MATERIALS

TUBE STEEL (HSS HOLLOW STRUCTURAL SECTION) (ASTM DESIGNATION)
A-500 GRADE B
A-992
A-36
A-446
F1554 GRADE 55
A-325

STANDING SEAM PANEL SECTION

MEDALLION LOK24ga
16" COVER WIDTH

TONGUE & GROOVE BOARD SECTION

24ga MEDALLION LOK
STANDING SEAM PANEL SECTION

ALL MEDIUM BOLTS ARE A-325 BOLTS WITH HEAVY HEX NUTS. THE BOLTS ARE TO BE INSTALLED UTILIZING THE "SPECIFICATION FOR STRUCTURAL JOINTS ASTM A325 OR A490 BOLTS" (12/31/2009) AS PREPARED BY RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) FOR THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). THE BOLTS SHALL BE INSTALLED AS SNUG TIGHTENED WHICH IS DEFINED AS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE PLIES INTO FIRM CONTACT, WHICH IS THE CONDITION WHEN THE PLANES OF CONTACT BETWEEN TWO PLIES ARE SOLIDLY SEATED AGAINST EACH OTHER, BUT NOT NECESSARILY IN CONTINUOUS CONTACT WITH UTILIZATION OF THE SNUG TIGHTENING METHOD, NO WASHERS ARE REQUIRED.

ALL CONNECTIONS ARE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO INSURE PROPER TIGHTNESS.

PROPER ERECTION OF THE FRAMING MEMBERS REQUIRES THE MAIN COLUMNS TO BE PLUMB & SQUARE. COLUMNS, RAFTER, AND TIE BEAM CONNECTIONS MUST BE TIGHTENED BEFORE INSTALLING THE PURLINS. PURLINS MUST BE PARALLEL TO THE TIE BEAMS AND HANG BEAMS.
ANCHOR BOLT LAYOUT

BASE PLATE MATERIAL
5/8" THICK HRF. Fy=36 ksi

DETAIL A

SEISMIC TIE HOOK DETAIL

(4) 3/4" x 14" F1554 ANCHOR RODS

COLUMN TO BASE PLATE 3/16"

COLUMN FILL WITH NON-SHRINKING GROUT

TOP OF FINISHED FLOOR

CONCRETE STRENGTH F'c = 2500 PSI
REBAR GRADE Fy = 60 KSI
SLAB IS REQUIRED. IF NO SLAB IS TO BE INSTALLED, CONTACT THE ICON ENGINEERING DEPARTMENT.

8/30/2017

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HOLLAND MI, 49423
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DRAWN BY: lisam
DATE: 8/30/2017
JOB NO.: 5493
REVISION: 

BUILDING TYPE:
PROJECT NAME:
BAYHILL
CEDAR HILLS, UT

SHEET 3.0
PRINTED ON 8/30/2017
CONCRETE STRENGTH F’c = 2500 PSI
REBAR GRDE FY = 60 KSI
SLAB IS REQUIRED. IF NO SLAB IS TO BE INSTALLED, CONTACT THE ICON ENGINEERING DEPARTMENT.

3" MIN COVER

(4) 3/4" x 14" F1554 ANCHOR RODS
(4) #5 LONGITUDINAL BARS

COLUMN TO BASE PLATE 3/16

COLUMN FILL WITH NON-SHRINKING GROUT
TOP OF FINISHED FLOOR

2" MIN TOP COVER
(3) #4 TIES WITHIN TOP 6" OF FOOTING
(4) #4 TIES EQUALLY SPACED THROUGHOUT REMAINDER OF DEPTH

3" MIN SIDE AND BOTTOM COVER

2' DIAMETER

1/8" ELECTRICAL ACCESS HOLE

1" ANCHOR HOLES
(4) PVCs
NOTE TO INSTALLERS:
With factory powdercoated shelters, paint exposed fasteners of compression rings, ornamentation, knife plates, etc. with provided touch up paint to prevent rusting of fasteners.

