APPROVED

ATMOS ENERGY CORPORATION
2# Systems will not be allowed unless proof of an appliance requiring a MINUMUM of over 7" W.C. is provided to Atmos Energy Corporation personnel for review.
Meter location must be approved by an Atmos Energy Corporation employee during a mandatory site visit to be scheduled after foundation is in place.
Meters will not be allowed under a shedding roofline or where overhanging snow is a danger to the meter set.

NORTH

40 0 40 80 120 Feet
(IN FEET)
1 inch = 40 ft.

RCRBD
RECORD
SET

PROPERTY DESCRIPTION:

THAT PARCEL OF LAND DESCRIBED IN DEED RECORDED APRIL 21, 1975 IN BOOK 403 AT PAGE 471 IN THE ROUTT COUNTY RECORDS;

COUNTY OF ROUTT, STATE OF COLORADO.

LEGEND:

PROPERTY BOUNDARY
ADJACENT PROPERTY BOUNDARY
EASEMENT
SECTION LINE
CENTERLINE
FOUND MONUMENT
FOUND SECTION CORNER
BUILDING
ROOF LINE/OVERHANG
DECK
WALL
FENCE
PROPOSED MAJOR CONTOUR
PROPOSED MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
ASPHALT
CONCRETE
GRAVEL
SIGN
PROPOSED SANITARY SEWER W/ MH
EXISTING SANITARY SEWER W/ MH
PROPOSED WATER
PROPOSED GV, FH & CS
EXISTING WATER
GAS
GAS METER AND MANHOLE/VAULT
CABLE
CABLE PEDESTAL
FIBER OPTIC
TELEPHONE
TELEPHONE PEDESTAL AND MANHOLE/VAULT
ELECTRIC
ELECTRIC PED, JUNCTION BOX AND METER
LIGHT POLE AND LIGHT POLE W/ MAST
PROPOSED DITCH / SWALE
UTILITY POLE AND GUY WIRE
DITCH/SWALE
EXISTING STORM SEWER W/ FES
PROPOSED STORM SEWER W/ FES
INLET AND STORM MANHOLE
OVERLAND AND CHANNEL FLOW ARROWS
CONIFEROUS AND DECIDUOUS TREE
PR — PROPOSED
EX — EXISTING

NOTES:

1. UTILITIES ARE SHOWN PER APPARENT SURFACE EVIDENCE TOGETHER WITH RECORD INFORMATION. IF MORE ACCURATE LOCATIONS OF UNDERGROUND UTILITIES ARE REQUIRED, THE UTILITY WILL HAVE TO BE VERIFIED BY FIELD POTHOLING. LANDMARK CONSULTANTS, INC. AND THE SURVEYOR OF RECORD SHALL NOT BE LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES.
2. ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND MONUMENT OR ACCESSORY, COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508, C.R.S.
3. THIS SITE CONTAINS A CALCULATED AREA OF 3.56 ACRES.
4. PORTIONS OF THE SUBJECT PROPERTY ARE LOCATED WITHIN FLOOD ZONE A, AREA SUBJECT TO THE 1% ANNUAL CHANCE FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED, BASED ON GRAPHIC INTERPRETATION OF THE F.E.MA. FLOOD INSURANCE RATE MAP NUMBER 08107C1039D, WITH AN EFFECTIVE DATE OF FEBRUARY 4, 2005.
5. THE MEASURED DISTANCES SHOWN HEREON ARE IN U.S. SURVEY FEET.

GIS/Addressing OK
EK 20160616

CIVIL ENGINEERS | SURVEYORS
141 9th Street ~ P.O. Box 774943
Steamboat Springs, Colorado 80477
(970) 871-9494
www.LANDMARK-CO.com
LANDMARK CONSULTANTS, INC.

NO.	DATE:	BY:	DESCRIPTION:
			REVIEW SET NOT FOR CONSTRUCTION XX/XX/XX

PROJECT:	1103-015
DATE:	5/20/16
DRAWN BY:	MG
CHECKED BY:	JAG

Routt County Road & Bridge Shops
Site Plan

SHEET
1
Of 1 Sheets

YAMPA VALLEY ELECTRIC ASSN. INC.
No changes to existing service or meter.
Approved: Jerry Nanio - YVEA.

Meter and meter panels are to be located as described by YVEA. They shall not be enclosed, covered or concealed. Violation shall result in termination of service.

RCRBD

RECORD SET

A METAL BUILDING FOR:

ROUTT COUNTY ROAD & BRIDGE

24500 COUNTY ROAD 27
OAK CREEK, COLORADO 80467

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN THE E½ OF SECTION 31,
TOWNSHIP 4 NORTH, RANGE 85 WEST OF THE 6TH P.M.
STATE OF COLORADO
ZONING = I

ELECTRICAL SUBJECT TO APPROVAL AT FIELD INSPECTION

YVE
YAMPA VALLEY ENGINEERING, INC.

STRUCTURAL
MECHANICAL
ENGINEERING
DESIGN
DRAFTING
SERVICES

JAMES STEGMAIER, P.E.
1794 KAMAR PLAZA
P.O. BOX 772192
STEAMBOAT SPRINGS, CO 80477
970-870-9229
yvengr@yvengr.com

PLANS FOR:
COUNTY METAL BUILDING
24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16-024
DRAWN: ECS
DATE: 05-20-2016

REVISIONS

NO.	DATE	DRAWN

SHEET NUMBER
T-1

GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE SPECIFIED AND IN ACCORDANCE WITH ALL APPLICABLE CODES, PERMITS AND LAWS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALL NEW CONSTRUCTION ON THE SITE

3. THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS BEFORE STARTING WORK. IF A DISCREPANCY APPEARS BETWEEN CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS, NOTIFY YAMPA VALLEY ENGINEERING AT ONCE.

4. THE JOB SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY CONDUCT. THE JOB SITE SHALL BE FREE OF DEBRIS AND TRASH. MATERIALS AND EQUIPMENT SHALL BE REASONABLY PLACED. EACH SUB-CONTRACTOR ON COMPLETION OF HIS/HER PHASE OF THE JOB SHALL REMOVE ALL DEBRIS, TRASH AND EQUIPMENT.

5. ALL MATERIALS AND EQUIPMENT ON THE JOB SITE SHALL BE STACKED AND PROTECTED PROPERLY TO PREVENT DAMAGES AND OR DETERIORATION.

6. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS. ALL DIMENSIONS ARE TO FACE OF FRAMING AND FACE OF CONCRETE. ALL INTERIOR STUDS ARE TO BE 2X4 UNLESS OTHERWISE NOTED. ALL EXTERIOR STUDS ARE TO BE 2X6 UNLESS OTHERWISE NOTED.

7. CONTRACTOR SHALL PROVIDE ALL BLOCKING, BACKING, AND FRAMING FOR LIGHT FIXTURES AND ELECTRICAL EQUIPMENT.

8. PROVIDE ALL ACCESS PANELS TO ALL ENCLOSED SPACES,VOIDS AND ATTICS AS REQUIRED BY GOVERNING CODES.

APPLICABLE CODES OF 2016

2009 INTERNATIONAL BUILDING CODE
2009 INTERNATIONAL MECHANICAL CODE
2009 INTERNATIONAL PLUMBING CODE
2009 INTERNATIONAL ENERGY CONSERVATION CODE
~~2001~~ NATIONAL ELECTRIC CODE
2014

CODE ANALYSIS

YAMPA VALLEY ENGINEERING
P.O. BOX 772192
STEAMBOAT SPRINGS, CO 80477
970-870-9229

PROJECT LOCATION: 24500 COUNTY ROAD 27

PROJECT DESCRIPTION: TO ADD A NEW METAL BUILDING TO THE EXISTING METAL BUILDING WITH AN 2-HOUR 12' X 12' RATED WELDING AREA AND AN ADDENDUM TO THE PREVIOUS PERMITTED BREAK ROOM

THIS CODE STUDY IS BASED ON THE 2009 INTERNATIONAL BUILDING CODE & 2009 INTERNATIONAL ENERGY CONSERVATION CODE

BASIC BUILDING DESCRIPTION:
TYPE OF CONSTRUCTION = IIIB-NON-SPRINKLERED
2-HOUR FIRE SEPARATION BETWEEN THE WELDING AREA AND THE REST OF THE BUILDING.

HEIGHT OF BUILDING:
ACTUAL HEIGHT OF BUILDING = 29'-6 1/4"+- FT. ALLOWED BUILDING HEIGHT = 55'-0"

SQUARE FOOTAGE
FIRST STORY-ACTUAL SQ.FT.=6,000. ALLOWED SQ.FT.=12,000

STORIES
ACTUAL STORIES = 1 ALLOWED STORIES = 2

EXIT/EGRESS
FIRST FLOOR:
VEHICLE REPAIR/WAREHOUSE: GROUP F-1 REQ'D EXITS = 2, ACTUAL EXITS = 2, MAX. TRAVEL DISTANCE = 75'-0"
ACTUAL MAX. TRAVEL DISTANCE = 75'-0"
DOOR SWING = ANY
WELDING AREA: GROUP H-3 REQ'D EXITS =1, ACTUAL EXITS = 2
2-HOUR FIRE SEPARATION BETWEEN ALL OTHER OCCUPANTS.

OCCUPANTS: = 6,000 SQ.FT/500 = 12 OCC.

VENTILATION REQUIREMENTS: VENTILATION REPAIR GARAGES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE. THE VENTILATION SYSTEM SHALL BE CONTROLLED AT THE ENTRANCE TO THE GARAGE.

ACCESSIBILITY REQUIREMENTS: AT GROUND LEVEL ENTRANCE AND A UNI-SEX A.D.A BATHROOM.

SHEET INDEX

R C R B D

RECORD SET

ARCHITECTURALS

STRUCTURALS & M.E.P.

PROPOSED PROJECT

VICINITY MAP
N

SYMBOLS

- WINDOW TAG
- DOOR ID (TOP) DOOR WIDTH (BOTTOM)
- SECTION MARK
- DETAIL NUMBER W/ SHEET NUMBER (1 / A-9)
- EXHAUST FAN
- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR
- FLOOR DRAIN (FD)
- ROOF SLOPE (X / 12)
- TOP OF ELEVATION (EL = 100'-0" T.O. PLYWOOD)

LEGEND

- 2x4 WALL
- 2x6 WALL
- 2-HOUR AREA RATED WALL

PROJECT DIRECTORY

OWNER
ROUTT COUNTY
P.O. BOX 773598
STEAMBOAT SPRINGS, CO 80477

CONTRACTOR
TYKE PIERCE
38615 KLIEN Rd
STEAMBOAT SPRINGS, COLORADO 80487
970-879-8568
tpierce@tykepierceconstruction.com

LICENSED DESIGN PROFESSIONAL & STRUCTURAL ENGINEER
YAMPA VALLEY ENGINEERING, INC.
1794 KAMAR PLAZA
P.O. BOX 772192
STEAMBOAT SPRINGS, COLORADO 80477
970-870-9229
yvengr@yvengr.com

ELECTRICAL SUBJECT TO APPROVAL AT FIELD INSPECTION

YVE
YAMPA VALLEY ENGINEERING, INC.

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PLANS FOR:

COUNTY METAL BUILDING

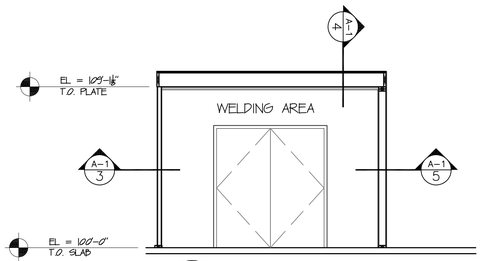
24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16-024
DRAWN: ECS
DATE: 05-20-2016

REVISIONS		
NO.	DATE	DRAWN

SHEET NUMBER

A-0



2 A-1 PROPOSED SECTION
SCALE 1/4" = 1'-0"

SHAFT WALLS

GA FILE NO. WP 7054.4	PROPRIETARY*	2 HOUR FIRE	50 to 54 STC SOUND

GYPSUM PANEL PRODUCTS, STEEL C-H, C-T, OR I STUDS

One layer 1" x 24" proprietary type X gypsum panels inserted between 2½" floor and ceiling J runners with T section of 2½" steel C-H, C-T, or I studs between panels.

OPPOSITE SIDE: **Base** layer 1/2" proprietary type X gypsum wallboard applied at right angles to studs with 1" Type S drywall screws 24" o.c. and 6" from floor and ceiling runners. **Face** layer 1/2" proprietary type X gypsum wallboard applied parallel to studs with 1⅝" Type S drywall screws 12" o.c. and 3" from floor and ceiling runners. Joints offset 24" from base layer joints.

Sound tested with 1½" glass fiber insulation friction fit in stud space. **(NLB)**

Thickness: 3½"
Approx. Weight: 9 psf
Fire Test: ITS, 8-30-01, ITS Design GP/WA 120-01
Sound Test: RAL TL09-060, 12-8-09)

PROPRIETARY GYPSUM PANEL PRODUCTS

Georgia Pacific Gypsum LLC - ½" ToughRock® Fireguard C® Gypsum Board
- 1" DensGlass® Shaftliner

PROVIDE STUD SIZE AND SPACING FOR SPAN, LOADS (VERTICAL AND HORIZONTAL) AND DEFLECTION.

3 A-1 2-HOUR RATED SHAFT WALL
NO SCALE

GA FILE NO. FC 5724	PROPRIETARY*	2 HOUR FIRE

WOOD FLOOR, WOOD JOISTS, GYPSUM WALLBOARD, RESILIENT CHANNELS

Base layer ⅝" proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to 2 x 10 wood joists 16" o.c. with 8d nails, 2½" long, 0,113" shank, ⁹/₃₂" heads, 7" o.c. Resilient furring channels 24" o.c. applied at right angles to joists through base layer with one 8d nail, 2½" long, 0,113" shank, ⁹/₃₂" head, at each joist. **Face** layer ⅝" proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to resilient furring channels with 1" Type S drywall screws 12" o.c. Double channel installed at face layer end joints. Wood joists supporting 1" nominal T & G wood subfloor and 1" nominal wood finish floor or ¹⁹/₃₂" plywood finished floor with long edges T & G and ¹⁹/₃₂" interior plywood with exterior glue subfloor perpendicular to joists with joints staggered.

Approx. Ceiling Weight: 6 psf
Fire Test: UL R2717-35, 10-21-64, UL Design L505; ULC Design M503

PROPRIETARY GYPSUM BOARD

American Gypsum Company LLC	-	⅝" FireBloc® Type C
CertainTeed Gypsum Inc.	-	⅝" ProRoc® Type C Gypsum Panels
Georgia-Pacific Gypsum LLC	-	⅝" ToughRock® Fireguard C™
Lafarge North America Inc.	-	⅝" Firecheck® Type C
National Gypsum Company	-	⅝" Gold Bond® Brand FIRE-SHIELD C™ Gypsum Board
PABCO Gypsum	-	⅝" FLAME CURB® Super 'C'™
Temple-Inland	-	⅝" TG-C

PROVIDE JOIST SIZE AND SPACING FOR SPAN AND SPECIFY DESIGN LOADS.

4 A-1 2-HOUR RATED FLOOR CEILING
NO SCALE

WALLS AND INTERIOR PARTITIONS, WOOD FRAMED

GA FILE NO. WP 4136	GENERIC	2 HOUR FIRE	40 to 44 STC SOUND

GYPSUM WALLBOARD, WOOD STUDS

Base layer ⅝" type X gypsum wallboard or veneer base applied parallel or at right angles to each side of 2 x 4 wood studs 16" o.c. with 1¼" Type W drywall screws 12" o.c. **Face** layer ⅝" type X gypsum wallboard or veneer base applied parallel or at right angles to each side with 1⅞" Type W drywall screws 12" o.c. and offset 6" from screws in base layer.

Joints staggered 16" each layer and side. **(LOAD-BEARING)**

Thickness: 6⅛"
Approx. Weight: 12 psf
Fire Test: SWRI 01-5920-614, 12-5-94
Sound Test: See WP 4135 (NGC 2363, 4-1-70)

5 A-1 2-HOUR RATED WALL
NO SCALE

SHOW WHERE USED ON PLAN.

80' OVERALL
22'-4" 3' 2'-8" 24' 28' OPENINGS

24'0"

RCRBD
RECORD SET

GARDEN HOSE BIB

GARDEN HOSE BIB

3'0" 6'8"

BUILDING ENVELOPE REQUIREMENTS
THE FIRST LAYER OF R-13 INSULATION BATTS IS INSTALLED CONTINUOUSLY PERPENDICULAR TO THE GIRTS, AND IS COMPRESSED AS THE METAL SKIN IS ATTACHED TO THE GIRTS. THE SECOND LAYER R-13 INSULATION BATTS IS INSTALLED WITHIN THE FRAMING CAVITY.

PROPOSED METAL BUILDING FOR ROUTT COUNTY ROAD & BRIDGE
METAL BUILDING BY OLYMPIA STEEL BUILDINGS
6,000 SQFT.

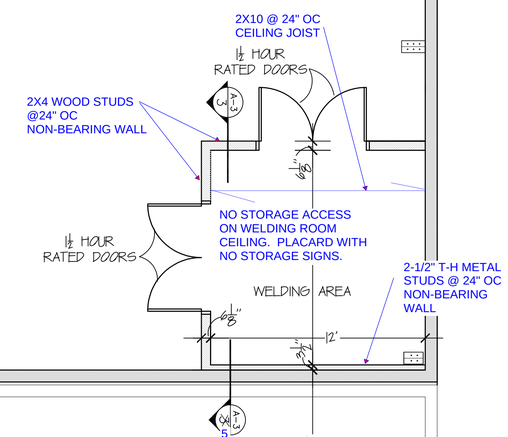
75'

MECHANIC AREA

REMOVE EXISTING MAN DOOR

20'0"

2'



1 A-1 PROPOSED MAIN LEVEL FLOOR PLAN
SCALE 1/4" = 1'-0"

CONTRACTOR TO VERIFY EXISTING DIMENSIONS IF DISCREPANCIES ARISE, NOTIFY YAMPA VALLEY ENG. PRIOR TO CONSTRUCTION

YVE
YAMPA VALLEY ENGINEERING, INC.

STRUCTURAL
MECHANICAL
ENGINEERING
DESIGN
DRAFTING
SERVICES

JAMES STEGMAIER, P.E.
1794 KAMAR PLAZA
P.O. BOX 772192
STEAMBOAT SPRINGS, CO 80477
970-870-9229
yvengr@yvengr.com

PLANS FOR:
COUNTY METAL BUILDING
24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16-024
DRAWN: ECS
DATE: 06-07-2016

REVISIONS

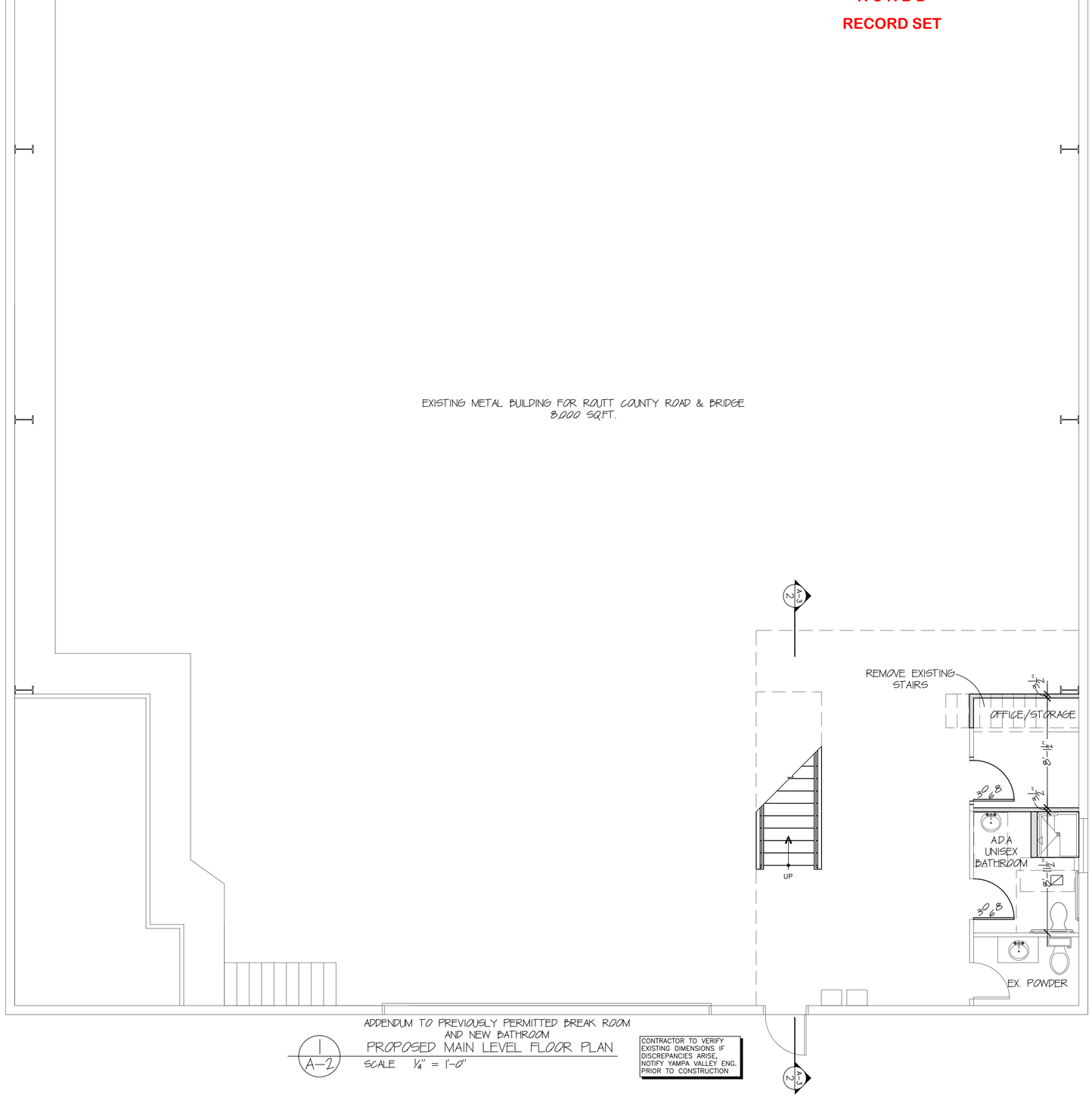
NO.	DATE	DRAWN

SHEET NUMBER
A-1

RCRBD

RECORD SET

EXISTING METAL BUILDING FOR ROUTT COUNTY ROAD & BRIDGE
8,000 SQ.FT.



1 / A-2 ADDENDUM TO PREVIOUSLY PERMITTED BREAK ROOM AND NEW BATHROOM
PROPOSED MAIN LEVEL FLOOR PLAN
SCALE 1/4" = 1'-0"

CONTRACTOR TO VERIFY EXISTING DIMENSIONS IF DISCREPANCIES ARISE, NOTIFY YAMPA VALLEY ENG. PRIOR TO CONSTRUCTION

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PLANS FOR:

COUNTY METAL BUILDING

24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16-024
DRAWN: ECS
DATE: 05-20-2016

REVISIONS

NO.	DATE	DRAWN

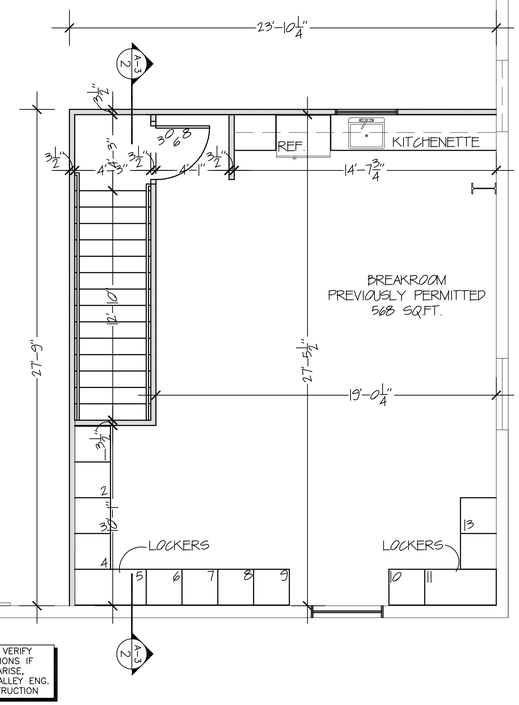
SHEET NUMBER

A-2

EXISTING METAL BUILDING FOR ROUTT COUNTY ROAD & BRIDGE
3,000 SQFT.

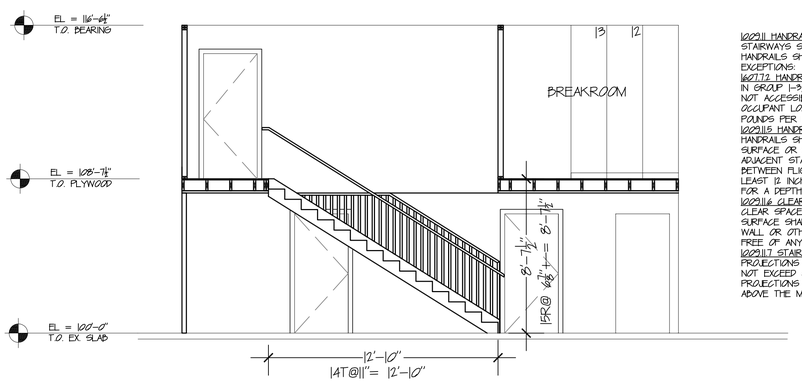
RCRBD

RECORD SET



1 A-3 PROPOSED UPPER LEVEL FLOOR PLAN
SCALE 1/4" = 1'-0"

CONTRACTOR TO VERIFY EXISTING DIMENSIONS IF DISCREPANCIES ARISE, NOTIFY YAMPA VALLEY ENG. PRIOR TO CONSTRUCTION



2 A-3 PROPOSED STAIR SECTION
SCALE 1/4" = 1'-0"

1009.11 HANDRAILS
STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE. HANDRAILS SHALL BE ADEQUATE IN STRENGTH AND ATTACHMENT.
EXCEPTIONS:
1607.7.2 HANDRAILS & GUARDS
IN GROUP I-3, F, H AND S OCCUPANCIES, FOR AREAS THAT ARE NOT ACCESSIBLE TO THE GENERAL PUBLIC AND THAT HAVE AN OCCUPANT LOAD LESS THAN 50, THE MINIMUM LOAD SHALL BE 20 POUNDS PER FOOT (0.29 kN/m)
1009.11.5 HANDRAIL EXTENSIONS.
HANDRAILS SHALL RETURN TO A WALL, GUARD OR THE WALKING SURFACE OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT. WHERE HANDRAILS ARE NOT CONTINUOUS BETWEEN FLIGHTS, THE HANDRAILS SHALL EXTEND HORIZONTALLY AT LEAST 12 INCHES BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR A DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER.
1009.11.6 CLEARANCE.
CLEAR SPACE BETWEEN A HANDRAIL AND A WALL OR OTHER SURFACE SHALL BE A MINIMUM OF 1.5 INCHES. A HANDRAIL AND A WALL OR OTHER SURFACE ADJACENT TO THE HANDRAIL SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS.
1009.11.7 STAIRWAY PROJECTIONS.
PROJECTIONS INTO THE REQUIRED WIDTH AT EACH HANDRAIL SHALL NOT EXCEED 4.5 INCHES AT OR BELOW THE HANDRAIL HEIGHT. PROJECTIONS INTO THE REQUIRED WIDTH SHALL NOT BE LIMITED ABOVE THE MINIMUM HEADROOM HEIGHT OF 80 INCHES.

NOTES FOR EXIT REQUIREMENTS FOR THE BREAK ROOM ADDENDUM.
EXIT ENCLOSURES: A STAIRWAY IS NOT REQUIRED TO BE ENCLOSED WHEN THE STAIRWAY SERVES AN OCCUPANT LOAD LESS THEN 10 AND THE STAIRWAY COMPLIES
WITH EITHER EXCEPTION 1 OR 2 BASED ON SECTION 1021
THE MEANS OF EGRESS ILLUMINATION: INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED. BASED ON SECTION 1006.
DOOR SWING: IS BASED ON SECTION 1008.1.2
HANDRAILS: STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE PER. SEC. 1009.11.
EXIT SEPARATION: IN AREAS WHERE 2 EXITS ARE REQD. THE MINIMUM SEPARATION IS 1/2 OF THE MAXIMUM DIAGONAL OF THE AREA OR FLOOR MEASURED IN A STRAIGHT LINE BETWEEN EXITS OR EXIT ACCESS DOORWAYS.
BASED ON SECTION 1015.2.1
EGRESS DOORS: SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT
THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. BASED ON SECTION 1008.1.9
TRAVEL DISTANCE: IS BASED ON SECTION 1016.1

Clearance: Clear space between handrail and wall shall be 1 1/2 inches (38 mm) minimum.

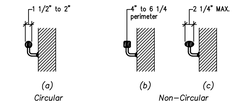
Fig. 505.5
Handrail Clearance

Gripping Surface: Gripping surfaces shall be continuous, without interruption by newel posts, or other construction elements, or obstructions.

EXCEPTION: Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered obstructions provided they comply with the following criteria:
1. not more than 20 percent of the handrail length is obstructed,
2. horizontal projections beyond the sides of the handrail occur 2 1/2 inches (64 mm) minimum below the bottom of the handrail, and
3. edges have a 1/8 inch (3.2 mm) minimum radius.

Cross Section: Handrails shall have a circular cross section with an outside diameter of 1 1/4 inch (32 mm) minimum and 2 inches (51 mm) maximum, or shall provide equivalent graspability complying with Section 505.7.1.

Non-Circular Cross Section: Handrails with other shapes shall be permitted provided they have a perimeter dimension of 4 inches (100 mm) minimum and 6 1/4 inches (160 mm) maximum, and provided their largest cross-section dimension is 2 1/4 inches (57 mm) maximum.



Handrail Extensions: Handrails for stairs and ramps shall have extensions complying with Sections 505.10.1 through 505.10.3.

Top Extension at Stairs: At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Such extension shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent stair flight.

Bottom Extension at Stairs: At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the last riser nosing. Such extension shall continue with a horizontal extension or shall be continuous to the handrail of an adjacent stair flight or shall return to a wall, guard, or the walking surface. If provided at the bottom of a stair flight, a horizontal extension of a handrail shall be 12 inches (305 mm) long minimum and a height equal to that of the sloping portion of the handrail as measured above the stair nosings. Such extension shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent stair flight.

YVE
YAMPA VALLEY ENGINEERING, INC.

STRUCTURAL
MECHANICAL
ENGINEERING
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DRAFTING
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PLANS FOR:
COUNTY METAL BUILDING
24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16-024
DRAWN: ECS
DATE: 06-07-2016

REVISIONS

NO.	DATE	DRAWN

SHEET NUMBER
A-3

OLYMPIA STEEL BUILDINGS

PROJECT NUMBER: U1600196A
PROJECT NAME: Routt County Road & Bridge
PROJECT LOCATION: Oak Creek CO
CUSTOMER: Routt County Road & Bridge

FOR BUILDING DEPARTMENT REVIEW
APR 18 2016

Notes and Specifications

Building Erection Notes

1) The general contractor and/or erector is responsible to safely and properly erect the metal building system in conformance with these drawings, OSHA requirements and metal building system in conformance with these drawings, OSHA requirements and either MBMA or CSA S16 standards pertaining to proper erection. This includes, but is not limited to, the correct use of temporary guys and bracing where needed for squaring, plumbing, and securing the structural and secondary framing. Secondary wall framing members (girts or bar joists) are not designed to function as a work platform or provide safety tie-off attachment in accordance with OSHA requirements. Secondary roof framing members (purlins or bar joists) are not designed to provide safety tie-off attachment in accordance with OSHA requirements.

2) A325 & A490 Bolt tightening requirements:
It is the responsibility of the erector to ensure proper bolt tightness in accordance with applicable regulations. See the RCSC Specification for Structural Joints Using A325 or A490 Bolts or CAN/CSA S16 "Limit States Design of Steel Structures" for more information.
The following criteria may be used to determine the bolt tightness (i.e., "snug-tight" or "fully-pretensioned"), unless required otherwise by local jurisdiction or contract requirements:

B) All A325 bolts in primary framing (rigid frames and bracing) may be "snug-tight", except as follows:
"Fully-pretension" A325 bolts if:
a) Building supports a crane system with a capacity greater than 5 tons.
b) Building supports machinery that creates vibration, impact or stress-reversals on the connections. The Engineer-of-Record for the project should be consulted to evaluate for this condition.
c) The project site is located in a high seismic area. For IBC-based codes, "High Seismic Area" is defined as "Seismic Design Category" of "D", "E", or "F". See the "Building Loads" section of this page for the defined seismic design category for this project.
d) Any connection designated in these drawings as "A325-SC". "Slip-Critical (SC)" connections must be free of paint, oil, or other materials that reduce friction at contact surfaces. Galvanized or lightly rusted surfaces are acceptable.

C) In Canada, all A325 and A490 bolts shall be "fully pre-tensioned", except for secondary members (purlins, girts, opening framing, etc.) and flange braces.
D) Secondary members (purlins, girts, opening framing, etc.) and flange brace connections may always be "snug-tight", unless indicated otherwise in these drawings.

3) The metal building supplier shall be notified prior to any field modifications. Modifications shall be approved by the metal building supplier before work is undertaken.

4) Common Abbreviations:
a) TYP UNO – Typical Unless Noted Otherwise
b) SLV – Short Leg Vertical
c) LLV – Long Leg Vertical
d) NS & FS – Near Side and Far Side
e) O.A.L. – Overall Length
f) SIM – Similar
g) NIC – Not In Contract
h) SL – Steel Line
i) N/A – Not Applicable
j) MBS – Metal Building Supplier

5) Construction loads shall not be placed on any structural steel framework unless such framework is safely bolted, welded, or otherwise adequately secured.
6) Purlins and girts shall not be used as an anchorage ppoint for a fall arrest system unless written approval is obtained from the metal building supplier.
7) Purlins may only be used as a walking/working surface when installing safety systems, after all permanent bridging has been installed and fall protection is provided.
8) Construction loads may be placed only within a zone that is within 8 feet of the center line of the primary support member. CFR bundles should be placed directly over the rigid frames.
9) All lifting devices must meet OSHA or MSHA standards and in no case is it acceptable to use structural members supplied by the MBS as a spreader bar or lifting device.

General Design Notes

1) All structural steel sections and welded plate members are designed in accordance with ANSI/AISC 360 "Specifications for Structural Steel Buildings" or the CAN/CSA S16 "Limit States Design of Steel Structures", as required by the specified building code.
2) All welding of structural steel is based on either AWS D1.1 "Structural Welding Code – Steel" or CAN/CSA W59 "Welded Steel Construction (Metal Arc Welding)", as required by the specified building code.
3) All cold formed members are designed in accordance with ANSI/AISI S11 or CAN/CSA S136 "Specifications for the Design of Cold Formed Steel Structural Members", as required by the specified building code.
4) All welding of cold formed steel is based on AWS D1.3 "Structural Welding Code – Sheet Steel" or CAN/CSA W59 "Welded Steel Construction (Metal Arc Welding)", as required by the specified building code.
5) This Metal Building Supplier facility is IAS AC-472 Accredited and CAN/CSA A660 and W47.1 Certified (if applicable) for the design and manufacturing of Metal Building Systems.
6) If joists are included with this project, they are supplied as a part of the systems engineered metal building and are fabricated in accordance with the requirements of Section 1926.758 of the OSHA safety standards for steel erection, dated January 18, 2001.

Material Specifications

Plate and Flange Material:

5" – 12" Wide, to 1 1/4" Th.	A529 Grade 55
Others	A572 Grade 50
Built-Up Structural Web	A1011 SS (or HSLAS Class 1) Grade 55
Hot-Rolled Structural	A36 or A572 Grade 50 or A992 Grade 50
Structural Tube	A500 Grade B (46 KSI)
Structural Pipe	A500 Grade B (42 KSI)
Cold-Formed Structural	A1011 or A1039 SS (or HSLAS Class 1) Grade 55
Classic Roof Panel	A792 Grade 80
CFR / VR16 II Roof Panel	A792 Grade 50, Class 1
All Wall Panel Profiles	A653 Grade 80, Class 1 or A792 Grade 80, Class 1
Rod Bracing	A529 Grade 50
Welds	AWS D1.1/D1.3 or CSA W59 per Building Code
High-Strength Bolts	A325 Type 1 or A490 Type 1 Heavy Hex
Machine Bolts	A307 Grade A Hex

PRIMARY AND SECONDARY STEEL PRIMER COLOR: RED
ROOF SHEETING, TYPE: CR 26 GAGE, FINISH: Polar White SP
ROOF PANEL CLIP TYPE: [X] N/A [ ] TALL [ ] SHORT [ ] UTILITY [ ] FIXED [ ] FLOATING
THERMAL BLOCKS: [ ] YES [X] NO EPS FOAM SPACER: [ ] YES [X] NO
SEAMING METHOD (FOR CFR ONLY): [ ] "ROLL LOCK"™ [ ] "VISE LOCK"™ [ ] "VISE LOCK 360"™
(REFER TO THE DETAIL PAGES FOR ADDITIONAL SEAMING INFORMATION)
COMPOSITE CFR DECK, TYPE: N/A ___ GAGE, FINISH: ___
ROOF LINE TRIM, PAINTED: Polar White SP
EXTERIOR WALL SHEETING, TYPE: AW 26 GAGE, FINISH: Fox Gray SP
EXTERIOR WALL CORNER TRIM FINISH: Polar White SP
EXTERIOR BASE TRIM, PAINTED: Polar White SP
FRAMED OPENING TRIM, PAINTED: Polar White SP
WALL FRAMED OPENING, SIZES: FSW (1) 3'-0" x 3'-0", sill at 4'-0"
BSW (1) 3'-0" x 3'-0", sill at 4'-0"
LEW (1) 24'-0" x 16'-0" (1) 3'-0" x 7'-0"
REW none
INTERIOR WALL SHEETING, TYPE: CL 26 GAGE, FINISH: Galvalume
INTERIOR CEILING LINER, TYPE: none ___ GAGE, FINISH: ___
INTERIOR WALL TRIM, PAINTED: Galvalume

YES	NO	
[ ]	[X]	DOWNSPOUTS PAINTED: ___ GUTTERS PAINTED: ___
[X]	[ ]	WALKDOORS, QUANTITY: (1) 3070 PAINTED: WHITE
[ ]	[X]	WINDOWS: ___ PAINTED: ___
[X]	[ ]	INSULATION (NOT BY MBS), ROOF: 4 INCH WALLS: 6 INCH
[ ]	[X]	CRANES (SEE CRANE PLAN FOR ADDITIONAL CRANE INFORMATION)
[ ]	[X]	MEZZANINE (SEE MEZZANINE PLAN FOR ADDITIONAL MEZZANINE INFO)
[ ]	[X]	WALL TRANSLUCENT PANELS: ___
[ ]	[X]	ROOF TRANSLUCENT PANELS: ___
		INSULATED PANELS YES [ ] NO [ ]
[ ]	[X]	PIPE JACKS, SIZE: ___ QUANTITY: ___
[ ]	[X]	ROOF FRAMED OPENINGS, SEE ROOF FRAMING PLAN FOR SIZES
[ ]	[X]	RIDGE VENTS, 10'-0" LONG X 9" THROAT. QUANTITY: ___

YES	NO	
[ ]	[X]	FASCIA, PROJECTION: ___ TOP OF FASCIA HEIGHT: ___
		FACE PANEL, TYPE: ___ GAGE, FINISH: ___
		BACK PANEL, TYPE: ___ GAGE, FINISH: ___
		CAP TRIM PAINTED: ___ BASE TRIM PAINTED: ___
		[ ] CLOSED SYSTEM, CLEAR UNDER SOFFIT TRIM: ___
		SOFFIT PANEL, TYPE: ___ GAGE, FINISH: ___
		SOFFIT TRIM AT BUILDING LINE PAINTED: ___
		[ ] OPEN SYSTEM, (NO SOFFIT PANEL PROVIDED)
		CLEAR UNDER FASCIA: ___
[ ]	[X]	PARAPET SYSTEM
		[ ] STRUCTURAL PARAPET [ ] NON-STRUCTURAL PARAPET
		TOP OF PARAPET HEIGHT: ___
		BACKER PANEL, TYPE: ___ GAGE, FINISH: ___
[ ]	[X]	CANOPY (EXPOSED BEAM), PROJECTION: ___
		AT EAVE LINE [ ] BELOW EAVE [ ]
		ROOF PANEL, TYPE: ___ GAGE, FINISH: ___
		SOFFIT PANEL, TYPE: ___ GAGE, FINISH: ___
		SOFFIT TRIM AT BUILDING LINE PAINTED: ___
		CLEAR UNDER CANOPY BEAM: ___
[ ]	[X]	EAVE EXTENSION (CONCEALED BEAM), PROJECTION: ___
		SOFFIT PANEL, TYPE: ___ GAGE, FINISH: ___
		SOFFIT TRIM AT BUILDING LINE PAINTED: ___
[ ]	[X]	RAKE EXTENSION, PROJECTION: ___
		SOFFIT PANEL, TYPE: ___ GAGE, FINISH: ___
		SOFFIT TRIM AT BUILDING LINE PAINTED: ___
[ ]	[X]	PARTITION WALL SHEETING
		PANEL TYPE: ___ GAGE, FINISH: ___
		PARTITION WALL TRIM COLOR: ___
[ ]	[X]	WAINSCOT
		WALL PANEL, TYPE: ___ GAGE, FINISH: ___
		BASE TRIM PAINTED: ___ JAMB TRIM PAINTED: ___
		TRANSITION TRIM PAINTED: ___

ERECTOR NOTE:
ALTERNATE FASTENERS HAVE BEEN SUBSTITUTED ON THIS BUILDING. 2" WALL FASTERNERS HAVE BEEN SUPPLIED FOR WALL PANEL TO GIRT ATTACHMENT. WHERE THE DRAWINGS INDICATE AN H1040 STRUCTURAL FASTENER, H1045 or H1047 FASTENERS WITH WASHERS HAVE BEEN SUPPLIED. WHERE THE DRAWINGS INDICATE AN H1060 TRIM FASTENER, H1061 FASTENERS WITH WASHERS HAVE BEEN SUPPLIED.

FOR OCCUPANCY CATEGORY I OR II BUILDINGS, IBC ALLOWS FOR SINGLE STORY BUILDINGS TO HAVE NO LIMIT FOR SEISMIC STORY DRIFT. PLEASE NOTE THAT ANY INTERIOR WALLS, PARTITIONS, CEILINGS, AND EXTERIOR WALLS SHOULD BE DETAILED (BY OTHERS) TO ACCOMMODATE THIS STORY DRIFT.

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

DUE TO THE PROXIMITY OF AN EXISTING BUILDING, STRUCTURAL SEPARATION FROM THE MBS STRUCTURAL STEEL IS REQUIRED. THE ENGINEER OF RECORD (NOT THE METAL BUILDING SUPPLIER) IS RESPONSIBLE FOR ASSURING THAT THE MBS SEISMIC STORY DRIFT OF **1.00 INCH** PLUS THE STORY DRIFT OF THE EXISTING BUILDING IS ADEQUATELY PROVIDED BETWEEN THE NEW AND EXISTING STRUCTURES.

INSULATION NOT TO EXCEEDE 1.5 PSF.

