLOPE) 2-1/2"	EAVE STRUT ANGLE GALVANIZED 1" x 2-1/2" x 12"	MAR01 RAKE ANGLE GALVANIZED 3" x 5" x 242"	3" / 5"
MAH1 ANG. (SLOPE) 2-1/2"	EAVE STRUT ANGLE GALVANIZED 1" x 2-1/2" x 12"	MAR02 STANDING SEAM RAKE/ BASE ANGLE GALVANIZED 2" x 3" x 242"	2" / 3"

A00030

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JOB NUMBER
T22E042A

PROJECT NAME
Manuel Collision

BUYER NAME
501 Latta Rd., ADA, OK. 74820

BUYER NAME
Titan Construction

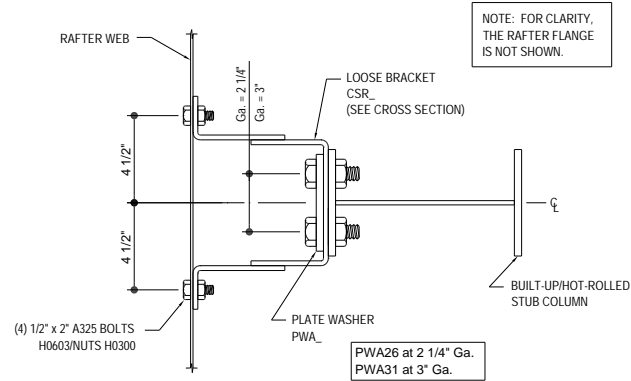
DRAWING STATUS
FOR CONSTRUCTION

DRAWING TITLE
General Details

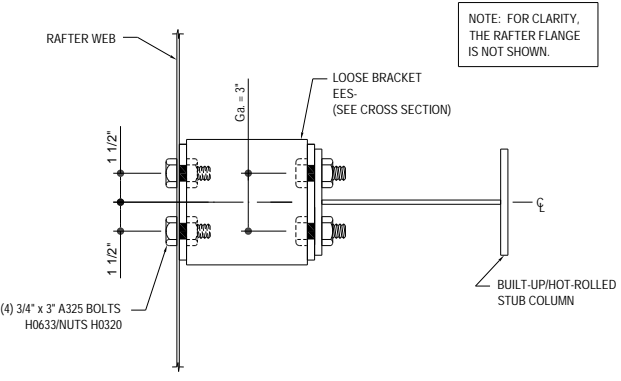
SHEET
D1

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	FINALS	JMP / JIP	PRS	11/30/2022

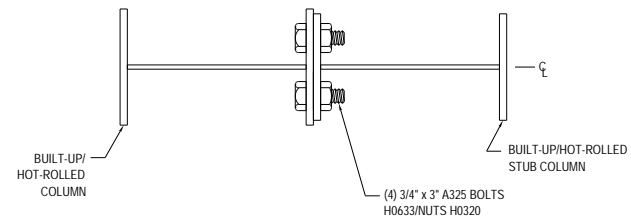
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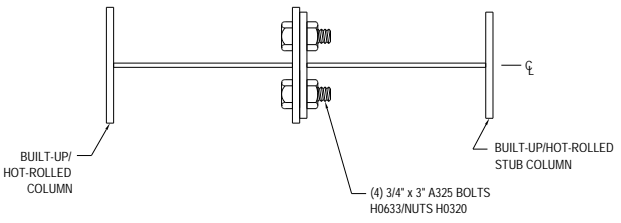
SECTION A



SECTION A



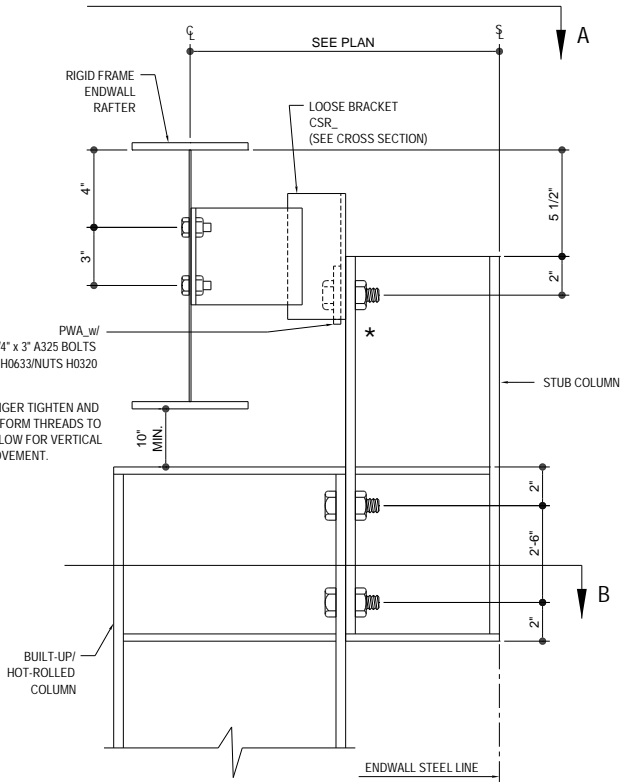
SECTION B



SECTION B

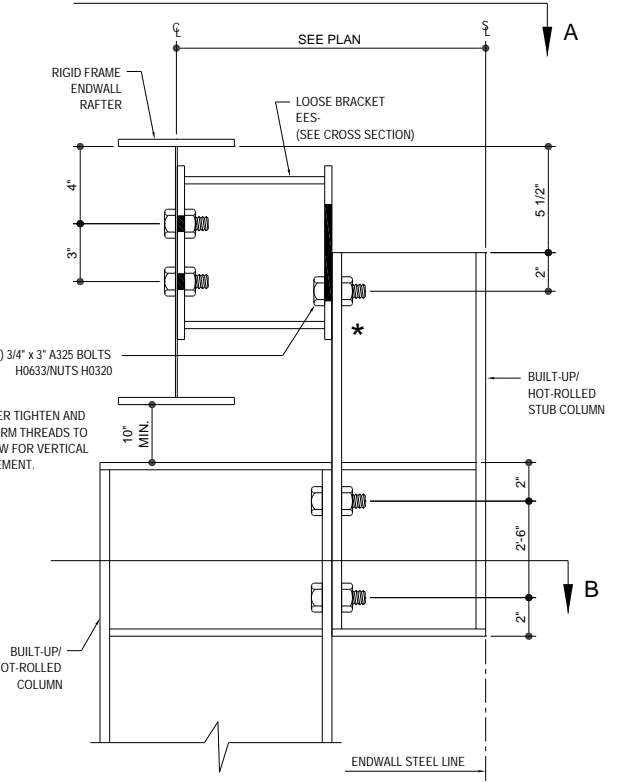
- REQ'D PARTS
 (4) 1/2" x 2" A325 BOLTS (H0603)
 (4) 1/2" NUTS (H0300)
 (6) 3/4" x 3" A325 BOLTS (H0633)
 (6) 3/4" NUTS (H0320)
 (1) CSR_
 (1) PWA_

- REQ'D PARTS
 (10) 3/4" x 3" A325 BOLTS (H0633)
 (10) 3/4" NUTS (H0320)
 (1) EES-



ENDWALL COL TO EXP. EW RAFTER CONNECTION
 BUILT-UP/HOT-ROLLED COLUMN AND BUIHR STUB AT BYPASS GIRTS
 REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

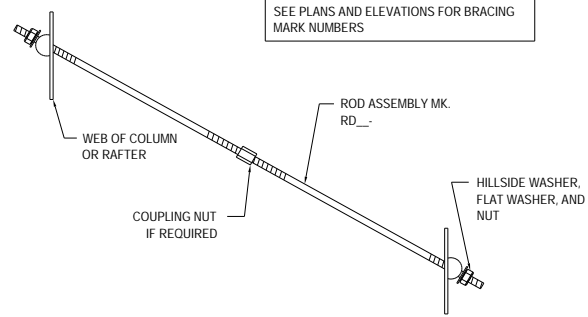
AD0140



ENDWALL COL TO EXP. EW RAFTER CONNECTION
 BUILT-UP/HOT-ROLLED COLUMN AND 8" BUILT-UP/HOT-ROLLED STUB AT BYPASS GIRTS
 REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

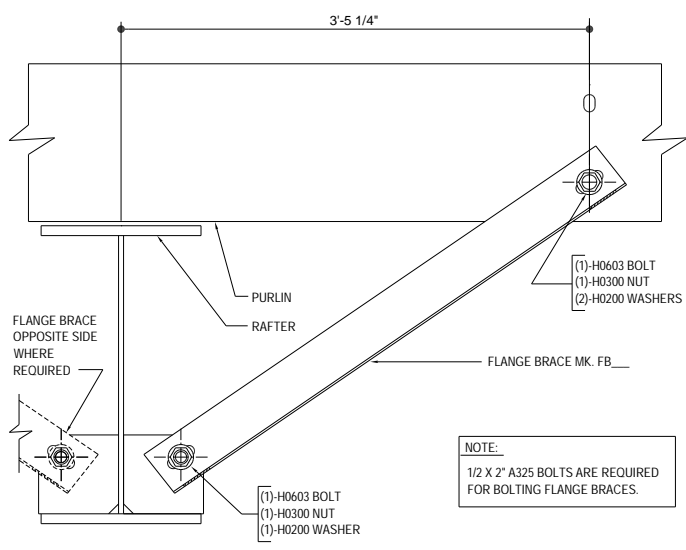
AD0141

ROD DIAMETER	MARK NUMBER	HILLSIDE WASHERS	FLAT WASHERS	A307/A325 NUTS	COUPLING NUTS
5/8" Ø	RD05-	(2) H0930	(2) H0210	(2) H0310	H0810
3/4" Ø	RD06-	(2) H0930	(2) H0220	(2) H0320	H0820
7/8" Ø	RD07-	(2) H0930	(2) H0230	(2) H0325	H0830
1" Ø	RD08-	(2) H0960	(2) H0240	(2) H0330	H0840
1 1/8" Ø	RD09-	(2) H0960	(2) H0250	(2) H0450	H0850
1 1/4" Ø	RD10-	(2) H0960	(2) H0260	(2) H0340	H0860



ROD BRACE DETAIL
 WEB TO WEB

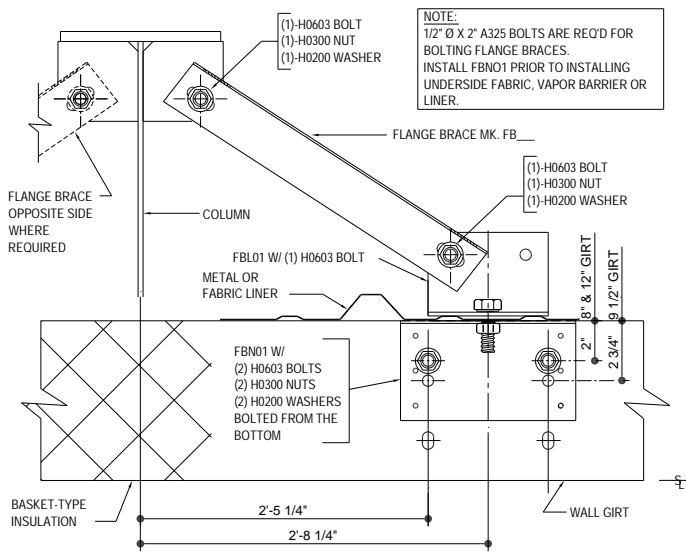
AF0010



FLANGE BRACE AT PURLIN & RAFTER

SEE PLANS AND ELEVATIONS FOR FLANGE BRACE LOCATIONS, PART MARKS & QUANTITIES.

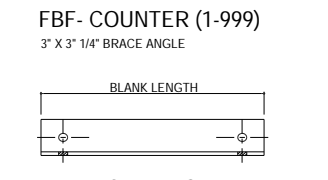
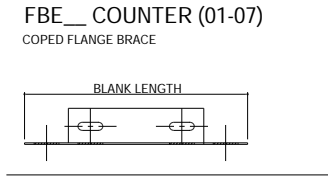
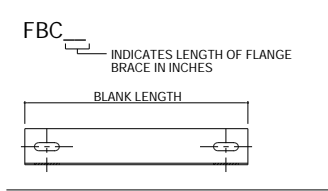
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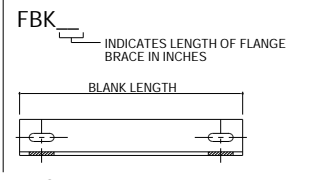
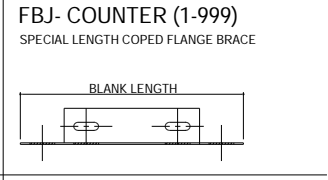
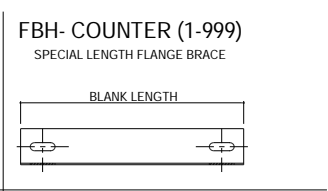
FLANGE BRACE WITH BASKET INSUL OR LINER AT COLUMN

SEE PLANS AND ELEVATIONS FOR FLANGE BRACE LOCATIONS, PART MARKS, & QUANTITIES

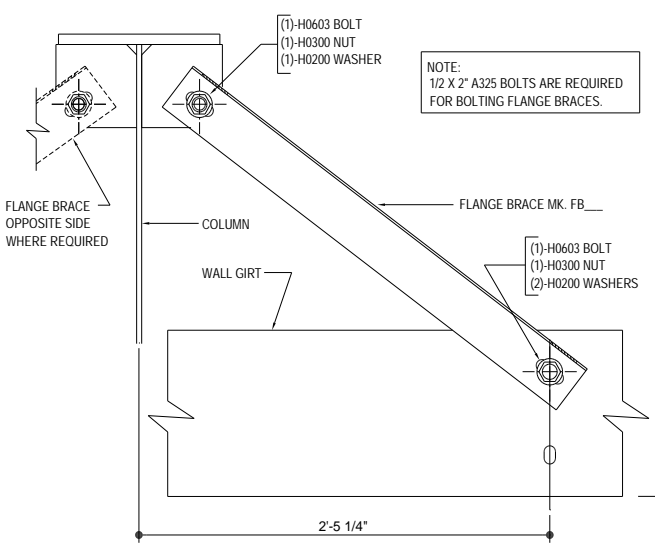
AG0105



FLANGE BRACE MARK NUMBERS



AG0003



FLANGE BRACE AT COLUMN & GIRT

SEE PLANS AND ELEVATIONS FOR FLANGE BRACE LOCATIONS, PART MARKS, & QUANTITIES

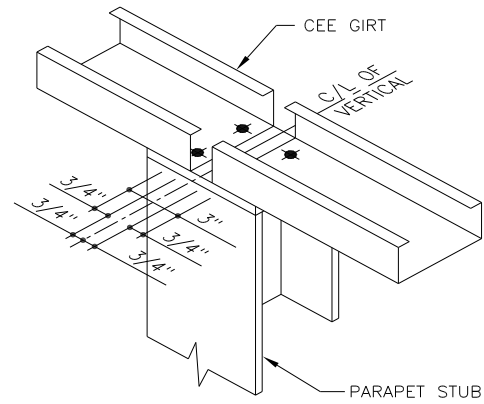
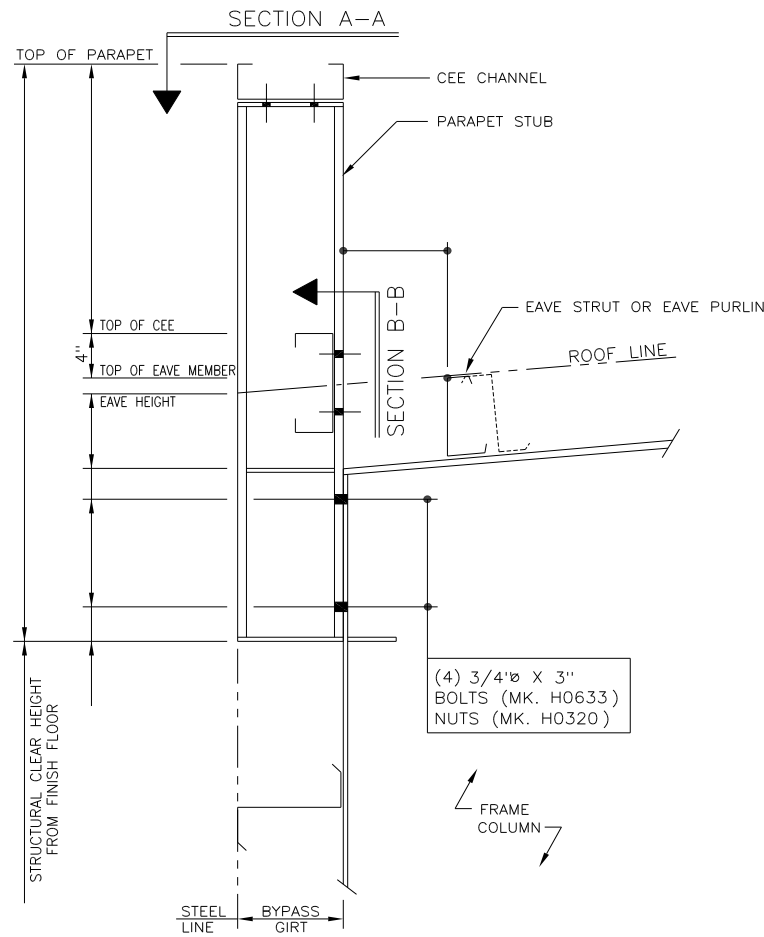
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NUCOR
 BUILDING SYSTEMS GROUP
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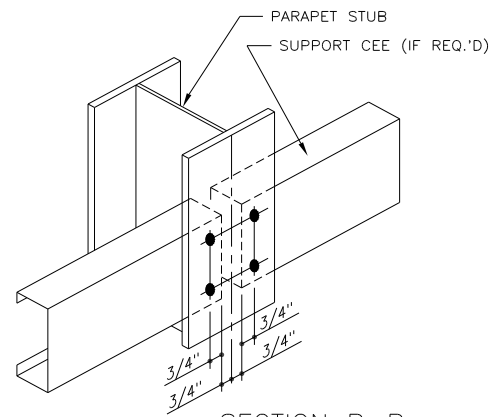
JOB NUMBER: T22E0442A
 PROJECT NAME: Manuel Collision
 BUYER NAME: 501 Latta Rd., ADA, OK. 74820
 BUYER: Titan Construction
 DRAWING STATUS: FOR CONSTRUCTION

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	FINALS	JMP / JIP	PRS	11/30/2022

DRAWING TITLE: Primary Details
 SHEET: D2
 DATE: 11/30/2022
 02:55:58pm
 11/30/2022



SECTION A-A
 (4) 1/2"Ø x 1 1/4" A307
 BOLT H0500/NUT H0400

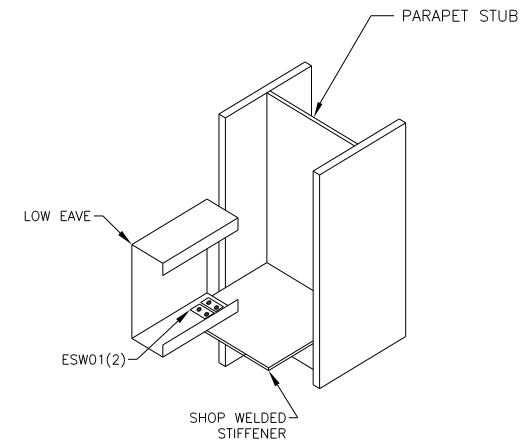
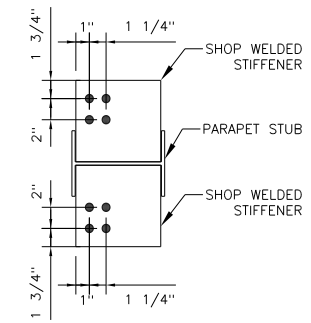
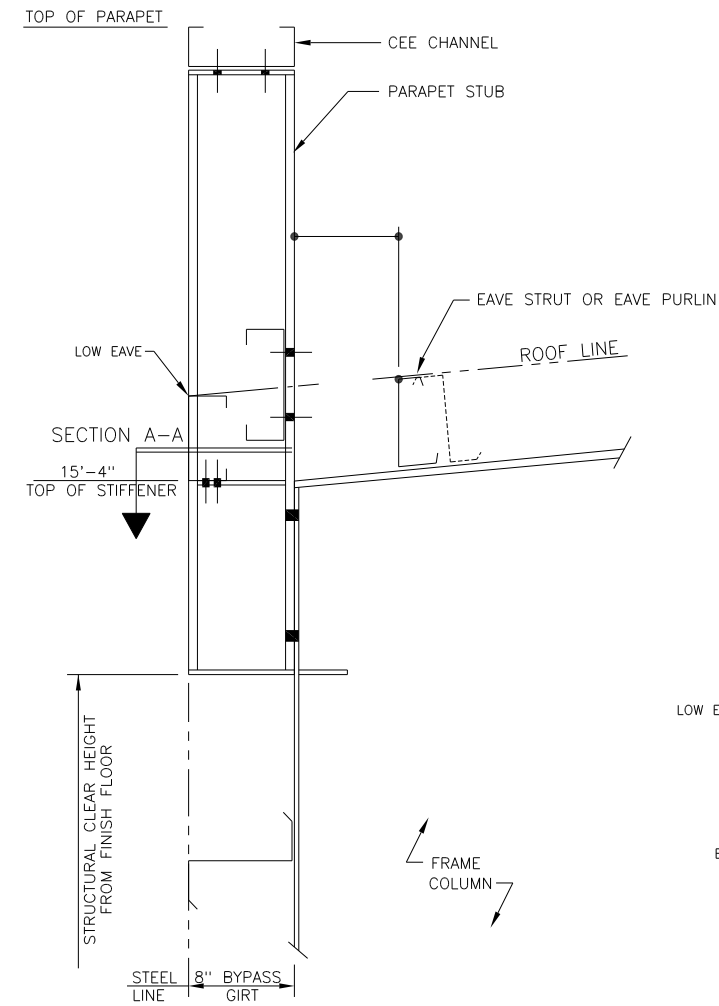


SECTION B-B
 (4) 1/2"Ø x 1 1/4" A307
 THIN HEAD BOLT H0515/NUT H0400

LOW SIDEWALL PARAPET STRUCTURAL

INTERMEDIATE FRAMES WITH BYPASS GIRTS
 REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

AS0110



SECTION A-A
 (4) 1/2"Ø x 2" A325
 BOLTS H0603/NUT H0300

LOW EAVE TO PARAPET CONNECTION

AS0110.1

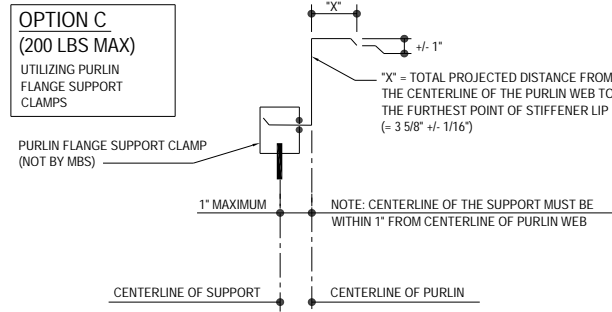
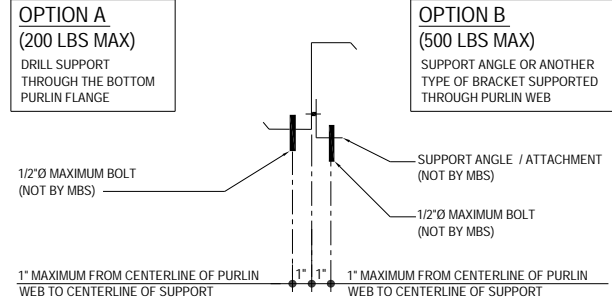
COLLATERAL DEAD LOADS, UNLESS NOTED OTHERWISE, ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED. WHEN SUSPENDED SPRINKLER SYSTEMS, LIGHTING, HVAC EQUIPMENT, CEILINGS, ETC. ARE SUSPENDED FROM ROOF MEMBERS, CONSULT M.B.S. ENGINEERING IF THESE CONCENTRATED LOADS EXCEED 500 POUNDS (USING THE WEB MOUNT DETAIL) OR 200 POUNDS (USING THE FLANGE MOUNT DETAIL) OR IF INDIVIDUAL MEMBERS ARE LOADED SIGNIFICANTLY MORE THAN OTHERS.

GENERAL RESTRICTION

UNDER NO CIRCUMSTANCES CAN THE PURLIN STIFFENING LIP BE FIELD MODIFIED FROM THE FACTORY SUPPLIED CONDITION. ALSO DO NOT HANG ANYTHING FROM PURLIN STIFFENING LIP.

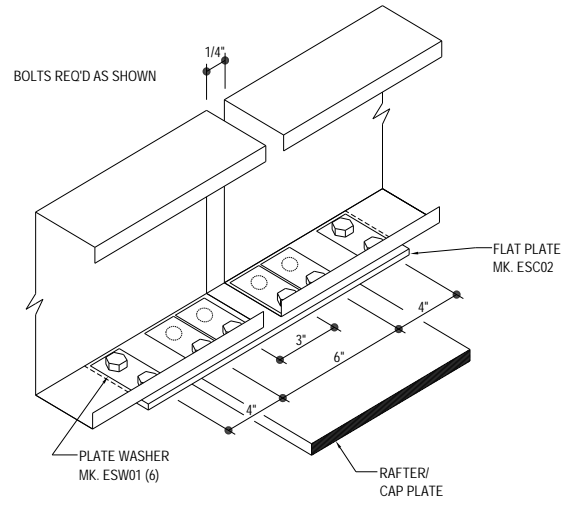


SUPPORT ATTACHMENT OPTIONS



PURLIN SUPPORT METHODS

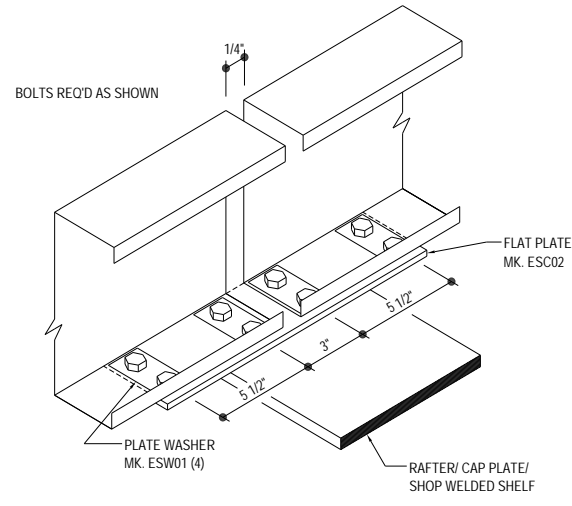
B00010



EAVE STRUT WITH STRUT PLATE

LOW EAVE FLUSHINSET SW GIRT CONDITION
USE (8) 1/2" X 2" A325 BOLT H0603/ NUT H0300 U.N.O.

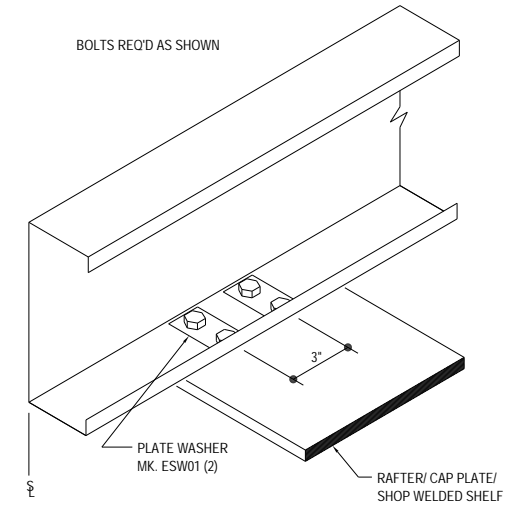
BA0060



EAVE STRUT WITH STRUT PLATE

LOW EAVE BYPASS SW GIRT CONDITION
USE (8) 1/2" X 2" A325 BOLT H0603/ NUT H0300 U.N.O.

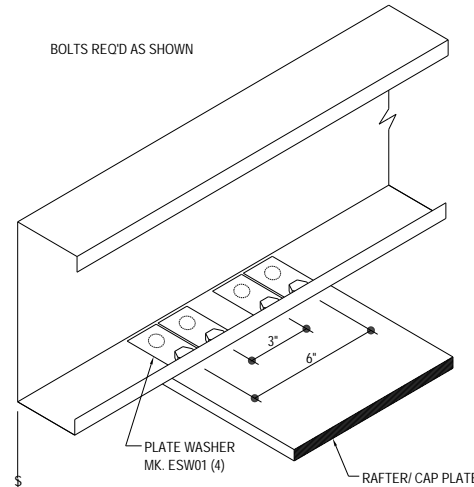
BA0070



EAVE STRUT AT ENDWALL FRAME

LOW EAVE - BYPASS SW GIRT CONDITION
USE (4) 1/2" X 2" A325 BOLT H0603/ NUT H0300 U.N.O.

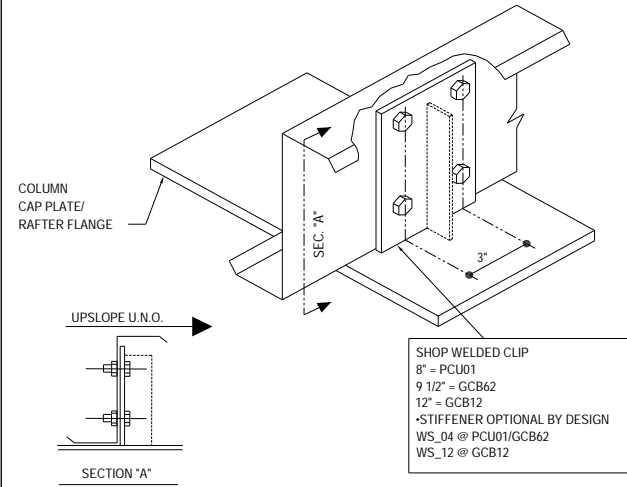
BA0080



EAVE STRUT AT RIGID FRAME ENDWALL

LOW EAVE FLUSHINSET SW GIRT CONDITION
USE (4) 1/2" X 2" A325 BOLT H0603/ NUT H0300 U.N.O.

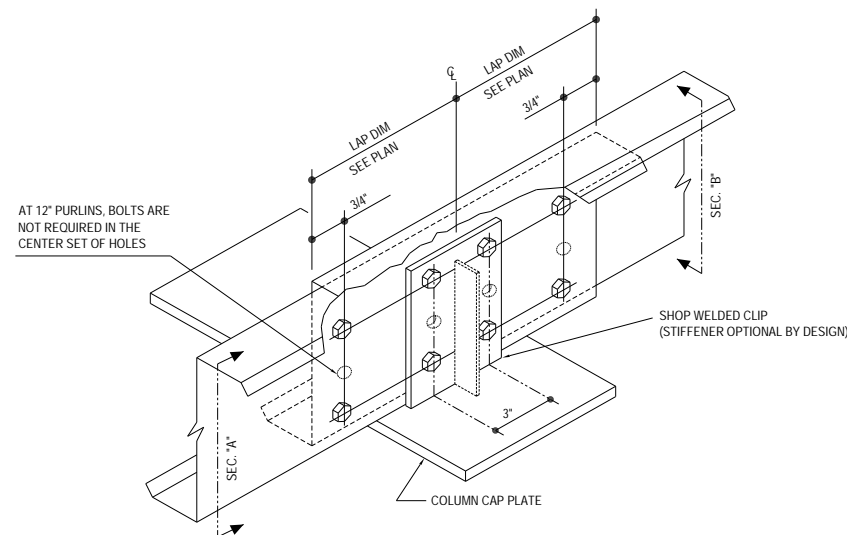
BA0090



WELDED CLIP @ END FRAME

USE (4) 1/2" x 1 1/4" A307 BOLTS H0500/ NUTS H0400 U.N.O.
REFERENCE ERECTOR NOTE FOR TYP. WASHER REQUIREMENTS

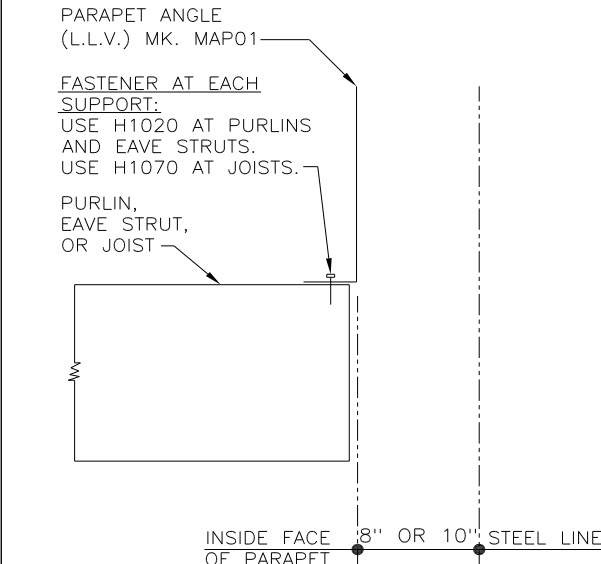
BB0050



WELDED CLIP @ INTERIOR FRAME

USE (8) 1/2" x 1 1/4" A307 BOLTS H0500/ NUTS H0400 U.N.O.

