

SLEEVES AND FIRESTOPPING
 USE PROSET "FIRESTOP PENETRATORS". U.L. CLASSIFIED IN THE BUILDING MATERIALS DIRECTORY, TESTED BY ASTM E-814. USE FOR ALL APPLICABLE PIPE PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS OR FLOOR/CEILING ASSEMBLIES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

- A. SYSTEM "A" PENETRATORS FOR WATER LINES, HEATING AND COOLING LINES, FIRE STANDPIPE AND SPRINKLER LINES, TEMPERATURE CONTROL, ACID WASTE GLASS PIPE AND ELECTRIC AND COMMUNICATION CONDUIT PENETRATING FLOORS OR WALLS.
- CAST-IN-COUPLING PENETRATORS FOR POURED-IN-PLACE CONCRETE ON STEEL OR WOOD FORMS IN FLOORS OR WALLS.
 - CORED HOLE COUPLING PENETRATORS FOR CORED HOLES THROUGH PRECAST OR EXISTING CONCRETE IN FLOORS OR WALLS.
 - SPLIT WALL SLEEVE PENETRATORS FOR PIPES PASSING THROUGH GYPSUM WALLS OR FLOOR / CEILING ASSEMBLIES.
 - SLIP FLANGE CM COUPLING FOR POURED-IN-PLACE CONCRETE ON CORRUGATED METAL DECK.

FIRESTOP PENETRATOR DETAILS

- ELECTRICAL GENERAL NOTES**
- ALL WORK THIS DIVISION SHALL COMPLY WITH ALL LOCAL BUILDING CODES, LAWS, REGULATIONS, ORDINANCES, AND THE REQUIREMENTS OF THE 2023 NATIONAL ELECTRICAL CODE. ALL WORK SHALL COMPLY WITH BASE BUILDING SPECIFICATIONS. OBTAIN A COPY OF SPECIFICATIONS FROM BUILDING MANAGER IF NECESSARY.
 - THE CONTRACTOR SHALL KEEP A RECORD OF THE CHANGES WHICH ARE IN CONFLICT WITH THESE DRAWINGS AND SPECIFICATIONS, AT THE COMPLETION OF HIS WORK HE SHALL SUBMIT "AS BUILT" PRINTS TO THE OWNER.
 - DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY FITTING AND DETAIL. ALL WORK SHALL BE INSTALLED SO THAT JUNCTION BOXES AND COMPONENTS WILL BE ACCESSIBLE FOR SERVICE.
 - ALL SYSTEMS, EQUIPMENT, COMPONENTS, WORK, ETC. PROVIDED UNDER THIS DIVISION SHALL BE COVERED BY A ONE YEAR GUARANTEE STARTING AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. ANY DEFECTS IN THE WORK, SYSTEMS, EQUIPMENT, OR COMPONENTS FOUND DURING THIS YEAR SHALL BE CORRECTED AT NO CHARGE. THE GUARANTEE SHALL INCLUDE PROVIDING ALL NECESSARY CUTTING, PATCHWORK, REPAINTING, ETC. TO MAKE THE WORK COMPLETE AND NEW.
 - ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILING UNLESS OTHERWISE NOTED. MINIMUM CONDUIT SIZE IS 1/2".
 - ALL CONDUCTORS SHALL BE COPPER WITH TYPE "THW" OR "THHN" INSULATION AND THE MINIMUM WIRE SIZE SHALL BE #12 A.W.G. WITH A 167 DEGREE TEMPERATURE RATING.
 - ALL WORK MUST BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER ACCORDING TO GENERALLY ACCEPTED PRINCIPALS OF FIRST CLASS WORKMANSHIP.
 - FASTEN ALL RECESSED LIGHTING FIXTURES TO STRUCTURE OR GRID PER N.E.C. 410.36.
 - RECESSED INCANDESCENT FIXTURES SHALL BE SUPPORTED IN COMPLIANCE WITH N.E.C. 410.36.
 - ALL PENETRATIONS THRU RATED WALLS, FLOORS AND CEILINGS SHALL BE FIRE STOPPED PER N.E.C. 300.21.
 - PROVIDE ALL GROUNDING AS REQUIRED BY N.E.C.
 - DEVICE MOUNTING HEIGHTS ARE TO BE MEASURED TO THE DEVICE CENTERLINE.
 - ALL SWITCHES FOR FANS, LIGHTS, ETC. WHICH ARE SHOWN TO BE MOUNTED IN THE SAME GENERAL AREA SHALL SHARE A MULTI-GANG COVER PLATE AS REQUIRED.
 - ALL CONDUIT SHALL BE 1/2" EMT WITH 2#12,1#12 AWG CONDUCTORS UNLESS OTHERWISE NOTED.
 - PROVIDE #12AWG GND. FOR ALL MECHANICAL EQUIPMENT UNLESS SHOWN OTHERWISE. ALL EQUIPMENT SHALL BE GROUNDED AT THE PANEL WHICH FEEDS THE EQUIPMENT.
 - COORDINATE RECEPTACLE NEMA TYPE AND VOLTAGE WITH COPIERS AND EQUIPMENT.
 - PROVIDE A NEW DIRECTORY FOR ALL PANELS. CORRECTLY LABEL ALL CIRCUITS, SPARES AND SPACES IN ACCORDANCE WITH N.E.C. 408.4(A).
 - PROVIDE A SEPARATE GREEN, INSULATED, #12AWG EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE BRANCH CIRCUIT HOMERUN CONDUCTORS.
 - WHERE WORK BY THE GENERAL CONTRACTOR (WALL REMOVAL, NEW OR RELOCATED WALL OPENING, ETC.) RESULTS IN THE REMOVAL, RELOCATION OF REFEEDING OF ELECTRICAL DEVICES OR LIGHTING FIXTURES, THE ELEC. CONTRACTOR SHALL DISCONNECT OR RECONNECT AS REQUIRED ALL ACTIVE DEVICES REMAINING ON THAT CIRCUIT SYSTEM.
 - DEVICE BOXES IN RATED WALLS SHALL MEET STANDARD BUILDING CODE SECTION 706.4.
 - ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY A NORTH CAROLINA APPROVED THIRD PARTY TESTING AGENCY.
 - ALL RECEPTACLES TO RECEIVE VISUAL DESIGNATION.
 - OUTLET BOX SHALL NOT BE MOUNTED BACK TO BACK.
 - BLANK FACEPLATES ARE NOT ALLOWED, U.N.O.. ANY EXISTING OUTLET OR TELE/DATA LOCATION NOT USED OR SHOWN WITHIN THE SCOPE OF WORK IN THESE PLANS SHOULD BE REMOVED, PATCHED, AND REPAIRED.
 - MULTIWIRED BRANCH CIRCUITS SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS PER N.E.C. 210.4(B).
 - MULTIWIRED BRANCH CIRCUITS SUPPLYING POWER TO PERMANENTLY CONNECTED FREESTANDING PARTITIONS SHALL BE PROVIDED WITH A MEANS TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANEL BOARD WHERE THE BRANCH CIRCUIT ORIGINATES PER N.E.C. 605.8.
 - ARC-FLASH HAZARD WARNING SHALL BE PROVIDED ON ALL EQUIPMENT IN AFFECTED ELECTRICAL ROOMS PER N.E.C. 110.16.
 - PROVIDE PLASTIC NAMEPLATE ON ALL PANELS (NEW AND EXISTING) INDICATING PANEL NAME AND SOURCE PER N.E.C. 408.4(B).
 - ALL WIRING TERMINATIONS ARE ASSUMED TO BE 75DEG C RATED, UNLESS NOTED OTHERWISE. ALL WIRING UNDER 100A IS BASED ON A 60DEG C TERMINATION.

PROJECT TYPE
 New Construction Addition Alterations (C405) (C502) (C503)

When "New Construction" is selected, indicate NCECC Section C406 method of compliance below. If project is other than "New Construction", compliance with referenced section is "N/A".
 Unless specifically exempt below, the contractor shall obtain the services of a NC licensed engineering professional to perform all required commissioning services of all lighting and lighting control systems in the project scope in compliance with NCECC Section C406.

NCECC 2018 SECTION C406 -- COMPLIANCE STATEMENT

Method of Compliance
 a. C406.1.1 More Efficient HVAC Performance _____
 b. C406.1.2 Reduced Lighting Power Density _____
 c. C406.1.3 Enhanced Lighting Controls _____
 d. C406.1.4 On-Site Supply of Renewable Energy _____
 e. C406.1.5 Dedicated Outdoor Air System _____
 f. C406.1.6 Higher Efficiency Service Water Heating _____

Refer to the following sheet for demonstration of compliance:
 N/A

NCECC 2018 SECTION C408 -- SYSTEM COMMISSIONING

Exempt (For Alterations only per NCECC C503.1 Exception 2.g.)

Refer to 2018 NCECC Appendix C1 for required statement of system commissioning to be presented to the AHJ at final inspections.

WELDSHOP ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance
 Prescriptive Performance _____ Energy Cost Budget _____

Provide a standard riser diagram which indicates designated points for check metering.
 Provide a standard panel schedule description which identifies different enduse loads.

Standard riser diagram is on Sheet - E-004
 Standard panel schedules are on - E-004

Lighting Schedule	
lamp type required in fixture	N/A
number of lamps in fixture	N/A
ballast type used in the fixture	N/A
number of ballasts in fixture	N/A
total wattage per fixture	N/A
total interior wattage specified vs. allowed	

Workshop Occupancy: gross area of 841.00 sq. ft.
 Per 2018 North Carolina Energy Code:

Allowable	Specified
WORKSHOP (0.91 X 841.00 SQFT) = 765.31 WATTS	410 WATTS

total exterior wattage specified vs. allowed
 N/A

Equipment schedules with motors (not used for mechanical systems)	
motor horsepower	NONE
number of phases	N/A
minimum efficiency	N/A
motor type	N/A
# of poles	N/A

ELECTRICAL DESIGNER STATEMENT
 I hereby certify that the design of this building complies with the mechanical systems, service systems and equipment requirements of the 2018 North Carolina Energy Code.

signed Elle Barile date 2/12/2025

Name Elle Barile

Title Project Engineer

SHED ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance
 Prescriptive Performance _____ Energy Cost Budget _____

Provide a standard riser diagram which indicates designated points for check metering.
 Provide a standard panel schedule description which identifies different enduse loads.

Standard riser diagram is on Sheet - E-004
 Standard panel schedules are on - E-004

Lighting Schedule		
lamp type required in fixture	N/A	
number of lamps in fixture	N/A	
ballast type used in the fixture	N/A	
number of ballasts in fixture	N/A	
total wattage per fixture	N/A	
total interior wattage specified vs. allowed		

Warehouse Occupancy: gross area of 3,995.41 sq. ft.
 Per 2018 North Carolina Energy Code:

Allowable	Specified
WAREHOUSE (0.45 X 3995.41 SQFT) = 1797.93 WATTS	1764.00 WATTS

total exterior wattage specified vs. allowed
 ZONE 3 = 500 WATTS 360 WATTS

Equipment schedules with motors (not used for mechanical systems)	
motor horsepower	NONE
number of phases	N/A
minimum efficiency	N/A
motor type	N/A
# of poles	N/A

ELECTRICAL DESIGNER STATEMENT
 I hereby certify that the design of this building complies with the mechanical systems, service systems and equipment requirements of the 2018 North Carolina Energy Code.

signed Elle Barile date 2/12/2025

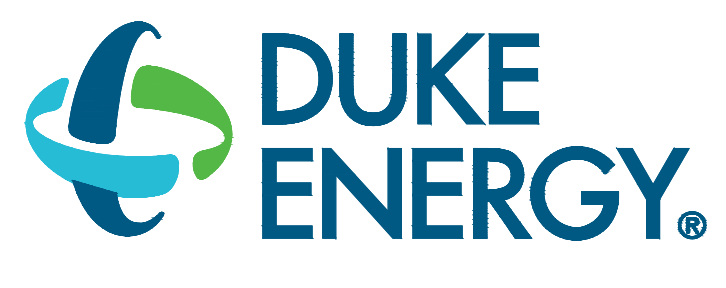
Name Elle Barile

Title Project Engineer

ELECTRICAL SYMBOL LEGEND

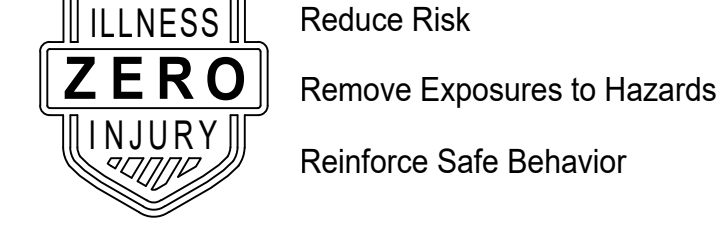
SYMBOL	DESCRIPTION	ON CENTER MTG. HT.
	CONCEALED CONDUIT IN CEILING OR WALL	18"
	CONCEALED CONDUIT IN FLOOR OR UNDERGROUND	18"
	CIRCUIT HOMERUN TO PANEL; EACH ARROWHEAD = 1 CIRCUIT	
	NO. OF CONDUCTORS IN CONDUIT; EACH CROSSHATCH = 1 WIRE	
	FLEXIBLE CONDUIT OR S.O. CORD	
	EXPOSED CONDUIT	
	CONDUIT STUBBED UP OR TURNED DOWN	
	PLYWOOD BACKBOARD	
	SURFACE MOUNTED RACEWAY	
	MULTI OUTLET SURFACE MOUNTED RACEWAY	18"
	WALL MOUNTED SINGLE RECEPTACLE OUTLET	18"
	WALL MOUNTED DUPLEX RECEPTACLE OUTLET	AS REQUIRED
	WALL MOUNTED G.F.C.I. DUPLEX RECEPTACLE OUTLET	18"
	WALL MOUNTED G.F.C.I. DUPLEX RECEPTACLE OUTLET - ABOVE COUNTER	AS REQUIRED
	WALL MOUNTED ISOLATED GROUND DUPLEX RECEPTACLE OUTLET	18"
	WALL MOUNTED DOUBLE DUPLEX RECEPTACLE OUTLET	18"
	WALL MOUNTED SPECIAL RECEPTACLE OUTLET	18"
	JUNCTION BOX	
	WALL MOUNTED COMBINATION DATA/VOICE OUTLET. PROVIDE JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING.	18"
	WALL MOUNTED VOICE OUTLET. PROVIDE JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING.	18"
	WALL MOUNTED DATA OUTLET. PROVIDE JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING.	18"
	JUNCTION BOX FOR TV. PROVIDE JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING.	
	2-GANG JUNCTION BOX FOR AV, LOW-VOLTAGE WIRING BY OTHERS. PROVIDE JUNCTION BOX WITH 1-1/4" CONDUIT TO ABOVE CEILING. U.N.O.	42"
	JUNCTION BOX FOR CARD READER. PROVIDE JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING.	
	DOME CAMERA (PROVIDED BY SECURITY CONTRACTOR)	
	WIRELESS ACCESS POINT, CEILING MOUNTED (BY OTHERS)	
	SPEAKER LOCATION (BY OTHERS)	
	FLOOR BOX DEVICES WITH POWER, TELE/DATA, AV PER PLANS (SEE DRAWINGS FOR MODEL#)	
	FLOOR BOX DEVICES WITH POWER AND TELE/DATA PER PLANS (SEE DRAWINGS FOR MODEL#)	
	FLOOR BOX DEVICES WITH QUAD RECEPT & TELE/DATA OUTLETS (SEE DRAWINGS FOR MODEL#)	
	FLOOR BOX DEVICES WITH DUPLEX RECEPT & TELE/DATA/AV OUTLETS (SEE DRAWINGS FOR MODEL#)	
	FLOOR BOX DEVICES WITH ONLY TELE/DATA/AV OUTLETS (SEE DRAWINGS FOR MODEL#)	
	FLOOR BOX DEVICE TO MODULAR FURNITURE	
	JUNCTION BOX FOR POWER CONNECTION TO MODULAR FURNITURE. COORD. EXACT LOCATION WITH ARCH. PROVIDE ALL REQ. CONNECTIONS (THE # OF WORKSTATIONS TO BE POWERED ARE DENOTED BY A NUMBER NEXT TO THE POWER JUNCTION)	18"
	JUNCTION BOX FOR TELE/DATA CONNECTION TO MODULAR FURN. COORD. EXACT LOCATION WITH ARCH. PROVIDE 1-1/4" EMPTY CONDUIT WITH PULLSTRING TO ABOVE ACCESSIBLE CEILING.	18"
	PROVIDE AND INSTALL JUNCTION BOX ABOVE CEILING TO SUPPLY POWER WHICH SHALL SUPPLY EACH WORKSTATION WITH TWO (2) DUPLEX AND ONE (1) VOICE DATA, POWER POLE TO BE SUPPLIED BY TENANT AND INSTALLED BY E.C. (THE # OF WORKSTATIONS TO BE POWERED ARE DENOTED BY A NUMBER NEXT TO THE POWER POLE)	
	277/480 VOLT PANELBOARD	
	120/208 VOLT PANELBOARD	
	RECESSED MOUNTED 120/208 VOLT PANELBOARD TRANSFORMER	
	LIGHT FIXTURE	
	EXIT SIGN - CEILING/WALL MT.	
	LIGHT FIXTURE ON EMERGENCY CIRCUIT	
	LIGHT FIXTURE ON BATTERY BACKUP (90MIN, 1100 LUMEN)	
	WALL MOUNTED S.P.S.T. TOGGLE SWITCH	42"
	WALL MOUNTED 3-WAY TOGGLE SWITCH	42"
	WALL MOUNTED 4-WAY TOGGLE SWITCH	42"
	WALL MOUNTED DIMMER SWITCH (WATTAGE AS REQUIRED)	42"
	WALL MOUNTED TIMER SWITCH	
	WALL MOUNTED MANUAL OVERRIDE SWITCH (TO OVERRIDE CIRCUIT DESIGNATED AT LIGHTING CONTACTOR PANEL)	42"
	MOTION DETECTOR SWITCH W/ MANUAL OVERRIDE - WALL MOUNTED.	42"
	MOTION DETECTOR - CEILING MOUNTED	
	DAYLIGHT SENSOR	
	MOTOR RATED TOGGLE SWITCH	AS REQ'D.
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH	
	DISCONNECT SWITCH (FRAME/POLES/FUSE-IF REQUIRED)	
	MOTOR - NUMBER INDICATES HORSEPOWER (F= FRACTIONAL)	
	FIRE ALARM ADA APPROVED VISUAL ALARM - WALL MOUNTED	80" A.F.F.
	FIRE ALARM ADA APPROVED VISUAL ALARM - CEILING MOUNTED	
	FIRE ALARM ADA APPROVED AUDIO/VISUAL ALARM - WALL MOUNTED	80" A.F.F.
	FIRE ALARM ADA APPROVED AUDIO/VISUAL ALARM - CEILING MOUNTED	
	FIRE ALARM PULL STATION	48" A.F.F.
	SMOKE DETECTOR - CEILING MOUNTED	
	DUCT MOUNTED SMOKE DETECTOR	
	MAGNETIC DOOR HOLD DEVICE TO INTERLOCK WITH FIRE ALARM SYSTEM	
	TAMPER SWITCH - FIRE ALARM	
	FLOW SWITCH - FIRE ALARM	
	HEAT DETECTOR - FIRE ALARM	
	FURNISHED BY OTHERS	
	ABOVE FINISHED FLOOR/ABOVE FINISHED GRADE	
	BELOW CEILING	
	ABOVE COUNTER	
	WEATHER PROOF	
	EXISTING/RELOCATED/NEW	
	GROUND FAULT INTERRUPTING CIRCUIT	
	EMPTY CONDUIT (PROVIDE PULLSTRING IN ALL EMPTY CONDUIT)	
	FUSE PER MANUFACTURER'S RECOMMENDATION	
	ISOLATED GROUND	

- NOTES:**
- COORDINATE LOCATION AND SPECIFIC MOUNTING HEIGHT WITH ARCHITECT.
 - MOUNTING HEIGHTS SHALL BE AS INDICATED IN THE LEGEND UNLESS OTHERWISE NOTED ON THE PLANS.

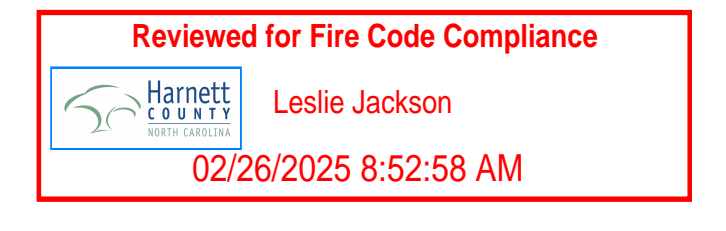


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 CHARLOTTE, NC 28201

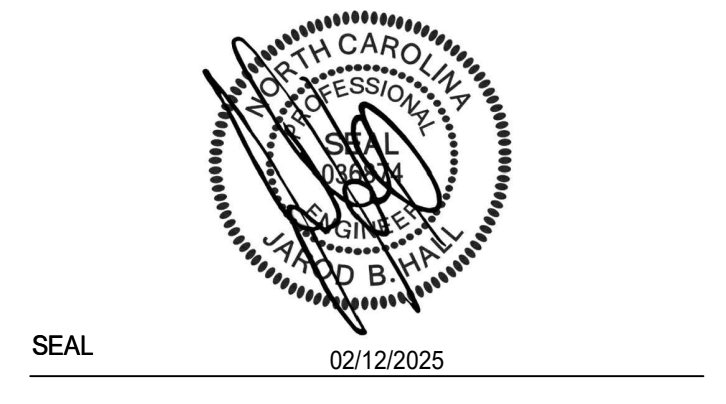
Safety Expectations:



Reduce Risk
 Remove Exposures to Hazards
 Reinforce Safe Behavior



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 Charlotte, North Carolina 28217
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 BWA JOB # 2022-0632



DUNN OPERATIONS CENTER

OPS CENTER OUTBUILDINGS

REVISION	DATE	BY	CHKD	DATE
1	02/12/2025			
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3				
4				
5				
6				
7				
8				
9				
10				

PROJECT NO.
 DRAWING NUMBER
 CFD-XXXX-E-0001-41CC2B

ELECTRONIC FILE NAME:
 DRAWN BY: **SEB** 2/12/25
 CHK'D BY: **XXX** **XXX**

E-MAIL: **jhall@barrettwoodyard.com**

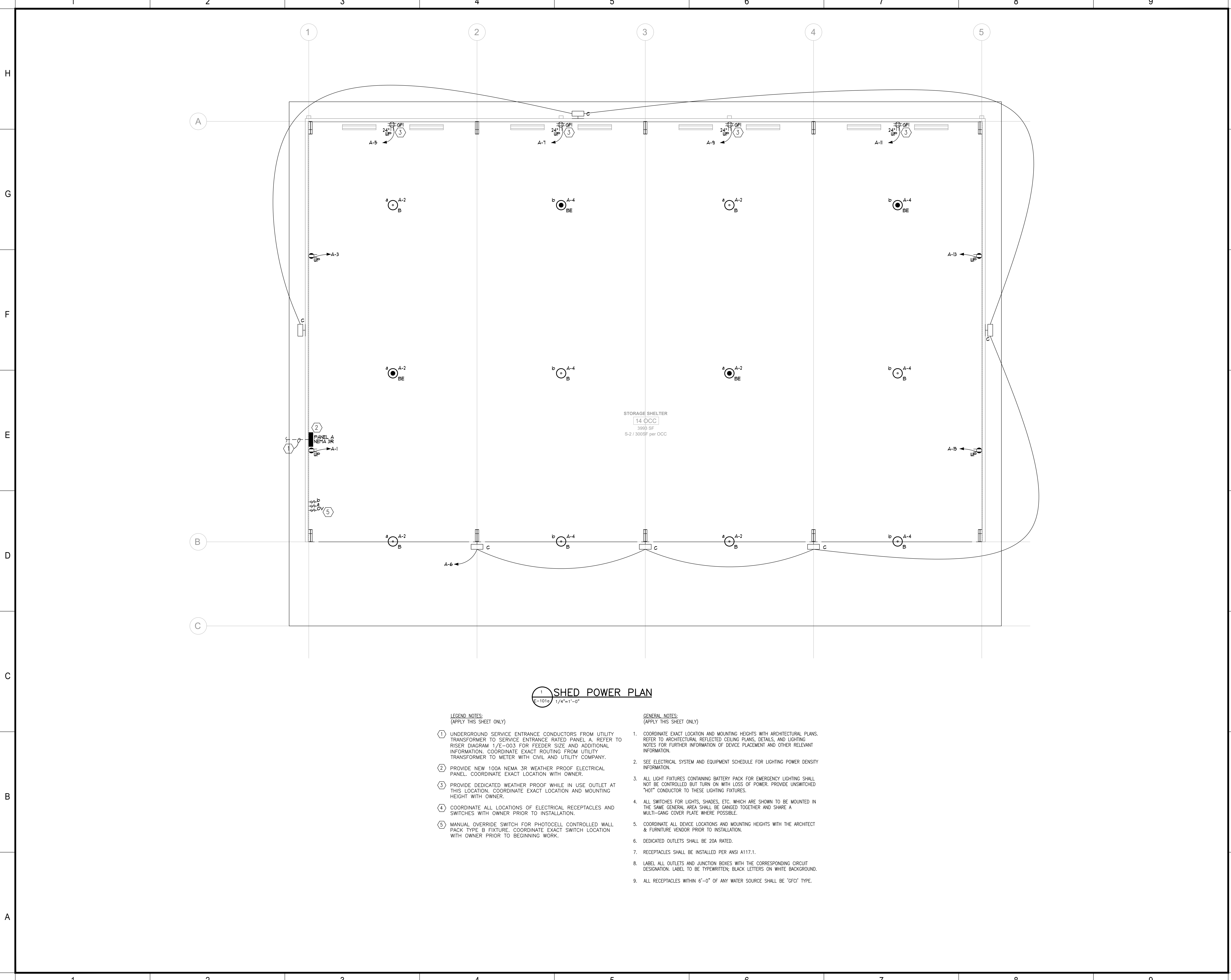
SHEET TITLE:
LEGEND, NOTES, AND DETAILS - ELECTRICAL

SHEET NO.
E-001

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| SECTION 260010
ELECTRICAL GENERAL
<u>1.0 GENERAL</u>
1.01 SCOPE
A. Division 26 includes all Specifications in the 260000 series and the accompanying Electrical Drawings. Provide all labor, materials and equipment, and all necessary operations to provide the complete scope of the electrical systems intended under this Division. Division 26 is not a stand-alone document, but a part of the complete Project Documents.
B. Attention is called to the fact that there are many interfaces between the work required in this Division and the work required in other Divisions. Provide the necessary interface and coordination with other Divisions to provide a complete project.
1.02 EXISTING CONDITIONS
A. Attention is called to the fact that the work is to be performed within an existing, operational facility. Prior to the submission of bids, each bidder shall visit the project site, thoroughly investigate and be familiar with all existing conditions, which will affect their work, especially the work to be performed above the existing ceilings.
B. When this project is finished, the work under this Division shall be complete in every respect, completely integrated with all the existing systems, and left in perfect operating condition. The electrical service to the building shall not be interrupted at any time without written coordination of the building's Owner. All existing electrical equipment removed during the project shall be removed from the site after inspection of the building's Owner. All existing electrical systems required to be operating at the project's completion or required to remain in use during the project shall be reconnected, replaced, rerouted or otherwise made to fit with proper workmanship techniques and left in safe working order.
C. Connect new work to existing work in a neat and workmanlike manner. Where an existing structure must be cut or existing utilities interfere, such obstructions shall be bypassed, removed, replaced or relocated, patched and repaired. Work disturbed or damaged shall be replaced or repaired to its prior condition.
1.03 CODES AND REGULATIONS
A. All work under this Division shall comply with all local building codes, laws, regulations, ordinances and the requirements of the 2023 National Electrical Code.
B. Where conflicts of installation requirements occur between the aforementioned codes, regulations or the Contract Documents, the most restrictive shall govern.
C. Obtain all permits and licenses and pay all fees required by local authorities. Arrange for all necessary inspections required by the authorities having jurisdiction and provide written certificates of approval to the project Owner or his designated representative.
1.04 DEFINITIONS
A. Contract Documents: The complete set of project Drawings and Specifications.
B. Provide: Furnish, install and connect.
C. Work: All materials installed, including all labor to provide complete system.
D. Wiring or Wired: All wire or cable installed in conduit from panelboard to equipment and connected at both ends with all required boxes, connectors, couplings, etc.
E. Conduit: Rigid steel conduit intermediate metal conduit (I.M.C.), electrical metallic tubing (EMT) plastic conduit (PVC), or flexible steel conduit.
1.05 DRAWINGS AND SPECIFICATIONS
A. The Drawings and Specifications together are to be considered as the Contract Documents. Any work shown in one and not shown in the other, or implied by either, shall be provided to give a complete project.
B. Should any conflicts exist between the Drawings and Specifications or there is an item shown/called for which is not clearly defined, immediately submit a request for clarification. No additional monies will be granted later when a conflict is resolved or an item is more clearly defined.
C. The Drawings are schematic and are not intended to show the exact location outlets, etc. or the routing of conduit.
D. The exact location of equipment requiring electrical connections (mechanical equipment, elevators, lights, etc.) shall be as located by other Divisions of the Contract Documents. Refer to the Architectural, Structural and Mechanical Documents for dimensions and details of building construction and provide work described in this Division so that it conforms to the details of the project. The right is reserved to relocate any receptacle, switch or other outlet a maximum of 10'-0" before it is permanently installed without incurring additions to the Contract amount.
1.06 SITE VISIT
A. Visit the site and become familiar with all aspects of the site and existing conditions before submitting Contract price.
B. No allowance will be made for lack of knowledge of existing conditions.
1.07 DEVIATIONS
A. No deviations from the Contract Documents shall be made without the full knowledge and written consent of the Architect.
B. If the existing conditions make it desirable to modify the Contract Documents in regard to any item, provide a written request to the Architect.
<u>2.0 PRODUCTS</u>
2.01 STANDARDS FOR MATERIALS AND WORKMANSHIP
A. All materials used shall be new and shall be stamped with the label of Underwriters Laboratories, Inc. (UL).
B. All materials shall meet the standards of the following associations and institutes where applicable:
1. National Fire Protection Association (NFPA)
2. American Society of Testing Materials (ASTM)
3. American National Standards Institute (ANSI)
4. National Electrical Manufacturer's Association (NEMA)
5. Institute of Electrical and Electronic Engineers (IEEE)
C. Manufacturers names and catalog numbers specified herein are intended to describe the material and set the standard of quality. All bids shall be based on material specified. Requests for approval of material not specified shall be considered if the request is in written form and submitted to the Architect no later than fourteen (14) days before bid date. All requests shall conform with the provisions of the general and supplementary conditions.
D. Samples of materials requested to be substituted shall be furnished upon the request of the Architect.
2.02 SHOP DRAWINGS AND SUBMITTAL
A. The Engineer's review of shop drawings or submittals is a cursory review to check for general compliances of submittals with the design intent of the Contract Documents. The Engineer's review does not relieve the Contractor of his responsibility of complying with the Contract Documents. All coordination of the work in strict compliance with the Contract Documents is the sole responsibility of the Contractor.
B. The following items shall be submitted for review: | 1. Conduit and wire
2. Devices
3. Coverplates
4. Panelboards
5. Fuses
6. Overcurrent devices
7. Disconnect switches
8. Lighting fixtures
9. Lighting control system
10. Dimming system
11. Life safety system
12. Motor starters
C. All shop drawings and submittals shall be submitted in compliance with the requirements of the general and supplementary conditions. All submittals are to be received electronically in .pdf format only.
D. All submittals shall bear the name of the manufacturer to be used, along with all associated options and specific input/output requirements clearly marked.
E. All shop drawings and submittals shall include a stamped indication signifying that the submittal has been reviewed for compliance with the Contract Documents by the Contractor. This stamped indication also represents the fact that the Contractor has checked this submittal for its interaction with all other Divisions and certifies by his signature or initials that all coordination has taken place. The stamp shall include the date, name of the Contracting Firm, the signature of the Contractor, certification of compliance and approval. This stamp shall be on the submittal before the Engineer will review it.
F. The engineer will review an individual submittal not more than twice. If the submittal is rejected again on the second review, the contractor will bear all responsibility for paying for the engineer's time for additional reviews. Such payments to the engineer shall be withheld from the next monthly pay application.
2.03 RECORD (AS-BUILT) DRAWINGS AND MAINTENANCE MANUALS
A. At job completion, submit to the Architect, an electronic set of the latest plans, in .pdf format, showing all deviations from the Contract Documents. The Drawings shall also have dimensions locating all underground conduits.
B. At job completion, submit to the Architect, three (3) hardcopy sets of maintenance and instruction manuals for all equipment furnished on the project. Also provide an electronic copy in .pdf format. Coordinate file delivery method with the architect.
<u>3.0 EXECUTION</u>
3.01 COORDINATION
A. Coordinate all space requirements with all other Divisions before installing any work. Install work such that adequate space will be allotted for all other work from other Divisions to be installed and also will allow room for future access for repair and maintenance.
B. Any work installed without proper coordination shall be relocated at the Architect's direction without increasing the Contract price.
C. During the bidding process or the pricing for a guaranteed maximum price, coordinate with all other Divisions for the total amount of work required in Division 26. Any work shown or implied in another Division requiring work in Division 26 shall be included in the Contract price regardless of whether or not it is addressed in Division 26.
3.02 PROTECTION OF MATERIALS
A. All equipment shall have the original finish when the building is turned over to the Owner.
B. Protect equipment during construction from dirt, water, chemical or mechanical damage, etc. Protect all conduit openings so that no foreign material will enter the conduit.
3.03 TESTS, DEMONSTRATION AND
INSTRUCTIONS
A. Functional Testing:
1. Test all systems described in this Division in the presence of the Owner or a designated representative upon completion of the work. Demonstrate that the installation is in accordance with Contract Documents.
2. For all new lighting and lighting control systems within the Contract Documents, the contractor shall obtain the services of a licensed professional engineer (registered to the state this project is within) to perform system commissioning in compliance with local energy conservation codes. The contractor shall demonstrate in the presence of the commissioning agent that the installation of such systems are in accordance with the Contract Documents.
B. Any work found not to be in compliance with the Contract Documents shall be repaired or replaced without incurring any additions to the Contract price.
C. Provide to the Owner and System Commissioning Agent, all instruction on maintenance and operation of all systems and equipment provided under this Division. Provide all necessary tools and personnel to thoroughly present these instructions. The documentation shall include the following, at minimum:
1. Submittal data indicating all selected options.
2. Operation and maintenance manual for all equipment and systems. Include routine maintenance actions and cleaning procedures.
3. A schedule for inspecting and recalibrating, where applicable.
4. A narrative of how each system is intended to operate, including any recommended set points where adjustment is available.
D. At project completion, prior to obtaining Certificate of Occupancy, present at final inspection to the jurisdiction's AHJ a signed and dated statement of system commissioning for all lighting and lighting control systems. The format of the statement of system commissioning shall be in the form required by the state's energy conservation codes and/or AHJ requirements. The document shall be signed by the contractor's licensed professional engineer representative.
3.04 GUARANTEE
A. All systems, equipment, components, work, etc. provided under this Division shall be covered by a one year guarantee starting at the time of final acceptance of the work by the Owner. Any defects in the work, systems, equipment or components found during this year shall be corrected at no charge. The guarantee shall include providing all necessary cutting, patchwork, repainting, etc. to make the work complete and new.
B. Present this guarantee and any additional warranties or guarantees on furnished equipment or systems to the Architect. All equipment or system guarantees are in addition to the general guarantee.
END OF SECTION
SECTION 261000
ELECTRICAL BASIC MATERIALS & METHODS
<u>1.0 GENERAL</u>
1.01 DESCRIPTION
A. All work specified in this Section shall comply with the provisions of Section 260010.
B. This Section describes the basic electrical materials and installation methods that are acceptable and applicable to Division 26.
<u>2.0 PRODUCTS</u> | 2.01 CONDUIT
A. Galvanized rigid steel conduit shall be low carbon, hot-dipped galvanized both inside and out with threaded joints.
B. Intermediate metal conduit (IMC) shall be steel, galvanized both inside and out with threaded joints.
C. Electrical metallic tubing (EMT) shall be steel, galvanized both inside and out.
D. Plastic conduit (PVC) shall be schedule 40 PVC heavy wall type. A grounding conductor shall be provided.
E. Flexible metal conduit shall be flexible steel conduit tubing and shall meet Underwriters Laboratories Standard for Flexible Steel Conduit.
F. Liquid-tight flexible metal conduit and liquid-tight non-metallic conduits shall be liquid-tight and sunlight resistant.
G. Steel conduit approved manufacturers are Allied, Triangle and Republic.
H. PVC conduit approved manufacturers are Carlon and Triangle.
2.02 CONDUIT FITTINGS
A. Rigid conduit and IMC conduit fittings shall be zinc-coated, ferrous metal and taper threaded type.
B. EMT fittings shall be zinc-coated metal and hexnut compression or set-screw type. EMT connectors shall have insulated throats.
C. PVC fittings, elbows and cement shall be produced by the same manufacturer. All joints shall be solvent welded in accordance with the manufacturer's recommendations.
D. Conduit connections to switchboards, motor control centers, transformers, panel cabinets, and pull boxes shall have grounding wedge lugs between the bushing and the box or locknuts designed to bite into the metal.
E. Each conduit end shall be provided with either an insulated throat connector or separate locknut and insulated bushing. Bushing shall be installed before any wire is pulled.
F. Conduit fittings approved manufacturers are Raco, Steel City, O.Z. Gedney, Thomas & Betts and Appleton.
G. Expansion fittings shall be provided in all conduit which crosses and expansion joint.
2.03 CONDUCTORS
A. Conductors shall be copper of 98% conductivity, 600 volt insulation. Sizes specified are AWG gauge for No. 4/0 and smaller and circular mils (MCM) for all sizes larger than no. 4/0. Conductors No. 10 and smaller shall be solid and type "THHN" or "THWN" insulation. No. 8 and larger shall be stranded and type "THW" or "XHHW" insulation.
2.04 OUTLETS
A. Outlet boxes and covers shall be of such form and dimensions as to be adapted to their specified usage, locations, size and quantity of conduit, and size and quantity of conductors entering the boxes. In special "Fire Rated" partitions, outlets shall comply with ASTM No. E119.
B. Flush ceiling outlets for surface or pendant mounted lighting fixtures shall be one-piece 4" square or octagonal pressed steel boxes. Boxes for devices in unfinished masonry walls or stud walls shall be pressed steel, square corner, sectional switch boxes, or shall be 4" square box with a square cornered tile wall cover, set flush with masonry construction. Boxes in concrete ceiling slab shall be octagonal, shallow concrete boxes. Welded boxes are not acceptable.
C. All outlet boxes in plaster or masonry walls or ceiling shall be provided with plaster rings.
D. Junction boxes and all outlets not indicated as containing wiring devices or lighting fixtures shall have covers. Covers for outlets in walls shall be as specified for wall switches and receptacles.
E. Outlet boxes exposed to the weather and outlet boxes for vaportight lighting fixtures and devices shall be of cast iron corrosion resistant type.
F. Outlet box approved manufacturers are Appleton, Raco, Steel City or Crouse-Hinds.
2.05 DISCONNECT SWITCHES
A. Disconnect switches shall be "heavy-duty" type, enclosed switches of quick-make, quick-break construction. Switches shall be horsepower rated for 600 volts AC as required. Lugs shall be UL listed for copper and aluminum.
B. Padlocking provisions shall be provided for padlocking in the OFF position.
C. Switches shall be furnished in NEMA 1 General purpose enclosure unless noted otherwise. Switches located on the exterior of the building or in "wet" locations shall have NEMA 3R enclosures.
D. Fused disconnect switches shall have rejection type fuse clips with dual element, current limiting fuses of rating shown.
E. Disconnect switches shall be mounted to structure. Disconnect switches shall not be mounted to mechanical equipment or ductwork.
2.06 NAMEPLATES
A. Nameplates shall have 3/8" high engraved letters.
B. 120 or 208 volts: white core laminated bakelite with black finish.
C. 277 or 480 or higher volts: white core laminated bakelite with red finish.
D. Nameplate shall indicate the panel name and the name of the device or equipment where the power supply/feeder originates.
2.07 WALL SWITCHES
A. Wall switches shall be plastic, totally enclosed, quiet type, self-grounding, 277 volts and 20A rating and shall match existing if possible and equal the following:
Single Pole: Hubbell No. CS1221, or equal by Leviton, P&S or Cooper.
Double Pole: Hubbell No. CS1222, or equal by Leviton, P&S or Cooper.
Three-Way: Hubbell No. CS1223, or equal by Leviton, P&S or Cooper.
Four-Way: Hubbell No. CS1224, or equal by Leviton, P&S or Cooper.
B. Color shall be as selected by architect.
C. Flush motor switches with red pilot light and with overload protection for fractional horsepower motors shall be Hubbell No. HBL1221PL.
D. Key switches shall be Hubbell No. HBL1221L 20A Series or approved equal by P&S or Leviton.
2.08 WALL MOUNTED OCCUPANCY SWITCHES
A. The passive infrared sensor shall be a completely self-contained control system that replaces a standard toggle switch. Sensor shall have ground wire for safety. Switching mechanism shall be a latching air gap relay, compatible with electronic ballasts, compact fluorescent and inductive loads. Triac and other harmonic generating devices shall not be allowed.
B. Sensor shall cover up to 1000 sq. ft. for walking motion, with a field of view of 180 degrees.
C. Sensor shall have system which provides superior 180 degree coverage. | D. Sensor shall operate at 120 VAC or 277 VAC.
E. Sensor shall have no minimum load requirement and shall be capable of switching from 0 to 500 watt incandescent; 0 to 800 watts fluorescent or 1/6 hp @ 120 VAC, 60 Hz; and 0 to 1200 watts fluorescent or 1/3 hp @ 277 VAC, 60 Hz.
F. For accuracy and consistency, sensor shall have a DIP switch controlled, digital time delay adjustable from 15 seconds to 30 minutes.
G. Sensor shall have standard 5 year warranty and shall be UL and CUL listed.
H. Sensor shall be Wattstopper W1 Series, Leviton Decora Series or approved equal by engineer.
2.09 RECEPTACLES
A. Duplex receptacles shall be plastic, two-pole, three wire, self-grounding, side wired, 125 volts and 15A rating and shall match existing if possible and be equal to the following:
Duplex receptacles shall be Hubbell No. CR5262 Series, or
equal by Leviton, P&S or Cooper. Isolated ground type shall be Hubbell No. CR5252IG Series, or equal by Leviton, P&S or Cooper.
B. Single receptacles shall be two-pole, three wire, self-grounding, side wired, 125 volts and 20A rating and shall be equal to the following: Single receptacles shall be Hubbell No. HBL5361 Series, or equal by Leviton, P&S or Cooper. Isolated ground type to be Hubbell No. IG-5361 Series, or equal by Leviton, P&S or Cooper.
C. Ground fault circuit interrupt (GFI) receptacles shall be Hubbell GFR5352, or equal by P&S, Leviton or Cooper.
D. Color shall be as selected by the Architect.
2.10 COVERPLATES
A. Coverplates for flush mounted devices shall be standard size (color or finish to be selected by the architect), Hubbell "P" Series or equal by Leviton, P&S or Cooper.
B. Telephone outlet coverplates shall have same finish as above and have a bushed hole in the center.
C. Coverplates for exterior devices shall be self-closing, die cast aluminum Hubbell WP8M or equal by Leviton, P&S or Cooper.
2.11 PLYWOOD BACKBOARDS
A. Provide plywood backboards where shown. Backboards shall be minimum 3/4" thick and sized as shown or to accommodate equipment indicated to be mounted thereon.
B. Secure plywood to the building structure and paint with two coats of gray stain.
2.12 SMOKE AND FIRE STOP FITTINGS
A. Smoke and Fire Stop Fittings shall be UL listed for that purpose. The fittings used to seal conduit either on the outside of the conduit, busway or cable or internally shall have heat activated intumescent material, which expands to fill all voids. Smoke and fire stop fittings shall be O.Z./Gedney "FIRE-SEAL" or Dow Corning Silicone RTV foam with an hourly fire-rating equal to or higher than the rating of the floor, ceiling or wall through which the cable or conduit passes. The seals for conduit shall be of the flanged type.
2.13 FUSES
A. Provide all fuses. All fuses shall be of the same manufacturer. All fuses shall be of the high interrupting rating (200,000 Amps), current limiting type and manufactured by Busmann. Fuses shall be provided for each fuse outlet and the specified quantity of fuses shall be furnished for spares.
B. Circuits 0 to 600 amperes shall be protected by rejection type, current limiting BUSSMANN LOWPEAK Dual Element Fuses LPN-RK (250 volts) or LPS-RK (600 volts). All dual-element fuses shall have separate overload and short-circuit clearing chamber. The fuse must hold 500% of rated current for a minimum of 10 seconds and be listed by Underwriter's Laboratories, Inc., with an interrupting rating of 200,000 amperes RMS symmetrical. The fuses shall be UL Class RK-1.
C. Circuits 601 to 6000 amperes shall be protected by current limiting BUSSMANN HI-CAP Time-Delay Fuses KRP-C. Fuses shall employ "O" rings as positive seals between the end bells and the glass melamine fuse barrel. The terminals shall be opened. Fuses shall be time-delay and must hold 500% of rated current for a minimum of 4 seconds, clear 20 times rated current in 0.1 seconds or less and be listed by Underwriter's Laboratories, Inc., with an interrupting rating of 200,000 amperes RMS symmetrical. The fuses shall be UL Class L.
D. Furnish and turn over to the Owner a minimum of one (1) set of spare fuses (set consisting of three fuses) for each type and rating of fuse used. When the number of fuse sets of the same type and rating actually installed exceeds five (5) sets, furnish an additional spare set of fuses for each five (5) or fraction thereof.
E. Provide a cabinet in which to store all spare fuses, Busman Catalog No. SFC
F. Acceptable manufacturers are Busman or equal by Littelfuse.
<u>3.0 EXECUTION</u>
3.01 CONDUIT
A. Rigid steel (or IMC) shall be used for service entrance and all feeders and branch circuits where exposed to damage.
B. EMT shall be used for branch circuits, fire alarm and telephone when not underground or in concrete in contact with the earth.
C. Schedule 40 PVC may be used for all underground feeders, service entrance conductors when encased in 4" of concrete on all sides, or under the lowest floor slab.
D. Conduit shall be continuous from outlet to outlet, from outlet to cabinet, junction box and pull box. Conduit shall enter and be secured to all boxes, etc., in such a manner that each system will be electrically continuous from service to all outlets such that a good ground is provided. All conduit from cabinets and junction boxes shall terminate in approved outlet boxes or conduit fittings. Conduit connections to any box which has no threaded hub shall be double locknutted.
E. Provide junction boxes or pull boxes where shown and where necessary to avoid excessive runs or too many bends between outlets. The conduit sizes shown may increase if desired to facilitate the pulling of cables.
F. All conduit shall be concealed unless indicated otherwise. Install exposed conduit parallel with or at right angles to the building walls and support from walls or ceilings at intervals required by Code with approved galvanized iron clamps or hangers. Concealed conduit above the ceiling shall be supported independent of ceiling construction. Where ceilings of lay-in type are used, conduit must be installed high enough to permit removal of ceiling panels and lighting fixtures, service entrance conductors when encased in 4" of concrete on all sides, or under the lowest floor slab.
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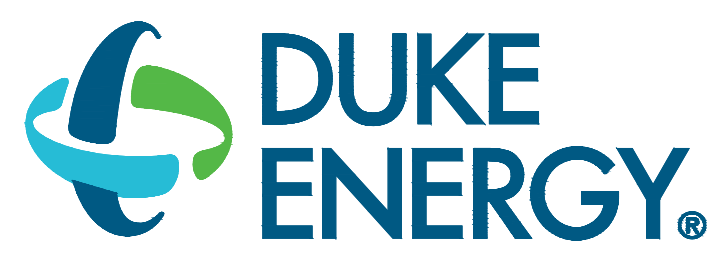
1 SHED POWER PLAN
E-101a 1/4"=1'-0"

LEGEND NOTES:
(APPLY THIS SHEET ONLY)

- ① UNDERGROUND SERVICE ENTRANCE CONDUCTORS FROM UTILITY TRANSFORMER TO SERVICE ENTRANCE RATED PANEL A. REFER TO RISER DIAGRAM 1/E-003 FOR FEEDER SIZE AND ADDITIONAL INFORMATION. COORDINATE EXACT ROUTING FROM UTILITY TRANSFORMER TO METER WITH CIVIL AND UTILITY COMPANY.
- ② PROVIDE NEW 100A NEMA 3R WEATHER PROOF ELECTRICAL PANEL. COORDINATE EXACT LOCATION WITH OWNER.
- ③ PROVIDE DEDICATED WEATHER PROOF WHILE IN USE OUTLET AT THIS LOCATION. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER.
- ④ COORDINATE ALL LOCATIONS OF ELECTRICAL RECEPTACLES AND SWITCHES WITH OWNER PRIOR TO INSTALLATION.
- ⑤ MANUAL OVERRIDE SWITCH FOR PHOTOCCELL CONTROLLED WALL PACK TYPE B FIXTURE. COORDINATE EXACT SWITCH LOCATION WITH OWNER PRIOR TO BEGINNING WORK.

GENERAL NOTES:
(APPLY THIS SHEET ONLY)

- 1. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS WITH ARCHITECTURAL PLANS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, DETAILS, AND LIGHTING NOTES FOR FURTHER INFORMATION OF DEVICE PLACEMENT AND OTHER RELEVANT INFORMATION.
- 2. SEE ELECTRICAL SYSTEM AND EQUIPMENT SCHEDULE FOR LIGHTING POWER DENSITY INFORMATION.
- 3. ALL LIGHT FIXTURES CONTAINING BATTERY PACK FOR EMERGENCY LIGHTING SHALL NOT BE CONTROLLED BUT TURN ON WITH LOSS OF POWER. PROVIDE UNSWITCHED "HOT" CONDUCTOR TO THESE LIGHTING FIXTURES.
- 4. ALL SWITCHES FOR LIGHTS, SHADES, ETC. WHICH ARE SHOWN TO BE MOUNTED IN THE SAME GENERAL AREA SHALL BE GANGED TOGETHER AND SHARE A MULTI-GANG COVER PLATE WHERE POSSIBLE.
- 5. COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH THE ARCHITECT & FURNITURE VENDOR PRIOR TO INSTALLATION.
- 6. DEDICATED OUTLETS SHALL BE 20A RATED.
- 7. RECEPTACLES SHALL BE INSTALLED PER ANSI A117.1.
- 8. LABEL ALL OUTLETS AND JUNCTION BOXES WITH THE CORRESPONDING CIRCUIT DESIGNATION. LABEL TO BE TYPEWRITTEN; BLACK LETTERS ON WHITE BACKGROUND.
- 9. ALL RECEPTACLES WITHIN 6'-0" OF ANY WATER SOURCE SHALL BE "GFCI" TYPE.



MAILING ADDRESS:
P.O. BOX 1007
CHARLOTTE, NC 28201

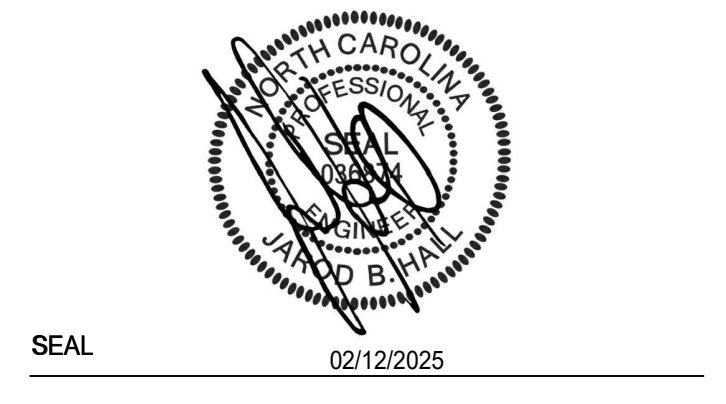
Safety Expectations:

ILLNESS ZERO INJURY ZERO

- Reduce Risk
- Remove Exposures to Hazards
- Reinforce Safe Behavior

BW & A Barrett, Woodyard and Associates, Inc.
License # C-2225
420 Minuet Ln.
Charlotte, North Carolina 28217
(p) 704-357-9333 (f) 704-357-9386

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BWA JOB # 2022-0632



DUNN OPERATIONS CENTER

OPS CENTER OUTBUILDINGS

REVISION	DATE	BY	CHK'D	ISSUED FOR CONSTRUCTION
1	02/12/2025	SEB	XXX	ISSUED FOR CONSTRUCTION

PROJECT NO:
DRAWING NUMBER:
CFD-XXXX-E-0110a-41CC2B

ELECTRONIC FILE NAME:
DRAWN BY: **SEB** 2/12/25
CHK'D BY: **XXX** **XXX**

E-MAIL: **jhall@barrettwoyard.com**

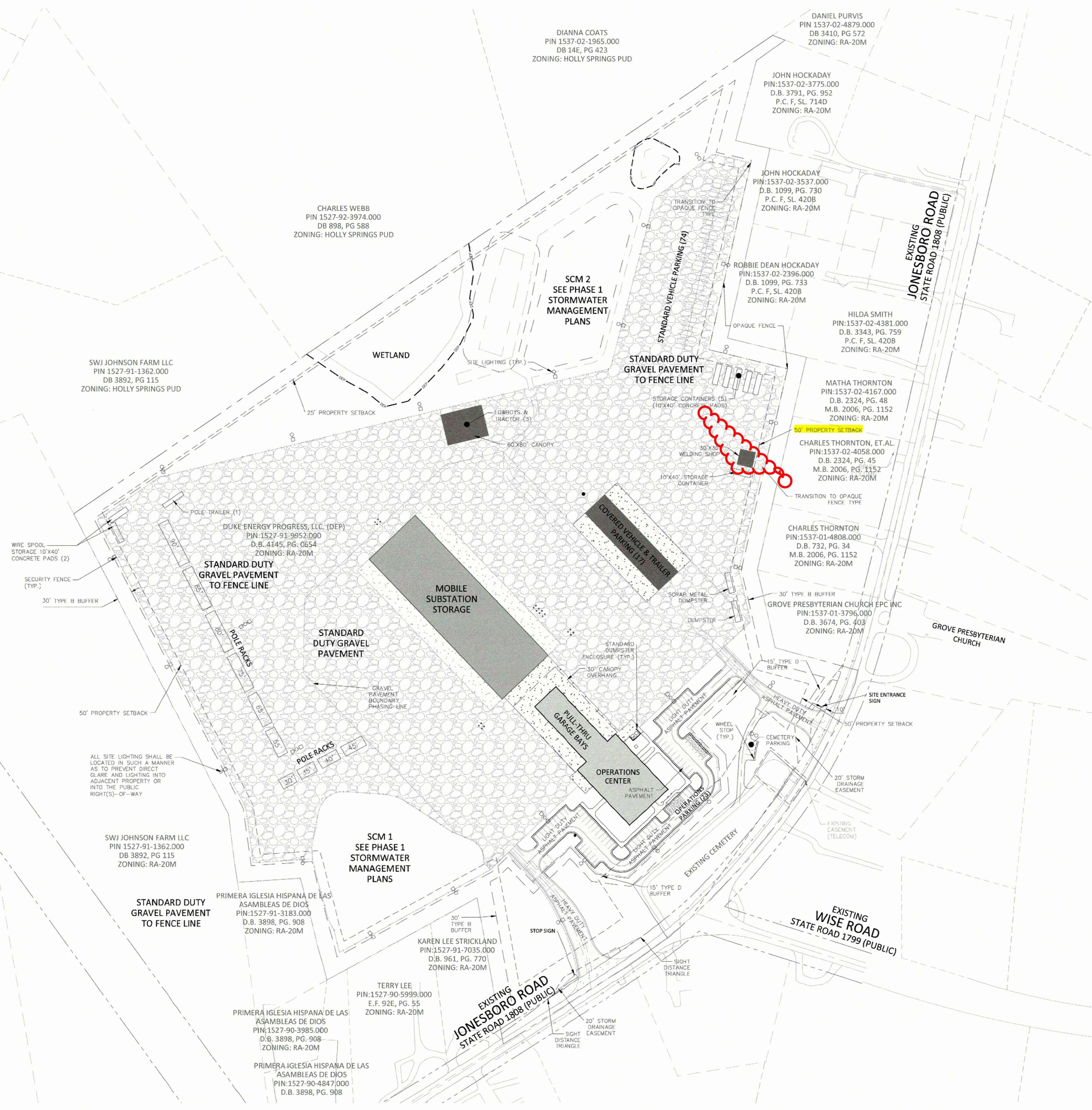
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SHEET TITLE:
SHED POWER PLAN - ELECTRICAL

SHEET NO.
E-101a

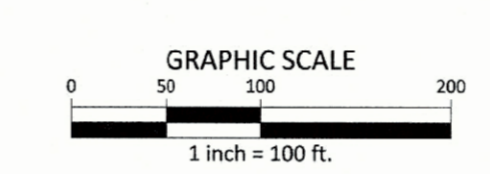
SITE NOTES

1. LOCATION AND TOPOGRAPHICAL INFORMATION WAS TAKEN FROM TOPOGRAPHIC SURVEY PERFORMED BY MCADAMS FEBRUARY 07, 2022. ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL (GROUND) DISTANCES AND VERTICAL DATUM IS NAVD 88. COORDINATES AS SHOWN ARE NC STATE PLANE GRID NAD 83 (2011).
2. THE PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE AS DEFINED BY FEMA FIRM COMMUNITY PANEL #3720152700J AND 3720153700L DATED JANUARY 05, 2007.
3. PROJECT SITE IS LOCATED IN THE CAPE FEAR RIVER BASIN AND IS NOT SUBJECT TO RIPARIAN BUFFERS.
4. ALL INFORMATION OUTSIDE OF SURVEY LIMITS PROVIDED BY DUKE ENERGY PROGRESS, CONTRACTOR SHALL LOCATE FEATURES AS NECESSARY TO COORDINATE WORK WITH THIS PROJECT.
5. ALL MATERIALS, CONSTRUCTION, WORKMANSHIP, SHALL MEET HARNETT COUNTY, DUKE ENERGY PROGRESS, LLC (DEP), AND NCDOT (WHERE APPLICABLE) SPECIFICATIONS, STANDARDS AND DESIGN.
6. CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY ACC OF AMERICA, INC., AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
7. NOT ALL EXISTING UTILITIES ARE SHOWN. LOCATIONS SHOWN ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY LOCATE BOTH HORIZONTALLY AND VERTICALLY ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY NCB11 OR THEIR SUCCESSOR AT 800-632-4849 PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY DUKE ENERGY PROGRESS, INC. IMMEDIATELY IN THE EVENT OF ENCOUNTERING ANY UNDERGROUND DISTURBANCE REQUIRING DEVIATION FROM THE PLAN. COST TO REPAIR DAMAGED UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY PAYMENT OR EXISTING UTILITIES THAT MAY BE DAMAGED DUE TO CONSTRUCTION ACTIVITY. EXERCISE CAUTION.
9. SHOULD ANY GROUNDING BE CUT OR UNEARTHED, THE GROUNDING WILL NEED TO BE REPAIRED AND RECONNECTED. THE GROUNDING SHOULD BE BETWEEN 18" TO 24" DEPTH.
10. ALL UTILITIES SHALL BE PROTECTED AND REMAIN ACTIVE UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT DISTURB UTILITY POLES, GUY WIRES, OR ANCHORS WITHOUT PERMISSION FROM DUKE ENERGY PROGRESS, INC.
11. EXISTING IMPROVEMENTS SLATED TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO THEIR ORIGINAL CONDITION OR TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.
12. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST DUKE ENERGY SPECIFICATIONS, HARNETT COUNTY SPECIFICATIONS AND NCDOT STANDARDS AND SPECIFICATIONS, AS APPLICABLE.
13. ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF OFF-SITE IN A STATE PERMITTED LANDFILL OR AS DIRECTED BY DEP REPRESENTATIVE.
14. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATE EQUIPMENT.
15. OSHA MINIMUM EQUIPMENT APPROACH DISTANCE FOR NON-QUALIFIED ELECTRICAL WORKERS IS 20 FEET FROM ENERGIZED CONDUCTORS.
16. THERE SHALL BE NO SEEDING OR FILL IN WETLANDS OR OTHER BUFFERS.
17. A TYPE B BUFFER MUST BE INSTALLED ADJACENT TO ALL RESIDENTIAL DEVELOPED PROPERTIES ALONG THE NORTHEASTERN TO THE SOUTHERN PORTION OF JONESBORO ROAD.
18. SOLID WASTE AND HAZARDOUS WASTES SHALL BE DISPOSED OF ACCORDING TO THE APPLICABLE FEDERAL AND STATE REGULATIONS. SOLID AND HAZARDOUS WASTE SHALL BE COLLECTED BY LICENSED SOLID WASTE COLLECTORS AS DEFINED IN HARNETT COUNTY SOLID WASTE MANAGEMENT ORDINANCE, ADOPTED JULY 23, 1990.
19. THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PARKING AREAS, DRIVE AISLES, AND ALL LANDSCAPE BUFFERING.
20. THIS DEVELOPMENT IS WITHIN ONE MILE OF A VOLUNTARY AGRICULTURAL DISTRICT.
21. SITE LIGHTING IS TO BE LOCATED IN SUCH A MANNER TO PREVENT DIRECT GLARE AND LIGHTING ONTO ADJACENT PROPERTY OR INTO THE PUBLIC RIGHT(S)-OF-WAY. ALL FLOOD LIGHTS SHALL BE INSTALLED IN SUCH THAT THE FIXTURE SHALL BE AIMED DOWN AT LEAST 45 DEGREES FROM VERTICAL.
22. SITE LIGHTING TO BE MCGRAW-EDISON GLEON GALLEON LIGHTS



SITE LEGEND

- ○ ○ ○ LIGHT POLE (BY OTHERS)
- — — — PROPERTY LINE
- - - - - PROPERTY SETBACK
- — — — LANDSCAPING BUFFER
- - - - - RIGHT-OF-WAY LINE
- - - - - EASEMENT LINE
- - - - - CENTERLINE
- - - - - SECURITY FENCE
- - - - - DEP PROTECTIVE BUFFER (20' FROM SURFACE WATERS)
- CONCRETE PAVEMENT
- STANDARD DUTY GRAVEL PAVEMENT
- ASPHALT PAVEMENT



DRAWING NO. CFD-XXXX-XX-XXXX



MAILING ADDRESS:
 MARK B. FRANKLIN
 JLL - DUKE ENERGY ACCOUNT
 410 S. WILMINGTON STREET
 RALEIGH, NORTH CAROLINA 27602

Safety Expectations:



SEAL

DUNN TRANSMISSION OPERATIONS CENTER

1269 JONESBORO RD
 DUNN, NC. 28334, HARNETT COUNTY

DUNN OPERATION CENTER

MARK	DATE	BY	DESCRIPTION
0			ISSUED FOR CONSTRUCTION
1			
2			
3			
4			
5			
6			
7			
8			
9			

PROJECT NO:
 DRAWING NUMBER
 CFD-XXXX-X-XXXX

ELECTRONIC FILE CS0110.DWG

DRAWN BY: SMP 08/01/2023

CHKD BY: KAS

E-MAIL: COVIL@MCADAMSCO.COM

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OVERALL SITE PLAN

SHEET NO.
 C2.00

RELEASED FOR CONSTRUCTION

E1 SIZE DWG: PLOT SIZE (30x42)



Fire Marshal Division

P.O. Box 370
Lillington, NC 27546
910-893-7580

Application for Plan Review

Permit Type: Commercial Accessory - Weld Shop

Date Received: _____ Received By: _____

Name of Project: _____

Physical Address of Project: _____

Plans Submitted By: _____

Project Phone: (_____) - ____ - ____

Contact Person/Address: _____

Contact Phone: (_____) - ____ - ____ (_____) - ____ - ____

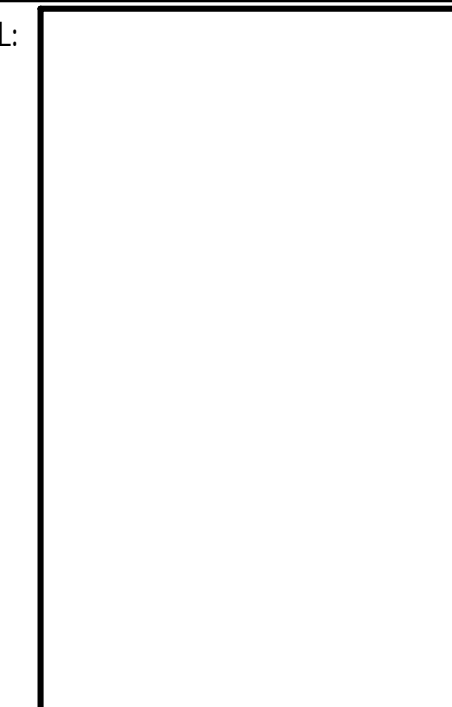
Contractor's Name/Info: _____

Contractor's Phone: (_____) - ____ - ____

Contact Email: _____

- **Plans that are submitted will be reviewed as quickly as possible with an average time of review between 7-10 working days.**
- **Status checks may be conducted on plan reviews by visiting the website <http://hteweb.harnett.org/Click2GovBP/Index.jsp> or by calling the Harnett County Central Permitting Office (910-893-7525 : Opt. 2), or the Harnett County Fire Marshal's Office (910-893-7580).**
- **Approved plans must be picked up from the Central Permitting Office and all fees paid before any required inspections can be conducted.**

SEAL:



REVISIONS

PROGRESS REVIEW #1:	9-13-24
PROGRESS REVIEW #2:	
PROGRESS REVIEW #3:	
ISSUE FOR CONST.:	9-18-24
REVISION #1:	
REVISION #2:	
REVISION #3:	
REVISION #4:	

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DUKE ENERGY
NEW WELD SHOP
1269 JONESBORO RD
DUNN, NORTH CAROLINA

PROJECT NAME:

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

FOUNDATION PLAN

MEPC PROJECT NO.: 115-24

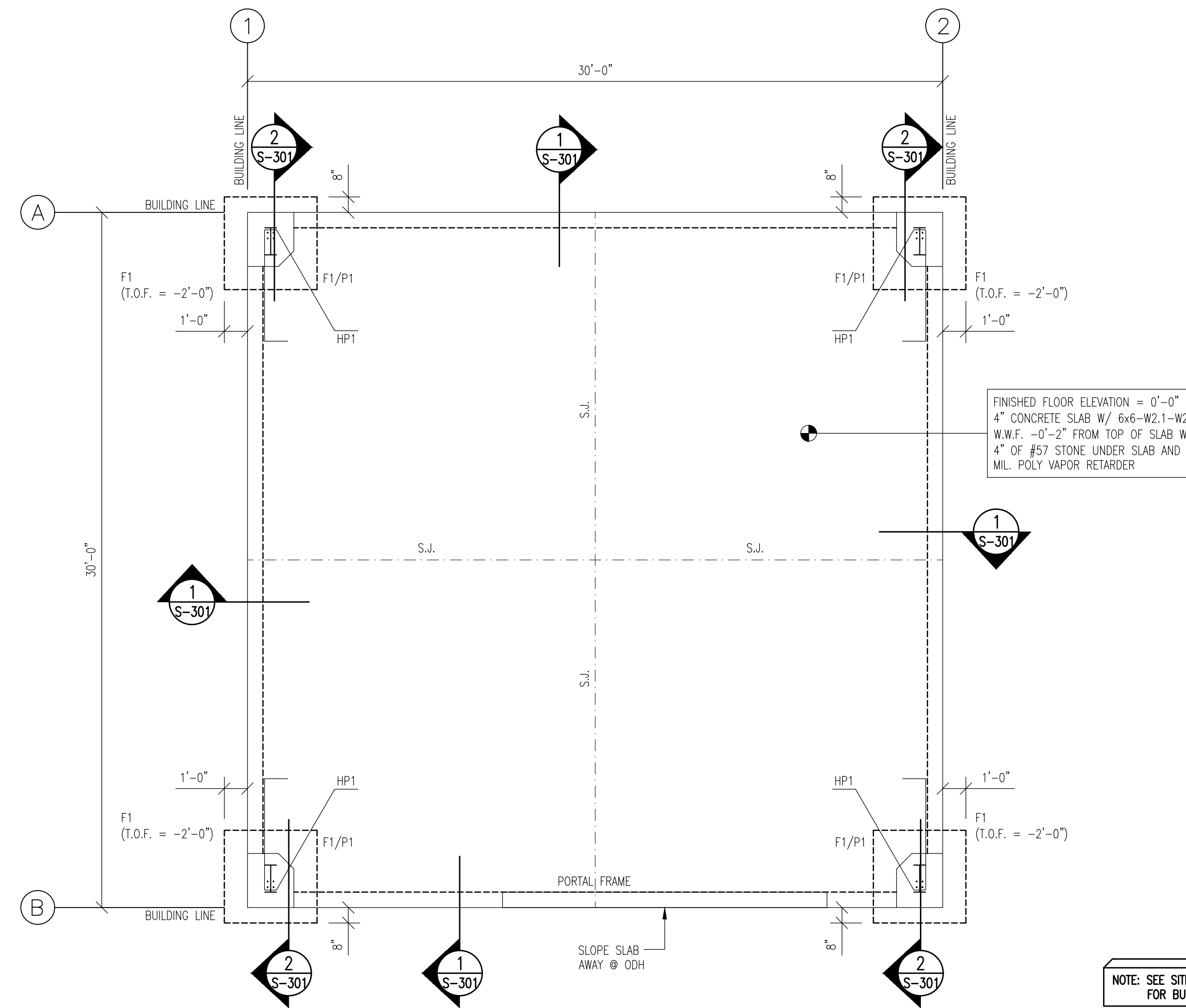
DATE: 9-18-24

DESIGN BY: JMM/PCC

DRAWN BY: JBL

CHECKED BY: JMM

S-101



WELD SHOP FOUNDATION PLAN

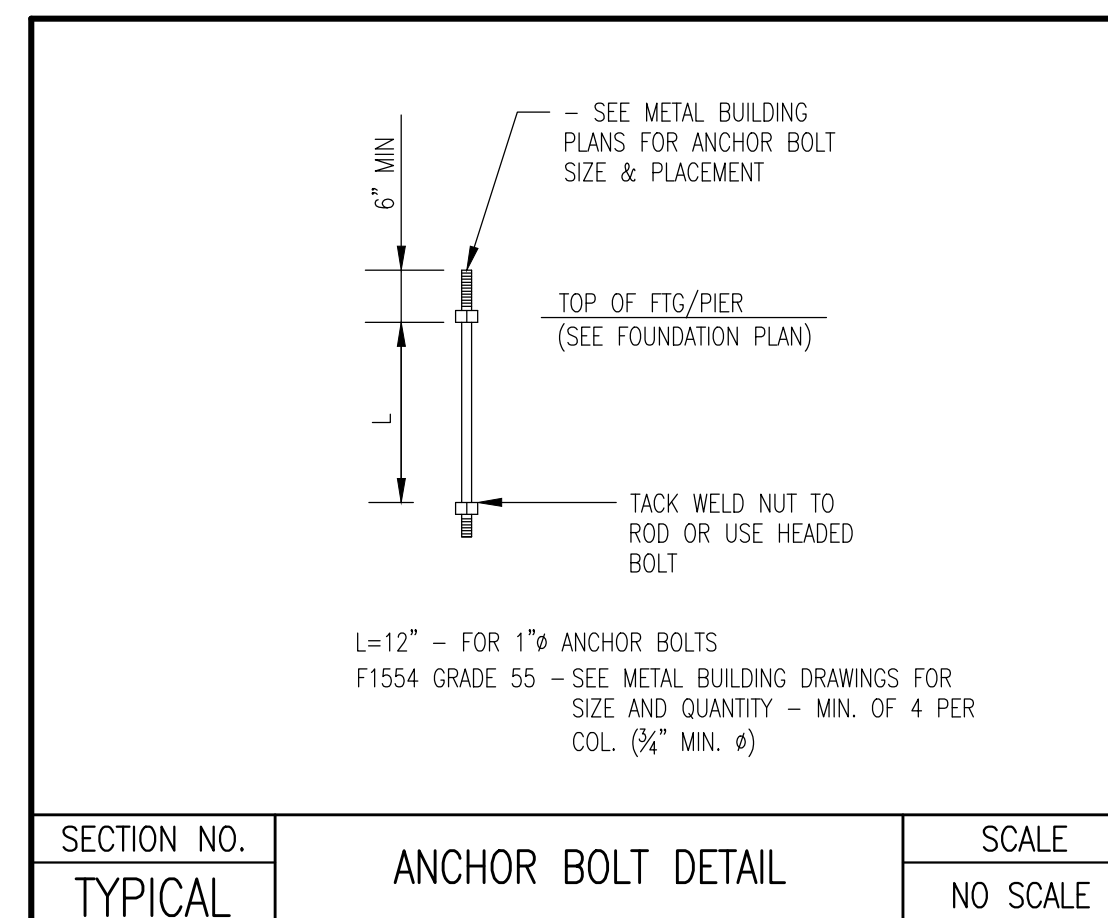
SCALE: 1/4" = 1'-0"

FOUNDATION SCHEDULE		
MARK	SIZE	REINFORCEMENT
F1	4'-0"x4'-0"x1'-0"	5-#5 BARS E.W.

