

# HURRI-BOLT, INC.

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## DESIGN CRITERIA:

- FBC 2014  
WIND SPEED:  $V_{ult}$  148 MPH;  $V_{end}$  115 MPH  
RISK CATEGORY - II  
WIND EXPOSURE - C  
INTERNAL PRESSURE COEFFICIENT +/-0.18 (ENCLOSED).
- FOUNDATION CONCRETE SHALL DEVELOP A MINIMUM OF 3,000 psi COMPRESSIVE STRENGTH AT 28 DAYS.
- THE HURRI-BOLT DESIGN AND LAYOUTS ARE BASED ON TESTING WITH THE COMPLETE HURRI-BOLT SYSTEM AND ARE VALID ONLY WITH THE USE OF GENUINE HURRI-BOLT COMPONENTS
- AT TOP PLATE ANCHORS, SECURE A HURRI-BOLT TOP PLATE WASHER TIGHTLY W/ THE SUPPLIED NUT
- USE SQUARE HURRI-BOLT WASHER UNLESS OTHERWISE NOTED ON LAYOUT
- THE LAYOUT PLAN IS PROVIDED AS A GUIDE TO THE GENERAL LOCATION OF THE HURRI-BOLT ANCHORS FIELD CONDITIONS AND FRAMING OPTIONS WILL GOVERN THE ACTUAL LOCATIONS.
- HURRI-BOLT INC. WILL NOT BE RESPONSIBLE FOR ANCHORS PLACED IN A LOCATION WHICH DIMINISHES THEIR USEFULNESS.

## GENERAL NOTES:

- THIS PLAN IS PROVIDED FOR GENERAL LAYOUT ONLY AND MUST BE VERIFIED BY THE FRAMING CONTRACTOR FOR COMPLIANCE WITH THE ACTUAL FRAMING CONFIGURATION. THE CONTRACTOR SHALL VERIFY THE COMPLIANCE OF THIS PLAN WITH THE FINAL TRUSS LAYOUT PROVIDED BY THE TRUSS MANUFACTURER. THE ENGINEER OF RECORD AND THE ARCHITECT OF RECORD SHALL REVIEW THIS SUBMITTAL FOR CONFORMANCE WITH THE FINAL TRUSS LAYOUT PROVIDED BY THE TRUSS MANUFACTURER.
- REFER TO TRUSS ENGINEERING FOR ALL TRUSS TO TRUSS CONNECTIONS INCLUDING HIP JACKS, TOP HAT TRUSSES, AND OVERFRAMING WHICH ARE PROVIDED BY TRUSS MANUFACTURER.
- USE USP (2)RT7A UP TO 1340 LBS UPLIFT FOR ALL TRUSS TO TOP PLATE CONNECTIONS UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE TRUSS STRAP LEGEND THIS SHEET FOR OTHER STRAPS USED.
- EXTERIOR AND INTERIOR SILL PLATE ANCHORS REMAIN AS SPECIFIED BY OTHERS. AS AN ALTERNATE FOR INTERIOR BEARING LOCATIONS, 1/2"x7" EXPANSION ANCHOR (WITH 4/8" MIN. EMBED) MAY BE USED WITHIN 12" OF SPLICES, BOTH ENDS, AND AT 24" O.C.
- SHEAR WALL SILL PLATE ANCHORS REMAIN AS SPECIFIED BY OTHERS. AS AN ALTERNATE, 1/2"x7" EXPANSION ANCHOR (WITH 4/8" MIN. EMBED) MAY BE USED WITHIN 12" OF SPLICES, BOTH ENDS, AND AT 16" O.C. IN BETWEEN ALL INTERIOR BEARING LOCATIONS.

USP (SIMPSON)	UPLIFT CAPACITY	CAPACITY PARALLEL TO TOP PLATES	CAPACITY PERPENDICULAR TO TOP PLATES
RT7A (H2.5)	670 (455) LBS.	210 (125) LBS.	210 (160) LBS.
RT8A (H8)	775 (745) LBS.	215 (75) LBS.	215 (-) LBS.
RT16A (H10A)	1380 (1140) LBS.	800 (590) LBS.	645 (285) LBS.
MTW12 (MFS12)	1195 (1000) LBS.	- (-)	- (-)
HTW20 (HTS20)	1530 (1450) LBS.	- (-)	- (-)
HHC2P (HCP)	800 (645) LBS.	370 (300) LBS.	(ALONG HIP)
RS150 (CS16)	1730 (1705) LBS. ALLOWABLE TENSION		
MP34 (A34)		610 (455) LBS.	525 (455) LBS.
HTA16 (HETA16)	1870 (1810) LBS.	270 (340) LBS.	710 (795) LBS.
LUGT2 (LGT2)	2260 (2050) LBS.	1015 (-) LBS.	505 (-) LBS.
MUGT15 (MGT)	4495 (3965) LBS.	- (-) LBS.	- (-) LBS.
HGA10 (HGA10)	1285 (695) LBS.	1320 (1165) LBS.	1585 (940) LBS.
MTW12+MP34 (H10)	1195 (995) LBS.	600 (590) LBS.	525 (285) LBS.

- CAPACITIES BASED ON SYP TOP PLATES.
- FOLLOW MANUFACTURER'S REQUIREMENTS FOR FASTENERS AND INSTALLATION.
- REFER TO INDIVIDUAL LAYOUTS FOR STRAP PLACEMENT ACCORDING TO TRUSS STRAP LEGEND.