BB0055



PARAPET ANGLE ATTACHMENT AT STRUCTURAL PARAPET

BD0076

MAMA
MEMBER

NUCOR
BUILDING SYSTEMS GROUP

IAS
ACCREDITED
Steel Framing Systems
ICC ESR-102

PHONE: (972) 524-5407
FAX: (972) 524-5417

JOB NUMBER: T22E042A
PROJECT NAME: Manuel Collision
501 Latta Rd., ADA, OK. 74820
BUYER NAME: Titan Construction
DRAWING STATUS: FOR CONSTRUCTION

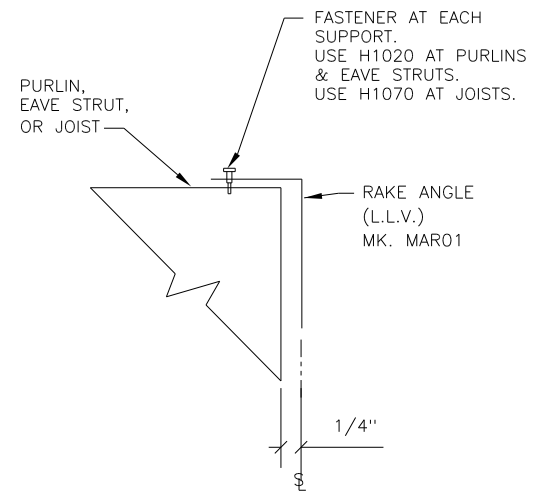
DRAWING TITLE: Roof Framing Details

SHEET: D4
DATE: 11/30/2022

RELEASE / REVISION: 0 FINALS

DWN / CHK / ENG / PRS
JMP / JIP

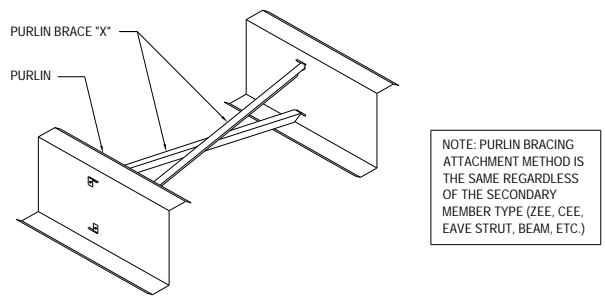
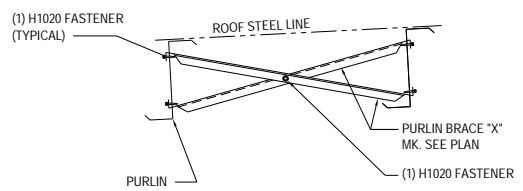
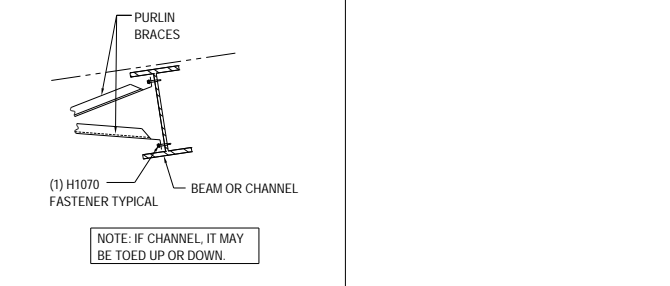
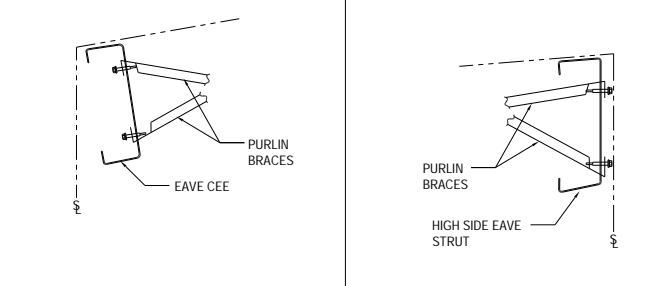
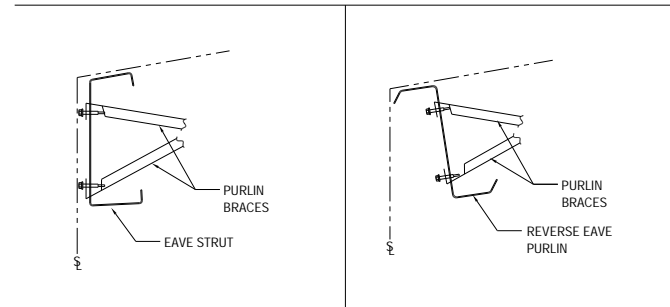
#	RELEASE / REVISION	DWN / CHK / ENG / PRS	JMP / JIP	DATE	11/30/2022
0	FINALS				



RAKE ANGLE ATTACHMENT
AT ENDWALL STEEL LINE

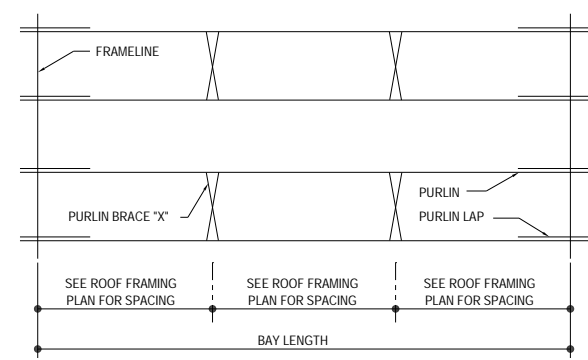
BD0120

- INSTALLATION INSTRUCTIONS**
- 1) FOR PURLIN BRACE "X", INSERT ANGLES "BACK-TO-BACK" INTO THE FACTORY PUNCHED SLOTS. BEND TABS AS SHOWN AND FASTEN THROUGH TAB WITH (1) H1020 FASTENER PER END.
 - 2) CONNECT PURLIN BRACE "X" AT THE ANGLE INTERSECTION WITH (1) H1020 FASTENER.
 - 3) PURLIN BRACING IS NOT TO DISTORT OR ALTER PURLINS FROM THEIR INTENDED SHAPE OR LOCATION.
 - 4) SEE DETAILS BELOW FOR ADDITIONAL INFORMATION WHEN ATTACHING TO ALTERNATE FRAMING MEMBERS.



PLAN VIEW OF PURLIN BRACING LOCATIONS PER BAY

- 1) SEE ROOF FRAMING PLAN(S) FOR PURLIN BRACE MARK NUMBERS, QUANTITIES AND LOCATIONS.
- 2) (2) ROWS OF PURLIN BRACING IS SHOWN BELOW FOR REFERENCE ONLY. ACTUAL NUMBER OF ROWS MAY VARY PER BAY AND PER PROJECT. SEE ROOF FRAMING PLAN(S) FOR SPACING.



PURLIN BRACING ATTACHMENT METHODS

BE0001

NUCOR
BUILDING SYSTEMS GROUP
MEMBER

MBMA
MEMBER

IAS
ACCREDITED
Metal Building Systems
INC. FOR

PHONE: (972) 524-5407
FAX: (972) 524-5417

JOB NUMBER: T22E0442A
PROJECT NAME: Manuel Collision
501 Latta Rd., ADA, OK. 74820
BUYER NAME: Titan Construction
DRAWING STATUS: FOR CONSTRUCTION

DRAWING TITLE: Roof Framing Details

SHEET: D5

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	FINALS	JMP / JIP	PRS	11/30/2022

ERECTOR NOTE:

UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD ZEE GIRTS ORIENTATION IS TO HAVE THE GIRTS TOED DOWN AT THE STEEL LINE AS SHOWN IN THE DETAIL BELOW.

UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD CEE GIRTS ORIENTATION IS TO HAVE THE GIRTS TOED UP AS SHOWN IN THE DETAIL BELOW. STANDARD CLIP ATTACHMENT IS BELOW THE GIRTS, HOWEVER SOME DETAILS REQUIRE THAT THE CLIP BE ABOVE THE GIRTS OR THAT THE GIRTS BE TOED DOWN.

(REFER TO THE GIRTS DETAILS FOR SPECIFIC CONNECTION REQUIREMENTS).



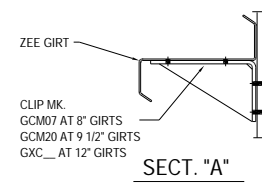
ZEE GIRTS ORIENTATION **CEE GIRTS ORIENTATION**

STANDARD GIRTS ORIENTATION DETAIL

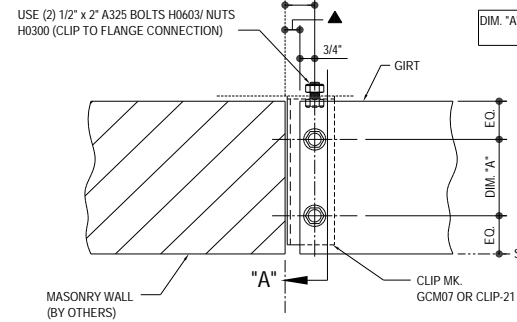
SEE GIRTS DETAILS FOR GIRTS CONNECTIONS (COLUMNS NOT SHOWN)

C00010

COLUMN FLANGE WIDTH	*	▲
FLANGE = 4"	1 1/8"	3/8"
FLANGE > 4"	1 1/2"	3/4"



SECT. "A"



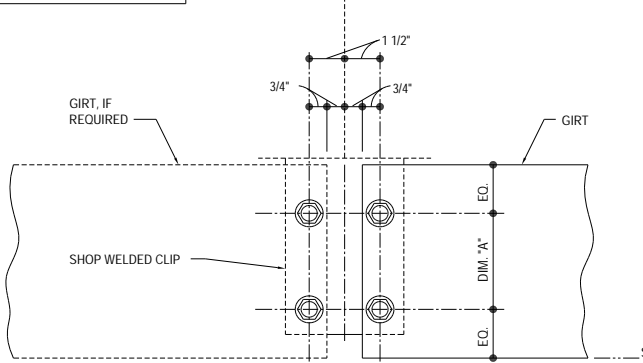
SW OR EW GIRTS TERMINATION DETAIL

BYPASS GIRTS TERMINATION AT MASONRY WALL LEFT
NOTE: USE (2) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

CC0080.1

DIM. "A" = 4" AT 8" & 9 1/2" GIRTS
= 8" AT 12" GIRTS

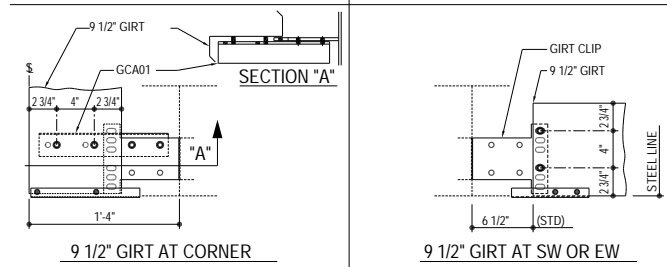
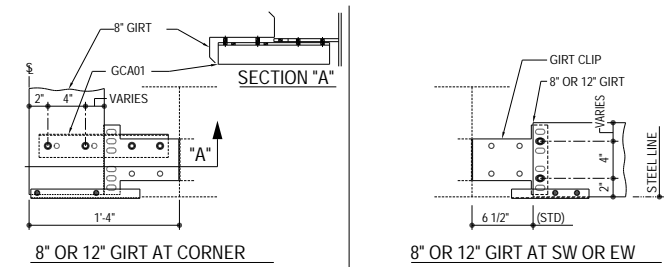
RIGHT HAND DETAIL SHOWN,
LEFT HAND OPPOSITE



SW OR EW GIRTS DETAIL

SIMPLE SPAN BYPASS GIRTS AT INTERIOR BAY COLUMNS
NOTE: USE (4) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

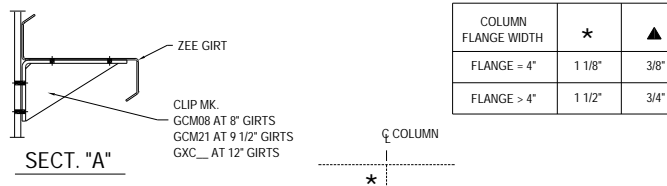
CC1020



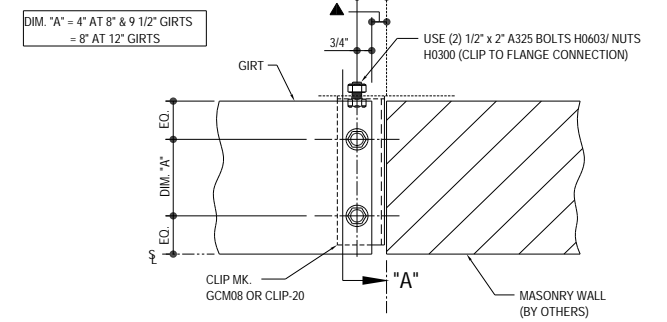
FLUSH GIRTS BOLT PLACEMENT DETAIL

REFERENCE WASHER DETAIL FOR TYPICAL WASHER REQUIREMENTS
GIRTS CLIPS ARE FACTORY PUNCHED TO BE USED WITH MULTIPLE GIRTS DEPTHS. REFER TO THE DETAILS ABOVE TO DETERMINE WHICH HOLES ARE UTILIZED.

CA1001



SECT. "A"



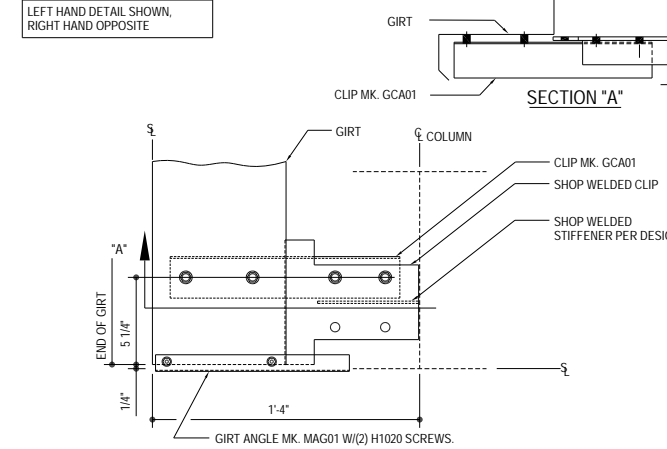
SW OR EW GIRTS TERMINATION DETAIL

BYPASS GIRTS TERMINATION AT MASONRY WALL RIGHT
NOTE: USE (2) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

CC0090.1

ERECTOR NOTE

GIRTS CLIPS ARE FACTORY PUNCHED TO BE USED WITH MULTIPLE GIRTS DEPTHS. REFER TO THE STANDARD BOLT PLACEMENT DETAIL(S) FOR PROPER BOLT PLACEMENT.



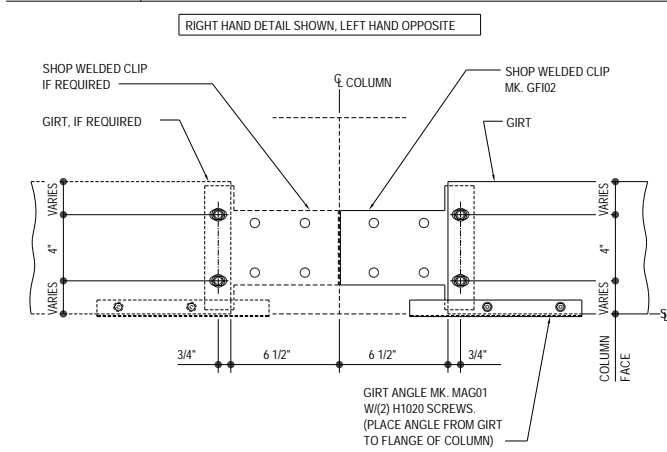
FLUSH GIRTS TERMINATION DETAIL

CORNER FLUSH GIRTS DETAIL WITH WELDED CLIPS
NOTE: USE (4) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE WASHER DETAIL FOR TYPICAL WASHER REQUIREMENTS

CD0090

ERECTOR NOTE

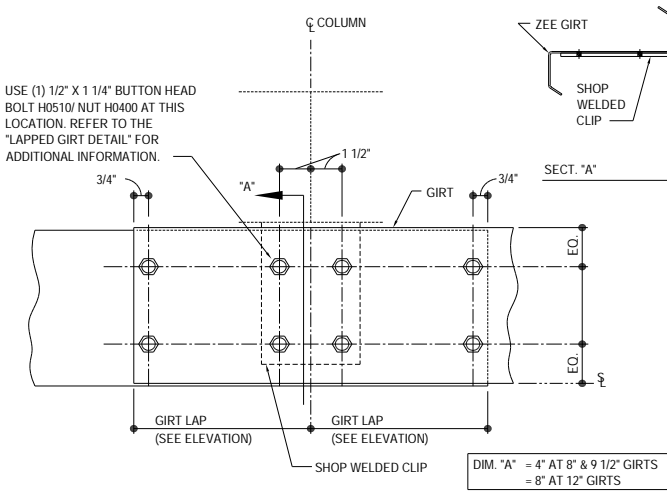
GIRTS CLIPS ARE FACTORY PUNCHED TO BE USED WITH MULTIPLE GIRTS DEPTHS. REFER TO THE STANDARD BOLT PLACEMENT DETAIL(S) FOR PROPER BOLT PLACEMENT.



FLUSH GIRTS DETAIL

FLUSH GIRTS AT INTERIOR BAY COLUMNS
NOTE: USE (4) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE STANDARD WASHER DETAIL FOR TYPICAL WASHER REQUIREMENTS

CA1010



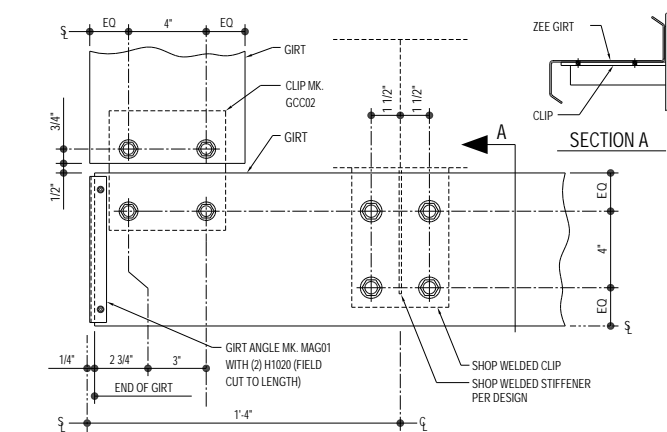
SW OR EW GIRTS DETAIL

LAPPED BYPASS GIRTS AT INTERIOR BAY COLUMNS
NOTE: USE (7) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

CC1010

ERECTOR NOTE

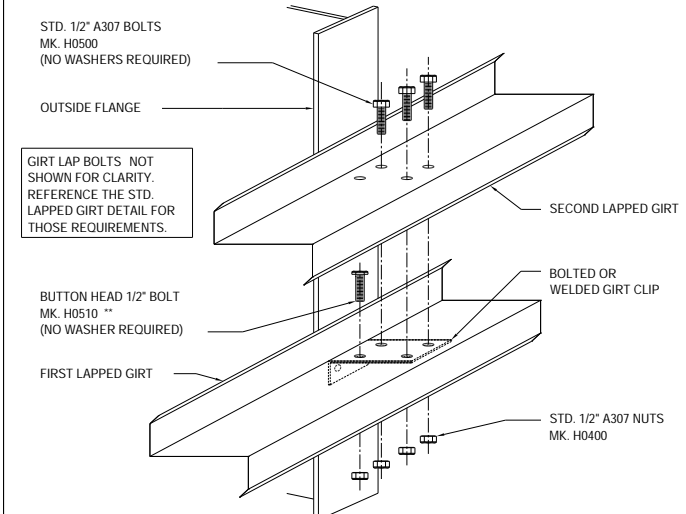
GIRTS CLIPS ARE FACTORY PUNCHED TO BE USED WITH MULTIPLE GIRTS DEPTHS. REFER TO THE STANDARD BOLT PLACEMENT DETAIL(S) FOR PROPER BOLT PLACEMENT.



BYPASS GIRTS CORNER DETAIL

LEFT HAND DETAIL SHOWN, RIGHT HAND OPPOSITE
NOTE: USE (8) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
REFERENCE STANDARD WASHER DETAIL FOR TYPICAL WASHER REQUIREMENTS

CF1010



LAPPED GIRTS DETAIL

LAPPED GIRTS @ INTERIOR BAY COLUMNS
** THE BUTTON HEAD 1/2" A307 BOLT MUST BE INSTALLED INTO THE FIRST GIRTS AND CLIP OF A LAPPED CONDITION. THE BOLT/NUT ASSEMBLY MUST BE WRENCH TIGHT PRIOR TO THE SECOND LAPPED GIRTS BEING INSTALLED.

CC0006

MAMA
BUILDING SYSTEMS GROUP

IAS
ACCREDITED
Steel Fabricating Systems
INC. 102

NUCOR
BUILDING SYSTEMS GROUP

PHONE: (972) 524-5407
FAX: (972) 524-5417

BUYER NAME: Titan Construction
501 Latta Rd., ADA, OK. 74820

JOB NUMBER: T22E0442A
PROJECT NAME: Manuel Collision

DRAWING STATUS: FOR CONSTRUCTION

DRAWING TITLE: Wall Framing Details

SHEET: D6

DATE: 11/30/2022

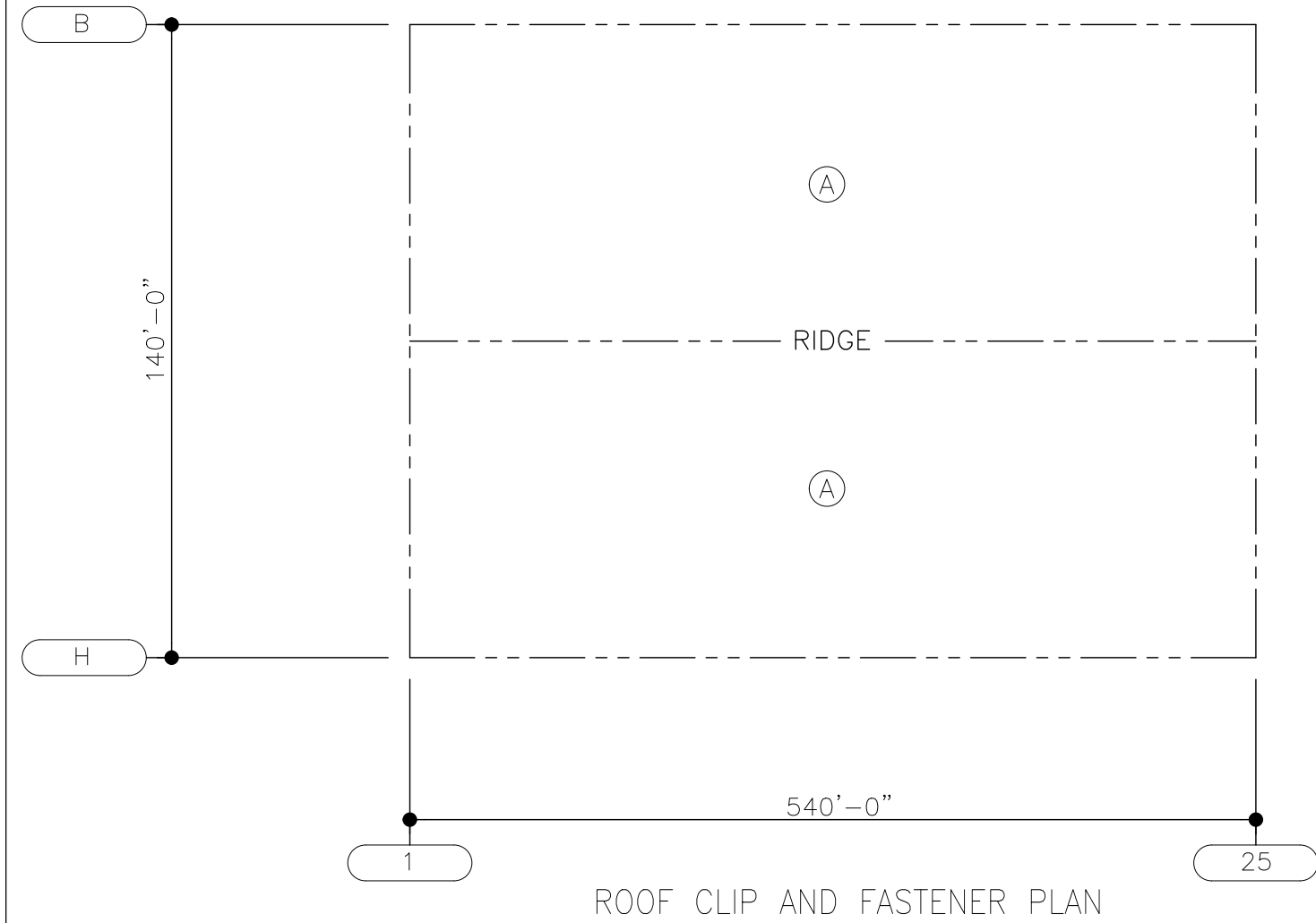
ENG: PRS
CHK: JMP
DWN: JIP

RELEASE / REVISION: 0 FINALS

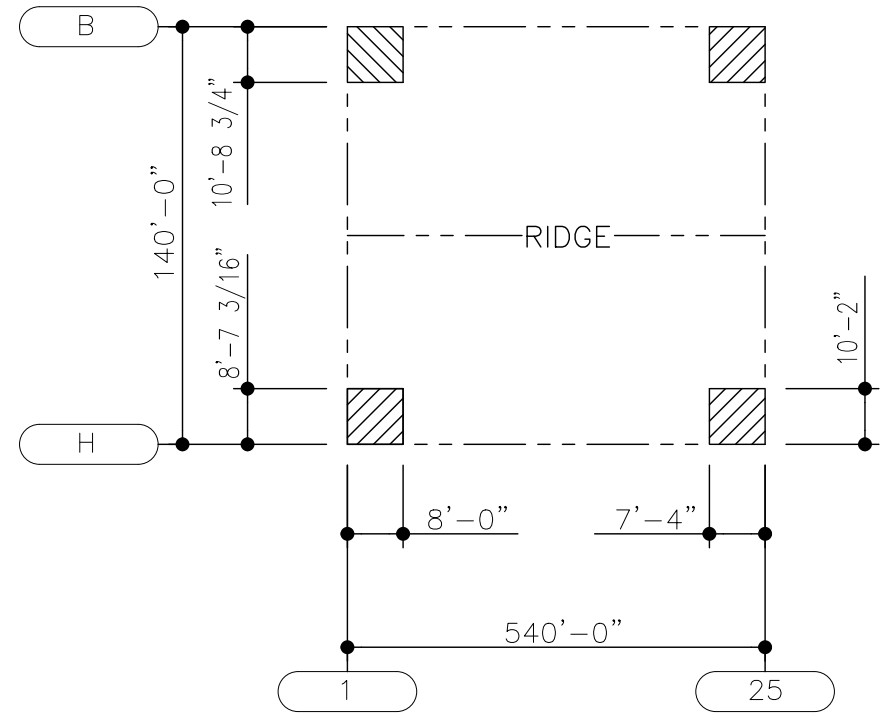
11/30/2022 02:56:02pm

ERECTOR NOTE:

THIS BUILDING HAS SPECIFIC ROOF CLIP AND FASTENER REQUIREMENTS. PLEASE REVIEW THIS DETAIL PRIOR TO ERECTING THE ROOF PANEL. FAILURE TO FOLLOW THESE SPECIFIC REQUIREMENTS COULD RESULT IN LOSS OF ROOF PANEL(S).

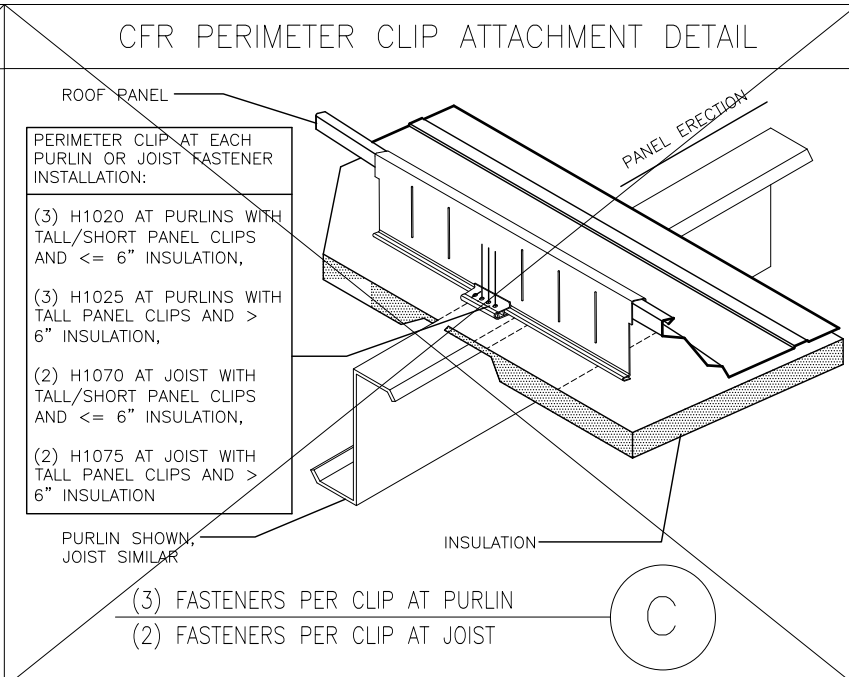
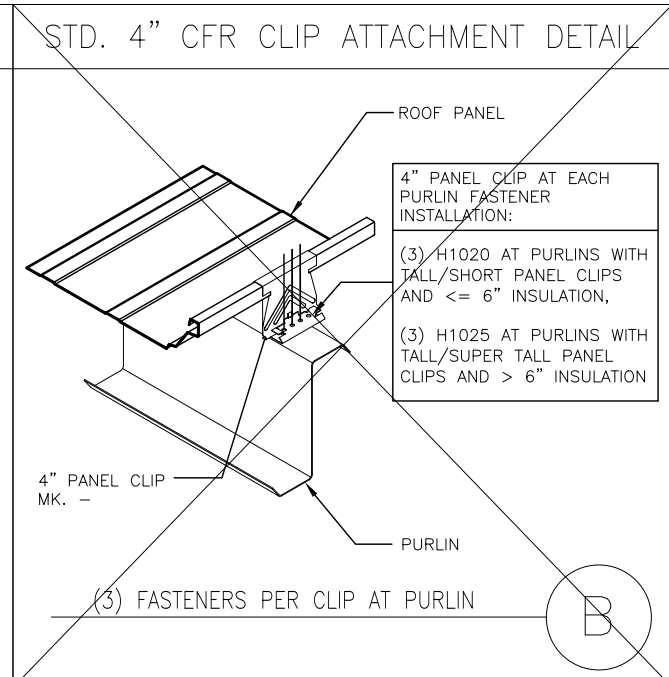
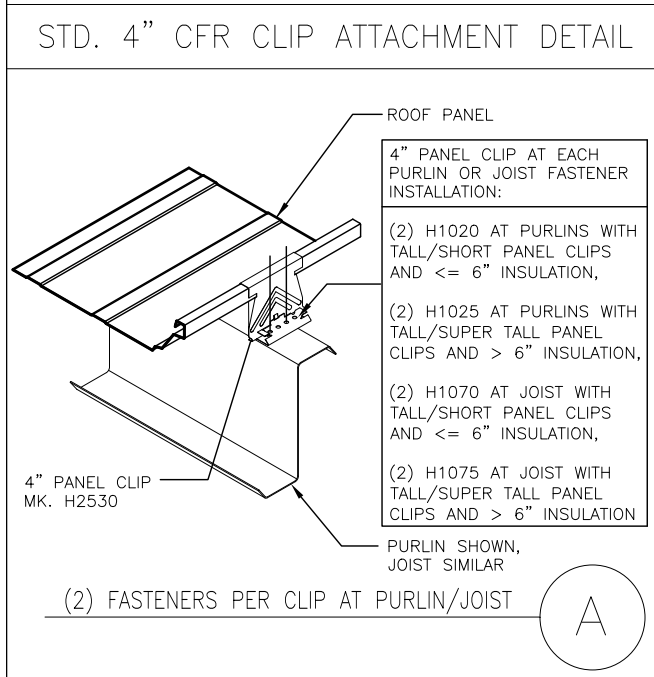


STD 4" CFR CLIP PART NUMBERS	
MARK #	PART DESCRIPTION
H2530	TALL SLIDING CLIP



ROOF SEAMING PLAN

- 1) NUCOR ROLL LOCK™ U.N.O.
- 2) INDICATES NUCOR VISE LOCK®.



CRITICAL SEAMER ORDERING INFORMATION

ROOF TYPE	CFR
PANEL GAUGE	24 GA.
SQUARE FOOTAGE (ENTIRE ROOF)	75,668 SQ. FT
ROOF PITCH	1/2:12
SEAM HEIGHT	<input checked="" type="checkbox"/> 3" <input type="checkbox"/> 2"
ENDLAPS	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
GALVALUME OR PAINTED ROOF	<input checked="" type="checkbox"/> GALVALUME <input type="checkbox"/> PAINTED
PERIMETER CLIPS REQUIRED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

NOTE SEAM HEIGHT: CFR = 3", VR16-II & SR2 = 2"

PLEASE NOTE THAT ALL SEAMER ORDERS WILL TAKE APPROXIMATELY 5-7 WORKING DAYS FOR DELIVERY TO JOB SITE FROM DATE OF ORDER. VISE LOCK & VISE LOCK 360 CFR ROOFS REQUIRE (5) STATION SEAMERS.

NUCOR.DIROOFSEAMERS.COM PHONE (888) 343-0456

	DATE 11/30/2022
	PE
	PRR
	KJ
	MDC
	DWN
	CHK
	ISSUE
	FINALS

NUCOR
BUILDING SYSTEMS GROUP

600 Apache Trail
Terrell, TX 75160
Phone: (972) 524-5407
Fax: (972) 524-5417

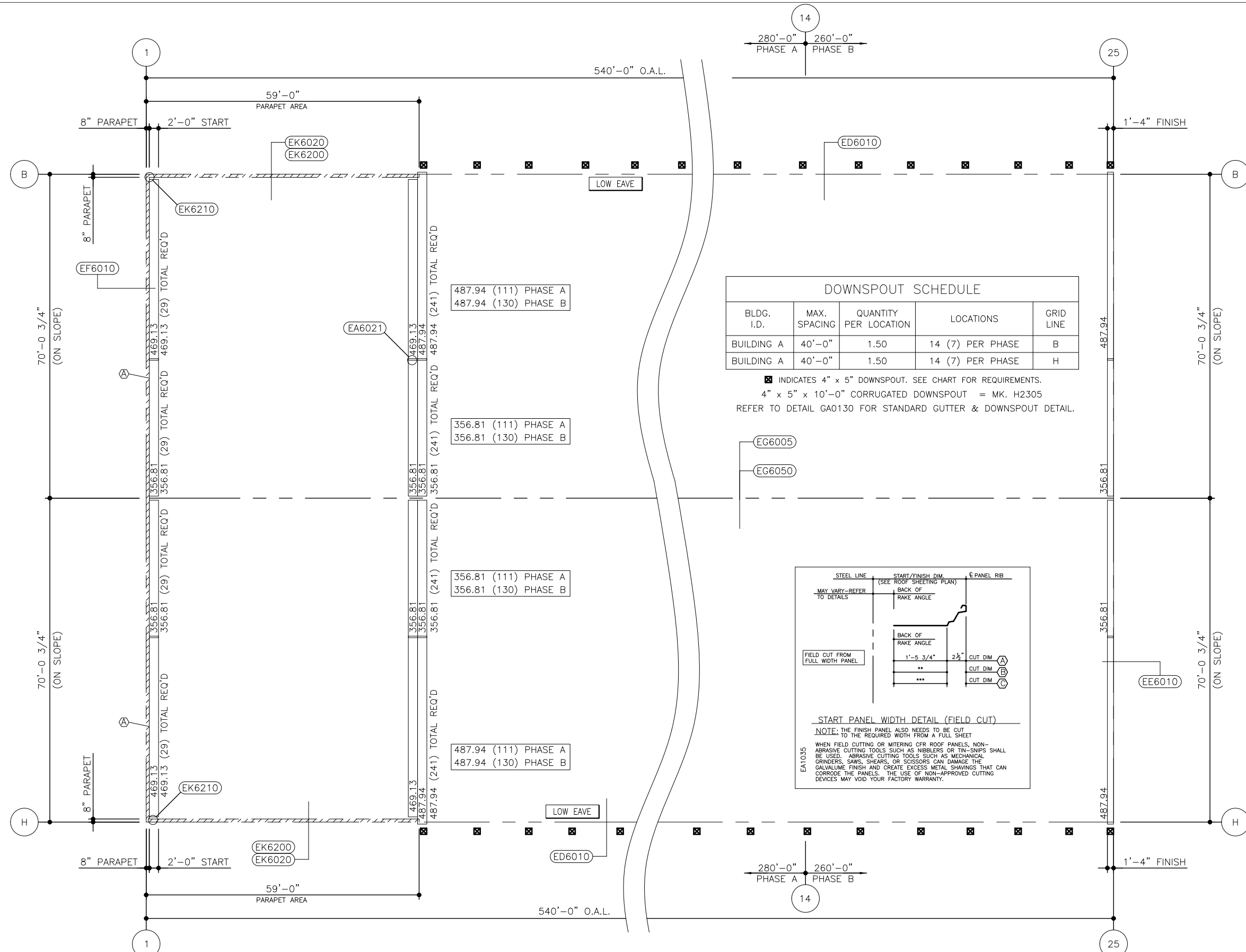
PROJECT NAME
MANUEL COLLISION
ADA, OK

CUSTOMER NAME
TITAN CONSTRUCTION, LLC
OKLAHOMA CITY, OK

JOB NUMBER
T22E0442A

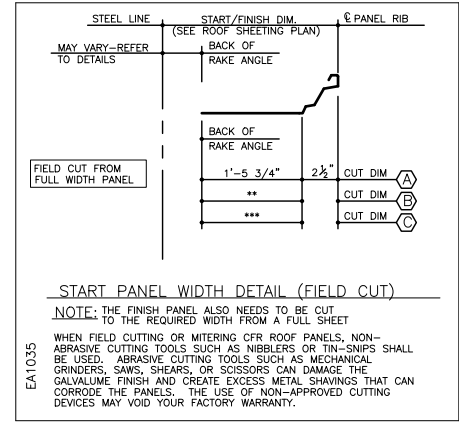
SHEET TITLE
ROOF SEAMING, CLIP AND FASTENER PLAN

SHEET
S1 of 10



DOWNSPOUT SCHEDULE				
BLDG. I.D.	MAX. SPACING	QUANTITY PER LOCATION	LOCATIONS	GRID LINE
BUILDING A	40'-0"	1.50	14 (7) PER PHASE	B
BUILDING A	40'-0"	1.50	14 (7) PER PHASE	H

✕ INDICATES 4" x 5" DOWNSPOUT. SEE CHART FOR REQUIREMENTS.
 4" x 5" x 10'-0" CORRUGATED DOWNSPOUT = MK. H2305
 REFER TO DETAIL GA0130 FOR STANDARD GUTTER & DOWNSPOUT DETAIL.