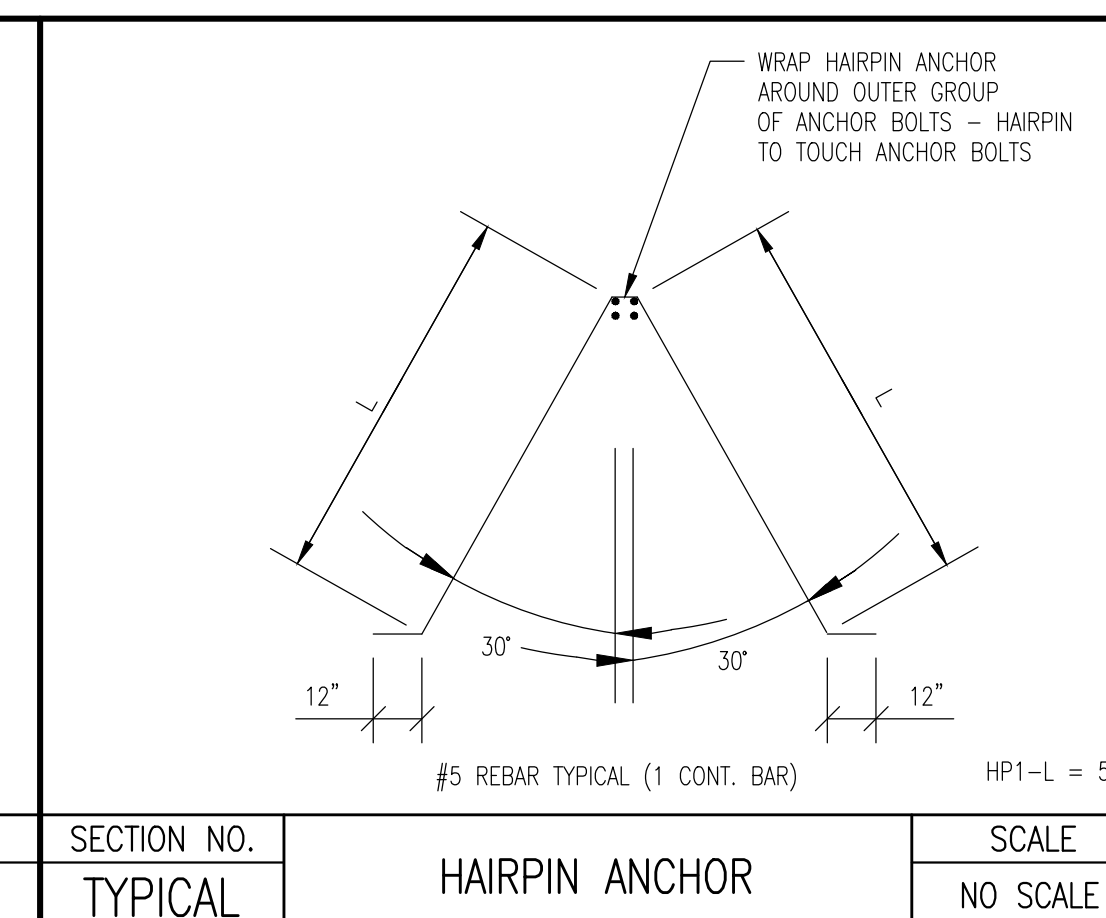
f'c = 3500psi

GENERAL NOTES -- WELD SHOP FOUNDATION PLAN:

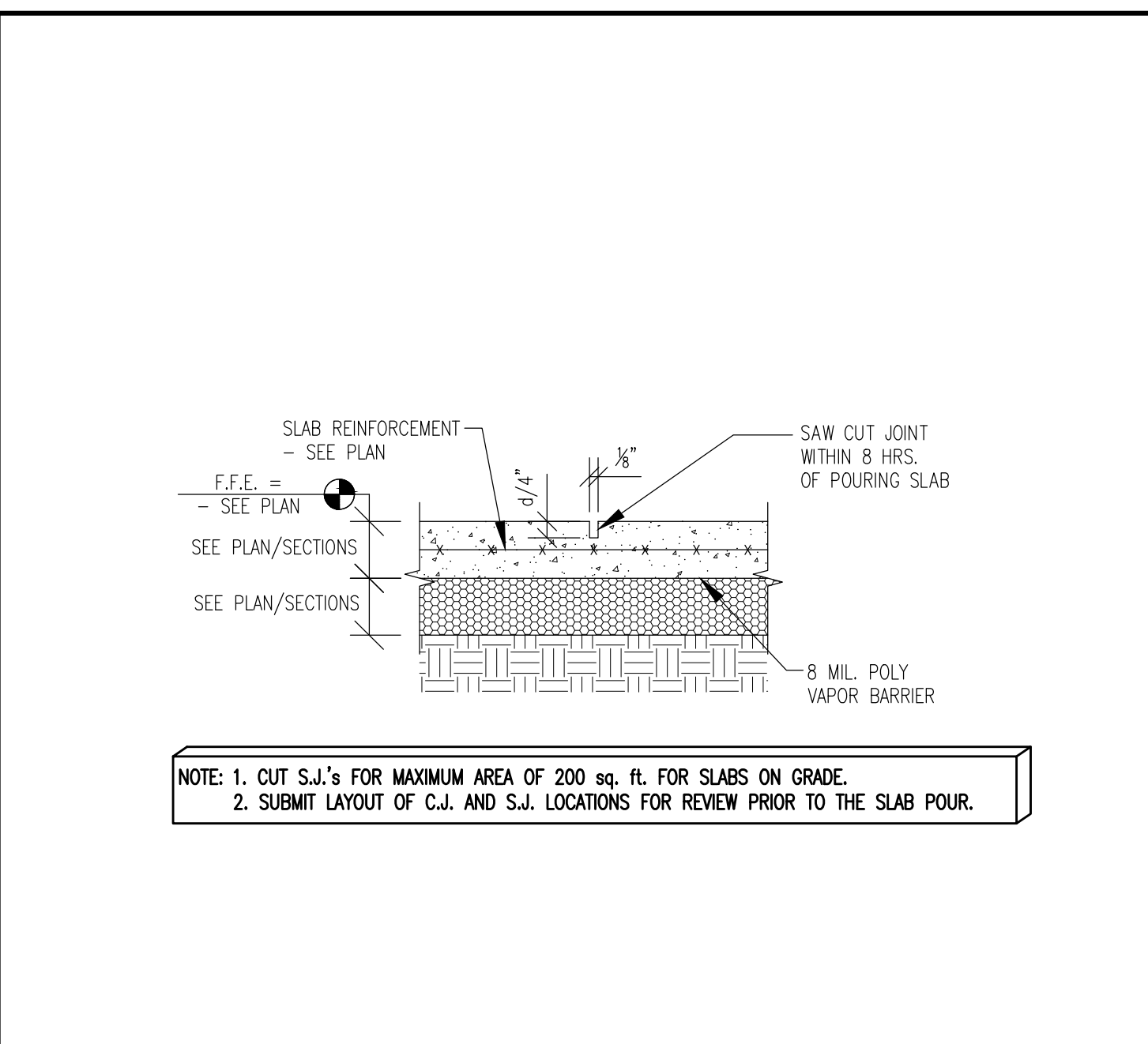
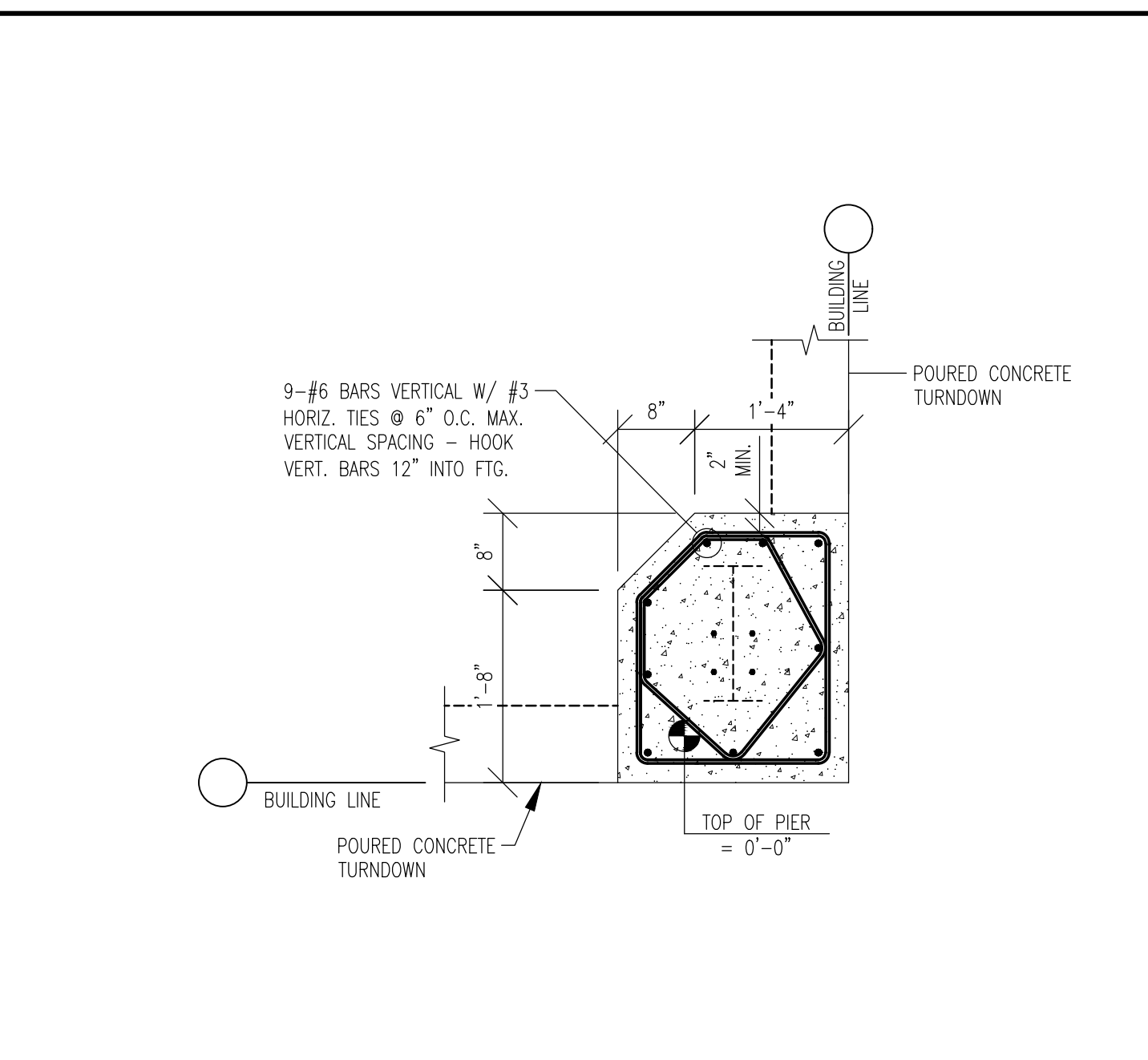
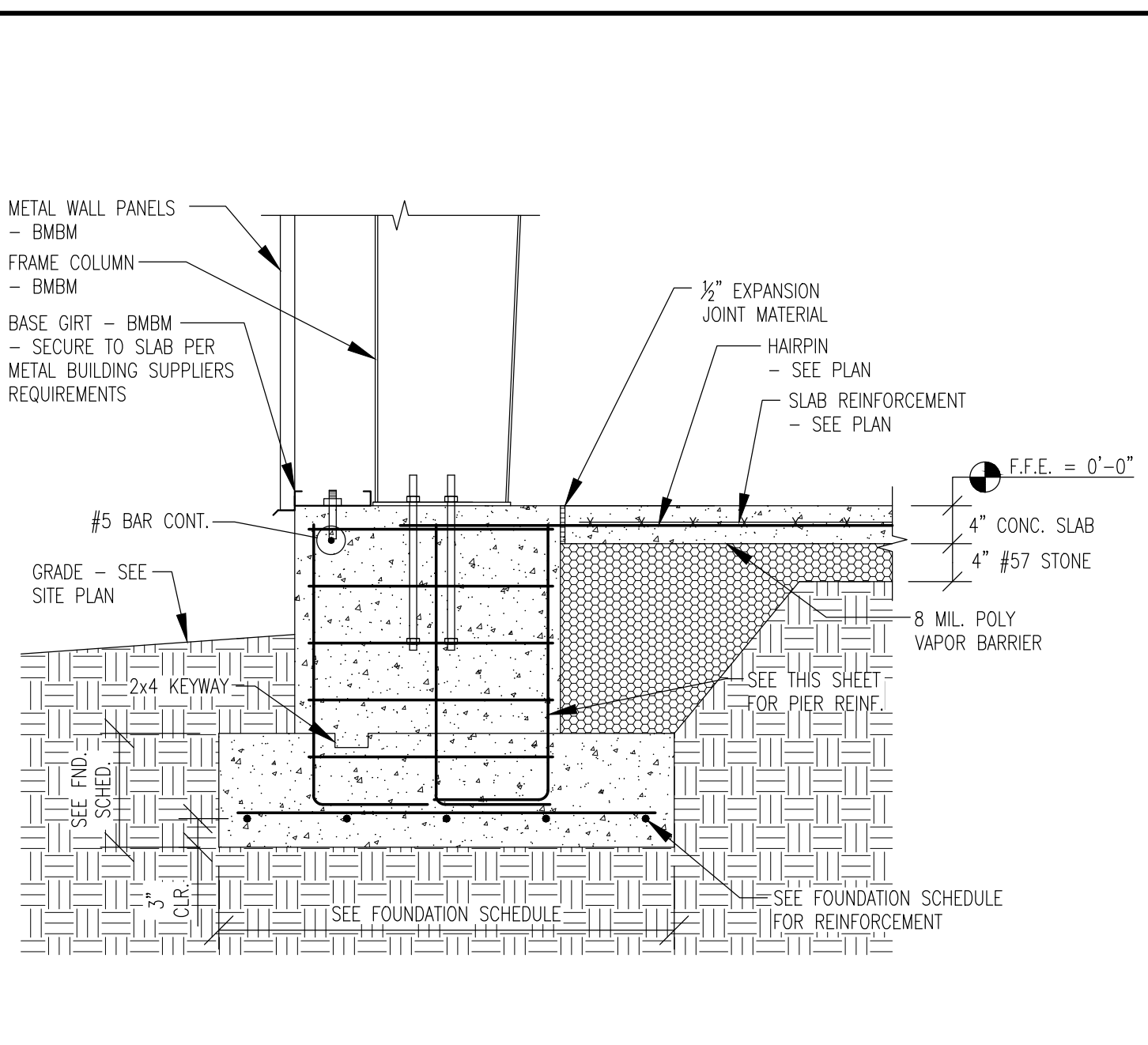
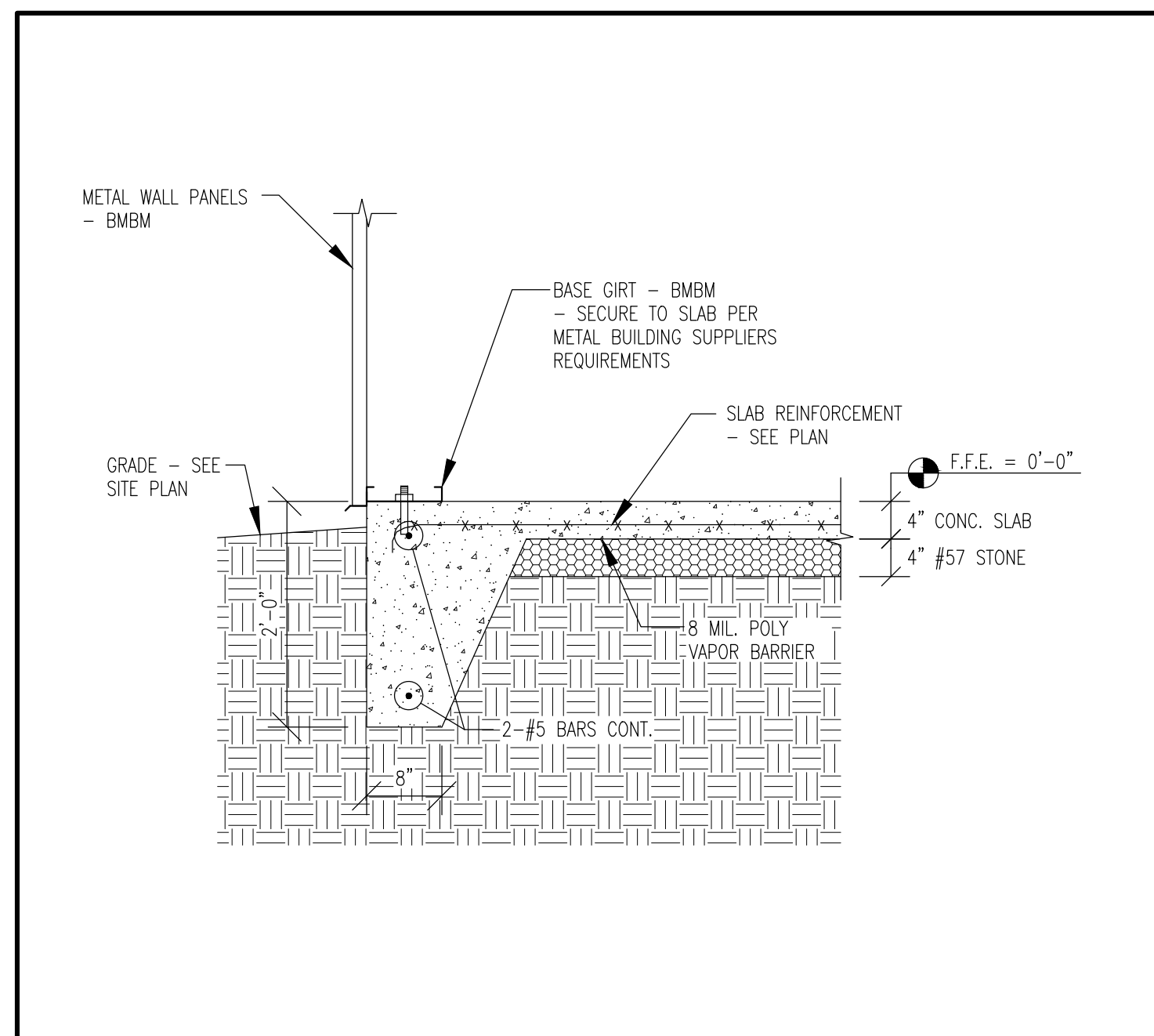
- SEE PLAN FOR T.O.F. ELEVATIONS. MAINTAIN A 12" MINIMUM OF COVER OVER PERIMETER WALL T.O.F.'s TYPICAL. GC SHALL COORDINATE T.O.F. ELEVATIONS W/ SITE PLAN TO DETERMINE IF ADEQUATE FOOTING DEPTH WILL NEED TO BE PROVIDED.
- COORDINATE FLOOR DRAINS AND ANY SLOPED FLOOR AREA REQUIREMENTS WITH THE PLUMBING DRAWINGS.
- GC SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR ANY STEP DOWNS IN THE T.O.F.'s IF REQUIRED TO ALLOW PLUMBING TO EXIT THE BUILDING.
- GC SHOULD AVOID LEAVING OPEN TRENCH EXCAVATIONS FOR THE FOOTINGS FOR LONG PERIODS WHEN INCLEMENT WEATHER IS ANTICIPATED. IN GENERAL ALL EXCAVATIONS MADE SHOULD BE POURED ON THE DAY OF THE EXCAVATION IF INCLEMENT WEATHER IS EXPECTED.
- CONTRACTOR SHALL COORDINATE FOR LOCAL INSPECTING AUTHORITY TO REVIEW AND APPROVE ALL FOOTING TRENCHES PRIOR TO THE PLACEMENT OF ANY FOOTING CONCRETE. IF FOOTINGS FAIL INSPECTION CONTRACTOR SHALL CONTACT THE ENGINEER FOR RECOMMENDATIONS.
- FOUNDATION DESIGN BASED ON A PRESUMPTIVE SOIL BEARING PRESSURE OF 2000 PSF. GC SHALL HAVE SOIL TESTING FIRM TO VERIFY PRESUMPTIVE BEARING PRESSURE PRIOR TO PLACEMENT OF THE CONCRETE FOOTINGS. ANY AREAS DETERMINED NOT TO PROVIDE THIS STATED SOIL BEARING PRESSURE SHALL BE BROUGHT TO THE ENGINEERS ATTENTION.
- FOUNDATION DESIGN BASED ON VARCO PRUDEN PRE-ENGINEERED METAL BUILDING DRAWINGS DATED 2-1-2024. IF REVISIONS ARE MADE TO THE REFERENCED PRE-ENGINEERED METAL BUILDING DRAWINGS, CONTACT ENGINEER FOR FOUNDATION DESIGN REVIEW.



SECTION NO. TYPICAL ANCHOR BOLT DETAIL SCALE NO SCALE



SECTION NO. TYPICAL HAIRPIN ANCHOR SCALE NO SCALE



SECTION NO.	SECTION	SCALE	SECTION NO.	SECTION	SCALE	SECTION NO.	SECTION	SCALE	SECTION NO.	SECTION	SCALE
1	S-301	3/4" = 1'-0"	2	S-301	3/4" = 1'-0"	TYPICAL	P1 - PIER DETAIL	NO SCALE	TYPICAL	SLAB SAWED CUT JOINT (S.J.)	NO SCALE

SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS

I. GENERAL

A. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES.

B. THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. APPLICATIONS OF CONSTRUCTION LOADS TO THE PARTIALLY COMPLETED STRUCTURE SHALL BE CONSIDERED BY THE CONTRACTOR AND SO INCLUDED IN THE DESIGN OF SHORING, BRACING, FORMWORK, AND ANY OTHER SUPPORTING ELEMENTS PROVIDED FOR CONSTRUCTION OF THE STRUCTURE. DURING ERECTION AND UNTIL ALL PERMANENT ARE MADE, THE CONTRACTOR MUST PROVIDE TEMPORARY BRACING FOR THE STRUCTURE IN ALL DIRECTIONS.

C. THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND GRADE CONDITIONS (BOTH NEW AND EXISTING), REPORTING ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH ANY PHASE OF THE WORK.

D. DO NOT SCALE DIMENSIONS FROM DRAWINGS. THE CONTRACTOR SHALL REQUEST, FROM THE ENGINEER, NECESSARY DIMENSIONS SHOWN ON THE DRAWINGS.

E. WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, STRUCTURAL GENERAL NOTES, AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

II. CODES, SPECIFICATIONS AND STANDARDS

A. APPLICABLE BUILDING CODE: THE CONTRACT DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE:

- 2018 NORTH CAROLINA BUILDING CODE
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14)
- 2010 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (ANSI/AISC 360-10)

III. DESIGN LOADS (NCBC 2018):

A. FLOOR LIVE LOAD: SECTION 1607.10

- SLAB ON GRADE = 100 PSF

B. ROOF LIVE LOAD: SECTION 1607.12

- ROOF = 20 PSF

C. ROOF SNOW LOAD DATA: SECTION 1608

- FLAT ROOF SNOW LOAD, $P_s = 6.93$ PSF
- SNOW EXPOSURE FACTOR, $C_e = 0.9$
- SNOW IMPORTANCE FACTOR, $I_s = 1.0$
- ROOF THERMAL FACTOR, $C_t = 1.1$

D. WIND DESIGN DATA: SECTION 1609

- ULTIMATE DESIGN WIND SPEED, $V_{ult} = 119$ MPH
- RISK CATEGORY = II
- WIND EXPOSURE CATEGORY = C
- COMPONENTS & CLADDING DESIGN PRESSURES (ULTIMATE):
 - ROOF INTERIOR ZONES = 36 PSF
 - ROOF EDGE ZONES = 42 PSF
 - ROOF CORNER ZONES = 56 PSF
 - WALL INTERIOR ZONES = 33 PSF
 - WALL EDGE ZONES = 41 PSF

E. EARTHQUAKE DESIGN DATA: SECTION 1613

- RISK CATEGORY = II
- SEISMIC IMPORTANCE FACTOR, $I_s = 1.0$
- MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:
 - SHORT PERIOD, $S_s = 0.179$
 - 1 SECOND PERIOD, $S_1 = 0.084$
- SITE CLASS = D
- DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:
 - SHORT PERIOD, $S_{ms} = 0.1909$
 - 1 SECOND PERIOD, $S_{m1} = 0.135$
- SEISMIC DESIGN CATEGORY = C
- BASIC SEISMIC FORCE-RESISTING SYSTEM: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
- DESIGN BASE SHEAR
 - $V_u = \frac{F_a R}{\phi}$
 - $V_p = \frac{F_p R}{\phi}$
- SEISMIC RESPONSE COEFFICIENT, $C_s = 0.064$
- RESPONSE MODIFICATION COEFFICIENT, $R = 3.0$
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE (1613)

IV. SUBMITTALS

A. SHOP DRAWINGS AND SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER BEFORE BEGINNING CONSTRUCTION.

B. CLEARLY SPECIFY AND DEVIATIONS FROM THE CONTRACT DOCUMENTS ON ALL SUBMITTALS.

C. THE CONTRACTOR SHALL REVIEW EACH SUBMITTAL BEFORE SUBMITTING TO THE ENGINEER.

D. THE FOLLOWING SUBMITTALS ARE RECOMMENDED FOR THIS PROJECT:

- CAST-IN-PLACE CONCRETE
 - COMPLY WITH SUBMITTAL REQUIREMENTS IN ACI 301/318
 - PRODUCT DATA
 - DESIGN MIXTURES (HISTORICAL DATA OR TRIAL BATCH)
 - REBAR SHOP DRAWING
- SHOP DRAWINGS FOR THE DESIGN, ERECTION, AND REMOVAL OF FORMWORK, SHORES, AND RESHORES APPROVED BY

A QUALIFIED PROFESSIONAL ENGINEER WHO APPROVED THE SHOP DRAWINGS.

DIVISION 2 - FOUNDATIONS

I. GEOTECHNICAL REPORT - FOUNDATION DESIGN IS BASED ON A PRESUMPTIVE SOIL BEARING PRESSURE OF 2000 PSF (TO BE VERIFIED BY THE GENERAL CONTRACTOR AT THE TIME OF CONSTRUCTION).

II. SOIL EXCAVATION AND REPLACEMENT

A. REMOVE ALL LOOSE FILL MATERIAL WITH DEBRIS EXTENDING 5 FOOT BEYOND BUILDING FOOTPRINT TO THE MORE CONSOLIDATED MATERIAL AS APPROVED BY THE GEOTECHNICAL ENGINEER. REPLACE WITH SELECT FILL MATERIAL IN 8" TO 10" LOOSE LIFTS AS DIRECTED BY GEOTECHNICAL ENGINEER. COMPACT SELECT FILL MATERIAL TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698.

B. REVIEW SOIL REPORT BORING HOLES FOR INITIAL ESTIMATES OF EXCAVATION DEPTHS. THE GEOTECHNICAL ENGINEER SHALL APPROVE FINAL EXCAVATIONS OF FOOTING AND DRILLED PIER BEARING STRATA.

III. SLAB-ON-GRADE CONSTRUCTION

A. SUBGRADE PREPARATION

- IMMEDIATELY PRIOR TO PLACEMENT OF CRUSHED STONE BELOW SLAB, THE LAST ONE FOOT OF SUBGRADE SHOULD BE RECOMPACTED TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 TO DENSIFY ANY SOILS DISTURBED BY CONSTRUCTION OPERATIONS.
- PROVIDE A 4" MINIMUM LAYER OF CLEAN #4 CRUSHED STONE OR WASHED GRAVEL BELOW THE SLAB ON GRADE.
- PROVIDE VAPOR BARRIER OF 8 MIL. POLYETHYLENE SHEET OVER THE FINAL FILL BELOW THE CONCRETE SLABS. U.N.O.

B. CRANE LOADS - THE CONTRACTOR IS CAUTIONED AGAINST LOADING THE SLAB ON GRADE WITH CRANE LOADS. THE SLAB HAS NOT BEEN DESIGNED FOR CRANE LOADS AND MAY REQUIRE AN INCREASE IN SLAB THICKNESS AND/OR REINFORCEMENT. THE CONTRACTOR IS REQUIRED TO SUBMIT A PROPOSED PLAN IF CRANE SUPPORT IS REQUIRED ON SLABS-ON-GRADE TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK.

IV. SPREAD FOOTINGS

A. FOOTING EXCAVATION - FOOTINGS SHALL BE NEAT EXCAVATED WHERE POSSIBLE WITH SIDES AND TOP EDGES FREE OF LOOSE OR WET MATERIALS. WHERE NEAT EXCAVATION IS NOT POSSIBLE, FOOTINGS EXCAVATION SHALL BE OPEN CUT WITH EDGES FORMED AND BRACED. ALL FOOTINGS WITH FORMED EDGES SHALL BE BACKFILLED WITH LEAN CONCRETE, CEMENT STABILIZED SAND OR SELECT FILL MATERIAL PLACED IN 8" LIFTS AND COMPACTED TO 95% OF MODIFIED STANDARD PROCTOR MAXIMUM DENSITY OF EACH LIFT. THE BOTTOM EXCAVATION SHALL BE CLEAN AND DRY WITH ALL LOOSE MATERIAL REMOVED FOR AN ESSENTIALLY FLAT BEARING SURFACE. EXCAVATIONS SHALL NOT BE LEFT OVERNIGHT UNLESS A 2" UNREINFORCED SEAL (MUD) SLAB IS PLACED AT THE BOTTOM OF THE FOOTING EXCAVATION.

DIVISION 3

I. CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. SUBMIT CONCRETE MIX DESIGNS.

B. COMPLY WITH ASTM C 94; ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"; AND CRSI'S "MANUAL OF STANDARD PRACTICE."

PART 2 - PRODUCTS

2.1 MATERIALS

A. DEFORMED REINFORCING BARS: ASTM A 615, GRADE 60.

B. WELDED STEEL WIRE FABRIC: ASTM A 185, FLAT SHEETS, NOT ROLLS.

C. PORTLAND CEMENT: ASTM C 150, TYPE 1.

D. FLY ASH: ASTM C 618, TYPE F.

E. AGGREGATES: ASTM C 33, CLASS 4S.

F. FIBER REINFORCEMENT: NOT ALLOWED

G. AIR-ENTRAINING ADMIXTURE: ASTM C 260.

H. CHEMICAL ADMIXTURES: ASTM C 494, WATER REDUCING.

I. WATER STOPS: FLAT DUMBBELL OR CENTER-BULB TYPE, OF EITHER RUBBER (CRD C 513) OR PVC (CRD C 572).

J. VAPOR RETARDER: 8 MIL. POLY VAPOR BARRIER.

K. LIQUID MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, CLEAR.

2.2 MIXES

A. PROPORTION NORMAL-WEIGHT CONCRETE MIXES TO PROVIDE THE FOLLOWING PROPERTIES:

- COMPRESSIVE STRENGTH: 3500 PSI (24.13 MPa) AT 28 DAYS.
- SLUMP LIMIT: 4 INCHES (100 MM) AT POINT OF PLACEMENT.
- WATER-CEMENT RATIO: 0.50 MAXIMUM AT POINT OF PLACEMENT.
- AIR CONTENT: 5.5 TO 7.0 PERCENT FOR CONCRETE EXPOSED TO FREEZING AND THAWING, 2 TO 4 PERCENT ELSEWHERE.

PART 3 - EXECUTION

3.1 CONCRETING

A. CONSTRUCT FORMWORK AND MAINTAIN TOLERANCES AND SURFACE IRREGULARITIES WITHIN ACI 117 LIMITS OF CLASS A FOR CONCRETE EXPOSED TO VIEW AND CLASS C FOR OTHER CONCRETE SURFACES.

B. SET WATER STOPS WHERE INDICATED TO ENSURE JOINT WATER TIGHTNESS.

C. PLACE VAPOR RETARDER ON PREPARED SUBGRADE, WITH JOINTS LAPPED 6 INCHES (150 MM) AND SEALED.

D. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT.

E. INSTALL CONSTRUCTION, ISOLATION, AND CONTROL JOINTS.

F. PLACE CONCRETE IN A CONTINUOUS OPERATION AND CONSOLIDATE USING MECHANICAL VIBRATING EQUIPMENT.

G. PROTECT CONCRETE FROM PHYSICAL DAMAGE OR REDUCED STRENGTH DUE TO WEATHER EXTREMES DURING MIXING, PLACING, AND CURING.

H. FORMED SURFACE FINISH: SMOOTH-FORMED FINISH FOR CONCRETE EXPOSED TO VIEW, COATED, OR COVERED BY WATERPROOFING OR OTHER DIRECT-APPLIED MATERIAL; ROUGH-FORMED FINISH ELSEWHERE.

I. UNFORMED SLAB FINISHES: SCRATCH FINISH FOR SURFACES TO RECEIVE MORTAR SETTING BEDS FLOAT FINISH SURFACES FOR INTERIOR STEPS AND RAMPS AND SURFACES TO RECEIVE WATERPROOFING, ROOFING, OR OTHER DIRECT-APPLIED MATERIAL TROWELED FINISH FOR FLOOR SURFACES AND FLOORS TO RECEIVE FLOOR COVERINGS, PAINT, OR OTHER THIN FILM-FINISH COATINGS TROWEL AND FINE BROOM FINISH FOR SURFACES TO RECEIVE THIN-SET TILE NONSLIP BROOM FINISH TO EXTERIOR CONCRETE PLATFORMS, STEPS, AND RAMPS.

J. CURE FORMED SURFACES BY MOIST CURING UNTIL FORMS ARE REMOVED.

K. BEGIN CURING UNFORMED CONCRETE AFTER FINISHING. APPLY MEMBRANE-FORMING CURING COMPOUND TO CONCRETE.

L. PROTECT CONCRETE FROM DAMAGE. REPAIR SURFACE DEFECTS IN CONCRETE.

STRUCTURAL ABBREVIATIONS

Ø = AT

A.B. = ANCHOR BOLTS

ABC = AGGREGATE BASE COARSE

A.E.F.F.E. = ABOVE EXISTING FINISHED FLOOR ELEVATION

A.F.F.E. = ABOVE FINISHED FLOOR ELEVATION

A.R.F.F.E. = ABOVE REFERENCED FINISHED FLOOR ELEVATION

ALT. = ALTERNATE

ARCH. = ARCHITECTURAL

B.F.F.E. = BELOW FINISHED FLOOR ELEVATION

B.M.B.M. = BY METAL BUILDING MANUFACTURE

B.R.F.F.E. = BELOW REFERENCED FINISHED FLOOR ELEVATION

B.L.D.G. = BUILDING

BOT. = BOTTOM

B.O.W. = BOTTOM OF WALL

BRC. = BEARING

C.J. = CONSTRUCTION/CONTROL JOINT

CL. = CENTER LINE

CLR. = CLEAR

CMU = CONCRETE MASONRY UNIT

COL. = COLUMN

CONC. = CONCRETE

CONN. = CONNECTION

CONST. = CONSTRUCTION

CONT. = CONTINUOUS

COORD. = COORDINATE

DET. = DETAIL

DIA. = DIAMETER

DIM. = DIMENSION

DWSGS. = DRAWINGS

DWL. = DOWEL

E.A. = EACH

E.F.F.E. = EXISTING FINISHED FLOOR ELEVATION

E.J. = EXPANSION JOINT

ELEV. = ELEVATION

E.W. = EACH WAY

EXP. = EXPANSION

EXIST. = EXISTING

EXT. = EXTENSION

FLR. = FLOOR

FD - FLOOR DRAIN

FND. = FOUNDATION

FP = FULL PENETRATION

FTG. = FOOTING

HK. = HOOK

HORIZ. = HORIZONTAL

HSS = HOLLOW STRUCTURAL SECTION (TUBE OR PIPE)

INT. = INTERIOR

JT. = JOINT

K = KIP (1000 lbs)

LLH = LONG LEG HORIZONTAL

LLV = LONG LEG VERTICAL

MANUF. = MANUFACTURER

MAS. = MASONRY

MAX. = MAXIMUM

MECH. = MECHANICAL

MIN. = MINIMUM

NOM. = NOMINAL

O.C. = ON CENTER SPACING

OPNG. = OPENING

PC. = PRECAST

PL. = PLATE

REINF. = REINFORCEMENT

REQD. = REQUIRED

R.F.F.E. = REFERENCED FINISHED FLOOR ELEVATION

SC. = SLIP CRITICAL

SCHD. = SCHEDULE

SECT. = SECTION

T&B = TOP AND BOTTOM

T.O.F. = TOP OF FOOTING

T.O.P. = TOP OF PIER

T.O.S. = TOP OF STEEL

T.O.W. = TOP OF WALL

TYP. = TYPICAL

U.N.O. = UNLESS NOTED OTHERWISE

VERT. = VERTICAL

W = WIDE FLANGE MEMBER

W/ = WITH

WNF = WELDED WIRE FABRIC

* = COORD. WITH SITE PLAN

MOOREFIELD ENGINEERING, P.C.

MEPC

STRUCTURAL ENGINEERS

University Commercial Center
7900 North Point Blvd., Suite 209
Winston-Salem, NC 27106

T: 336-593-9623
F: 336-593-3912
email: office@mepc-consultants.com

www.mepc-consultants.com

SEAL:

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REVISIONS

PROGRESS REVIEW #1:	9-13-24
PROGRESS REVIEW #2:	
PROGRESS REVIEW #3:	
ISSUE FOR CONST.:	9-18-24
REVISION #1:	
REVISION #2:	
REVISION #3:	
REVISION #4:	

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a MasTec company

DUKE ENERGY

NEW WELD SHOP

1269 JONESBORO RD
DUNN, NORTH CAROLINA

PROJECT NAME:

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

SECTIONS, DETAILS & SPECIFICATIONS

MEPC PROJECT NO.:	115-24
DATE:	9-18-24
DESIGN BY:	JMM/PCC
DRAWN BY:	JBL
CHECKED BY:	JMM

S-301



VP BUILDINGS

VARCO PRUDEN

a division of BlueScope Buildings North America, Inc.

DRAWING INDEX	
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Secondary Structural	11-18
Covering	19-30
Special Drawings	
Standard Erection Details	
Planograph Details	

DRAWING RELEASE HISTORY		
TYPE	DATE	DESCRIPTION
Anchor Rod Drawings Rev 0	01/31/24	FOR CONSTRUCTION
Permit Drawings Rev 0	01/31/24	PERMIT SET- For Building Dept. Approval

MATERIALS

3 PLATE WELDED SECTIONS
 COLD FORMED LIGHT GAGE SHAPES
 BRACE RODS
 HOT ROLLED MILL SHAPES
 HOT ROLLED ANGLES
 HOLLOW STRUCTURAL SECTION (HSS)
 CLADDING

GENERAL NOTES

ASTM DESIGNATION

A529, A572, A1011, A1018	GRADE 55
A653, A1011	GRADE 60
A572, A510	GRADE 50
A36, A529, A572, A588, A992	GRADE 36 OR 50
A529, A572, A588, A992	GRADE 50
A500	GRADE B
A653, A792	GRADE 50 OR GRADE 80

HIGH STRENGTH BOLT TIGHTENING REQUIREMENTS

IT IS THE RESPONSIBILITY OF THE ERECTOR TO ENSURE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE REGULATIONS. SEE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS FOR MORE INFORMATION. SEE ERECTION GUIDE FOR BOLT TIGHTENING INSTRUCTIONS. THE FOLLOWING CRITERIA MAY BE USED TO DETERMINE THE BOLT TIGHTNESS (I.E. SNUG TIGHT OR PRE-TENSION) UNLESS REQUIRED OTHERWISE BY LOCAL JURISDICTION OR CONTRACT.

ALL A490 BOLTS SHALL BE "PRE-TENSIONED". A325 BOLTS IN PRIMARY FRAMING AND BRACING CONNECTIONS MAY BE "SNUG-TIGHT" EXCEPT AS FOLLOWS;

PRE-TENSION A325 BOLTS IF BUILDING SUPPORTS A CRANE GREATER THAN 5 TON CAPACITY.

PRE-TENSION A325 BOLTS IF BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT, OR STRESS REVERSALS ON CONNECTIONS.

PRE-TENSION A325 BOLTS IF LOCATED IN HIGH SEISMIC AREAS. FOR IBC BASED CODES; HIGH SEISMIC IS DESIGN CATEGORY D, E OR F. SEE CODES AND LOADS SECTION BELOW FOR DETAILS.

PRE-TENSION ANY CONNECTION WITH DESIGNATION 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 "PRE-TENSIONED", EXCEPT FOR SECONDARY MEMBERS AND FLANGE BRACES.

SECONDARY MEMBERS AND FLANGE BRACE CONNECTIONS ARE ALWAYS "SNUG TIGHT", UNLESS INDICATED OTHERWISE IN ERECTION DRAWING DETAILS.

INSPECTION AND TESTING

SPECIAL INSPECTIONS AND TESTING REQUIRED BY AUTHORITY HAVING JURISDICTION (AHJ) DURING CONSTRUCTION AND/OR STEEL FABRICATION IS THE RESPONSIBILITY OF THE OWNER OR OWNERS AUTHORIZED AGENT. WHEN REQUIRED, THE OWNER SHALL EMPLOY A QUALITY ASSURANCE AGENCY (QAA) APPROVED BY THE AHJ. THE BUILDER IS RESPONSIBLE TO COORDINATE BETWEEN THE QAA FIRM AND BBNA FABRICATION FACILITIES. THE TYPE AND EXTENT OF SPECIAL INSPECTIONS AND NDT WELD TESTING MUST BE SPECIFICALLY STIPULATED IN CONTRACT DOCUMENTS OR BBNA WILL ASSUME SPECIAL INSPECTIONS AND/OR NDT TESTING ARE WAIVED AS PERMITTED BY THE BUILDING CODE BASED ON BBNA FACILITIES IAS AC472 ACCREDITATION.

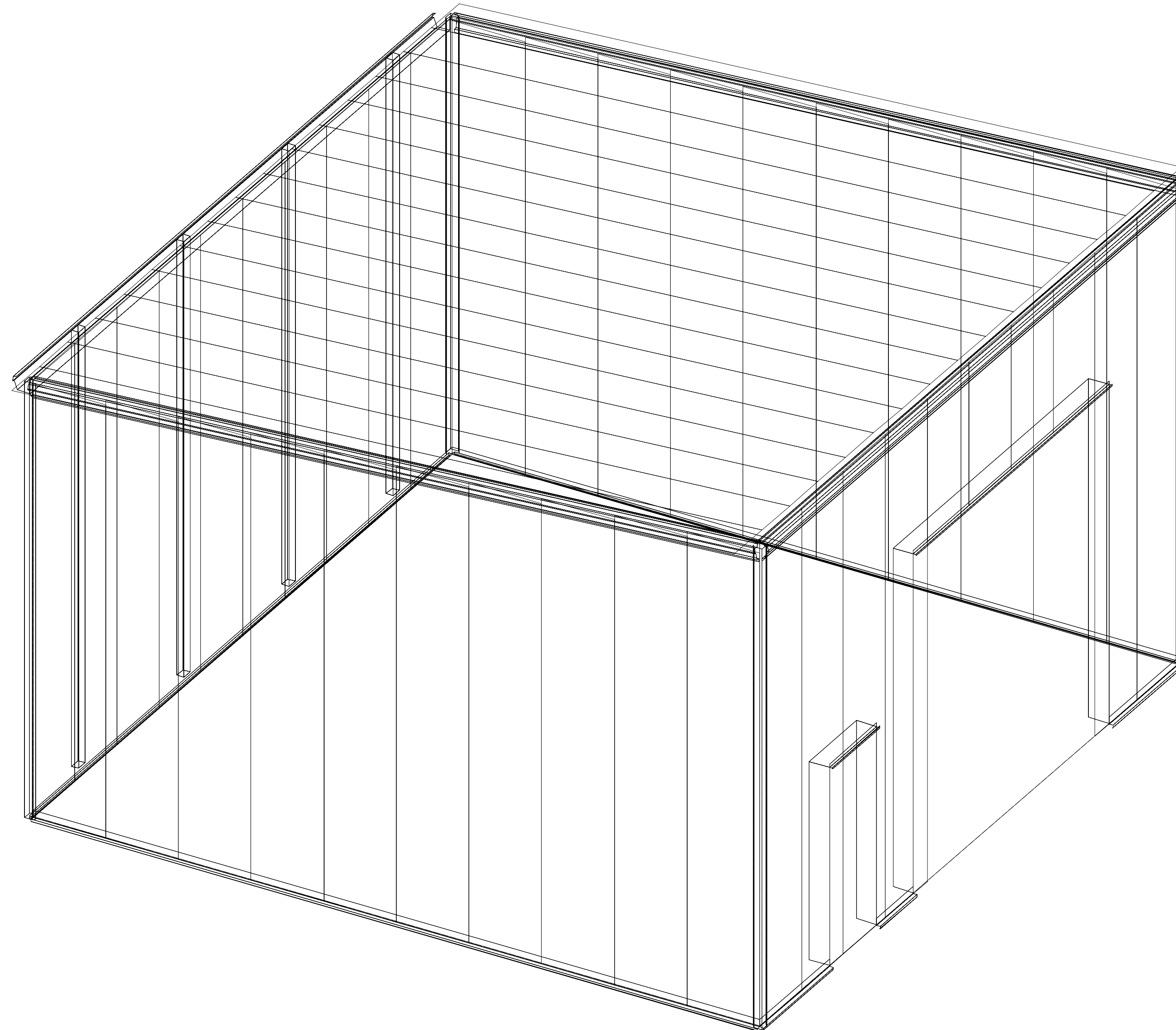
Lemartec
 a MaxTec company

REVIEW IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. COMMENTS SHALL NOT BE CONSIDERED AS RELIEVING THE SUPPLIER / SUBCONTRACTOR FROM STRICT COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE SUPPLIER / SUBCONTRACTOR REMAINS RESPONSIBLE FOR THE DETAILS AND ACCURACY, FOR COMPLYING WITH STANDARDS OF THE INDUSTRY REGARDING FABRICATION, ASSEMBLY, COORDINATION, BMA & LEED STANDARDS, ERECTION AND INSTALLATION PROCEDURES. THE SUPPLIER / SUBCONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECTS' APPROVAL OF THIS SUBMITTAL. THE SUBCONTRACTOR HAS SPECIFICALLY INFORMED THE CONTRACTOR AND ARCHITECT IN WRITING OF SUCH DEVIATIONS AT THE TIME OF SUBMITTAL.

□ REVIEWED
 □ REVIEWED AS NOTED
 □ REVISE & RESUBMIT
 □ REJECTED

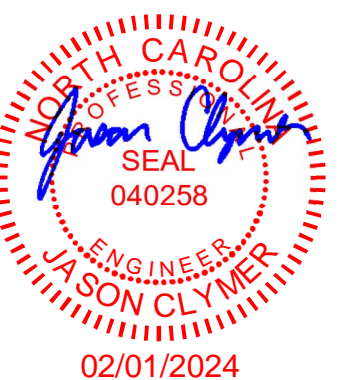
By: Don Moore
 Date: 02/26/2024

Lemartec Project #: 23068
 Client: Sutherland Construction
 Client Project #: 23290012



VP Buildings 3200 Players Club Circle Memphis TN 38125

This document has been electronically signed and sealed by W. Jason Clymer, PE using my Digital Signature with PE seal affixed. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copy.



THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.

THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.



D COVER SHEET

BUILDER	Lemartec Corporation
CUSTOMER	Duke Energy
LOCATION	Dunn, North Carolina
PROJECT	Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#	23068 - Weld Shop
FILENAME	Duke Energy - Weld Shop



VPC VERSION: 2023.4a
 a division of BlueScope Buildings North America, Inc.

JOBNO	23-016000-01
DATE	01/31/2024
DRAWN / CHECK	MB / WJC
PAGE	1

BUILDER/CONTRACTOR RESPONSIBILITIES

VP Buildings follows the guidelines as outlined in the AISC and MBMA Codes of Standard Practice. VP Buildings standard product specifications, design, fabrication, quality criteria shall govern all work unless stipulated otherwise in the contract documents. In case of discrepancies between VP Buildings structural plans and plans for other trades, VP Buildings structural plans shall govern.

It is the responsibility of the Builder to obtain approvals and permits from all governing agencies and jurisdictions as required. Approval of VP Buildings drawings constitutes the builders acceptance of VP interpretation of the contract purchase order. Unless specific design criteria concerning interface design and details are furnished as part of the contract, VP Buildings design assumptions shall govern.

VP engineers are not Project Engineers or Engineer of Record for the overall project. VP engineering supply sealed engineering design data and drawings for VP supplied material as part of the overall project for use by others to obtain permits, approvals, and coordinate with other trades. All interface and/or compatibility of any materials not furnished by VP are to be considered and coordinated by the builder or A/E firm.

CONSTRUCTION & ERECTION RESPONSIBILITY

The Builder is responsible for construction in strict accordance with VP Buildings "FOR CONSTRUCTION" drawings and all applicable product installation guides. VP is not responsible for work done from any other VP drawings that are not marked "FOR CONSTRUCTION", nor any drawings prepared by others.

As erected field assemblies of members shall be as specified in MBMA Code of Standard Practice (in Canada - CSA S16), which require L/500 tolerance of installed members. Occasional field work including shimming, cutting, coping, and drilling for final fit-up are considered part of erection. Specified field work and field welding conditions indicated on these drawings shall also be included in the erectors scope of work. See Erection Guide for shimming procedure. For building with top riding bridge cranes see Crane Data drawing for column plumb tolerance.

The building erector shall be properly licensed and experienced in erecting metal building systems. The Builder is responsible for having knowledge of, and shall comply with, all OSHA requirements and all other governing site safety criteria. The builder is responsible for designing, supplying, locating and installing temporary supports and bracing during erection of the building. VP bracing is designed for code required loads after building completion and shall not be considered as adequate erection bracing. See Erection Guide.

Shimming of steel buildings during erection may be required to accomodate allowable tolerances during fabrication and erection. Special care should be taken by the building erector to shim connections where key dimensions must be maintained for building performance as even small tolerances can have a significant impact on critical dimensions such as height, clearances and plumbness, especially as the size of the member or building increases. Conditions where shimming should be expected can include but are not limited to large door openings, critical clear height requirements, cranes, buildings greater than 45 feet in height, clear spans greater than 125 feet and adjacent frames with different characteristics (like clear span frames adjacent to an endwall or modular frame). Shims are normally provided by the erector, but may be ordered upon request by contacting your Project Manager.

EXISTING STRUCTURES

VP must be advised of any structure that is within 20 ft. of VP's building. Load effects from snow drifting, wind effects, and seismic separation must be considered for both the new and existing structures. VP has designed the new VP building for these effects. The owner/builder are responsible for employing a Professional Engineer to review and verify the existing structure for all load effects from the adjacent VP building.

BRACING

Tension brace rods work in pairs to balance forces caused by initial tensioning. Care must be taken while tightening brace rods so as not to cause accidental or misalignment of components. All rods must be installed loose and then tightened. Rods should not exhibit excessive sag. For long or heavy rods, or angles it may be necessary to support the rods at mid-bay by suspending them from secondary members.

Bracing for seismic or wind loading of objects or equipment that are not a part of the VP structure must be designed by a qualified professional to deliver lateral loads to primary frames and rod bracing struts. Equipment bracing and suspension connections must not impose torsion or minor axis loads, or cause local distortion in any VP components. VP accepts no responsibility for design or installation of bracing systems not furnished by VP.

FIELD WELDING

All field welding shall be done at the direction of a design professional, and done in accordance with governing requirements (AWS in USA, CWB in Canada) by welders qualified to perform the welding as directed by the applicable welding procedure specification (WPS). A WPS shall be prepared by the contractor for each welding variation specified. The contractor is responsible for any special welding inspection as required by local jurisdiction. Filler metal shall be 70 ksi (480 MPa) tensile strength. For welds in high seismic force resisting system (Seismic Cat D, E or F), minimum Charpy V-Notch toughness shall meet AISC-341 criteria (20 ft-lbs min @ 0Deg F). Interpass temperatures shall not exceed 550Deg F (300Deg C).

DELIVERIES

It is the responsibility of the builder to have adequate equipment available at the job site to unload trucks in a safe and timely manner. The Builder will be responsible for all retention charges from carriers as a result of job site unloading delays.

SIGNAGE

The Builder is responsible for furnishing signs as required by Code and the Building Department, including but not limited to, exits, occupancy limits, floor loading limits, and bulk storage limits. Floor loading signs shall clearly indicate maximum floor live load permitted. Bulk storage facilities shall have signs clearly posted on all loaded walls indicating the type of commodity stored and the maximum storage height. Signs shall be clearly visible when building is fully loaded to design level. Overloading of floors or walls may result in failure.

Claims for damage or shorts MUST be noted on the Bill-of-Lading or delivery receipt and filed against the carrier by the consignee as per VP's Terms of Sales (F.O.B. Plant) under the Uniform Commercial Code. It is critical that damages or shorts be noted on the Bill-of-Lading or you have little recourse with the carrier. Immediately upon delivery of material, material quantities are verified by the Builder against quantities billed on the shipping document. Neither the Manufacturer nor the carrier is responsible for material shortages against quantities billed on the shipping document if such shortages are not noted on the shipping documents upon delivery of material and acknowledged by the carriers agent. For materials concealed in bundles, boxes, or crates, shortages must be reported immediately upon unpacking. Should products get wet, bundled and crated materials must be unpacked and unbundled immediately to provide drainage of trapped moisture. See Erection Guide for proper job site storage procedure.

SEALANTS

Sealants shall be applied in strict accordance with VP details or weather tightness will be compromised. Sealant must be applied in temperatures and weather conditions consistent with labeling.

INDEPENDENT MEZZANINES

Independent mezzanines must be designed by a professional engineer. The engineer must ensure that proper isolation from the VP building has been provided to avoid structural damage due to differential movements, or inadvertently apply loads to the VP structure. VP accepts no responsibility for the design of the independent mezzanine.

FIRE CODE COMPLIANCE

It is the responsibility of the project design professional and builder to comply with local fire code regulations including consideration of, but not limited to, building use and occupancy, all building construction materials, separation requirements, egress requirements, fire protection systems, etc. Builder shall advise VP of any special requirements to be furnished by VP.

FIELD MODIFICATIONS

Modifications to this building from details and instructions contained on these drawings must be approved in writing by VP Buildings engineers, or other licensed structural engineer. This includes, but is not limited to, removal of roof or wall cladding, removing or moving any flange braces or rod braces, cutting of openings for doors, windows or RTU's, correction of fabrication errors, etc. The owner shall not impose loads to this structure beyond what is specified for this building in the contract documents. VP Buildings accepts no responsibility for the consequences of any unauthorized additions, alterations, or added loads to this structure.

If the builder intends to invoice VP Buildings for modifications in excess of \$1000, The builder must notify VP Buildings immediately, and obtain a Work Authorization from VP Buildings prior to proceeding. All final claims must be submitted to VP Buildings with all supporting documentation within 30 days of the building completion. Claims submitted without work authorizations, or after 30 days will not be accepted. Correction of minor misfits, shimming and plumbing, moderate amount of reaming, drilling, chipping / cutting and minor welding are considered by Code of Standard Practice to be part of erection are not subject to claim reimbursement.

CONCRETE/MASONRY/CONVENTIONAL STUD WALLS

The engineer responsible for the design of the wall system is responsible for coordinating with, or specifying to VP Buildings, any wall to steel compatibility issues such as drift and deflection compatibility, special base details, and wall to VP steel connections. All fasteners, sealant and counter flashing of wall systems are to be provided by contractor. The engineer responsible for the wall shall design the anchorage to VP supporting elements consistent with Code required forces.

PANELS

Oil canning is an inherent characteristic of cold formed steel panels. It is the result of several factors that include induced stresses in the raw material delivered to VP, fabrication methods, installation procedures, and post installation thermal forces. Thru fastened panels will exhibit some dimpling when installed, especially when insulation is installed between panels and secondary supports. Dimpling can be minimized by careful installation, taking care not to over drive fasteners.