1 TRUSS TO TOP PLATE CONNECTOR TABLE UPLIFT AND LATERAL CAPACITY SCALE: N/A

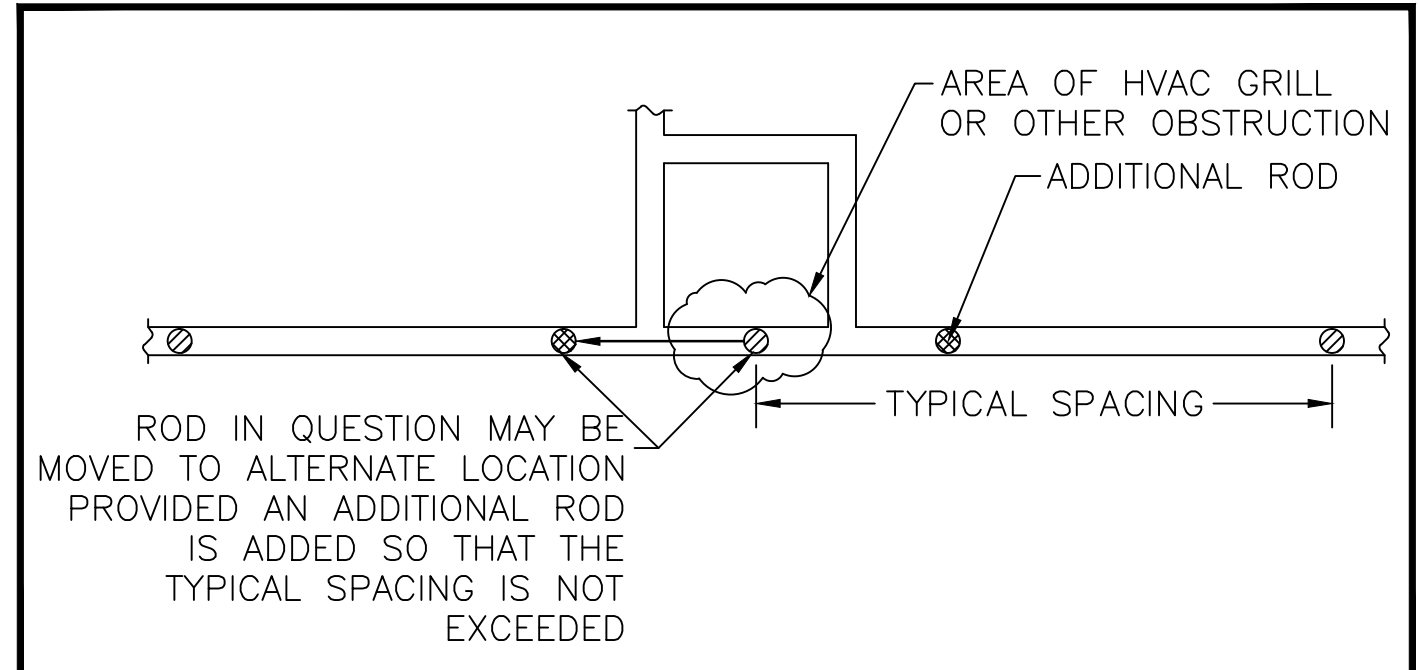
ROD LOCATIONS		MAXIMUM UPLIFT PER TRUSS		
		48" O.C.	64" O.C.	72" O.C.
1/2" HURRI-BOLT ASSEMBLY	SINGLE TRUSS BEARING	1950 LBS.	1462 LBS.	1300 LBS.
	DOUBLE TRUSS BEARING	975 LBS.	731 LBS.	650 LBS.
3/8" HURRI-BOLT ASSEMBLY	SINGLE TRUSS BEARING	1200 LBS.	900 LBS.	800 LBS.
	DOUBLE TRUSS BEARING	600 LBS.	450 LBS.	400 LBS.

- MINIMUM CONCRETE STRENGTH IS 3000 PSI.
- WASHER SIZE IS 3" SQUARE FOR 1/2", 2" SQUARE FOR 3/8", (UNO).
- ALL RODS AND WASHERS ARE MINIMUM ASTM A36 STEEL.
- TRUSS TO TOP PLATE CONNECTOR REQUIRED.
- HURRI-BOLT, INC IS NOT RESPONSIBLE FOR TOP PLATE DESIGN.

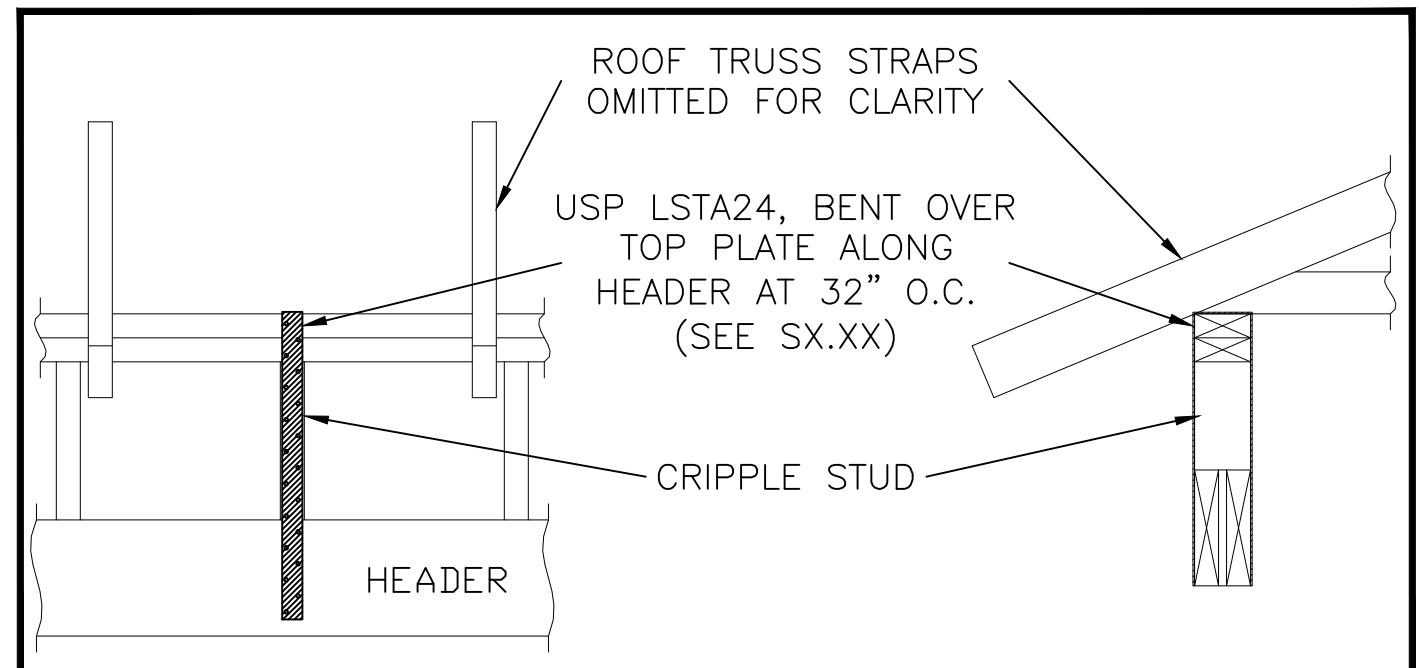
ROD DIA.	CAPACITY	ROD DIA.	CAPACITY	ROD DIA.	CAPACITY
3/4" B7	20710 LBS.	3/4"	9940 LBS.	1/2"	4418 LBS.
5/8" B7	14380 LBS.	5/8"	6900 LBS.	3/8"	2485 LBS.