RAFTER & TIE BEAM CONNNECTION

DETAIL A

@ COLUMN

RAFTER CONNECTION

DETAIL B

@ CONNECTOR TUBE

INSTALL RIDGE BEAM W/ OPEN CONNECTOR TUBE SIDE UP

5/8" X 2" BOLTS (4) EACH CONNECTION

RIDGE BEAM TAIL

CONNECTOR TUBE

RAFTER

RIDGE BEAM

COLUMN

RAFTER

TIE BEAM TAIL

TIE BEAM

RAFTER & TIE BEAM CONNECTION

COLUMN

RAFTER

TIE BEAM TAIL

TIE BEAM

RAFTER

TIE BEAM TAIL

TIE BEAM

RAFTER

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TIE BEAM
BASE PLATE COVER CONNECTION

@ COLUMN

DETAIL C

Frame Connections

ATTACH FIRST BASE PLATE COVER TO THE COLUMN WITH (1) POP RIVET

SLIDE SECOND BASE PLATE COVER INTO FIRST BASE PLATE COVER AND ATTACH WITH (1) POP RIVET PER SIDE AND TOP (BOTH SIDES)

COLUMN

BASE PLATE

DRAWN BY:
lisam

DATE:
8/30/2017

JOB NO.:
5493

REVISION:

BUILDING TYPE:
RGDX34TS- P4

PROJECT NAME:
BAYHILL
CEDAR HILLS, UT

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SHEET
5.1

PRINTED ON: 8/30/2017
T & G Roof Deck: 2x6 Tongue and Groove Wood Roof Deck, Western Lodgepole Pine, Kiln Dried, #2 or Better, One Edge V'd, One Edge Grooved. If req'd, Fascia shall be pine.

T & G Board
QTY is based on utilization of drop.

Splicing T & G Board
Miter ends of T & G at 45° when splicing two boards together. Stagger splices on adjacent board at least 24" apart. Splices may or may not fall over top of a purlin.

T & G Roof Section

T & G Roof Layout
THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE METAL ROOFING SYSTEM. THIS INFORMATION IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGNS OR CODES. CHANGES TO THE DETAILS MAY BE REQUIRED DUE TO FIELD CONDITIONS.

THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL INSTALLATION INSTRUCTION MATERIAL BEFORE STARTING WORK.

THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.

ERECTORS SHALL BE RESPONSIBLE TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.

FOR THE BEST APPEARANCE ALL TRIM AND FLASHING SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ALL EXPOSED FASTENERS EQUALLY SPACED.

SOME FIELD CUTTING AND/or FITTING OF PANELS, TRIM AND FLASHING IS TO BE EXPECTED BY THE ERECTOR. MINOR FIELD CORRECTIONS ARE PART OF NORMAL ERECTION WORK.

THE INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN AND WORKManship SHALL MEET THE BEST INDUSTRY STANDARDS.

**INSTALLER TO FIELD CUT ALL ROOF PANELS**

ATTENTION INSTALLERS:
METAL SHAVINGS LEFT ON ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH!
DRILLING OR INSTALLING ROOF FASTENERS WILL CAUSE METAL SHAVINGS. THESE SHAVINGS MUST BE CAREFULLY REMOVED AT THE END OF EACH DAY BY EITHER SWEEPING OR BRUSHING THE INSTALLED ROOF.
**Roof Connections**

**ORDER OF INSTALLATION**

**T&G BOARD**
- See Details T-E1, T-G1 & T-P1

**Nailer - Rp Three Per T&G Board As Shown**
- See Details T-E1 & T-R1

**2"x6" Cedar Fascia**
- See Details T-E1 & T-R1

**Fasteners**

- **2" Deck Screw**
- **2 3/4" Wood to Metal Screw**

1. **2 3/4" Wood to Metal Screw (2) Per Board Along Ridge Beam**
   - See Detail T-G1

2. **2 3/4" Wood to Metal Screw (2) Per Board Along Purun**
   - See Detail T-P1 if Req'd