Roof rumble is a phenomenon that is caused by wind gusts lifting up on the roof panels and then springing back into place. All panels experience this action to some degree, especially with concealed clip Standing Seam panels. Roof rumble noise may be minimized by providing a layer of blanket insulation between the panels and any hard support surface such as steel secondary members, substrates such as plywood, steel decking, or rigid board insulation. A minimum of 3 inch thick blanket is recommended over steel secondary members, or 2 inch over substrates.

Oil canning, dimpling, and roof rumble do not affect the structural integrity or weather tightness of the panels and is not grounds for rejection of panels.

The Standing Seam joint detail is designed with an interlocking feature for ease of installation. However, it is imperative that installed Standing Seam panels be secured to the secondary structural members and properly seamed prior to departure from the job site each day.

SKYLIGHTS

Local building departments may require added fall restraint due to conditions that may affect the skylight structural integrity. It is the responsibility of the builder to determine and provide any added fall restraint under the skylight as may be required by your building department.

RAIN WATER RUNOFF

Drainage systems must be designed by the project professional to comply with code requirements. VP is not responsible for drainage designs, overflow scuppers, down piping, etc. The project professional and contractor are responsible to ensure that primary drains and overflow devices such as scuppers and auxiliary drains are provided as required for the required rain intensity at the building perimeter and at valley conditions to prevent ponding.

STEEL SHOP COAT

The purpose of VP's shop coat is to provide protection for the steel members during transportation, during temporary job site storage and during erection. Standard shop formulation is not designed to perform as a finish coat when exposed to environmental conditions. Members shall be kept free of the ground and properly drained during job site storage. It is the Builder's responsibility to ensure that if a finish coat is being applied over VP shop coat that the painting contractor verifies compatibility between his finish coat and VP's shop coat.

VP BUILDINGS ACCREDITATIONS AND APPROVALS

Fabricator Approvals

IAS AC472 Approvals: (www.iasonline.org/services/metal-building-inspection)
Listed under BlueScope Buildings North America, Inc.
City of Los Angeles, CA #FB00031; City of Houston, TX 767 & 429;
City of Phoenix, AZ C19-02008; Clark County, NV 43 & 833, San Bernardino County, CA 289
State of Utah, City of Richmond, CA.

Design Approvals

IAS AC472 Approvals: (www.iasonline.org/services/metal-building-inspection)
Listed under Varco Pruden Buildings, a Division of BlueScope Buildings North America, Inc.

Canadian CSA A660 Certifications

(www.cwbgroup.org)
Listed under BlueScope Buildings North America, Inc.

Engineering Certifications of Authorization

USA--AL#CA-5589-E; AZ#22225-0; AR#576; FL#30427; GA#PEF007551; ID#C-2470; IL#184-002649; KS#E-29; KY#4490; LA#EF6722; MS#E-0592; MO#E-2010007736; NC#F-0998; ND#1579PE; NJ#24GA28318800; NV#20437; OH#05898; OK#CA4170PE; RI#8838; SC#6206; SD#C-1787; TX#F4828; VA#0411001520; VA#0411001518; WA#4119; WV#C03059-00
CAN--AB#P08900; NB#F0951; NL#D0044; NS#30123; NT#P062; ON#100148796; and YT#PP134

ICC Evaluation Reports (www.icc-es.org)

SSR Roof System - #ESR-2527

State of Florida Product Approvals (www.floridabuilding.org)

Approved Products Listed Under VP Buildings, Inc.
VP TextureClad - See Transamerican Structuroc, Inc.

Dade Co. Product Approval (www.miamidade.gov/buildingcode)

Approved Products Listed Under Varco Pruden Buildings, Inc.
VP TextureClad - See Transamerican Structuroc, Inc.

Underwriter's Laboratory Approvals (Available only when specified in contract)

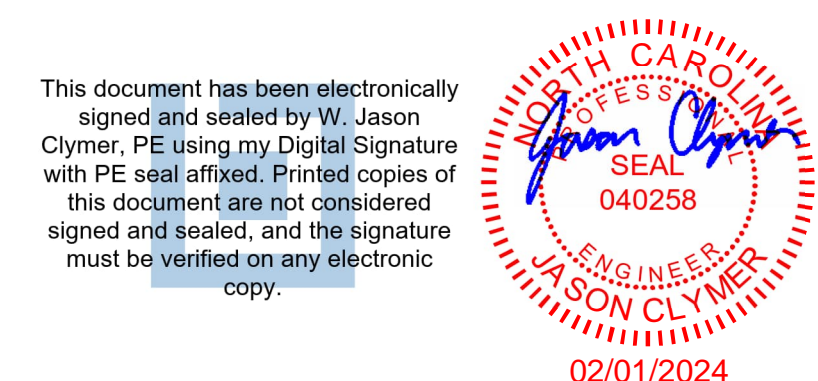
SSR Roof-UL#TGKX-113; SSR Composite Roof Class 90-UL#TGKX-113A;
SSR Roof w/Super Block; Class 90-UL#TGKX-328;
Panel Rib Roof UL Class 60-UL#TGKX-60; Panel Rib Roof UL Class 90-UL#TGKX-64;
VP SLR II Roof Class 90-UL#TGKX-90, -180, -435, -435A, -176, -238, -238A, -238B

Factory Mutual Approved Assemblies (Available only when specified in contract)

SSR Roof Systems are approved in various type applications and listed in FM Approval Guide.
24 Ga SSR (0.0227" Nominal), is available in Class 1-60, 1-75, 1-90. 22Ga SSR (0.0277" Nominal), is available in Class 1-75, 1-90, 1-120.

SLR II Roof Systems are approved in various type applications and listed in FM Approval Guide.

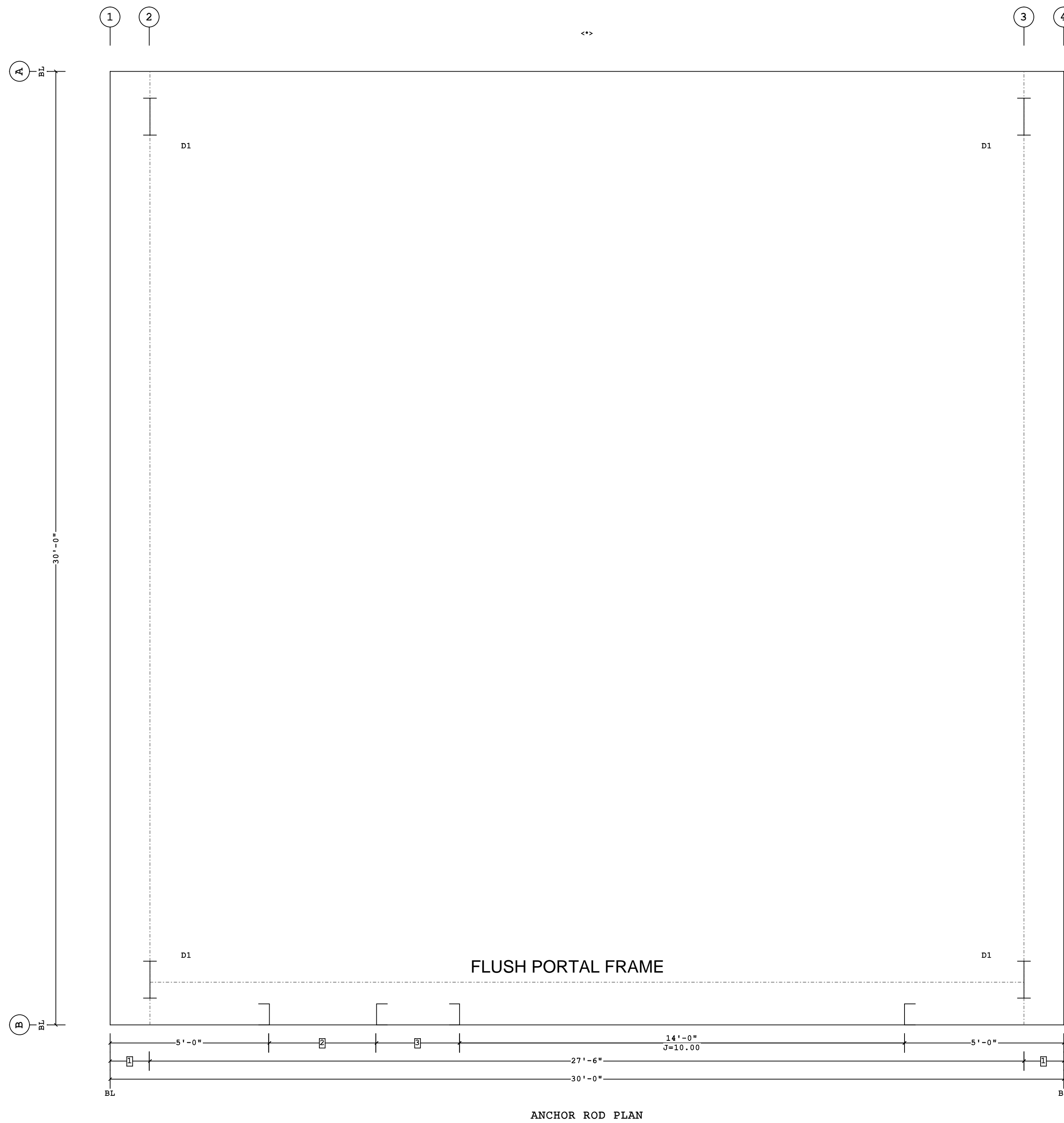
24 Ga SLR II (0.0227" Nominal), is available in Class 1-75 and 1-120.



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- 3 2'-7 1/2"
- 2 3'-4 1/2" J=10.00
- 1 1'-3"

□ Dimension Key

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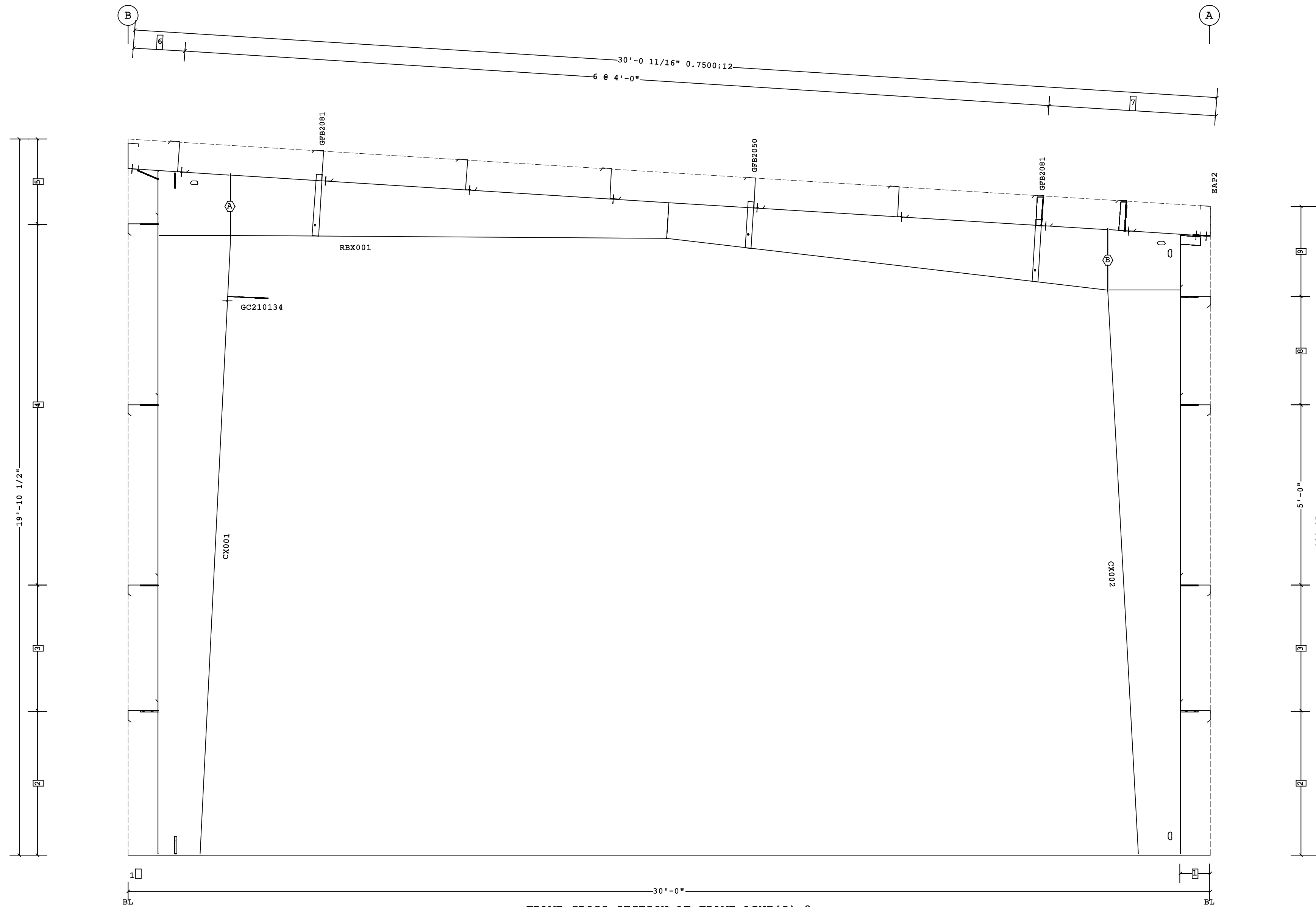
PERMIT SET- For Building Dept. Approval

<p><-> THE BUILDING IS DESIGNED WITH BRACING DIAGONALS IN THE DESIGNATED BAYS. COLUMN BASE REACTIONS, BASE PLATES AND ANCHOR RODS ARE AFFECTED BY THIS BRACING AND DIAGONALS MAY NOT BE RELOCATED WITHOUT CONSULTING THE BUILDING SUPPLIERS ENGINEER.</p>		<p>THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.</p>		<p>THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.</p> <p>THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.</p>		<p>D VP Buildings 3200 Players Club Circle Memphis TN 38125</p>		<p>ANCHOR ROD PLAN</p>	
REV	DATE	BY	DESCRIPTION	BUILDER	Lemartec Corporation		 VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a	JOBNO	23-016000-01
				CUSTOMER	Duke Energy			DATE	01/31/2024
				LOCATION	Dunn, North Carolina			DRAWN/CHECK	MB WJC
				PROJECT	Duke Energy Dunn Operations Center - Weld Shop			PAGE	4
<p>NTS</p>				BUILDERS PO#	23068 - Weld Shop		FILENAME:	Duke Energy - Weld Shop	
<p>1/31/2024 16:40:59</p>				<p>a division of BlueScope Buildings North America, Inc.</p>					

Frame Member Schedule						
Part	Mem	Width	Thick	WebThk.	Depth1	Depth2
CX001	1	5.0000	.3750	.1345	1'-2"	2'-0"
RBX001	2	5.0000	.1875	.1345	1'-8"	1'-0"
	3	5.0000	.1875	.1345	1'-0"	1'-8"
CX002	4	5.0000	.3125	.1345	1'-2"	2'-0"

Bolt Connection & Plate Schedule									
Id	Qty	Grade	Bolt Dia.	Bolt Length	Plate Thick.	Rows Out	Rows In	PartNo	
A	6	A325	3/4"	2 1/2"	3/8"	1	2	0097284	
B	4	A325	3/4"	2 1/2"	3/8"	1	1	0097284	

Frame Clearances
 Horiz. Clearance between members 1(CX001) and 4(CX002): 24'-4"
 Vert. Clearance at member 1(CX001): 17'-1 13/16"
 Vert. Clearance at member 4(CX002): 15'-7 9/16"
 Finished Floor Elevation = 100'-0" (Unless Noted Otherwise)

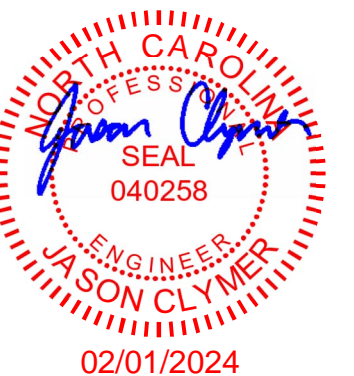


FRAME CROSS SECTION AT FRAME LINE(S) 2

- 9 2'-6"
- 8 3'-0"
- 7 2 @ 2'-3 13/16"
- 6 1'-5 1/8"
- 5 2'-4 1/2"
- 4 2 @ 5'-0"
- 3 3'-6"
- 2 4'-0"
- 1 10"

□ Dimension Key

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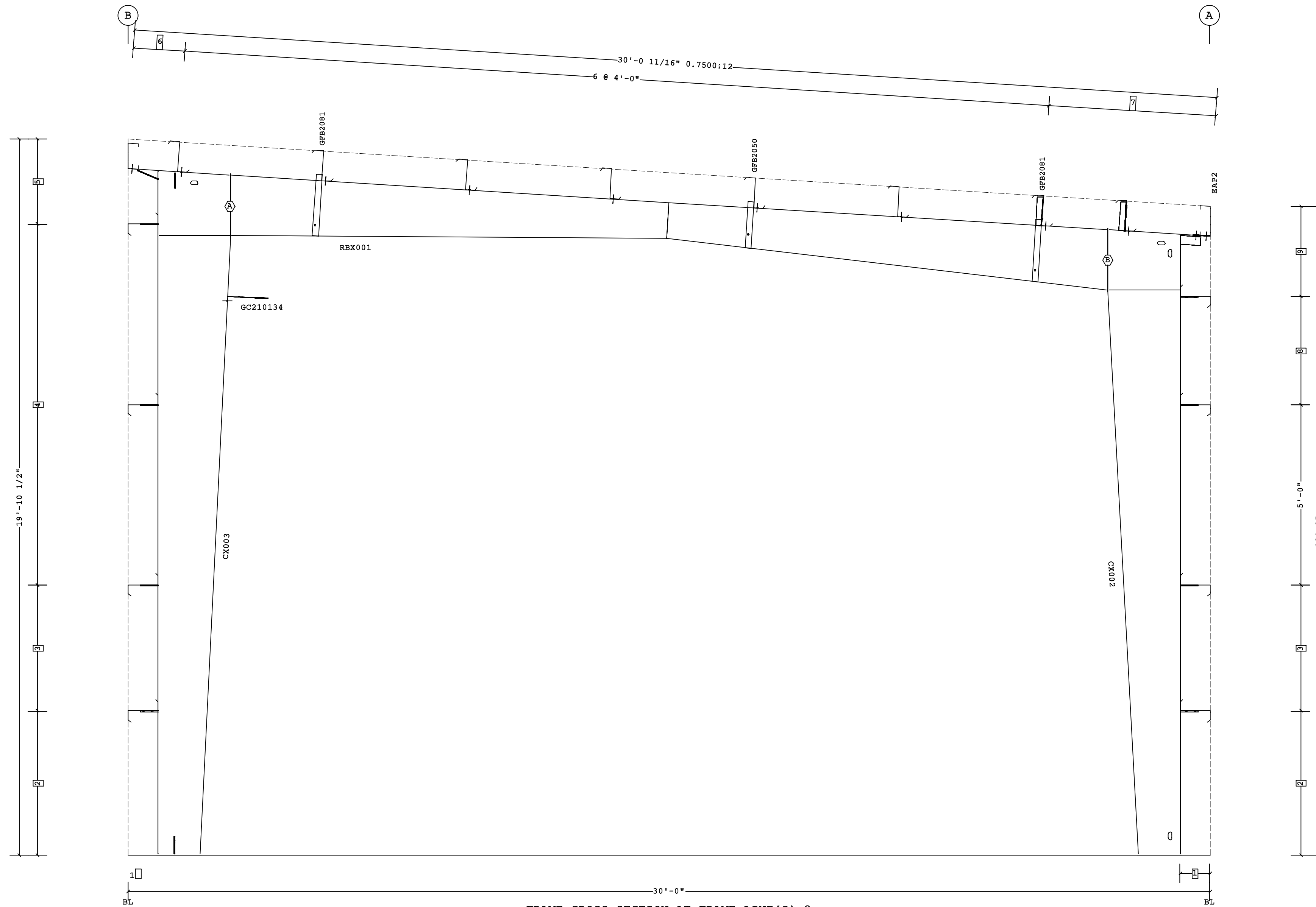
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1. USE 1/2 X 1 1/2 A325T BOLT (49080) AND NUT (47120) W/O WASHERS. SNUG TIGHTEN BOLTS FOR ALL SECONDARY CONNECTIONS, SECONDARY CLIP CONNECTIONS, AND FLANGE BRACE CONNECTIONS, UNLESS NOTED OTHERWISE. 2. SLOT REINFORCEMENT PLATES NEED NOT BE LOCATED ON THE SAME SIDE OF THE WEB AS THE HILLSIDE WASHER.		THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.	THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS. THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.	D VP Buildings 3200 Players Club Circle Memphis TN 38125	FRAME CROSS SECTION AT FRAME LINE(S) 2
REV DATE BY DESCRIPTION	BUILDER Lemartec Corporation CUSTOMER Duke Energy LOCATION Dunn, North Carolina PROJECT Duke Energy Dunn Operations Center - Weld Shop BUILDERS PO# 23068 - Weld Shop	JOBNO 23-016000-01 DATE 01/31/2024 DRAWINGCHECK MB WJC PAGE 7	VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a	FILENAME: Duke Energy - Weld Shop a division of BlueScope Buildings North America, Inc.	

Frame Member Schedule						
Part	Mem	Width	Thick	WebThk.	Depth1	Depth2
CX003	1	5.0000	.3750	.1345	1'-2"	2'-0"
RBX001	2	5.0000	.1875	.1345	1'-8"	1'-0"
	3	5.0000	.1875	.1345	1'-0"	1'-8"
CX002	4	5.0000	.3125	.1345	1'-2"	2'-0"

Bolt Connection & Plate Schedule									
Id	Qty	Grade	Bolt Dia.	Bolt Length	Plate Thick.	Rows Out	Rows In	PartNo	
A	6	A325	3/4"	2 1/2"	3/8"	1	2	0097284	
B	4	A325	3/4"	2 1/2"	3/8"	1	1	0097284	

Frame Clearances
 Horiz. Clearance between members 1(CX003) and 4(CX002): 24'-4"
 Vert. Clearance at member 1(CX003): 17'-1 13/16"
 Vert. Clearance at member 4(CX002): 15'-7 9/16"
 Finished Floor Elevation = 100'-0" (Unless Noted Otherwise)



- 9 2'-6"
 - 8 3'-0"
 - 7 2 @ 2'-3 13/16"
 - 6 1'-5 1/8"
 - 5 2'-4 1/2"
 - 4 2 @ 5'-0"
 - 3 3'-6"
 - 2 4'-0"
 - 1 10"
- Dimension Key

FRAME CROSS SECTION AT FRAME LINE(S) 3

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PERMIT SET- For Building Dept. Approval

1. USE 1/2 X 1 1/2 A325T BOLT (49080) AND NUT (47120) W/O WASHERS. SNUG TIGHTEN BOLTS FOR ALL SECONDARY CONNECTIONS, SECONDARY CLIP CONNECTIONS, AND FLANGE BRACE CONNECTIONS, UNLESS NOTED OTHERWISE. 2. SLOT REINFORCEMENT PLATES NEED NOT BE LOCATED ON THE SAME SIDE OF THE WEB AS THE HILLSIDE WASHER.		THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.	THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS. THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.	D VP Buildings 3200 Players Club Circle Memphis TN 38125	FRAME CROSS SECTION AT FRAME LINE(S) 3
REV DATE BY DESCRIPTION	BUILDER Lemartec Corporation CUSTOMER Duke Energy LOCATION Dunn, North Carolina PROJECT Duke Energy Dunn Operations Center - Weld Shop BUILDERS PO# 23068 - Weld Shop	JOBNO 23-016000-01 DATE 01/31/2024 DRAWINGCHECK MB WJC PAGE 8	VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a	FILENAME: Duke Energy - Weld Shop a division of BlueScope Buildings North America, Inc.	

Part	Mem	Width	Thick	WebThk.	Depth1	Depth2	Approx.Lgth	Approx.Weight
CX004	1	6.0000	.2500	.1345	10"	10"	18'-4 5/8"	278#
RBX002	2-3	5.0000	.1875	.1345	1'-6"	1'-6"	25'-8 3/4"	395#
CX005	4	6.0000	.2500	.1345	10"	10"	18'-4 5/8"	278#

Bolt Connection & Plate Schedule									
Id	Qty	Grade	Bolt Dia.	Bolt Length	Plate Thick.	Rows Out	Rows In	PartNo	
A	4	A325	3/4"	2 1/2"	3/8"	1	1	0097284	

Frame Clearances
 Horiz. Clearance between members 1(CX004) and 4(CX005): 25'-9"
 Vert. Clearance at member 1(CX004): 16'-11"
 Vert. Clearance at member 4(CX005): 16'-11"
 Finished Floor Elevation = 100'-0" (Unless Noted Otherwise)



PORTAL FRAME ELEVATION ALONG B

- 2 1'-4"
- 1 1/2"

□ Dimension Key

Shape Name = Weld Shop Wall 4, Frame 1

PERMIT SET- For Building Dept. Approval

1. USE 1/2 X 1 1/2 A325T BOLT (49080) AND NUT (47120) W/O WASHERS. SNUG TIGHTEN BOLTS FOR ALL SECONDARY CONNECTIONS, SECONDARY CLIP CONNECTIONS, AND FLANGE BRACE CONNECTIONS, UNLESS NOTED OTHERWISE.
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REV	DATE	BY	DESCRIPTION	BUILDER	CUSTOMER	LOCATION	PROJECT	BUILDERS PO#	VP BUILDINGS	JOBNO	DATE	DRAWING/CHECK	PAGE
D				Lemartec Corporation	Duke Energy	Dunn, North Carolina	Duke Energy Dunn Operations Center - Weld Shop	23068 - Weld Shop	VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company	23-016000-01	01/31/2024	MB WJC	9
VP Buildings 3200 Players Club Circle Memphis TN 38125				PORTAL FRAME ELEVATION ALONG B									
NTS				VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a									

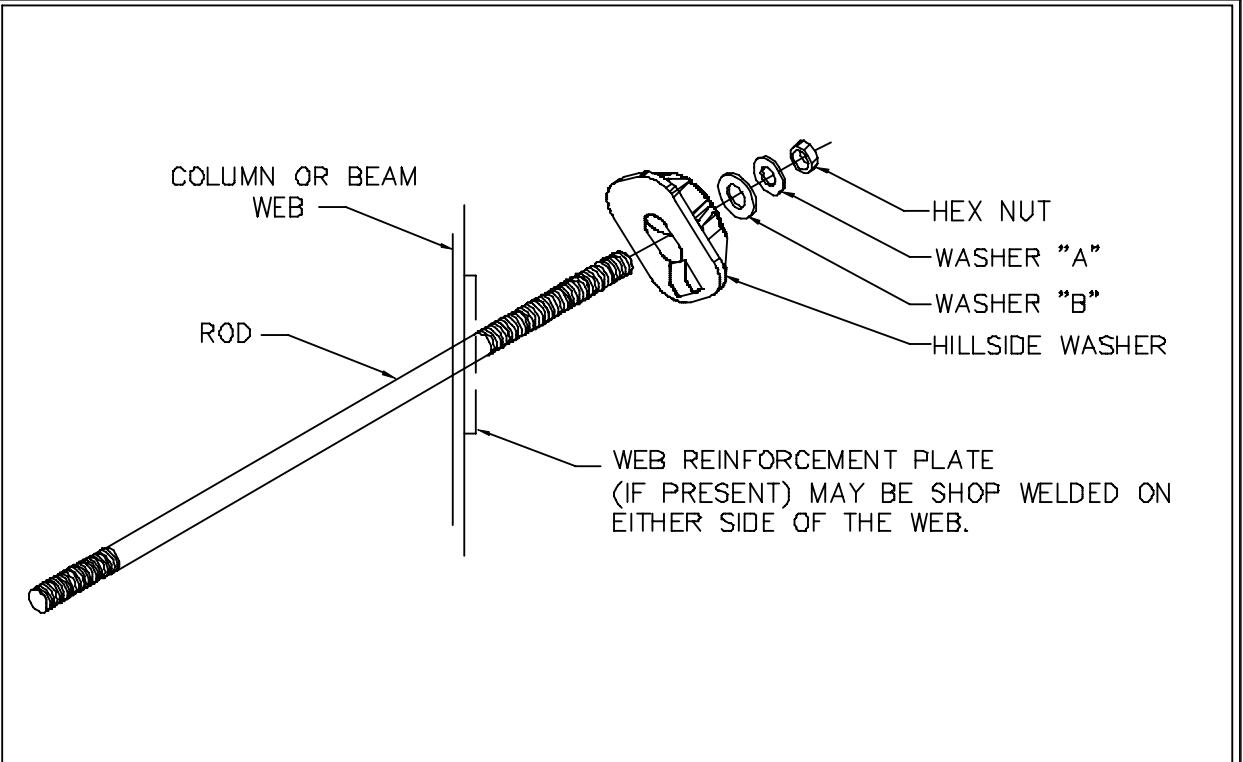
1/31/2024 16:48:01

FILENAME: Duke Energy - Weld Shop

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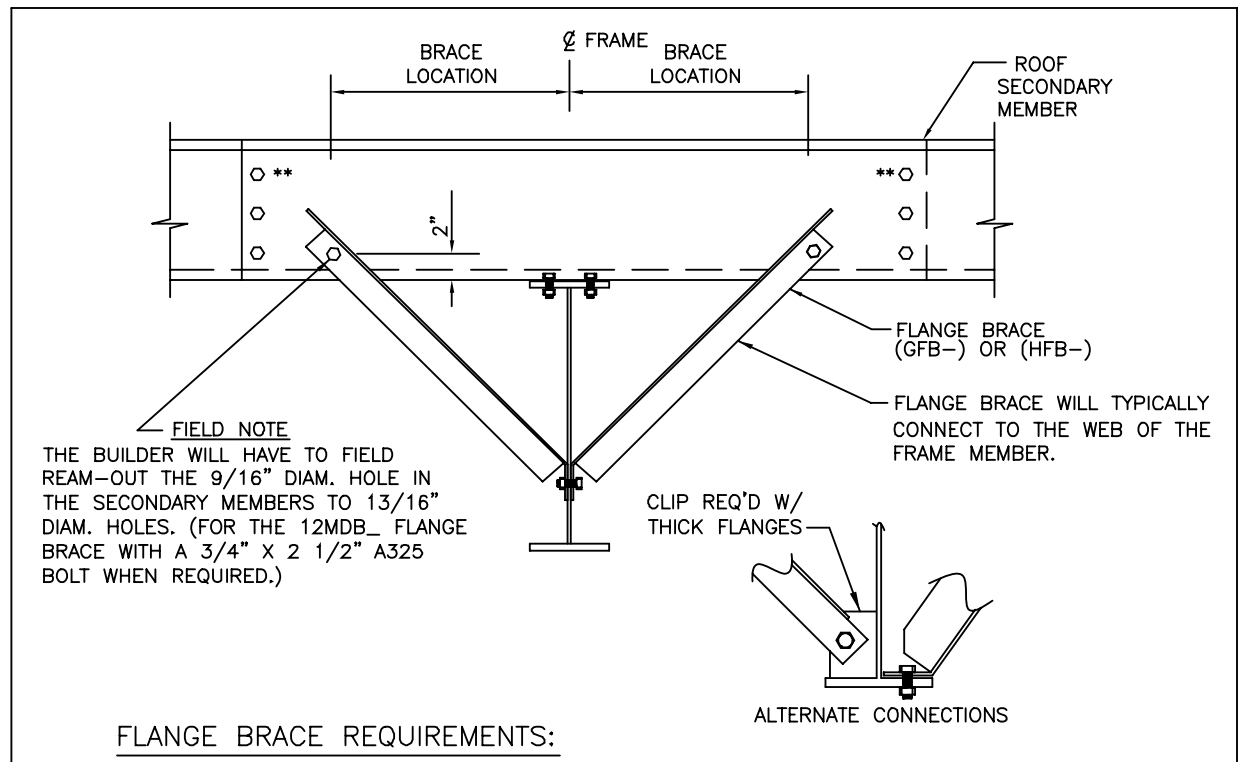
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DESCRIPTION/PART NO				
ROD DIAM	NUT	HARD STEEL ROUND WASHER A	HARD STEEL WASHER B	HILLSIDE WASHER
3/8"	95321	3/8" FLAT WASHER (96408)	1/2" BEVEL SQUARE WASHER (46040)	
1/2"	95230	1/2" FLAT WASHER (95872)	3/4" FLAT ROUND WASHER (95946)	543334
5/8"	95233	5/8" FLAT WASHER (95945)		
3/4"	95235	3/4" FLAT WASHER (95946)	1" FLAT ROUND WASHER (95948)	543335
7/8"	95237	7/8" FLAT WASHER (95947)		
1"	95238	1" FLAT WASHER (95948)	1 1/8" FLAT ROUND WASHER (95949)	543336
1 1/8"	95239	1 1/8" FLAT WASHER (95949)		

REV. DATE:08/02/17	REV. NO. 04	ROD BRACE WEB SLOT ASSEMBLY
BR01G2		



FLANGE BRACE REQUIREMENTS:

RULE#1- ALL FLANGE BRACES ON CROSS SECTIONS MUST BE INSTALLED.

RULE#2- SINGLE FLANGE BRACES ARE REQUIRED WHEN PART MARK ON CROSS SECTION IS NOT ACCOMPANIED BY (2).

RULE#3- FLANGE BRACES ARE REQUIRED BOTH SIDES OF THE FRAME WEB WHEN PART MARK IS ACCOMPANIED BY (2).

RULE#4- WHENEVER POSSIBLE, PLACE SINGLE BRACES TOWARD THE CENTER OF THE BUILDING.

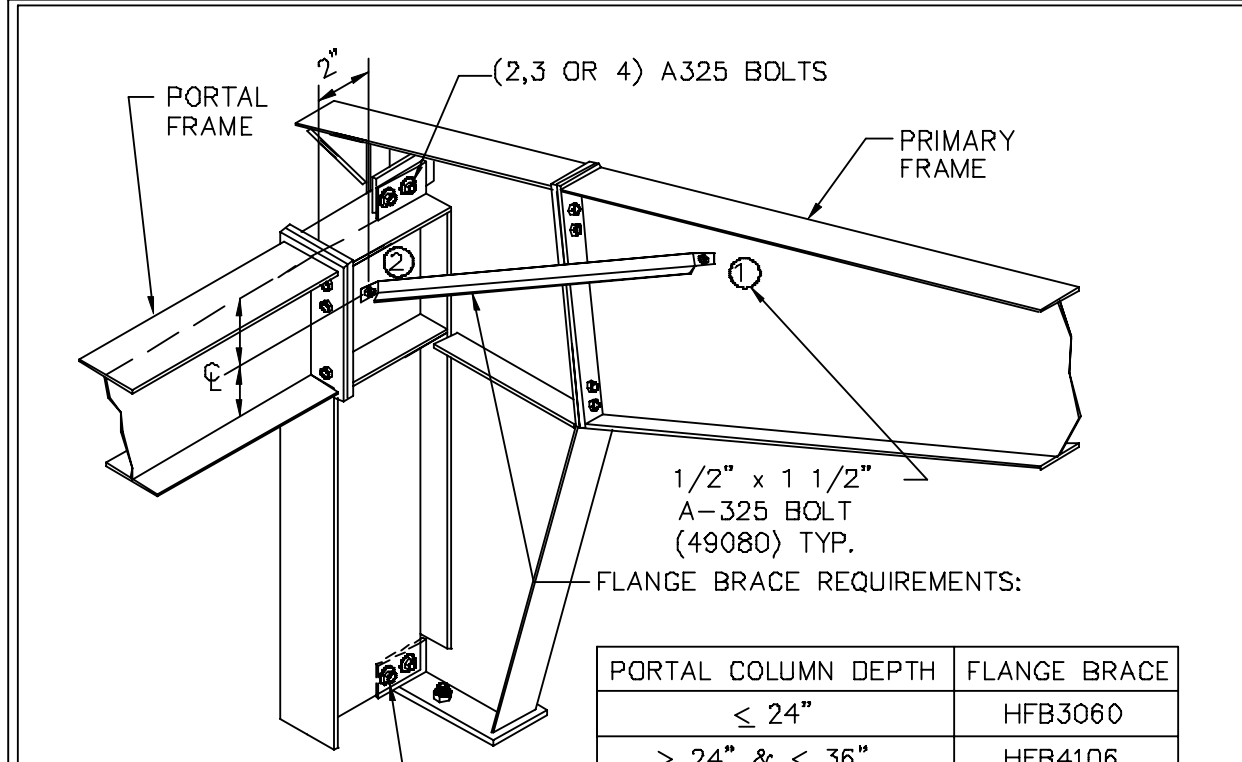
RULE#5- WHENEVER POSSIBLE, PLACE ALL SINGLE BRACES ON THE SAME SIDE OF THE FRAME WEB.

** 10" & 11 1/2" PURLINS REQUIRE 3 BOLTS AT EACH END OF PURLIN LAP.

FIELD NOTE: THE BUILDER WILL HAVE TO FIELD REAM-OUT THE 9/16" DIAM. HOLE IN THE SECONDARY MEMBERS TO 13/16" DIAM. HOLES. (FOR THE 12MOB- FLANGE BRACE WITH A 3/4" X 2 1/2" A325 BOLT WHEN REQUIRED.)

FLANGE BRACE WILL TYPICALLY CONNECT TO THE WEB OF THE FRAME MEMBER.

REV. DATE:05/08/18	REV. NO. 02	TYPICAL FLANGE BRACE CONNECTIONS CONT. PURLIN LAP SHOWN, CONT. GIRT & SIMPLE PURLIN
BR06AE		



PORTAL COLUMN DEPTH	FLANGE BRACE
≤ 24"	HFB3060
> 24" & ≤ 36"	HFB4106
> 36"	HFB6032

FLANGE BRACE REQUIREMENTS:

(2) A325 BOLTS

1/2" x 1 1/2" A-325 BOLT (49080) TYP.

REV. DATE:03/17/18	REV. NO. 03	FLUSH PORTAL FRAME CONNECTION FLANGE BRACE CONNECTION AND LOCATION
BR12K1		

F = FEET G = GAGE
I = INCHES O = OPERATION
E = EIGHTHS C = FIN/COLOR

PANEL/COVERING
W 1 3 1 1 7 2 6 1 K T D
* F F I I E G G O C C C
LENGTH CODE

INSULATION
I B 1 3 0 1 0 3 6 0 3 0 W V
* * F F F I I I I I E C C
LENGTH WIDTH THK CODE

SECONDARY (STANDARD)
O B Z 1 9 1 1 4 1 7 - - - -
* * * F F I I E G G * * * * *
DEPTH LENGTH GAGE ADJUST.CODES
SHAPE

SECONDARY (SPECIAL)
O 0 1 0 8 Z 1 9 1 1 4 1 7 - - - -
* * * * * F F I I E G G * * * * *
COUNTER DEPTH & LENGTH GAGE ADJUST.CODES
SHAPE

ROD BRACING
O 3 R S 2 5 1 0
I E * * F F I I
DIA LENGTH

RS = THREADS BOTH ENDS
RT = THREADS ONE END - CLEVIS ONE END
RU = CLEVIS BOTH ENDS
RP = THREAD BOTH ENDS - NO HILLSIDES

CX*** = COLUMN (PLATE)
CGX*** = COLUMN (GAGE)
WCX*** = COLUMN (HOTROLL)

RBX*** = RAFTER (PLATE)
BGX*** = RAFTER (GAGE)
WRX*** = RAFTER (HOTROLL)
TRX*** = TRUSS RAFTER

ICX*** = INTERIOR COLUMN
PCX*** = PIPE COLUMN
TCX*** = TUBE COLUMN

EPX*** = ENDPOST (PLATE)
EGX*** = ENDPOST (GAGE)

CBX*** = CANOPY (PLATE)
CBX*** = PIGGYBACK CANOPY

DCC*** = 8 1/2" GAGE POST
DCE*** = 10" GAGE POST

REV. DATE:08/29/12	REV. NO. 01	MARK NUMBER KEY COMMON GENERATED MARK NUMBERS
EN50B1		

BASIC ERECTION GUIDE REQUIRED FOR THIS PROJECT:

REFER TO:

VARCO PRUDEN BUILDINGS

BASIC ERECTION GUIDE

The Field Guide for correctly storing and erecting Varco Pruden Metal Building Systems

BACK COVER: 4001 BASIC ERECTION GUIDE

REV. DATE:01/30/14	REV. NO. 00	BASIC ERECTION GUIDE - STRUCTURAL
ENVO02		

1. USE 1/2 X 1 1/2 A325T BOLT (49080) AND NUT (47120) W/O WASHERS. SNUG TIGHTEN BOLTS FOR ALL SECONDARY CONNECTIONS, SECONDARY CLIP CONNECTIONS, AND FLANGE BRACE CONNECTIONS, UNLESS NOTED OTHERWISE.

2. SLOT REINFORCEMENT PLATES NEED NOT BE LOCATED ON THE SAME SIDE OF THE WEB AS THE HILLSIDE WASHER.

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D	VP Buildings			
	3200 Players Club Circle Memphis TN 38125			
REV	DATE	BY	DESCRIPTION	
NTS				

PRIMARY BRACING SED'S

BUILDER	Lemartec Corporation
CUSTOMER	Duke Energy
LOCATION	Dunn, North Carolina
PROJECT	Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#	23068 - Weld Shop
VP BUILDINGS	VARCO PRUDEN A BlueScope Steel Company
VPC VERSION:	2023.4a

JOBNO: 23-016000-01
DATE: 01/31/2024
DRAWING/CHECK: MB WJC
PAGE: 10

VP BUILDINGS
VARCO PRUDEN
A BlueScope Steel Company
VPC VERSION: 2023.4a
a division of BlueScope Buildings North America, Inc.

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W. Jason Clymer
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ENGINEER
JASON CLYMER
02/01/2024

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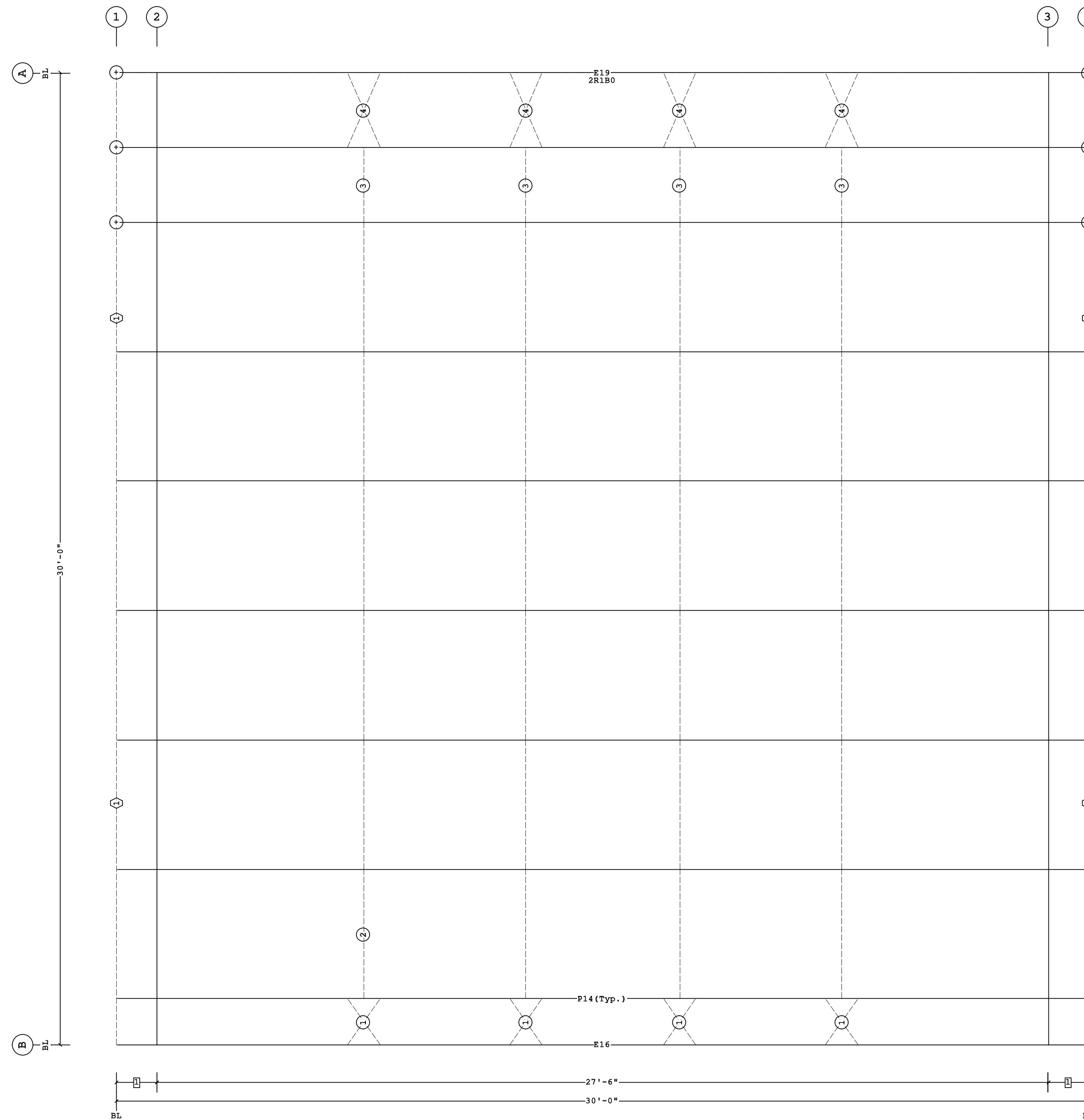
Secondary Part Schedule				
Mark	Part	Thick.	Depth	Lap
E16	00108HS2911417B01	0.0600	8 1/2"	
E19	00110ES2911417B01	0.0600	10"	
P14	1022911411VVBO	0.1130	10"	

Detail	
BR09W2, BR09Y2	
RS12PF	
RS02T1	

Secondary Bracing Schedule			
Id	Qty	Mark No	Spacing
1	8	PBA0108	1'-5 1/8"
2	24	CPBB040108 (Typ)	4'-0"
3	4	CPBB020506	2'-3 13/16"
4	8	PBA0207	2'-3 13/16"

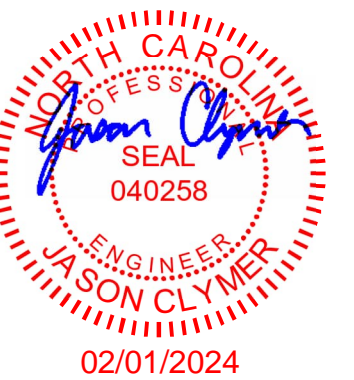
See SED:
BR09K5, BR09JG, BR09RY, BR09RZ, BR09JR
BR09JH

