

PROPRIETARY AND IS NOT HARDY FRAME PRODUCT

DETAIL SHEET PLAN SUBMITTA

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S. VICTORIA AVE., S ELEPHONE: 800 754-3

Hardy Frame BOLT BRACE (HFXBB) MAY BE INSTALLED WITHOUT 1/2"x3"x3" PLATE WASHERS WHEN ASTM F1554 GR 36 THREADED ROD IS SPECIFIED.

HARDENED ROUND

(2) SAE OR (2) ROUND-FLAT

FOUNDATION DESIGN

BY BUILDING DESIGN

PROFESSIONAL

WASHERS AND GRADE 8

HARDY FRAME HFX-SERIES PANEL

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ON WOOD SILL

HARDENED ROUND, PLUS OR MINUS 1-1/2" GAP TO (2) SAE OR (2) BE FILLED WITH MINIMUM -ROUND-FLAT WASHERS 5,000 PSI STRENGTH AND GRADE 8 HEX NON-SHRINK GROUT **NUTS ABOVE AND** BELOW PANEL BASE. - FOUNDATION DESIGN BY BUILDING DESIGN PROFESSIONAL

Hardy Frame BOLT BRACE (HFXBB) MAY BE INSTALLED WITHOUT 1/2"x3"x3" PLATE WASHERS WHEN ASTM F1554 GR 36 THREADED ROD IS SPECIFIED.

HARDENED ROUND, (2) SAE

AND GRADE 8 HEX NUT.

OR (2) ROUND-FLAT WASHERS

HFX1

HARDY FRAME HFX-SERIES PANEL

SPECIFIED.

HARDY FRAME HFX-SERIES POST

ON NUT & WASHER (DOUBLE NUT)

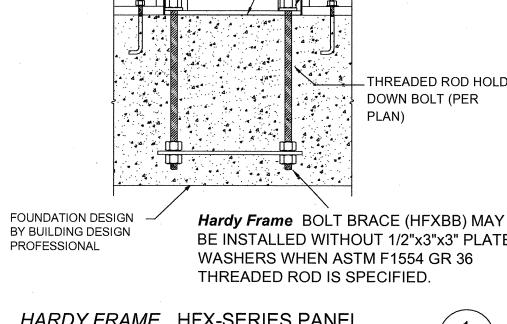
ACCESS HOLE LOCATED

WASHER BUILT IN POST

BY MANUFACTURER

AT EDGE OF POST

3/4" THICK PLATE



ADJACENT FRAMING

CONDITION OCCURS

REQUIRED WHEN HINGE

HARDY FRAME HFX-SERIES PANEL ON FOUNDATION

BE INSTALLED WITHOUT 1/2"x3"x3" PLATE WASHERS WHEN ASTM F1554 GR 36

RECOMMENDED (USE

#15 FELT, OR EQUIVALENT)

HARDENED ROUND, (2)

- SAE OR (2) ROUND-FLAT

WASHERS AND GRADE 8

HFX1

HFX1

2-5/8"

2-5/8"

REVISIONS DATE

D) Footing design, embed depths and anchor edge/end distances are per the Building Design Professional.

E) Determine if the Hardy Frame will be installed on concrete or a mudsill. For installation directly on concrete the recommended bolt height above finished concrete is 2 3/4" and for installation on a 2x mudsill it is 4 1/4".

A) Concrete contractor shall use *Hardy Frame* HFX-Series Templates to accurately place embed bolts and *Hardy Frame* Bolt Braces to prevent sway.

B) Attach the HFX-Series Template to a formboard at location specified on plans. Bolt Braces connect at the embed end of the hold down bolts.

Step 2: First Floor installation on concrete

C) At interior footings Templates may be secured in place using stakes.

TRIMMERS

FOR 6x PORTAL HEADER

SEE DETAIL 6-HFX2

9" WIDE BASE

8-1/2"

12" WIDE BASE

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12-3/4"

18" WIDE BASE

18-3/4"

24" WIDE BASE

Max.

Height

10

13

20

13

20

4) Concrete edge distance must comply with ACI-318-08 D8.2.

Product

Width

(in)

12

18

24

HFXBB is recommended.

6) Shear Ties are #3 rebar, grade 60 (min.)

PER DESIGN

PROFESSIONAL

A) Installation of a moisture barrier such as Moistop or 15# felt is recommended under the Panel.

B) Set the *Hardy Frame* over the embed bolts and install (1) Hardened Round, (2) Round-Flat, or (2) SAE washers and a Grade 8 hex nut.

C) Tighten nuts until snug tight.

Hardy Frame Installation

Step 1: Concrete Preparation

D) After framing and plumb & line are complete, place a 2x filler above the Panel to make up the height difference created by eliminating the sill plate, and connect with 1/4" x 4 1/2" screws through the top of the Panel, through the filler and into the double top plates or header above. For fillers larger than 1 1/2" net, refer to detail 3/HFX2.