- ALL RODS ARE MINIMUM ASTM A36 STEEL:  $F_u = 60$  ksi
- TRUSS TO TOP PLATE CONNECTOR REQUIRED.
- CAPACITIES BASED ON AISC 360-10 EQUATION J3-1

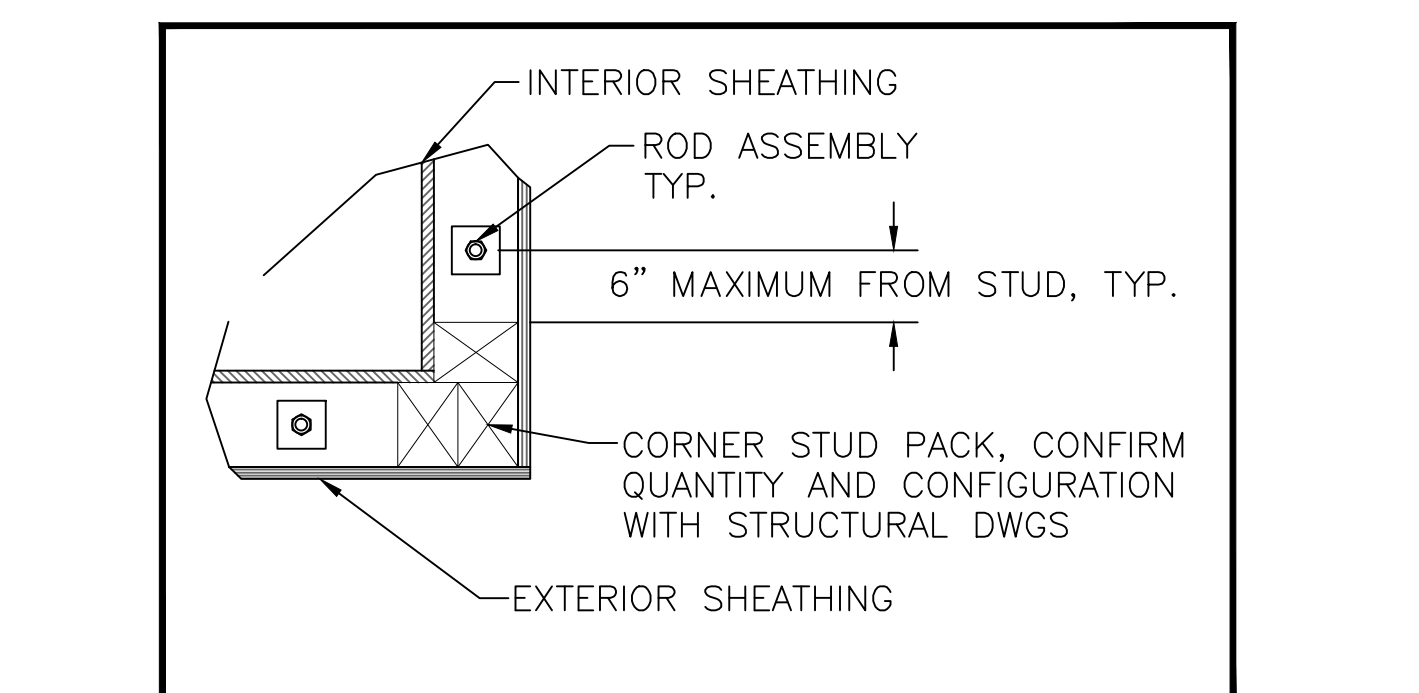
2 HURRI-BOLT UPLIFT CAPACITY TABLE BY DIAMETER AND SPACING SCALE: N/A