Part Mark Key
1 RKCB15
(+) SSR Fixed Clip Location



ROOF SECONDARY PLAN

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1 1'-3"
Dimension Key

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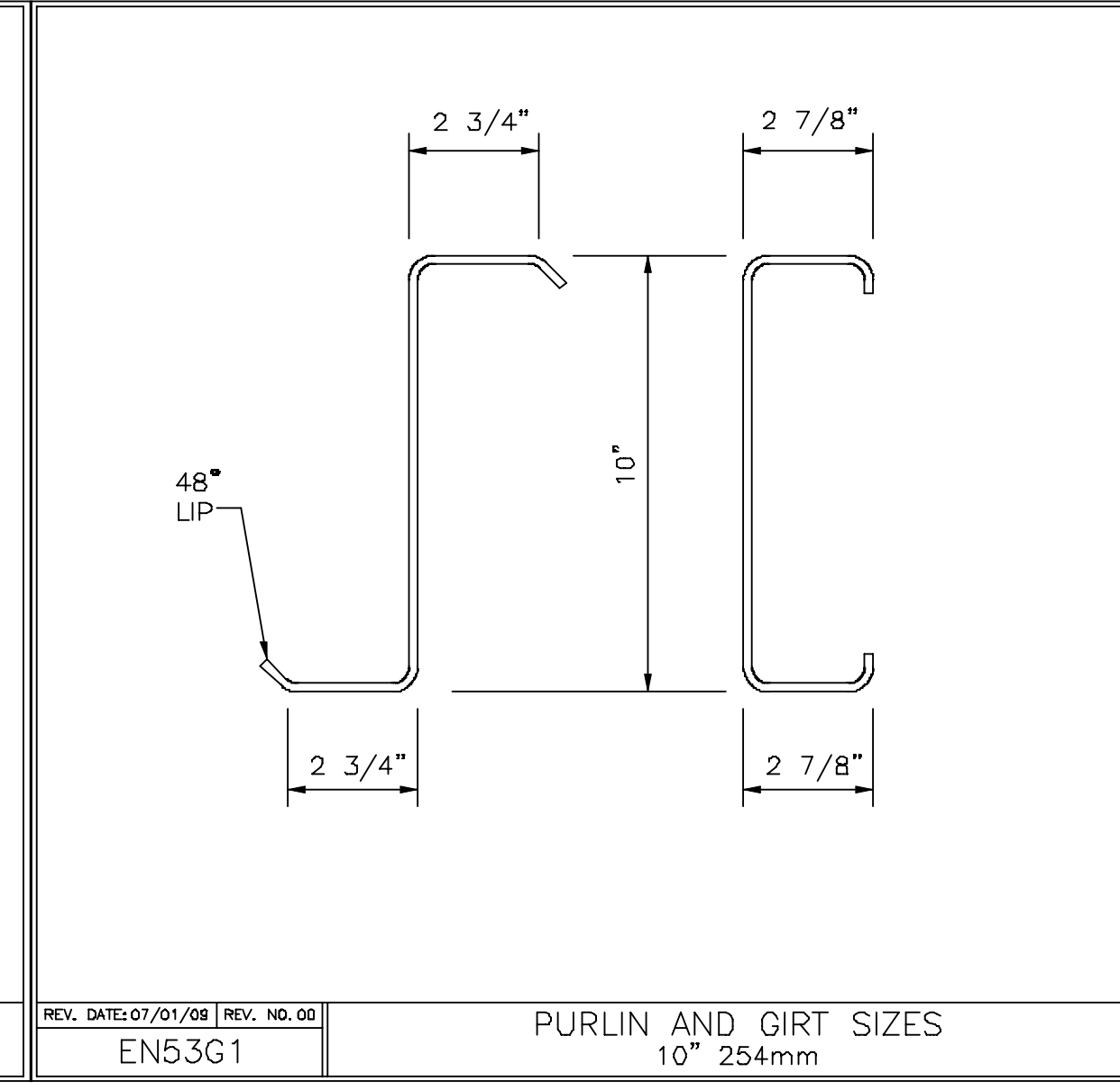
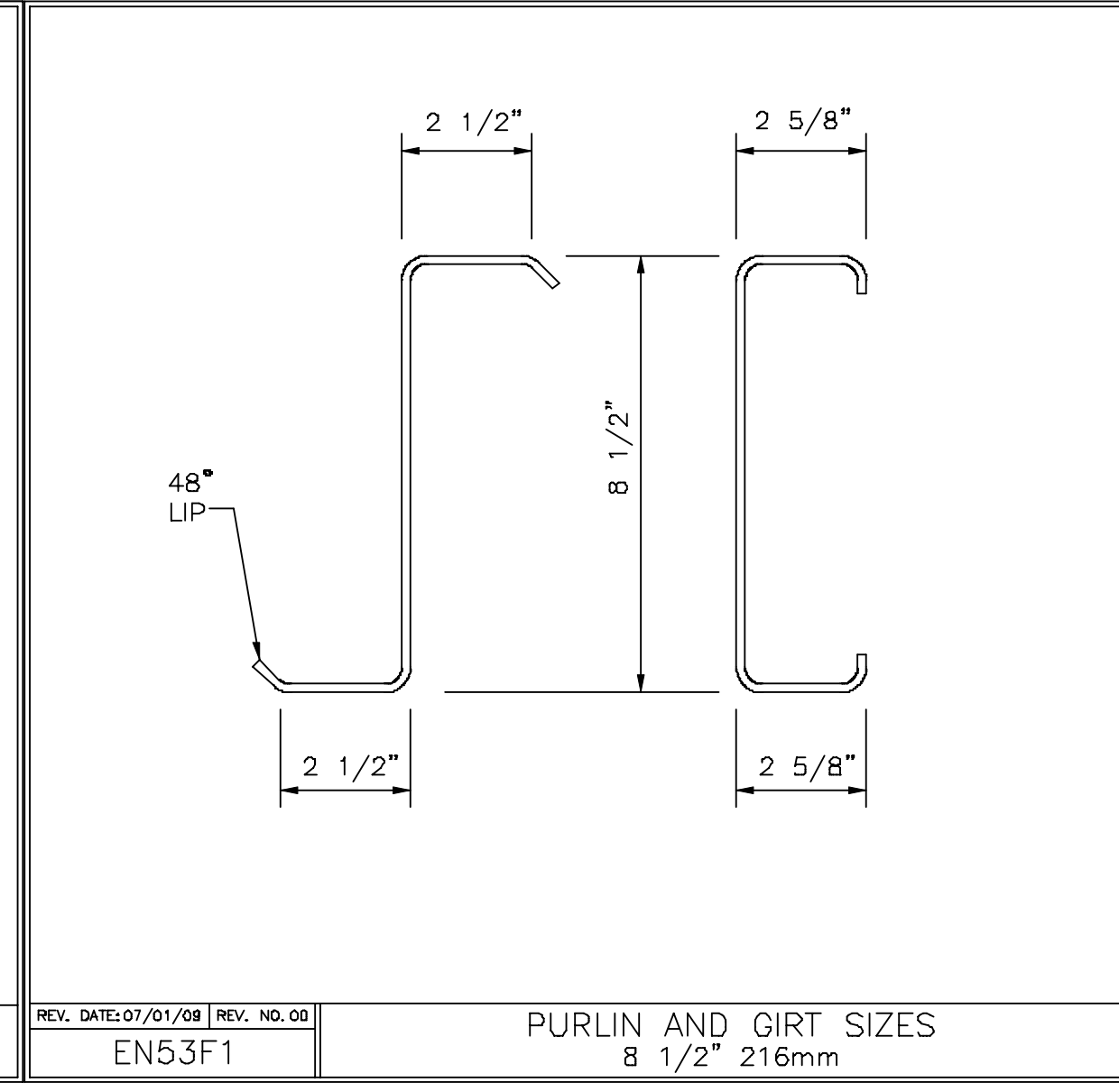
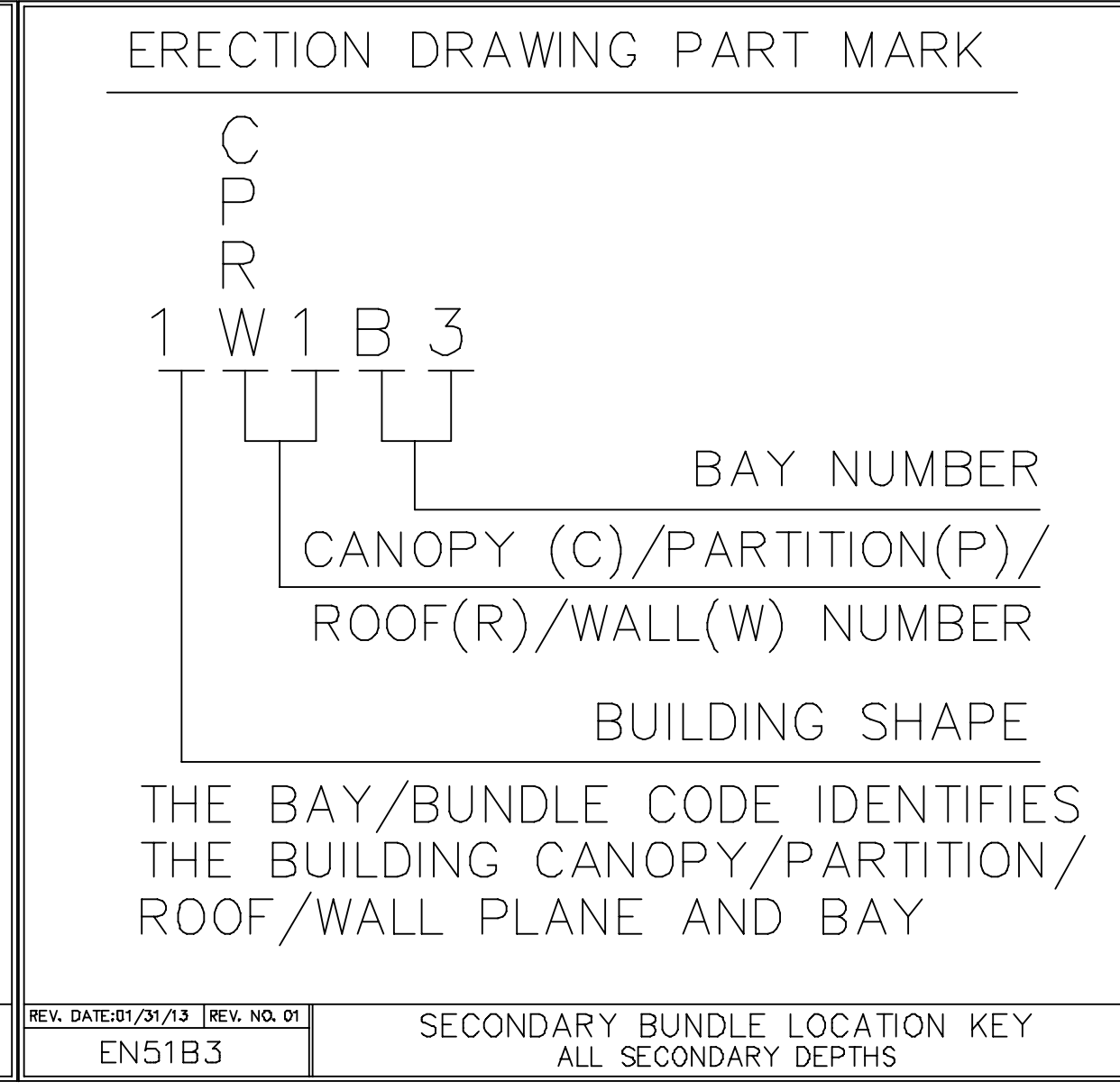
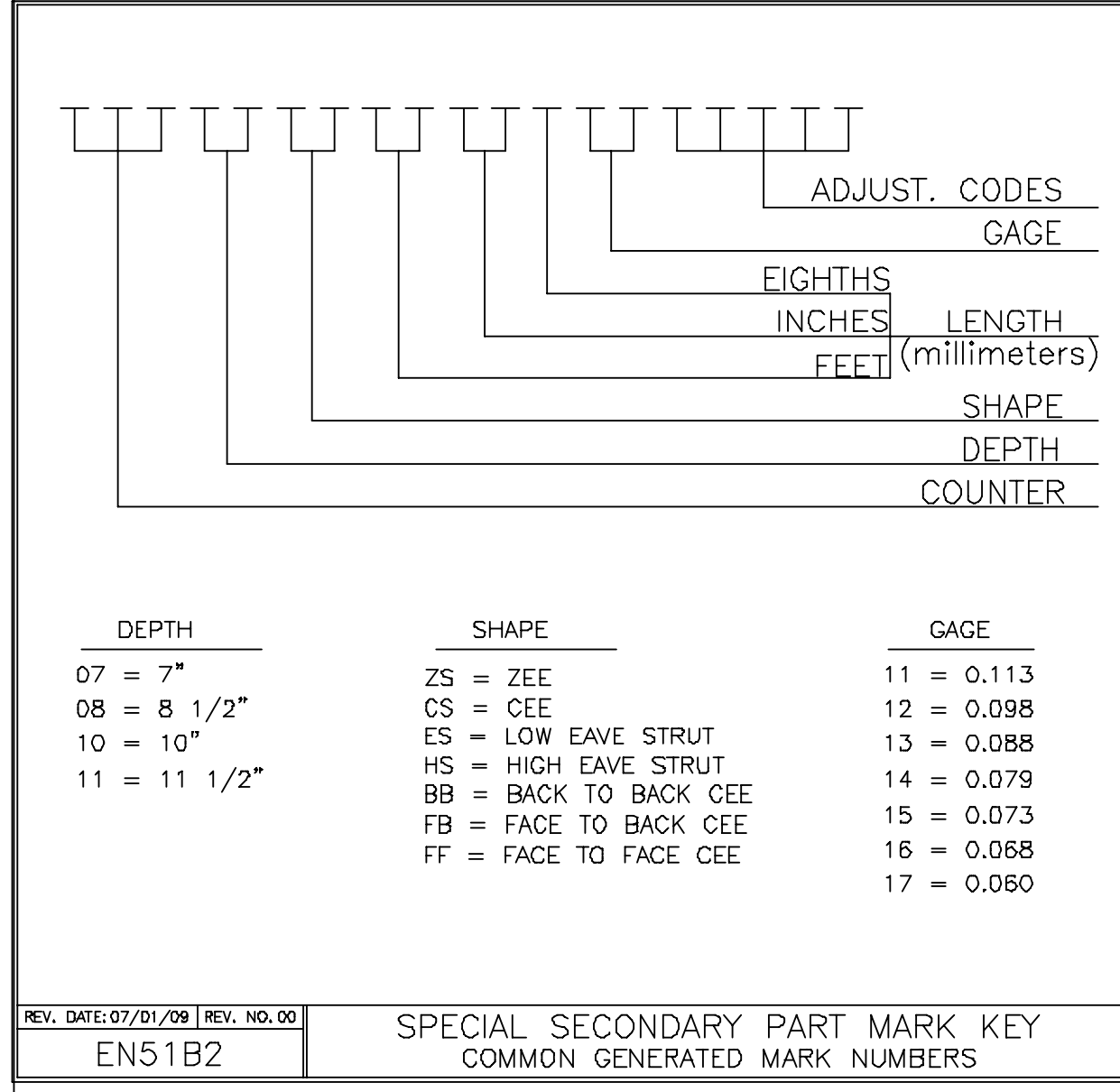
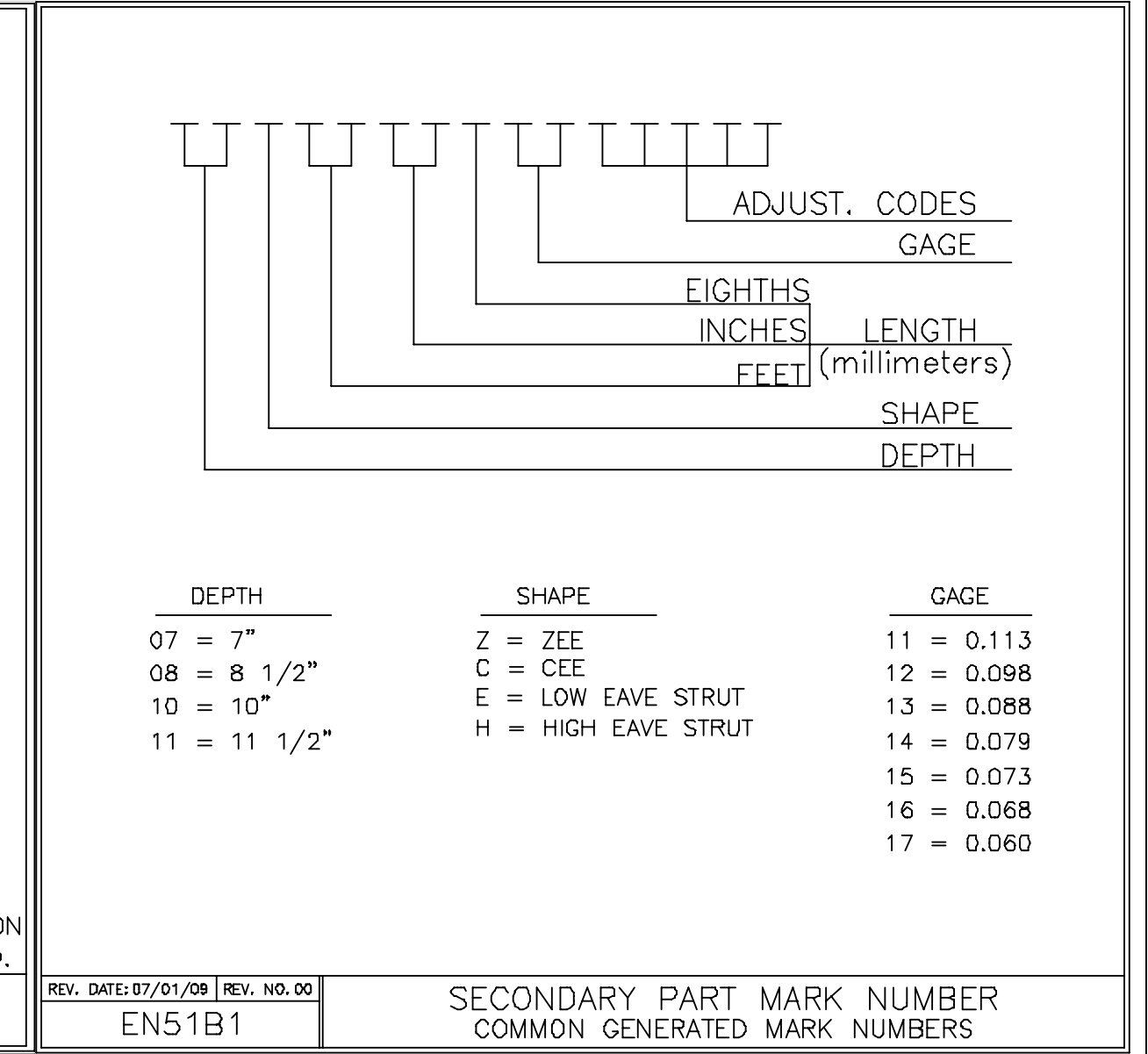
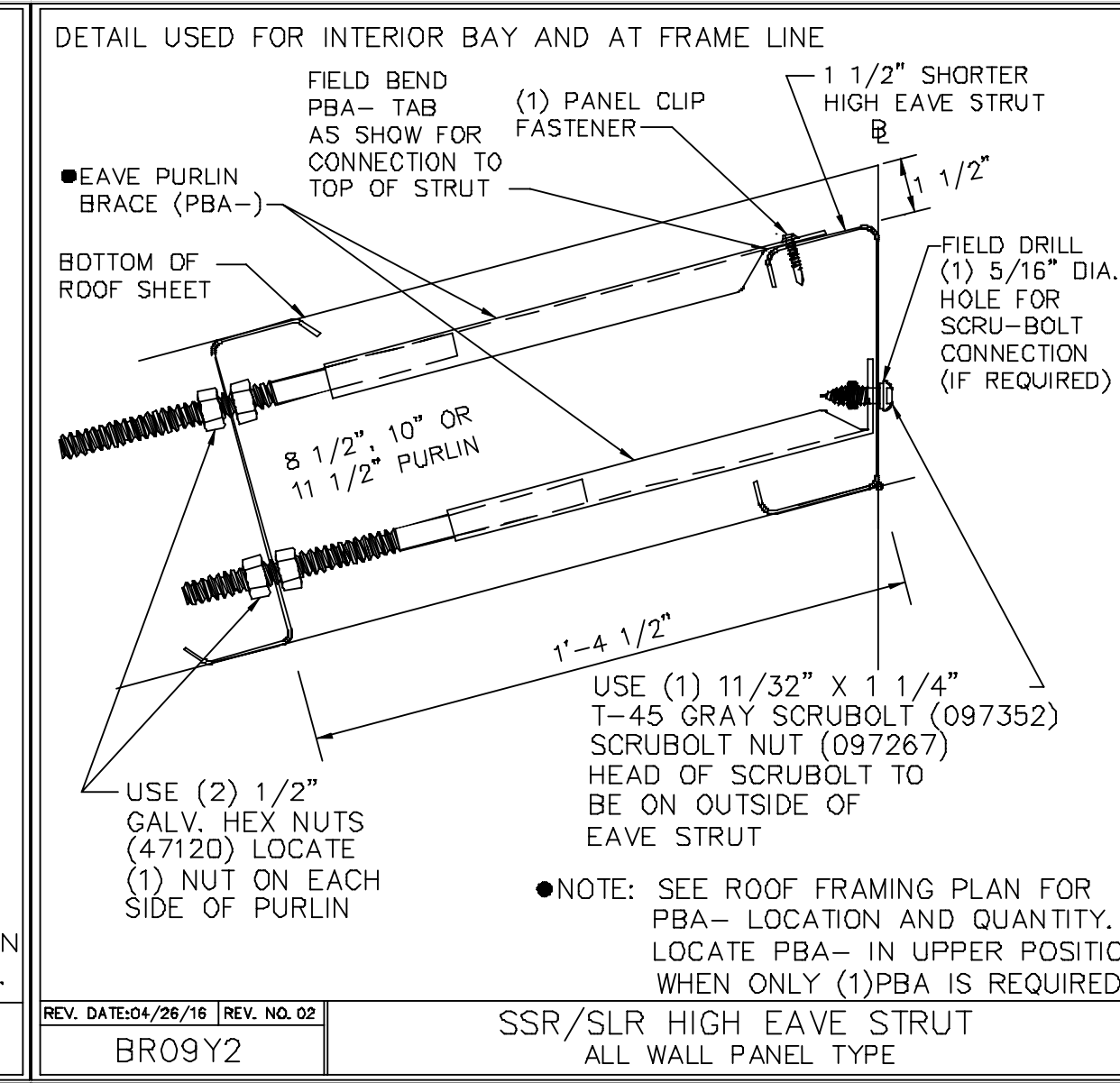
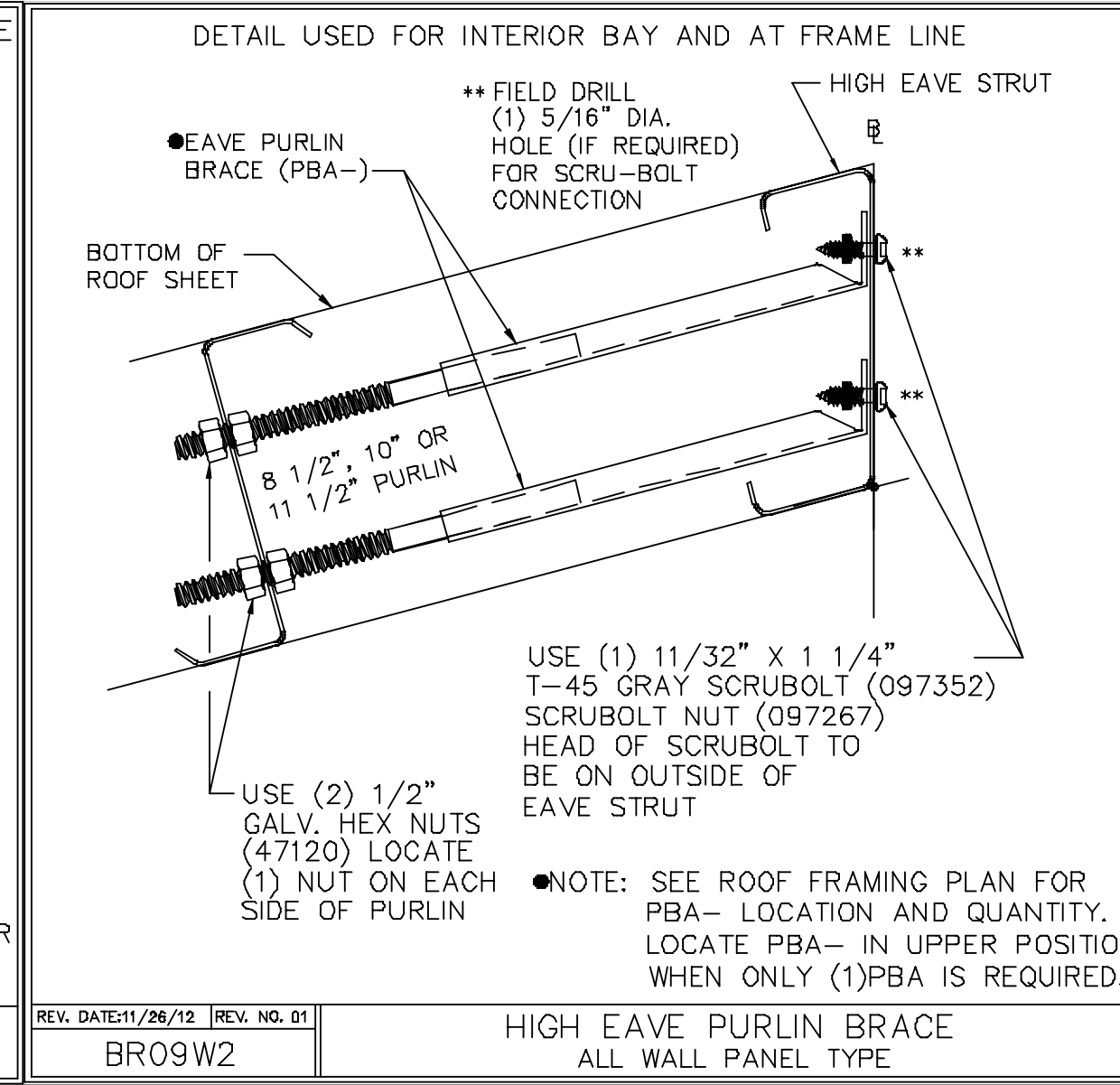
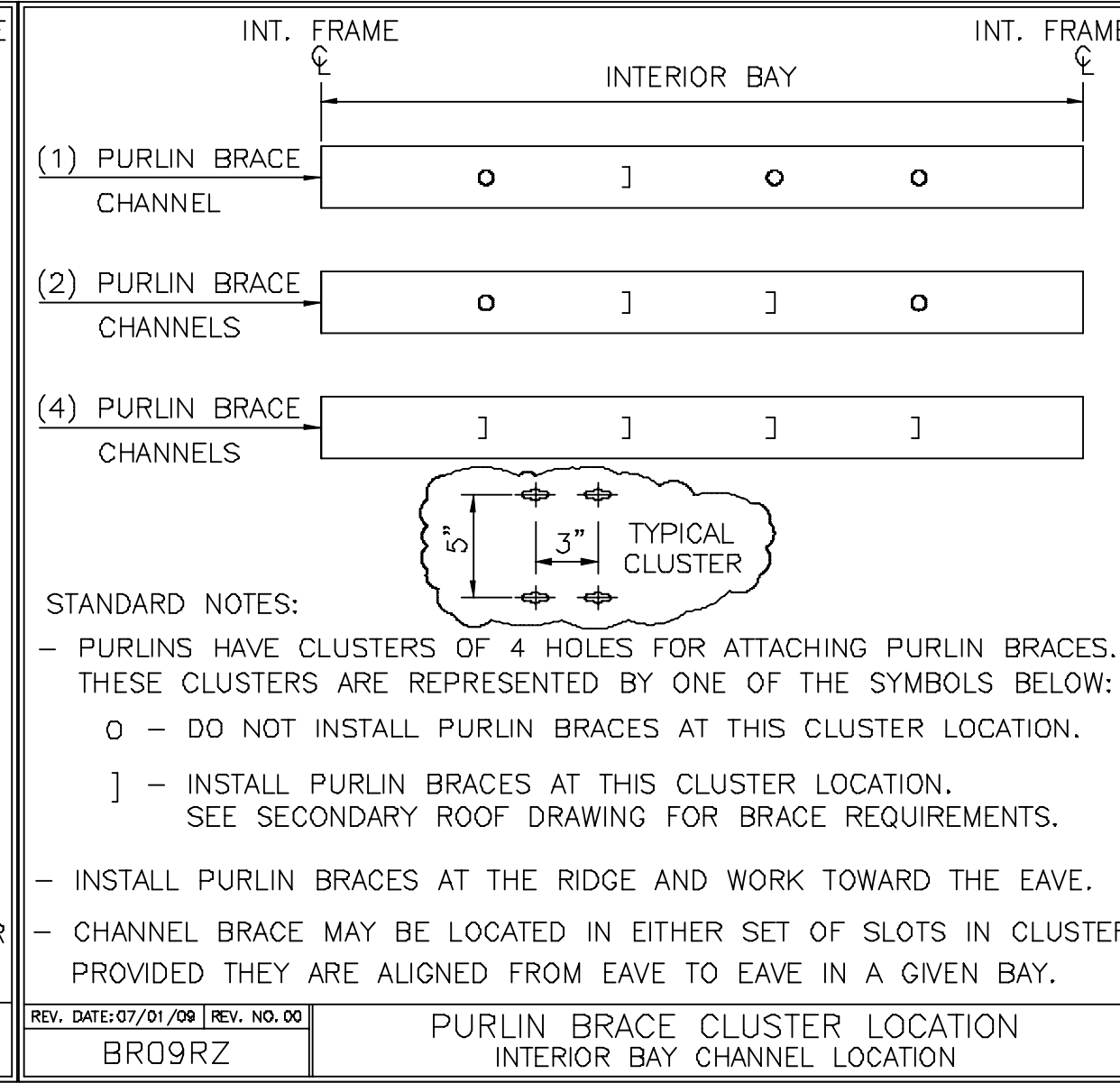
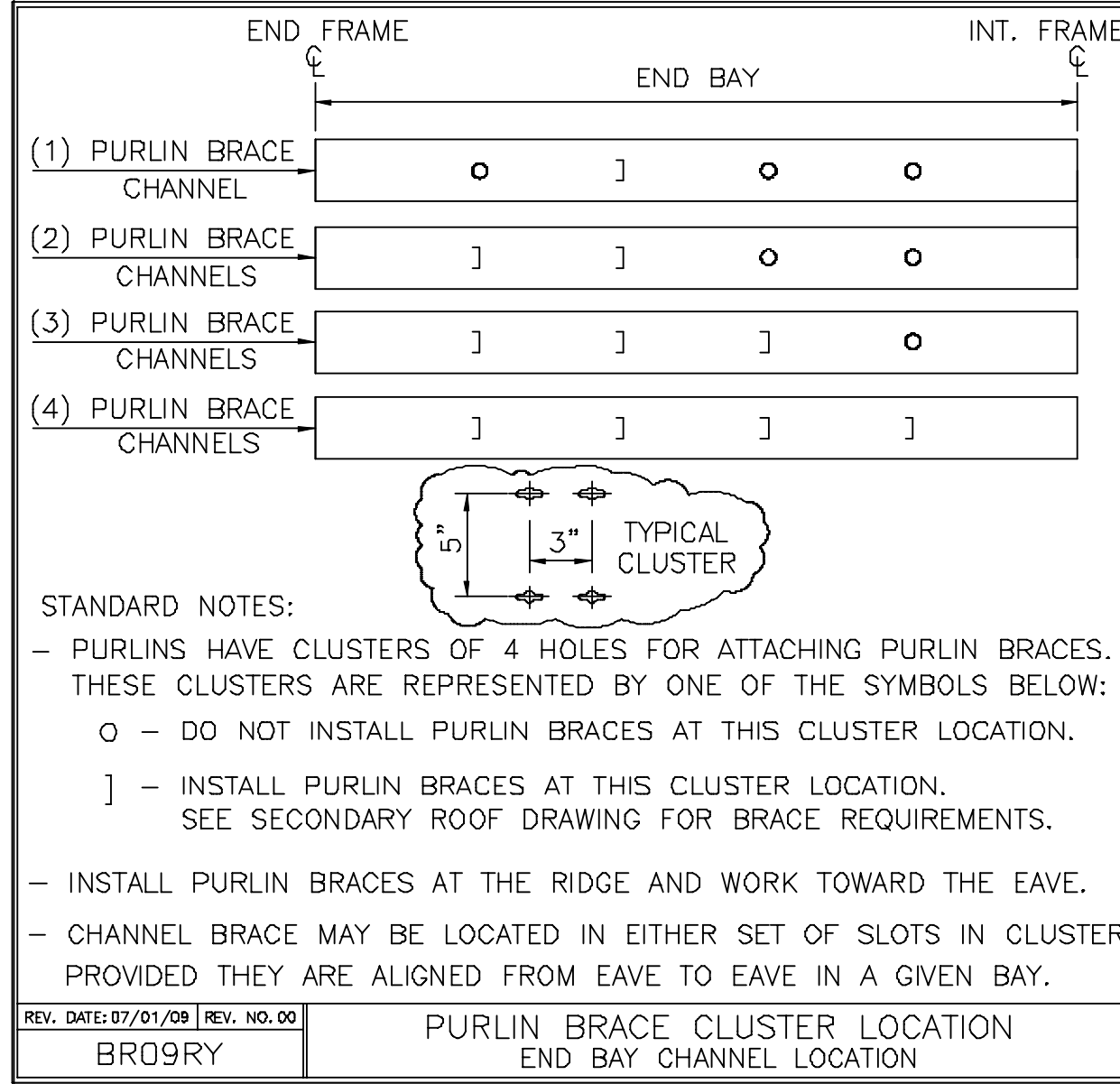
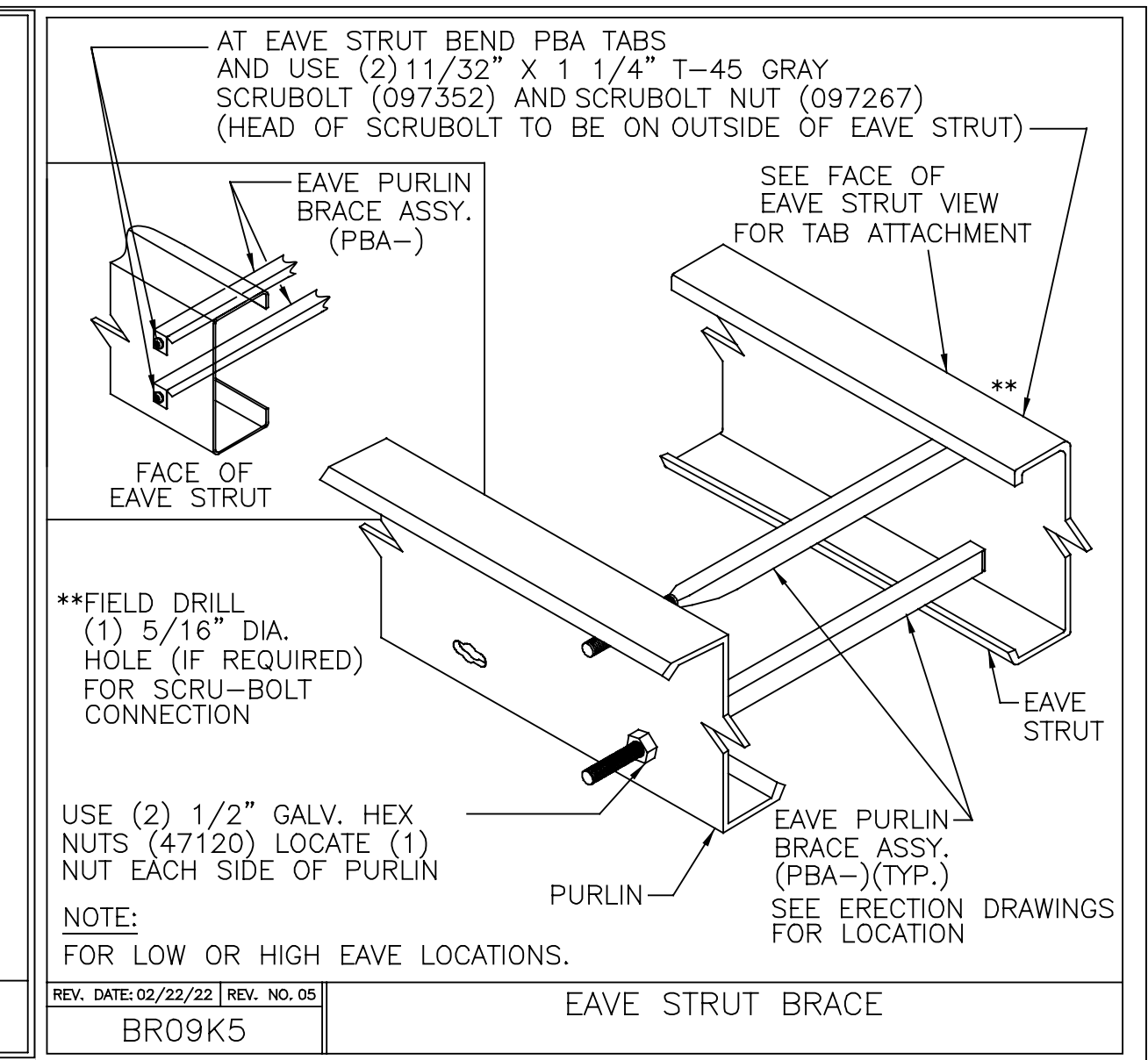
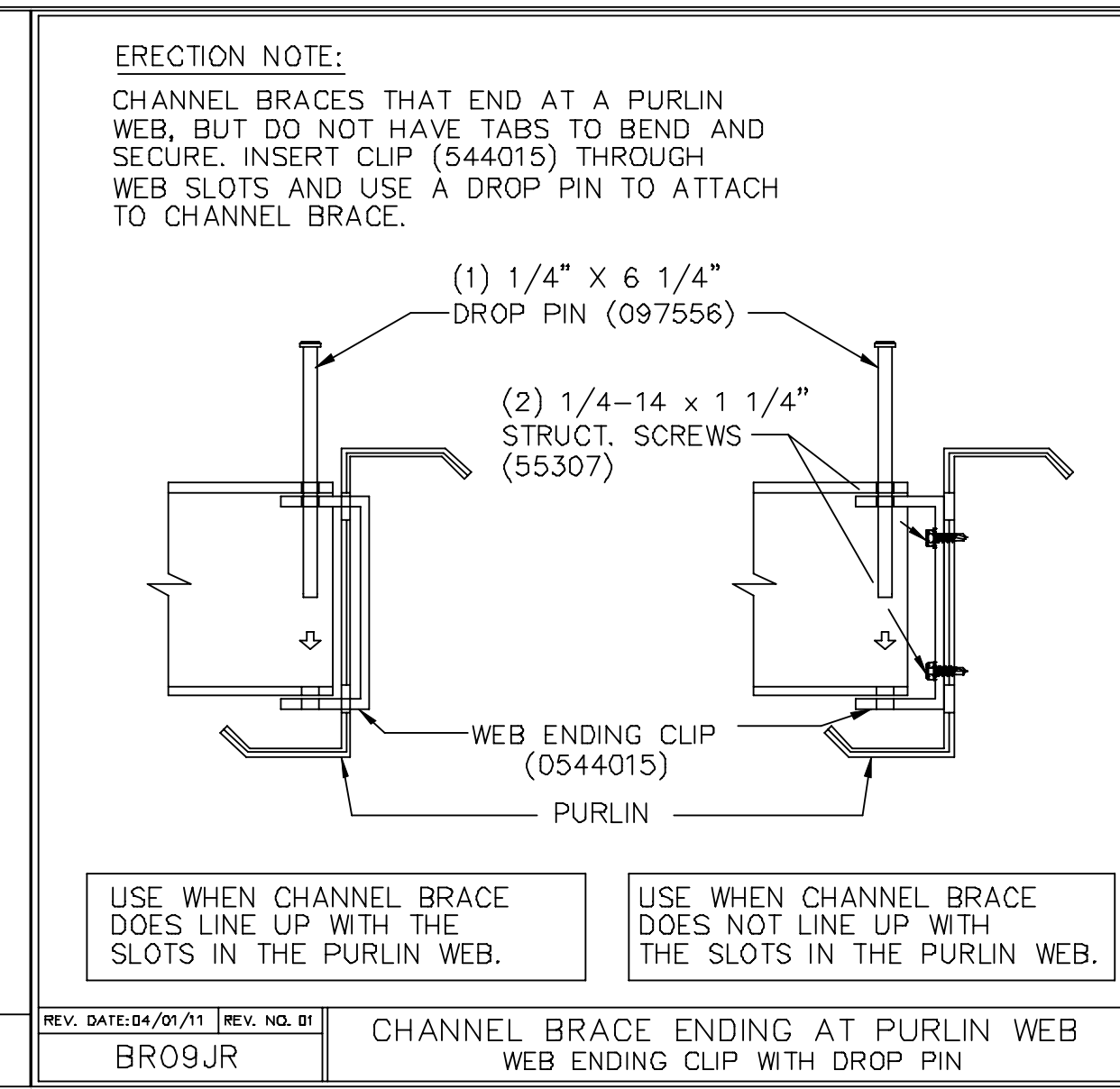
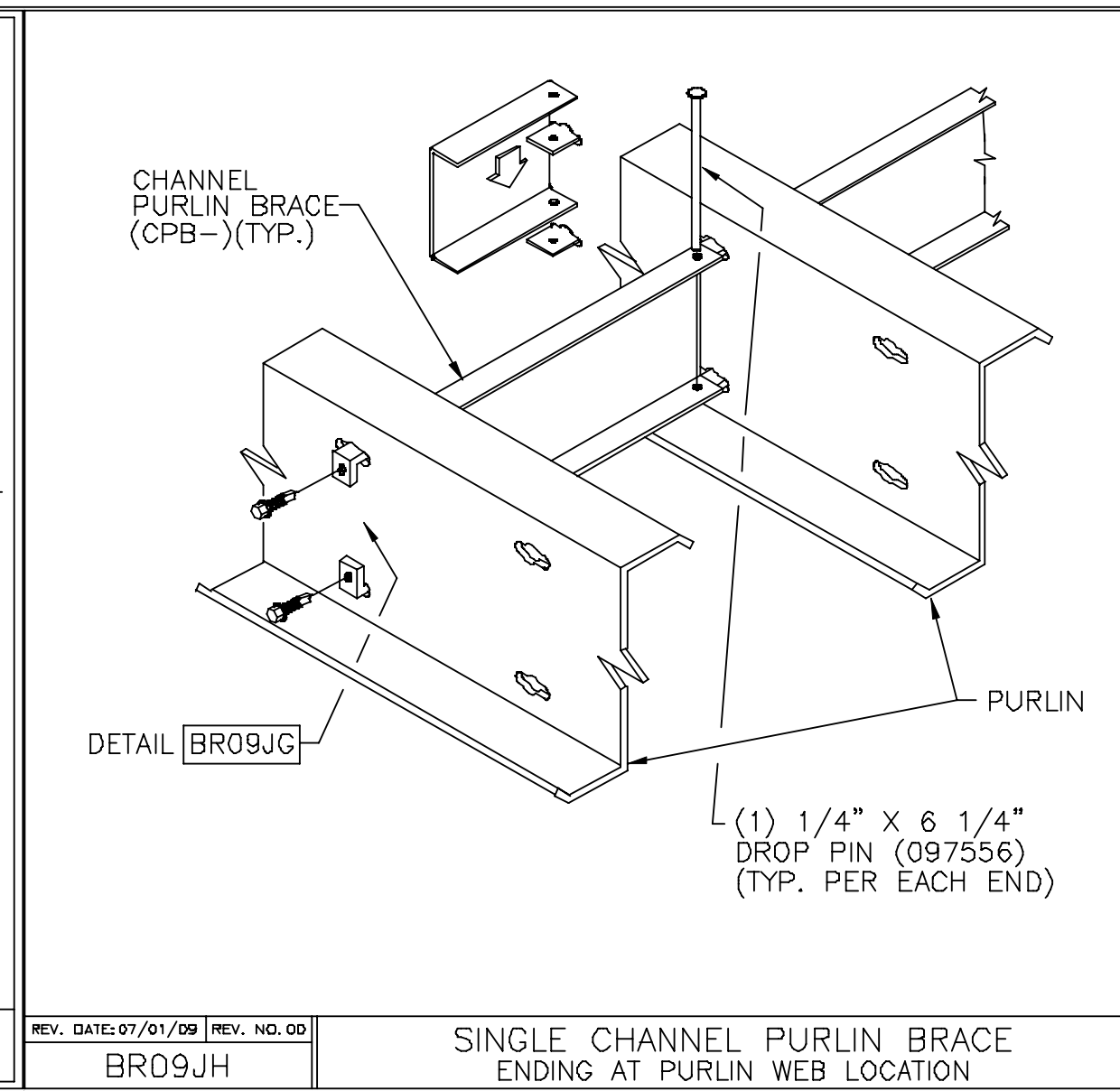
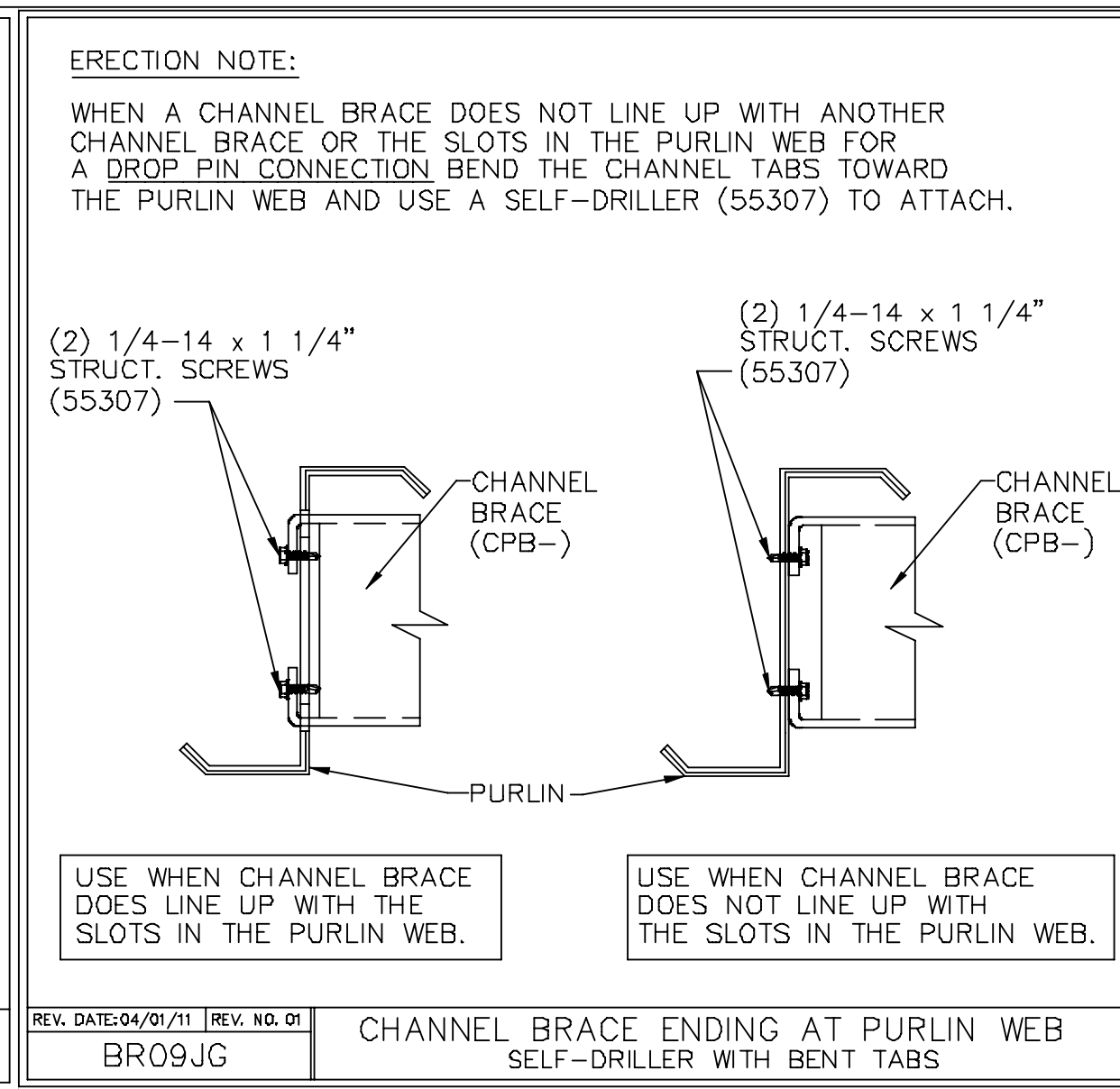
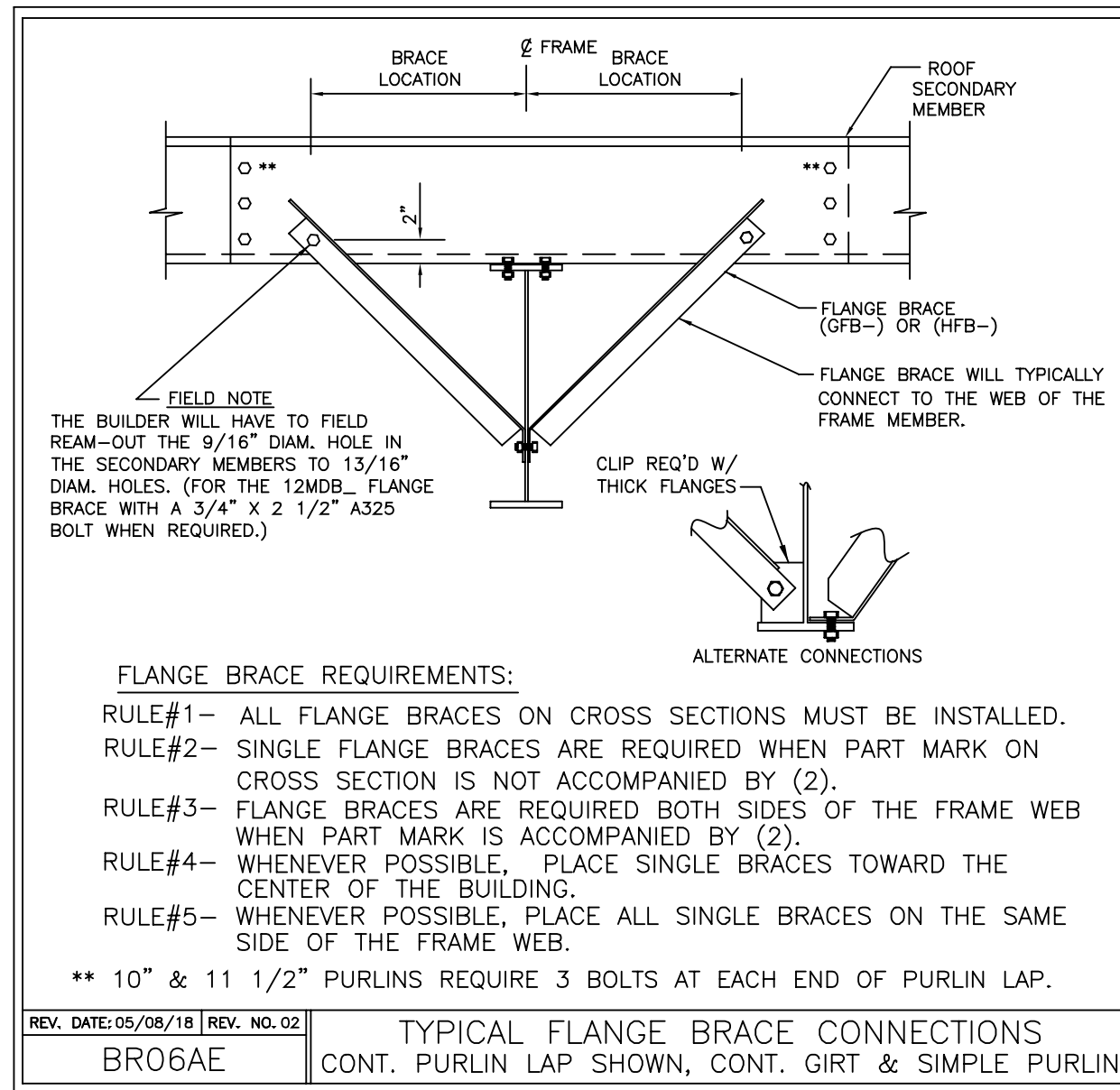
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VP Buildings				ROOF SECONDARY PLAN	
REV	DATE	BY	DESCRIPTION	BUILDER	JOBNO
3200 Players Club Circle Memphis TN 38125				Lemartec Corporation	23-016000-01
				CUSTOMER	DATE
				Duke Energy	01/31/2024
				LOCATION	DRAWING/CHECK
				Dunn, North Carolina	MB WJC
				PROJECT	PAGE
				Duke Energy Dunn Operations Center - Weld Shop	11
				BUILDERS PO#	
				23068 - Weld Shop	
				VPC VERSION:	2023.4a
				FILENAME:	Duke Energy - Weld Shop



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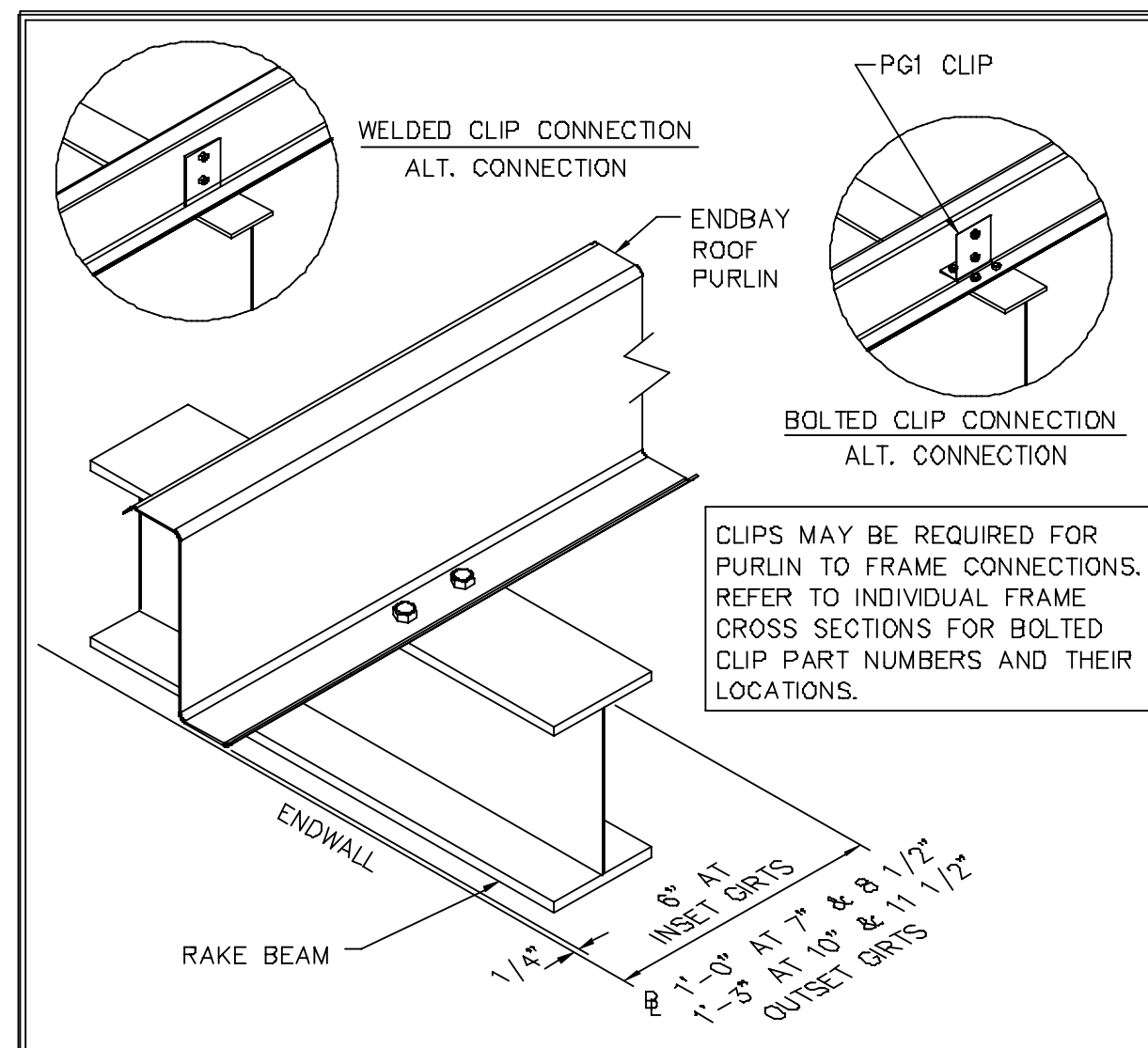
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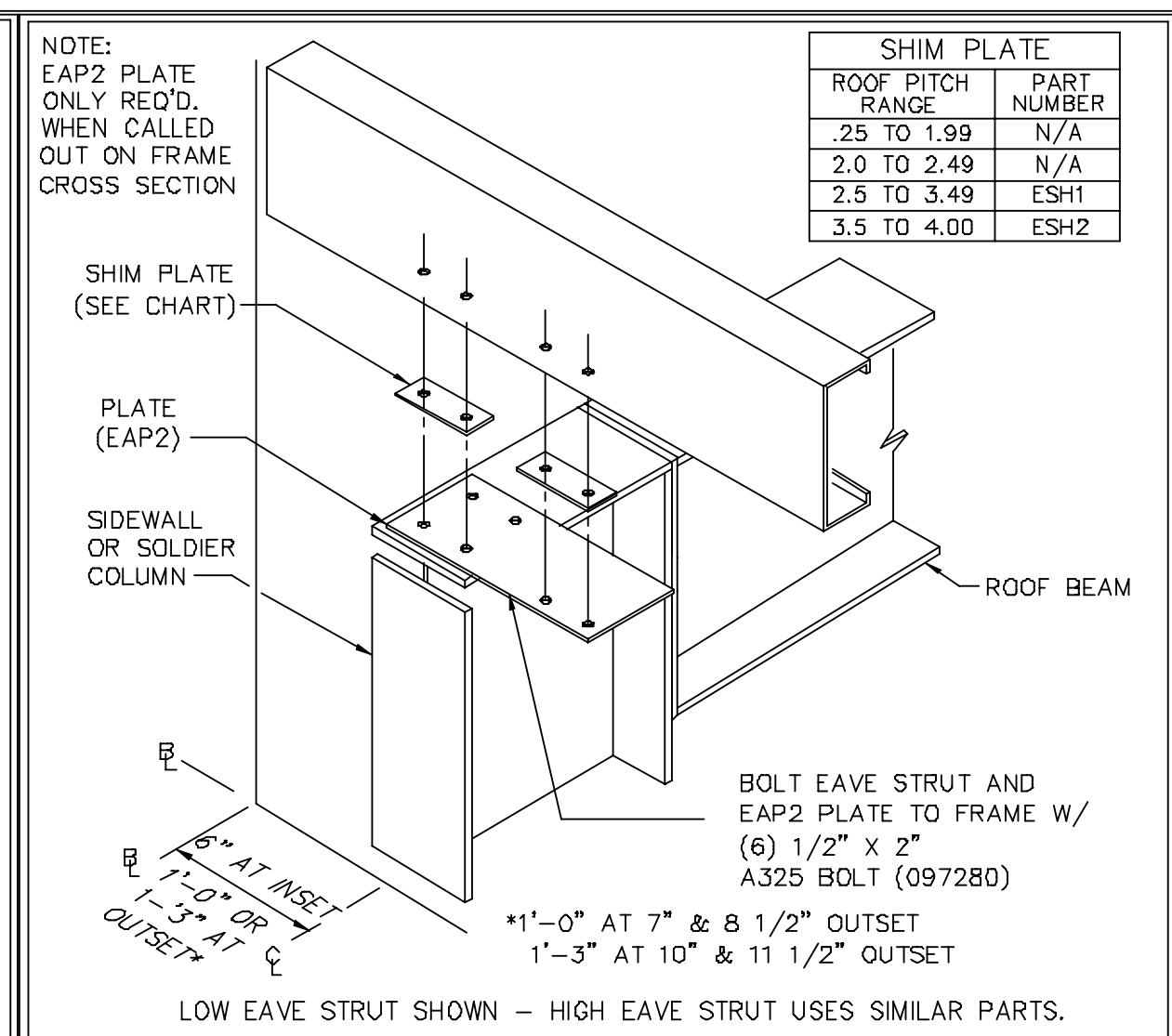
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REV	DATE	BY	DESCRIPTION

VP Buildings 3200 Players Club Circle Memphis TN 38125	ROOF SECONDARY SED'S (a)
BUILDER: Lemartec Corporation	CUSTOMER: Duke Energy
LOCATION: Dunn, North Carolina	PROJECT: Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#: 23068 - Weld Shop	VPC VERSION: 2023.4a
FILENAME: Duke Energy - Weld Shop	JOBNO: 23-016000-01
	DATE: 01/31/2024
	DRAWINGCHECK: MB WJC
	PAGE: 12



REV. DATE:06/17/15 | REV. NO. 02 | PURLIN CONNECTION TO END FRAME CONTINUOUS PURLINS | RS02T1



REV. DATE:03/28/15 | REV. NO. 02 | EAVE STRUT W/ ATTACHMENT PLATE END FRAME | RS12PF

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REV	DATE	BY	DESCRIPTION
D			VP Buildings 3200 Players Club Circle Memphis TN 38125

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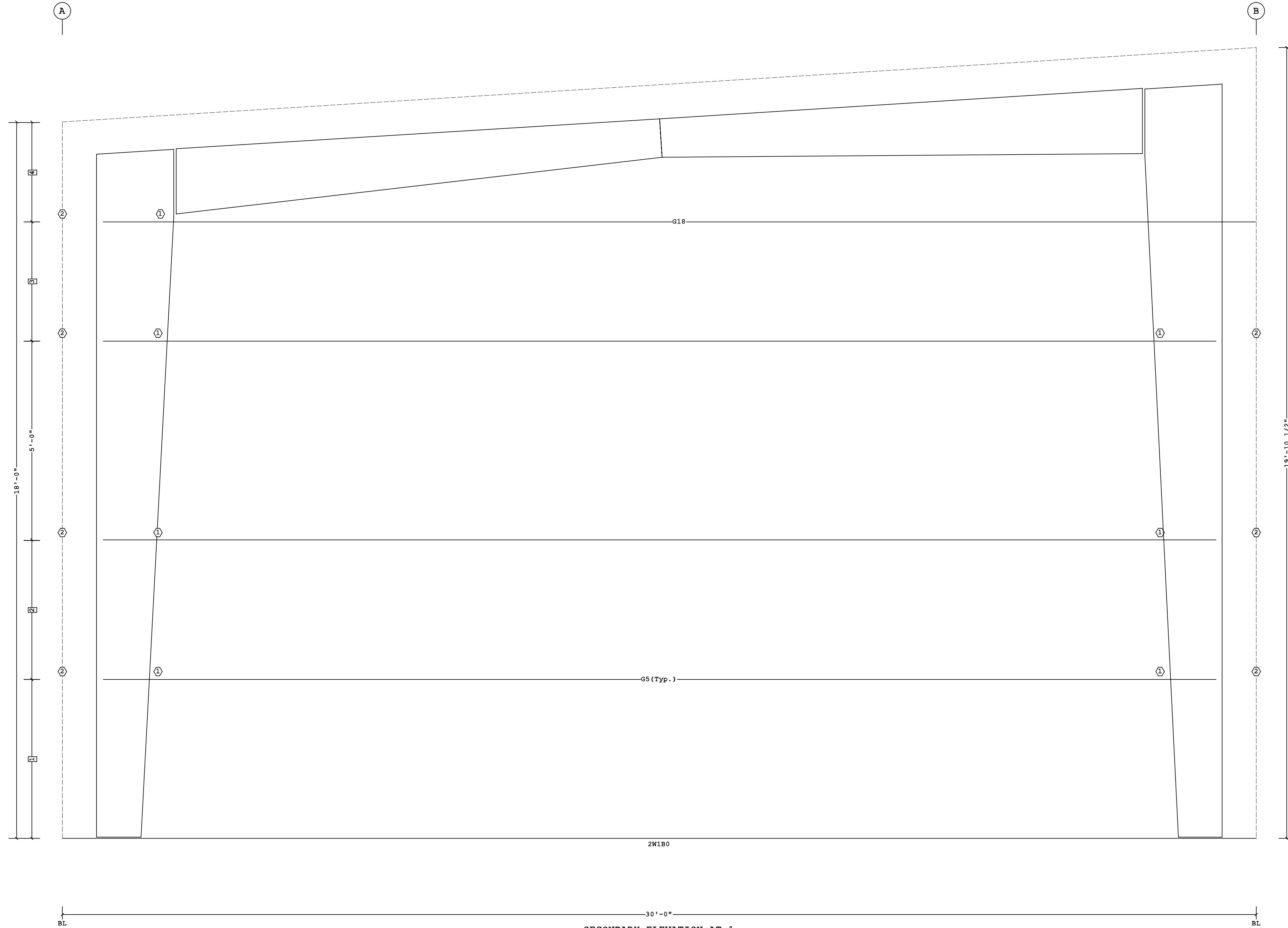
ROOF SECONDARY SED'S (b)

BUILDER	Lemartec Corporation	JOBNO	23-016000-01
CUSTOMER	Duke Energy	DATE	01/31/2024
LOCATION	Dunn, North Carolina	DRAWN/CHECK	MB WJC
PROJECT	Duke Energy Dunn Operations Center - Weld Shop	PAGE	13
BUILDERS PO#	23068 - Weld Shop	VPC VERSION:	2023.4a
FILENAME:	Duke Energy - Weld Shop	a division of BlueScope Buildings North America, Inc.	

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ENGINEER
JASON CLYMER
02/01/2024

Secondary Part Schedule					
Mark	Part	Thick.	Depth	Lap	Detail
G18	10Z2811412DU00	0.0980	10"		WS12A2
G5	10Z2711411UU00	0.1130	10"		WS12A2



- 4 2'-6"
 - 3 3'-0"
 - 2 3'-6"
 - 1 4'-0"
- Dimension Key Part Mark Key

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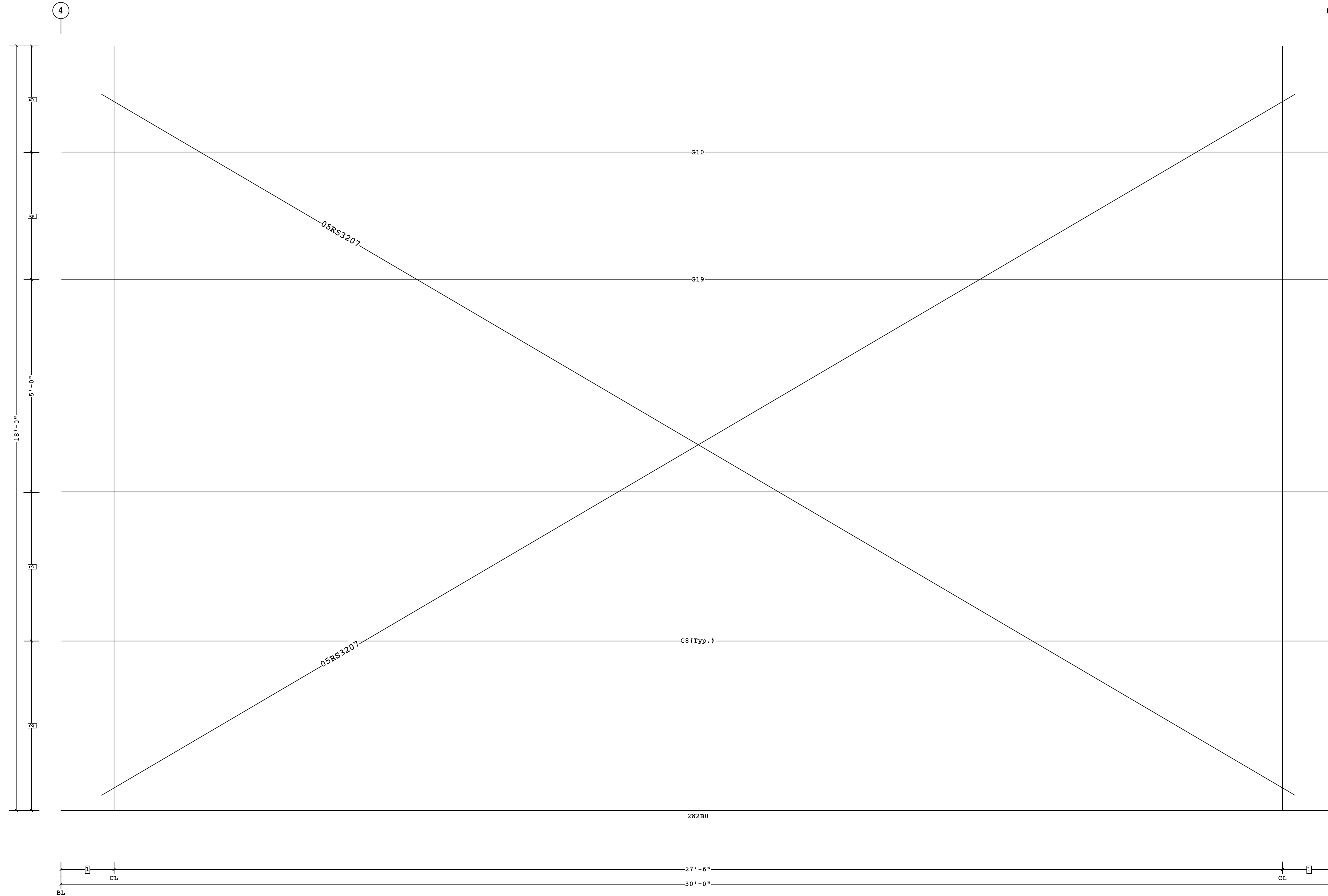
REV	DATE	BY	DESCRIPTION
D			VP Buildings 3200 Players Club Circle Memphis TN 38125

BUILDER	Lemartec Corporation
CUSTOMER	Duke Energy
LOCATION	Dunn, North Carolina
PROJECT	Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#	23068 - Weld Shop
VP VERSION:	2023.4a

JOBNO	23-016000-01
DATE	01/31/2024
DRAWING CHECK	MB WJC
PAGE	14

Secondary Part Schedule					
Mark	Part	Thick.	Depth	Lap	Detail
G10	10Z2911416VV00	0.0680	10"		WS12A2
G19	10Z2911413VV00	0.0880	10"		WS12A2
G8	10Z2911412VV00	0.0980	10"		WS12A2

Bracing Part Schedule			
Part	Qty	Length	Detail
05RS3207	2	32'-7"	BR01G2



- 5 2'-6"
- 4 3'-0"
- 3 3'-6"
- 2 4'-0"
- 1 1'-3"

□ Dimension Key

SECONDARY ELEVATION AT A

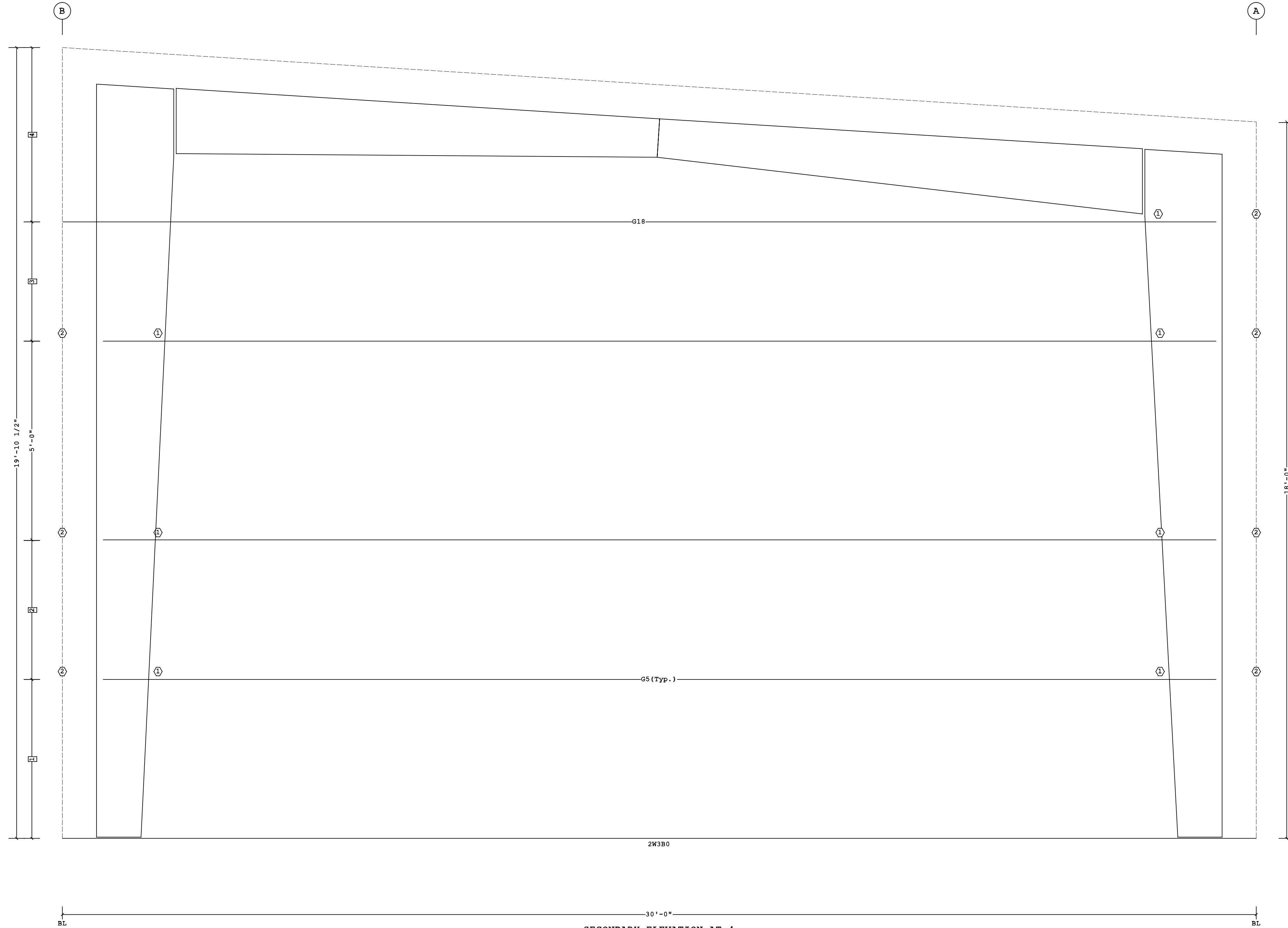
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				<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>NTS</p>	REV	DATE	BY	DESCRIPTION										
REV	DATE	BY	DESCRIPTION															
<p>Shape Name = Weld Shop, Wall = 2</p>			<p>1/31/2024</p>	<p>16:48:08</p>	<p>FILENAME: Duke Energy - Weld Shop</p>													

Secondary Part Schedule					
Mark	Part	Thick.	Depth	Lap	Detail
G18	10Z2811412DU00	0.0980	10"		WS12A2
G5	10Z2711411UU00	0.1130	10"		WS12A2



- 4 4'-4 1/2"
 - 3 3'-0"
 - 2 3'-6"
 - 1 4'-0"
- Dimension Key Part Mark Key

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SECONDARY ELEVATION AT 4

PERMIT SET- For Building Dept. Approval

1. UNLESS NOTED, USE 1/2 X 1 1/2 A325T BOLT (49080) AND NUT (47120) W/O WASHERS. SNUG TIGHTEN BOLTS FOR ALL SECONDARY CONNECTIONS.
 2. FLANGE BRACES ARE AN INTEGRAL PART OF THE STABILITY OF THE STRUCTURAL SYSTEM AND MUST BE PROPERLY INSTALLED PRIOR TO ERECTION OF WALL AND ROOF SHEETS.
 3. REMOVAL OR ALTERATION OF ANY COMPONENT IS PROHIBITED.

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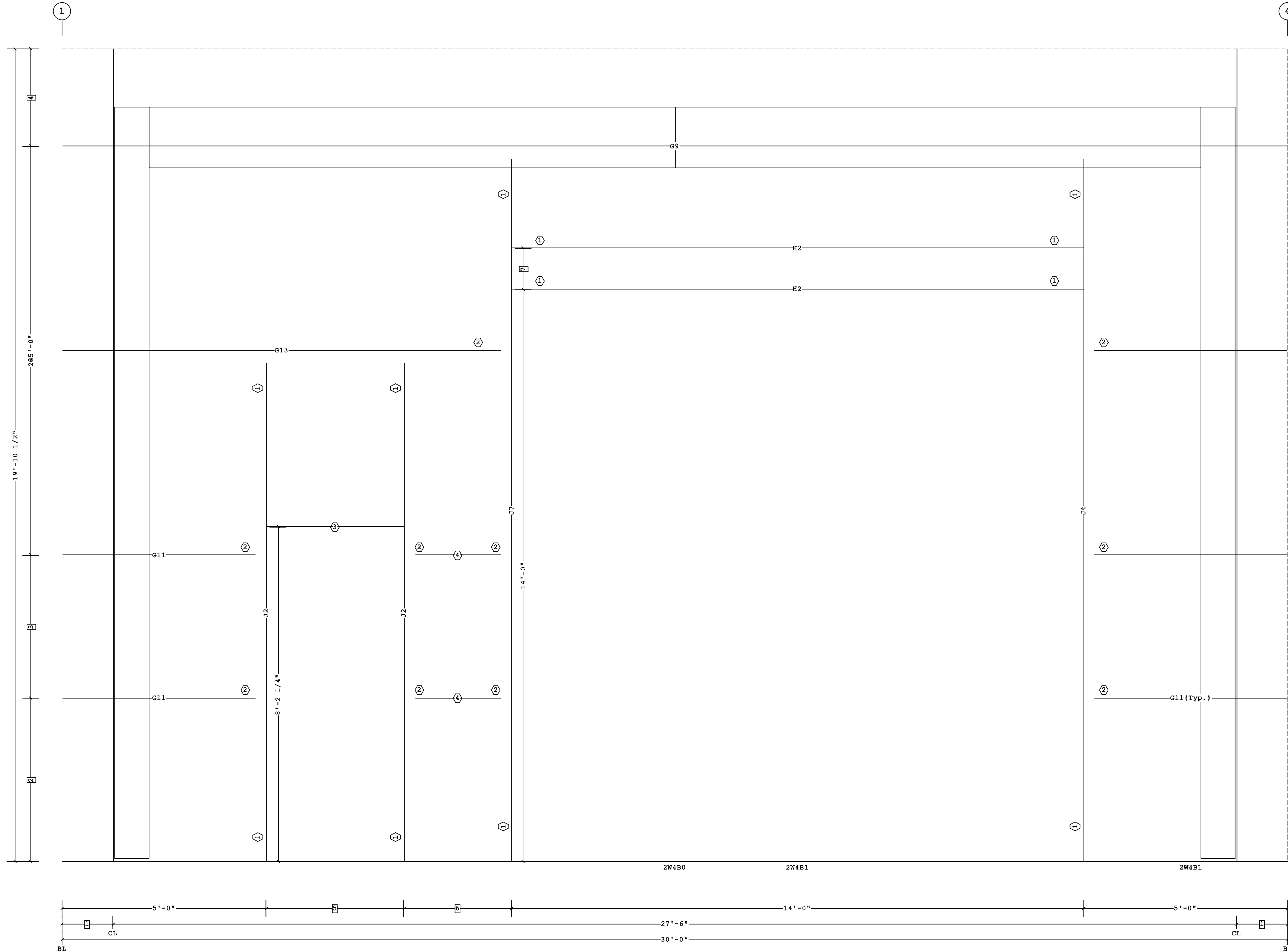
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Shape Name = Weld Shop, Wall = 3

REV	DATE	BY	DESCRIPTION	BUILDER	CUSTOMER	LOCATION	PROJECT	BUILDERS PO#	VP BUILDINGS	JOBNO	DATE	DRAWING/CHECK	PAGE
D				Lemartec Corporation	Duke Energy	Dunn, North Carolina	Duke Energy Dunn Operations Center - Weld Shop	23068 - Weld Shop	VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company	23-016000-01	01/31/2024	MB WJC	16
NTS				3200 Players Club Circle Memphis TN 38125		SECONDARY ELEVATION AT 4		VP BUILDINGS A BlueScope Steel Company		FILENAME: Duke Energy - Weld Shop		a division of BlueScope Buildings North America, Inc.	