ROOF SHEETING PLAN

PANELS: 24 GA. CFR - GALVALUME PLUS
 REFER TO S1 FOR ROOF CLIP, FASTENER AND SEAMING PLAN
 NOTE: PRE-DRILLING FOR STRUCTURAL FASTENERS MAY BE REQUIRED AT PURLIN LAPS AND/OR NESTED PURLINS
 FOR ADDITIONAL ASSEMBLY INFORMATION, SEE ERECTION MANUAL.
 SEE DETAIL EA6010 & EA6020 FOR CRIMPING AND ERECTION INFORMATION.
 SEE DETAIL EA6022 FOR THERMAL BLOCKS.
 SEE DETAIL EA6025 & EA6026 FOR INSULATION GUIDANCE.
 ERECTOR NOTE: (10) EXTRA ROOF PANELS (487.94) HAVE BEEN PROVIDED. (PHASE B)

PROJECT NAME MANUEL COLLISION ADA, OK	CUSTOMER NAME TITAN CONSTRUCTION, LLC OKLAHOMA CITY, OK	JOB NUMBER T22E0442A	SHEET TITLE ROOF SHEETING PLAN	DATE 11/30/2022	ENG	PE	DATE
					CHK PRS	PE	DATE
				ISSUE	DATE	DATE	DATE
				FINALS			
				DWN	CHK	ENG	PE
				MDC	KJ	PRS	
				ISSUE			
				FINAL			

FRAMED OPENING SCHEDULE										
ID NUMBER	QTY	SIZE		TRIM REQUIREMENTS			COVER TRIM REQUIREMENTS			DATE
		WIDTH	HEIGHT	JAMB TRIM	HEAD TRIM	SILL TRIM	JAMB TRIM	HEAD TRIM	SILL TRIM	
1	16	6'-0"	4'-0"	JTA087	HTA080	STA076	CCA121	CCA121	CCA121	11/30/2022

SEE GD0005 & GD0070 FOR F.O. TRIM DETAILS

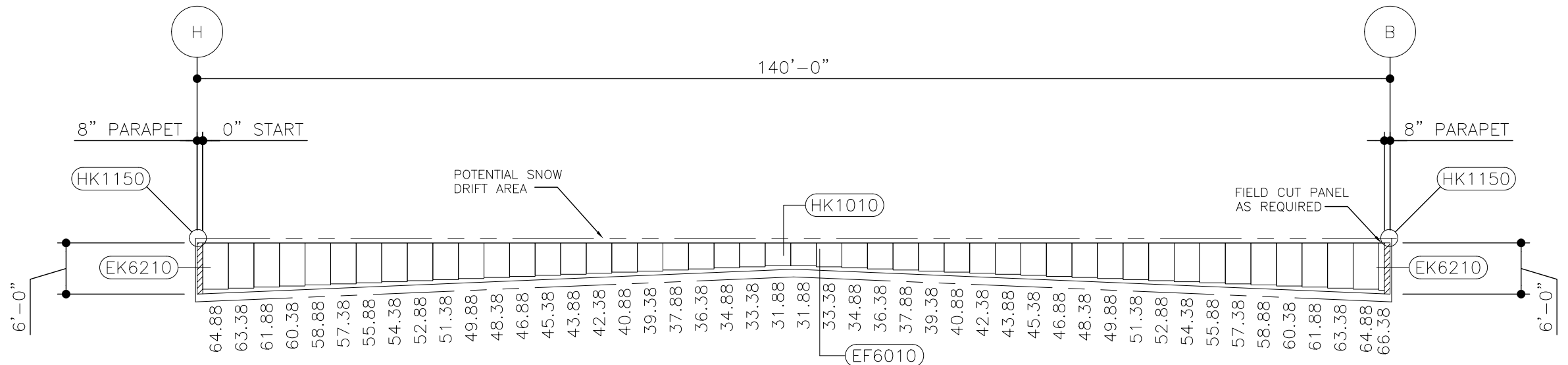
DATE	ISSUE	DWN	CHK	ENG	PE
	FINALS	MDC	KJ	PRS	

NUCOR
BUILDING SYSTEMS GROUP
 600 Apache Trail
 Terrell, TX 75160
 Phone: (972) 524-5407
 Fax: (972) 524-5417

PROJECT NAME
MANUEL COLLISION
 ADA, OK
 CUSTOMER NAME
TITAN CONSTRUCTION, LLC
 OKLAHOMA CITY, OK
 JOB NUMBER
T22E0442A
 SHEET TITLE
WALL SHEETING AT LINE 1

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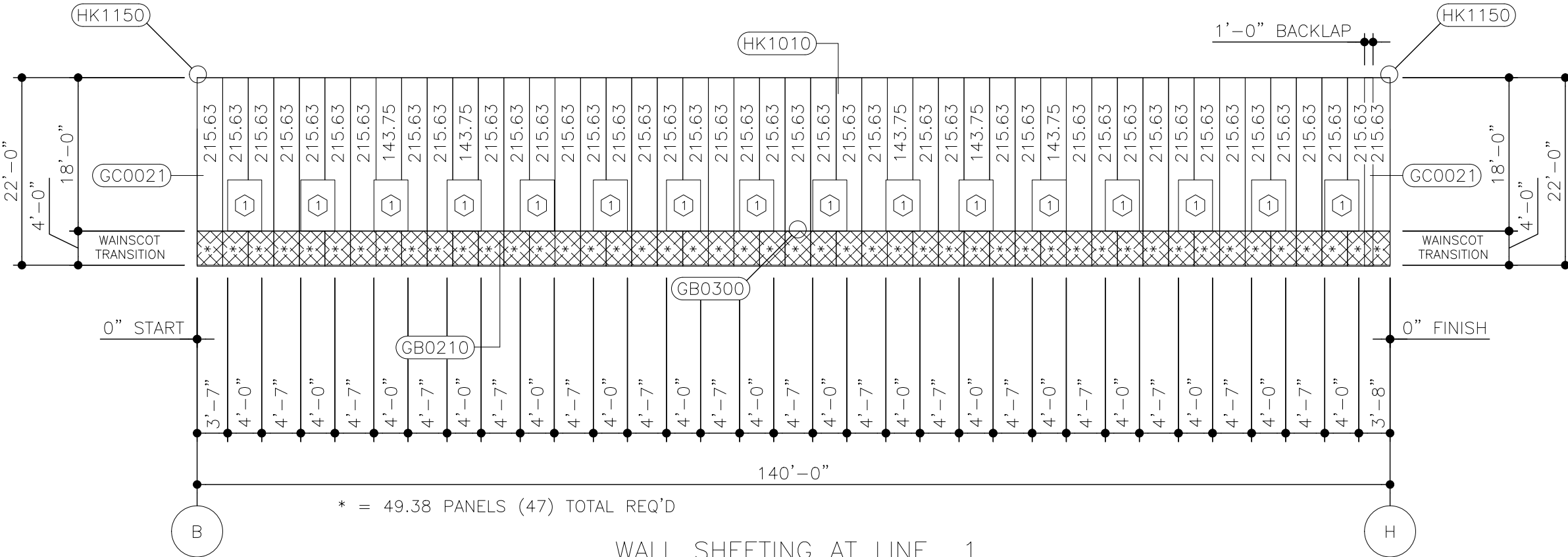
SHEET
S3 of 10



BACKER PANEL

PANELS: 26 GA. CLASSIC WALL - PEARL GRAY

POTENTIAL SNOW DRIFT AREAS EXIST, REFER TO DETAIL GA0001 FOR PANEL SIDELAP MASTIC REQUIREMENTS.

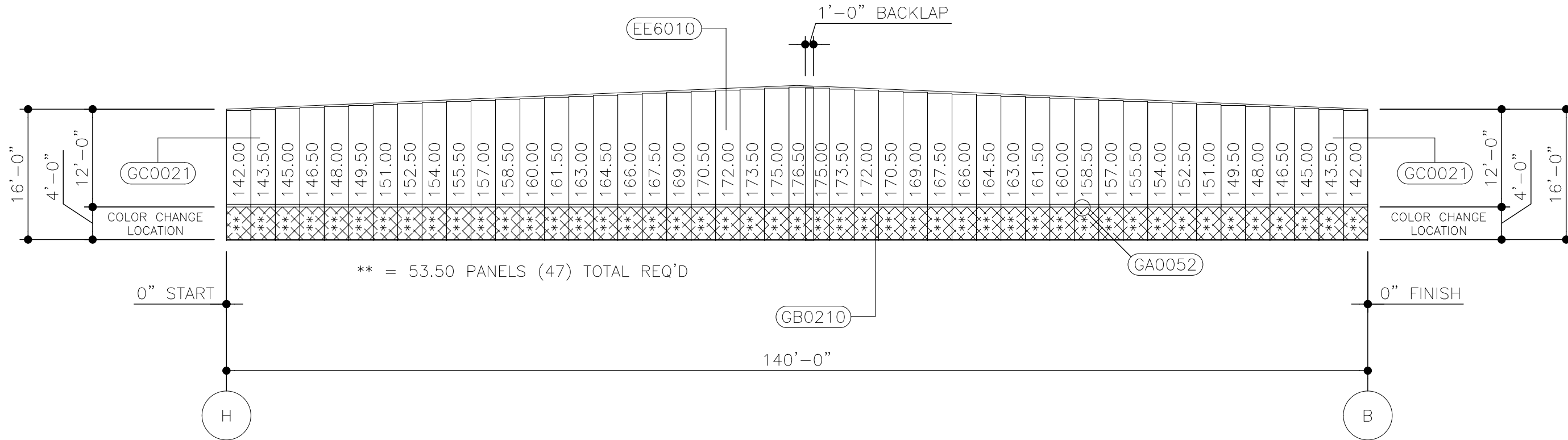


WALL SHEETING AT LINE 1

PANELS: 26 GA. CLASSIC WALL - PEARL GRAY

= PANELS: 26 GA. CLASSIC WALL - CHARCOAL

REFER TO DETAIL GA0000 FOR FURTHER PANEL ASSEMBLY INSTRUCTIONS.
 REFER TO DETAIL GA0051 FOR "CLASSIC PANEL" ERECTION NOTES FOR FASTENER INFORMATION.
 NOTE: FIELD CUTTING/WORK OF PANELS MAY BE REQUIRED FOR PROPER FIT.
 ERECTOR NOTE: PRE-DRILLING FOR STRUCTURAL FASTENERS MAY BE REQUIRED AT GIRT LOCATIONS.



WALL SHEETING AT LINE 25

PANELS: 26 GA. CLASSIC WALL - PEARL GRAY



= PANELS: 26 GA. CLASSIC WALL - CHARCOAL

REFER TO DETAIL GA0000 FOR FURTHER PANEL ASSEMBLY INSTRUCTIONS.

REFER TO DETAIL GA0051 FOR "CLASSIC PANEL" ERECTION NOTES FOR FASTENER INFORMATION.

NOTE: FIELD CUTTING/WORK OF PANELS MAY BE REQUIRED FOR PROPER FIT.

ERECTOR NOTE: PRE-DRILLING FOR STRUCTURAL FASTENERS MAY BE REQUIRED AT GIRT LOCATIONS.

(PHASE B)

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PROJECT NAME
MANUEL COLLISION
ADA, OK

CUSTOMER NAME
TITAN CONSTRUCTION, LLC
OKLAHOMA CITY, OK

JOB NUMBER
T22E0442A

SHEET TITLE
WALL SHEETING AT LINE 25

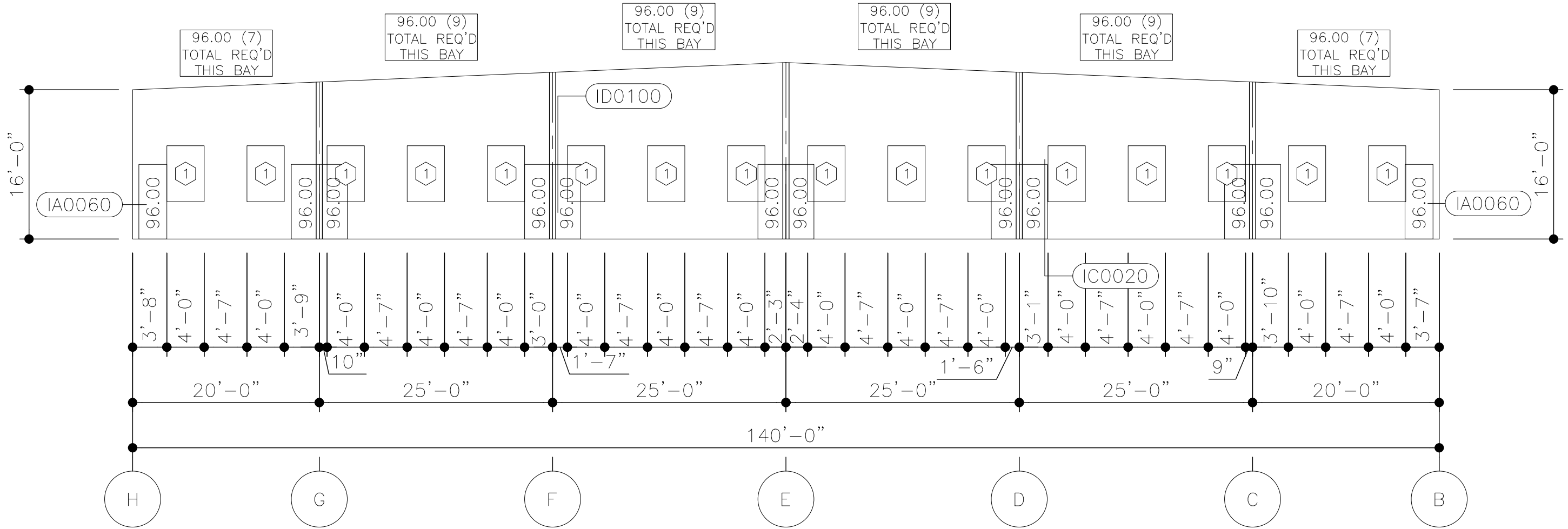
NUCOR
BUILDING SYSTEMS GROUP
600 Apache Trail
Terrell, TX 75160
Phone: (972) 524-5407
Fax: (972) 524-5417

ISSUE	DWN	CHK	ENG	PE	DATE
FINALS	MDC	KJ	PRS		11/30/2022

LINER FRAMED OPENING SCHEDULE

ID NUMBER	QTY	SIZE		TRIM REQUIREMENTS		
		WIDTH	HEIGHT	JAMB TRIM	HEAD TRIM	SILL TRIM
1	16	4'-0"	6'-0"	JTD087	NA	STA076

SEE DETAILS IG0070, IG0100
FOR LINER F.O. TRIM DETAILS



WALL LINER AT LINE 1

PANELS: 26 GA. REVERSE CLASSIC – POLAR WHITE

REFER TO IA0070 FOR "LINER PANEL" ERECTION NOTES.
NOTE: FIELD WORK/BACKLAP PANELS AND TRIMS AS REQUIRED FOR PROPER FIT.

REFER TO DETAIL IA0010 FOR TERMINATION DETAIL AT INTERMEDIATE COLUMNS.
REFER TO DETAIL IAA001 PRIOR TO LINER PANEL INSTALLATION FOR FLANGE BRACE REQUIREMENTS.

(PHASE A)

DATE	ENG	CHK	DWN	ISSUE
11/30/2022 <td>PRS <td>KJ <td>MDC <td>FINALS</td> </td></td></td>	PRS <td>KJ <td>MDC <td>FINALS</td> </td></td>	KJ <td>MDC <td>FINALS</td> </td>	MDC <td>FINALS</td>	FINALS

NUCOR
BUILDING SYSTEMS GROUP
600 Apache Trail
Terrell, TX 75160
Phone: (972) 524-5407
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PROJECT NAME
MANUEL COLLISION
ADA, OK

CUSTOMER NAME
TITAN CONSTRUCTION, LLC
OKLAHOMA CITY, OK

JOB NUMBER
T22E0442A

SHEET TITLE
WALL LINER AT LINE 1

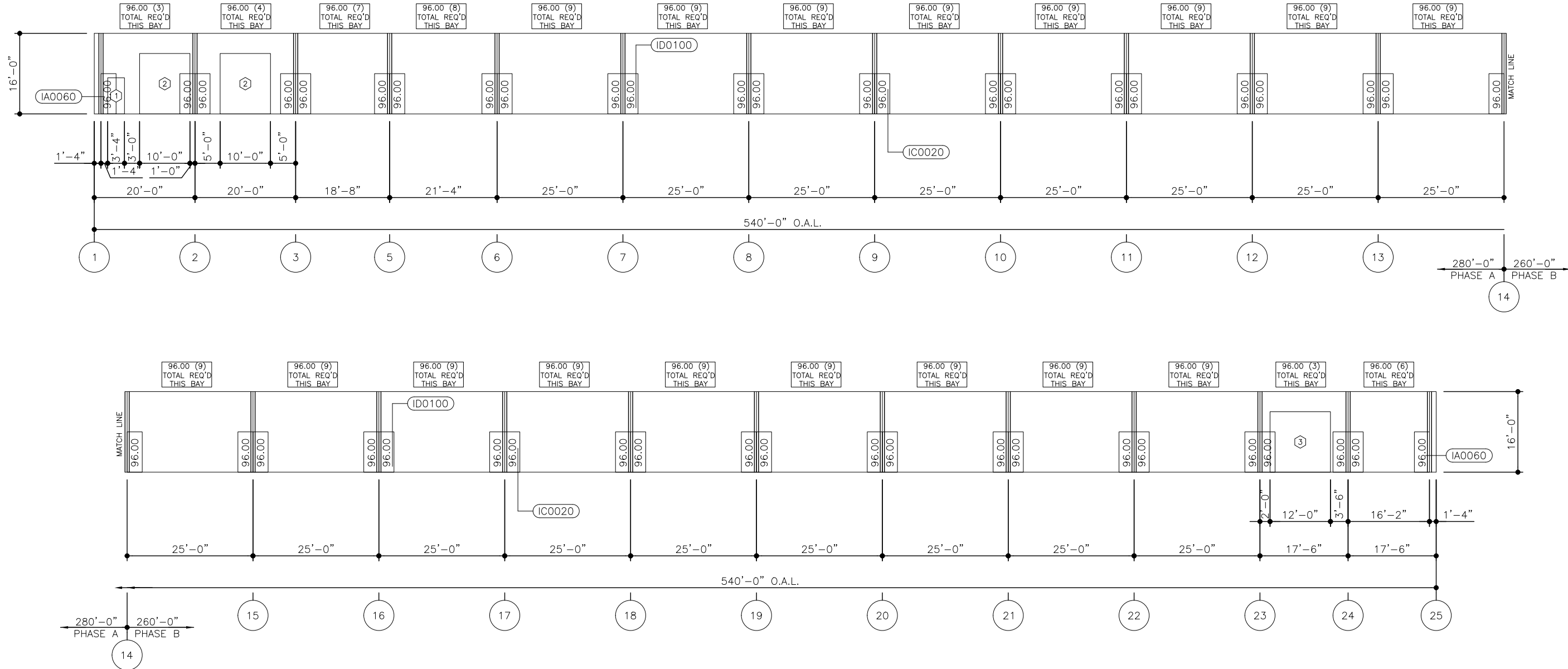
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SHEET
S7 of 10

LINER FRAMED OPENING SCHEDULE

ID NUMBER	QTY	SIZE		TRIM REQUIREMENTS		
		WIDTH	HEIGHT	JAMB TRIM	HEAD TRIM	SILL TRIM
(PHASE A) 1	1	3'-4"	7'-2"	JTD087	HTD096	NA
(PHASE A) 2	2	10'-0"	12'-0"	JTD097	NA	NA
(PHASE B) 3	1	12'-0"	12'-0"	JTD097	NA	NA
(PHASE B) FIELD	1	12'-0"	12'-0"	JTD097	NA	NA

SEE DETAILS IG0070, IG0090
FOR LINER F.O. TRIM DETAILS



WALL LINER AT LINE H

PANELS: 26 GA. REVERSE CLASSIC – POLAR WHITE

REFER TO IA0070 FOR "LINER PANEL" ERECTION NOTES.
NOTE: FIELD WORK/BACKLAP PANELS AND TRIMS AS REQUIRED FOR PROPER FIT.
REFER TO DETAIL IA0010 FOR TERMINATION DETAIL AT INTERMEDIATE COLUMNS.
REFER TO DETAIL IAA001 PRIOR TO LINER PANEL INSTALLATION FOR FLANGE BRACE REQUIREMENTS.
ERECTOR NOTE: (4) EXTRA (LINER) WALL PANELS (96.00) HAVE BEEN PROVIDED. (PW) PHASE B

DATE	11/30/2022
ENG	PRS
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WALL LINER AT LINE H

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SHEET
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CFR HAND CRIMPING INSTRUCTIONS

EA6010

IMPORTANT NOTE: THE INSTRUCTIONS ON THE PAGE ONLY ADDRESS THE USE OF THE HAND CRIMPING TOOLS. THE INSTRUCTIONS FOR MECHANICAL SEAMING, IF REQUIRED, ARE OUTLINED IN THE CFR SEAMING MANUAL, WHICH IS INCLUDED WITH THE MECHANICAL SEAMER KIT.

SPECIALIZED SEAMING AND HAND CRIMPING TOOLS

The finished seam of the CFR roof panels requires special seaming tools that are available only through NBS.

CAUTION: The use of other seaming/crimping equipment will result in faulty and/or damaged seams and shall invalidate the roof system's material and weather tightness warranties.

SEAMING TOOL SOURCE

The seaming tools are provided by NBS in accordance with the terms and conditions of the NBS contract documents. Contact the NBS Quality Service Representative to arrange scheduling, delivery and return of the seaming tools OR to purchase other roof accessory tools (crimpers, modularity tools and clamps.)

IMPORTANT: It shall be the erector's responsibility to apply the Nucor Roll Lock™ hand crimping method in such a way as to ensure that the panels have been adequately secured until mechanical seaming can occur.

CFR CRIMPING/SEAMING REQUIREMENTS

THE DESIGN OF THIS STRUCTURE REQUIRES THAT THE FOLLOWING SEAMING METHOD BE UTILIZED:

- 1) NUCOR ROLL LOCK™ SEAM (SEE NOTE 1 AND 2 BELOW)
- 2) MODIFIED NUCOR ROLL LOCK™ SEAM (SEE DETAIL ON FOLLOWING SHEET)
- 3) NUCOR VISE LOCK® SEAM (SEE NOTE 1, 2 AND 3 BELOW)
- 4) NUCOR VISE LOCK 360® SEAM (SEE NOTE 2 AND 3 BELOW)

NOTE 1: ADDITIONAL SEAMING MAY BE NECESSARY AS SPECIFIED BY THE BUILDER.

NOTE 2: MULTIPLE SEAMING TYPES MAY BE REQUIRED. REVIEW THE ROOF SEAMING PLAN CAREFULLY FOR SEAMING REQUIREMENTS.

NOTE 3: NOT ALL ROOF SYSTEMS REQUIRE MECHANICAL SEAMING. THE BUYER, OWNER, OR ARCHITECT MAY ELECT TO SPECIFY A MECHANICALLY SEAMED PANEL. OFTEN, FACTORY MUTUAL RATINGS ALSO REQUIRE A VL360 MECHANICAL SEAMER.

SEE THE CFR SEAMING MANUAL FOR IMPORTANT ERECTOR INFO ABOUT VISE LOCK 360 SEAMER REQUIREMENTS.

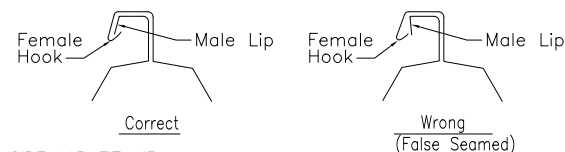
WHEN TO CRIMP/SEAM

As work progress's, it shall be the erector's responsibility to apply the Nucor Roll Lock™ hand crimping method in such a way as to ensure that the panels have been adequately secured until mechanical seaming can occur.

Whenever possible, the installed roof panels should be mechanically seamed as work progress's OR at the completion of each day's work. If high winds or rain/snow conditions are imminent, the installed roof panels must be seamed before such conditions occur.

Refer to the project erection drawing Roof Seaming Plan and/or Detail pages to determine what seaming option is required. The above detail conveys the MINIMUM seaming requirements based upon the design of the project. Additional seaming may be necessary as specified by the builder. NOTE: multiple seaming types may be required on a project, review the Roof Seaming Plan and details carefully.

CHECK PANEL ASSEMBLY



SIDE LAP FIT-UP

Before seaming and/or crimping, inspect the full length of each roof panel side lap. Check that the lip at the panel's male edge is enclosed by the hook of the adjacent panel's female edge, as shown in the detail above. Any conditions where the male lip is not positioned inside of the female hook must be corrected before attempting to seam/crimp the roof panels.

CAUTION: False seaming may occur where the female lip does not hook the roof panel's male edge. False seamed roof panels cannot provide their designed wind load and weather resistance.

CLIP ALIGNMENT

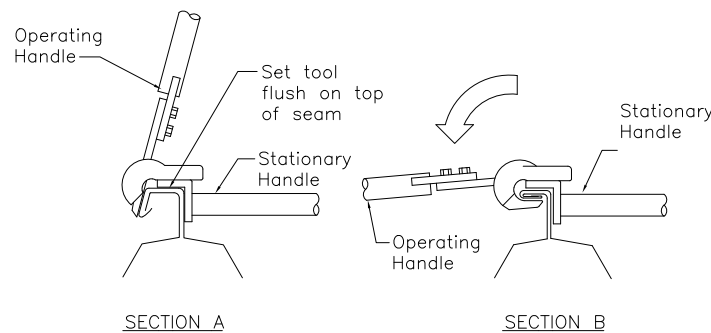
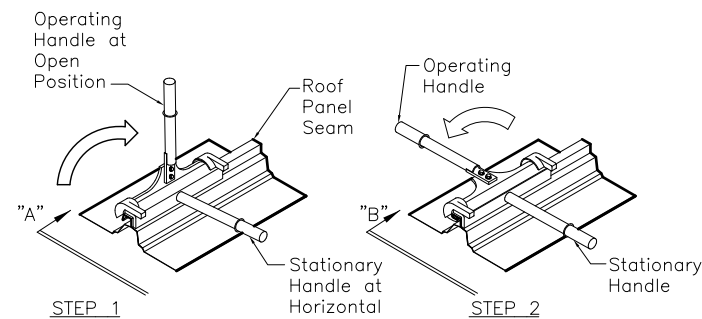
Before seaming and/or crimping, check that each roof panel clip is properly seated in the roof side lap assembly. Any displaced clips must be corrected before attempting to seam the roof panels.

CAUTION: Panel clips that are not properly aligned can cause faulty seaming/crimping and objectionable seam appearance.

SEAM DAMAGE

Before seaming, check that the male and female edges do not have kinks or other distortions. Any such distortions must be corrected before attempting to seam the roof panels.

MANUAL CRIMPING TOOL OPERATION



NOMENCLATURE

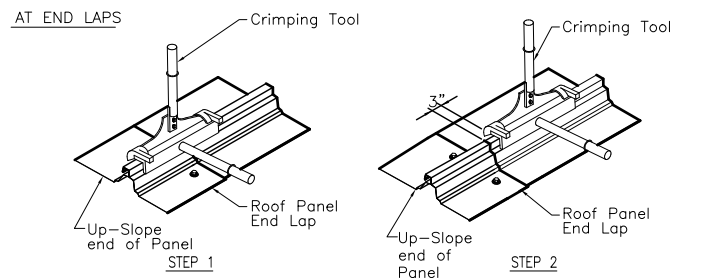
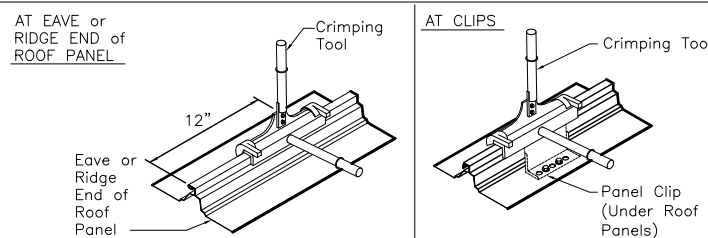
The detail above identifies the operational parts of the Roll Lock/Vise Lock Crimping Tool. This crimping tool is shown for the manually producing the Roll Lock Seam.

TOOL ORIENTATION & FORMING THE SEAM

Orient the tool to fit correctly onto the roof panel seam as shown in Sec A above. When the tool is correctly positioned on the panel, push the stationary blade solidly against the top of the seam. While holding the stationary handle in the horizontal position, rotate the operating handle down to the horizontal position.

NOTE: The detail shows a short handed crimping tool, the tool you receive may be the stand-up type crimping tool, with either tool the orientation on the seam is the same.

MANUAL CRIMPING AT EAVE, END LAP, RIDGE AND AT EACH CLIP



TOOL POSITION AT THE END OF THE ROOF PANEL When hand crimping at the eave or ridge end of the roof panel, crimp panel a full 12" up from the eave and down from the ridge.

TOOL POSITION AT PANEL CLIPS When crimping at a panel clip location, center the tool over the panel clip and crimp that area, as shown in Detail above.

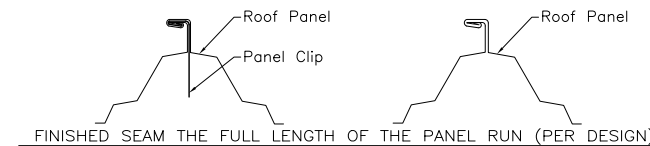
TOOL POSITION AT AN END LAP When crimping at an end lap, the crimping must be done in two steps.

- STEP 1 Center the end of the crimping tool over the end lap and seam that area.
- STEP 2 Position the end of the crimping tool 3" from the edge of the end lap and seam that area to ensure that the panel clip at this location is also crimped.

CFR SEAM TYPES

The NBS CFR roof system has three seam type options. The project design and performance requirements govern which seam type is required. Different seam types may be required on specific areas of the roof. In all cases, refer to the Roof Seaming Plan in erection drawings set to determine the required seam type and locations.

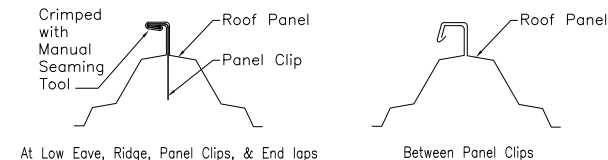
NUCOR VISE LOCK® SEAM



- The Vise Lock seam can be achieved by two different methods:
1. Continually hand crimping the seam with the Vise Lock Hand Crimper.
 2. Mechanically seaming with a Vise Lock Seaming Machine.

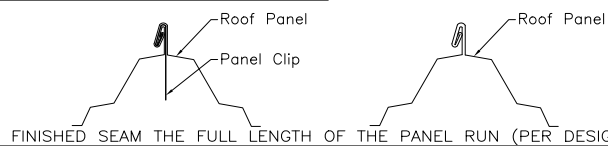
Refer to the CFR SEAMING MANUAL for specific motorized seaming instructions. This manual is included in the Motorized Seamer Kit.

NUCOR ROLL LOCK™ SEAM

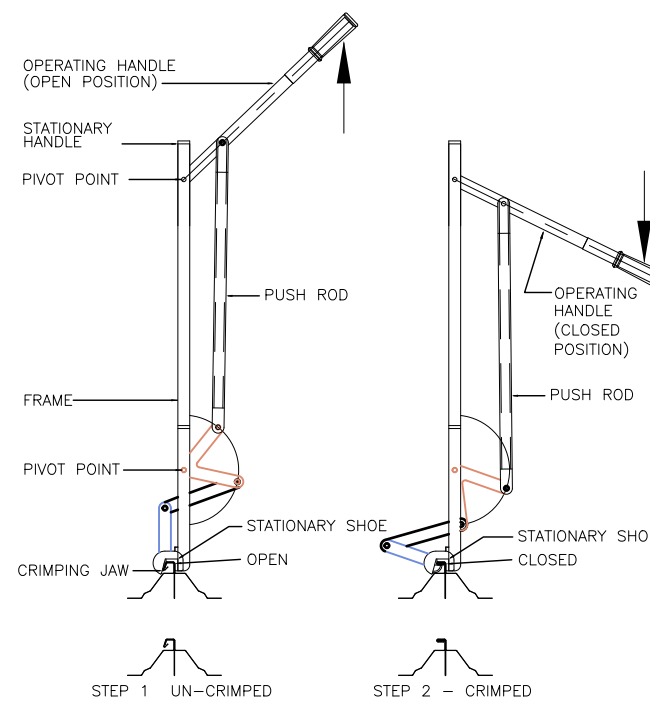


The "Roll Lock" Seam requires the roof panels be crimped with the hand crimping tool at the panel clips, the eave, the high side of the roof panels, and the end laps. The Motorized Seaming Machine is not required for this seam type.