3. **2 3/4" Wood to Metal Screw (2) Per Board Along Tie Beam**
   - See Detail T-E1

**Nailer Board**
- Attach with 2" Deck Screws
  - 12" O.C. at Bottom
  - See Detail T-E1

**Cedar Fascia**
- Attach with 2" Deck Screws
  - 12" O.C. Staggered
  - See Detail T-E1

**T&G Roof Decking**

**@ Tie Beam**

**See Detail T- E1**

**2x6 T&G Roof Deck**

**Roof**

**T&G Roof Deck Layout**

**Distinctive Steel Shelters**

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Roof Connections

T&G Roof Deck Connection @ Ridge

T-G1

T&G Roof Deck Connection Detail @ Rake

T-R1

2 3/4" Wood to Metal Screw (2) per Board

2" DECK SCREW

12" on center

1x6 Cedar Fascia

2" DECK SCREW

Rafter

Ridge Beam

2x6 T&G Roof Deck

2 3/4" Wood to Metal Screw

Roof Connections

T&G Roof Deck Connection @ Ridge

T-G1

T&G Roof Deck Connection Detail @ Rake

T-R1
THESE DETAILS ASSUME THAT ALL COMPONENTS OF THIS ROOF SYSTEM WILL BE INSTALLED PLUMB AND SQUARE. CAULK AND TRIM SHOULD ALSO BE INSTALLED TO INSURE WATER TIGHTNESS.

READ ALL DETAILS IN THIS INSTALLATION MANUAL BEFORE STARTING

S- ST1 STARTER TRIM
S- CP1 ROOF PANEL PREPARATION
S- PI2 FIRST ROOF PANEL
S- PI2 SECOND ROOF PANEL
S- RK1 TOP TRIM & C- CLOSURE @ RAKE
S- RC1 C- CLOSURE @ RIDGE
S- RK2 RIDGE CORNER TRIM
S- RT1 RIDGE CAP
S- RT2 LAPPING RIDGE CAP (IF REQ'D)

SHEET
DRAWN BY: lisam
DATE: 8/30/2017
JOB NO.: 5493
REVISION:
BUILDING TYPE:
PROJECT NAME: BAYHILL CEDAR HILLS, UT
SHEET 8.2
PRINTED ON: 8/30/2017
INSTALLATION OF FELT PAPER
TO START MEASURE EAVE LENGTH AND CUT THE
30# FELT PAPER TO LENGTH + 6"
PLACE FELT ON ROOF AND WRAP THE PAPER
OVER THE FASCIA SEE DET.1
ALLOW THE FELT TO LAY OVER THE HIP
SEE DET.2
NAIL FELT DOWN WITH ROOFING NAILS
24" O.C.
CONTINUE INSTALLING FELT UP THE ROOF SECTION
LAPPING THE PREVIOUSLY INSTALLED PIECE 6" SEE
DET.3
INSTALL THE FASCIA CAP BY SLIDING IT OVER THE
WOOD FASCIA (FASTENERS USED TO ATTACH
STARTER TRIM WILL SECURE FASCIA CAP)

INSTALL STARTER TRIM OVERHANGING THE EDGE OF THE EAVE BEAM 1/2".
ATTACH STARTER TRIM WITH PANCAKE HEAD SCREWS 12" O.C.

PANCAKE HEAD SCREW #0451"
MEASURE, MARK & CUT THE FIRST ROOF PANEL

NOTCH RIB TO ALLOW PANEL TO SLIDE INTO STARTER TRIM

NOTCH PANEL BACK TO ACCEPT THE STARTER TRIM

FIELD CUTTING ROOF PANELS

S-CP1

INSTALLATION OF FIRST ROOF PANEL

S-P11

AFTER THE ROOF PANEL HAS BEEN CUT TO SIZE (IF NECESSARY) AND NOTCHED, TEST FIT THE PANEL. THEN APPLY A 1/4" BEAD OF CAULK THE APPROXIMATE LENGTH OF THE PANEL. SLIDE THE PANEL INTO PLACE, AND SQUARE IT UP TO THE ROOF.