Mark	Part	Thick.	Depth	Lap	Detail
G11	10Z0408417GV00	0.0600	10"		WS12A2, WS20F2
G13	10Z1008417GV00	0.0600	10"		WS12A2, WS20F2
G17	00110ZS020101700	0.0600	10"		WS12A2, WS20F2
G9	10Z2911411VV00	0.1130	10"		WS12A2
H1	DHD0304417	0.0000	10"		WS21D7
H2	00410JS1400017	0.0600	10"		WS20F9
J2	00110JS1202217	0.0600	10"		WS20F2, WS20B2, WS20B8
J6	00310JS1702216	0.0680	10"		WS20F9, WS20F2, WS20B2, WS20B8
J7	00210JS1702215	0.0730	10"		WS20F9, WS20F2, WS20B2, WS20B8



- 7 1'-0"
 - 6 2'-7 1/2"
 - 5 3'-4 1/2"
 - 4 2'-4 1/2"
 - 3 3'-6"
 - 2 4'-0"
 - 1 1'-3"
- 4 G17
 - 3 H1
 - 2 JTG4
 - 1 PG1
- Dimension Key ○ Part Mark Key

SECONDARY ELEVATION AT B

Shape Name = Weld Shop, Wall = 4

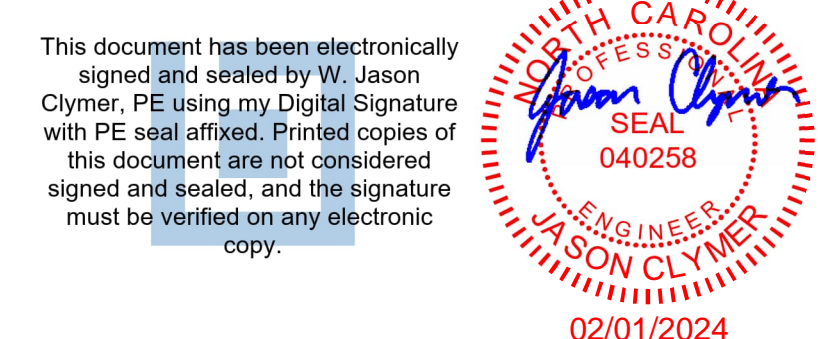
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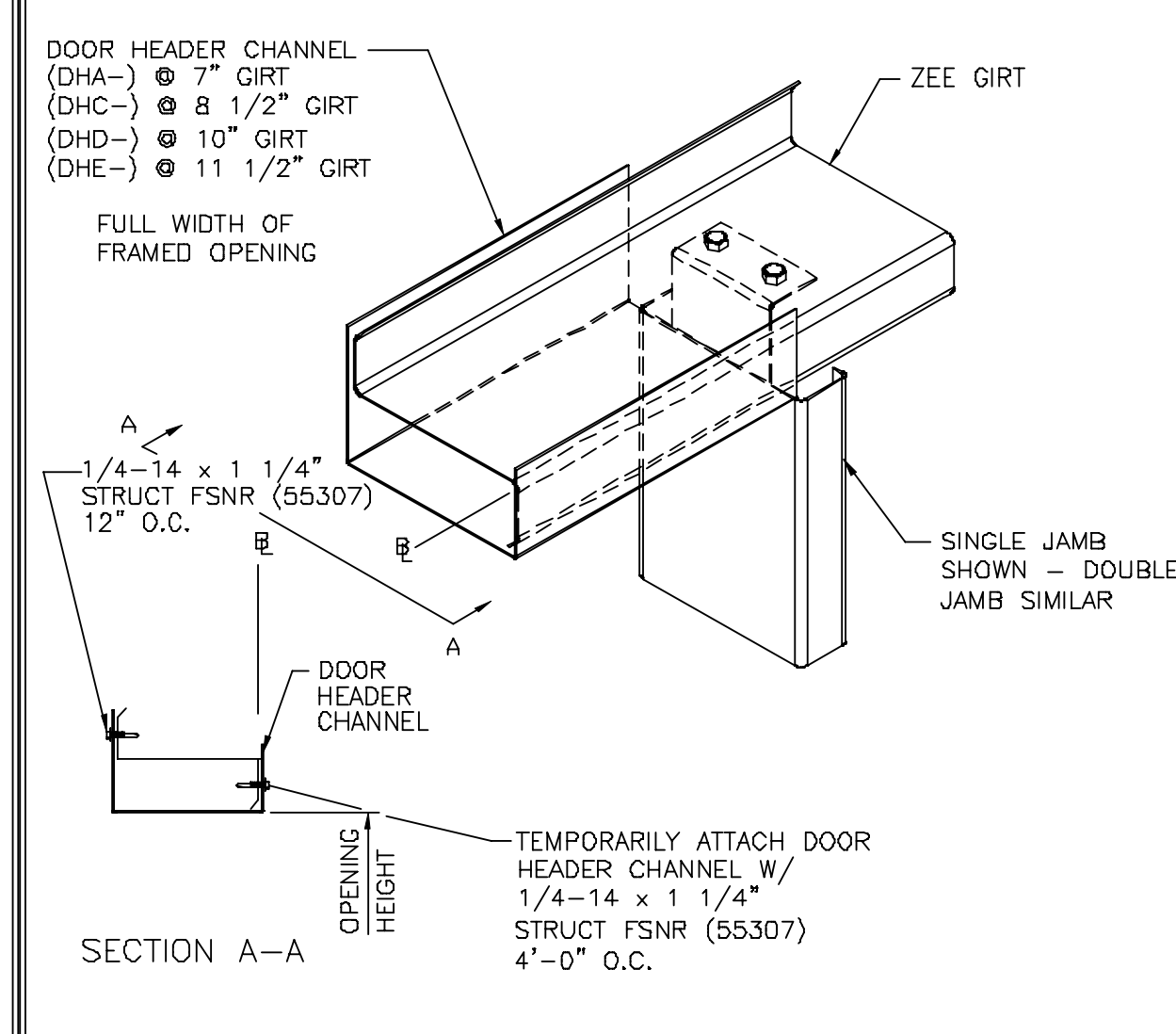
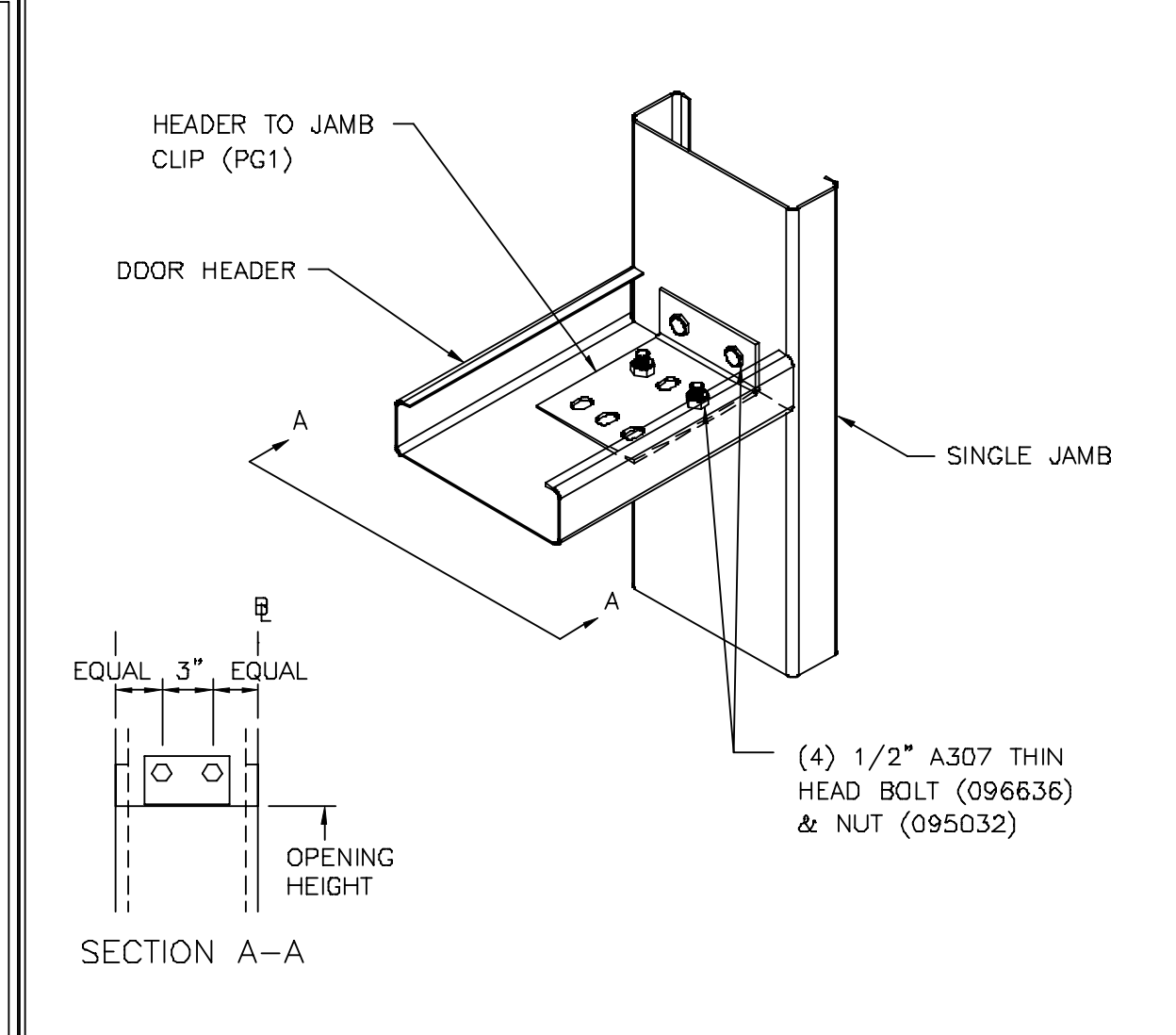
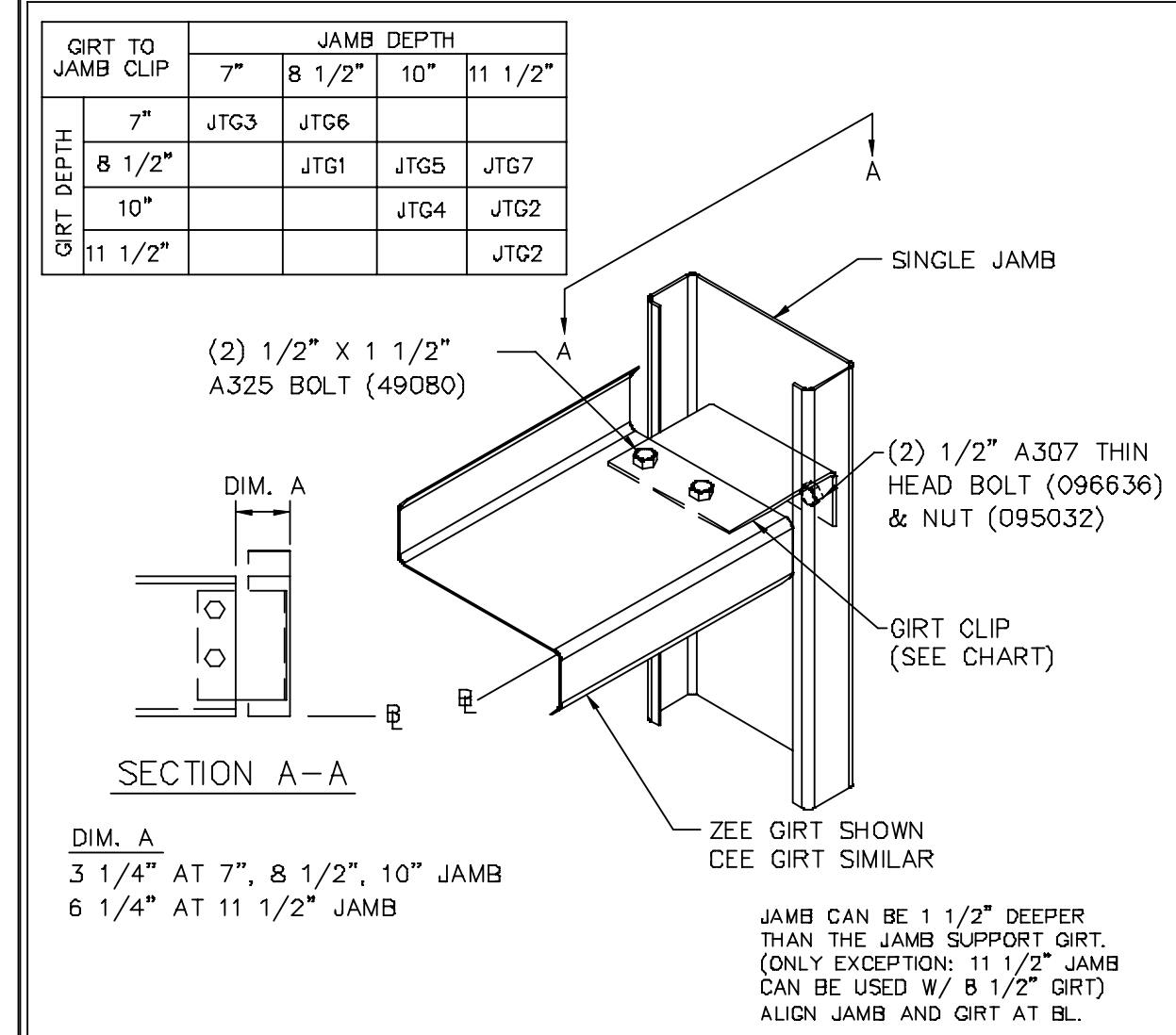
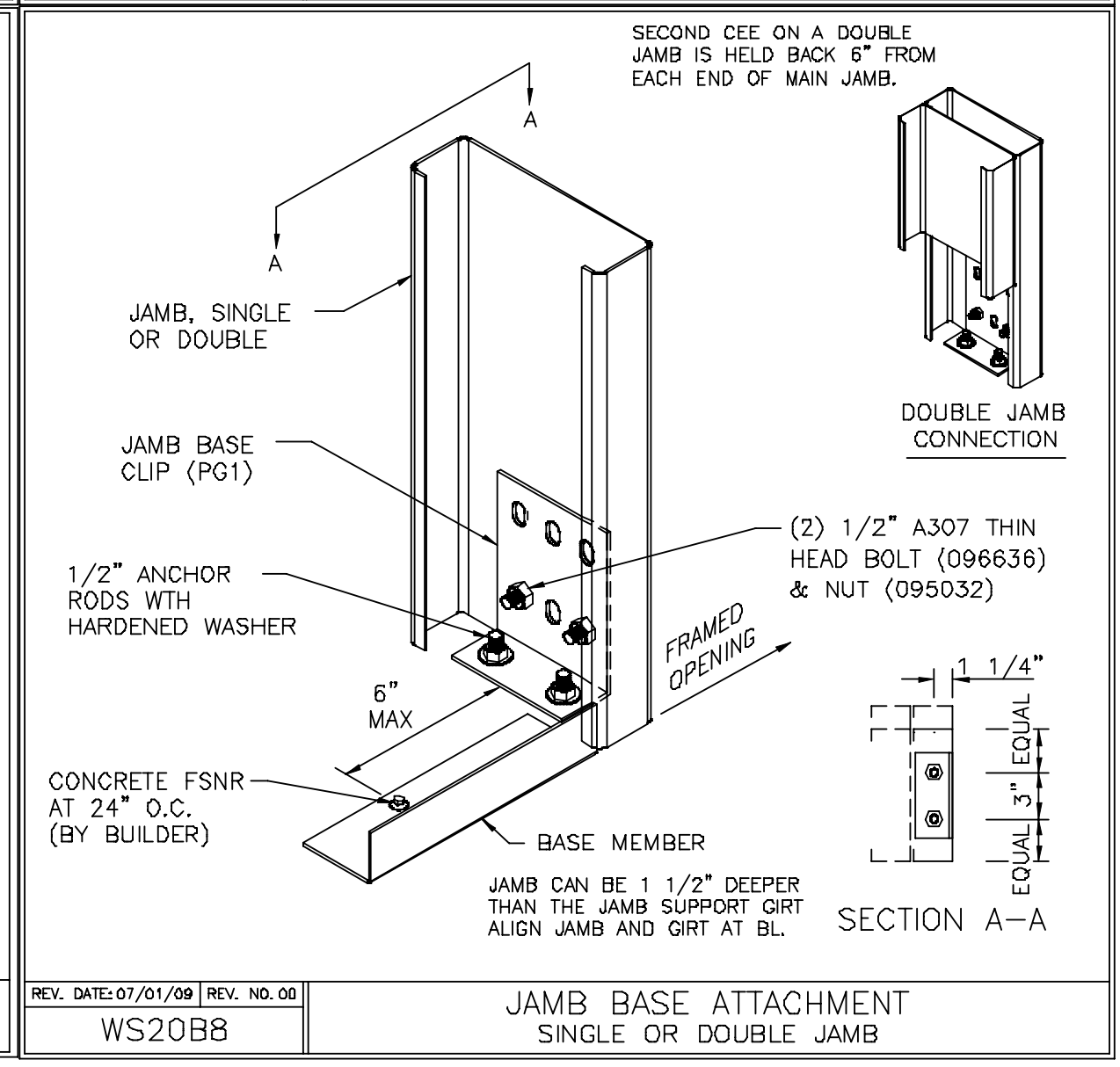
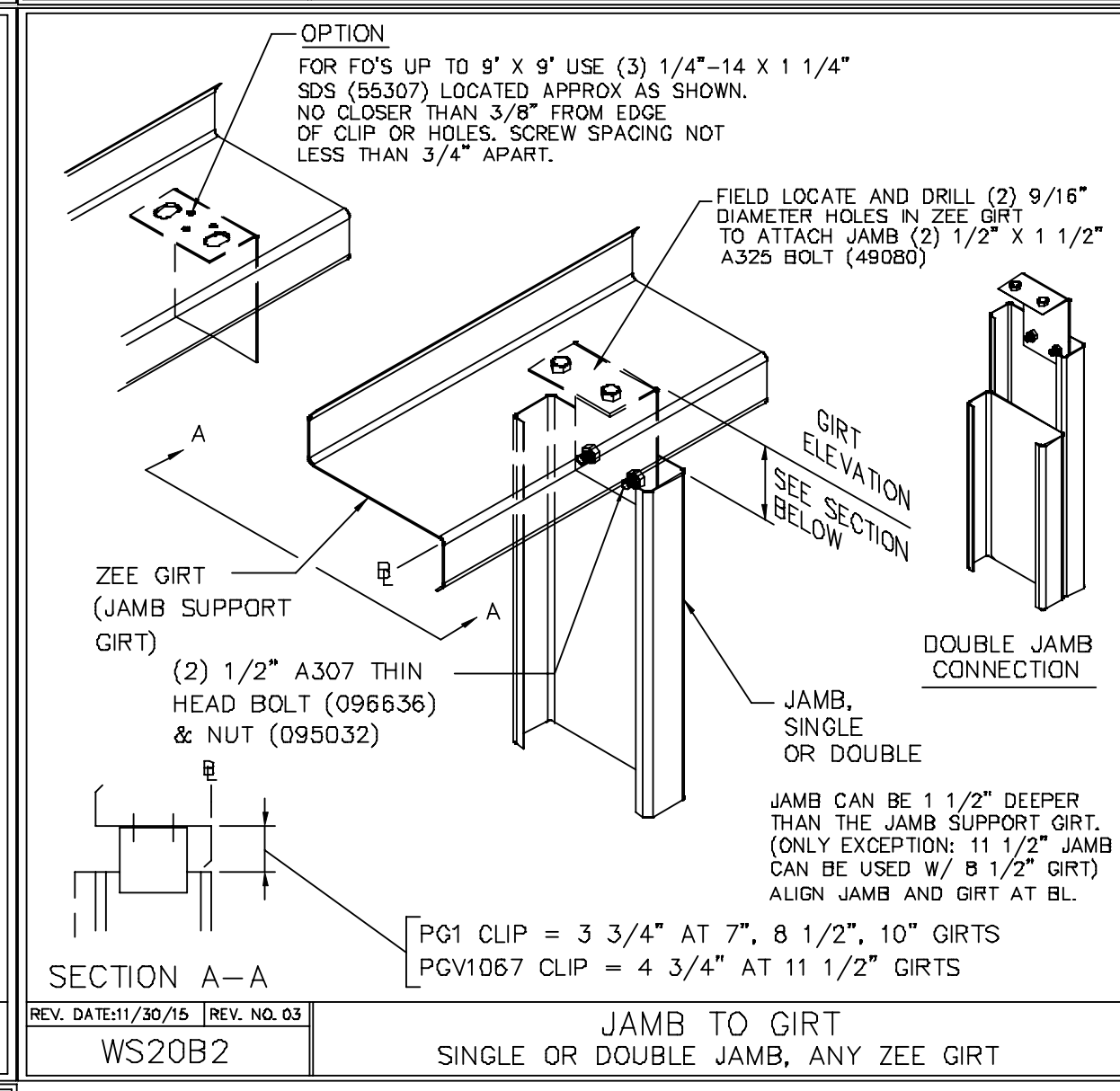
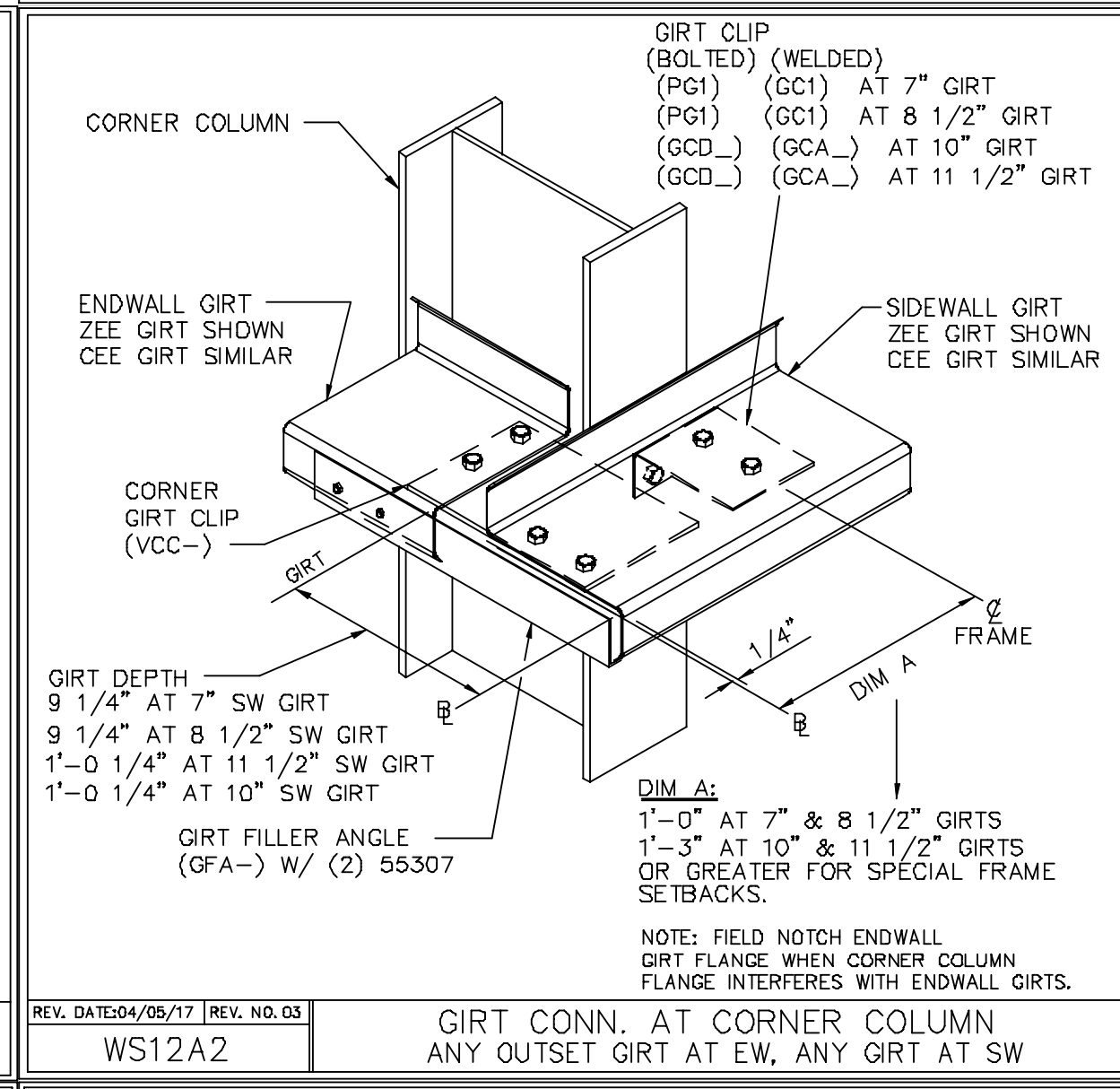
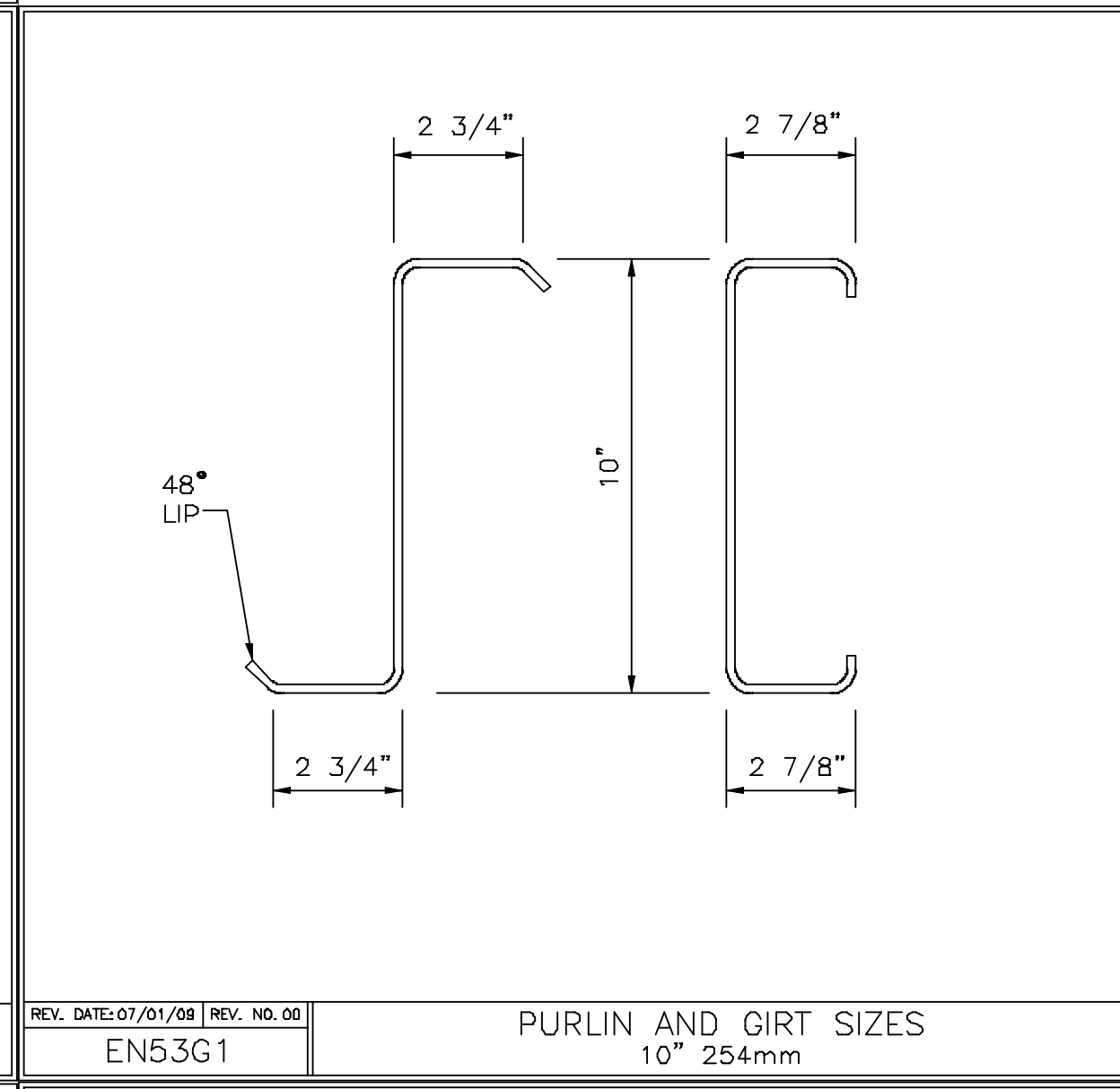
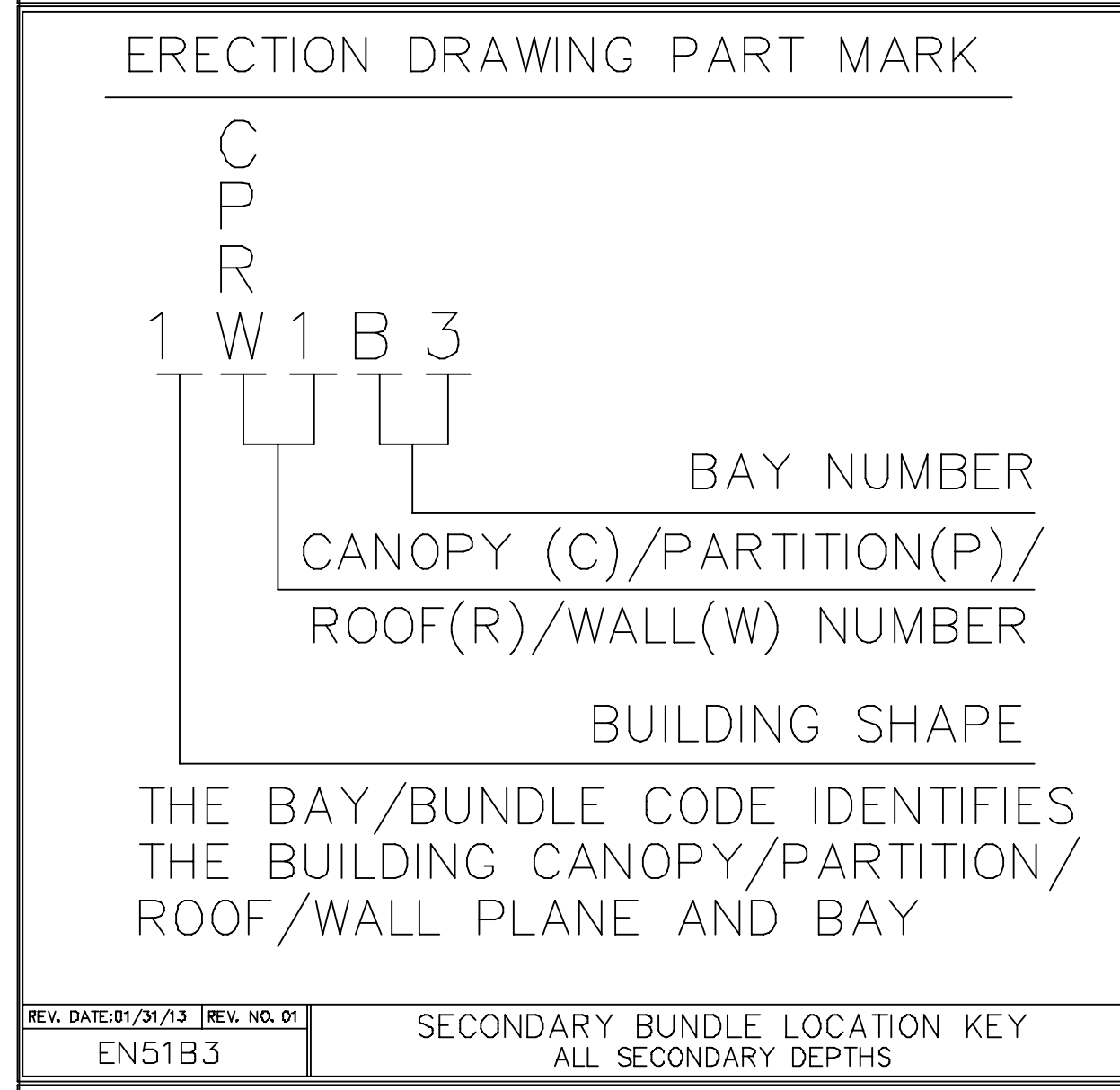
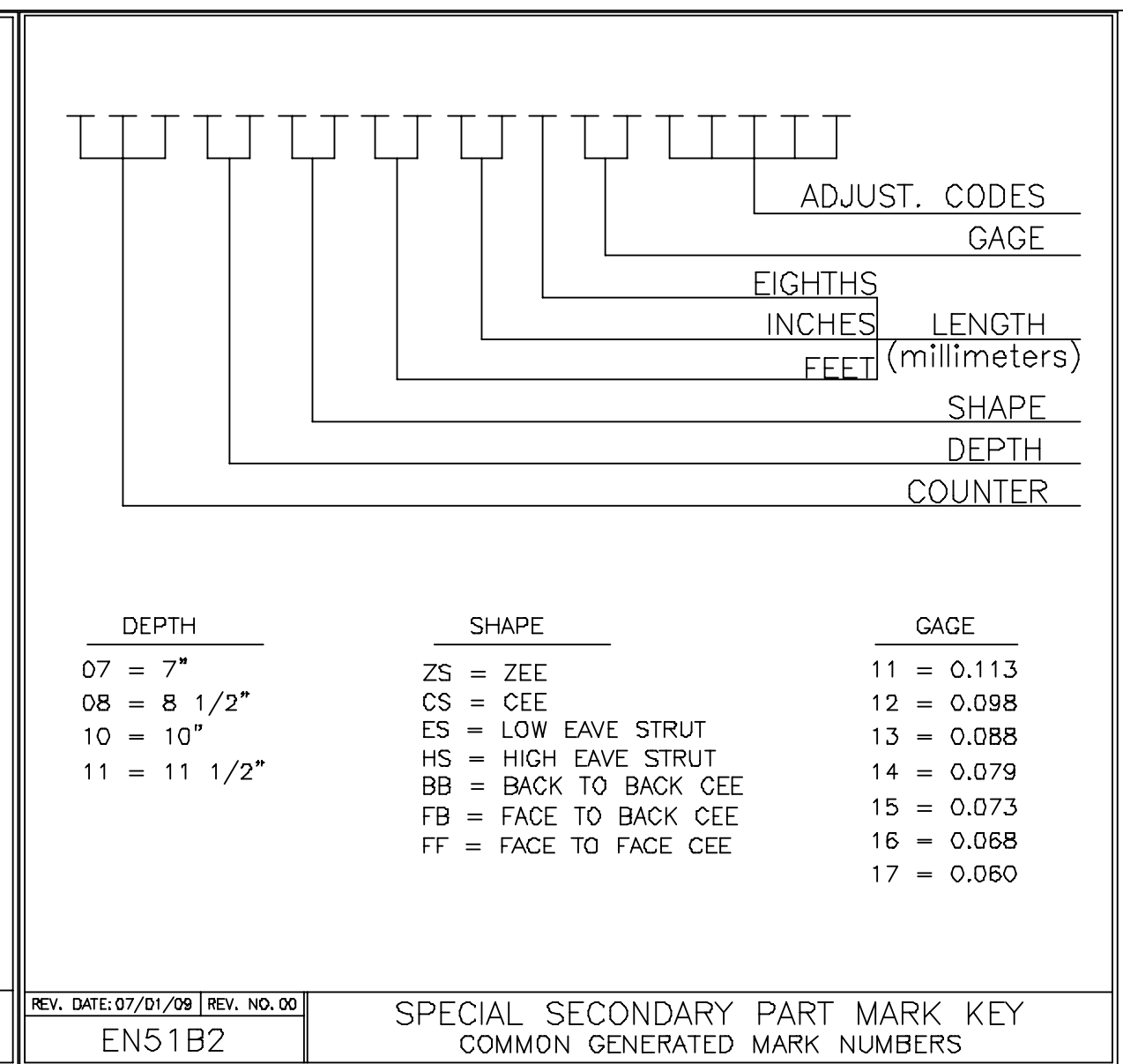
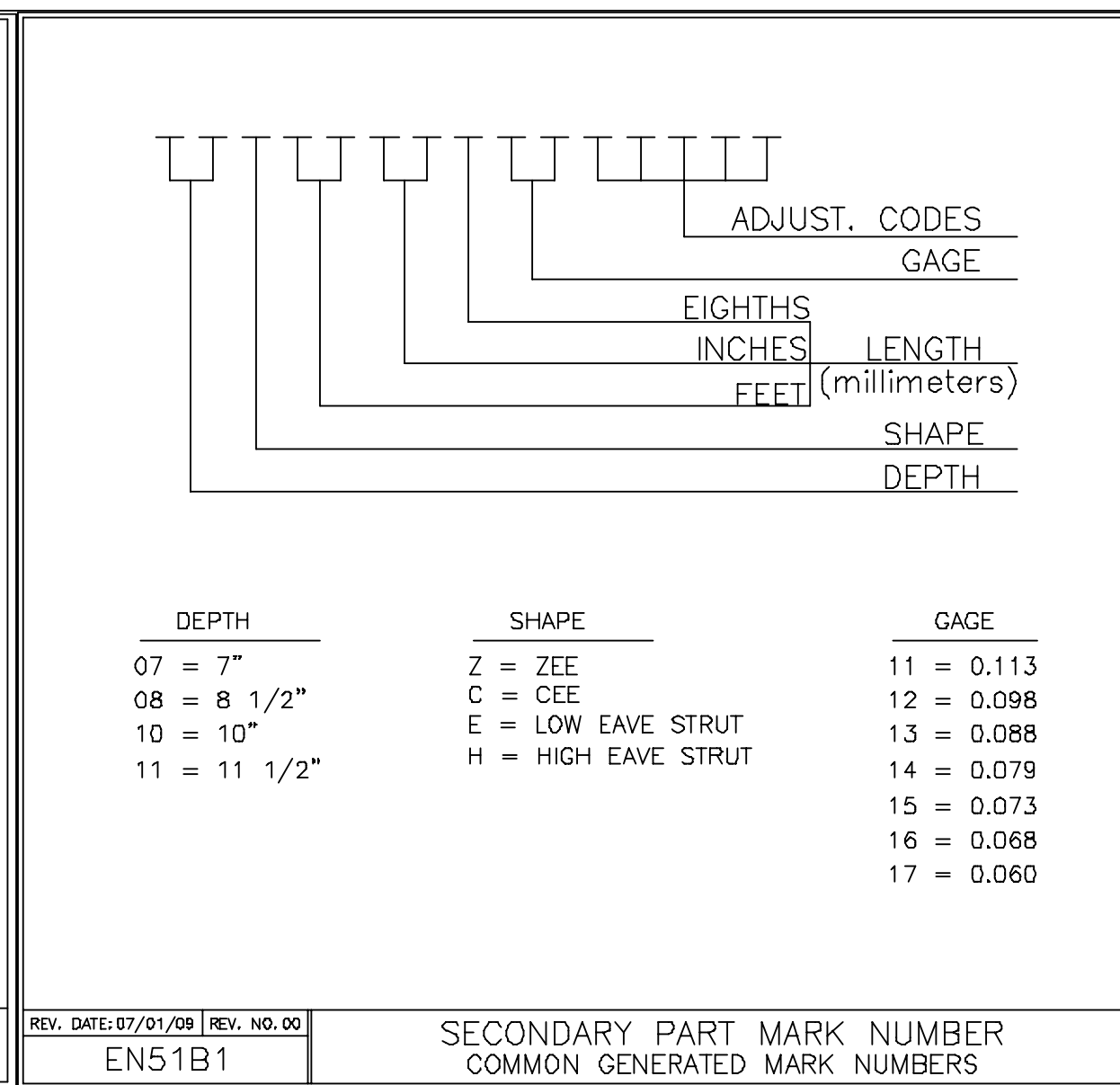
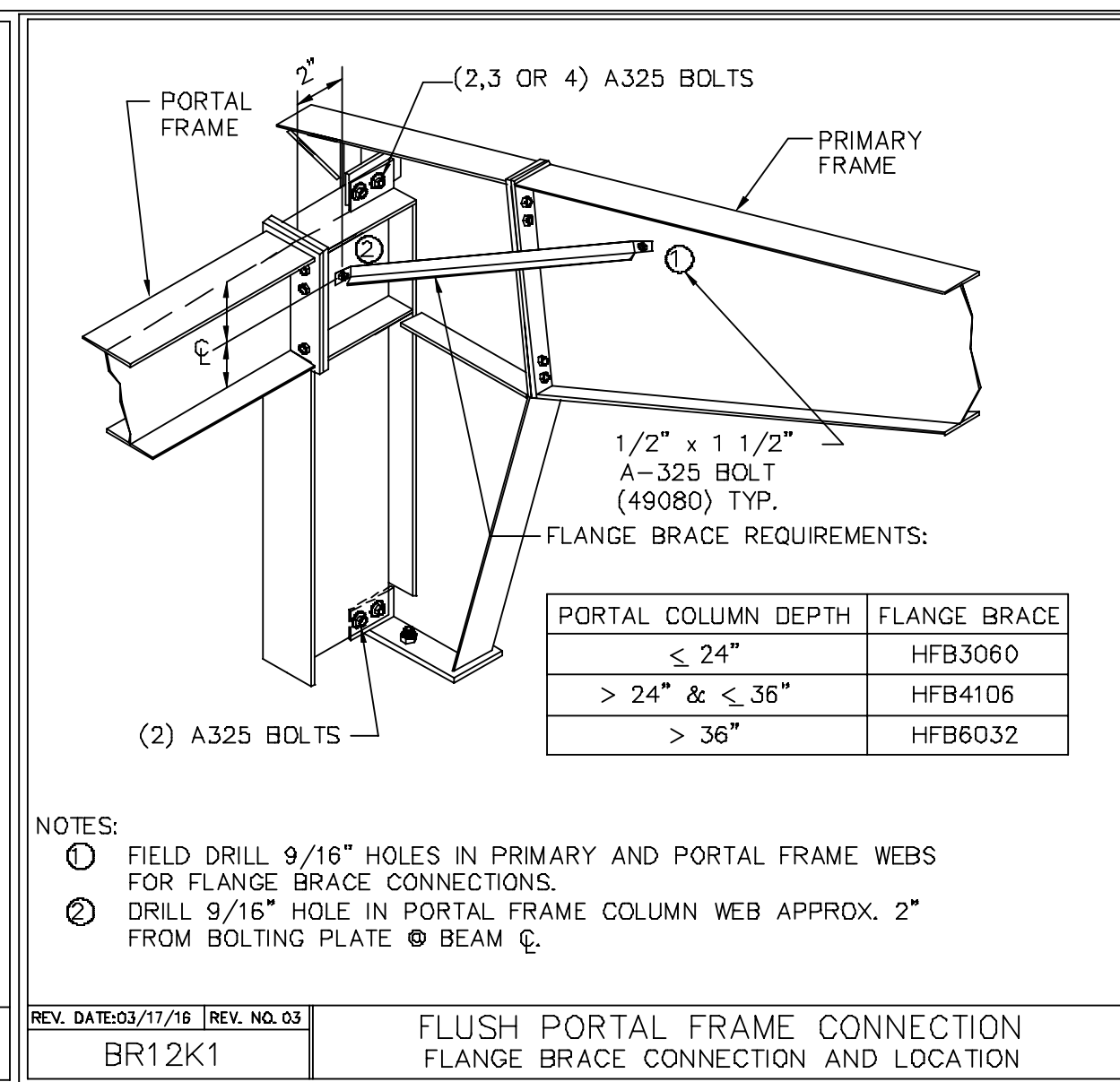
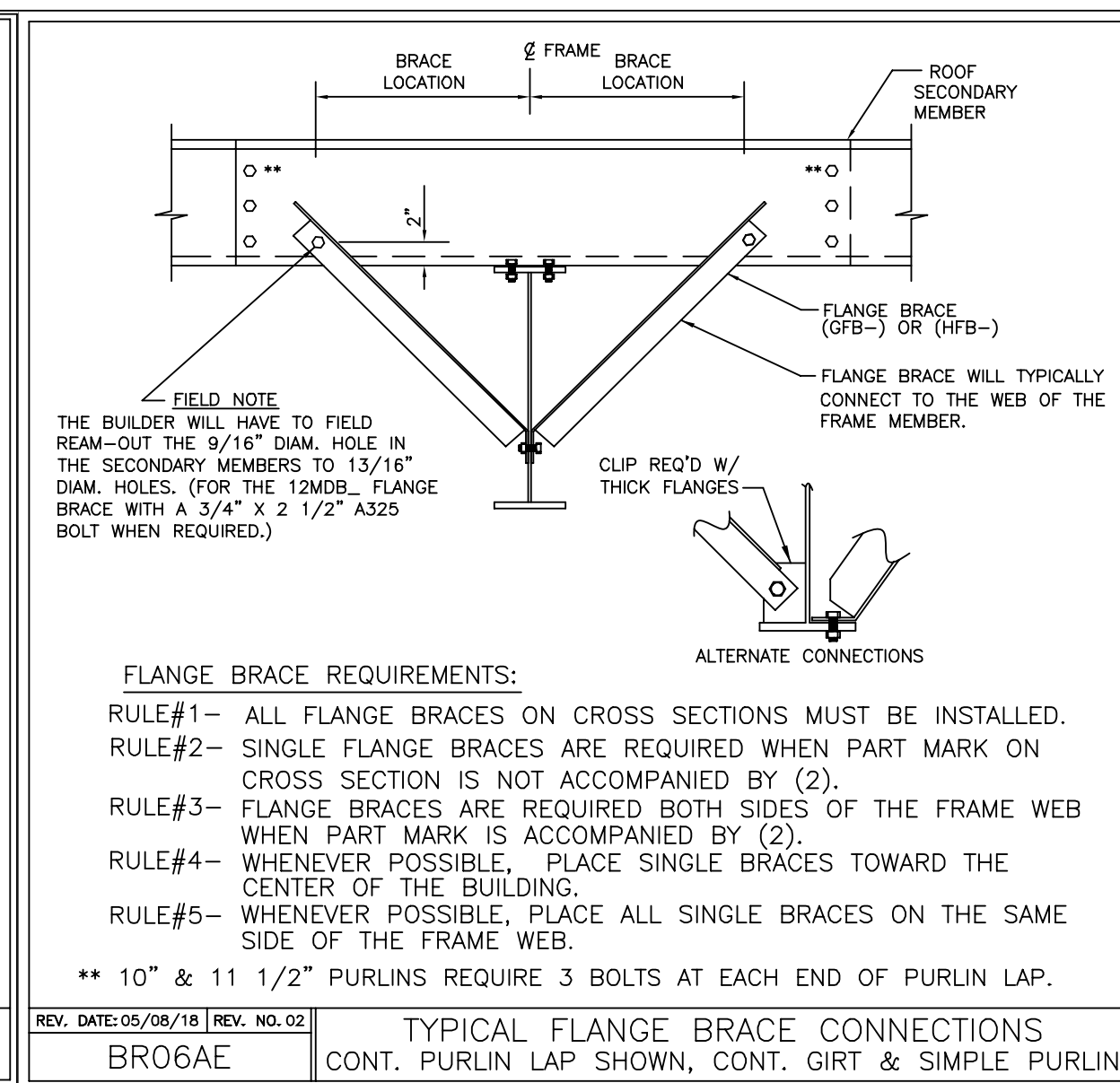
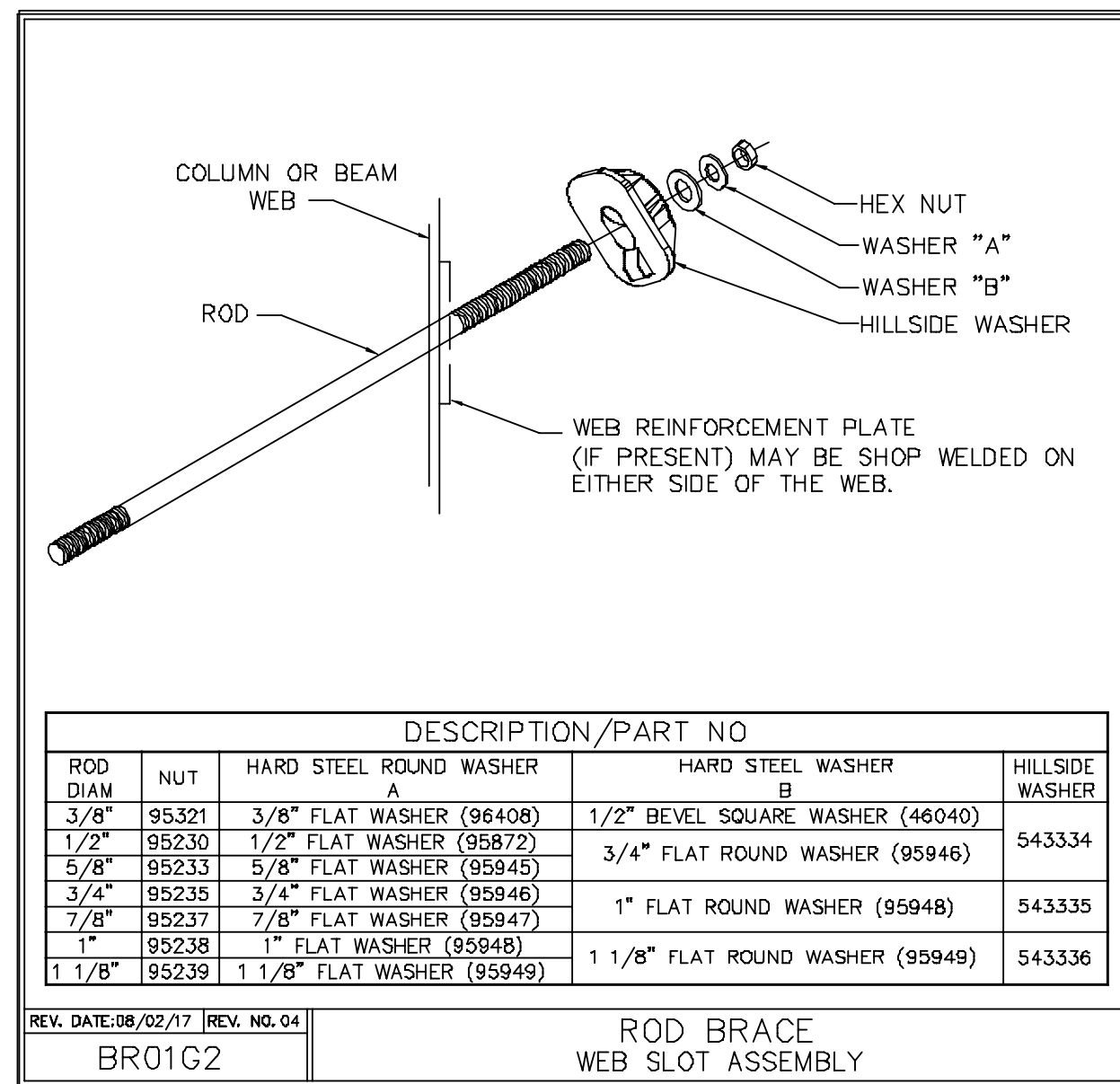
REV	DATE	BY	DESCRIPTION
D			VP Buildings 3200 Players Club Circle Memphis TN 38125
			NTS

BUILDER		CUSTOMER		LOCATION		PROJECT		BUILDERS PO#	
Lemartec Corporation		Duke Energy		Dunn, North Carolina		Duke Energy Dunn Operations Center - Weld Shop		23068 - Weld Shop	
VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company		VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company		VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company		VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company		VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company	
JOBNO 23-016000-01		DATE 01/31/2024		DRAWING/CHECK MB WJC		PAGE 17		FILENAME: Duke Energy - Weld Shop	



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SECONDARY ELEVATION AT B



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VP Buildings				WALL SECONDARY SED'S			
3200 Players Club Circle Memphis TN 38125				BUILDER Lemartec Corporation			
REV DATE BY DESCRIPTION				CUSTOMER Duke Energy			
				LOCATION Dunn, North Carolina			
				PROJECT Duke Energy Dunn Operations Center - Weld Shop			
NTS				BUILDERS PO# 23068 - Weld Shop			
1/31/2024 SEDSheet 16:48:10				VP BUILDINGS VPC VERSION: 2023.4a			
				JOBNO 23-016000-01			
				DATE 01/31/2024			
				DRAWN/CHECK MB WJC			
				PAGE 18			
				FILENAME: Duke Energy - Weld Shop			

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W. Jason Clymer, PE
 ENGINEER
 040258
 02/01/2024

Covering Schedule							
Id	Qty	Length	Type	Gage	OP	Fin.	Color
#9	16	29'-10 1/2"	SSR	24	2	G	TD

Oper. Code:2=SQ,SQ
Finish:G=Galvalume
Color:TD=Standard Color

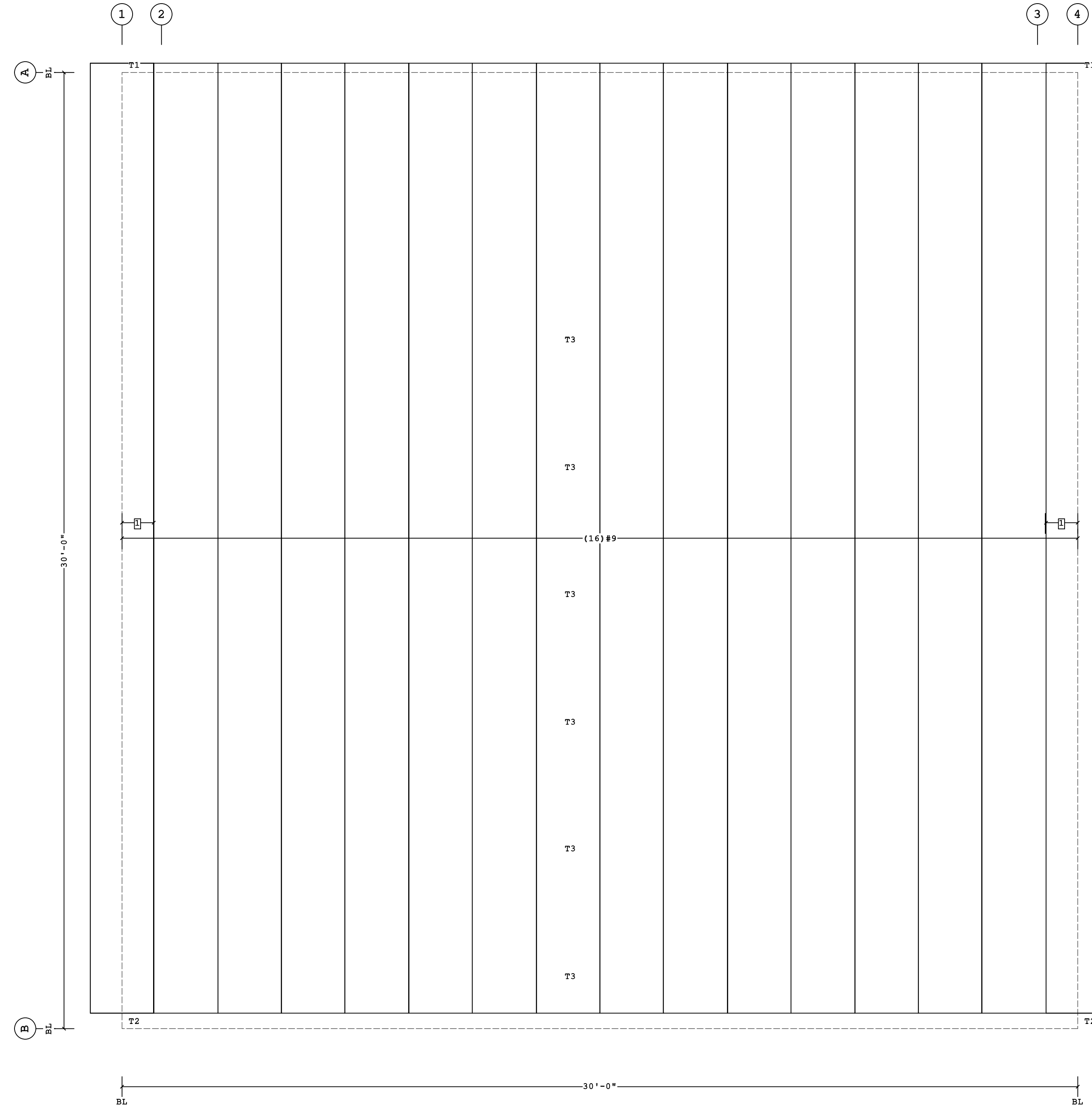
Trim Schedule	
Id	Parts
T1	BS1, FPRF1, GGC1, MCC1
T2	MCC1
T3	(15)560778

Color	Details
Cool Zinc Gray	RC38N1
Cool Zinc Gray	RC38AJ
Not Applicable	EN01B2, EN52D1, ENV001, ENV011, RC00A1, RCV326

Planograph Schedule	
Id	Details
T1	
T2	
T3	S-090028

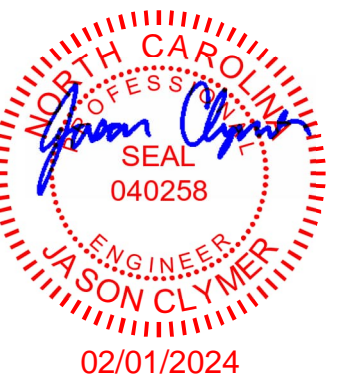
Accessory Schedule		
Qty	Color	Description
1	Cool Arctic White	Walk Door Canopy 4' x 4' 6"
2	Not Applicable	Dektite Kit #3 1/4" - 4"

Detail	
ENV003	RA14A1, RA14B1, RA14D1



ROOF COVERING PLAN

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Dimension Key
1 1'-0" Starter Panel (Cut Dim. = 1'-1")

- PRE-DRILLING 1/8" DIAMETER HOLES FOR STRUCTURAL FASTENERS MAY BE REQUIRED FOR HEAVY GAGE NESTED ZEE'S AND/OR FASTENERS TO STRUCTURAL BEAMS
- STEEL PANELS ARE AN INTEGRAL PART OF THE STRUCTURAL SYSTEM. REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.
- DUE TO MANUFACTURING LIMITATIONS SHORT PANELS MAY REQUIRE FIELD CUTTING. SEE THE COVERING SCHEDULE FOR CUT LENGTHS.
- SEE JOB DETAILS FOR COVERING AND TRIM FASTENER SPECIFICATION.