NUCOR VISE LOCK 360® SEAM



- The Vise Lock 360 seam can be achieved by three different methods:
1. Continually hand crimping the seam with the Vise Lock 360 Hand Crimper. Seam needs to be hand crimped or seamed into a Vise Lock Seam prior to using the Vise Lock 360 crimping. This crimping is a buy-out tool and is used to hand crimp small edge and corner zones.
 2. Utilizing a two pass (separate seamers) seamer method. Meaning the first pass seamer would be a Vise Lock Seamer and the second seamer would be a Vise Lock 360 Seamer.
 3. Utilizing a Single directional Vise Lock 360 Seamer.
- Refer to the CFR SEAMING MANUAL for specific motorized seaming instructions. This manual is included in the Motorized Seamer Kit.



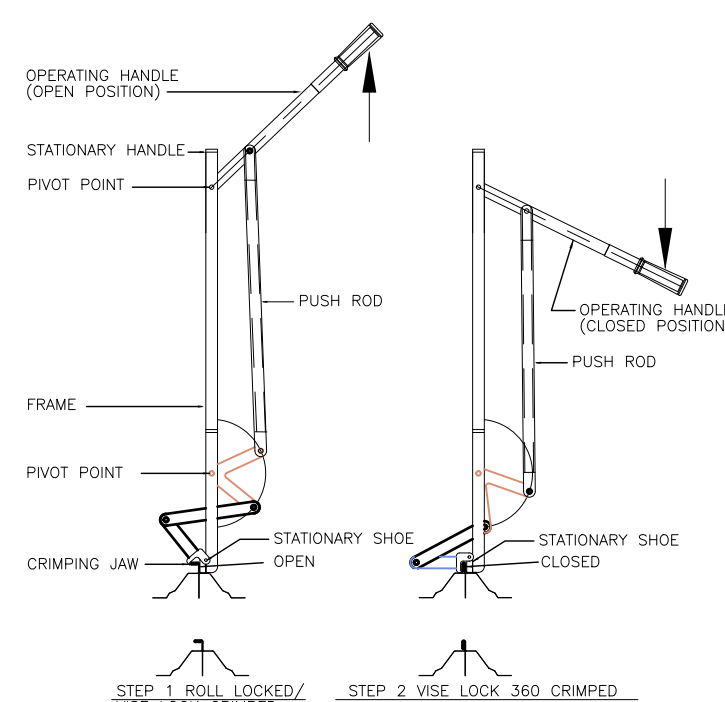
MANUAL CRIMPING WITH THE STAND-UP VISE LOCK CRIMPER

The Manual Crimping procedure for this stand-up Vise Lock crimper is the same procedure as the small Vise Lock hand crimper. This crimper could be used in conjunction with the stand-up Vise Lock 360 crimper. Continually crimping with this crimper will result in a Vise Lock Seam.

TOOL OPERATION

STEP 1 With the handle in the upward position, place the VL crimper on panel rib. Make sure the crimper head is completely down on the top of the panel rib before crimping. Improper placement of crimper on the panel may result in panel and/or crimper damage.

STEP 2 Push down on the handle until it stops. Release and move the crimper approximately 4" and repeat step #1 (as needed).



MANUAL CRIMPING WITH THE STAND-UP VISE LOCK 360 CRIMPER

The Manual Crimping procedure for the stand-up Vise Lock 360 crimper is the same procedure as the small Vise Lock 360 hand crimper. This crimper is designed to be used in conjunction with the stand-up Vise Lock crimper OR seamer. Continually crimping with this crimper will result in a Vise Lock 360 Seam.

TOOL OPERATION

Step 1 After the area has been completely seamed or crimped to form the VISE LOCK SEAM, place the VISE LOCK 360 crimper over the area with the handle in the upward position.

Step 2 Push the handle down until it stops. Release handle and move the crimper approximately 4", repeat step #1.

IMPORTANT: If the 360 tool does not form the VISE LOCK 360 seam correctly, then stop and check the seam to see if you have a good continuous VISE LOCK SEAM. If not, then re-crimp/seam the area with the proper VISE LOCK tool.

NOTE: DO NOT USE THE VISE LOCK 360 CRIMPER FOR TEMPORARY CRIMPING

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JOB NUMBER
T22E0442A
SHEET TITLE
SHEETING DETAILS
SHEET
SD1 of 15

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CFR ROOF SYSTEM ERECTION AND APPLICATION REQUIREMENTS

EA6020

I. GENERAL ERECTION NOTES

- 1.1 UNLOADING AND STORING
 1.1.1 CHECK THE QUANTITIES AND CONDITION OF CFR BUNDLES AND TRIM CRATES ON ARRIVAL. NOTE ON THE DELIVERY TICKETS ANY SHORTAGES, DAMAGE OR DISCREPANCIES. MBS BUILDING SYSTEMS SHALL NOT BE LIABLE FOR DAMAGE OR SHORTAGES WHICH ARE NOT NOTED ON THE DELIVERY TICKETS.
 1.1.2 EXTREME CARE SHOULD BE EXERCISED WHEN UNLOADING AND HANDLING THE PANEL BUNDLES AND ACCESSORY CRATES TO PREVENT DAMAGE. THE WEIGHT OF THE PANEL BUNDLE IS PRINTED ON THE BUNDLE TAG ON THE END OF EACH BUNDLE. IF THE TAG IS NOT ON THE BUNDLE, YOU MAY CALCULATE THE WEIGHT OF THE BUNDLE WITH THE FORMULA: (QTY. OF PANELS X BUNDLE LENGTH X 2.5lbs. PER FOOT)
 1.1.3 BUNDLES UP TO 25 FEET LONG CAN BE LIFTED WITH A FORKLIFT. BUNDLES OVER 25 FEET IN LENGTH SHALL BE LIFTED WITH A CRANE UTILIZING A SPREADER BAR WITH 4 INCH MINIMUM WIDTH NYLON STRAPS. STRAPS SHOULD BE 15 TO 20 FEET APART. TO AVOID DAMAGE TO THE PANELS, STEEL CABLES, CHAINS OR CHOKERS SHALL NOT BE USED.
 1.1.4 THE CFR PANELS AND ACCESSORIES SHALL BE STORED ON HIGH GROUND, SLOPED TO DRAIN AND TARPED TO PROTECT FROM MOISTURE FORMATION. THE TARP SHOULD BE OPEN AT EACH END TO ALLOW CONSISTENT AIR FLOW THROUGH THE BUNDLES. THE RECOMMENDED PROCEDURES ARE OUTLINED IN THE CFR ERECTION MANUAL. MBS WILL NOT BE HELD RESPONSIBLE FOR DAMAGE OR DISCOLORATION OF PANELS CAUSED BY IMPROPER STORAGE.
- 1.2 ERECTION SEQUENCE
 1.2.1 THE CFR ROOF SYSTEM IS DESIGNED TO BE ERECTED FROM EITHER END OF THE BUILDING. IN RARE CASES, DUE TO THE BUILDING LAYOUT, IT MAY BE REQUIRED TO START ERECTION FROM A SPECIFIC END. IN THOSE CASES, THIS WILL BE NOTED AS SUCH ON THE ROOF SHEETING PLAN.
 1.2.2 FULL-WIDTH PANELS ARE PROVIDED AS THE START PANELS AND NEED TO BE FIELD CUT TO THE PROPER WIDTH. THIS MAY CAUSE THE RIBS TO BE OUT OF ALIGNMENT ACROSS THE RIDGE. THIS IS NORMAL PRACTICE FOR THE CFR ROOF SYSTEM AND DOES NOT AFFECT THE PERFORMANCE OF THE ROOF SYSTEM. PLEASE CHECK THE ROOF SHEETING PLAN AND DETAILS FOR DIMENSIONS OF START PANELS PRIOR TO ERECTING THE ROOF.
 1.2.3 FOR BUILDINGS WITH ROOF TRANSLUCENT PANELS: IN ORDER TO ALIGN THE TRANSLUCENT PANELS ACROSS THE RIDGE, IT IS SUGGESTED TO ERECT THE ROOF PANELS ON BOTH SIDES OF THE RIDGE FROM THE SAME END OF THE BUILDING - UTILIZING THE SAME WIDTH START PANEL. PANEL RUNS WITH TRANSLUCENT PANELS HAVE BEEN PLACED AS SPECIFIED IN THE ORDER DOCUMENTS.
- 1.3 COORDINATION WITH OTHER TRADES
 1.3.1 SUPPORTS FOR THE CFR ROOF SYSTEM SHALL BE PROVIDED AND ARE REQUIRED AS SHOWN IN THE SECTIONS AND AS NOTED IN THESE SPECIFICATIONS. ALL NECESSARY CLEARANCE DIMENSIONS FOR PROPER ELEVATIONS RELATIVE TO THE ROOF PANELS HAVE BEEN SHOWN. THE ERECTOR SHALL BE RESPONSIBLE FOR COORDINATING THESE DIMENSIONAL REQUIREMENTS WITH OTHER TRADES ASSOCIATED WITH THE BUILDING ROOF SYSTEM.
- 1.4 ERECTION CARE
 1.4.1 THE ERECTOR MUST BE SKILLED IN THE ERECTION OF METAL BUILDING SYSTEMS AND IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, FEDERAL AND STATE CONSTRUCTION AND SAFETY REGULATIONS INCLUDING OSHA REGULATIONS AS WELL AS ANY APPLICABLE REQUIREMENTS OF LOCAL, NATIONAL OR INTERNATIONAL UNION RULES OR PRACTICES. THE ERECTOR REMAINS SOLELY RESPONSIBLE FOR THE SAFETY AND APPROPRIATENESS OF ALL TECHNIQUES AND METHODS UTILIZED BY ITS CREWS IN THE ERECTION OF THE METAL BUILDING SYSTEM AND/OR THE CFR ROOF SYSTEM. THE ERECTOR IS ALSO RESPONSIBLE FOR SUPPLYING ANY SAFETY DEVICES SUCH AS SCAFFOLDS, RUNWAYS, NETS, ETC. WHICH MAY BE REQUIRED TO SAFELY ERECT THE METAL BUILDING SYSTEM AND/OR CFR ROOF SYSTEM.

- 1.4.2 THE ERECTOR OF THE CFR ROOF SYSTEM SHALL EXERCISE GREAT CARE AND ATTENTION TO THE DETAILS AS SHOWN ON THESE DRAWINGS AND IN THE CFR ERECTION MANUAL TO INSURE A SECURE AND PROPER FIT OF ALL COMPONENTS. MBS SHALL NOT BE RESPONSIBLE FOR SUPERVISING AND/OR COORDINATING THE ERECTION OF THE CFR ROOF SYSTEM WITH OTHER TRADES.
 1.4.3 DUE CONSIDERATION MUST BE GIVEN BY THE ERECTOR TO THE EFFECTS OF THERMAL EXPANSION AND CONTRACTION WHEN ERECTING A ROOF TIE-IN TO AN EXISTING STRUCTURE TO INSURE A SAFE, SECURE, WEATHERTIGHT CONDITION. FLASHING FOR TIE-INS TO EXISTING BUILDINGS IS TYPICALLY NOT INCLUDED AS PART OF THE MATERIAL PROVIDED BY MBS BUILDING SYSTEMS. REFER TO THE SECTIONS/DETAILS FOR SPECIFIC MATERIALS PROVIDED BY MBS.
- 1.5 FIELD CUTTING OF PANELS
 1.5.1 WHEN FIELD CUTTING OR MITERING CFR ROOF PANELS, NON-ABRASIVE CUTTING TOOLS SUCH AS NIBBLERS OR TIN-SNIPS SHALL BE USED. ABRASIVE CUTTING TOOLS SUCH AS MECHANICAL GRINDERS, SAWS, SHEARS OR SCISSORS CAN DAMAGE THE GALVALUME FINISH AND CREATE EXCESS METAL SHAVINGS THAT CAN CORRODE THE PANELS. THE USE OF NON-APPROVED CUTTING DEVICES MAY VOID YOUR FACTORY WARRANTY.

- 2.6 PAINTED CFR ROOF
 2.6.1 PAINTED STANDING SEAM ROOF PANELS ARE OFTEN PROVIDED BY MBS. IN THIS CASE, GUTTER BRACKETS AND END DAMS WILL BE PAINTED TO MATCH THE ROOF COLOR AS A STANDARD.
- ## III. COMPOSITE CFR ROOF SYSTEM
- 3.1 PRODUCT DEFINITION
 3.1.1 REFER TO THE SECTIONS AND DETAILS IN THESE DRAWINGS FOR SPECIFIC CLIP FASTENING REQUIREMENTS, INSULATION THICKNESS REQUIREMENTS AND LINER DECK TYPE.
 3.1.2 COMPOSITE CFR ROOF WITHOUT THE USE OF A LINER DECK IS NOT A MBS STANDARD PRODUCT APPLICATION. DUE CONSIDERATION MUST BE GIVEN TO THE EFFECTS OF CONDENSATION BY THE ENGINEER OF RECORD OR ARCHITECT WHEN THIS OCCURS. IN ADDITION, GREAT CARE MUST BE TAKEN BY THE ERECTOR TO INSURE THAT THE ROOF SYSTEM IS ERECTED IN A SAFE, QUALITY MANNER.
- 3.2 VAPOR BARRIER
 3.2.1 VAPOR BARRIER MUST BE USED BETWEEN THE LINER DECKING AND THE INSULATION TO PREVENT CONDENSATION. THIS BARRIER IS NOT BY MBS. REFER TO THE ERECTION DRAWING DETAILS.
- 3.3 INSULATION
 3.3.1 RIGID BOARD INSULATION CAN BE USED IN CONJUNCTION WITH A COMPOSITE CFR ROOF SYSTEM. THE RIGID BOARD INSULATION MUST BE CUT TO ALLOW FREE MOVEMENT OF THE BACK-UP PLATE AT PANEL SPLICES, SINGLE SLOPE HIGH EAVES AND RIDGE LOCATIONS. RIGID BOARD INSULATION WILL ALSO NEED TO BE RECESSED ALONG ENTIRE RAKE TO ALLOW RAKE ANGLE AND FASTENERS TO MOVE FREELY WITH ROOF SYSTEM.
 3.3.2 UNFACED FIBERGLASS (BATT) INSULATION CAN BE USED IN CONJUNCTION WITH A COMPOSITE CFR ROOF SYSTEM.

II. DESIGN AND PERFORMANCE CRITERIA

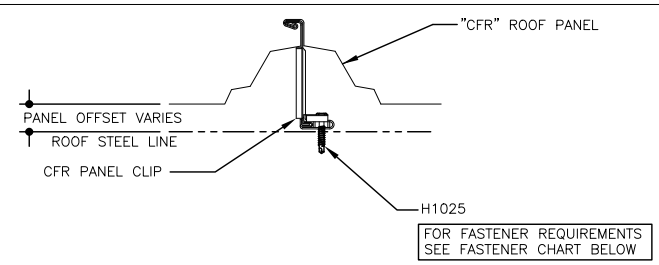
- 2.1 ROOF SYSTEM
 2.1.1 THE CFR ROOF SYSTEM CONSISTS OF 24 GAUGE PANELS WITH A NOMINAL COVERAGE OF 2'-0" AND A PANEL SEAM THAT IS BETWEEN 3 1/2", 4 1/2" AND 5 1/2" HIGH DEPENDING ON CLIP TYPE USED. REFER TO THE DETAILS AND SECTIONS FOR SPECIFIC PANEL CLIP TYPE.
- 2.2 PANEL CLIP SPACING
 2.2.1 THE CFR ROOF SYSTEM USES A CLIP TO ATTACH THE PANELS TO THE ROOF SECONDARY MEMBERS. PANEL CLIP SPACING REQUIREMENTS ARE AS FOLLOWS:
FOR CFR ROOF ON A MBS BUILDING: CLIPS ARE REQUIRED AT EVERY PURLIN AND/OR ROOF JOIST.
FOR CFR ROOF ON A NON-MBS BUILDING: MAXIMUM CLIP SPACING IS TO BE 5'-0" FOR PURLIN ROOFS AND 5'-6" FOR JOIST ROOFS.
- 2.3 PANEL CLIP FASTENING REQUIREMENTS
 2.3.1 MBS STANDARD CLIP FASTENERS ARE DESIGNED TO FASTEN TO A STEEL STRUCTURAL MEMBER OF .060" MINIMUM THICKNESS (16 GA.). A MINIMUM OF TWO FASTENERS ARE REQUIRED TO ENGAGE THE STRUCTURAL MEMBER AT EVERY PANEL CLIP LOCATION. IN CERTAIN INSTANCES, THREE FASTENERS MAY BE REQUIRED PER CLIP REQUIRED. LOOK ON CHART AT RIGHT AND IN THE ERECTION DRAWINGS FOR YOUR SPECIFIC FASTENER REQUIREMENTS. FASTENER PULLOUT VALUES ARE DEPENDENT UPON PROJECT LOCATION, SIZE, BUILDING CODE AND LOADING.
- 2.4 ROOF TOP UNITS AND CURB SUPPORTS
 2.4.1 THE CFR ROOF SYSTEM IS ELEVATED ABOVE THE TOP OF THE ROOF SECONDARY STRUCTURAL MEMBERS. THE ROOF CURB SUB-FRAMING IS LEVEL WITH THE SECONDARY STRUCTURAL MEMBERS. REFER TO THE DETAILS FOR PROPER JAMB LOCATIONS AND DIMENSIONS.
 2.4.2 THE CFR ROOF SYSTEM IS DESIGNED AS A FLOATING SYSTEM. CURB FRAMING AND FLASHING MUST BE DESIGNED ACCORDINGLY TO ALLOW THE CURB SYSTEM TO FLOAT WITH THE CFR ROOF DURING THERMAL EXPANSION AND CONTRACTION. ROOF CURBS SHALL NOT SPAN THE RIDGE OF A BUILDING.
- 2.5 INSULATION REQUIREMENTS
 2.5.1 MBS RECOMMENDS THAT INSULATION BE USED IN ALL CFR ROOF APPLICATIONS TO AVOID PROBLEMS WITH CONDENSATION FORMING ON THE UNDERSIDE OF THE SHEETING. THIS ALSO PROVIDES A BUFFER BETWEEN THE PURLINS AND THE CFR ROOF TO ELIMINATE NOISE AND POSSIBLE DAMAGE DUE TO METAL-TO-METAL CONTACT. MBS CAN SUPPLY A NOISE REDUCING FOAM TAPE FOR USE IN LIMITED APPLICATIONS (CANOPIES, ETC.) WHEN INCLUDED AS PART OF THE ROOF ORDER. REFER TO THE DETAILS FOR FOAM TAPE REQUIREMENTS.

- 4.1 COMPONENTS WITH ENGINEERING DEFINITION
 4.1.1 IN A CASE WHERE MBS IS PROVIDING THE CFR ROOF SYSTEM TO BE USED IN CONJUNCTION WITH A NON-MBS STRUCTURE, MBS REFERS TO THAT AS A "COMPONENTS WITH ENGINEERING." THIS SIMPLY MEANS THAT MBS SHALL CALCULATE THE QUANTITIES AND LENGTHS FOR THE MATERIAL REQUIRED. MBS IS PERFORMING NO ENGINEERING STUDY OF THE EXISTING STRUCTURE. THE ENGINEER OF RECORD ON THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE CFR ROOF SYSTEM WITH THE OTHER TRADES OF THE PROJECT TO INSURE A SAFE, QUALITY AND PROPER APPLICATION OF THE ROOF SYSTEM.
- 4.2 DIAPHRAGM
 4.2.1 THE MBS ROOF IS DESIGNED TO ACCOMMODATE THERMAL EXPANSION AND CONTRACTION AND WILL NOT ACT AS A DIAPHRAGM FOR RESISTING LATERAL LOAD FORCES OR PROVIDING LATERAL STABILITY TO THE ROOF STRUCTURAL MEMBERS. DUE CONSIDERATION FOR THIS MUST BE ADDRESSED BY THE PROJECT ENGINEER OF RECORD. IN ADDITION, THE CFR ROOF, BECAUSE IT IS DESIGNED TO FLOAT, WILL NOT SUPPORT STRUCTURAL MEMBERS Laterally. WHEN REPLACING AN EXISTING SCREWDOWN ROOF, ADDITIONAL BRACING MAY BE REQUIRED TO Laterally SUPPORT THE MEMBERS. ENGINEERING AND MATERIAL FOR THESE USES SHALL NOT BE PROVIDED BY MBS.
- 4.3 CLIP FASTENING REQUIREMENTS
 4.3.1 REFER TO PART II, "DESIGN AND PERFORMANCE CRITERIA" FOR CFR ROOF PANEL CLIP FASTENING REQUIREMENTS.
 4.3.2 FIELD DRILLING AT LAPPED OR NESTED PURLIN CONDITIONS MAY BE REQUIRED FOR STRUCTURAL FASTENERS

IV. CFR ROOF COMPONENTS W/ENGINEERING

- 4.1 COMPONENTS WITH ENGINEERING DEFINITION
 4.1.1 IN A CASE WHERE MBS IS PROVIDING THE CFR ROOF SYSTEM TO BE USED IN CONJUNCTION WITH A NON-MBS STRUCTURE, MBS REFERS TO THAT AS A "COMPONENTS WITH ENGINEERING." THIS SIMPLY MEANS THAT MBS SHALL CALCULATE THE QUANTITIES AND LENGTHS FOR THE MATERIAL REQUIRED. MBS IS PERFORMING NO ENGINEERING STUDY OF THE EXISTING STRUCTURE. THE ENGINEER OF RECORD ON THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE CFR ROOF SYSTEM WITH THE OTHER TRADES OF THE PROJECT TO INSURE A SAFE, QUALITY AND PROPER APPLICATION OF THE ROOF SYSTEM.
- 4.2 DIAPHRAGM
 4.2.1 THE MBS ROOF IS DESIGNED TO ACCOMMODATE THERMAL EXPANSION AND CONTRACTION AND WILL NOT ACT AS A DIAPHRAGM FOR RESISTING LATERAL LOAD FORCES OR PROVIDING LATERAL STABILITY TO THE ROOF STRUCTURAL MEMBERS. DUE CONSIDERATION FOR THIS MUST BE ADDRESSED BY THE PROJECT ENGINEER OF RECORD. IN ADDITION, THE CFR ROOF, BECAUSE IT IS DESIGNED TO FLOAT, WILL NOT SUPPORT STRUCTURAL MEMBERS Laterally. WHEN REPLACING AN EXISTING SCREWDOWN ROOF, ADDITIONAL BRACING MAY BE REQUIRED TO Laterally SUPPORT THE MEMBERS. ENGINEERING AND MATERIAL FOR THESE USES SHALL NOT BE PROVIDED BY MBS.
- 4.3 CLIP FASTENING REQUIREMENTS
 4.3.1 REFER TO PART II, "DESIGN AND PERFORMANCE CRITERIA" FOR CFR ROOF PANEL CLIP FASTENING REQUIREMENTS.
 4.3.2 FIELD DRILLING AT LAPPED OR NESTED PURLIN CONDITIONS MAY BE REQUIRED FOR STRUCTURAL FASTENERS

CFR PANEL CLIP ATTACHMENT DETAIL



CFR CLIP FASTENING NOTES

- NUCOR CLIPS ARE DESIGNED WITH (4) HOLES.
- WORKS FOR EITHER A PURLIN OR A BAR JOIST SYSTEM.
- FASTENER REQUIREMENTS VARY PER JOB.
- FAILURE TO COMPLY WITH YOUR JOBS SPECIFIC FASTENER REQUIREMENTS MAY CAUSE THE ROOF TO BE REMOVED AND REPLACED.
- DO NOT OVERDRIVE FASTENERS ON SLIDING CLIPS. OVER DRIVING CAN STRIP THE THREADS, CAUSE THE CLIP NOT TO ENGAGE THE SUPPORT MEMBER PROPERLY AND/OR THE CLIP NOT TO SLIDE PROPERLY. USE SCREW GUNS WITH TORQUE CONTROL SET TO FUNCTION PROPERLY FOR THE COMBINATION OF FASTENER SIZE, HOLE SIZE AND MATERIAL THICKNESS.
- SPREAD FASTENERS OUT AS FAR AS POSSIBLE. AVOID PLACING FASTENERS SIDE BY SIDE.

CFR STANDARD CLIPS

CFR STANDARD CLIP PART NUMBERS			FASTENER REQUIREMENTS	
PART #	PART DESCRIPTION	TAB LENGTH		
H2500	SHORT FIXED CLIP	4"	NON-FM JOBS	
H2510	TALL FIXED CLIP	4"	(2) FASTENERS PER CLIP (U.N.O.)	
H2520	SHORT SLIDING CLIP	4"	FM 1-60 JOBS	
H2530	TALL SLIDING CLIP	4"	(2) FASTENERS PER CLIP	
H2540	SUPER TALL SLIDING CLIP	4"	FM 1-90 THRU FM 1-180 JOBS	

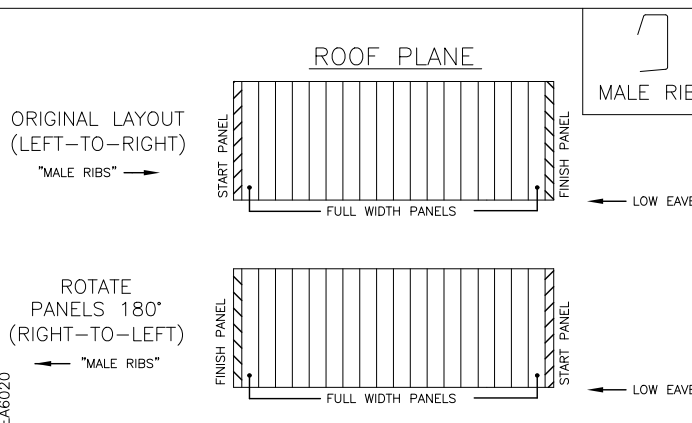
(2) AT JOISTS	
(3) AT PURLINS	

CFR PERIMETER CLIPS

CFR PERIMETER CLIP PART NUMBERS			FASTENER REQUIREMENTS	
PART #	PART DESCRIPTION	TAB LENGTH		
H2720	SHORT SLIDING CLIP	8"	PURLINS - (3)	
H2730	TALL SLIDING CLIP	8"	JOISTS - (2)	
H2740	SHORT SLIDING CLIP	12"		
H2750	TALL SLIDING CLIP	12"		
H2760	SHORT SLIDING CLIP	16"		
H2770	TALL SLIDING CLIP	16"		

ROOF SHEETING ERECTOR NOTES

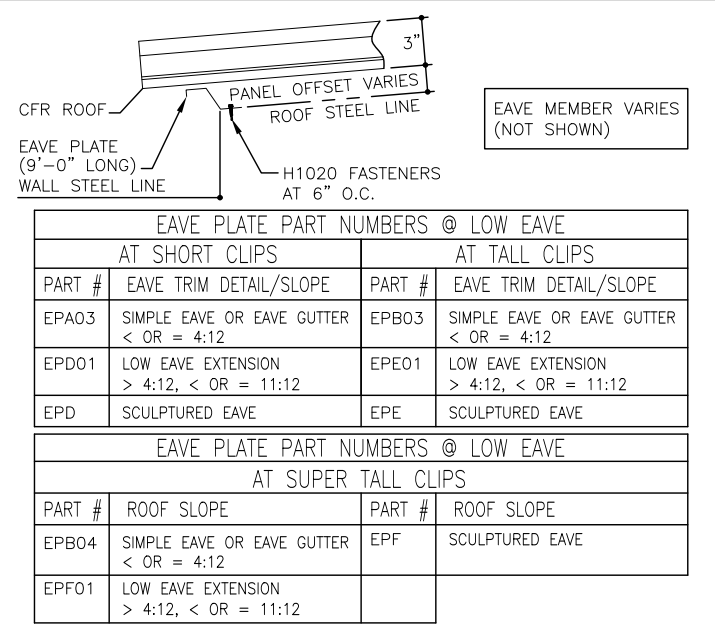
- 1.) THE ROOF SHEETING PLAN IS SHOWN WITH THE ROOF PANELS BEING ERECTED FROM "LEFT-TO-RIGHT". IF THE DESIRE IS TO ERECT THE ROOF PANELS FROM "LEFT-TO-RIGHT", FOLLOW THE ROOF SHEETING PLAN AS SHOWN. IF THE DESIRE IS TO ERECT THE ROOF PANELS FROM "RIGHT-TO-LEFT", FOLLOW THE INSTRUCTIONS SHOWN BELOW.
- 2.) WHEN SETTING BUNDLES OF PANELS ON THE ROOF, THE "MALE RIB" MUST ALWAYS BE AWAY FROM THE END OF THE BUILDING WHERE THE SHEETING WILL BEGIN.



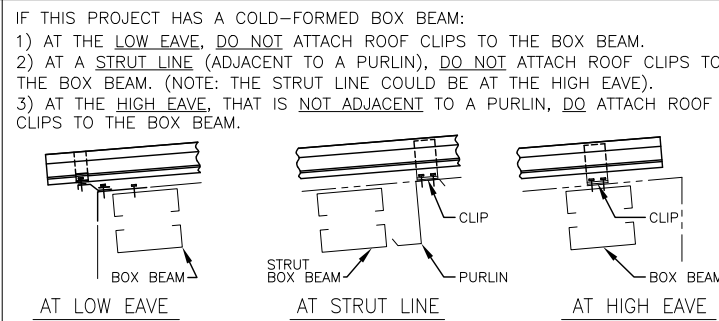
STANDARD FASTENER SCHEDULE

SHEETING AND TRIM FASTENERS		CLIP FASTENERS	
H1000	SELF-TAPPING SCREW (GOOF SCREW) 17-14 x 1 1/4" WITH WASHER LONG LIFE FASTENER 3/8" HEAD	H1020	SELF-DRILLING SCREW 1/4-14 x 1 1/4" TCP3 W/O WASHER 5/16" HEAD 3/16" THK MAX DRILLING CAPACITY
H1030	SELF-DRILLING SCREW 12-14 x 1 1/4" TCP2 WITH WASHER LONG LIFE FASTENER 5/16" HEAD	H1025	SELF-DRILLING SCREW 1/4-14 x 2" TCP3 W/O WASHER 5/16" HEAD 3/16" THK MAX DRILLING CAPACITY
H1035	SELF-DRILLING SCREW 12-14 x 1 1/2" TCP2 WITH WASHER LONG LIFE FASTENER 5/16" HEAD	H1070	SELF-DRILLING SCREW 12-24 x 2" TCP5 W/O WASHER 5/16" HEAD 1/2" THK MAX DRILLING CAPACITY
H1050	SELF-DRILLING SCREW 1/4-14 x 7/8" TCP1 WITH WASHER LONG LIFE FASTENER 5/16" HEAD	H1075	SELF-DRILLING SCREW 12-24 x 2" TCP5 W/O WASHER 5/16" HEAD 1/2" THK MAX DRILLING CAPACITY
PRE-DRILL DIAMETERS		CLIP FASTENER SELECTION	
3/16" FOR: H1020, H1025, H1070, H1075		PURLIN APPLICATION H1020 FOR INSULATION ≤6" H1025 FOR INSULATION >6" AND ≤12"	
5/32" FOR: H1030, H1035		JOIST APPLICATION H1070 FOR INSULATION ≤6" H1075 FOR INSULATION >6" AND ≤12"	
1/8" FOR: H1050			

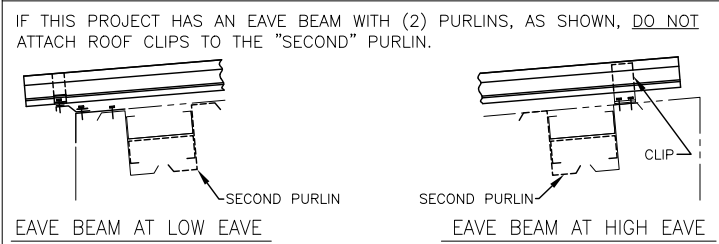
CFR EAVE PLATE DETAIL



SPECIAL CONDITION AT A COLD-FORMED BOX BEAM



SPECIAL CONDITION AT A STRONG-BACK EAVE BEAM



DATE	11/30/2022
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TITAN CONSTRUCTION, LLC
 OKLAHOMA CITY, OK

PROJECT NAME: MANUEL COLLISION
 CUSTOMER NAME: ADA, OK
 JOB NUMBER: T22E0442A
 SHEET TITLE: SHEETING DETAILS
 SHEET: SD2 of 15

IMPORTANT ERECTOR NOTE:

PLEASE REFER TO THE ROOF SHEETING ERECTION MANUALS FOR FURTHER ASSEMBLY INSTRUCTIONS

ONLINE VIDEO AND MANUALS ARE ALSO AVAILABLE:

PRIOR TO STARTING THE SHEETING PLEASE VISIT:
<https://www.nucorbuildingsystems.com/resources/manuals/>

INSTALLATION INSTRUCTIONS

- CFR Standing Seam Installation
- CFR Installation Videos
- Video de Instalacion de cubierta tipo Classic Roof Installation
- VR16 II Vertical Rib Installation
- HR3 Insulated Roof Installation
- SR2 Insulated Standing Seam
- Insulated Wall Sheeting
- Single Curb Installation
- Double Curb Installation

SEAMING MANUALS

- CFR Standing Seam
- SR2 Insulated Standing Seam
- VR16 II Vertical Rib

SPECS & OTHER GUIDES

- Master Spec 13 34 19
- NBS Specification Guide
- Preventative Maintenance Manual

EMNOTE

BUILDING WALL PANEL FOAM CLOSURE REQUIREMENTS

CONTRACT CLOSURE SELECTION: YES ALL CONDITIONS, IF APPLICABLE

- BLDG. RAKE PARAPET: CLOSURES ALWAYS PROVIDED - STRAIGHT CLOSURES UP TO 1 1/2:12. BEVELED CLOSURES UP 9:12.
- BLDG. HIGH EAVE PARAPET: CLOSURES ALWAYS PROVIDED - STRAIGHT CLOSURES.
- BLDG. PARAPET GUTTER: CLOSURES ALWAYS PROVIDED - STRAIGHT CLOSURES.
- EAVE/RAKE EXTENSION WITH SOFFIT PANEL: CLOSURES ALWAYS PROVIDED.
- TRANSLUCENT WALL PANEL: CLOSURES ALWAYS PROVIDED.
- INSET/RECESSED WALLS: CLOSURES ALWAYS PROVIDED.
- BOXED CANOPIES: CLOSURES ALWAYS PROVIDED.
- CLOSED FASCIA'S: CLOSURES ALWAYS PROVIDED.
- BLDG. SCULPTURED/SIMPLE RAKE TRIM: STRAIGHT CLOSURES PROVIDED UP TO 1 1/2:12. BEVELED CLOSURES UP 9:12.
- BLDG. HIGH EAVE SCULPTURED/SIMPLE TRIM: STRAIGHT CLOSURES PROVIDED.
- BLDG. LOW EAVE SCULPTURED/SIMPLE/GUTTER/HORIZ GUTTER TRIM: STRAIGHT CLOSURES PROVIDED.
- BLDG. BASE TRIM: STRAIGHT CLOSURES PROVIDED.
- BLDG. FRAMED OPENING HEAD TRIM: STRAIGHT CLOSURES PROVIDED.
- BLDG. WAINSCOT TRANSITION: STRAIGHT CLOSURES PROVIDED.