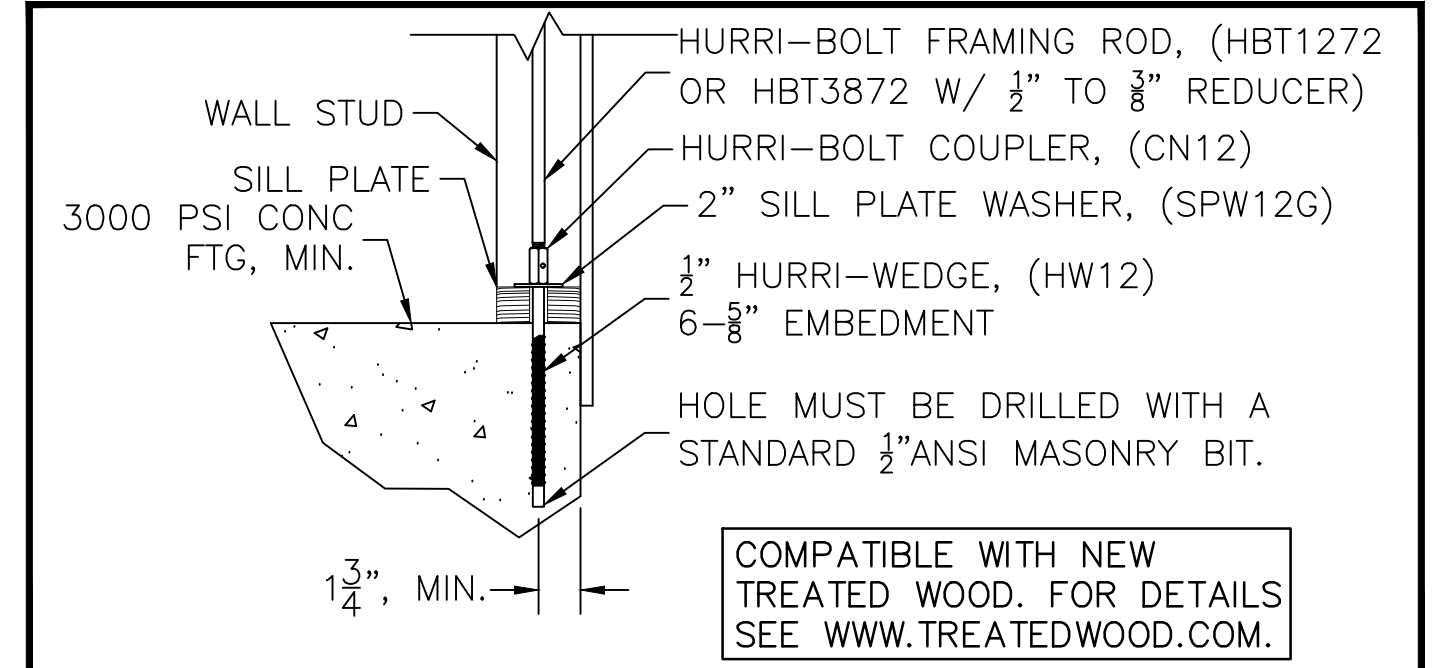
3 OBSTRUCTED HURRI-BOLT ROD MOVING GUIDELINE SCALE: 1/2" = 1'



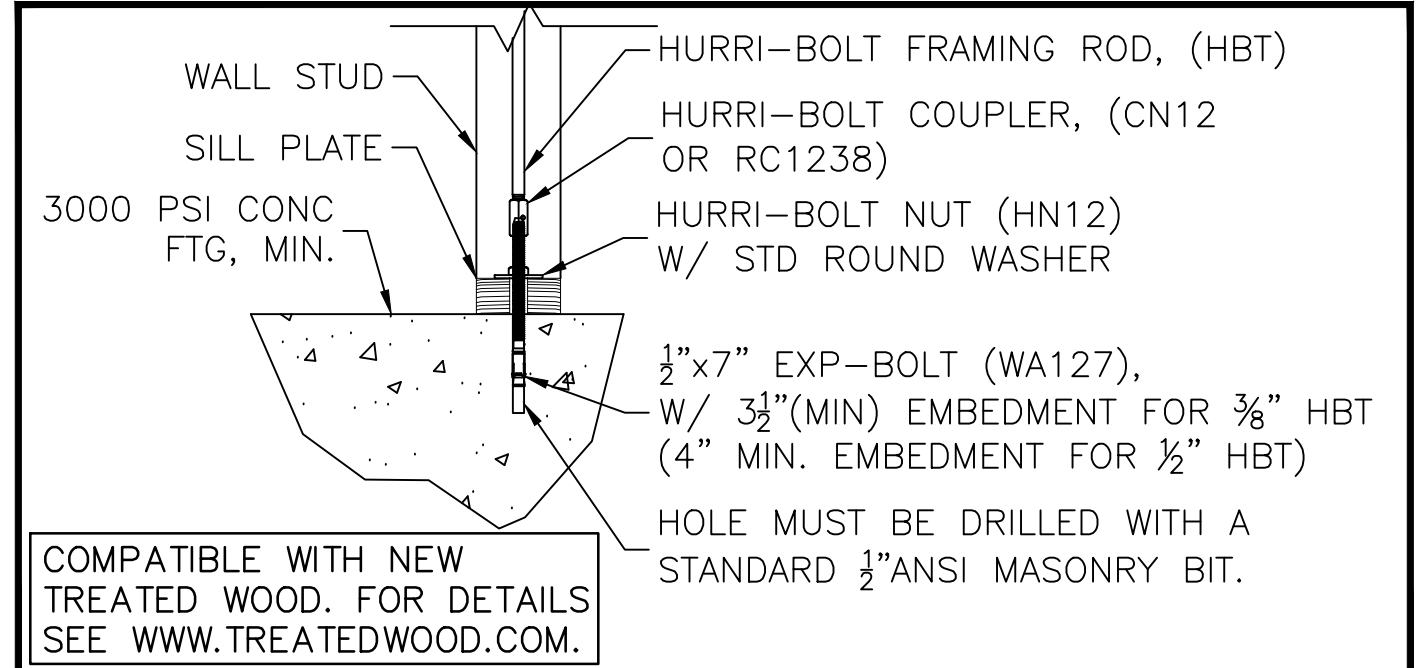
6 TYPICAL HEADER DETAIL PER STRUCTURAL DRAWINGS AT ROOF BEARING WALL TOP FLOOR ONLY SCALE: 1-1/2" = 1'