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REV	DATE	BY	DESCRIPTION
D			VP Buildings 3200 Players Club Circle Memphis TN 38125

ROOF COVERING PLAN

BUILDER	Lemartec Corporation	JOBNO	23-016000-01
CUSTOMER	Duke Energy	DATE	01/31/2024
LOCATION	Dunn, North Carolina	DRAWN/CHECK	MB WJC
PROJECT	Duke Energy Dunn Operations Center - Weld Shop	PAGE	19
BUILDERS PO#	23068 - Weld Shop	VP BUILDINGS	VARCO PRUDEN
NTS		A BlueScope Steel Company	VPC VERSION: 2023.4a
1/31/2024	16:48:13	FILENAME:	Duke Energy - Weld Shop



Covering Schedule
 Id Qty Type Start Length Gage OP Fin. Color Increment Direction
 #13 10 W 17'-10 3/4" 26 1 K OW 2 1/4" Left to Right
 Oper. Code:l=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule
 Id Parts
 T1 (2)BG2415, (3)BT10
 T2 CT20
 T3 (4)RFR10-130, (2)RKF16, (4)RSB10, (4)RSC10

Color
 Cool Cotton White
 Cool Cotton White
 Cool Zinc Gray

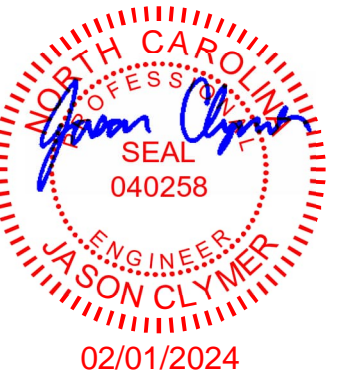
Details
 WSR065,EN52A1,ENV003,RC00A1,WC01AB,WC04G1,
 WS27B2,WS27D2
 WC20A1
 RC10A2,RC30A1,RS10L5



COVERING ELEVATION AT 1

Fastener Schedule
 Part Description
 0097584-102 (T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
 0097581-102 (T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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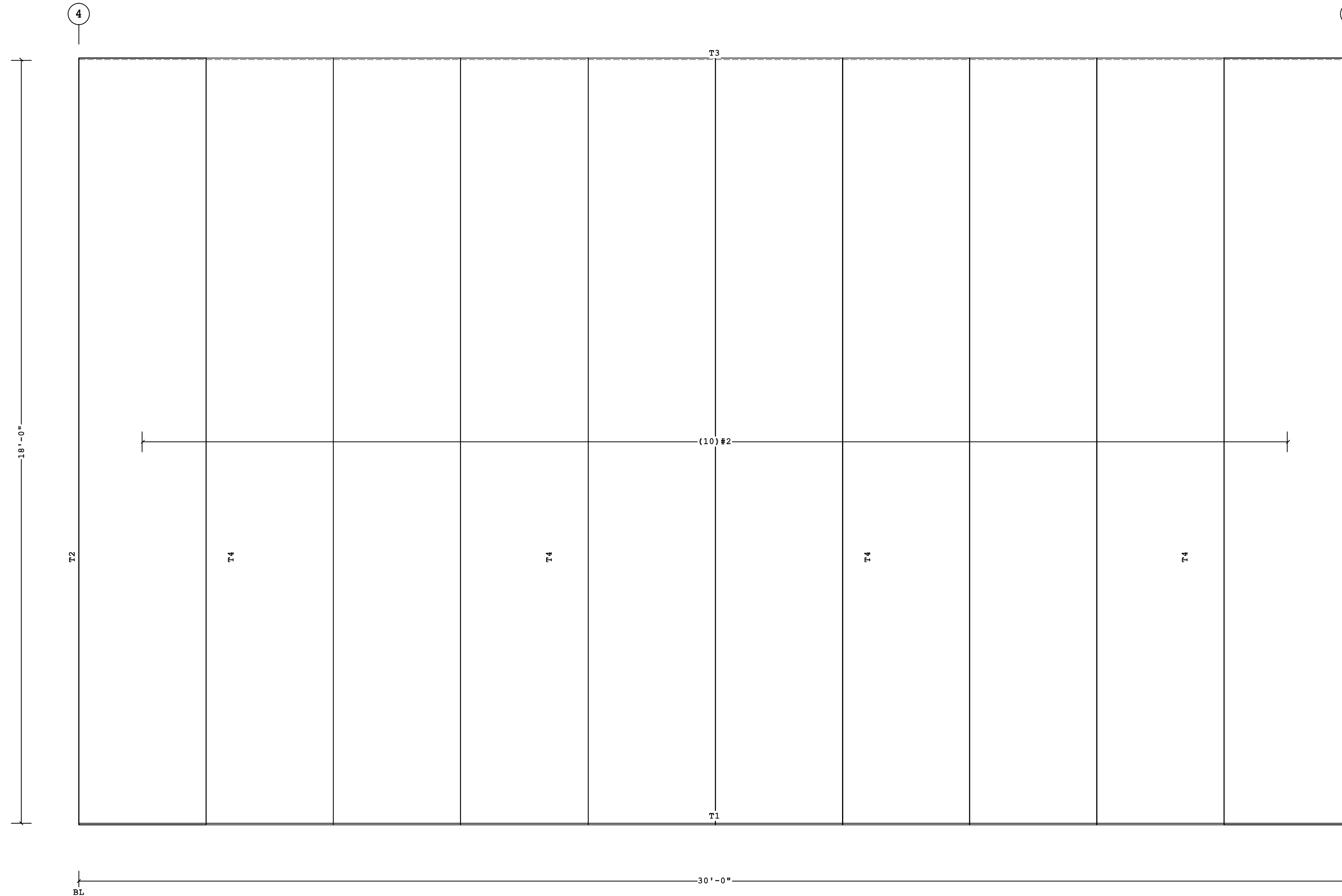
<p>1. PRE-DRILLING 1/8 DIAMETER HOLES FOR STRUCTURAL FASTENERS MAY BE REQUIRED FOR HEAVY GAGE NESTED ZEE'S AND/OR FASTENERS TO STRUCTURAL BEAMS</p> <p>2. STEEL PANELS ARE AN INTEGRAL PART OF THE STRUCTURAL SYSTEM. REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.</p> <p>3. DUE TO MANUFACTURING LIMITATIONS SHORT PANELS MAY REQUIRE FIELD CUTTING. SEE THE COVERING SCHEDULE FOR CUT LENGTHS.</p> <p>4. SEE JOB DETAILS FOR COVERING AND TRIM FASTENER SPECIFICATION.</p>	<p>THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.</p>	<p>THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.</p> <p>THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.</p>	<p>D</p> <p>VP Buildings 3200 Players Club Circle Memphis TN 38125</p>	<p>COVERING ELEVATION AT 1</p>					
				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
				<p>CUSTOMER Duke Energy</p>	<p>LOCATION Dunn, North Carolina</p>	<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>BUILDERS PO# 23068 - Weld Shop</p>	<p>VARCO PRUDEN VP BUILDINGS A BlueScope Steel Company</p>	<p>DATE 01/31/2024</p>
				<p>NTS</p>	<p>1/31/2024</p>	<p>16:48:15</p>	<p>FILENAME: Duke Energy - Weld Shop</p>	<p>VP VERSION: 2023.4a</p>	<p>DRAWN/CHECK MB WJC</p>

Covering Schedule
 Id Qty Type Start Length Gage OP Fin. Color Direction
 #2 10 W 18'-0 7/8" 26 1 K OW Left to Right
 Oper. Code:l=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule
 Id Parts
 T1 (2)BG2415, (3)BT10
 T2 CT20
 T3 EG201,EG121, (3)PCA10A, (9)STR4
 T4 5CE75, (2)CP510, DN1, (4)DST1

Color
 Cool Cotton White
 Cool Cotton White
 Cool Zinc Gray
 Cool Zinc Gray

Details
 WSR065,EN52A1,ENV003,RC00A1,WC01AB,WC04G1,
 WS27B2,WS27D2
 WC20A1
 RC32A1,RC38E1,RC61A6,RCV324,RCV536,WC04G1,WC11F1
 RC38P1



COVERING ELEVATION AT A

Fastener Schedule
 Part Description
 0097584-102 (T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
 0097581-102 (T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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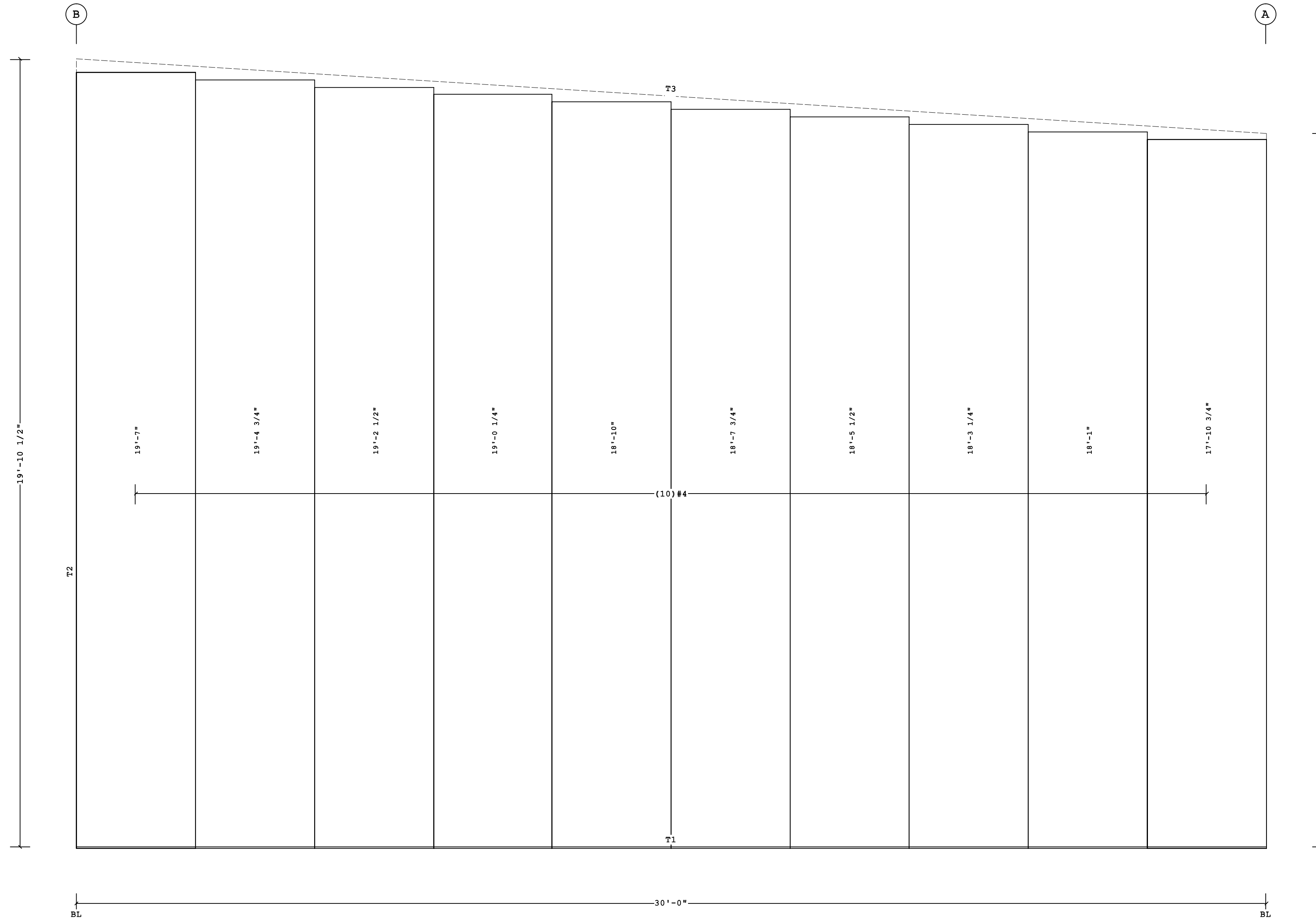
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				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
								<p>CUSTOMER Duke Energy</p>	<p>DATE 01/31/2024</p>
								<p>LOCATION Dunn, North Carolina</p>	<p>DRAWN/CHECK MB WJC</p>
				<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>PAGE 21</p>				
				<p>BUILDERS PO# 23068 - Weld Shop</p>	<p>VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a</p>				
				<p>NTS</p>	<p>FILENAME: Duke Energy - Weld Shop</p>				
				<p>1/31/2024</p>	<p>16:48:16</p>				

Covering Schedule
 Id Qty Type Start Length Gage OP Fin. Color Increment Direction
 #4 10 W 19'-7" 26 1 K OW -2 1/4" Left to Right
 Oper. Code:l=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule
 Id Parts
 T1 (2)BG2415, (3)BT10
 T2 CT20
 T3 (4)RFR10-130, (2)RKF16, (4)RSB10, (4)RSC10

Color
 Cool Cotton White
 Cool Cotton White
 Cool Zinc Gray

Details
 WSR065,EN52A1,ENV003,RC00A1,WC01AB,WC04G1,
 WS27B2,WS27D2
 WC20A1
 RC10A2,RC30A1,RS10L5

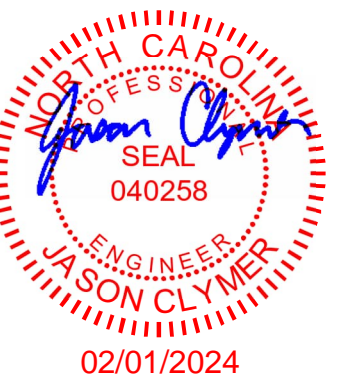


COVERING ELEVATION AT 4

Fastener Schedule

Part	Description
0097584-102	(T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
0097581-102	(T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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PERMIT SET- For Building Dept. Approval

<p>1. PRE-DRILLING 1/8 DIAMETER HOLES FOR STRUCTURAL FASTENERS MAY BE REQUIRED FOR HEAVY GAGE NESTED ZEE'S AND/OR FASTENERS TO STRUCTURAL BEAMS</p> <p>2. STEEL PANELS ARE AN INTEGRAL PART OF THE STRUCTURAL SYSTEM. REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.</p> <p>3. DUE TO MANUFACTURING LIMITATIONS SHORT PANELS MAY REQUIRE FIELD CUTTING. SEE THE COVERING SCHEDULE FOR CUT LENGTHS.</p> <p>4. SEE JOB DETAILS FOR COVERING AND TRIM FASTENER SPECIFICATION.</p>	<p>THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.</p>	<p>THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.</p> <p>THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.</p>	<p>D</p> <p>VP Buildings 3200 Players Club Circle Memphis TN 38125</p>	<p>COVERING ELEVATION AT 4</p>					
				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
				<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>LOCATION Dunn, North Carolina</p>	<p>CUSTOMER Duke Energy</p>	<p>DATE 01/31/2024</p>	<p>DRAWN/CHECK MB WJC</p>	<p>PAGE 22</p>
				<p>BUILDERS PO# 23068 - Weld Shop</p>	<p>VP VERSION: 2023.4a</p>	<p>NTS</p>	<p>1/31/2024 16:48:17</p>	<p>FILENAME: Duke Energy - Weld Shop</p>	<p>a division of BlueScope Buildings North America, Inc.</p>

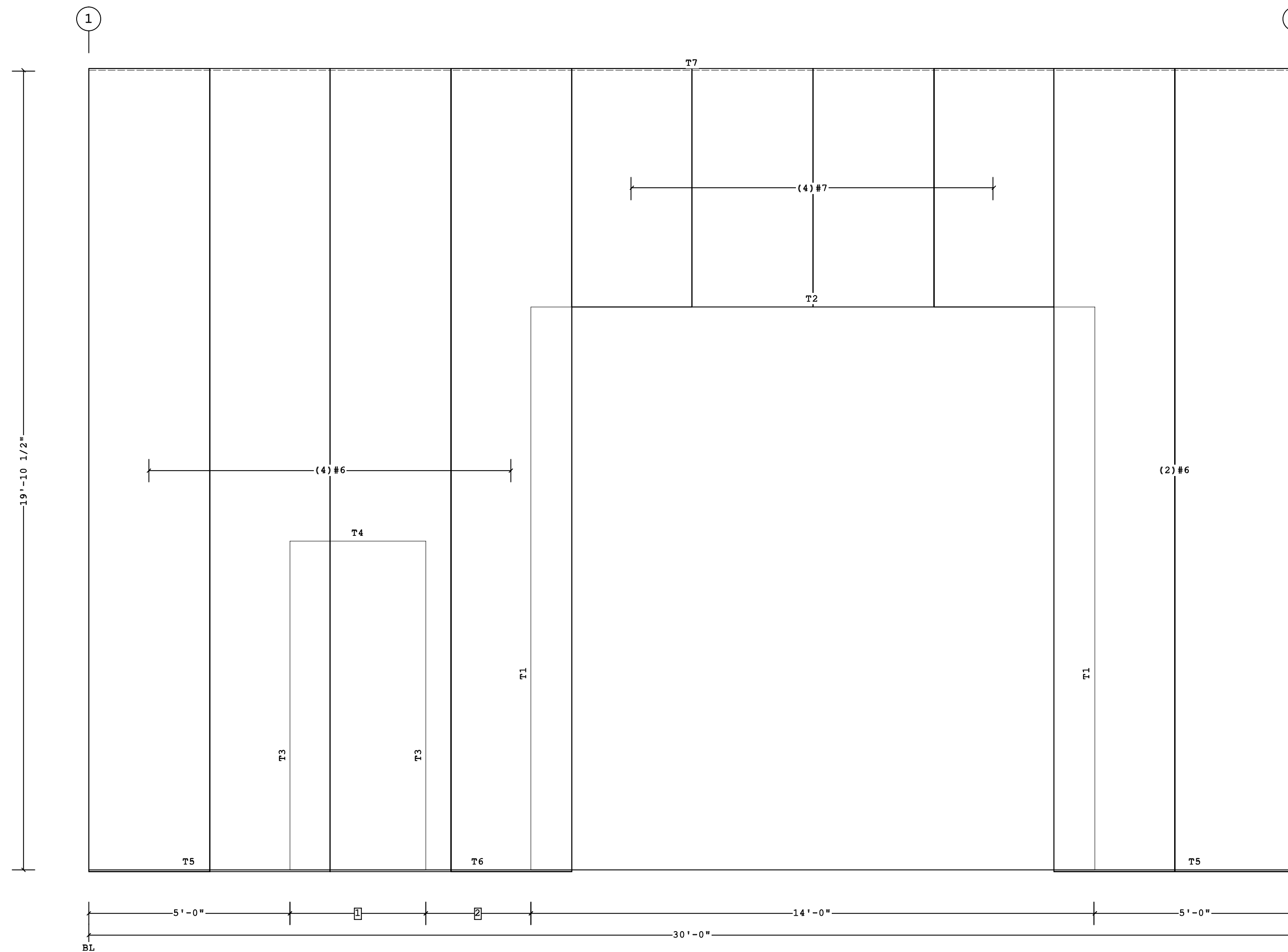
Covering Schedule								
Id	Qty	Type	Start Length	Gage	OP	Fin.	Color	Direction
#6	6	W	19'-11 1/2"	26	1	K	OW	Left to Right
#7	4	W	5'-11"	26	1	K	OW	Left to Right

Oper. Code:l=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule	
Id	Parts
T1	DFF14, JT14
T2	DFF14, HTS14
T3	DFF10, JT10
T4	DFF05, HTS05
T5	(0.3)BG2415, BT10
T6	(0.2)BG2415, BT10
T7	(3)HSEP1, (3)RFR10-130, RKF20, RKF10

Color	Details
Cool Cotton White	WC24A1
Cool Cotton White	WC24A2
Cool Cotton White	WC24A1
Cool Cotton White	WC24A2
Cool Cotton White	WSR065, EN52A1, ENV003, RC00A1, WC01AB, WC04G1, WS27B2, WS27D2, WSR065
Cool Cotton White	WSR065, EN52A1, ENV003, RC00A1, WC01AB, WC04G1, WS27B2, WS27D2
Cool Zinc Gray	RC00A1, RCV420, RCV421, RCV422, RCV423, RCV531

- 2 2'-7 1/2"
 - 1 3'-4 1/2"
- Dimension Key



COVERING ELEVATION AT B

Fastener Schedule	
Part	Description
0097584-102	(T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
0097581-102	(T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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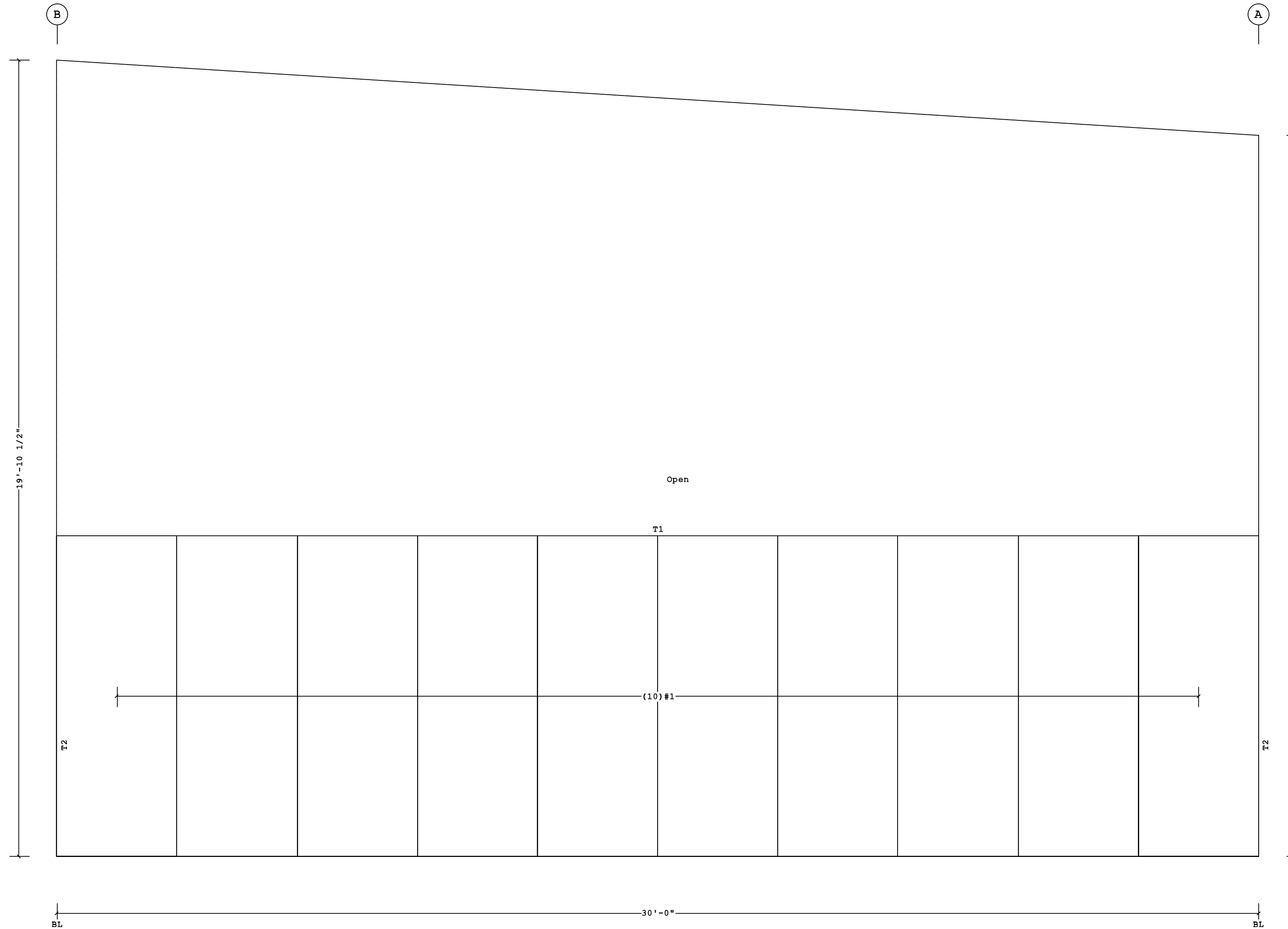
PERMIT SET- For Building Dept. Approval

<p>1. PRE-DRILLING 1/8 DIAMETER HOLES FOR STRUCTURAL FASTENERS MAY BE REQUIRED FOR HEAVY GAGE NESTED ZEE'S AND/OR FASTENERS TO STRUCTURAL BEAMS</p> <p>2. STEEL PANELS ARE AN INTEGRAL PART OF THE STRUCTURAL SYSTEM. REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.</p> <p>3. DUE TO MANUFACTURING LIMITATIONS SHORT PANELS MAY REQUIRE FIELD CUTTING. SEE THE COVERING SCHEDULE FOR CUT LENGTHS.</p> <p>4. SEE JOB DETAILS FOR COVERING AND TRIM FASTENER SPECIFICATION.</p>	<p>THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.</p>	<p>THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND MAY BE REPRODUCED ONLY FOR THAT PURPOSE. IT SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.</p> <p>THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN ACCORDANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.</p>	<p>D</p> <p>VP Buildings 3200 Players Club Circle Memphis TN 38125</p>	<p>COVERING ELEVATION AT B</p>					
				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
				<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>LOCATION Dunn, North Carolina</p>	<p>CUSTOMER Duke Energy</p>	<p>DATE 01/31/2024</p>	<p>DRAWN/CHECK MB WJC</p>	<p>PAGE 23</p>
				<p>BUILDERS PO# 23068 - Weld Shop</p>	<p>VP VERSION: 2023.4a</p>	<p>NTS</p>	<p>1/31/2024 16:48:18</p>	<p>FILENAME: Duke Energy - Weld Shop</p>	<p>a division of BlueScope Buildings North America, Inc.</p>

Wall Liner Schedule
 Id Qty Type Length Gage OP Finish Color Direction
 #1 10 DLN 8'-0" 26 1 K OW Left to Right
 Oper. Code:1=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule
 Id Parts
 T1 (3)LPJT
 T2 (2)LPJT

Color
 Match Wall Color WCV062,WLV013
 Match Wall Color WCV062,WLV014,WLV015



WALL LINER ELEVATION AT 1
 (View from inside Building)

Part	Description
0097584-102	(T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
0097581-102	(T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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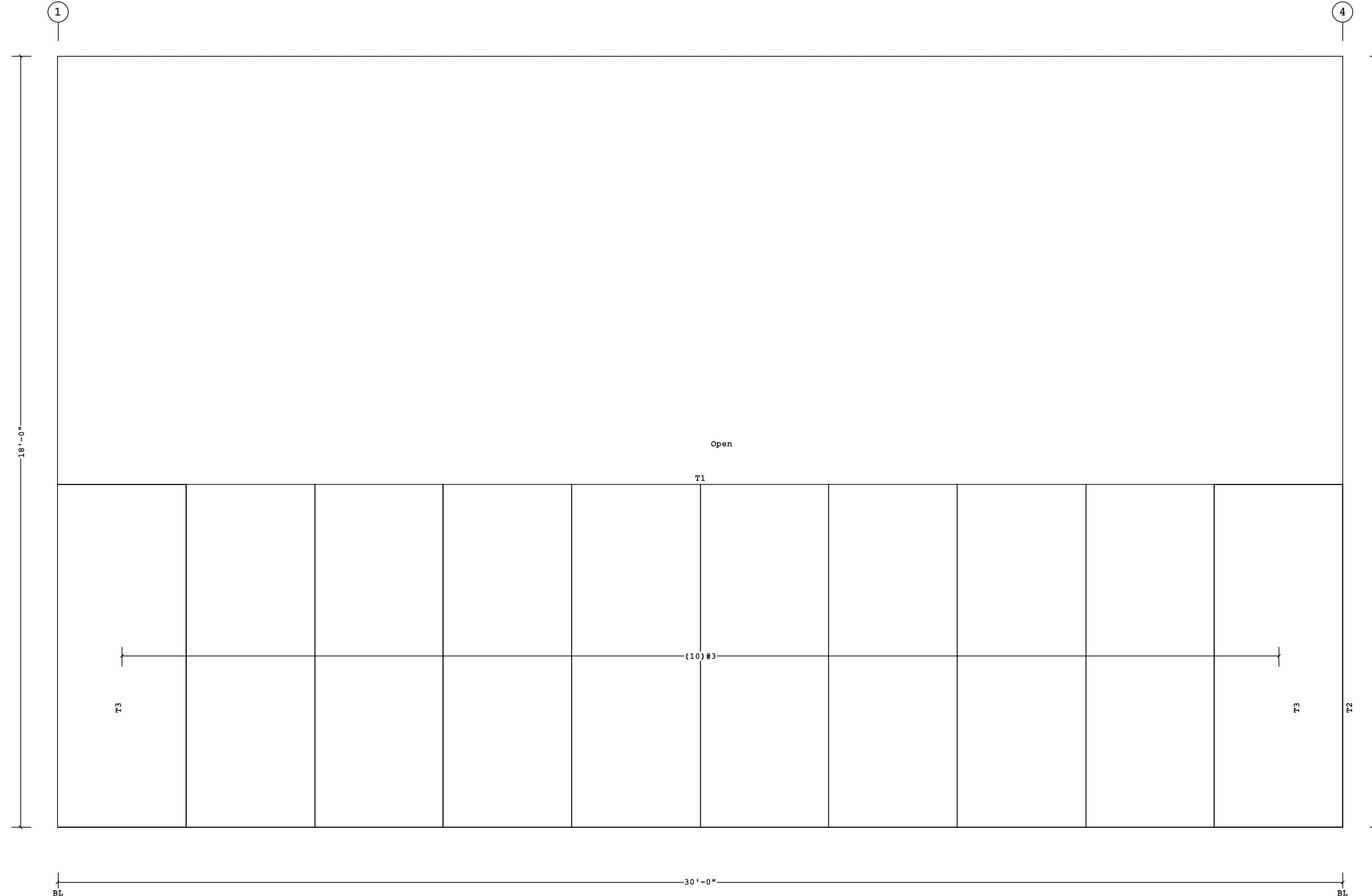
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				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
								<p>CUSTOMER Duke Energy</p>	<p>DATE 01/31/2024</p>
								<p>LOCATION Dunn, North Carolina</p>	<p>DRAWN/CHECK MB WJC</p>
				<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>PAGE 24</p>				
				<p>BUILDERS PO# 23068 - Weld Shop</p>	<p>VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a</p>				
				<p>NTS</p>	<p>VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company VPC VERSION: 2023.4a</p>				
				<p>1/31/2024</p>	<p>16:48:19</p>				
				<p>FILENAME: Duke Energy - Weld Shop</p>	<p>a division of BlueScope Buildings North America, Inc.</p>				

Wall Liner Schedule				Gage OP			Finish Color		Direction
Id	Qty	Type	Length						
#3	10	DLN	8'-0"	26	1	K	OW	Left to Right	

Oper. Code:l=SQ,SQ
Finish:K=KXL (Kynar)
Color:OW=Cool Cotton White

Trim Schedule	
Id	Parts
T1	(3)LPJT
T2	(2)LPJT
T3	(2)LPJT

Color		Details
Match Wall Color	WCV062,WLV013	
Match Wall Color	WCV062,WLV014,WLV015	
Match Wall Color	WLV015	



WALL LINER ELEVATION AT A
(View from inside Building)

Fastener Schedule	
Part	Description
0097584-102	(T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
0097581-102	(T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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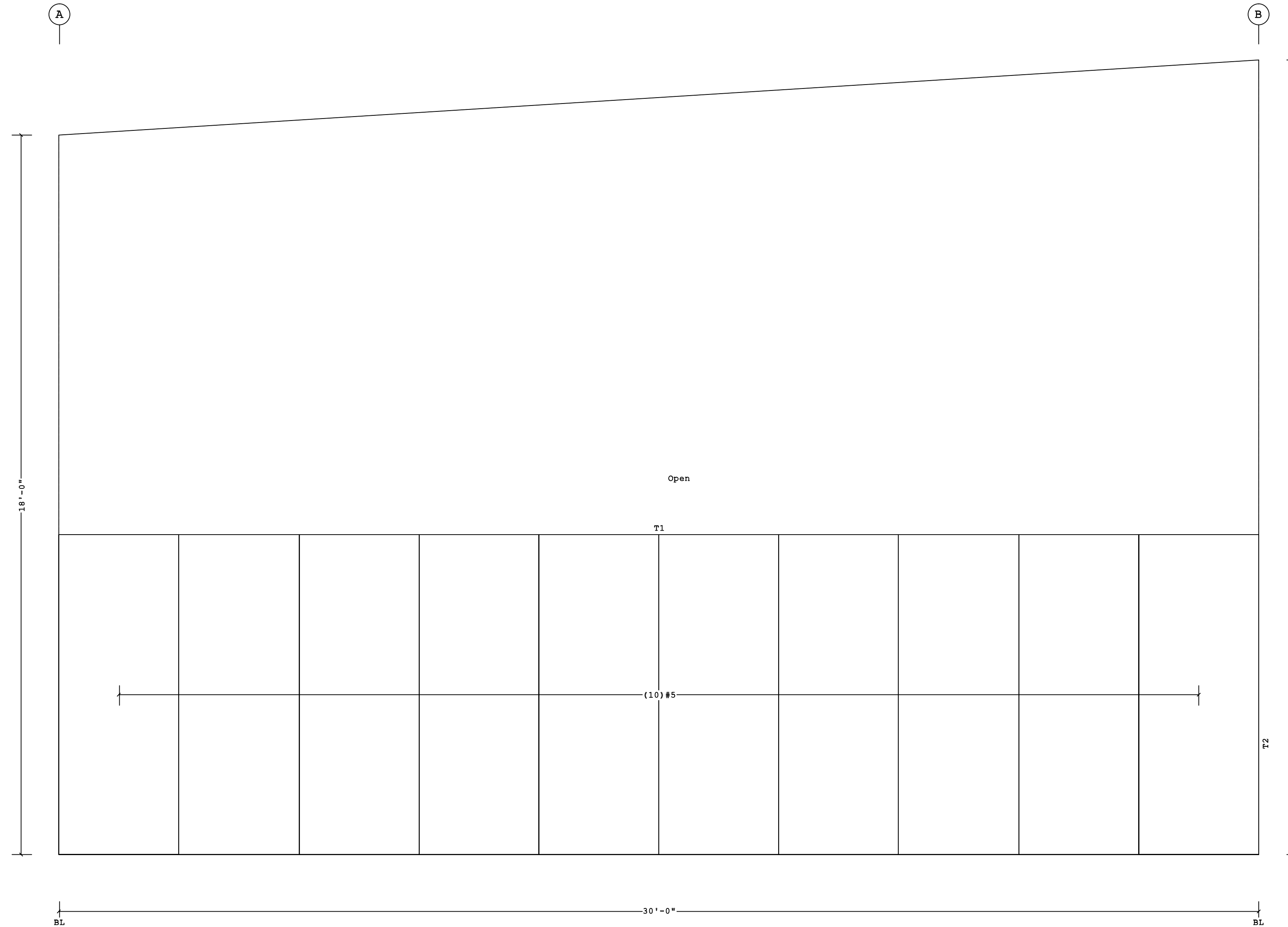
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				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
								<p>CUSTOMER Duke Energy</p>	<p>DATE 01/31/2024</p>
								<p>LOCATION Dunn, North Carolina</p>	<p>DRAWN/CHECK MB WJC</p>
				<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>PAGE 25</p>				
				<p>BUILDERS PO# 23068 - Weld Shop</p>					
				<p>NTS</p>					
				<p>1/31/2024 16:48:21</p>					
				<p>FILENAME: Duke Energy - Weld Shop</p>					



Wall Liner Schedule
 Id Qty Type Length Gage OP Finish Color Direction
 #5 10 DLN 8'-0" 26 1 K OW Left to Right
 Oper. Code:l=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule
 Id Parts
 T1 (3)LPJT
 T2 (2)LPJT

Color
 Match Wall Color WCV062,WLV013
 Match Wall Color WCV062,WLV014,WLV015



WALL LINER ELEVATION AT 4
 (View from inside Building)

Fastener Schedule
 Part Description
 0097584-102 (T-2) #12-14 x 1 1/4", 5/16" Hex Hd, SS Cap w/Washer
 0097581-102 (T-1) 1/4-14 x 7/8", 5/16" Hex Hd, SS Cap w/Washer

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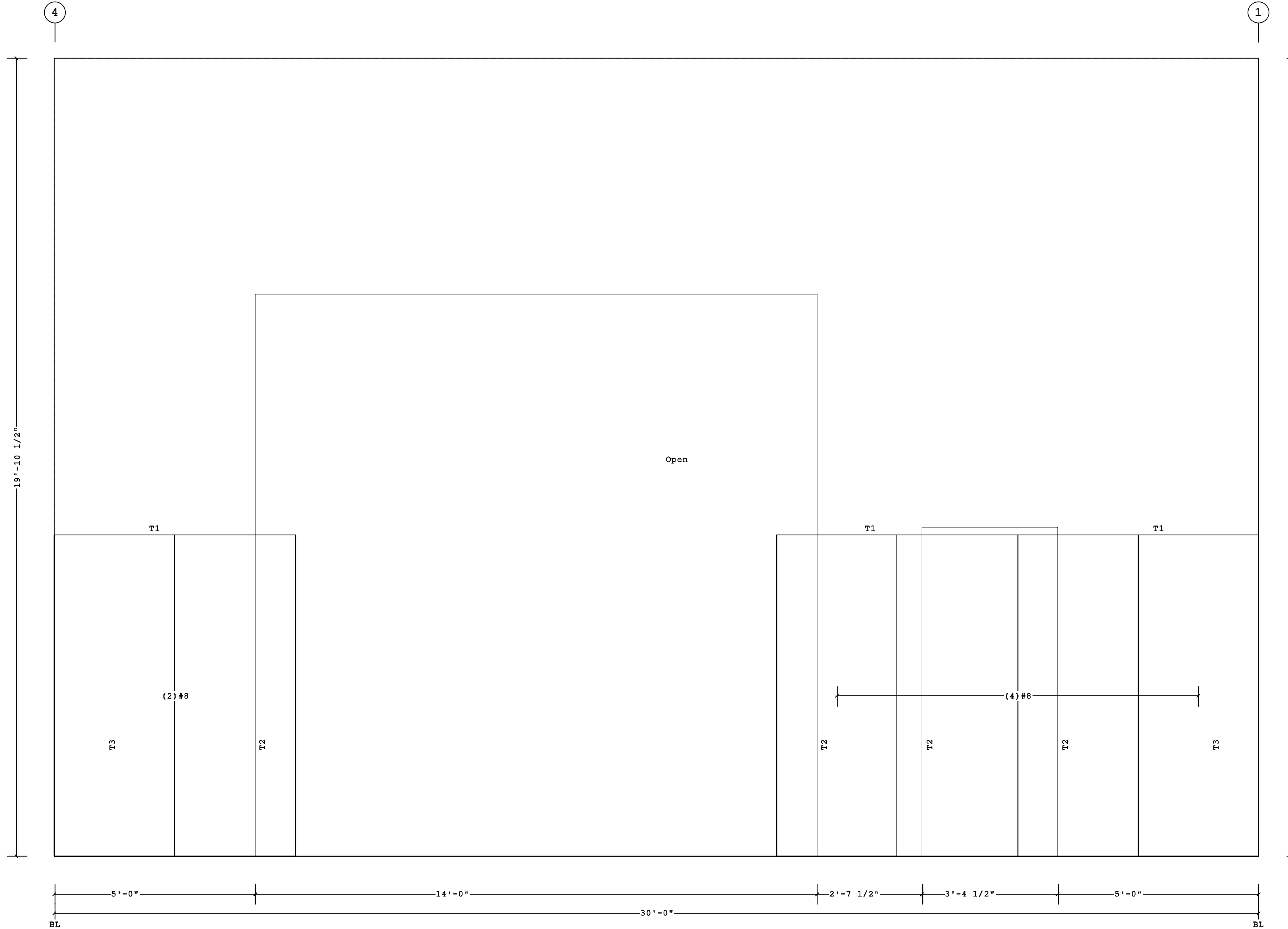
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				REV DATE BY DESCRIPTION	BUILDER Lemartec Corporation CUSTOMER Duke Energy LOCATION Dunn, North Carolina PROJECT Duke Energy Dunn Operations Center - Weld Shop BUILDERS PO# 23068 - Weld Shop NTS

Wall Liner Schedule
 Id Qty Type Length Gage OP Finish Color Direction
 #8 6 DLN 8'-0" 26 1 K OW Left to Right
 Oper. Code:l=SQ,SQ
 Finish:K=KXL (Kynar)
 Color:OW=Cool Cotton White

Trim Schedule
 Id Parts
 T1 LPJT
 T2 (0.7)LPJT
 T3 (2)LPJT

Color
 Match Wall Color WCV062,WLV013
 Match Wall Color WCV062,WLV007
 Match Wall Color WLV015

Details
 WCV062,WLV013
 WCV062,WLV007
 WLV015

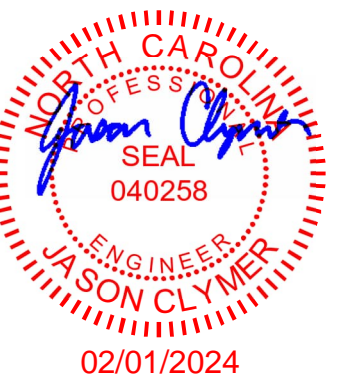


WALL LINER ELEVATION AT B
 (View from inside Building)

Fastener Schedule

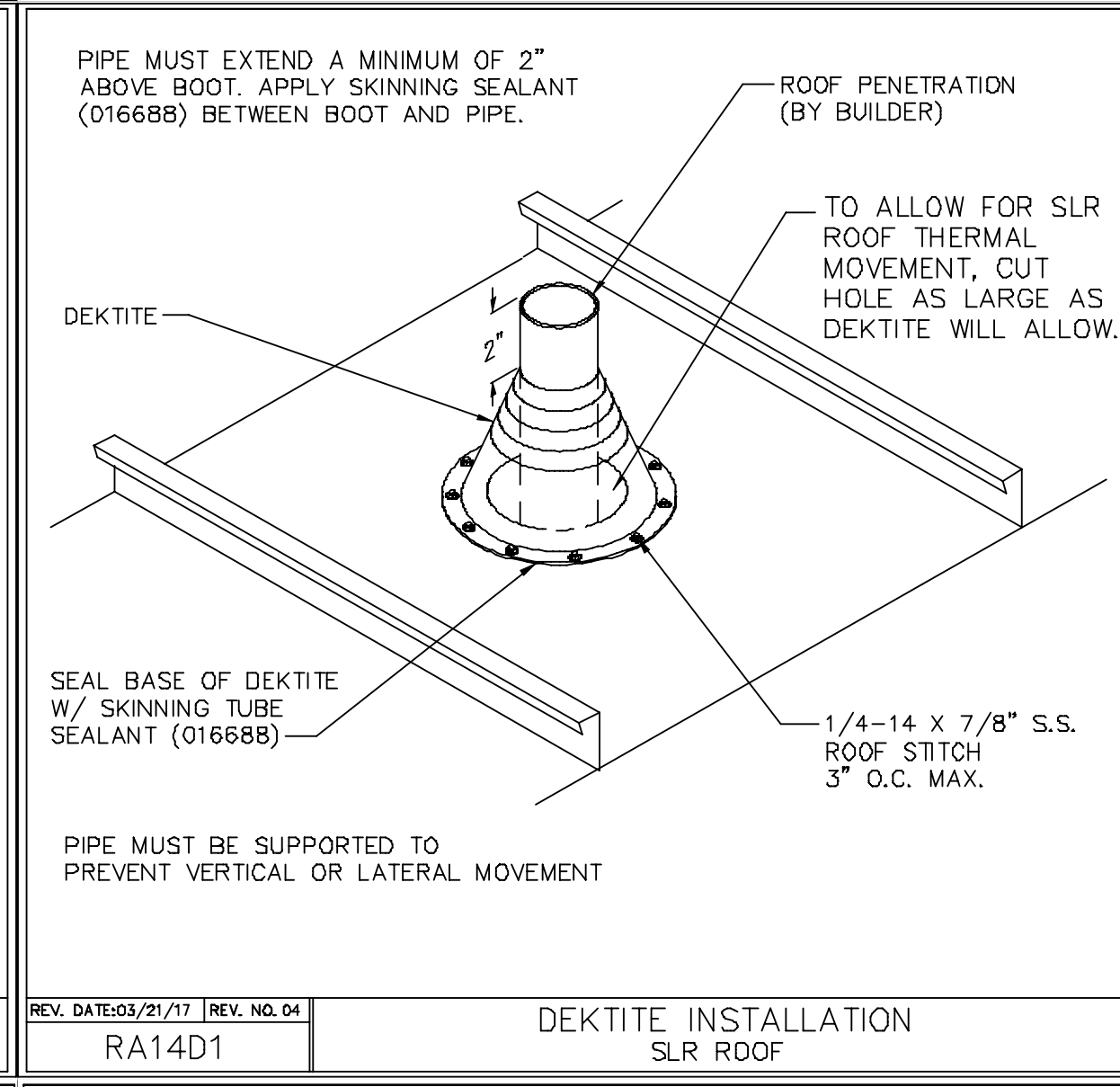
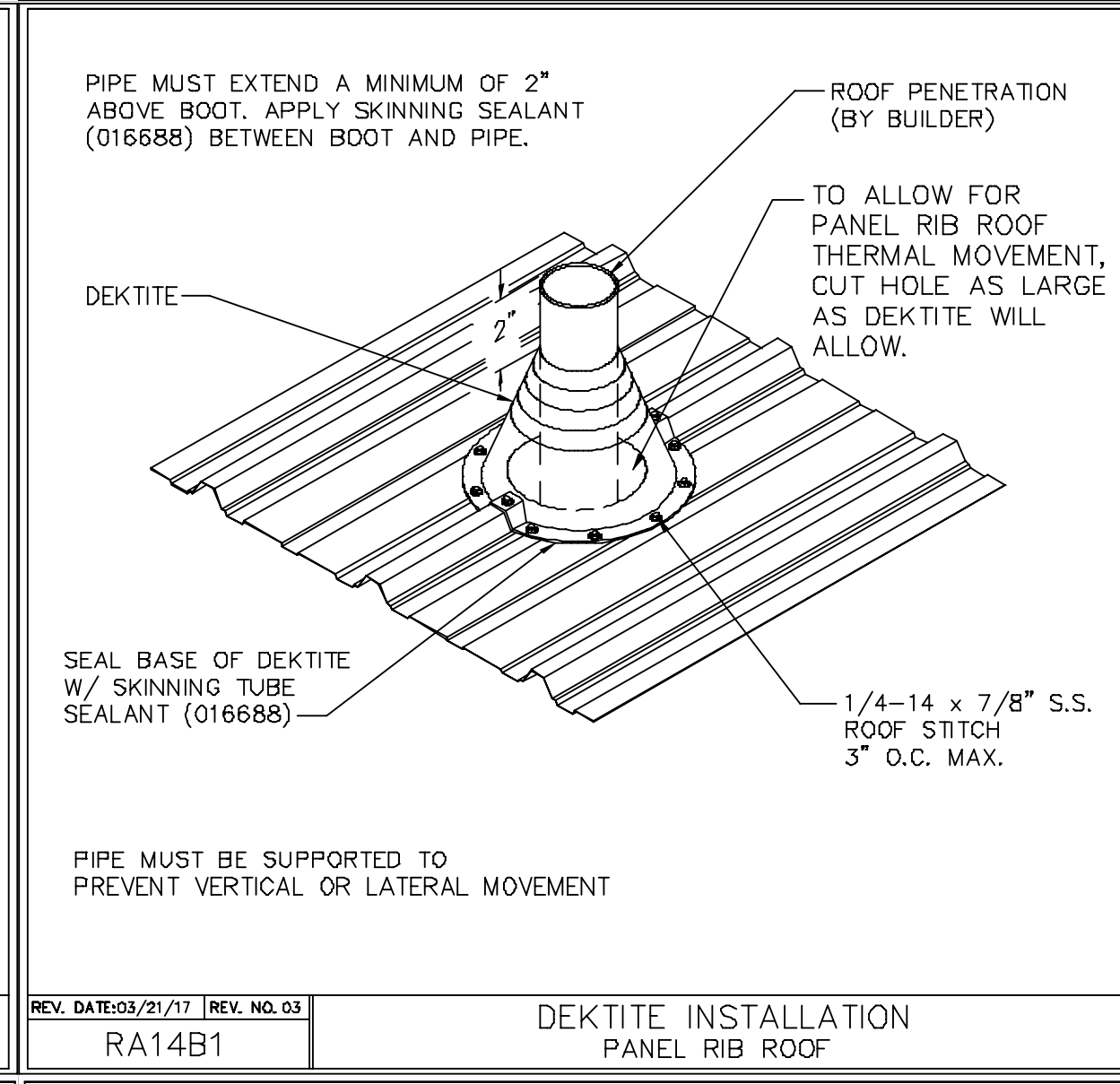
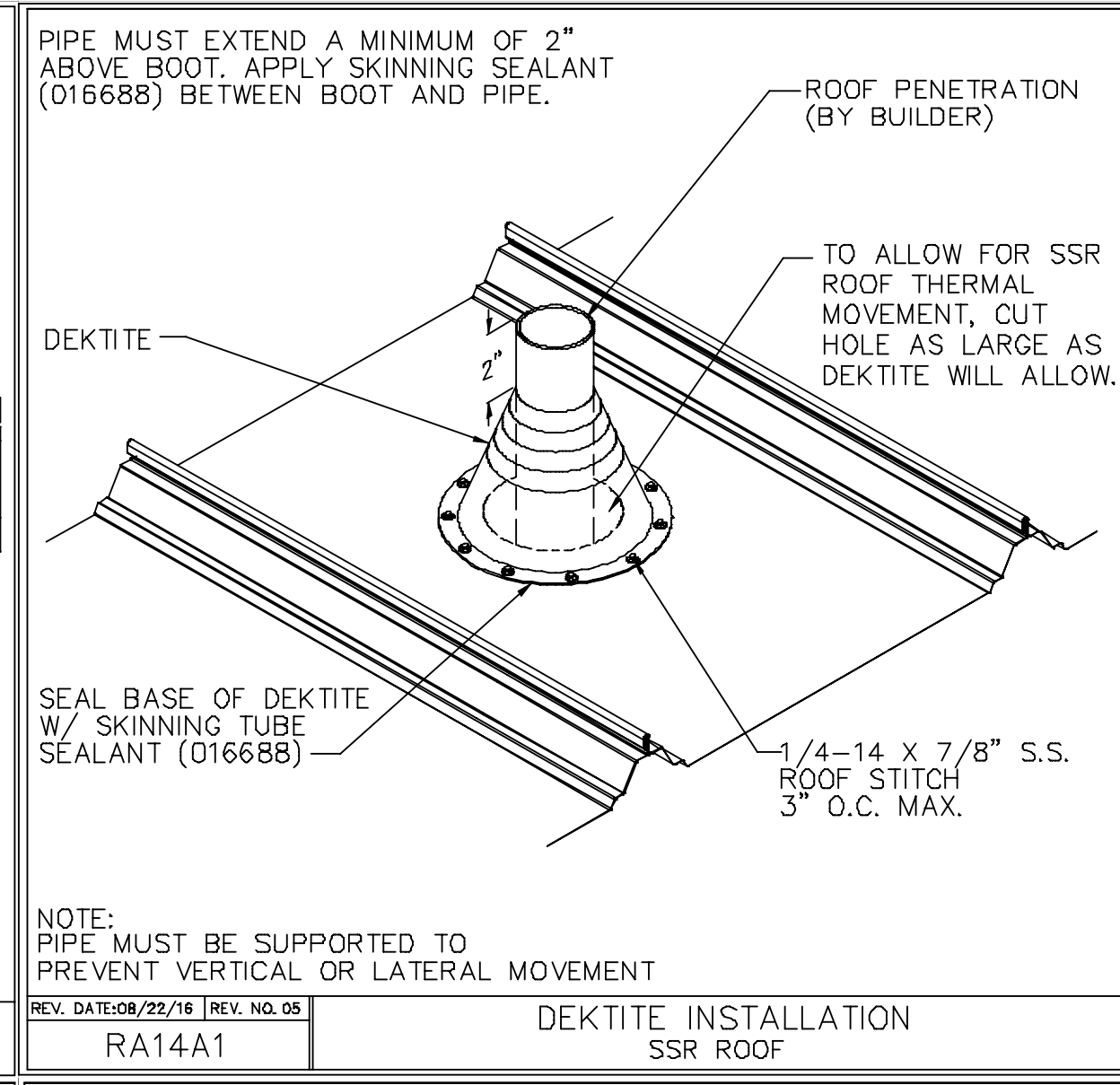
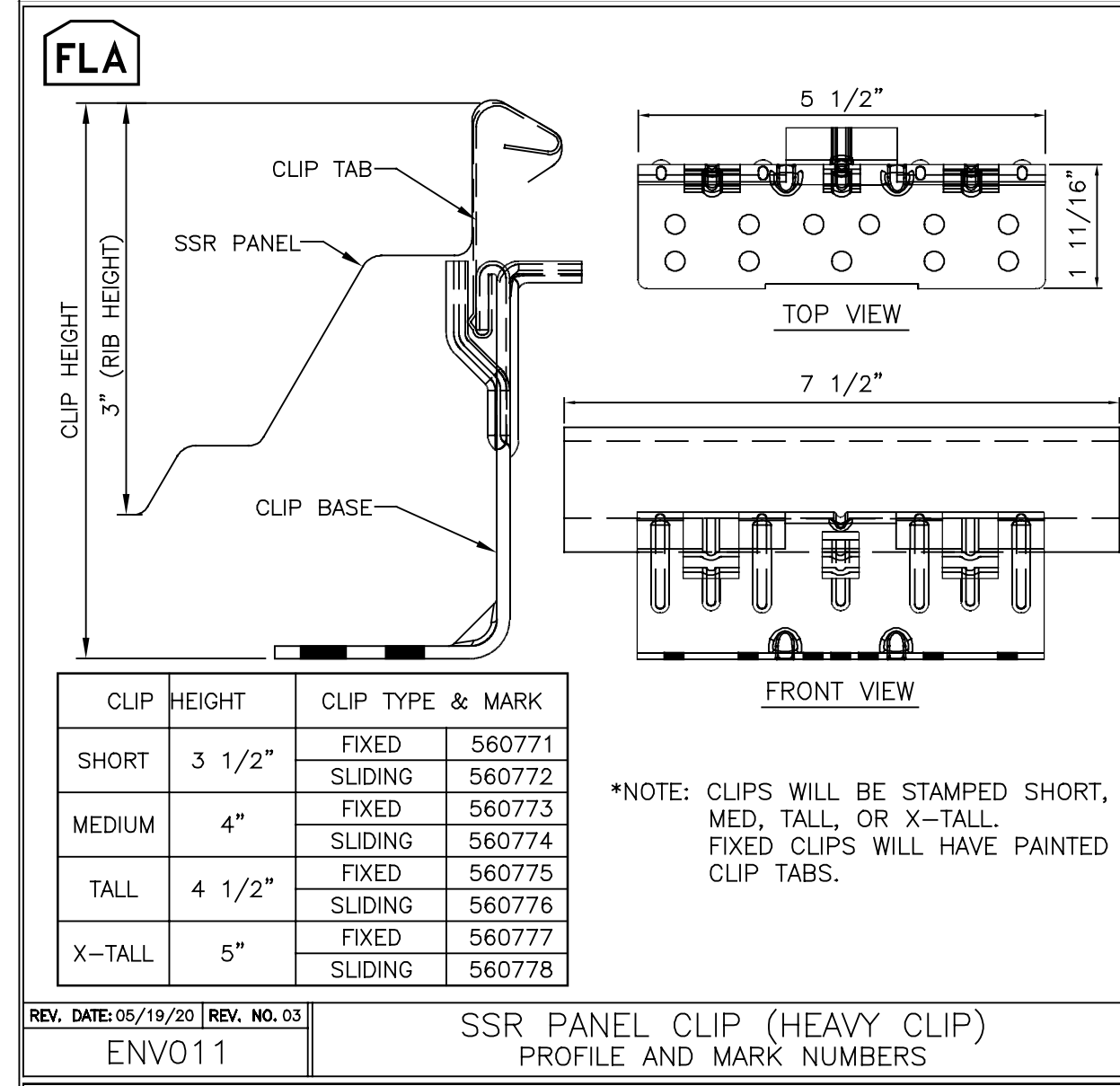
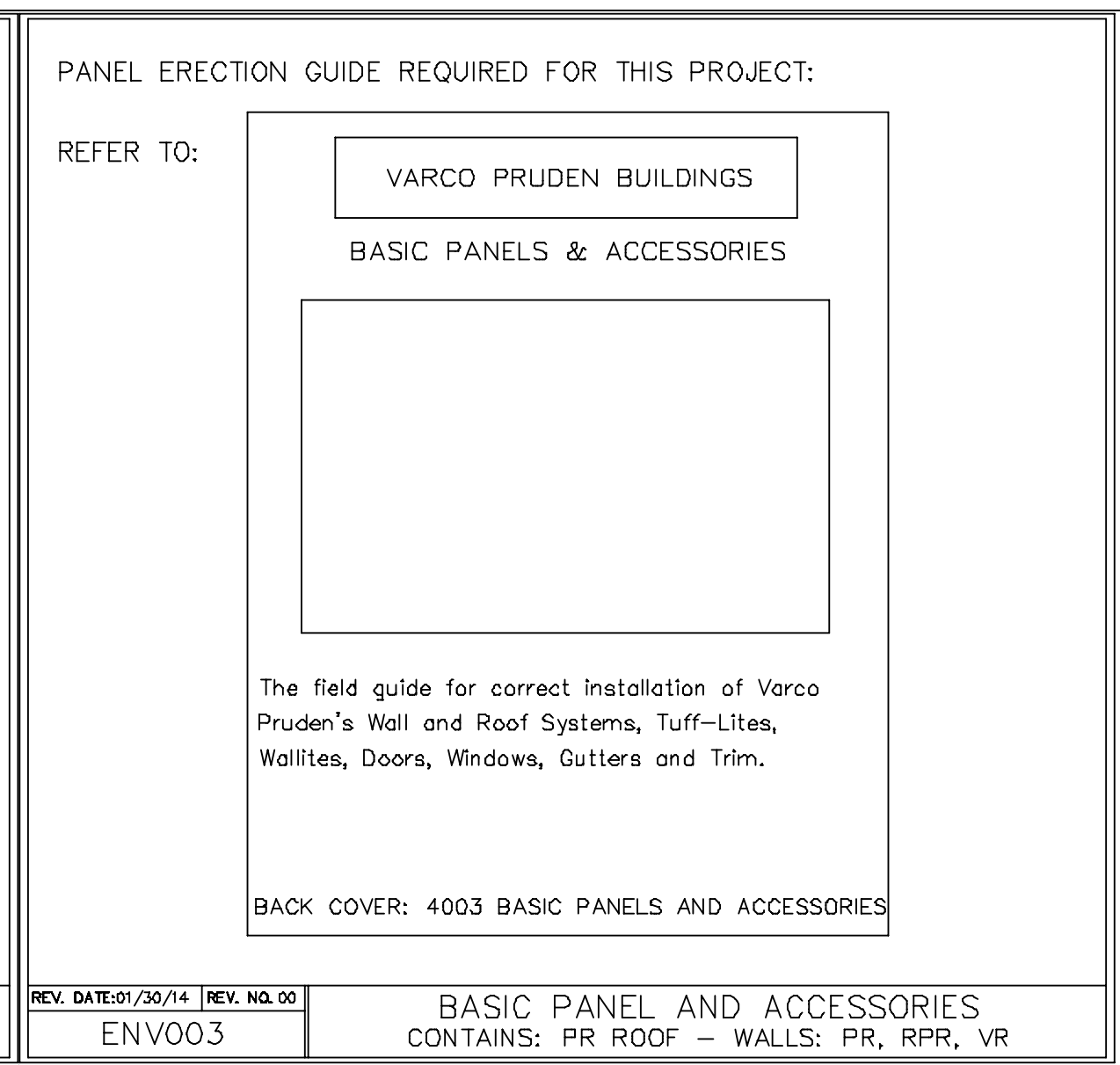
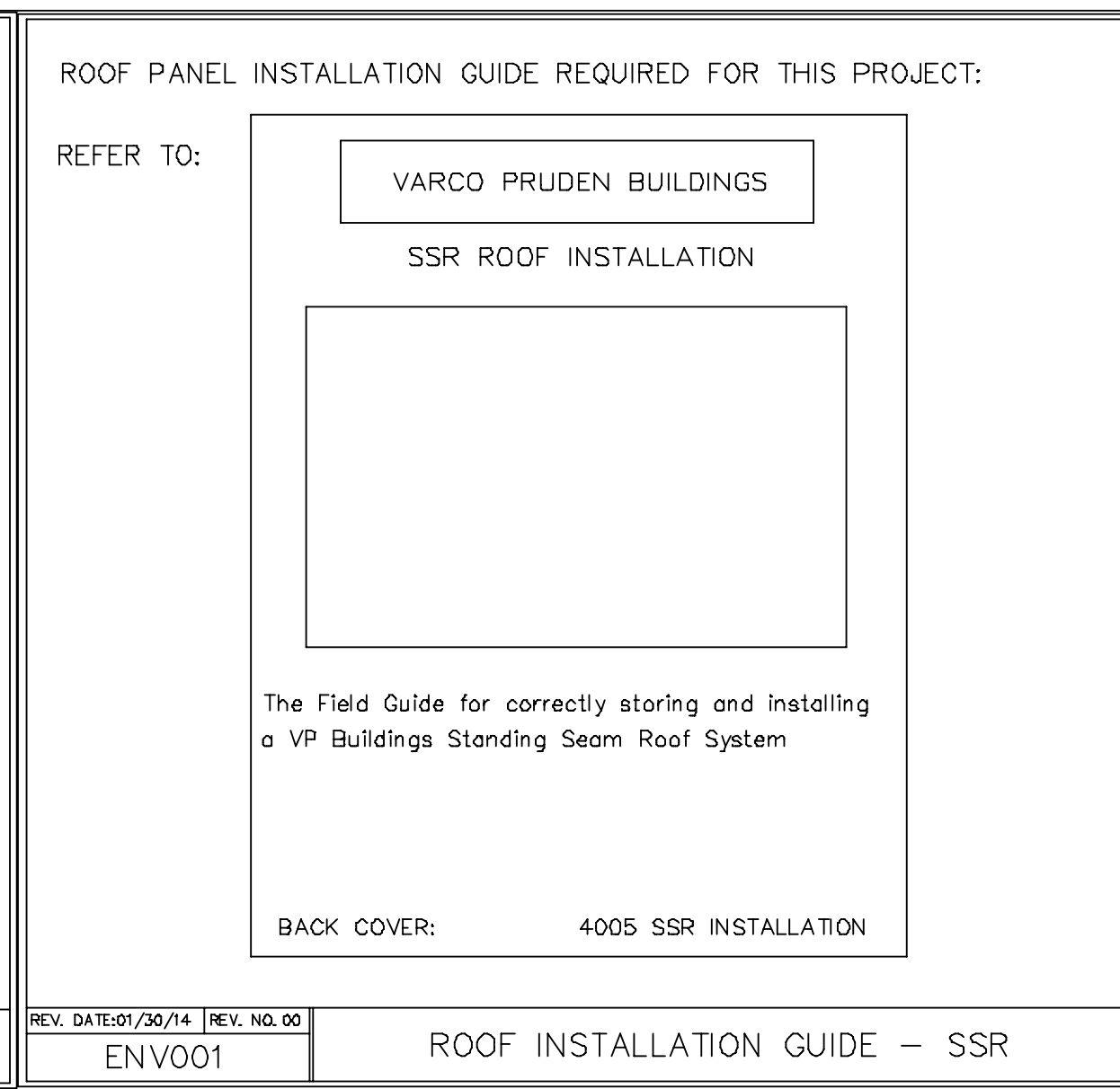
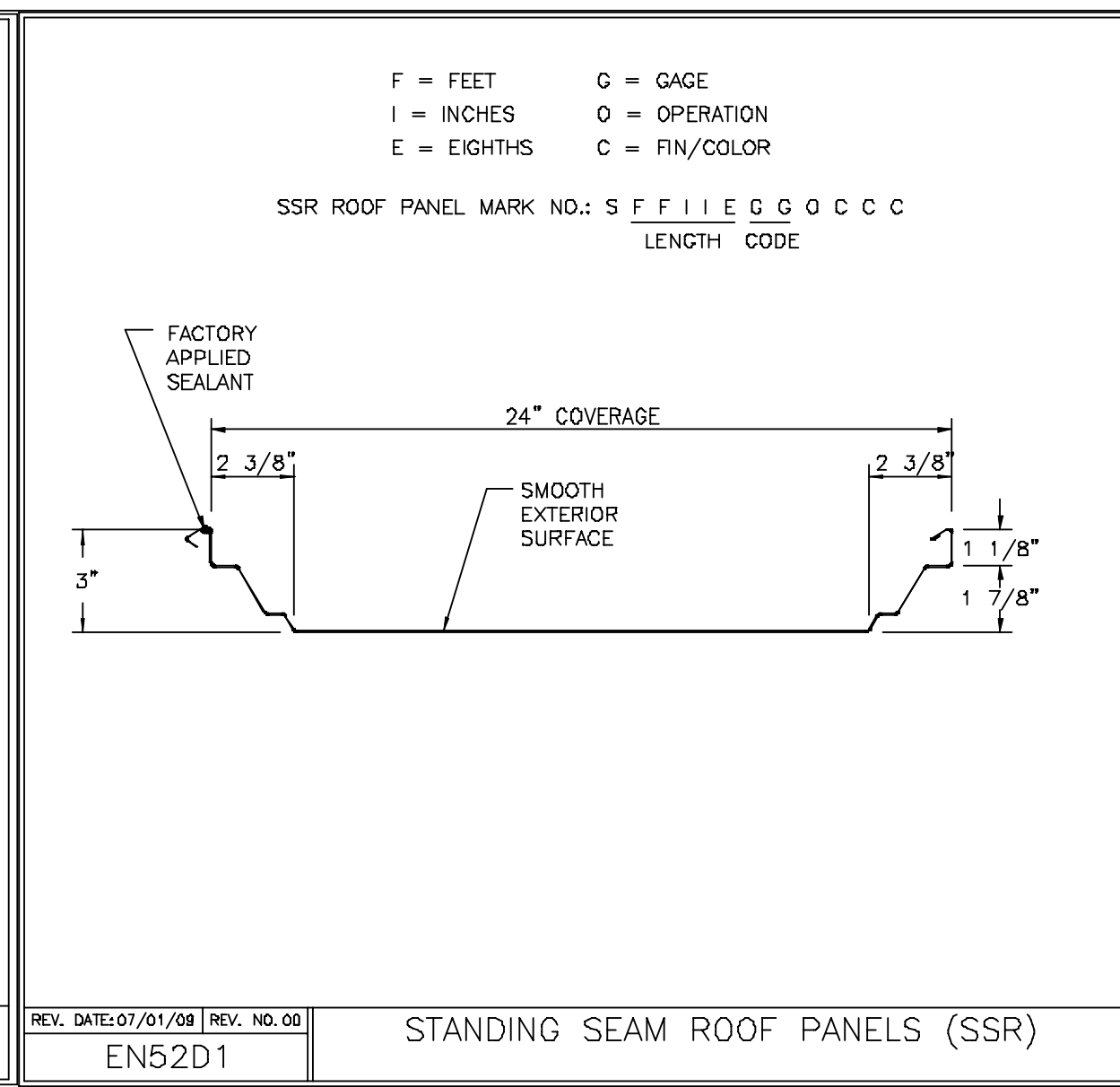
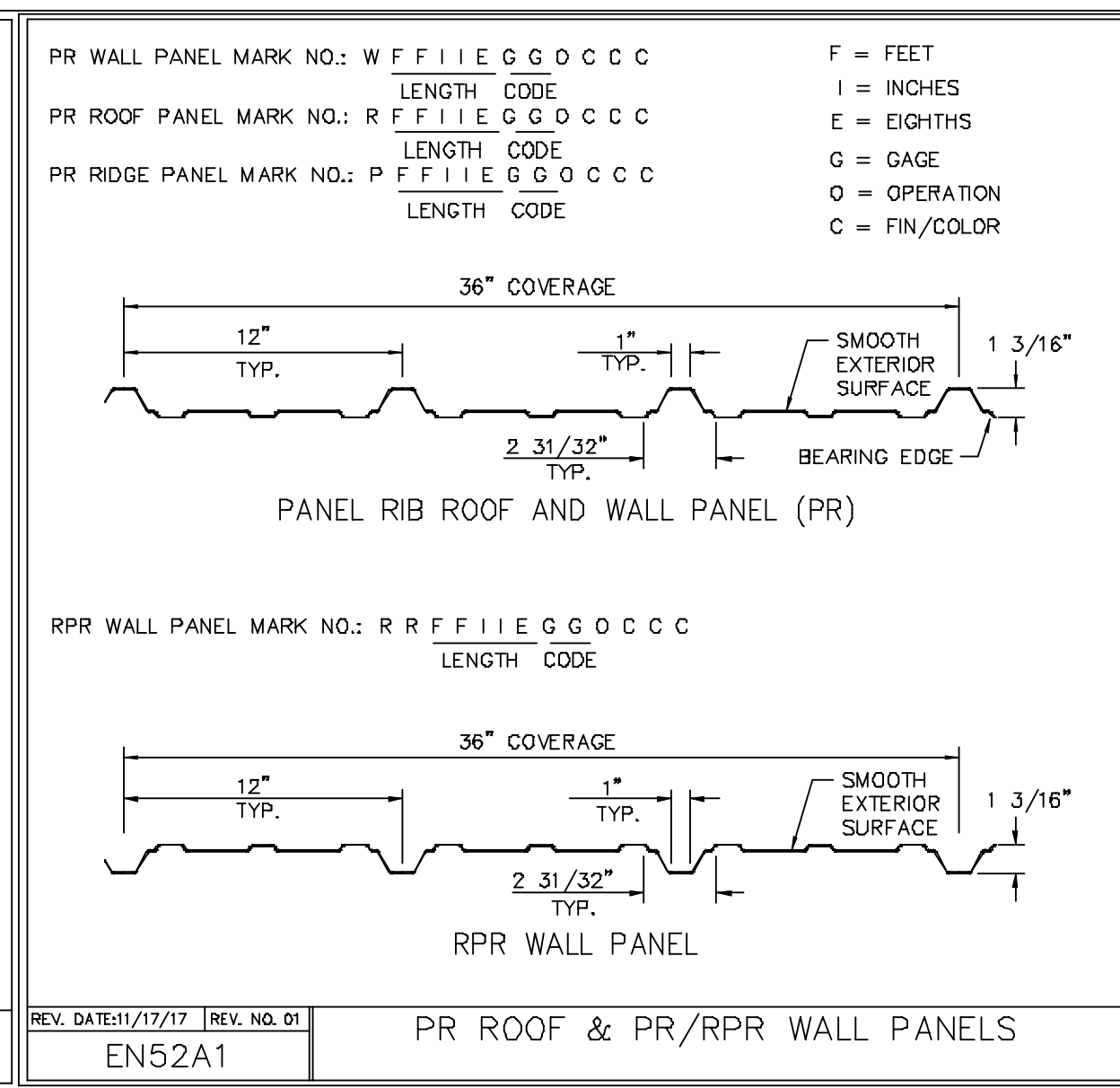
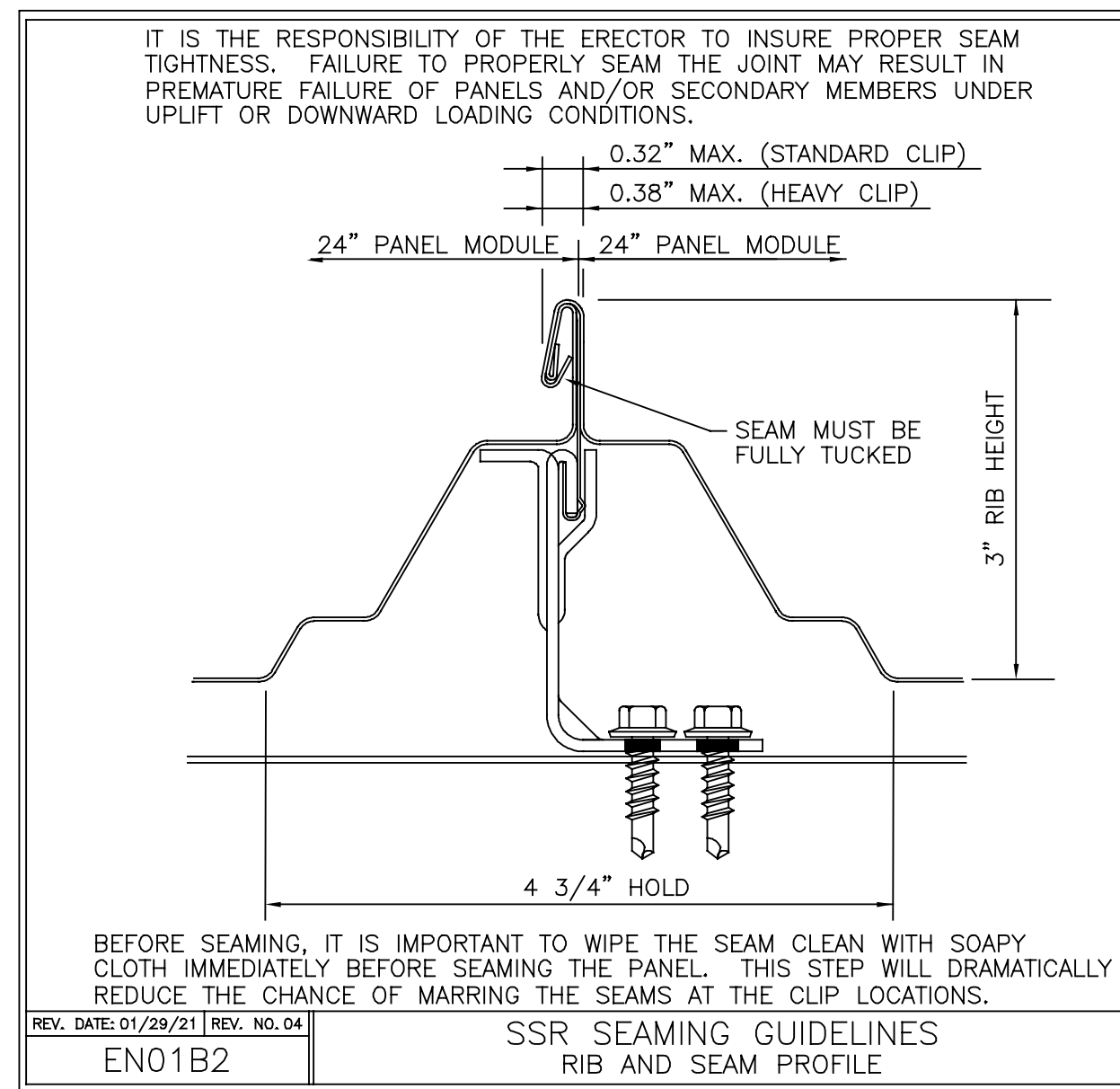
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				<p>REV</p>	<p>DATE</p>	<p>BY</p>	<p>DESCRIPTION</p>	<p>BUILDER Lemartec Corporation</p>	<p>JOBNO 23-016000-01</p>
				<p>PROJECT Duke Energy Dunn Operations Center - Weld Shop</p>	<p>BUILDERS PO# 23068 - Weld Shop</p>	<p>LOCATION Dunn, North Carolina</p>	<p>CUSTOMER Duke Energy</p>	<p>DATE 01/31/2024</p>	<p>DRAWN/CHECK MB WJC</p>
				<p>NTS</p>	<p>VP VERSION: 2023.4a</p>	<p>VP BUILDINGS VARCO PRUDEN A BlueScope Steel Company</p>	<p>FILENAME: Duke Energy - Weld Shop</p>	<p>PAGE 27</p>	<p>a division of BlueScope Buildings North America, Inc.</p>