BUILDING LOADS

DESIGN CODE: IBC 09
ROOF LIVE LOAD: 20.00 PSF MBMA OCC. CLASS: II
LIVE LOAD REDUCIBLE No
GROUND SNOW LOAD: 78.5 PSF SNOW EXP. FACTOR, Ce: 1.00
SNOW IMPORTANCE FACTOR, Is: 1.00
WIND: 90 MPH WIND IMPORTANCE FACTOR, Iw: 1.00
EXPOSURE: C
UL 90 NO
Classic Roof-Const. No. 161; Classic Roof w/ Translucent Panel-Const. No. 167
CFR Roof-Const. No. 552; CFR Roof w/ Translucent Panel-Const. No. 590;
Composite CFR Roof-Const. No. 552A; VR16 II Roof-Const. No. 332.
SEISMIC INFORMATION Ss: 0.270 S1: 0.074
Design Sds/Sd1: 0.285 / 0.118 Site Class: D
Seismic Imp. Factor: 1.00 Seismic Design Category: B
Analysis Procedure: Equivalent Lateral Force Method
Basic SFRS: Ordinary Steel Moment Frames & Ordinary Steel Conc. – Braced Frames

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

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

	BUILDING
ROOF DEAD (PSF):	3.60
PRI. COL. (PSF):	1
SEC. COL. (PSF):	1
SNOW Ct:	1.00
SNOW Cs:	~~0.790~~
ROOF SNOW (PSF):	78.50
WIND ENCLOSURE:	Closed
GCpi:	+/-0.18
SEISMIC R:	3
SEISMIC Cs:	0.095
BASE SHEAR (KIPS):	12.14

RCRBD

RECORD SET

1 CORRECTED USER OVERRIDE SNOW

ERECTION MANUALS REQUIRED (ERECTION MANUALS ARE SHIPPED WITH THE BUILDING IN A WAREHOUSE PACKING CRATE)		
[ ] CFR ROOF	[ ] H9700 OR [ ] H8260	[ ] SINGLE CURB (H9850)
[X] CLASSIC ROOF	[ ] H9420 OR [X] H8201	[ ] DOUBLE CURB (H9800)
[X] WALL SHEETING	[ ] H9430 OR [X] H8300	[ ] VR16 II (H9925)

DRAWING INDEX

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO
JOB NUMBER: U16O0196A
SHEET TITLE

COLORADO LICENSED PROFESSIONAL ENGINEER 49599 COLTON DAVIS
APR 18 2016

This seal pertains only to the materials designed and supplied by the Metal Building Manufacturer. The drawings and the metal buildings which they represent are the product of the Metal Building Manufacturer. The registered professional engineer whose seal appears on these drawings is employed by the Metal Building Manufacturer and does not serve as or represent the project engineer of record and shall not be construed as such.

SHEET C1 of 3

OLYMPIA STEEL BUILDINGS

PROJECT NUMBER: U1600196A

PROJECT NAME: Routt County Road & Bridge

PROJECT LOCATION: Oak Creek CO

CUSTOMER: Routt County Road & Bridge

R C R B D

RECORD SET

STRUCTURAL TESTS AND INSPECTION:

1) THE SPECIAL INSPECTOR'S DUTIES ARE AS DESCRIBED IN SPECIAL INSPECTION. THE SPECIAL INSPECTOR'S DUTIES ARE AS DESCRIBED IN IBC 1704.3 AND IBC 1705
2) ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY EMPLOYED BY THE OWNER OR ARCHITECT.
3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE TEST AND INSPECTION FIRM WITH A SCHEDULE TO FACILITATE THE PROPER COORDINATION OF WORK.
4) PORTIONS OF WORK REQUIRING SPECIAL INSPECTION:

AGENCY RESPONSIBLE FOR INSPECTION AND TESTING TO BE NAMED BY OWNER LATER.

	YES	NO	N/A
A. STRUCTURAL STEEL:			
1. MILL REPORTS AND IDENTIFICATION OF STEEL (AFFIDAVIT OF COMPLIANCE)	☐	■	☐
2. SAMPLING AND TESTING OF SPECIMENS	☐	■	☐
B. WELDING:			
1. ALL STRUCTURAL WELDING (INCLUDES DECKING AND WELDED STUDS), EXCEPT WELDING IN APPROVED SHOPS PER IBC 1704.2.2	■	☐	☐
2. ULTRASONIC TESTING OF FULL PENETRATION WELD CONNECTIONS AT MOMENT FRAMES, BRACED FRAMES, BEAM SPLICES, AND FIELD WELDS.	☐	■	☐
3. STRUCTURAL LIGHT GAGE METAL FRAME WELDING	☐	■	☐
C. BOLTING:			
1. HIGH STRENGTH BOLT A325SC AND A490SC (PRETENSION VERIFICATION)	■	☐	☐
2. HIGH STRENGTH BOLT A325N AND A490X (PER COVER SHEET NOTES)	■	☐	☐
3. EXPANSION/ADHESIVE ANCHORS IN CONCRETE OR MASONRY	■	☐	☐

ISSUE	DRWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE:
(888) 449-7756

PROJECT NAME
ROUTT COUNTY ROAD & BRIDGE
OAK CREEK CO

CUSTOMER NAME
ROUTT COUNTY ROAD & BRIDGE
STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER
U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER
COLTON DAVIS SNOW
49599
APR 18 2016

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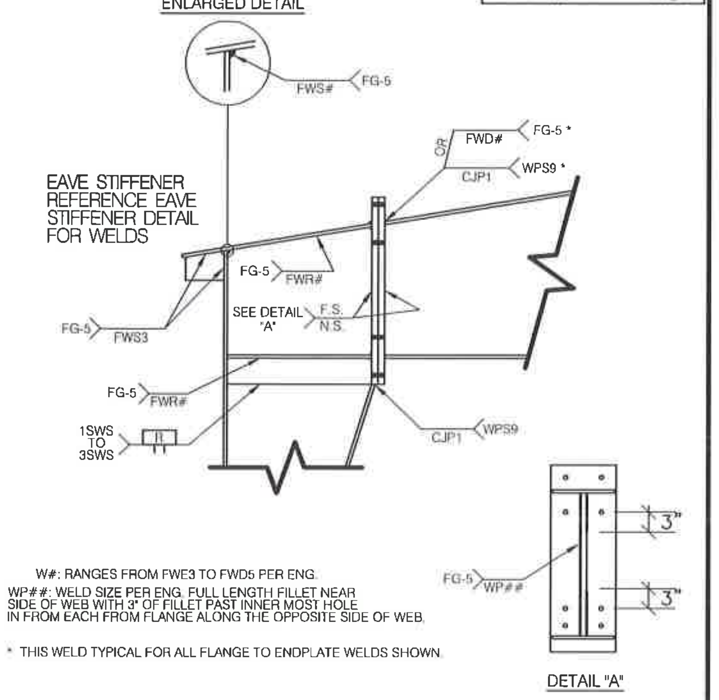
SHEET
C2 of 3

STANDARD WELDS AND LEGEND

Thickest Mat. Joined	Weld
≤ 1/2"	FW 3
≤ 3/4"	FW 4
> 3/4"	FW 5

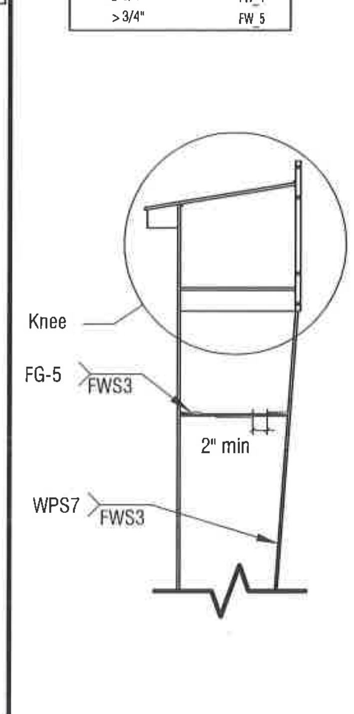


W#: RANGES FROM FWE3 TO FWD5 PER ENG.
WP##: WELD SIZE PER ENG. FULL LENGTH FILLET NEAR SIDE OF WEB WITH 3" OF FILLET PAST INNER MOST HOLE IN FROM EACH FLANGE ALONG THE OPPOSITE SIDE OF WEB.
* THIS WELD TYPICAL FOR ALL FLANGE TO ENDPLATE WELDS SHOWN.

Perpendicular Knee Column

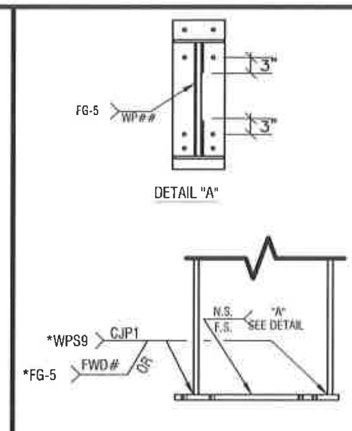
See Weld Standard sheet for WPS description

Thickest Mat. Joined	Weld
≤ 1/2"	FW 3
≤ 3/4"	FW 4
> 3/4"	FW 5



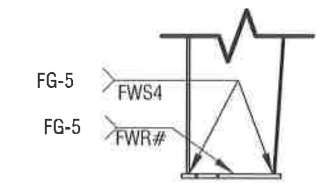
Typical Column

See Weld Standard sheet for WPS description



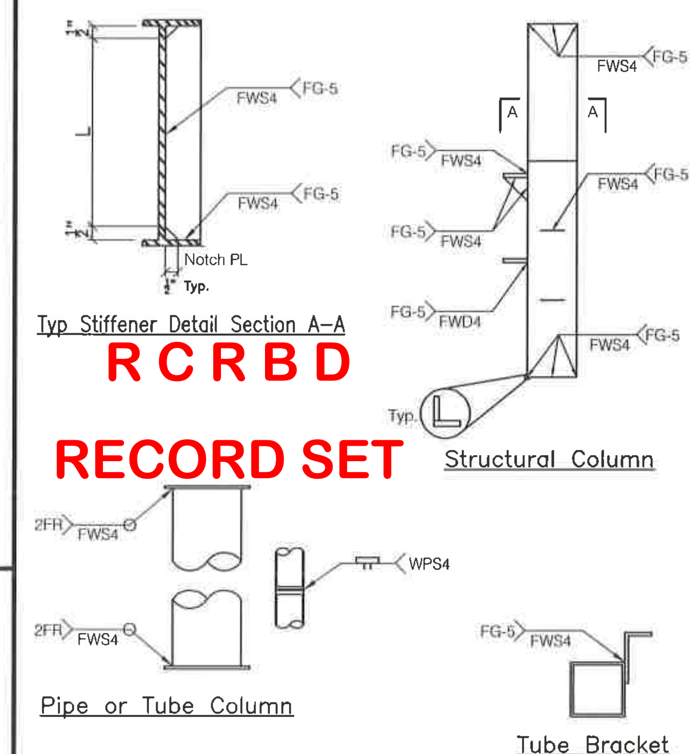
TYP. FIXED BASE DETAIL

See Weld Standard sheet for WPS description
Base plate extension and anchor bolt locations may vary.



TYP. PINNED BASE DETAIL

See Weld Standard sheet for WPS description

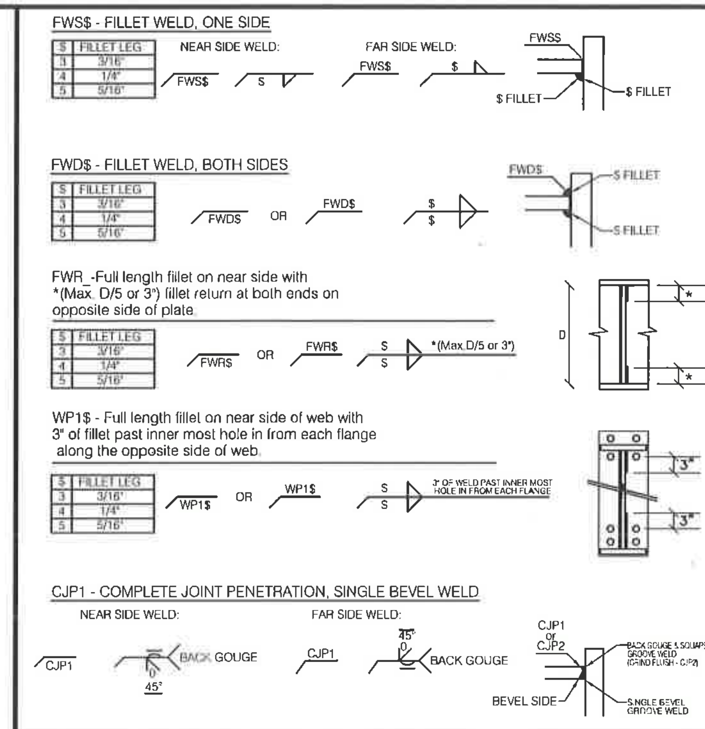


R C R B D

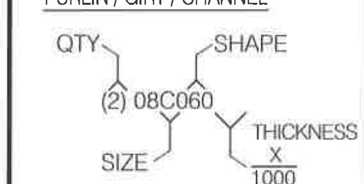
RECORD SET

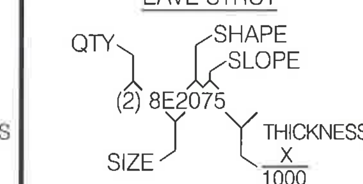
Structural Details

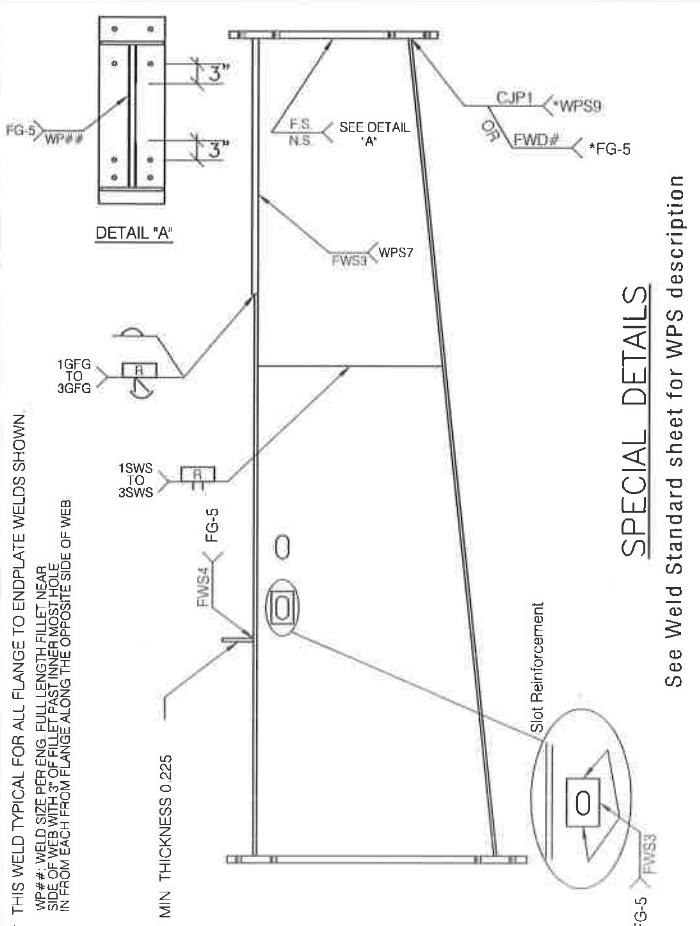
See Weld Standard sheet for WPS description



$	FILLET LEG
3	3/16"
4	1/4"
5	5/16"





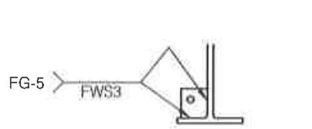


* THIS WELD TYPICAL FOR ALL FLANGE TO ENDPLATE WELDS SHOWN.
WP##: WELD SIZE PER ENG. FULL LENGTH FILLET NEAR SIDE OF WEB WITH 3" OF FILLET PAST INNER MOST HOLE IN FROM EACH FROM FLANGE ALONG THE OPPOSITE SIDE OF WEB.

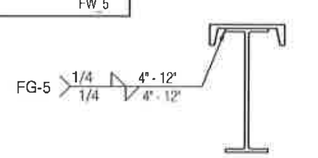
SPECIAL DETAILS

See Weld Standard sheet for WPS description

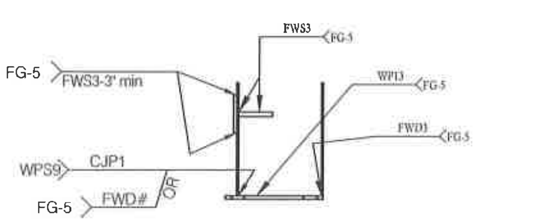
Thickest Mat. Joined	Weld
≤ 1/2"	FW 3
≤ 3/4"	FW 4
> 3/4"	FW 5



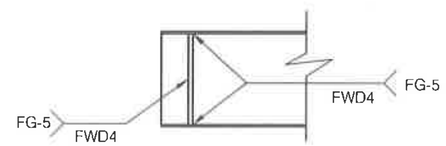
Typ. Flange Brace Clip



Runway Beam



Interior Wide Flange Fixed Base Plate Crane Stop



Runway End

SPECIAL DETAILS

See Weld Standard sheet for WPS description

WPS #	Description	Weld Code	Process	Preq	Position	Limitation	UT	IN	SC	TX
FG-4	3/16" & 1/2" multi-pass fillet weld	AWSD1.1-10	GMAW 3/16" multi-pass fillet weld	PQR	1G	3/16 - 5/16	X	X	X	X
FG-5	3/16" & 5/16" single-pass fillet ≤ weld	AWSD1.1-10	GMAW (3/16 - 5/16") single-pass fillet weld)	PQR	2F	1/8 - 1 - 1/2	X	X	X	X
1GFG	3/8" through 1" flange splice	AWSD1.1-10	GMAW (3/8 - 1" flange splice)	PQR	1G	3/8 - 1	X	X	X	X
2GFG	5/16" flange splice	AWSD1.1-10	GMAW (≤ 5/16" flange splice)	PQR	1G	3/16 - 5/16	X	X	X	X
3GFG	1/2" to 1/2" flange splice	AWSD1.1-10	GMAW (1/2" → 1/2" flange splice)	PQR	1G-2F	Groove 1/4" Fillet 1/2"	X	X	X	X
2036	5/8" to 5/16" flange splice	AWSD1.1-10	GMAW (3/8" → 5/16" flange splice)	PQR	1G-2F	Groove: 5/16" Fillet 5/8"	X	X	X	X
5GFG	1" flange splice	AWSD1.1-10	GMAW (1" flange splice)	PQR	1G-2F	Groove 1"	X	X	X	X
1SWS	web splice for 0.275" through 0.313" thick	AWSD1.1-10	SAW (0.275-0.313" Web splice)	PQR	1G	0.275 - 0.313	X	X	X	X
2SWS	web splice for 0.125" through 0.150" thick	AWSD1.1-10	SAW (0.125-0.150" Web splice)	PQR	1G	0.125 - 0.150	X	X	X	X
3SWS	web splice for 0.175" through 0.250" thick	AWSD1.1-10	SAW (0.175-0.250" Web splice)	PQR	1G	0.175 - 0.250	X	X	X	X
2038	web splice for 0.375" through 0.500" thick	AWSD1.1-10	SAW (0.375-0.500" Web splice)	PQR	1G	0.375 - 0.500	X	X	X	X
2FR	pipe to endplate weld	AWSD1.1-10	GMAW (Pipe-to-Endplate Weld)	PQR	2F ROTATED	6" thru 10"	X	X	X	X
FBG-1	Rod to plate/angle weld	AWSD1.1-10	GMAW (Rod-to-Plate Weld)	PQR	1G	Diameter: 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4	X	X	X	X
WPS4	pipe splice for 0.134" through 0.375" thick	AWSD1.1-10	GMAW (Pipe Splice, 0.134" - 0.375")	YES	1G ROTATED	Diameter: 6-10"	X	X	X	X
WPS5	pipe splice for 0.375" through 0.500" thick	AWSD1.1-10	GMAW (Pipe Splice, 0.375" - 0.500")	YES	1G ROTATED	0.375 - 0.50" Diameter: 8 -10"	X	X	X	X
WPS6	wide-flange beam splice, all sizes	AWSD1.1-10	GMAW (Hot-Rolled Splice Weld)	YES	1G	0.313 - 1.50	X	X	X	X
WPS7	flange to web weld made by autowelder using 0.062" Ø electrode	AWSD1.1-10	SAW (Autowelder Weld)	YES	2F	0.125 - 1.00	X	X	X	X
WPS8	flange to web weld made by autowelder using 0.052" Ø electrode	AWSD1.1-10	SAW (Small Autowelder Welds)	YES	2F	0.125 - 1.00	X	X	X	X
WPS9	complete penetration groove weld for tee connection, 3/8" thick	AWSD1.1-10	GMAW (Flange to endplate weld)	YES	1G	0.375 - 1.00	X	X	X	X
WPS11	vertical tack-filters	AWSD1.1-10	GMAW (Vertical tack-fillers)	YES	3F	0.125 - Unlimited	X	X	X	X
WPS-1	Cold-Form seam stitch weld	AWSD1.3-08	GMAW (CF seam stitch weld)	PQR	FLAT	0.0525" - 0.210"	X	X	X	X
WPS-1a	Cold-Form seam stitch weld (galvanized)	AWSD1.3-08	GMAW (CF seam stitch weld) (galvanized)	PQR	FLAT	0.0525" - 0.210"	X	X	X	X
WPS-2	Cold-Form seam weld	AWSD1.3-08	GMAW (CF seam weld)	PQR	HORIZ	t1 = 0.0525" - 0.215"	X	X	X	X
WPS-2a	Cold-Form seam weld (galvanized)	AWSD1.3-08	GMAW (CF seam weld) (galvanized)	PQR	HORIZ	t1 = 0.0525 - 0.215"	X	X	X	X
WPS-3	cold-form seam weld to support steel ≤ 0.3125" thick	AWSD1.3-08	GMAW (CF seam weld to support steel)	PQR	HORIZ	t1 = 0.0525" - 0.215", t2 ≥ 0.3125"	X	X	X	X
WPS-3a	cold-form seam weld to support steel ≤ 0.3125" thick (galvanized)	AWSD1.3-08	GMAW (CF seam weld to support steel) (galvanized)	PQR	HORIZ	t1 = 0.0525" - 0.215", t2 ≥ 0.3125"	X	X	X	X
WPS-4	cold-form tee connection fillet weld	AWSD1.3-08	GMAW (CF tee fillet weld)	PQR	HORIZ	t1 = 0.0525" - 0.215"	X	X	X	X
WPS-4a	cold-form tee connection fillet weld (galvanized)	AWSD1.3-08	GMAW (CF tee fillet weld) (galvanized)	PQR	HORIZ	t1 = 0.0525" - 0.215"	X	X	X	X
WPS-5	cold-form tee connection fillet weld to support steel ≥0.313" thick	AWSD1.3-08	GMAW (CF tee fillet to support steel)	PQR	HORIZ	t1 = 0.0525" - 0.215", t2 ≥ 0.3125"	X	X	X	X
WPS-5a	cold-form tee connection fillet weld to support steel ≥ 0.313" thick (galvanized)	AWSD1.3-08	GMAW (CF tee fillet to support steel) (galvanized)	PQR	HORIZ	t1 = 0.0525" - 0.215", t2 ≥ 0.3125"	X	X	X	X
WPS-6	cold-form lap fillet weld	AWSD1.3-08	GMAW (CF lap fillet weld)	PQR	HORIZ	t1 = 0.0525" - 0.215"	X	X	X	X
WPS-6a	cold-form lap fillet weld (galvanized)	AWSD1.3-08	GMAW (CF lap fillet weld) (galvanized)	PQR	HORIZ	t1 = 0.0525" - 0.215"	X	X	X	X
WPS-7	cold-form lap fillet weld to support steel ≥0.3125" thick	AWSD1.3-08	GMAW (CF lap fillet to support steel)	PQR	HORIZ	t1 = 0.0525" - 0.215", t2 ≥ 0.3125"	X	X	X	X
WPS-7a	cold-form lap fillet weld to support steel ≥0.3125" thick (galvanized)	AWSD1.3-08	GMAW (CF lap fillet to support steel) (galvanized)	PQR	HORIZ	t1 = 0.0525" - 0.215", t2 ≥ 0.3125"	X	X	X	X

ISSUE	DATE	BY	CHK	APP	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME
ROUTT COUNTY ROAD & BRIDGE
OAK CREEK CO

CUSTOMER NAME
ROUTT COUNTY ROAD & BRIDGE
STEAMBOAT SPRINGS CO

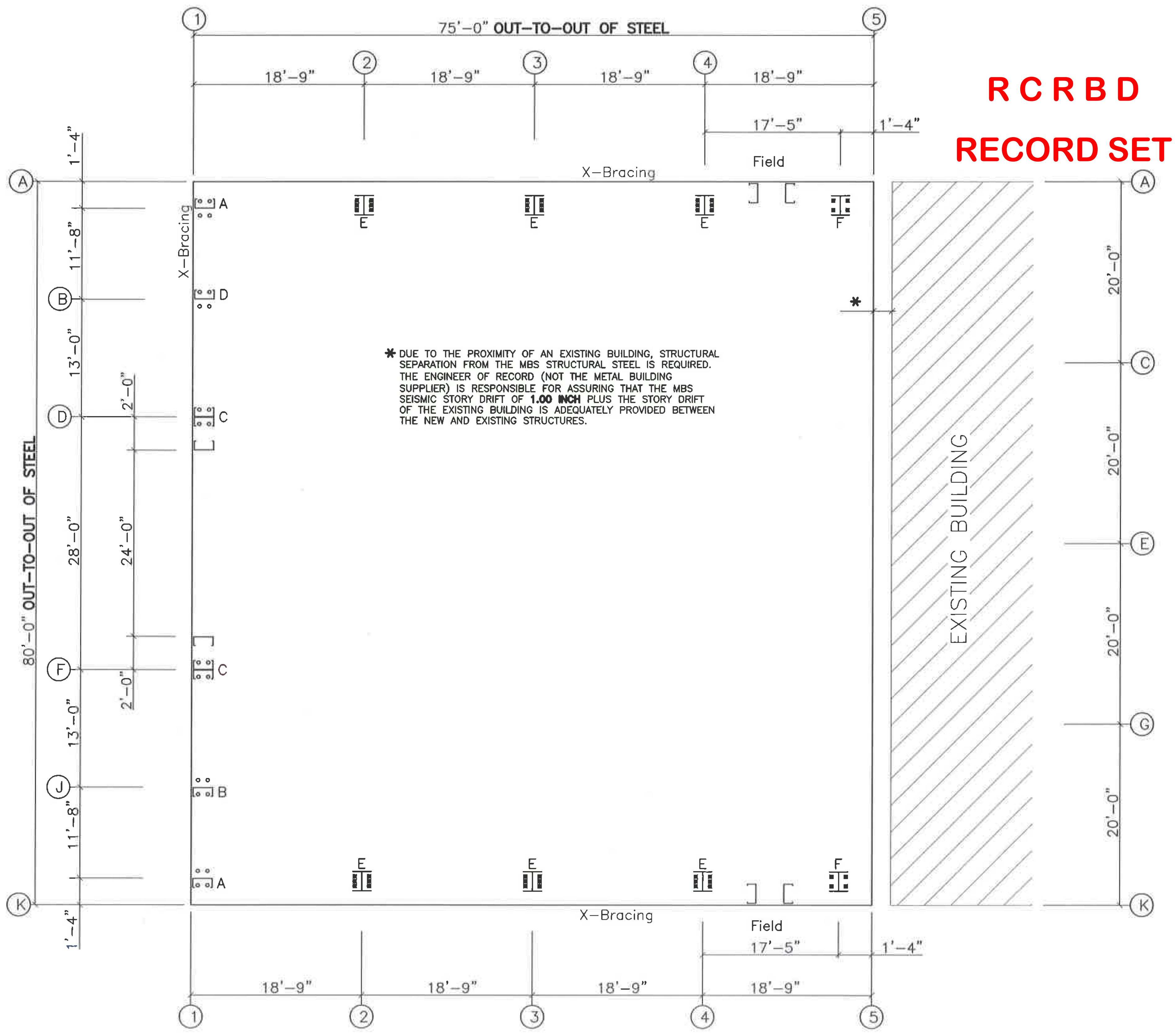
SHEET TITLE

JOB NUMBER
U16O0196A

This seal pertains only to the materials designed and supplied by the Metal Building Manufacturer. The drawings and the metal building which they represent are the product of the Metal Building Manufacturer. The registered professional engineer whose seal appears on these drawings is employed by the Metal Building Manufacturer and does not serve as or represent the project engineer of record and shall not be construed as such.

SHEET
C3 of 3

RCRBD
RECORD SET



ANCHOR BOLT PLAN

NOTE: All Base Plates @ 100'–0" (U.N.)

o **Dia=** 3/4"

⊠ **Dia=**1"

ANCHOR BOLT SUMMARY

	Qty	Locate	Dia (in)	Type	Proj (in)
O	24	Endwall	3/4"	F1554	3.00
⊠	44	Frame	1"	F1554	3.00

ANCHOR BOLT PLAN

GENERAL NOTES

1. THE SPECIFIED ANCHOR ROD DIAMETER ASSUMES F1554 GRADE 55 UNLESS NOTED OTHERWISE. ANCHOR ROD MATERIAL OF EQUAL DIAMETER MEETING OR EXCEEDING THE STRENGTH REQUIREMENTS SET FORTH ON THESE DRAWINGS MAY BE UTILIZED AT THE DISCRETION OF THE FOUNDATION DESIGN ENGINEER. ANCHOR ROD EMBEDMENT LENGTH SHALL BE DETERMINED BY THE FOUNDATION DESIGN ENGINEER.
2. METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR PROJECT FOUNDATION DESIGN. THE FOUNDATION DESIGN IS THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER, FAMILIAR WITH LOCAL SITE CONDITIONS.
3. ALL ANCHOR RODS, FLAT WASHERS FOR ANCHOR RODS, EXPANSION BOLTS, AS WELL AS ALL CONCRETE/MASONRY EMBEDMENT PLATES ARE NOT BY METAL BUILDING MANUFACTURER.
4. THIS DRAWING IS NOT TO SCALE.
5. FINISHED FLOOR ELEVATION = 100'–0" UNLESS NOTED OTHERWISE.
6. "SINGLE" CEE COLUMNS SHALL BE ORIENTED WITH THE "TOES" TOWARD THE LOW EAVE UNLESS NOTED OTHERWISE.
7. ANCHOR RODS ARE REQUIRED ONLY IN THE QUANTITIES SPECIFIED. BASEPLATES MAY BE FABRICATED WITH MORE HOLES THAN NEEDED FOR THIS PROJECT.
8. THE ANCHOR BOLT LOCATIONS PROVIDED BY METAL BUILDING MANUFACTURER SATISFY PERTINENT REQUIREMENTS FOR THE DESIGN OF THE MATERIALS SUPPLIED BY THE METAL BUILDING MANUFACTURER. PLEASE NOTE THAT THESE REQUIREMENTS MAY NOT SATISFY ALL ANCHOR BOLT CONCRETE EDGE DISTANCE REQUIREMENTS DEPENDING ON THE DETAILS OF THE FOUNDATION DESIGN. BECAUSE FOUNDATION DESIGN IS NOT WITHIN THE METAL BUILDING MANUFACTURER'S SCOPE OF WORK, IT IS THE RESPONSIBILITY OF THE QUALIFIED PROFESSIONAL DESIGNING THE FOUNDATION TO MAKE CERTAIN THAT SUFFICIENT CONCRETE EDGE DISTANCE IS PROVIDED FOR THE ANCHOR BOLTS IN THE DETAILS OF THE FOUNDATION DESIGN.

Issue	Drwn	Chk	Eng	PE	Date
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

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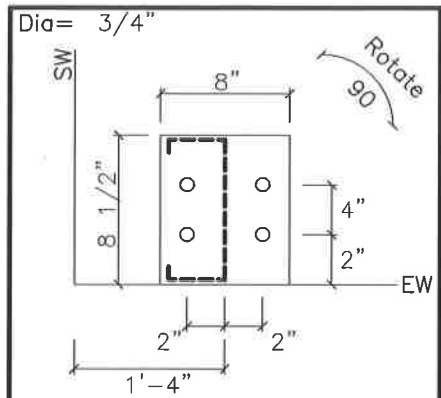
U16O0196A

SHEET TITLE

COLORADO LICENSED PROFESSIONAL ENGINEER 49559
APR 18 2016

SHEET
F1 of 2



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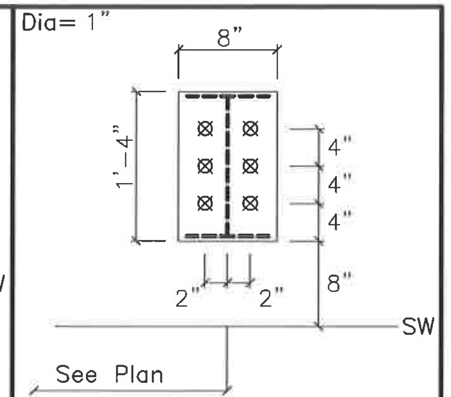

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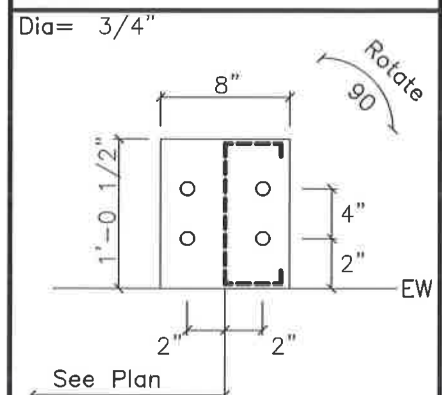

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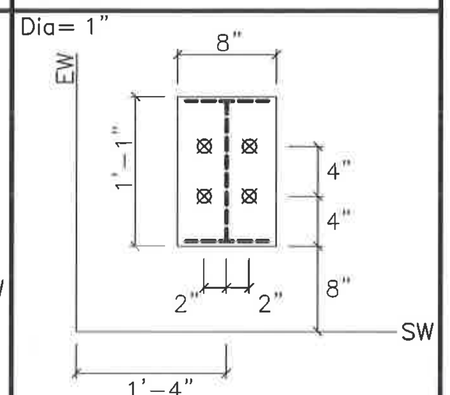

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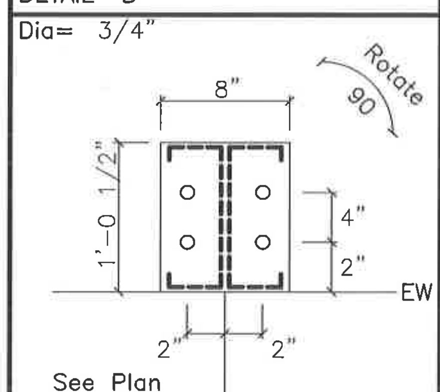

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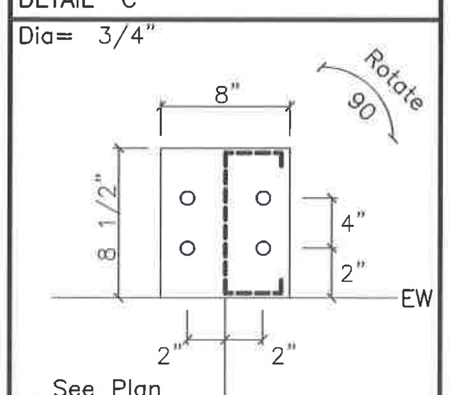

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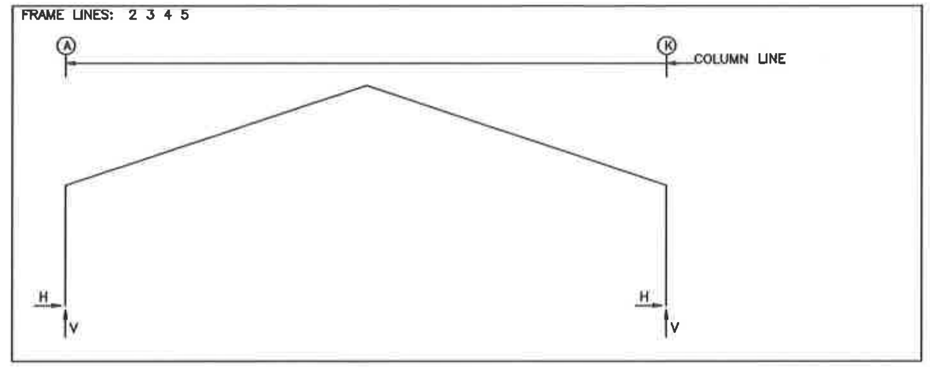


RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc._Bolt Qty	Anc._Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Base_Plate (in) Thick	Elev. (in)
2*	A	6	1.000	8.000	16.00	0.375	0.0
2*	K	6	1.000	8.000	16.00	0.375	0.0

2* Frame lines: 2 3 4

R C R B D

RECORD SET

RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc._Bolt Qty	Anc._Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Base_Plate (in) Thick	Elev. (in)
5	A	4	1.000	8.000	13.00	0.375	0.0
5	K	4	1.000	8.000	13.00	0.375	0.0

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind Left1 Vert	Wind Right1 Vert	Wind Left2 Vert	Wind Right2 Vert	Wind Press Horz	Wind Suct Horz	Wind Long1 Vert	Wind Long2 Vert
1	A	0.4	0.1	1.2	2.7	-1.0	-0.9	-0.8	-0.7	-0.8	1.1	-0.9	-0.5
1	B	0.6	0.1	1.9	4.1	-3.2	-1.7	-3.7	-1.6	-2.0	2.2	-1.9	-1.1
1	D	1.6	0.3	4.9	10.7	-3.5	-3.0	-3.2	-3.3	-3.9	4.3	-2.9	-1.7
1	F	1.6	0.3	4.9	10.7	-2.5	-4.0	-2.1	-4.3	-3.9	4.3	-2.9	-1.7
1	J	0.6	0.1	1.9	4.1	-1.9	-2.7	-2.1	-2.6	-2.0	2.2	-1.9	-1.1
1	K	0.4	0.1	1.2	2.7	-1.2	-1.0	-1.4	-0.9	-0.8	1.1	-0.9	-0.5

Frm Line	Col Line	Seis Left Vert	Seis Right Vert	-MIN_SNOW-- Horz	-MIN_SNOW-- Vert	E1UNB_SL_L- Horz	E1UNB_SL_L- Vert	E1UNB_SL_R- Horz	E1UNB_SL_R- Vert	-LWIND1_L-- Horz	-LWIND1_L-- Vert	-LWIND1_R-- Horz	-LWIND1_R-- Vert
1	A	0.1	0.6	0.0	4.8	0.0	2.9	0.0	1.1	0.0	-0.3	0.0	0.0
1	B	-0.7	0.1	0.0	7.4	0.0	3.1	0.0	-0.4	0.0	-0.6	0.0	-0.2
1	D	0.6	-0.6	0.0	19.2	0.0	14.8	0.0	6.7	0.0	0.1	0.0	0.1
1	F	0.4	-0.4	0.0	19.2	0.0	6.7	0.0	14.8	0.0	0.0	0.0	0.2
1	J	-0.3	0.3	0.0	7.4	0.0	-0.4	0.0	3.1	0.0	0.0	0.0	-0.7
1	K	0.0	0.0	0.0	4.8	0.0	1.1	0.0	2.9	0.0	0.0	0.0	-0.4

Frm Line	Col Line	-LWIND2_L-- Horz	-LWIND2_L-- Vert	-LWIND2_R-- Horz	-LWIND2_R-- Vert
1	A	0.0	-0.3	0.0	0.0
1	B	0.0	-0.6	0.0	-0.2
1	D	0.0	0.1	0.0	0.1
1	F	0.0	0.0	0.0	0.2
1	J	0.0	0.0	0.0	-0.7
1	K	0.0	0.0	0.0	-0.4

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horiz	Dead Vert	Collateral Horiz	Collateral Vert	Live Horiz	Live Vert	Snow Horiz	Snow Vert	Wind_Left1 Horiz	Wind_Left1 Vert	Wind_Right1 Horiz	Wind_Right1 Vert
5	A	1.7	3.1	0.3	0.4	5.7	8.4	12.4	18.4	-5.7	-7.8	-2.6	-6.1
5	K	-1.7	3.1	-0.3	0.4	-5.7	8.4	-12.4	18.4	2.6	-6.1	5.7	-7.8

Frame Line	Column Line	Wind_Left2 Horiz	Wind_Left2 Vert	Wind_Right2 Horiz	Wind_Right2 Vert	Wind_Long1 Horiz	Wind_Long1 Vert	Wind_Long2 Horiz	Wind_Long2 Vert	Seismic_Left Horiz	Seismic_Left Vert	Seismic_Right Horiz	Seismic_Right Vert
5	A	-4.8	-5.3	-1.7	-3.6	-2.9	-7.6	-1.7	-3.5	-0.8	-0.3	0.8	0.3
5	K	1.7	-3.6	4.8	-5.3	3.7	-6.8	1.7	-3.5	-0.8	0.3	0.8	-0.3

Frame Line	Column Line	MIN_SNOW Horiz	MIN_SNOW Vert	LWIND1_L2E Horiz	LWIND1_L2E Vert	LWIND1_R2E Horiz	LWIND1_R2E Vert	LWIND2_L2E Horiz	LWIND2_L2E Vert	LWIND2_R2E Horiz	LWIND2_R2E Vert	F1UNB_SL_L Horiz	F1UNB_SL_L Vert
5	A	22.2	33.1	0.0	0.0	-0.2	-0.1	0.1	-0.8	-0.2	-0.1	10.9	18.5
5	K	-22.2	33.1	0.0	0.0	-0.1	-0.8	0.2	-0.1	-0.1	-0.8	-11.0	11.2

Frame Line	Column Line	F1UNB_SL_R Horiz	F1UNB_SL_R Vert
5	A	11.0	11.2
5	K	-10.9	18.5

Frame Line	Column Line	Dead Horiz	Dead Vert	Collateral Horiz	Collateral Vert	Live Horiz	Live Vert	Snow Horiz	Snow Vert	Wind_Left1 Horiz	Wind_Left1 Vert	Wind_Right1 Horiz	Wind_Right1 Vert
2*	A	2.9	5.1	0.6	0.8	10.5	15.7	23.0	34.3	-8.3	-10.8	-2.5	-8.5
2*	K	-2.9	5.1	-0.6	0.8	-10.5	15.7	-23.0	34.3	2.5	-8.5	8.3	-10.8

Frame Line	Column Line	Wind_Left2 Horiz	Wind_Left2 Vert	Wind_Right2 Horiz	Wind_Right2 Vert	Wind_Long1 Horiz	Wind_Long1 Vert	Wind_Long2 Horiz	Wind_Long2 Vert	Seismic_Left Horiz	Seismic_Left Vert	Seismic_Right Horiz	Seismic_Right Vert
2*	A	-7.1	-6.2	-1.3	-3.9	-4.9	-11.1	-3.2	-6.5	-1.6	-0.6	1.6	0.6
2*	K	1.3	-3.9	7.1	-6.2	4.9	-11.1	3.2	-6.5	-1.6	0.6	1.6	-0.6

Frame Line	Column Line	MIN_SNOW Horiz	MIN_SNOW Vert	LWIND1_L2E Horiz	LWIND1_L2E Vert	LWIND1_R2E Horiz	LWIND1_R2E Vert	LWIND2_L2E Horiz	LWIND2_L2E Vert	LWIND2_R2E Horiz	LWIND2_R2E Vert	F2UNB_SL_L Horiz	F2UNB_SL_L Vert
2*	A	41.3	61.8	0.1	-1.5	-0.4	-0.3	0.1	-1.5	-0.4	-0.3	20.3	34.6
2*	K	-41.3	61.8	0.4	-0.3	-0.1	-1.5	0.4	-0.3	-0.1	-1.5	-20.4	20.9

Frame Line	Column Line	F2UNB_SL_R Horiz	F2UNB_SL_R Vert
2*	A	20.4	20.9
2*	K	-20.3	34.6

2* Frame lines: 2 3 4

ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc._Bolt Qty	Anc._Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Base_Plate (in) Thick	Elev. (in)
1	A	4	0.750	8.000	8.500	0.375	0.0
1	B	4	0.750	8.000	8.500	0.375	0.0
1	D	4	0.750	8.000	12.50	0.375	0.0
1	F	4	0.750	8.000	12.50	0.375	0.0
1	J	4	0.750	8.000	12.50	0.375	0.0
1	K	4	0.750	8.000	8.500	0.375	0.0

BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions (k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Panel_Shear Seis	Note
L_EW	1	A,B	2.2	3.4	1.9	3.0			
F_SW	K	3,4	6.2	4.6	6.4	4.8			
R_EW	5								(h)
B_SW	A	4,3	6.2	4.6	6.4	4.8			

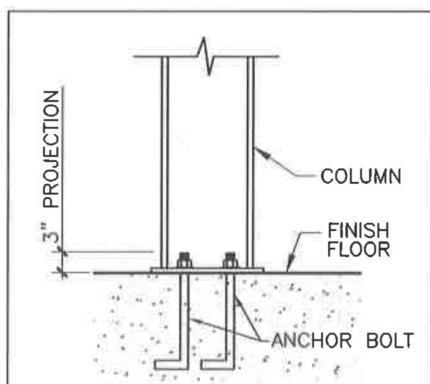
(h)Rigid frame at endwall

GENERAL NOTES

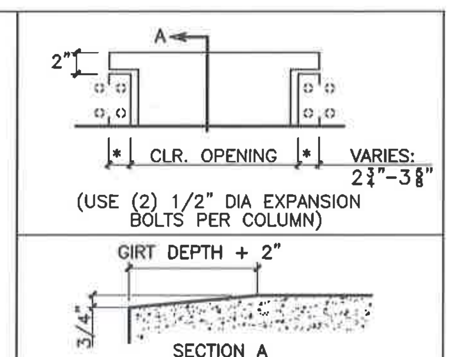
1. ALL LOADING CONDITIONS ARE EXAMINED. THE MAXIMUM AND MINIMUM HORIZONTAL (H) AND VERTICAL (V) REACTIONS AND THE CORRESPONDING VERTICAL (V) OR HORIZONTAL (H) REACTIONS ARE REPORTED.
2. REACTIONS ARE PROVIDED BY LOAD CASE IN ORDER TO AID THE FOUNDATION ENGINEER IN DETERMINING THE APPROPRIATE LOAD FACTORS AND COMBINATION TO BE USED WITH EITHER WORKING STRESS OR ULTIMATE STRENGTH DESIGN METHODS. WIND LOAD CASES ARE GIVEN FOR EACH PRIMARY WIND DIRECTION.
3. FOR ASCE7-10 BASED BULDING CODES THE UNFACTORED LOAD CASE REACTIONS DUE TO WIND ARE GENERATED USING ULTIMATE DESIGN WIND SPEEDS (Vult).
4. POSITIVE (+) REACTIONS ARE AS SHOWN ABOVE. FOUNDATION LOADS ARE IN OPPOSITE DIRECTIONS.
5. BRACING REACTIONS ARE IN THE PLANE OF THE BRACE WITH THE HORIZONTAL REACTION (H) ACTING AWAY FROM THE BRACED BAY AND THE VERTICAL REACTION (V) ACTING DOWNWARD.