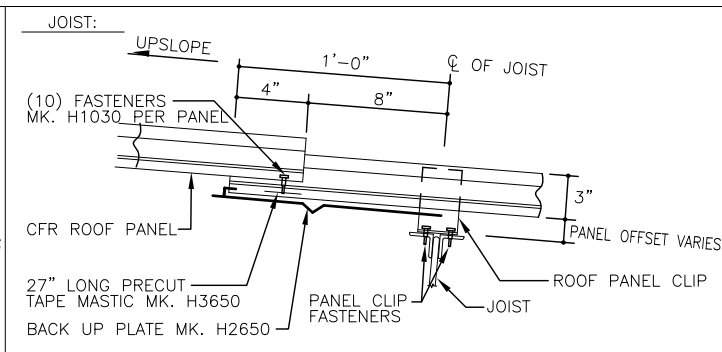
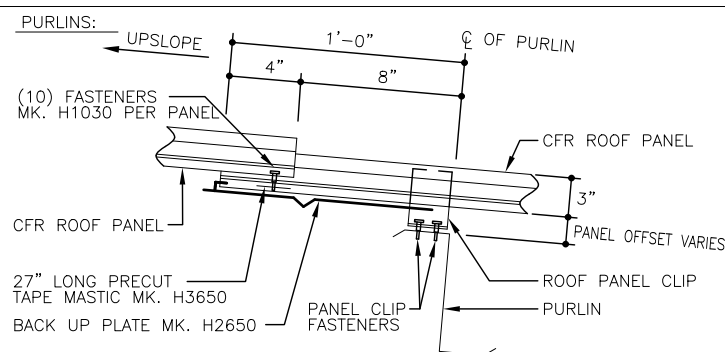
ERECTOR NOTES: SEE SPECIFIC CAD DETAILS & WALL PANEL ELEVATIONS FOR PART MARKS & CLOSURE LOCATIONS.

CLOSURE ALL

SEE CFR ERECTION MANUAL FOR PROPER INSTALLATION INSTRUCTIONS

ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
13.6; 13.7	END LAP ASSEMBLY INSTALLMENT INSTRUCTIONS



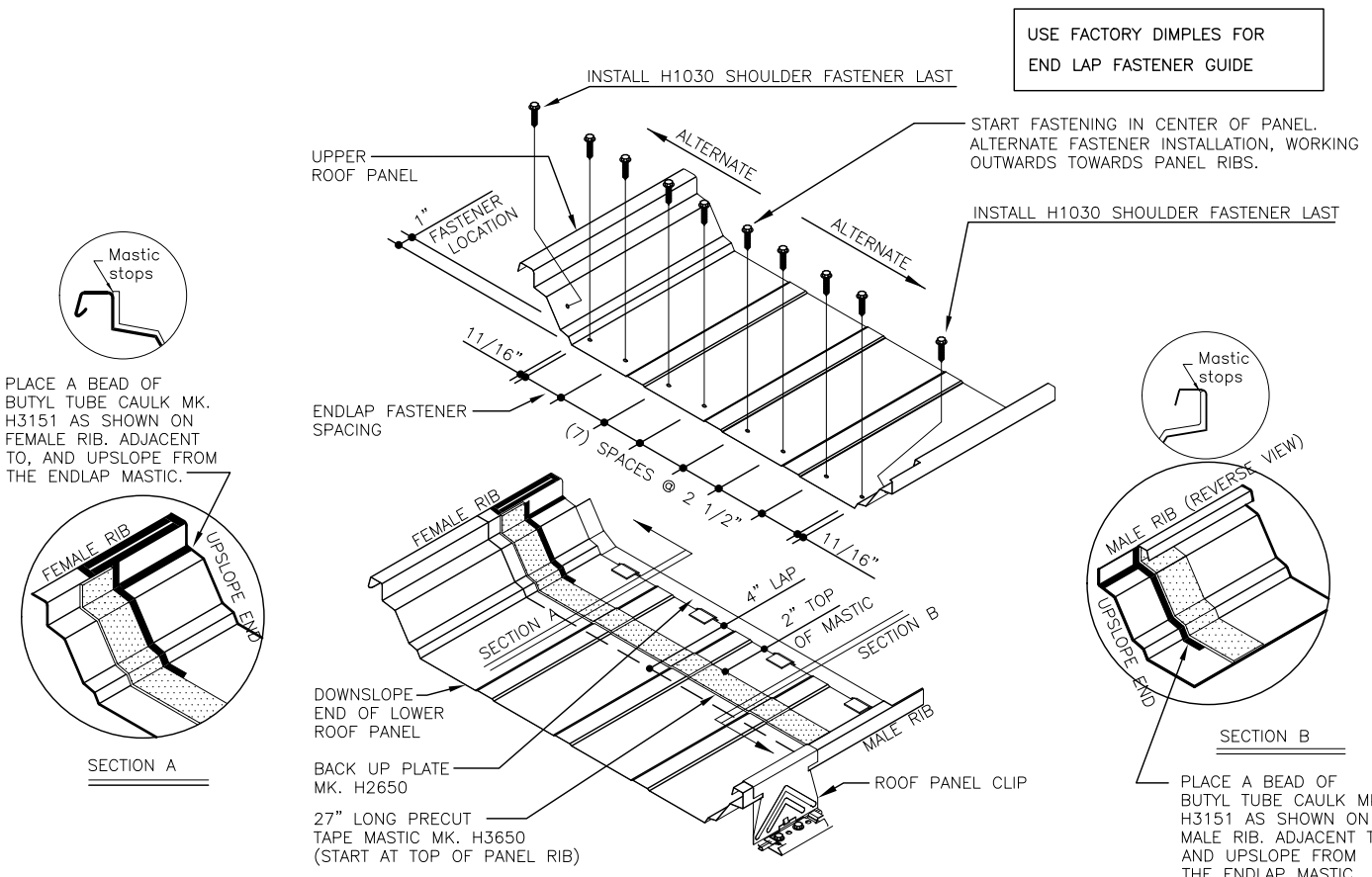
NOTE: WITH TALL CLIPS AND THERMAL BLOCKS, VERIFY THE BACK-UP PLATE IS ON TOP OF THE THERMAL BLOCK AND BLOCK IS LOCATED DIRECTLY OVER SECONDARY MEMBER.

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			MDC		

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SD3 of 15



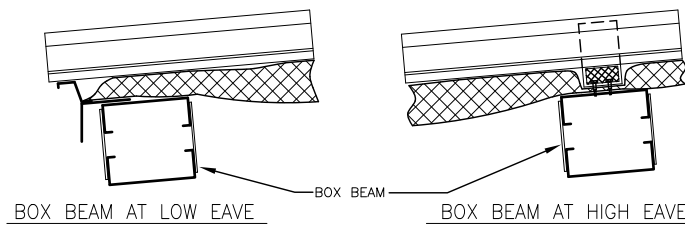
"CFR" PANEL SPLICE DETAIL

"CFR" ROOF WITH STRAIGHT OR STAGGERED ENDLAPS (SEE ROOF SHEETING PLAN)
 NOTE: INSULATION AND THERMAL BLOCKS NOT SHOWN FOR CLARITY

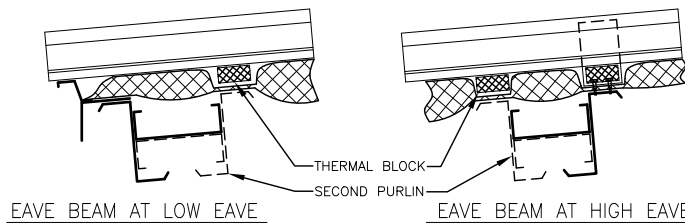
EA6021

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SPECIAL CONDITION AT A BOX BEAM

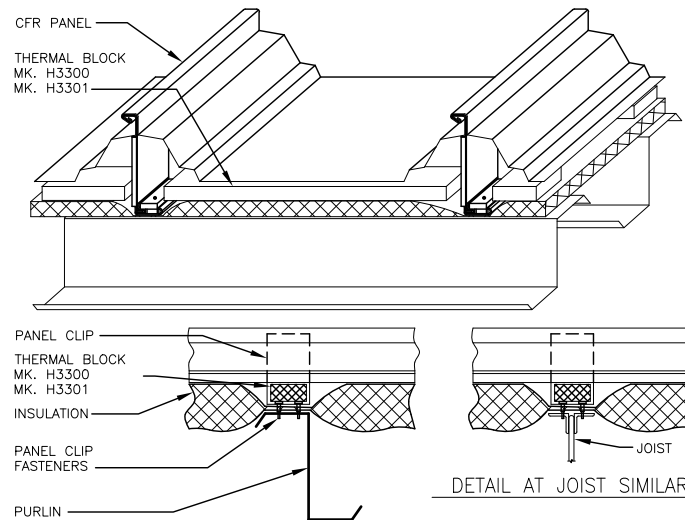


SPECIAL CONDITION AT AN EAVE BEAM



IF THIS PROJECT HAS AN EAVE BEAM WITH (2) PURLINS, AS SHOWN, DO NOT ATTACH ROOF CLIPS TO THE "SECOND" PURLIN. HOWEVER, THERMAL BLOCKS ARE PROVIDED FOR INSTALLATION AT THE SECOND PURLIN.

INSULATION TIE-OFF AT THE EAVES VARIES BASED ON THE EAVE CONDITION. REFER TO THE ROOF PANEL ERECTION MANUAL FOR DETAILS.



THERMAL BLOCK DETAIL AT TALL / SUPER CFR CLIPS
CFR ROOF WITH BATT INSULATION

EA6022

SEE CFR ERECTION MANUAL FOR PROPER INSTALLATION INSTRUCTIONS

ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
10.6	INSULATION INSTALLATION
13.2	PRE-DRILLING FOR FULL PANEL MODULARITY
13.3	PANEL MODULARITY

THE INSTALLATION OF THE SYSTEM REQUIRES SPECIAL ATTENTION TO MAINTAIN PROPER PANEL MODULARITY AND THERMAL PERFORMANCE AS NOTED BELOW:

USE MODULARITY CLAMP(S) TO HOLD PANEL TRAPEZOID AT 5 1/16" WIDE ALONG FULL LENGTH OF PANEL SEAM, SEE SECTION A.

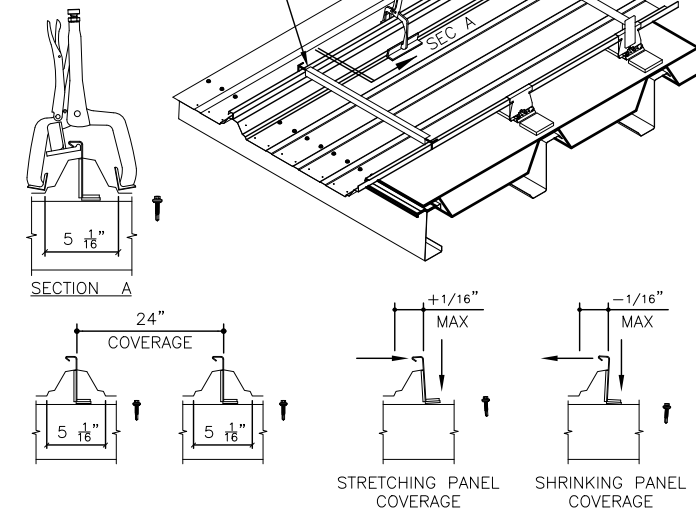
USE MODULARITY TOOL(S) TO HOLD PANEL CLIPS IN PLACE, PRIOR TO FASTENING, TO MAINTAIN A CONSTANT 24" WIDE PANEL COVERAGE.

DO NOT ADJUST THE PANEL WIDTH BY MORE THAN ± 1/8" ON ANY PANEL.

CFR ADJUSTABLE MODULARITY TOOL (BUYOUT) MK. H9510

CFR MODULARITY CLAMP (BUYOUT) MK. H7100

CFR MODULARITY TOOL (SUPPLIED) MK. MTB01

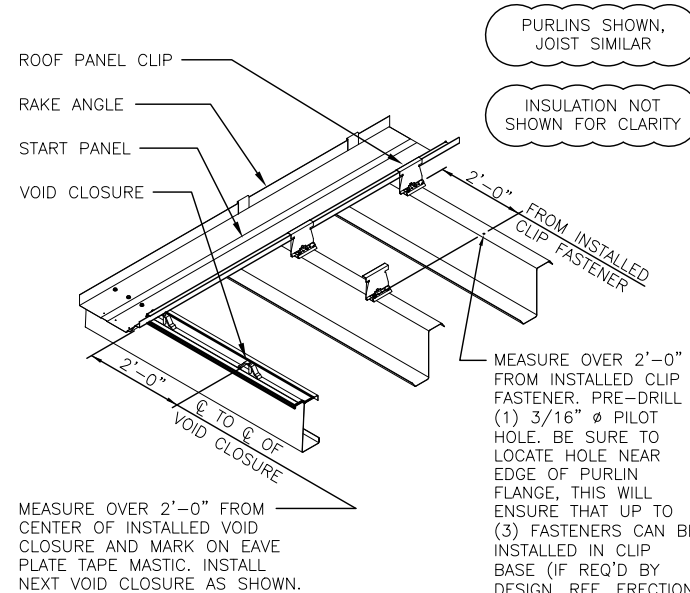


CORRECT PANEL MODULARITY

ADJUSTING PANEL MODULARITY

PRE-DRILL ONE PILOT HOLE FOR ROOF PANEL CLIPS AT MID-SPANS, HIGH SIDE OR RIDGE AND PANEL END LAPS, IF ANY.

INSTALL NEXT VOID CLOSURE AT BUILDING EAVE.

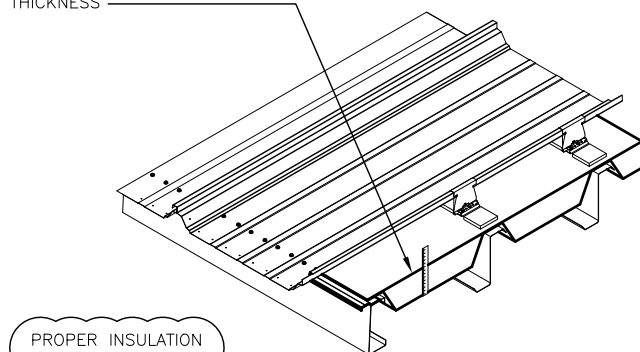


MEASURE OVER 2'-0" FROM CENTER OF INSTALLED VOID CLOSURE AND MARK ON EAVE PLATE TAPE MASTIC. INSTALL NEXT VOID CLOSURE AS SHOWN.

MEASURE OVER 2'-0" FROM INSTALLED CLIP FASTENER. PRE-DRILL (1) 3/16" Ø PILOT HOLE. BE SURE TO LOCATE HOLE NEAR EDGE OF PURLIN FLANGE, THIS WILL ENSURE THAT UP TO (3) FASTENERS CAN BE INSTALLED IN CLIP BASE (IF REQ'D BY DESIGN. REF. ERECTION DRAWINGS FOR FASTENER REQUIREMENTS).

ENSURE THE INSULATION IS PERMITTED TO SAG AT MID-SPAN BETWEEN ROOF SECONDARY MEMBERS AND EXPANDED TO THE FULL THICKNESS.

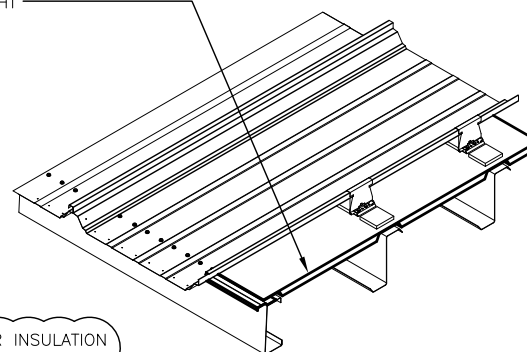
SINGLE OR MULTI LAYERS OF FIBERGLASS BLANKET INSULATION, EXPANDED TO FULL THICKNESS



PROPER INSULATION AT MID-SPAN

DO NOT PULL THE INSULATION TAUT AS THIS WILL SIGNIFICANTLY REDUCE THE THERMAL PERFORMANCE OF THE ROOF SYSTEM AND COULD CAUSE ROOF PANEL MODULARITY ISSUES.

SINGLE OR MULTI LAYERS OF LAYERS FIBERGLASS BLANKET INSULATION, PULLED TOO TIGHT



IMPROPER INSULATION AT MID-SPAN

GUIDANCE TO INSTALLING SINGLE OR MULTI LAYERS OF INSULATION WITH "CFR" ROOF

SPECIAL ATTENTION TO ABOVE STEPS TO MAINTAIN PROPER PANEL MODULARITY AND THERMAL PERFORMANCE IS CRITICAL, FAILURE TO DO SO WILL RESULT IN UNSIGHTLY PANEL APPEARANCE.

EA6025

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PE	

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OKLAHOMA CITY, OK

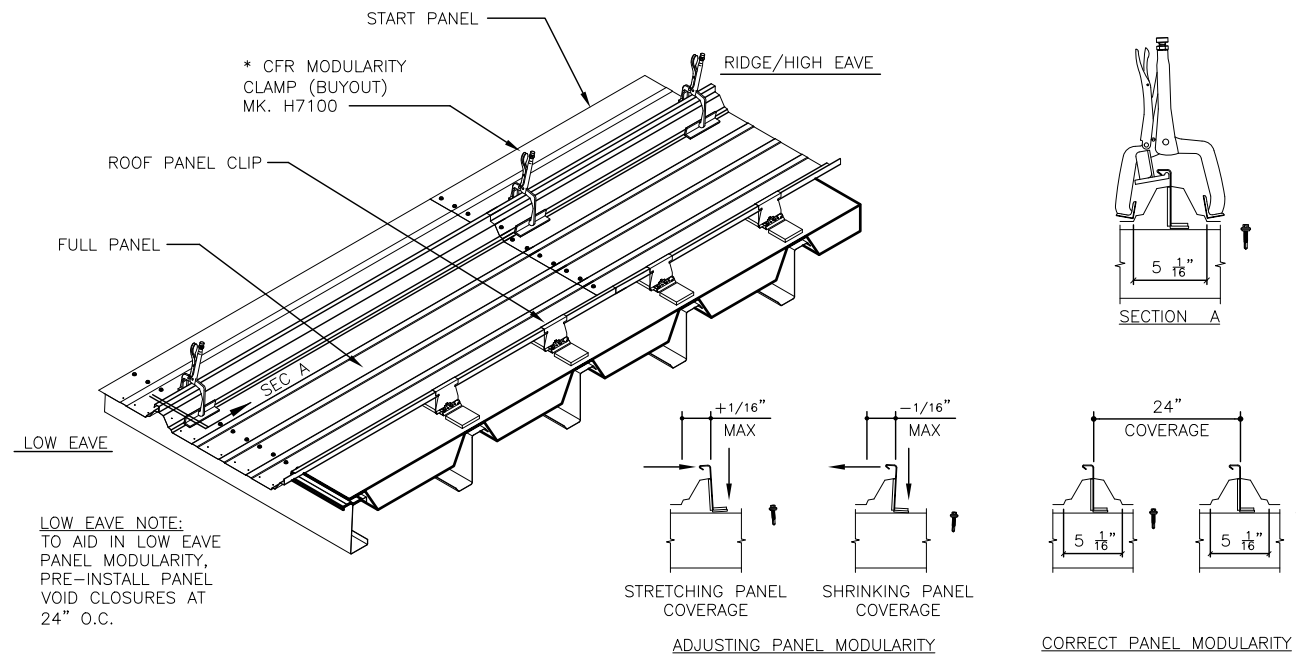
JOB NUMBER
T22E0442A
SHEET TITLE
SHEETING DETAILS

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SHEET
SD4 of 15

GUIDANCE FOR MAINTAINING PANEL MODULARITY WITH ANY INSULATION THICKNESS

* CFR MODULARITY CLAMP (H7100) CAN BE ORDERED THROUGH YOUR LOCAL NBS COMPONENTS DEPARTMENT OR ONLINE THROUGH WWW.NUCORSTEELSTORE.COM

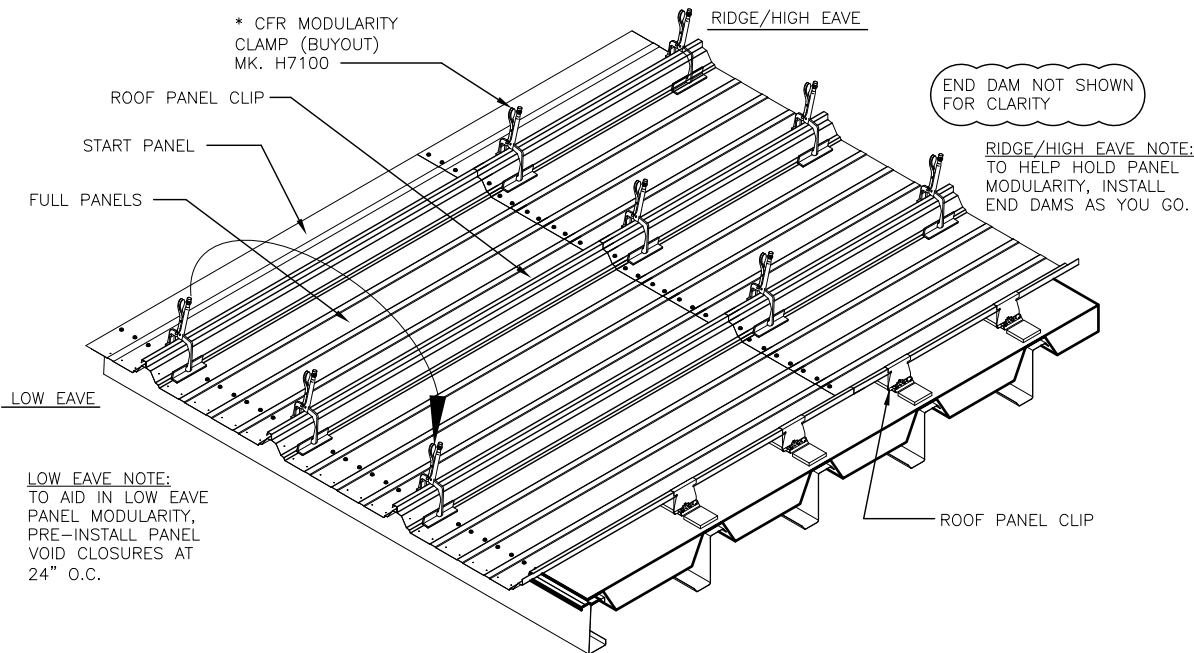
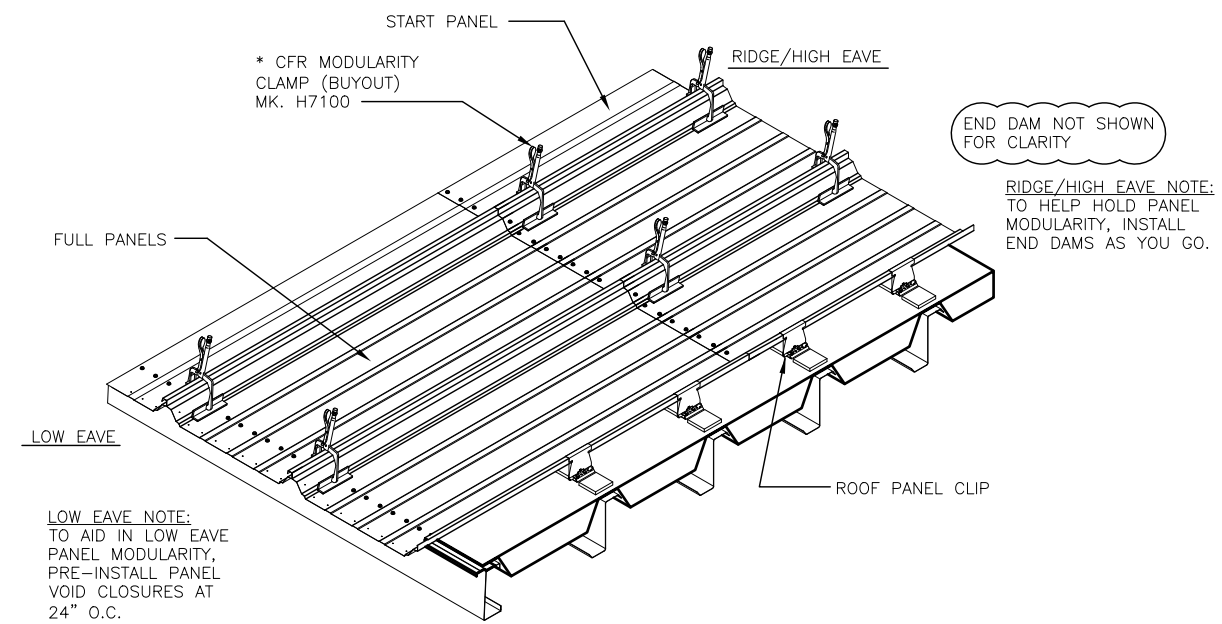


STAGE #1

1. AFTER THE FIRST FULL LOW EAVE PANEL IS INSTALLED, APPLY THE FIRST CLAMP AS SHOWN.
2. INSTALL THE EAVE PLATE FASTENERS TO FULL EAVE PANEL.
3. HINT: ADD CLAMPS TO SEAM BEFORE PANEL CLIP IS FASTENED DOWN.
4. AS PANEL INSTALLATION PROGRESS'S, INSTALL MORE CLAMPS UPSLOPE AS SHOWN.
5. ADD, ADJUST OR LEAVE CLAMPS OFF TO MAINTAIN PANEL MODULARITY AS NECESSARY.
6. LEAVE CLAMPS ON FIRST FULL SEAM.

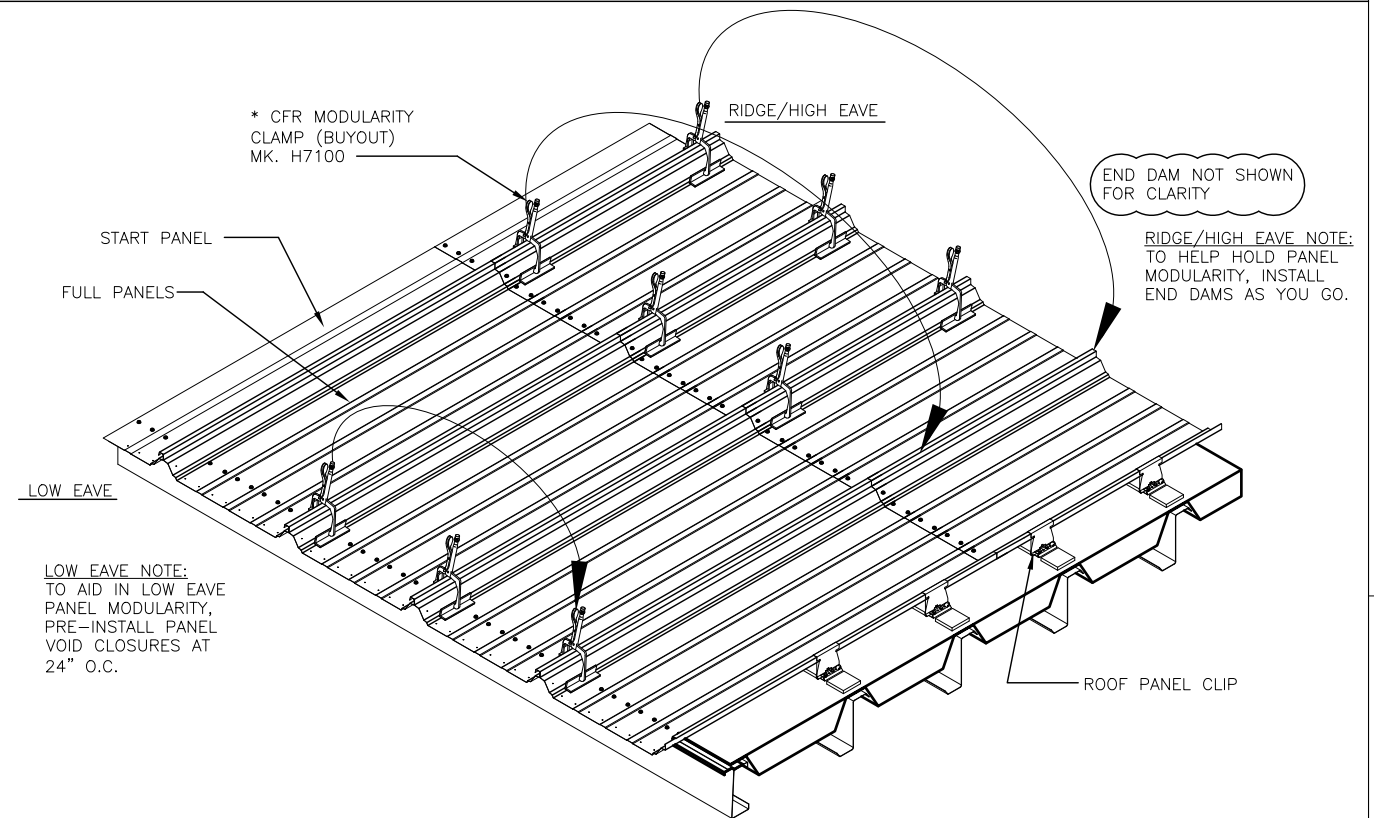
STAGE #2

1. INSTALL THE NEXT LOW EAVE PANEL AND ADD CLAMP.
2. REPEAT STEPS 2 THROUGH 5 FROM STAGE #1 NOTES.
3. LEAVE CLAMPS ON FIRST AND SECOND FULL SEAM.



STAGE #3

1. KEEP CLAMPS IN PLACE ON THE FIRST TWO SEAMS WITH THE EXCEPTION OF THE LOW EAVE CLAMP.
2. INSTALL THE NEXT LOW EAVE PANEL AND LEAP FROG CLAMP AS SHOWN.
3. REPEAT STEPS 2 THROUGH 5 FROM STAGE #1 NOTES.



STAGE #4

1. KEEP CLAMPS IN PLACE ON THE FIRST TWO SEAMS WITH THE EXCEPTION OF THE LOW EAVE CLAMP.
2. INSTALL THE NEXT LOW EAVE PANEL AND LEAP FROG THE CLAMP AS SHOWN.
3. INSTALL EAVE PLATE FASTENERS.
4. AS PANEL INSTALLATION PROGRESS'S, LEAP FROG CLAMPS FROM THREE SEAMS BACK ONTO PANEL SEAM AS SHOWN.
5. MAINTAIN TWO RUNS OF CLAMPS ON PREVIOUS SEAMS AS PANEL INSTALLATION CONTINUES.
6. REPEAT ALL STEPS / STAGES OF THIS METHOD THROUGHOUT THE ROOF PANEL ERECTION.