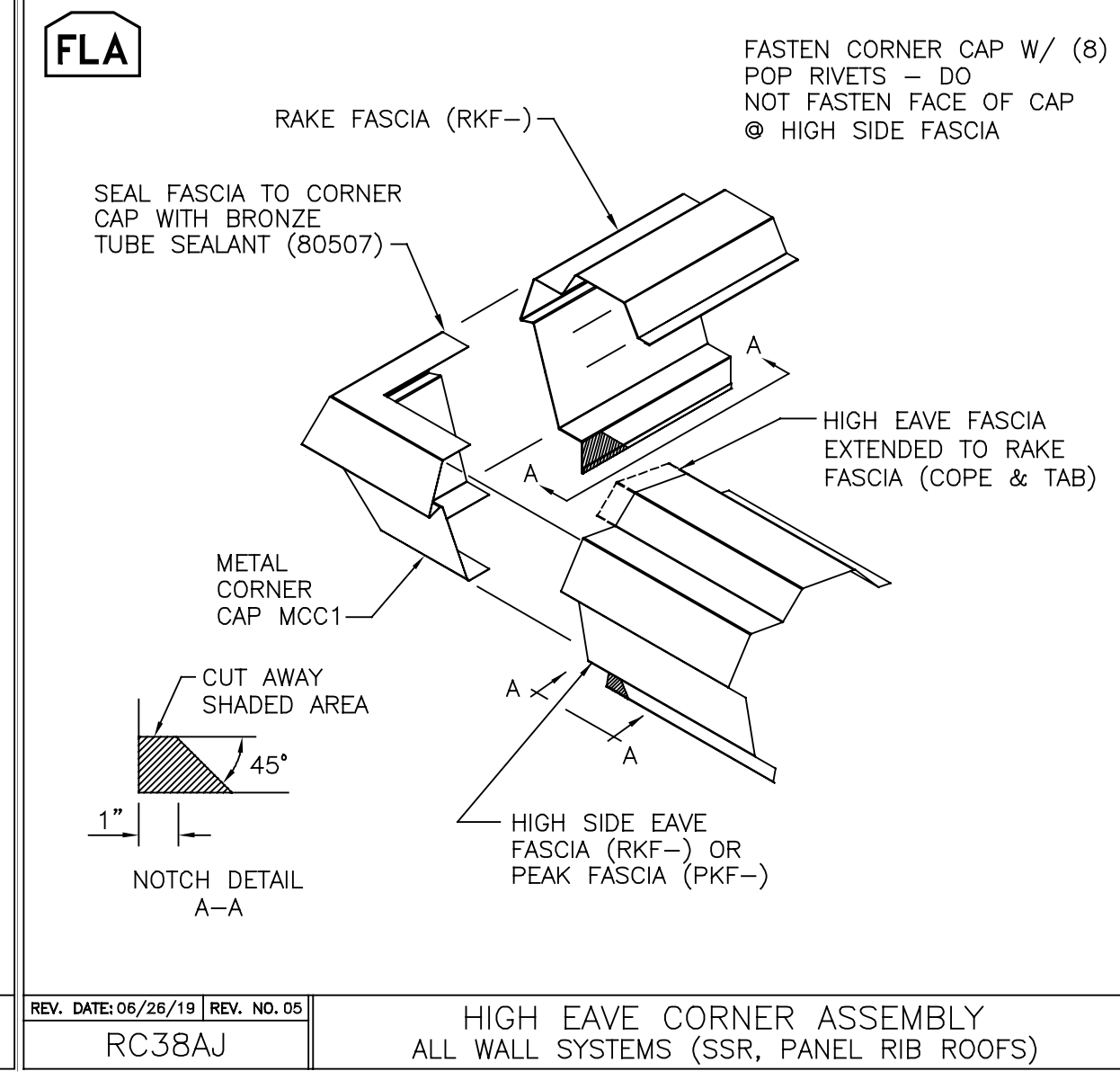
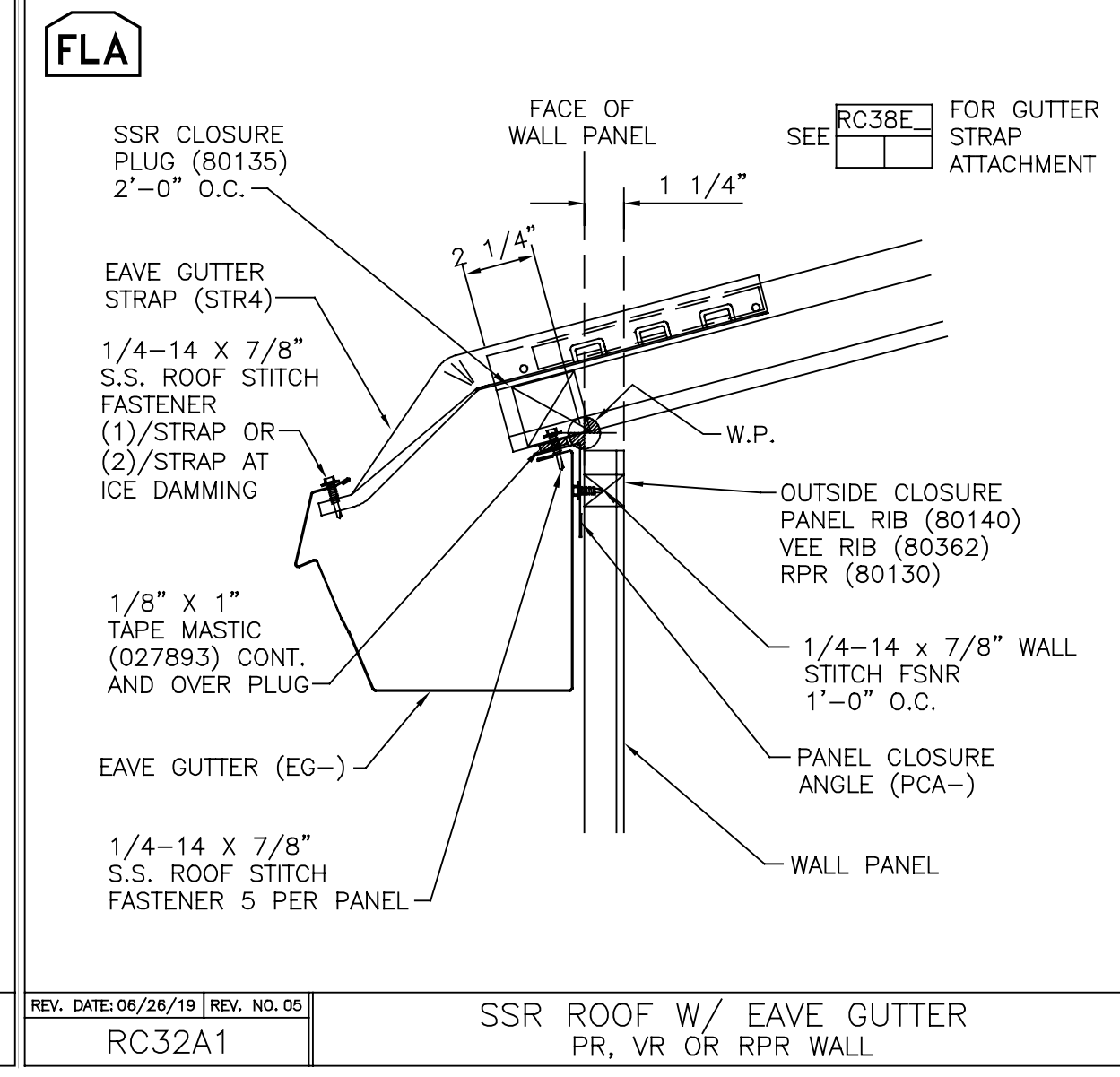
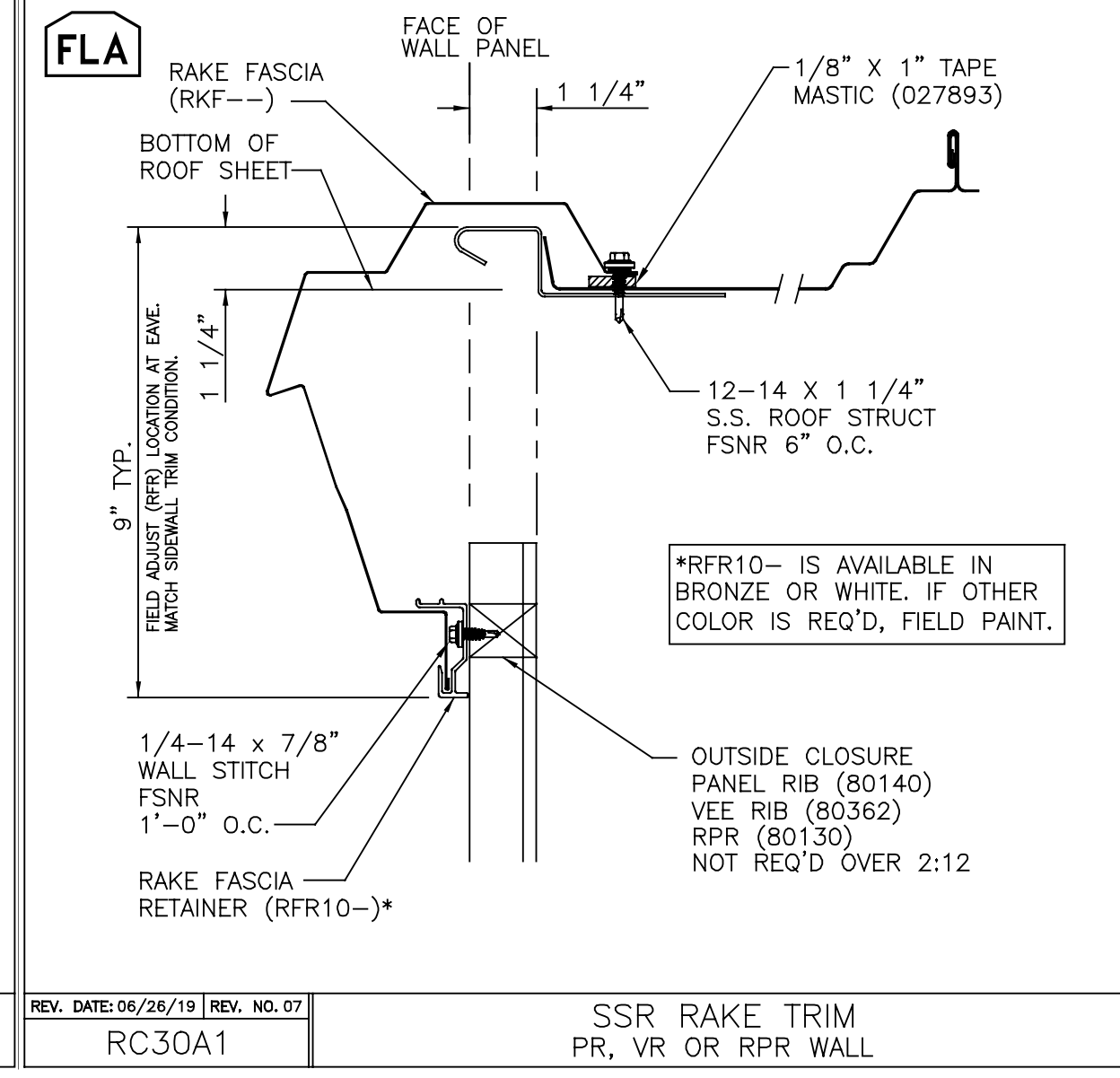
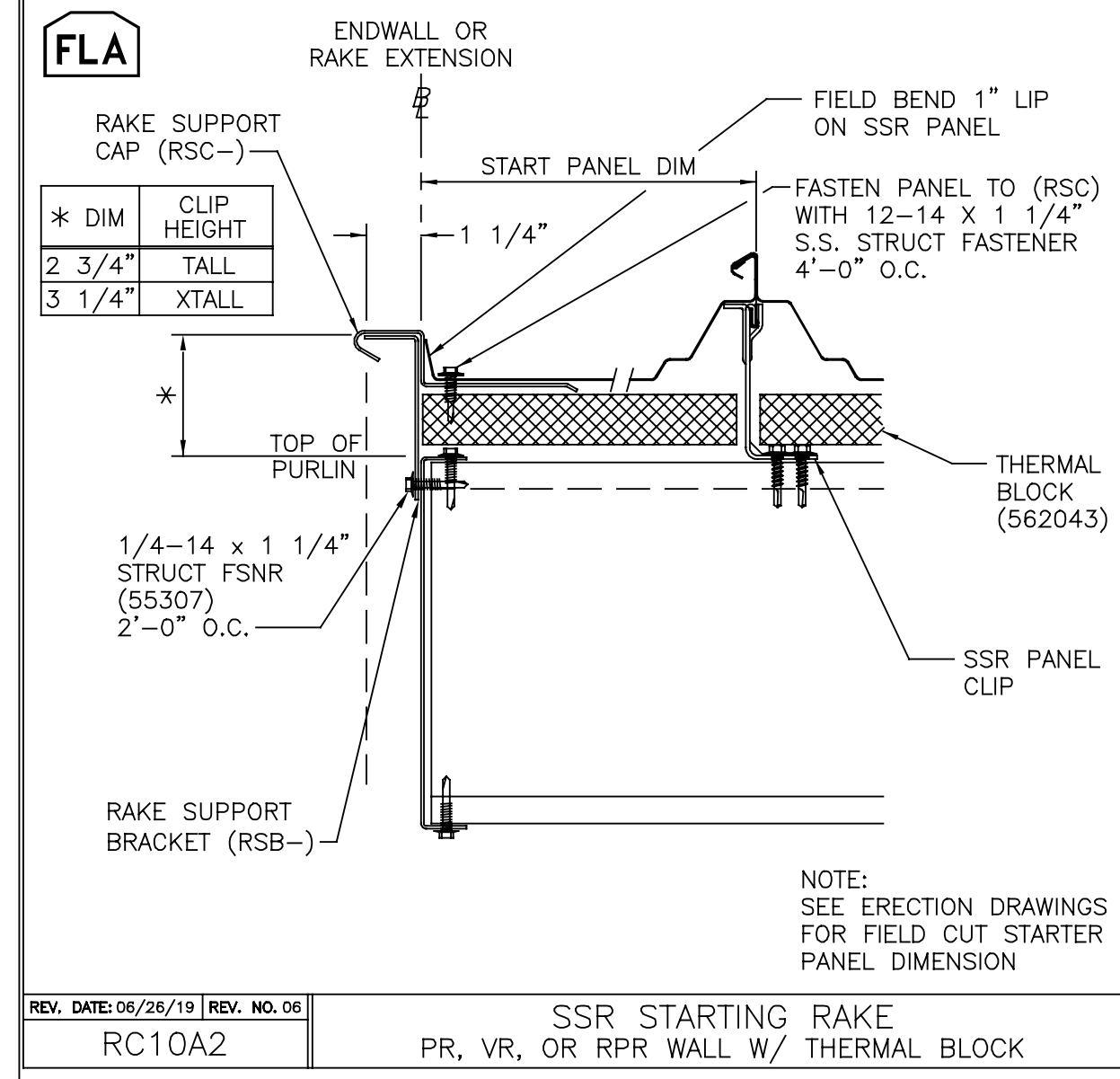


1. STANDARD ERECTION DETAILS (SED) SUPERSEDE SIMILAR DETAILS FOUND IN THE ERECTION GUIDES. REFER TO THE ERECTION GUIDES FOR OTHER DETAILS, INSTALLATION PROCEDURES AND ACCESSORIES NOT DESCRIBED IN THE SED'S.

2. ALL PANEL AND TRIM SURFACES MUST BE FREE OF DIRT AND OIL AT MASTIC AND SEALANT LOCATIONS.

REV. DATE: 07/01/09 | REV. NO. 00
RC00A1

NOTES



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W. Jason Clymer, PE
040258
ENGINEER
JASON CLYMER
02/01/2024

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REV	DATE	BY	DESCRIPTION

VP Buildings
3200 Players Club Circle Memphis TN 38125

NTS

1/31/2024 SEDSheet 16:48:23

COVERING & TRIM SED'S (a)	
BUILDER	Lemartec Corporation
CUSTOMER	Duke Energy
LOCATION	Dunn, North Carolina
PROJECT	Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#	23068 - Weld Shop
FILENAME:	Duke Energy - Weld Shop

VP BUILDINGS
VARCO PRUDEN
A BlueScope Steel Company

BLUESCOPE STEEL COMPANY

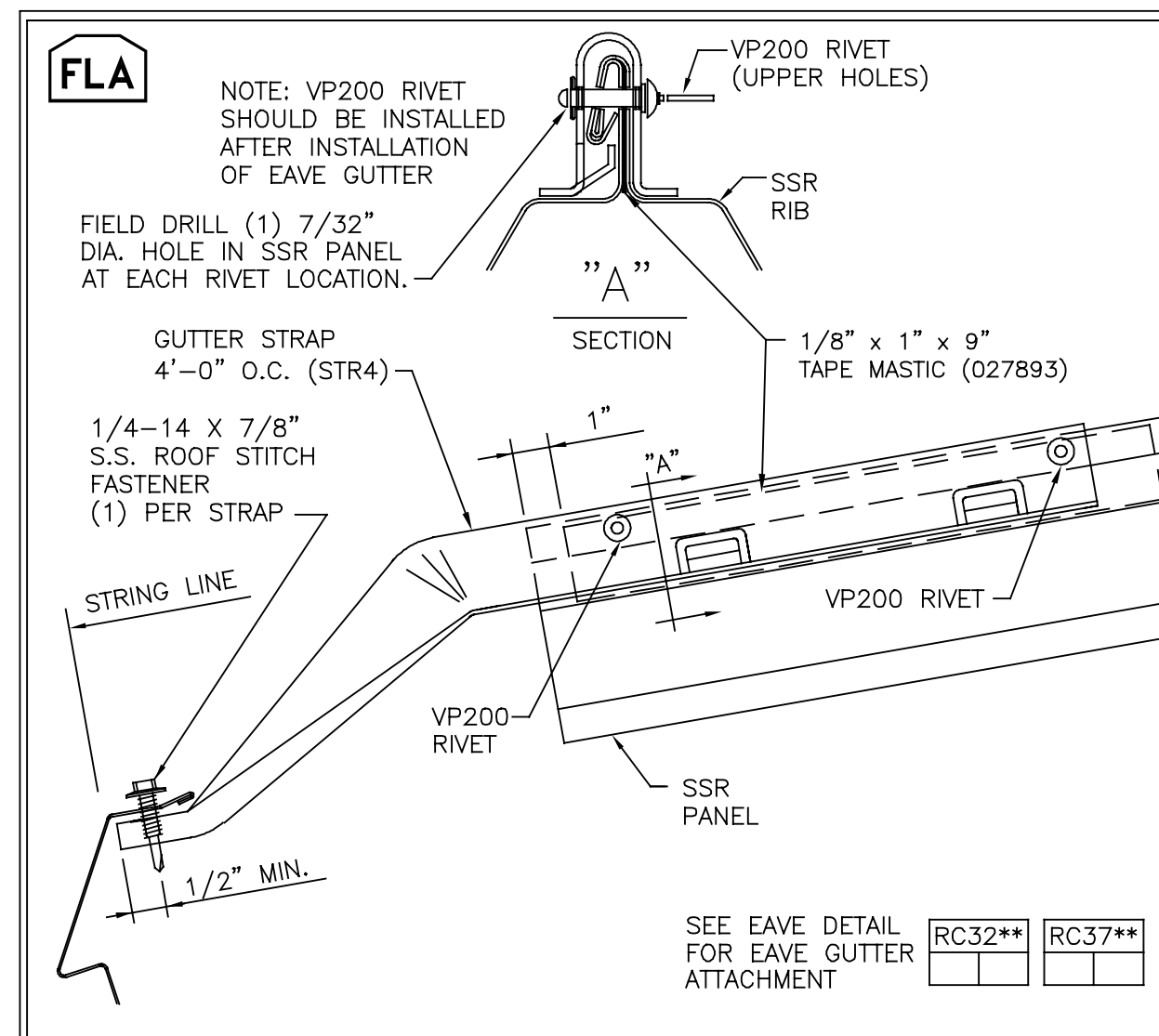
JOBNO 23-016000-01
DATE 01/31/2024
DRAWINGCHECK MB WJC
PAGE 28

VP BUILDINGS
VARCO PRUDEN
A BlueScope Steel Company

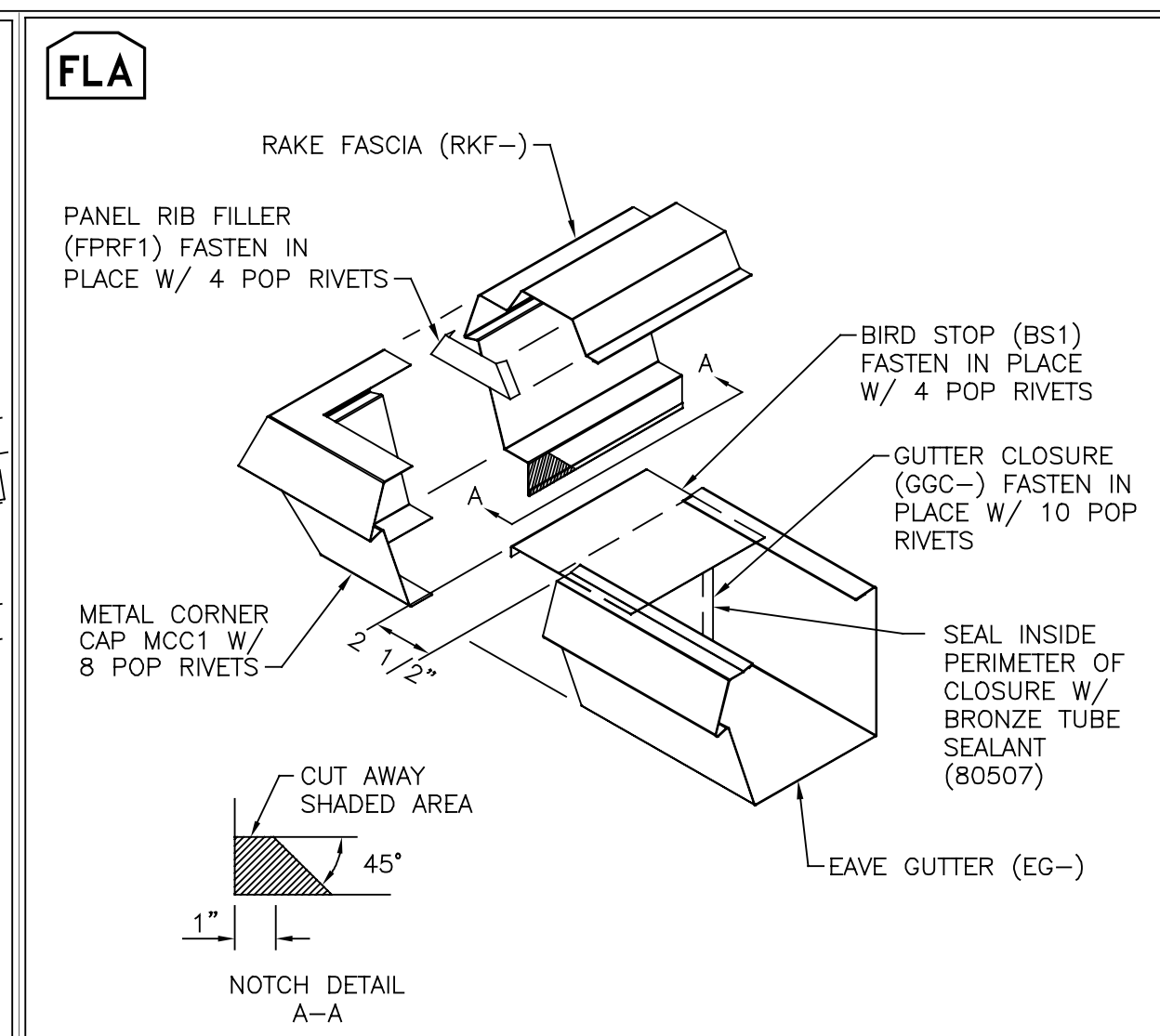
BLUESCOPE STEEL COMPANY

VP VERSION: 2023.4a

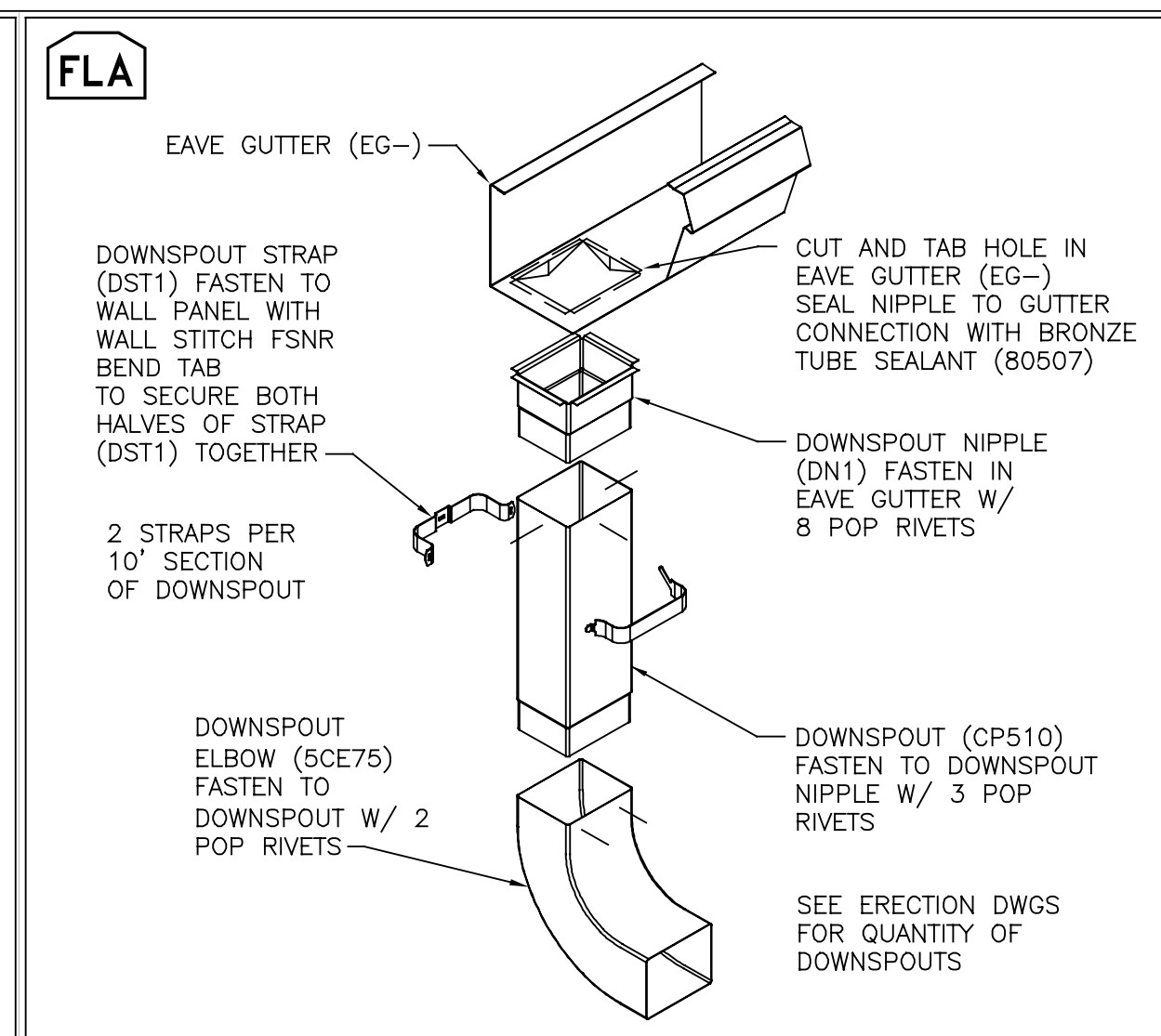
A division of BlueScope Buildings North America, Inc.



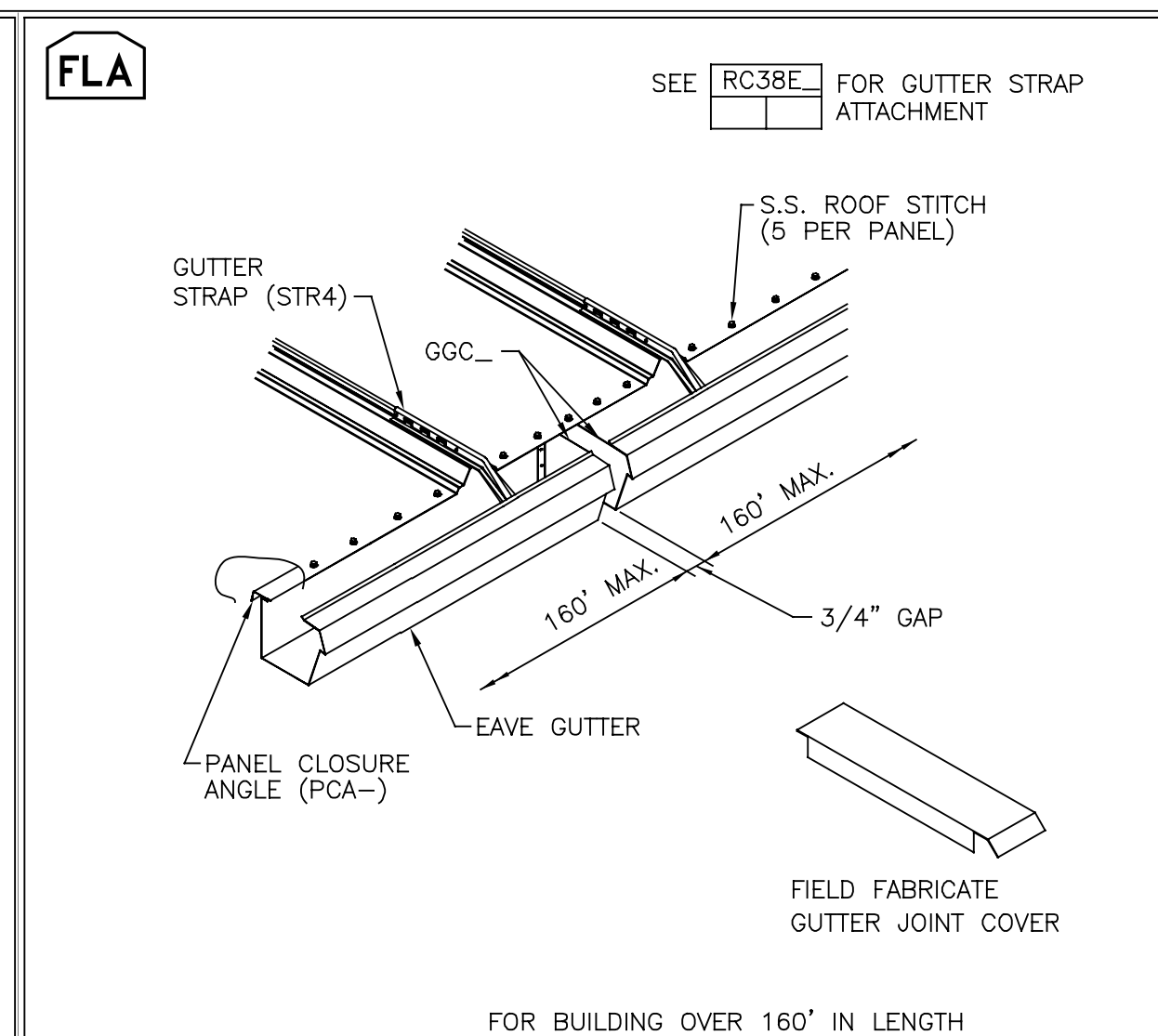
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RC38E1 GUTTER STRAP ATTACHMENT
 SSR ROOF (NON-ICE DAMMING)



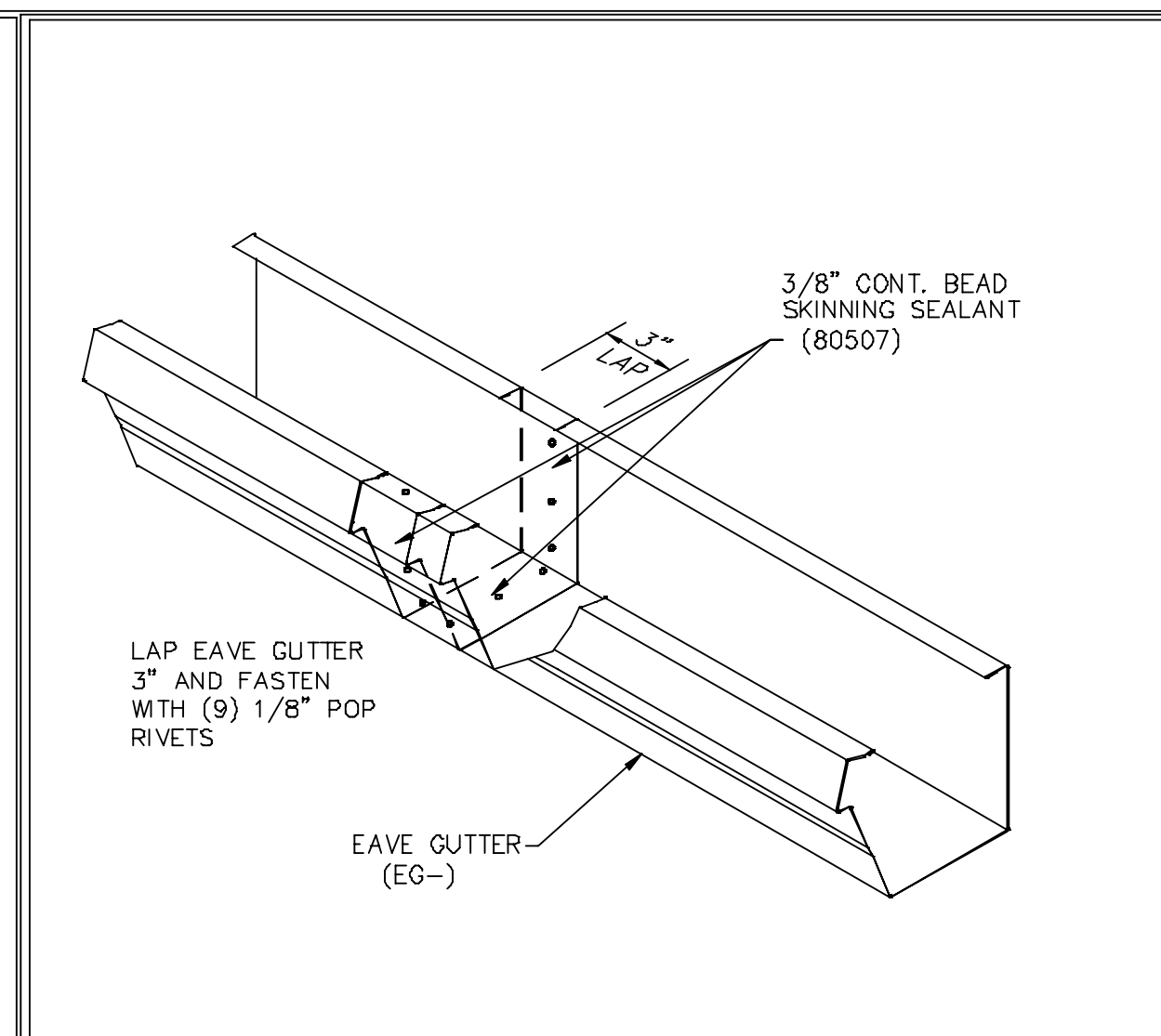
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RC38N1 EAVE GUTTER CORNER ASSEMBLY
 ALL SYSTEMS



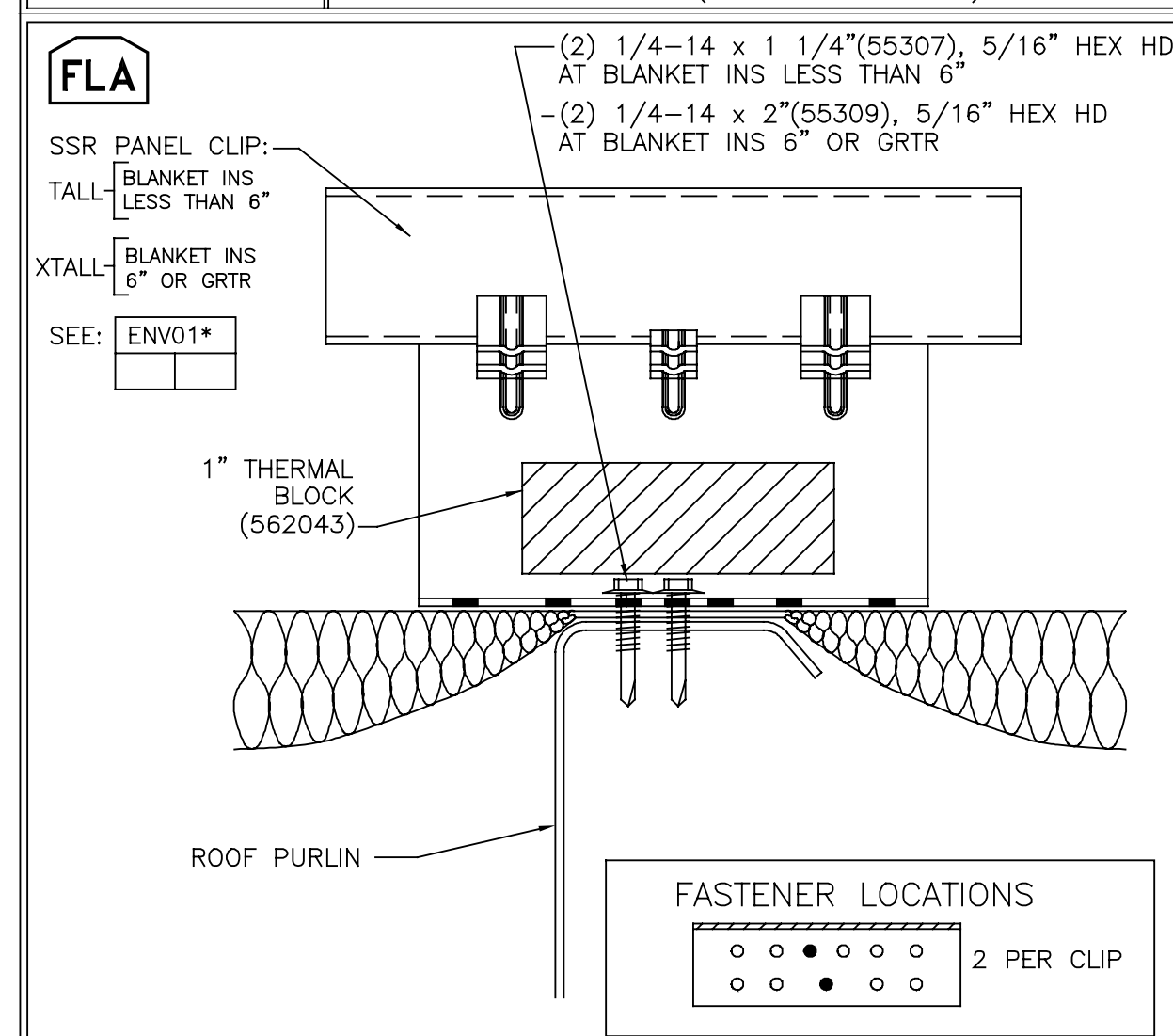
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RC38P1 DOWNSPOUT ASSEMBLY
 ALL SYSTEMS



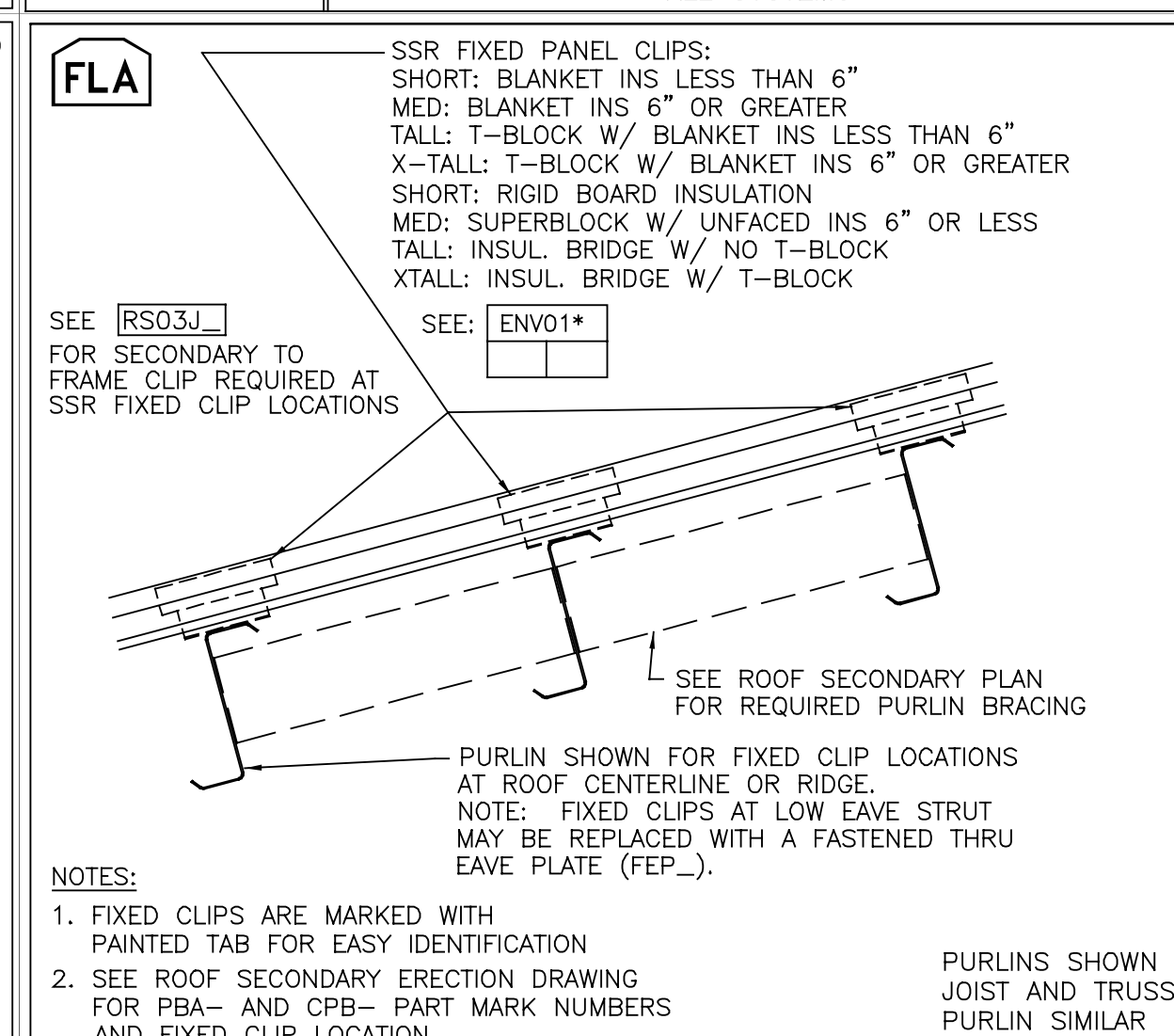
REV. DATE: 06/26/19 REV. NO. 01
RC61A6 SSR EAVE GUTTER EXPANSION JOINT
 FOR BUILDING OVER 160' IN LENGTH



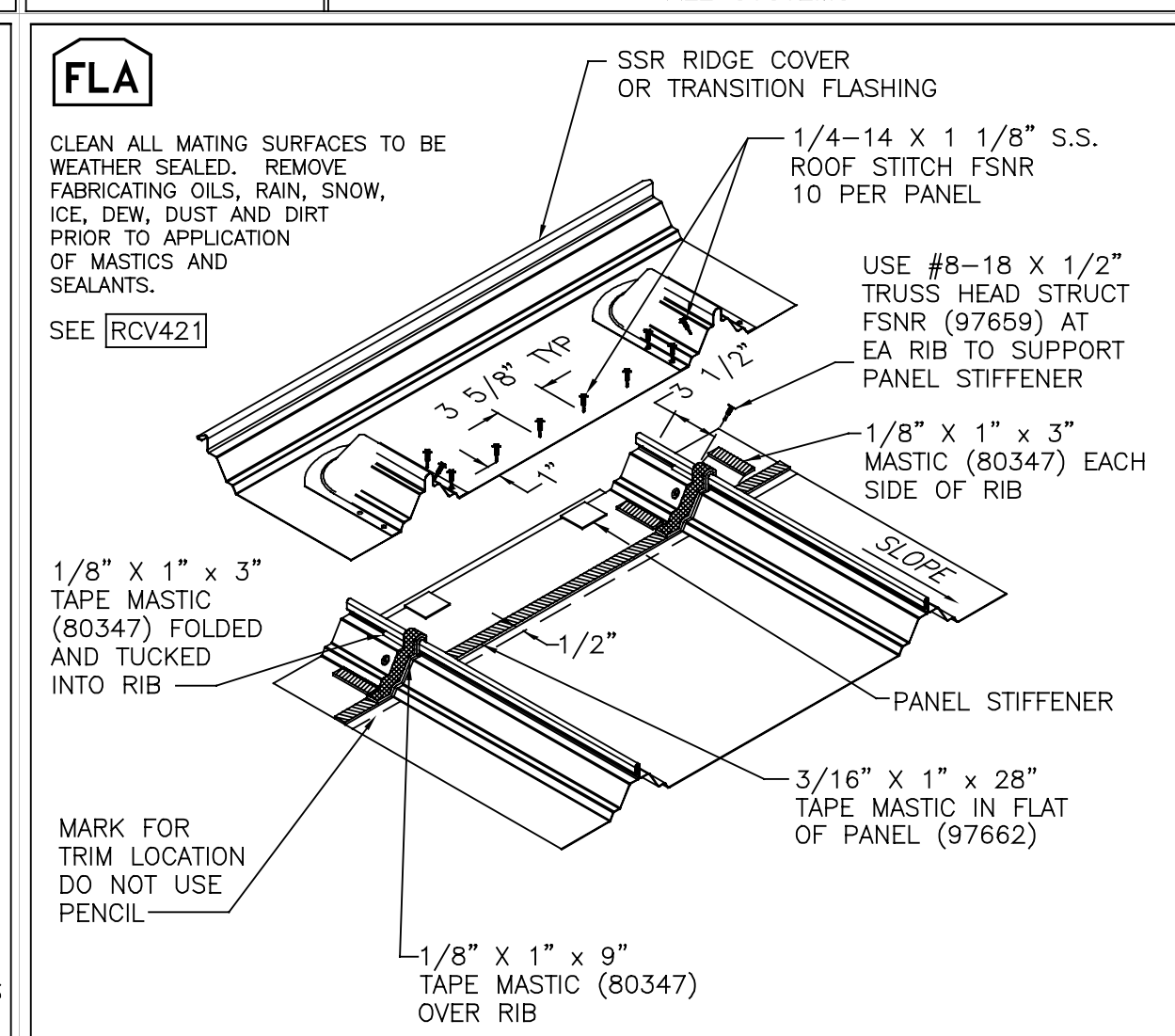
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RCV324 TRIM SPLICES
 EAVE GUTTER SPLICE



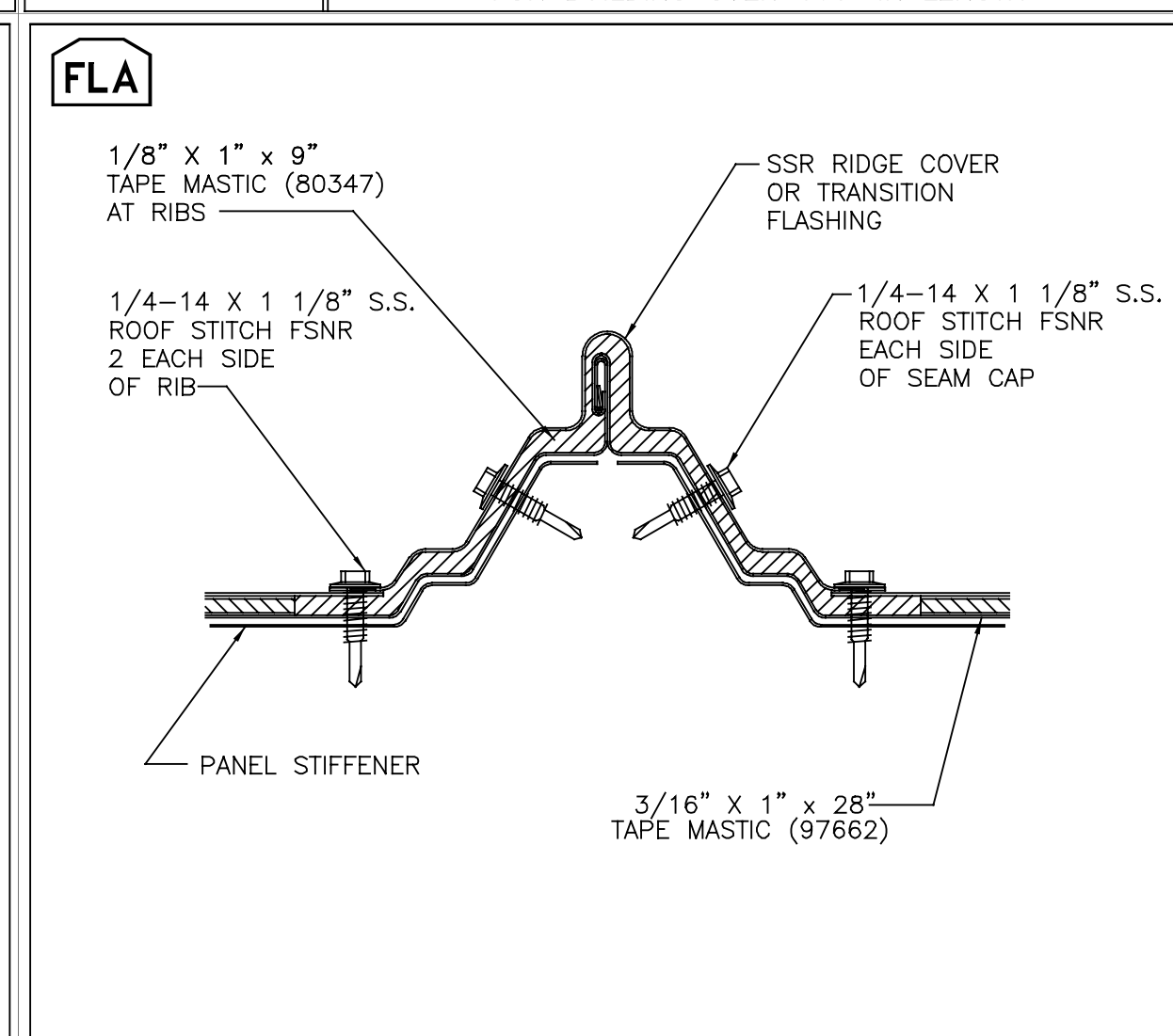
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RCV326 SSR PANEL CLIP ATTACHMENT
 THERMAL BLOCK INSULATION ON PURLINS



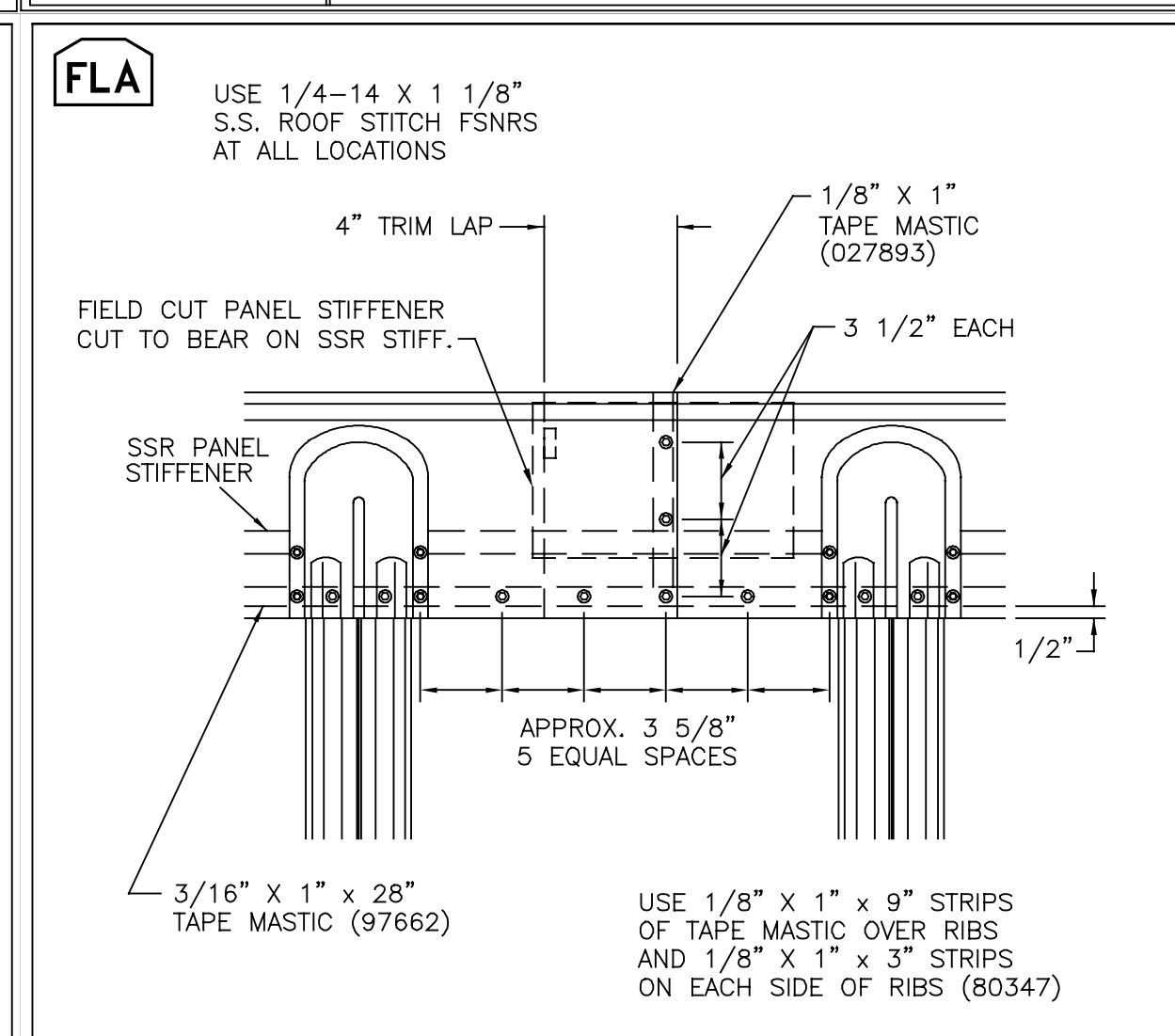
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RCV353 SSR FIXED PANEL CLIP
 BLANKET, T-BLOCK, S-BLOCK, R-BOARD, & BRIDGE



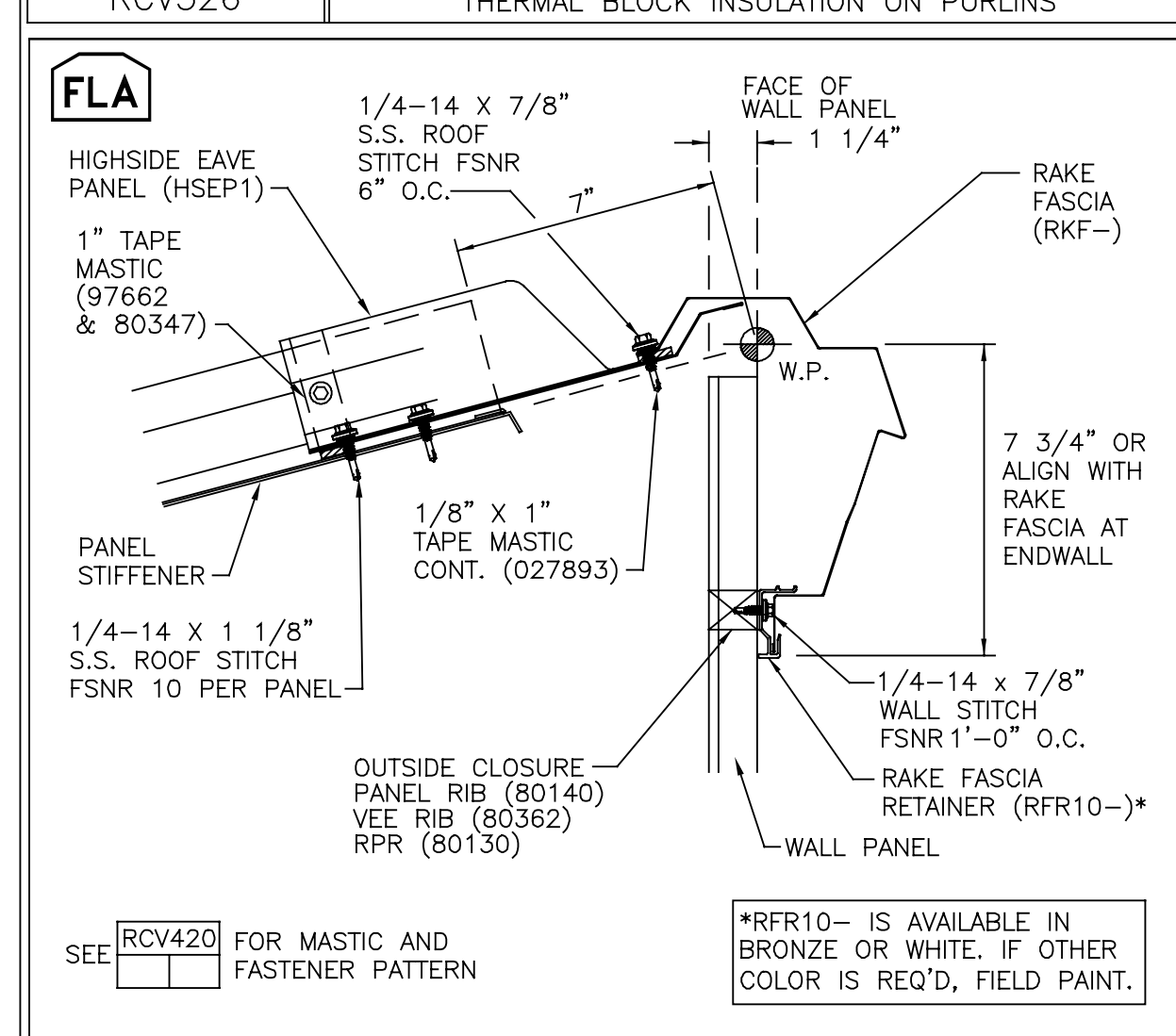
REV. DATE: 05/11/22 REV. NO. 05
RCV420 SSR RIDGE/TRANSITION FLASHING
 FASTENER AND MASTIC PATTERN



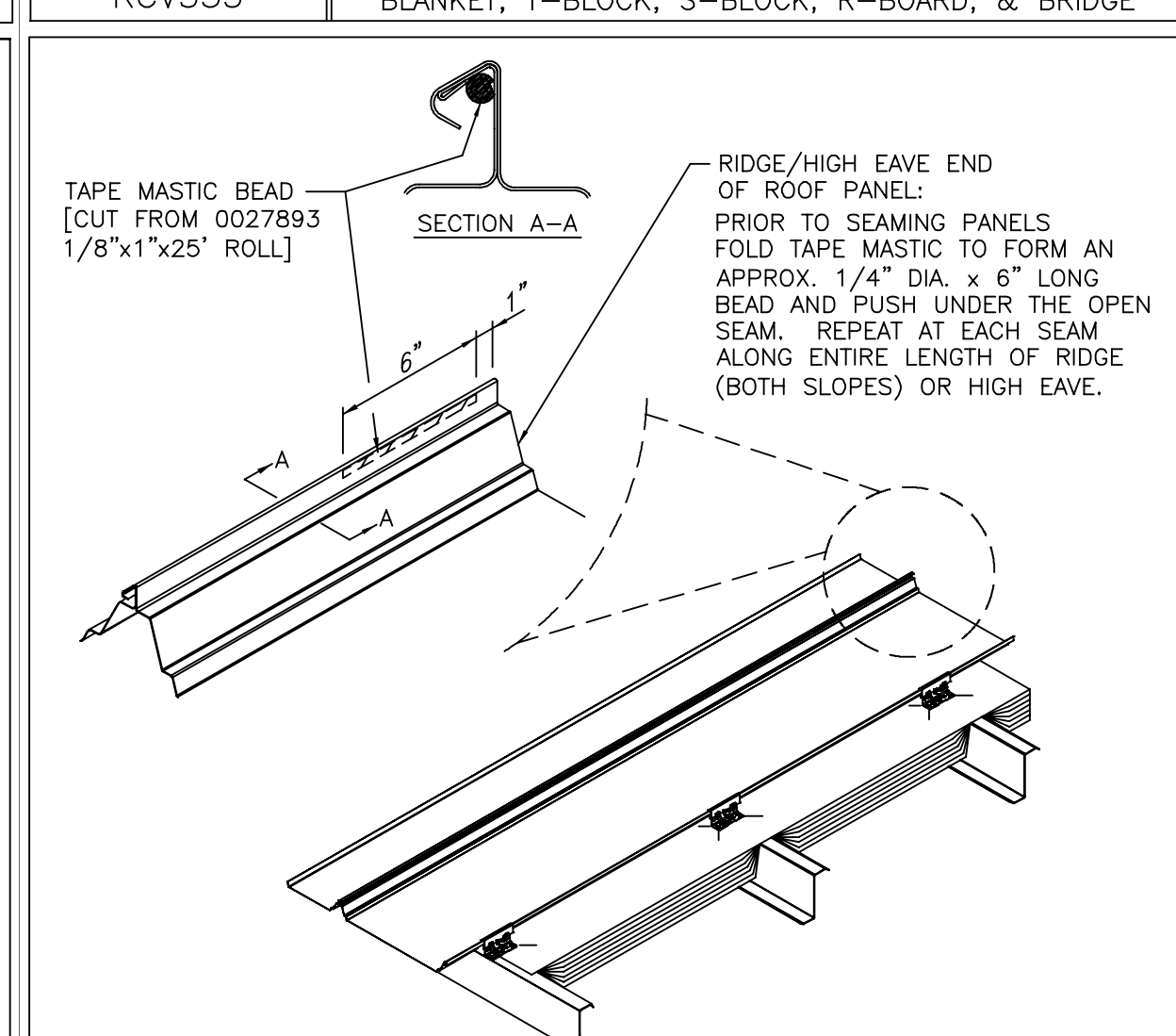
REV. DATE: 05/11/22 REV. NO. 04
RCV421 SSR SEAM CAP AT HIGH RIB
 SSR RIDGE/TRANSITION (FLEXIBLE OR METAL)