****** RIGID FRAME LOAD CASE ABBREVIATIONS: ******
Wind_L1/Wind_R1: LATERAL WIND FROM THE LEFT/RIGHT, CASE 1
Wind_L2/Wind_R2: LATERAL WIND FROM THE LEFT/RIGHT, CASE 2
Wind_Ln1/Wind_Ln2: LONGITUDINAL WIND, CASE 1/2
Seismic_L/Seismic_R: LATERAL SEISMIC LOAD FROM LEFT/RIGHT
LWIND#_L#E/LWIND#_R#E: LONGITUDINAL WIND EDGE ZONES
F#UNB_SL_L/F#UNB_SL_R: UNBALANCED ROOF SNOW WITH WIND FROM LEFT/RIGHT
F#PAT_LL #/F#PAT_SL #: PARTIAL LIVE/SNOW LOADING FOR CONTINUOUS BEAM SYSTEMS

****** ENDWALL COLUMN LOAD CASE ABBREVIATIONS: ******
Collat: COLLATERAL LOAD
Rafter Wind_L/Rafter Wind_R: LATERAL WIND FROM THE LEFT/RIGHT
Brace Wind_L/Brace Wind_R: LATERAL WIND FROM THE LEFT/RIGHT
Wind_P/Wind_S: LONGITUDINAL WIND PRESSURE/SUCTION ON COLUMNS
Wind_Ln: LONGITUDINAL WIND SUCTION ON ROOF
Seis_L/Seis_R: LATERAL SEISMIC LOAD FROM LEFT/RIGHT
E#UNB_SL_L/E#UNB_SL_R: UNBALANCED ROOF SNOW WITH WIND FROM LEFT/RIGHT
E#PAT_LL #/E#PAT_SL #: PARTIAL LIVE/SNOW LOADING FOR CONTINUOUS BEAM SYSTEMS



TYPICAL COLUMN BASE PLATE DETAIL



(RECOMMENDED)
TYPICAL OVERHEAD DOOR FRAMED OPENING

FOUNDATION DESIGN NOTES:

1. THE ORIENTATION OF THE ANCHOR BOLT DETAILS SHOWN ON THIS PAGE MAY NOT COINCIDE WITH THE ACTUAL COLUMN ORIENTATION SHOWN ON PAGE F1. PLEASE REFERENCE THE SIDEWALL (SW) AND ENDWALL (EW) STEEL LINES SHOWN ON THE ANCHOR BOLT DETAILS WITH THE ANCHOR BOLT PLAN ON PAGE F1 DURING LAYOUT OF COLUMN AND ANCHOR BOLT LOCATIONS.
2. COLUMN BASE PLATES MAY HAVE MORE HOLES THAN ARE REQUIRED DUE TO PRODUCTION LIMITATIONS. PLEASE FOLLOW ANCHOR BOLT DETAILS FOR QUANTITY OF ANCHOR BOLTS REQUIRED. EXTRA BASE PLATE HOLES DO NOT NEED INFILLED PER THE MBS DESIGN SPECIFICATIONS.

ISSUE	DWN	CHK	ENG	PE	DATE
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Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE:
(888) 449-7756

PROJECT NAME
ROUTT COUNTY ROAD & BRIDGE
OAK CREEK CO

CUSTOMER NAME
ROUTT COUNTY ROAD & BRIDGE
STEAMBOAT SPRINGS CO

JOB NUMBER
U16O0196A

SHEET TITLE

COLORADO LICENSED PROFESSIONAL ENGINEER
DAVIS
49599
APR 18 2016

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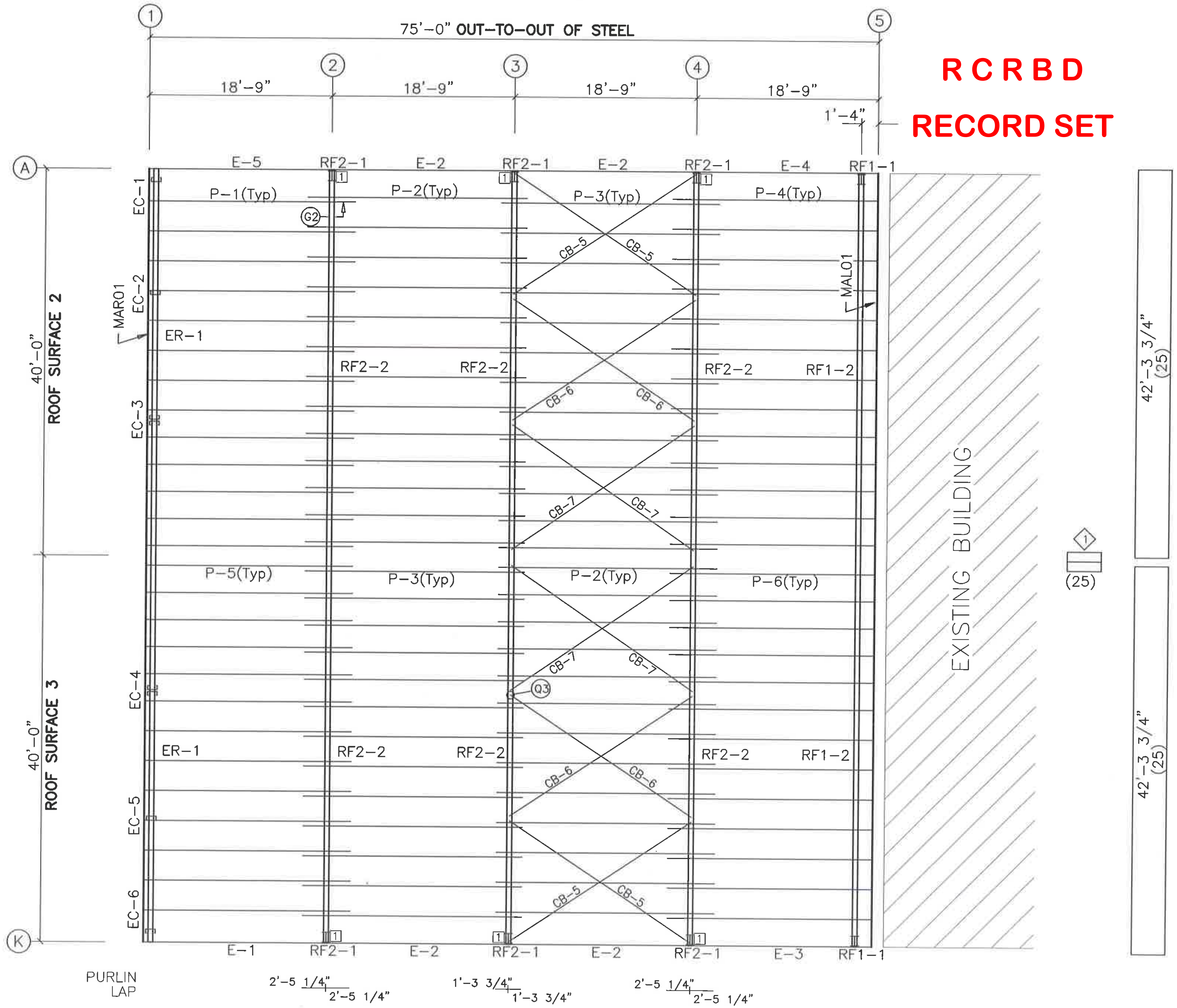
SHEET
F2 of 2

R C R B D

RECORD SET



ROOF FRAMING PLAN

TRIM TABLE ROOF PLAN			
◇ID	PART	LENGTH	DETAIL
1	RGA35	36.000	TRIM_3

MEMBER TABLE ROOF PLAN		
MARK	PART	LENGTH
P-1	08Z067	254.000
P-2	08Z067	270.000
P-3	08Z067	270.000
P-4	08Z067	254.000
P-5	08Z067	254.000
P-6	08Z067	254.000
E-1	08E3060	224.500
E-2	08E3060	224.500
E-3	08E3060	224.500
E-4	08E3060	224.500
E-5	08E3060	224.500
CB-5	RDB-	271.000
CB-6	RDB-	275.000
CB-7	RDB-	282.000

CONNECTION PLATES ROOF PLAN	
☐ ID	MARK/PART
1	ESC02

ROOF SHEETING

PANELS: 26 Ga. CR Polar White SP

ROOF FRAMING PLAN

GENERAL NOTES

1. PLACE TAGGED END OF RAFTERS TOWARDS THE LOW EAVE.
2. STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD		CABLE	
RDB-	= 5/8" ROD	CAA-	= 1/4" CABLE
RDC-	= 3/4" ROD	CAB-	= 3/8" CABLE
RDD-	= 7/8" ROD	CAC-	= 1/2" CABLE
RDE-	= 1" ROD		
RDF-	= 1 1/8" ROD		
RDG-	= 1 1/4" ROD		

3. PURLIN AND EAVE STRUT CONNECTIONS UTILIZE BOTH A307 AND A325 BOLTS. REFER TO THE DETAILS FOR SPECIFIC USAGE REQUIREMENTS.
4. THIS DRAWING IS NOT TO SCALE.

ISSUE	DRWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER: U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER — DAVIS — 49599 — APR 18 2016

SHEET: E1 of 8

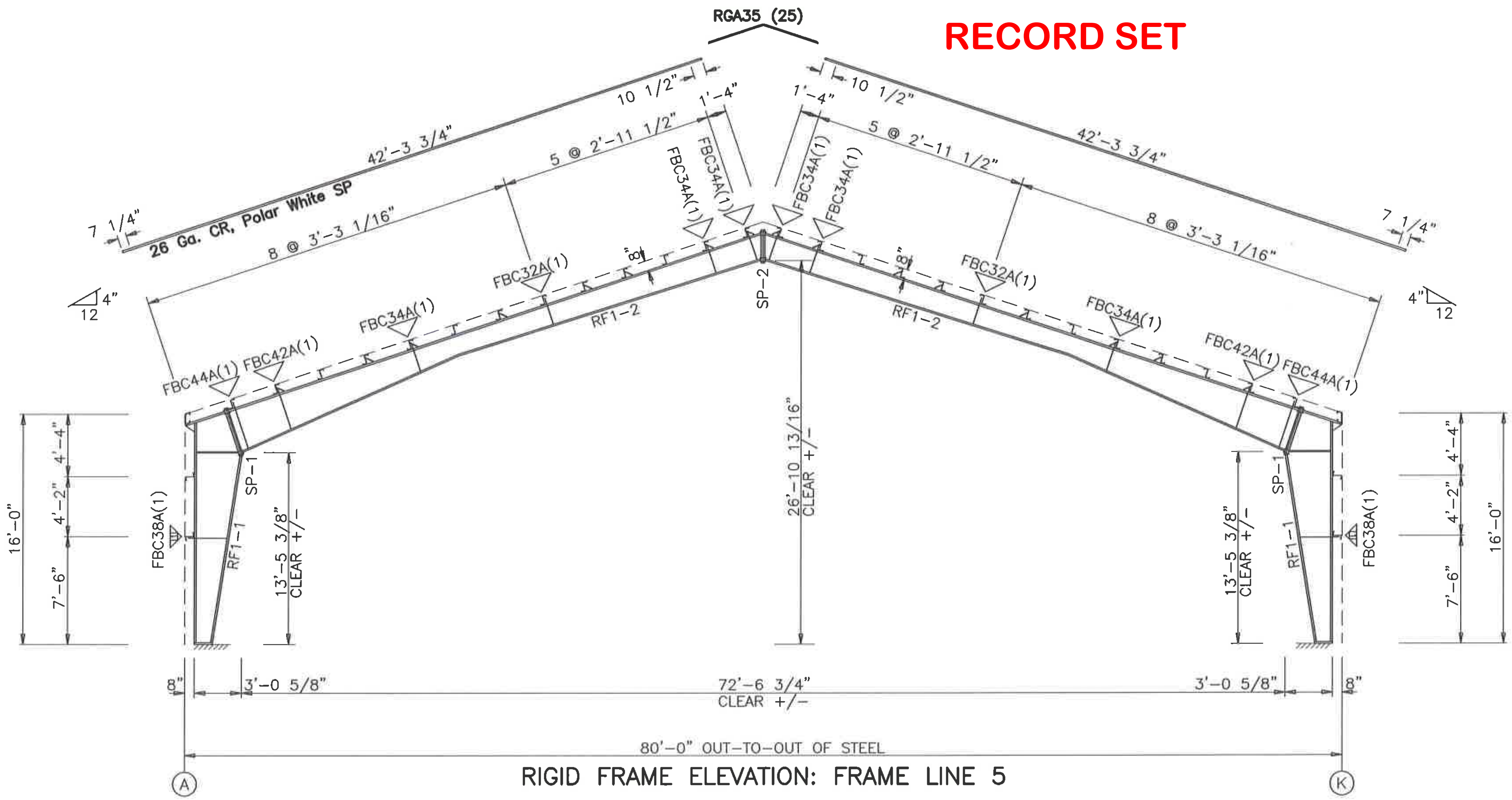
SPLICE PLATE & BOLT TABLE									
	Qty								
Mark	Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP−1	4	4	0	A325	0.750	3.00	6"	3/4"	3'−5 1/2"
SP−2	4	4	0	A325	0.625	2.25	6"	3/8"	2'−2 5/8"

MEMBER TABLE					
	Web Depth	Web Plate		Outside Flange	Inside Flange
Mark	Start/End	Thick	Length	W x Thk x Length	W x Thk x Length
RF1−1	11.5/36.0	0.220	157.5	6 x 1/4" x 185.5	6 x 3/8" x 159.4
	36.0/24.0	0.250	36.1	6 x 5/16" x 33.6	
RF1−2	34.5/15.0	0.220	198.3	6 x 1/4" x 470.1	6 x 3/8" x 199.2
	15.0/19.0	0.125	271.8		6 x 1/4" x 265.4

CONNECTION PLATES	
☐ ID	Mark/Part
1	FBT01

R C R B D

RECORD SET



RIGID FRAME ELEVATION: FRAME LINE 5

GENERAL NOTES

1. ▽ INDICATES FLANGE BRACING LOCATIONS. (1) = ONE SIDE; (2) = TWO SIDES.
2. IF FLANGE BRACING IS REQUIRED ON BOTH SIDES OF AN EXPANDABLE RIGID FRAME, THE OPPOSITE SIDE FLANGE BRACES WILL HAVE TO BE INSTALLED AT THE TIME OF FUTURE EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.
3. RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

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SHEET
E2 of 8

SPLICE PLATE & BOLT TABLE

Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	1.000	3.25	6"	3/4"	4'-1 3/4"
SP-2	4	4	0	A325	0.625	2.25	6"	3/8"	2'-6 7/8"

MEMBER TABLE

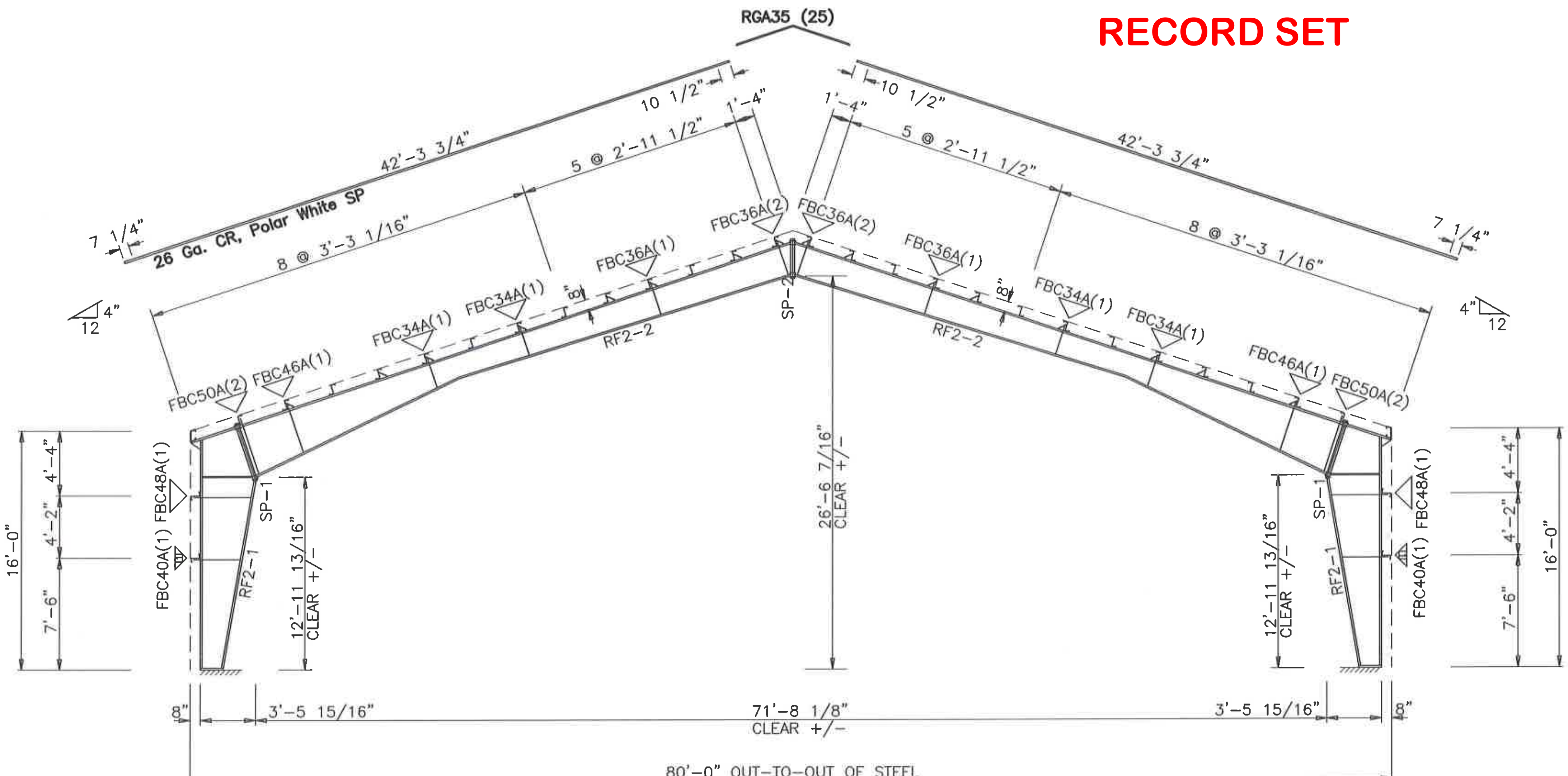
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	15.0/41.0	0.275	151.3	6 x 5/16" x 185.5	6 x 5/8" x 153.4
	41.0/26.6	0.313	43.1	6 x 3/8" x 36.4	
RF2-2	41.0/17.0	0.275	180.5	6 x 5/16" x 467.2	6 x 5/8" x 182.0
	17.0/23.0	0.164	286.8		6 x 3/8" x 279.0

CONNECTION PLATES

ID	Mark/Part
1	FBT01

RCRBD

RECORD SET



RIGID FRAME ELEVATION: FRAME LINE 2 3 4

GENERAL NOTES

1. ▽ INDICATES FLANGE BRACING LOCATIONS. (1) = ONE SIDE; (2) = TWO SIDES.
2. IF FLANGE BRACING IS REQUIRED ON BOTH SIDES OF AN EXPANDABLE RIGID FRAME, THE OPPOSITE SIDE FLANGE BRACES WILL HAVE TO BE INSTALLED AT THE TIME OF FUTURE EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.
3. RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.

Issue	Drwn	Chk	Eng	PE	Date
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

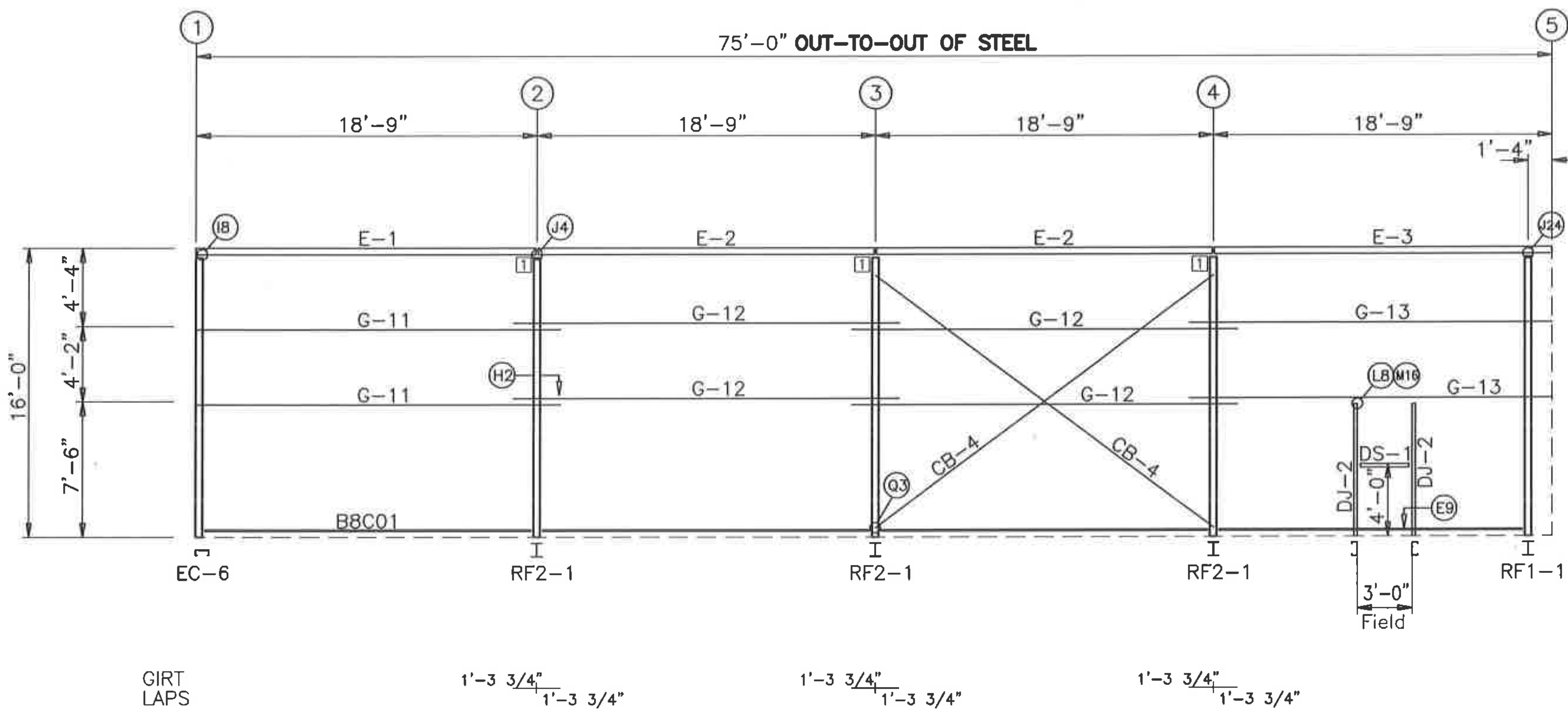
PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER: U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER 49599 — APR 18 2016



SIDEWALL FRAMING: FRAME LINE K

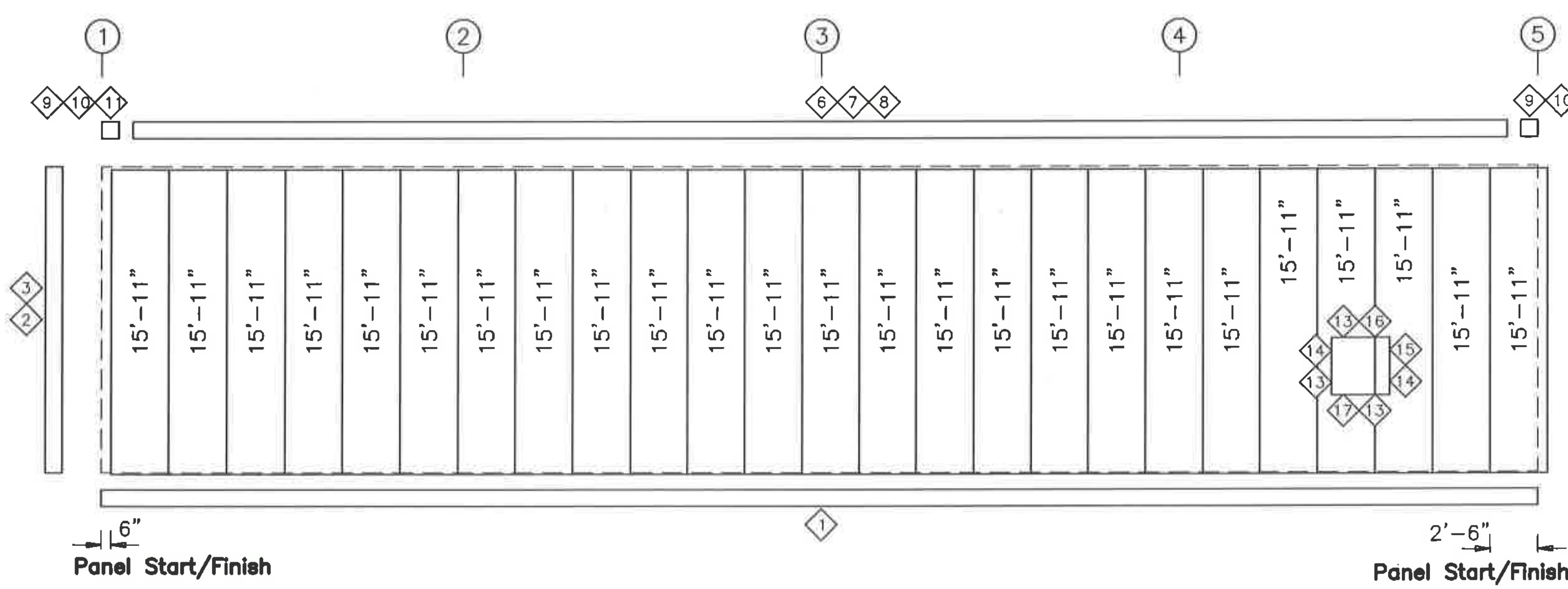
R C R B D

RECORD SET

TRIM TABLE FRAME LINE K			
◇ID	PART	LENGTH	DETAIL
1	BSB01	122.000	TRIM_303
2	OCA01	242.000	TRIM_8
3	MFA01	121.000	TRIM_8
4	OCC01	121.000	TRIM_708
5	JTA121	121.000	TRIM_708
6	SET01	121.000	TRIM_850
7	CTA02	121.000	
8	CTA03	121.000	
9	H4000	5.000	
10	ERA01	8.060	
11	RCA01	9.250	
12	RCA02	9.250	
13	CCA121	121.000	TRIM_19
14	JTA087	87.000	TRIM_99
15	CCA121	Use Drop	TRIM_19
18	CCE044	44.000	TRIM_19
17	STA040	40.000	TRIM_99

MEMBER TABLE FRAME LINE K		
MARK	PART	LENGTH
DJ-2	J08C060	90.000
DS-1	J08C060	36.000
E-1	08E3060	224.500
E-2	08E3060	224.500
E-3	08E3060	224.500
G-11	08Z054	240.500
G-12	08Z054	256.500
G-13	08Z054	240.500
CB-4	RDB-	289.000

CONNECTION PLATES FRAME LINE K	
☐ ID	MARK/PART
1	ESC02



SIDEWALL SHEETING & TRIM: FRAME LINE K

PANELS: 26 Ga. AW – Fox Gray SP

SIDEWALL FRAMING PLAN

GENERAL NOTES

1. STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD		CABLE	
RDB–	= 5/8" ROD	CAA–	= 1/4" CABLE
RDC–	= 3/4" ROD	CAB–	= 3/8" CABLE
RDD–	= 7/8" ROD	CAC–	= 1/2" CABLE
RDE–	= 1" ROD		
RDF–	= 1 1/8" ROD		
RDG–	= 1 1/4" ROD		

2. ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
3. FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
4. THIS DRAWING IS NOT TO SCALE.

Description	DWN	CHK	ENG	APP	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
MCKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

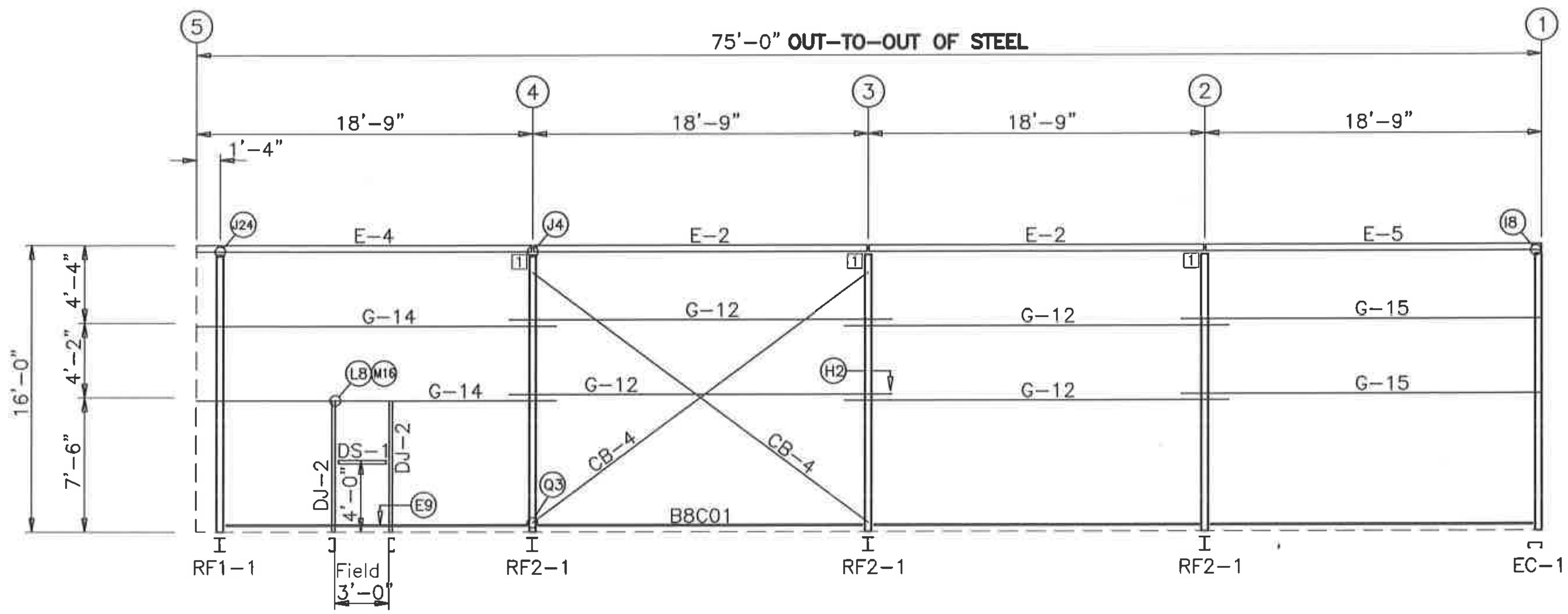
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

JOB NUMBER: U16O0196A

SHEET TITLE

COLORADO LICENSED PROFESSIONAL ENGINEER 48599 APR 18 2016

SHEET: E4 of 8



SIDEWALL FRAMING: FRAME LINE A

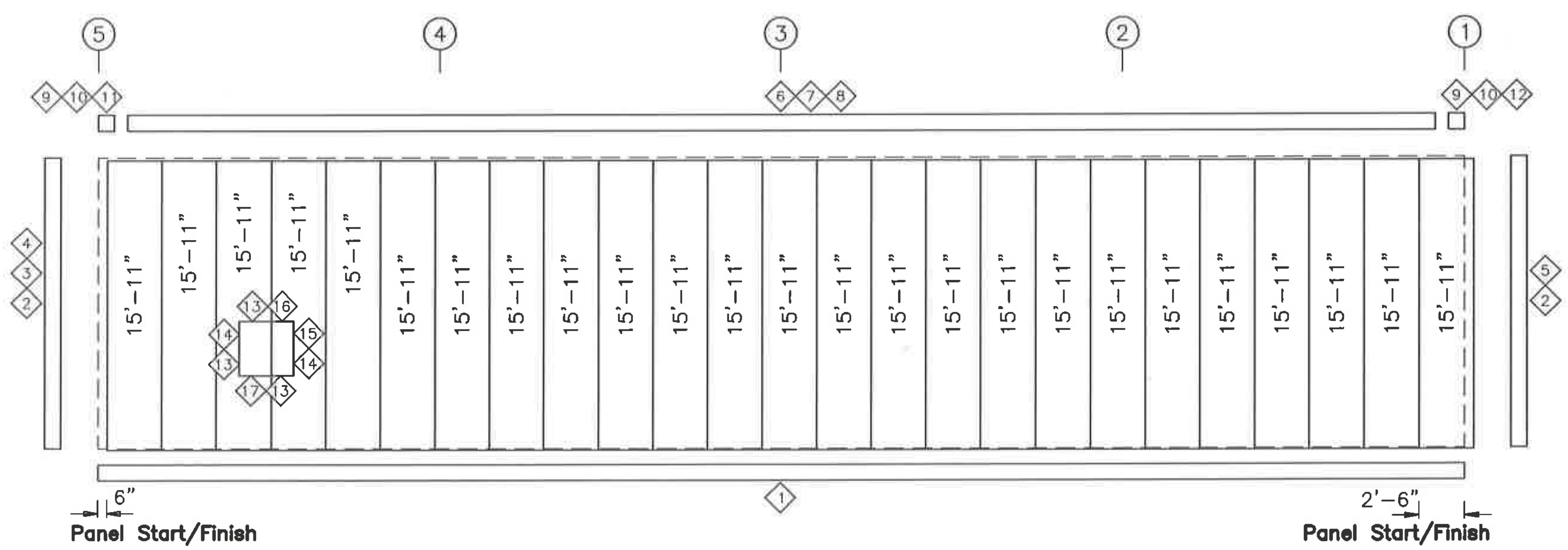
R C R B D

RECORD SET

TRIM TABLE FRAME LINE A			
◇ID	PART	LENGTH	DETAIL
1	BSB01	122.000	TRIM_303
2	MFA01	121.000	TRIM_8
3	OCC01	121.000	TRIM_708
4	JTA121	121.000	TRIM_708
5	OCA01	242.000	TRIM_8
6	SET01	121.000	TRIM_850
7	CTA02	121.000	
8	CTA03	121.000	
9	H4000	5.000	
10	ERA01	8.060	
11	RCA01	9.250	
12	RCA02	9.250	
13	CCA121	121.000	TRIM_19
14	JTA087	87.000	TRIM_99
15	CCA121	Use Drop	TRIM_19
16	CCE044	44.000	TRIM_19
17	STA040	40.000	TRIM_99

MEMBER TABLE FRAME LINE A		
MARK	PART	LENGTH
DJ-2	J08C060	90.000
DS-1	J08C060	36.000
E-2	08E3060	224.500
E-4	08E3060	224.500
E-5	08E3060	224.500
G-12	08Z054	256.500
G-14	08Z054	240.500
G-15	08Z054	240.500
CB-4	RDB-	289.000

CONNECTION PLATES FRAME LINE A	
□ID	MARK/PART
1	ESC02



SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Ga. AW – Fox Gray SP

SIDEWALL FRAMING PLAN

GENERAL NOTES

1. STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD		CABLE	
RDB–	= 5/8" ROD	CAA–	= 1/4" CABLE
RDC–	= 3/4" ROD	CAB–	= 3/8" CABLE
RDD–	= 7/8" ROD	CAC–	= 1/2" CABLE
RDE–	= 1" ROD		
RDF–	= 1 1/8" ROD		
RDG–	= 1 1/4" ROD		

2. ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
3. FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
4. THIS DRAWING IS NOT TO SCALE.

ISSUE	DWN	CHK	ENG	APP	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

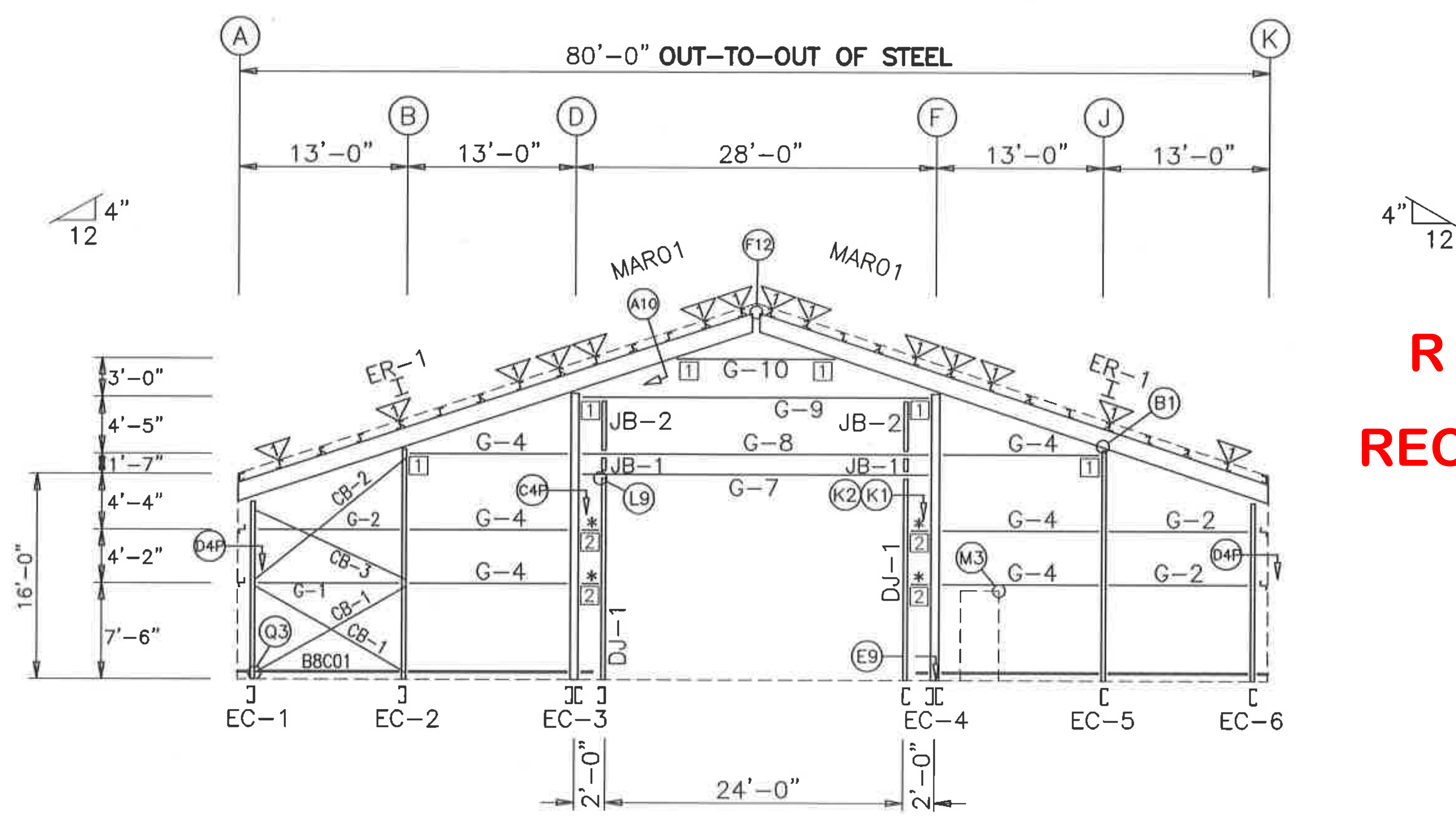
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER: U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER 49599 — APR 18 2016

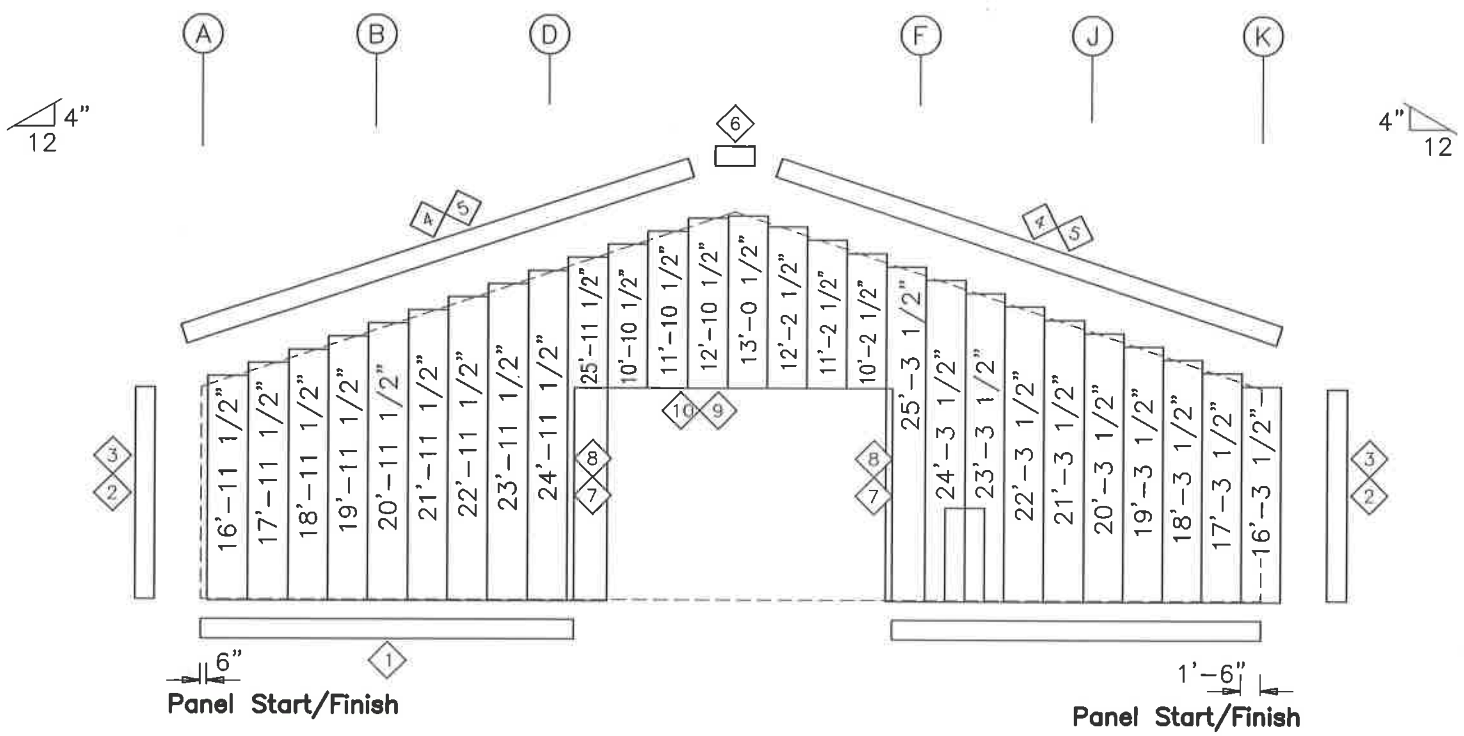
SHEET: E5 of 8



ENDWALL FRAMING: FRAME LINE 1

RCRBD

RECORD SET



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. AW – Fox Gray SP

BOLT TABLE
FRAME LINE 1

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-1	8	A325	5/8"	2 1/4"
Columns/Raf	6	A325	1/2"	2"

TRIM TABLE
FRAME LINE 1

◇ID	PART	LENGTH	DETAIL
1	BSB01	122.000	TRIM_303
2	OCA01	242.000	TRIM_8
3	MFA01	121.000	TRIM_8
4	RTA01	121.000	TRIM_2
5	RTA02	242.000	TRIM_2
6	M1704	26.440	
7	CCA193	193.000	TRIM_19
8	JTA193	193.000	TRIM_98
9	CCA145	145.000	TRIM_19
10	HTA148	148.000	TRIM_98

FLANGE BRACE TABLE
FRAME LINE 1

▽ID	QUAN	MARK	LENGTH
1	14	FBC30	30.000

MEMBER TABLE
FRAME LINE 1

MARK	PART	LENGTH
EC-1	W08S075	176.250
EC-2	W08S105	222.938
EC-3	W12SD089	274.938
EC-4	W12SD089	274.938
EC-5	W12S075	222.938
EC-6	W08S075	176.250
ER-1	W1212525	505.688
DJ-1	J08C089	192.000
G-1	08Z075	131.500
G-2	08Z054	131.500
*	S8Z84	FIELD CUT
G-4	08Z054	147.500
G-7	08C089	327.500
G-8	08Z089	327.500
G-9	08Z099	327.500
G-10	08Z067	174.500
CB-1	RDB-	166.000
CB-2	RDB-	188.000
CB-3	RDB-	163.000
JB-1	J08C060	10.625
JB-2	J08C060	44.625

CONNECTION PLATES
FRAME LINE 1

☐ID	MARK/PART
1	GCR34gcb
2	JCA&P02

ENDWALL FRAMING PLAN

GENERAL NOTES

1. STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD		CABLE	
RDB-	= 5/8" ROD	CAA-	= 1/4" CABLE
RDC-	= 3/4" ROD	CAB-	= 3/8" CABLE
RDD-	= 7/8" ROD	CAC-	= 1/2" CABLE
RDE-	= 1" ROD		
RDF-	= 1 1/8" ROD		
RDG-	= 1 1/4" ROD		

2. ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
3. FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
4. THIS DRAWING IS NOT TO SCALE.