Step 2: First Floor installation on a Sill Plate

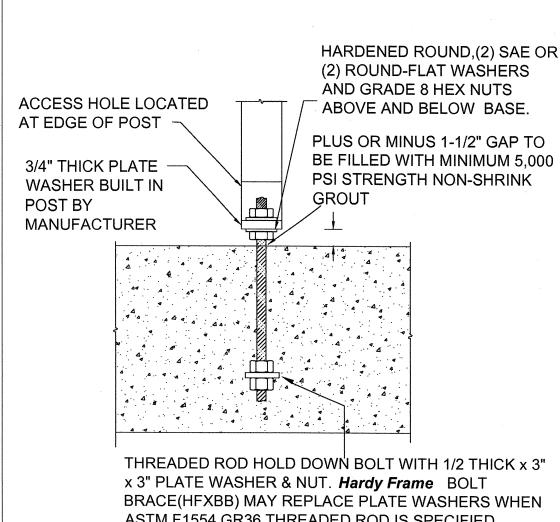
A) If the *Hardy Frame* is to be installed on a mudsill, plot the bottom plate and cut the length to match the width of the Panel. If located next to a door opening, allow the plate to run into the opening.

B) Set the *Hardy Frame* over the embed bolts and install (1) Hardened Round, (2) Round-Flat, or (2) SAE washers and a Grade 8 hex nut.

C) Tighten nuts until snug tight.

D) After framing and plumb & line are complete, install 1/4"x 3" screws through the top of the Panel into the double top plates or header above.

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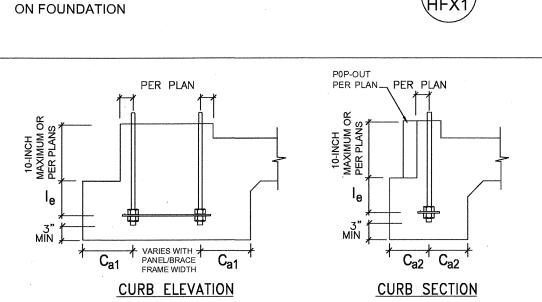
HARDY FRAME HFX-SERIES POST ON NUT & WASHER (DOUBLE NUT)

2-3/4"

HEIGHT

TOP OF ROD

HFX1

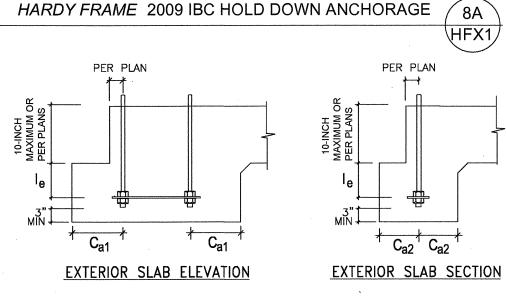


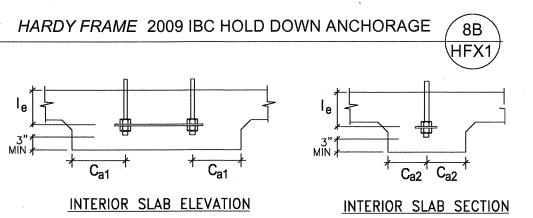
THREADED ROD HOLD DOWN BOLT WITH 1/2 THICK x