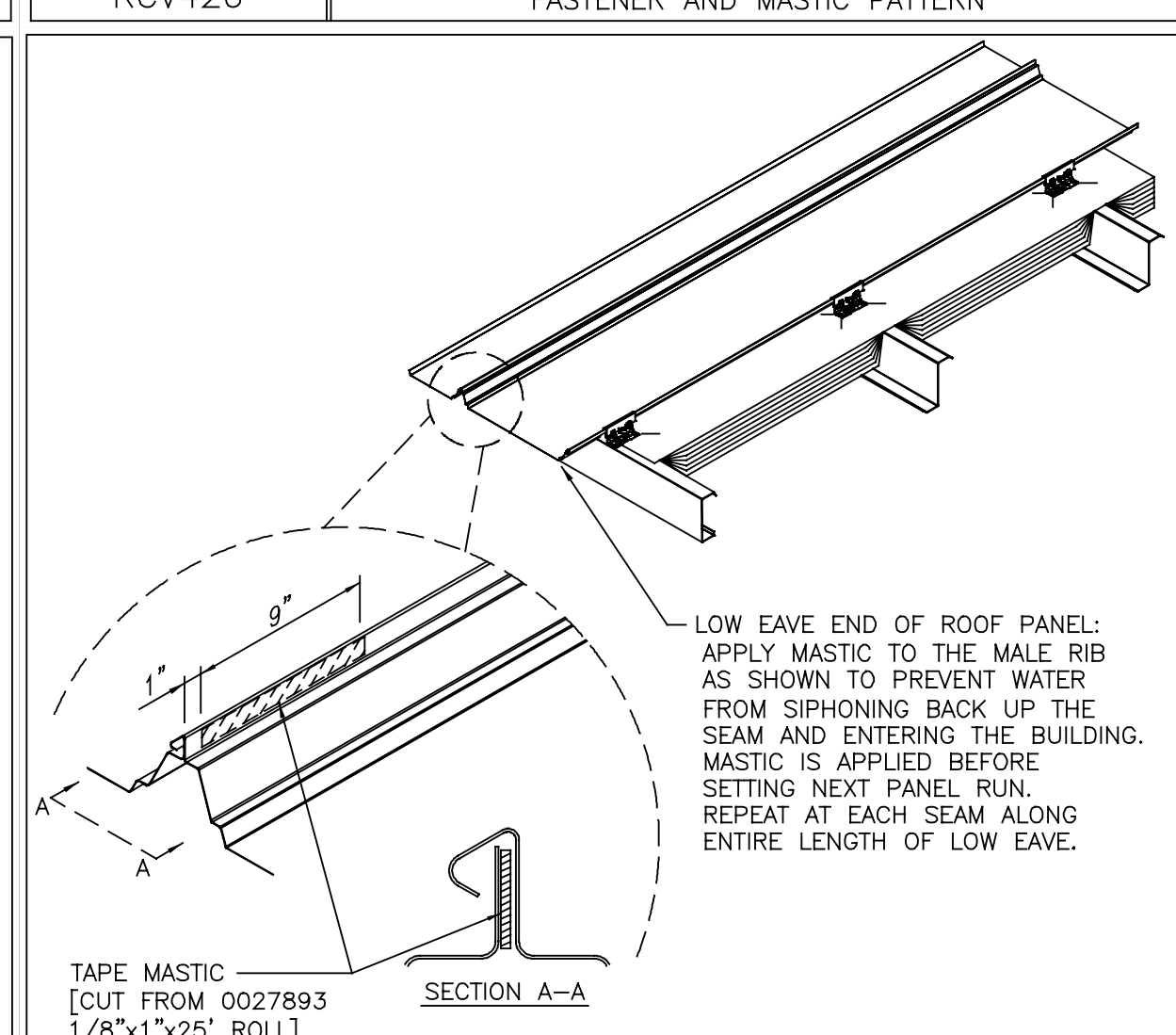
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RCV422 SSR SEAM CAP AT HIGH RIB
 SSR AT STEPPED ROOF (FLEXIBLE OR METAL)



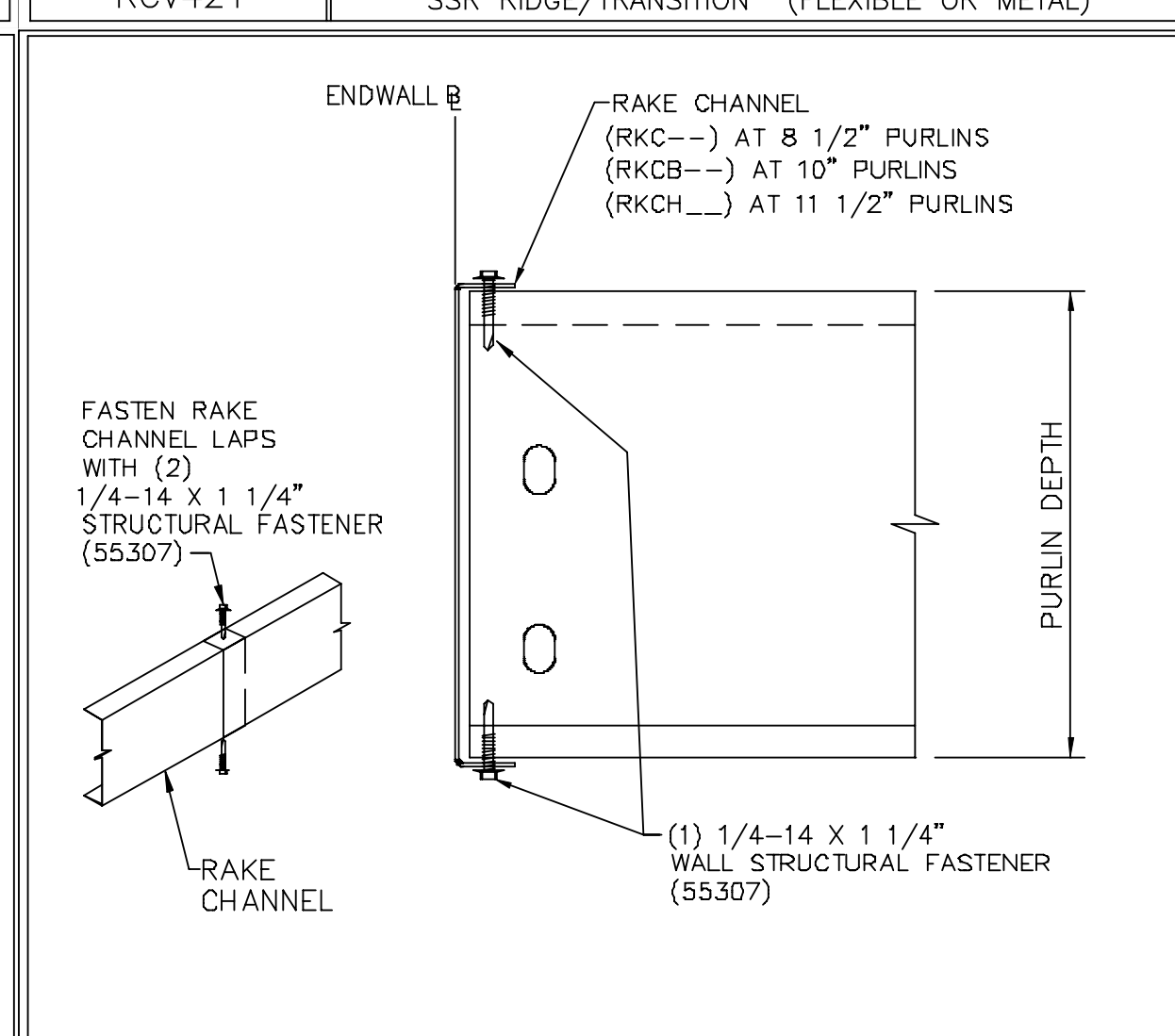
REV. DATE: 06/11/22 REV. NO. 04
RCV423 SSR HIGH EAVE FASCIA
 PR, VR OR RPR WALL



REV. DATE: 05/01/18 REV. NO. 00
RCV531 SSR SEAM MASTIC
 @ RIDGE/HIGH EAVE/WALL TO ROOF TRANSITION



REV. DATE: 06/28/19 REV. NO. 00
RCV536 SSR SEAM MASTIC
 @ LOW EAVE



REV. DATE: 04/27/18 REV. NO. 03
RST10L5 RAKE CHANNEL TO PURLIN
 SSR, SLR II - PURLIN (METAL WALLS)

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W. Jason Clymer
 PE
 040258
 02/01/2024

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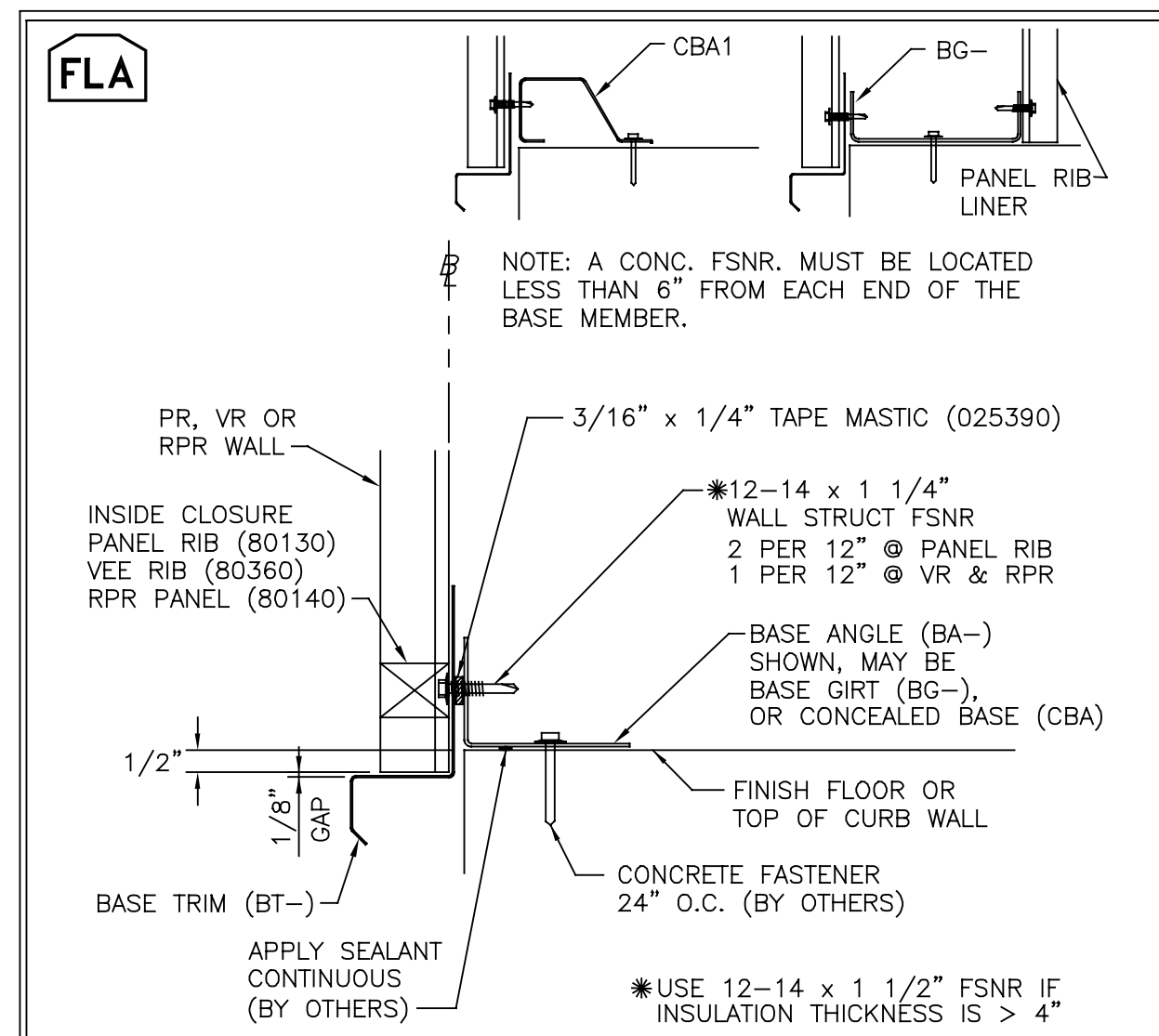
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REV	DATE	BY	DESCRIPTION

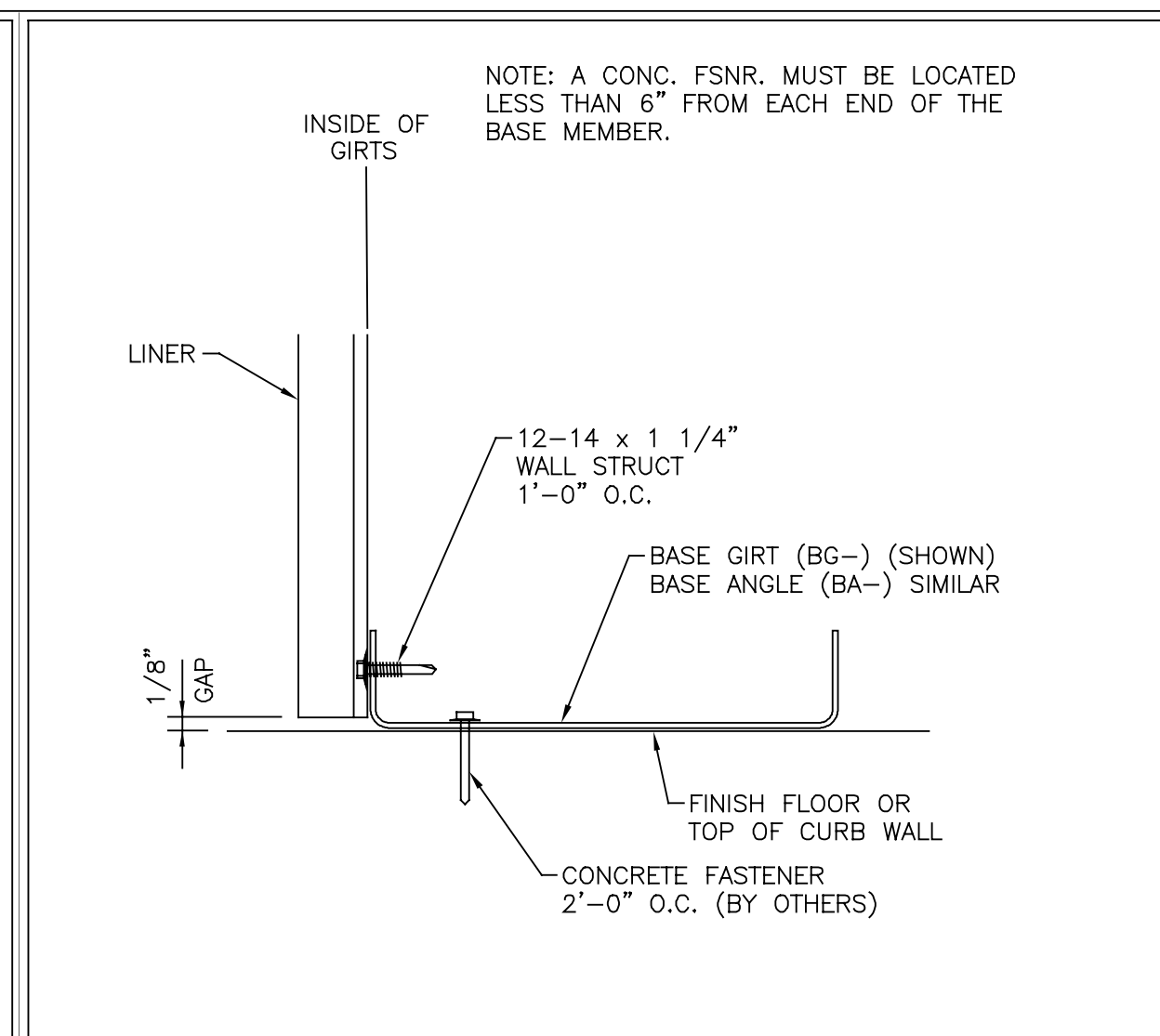
D VP Buildings			
3200 Players Club Circle Memphis TN 38125			
REV	DATE	BY	DESCRIPTION

COVERING & TRIM SED'S (b)	
BUILDER	Lemartec Corporation
CUSTOMER	Duke Energy
LOCATION	Dunn, North Carolina
PROJECT	Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#	23068 - Weld Shop
VP BUILDINGS	VARCO PRUDEN A BlueScope Steel Company
VPC VERSION:	2023.4a
FILENAME:	Duke Energy - Weld Shop
JOBNO	23-016000-01
DATE	01/31/2024
DRAWINGCHECK	MB WJC
PAGE	29



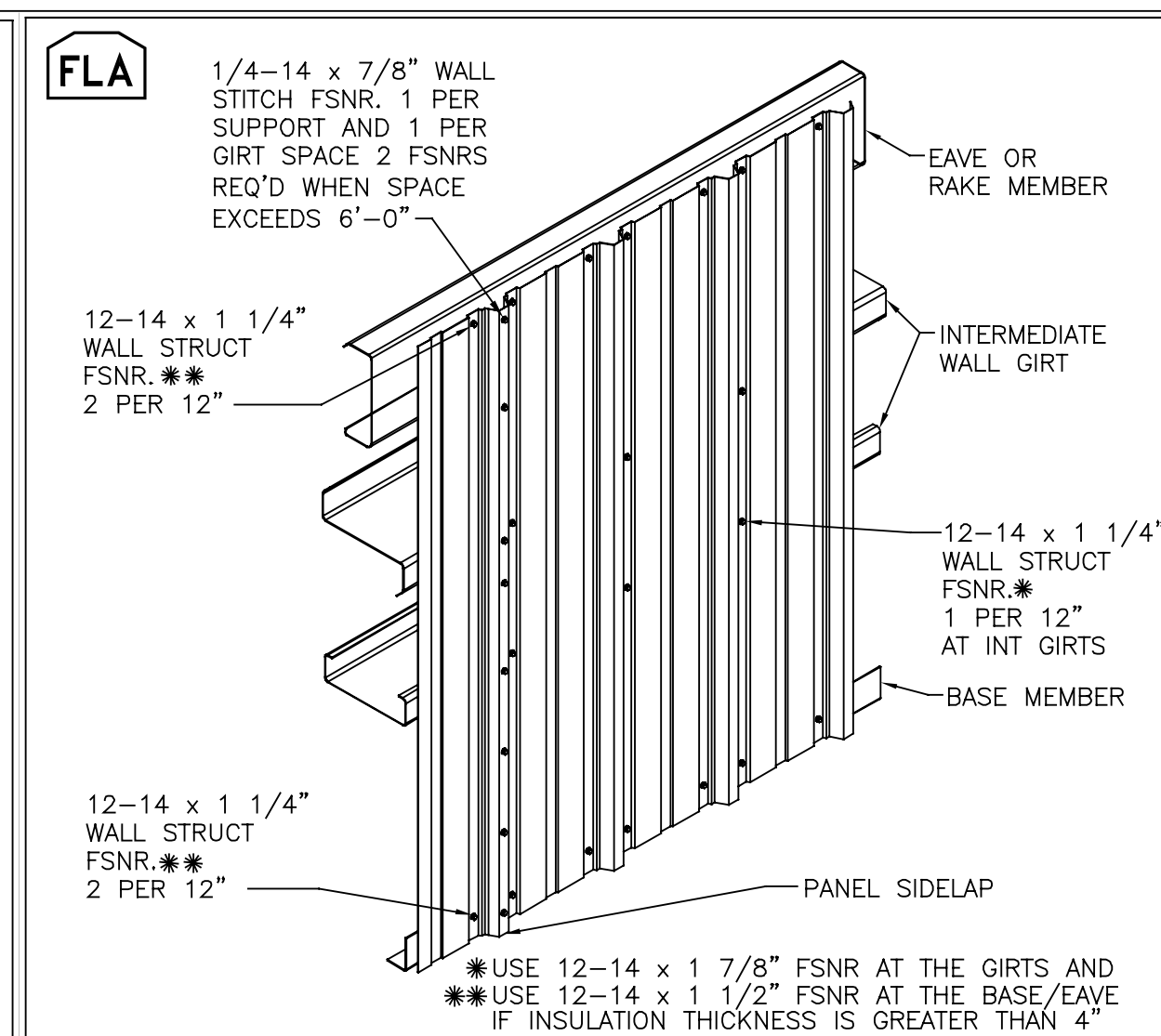
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WC01AB

BASE OF WALL ATTACHMENT
PR, VR OR RPR W/ BASE TRIM



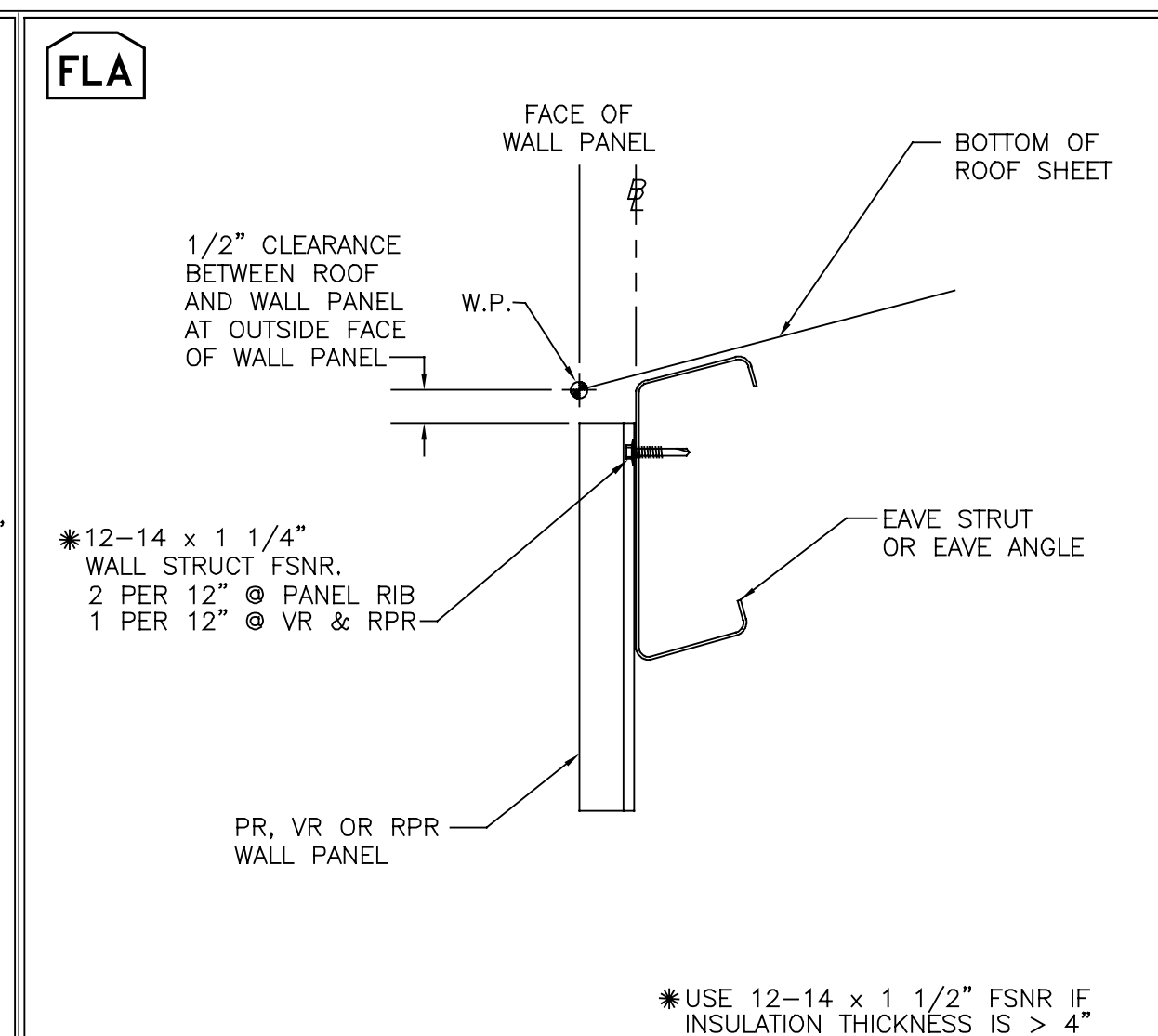
REV. DATE: 01/29/21 | REV. NO. 03
WC01JD

BASE OF LINER ATTACHMENT
LINER



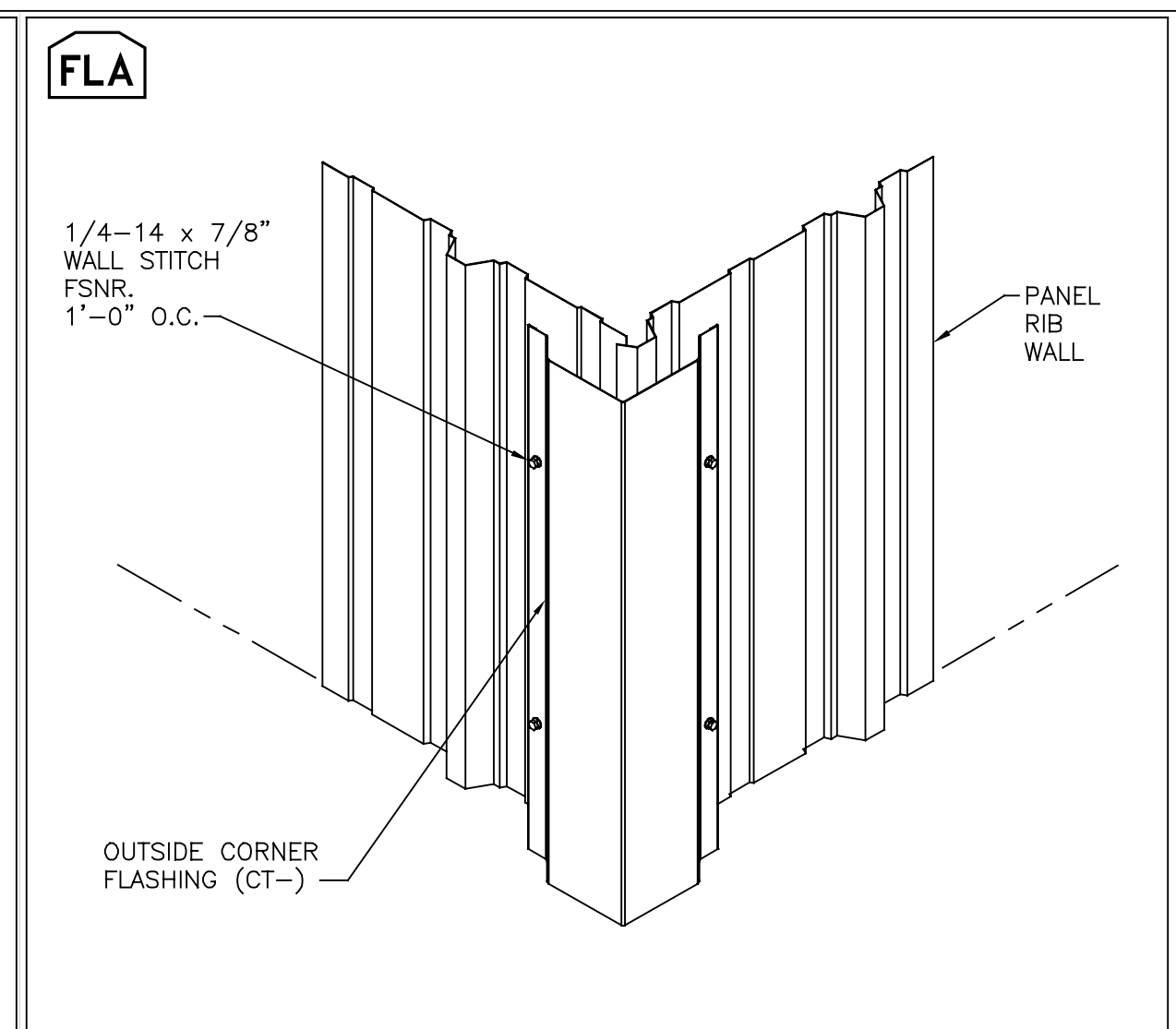
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WC04G1

PANEL RIB WALL
FASTENER PATTERNS



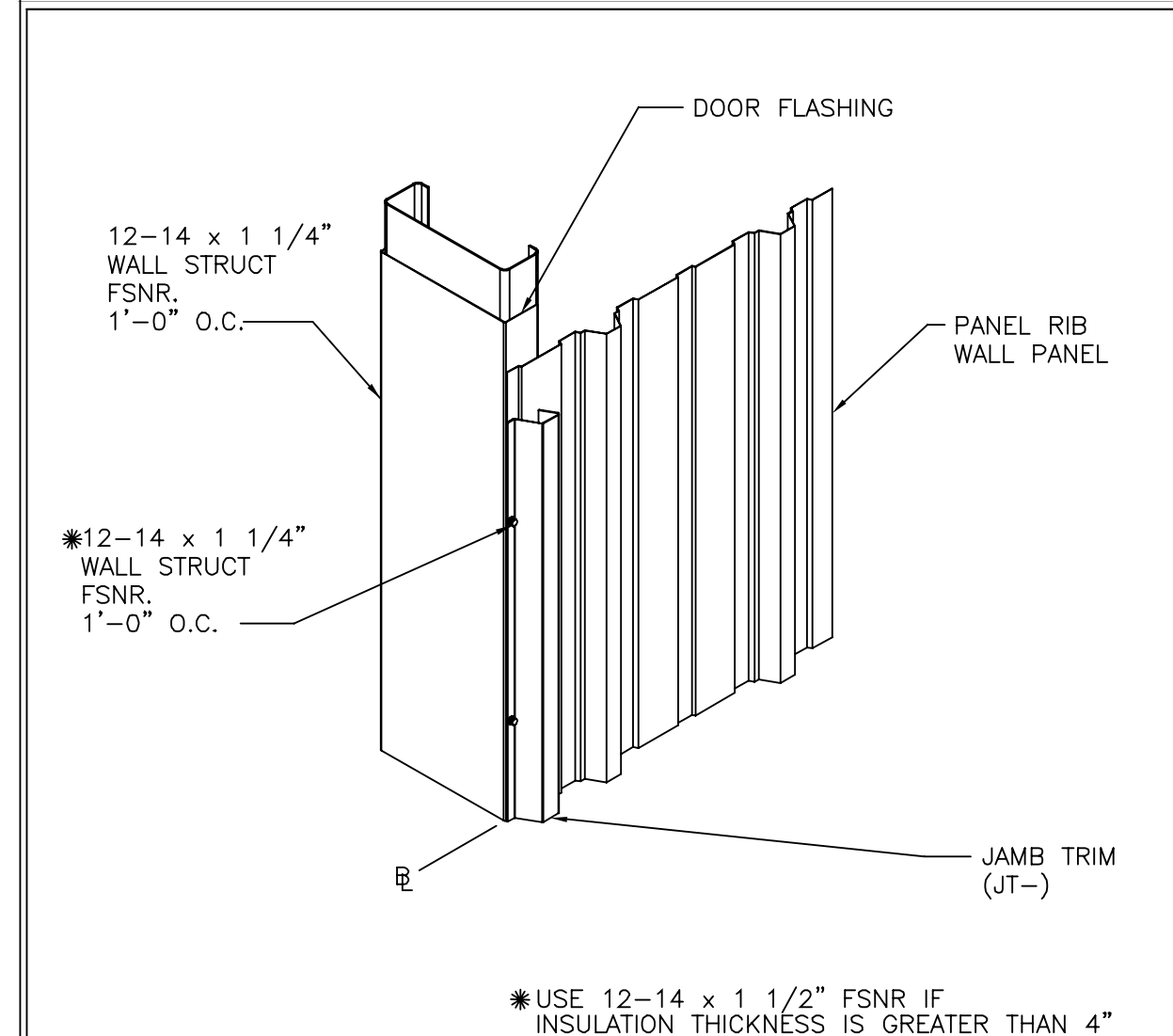
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WC11F1

PR, VR & RPR WALL AT EAVE
STANDARD EAVE MEMBER



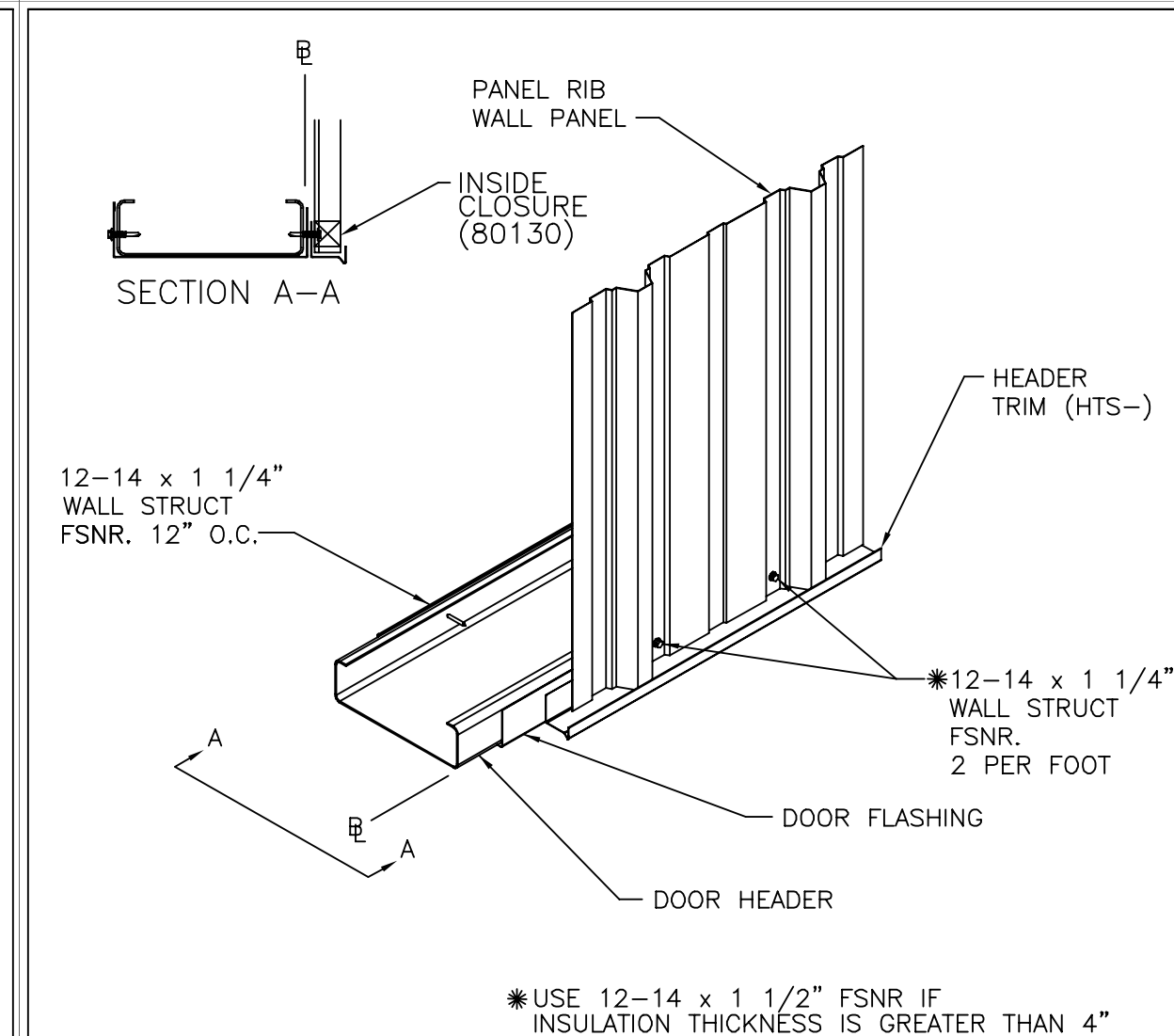
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WC20A1

OUTSIDE CORNER TRIM
PANEL RIB WALL



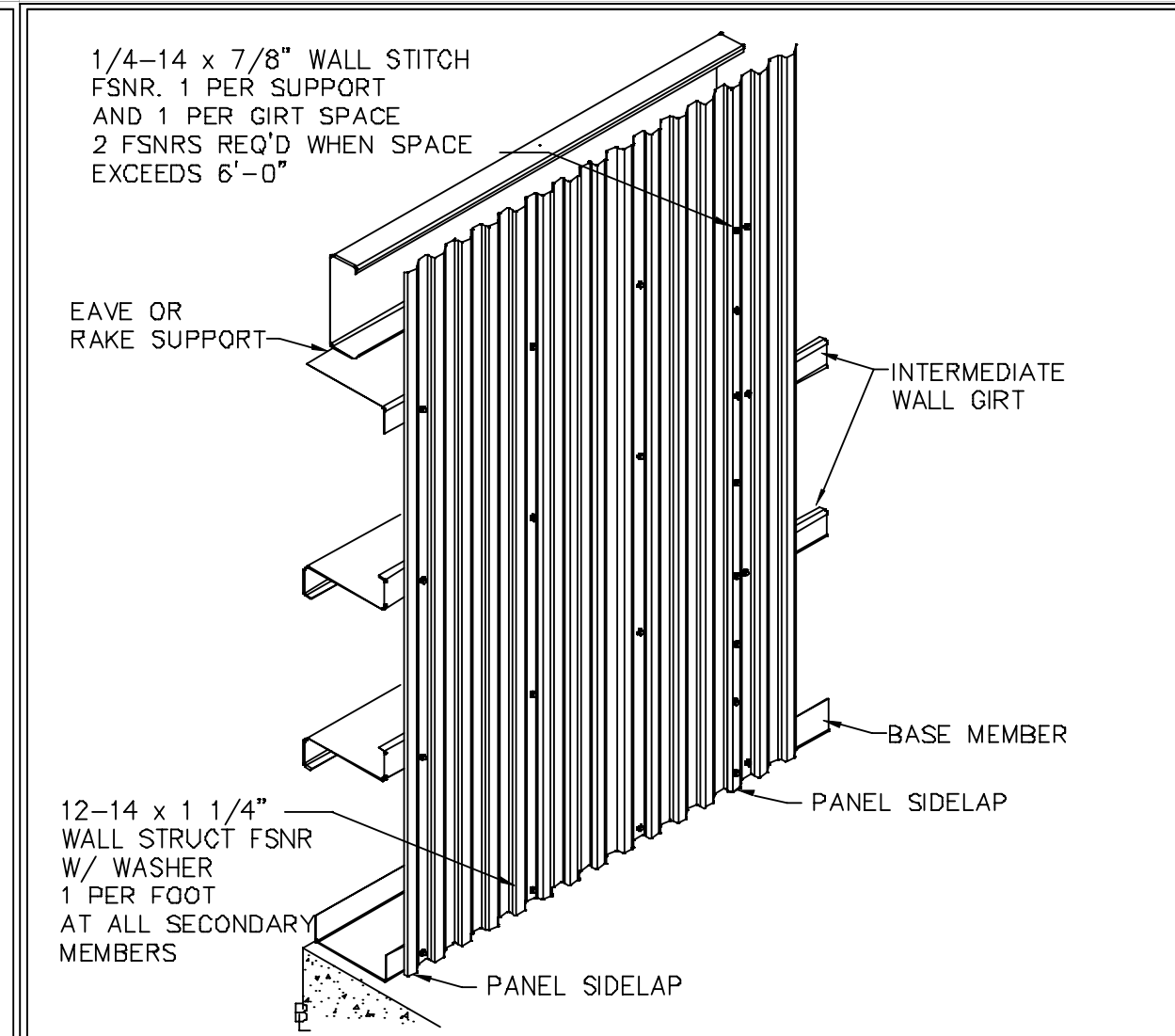
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WC24A1

JAMB TRIM AT OVERHEAD DOOR
PANEL RIB WALL



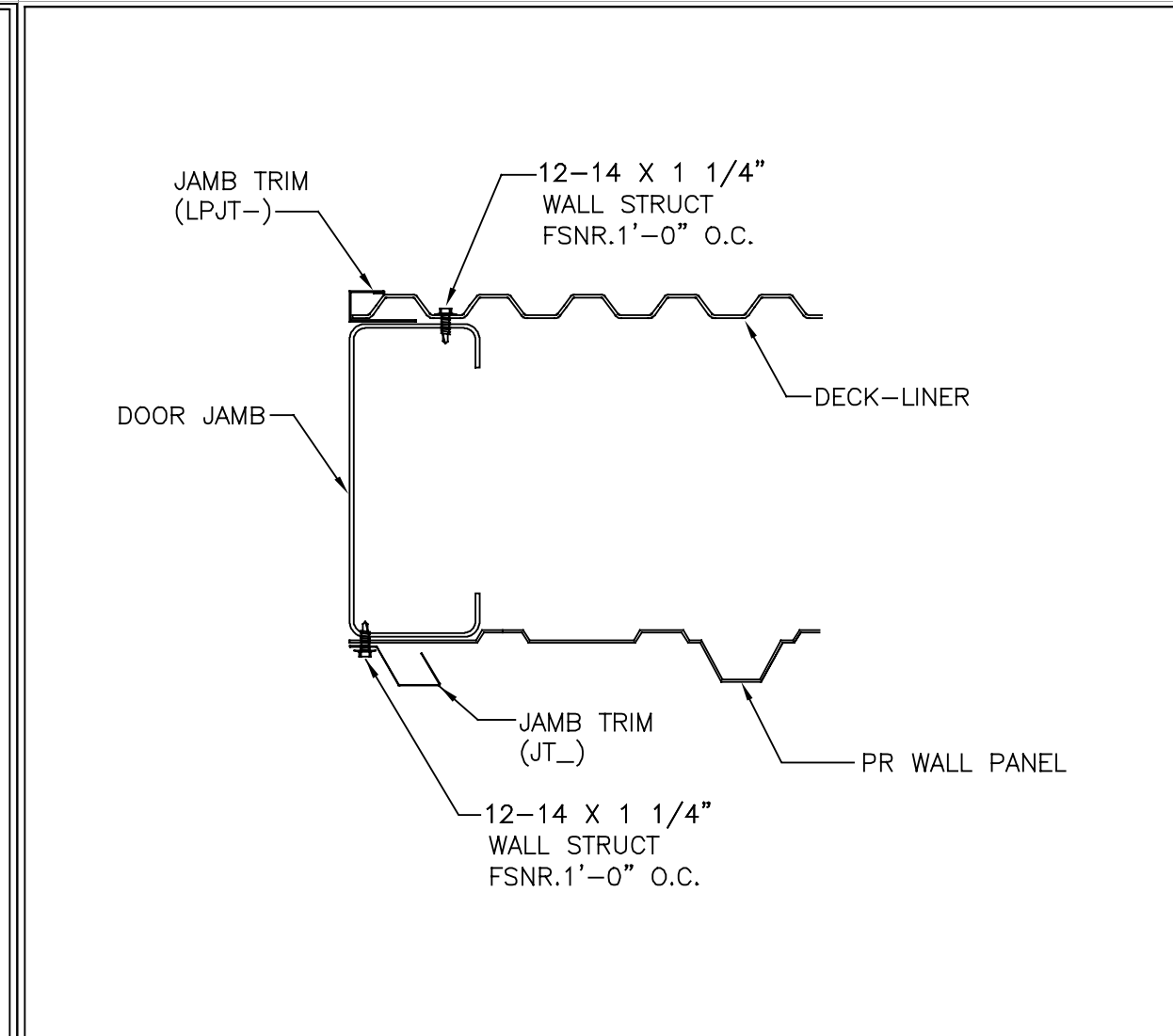
REV. DATE: 05/21/18 | REV. NO. 03
WC24A2

WALL TRIM AT DOOR HEAD
OVERHEAD DOOR OPENING



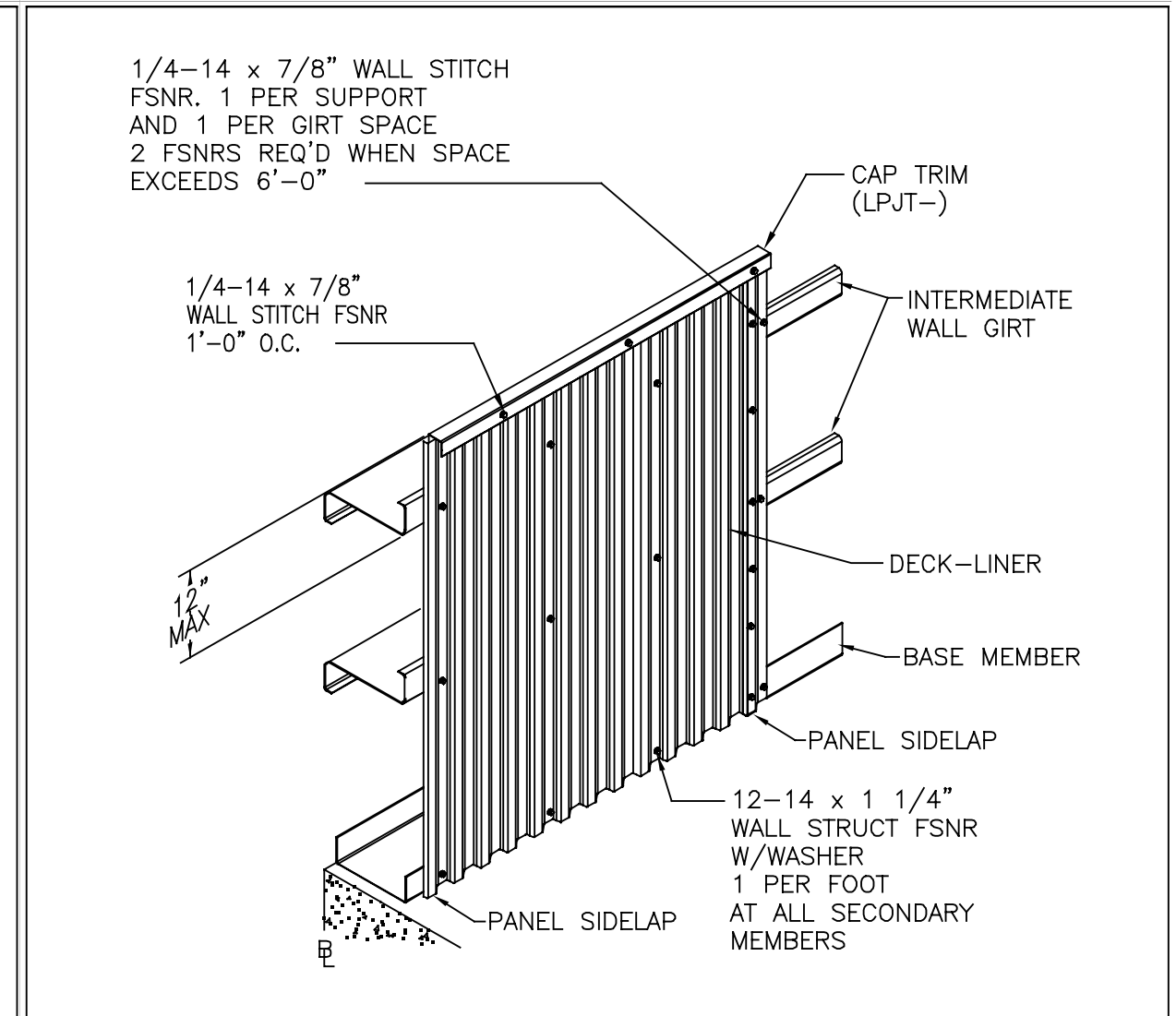
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WCV062

DECK-LINER
FASTENER PATTERNS



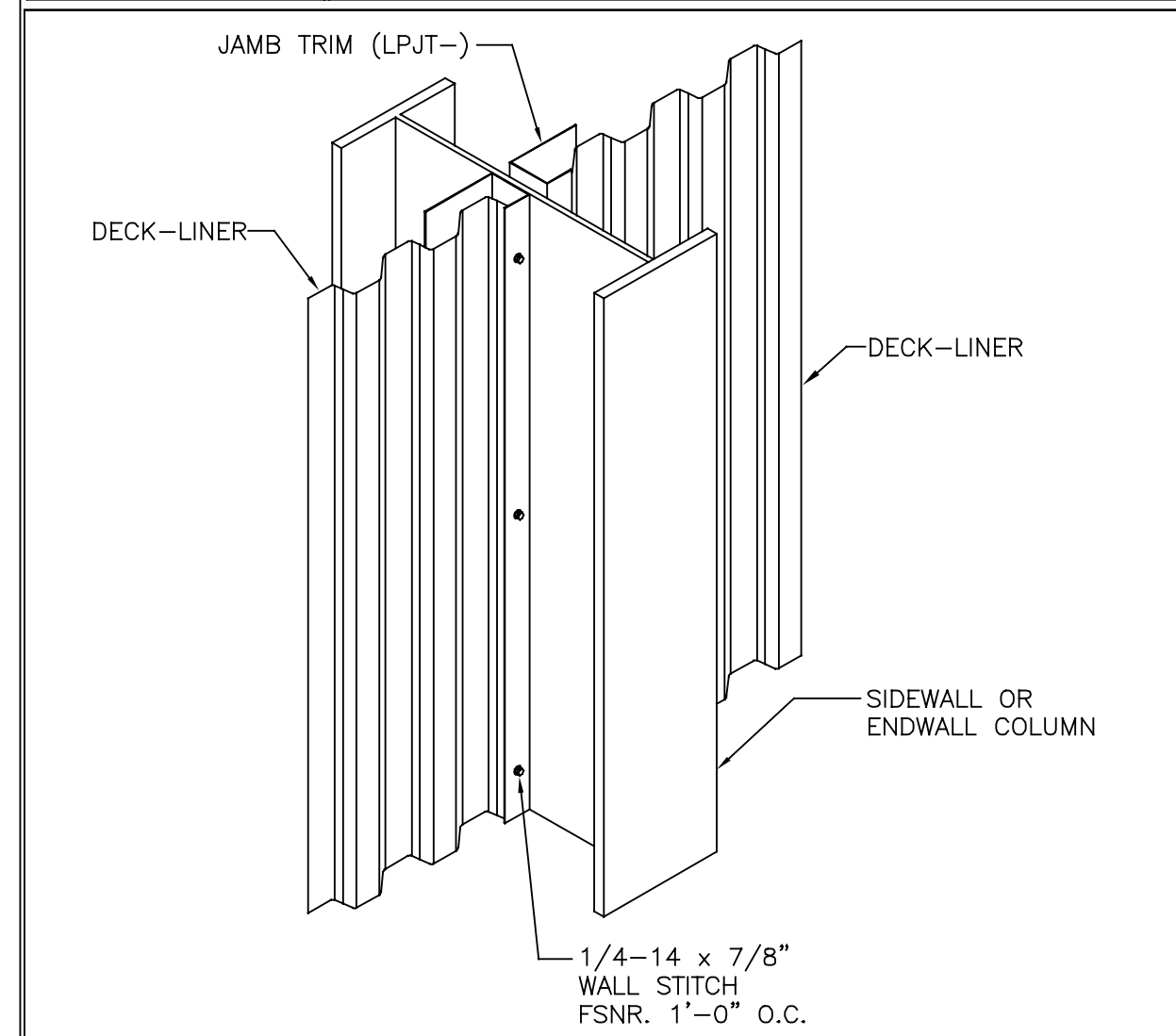
REV. DATE: 10/28/19 | REV. NO. 00
WLVO07

DECK-LINER JAMB TRIM AT OVERHEAD DOOR
PANEL RIB WALL



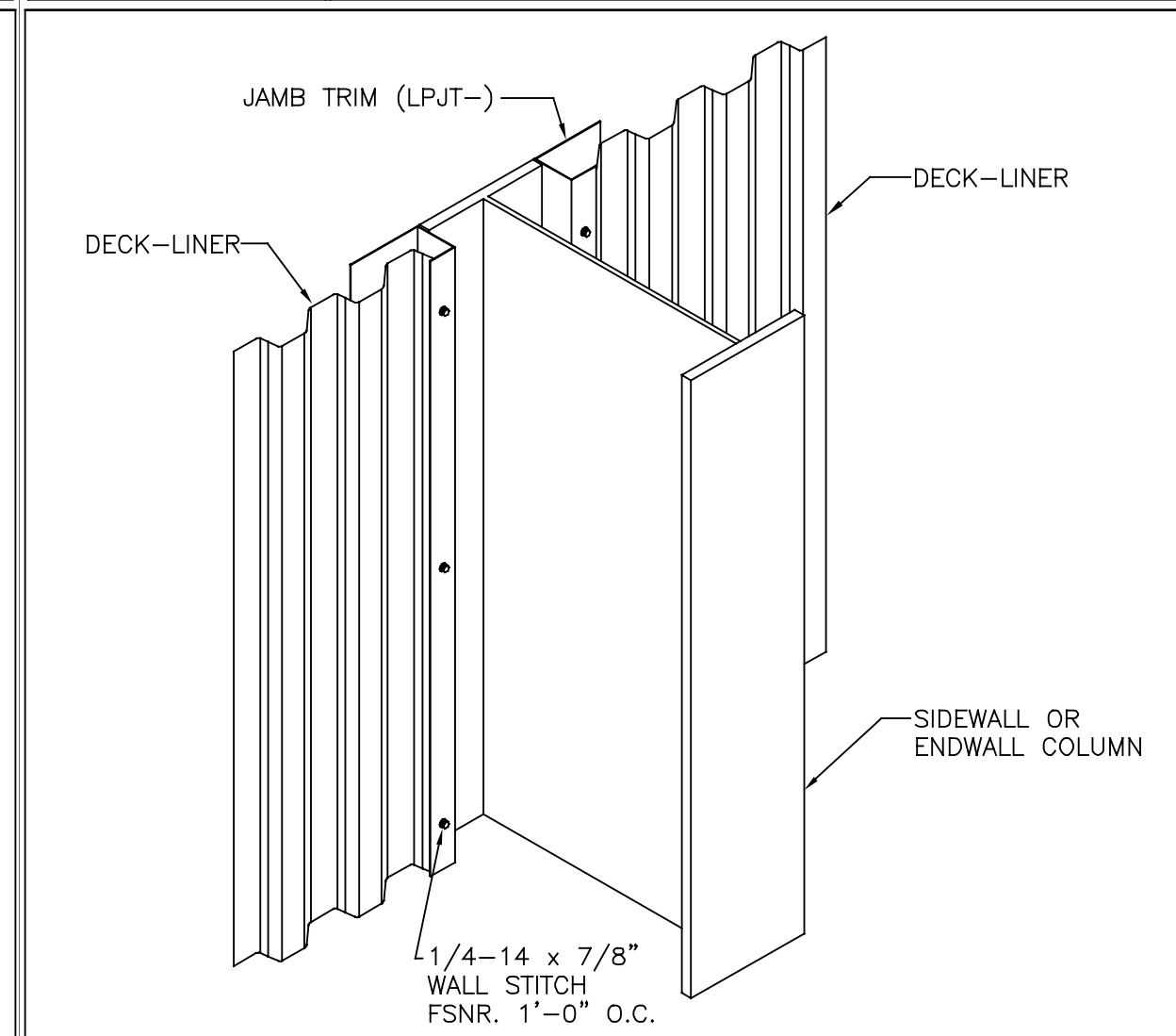
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WLVO13

DECK-LINER PANEL ATTACHMENT
PARTIAL HEIGHT LINER



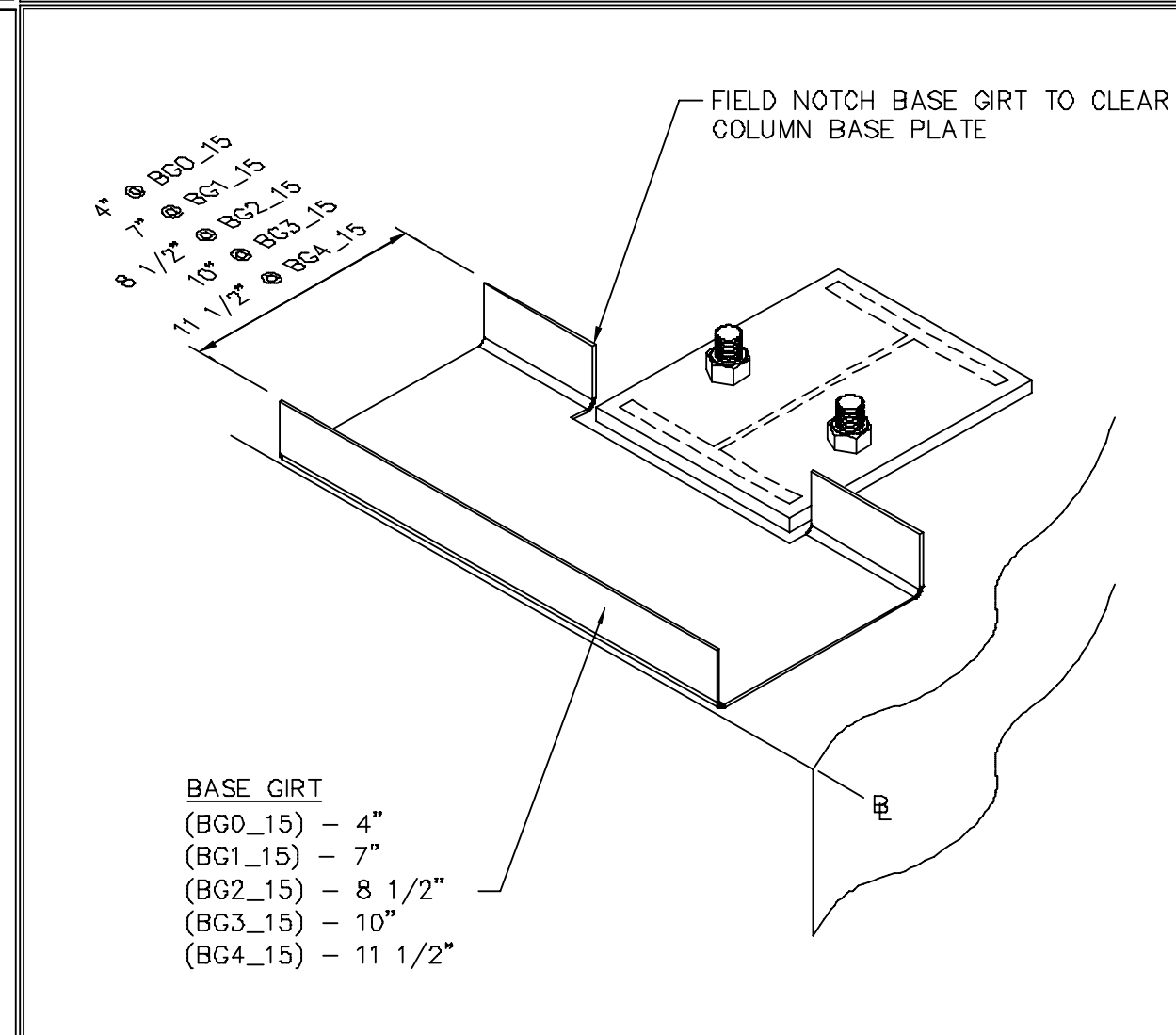
REV. DATE: 10/28/19 | REV. NO. 00
WLVO14

DECK-LINER PANEL ATTACHMENT
TRIM AT COLUMN; INSET WALL



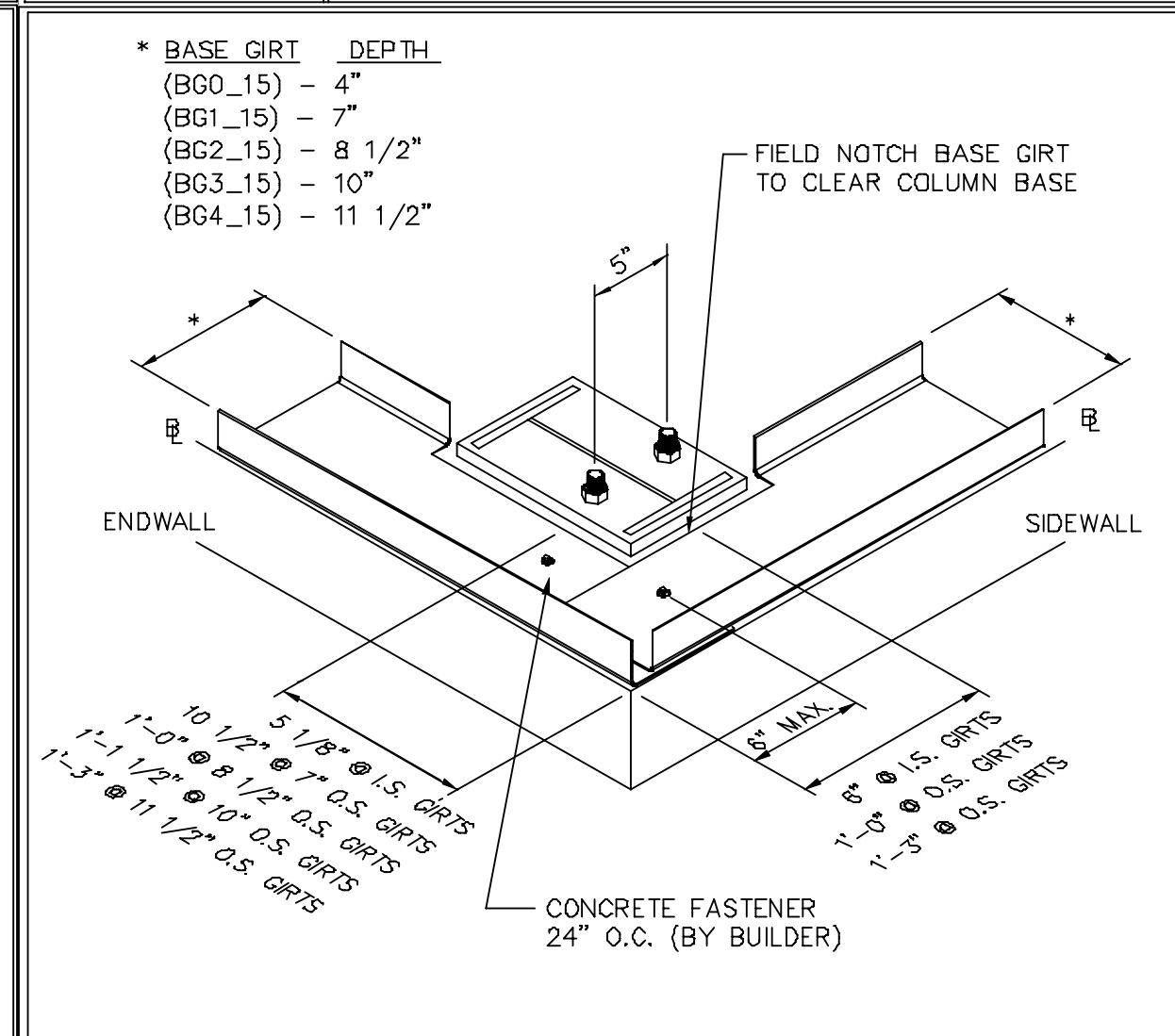
REV. DATE: 10/28/19 | REV. NO. 00
WLVO15

DECK-LINER PANEL ATTACHMENT
TRIM AT COLUMN; OUTSET WALL



REV. DATE: 08/11/13 | REV. NO. 01
WS27B2

BASE GIRTS AT COLUMN
ALL BASE GIRTS DEPTHS



REV. DATE: 06/13/13 | REV. NO. 01
WS27D2

BASE GIRTS AT CORNER COLUMN
ALL BASE GIRTS DEPTHS

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W. JASON CLYMER
PE
040258
02/01/2024

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D	VP Buildings	
	3200 Players Club Circle Memphis TN 38125	
REV	DATE	DESCRIPTION
NTS		
1/31/2024 SEDSheet 16:48:26		

BUILDER	Lemartec Corporation
CUSTOMER	Duke Energy
LOCATION	Dunn, North Carolina
PROJECT	Duke Energy Dunn Operations Center - Weld Shop
BUILDERS PO#	23068 - Weld Shop
FILENAME:	Duke Energy - Weld Shop

COVERING & TRIM SED'S (c)

VP BUILDINGS
VARCO PRUDEN
A BlueScope Steel Company

JOBNO: 23-016000-01
DATE: 01/31/2024
DRAWING/CHECK: MB WJC
PAGE: 30

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