DATE	BY	ENG	CHK	DWN	ISSUE
04/15/16	CDS	RHW	GRJ	PMG	Anchor Bolt Plans for Const.
04/15/16	CDS	RHW	GRJ	PMG	Permit Drawings

OLYMPIA STEEL BUILDING SYSTEMS
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PHONE: (888) 449-7756

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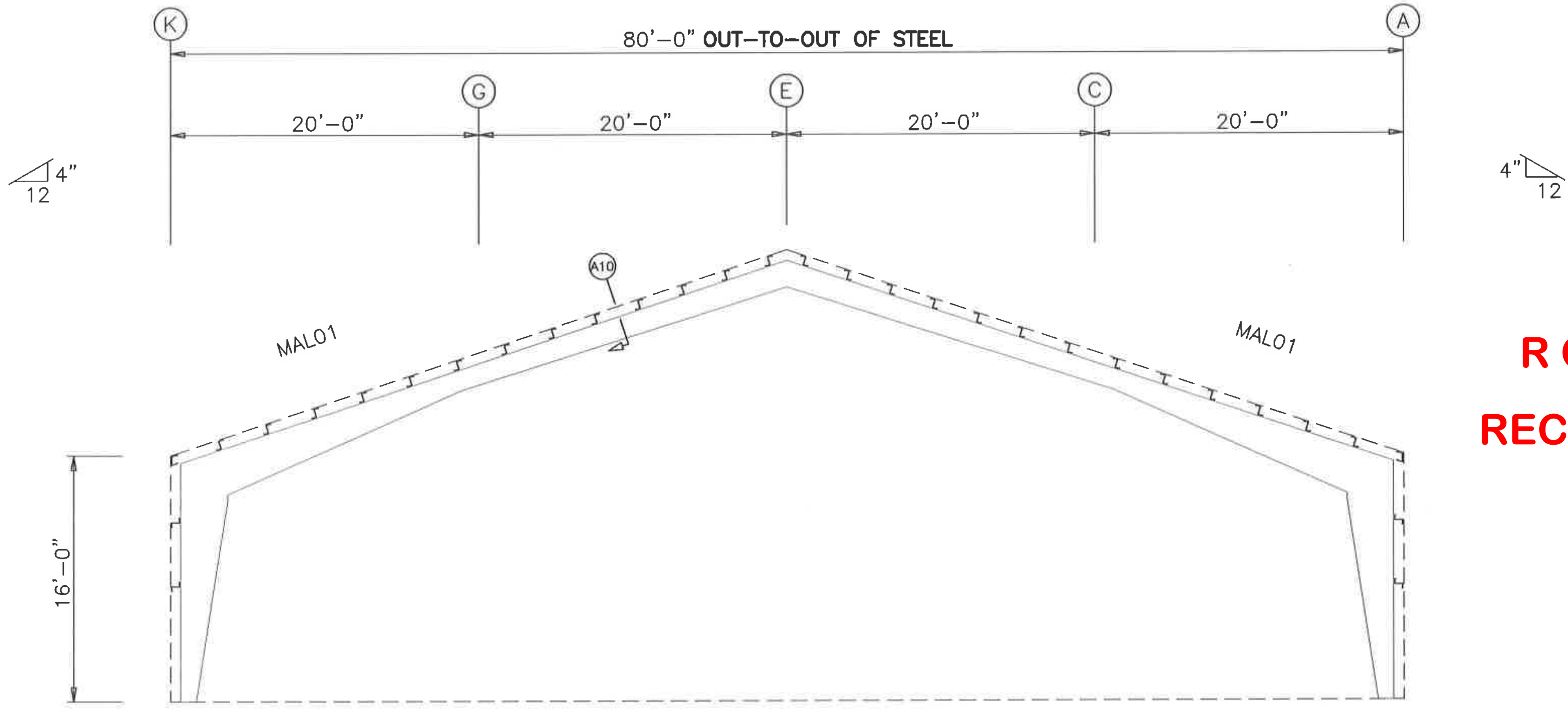
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER: U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER 49599 APR 18 2016

SHEET: E6 of 8

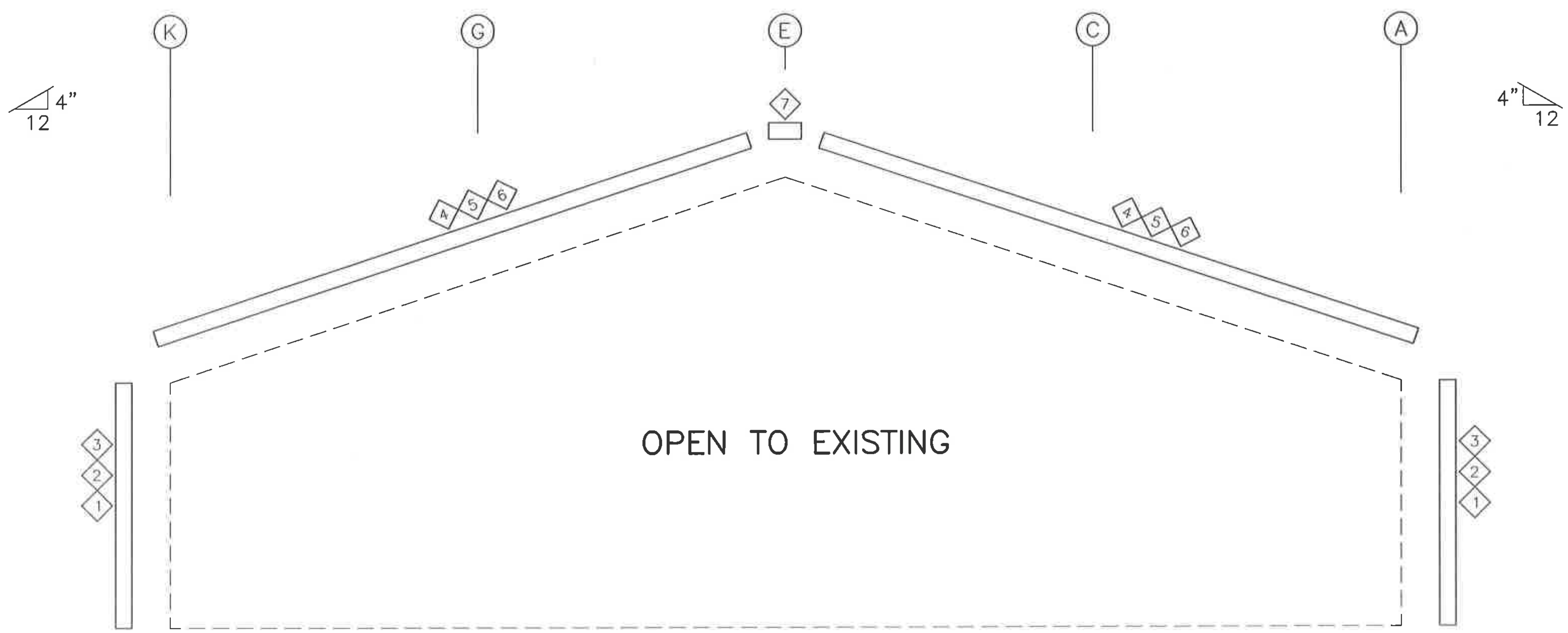


ENDWALL FRAMING: FRAME LINE 5

R C R B D

RECORD SET

TRIM TABLE FRAME LINE 5			
◇ID	PART	LENGTH	DETAIL
1	MFA01	121.000	TRIM_708
2	OCC01	121.000	TRIM_708
3	JTA121	121.000	TRIM_708
4	RTA01	121.000	TRIM_701
5	RTA02	242.000	TRIM_701
6	LEE10	121.000	
7	M1704	26.440	



ENDWALL SHEETING & TRIM: FRAME LINE 5

ENDWALL FRAMING PLAN

GENERAL NOTES

1. STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD		CABLE	
RDB–	= 5/8" ROD	CAA–	= 1/4" CABLE
RDC–	= 3/4" ROD	CAB–	= 3/8" CABLE
RDD–	= 7/8" ROD	CAC–	= 1/2" CABLE
RDE–	= 1" ROD		
RDF–	= 1 1/8" ROD		
RDG–	= 1 1/4" ROD		

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ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

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SHEET TITLE

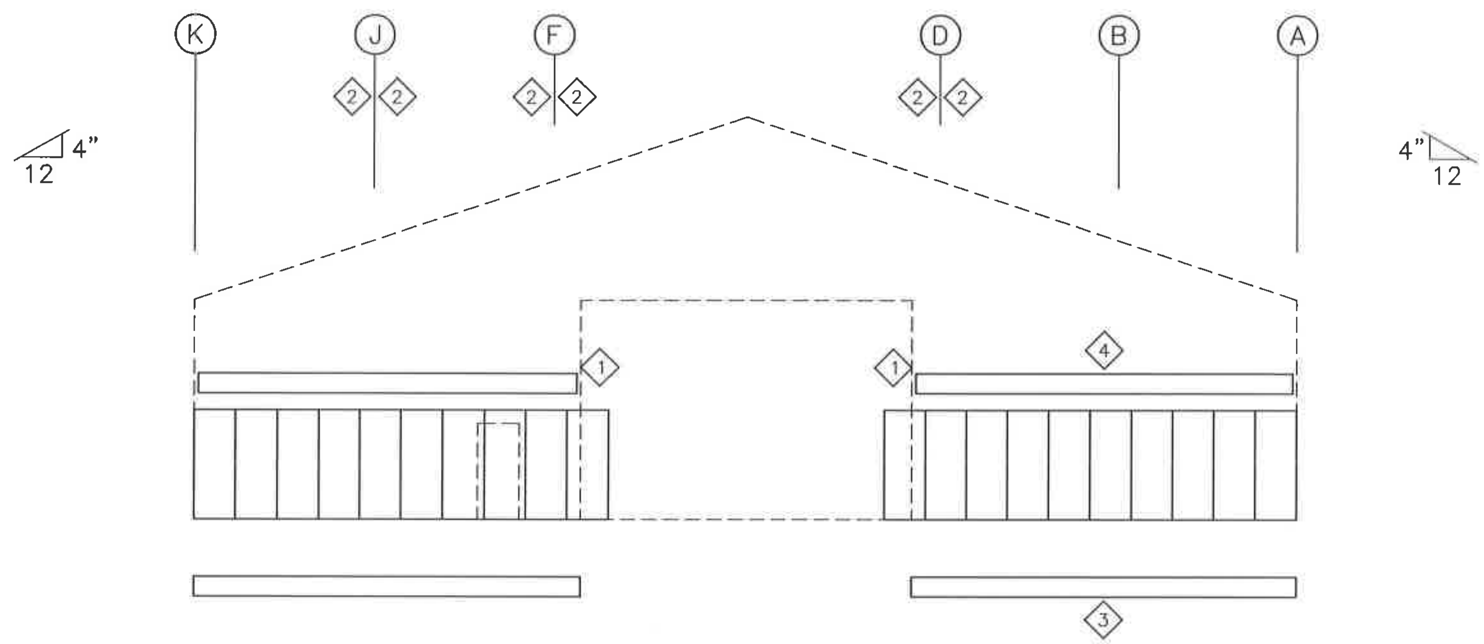
JOB NUMBER
U16O0196A

SHEET
E7 of 8

R C R B D

RECORD SET

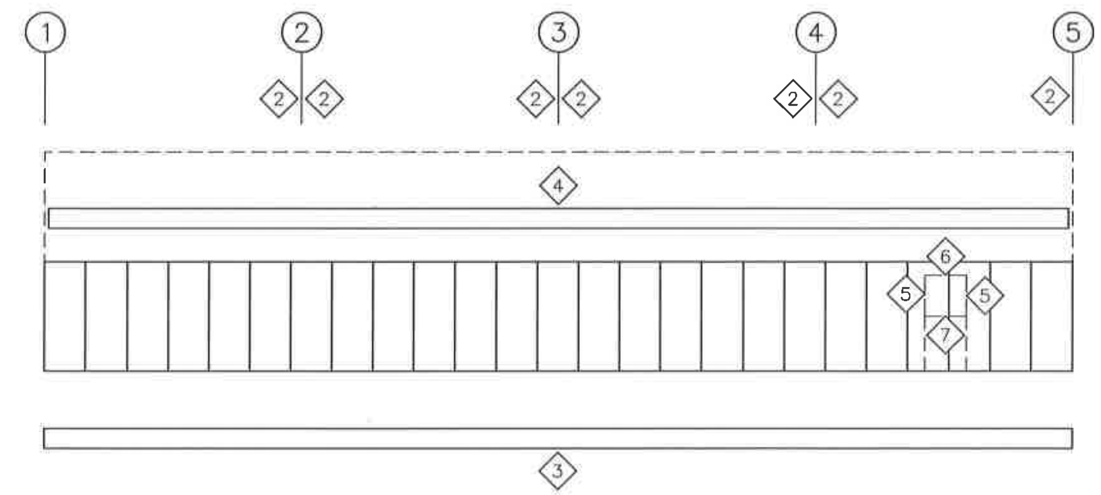
◇ID	PART	LENGTH	DETAIL
TRIM TABLE FRAME LINE 1 K A			
1	HTD194	194.000	TRIM_23
2	HTD096	96.000	TRIM_32
3	MAR02	242.000	TRIM_38
4	HTD121	121.000	TRIM_39
5	HTD096	96.000	TRIM_23
6	HTD096	96.000	TRIM_27
7	HTD096	96.000	TRIM_28



ENDWALL LINER SHEETING & TRIM: FRAME LINE 1

PANELS: 8'–0", 26 Ga. CL – Galvalume

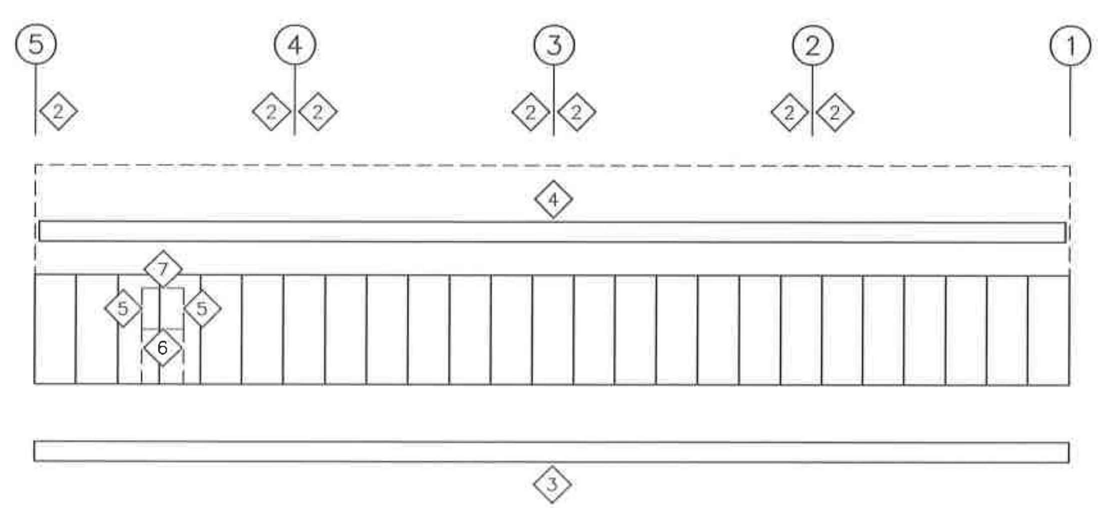
(As Viewed From Inside Of Building)



SIDEWALL LINER SHEETING & TRIM: FRAME LINE A

PANELS: 8'–0", 26 Ga. CL – Galvalume

(As Viewed From Inside Of Building)



SIDEWALL LINER SHEETING & TRIM: FRAME LINE K

PANELS: 8'–0", 26 Ga. CL – Galvalume

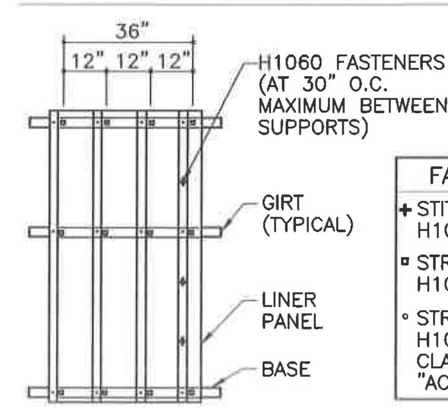
(As Viewed From Inside Of Building)

GENERAL NOTES:

1. FIELD WORK OF THE LINER PANELS AT THE FLANGE BRACE LOCATIONS MAY BE REQUIRED.

ERECTOR NOTE:

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



FASTENER CHART

- + STITCH FASTENER H1060
- ▫ STRUCTURAL FASTENER H1040 AT "CLASSIC" WALL
- ∘ STRUCTURAL FASTENER H1040 AT "REVERSE CLASSIC" H1040 AT "ACCENT" WALL

IA0070

LINER PANEL ERECTION NOTES

(PANELS 36" NET LAY)

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS

400 ISLAND AVENUE McKEES ROCKS, PA 15136

PHONE: (888) 449–7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

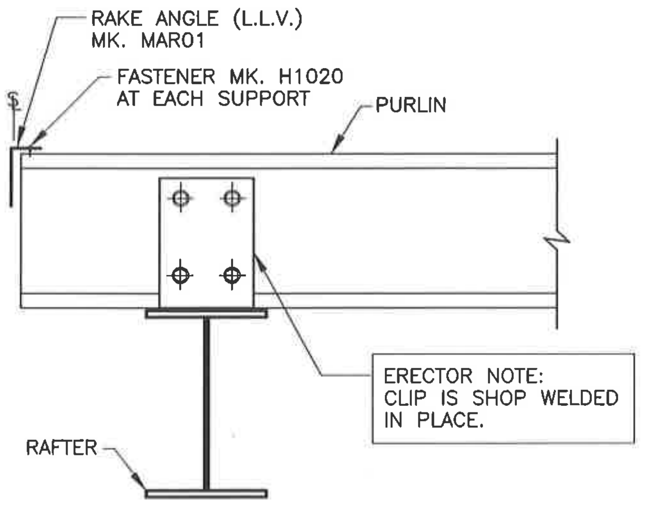
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER: U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER 49599 APR 18 2016

SHEET E8 of 8

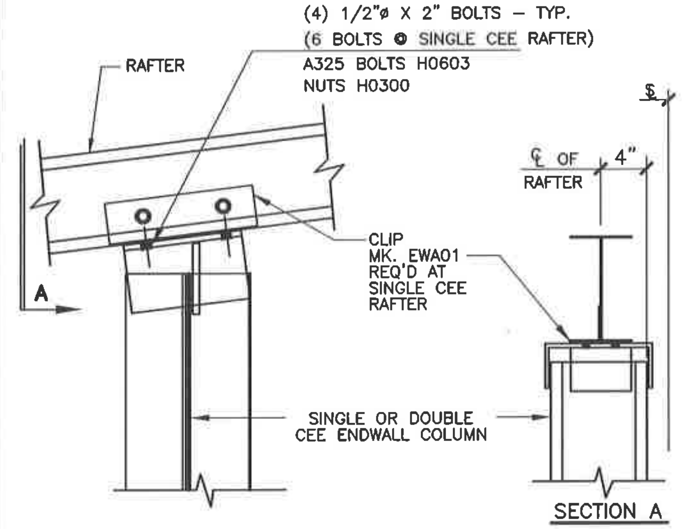


WELDED CLIP @ ENDWALL

USE (4) 1/2" x 1 1/4" A307
BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

A10

BB0050

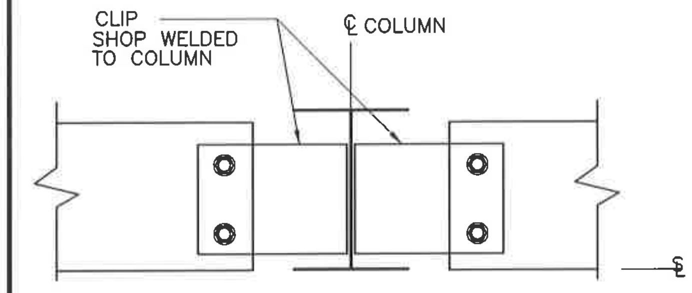


ENDWALL CEE COLUMN TO RAFTER

COLUMN TOP CLIP FACTORY WELDED TO COLUMN
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

B1

AB0090



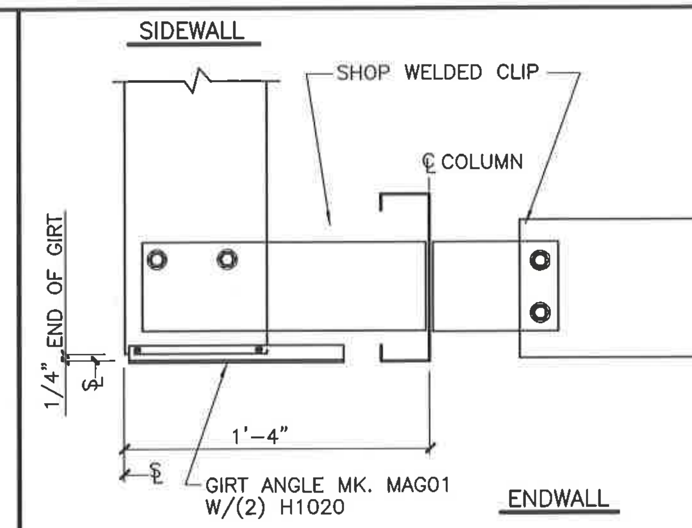
RCRBD

RECORD SET

FLUSH GIRT @ INTERIOR BAY COLUMN

USE (4) 1/2" x 1 1/4" A307
BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

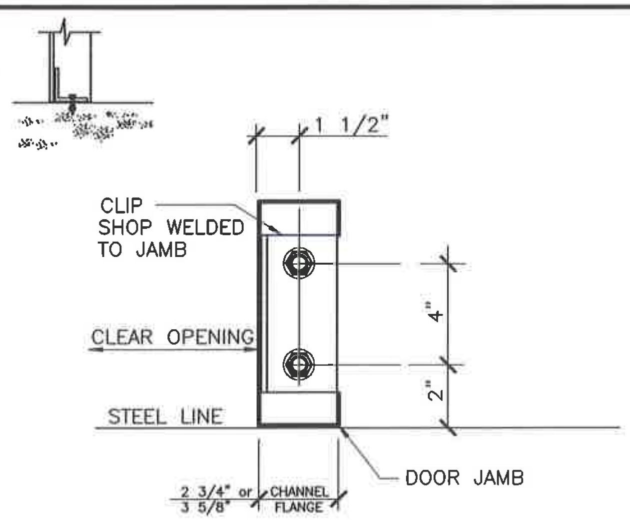
C4p



FLUSH ENDWALL GIRT AT CORNER

USE (4) 1/2" x 1 1/4" A307
BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

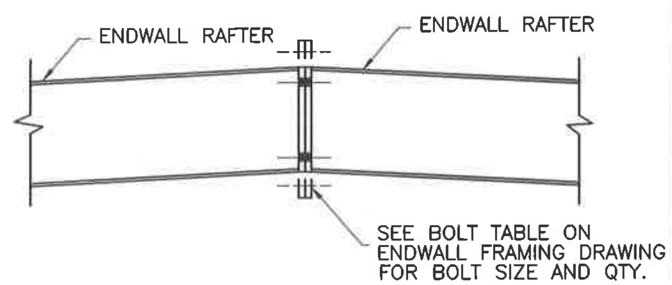
D4p



JAMB TO FINISHED FLOOR

ATTACHMENT TO SLAB BY OTHERS

E9

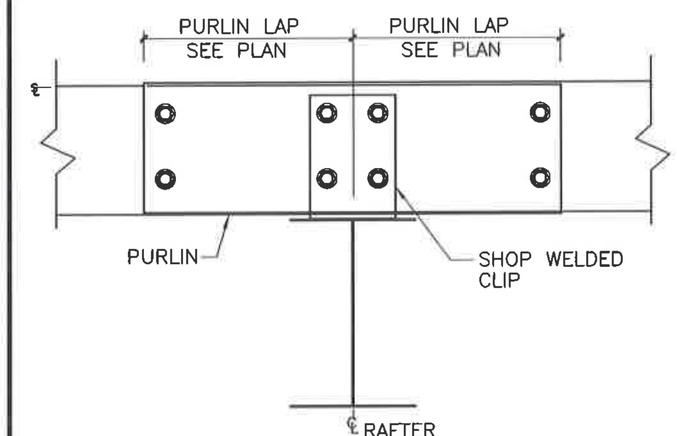


ENDWALL RAFTER AT RIDGE

BUILT-UP OR HOT-ROLLED RAFTER
WITHOUT A COLUMN AT THE RIDGE
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

F12

AC0160



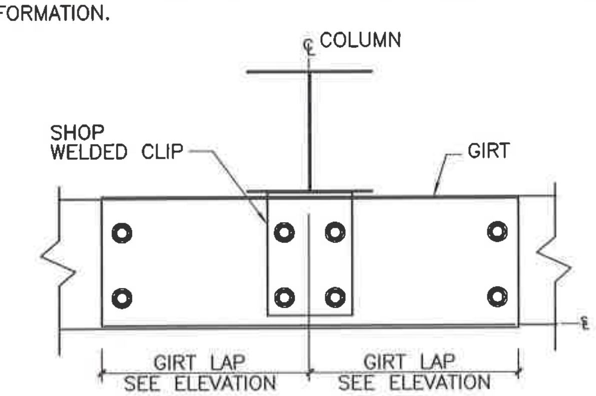
PURLIN TO INTERIOR FRAME RAFTER

USE (8) 1/2" x 1 1/4" A307
BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

G2

BB0050

ERECTOR NOTE:
AT EACH LAPPED GIRT CONNECTION, (1) 1/2" X 1 1/4" THIN HEAD BOLT H0515/NUT H0400 MUST BE USED TO ATTACH THE FIRST GIRT TO THE GIRT CLIP. THE BOLT/NUT ASSEMBLY MUST BE WRENCH TIGHT PRIOR TO THE LAPPED GIRT BEING INSTALLED. REFERENCE THE STANDARD "LAPPED GIRT DETAIL" FOR MORE INFORMATION.

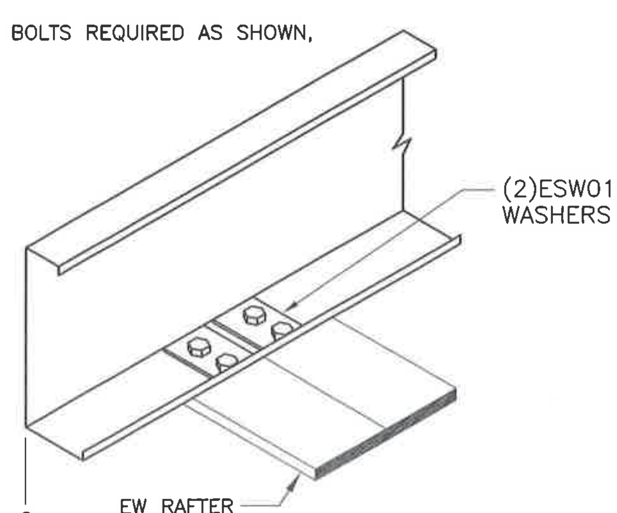


GIRT TO COLUMN

USE (7) 1/2" x 1 1/4" A307
BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

H2

CI0020

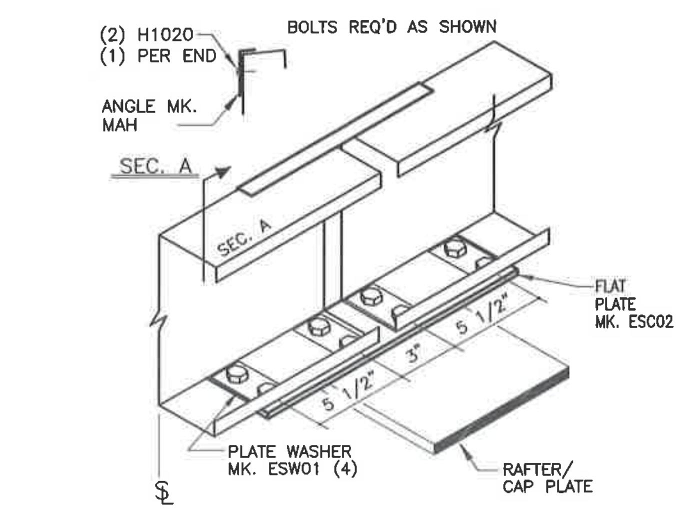


EAVE STRUT TO ENDWALL RAFTER

USE (4) 1/2" x 2" A325 BOLTS H0603 / NUTS H0300
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

I8

BA0080

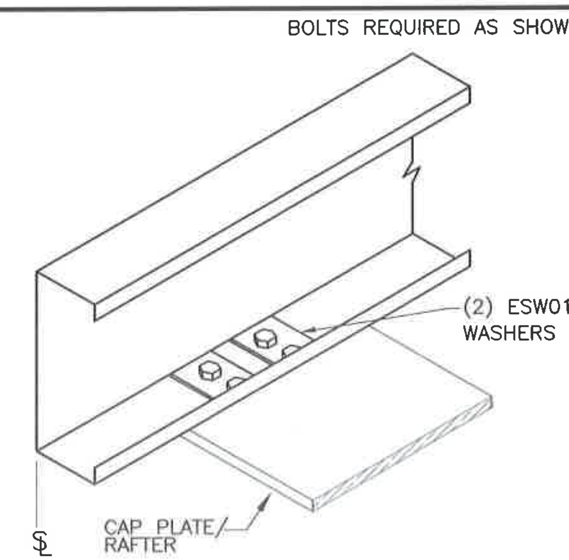


LOW EAVE EAVE STRUT AT BYPASS GIRTS

USE (8) 1/2" x 2" A325 BOLTS H0603 / NUTS H0300
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

J4

BA0070



LOW EAVE EAVE STRUT

USE (4) 1/2" x 2" A325 BOLTS H0603 / NUTS H0300
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

J24

ISSUE	DWG	CHK	ENG	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

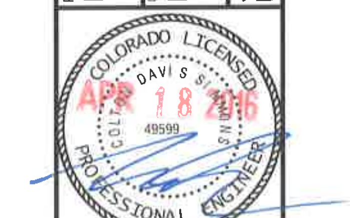
OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE:
(888) 449-7756

PROJECT NAME
ROUTT COUNTY ROAD & BRIDGE
OAK CREEK CO

CUSTOMER NAME
ROUTT COUNTY ROAD & BRIDGE
STEAMBOAT SPRINGS CO

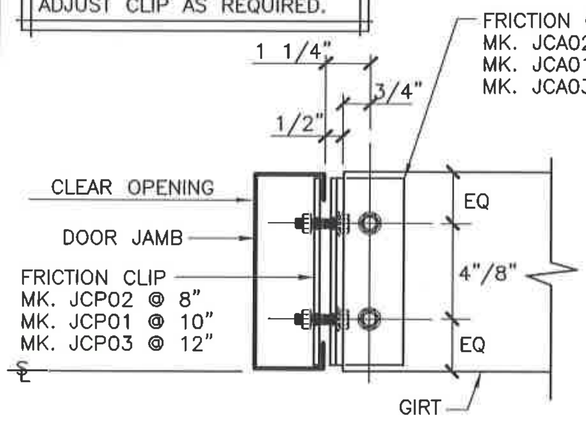
SHEET TITLE

JOB NUMBER
U16O0196A



SHEET
D1 of 9

NOTE:
INSTALL CLIPS ON JAMB BEFORE STANDING JAMB. USE LEVEL TO ALIGN GIRTS ADJUST CLIP AS REQUIRED.

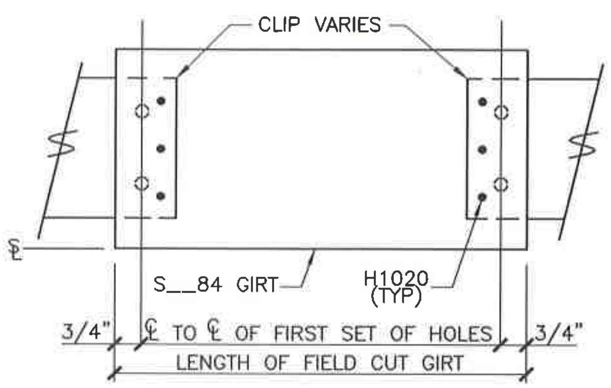


GIRT TO JAMB

USE (4) 1/2" x 1 1/4" A307 BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

CG0060 K1

PART #	MTRL SIZE	MTRL THICK.
S8Z84	8" ZEE	.060 MIN.
S8C84	8" CEE	.060 MIN.
S1Z84	10" ZEE	.060 MIN.
S1C84	10" CEE	.060 MIN.
S2Z84	12" ZEE	.075 MIN.
S2C84	12" CEE	.075 MIN.

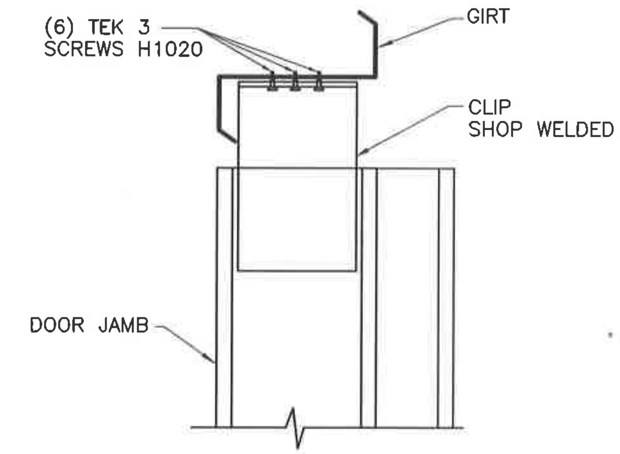


UNPUNCHED SHORT GIRT DETAIL

FIELD CUT TO LENGTH AND FASTEN WITH (3) H1020 AT EACH END

K2

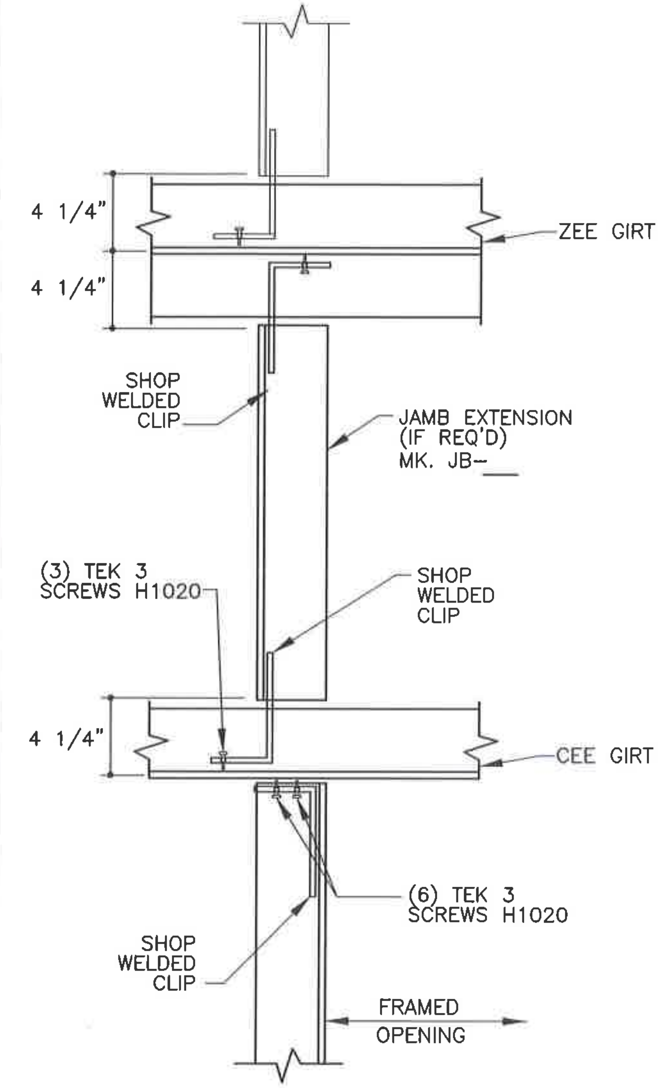
ERECTOR NOTE:
PRE-DRILL HOLES @ NESTED ZEE GIRTS & DOUBLE CEE GIRTS IF REQUIRED.



DOOR JAMB TO GIRT

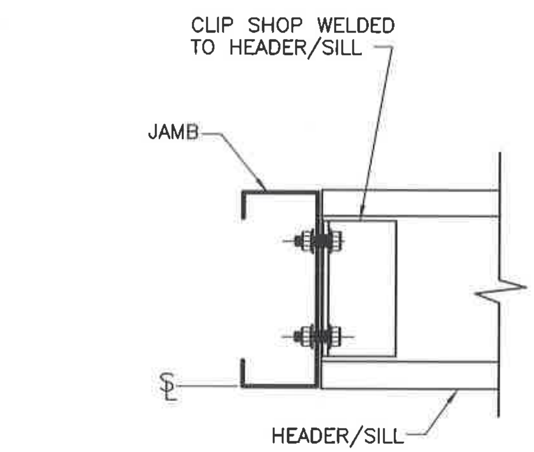
L8

ERECTOR NOTES:
–IF THE T-CLIP IS LOCATED IN THE SAME LOCATION AS NESTED GIRT BOLTS, THE NESTED GIRT BOLTS CAN BE REMOVED.
–PRE-DRILL HOLES AT NESTED ZEE GIRTS AND DOUBLE CEE GIRTS AS REQUIRED.