3" x 3" PLATE WASHER & NUT. Hardy Frame BOLT

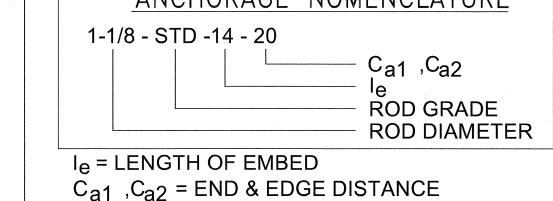
BRACE(HFXBB) MAY REPLACE PLATE WASHERS

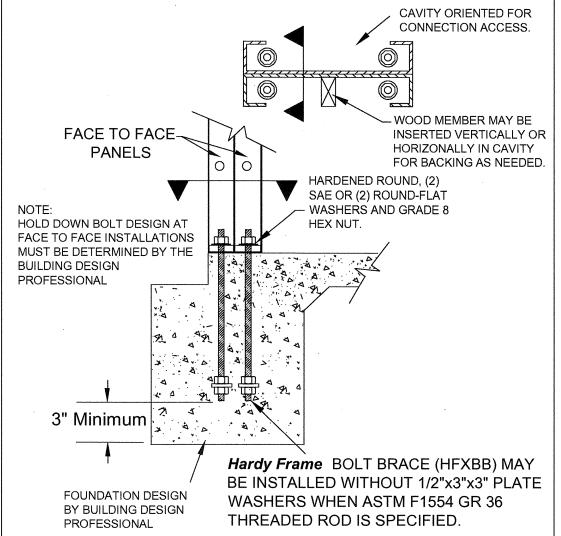
WHEN ASTM F1554 GR36 THREADED ROD IS



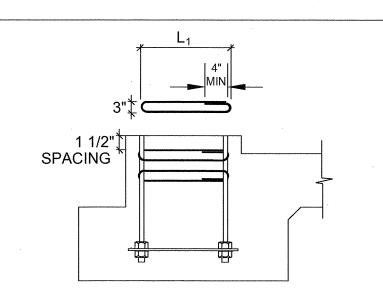


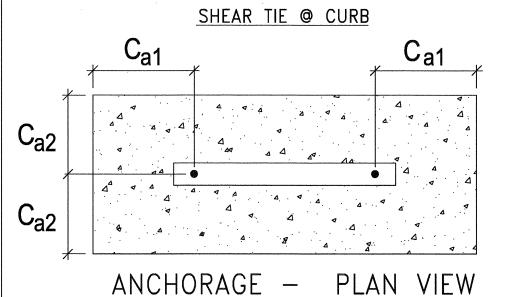
HARDY FRAME 2009 IBC HOLD DOWN ANCHORAGE 8C





HARDY FRAME HFX-SERIES PANEL **ON FOUNDATION - FACE TO FACE CONDITION**





ANCHORAGE NOMENCLATURE

8) Foundation Design is by others 9) The Building Design Professional is permitted to modify these details to accommodate a specific condition. HARDY FRAME 2009 IBC HOLD DOWN ANCHORAGE TABLE

1) Applies to 2500 psi compressive strength concrete, both seismic and wind loading.

puno Ур anels FOR CONNECTION TO HEADER (PORTAL) SEE S erie TOP CONNECTION SEE DETAIL 9-HFX2 WITH 2x FILLER OPTIONAL SOFFI OR HEADER FOR TOP PLATE CONNECTION SEE **DETAIL 1-HFX2 TOP PLATE** DETAIL 2-HFX2 WITH 2x FILLER DETAIL 3-HFX2 FILLERS > 1 1/2" **LOCATION DETAIL 10-HFX2 DETAIL 4-HFX1 ON CONCRETE**

- OPTIONAL SOFFIT

DETAIL 5-HFX2 TO HEADER

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DETAIL SPECIFICATION GUIDE

1-1/8 HS 14-20

1-1/8 HS 20-30

1-1/8 HS 13-20

1-1/8 HS 20-30

1-1/8 HS 18-27

Anchorage

1-1/8 STD 12-17

1-1/8 STD 14-20

1-1/8 STD 14-20

NA

(See Nomenclature for Description)

2) STD indicates rods complying with ASTM F1554 Grade 36 with a *Hardy Frame* Bolt Brace (HFXBB) double nutted on the embed end.

5) Installation on curbs or stemwalls must be 6 inch width minimum, and require supplemental shear reinforcement per ACI-318-08, fc=2500 psi.

7) Shear Ties are not required for installations away from Foundation Edge, for installation on wood framing or for Braced Wall Panel applications.

3) HS indicates rods complying with ASTM A 193 Grade B7 (or equal) with a 1/2x3x3 plate washer double nutted on the embed end.

WHEN A 2x FILLER OCCURS SEE 2-HFX2 (SIMILAR)

FOR FACE TO FACE

HOLE CHART

SEE ADDITIONAL HOLE

FOR FACE TO FACE

BASE CONNECTION SEE

TABLE 1.1 VALUES

TABLE 1.2 VALUES

Shear Tie

Quantity

STD

DETAIL 1-HFX1 ON CONCRETE **DETAIL 2-HFX1 ON NUT & WASHER**

DETAIL 3-HFX1 ON WOOD SILL

SPECIFY ANCHORAGE ON

Length

 $L_1(in)$ 7-1/2

10-1/2

21

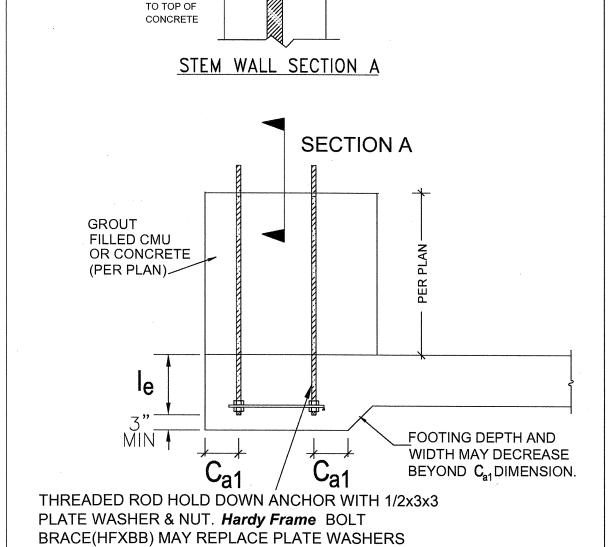
FOUNDATION PLAN PER ANCHORAGE NOMENCLATURE

(7) (HFX1)

DATE:

1-1-2011

HFX1



NOTE: COUPLING NUTS MAY BE USED TO EXTEND THREADED ROD LENGTH

HARDY FRAME ANCHORAGE AT STEM WALL

WHEN ASTM F 1554 GRADE 36 THREADED ROD IS

STEM WALL ELEVATION

SPECIFIED.