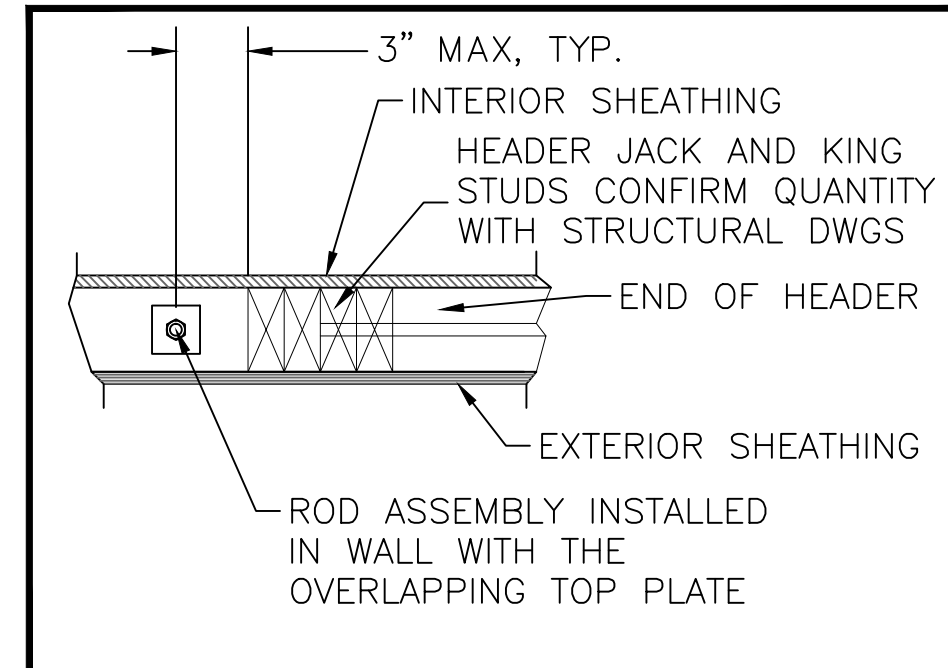
7 TYPICAL EXTERIOR CORNER CONNECTION AT FOUNDATION SCALE: 1-1/2" = 1'



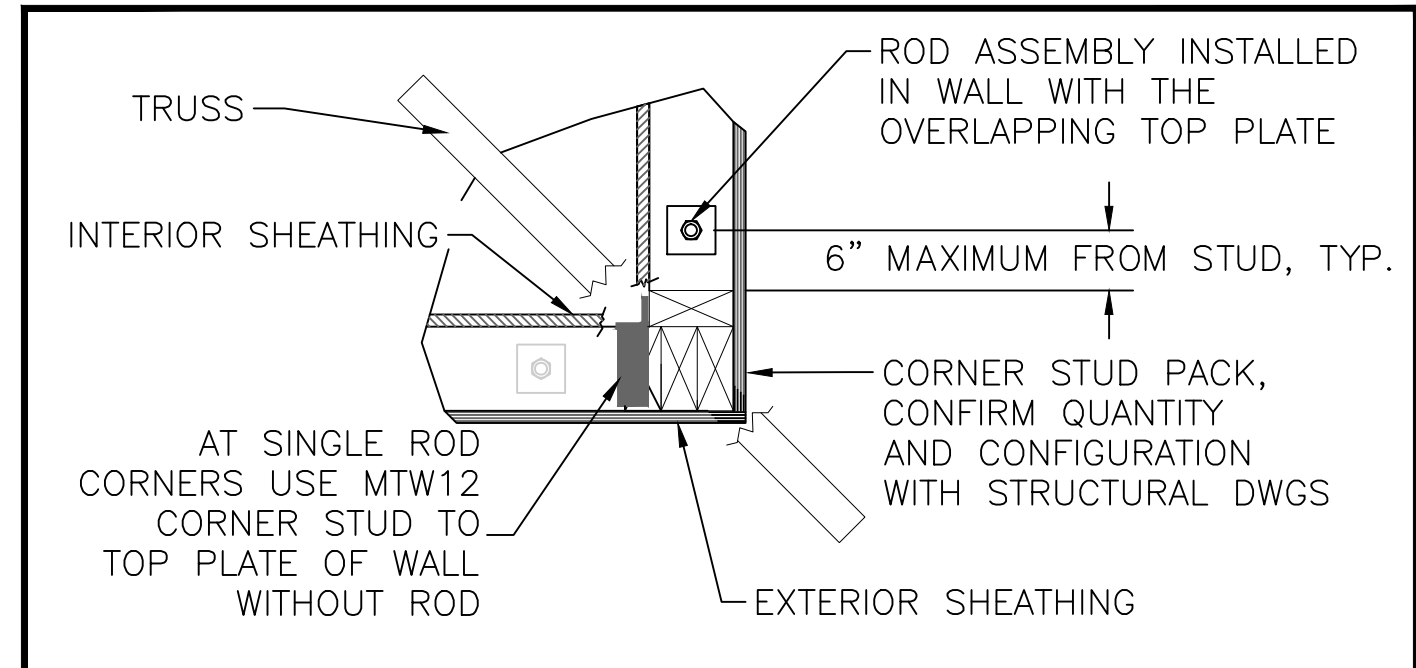
4 HURRI-WEDGE CONNECTION (Ø1/2") EDGE OF SLAB DETAIL SCALE: 1-1/2" = 1'