DOOR JAMB TO GIRT

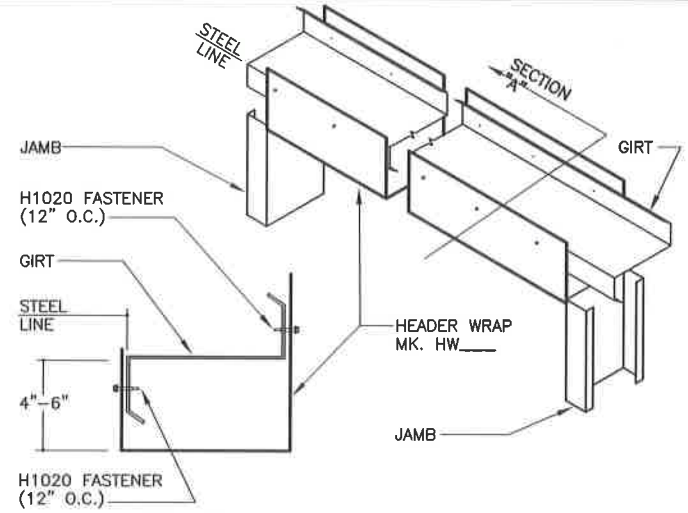
CG0070
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS
L9



HEADER/SILL TO JAMB

USE (2) 1/2" x 1 1/4" A307 BOLTS H0500 / NUTS H0400
REFERENCE ERECTOR NOTE FOR TYPICAL WASHER REQUIREMENTS

M3



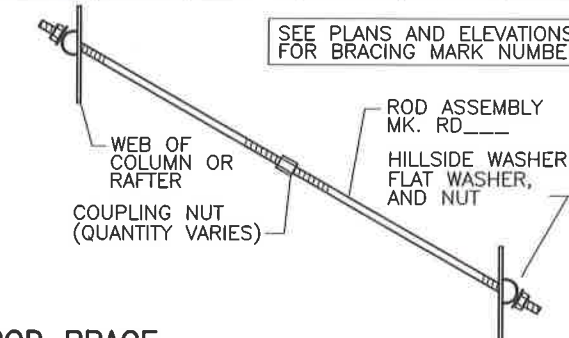
SECTION "A"

HEADER WRAP DETAIL

CG0025 M16

ROD DIAMETER	MARK NUMBER	HILLSIDE WASHERS	FLAT WASHERS	A307/A325 NUTS	COUPLING NUTS
5/8" ø	RDB ___	(2) H0930	(2) H0210	(2) H0310	H0810
3/4" ø	RDC ___	(2) H0930	(2) H0220	(2) H0320	H0820
7/8" ø	RDD ___	(2) H0930	(2) H0230	(2) H0325	H0830
1" ø	RDE ___	(2) H0960	(2) H0240	(2) H0330	H0840
1 1/8" ø	RDF ___	(2) H0960	(2) H0250	(2) H0450	H0850
1 1/4" ø	RDG ___	(2) H0960	(2) H0260	(2) H0340	H0860

SEE PLANS AND ELEVATIONS FOR BRACING MARK NUMBERS



ROD BRACE

WEB TO WEB

AF0010 Q3

R C R B D

RECORD SET

DATE	DWN	CHK	ENG	PE	ISSUE
04/15/16	PMG	GRJ	RHW	CDS	Anchor Bolt Plans for Const.
04/15/16	PMG	GRJ	RHW	CDS	Permit Drawings

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

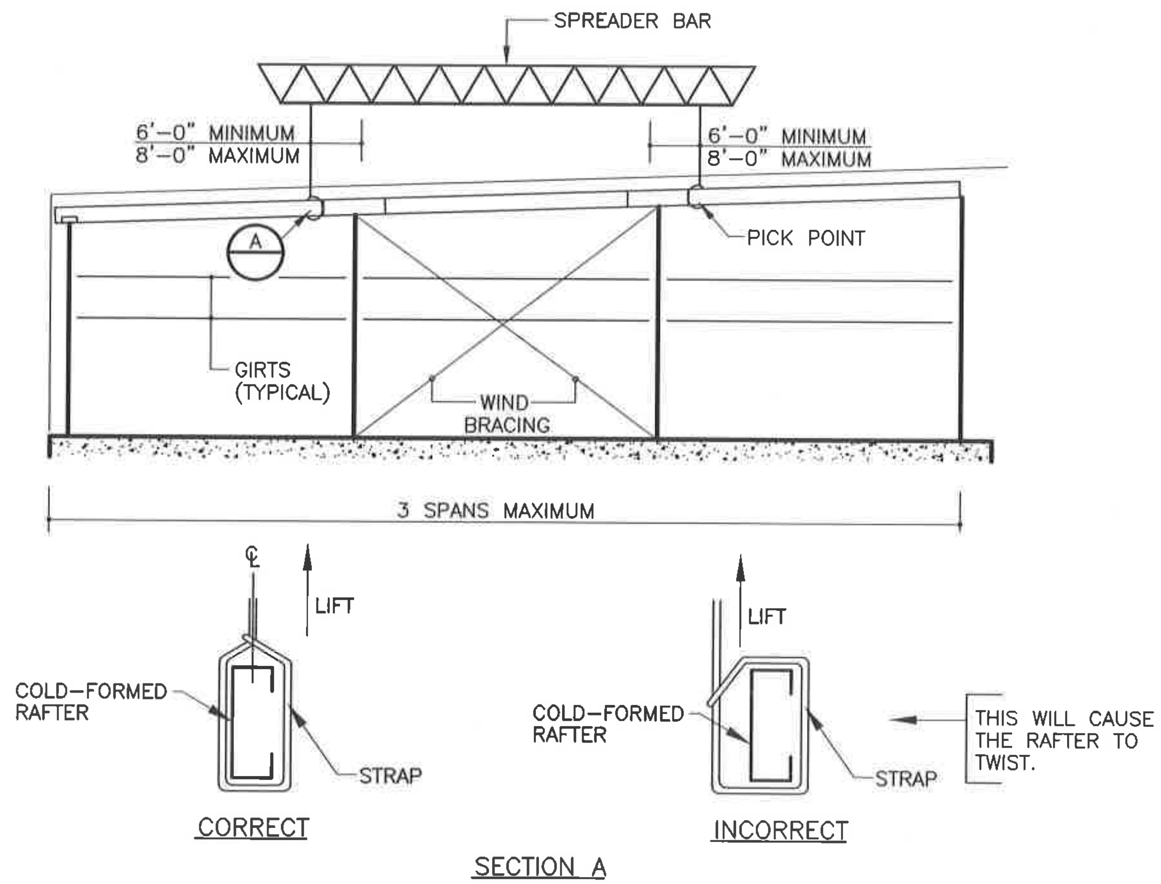
PROJECT NAME
ROUTT COUNTY ROAD & BRIDGE
OAK CREEK CO

CUSTOMER NAME
ROUTT COUNTY ROAD & BRIDGE
STEAMBOAT SPRINGS CO

SHEET TITLE

JOB NUMBER
U16O0196A

SHEET
D2 of 9



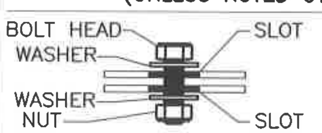
COLD FORMED ENDWALL ERECTOR DETAIL

1) GIRTS, CLIPS, RAFTERS AND COLUMNS MUST BE SECURELY AND TIGHTLY BOLTED TOGETHER PRIOR TO STANDING UP THE ENDWALL SECTION. (NOTE: THE GIRTS PROVIDE STABILITY TO THE ENDWALL SYSTEM DURING THE ERECTION PROCESS)
2) BUILT-UP COLUMNS/RAFTERS MUST BE ERECTED INDIVIDUALLY WHEN USED WITH COLD FORMED ENDWALL PARTS
3) THIS DETAIL IS SUGGESTED IN ORDER TO MAINTAIN STRUCTURAL INTEGRITY OF ENDWALL PARTS AFTER ERECTION. SOUND JUDGEMENT BASED ON ERECTION KNOWLEDGE AND EXPERIENCE SHOULD BE APPLIED REGARDING SAFETY AND PRACTICALITY OF INDIVIDUAL SITUATIONS.
4) REGULATIONS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ACT, LOCAL, STATE, AND/OR FEDERAL AGENCIES SHOULD BE ADHERED TO AT ALL TIMES. THE METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR INJURY, DAMAGE, OR FAILURE WHICH MAY RESULT FROM FAILING TO MEET ANY OF THESE REGULATIONS.

AA0005

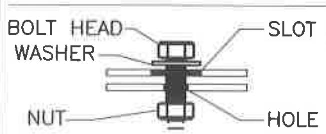
TYPICAL WASHER REQUIREMENTS ERECTOR NOTE

(UNLESS NOTED OTHERWISE ON DRAWINGS)



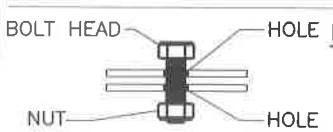
SLOT TO SLOT CONNECTIONS

WASHERS ARE REQUIRED ON BOTH SIDES OF MATERIAL IF SLOTS ARE USED ON BOTH SIDES (NOTE LAPPED ZEE MEMBER EXCEPTION).



SLOT TO HOLE CONNECTIONS

ONE WASHER REQUIRED ON SLOTTED SIDE ONLY.

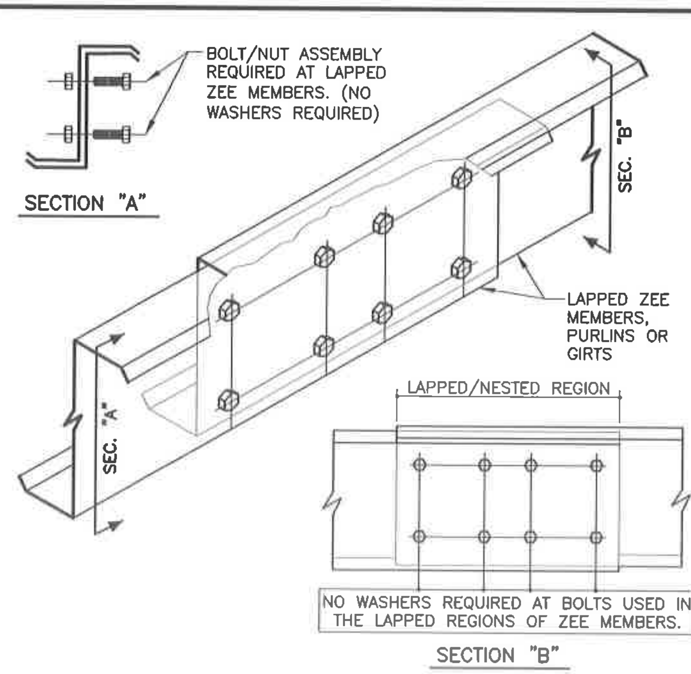


HOLE TO HOLE CONNECTIONS

NO WASHERS ARE REQUIRED WHEN SLOTS ARE NOT USED.

WASHER PART NUMBERS

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



TYPICAL FIELD WELD REQUIREMENTS ERECTOR NOTE:

(UNLESS NOTED OTHERWISE ON DRAWINGS)

ALL FIELD WELDING **MUST BE PERFORMED BY AWS/CWB CERTIFIED WELDERS WHO ARE QUALIFIED** FOR THE WELDING PROCESSES AND POSITIONS INDICATED.

ALL WORK **MUST BE COMPLETED AND INSPECTED IN ACCORDANCE WITH THE APPLICABLE AWS/CWB SPECIFICATIONS.**

WELD ELECTRODES USED FOR THE SMAW (OR STICK) WELD PROCESS **MUST BE 70 KSI/483 MPa MATERIAL AND LOW HYDROGEN CONTENT.**

GALVANIZED STEEL FIELD WELDING RECOMMENDATIONS

PREPARATION OF WELD AREA

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

TOUCH-UP OF WELD AREA

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

SAFETY & HEALTH

WHEN WELDING DIRECTLY ON GALVANIZED STEEL IS UNAVOIDABLE, OSHA PERMISSIBLE EXPOSURE LIMITS (PELS) MAY BE EXCEEDED AND EVERY PRECAUTION, INCLUDING HIGH-VELOCITY CIRCULATING FANS WITH FILTERS, AIR RESPIRATORS AND FUME-EXTRACTION SYSTEMS SUGGESTED BY AWS, SHOULD BE EMPLOYED. FUMES FROM WELDING GALVANIZED STEEL CAN CONTAIN ZINC, IRON, AND LEAD. FUME COMPOSITION TYPICALLY DEPENDS ON THE COMPOSITION OF THE MATERIALS USED, AS WELL AS THE HEAT APPLIED BY THE PARTICULAR WELDING PROCESS. IN ANY EVENT, GOOD VENTILATION MINIMIZES THE AMOUNT OF EXPOSURE TO FUMES.

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

INFORMATION COURTESY OF AMERICAN GALVANIZERS ASSOCIATION

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

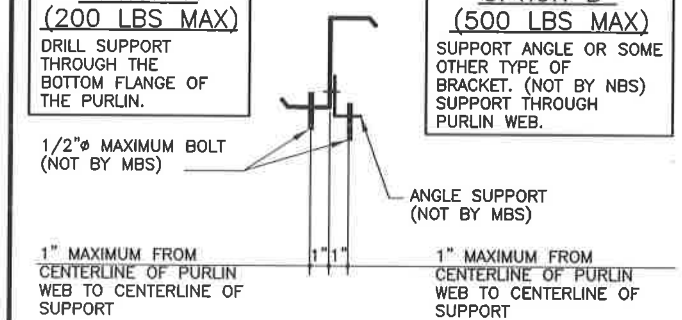
GENERAL RESTRICTION:

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

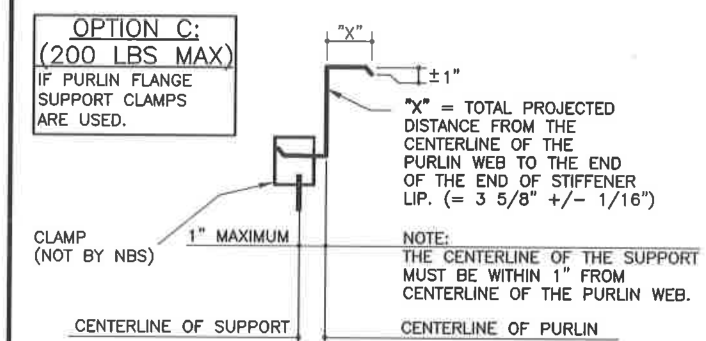
OPTIONS FOR SUPPORT ATTACHMENTS

OPTION A (200 LBS MAX)
DRILL SUPPORT THROUGH THE BOTTOM FLANGE OF THE PURLIN.

OPTION B (500 LBS MAX)
SUPPORT ANGLE OR SOME OTHER TYPE OF BRACKET. (NOT BY NBS) SUPPORT THROUGH PURLIN WEB.



OPTION C: (200 LBS MAX)
IF PURLIN FLANGE SUPPORT CLAMPS ARE USED.



B00010

PURLIN SUPPORT METHODS

R C R B D

RECORD SET

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

SHEET TITLE

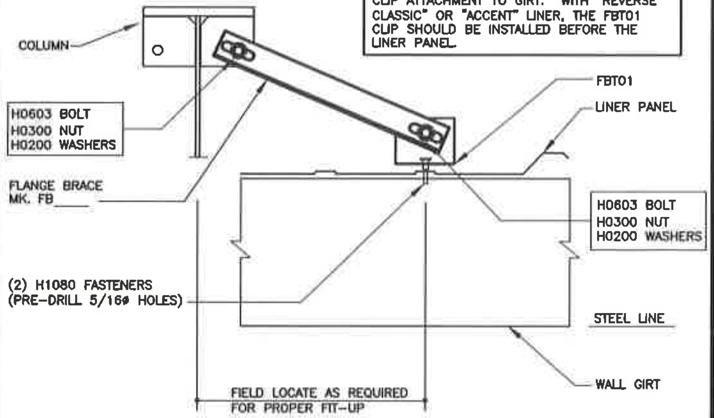
JOB NUMBER: U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER 49599

SHEET: D3 of 9

ERECTOR NOTE

1/2"ø x 2" A325 BOLTS ARE REQUIRED FOR BOLTING FLANGE BRACES. WITH "CLASSIC" LINER, THE LINER MUST BE IN PLACE BEFORE CLIP ATTACHMENT TO GIRT. WITH "REVERSE CLASSIC" OR "ACCENT" LINER, THE FBT01 CLIP SHOULD BE INSTALLED BEFORE THE LINER PANEL.



TYP FLANGE BRACE AT BUILT-UP COLUMN & GIRT

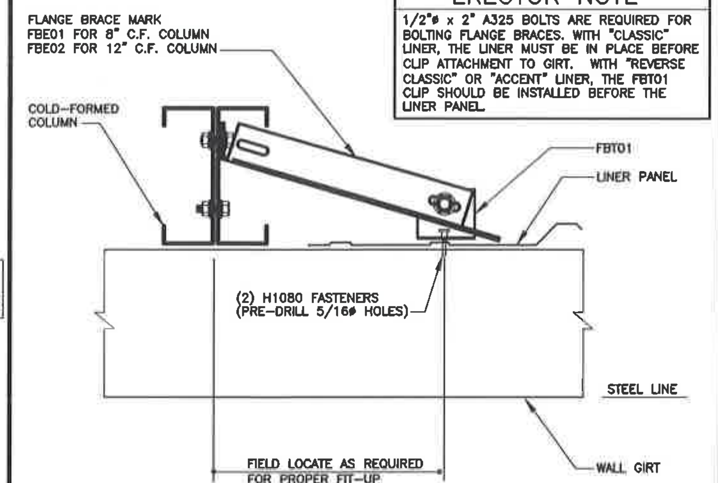
SEE PLANS AND ELEVATIONS FOR FLANGE BRACE PART MARKS
PRE-DRILL (2) 5/16" PILOT HOLES IN GIRT
FIELD CUT AND FLATTEN PANEL RIB IF INTERFERENCE WITH FLANGE BRACE OCCURS.

ANGLE_102

AG0150

ERECTOR NOTE

1/2"ø x 2" A325 BOLTS ARE REQUIRED FOR BOLTING FLANGE BRACES. WITH "CLASSIC" LINER, THE LINER MUST BE IN PLACE BEFORE CLIP ATTACHMENT TO GIRT. WITH "REVERSE CLASSIC" OR "ACCENT" LINER, THE FBT01 CLIP SHOULD BE INSTALLED BEFORE THE LINER PANEL.



TYP FLANGE BRACE @ COLD-FORMED COLUMN & GIRT

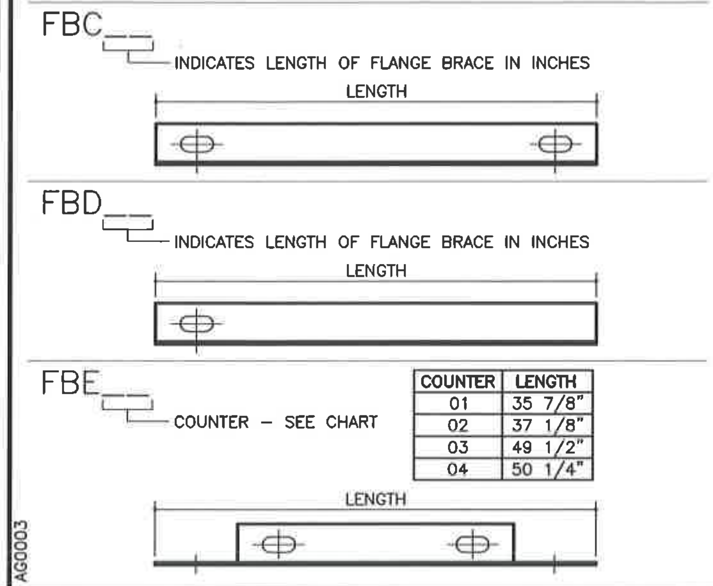
SEE PLANS AND ELEVATIONS FOR FLANGE BRACE PART MARKS
PRE-DRILL (2) 5/16"ø PILOT HOLES IN GIRT
FIELD CUT AND FLATTEN PANEL RIB IF INTERFERENCE WITH FLANGE BRACE OCCURS.

ANGLE_103

AG0170

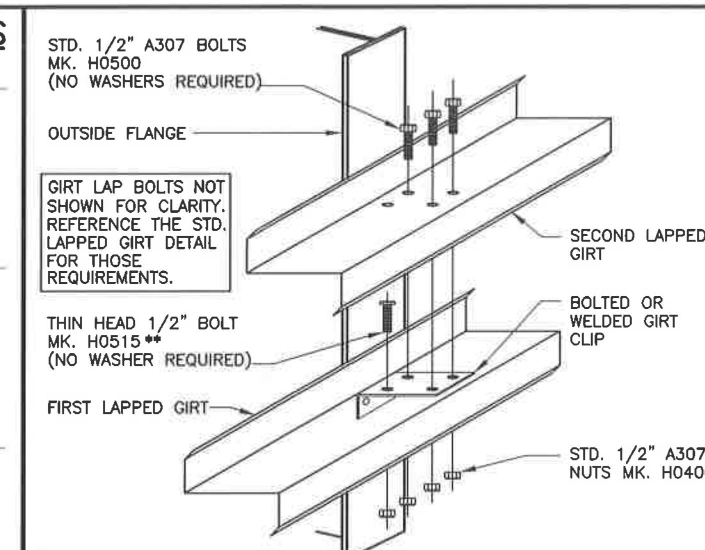
TYPICAL FLANGE BRACE MARK NUMBERS

ACTUAL FLANGE BRACES DO NOT HAVE MARK NUMBERS ON THEM



COUNTER	LENGTH
01	35 7/8"
02	37 1/8"
03	49 1/2"
04	50 1/4"

AG0003



STD. 1/2" A307 BOLTS MK. H0500 (NO WASHERS REQUIRED)
OUTSIDE FLANGE
GIRT LAP BOLTS NOT SHOWN FOR CLARITY. REFERENCE THE STD. LAPPED GIRT DETAIL FOR THOSE REQUIREMENTS.
SECOND LAPPED GIRT
THIN HEAD 1/2" BOLT MK. H0515 ** (NO WASHER REQUIRED)
BOLTED OR WELDED GIRT CLIP
FIRST LAPPED GIRT
STD. 1/2" A307 NUTS MK. H0400

LAPPED GIRT DETAIL

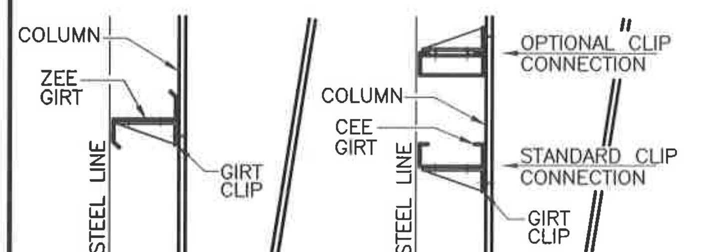
LAPPED GIRTS @ INTERIOR BAY COLUMNS

** THE THIN HEAD 1/2" A307 BOLT MUST BE INSTALLED INTO THE FIRST GIRT AND CLIP OF A LAPPED CONDITION. THE BOLT/NUT ASSEMBLY MUST BE WRENCH TIGHT PRIOR TO THE SECOND LAPPED GIRT BEING INSTALLED.

CC0015

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

UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD CEE GIRT ORIENTATION IS TO HAVE THE GIRT TOED UP AS SHOWN IN THE DETAIL BELOW. STANDARD CLIP ATTACHMENT IS BELOW THE GIRT, HOWEVER SOME DETAILS REQUIRE THAT THE CLIP BE ABOVE THE GIRT. (REFER TO THE GIRT DETAILS ON THE ERECTION DRAWINGS FOR REQUIREMENTS) BOTH CLIP ATTACHMENTS ARE SHOWN IN THE DETAIL BELOW.

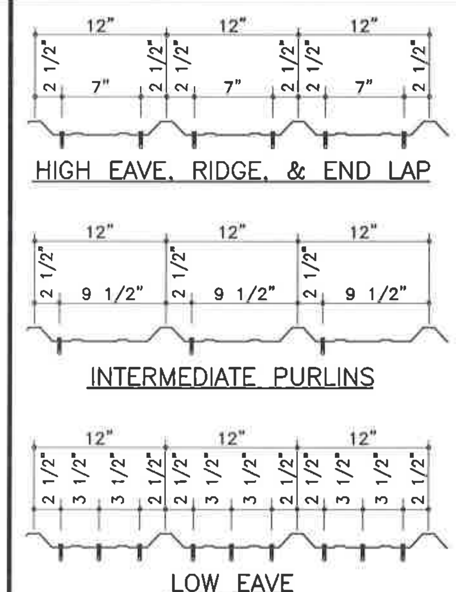


ZEE GIRT ORIENTATION   CEE GIRT ORIENTATION

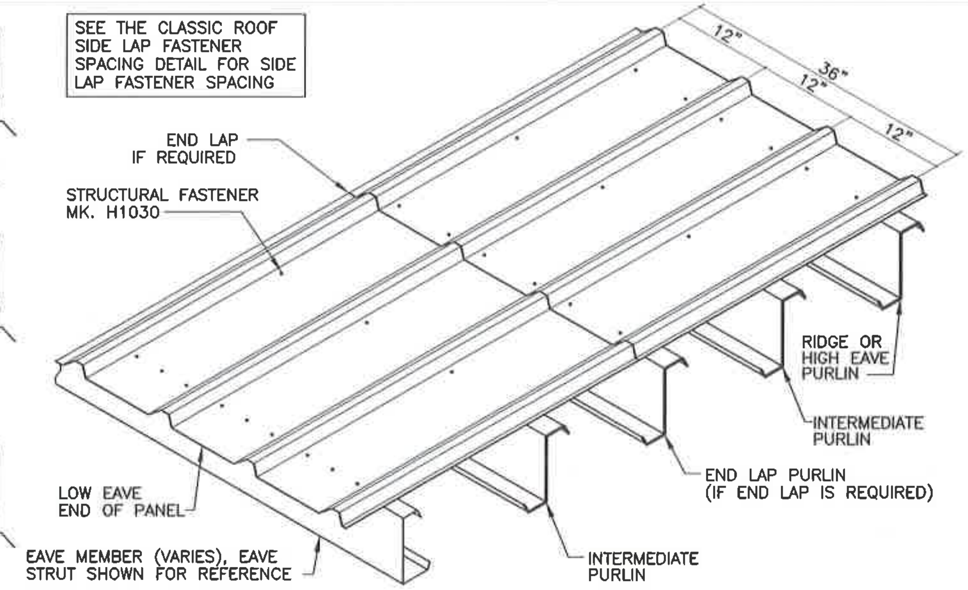
STANDARD GIRT ORIENTATION DETAIL

NOTE: BYPASS GIRT CONDITION IS SHOWN FOR REFERENCE ONLY. YOUR PROJECT MAY HAVE FLUSH OR INSET GIRTS.

CC0005



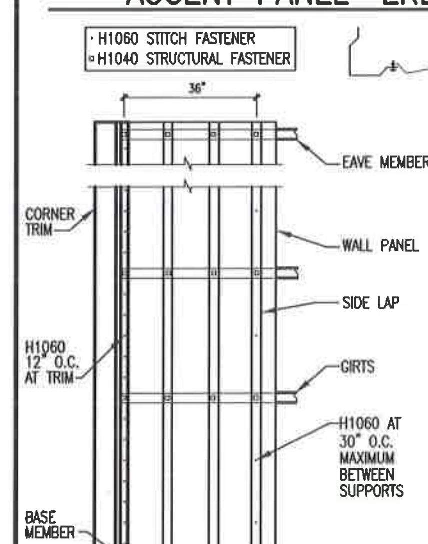
SEE THE CLASSIC ROOF SIDE LAP FASTENER SPACING DETAIL FOR SIDE LAP FASTENER SPACING



CLASSIC ROOF STRUCTURAL FASTENER SPACING (STANDARD)

DA0001

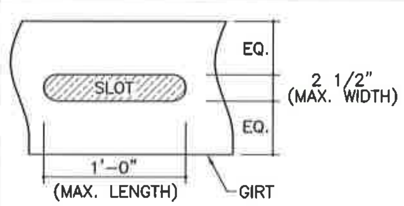
"ACCENT PANEL" ERECTION NOTES



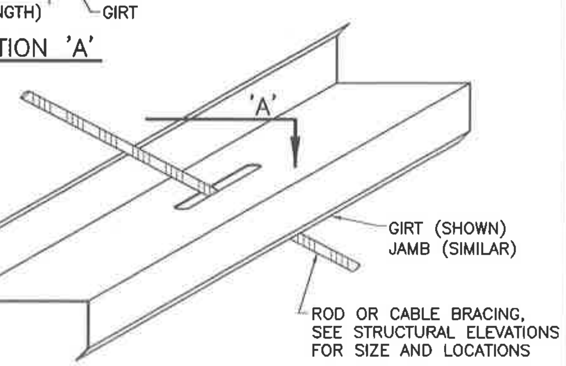
ERECTOR NOTE: 1/2" SIDELAP MASTIC (H3010) IS REQUIRED IN SNOWDRIFT CONDITIONS. REFER TO THE ELEVATIONS FOR LOCATION REQUIREMENTS.

1. BLOCK GIRTS TO "LEVEL" POSITION BEFORE STARTING PANEL ERECTION. MAINTAIN WOOD BLOCKING (NOT BY M.B.S.) UNTIL PANEL TO STRUCTURAL FASTENERS ARE INSTALLED.
2. ALIGN AND PLUMB FIRST WALL PANEL.
3. TO PREVENT "OIL-CANNING", ALL PANEL FASTENERS SHOULD START FROM BASE MEMBER AND THEN BE SECURED TO EACH STRUCTURAL GIRT TOWARD THE EAVE.
4. FOUNDATION MUST BE SQUARE, LEVEL, AND CORRECT TO THE OUT-TO-OUT STEEL LINE DIMENSIONS.
5. ERECTION CREW IS TO CLEAN ALL WALL PANELS BEFORE LEAVING JOB SITE.
6. ERECTOR IS TO ERECT PANELS SO THAT SIDELAPS ARE AWAY FROM THE MAIN TRAFFIC AREA'S LINE OF SIGHT.
7. STORE PANELS PROPERLY TO PREVENT MOISTURE. SEE ERECTION MANUAL.

GA0041

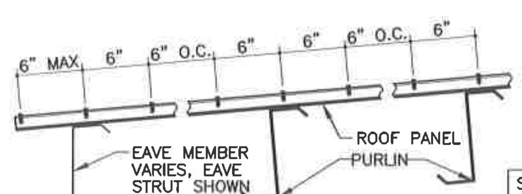


SECTION 'A'

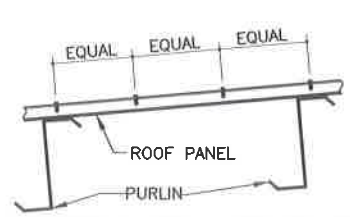


GUIDELINES FOR FIELD SLOTTING SECONDARY WEBS AT INSET OR FLUSH CONDITION

AE0080/AF0080

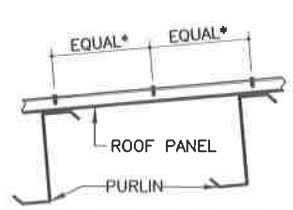


FIRST TWO LOW EAVE SPANS
(EACH SUPPORT AND 6" ON CENTER BETWEEN SUPPORTS)



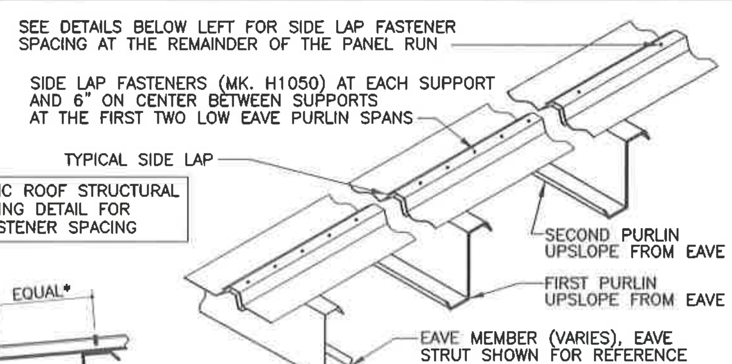
SPANS > OR = TO 5'-0"
(EACH SUPPORT AND 1/3 POINTS BETWEEN SUPPORTS)

SEE THE CLASSIC ROOF STRUCTURAL FASTENER SPACING DETAIL FOR STRUCTURAL FASTENER SPACING

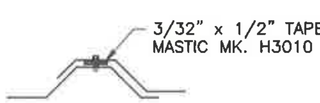


SPANS LESS THAN 5'-0"

NON-UL 90	EACH SUPPORT AND MIDPOINT BETWEEN SUPPORTS.
UL 90	EACH SUPPORT AND SPACED EQUALLY BETWEEN SUPPORTS. NOT TO EXCEED 20" (1'-8").



SEE DETAILS BELOW LEFT FOR SIDE LAP FASTENER SPACING AT THE REMAINDER OF THE PANEL RUN
SIDE LAP FASTENERS (MK. H1050) AT EACH SUPPORT AND 6" ON CENTER BETWEEN SUPPORTS AT THE FIRST TWO LOW EAVE PURLIN SPANS
TYPICAL SIDE LAP
SECOND PURLIN UPSLOPE FROM EAVE
FIRST PURLIN UPSLOPE FROM EAVE
EAVE MEMBER (VARIES), EAVE STRUT SHOWN FOR REFERENCE



SIDE LAP MASTIC DETAIL
(AT FULL LENGTH OF ALL SIDE LAPS)

CLASSIC ROOF SIDE LAP FASTENER SPACING (STANDARD)

DA0002

R C R B D

RECORD SET

DWN	CHK	ENG	APP	DATE	ISSUE
PMG	GRJ	RHW	CDS	04/15/16	Anchor Bolt Plans for Const.
PMG	GRJ	RHW	CDS	04/15/16	Permit Drawings

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO
JOB NUMBER: U16O0196A
SHEET TITLE

COLORADO LICENSED PROFESSIONAL ENGINEER 49599 — APR 18 2016

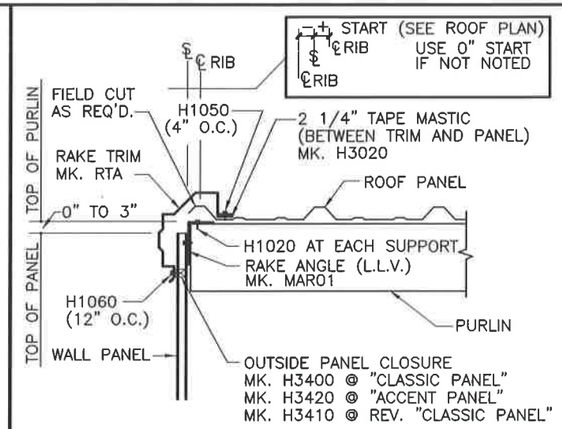
The seal appearing on these drawings is employed by the Metal Building Manufacturer and does not serve as or represent the project engineer of record and shall not be construed as such.

SHEET: D4 of 9

STANDARD FASTENER SCHEDULE

H1000 SELF-TAPPING SCREW (GOOF SCREW) 17-14 x 1 1/4" WITH WASHER LONG LIFE FASTENER 3/8" HEAD	H1042 SELF-DRILLING SCREW 12-14 x 7/8" TCP3 W/O WASHER 5/16" HEAD	H1070 SELF-DRILLING SCREW 12-24 x 1 1/2" TCP5 W/O WASHER 5/16" HEAD 1/2" THK MAX DRILLING CAPACITY
H1020 SELF-DRILLING SCREW 1/4-14 x 1 1/4" TCP3 W/O WASHER 5/16" HEAD 3/16" THK MAX DRILLING CAPACITY	H1045 SELF-DRILLING SCREW 12-14 x 2" TCP3 W/O WASHER 5/16" HEAD	
H1030 SELF-DRILLING SCREW 12-14 x 1 1/4" TCP2 WITH WASHER LONG LIFE FASTENER 5/16" HEAD	H1047 SELF-DRILLING SCREW 12-14 x 2" TCP3 FLAT TOP WITH WASHER 5/16"ø HEAD	H1100 1/8" x 3/16" STAINLESS STEEL BLIND POP RIVET
H1035 SELF-DRILLING SCREW 12-14 x 1 1/2" TCP2 WITH WASHER LONG LIFE FASTENER 5/16" HEAD	H1050 SELF-DRILLING SCREW 1/4-14 x 7/8" TCP1 WITH WASHER LONG LIFE FASTENER 5/16" HEAD	H1110 3/8"ø STAINLESS GROMMET FASTENER
H1040 SELF-DRILLING SCREW 12-14 x 1 1/4" TCP2 W/O WASHER 5/16"ø HEAD	H1060 SELF-DRILLING SCREW 12-14 x 7/8" TCP1 W/O WASHER 5/16" HEAD	H1220 SELF-DRILLING SCREW 12-14 x 1" TCP3 W/O WASHER PHILLIPS HEAD
H1041 SELF-DRILLING SCREW 12-14 x 1 1/4" TCP2 FLAT TOP WITH WASHER 5/16" HEAD	H1061 SELF-DRILLING SCREW 12-14 x 7/8" TCP1 FLAT TOP WITH WASHER 5/16"ø HEAD	

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

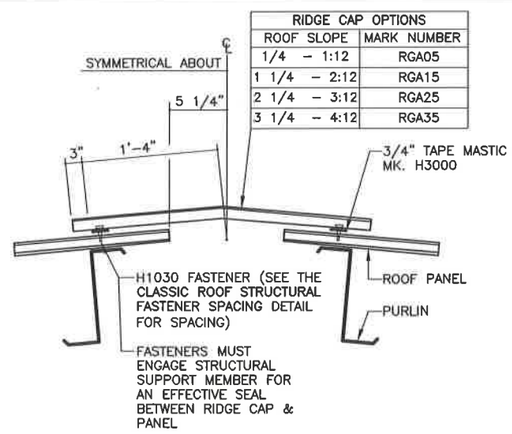


SCULPTURED RAKE AT "CLASSIC" ROOF

SEE WALL SHEETING ERECTION NOTES FOR FASTENER LOCATIONS

TRIM_2

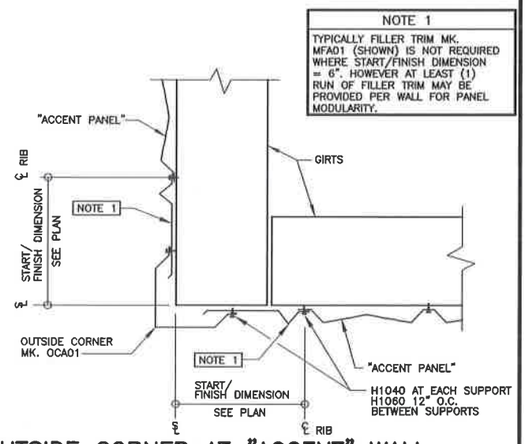
DE0010



DIE-FORMED RIDGE AT "CLASSIC" ROOF

TRIM_3

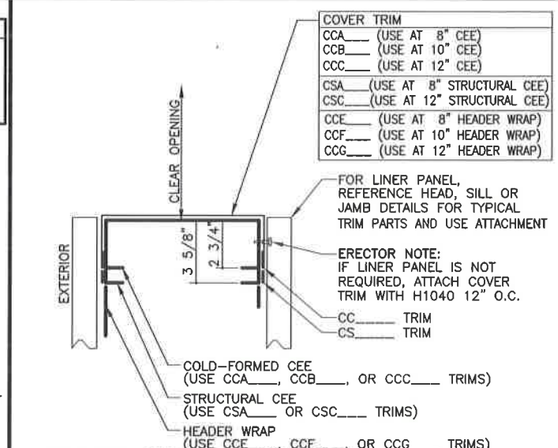
DG0011



OUTSIDE CORNER AT "ACCENT" WALL

TRIM_8

GC0011

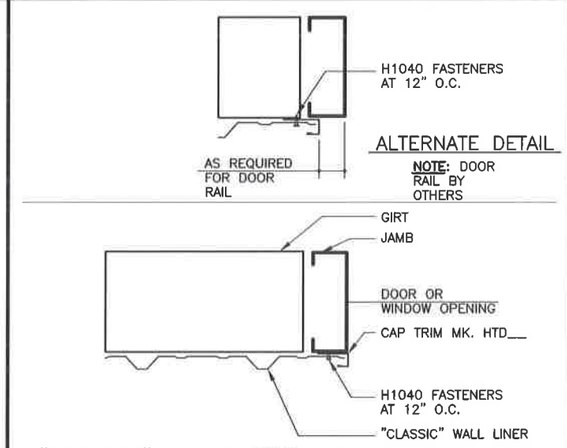


FRAMED OPENING COVER TRIM

SILL SHOWN, HEADER AND JAMBS SIMILAR

TRIM_19

GD0005

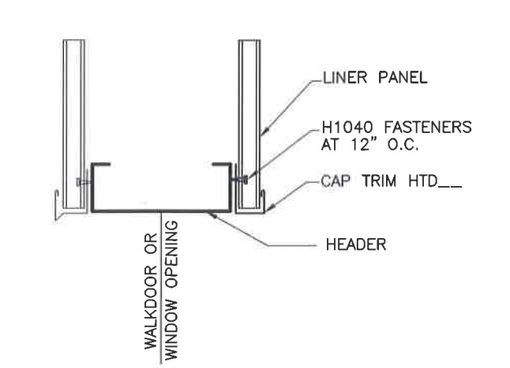


"CLASSIC" LINER PANEL AT JAMB

SEE WALL SHEETING ERECTION NOTES FOR FASTENER LOCATIONS

TRIM_23

GD0050

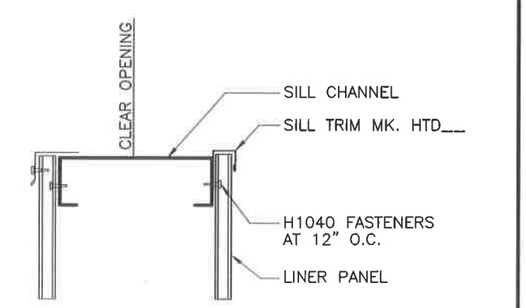


LINER HEADER TRIM

AT WALKDOOR OR WINDOW OPENINGS

TRIM_27

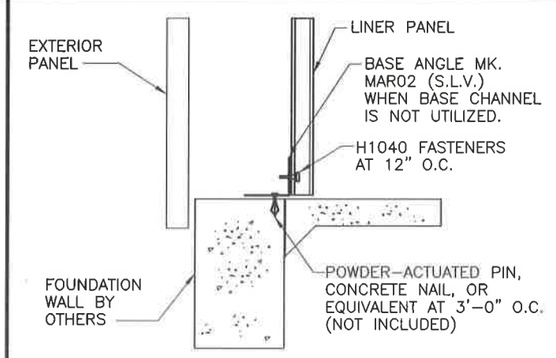
GD0090



SILL TRIM AT LINER PANEL

TRIM_28

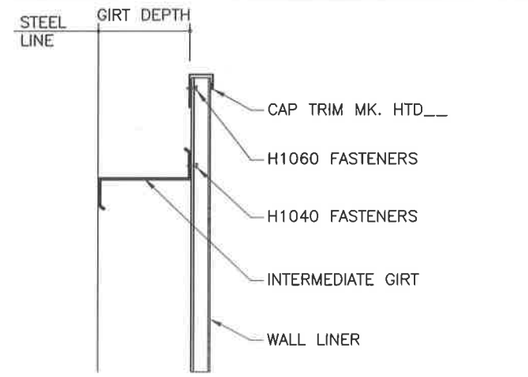
GC0010



LINER PANEL BASE

TRIM_38

IC0010



PARTIAL HEIGHT LINER PANEL

TRIM_39

ID0100

R C R B D

RECORD SET

ISSUE	DRWN	CHKD	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

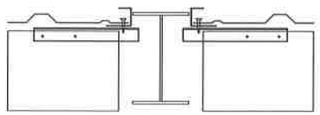
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

JOB NUMBER: U16O0196A

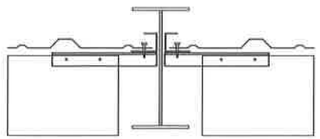
SHEET TITLE

COLORADO LICENSED DAVID S. [illegible] 40599 PROFESSIONAL ENGINEER
APR 18 2016

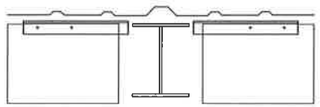
SHEET D5 of 9



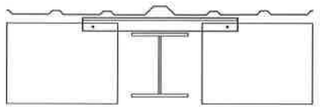
BUILT UP COLUMN
(FLANGE EXTENDS PAST INSIDE FACE OF GIRT)



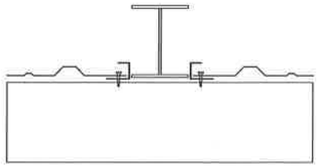
BUILT UP COLUMN
(FLANGE EXTENDS PAST INSIDE FACE OF GIRT)



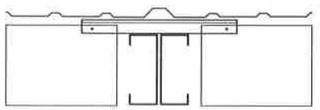
BUILT UP COLUMN
(FLANGE FLUSH TO INSIDE FACE OF GIRT)



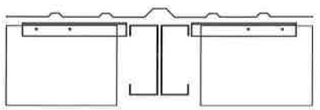
BUILT UP COLUMN
(FLANGE INSET TO INSIDE FACE OF GIRT)



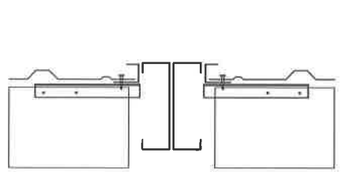
BUILT UP COLUMN OR RAFTER
(GIRT OR PURLIN BYPASSES FRAME)



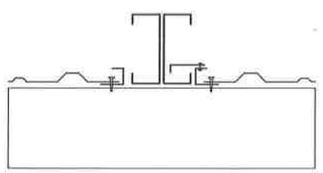
SINGLE OR DOUBLE CEE COLUMN
(FLANGE INSET TO INSIDE FACE OF GIRT)



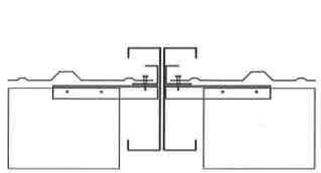
SINGLE OR DOUBLE CEE COLUMN
(FLANGE FLUSH TO INSIDE FACE OF GIRT)



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



SINGLE CEE COLUMN
(GIRT BYPASSES FRAME)



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

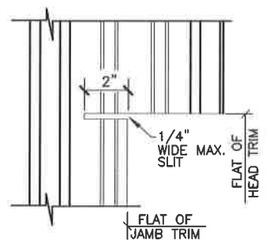
PARTS LEGEND

	MAG01 GIRT ANGLE WITH (2) H1020 FASTENERS
	MAG02 GIRT ANGLE WITH (2) H1020 FASTENERS
	HTD__ H1040 EACH SUPPORT, H1060 12" O.C. BETWEEN
	CTA01 CAP TRIM WITH H1100 RIVETS AT 36" O.C.