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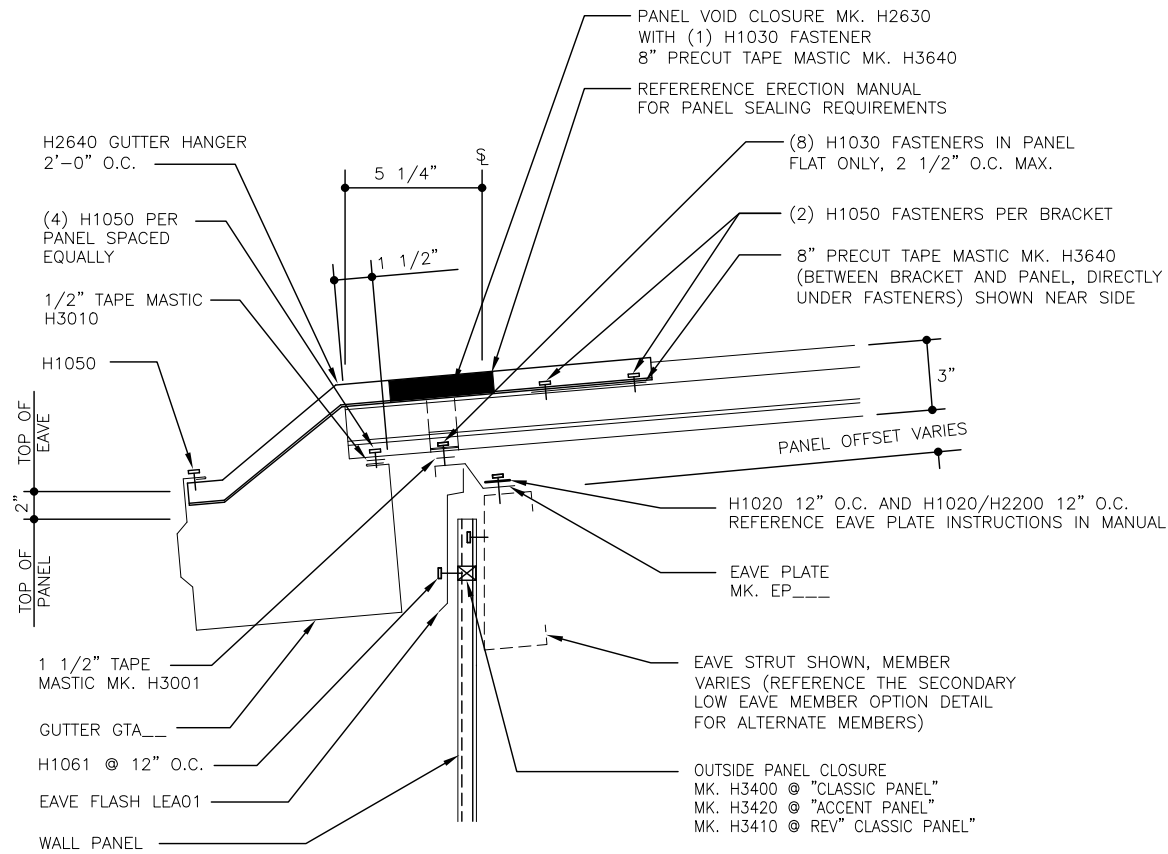
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SD5 of 15

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CFR ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
10.4	EAVE PLATE INSTRUCTIONS
10.6	INSULATION TIE-OFF INSTRUCTIONS
10.8; 10.9	RAKE CLIP/RAKE ANGLE INSTRUCTIONS
11.3	VOID CLOSURE/SEALANT
16.1; 16.2	LOW EAVE FLASH & CLOSURE INSTRUCTIONS
16.3-16.5; 16.7	GUTTER INSTRUCTIONS



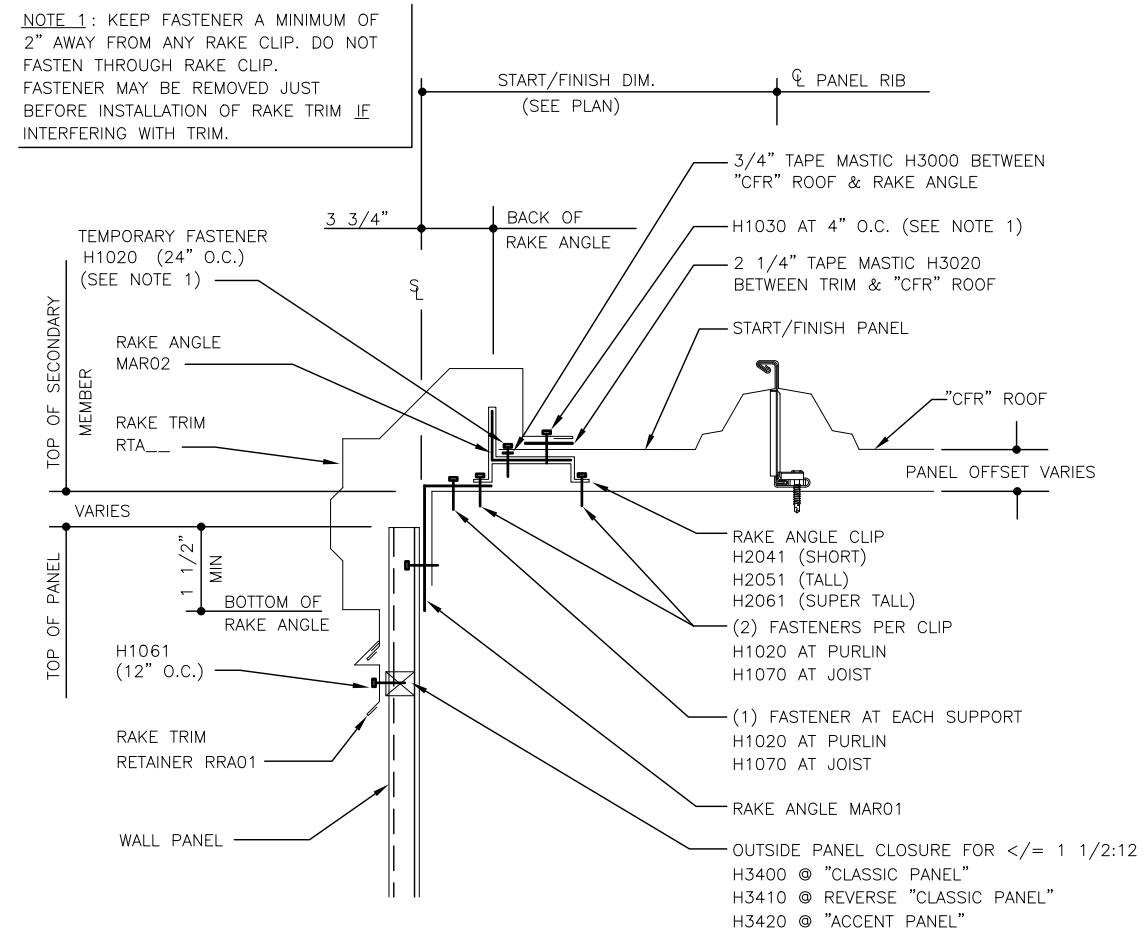
EAVE GUTTER DETAIL

"CFR" ROOF
SEE WALL SHEETING ERECTION NOTES FOR WALL PANEL FASTENER LOCATIONS

ED6010

CFR ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
10.5; 10.6	UNDERSTANDING RAKE CLIP/ANGLE INSTRUCTIONS
10.8; 10.9	RAKE CLIP/RAKE ANGLE INSTALLMENT INSTRUCTIONS
10.12	FINAL PRE-PANEL INSTRUCTIONS
11.2-11.4	CFR START PANEL INSTRUCTIONS
16.6-16.9	RAKE TRIM & CLOSURE INSTRUCTIONS



SCULPTURED RAKE DETAIL

"CFR" ROOF
SEE WALL SHEETING ERECTION NOTES FOR WALL PANEL FASTENER LOCATIONS

EE6010

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T22E0442A
SHEET TITLE
SHEETING DETAILS

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SHEET
SD6 of 15

SEE ERECTION MANUALS FOR FURTHER INSTALLATION INSTRUCTIONS

CFR ERECTION MANUAL QUICK REFERENCE:

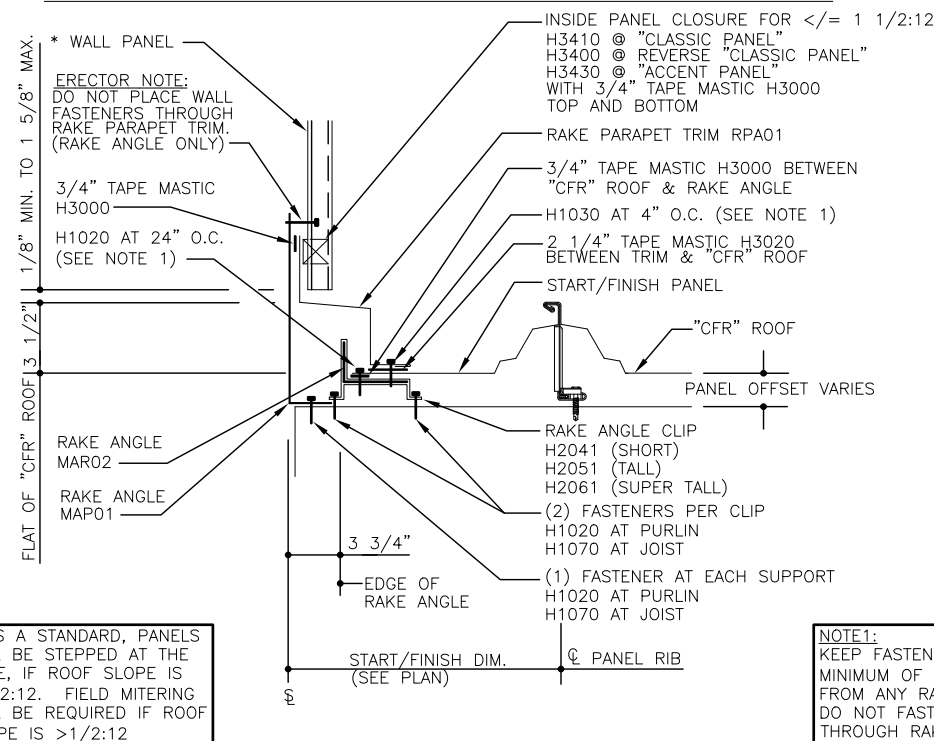
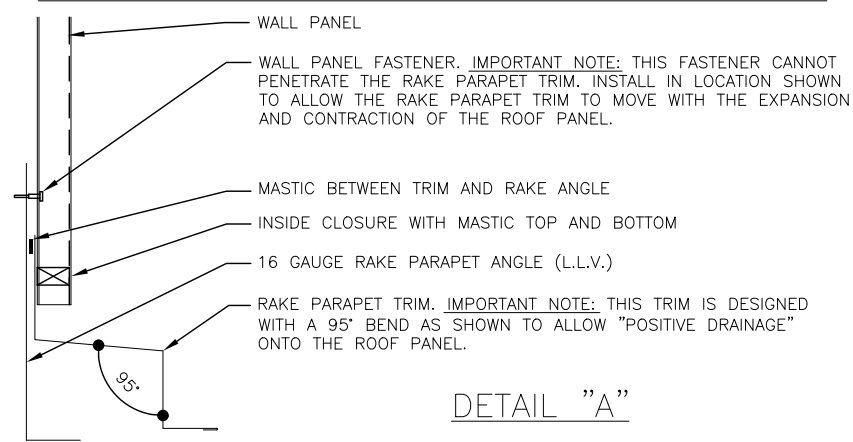
SECTION(S)	DESCRIPTION
10.5; 10.6	UNDERSTANDING RAKE CLIP/ANGLE INSTRUCTIONS
10.8; 10.9	RAKE CLIP/RAKE ANGLE INSTALLMENT INSTRUCTIONS
10.12	FINAL PRE-PANEL INSTRUCTIONS
11.2-11.4	CFR START PANEL INSTRUCTIONS
16.12-16.13	RAKE PARAPET TRIM INSTRUCTIONS

NOTES:
ALWAYS BEGIN THE RAKE PARAPET TRIM INSTALLATION STARTING AT THE LOW EAVE AND WORK TOWARD THE HIGH EAVE OR RIDGE.

THE RAKE PARAPET TRIM IS DESIGNED TO HAVE "POSITIVE DRAINAGE" ONTO THE ROOF. THIS IS TO HELP ALLEVIATE THE POSSIBILITY OF WATER PONDING ON THE TRIM. SEE DETAIL "A" BELOW.

FASTEN THE RAKE PARAPET TRIM TO THE ROOF PANEL AT 4" ON CENTER, MAKING SURE THAT NO FASTENERS HIT ANY OF THE RAKE CLIP LOCATIONS. KEEP FASTENER A MINIMUM OF 2" AWAY FROM ANY RAKE CLIP.

REFER TO THE CFR ERECTION MANUAL FOR ADDITIONAL TRIM LAP INFORMATION AND DETAILS.



* AS A STANDARD, PANELS WILL BE STEPPED AT THE BASE, IF ROOF SLOPE IS $\leq 1/2:12$. FIELD MITERING WILL BE REQUIRED IF ROOF SLOPE IS $> 1/2:12$

NOTE1:
KEEP FASTENER A MINIMUM OF 2" AWAY FROM ANY RAKE CLIP. DO NOT FASTEN THROUGH RAKE CLIP.

RAKE PARAPET DETAIL

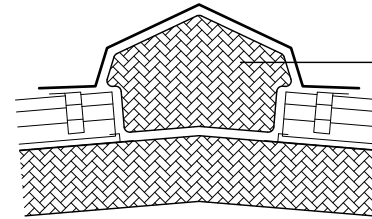
"CFR" ROOF
SEE WALL SHEETING ERECTION NOTES FOR WALL PANEL FASTENER LOCATIONS

EF6010

SEE ERECTION MANUALS FOR FURTHER INSTALLATION INSTRUCTIONS

CFR ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
16.23	RIDGE CAP LAP DETAILS

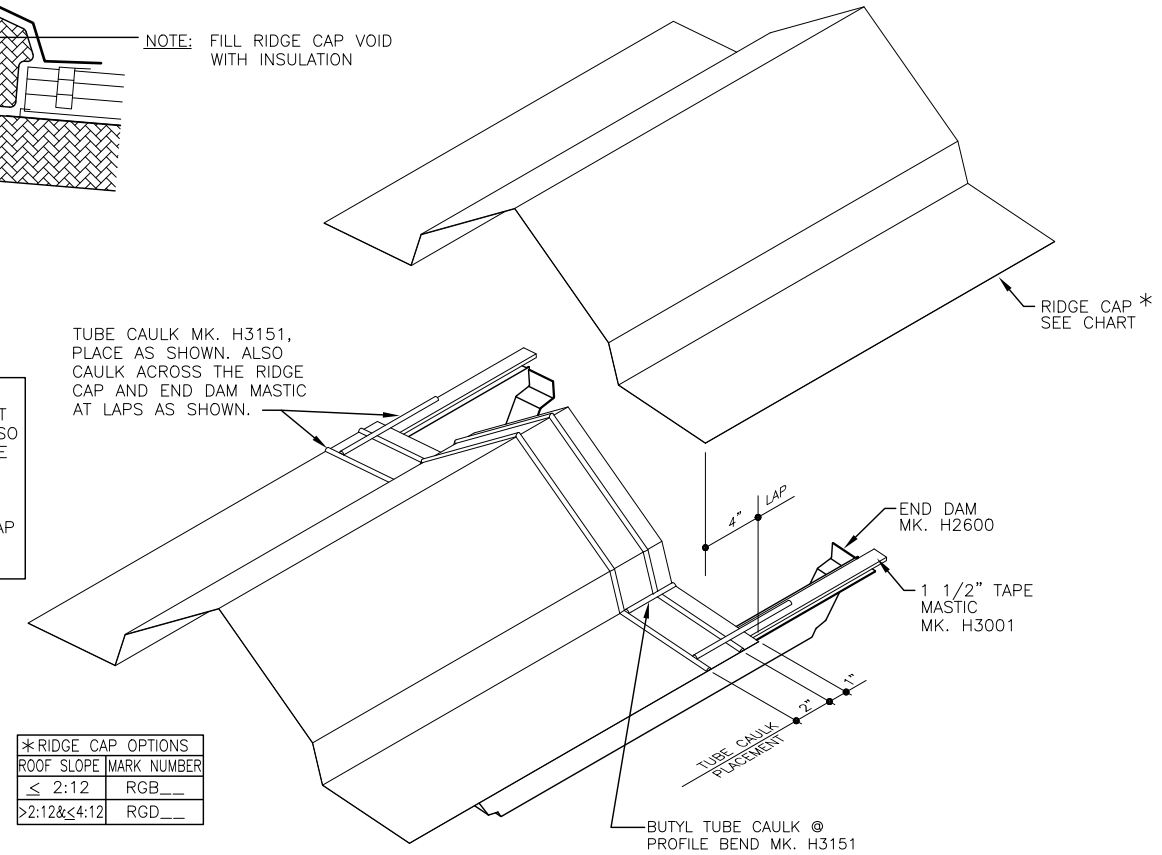


NOTE: FILL RIDGE CAP VOID WITH INSULATION

ERECTOR NOTE:
DO NOT USE FASTENERS AT RIDGE CAP LAPS. DOING SO WILL NOT ALLOW THE RIDGE CAP TO EXPAND AND CONTRACT AS DESIGNED.
DO NOT LAP THE RIDGE CAP AT A PANEL RIB.

TUBE CAULK MK. H3151, PLACE AS SHOWN. ALSO CAULK ACROSS THE RIDGE CAP AND END DAM MASTIC AT LAPS AS SHOWN.

* RIDGE CAP OPTIONS	
ROOF SLOPE	MARK NUMBER
$\leq 2:12$	RGB
$> 2:12 \& \leq 4:12$	RGD



RIDGE CAP LAP DETAIL

NOTE: FILL RIDGE CAP VOID WITH INSULATION.

EG6005

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PROJECT NAME
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ADA, OK
 CUSTOMER NAME
TITAN CONSTRUCTION, LLC
OKLAHOMA CITY, OK

JOB NUMBER
T22E0442A
 SHEET TITLE
SHEETING DETAILS

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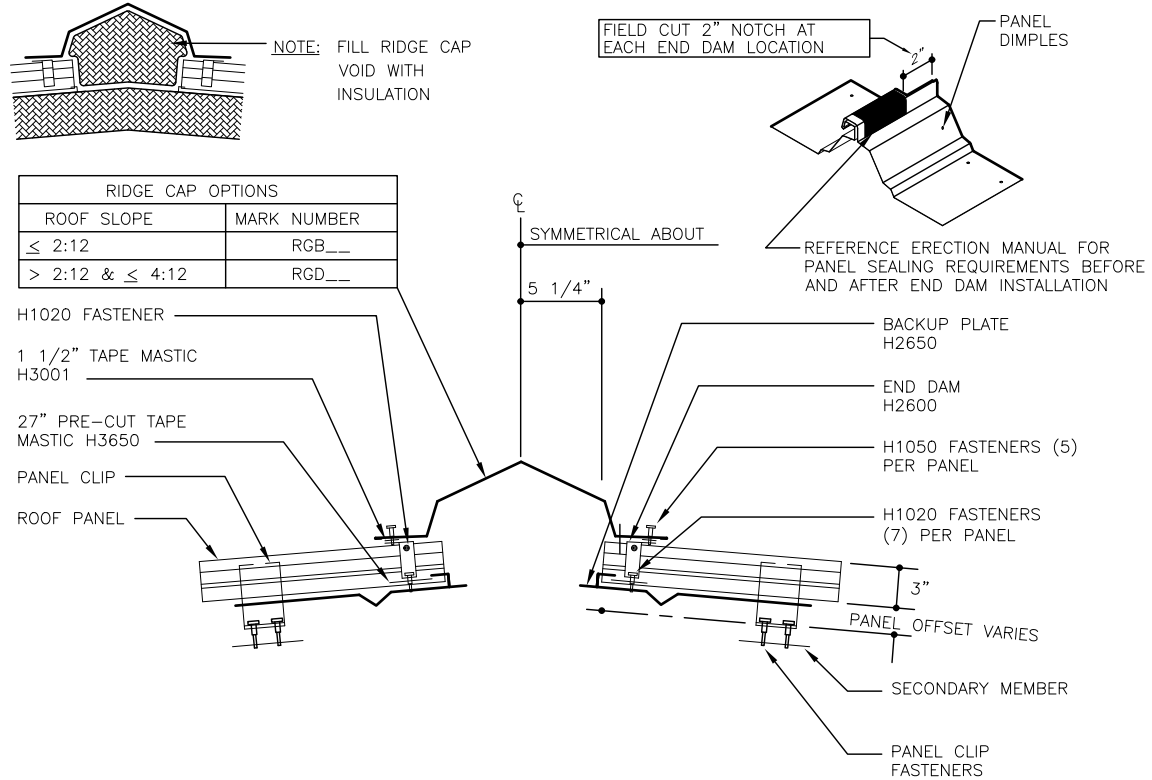
SHEET
SD7 of 15

SEE ERECTION MANUALS FOR FURTHER INSTALLATION INSTRUCTIONS

CFR ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
12.5	CFR PANEL SEALANT
13.8-13.10	END DAM INSTALLMENT INSTRUCTIONS CHECK LIST: 2" FIELD NOTCH, HAND CRIMP, PIG TAIL, BACK-UP PLATE, SEALANTS, END DAM, & FILL ALL VOIDS WITH INSULATION
16.15	END DAM PREPARATION
16.20-16.24	RIDGE CAP

ERECTOR NOTE: H1020 FASTENERS AT PURLINS/H1070 FASTENERS AT JOISTS & H2200 INSULATION WASHERS HAVE BEEN SUPPLIED AT 12" O.C. FOR INSULATION ATTACHMENT AT THE RIDGE. FIELD NOTCH PANELS AS NEEDED TO ALLOW FOR PROPER END DAM FIT UP.



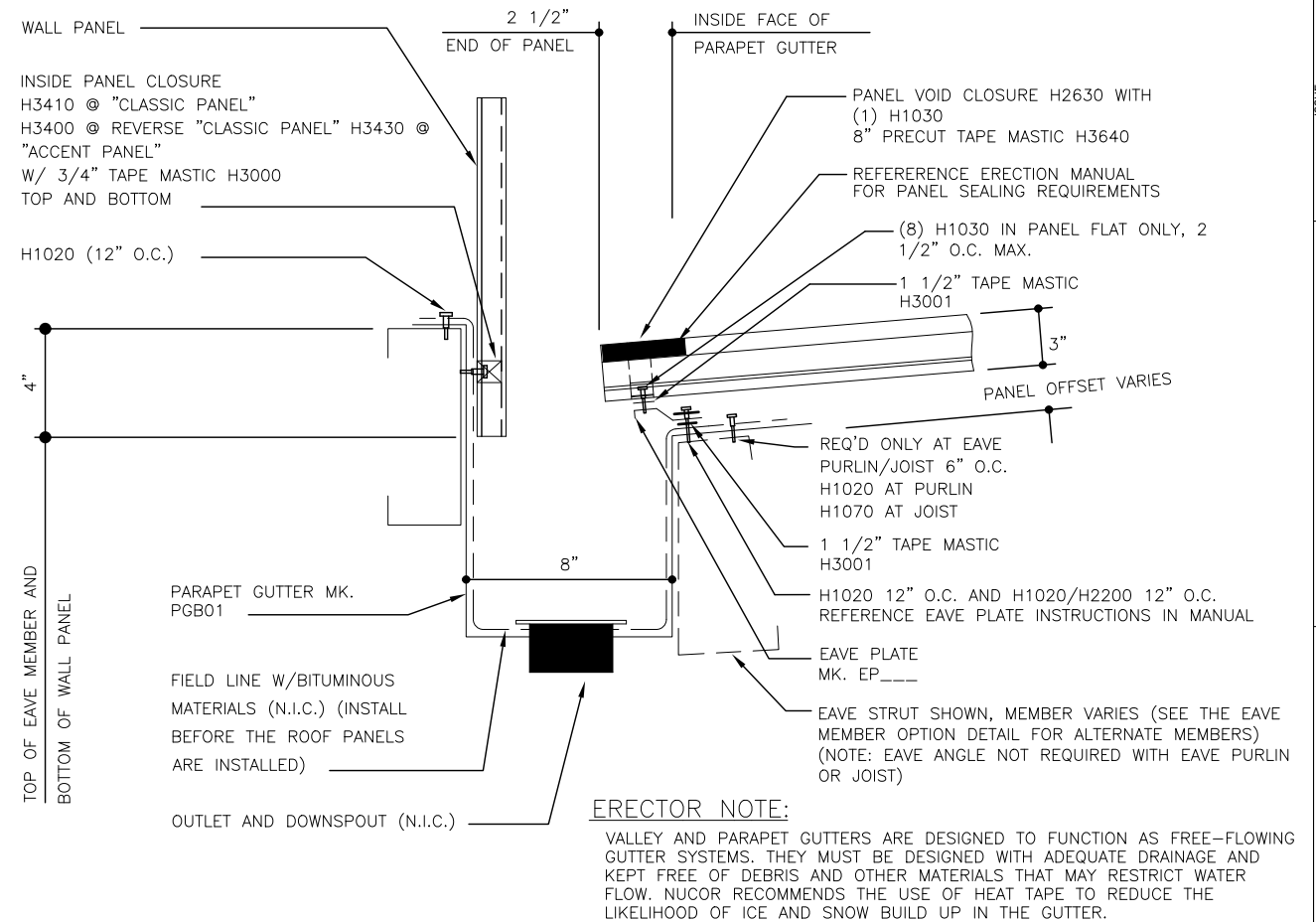
RIDGE DETAIL

EG6050

SEE ERECTION MANUALS FOR FURTHER INSTALLATION INSTRUCTIONS

CFR ERECTION MANUAL QUICK REFERENCE:

SECTION(S)	DESCRIPTION
10.4	EAVE PLATE INSTRUCTIONS
10.6	INSULATION TIE-OFF INSTRUCTIONS
10.8; 10.9	RAKE CLIP/RAKE ANGLE INSTRUCTIONS
11.3	VOID CLOSURE/SEALANT



PARAPET GUTTER DETAIL

"CFR" ROOF

EK6020

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			MDC	KJ		

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NORTH AMERICAN

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ADA, OK

CUSTOMER NAME
TITAN CONSTRUCTION, LLC
OKLAHOMA CITY, OK

JOB NUMBER
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SHEETING DETAILS

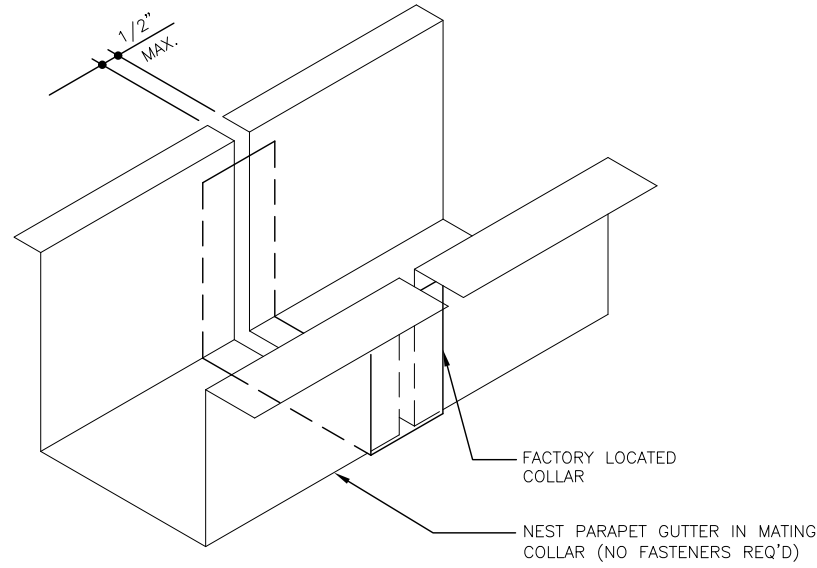
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SD8 of 15

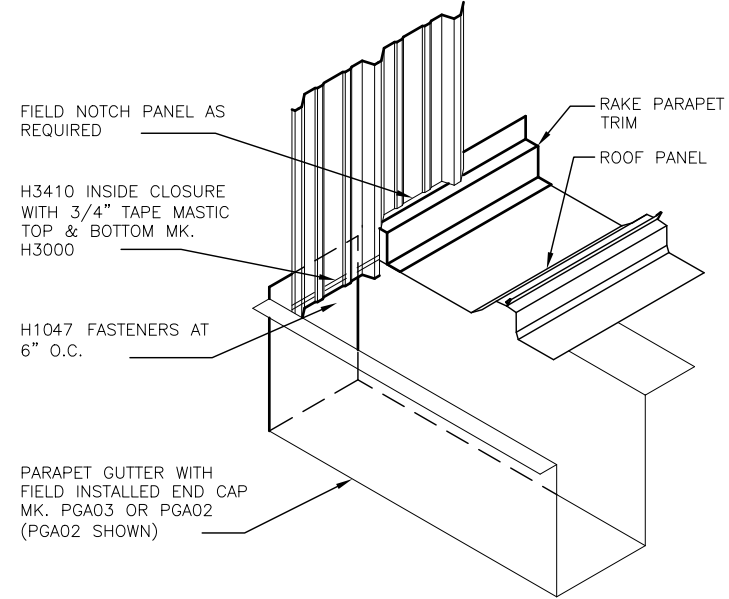
SEE ERECTION MANUALS FOR FURTHER INSTALLATION INSTRUCTIONS

CFR ERECTION MANUAL QUICK REFERENCE:

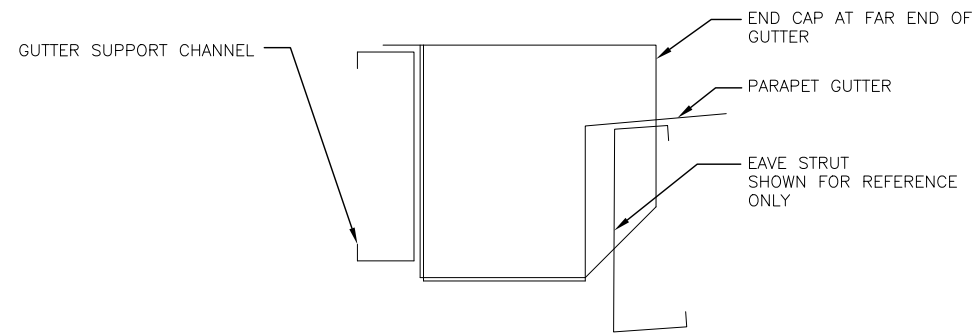
SECTION(S)	DESCRIPTION
10.4	EAVE PLATE INSTRUCTIONS
10.6	INSULATION TIE-OFF INSTRUCTIONS
10.8; 10.9	RAKE CLIP/RAKE ANGLE INSTRUCTIONS
11.3	VOID CLOSURE/SEALANT



SPLICE DETAIL



GUTTER TERMINATION AT BACK PANEL
"CFR" OR "VR16" ROOF

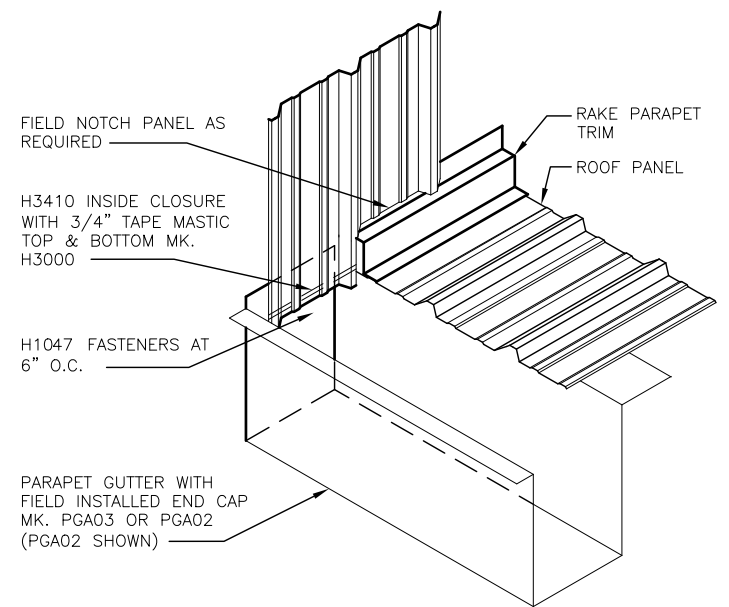


LEFT AND RIGHT PARAPET END CAP PART NUMBERS
USE PGA02 AT THE FAR END OF THE GUTTER
USE PGA03 AT THE NEAR END OF THE GUTTER

END CAP ORIENTATION DETAIL

- NOTES:
- 1) FIELD WELD THE PARAPET GUTTER END CAP TO THE PARAPET GUTTER.
 - 2) RUBBER LINER FOR PARAPET GUTTERS IS NOT SUPPLIED BY NUCOR BUILDING SYSTEMS. INSTALL BEFORE THE ROOF PANELS ARE INSTALLED.

PARAPET GUTTER INSTALLATION DETAILS



GUTTER TERMINATION AT BACK PANEL
"CLASSIC" ROOF

ISSUE	DWN	CHK	ENG	PE	DATE
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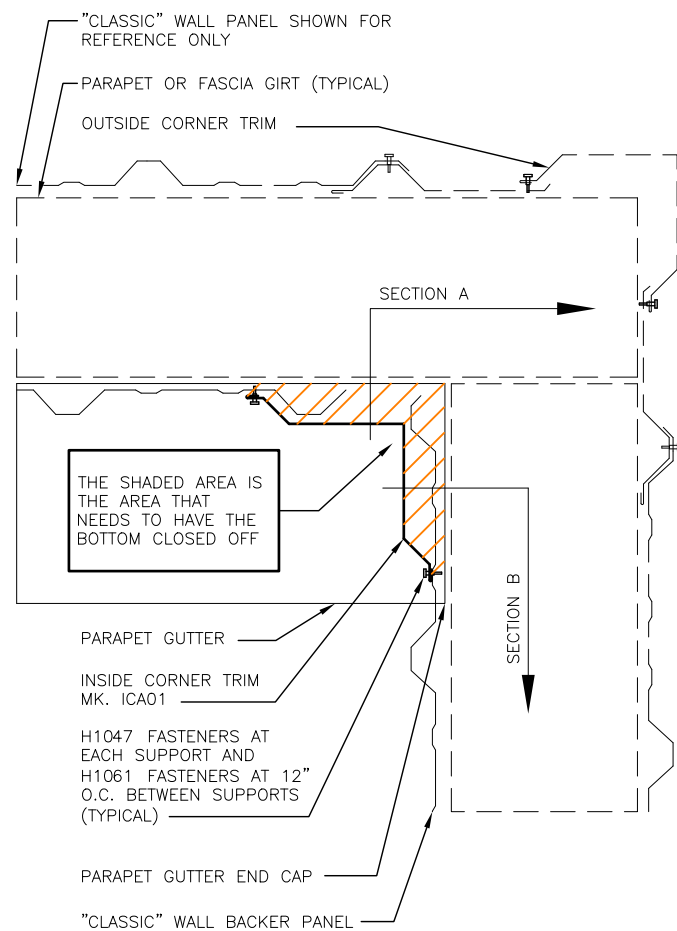
SEE ERECTION MANUALS FOR FURTHER INSTALLATION INSTRUCTIONS

CFR ERECTION MANUAL QUICK REFERENCE:

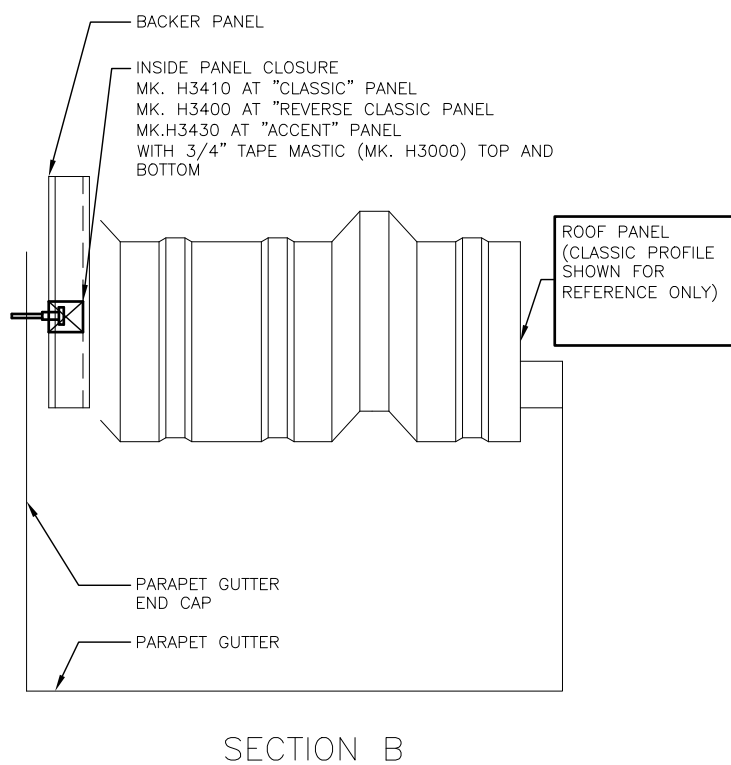
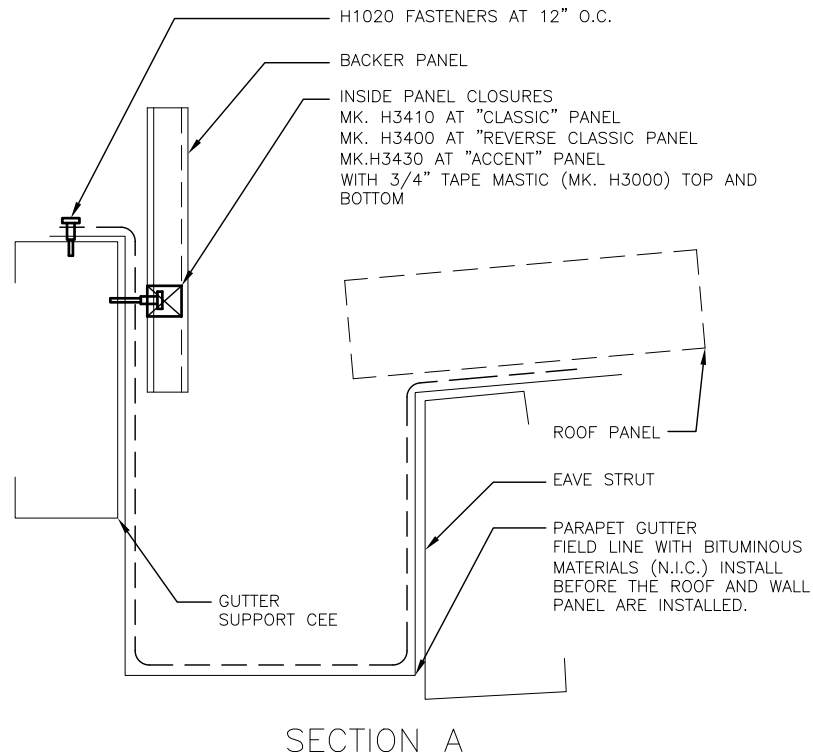
SECTION(S)	DESCRIPTION
10.4	EAVE PLATE INSTRUCTIONS
10.6	INSULATION TIE-OFF INSTRUCTIONS
10.8; 10.9	RAKE CLIP/RAKE ANGLE INSTRUCTIONS
11.3	VOID CLOSURE/SEALANT

ERECTOR NOTES

- 1) AT THE INSIDE CORNER OF A STRUCTURAL PARAPET OR CLOSED FASCIA SYSTEM, THE INSIDE CORNER TRIM NEEDS TO BE CLOSED OFF FOR WEATHERTIGHTNESS. THE DETAIL BELOW SHOWS THIS AREA AS "SHADED".
- 2) THE SHADED AREA NEEDS TO HAVE THE BOTTOM CLOSED OFF BY A FIELD FABRICATED ENDCAP OR BY FIELD BENDING THE LEGS OF THE INSIDE CORNER TRIM. USE POP RIVETS TO SECURE AS REQUIRED.
- 3) FIELD CAULK AS REQUIRED WITH TUBE CAULK MK. H3152.
- 4) SECTIONS "A" AND "B" SHOW "CLASSIC" ROOF PROFILE FOR REFERENCE ONLY. THE DETAIL APPLIES TO ALL ROOF TYPES.
- 5) REFERENCE THE "WALL SHEETING ERECTION NOTES" DETAIL FOR WALL PANEL FASTENER REQUIREMENTS.
- 6) REFER TO DETAIL  FOR PARAPET GUTTER SPLICE INSTRUCTIONS.
- 7) REFER TO DETAIL  FOR ADDITIONAL ENDWALL BACKER PANEL AT PARAPET GUTTER INSTRUCTIONS.