5 TYPICAL INTERIOR 1/2" TO 3/8" EXPANSION BOLT DETAIL SCALE: 1-1/2" = 1'



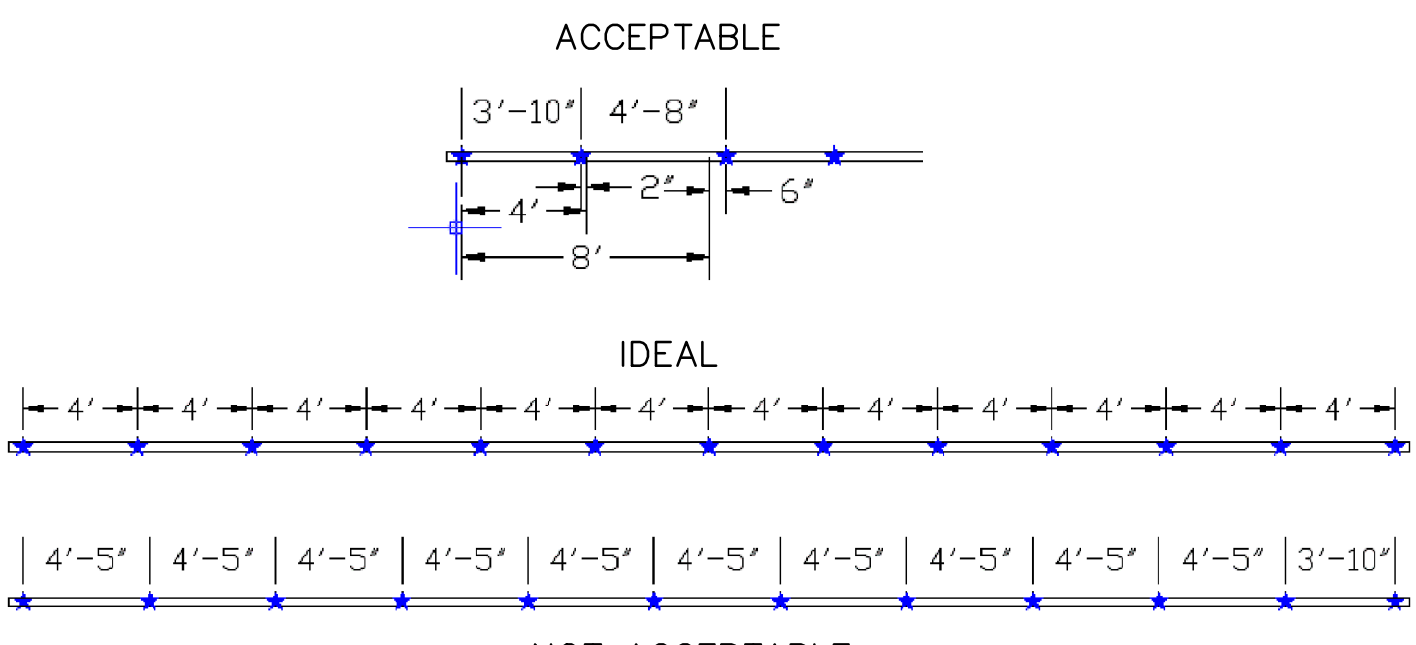
8 HURRI-BOLT PLACEMENT GUIDELINE END OF HEADER AT TOP PLATES SCALE: 1-1/2" = 1'



9 TYPICAL SINGLE ROD CORNER CONNECTION AT TOP FLOOR TOP PLATES SCALE: 1-1/2" = 1'

The dimensions for the Hurri-Bolt assembly spacing are for general location of the rods. They are intended to keep rods from being placed inside locations that would not be apparent from looking at a foundations when it is being formed--i.e., windows and doors.

Rods can vary ±7" within a run of rods. For example: A 32 foot wall with spacing at 4' o.c. , would have 9 rods--one at each end and 7 in between. Ideally, the second rod would be 4' from the first, the next at 8', and so on until the other end rod is reached. If the second rod were place 3' 10" from the first and the next rod is 8' 6" from the first, this is still within tolerance since each rod varied within 7" of the ideal spacing even though the spacing between the second and third rod is 4' 8".

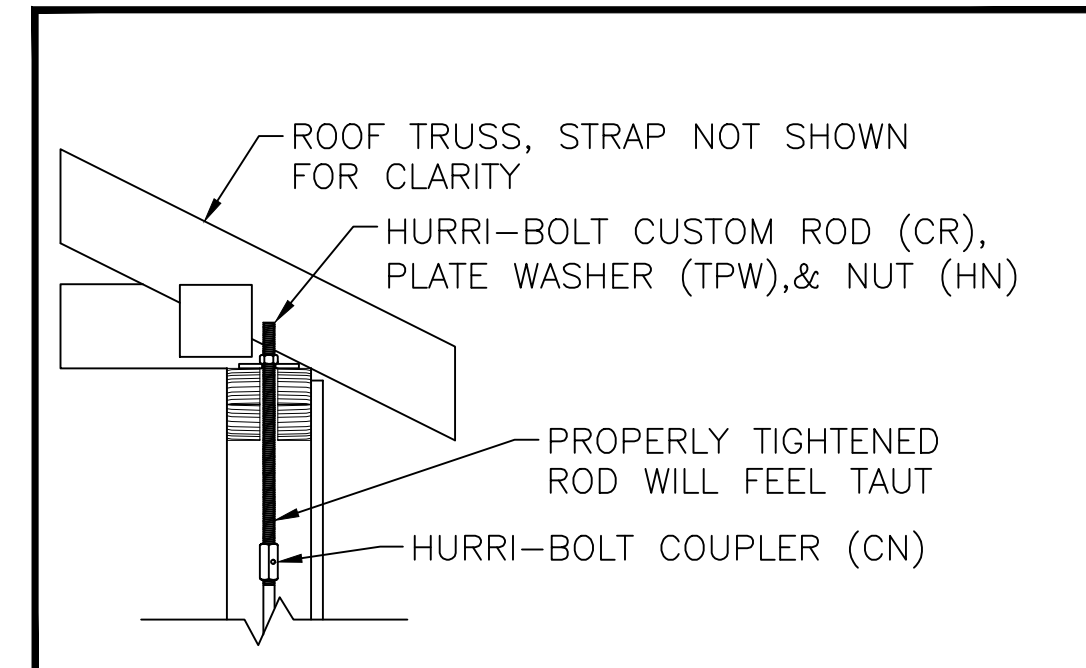


Rods can vary from plumb provided the following criteria is met:

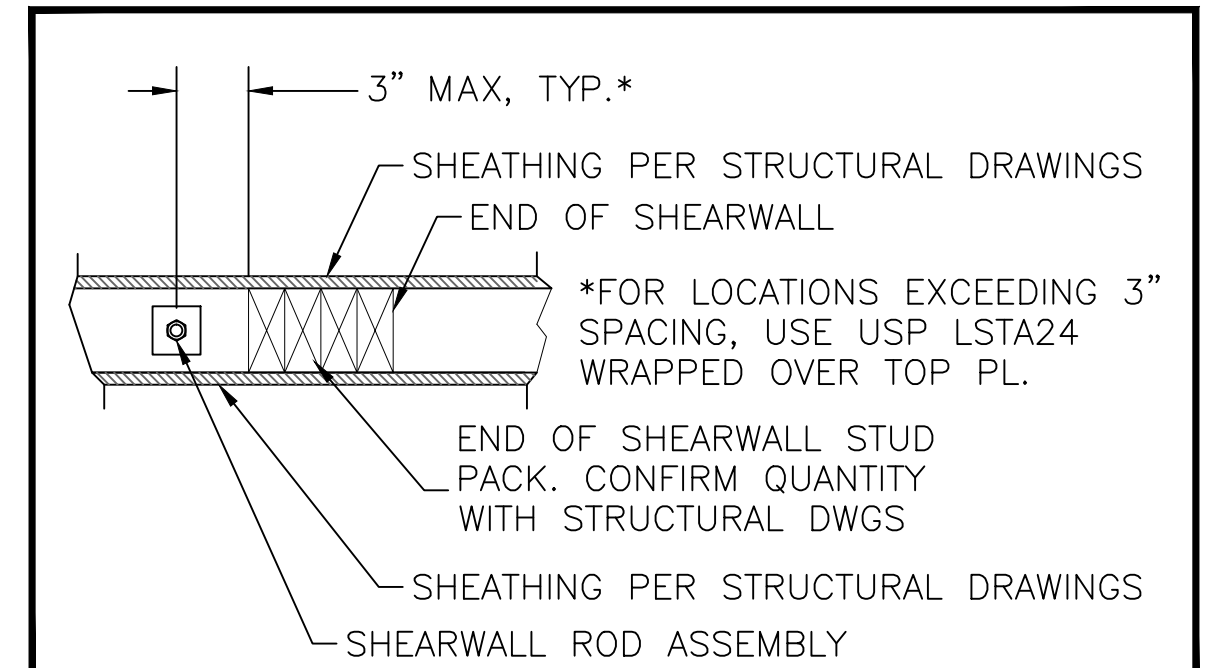
Rods are not bent permanently. Rods remain in within the initial stud cavity--no rods are allowed to penetrate laterally through vertical framing members, unless a specific detail addresses the situation.

With regards to spacing from the corner, the rods can vary up to 8" from the end stud at the end of a wall (corner) or header king stud (windows and doors) without additional straps. If the rod is over 8" and up to 12" from the end of wall segment stud then an RT7 should be added to the top floor top plates to the stud in the corner.

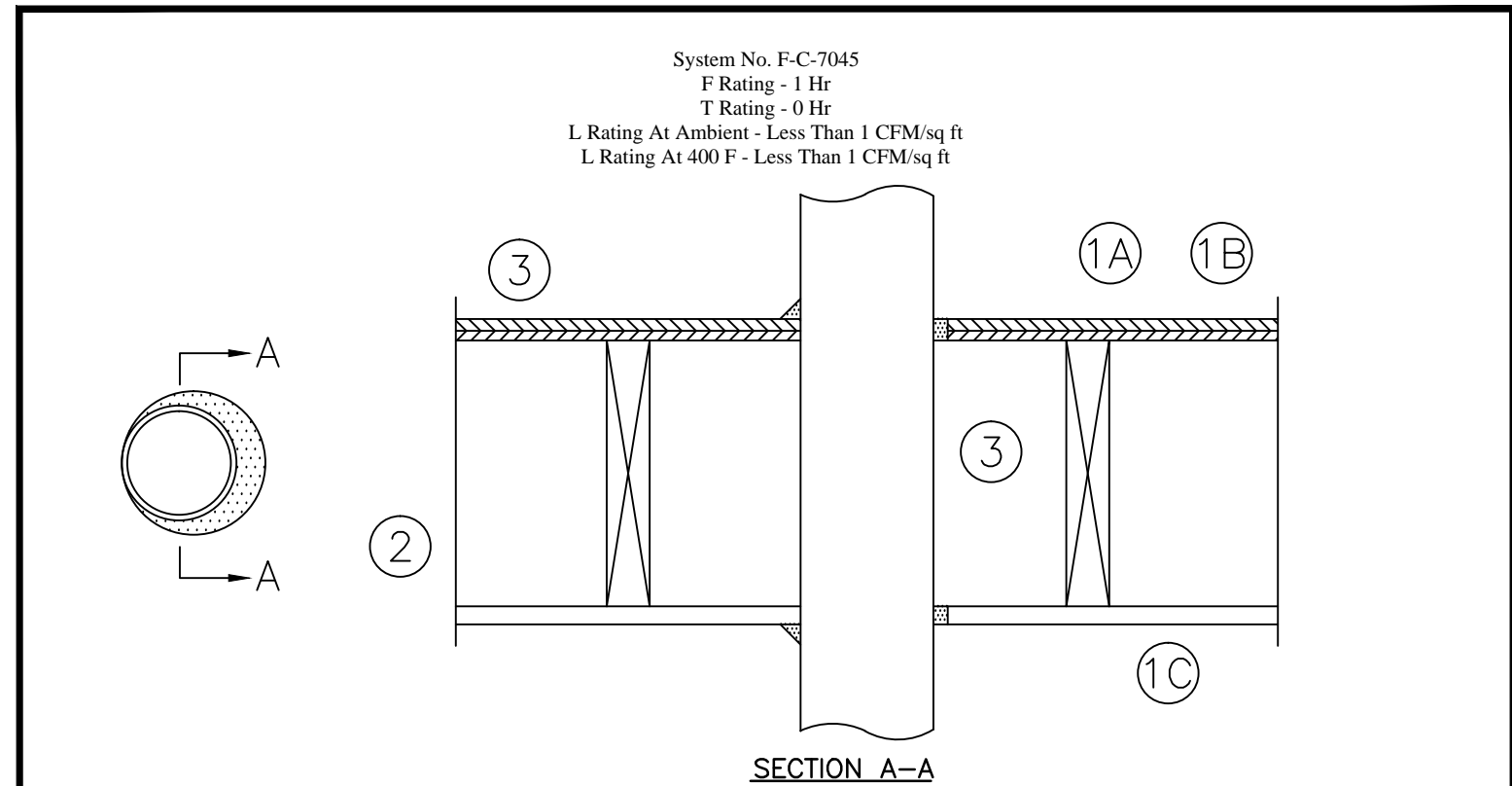
12 HURRI-BOLT LAYOUT TOLERANCES SCALE: N/A (EXAMPLE SPACING SHOWN)