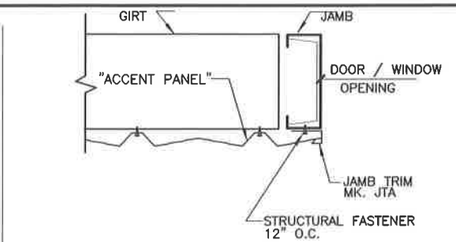
"CLASSIC" LINER TERMINATION DETAILS AT INTERMEDIATE COLUMNS

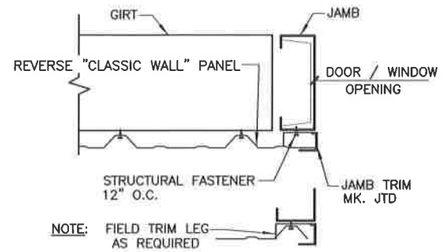
TRIM_32

IA60010



PANEL SLIT
STEP 3

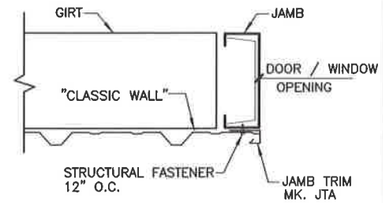




ALTERNATE DETAIL 1

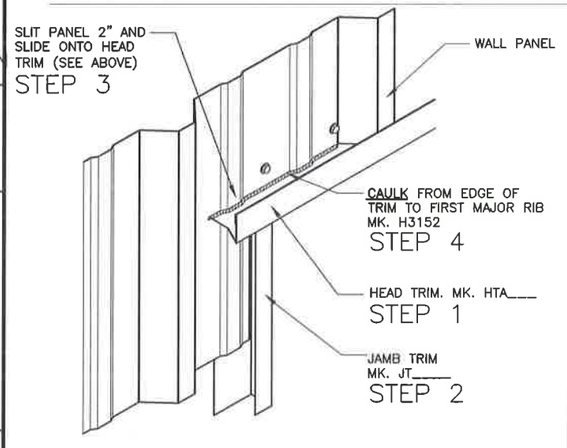
FASTENER KEY

STITCH FASTENER = H106_
STRUCTURAL FASTENER = H104_ WITH COLD–FORM
STRUCTURAL FASTENER = H1070 WITH HOT–ROLLED



JAMB TRIM
STEP 2

NOTE: FIELD CUT PANELS AS REQUIRED

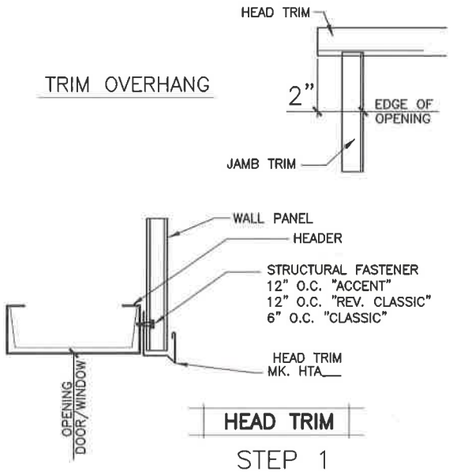


DOOR FRAMED OPENING TRIM DETAIL

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

TRIM_98

GD00040



HEAD TRIM
STEP 1

R C R B D

RECORD SET

ISSUE	DRWN	CHK'D	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
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CUSTOMER NAME
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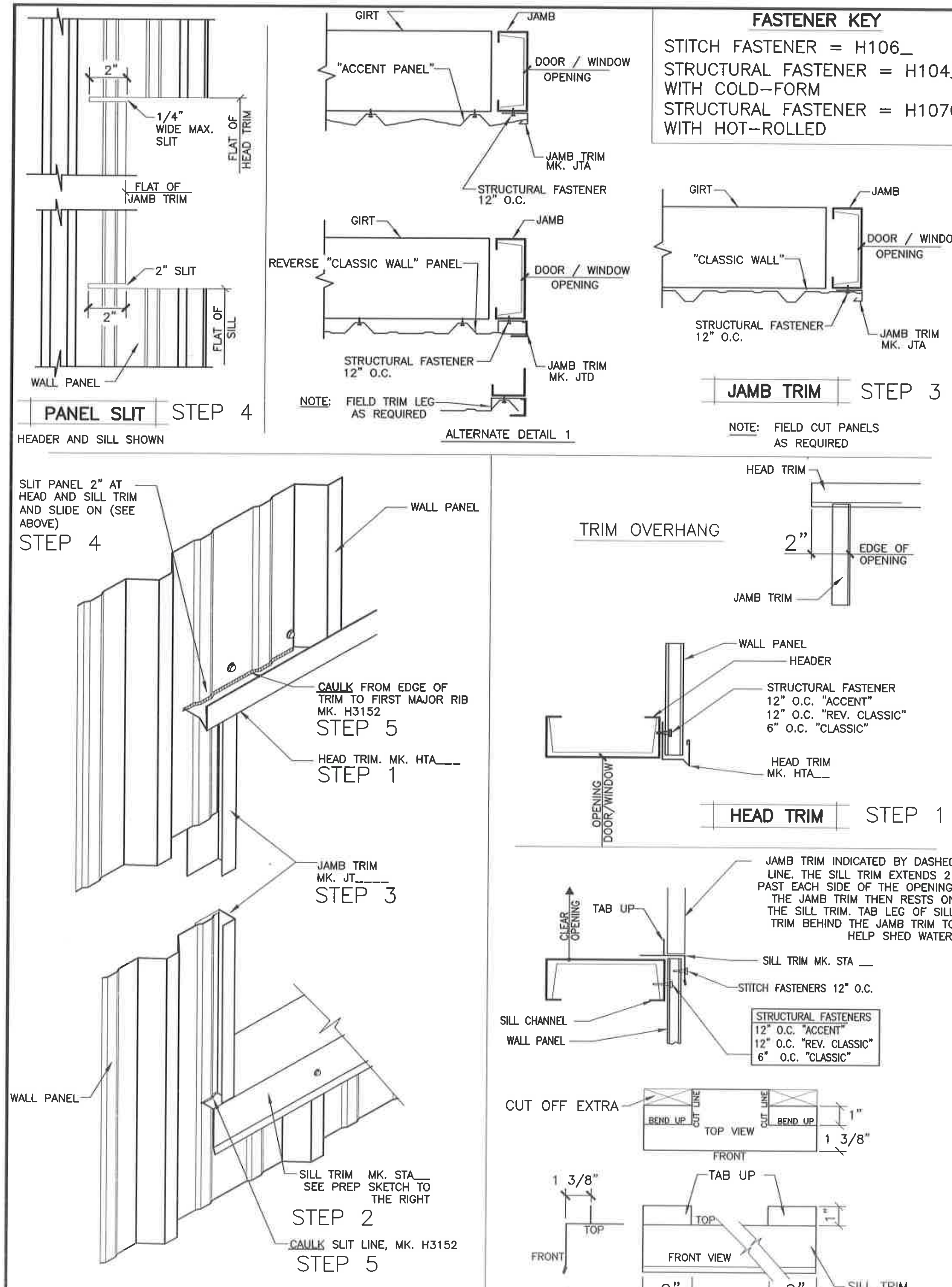
STEAMBOAT SPRINGS CO

JOB NUMBER
U16O0196A

SHEET TITLE

COLORADO LICENSED
APR 18 2016
49500
PROFESSIONAL ENGINEER

SHEET
D6 of 9



FASTENER KEY

STITCH FASTENER = H106_
STRUCTURAL FASTENER = H104_ WITH COLD-FORM
STRUCTURAL FASTENER = H1070 WITH HOT-ROLLED

WINDOW FRAMED OPENING TRIM DETAIL

FOR ALL STD WALL PANEL TYPES. TYPICAL INSTALL LEFT HAND SHOWN, RIGHT HAND SIMILAR

TRIM_99

GD0070

OUTSIDE CORNER TRIM MK. H4200

INSIDE CORNER TRIM MK. H4210

END CLOSURE MK. H4220 (PW). APPLY TUBE CAULK (H3152) ALL AROUND AND INSERT INTO THE END OF THE BSB01 TRIM AT FRAMED OPENINGS.

BASE CHANNEL PART MARKS
8" CHANNEL – MK. B8C01
10" CHANNEL – MK. B1C01
12" CHANNEL – MK. B2C01

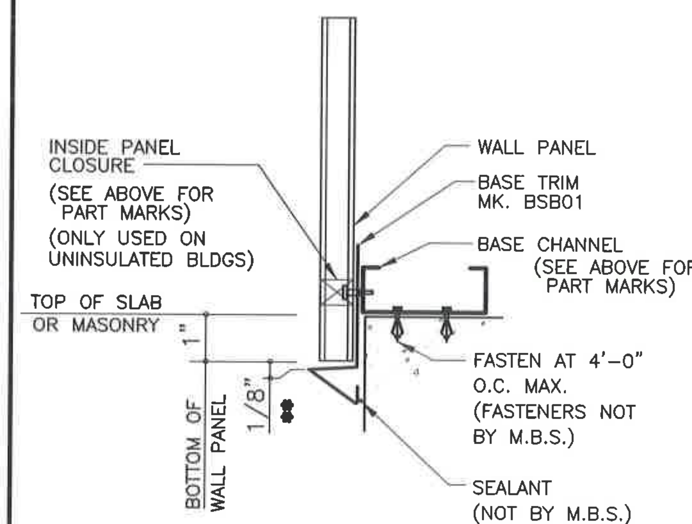
PANEL CLOSURE PART MARKS
CLASSIC – MK. H3410
ACCENT – MK. H3430
REV. CLASSIC – MK. H3400

ERECTOR NOTES:

- UNTIL WALL PANELS ARE INSTALLED, (3) H1040 SCREWS ARE TO BE USED FOR TEMPORARY INSTALLATION OF THE BASE TRIM.
- PANEL SCREWS MUST ENGAGE THE BASE CHANNEL.
- FIELD NOTCHING OF THE BASE CHANNEL MAY BE REQUIRED AT THE COLUMNS AND CORNERS.

RCRBD

RECORD SET

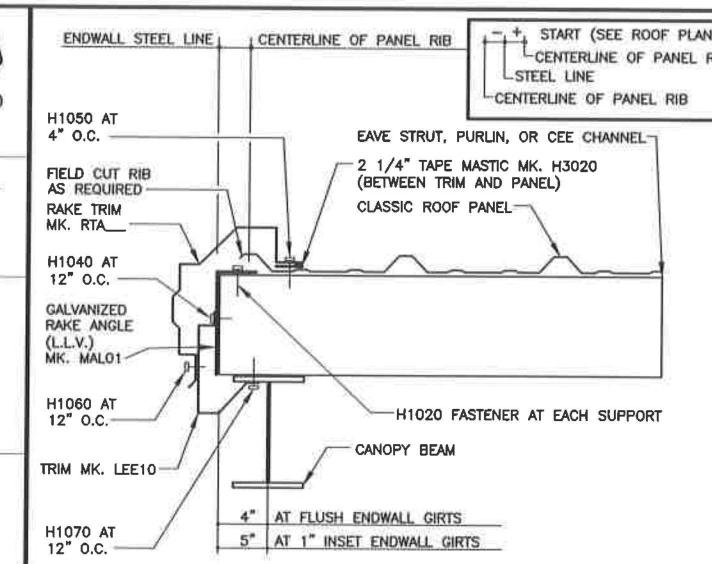


BASE TRIM WITH CHANNEL

SEE WALL PANEL ERECTION NOTES FOR FASTENER LOCATIONS
●● – 1/8" GAP RECOMMENDED FOR WATER DRAINAGE

TRIM_303

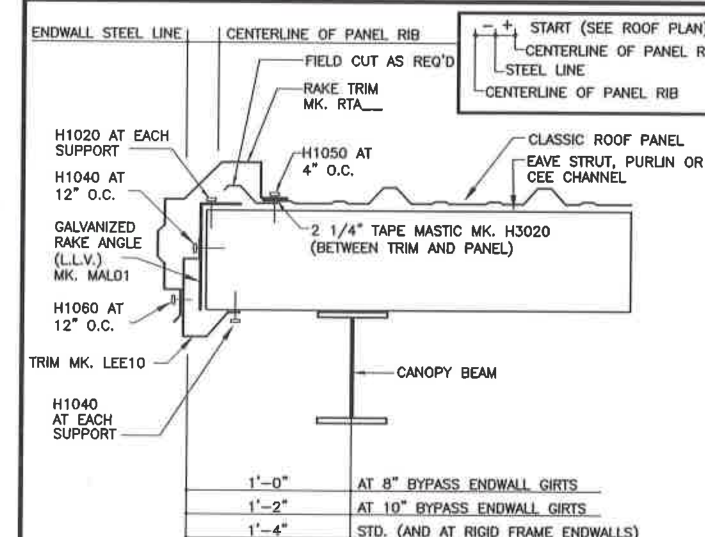
GB0030



SCULPTURED RAKE WITH OPEN WALL

FLUSH OR INSET ENDWALL GIRTS

SEE CLASSIC ROOF ERECTION NOTES FOR FASTENER LOCATIONS



SCULPTURED RAKE WITH OPEN WALL

BYPASS ENDWALL GIRTS

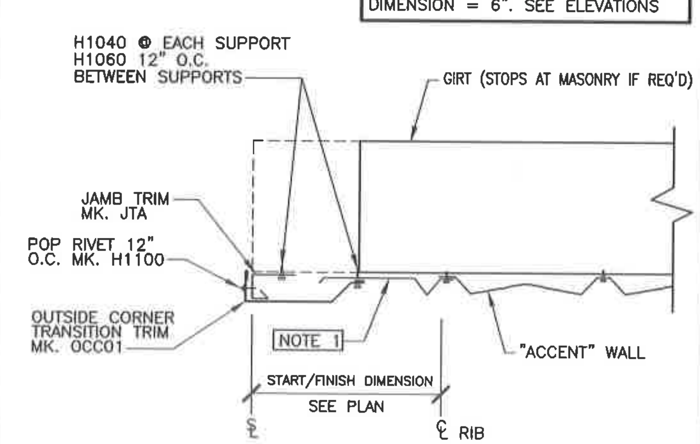
SEE CLASSIC ROOF ERECTION NOTES FOR FASTENER LOCATIONS

TRIM_701

NOTE: FASTENER ATTACHMENT OF JTA TRIM BY OTHERS IF ATTACHING TO MASONRY

NOTE 1

FILLER TRIM MK. MFA01 (SHOWN) IS NOT REQUIRED WHERE START/FINISH DIMENSION = 6". SEE ELEVATIONS



OUTSIDE CORNER AT OPEN WALL

SEE WALL SHEETING ERECTION NOTES FOR FASTENER LOCATIONS

TRIM_708

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME: ROUTT COUNTY ROAD & BRIDGE OAK CREEK CO

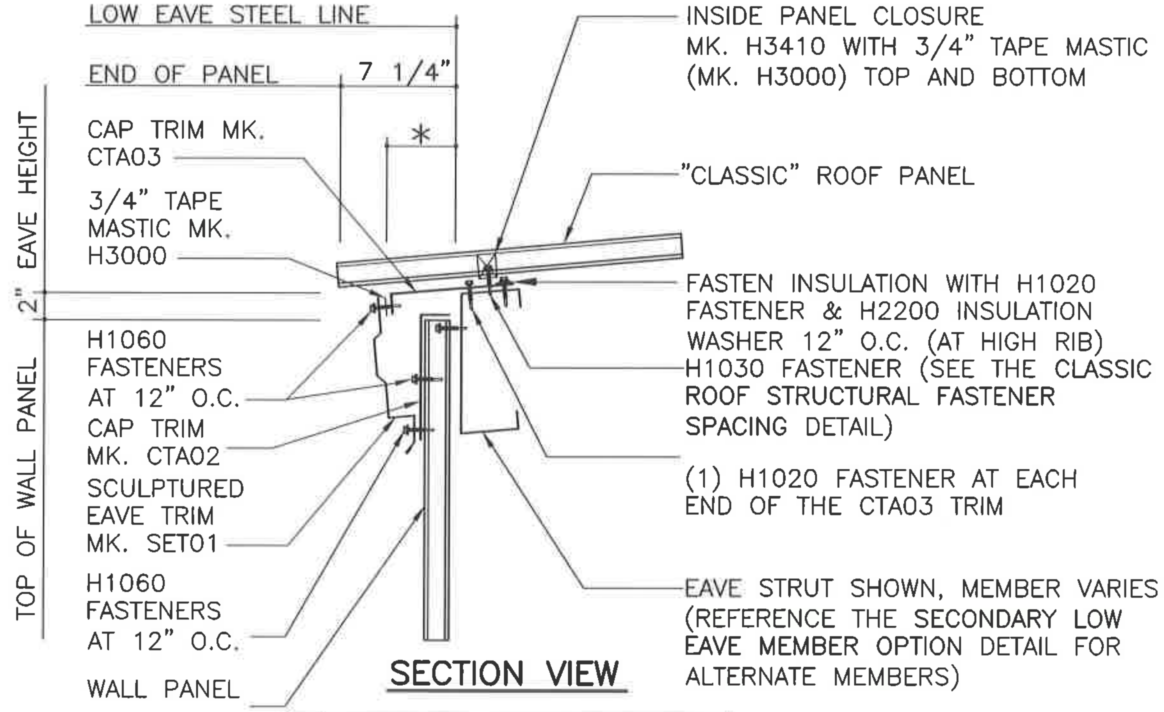
CUSTOMER NAME: ROUTT COUNTY ROAD & BRIDGE STEAMBOAT SPRINGS CO

JOB NUMBER: U16O0196A

SHEET TITLE

COLORADO LICENSED PROFESSIONAL ENGINEER
APR 18 2016
49599

SHEET

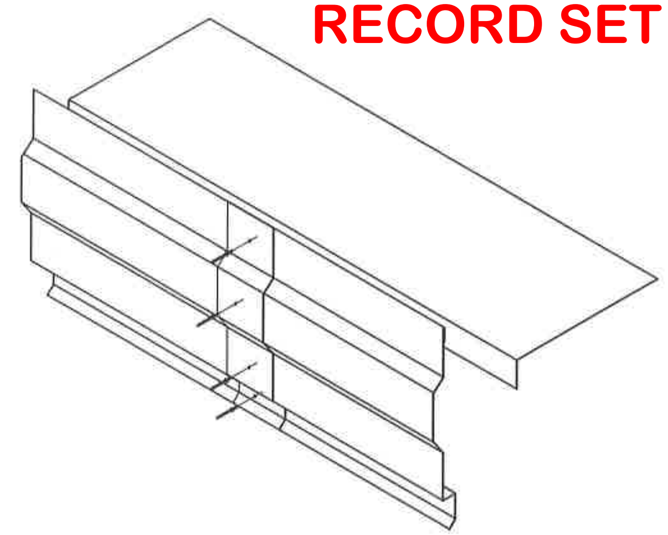


SECTION VIEW

	3" AT 1/2:12 ROOF SLOPE
	3 1/2" AT 1:12 ROOF SLOPE
*	4 1/8" AT 2:12 ROOF SLOPE
	4 5/8" AT 3:12 ROOF SLOPE
	5 1/8" AT 4:12 ROOF SLOPE

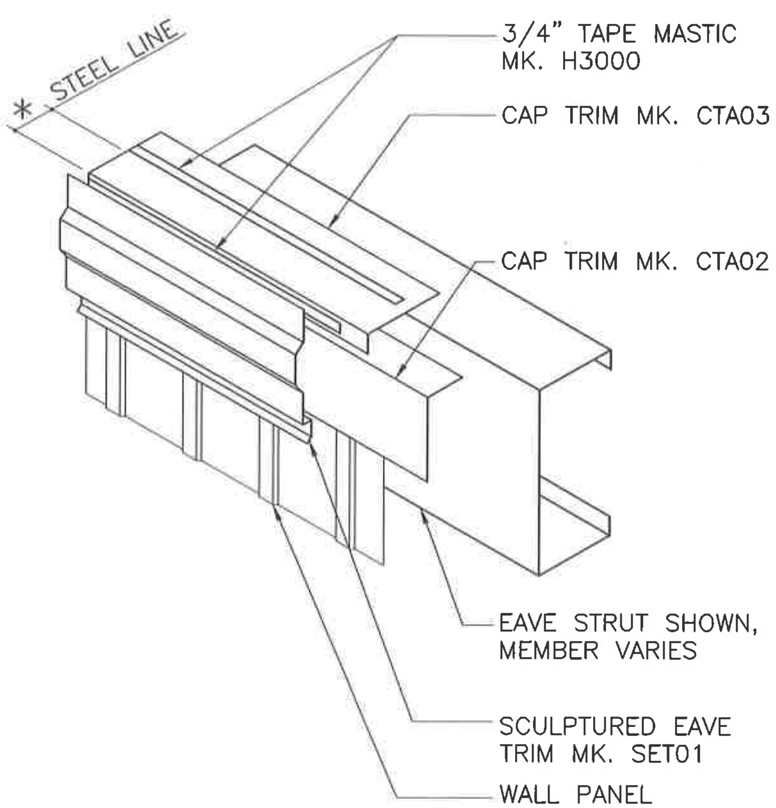
RCRBD

RECORD SET



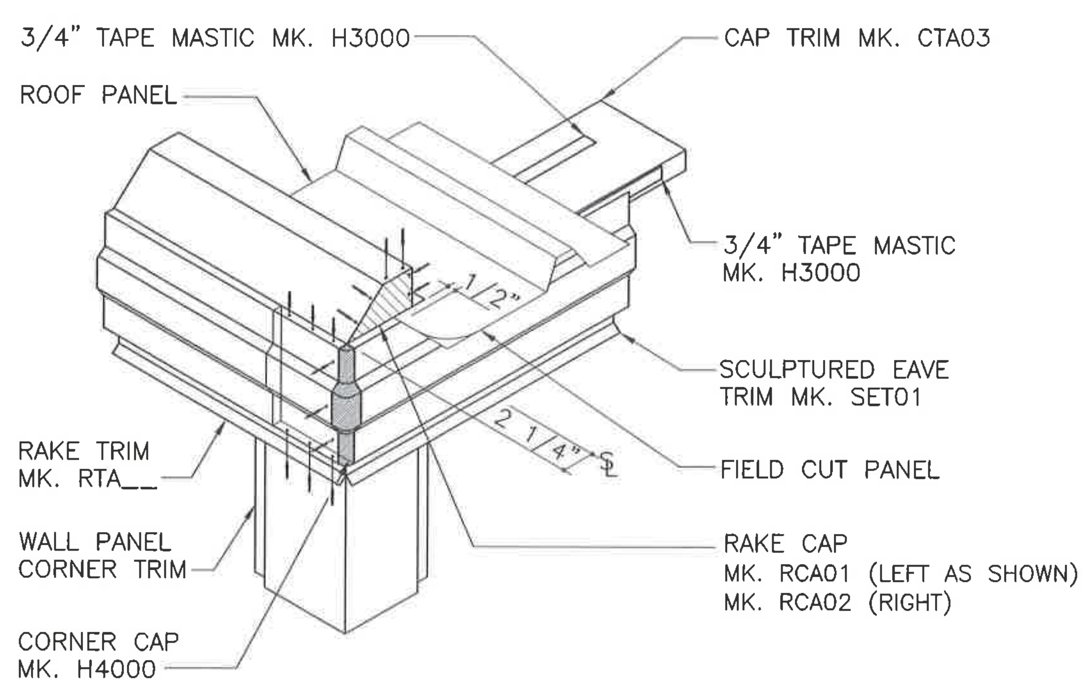
SCULPTURED EAVE TRIM SPLICE

APPLY A CONTINUOUS BEAD OF TUBE CAULK (MK. H3152) TO THE END OF THE ADJOINING TRIM PIECE AND LAP 1". FASTEN WITH (4) COLORED POP RIVETS (MK. H1100) AS SHOWN.



ISOMETRIC VIEW AT LOW EAVE

NOTE: CTA02 TRIM NOT SHOWN IN THIS DETAIL FOR CLARITY



ISOMETRIC VIEW AT CORNER

POP RIVET

FOLLOW THE **CLASSIC ROOF ERECTION MANUAL** WITH THE FOLLOWING EXCEPTIONS AT SCULPTURED EAVE TRIM APPLICATIONS:

1) THE CTA03 CAP TRIM ON THE EAVE STRUT MUST BE ERECTED PRIOR TO INSTALLING THE ROOF PANEL AND THE SCULPTURED EAVE TRIM. (SEE THE CLASSIC ROOF ERECTION MANUAL).

2) INSULATION MUST BE INSTALLED PRIOR TO INSTALLING THE ROOF PANELS. INSULATION IS NOT SHOWN IN THIS DETAIL FOR CLARITY. (SEE THE CLASSIC ROOF ERECTION MANUAL FOR PROPER INSTALLATION OF THE INSULATION)

3) INSTALL 3/4" TAPE MASTIC (MK. H3000) TO THE SHORT VERTICAL LEG OF THE CTA03 CAP TRIM. EXTEND THE SCULPTURED EAVE TRIM 2 1/4" PAST THE ENDWALL STEEL LINE (1" PAST THE EDGE OF THE WALL CORNER TRIM). COPE THE BOTTOM VERTICAL LEG FLUSH WITH THE EDGE OF THE CORNER TRIM. FASTEN THE TRIM TO THE WALL PANEL AND CAP TRIM WITH H1060 FASTENERS AT 12" O.C.

4) APPLY A CONTINUOUS BEAD OF TUBE CAULK (MK. H3152) AROUND THE PERIMETER OF THE RCA__ CORNER CAP, CLOSE TO THE INSIDE EDGE OF THE CAP.

5) INSERT THE CORNER CAP INTO THE SCULPTURED RAKE TRIM, LEAVING 1/2" EXPOSURE ALL AROUND. FASTEN WITH (3) H1100 COLORED POP RIVETS AT FRONT ONLY.

6) INSTALL THE RAKE CAP AT THE RAKE EDGE OF THE SCULPTURED EAVE TRIM & 1/2" FROM THE FIRST VERTICAL FACE OF THE SCULPTURED EAVE (AS SHOWN AT LEFT). UTILIZE TUBE CAULK (MK. H3152) AROUND THE PERIMETER OF EDGE OF THE RAKE CAP.

7) APPLY A BEAD OF TUBE CAULK (MK. H3152) 1 1/2" FROM THE FACE OF THE EAVE TRIM ALONG THE RAKE SIDE OF THE CORNER CAP. THIS BEAD SHOULD INCLUDE BOTH THE TOP & BOTTOM EDGES OF THE CORNER CAP.

8) INSTALL THE RAKE TRIM RTA__ PER THE CLASSIC ROOF ERECTION MANUAL, 1/2" FROM THE FACE OF THE SCULPTURED EAVE TRIM.

9) FASTEN THE CORNER CAP AND THE RAKE CAP, AS SHOWN AT LEFT, WITH (15) COLORED POP RIVETS (MK. H1100).

SCULPTURED EAVE TRIM w/ CLASSIC ROOF

SEE WALL PANEL ERECTION NOTES FOR FASTENER LOCATIONS

TRIM_850

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
McKEES ROCKS, PA 15136
PHONE: (888) 449-7756

PROJECT NAME
ROUTT COUNTY ROAD & BRIDGE
OAK CREEK CO

CUSTOMER NAME
ROUTT COUNTY ROAD & BRIDGE
STEAMBOAT SPRINGS CO

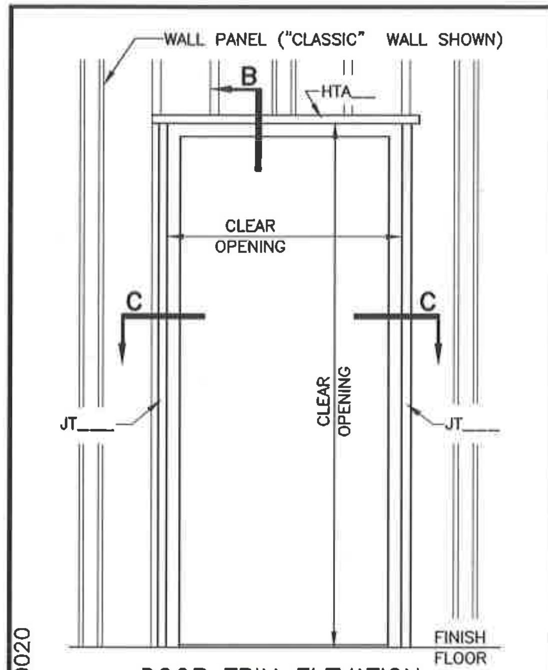
SHEET TITLE

JOB NUMBER
U16O0196A

COLORADO LICENSED PROFESSIONAL ENGINEER
APR 18 2016
49599

The seal pertains only to the materials designed and supplied by the Metal Building Manufacturer. The drawings and the metal buildings which they represent are the product of the Metal Building Manufacturer. The registered professional engineer whose seal appears on these drawings is employed by the Metal Building Manufacturer and does not serve as or represent the project engineer of record and shall not be construed as such.

SHEET
D8 of 9



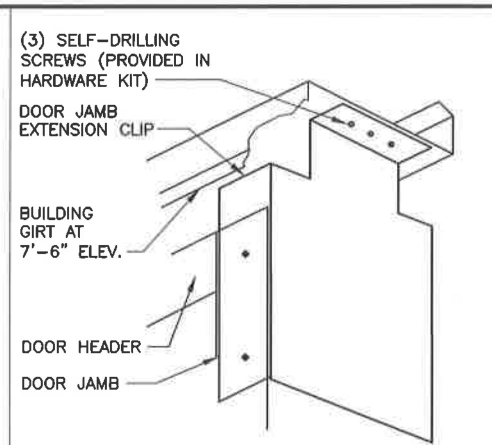
DOOR TRIM ELEVATION

KNOCK DOWN DOOR ERECTION DETAILS

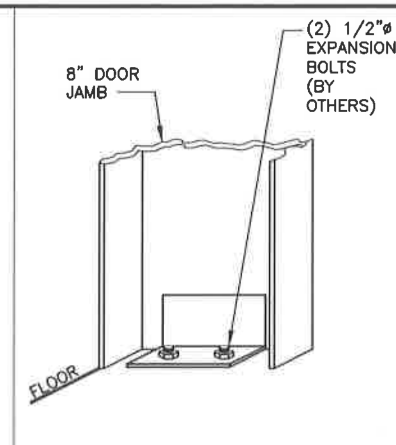
1) USE ONLY WHERE KNOCK DOWN DOORS ARE REQUIRED. SEE COVERSHEET (SHEET C1) FOR DOOR REQUIREMENTS.

2) FOLLOW DOOR AND FRAME ASSEMBLY INSTRUCTIONS PACKAGED WITH FRAME KIT.

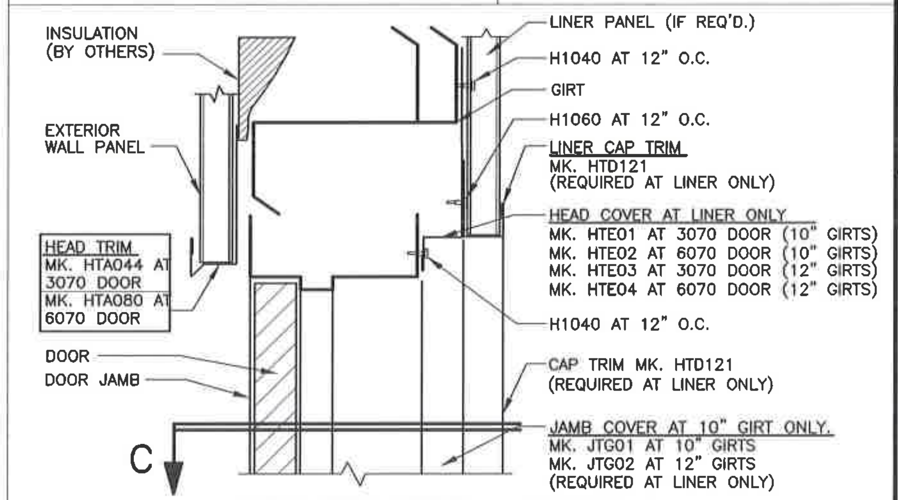
3) HTA__ & JT___ TRIMS ARE FACTORY CUT TO LENGTH.



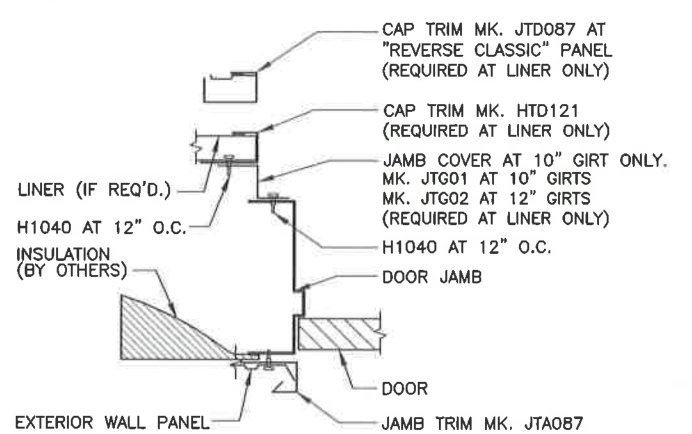
DOOR FRAME INSTALLATION AT TOP



DOOR FRAME INSTALLATION AT BASE

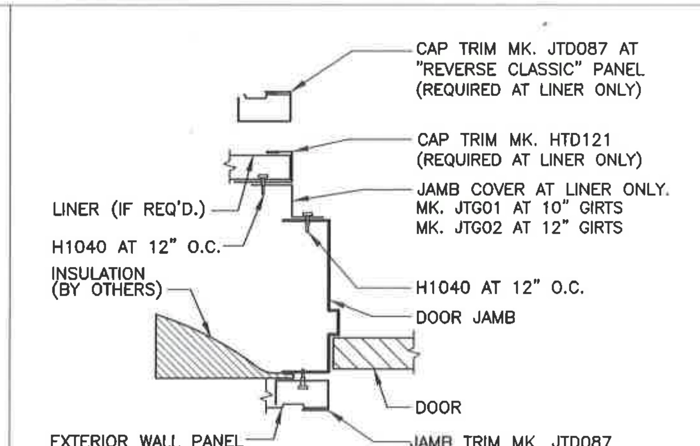


HEAD TRIM DETAIL – SECTION B



JAMB TRIM DETAIL – SECTION C

"CLASSIC" WALL OR "ACCENT" PANEL WITH "CLASSIC" WALL LINER



JAMB TRIM DETAIL – SECTION C

"REVERSE CLASSIC" WALL PANEL WITH "CLASSIC" WALL LINER

DO NOT ATTACH INTERMEDIATE GIRT BELOW 7'-6" TO PRE-ASSEMBLED DOOR SUB-JAMB. EXTRA JAMBS HAVE BEEN PROVIDED FOR ATTACHMENT OF THE INTERMEDIATE GIRT BELOW 7'-6".

RCRBD

RECORD SET

ISSUE	DWN	CHK	ENG	PE	DATE
Anchor Bolt Plans for Const.	PMG	GRJ	RHW	CDS	04/15/16
Permit Drawings	PMG	GRJ	RHW	CDS	04/15/16

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SHEET
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	ABBREVIATIONS	NOTES
A, AMP	AMPERE	
AIC	AMPERE INTERRUPTING CAPACITY	
AF	FRAME RATING IN AMPERES	
AS	SWITCH RATING IN AMPERES	
AT	TRIP RATING IN AMPERES	
AWG	AMERICAN WIRE GAUGE	
C	CONDUIT	
CKT	CIRCUIT	
(E)	EXISTING TO REMAIN	
EC	EMPTY CONDUIT	
ELEC	ELECTRICAL	
EMT	ELECTRO METALLIC TUBING	
FA	FIRE ALARM	
G, GND	GROUND	
HP	HORSEPOWER	
MECH	MECHANICAL	
MCB	MAIN CIRCUIT BREAKER	
(N)	NEW EQUIPMENT OR DEVICE	
NEC	NATIONAL ELECTRIC CODE	
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	
NO	NORMALLY OPEN	
NTS	NOT TO SCALE	
ø, PH	PHASE	
PNL	PANEL	
PVC	POLYVINYL CHLORIDE CONDUIT	
PWR	POWER	
RSC	RIGID STEEL CONDUIT	
TEL	TELEPHONE	
TYP	TYPICAL	
UON	UNLESS OTHERWISE NOTED	
V	VOLT	
VA	VOLT AMPERES	
W	WATT	
(X)	EXISTING TO BE DEMOLISHED	

SYMBOLS	POWER SYMBOLS	NOTES
	MOTOR OUTLET	
	FUSED DISCONNECT SWITCH SWITCH XX/XX/XX = AMP SWITCH/POLES/AMP FUSE	
	HEAVY DUTY NON-FUSED DISCONNECT SWITCH SWITCH XX/XX = AMP SWITCH/POLES	
	COMBINATION MOTOR STARTER	
S_T	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD	
	STATIONARY – CIRCUIT BREAKER; RATING AS SHOWN ON PLANS	
	SWITCH AND FUSE; RATING AS SHOWN ON PLANS	
	SWITCH AND FUSE; RATING AS SHOWN ON PLANS	
	JUNCTION BOX	
	SURFACE MOUNTED PANELBOARD OR TERMINAL CABINET	

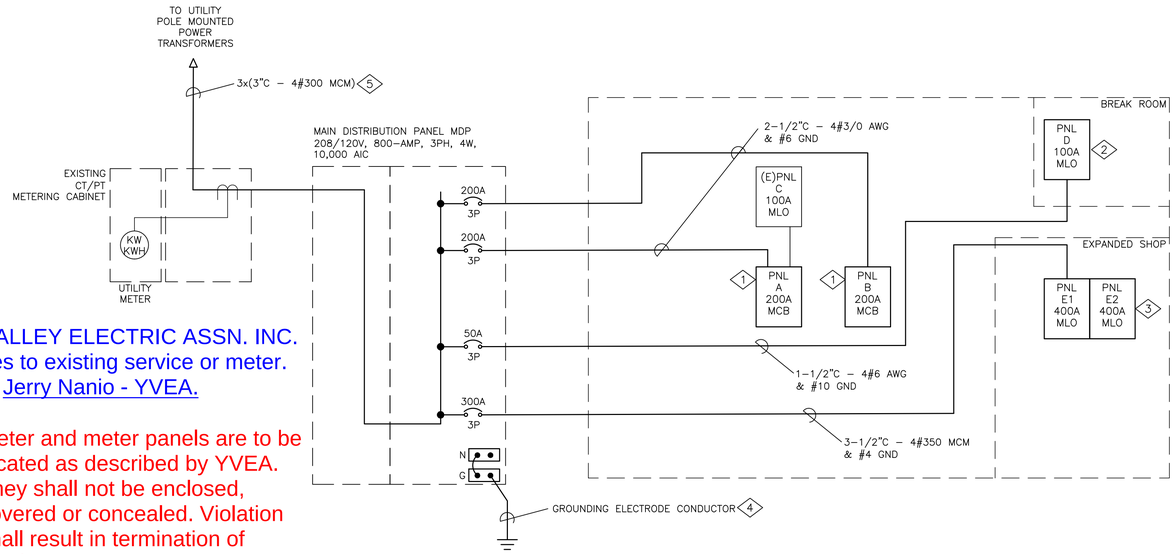
SYMBOLS	DESIGNATION SYMBOLS	NOTES
A □ o/22	FIXTURE DESIGNATION UPPER CASE LETTER INDICATES FIXTURE TYPE. LOWER CASE LETTER INDICATES SWITCH LEG NUMBER INDICATES CIRCUIT NUMBER (WHERE SHOWN).	
$\$_a$	LETTER INDICATES FIXTURES CONTROL (WHERE SHOWN)	
22	NUMBER INDICATES CIRCUIT NUMBER (WHERE SHOWN)	

SYMBOLS	WIRING DEVICE SYMBOLS
	20A, 125V, DUPLEX RECEPTACLE OUTLET +18" UNLESS NOTED OTHERWISE
	SURFACE 20A, 125V, DUPLEX RECEPTACLE OUTLET +18" UNLESS NOTED OTHERWISE
	20A, 125V, DOUBLE DUPLEX RECEPTACLE OUTLET +18" UNLESS NOTED OTHERWISE
	SURFACE 20A, 125V, DOUBLE DUPLEX RECEPTACLE OUTLET +18" UNO
	SPECIAL PURPOSE RECEPTACLE OUTLET, +18" UNLESS NOTED OTHERWISE, NEMA CONFIGURATION AS NOTED ON PLANS
	SURFACE SPECIAL PURPOSE RECEPTACLE OUTLET, +18" UNLESS NOTED OTHERWISE, NEMA CONFIGURATION AS NOTED ON PLANS
	20A, 125V, DEDICATED DUPLEX RECEPTACLE OUTLET +18" UON
GFI	DUPLEX OUTLET WITH GROUND FAULT INTERRUPTER
	CEILING MOUNTED 20A, 125V, DUPLEX RECEPTACLE OUTLET
	CEILING MOUNTED 20A, 125V, DOUBLE DUPLEX RECEPTACLE OUTLET
	FLOOR MOUNTED DUPLEX CONVENIENCE/TELECOM OUTLET WITH BLANK STAINLESS STEEL COVER. COORDINATE TYPE AND FINISH WITH ARCHITECT.
$\$$	SPST WALL SWITCH, LETTERS INDICATE THE NUMBER OF SWITCHES AND OUTLETS THEY CONTROL
$\$_D$	DIMMER SWITCH
$\$_{OS}$	OCCUPANCY LIGHT CONTROL SWITCH; WALL MOUNTED

GENERAL NOTES

1. ALL WORK SHOWN IS NEW, UNLESS NOTED OTHERWISE.
2. ALL WORK TO BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE, 2014 EDITION.
3. SEAL ALL CONDUIT PENETRATIONS OF FLOORS AND FIRE RATED ASSEMBLIES TO MAINTAIN FIRE RATING.
4. PROVIDE NEW TYPEWRITTEN DIRECTORIES REFLECTING WORK PERFORMED FOR ALL NEW PANELBOARDS IN THIS PROJECT.
5. PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBERS. PROVIDE AND INSTALL ALL CONDUITS, CONDUCTORS, BOXES, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM (HOMERUN SHOWN). BRANCH CIRCUIT INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND N.E.C.
6. ALL NEUTRAL CONDUCTORS ON POWER BRANCH CIRCUITING ROUNDHOUSES TO BE #10 AWG UNLESS NOTED OTHERWISE.

SHEET LIST



YAMPA VALLEY ELECTRIC ASSN. INC.
No changes to existing service or meter.
Approved: Jerry Nanio - YVEA.

Meter and meter panels are to be located as described by YVEA. They shall not be enclosed, covered or concealed. Violation shall result in termination of service.

DIAGRAM NOTES

1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
2. BRING ANY DISCOVERED CODE VIOLATIONS TO THE OWNER'S ATTENTION.
3. REMOVE ALL CONDUCTORS, DEVICES AND CONDUIT RENDERED UNUSED BY THIS PROJECT.
4. ALL WIRING SHOWN IS SIZED FOR COPPER CONDUCTORS, UON
5. VERIFY AIC RATINGS WITH ELECTRICAL ENGINEER AND YVEA PRIOR TO PURCHASING ELECTRICAL EQUIPMENT.