INSIDE CORNER DETAIL AT PARAPET (OR FASCIA) GUTTER



EK6210

ISSUE	DWN	CHK	ENG	PE	DATE
FINALS	MDC	KJ	PRS		11/30/2022

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SD 10 of 15

RECEIVING MATERIALS & FILING CLAIMS

THIS BUILDING IS DESIGNED, MANUFACTURED, AND DELIVERED IN ACCORDANCE WITH MOST RECENT ADDITION OF THE M.B.M.A. METAL BUILDING SYSTEMS MANUAL. CONSULT THE INFORMATION IN THE "COMMON INDUSTRY PRACTICES" SECTION.

CHECK SHIPMENT AGAINST DELIVERY TICKETS DURING UNLOADING.

NOTE ANY DAMAGE OR DISCREPANCIES ON THE DELIVERY TICKETS BEFORE SIGNING AS RECEIVER.

METAL BUILDING SUPPLIER IS NOT RESPONSIBLE FOR CARRIER DAMAGE OR DISCREPANCIES NOT NOTED ON THE DELIVERY TICKETS.

THE CUSTOMER ASSUMES FULL RESPONSIBILITY FOR THE CONDITION OF THIS MATERIAL AFTER DELIVERY BY THE TRUCKING COMPANY.

METAL BUILDING SUPPLIER IS NOT RESPONSIBLE FOR ITEMS ACCEPTED IN QUESTIONABLE CONDITION.

UPON ACCEPTANCE OF SHIPMENT(S), THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER STORAGE AND HANDLING OF MATERIALS AS DESCRIBED IN METAL BUILDING SUPPLIER'S DOCUMENTATION.

METAL BUILDING SUPPLIER IS NOT RESPONSIBLE FOR INJURY, DAMAGE, OR LOSS AS A RESULT OF IMPROPER STORAGE AND/OR HANDLING.

ALL CLAIMS MUST BE FILED WITH METAL BUILDING SUPPLIER'S QUALITY SERVICES REPRESENTATIVE PRIOR TO ANY FIELD MODIFICATIONS OR PURCHASES THAT MAY RESULT IN A CHARGE TO METAL BUILDING SUPPLIER.

HANDLING MATERIALS

WALL PANELS ARE ROLLED AND BANDED, WITH A COVER PANEL PLACED TOP AND BOTTOM.

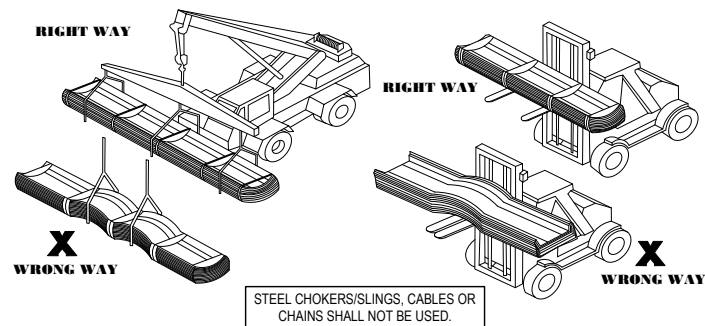
PANEL BUNDLE WEIGHT CAN BE FOUND ON I.D. TAG AT LOW END OF EACH BUNDLE. MAXIMUM WEIGHT IS 4300 POUNDS.

BUNDLES UP TO 25 FEET CAN BE HANDLED USING A FORKLIFT. FORKS MUST BE SPACED A MINIMUM OF FIVE FEET APART.

BUNDLES OVER 25 FEET SHOULD BE HANDLED WITH A CRANE USING A SPREADER BAR AND NYLON SLINGS. LIFTING SHOULD OCCUR AT CENTER OF GRAVITY.

LOCATE SLINGS AT 1/4 OF THE LENGTH OF THE PANEL FROM EACH END OF THE BUNDLE.

TRIM CRATES/BOXES ARE TO BE HANDLED THE SAME AS PANEL BUNDLES.



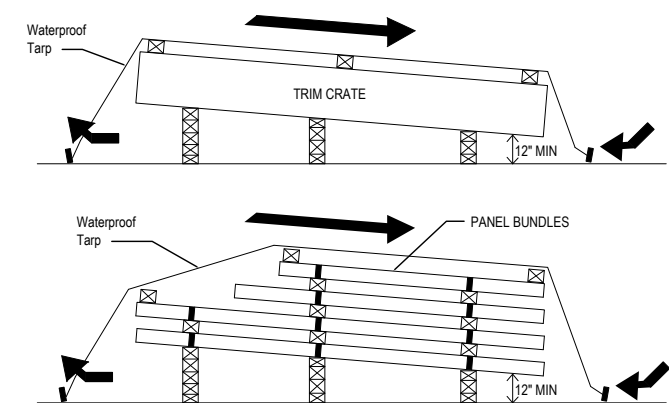
STORING MATERIALS

PANEL AND TRIM BUNDLES / CRATES SHOULD BE BLOCKED 12 INCHES ABOVE GRADE AND ELEVATE ONE END TO ALLOW MOISTURE TO DRAIN. IF THE PANELS ARE WET, THE BUNDLES SHOULD BE OPENED AND THEN THE PANELS SHOULD BE DRIED AND RE-STACKED TO PREVENT DAMAGE.

LOOSELY COVER WITH WATERPROOF TARP TO ALLOW PROPER AIR CIRCULATION. INSPECT DAILY AND DRY IF NECESSARY.

ACCESSORIES MUST BE KEPT DRY AND FREE OF CONTAMINATION. STORE INDOORS IF POSSIBLE.

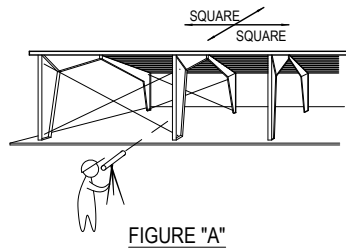
IMPORTANT NOTE: THE FINISH ON THESE PANELS MAY NOT PERFORM AS INTENDED IF NOT ERECTED WITHIN 90 DAYS FROM RECEIPT AT THE JOB SITE. THE FINISH IS ALSO SUBJECT TO SEVERE DAMAGE IF MOISTURE, DEBRIS, OR DUST IS ALLOWED TO GET BETWEEN THE PANELS; THEREFORE, PANELS MUST BE STORED UNDER COVER WITH ONE END ELEVATED TO ALLOW FOR DRAINAGE AND PROTECTION AGAINST MOISTURE, DUST, OR DEBRIS UNTIL ERECTED. THE MANUFACTURER WILL NOT ACCEPT CLAIMS FOR NON-PERFORMING PANELS IF NOT PROPERLY STORED AT THE JOBSITE. THE CUSTOMER ASSUMES FULL RESPONSIBILITY FOR THE CONDITION OF THIS MATERIAL AFTER DELIVERY BY THE TRUCKING COMPANY.



BUILDING & PANEL PREPARATION

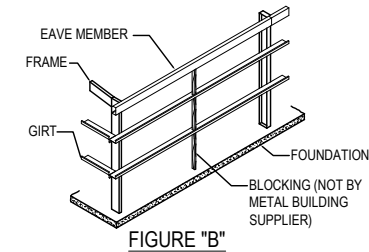
STEP 1: PLUMB AND SQUARE

THE FIRST STEP IN THE SUCCESSFUL INSTALLATION OF WALL PANELS IS TO HAVE THE PRIMARY FRAMING PLUMB AND SQUARE. FOR BEST RESULTS, IT IS RECOMMENDED THAT A TRANSIT BE USED WHEN ERECTING THE STRUCTURAL STEEL. MAKE SURE THAT THE FOUNDATION AND BUILDING STRUCTURE IS SQUARE, LEVEL, AND CORRECT TO THE OUT-TO-OUT STEEL LINE DIMENSIONS. SEE FIGURE "A"



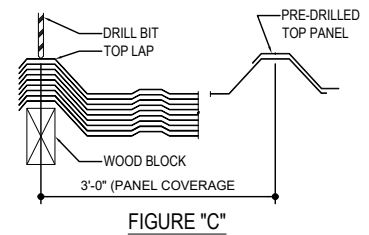
STEP 2: GIRT BLOCKING

BLOCK GIRTS TO "LEVEL" POSITION BEFORE STARTING THE WALL SHEETING OR INSULATION. CHECK TO BE SURE THAT THE EAVE STRUT AND GIRTS ARE STRAIGHT AND PLUMB. TO ALIGN THE GIRTS, CUT TEMPORARY WOOD BLOCKING TO THE PROPER LENGTH AND INSTALL BETWEEN THE LINES OF GIRTS. THIS BLOCKING CAN BE MOVED FROM BAY TO BAY WHICH WILL REDUCE THE NUMBER OF PIECES REQUIRED. NORMALLY, ONE LINE OF BLOCKING PER BAY WILL BE SUFFICIENT BUT WIDER BAYS MAY REQUIRE MORE. IT IS RECOMMENDED TO BLOCK AT LEAST TWO BAYS AND LEAP FROM THE BLOCKING AS A BAY IS SHEETED. BLOCKING SHOULD NOT BE REMOVED UNTIL THE FULL BAY HAS BEEN SHEETED. SEE FIGURE "B"



STEP 3: PRE-DRILL PANEL LAP

STACK PANELS WITH ENDS FLUSH ON A LEVEL PLACE ON THE GROUND IN PILES NOT EXCEEDING 10 PANELS. THEN PLACE SMALL WOODEN BLOCKS UNDER SIDE LAPPING EDGE OF STACK OF PANELS TO HOLD THEM AT CORRECT HEIGHT AND POSITION WHILE DRILLING FASTENER HOLES. HOLD PANELS TIGHTLY TOGETHER AT EACH END WITH CLAMPING PLIARS. CAREFULLY MARK POSITIONS FOR SIDELAP FASTENERS ON TOP OF HIGH RIB. FASTENERS SHOULD BE LOCATED "ON CENTER" OF HIGH RIB. DRILL HOLES FOR "STITCH" FASTENER (USE #1-.732" - 15/64" DRILL-BIT) ON TOP SHEET OF SIDELAP. BE SURE PANELS ARE WELL NESTED BEFORE DRILLING. SEE FIGURE "C"



FIELD CUTTING PANELS

WHEN FIELD CUTTING OR MITERING WALL PANELS, NON-ABRASIVE CUTTING TOOLS SUCH AS NIBBLERS OR TIN-SNIPS SHALL BE USED. ABRASIVE CUTTING TOOLS SUCH AS MECHANICAL GRINDERS OR POWER SAWS CAN DAMAGE THE MATERIAL FINISH AND CREATE EXCESS METAL SHAVINGS THAT CAN CORRODE THE PANELS. THE USE OF NON-APPROVED CUTTING DEVICES MAY VOID THE FACTORY WARRANTY.

ANY METAL SHAVINGS THAT ARE CREATED NEED TO BE CLEANED FROM THE PANEL TO PREVENT SCRATCHING AND/OR CORROSION. THE MANUFACTURER WILL NOT ACCEPT CLAIMS FOR DAMAGE/DETERIORATION DUE TO USE OF UNAPPROVED TOOLS.

FASTENER INSTALLATION

RECOMMENDED TOOL TYPES: SEE ALSO FASTENER SCHEDULE
4 AMP OR HIGHER RATED TOOLS (DO NOT USE IMPACTING TOOLS)
2000 - 2500 RPM SCREW GUN WITH TORQUE ADJUSTABLE CLUTCH
MANUAL OR ELECTRIC RIVET TOOL

DO NOT USE IMPACTING TOOLS

TO ASSURE PROPER VOLTAGE TO THE TOOL, EXTENSION CORDS SHOULD BE CHECKED FOR PROPER WIRE SIZE/CORD LENGTH.

- 16 GAGE WIRE, MAXIMUM CORD LENGTH = 100'
- 14 GAGE WIRE, MAXIMUM CORD LENGTH = 200'
- 12 GAGE WIRE, MAXIMUM CORD LENGTH = 300'

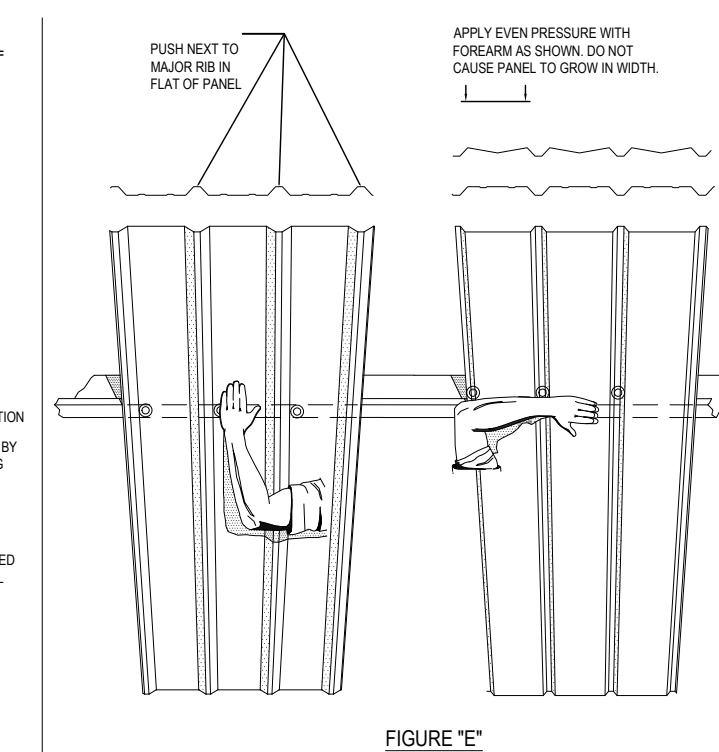
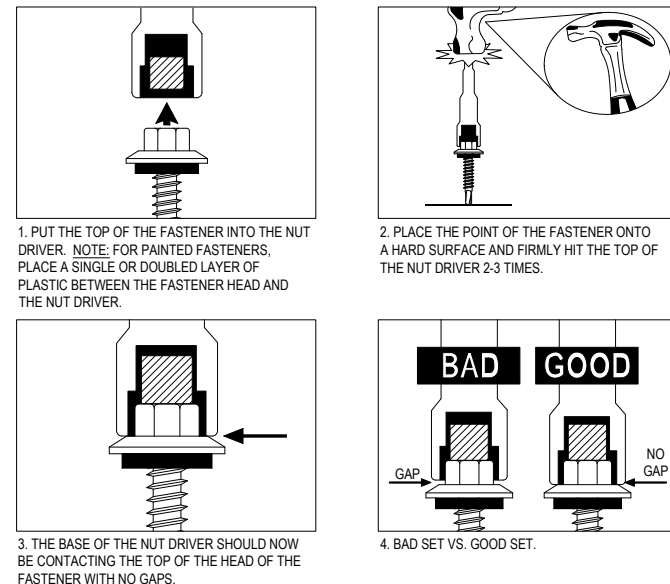
DRIVING TIPS:

SET THE NUT DRIVER AS DESCRIBED BELOW PRIOR TO INSTALLING FASTENERS TO PREVENT FASTENER WOBBLE.

COMPRESS THE INSULATION AT FASTENER LOCATION WITH ONE HAND WHILE DRIVING THE FASTENER WITH THE OTHER. THIS WILL HELP KEEP THE PANEL FLAT AND PREVENT THE FASTENER FROM "WALKING". DRIVE FASTENERS PERPENDICULAR TO PANEL SURFACE.

EXCESSIVE PRESSURE CAN CAUSE DRILL POINT FAILURE. LET THE FASTENER DO THE WORK.

DO NOT OVER TIGHTEN FASTENERS AS THIS WILL LEAD TO PANEL DIMPLING AND DISTORTION.



PANEL INSTALLATION & FASTENER SEQUENCE

STEP 1: INSTALL FIRST PANEL
INSTALL THE FIRST WALL PANEL AT THE BUILDING CORNER AND ALIGN THE PANEL RIB WITH THE STEEL LINE AS SHOWN IN THE CORNER DETAILS USING THE START/FINISH DIMENSION SHOWN ON THE PLAN. IT IS EXTREMELY IMPORTANT THAT THE FIRST WALL PANEL IS INSTALLED PLUMB AND SQUARE. USE A LEVEL OR A TRANSIT TO AID IN THIS PROCESS.

PLACE A 1/8" SHIM ON THE BASE TRIM UNDER THE PANEL TO HOLD THE PANEL OFF THE BASE TRIM. ENSURE THAT THE WEIGHT OF THE PANEL DOES NOT FORCE BASE TRIM TO EXCESSIVELY BEND DOWN. BASE TRIM SHOULD HAVE A SLIGHT SLOPE TO ALLOW WATER TO RUN OUT AND NOT SIT ON BASE TRIM. SEE FIGURE "D" - TO RIGHT

WHEN INSTALLING THE PANEL, APPLY PRESSURE EVENLY TO AVOID DISTORTING THE PANEL AND CAUSING OIL CANNING. SEE FIGURE "E" - ABOVE

RECOMMENDED PANEL FASTENING SEQUENCE IS SHOWN TO THE RIGHT. THIS PATTERN AIDS IN PLUMBING AS WELL AS MAINTAINING PANEL COVERAGE / MODULARITY. SOME APPLICATIONS MAY REQUIRE MODIFIED SEQUENCE AND WILL BE BEST DETERMINED IN THE FIELD. DO NOT ATTACH PANEL AT BASE AND TOP AND WORK TOWARD THE MIDDLE OF THE PANEL. THIS CREATES OIL CANNING. MANUFACTURER IS NOT RESPONSIBLE FOR FINAL APPEARANCE OF INSTALLED PANEL.

STEP 2: INSTALL SUBSEQUENT PANELS

INSTALL THE SECOND PANEL BY LAYING THE LAP EDGE OVER THE BEARING RIB OF THE FIRST PANEL. SEE BELOW FOR PROPER ALIGNMENT AT SIDELAP. CHECK PANEL PLUMBNESS AND FASTEN PANEL IN THE SAME SEQUENCE STARTING WITH THE STRUCTURAL FASTENERS ALONG THE LAP TO ENSURE A TIGHT SIDELAP. CONTINUE FOR THE REMAINDER OF THE WALL. CUTTING PANELS AROUND FRAMED OPENINGS AS REQUIRED. (TRIM SHOULD BE INSTALLED AROUND OPENINGS PRIOR TO INSTALLING PANEL)

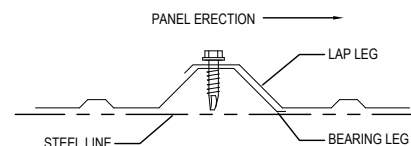
RECOMMENDED TIPS:

WALL PANELS CAN BE INSTALLED LEFT TO RIGHT OR RIGHT TO LEFT. IT IS RECOMMENDED TO INSTALL SHEETS STARTING OPPOSITE THE PREVAILING VIEW / WIND SO THAT THE SIDELAP SEAM IS AWAY AND LESS NOTICEABLE.

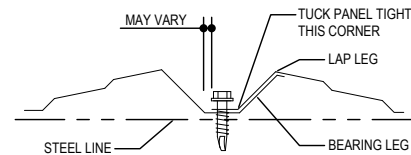
PANEL ORIENTATION AND ALIGNMENT

NOTE THE ORIENTATION OF THE PROFILE AND BEARING LEG FOR THE LEADING EDGE OF THE PANEL. PANELS SHOULD BE INSTALLED AS SHOWN BELOW TO HELP MAINTAIN PANEL MODULARITY / COVERAGE FOR THE LENGTH OF THE WALL.

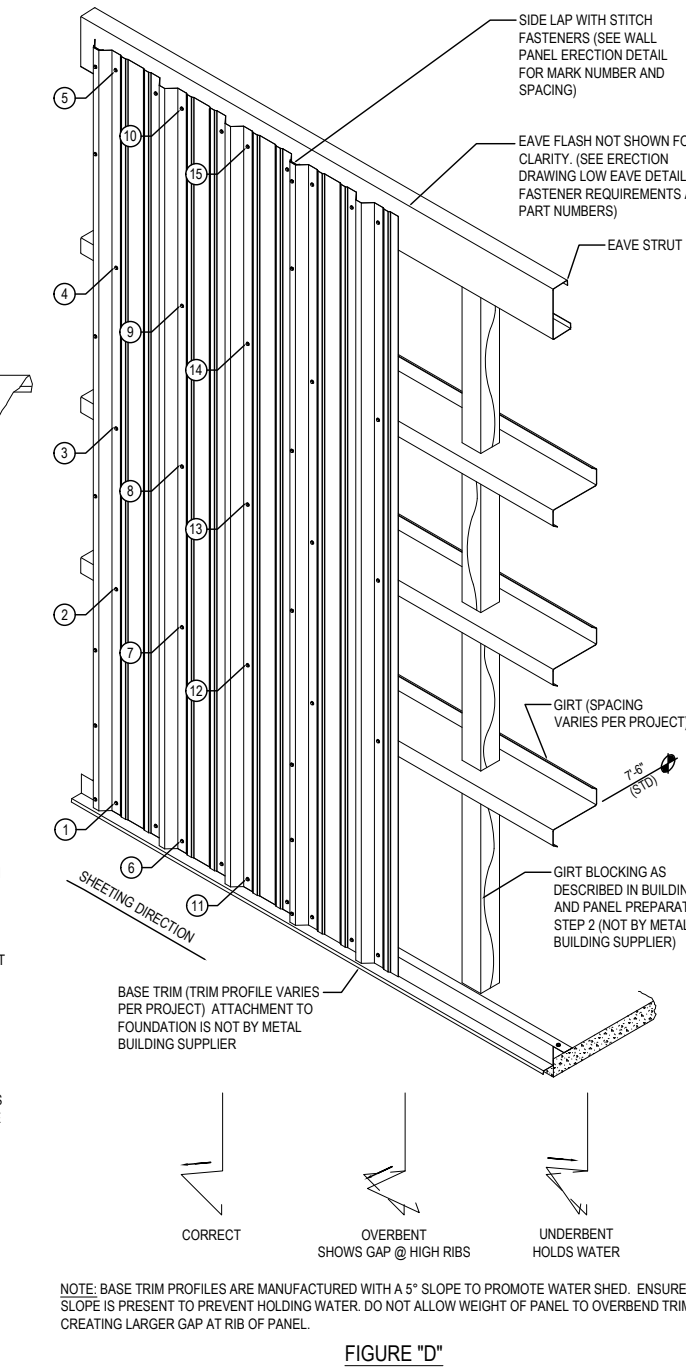
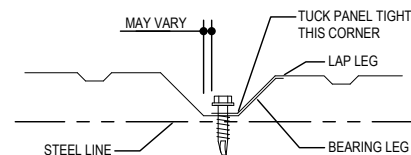
ABC - LONGSPAN III
CBC - R-PANEL
KBS - KIRBYRIB II
NBS - CLASSIC WALL



ABC - ARCHITECTURAL V
CBC - A-PANEL
KBS - KIRBYWALL
NBS - ACCENT PANEL



ABC - ARCHITECTURAL III
CBC - REVERSE R-PANEL
KBS - KIRBY REVERSED ROLL
NBS - REVERSE CLASSIC WALL



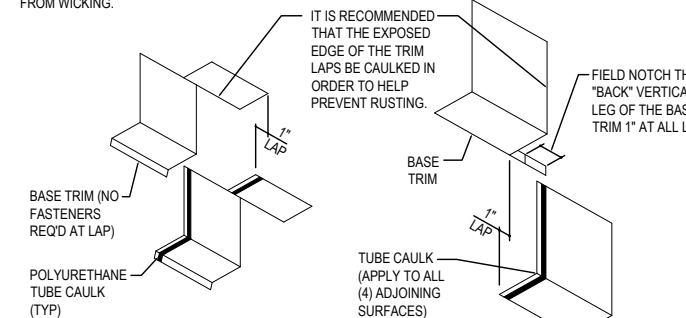
BASE TRIM LAP SEALANT

AT BASE TRIM LAPS, APPLY A BEAD OF POLYURETHANE TUBE CAULK (H3152) TO ALL ADJOINING SURFACES AND LAP 1". SEE BASE TRIM DETAIL FOR THE SPECIFIC TRIM FOR YOUR PROJECT.

IF JOB HAS OPTIONAL FOAM PANEL CLOSURES ORDERED AT BASE, ATTACH TO INSIDE OF WALL PANEL AT BASE AND FASTEN THROUGH PANEL AND CLOSURE, INTO BASE TRIM. FASTENING PATTERN WILL VARY PER WALL PANEL TYPE. REFER TO THE WALL PANEL ERECTION DETAIL FOR MORE FASTENING INFO.

USE SUPPLIED BASE CORNER PIECES OR FIELD MITRE BASE TRIM AT CORNERS.

INSULATION HINT: AT THE BASE, FOLD THE INSULATION VAPOR BARRIER OVER THE FIBER TO HELP PREVENT WATER FROM WICKING.

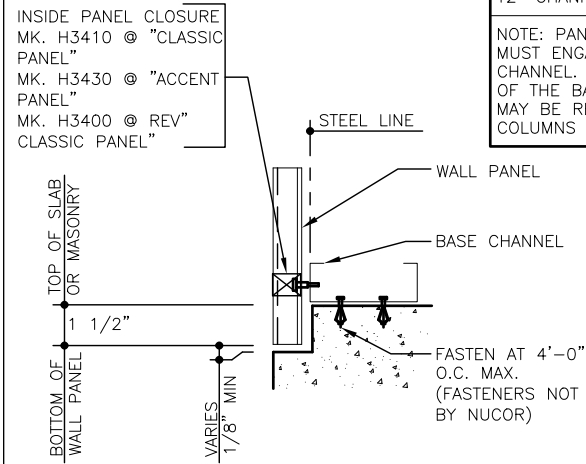


WALL SHEETING GENERAL NOTES

GA0000

DATE	ENG	CHK	DWN	ISSUE	FINAL
11/30/2022	PRS	KJ	MDC		

NUCOR BUILDING SYSTEMS GROUP 600 Apache Trail Terrell, TX 75160 Phone: (972) 524-5407 Fax: (972) 524-5417	PROJECT NAME MANUEL COLLISION ADA, OK
	CUSTOMER NAME TITAN CONSTRUCTION, LLC OKLAHOMA CITY, OK
JOB NUMBER T22E0442A	SHEET TITLE SHEETING DETAILS
SHEET SD 11 of 15	This seal pertains only to the materials designed and supplied by Nucor Corporation. The drawings and the metal buildings which they represent are the property of Nucor Building Systems, Inc. and the sealant application is the responsibility of the engineer of record and shall not be construed as such.



WALL PANEL BASE DETAIL

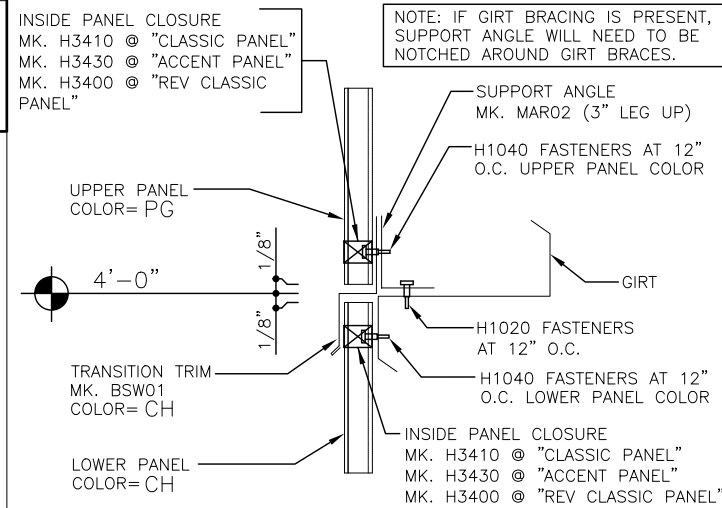
CONCRETE NOTCH WITH BASE CHANNEL AND PANEL
SEE WALL SHEETING ERECTION NOTES
FOR WALL PANEL FASTENER LOCATIONS

GB0210

8" CHANNEL MK. B8C01
10" CHANNEL MK. B1C01
12" CHANNEL MK. B2C01

NOTE: PANEL SCREWS
MUST ENGAGE THE BASE
CHANNEL. FIELD NOTCHING
OF THE BASE CHANNEL
MAY BE REQUIRED AT THE
COLUMNS AND CORNERS.

ERECTOR NOTE:
AFTER LOWER PANELS ARE INSTALLED, USE (3) H1047 SCREWS
FOR TEMPORARY INSTALLATION OF EACH PIECE OF TRANSITION TRIM.

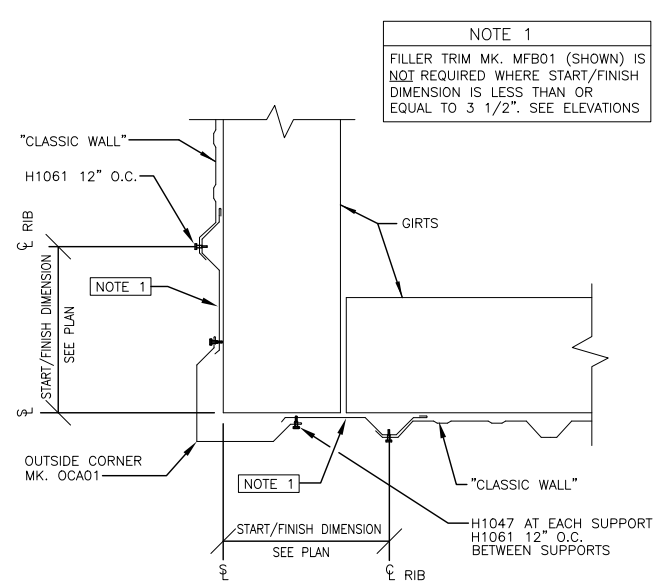


WAINSCOT TRANSITION DETAIL

SEE WALL SHEETING ERECTION NOTES
FOR WALL PANEL FASTENER LOCATIONS

GB0300

NOTE: IF GIRT BRACING IS PRESENT,
SUPPORT ANGLE WILL NEED TO BE
NOTCHED AROUND GIRT BRACES.