10 TYPICAL CORNER CONNECTION AT TOP FLOOR TOP PLATES SCALE: 1-1/2" = 1'



11 HURRI-BOLT PLACEMENT GUIDELINE AT END OF SHEARWALL SCALE: 1-1/2" = 1'



1. Floor-Ceiling Assembly The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual 1500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:  
A. Flooring System- Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture\* as specified in the individual Floor-Ceiling Design. Max diam of opening shall be 5 in. (127mm).  
B. Wood Joists- Nom 10 in. (254mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members\* with bridging as required and with ends firestopped.  
C. Gypsum Board- Min 5/8 in. (16mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max area of rectangular opening is 15 sq in. (96 cm2) with max dimension of 5 in. (127mm). In lieu of rectangular opening max diam of circular opening is 3 in. (76mm).  
1.1 Chase Wall (Optional, not shown)- The through penetrants (Item 2) may be routed through a 1 hr fire rated single, double or staggered wood stud/gypsum board chase wall. Depth of chase wall stud cavity to be min 1/2 in. greater than diameter of opening cut in sole and top plates to accommodate the through penetrant (Item 2). The chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual 1300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:  
A Studs - Nom 2 by 4 in. (51 by 102 mm), 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.  
B Sole Plate - Nom 2 by 4 in. (51 by 102 mm), 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 5 in. (127 mm).  
C Top Plate - The double top plate shall consist of two nom 2 by 4 in. (51 by 102 mm), two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 5 in. (127 mm).  
D Gypsum Board\* - Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.  
2. Through Penetrants - One metallic strut, cable, rod or angle service support to be installed within the firestop system. An annular space of min 1/8 in. (3 mm) to max 7/8 in. (22mm) is required within the firestop system. Strut, cable, rod or angle service support to be rigidly supported on both sides of floor/ceiling assembly. The strut, cable, rod or angle service support may be installed at an angle not greater than 45 degrees from the perpendicular. The following types and sizes of metallic strut, cable, rod or angle service support may be used:  
A. Steel Strut - Max 1-5/8 by 1-5/8 in. (41 by 41 mm) channel strut formed from min 0.105 in. (2.7 mm) thick galv or painted steel.  
B. Steel Strut - Max 3-1/4 by 1-5/8 in. (83 by 41 mm) H strut formed from min 0.105 in. (2.7 mm) thick galv or painted steel.  
C. Cable - Max 3/8 in. (9.5 mm) diam unjacketed steel cable.  
D. Threaded Rod - Max 1 in. (25 mm) diam galv steel threaded rod.  
E. Steel Angle - 2 by 2 by 1/8 in. (51 by 51 by 3 mm) thick steel angle.  
3. Fill Void or Cavity Materials\* - Caulk or Sealant - Min 3/4 in. (19 mm) thickness of sealant applied within the annulus flush with top surface of floor or sole plate and min 5/8 in. (16 mm) thickness of sealant applied within the annulus flush with bottom surface of gypsum board or lower top plate.  
SPECIFIED TECHNOLOGIES INC - SpecSeal LCI Sealant, Type WF300 Caulk  
\*bearing the UL Classification Mark

13 FIRE-CAULK SYSTEM F-C-7045 USING SPECSEAL LCI, TYPE WF300 CAULK SCALE: N/A

**HURRI-BOLT SHEET**  
 FRAMER COMPANY  
**PROJECT NAME**  
**LOCATION, FLORIDA**

TRUSS PKG. DATED XX-XX-2018  
ARCH. DATED XX-XX-2018  
STRUCT. DATED XX-XX-2018

PRELIMINARY (X)  
FOR APPROVAL ( )  
FOR CONSTRUCTION ( )

NO.	DESCRIPTION

PROJ. # 2018.XX  
DATE: XX/XX/2018  
DWG. BY: AH  
CHK. BY: RDH  
FILE: HB1 HB2 HB3 INSTRUCTIONS.dwg

SHEET #  
**HB1**

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