RISER NOTES

1. AS AN ADD–ALTERNATE PRICE: REPLACE EXISTING PANELS WITH NEW AND RE–CIRCUIT ACCORDING TO EXISTING CONDITIONS.
2. LOCATE NEW PANEL D IN BREAK ROOM AREA. CONSULT WITH SHOP MANAGER ON BEST LOCATION OF NEW PANEL.
3. LOCATE NEW PANEL E IN EXPANDED SHOP AREA. CONSULT WITH SHOP MANAGER ON BEST LOCATION OF NEW PANEL.
4. BOND NEUTRAL TO GROUND BUS AND THEN PROVIDE A #2/0 GROUND WIRE TO (2) GROUND BARS AND INCOMING COLD WATER PIPE. PROVIDE GROUND ROD AT 3/4" X 8' (COPPER CLAD STEEL).
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CONNECTION TO YVEA POLE MOUNTED TRANSFORMERS. COORDINATE CONNECTION SCHEDULE WITH UTILITY COMPANY DURING CONSTRUCTION.

3 SINGLE LINE DIAGRAM
NTS

	Area	Load	Load
NEW BUILDING LOADS	SF	VA/SF	KVA
Lighting	6,000.0	1.5	9.00
Lighting Total			9.00

OVERALL BUILDING LOADS	KVA	Notes
Lighting	9.00	See above
Wall Receptacles	8.64	Double Duplex & Duplex @ 20' on center
3-phase Receptacle	21.66	(4) 3-phase, 30-amp outlets
Block Heaters	36.00	(20) 15-amp block heaters
Mechanical	1.00	(5) Tube Heaters, (3) Exhaust Fans
Existing Panel A	42.10	
Existing Panel B	67.10	
New Panel D	6.30	
15% Growth/Spare	28.77	
Total KVA	220.57	
Total Amperes @120/208V	611.00	

1 LOAD CALCULATIONS
NTS

TYPE	SYMBOL	DESCRIPTION	MANUFACTURER	ALTERNATE MANUFACTURER
F1		FLUORESCENT HIGH BAYS FOR GENERAL ILLUMINATION	LITHONIA IBZT5–4L–WD	APPROVED EQUAL
X1		EXIT SIGN WITH BATTERY BACKUP EGRESS LIGHTING	LITHONIA – LED EXIT SIGN EXG–LED–EL–M6	APPROVED EQUAL
X2		BATTERY BACKUP EGRESS LIGHTING FIXTURE	LITHONIA ELM2	APPROVED EQUAL

LIGHTING SCHEDULE NOTES

1. ALL LAMPS SHALL BE PROVIDED BY THE CONTRACTOR.
2. CONTRACTOR TO SUBMIT FIXTURE TYPES TO OWNER AND ENGINEER PRIOR TO PURCHASE AND INSTALLATION.

LIGHTING SCOPE NOTES

1. LIGHTING LAYOUT FOR GENERAL NEW SPACE SHALL BE USING FIXTURE TYPE F1 IN 4 ROWS, SPACED 18 FEET APART, 10 FEET ON CENTER.
2. CONTRACTOR SHALL CONSULT WITH OWNER ON SEPARATE LIGHTING LAYOUTS FOR MECHANIC, WELDING AND SHOP ADDITION AREAS. FIXTURE TYPE F1 TO BE USED UNLESS DIRECTED OTHERWISE BY OWNER.
3. ONE EXTERIOR BUILDING MOUNTED LIGHT SHALL BE ADDED BETWEEN MAN DOOR AND GARAGE DOOR. FIXTURE TO MATCH EXISTING.
4. EXIT SIGNS AND EGRESS LIGHTING TO BE INSTALLED AS NEEDED AND VERIFIED IN THE FIELD.

POWER SCOPE NOTES

1. NEW WALL RECEPTACLES IN NEW SPACE SHALL BE A DOUBLE DUPLEX OUTLET AND A DUPLEX OUTLET EVERY 20 FEET ON CENTER ON INTERIOR WALLS.
2. PROVIDE (4) 3–PHASE RECEPTACLES, SPECIFIED BY OWNER, ONE IN MECHANICS AREA, ONE IN WELDING AREA AND ONE ON EACH SIDE WALL OF ADDITION AREA.
3. PROVIDE EXTERIOR FUSES AND HARD WIRING FOR (20) BLOCK HEATER CONTROLLERS, AS SPECIFIED BY OWNER. LOCATION TO BE DETERMINED IN THE FIELD.

2 LIGHTING SCHEDULE AND POWER SCOPE NOTES
NTS

OAK CREEK SHOP

24500 County Road 27
Oak Creek, CO

TYKE PIERCE CONSTRUCTION

38615 Klein Road
Steamboat Springs, CO 80477

WILDER ENGINEERING LLC
Andrew Wilder PE
1170 Blue Sage Drive
Steamboat Springs, CO 80487
P: 970-819-7848
E: andy@wilder-eng.com

COLORADO LICENSED
ANDREW CHARLES WILDER
49009
PROFESSIONAL ENGINEER

Issue	By Date & Issue Description	By
–	PERMIT SET – 5.16.16	AW

Scale:
24x36 NTS

Description: LEGEND, SINGLE LINE DIAGS

Project Name: OAK CREEK SHOP

Project Number: 201626

Sheet No.

E-100

PANEL E(1)

MOUNTING SURFACE — 208/120 VOLTS 3 PHASE 4 WIRE — MAIN MLO — 10,000 A.I.C. SYM — BUS 400 A

VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC	DESCRIPTION	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	DESCRIPTION	VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC
1800			3-Phase Rec			3	20	1	A	2	20	1			Lighting	1200		
	1800		-			-	-	3	B	4	20	1			Lighting		1200	
		1800	-			-	-	5	C	6	20	1			Lighting			1200
1800			3-Phase Rec			3	20	7	A	8	20	1			Lighting	1200		
	1800		-			-	-	9	B	10	20	1			Lighting		1200	
		1800	-			-	-	11	C	12	20	1			Lighting			1200
1800			3-Phase Rec			3	20	13	A	14	20	1			Lighting	1200		
	1800		-			-	-	15	B	16	20	1			Lighting		600	
		1800	-			-	-	17	C	18	20	1			Mechanical			1000
1800			3-Phase Rec			3	20	19	A	20	20	1			Spare			
	1800		-			-	-	21	B	22	20	1			Spare			
		1800	-			-	-	23	C	24	20	1			Spare			
1080			Wall Recepts	6		1	20	25	A	26					Space			
	1080		Wall Recepts	6		1	20	27	B	28					Space			
		1080	Wall Recepts	6		1	20	29	C	30					Space			
1080			Wall Recepts	6		1	20	31	A	32					Space			
	1080		Wall Recepts	6		1	20	33	B	34					Space			
		1080	Wall Recepts	6		1	20	35	C	36					Space			
1080			Wall Recepts	6		1	20	37	A	38					Space			
	1080		Wall Recepts	6		1	20	39	B	40					Space			
			Spare			1	20	41	C	42					Space			
10440	10440	9360	VA/LINE													3600	3000	3400

ØA= 14040 — ØB= 13440 — ØC= 12760

CONTINUOUS LOADS	NON-CONTINUOUS LOADS				
	UP TO 10 kVA 8640	x1.00= 8640			
9000 x1.25= 11250	RECEPTACLES		OTHER	58600	x1.00 58600
	REMAINDER	x0.50=			

TOTAL DESIGN kVA= 78 — TOTAL DESIGN AMPS= 218

(1) Provide feed-through lugs.

PANEL B

MOUNTING SURFACE — 208/120 VOLTS 3 PHASE 4 WIRE — MAIN 200 A — 10,000 A.I.C. SYM — BUS 225 A

VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC	DESCRIPTION	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	DESCRIPTION	VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC
750			Center Heat			1	20	1	A	2	20	1			Heat/Fans	750		
	1000		Lathe			3	20	3	B	4	20	1			Heat/Flag Ltg		1000	
		1000	-			-	-	5	C	6	20	1		4	Recept			720
1000			-			-	-	7	A	8	20	1			Welding Fan	750		
			Space					9	B	10	20	2			Plasma Cutter		1000	
			Space					11	C	12	-	-			-			1000
2000			Hoist			3	30	13	A	14	100	2			Welder	5000		
	2000		-			-	-	15	B	16	-	-			-		5000	
		2000	-			-	-	17	C	18					Space			
750			VR System			1	20	19	A	20	30	1			Fuel Is	2200		
	3000		Air Compressor			3	50	21	B	22	15	1		2	Recept		360	
		3000	-			-	-	23	C	24	20	2			Roof Fan			1000
3000			-			-	-	25	A	26	-	-			-	1000		
	2600		S Out Rec			2	50	27	B	28	20	2			Wall Fan		1000	
		2600	-			-	-	29	C	30	-	-			-			1000
1800			Patch Trlr			2	30	31	A	32	20	2			Roof Fan	1000		
	1800		-			-	-	33	B	34	-	-			-		1000	
			Space					35	C	36	100	3			Welder			5000
			Space					37	A	38	-	-			-	5000		
			Space					39	B	40	-	-			-		5000	
								41	C	42								
9300	10400	8600	VA/LINE													15700	14360	8720

ØA= 25000 — ØB= 24760 — ØC= 17320

CONTINUOUS LOADS	NON-CONTINUOUS LOADS				
	UP TO 10 kVA 1080	x1.00= 1080			
x1.25=	RECEPTACLES		OTHER	66000	x1.00 66000
	REMAINDER	x0.50=			

TOTAL DESIGN kVA= 67 — TOTAL DESIGN AMPS= 186

PANEL E(2)

MOUNTING SURFACE — 208/120 VOLTS 3 PHASE 4 WIRE — MAIN FEED THRU — 10,000 A.I.C. SYM — BUS 400 A

VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC	DESCRIPTION	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	DESCRIPTION	VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC
1800			Block Heater			1	20	43	A	44	20	1			Block Heater	1800		
	1800		Block Heater			1	20	45	B	46	20	1			Block Heater		1800	
		1800	Block Heater			1	20	47	C	48	20	1			Block Heater			1800
1800			Block Heater			1	20	49	A	50	20	1			Block Heater	1800		
	1800		Block Heater			1	20	51	B	52	20	1			Block Heater		1800	
		1800	Block Heater			1	20	53	C	54	20	1			Block Heater			1800
1800			Block Heater			1	20	55	A	56	20	1			Block Heater	1800		
	1800		Block Heater			1	20	57	B	58	20	1			Block Heater		1800	
		1800	Block Heater			1	20	59	C	60	20	1			Block Heater			1800
1800			Block Heater			1	20	61	A	62	20	1			Block Heater	1800		
			Spare			1	20	63	B	64	20	1			Spare			
			Spare			1	20	65	C	66	20	1			Spare			
			Spare			1	20	67	A	68	20	1			Spare			
			Space					69	B	70					Space			
			Space					71	C	72					Space			
			Space					73	A	74					Space			
			Space					75	B	76					Space			
			Space					77	C	78					Space			
			Space					79	A	80					Space			
			Space					81	B	82					Space			
			Space					83	C	84					Space			
7200	5400	5400	VA/LINE													7200	5400	5400

ØA= 14400 — ØB= 10800 — ØC= 10800

CONTINUOUS LOADS	NON-CONTINUOUS LOADS				
	UP TO 10 kVA	x1.00=			
x1.25=	RECEPTACLES		OTHER	36000	x1.00 36000
	REMAINDER	x0.50=			

TOTAL DESIGN kVA= 36 — TOTAL DESIGN AMPS= 100

YAMPA VALLEY ELECTRIC ASSN. INC.
No changes to existing service or meter.
Approved: Jerry Nanio - YVEA.

Meter and meter panels are to be located as described by YVEA. They shall not be enclosed, covered or concealed. Violation shall result in termination of service.

EXISTING

PANEL C

MOUNTING SURFACE — 208/120 VOLTS 3 PHASE 4 WIRE — MAIN MLO — 10,000 A.I.C. SYM — BUS 100 A

VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC	DESCRIPTION	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	DESCRIPTION	VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC
360			Recepts	2		1	20	1	A	2	30	2			Pressure Washer	2400		
	360		Recepts	2		1	20	3	B	4	-	-			-		2400	
			Space					5	C	6					Space			
			Space					7	A	8					Space			
			Space					9	B	10					Space			
			Space					11	C	12					Space			
			Space					13	A	14					Space			
			Space					15	B	16					Space			
			Space					17	C	18					Space			
			Space					19	A	20					Space			
			Space					21	B	22					Space			
			Space					23	C	24					Space			
			Space					25	A	26					Space			
			Space					27	B	28					Space			
			Space					29	C	30					Space			
360	360		VA/LINE													2400	2400	

ØA= 2760 — ØB= 2760 — ØC=

CONTINUOUS LOADS	NON-CONTINUOUS LOADS				
	UP TO 10 kVA 720	x1.00= 720			
x1.25=	RECEPTACLES		OTHER	4800	x1.00 4800
	REMAINDER	x0.50=			

TOTAL DESIGN kVA= 6 — TOTAL DESIGN AMPS= 15

PANEL D

MOUNTING SURFACE — 208/120 VOLTS 3 PHASE 4 WIRE — MAIN MLO — 10,000 A.I.C. SYM — BUS 100 A

VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC	DESCRIPTION	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	DESCRIPTION	VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC
1200			Refrigerator			1	20	1	A	2	20	1		4	Office Recept	720		
	360		Recepts	2		1	20	3	B	4	20	1		2	Bathroom		860	
		900	Recepts	5		1	20	5	C	6	20	1			Spare			
720			Recepts	4		1	20	7	A	8	20	1			Spare			
	1200		Lighting			1	20	9	B	10	20	1			Spare			
			Spare			1	20	11	C	12					Space			
			Spare			1	20	13	A	14					Space			
			Spare			1	20	15	B	16					Space			
			Space					17	C	18					Space			
1920	1560	900	VA/LINE													720	860	

ØA= 2640 — ØB= 2420 — ØC= 900

CONTINUOUS LOADS	NON-CONTINUOUS LOADS				
	UP TO 10 kVA 3060	x1.00= 3060			
1200 x1.25= 1500	RECEPTACLES		OTHER	1700	x1.00 1700
	REMAINDER	x0.50=			

TOTAL DESIGN kVA= 6 — TOTAL DESIGN AMPS= 17

MAIN SERVICE LOAD SUMMARY

Load	kVA Cont	kVA Rec	kVA Other	kVA Total	A
PANEL A	4.3	7.6	29.2	42.1	117
PANEL B		1.1	66.0	67.1	186
PANEL D	1.2	3.1	1.7	6.3	17
PANEL E(1)	9.0	8.6	58.6	78.5	218
Growth/Spare			29.5	29.5	82
SubTotal	14.5	20.3	185.0	218.2	kVA
25% of Largest Motor					kVA
Total				**218.2**	**kVA**
			605.8	**Amps at**	**208 V**

1 OVERALL BUILDING LOAD CALCULATION
NTS

PANEL A

MOUNTING SURFACE — 208/120 VOLTS 3 PHASE 4 WIRE — MAIN 200 A — 10,000 A.I.C. SYM — BUS 225 A

VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC	DESCRIPTION	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	DESCRIPTION	VOLT AMPS ØA	VOLT AMPS ØB	VOLT AMPS ØC
1000			South Door			1	20	1	A	2	20	1		4	Recept	720		
	1000		Lighting			1	25	3	B	4	20	1		4	Recept		720	
		1000	North Door			1	20	5	C	6	20	1		4	Recept			720
1000			Lighting			1	25	7	A	8	20	1			Break Room	1000		
	1000		Lighting			1	25	9	B	10	20	1			Break Room		1000	
		1000	Lighting			1	25	11	C	12	20	1		4	Recept			720
720			Recept	4		1	20	13	A	14	20	1		4	Recept	720		
	1000		Drill Press			1	20	15	B	16	20	1			Work Bench		1000	
		720	Recept	4		1	20	17	C	18	20	1			Office			1000
720			Recept	4		1	20	19	A	20	20	2			Recept	1000		
			Space					21	B	22	-	-			-		1000	
			Space					23	C	24	20	2			Recept			1000
			Space					25	A	26	-	-			-	1000		
			Space					27	B	28	60	2			Bench		3100	
		1000	Water Heater			1	20	29	C	30	-	-			-			3100
720			Recept	4		1	20	31	A	32	60	2			Dryer	3100		
	610		Bathroom	2		1	20	33	B	34	-	-			-		3100	
		2760	Panel C			3	100	35	C	36					Space			
2760			-			-	-	37	A	38					Space			
			-			-	-	39	B	40					Space			
								41	C	42								
6920	3610	6480	VA/LINE													7540	9920	6540

ØA= 14460 — ØB= 13530 — ØC= 13020

CONTINUOUS LOADS	NON-CONTINUOUS LOADS				
	UP TO 10 kVA 7560	x1.00= 7560			
4250 x1.25= 5313	RECEPTACLES		OTHER	29200	x1.00 29200
	REMAINDER	x0.50=			

TOTAL DESIGN kVA= 42 — TOTAL DESIGN AMPS= 117

2 PANEL SCHEDULES
NTS

OAK CREEK SHOP
24500 County Road 27
Oak Creek, CO

TYKE PIERCE CONSTRUCTION
38615 Klein Road
Steamboat Springs, CO 80477

WILDER ENGINEERING LLC
Andrew Wilder PE
1170 Blue Sage Drive
Steamboat Springs, CO 80487
P: 970-819-7848
E: andy@wilder-eng.com

COLORADO LICENSED — ANDREW CHARLES WILDER — 49009 — PROFESSIONAL ENGINEER

Issue	By Date & Issue Description	By
–	PERMIT SET – 5.16.16	AW

Scale:
24x36 NTS

Description: SCHEDULES

Project Name: OAK CREEK SHOP

Project Number: 201626

Sheet No.
E-101

SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

1) PART 1 GENERAL

a) POWER AND CONTROL WIRING

i) Provide power system conduit and wiring to mechanical equipment. Controls system conduit and wiring for mechanical systems is included under Division 15. "Power" wiring includes line voltage wiring from distribution apparatus to disconnecting means provided or installed under this section, and from such disconnecting means to motors, and to terminal boxes of 'package' equipment. "Controls" wiring includes wiring, regardless of voltage, which provides start-stop control for mechanical equipment and/or which is used to monitor functions of mechanical systems. Where line voltage wiring is extended from a local disconnecting means to relays, thermostats, by-pass timers, starter coils or the like, or from mechanical control panels or motor control centers to control devices, such extensions are considered "control" wiring.

b) MOUNTING HEIGHTS

i) Mounting heights and locations: verify the exact location of equipment with architect prior to installation. Wall mounted devices requiring operational access shall be mounted a minimum of 15 inches above finished floor to bottom of device and a maximum of 48 inches above finished floor to top of device. Visual alarms shall be mounted not less than 80 inches to the bottom or 96 inches to the top of the device.

c) REGULATORY REQUIREMENTS

i) Conform to:

(1) NFPA-70 - National Electric Code.

ii) Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the Owner's insurance underwriter, and applicable base building standards.

iii) When conflict exists between two or more governing codes, comply with the stricter requirement.

iv) Obtain permits, and request inspections from authority having jurisdiction.

d) PROJECT/SITE CONDITIONS

i) Install Work in locations shown on Drawings, unless prevented by Project conditions. Coordinate installation of work in available space with work furnished under other Divisions.

2) PRODUCTS

a) Where manufacturer's model or series numbers are specified or shown, these indicate generally acceptable types required. Furnish products which comply with all requirements, as specified or shown.

b) When more than one unit of the same class of equipment is required, provide units produced by a single manufacturer.

3) TESTS

a) Furnish test equipment, facilities, and technical personnel required to perform field tests.

b) At completion of job, check voltage at several points of utilization on the system. Energize all loads installed.

4) CLEANING

a) Clean all fixtures and equipment at the completion of the project. Wipe clean exposed lighting fixture reflectors and trim pieces with a non-abrasive cloth just prior to occupancy.

5) RECORD DRAWINGS

a) Upon completion of the Work, deliver to Architect and up-to-date set of "as-built" record drawings on a reproducible medium including AutoCAD.

6) DEMOLITION

a) Remove, relocate, and reroute existing electrical equipment to facilitate new construction or remodeling work.

b) Examine the site to observe and note existing conditions prior to submitting a bid.

c) Schedule demolition in advance. Schedule work to avoid disruption of normal operations.

d) Reconnect circuits serving equipment required to remain in service to other panelboards, motor control centers, or other appropriate distribution equipment. Provide additional panelboards, motor control centers, or other appropriate distribution equipment where there is insufficient available capacity in remaining existing equipment for reconnection.

e) Remove existing conduit and wire back to panelboard, motor control center, or other distribution source.

f) Where a circuit is interrupted by removal of a device or fixture from that circuit, provide additional conduit and wire to restore service to the remaining devices and fixtures on that circuit.

g) Electrical equipment to be removed that is in good working order shall be carefully removed and offered to the Owner. Items rejected by the Owner shall be removed from the project site and properly disposed of.

YAMPA VALLEY ELECTRIC ASSN. INC.
No changes to existing service or meter.
Approved: Jerry Nanio - YVEA.

Meter and meter panels are to be located as described by YVEA. They shall not be enclosed, covered or concealed. Violation shall result in termination of service.

SECTION 16100 - BASIC MATERIALS AND METHODS

1) PART 1 GENERAL

a) REFERENCES

i) All equipment and installations shall meet or exceed minimum requirements of ADA, ANSI, ASTM, IEEE, IES, NEC, NEMA, NETA, NFPA, OSHA, SMACNA, UL, and the State Fire Marshal. Equipment shall be certified for use in the State of the project and shall meet the State energy code. Provide products and materials that are new, clean, free of defects, and free of damage and corrosion.

b) PERFORMANCE REQUIREMENTS

i) Provide support system for equipment and conduit, including wiring, with a minimum safety factor of 4. For empty conduits, include weight of 4 type XHHW wires of maximum permissible size.

c) QUALITY ASSURANCE

i) All equipment and installations shall meet or exceed minimum requirements of ADA, ANSI, ASTM, IEEE, IES, NEC, NEMA, NETA, NFPA, OSHA, SMACNA, UL, and the State Fire Marshal. Equipment shall be certified for use in the State of the project and shall meet the State energy code. Provide products and materials that are new, clean, free of defects, and free of damage and corrosion.

2) PART 2 PRODUCTS

a) CONDUIT

i) General

(1) Exposed Dry and Damp Locations:

(a) Use electrical metallic tubing.

(2) Concealed Locations:

(a) Furred, Ceiling Spaces and Stud Walls: Use electrical metallic tubing.

(b) Connections to Lighting Fixtures in Accessible Ceilings: Use flexible conduit.

(3) Equipment Connections:

(a) Connections to Liquid-Handling Equipment in Dry Locations: Use liquid-tight flexible conduit.

(4) Equipment for Dry Systems in Dry Locations: Use flexible conduit.

ii) Electrical Metallic Tubing:

(1) Continuous, seamless steel tubing, galvanized or sherardized on exterior, coated on interior with smooth hard finish of lacquer, varnish or enamel, with steel, set screw or compression type fittings. Provide concrete type fittings where required.

(2) Use for general purpose feeders and branch circuits.

iii) Flexible Steel Conduit:

(1) Single strip, continuous, flexible interlocked double-wrapped steel, hot dip galvanized inside and out forming smooth internal wiring channel, with steel, compression type fittings.

(2) Use in dry locations only, connections to lighting fixtures in suspended ceilings, connections to equipment installed above suspended ceilings, transformer connections, busway plug in units, and connections to equipment where vibration isolation is required, maximum length of 6 feet.

iv) Liquid Tight Flexible Steel Conduit:

(1) Same as flexible steel conduit except with tough, inert, watertight plastic outer jacket. Fittings shall be cast malleable iron body and gland nut, cadmium plated with one-piece brass grounding bushings threaded to interior of conduit. Spiral molded vinyl sealing ring between gland nut and bushing and nylon insulated throat.

(2) Use same as flexible steel conduit in damp or wet locations and at motor connections.

b) BUILDING WIRE AND CABLE

i) Provide wire with a minimum insulating rating of 600 volts, except for wire used in low voltage (below 50 volts) control or signal systems. The use of teflon (multi-conductor) for low tension systems may be permitted for fire alarm, signal and communication systems (voice and data) as approved on shop drawings by engineers and where permitted by local codes and union practice.

ii) Conductors

(1) Electrical grade, annealed copper, and fabricated in accordance with ASTM standards. Minimum size number 12 AWG for branch circuits; number 14 AWG for control wiring.

(2) Unless otherwise specified, all wires numbers 10 and smaller shall be solid.

(3) All wires number 8 and larger shall be stranded in accordance with ASTM Class B stranding designations.

(4) Control wires shall be stranded in accordance with ASTM Class B stranding designations.

(5) Cables for low tension systems shall be multi-conductor, 16 gauge, color coded and insulated in armored cable assembly, with number of conductors as required.

(6) All 600 volt wire and cables unless otherwise specified shall be single conductor suitable for use in wet and dry and locations.

iii) Connectors

(1) Make connections, splices, taps and joints with solderless devices, mechanically and electrically secure. Protect exposed wires and connecting devices with electrical tape or insulation to provide insulation values not less than on conductor.

iv) Cables (No. 8 and Larger):

(1) Use set screw or compression type connectors, taps and splices specifically designed for the particular connection. Insulate splice either by taping or by use of "Bakelite" covers designed to fit around splice.

v) Branch Circuit Wires (Number 10 and Smaller): Use any of the following types of terminals and connecting devices:

(1) Hand Applied: Coiled, tapered, spring wound devices with a conducting corrosion-resistant coating over the spring steel and a plastic cover and skirt providing full insulation for splice and wired ends. Screw connector on by hand.

(2) Tool Applied: Steel cap, with conduction and corrosion resistant metallic plating, open at both ends, fitted around the twisted ends of the wire and compressed or crimped by means of a special die designed for the purpose. Specifically fitted plastic or rubber insulating cover wrap over each connector.

c) BOXES

i) Pressed steel, galvanized or cadmium-plated, 4 inches minimum octagonal or square with galvanized cover or extension ring as required.

ii) Back-to-back outlets in the same wall, or "through-wall" type boxes are not permitted. Provide 12 inch minimum spacing for outlets shown on opposite sides of a common wall. Provide acoustical potting compound on all outlet boxes.

d) WIRING DEVICES

i) Switches and Receptacles: Arrow Hart, Hubbell, Leviton, Pass & Seymour, or Slater.

ii) Wall Dimmers: Lutron.

iii) Occupancy Sensors: Mytech, Novitas, or Watt Stopper.

iv) Floor Boxes and Fittings:

(1) Poke through type: Wiremold Legrand.

(2) Recessed flush floor box type: Steel City or Wiremold Legrand.

v) Plugstrip: Wiremold.

vi) Device and cover plate colors shall be as selected by Architect.

e) SUPPORTS

i) Support raceways on accepted types of wall brackets, specialty steel clips, or hangers, ceiling trapeze hangers, or malleable iron straps. Plumber's perforated straps are not permitted. Acceptable manufacturers' brackets or hangers are Kindorf, Elcan, Binkley, Multi-Frame, Power-Strut, or Unistrut. Do not suspend raceways or equipment from other raceways, steam, water, or other piping or ductwork, except as otherwise permitted. Provide independent and secure support methods.

f) PANELBOARDS

i) Acceptable Manufacturers: Cutler-Hammer/Westinghouse, General Electric, Siemens, or Square D/Groupe Schneider.

ii) AIC Rating: Branch panelboards and overcurrent protection devices shall have a minimum short circuit rating of 10,000 RMS symmetrical amperes minimum interrupting capacity (120/208V) or 14,000 RMS symmetrical amperes minimum interrupting capacity (277/480V).

iii) AIC Rating: Distribution panelboards and overcurrent protection devices shall have a minimum short circuit rating of 42,000 RMS symmetrical amperes minimum interrupting capacity (120/208V) or 200,000 RMS symmetrical amperes minimum interrupting capacity (277/480V).

iv) Enclosures: Corrosion resistant galvanized (zinc finished) sheet steel. Fronts shall be cold rolled steel, finish coated with ANSI 61 grey enamel over a rust inhibitor. Panel locks shall be keyed alike.

v) Doors: One piece bolt on front with a lockable hinged door over the overcurrent protection devices.

vi) Bus Bars: Silver plated aluminum or copper. Neutral bus shall be full size. Neutral bus shall be 200% rated when supplied from a double neutral feeder. Provide an equipment ground bus in each panelboard. In addition to the equipment ground bus, provide an isolated ground bus when supplied from a feeder which includes an isolated grounding conductor.

vii) Overcurrent Protection Devices: Molded case circuit breakers for branch panelboards and 120/208V rated distribution panels, and fusible switch units for 277/480V rated distribution panels.

g) MOTOR STARTERS

i) Acceptable Manufacturers: Eaton/Cutler-Hammer, General Electric, Siemens, or Square D/Groupe Schneider.

ii) Manual Motor Starters

iii) Fractional Horsepower Manual Starter: General-purpose, Class A, manually operated, full-voltage controller for fractional horsepower induction motors, with thermal overload unit, and toggle operator.

iv) Voltage, Rating and Thermal Element: As required by motor controller.

v) Enclosure: NEMA ICS 6; Type 1.

h) PULL LINE

i) 1/8 inch diameter braided yellow polypropylene.

3) PART 3 EXECUTION

a) INSTALLATION

i) Conduit

(1) Install conduit in accordance with NECA "Standard of Installation".

(2) Do not combine individual homeruns into common conduit.

(3) Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports.

(4) Arrange conduit to maintain headroom and present neat appearance.

(5) Use conduit hubs to fasten conduit to cast boxes.

(6) Provide insulated equipment ground conductor in flexible conduit.

(7) Install conduit to preserve fire resistance rating of partitions and other elements.

(8) Do not attach conduit to ceiling support wires.

ii) Building Wire and Cable

(1) Use conductor not smaller than 12 AWG for power and lighting circuits.

(2) Neatly train and lace wiring inside boxes, equipment, and panelboards.

(3) Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.

(4) Use hardened and tempered steel, tin-plated or stainless steel Belleville washer with slightly larger tin-plated mild steel flat washer for aluminum lugs.

(5) Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 8 AWG and smaller.

iii) Boxes

(1) Install electrical boxes as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.

(2) Install electrical boxes to maintain headroom and to present neat mechanical appearance.

(3) Install boxes to preserve fire resistance rating of partitions and other elements; arrange boxes to meet regulatory requirements.

(4) Align adjacent wall-mounted outlet boxes for switches, thermostats, and similar devices to each other.

(5) Do not use through-walls boxes or install flush mounting boxes back-to-back in walls; provide minimum 6 inch separation. Provide minimum24 inches separation in acoustic rated walls.

(6) Use stamped steel bridges in bar hanger assemblies to fasten flush mounting outlet box between studs.

(7) Use adjustable steel channel fasteners for hung ceiling outlet box.

(8) Do not fasten boxes to ceiling support wires.

(9) Support steel metal boxes independently of conduit.

(10) Use gang box where more than one device is mounted together, including floor boxes. Do not use sectional box.

(11) Plaster Rings: Use for all concealed work; depth of rings as required to reach finished surfaces.

(12) Coordinate trimming of openings for outlet boxes in partitions to achieve neat, closely-fitting openings.

(13) Install knockout closure in unused box opening.

iv) Wiring Devices

(1) Install devices plumb, level, and rigidly in place.

(2) Install switches 2 inches to 8 inches from trim on the strike side.

(3) Install decorative plates on switch, receptacle, and blank outlets in finished areas. Use multi-gang plates for multiple devices.

(4) Connect wiring devices by wrapping conductor around screw terminal.

v) Supporting Devices

(1) Fasten hanger rods, conduit clamps, and outlet and junction boxes to building structure using expansion anchors, beam clamps, steel ramset fasteners.

(2) Use toggle bolts or hollow wall fasteners in plaster or gypsum board partitions and walls; sheet metal screws or spring steel bar retainer clips in sheet metal studs.

(3) Do not fasten supports to piping, ductwork, mechanical equipment, or conduit.

(4) Do not use powder-actuated anchors without specific permission.

(5) Do not drill structural steel members without specific permission.

(6) Fabricate supports from structural steel or steel channel, rigidly welded or bolted to present a neat appearance. Use hexagon head bolts with spring lock washers under nuts.

vi) Electrical Identification

(1) Provide wire markers on each conductor in panelboard gutters, pull boxes, and at load connection. Identify with branch circuit for power and lighting circuits, and with control wire number as indicated on equipment manufacturer's shop drawings for control wiring. If more than one neutral conductor is present, mark each with related circuit numbers.

(2) Color code all secondary branch circuit and feeder conductors as follows:

(a) Four Wire, Three Phase, Grounded Wye System: For 120/208 volt systems, use one black, one red, one blue, one white (neutral). For 277/480 volt systems, use one brown, one orange, one yellow and one gray (neutral).

(3) Use wire with insulation of required color. For sizes of wire, which may not be available in specified colors use self-adhesive wrap around, markers of solid colors to color code conductors.

(4) Color code conductors at accessible locations.

(5) Pull Rope Marking: Affix label identifying termination point at each end of pull rope.

vii) Disconnect Switches

(1) Install disconnect switches shown mounted on walls at +4'-6" to centerline of switch.

(2) Install disconnect switches shown on or adjacent to equipment on field fabricated galvanized steel frames.

viii) Panelboards

(1) Provide filler plates for unused spaces in panelboards.

(2) Provide typed circuit directory in plastic holder for each branch circuit panelboard.

ix) Motor Starters

(1) Install motor control equipment in accordance with manufacturer's instructions.

(2) Select and install heater elements in motor starters to match installed motor characteristics.

x) Pull Line: Provide in each empty conduit except sleeves and nipples; leave 8 inches of slack at each outlet.

xi) Firestopping: Provide firestopping around all pipes, conduits, sleeves, etc., which pass through rated walls, partitions and floors.

END OF SECTION

OAK CREEK SHOP

24500 County Road 27
Oak Creek, CO

TYKE PIERCE CONSTRUCTION

38615 Klein Road
Steamboat Springs, CO 80477

WILDER ENGINEERING LLC
Andrew Wilder PE
1170 Blue Sage Drive
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COLORADO LICENSED
ANDREW CHARLES WILDER
49009
PROFESSIONAL ENGINEER

Issue	By Date & Issue Description	By
–	PERMIT SET – 5.16.16	AW

Scale:
24x36 NTS

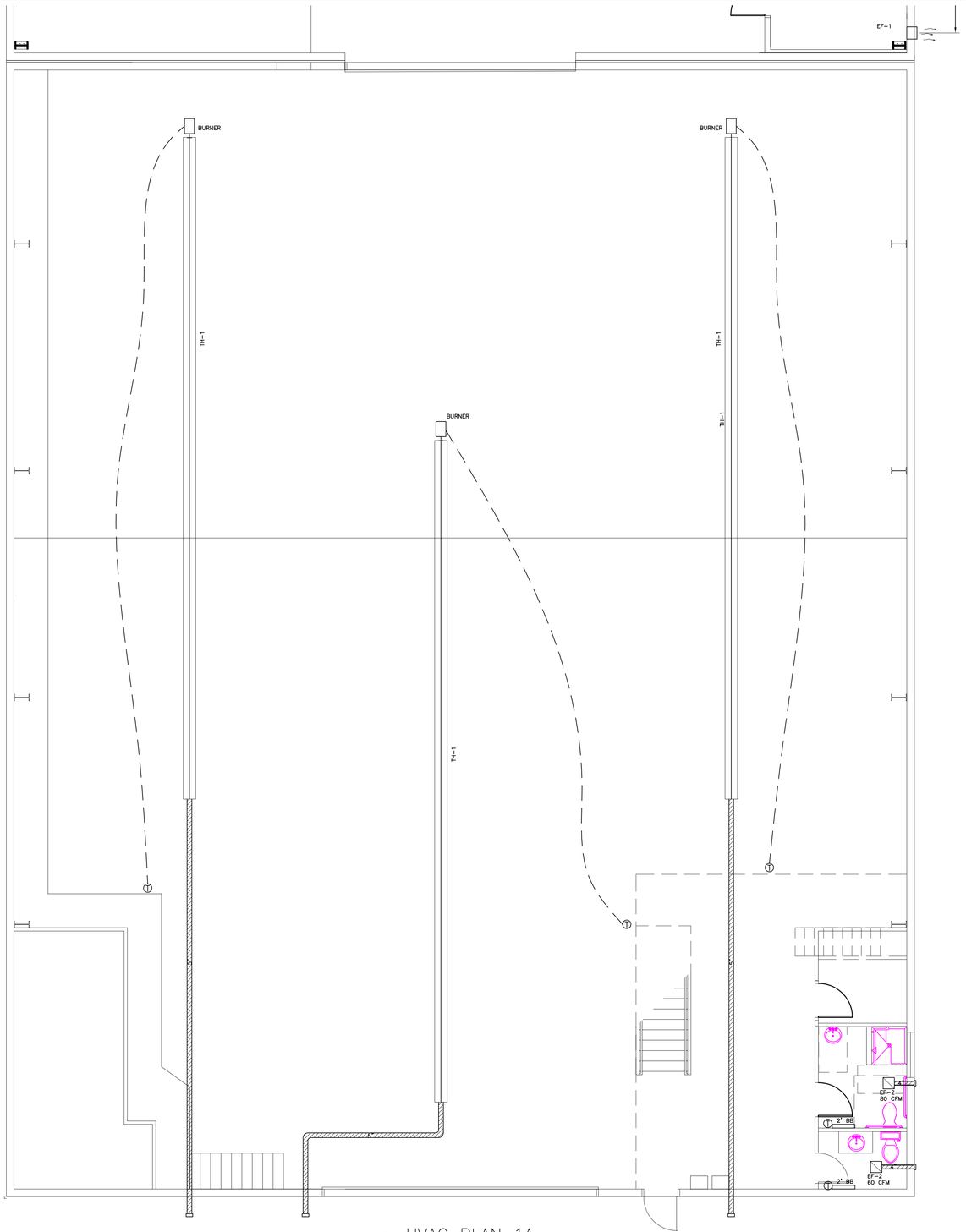
Description: SPECIFICATIONS

Project Name: OAK CREEK SHOP

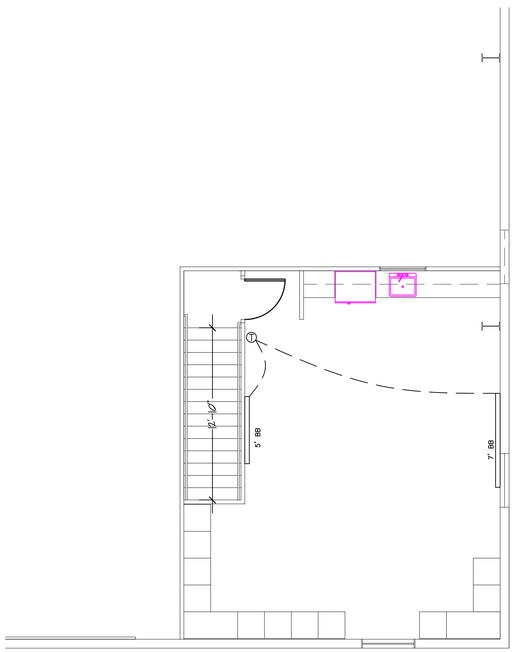
Project Number: 201626

Sheet No.

E-200



1 HVAC PLAN 1A
SCALE: 3/16" = 1'-0"



3 UPPER LEVEL HVAC PLAN
SCALE: 3/16" = 1'-0"

HVAC LEGEND

	EXHAUST AIR DUCT
RH-1	RADIANT TUBE HEATER
EF-X	EXHAUST FAN
SF-X	SUPPLY FAN
X' BB	ELECTRIC BASEBOARD
T	THERMO-STAT

R C R B D

RECORD SET

N

PLAN NORTH

SCALE: ¼" = 1'-0"

0' 1' 2' 5' 10' 15'

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YAMPA VALLEY ENGINEERING, INC.

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PLANS FOR:

COUNTY METAL BUILDING

24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16-024
DRAWN: JAS
DATE: 6-3-16

REVISIONS

NO.	DATE	DRAWN

SHEET NUMBER

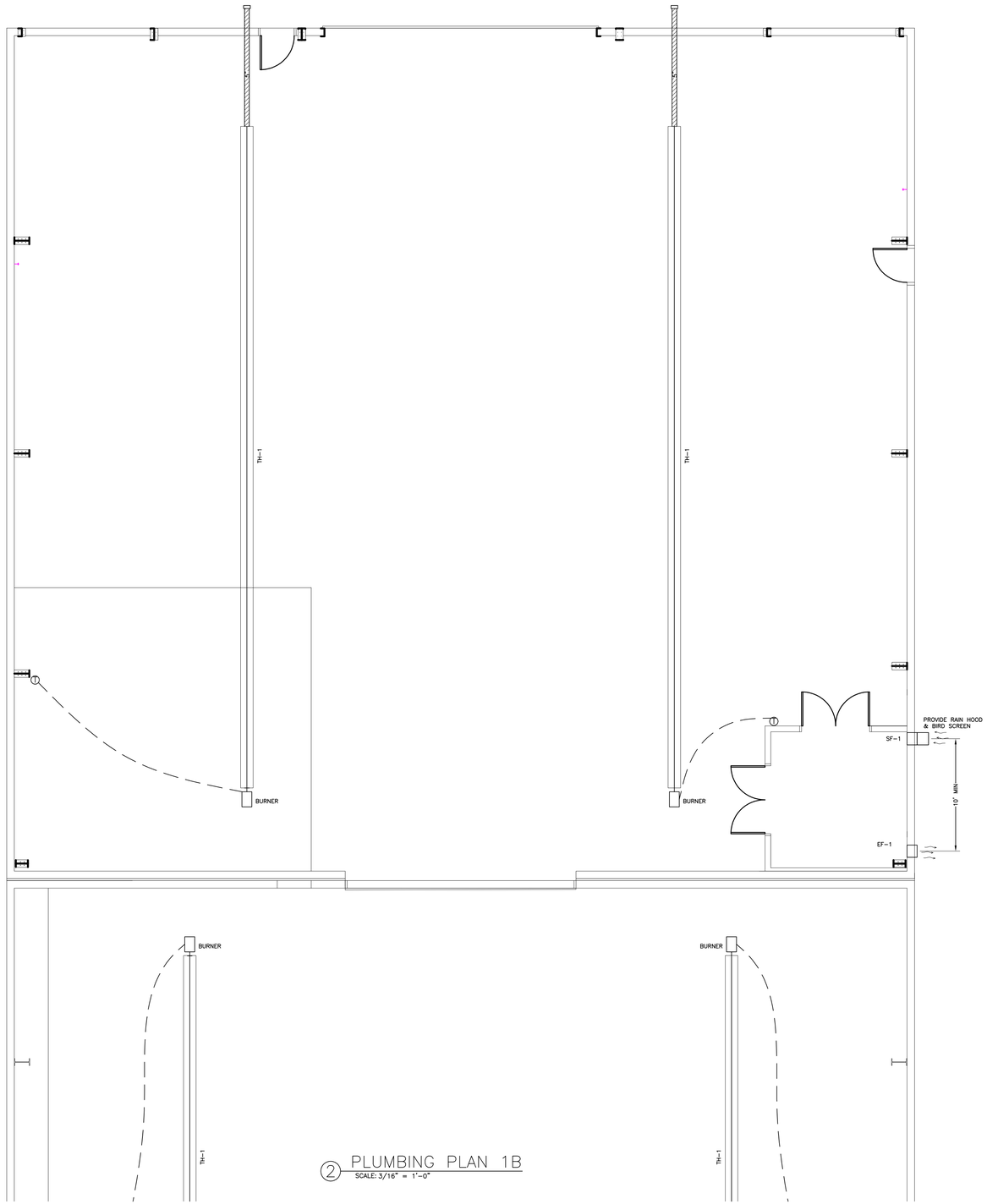
M-1

HVAC LEGEND

▨	EXHAUST AIR DUCT
RH-1	RADIANT TUBE HEATER
EF-X	EXHAUST FAN
SF-X	SUPPLY FAN
X' BB	ELECTRIC BASEBOARD
①	THERMO-STAT

R C R B D

RECORD SET



② PLUMBING PLAN 1B
SCALE: 3/16" = 1'-0"

N

PLAN NORTH

SCALE: 3/16" = 1'-0"

0' 1' 2' 5' 10' 15'

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M-2

AIR DISTRIBUTION

DESCRIPTION OF WORK
A. Mechanical contractor shall provide and install radiant tube heater system, exhaust fans, supply fan, ducts and grills, registers and diffusers as shown on the plans. Requirements for the air distribution system are as indicated herein.