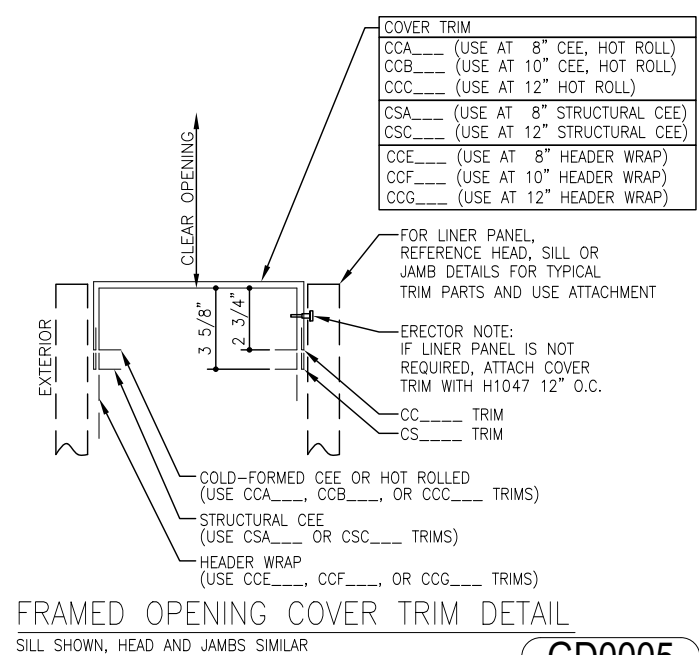


OUTSIDE CORNER DETAIL

"CLASSIC WALL"

GC0021

NOTE 1
FILLER TRIM MK. MFB01 (SHOWN) IS
NOT REQUIRED WHERE START/FINISH
DIMENSION IS LESS THAN OR
EQUAL TO 3 1/2". SEE ELEVATIONS



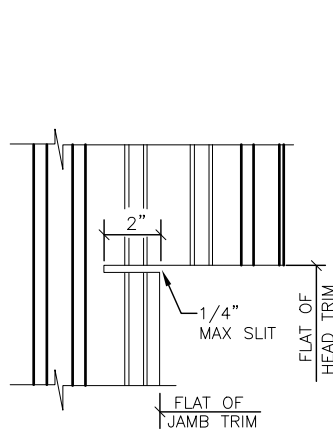
FRAMED OPENING COVER TRIM DETAIL

SILL SHOWN, HEAD AND JAMBS SIMILAR

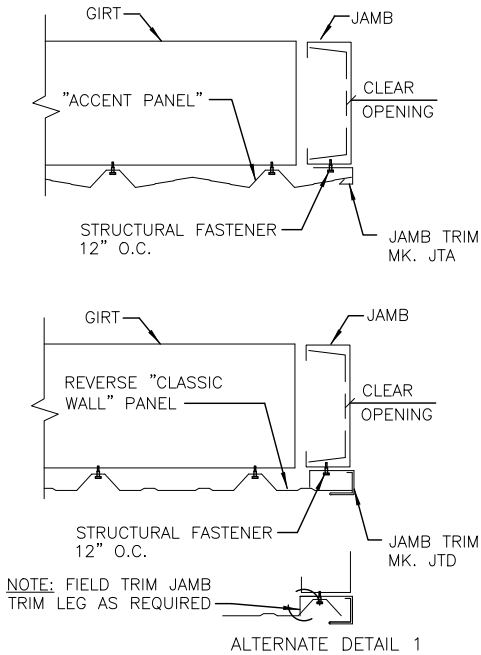
GD0005

- | COVER TRIM | |
|------------|-----------------------------|
| CCA | (USE AT 8" CEE, HOT ROLL) |
| CCB | (USE AT 10" CEE, HOT ROLL) |
| CCC | (USE AT 12" HOT ROLL) |
| CSA | (USE AT 8" STRUCTURAL CEE) |
| CSC | (USE AT 12" STRUCTURAL CEE) |
| CCE | (USE AT 8" HEADER WRAP) |
| CCF | (USE AT 10" HEADER WRAP) |
| CCG | (USE AT 12" HEADER WRAP) |

DATE	11/30/2022
ISSUE	
FINAL	
CHK	KJ
ENG	PRS
DWN	MDC

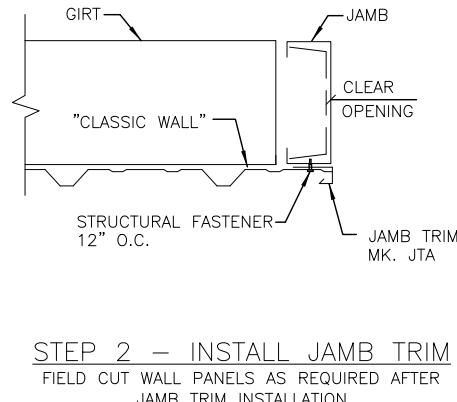


STEP 3 - SLIT PANEL

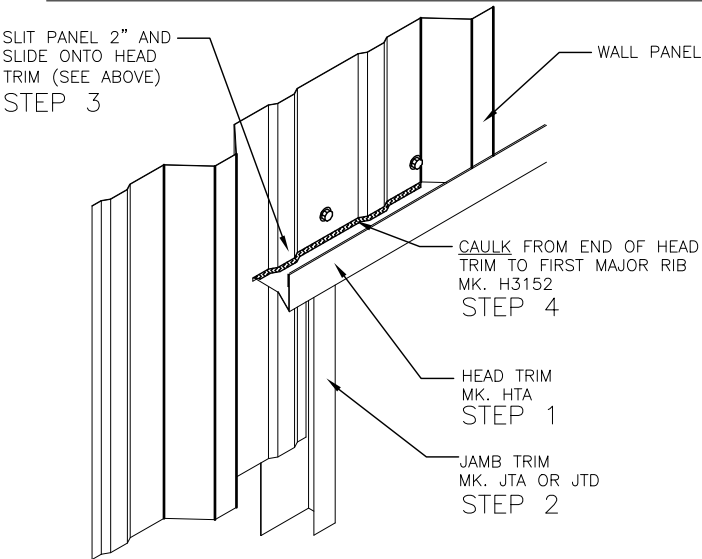


FASTENER KEY

STITCH FASTENER = H1061
STRUCTURAL FASTENER
WITH COLD-FORM = H1047
STRUCTURAL FASTENER
WITH HOT-ROLLED = H1070



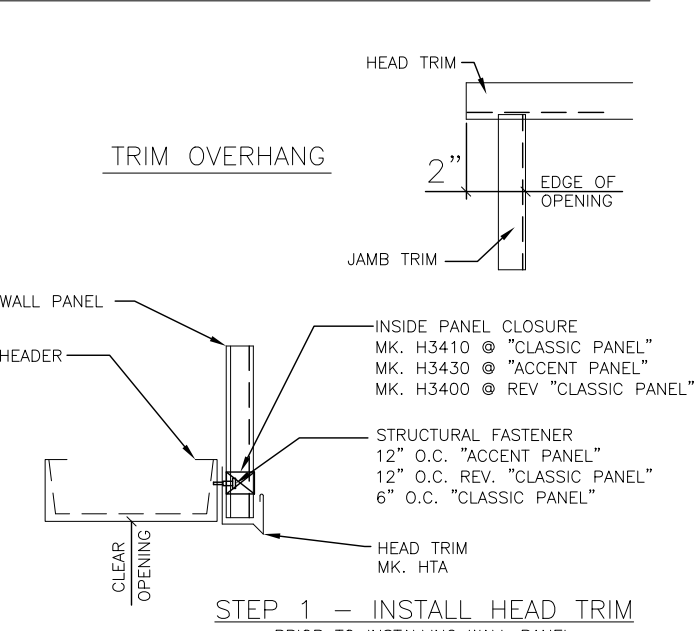
STEP 2 - INSTALL JAMB TRIM
FIELD CUT WALL PANELS AS REQUIRED AFTER
JAMB TRIM INSTALLATION



DOOR FRAMED OPENING TRIM DETAIL

FOR ALL STANDARD WALL PANEL TYPES
LEFT HAND SHOWN, RIGHT HAND SIMILAR

GD0040



STEP 1 - INSTALL HEAD TRIM

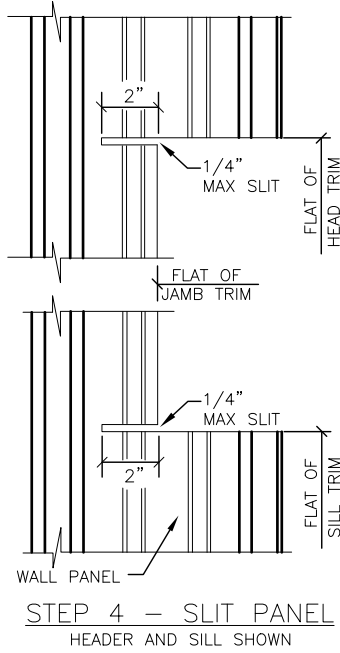
PRIOR TO INSTALLING WALL PANEL

NUCOR BUILDING SYSTEMS GROUP
600 Apache Trail
Terrell, TX 75160
Phone: (972) 524-5407
Fax: (972) 524-5417

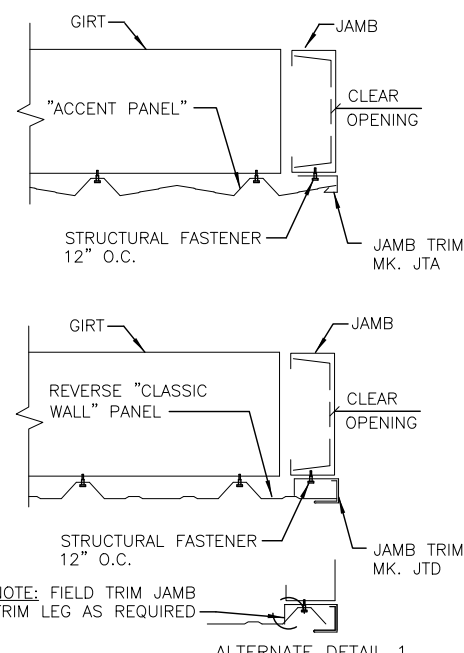
PROJECT NAME
MANUEL COLLISION
ADA, OK
CUSTOMER NAME
TITAN CONSTRUCTION, LLC
OKLAHOMA CITY, OK
JOB NUMBER
T22E0442A
SHEET TITLE
SHEETING DETAILS

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SHEET
SD13 of 15



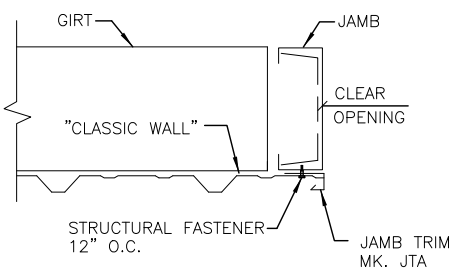
STEP 4 - SLIT PANEL
HEADER AND SILL SHOWN



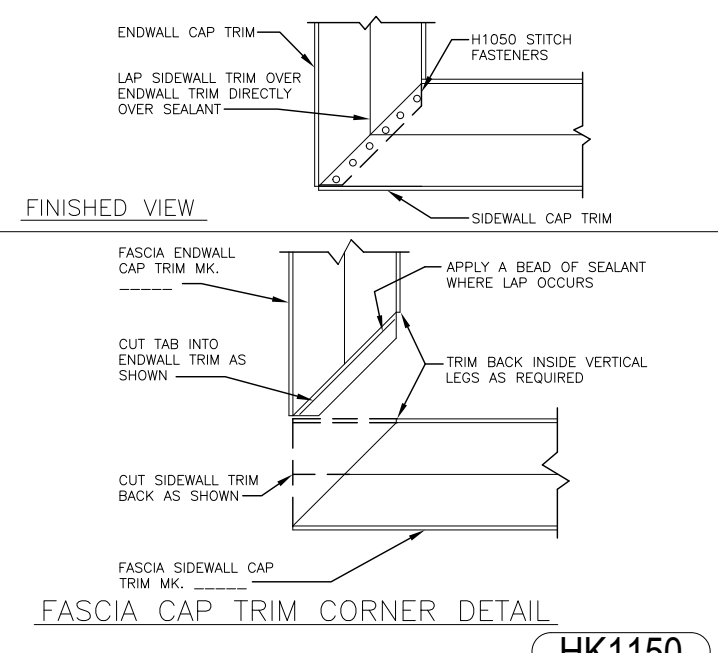
NOTE: FIELD TRIM JAMB TRIM LEG AS REQUIRED

ALTERNATE DETAIL 1

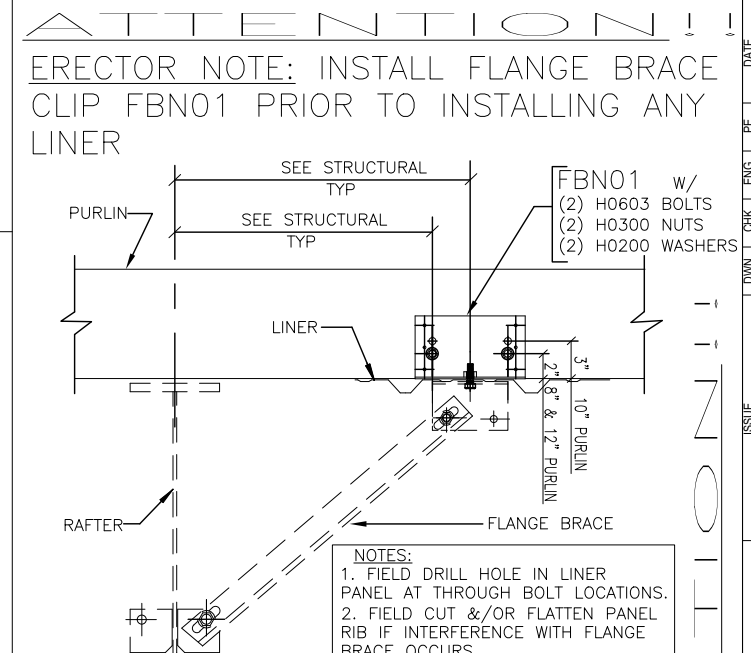
FASTENER KEY
 STITCH FASTENER = H1061
 STRUCTURAL FASTENER WITH COLD-FORM = H1047
 STRUCTURAL FASTENER WITH HOT-ROLLED = H1070



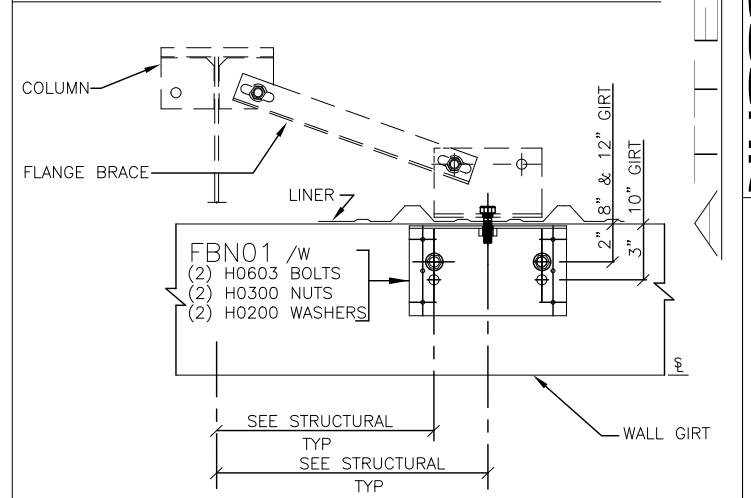
STEP 3 - INSTALL JAMB TRIM
FIELD CUT WALL PANELS AS REQUIRED AFTER JAMB TRIM INSTALLATION



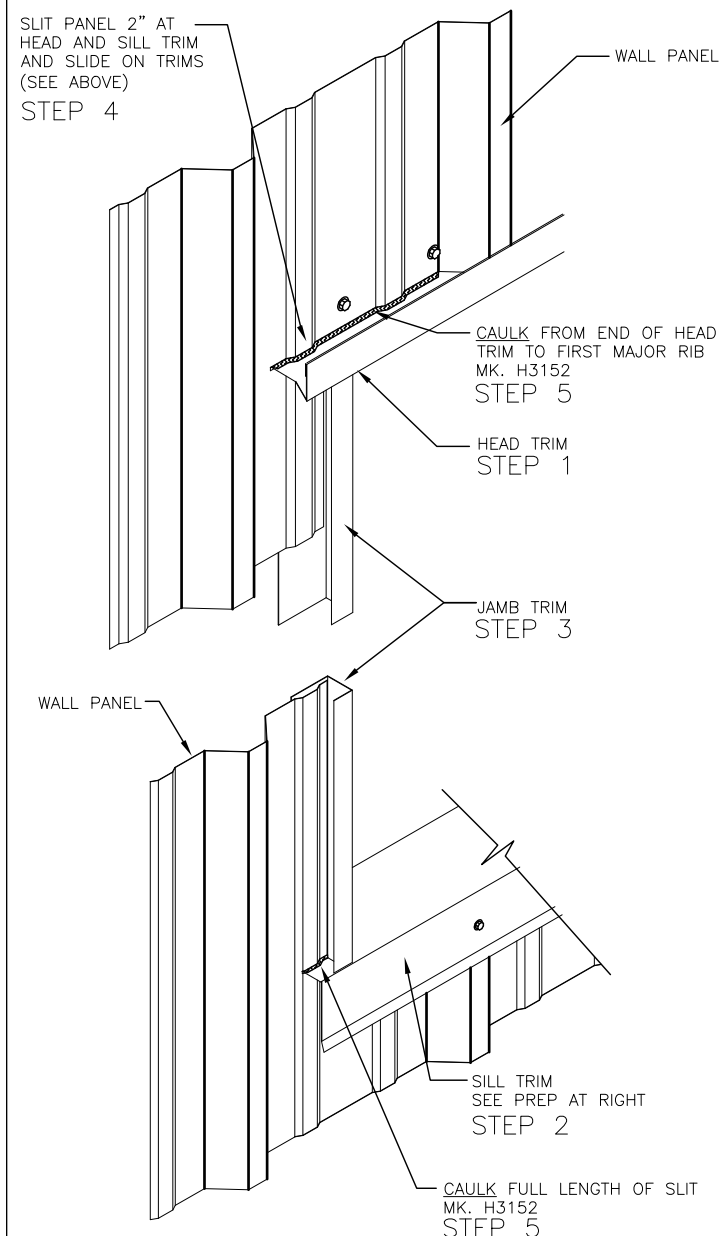
FASCIA CAP TRIM CORNER DETAIL
HK1150



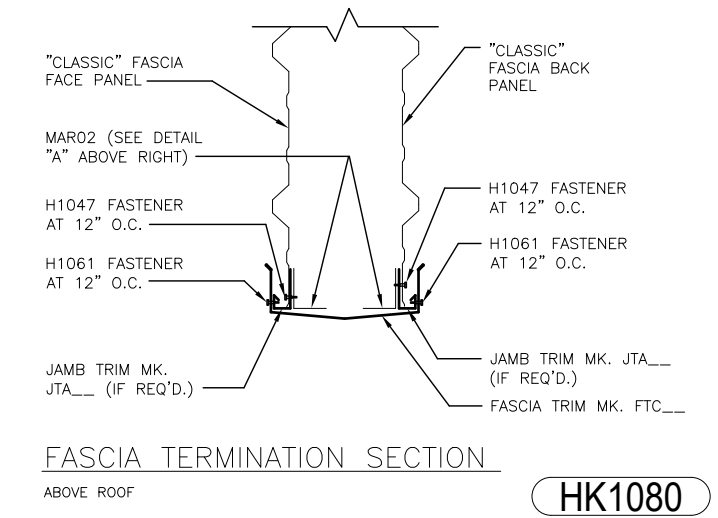
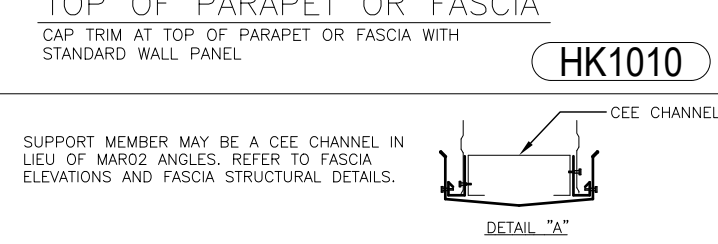
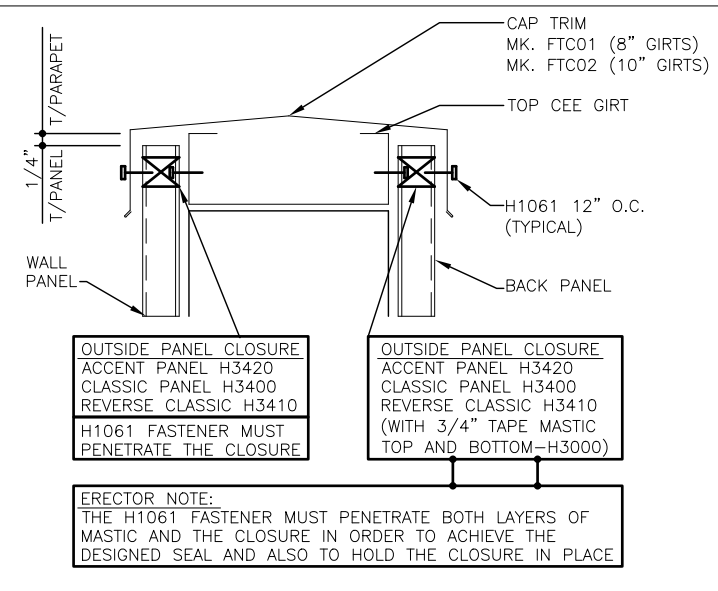
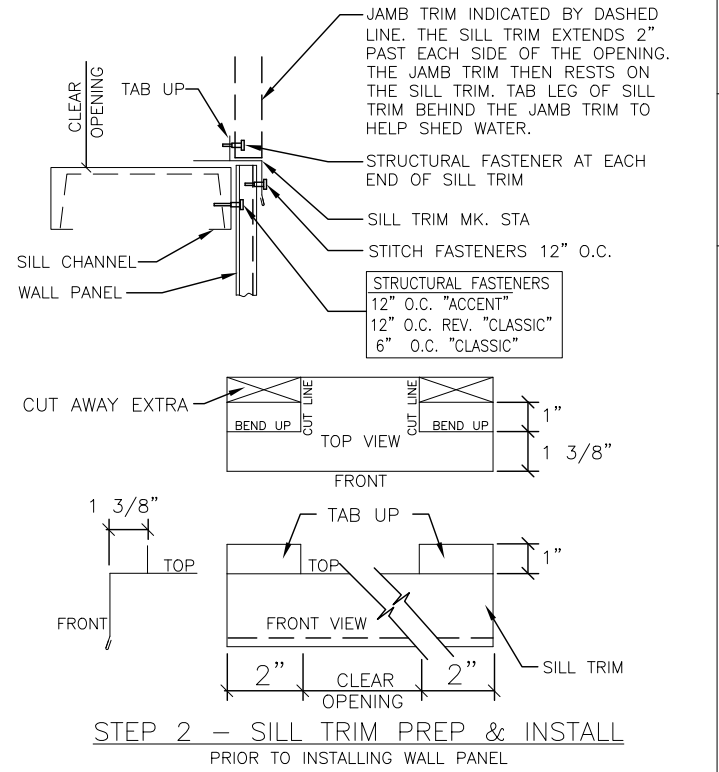
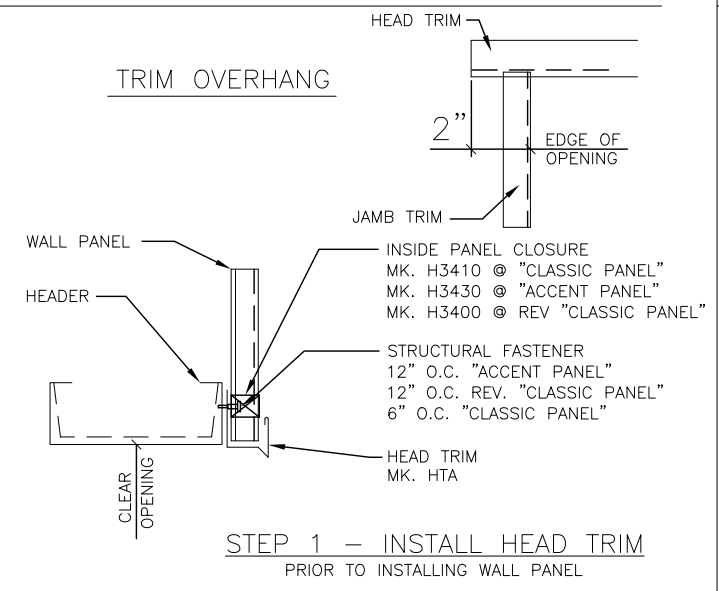
TYP FLANGE BRACE @ PURLIN & RAFTER
SEE FLANGE BRACE CAD DETAILS AG_____ FOR ADDITIONAL INFORMATION



TYPICAL FLANGE BRACE AT BUILT-UP COLUMN & GIRT
SEE FLANGE BRACE CAD DETAILS AG_____ FOR ADDITIONAL INFORMATION
IAA001

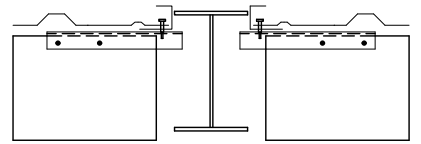


WINDOW FRAMED OPENING TRIM DETAIL
FOR ALL STANDARD WALL PANEL TYPES
LEFT HAND SHOWN, RIGHT HAND SIMILAR
GD0070

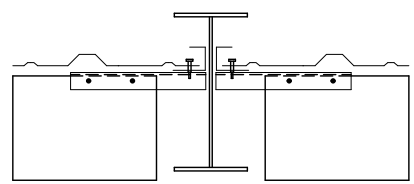


PROJECT NAME	MANUEL COLLISION	DATE	11/30/2022
CUSTOMER NAME	ADA, OK	ENG	PE
JOB NUMBER	T22E0442A	CHK	KJ
SHEET TITLE	SHEETING DETAILS	DC	PR
SHEET	SD 14 of 15	ISSUE	FINALS
BUILDING SYSTEMS GROUP 600 Apache Trail Terrell, TX 75160 Phone: (972) 524-5407 Fax: (972) 524-5417			

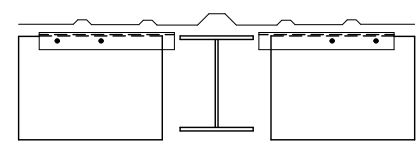
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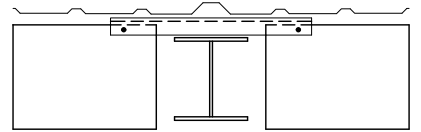
BUILT UP COLUMN
(FLANGE EXTENDS PAST INSIDE FACE OF GIRT)



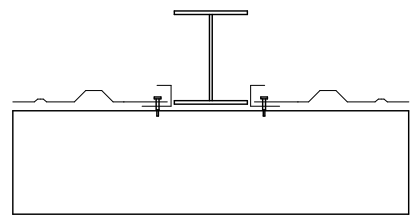
BUILT UP COLUMN
(FLANGE EXTENDS PAST INSIDE FACE OF GIRT)



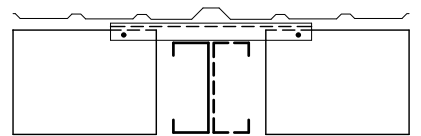
BUILT UP COLUMN
(FLANGE FLUSH TO INSIDE FACE OF GIRT)



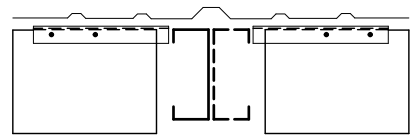
BUILT UP COLUMN
(FLANGE INSET TO INSIDE FACE OF GIRT)



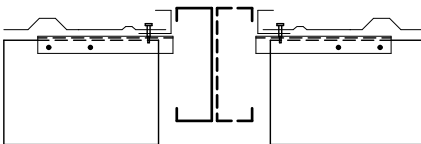
BUILT UP COLUMN OR RAFTER
(GIRT OR PURLIN BYPASSES FRAME)



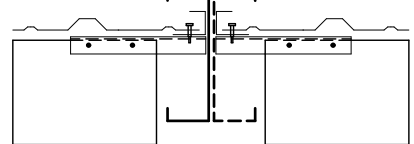
SINGLE OR DOUBLE CEE COLUMN
(FLANGE INSET TO INSIDE FACE OF GIRT)



SINGLE OR DOUBLE CEE COLUMN
(FLANGE FLUSH TO INSIDE FACE OF GIRT)

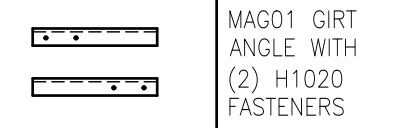


SINGLE OR DOUBLE CEE COLUMN
(FLANGE EXTENDS PAST INSIDE FACE OF GIRT)

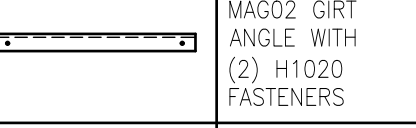


SINGLE OR DOUBLE 12" CEE COLUMN
(FLANGE EXTENDS PAST INSIDE FACE OF GIRT)

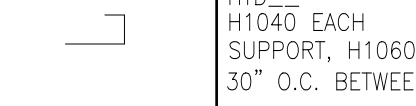
PARTS LEGEND



MAG01 GIRT
ANGLE WITH
(2) H1020
FASTENERS



MAG02 GIRT
ANGLE WITH
(2) H1020
FASTENERS



HTD___
H1040 EACH
SUPPORT, H1060
30" O.C. BETWEEN



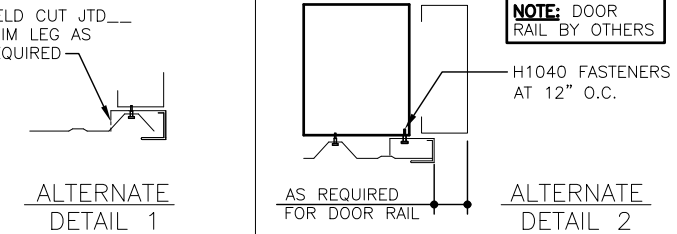
FIELD CUT HTD___
AROUND STRUCTURAL
CLIP, AS NEEDED



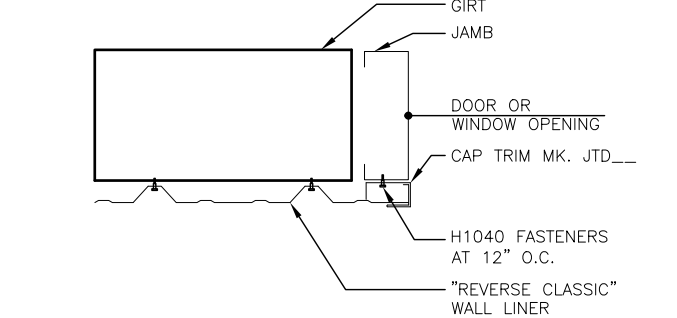
SINGLE CEE COLUMN
(GIRT BYPASSES FRAME)

"CLASSIC" LINER TERMINATION DETAILS AT INTERMEDIATE COLUMNS

IA0010

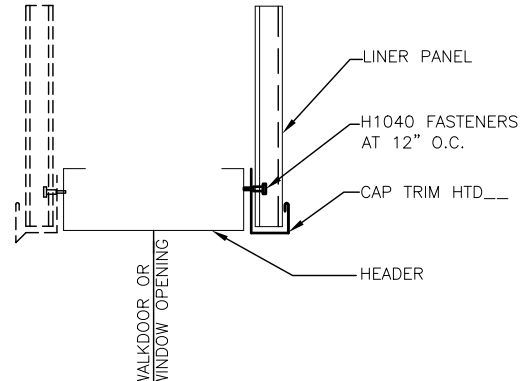


**ALTERNATE
DETAIL 1** **ALTERNATE
DETAIL 2**



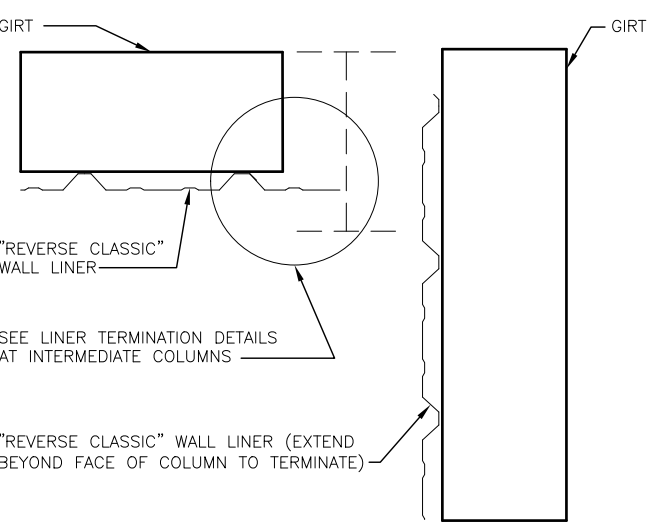
JAMB DETAIL
AT "REVERSE CLASSIC" WALL LINER

IG0070



HEADER DETAIL
AT WALKDOOR OR WINDOW WITH LINER PANEL

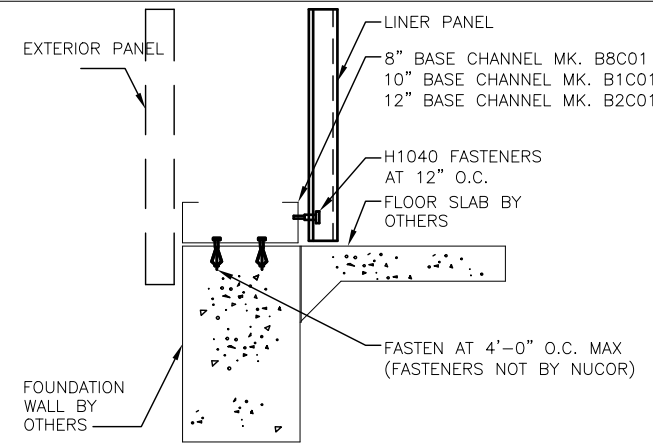
IG0090



"REVERSE CLASSIC" LINER INSIDE CORNER
PANEL TERMINATION AT CORNER COLUMNS

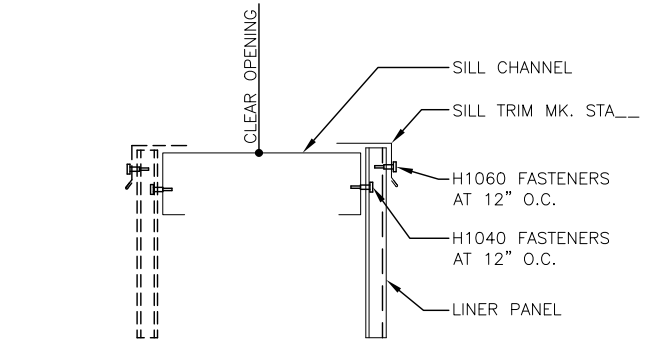
IA0060

ERECTOR NOTE:
PANEL SCREWS MUST ENGAGE THE BASE CHANNEL, FIELD NOTCHING OF THE BASE CHANNEL MAY BE REQUIRED AT THE COLUMNS AND CORNERS



FINISHED FLOOR BASE DETAIL
LINER PANEL WITH BASE CHANNEL

IC0020

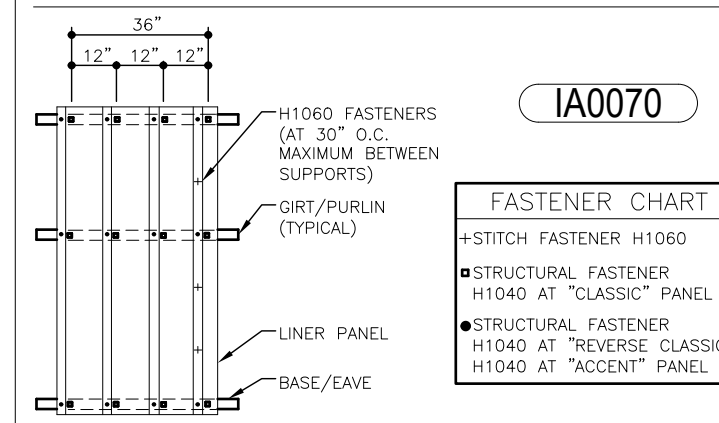


SILL DETAIL
AT LINER PANEL

IG0100

ERECTOR NOTE:

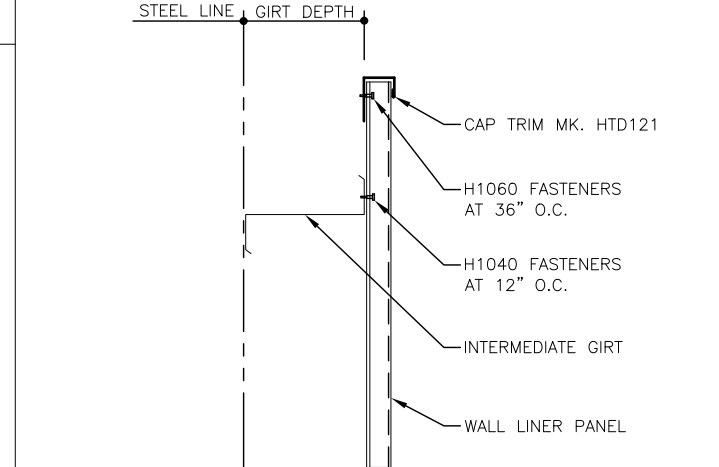
THE ERECTION OF THE LINER PANEL MUST BE COORDINATED PROPERLY WITH THE BRACING AND BRACE STRUTS TO ENSURE PROPER FIT-UP. IT IS THE ERECTOR'S RESPONSIBILITY TO ENSURE THAT THE STRUCTURE IS ADEQUATELY BRACED DURING THE ERECTION PROCESS. TEMPORARY REMOVAL OF BRACING AND BRACE STRUTS IS ACCEPTABLE FOR LINER PANEL ERECTION, PROVIDED ADEQUATE TEMPORARY BRACING IS USED.



IA0070

FASTENER CHART	
+	STITCH FASTENER H1060
■	STRUCTURAL FASTENER H1040 AT "CLASSIC" PANEL
●	STRUCTURAL FASTENER H1040 AT "REVERSE CLASSIC" H1040 AT "ACCENT" PANEL

WALL AND CEILING LINER PANEL ERECTION NOTES
(PANELS 36" NET LAY)



PARTIAL HEIGHT LINER PANEL
PARTIAL HEIGHT WALL LINER

ID0100

DATE	ISSUE	FINAL	CHK	ENG	PRG	DATE
11/30/2022			KJ	PRS		

NUCOR BUILDING SYSTEMS GROUP
600 Apache Trail
Terrell, TX 75160
Phone: (972) 524-5407
Fax: (972) 524-5417

PROJECT NAME
MANUEL COLLISION
ADA, OK
CUSTOMER NAME
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SHEET TITLE
SHEETING DETAILS

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SHEET
SD15 of 15