WITH THE ROOF PANEL IN PLACE AND SQUARE, INSTALL THE ROOF CLIPS WITH (2) PANCake HEAD SCREWS. ROOF CLIPS SHOULD BE NO MORE THEN 48" APART

30# FELT

ROOF CLIPS ATTACHED W (2) PANCake HEAD SCREWS

30# FELT

STARTER TRIM
After the second roof panel has been cut to length (if necessary) and notched, test fit panel then apply a 3/4" bead of caulk inside the starter trim.

Slide the second roof panel in place and snap it over the batten of the first panel.

Installation of second roof panel:

- Starter trim
- Continuous caulk bead (top & bottom)
- Roof clip attached with (2) pancake head screws
- Roof clips are installed at every cross member

Stand Seam Panel:

- Top trim 10' long
- C-closure 10' long
- 3/4" painted screw
- Pop rivet
- Bead of caulk (top & bottom)
- Installer to field cut panel (if req'd)

Top Trim Installation @ Rake:

- Top trim attached w/ 3/4" painted screw 12" o.c.
- Attach to C-closure
- Top trim
- Installer to finish end
- C-closure attached w/ pop rivets 12" o.c. (bottom)

If multiple pieces of top trim are required then lap the second piece of top trim over the first piece 6". Caulk and fasten w/ 3/4" painted screws.

Installer to finish end.

Top trim attached w/ 3/4" painted screw 12" o.c. Attach to C-closure.
TO INSTALL C- CLOSURES ALONG THE RIDGE MEASURE, MARK & CUT THE C- CLOSURE TO LENGTH.

APPLY A 1/4" BEAD OF CAULK TO THE BOTTOM OF THE C- CLOSURE AND FASTEN IT TO THE ROOF WITH (2) PANCAKE SCREWS ALONG THE RIDGE BEAM. THEN APPLY CAULK TO THE END OF THE C- CLOSURE FOR WATER TIGHTNESS.

INSTALLATION OF C- CLOSURE @ RIDGE

C- CLOSURE

1/4" BEAD OF CAULK

PANCAKE HEAD SCREW (2) PER C- CLOSURE

RIDGE BEAM

C- CLOSURE 10' LONG

PANCAKE HEAD SCREW #10x1"

STANDING SEAM ROOF PANEL

CLEAR CAULK

C- CLOSURE 1/4" BEAD OF CAULK ALONG BOTTOM

PANCAKE HEAD SCREW (2) PER C- CLOSURE

CAULK ALONG END

TO FINISH OFF THE END OF THE RIDGE, CUT THE TOP TRIM AS SHOWN.

INSTALL TOP TRIM WITH MITERED END ON TOP

TOP TRIM

C- CLOSURE

TOP TRIM 10' LONG

STANDING SEAM ROOF PANEL

TOP TRIM

PANCAKE HEAD SCREW #10x1"

INSTALLATION OF CORNER TRIM

S- RK2

TOP TRIM

S- RK2
To install ridge cap:
First apply a 1/4" bead of caulk along the top of the C-closures.

1/4" bead of caulk

Ridge cap 10' long

3/4" painted screw 12" O.C.

Ridge cap

3/4" painted screw

Washer

Then fasten the ridge cap to the C-closure with painted 3/4" screw 12" O.C.

If multiple pieces of ridge cap are required then lap the second piece of ridge cap over the first piece 6", caulk and fasten with 3/4" painted screws.

3/4" painted screw

Washer

Ridge cap

Ridge cap

Ridge cap 10' long

3/4" painted screw

Ridge cap

Ridge cap

Installation of ridge cap

S- RT1

Lapping ridge cap

S- RT2

1/4" bead of caulk

Ridge cap

Ridge cap

Standing seam roof panel

Standing seam roof panel

Ridge beam

Clear caulk

3/4" painted screw

Washer

3/4" painted screw

Ridge cap

Ridge cap

Ridge cap

Ridge cap