MATERIALS
A. Sheet Metal: Except as otherwise indicated, fabricate ductwork from galvanized sheet steel complying with ASTM A 527, lockforming quality; with g 90 zinc coating in accordance with ASTM A 525; and mill phosphatized for exposed locations.

B. All duct dimensions shown are clear area dimensions.

MISCELLANEOUS DUCTWORK MATERIALS
A. General: Provide miscellaneous material and products of types and sizes indicated and, where not otherwise indicated, provide type and size required to comply with ductwork system requirements including proper connection of ductwork and equipment.

B. Fittings: Provide radius type fitting fabricated of multiple sections with maximum 15–degree change of direction per section. Use 45–degree laterals and elbows for branch takeoff connections.

C. Duct Liner: Fibrous glass, complying with Thermal Insulation Manufacturers Association (TIMA) AHC–101; of 1" thick. The liner shall meet the Life Safety Standards as established by NFPA 90A and 90B. The duct liner shall conform to the requirements of ASTM C 1071, with and NRC not less than .65 and a thermal conductivity no higher than .25 at 75 Degrees F mean temperature.

D. Low Pressure Flexible Ducts: Duct shall be factory pre–insulated with a solid inner liner formed by a reinforced aluminum laminate material mechanically locked or bonded together by a corrosive resistant galvanized steel helix covered with a minimum 1–1/2" thick fiberglass blanket and sheathed in a polyethylene vapor barrier.

FABRICATION
A. Shop fabricates ductwork in 4, 8, 10 or 12–Ft. lengths.

B. Shop fabricates ductwork of gages and reinforcement complying with SMACNA HVAC Duct Construction Standards.

C. Fabricate duct fittings to match adjoining ducts, and to comply with duct requirements and applicable to fittings. Except as otherwise indicated, fabricate to include turning vanes
in elbows where shorter radius is necessary. Limit angular tapers to 30 degrees for contracting tapers and 20 degrees to expanding tapers.

FACTORY–FABRICATED LOW PRESSURE DUCTWORK
A. General: At installer's options, provide factory–fabricated duct and fittings, in lieu of shop–fabricated duct and fittings.

B. Material: Galvanized sheet steel complying with ASTM A 527, lock forming quality, with ASTM A 525, G90 zinc coating, mill phosphatized.

C. Gage: 28–gage minimum for round and oval ducts and fittings, 4" through 24" diameter.

D. Elbows: One piece construction for 90 degree and 45 degree elbows 14" and smaller. Provide multiple gore construction for larger diameters with standing seam circumferential joint.

EQUIPMENT INSTALLATIONS
A. The radiant tube heating system shall be installed per manufacture's requirements and recommendations.

EQUIPMENT CONNECTIONS
General: Connect metal ductwork to equipment as indicated, provide flexible connection for each ductwork connection to equipment mounted on vibration isolators, and/or equipment containing rotating machinery. Provide access doors as indicated.

GRILLS, REGISTERS AND DIFFUSERS
A. Provide grills, registers and diffusers of manufactures standard air device where shown on the mechanical plans as require for complete installation.

B. Ceiling Compatibility: Provide air devices with border styles that are compatible with adjacent ceiling or wall finish. Owner shall have approval prior to installation.

INSTALLATION OF METAL DUCTWORK
A. Assemble and install ductwork in accordance with recognized industry practices that will achieve airtight and noiseless systems, capable of performing each indicated service. Align ductwork accurately, supporting ducts rigidly and support vertical ducts at every floor.

B. Routing: Locate ductwork runs, vertically and horizontally and avoid diagonal runs whenever possible. Locate runs as indicated by diagrams, detail and notations or, if not otherwise indicated, run ductwork in shortest route, which does not obstruct usable space, or block access for servicing building and its equipment. Coordinate layout with suspended ceiling and lighting layout and similar finished work.

C. Install metal ductwork in accordance with SMACNA HVAC Duct Construction Standards.

D. Turning vanes shall be located in all 90 degrees turns and tees.

E. Use 45 degree laterals and elbows for branch takeoff connections.

ADJUSTING AND CLEANING
Clean duct work internally, of dust and contractor. A balance report shall be furnished to the Project Manager and the Designer.

Start–up:
Operate installed system to demonstrate compliance with requirements. Check for leakage while system is operating and adjust or repair as necessary.

RCRBD

RECORD SET

HVAC EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MANUFACTURE & MODEL	HEATING (MBU)	COOLING (MBU)	CFM @ 0.0 SP (UON)	ELECTRICAL			REMARKS
						VAC	PHASE	AMPS	
X–BB	ELECTRIC BASEBOARD	KING ELECTRIC	250W/FT	–	–	230	1	*	*1.04 AMP PER FT
TH	RADIANT TUBE HEATER	INFRASAV IQ–155–60	150	–	–	115	1	1.0	–
EF–1	SHUTTER MOUNTED EXHAUST FAN	DAYTON 1HLA1	–	–	585	120	1	1.50	–
SF–1	SHUTTER MOUNTED SUPPLY FAN	DAYTON 1HLA1	–	–	585	120	1	1.50	–
EF–2	BATH EXHAUST FAN	PANASONIC 80 CFM	–	–	80	120	1	1.0	–

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PLANS FOR:

COUNTY METAL BUILDING

24500 COUNTY ROAD 27
OAK CREEK, COLORADO

JOB NO: 16–024
DRAWN: JAS
DATE: 6–3–16

REVISIONS

NO.	DATE	DRAWN

SHEET NUMBER

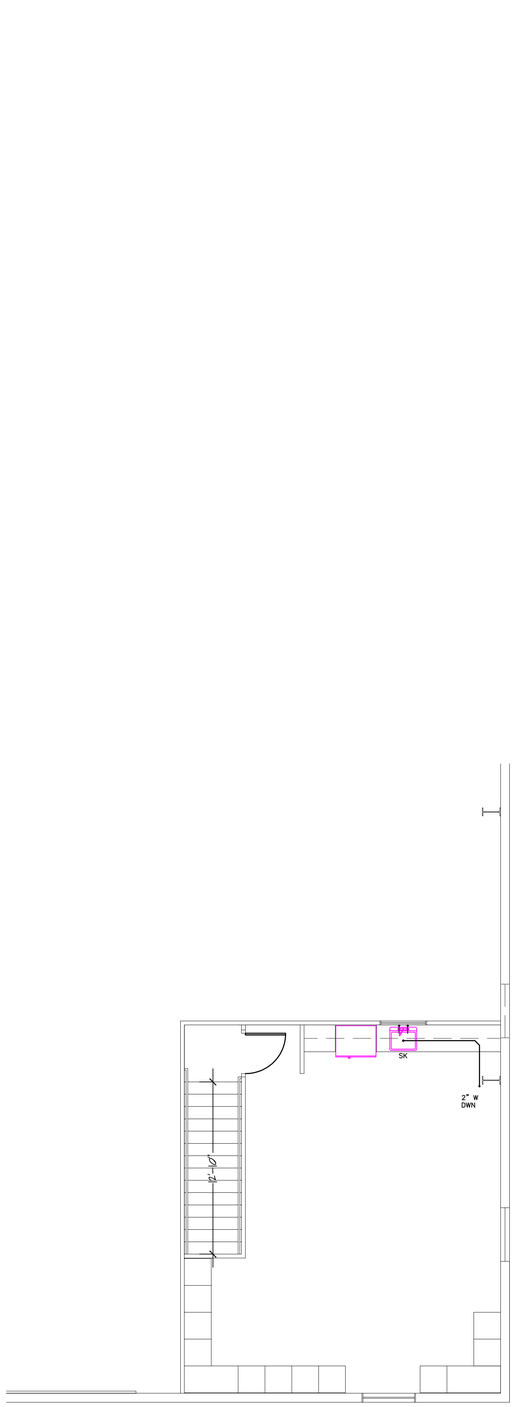
M–3

RCRBD

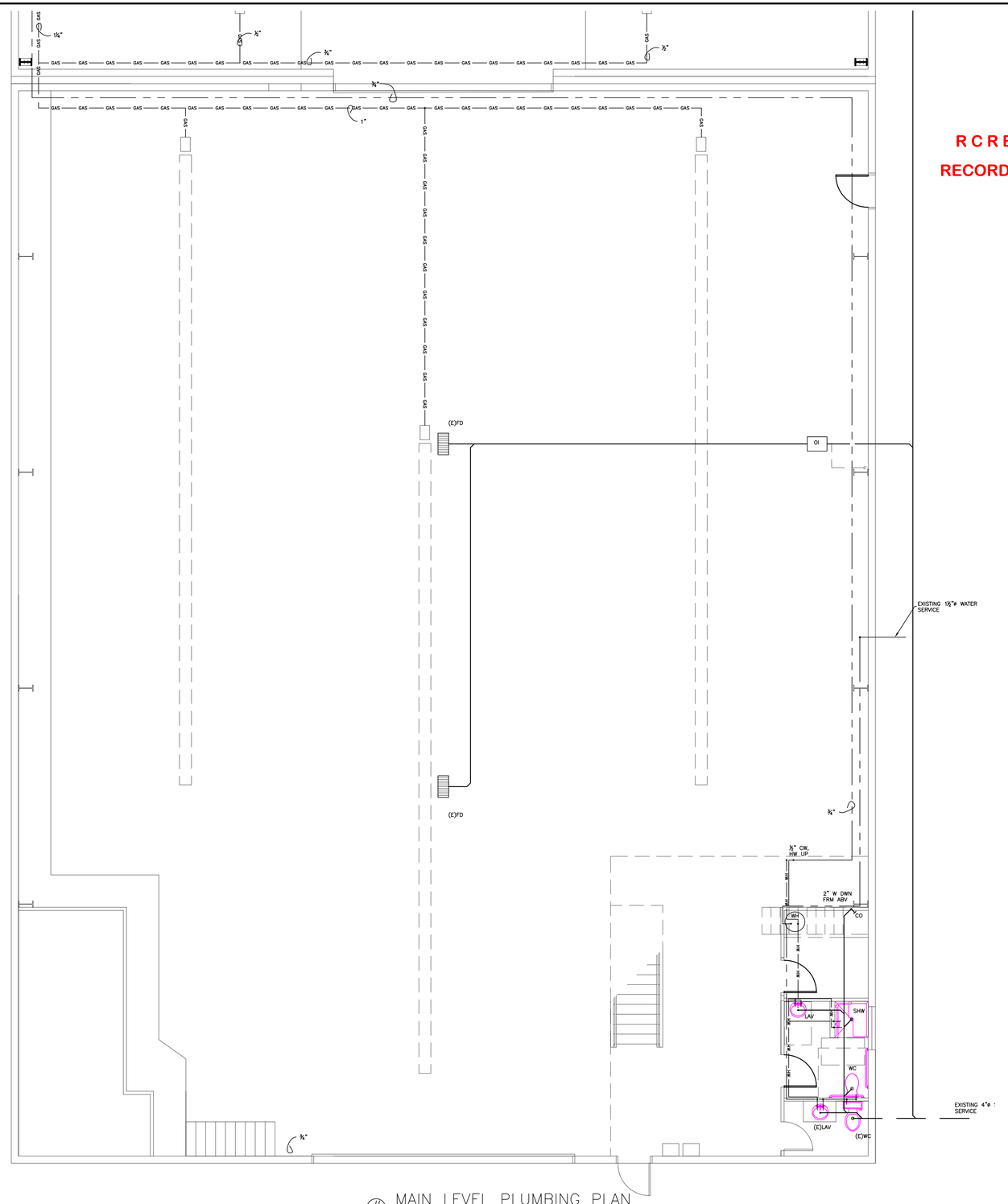
RECORD SET

PLUMBING LEGEND

———	NEW WASTE PIPING
- - - -	EXISTING WASTE PIPING
— — —	VENT PIPING
— - - —	DOM COLD WATER PIPING
— HW —	DOM HOT WATER PIPING
— GAS — GAS —	LP GAS PIPING
4"	DRAIN/VENT SIZES
(E)	EXISTING
CO	DRAIN CLEAN-OUT
LAV	LAVATORY
WC	WATER CLOSET
SHW	SHOWER
HB	HOSE BIB
SK	SINK
WH	WATER HEATER
OI	SAND OIL INTERCEPTOR
VTR	VENT TO ROOF
T	THERMO-STAT



UPPER LEVEL PLUMBING PLAN
SCALE: 3/16" = 1'-0"



MAIN LEVEL PLUMBING PLAN
SCALE: 3/16" = 1'-0"

N

PLAN NORTH

SCALE: ¼" = 1'-0"

0' 1' 2' 5' 10' 15'

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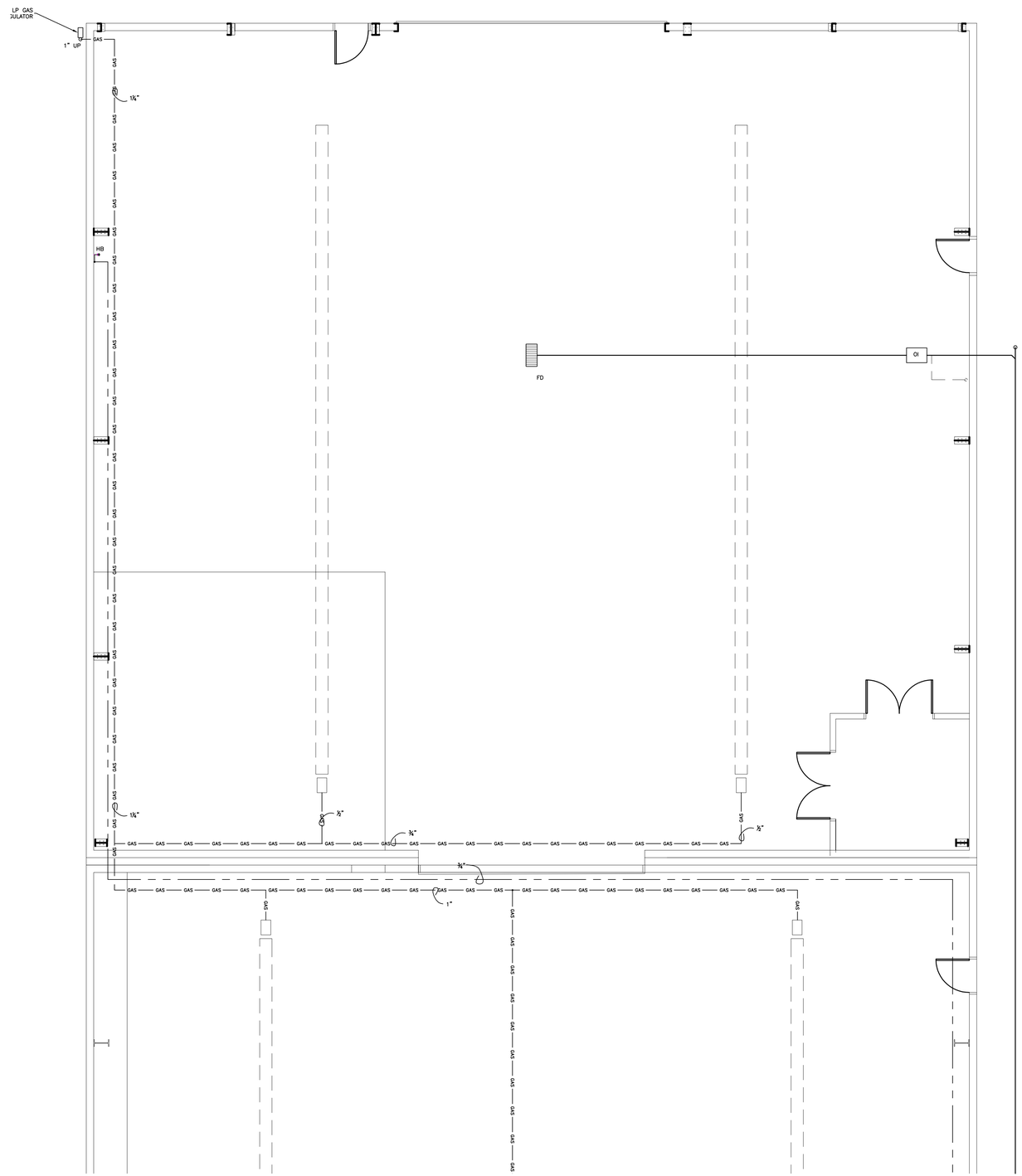
P-1

RCRBD

RECORD SET



PLUMBING LEGEND

- NEW WASTE PIPING
- EXISTING WASTE PIPING
- VENT PIPING
- DOM COLD WATER PIPING
- HW — DOM HOT WATER PIPING
- GAS GAS — LP GAS PIPING
- 4" — DRAIN/VENT SIZES
- (E) — EXISTING
- CO — DRAIN CLEAN-OUT
- LAV — LAVATORY
- WC — WATER CLOSET
- SHW — SHOWER
- HB — HOSE BIB
- SK — SINK
- WH — WATER HEATER
- OI — SAND OIL INTERCEPTOR
- VTR — VENT TO ROOF
- T — THERMO-STAT

N

PLAN NORTH

SCALE: ¼" = 1'-0"

0' 1' 2' 5' 10' 15'

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P-2

Plumbing System
A. Plumbing contractor shall provide all labor, materials and equipment to install water, sewer piping and gas piping where indicated. All work shall be in accordance with the current IBC, IPC and all state and local codes and regulations. Only licensed plumbing contractors shall install water, sewer or gas piping.

B. All appropriate plumbing permits shall be issued prior to work commencing in those areas.

D. Coordinate work with other trades to eliminate conflicts. Verify dimensions and sizes and report errors, conflicts and inconsistencies to the Designer before starting work. Execute work in accordance with best current standard practices to contribute to the efficiency of operation, accessibility, slightliness and minimal maintenance. Conform and accommodate systems to building structure, equipment and usage so that they do not interfere with the operation of other systems or operational parts of the building.

WARRANTIES
A. Plumbing contractor shall provide a written warranty to the owner covering the entire mechanical or plumbing work to be free from defective materials, equipment and workmanship for a period of one year after Date of Acceptance.

OPERATING AND MAINTENANCE DATA
A. Submit two (2) bound copies of the operating and maintenance manuals to the owner for review and approval. The operating instructions shall contain complete procedures for fire or failure of major equipment and procedures for normal starting, operating, shutdown and long term shutdown. The maintenance instructions shall cover all aspects for properly maintaining the equipment including cleaning, replacing and adjusting schedules.

PIPE AND FITTINGS
A. Domestic Water: All above slab DW piping shall be Type M copper or an approved Cross–linked polyethylene (PEX) or Polyethylene (PE). All piping products shall comply with IPC Table 605.4 Water Service Distribution Piping. Joints shall be up of 95–5 tin–antimony solder metal per ASTM B 32–70, alloy Grade 95TA.

B. All below slab water piping shall be Type L soft copper. The piping shall be continuous without joints and wrapped in closed cell insulation.

C. Drain and Waste Piping – Above and Underground
Sewer pipe shall be PVC. PVC pipe and fittings shall comply with ASTM D2665–85. PVC fittings shall correspond to pipe in material, class and ASTM designation

Joints: Solvent cement shall be as specified in ASTM D2564–80 and primer shall be as specified in ASTM F656–80.

D. LP Gas Piping
All gas pipe shall be black steel pipe and comply with ASTM A 53–83. Ferrous metals in exposed exterior location shall be protected from corrosion with a rust inhibiting coating such as enamel paint. All joints in the piping system shall have screwed joints, having approved standard threads. Such screwed joints shall be made up with approved pipe joint material, insoluble in the presence of natural gas and applied to the male threads only. Fittings 1/2" and less shall be 300 lb. Class per ANSI B16.3. Fittings greater than 1/2" shall be 150 lb. Class per ANSI B16.3.

MISCELLANEOUS PIPING MATERIALS/PRODUCTS

A. Soldering Materials: Provide soldering materials as determined by installer to comply with installation requirements.

B. Piping Connectors for Dissimilar Non–Pressure Pipe: Elastomeric annular ring insert or elastomeric flexible coupling minimizes flexible duct lengths and sharp bends.

VALVES
A. General: Provide valves of types and pressure ratings indicated by application and comply with all state and local codes.

HANGERS AND SUPPORTS
A. Horizontal and Vertical Piping Hangers, Clamps and Supports:
Use either factory fabricated piping hangers and supports or strapping which provides enough stability to comply with manufactures published product information and complies with the UPC and local codes. Provide copper–plated hangers and supports for copper–piping systems.

PIPE AND PIPE FITTING INSTALLATION
A. Install pipes and pipe fittings in accordance with recognized industry practices which will achieve permanently leakproof piping systems, capable of performing each indicated service without piping failure.

PIPING SYSTEM JOINTS
A. Thread natural gas pipe in accordance with ANSI B2.1. Cut threads full and clean using sharp dies. Ream threaded ends to remove burrs and restore full inside diameter. Apply pipe joint or pipe joint tape where recommended by pipe/fitting manufacturer.

B. Solder copper tube–and–fitting joints where indicated, in accordance with recognized industry practice. Cut tube ends squarely, ream to full inside diameter, and clean outside of tube ends and inside of fittings. Use only flux with no lead content.

C. DWV pipe and fittings shall be cleaned using approved primer and glued with approved glue. If outside temperatures are 30 degrees or below, cold weather glues shall be used.
D. Hydronic piping shall be installed per manufactures recommendations and requirements.

INSTALLATION OF HANGERS AND SUPPORTS
A. All suspended domestic pipe shall be suitable braced to prevent horizontal movement.

B. Prevent electrolysis in support of copper tubing by use of hangers and supports that are copper plated, or by other recognized industry methods or by plastic coated hangers.

C. All soil, waste and vent piping shall be supported from the building structure at not more than 4–Ft. intervals, at end of branches and at change of direction or elevation. PVC pipe and fittings shall be supported within one foot of each side of couplings.

D. All gas piping shall be adequately supported per the table below:

Pipe Size (In)	Maximum distance between supports (Ft)
1/2	6
3/4 – 1–1/2	8
2–3	10

PIPES, PIPE FITTINGS AND ACCESSORIES
A. Potable Water Systems:
1. Shut–off Valves: 2" and smaller: Ball Valves
2. Drain Valves: 2" and smaller: Ball Valves

B. Waste and Vent System:
1. Wall Clean–outs and Floor cleanouts : PVC clean–out fitting shall be applicable to pipe size served and in compliance with the UPC.

C. Drains
Floor Drain: Floor drains shall be of standard duty for working areas.

PLUMBING FIXTURES
A. Provide factory fabricated fixtures of type, style and material indicated. Where more than one is indicated, selection is installer's option when approved by owner. All fixtures of the type specified on the mechanical plans, unless approved by the engineer and/or owner.

PLUMBING FITTINGS, TRIM AND ACCESSORIES
A. Water Outlets: At locations where water is supplied to a fixture or device, provide manual shut–off valves and connecting stem pipes to permit outlet (i.e. faucet), servicing without shut–down of water supply piping systems.

A. Install piping level with no pitch. Keep runs as neat as possible, grouping together whenever possible. Isolators shall be used where piping runs through wood products.

INSTALLATION OF ABOVE GROUND DRAIN, WASTE & VENT
A. Provide restraints and hangers as appropriate and in accordance with UPC based upon type of pipe, fittings and joints. All soil and waste piping shall be run at a slope not less than 1/4" per foot for piping up to 4" in size.

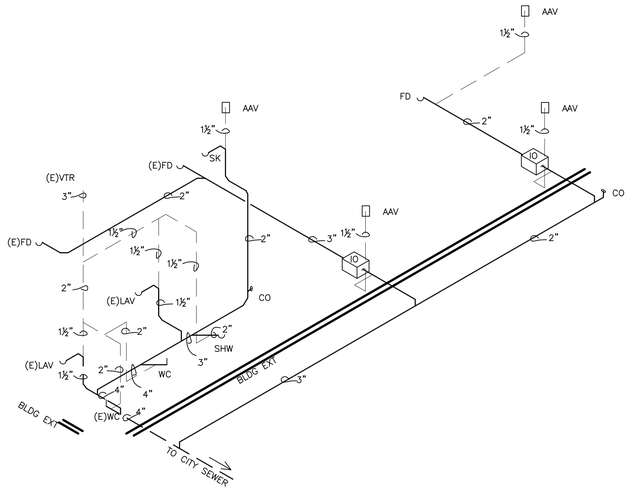
INSTALLTION OF PLUMBING FIXTURES
A. General: Install plumbing fixtures of types indicated where shown and in accordance with fixture manufacturer's written instructions. Secure plumbing supplies and fixtures where applicable behind or within wall construction so as to be rigid and not subject to pull or push movement. Coordinate with general contractor to obtain proper backing in walls for hanging plumbing fixtures.

INSTALLATION OF lp GAS PIPING
A. All exposed gas piping shall be kept at least six– (6) in. above grade or structure.

B. All gas appliances unit shall have an accessible main gas shut–off located at unit. Shut–offs shall be AGA approved gas ball valve type, Nibco or equal. Gas piping sizes indicated assume gas meter is located directly in front of building and adjacent to corresponding units.

RCRBD

RECORD SET



3 DWV DIAGRAM
SCALE: NONE

PLUMBING EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MANUFACTURE & MODEL	FAUCET & ACCESSORIES	FINISH	REMARKS
WC	WATER CLOSET	KOHLER HIGHLINE K–3519	–	WHITE	–
LAV	LAVATORY	KOHLER CHESAPEAKE K–1722	KOHLER CORALAIS 15592	WHITE CP	REQUIRES WALL CARRIER
SK	SINK	OWNER	–	SS CP	–
WH	GAS WATER HEATER	BRADFORD WHITE RG2DV50S6N	–	–	50 GAL 40,000 INPUT
OI	SAND OIL INTERCEPTOR	WATTS OI–15	–	–	–

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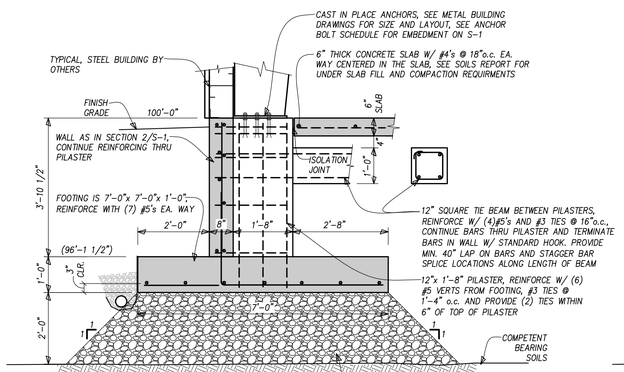
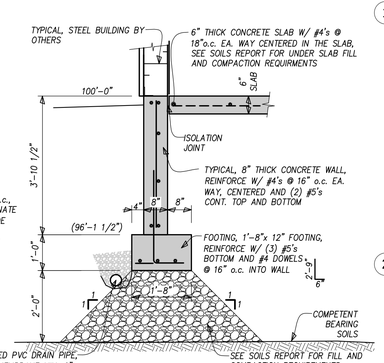
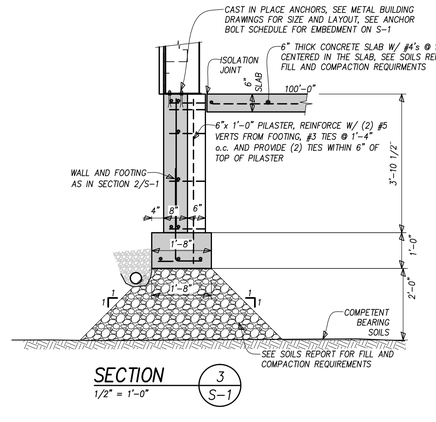
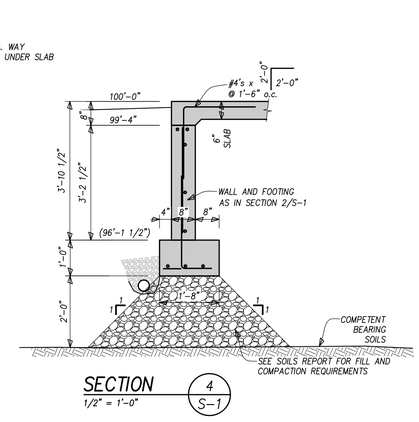
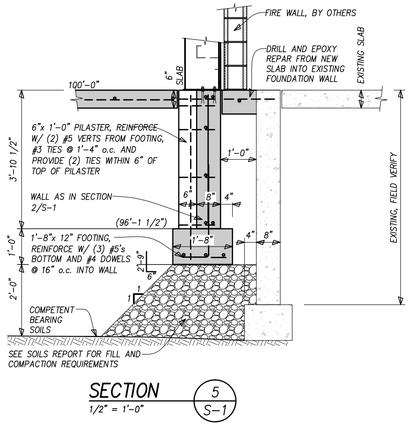
SHEET NUMBER
P–3

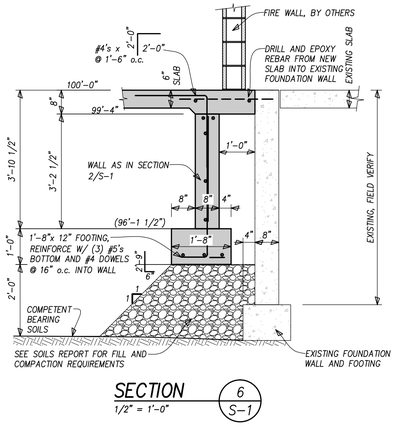


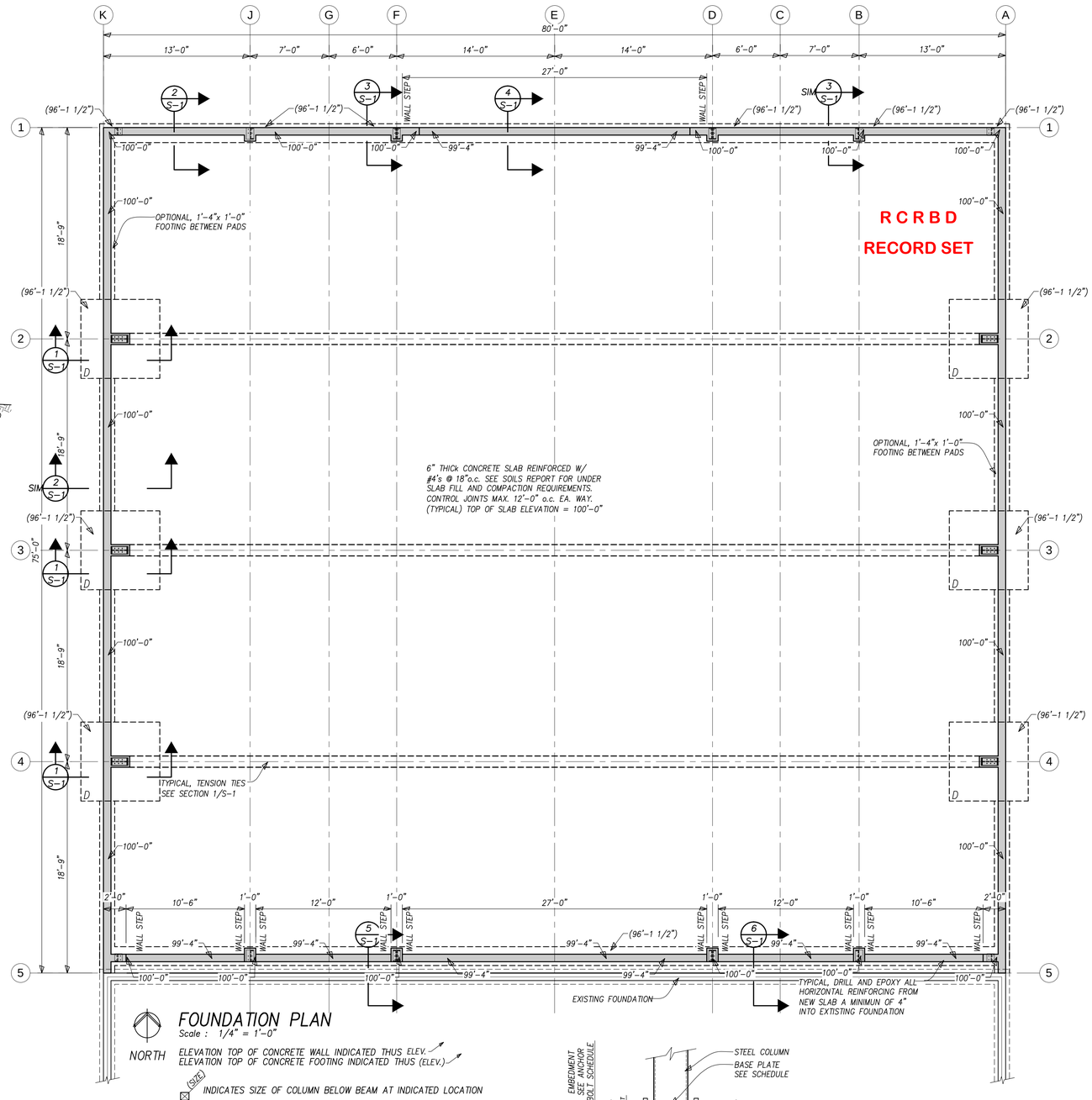












FOUNDATION PLAN
Scale : 1/4" = 1'-0"

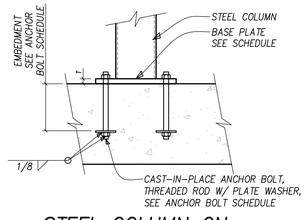
NORTH

ELEVATION TOP OF CONCRETE WALL INDICATED THUS ELEV.
ELEVATION TOP OF CONCRETE FOOTING INDICATED THUS (ELEV.)

(SIZE) INDICATES SIZE OF COLUMN BELOW BEAM AT INDICATED LOCATION

ANCHOR BOLT SCHEDULE

ANCHOR ROD ø	MINIMUM PLATE WASHER SIZE	MINIMUM EMBEDMENT
1/2"	2"x2"x1/4"	6"
3/4"	2 1/2"x2 1/2"x3/8"	12"
1"	3 1/2"x3 1/2"x1/2"	16"



STEEL COLUMN ON CAST-IN-PLACE CONCRETE
1" = 1'-0"

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ENGINEERING SOLUTIONS, INC.
Consulting Structural Engineers
117 12th Street, P.O. Box 773501
Steamboat Springs, CO 80477
970.879.1181 alpengloweng.com

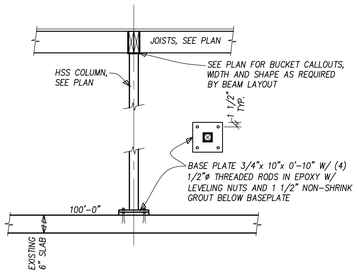
DATE	REVISIONS

DATE	5/16/16
PROJECT	16-022
DRAWN	SSF
CHECKED	BFS
FILE	R_B_Shop_16_022.dwg
SCALE	1/4" = 1'-0"

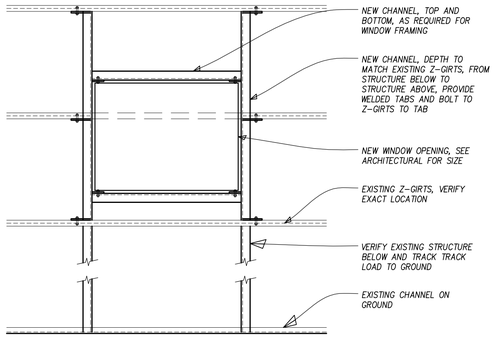
ROUTT COUNTY ROAD AND BRIDGE SHOP

FOUNDATION PLAN
0AK CREEK SHOP REMODEL
2300 COUNTY ROAD SHOP
SBS, COLORADO 80477

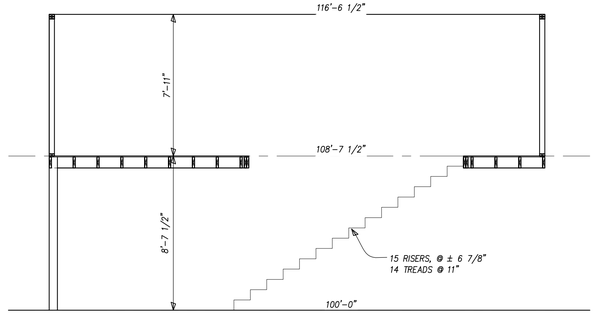
SHEET
S-1
1 0F 2



SECTION 1/S-2
1/2" = 1'-0"



WALL ELEVATION 2/S-2
1/2" = 1'-0"



SECTION 3/S-2
1/4" = 1'-0"

RCRBD

RECORD SET

GENERAL NOTES

DESIGN LIVE LOADS

a. Pre-Manufactured Metal Building..... See Olympia Steel Buildings Proj. #U1600196A
d. Floors..... 125 psf

FOUNDATION DESIGN

a. Design of individual and continuous footings is based on a maximum allowable bearing pressure of 1500 psf dead load plus live load and 500 psf min. dead load placed on the natural undisturbed soils below frost depth as described in soils report.
b. Soils report 16-1031 by Northwest Colorado Consultants, Inc.

REINFORCED CONCRETE

a. Structural concrete shall have a minimum 28 day compressive strength of 3000 psi Type I.
b. Reinforcing bars shall conform to ASTM Specification A615-79 and shall be Grade 60.
c. At splices, lap bars 38 diameters. At corners and intersections, make horizontal bars continuous or provide matching corner bars. Around openings in walls and slabs, provide 2-#5, extending 2'-0" beyond edge of opening.

EPOXY ADHESIVE ANCHORING SYSTEM

a. Epoxy adhesive anchoring system shall be Hilti HIT-RE 500 or approved equal.
b. Anchor rods shall be furnished with chamfered ends so that either end will accept a nut and washer and meet the requirements of ISO 898 Class 5.8.
c. Anchors shall have the following minimum embedments: 3/4"ø - 6 3/4", 5/8"ø - 5 5/8", 1/2"ø - 4 1/2".

STRUCTURAL ERECTION AND BRACING REQUIREMENTS

a. The structural drawings illustrate the completed structure with all elements in their final positions, properly supported and braced.
b. The Contractor, in the proper sequence, shall provide proper shoring and bracing as may be required during construction to achieve the final completed structure.

SPECIAL INSPECTIONS

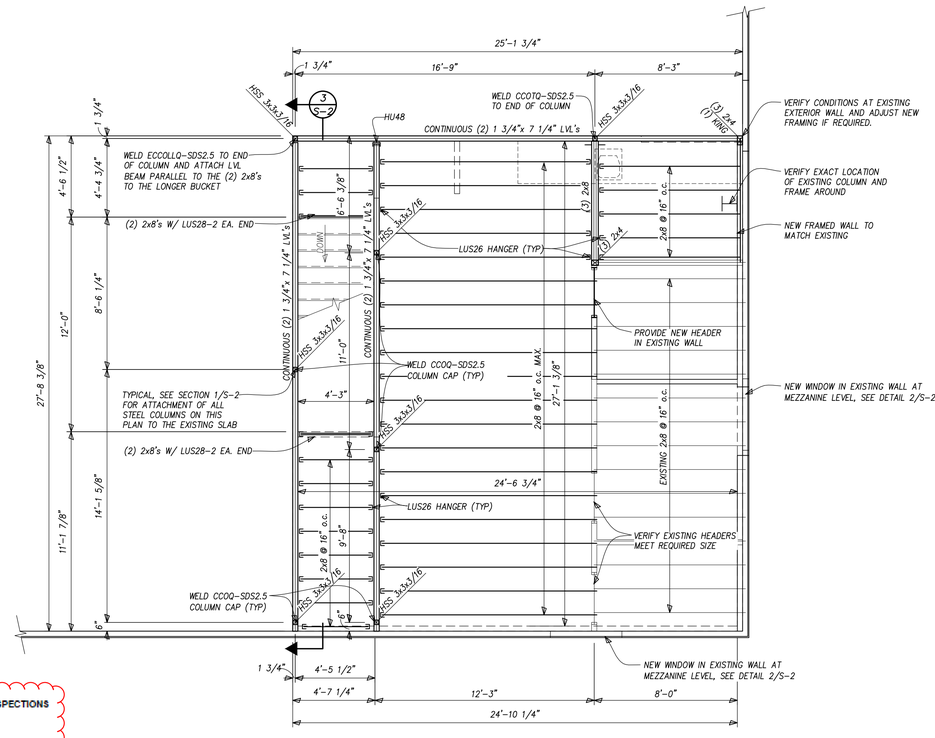
a. All special inspections shall comply with chapter 17 of the International Building Code (IBC). These inspections are in addition to the inspections specified in Section 109 of the IBC.
b. The Special Inspector and testing agent shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work.
c. The Special Inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the Building Official, for inspection of the particular type of construction or operation requiring special inspection.
d. The credentials of all inspectors, administrators and testing technicians shall be provided if requested.
e. The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge.
f. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge.
g. The Special Inspection program does not relieve the Contractor of his or her responsibilities.
h. A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.
i. Job site safety and means and methods of construction are solely the responsibility of the Contractor.
j. The Special Inspection program does not relieve the Contractor or any other entity of any contractual duties, including quality control, quality assurance, or safety.
k. The Contractor is solely responsible for construction means, methods, and job site safety.
l. Special inspection is required for the off site fabrication of structural steel load-bearing members and assemblies unless the work is done on the premises of a fabricator registered and approved to perform such work without special inspection.
m. In addition to special inspections required by chapter 17 of the IBC and those required by the Building Official the following site specific inspections are required:
   1. Installation and tightening of high strength bolts.

NOTE THAT THIS IS WHAT CODE REQUIREMENTS THAT SHALL BE MET SAYS FOR SOIL, SEE SIMILAR REQUIREMENTS FOR INSPECTION OF STEEL CONSTRUCTION.

STRUCTURAL TESTS AND SPECIAL INSPECTIONS

TABLE 1704.7
REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	X
2. Verify excavations are extended to proper depth and have reached proper material.	-	X
3. Perform classification and testing of compacted fill materials.	-	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	-
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	-	X



MEZZANINE FRAMING PLAN

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

NORTH

TYPICAL AT FLOOR, 3/4" APA RATED, EXPOSURE 1, SHEATHING TOP OF SHEATHING ELEVATION TO MATCH EXISTING

EXTERIOR WALLS ARE OF AN EXISTING METAL BUILDING. VERIFY EXACT DIMENSIONS AND FRAMING AT TIME OF CONSTRUCTION.

FRAMED INTERIOR BEARING WALLS ARE TO BE 2x4 @ 16" o.c. W/ 7/16" APA RATED SHEATHING TO MATCH EXISTING

TYPICAL HEADER THIS PLAN, (2) 2x6's W/ (1) 2x4 TRIMMER AND (1) 2x4 KING STUD EACH END UNLESS NOTED OTHERWISE

TYPICAL ALL BEAMS TO BE FLUSH FRAMED TO MATCH EXISTING SHEATHING ELEVATION

(SIZE) INDICATES SIZE OF COLUMN BELOW BEAM AT INDICATED LOCATION

ALPENGLOW
ENGINEERING SOLUTIONS, INC.
Consulting Structural Engineers
117 12th Street, P.O. Box 773501
Steamboat Springs, CO 80477
970.879.1181 alpengloweng.com

DATE	REVISIONS

DATE	5/16/16
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FRAMING MEZZANINE PLAN

OAK CREEK SHOP REMODEL
2300 COUNTY ROAD SHOP
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SHEET
S-2
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