





**IRRIGATION NOTE**

AN AUTOMATIC IRRIGATION SYSTEM CONTROLLER FOR LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY WITH CGC 4.304

**PUBLIC WORKS NOTES**

- THIS PROJECT SHALL COMPLY WITH THE CITY NPDES PERMIT REQUIREMENTS TO PREVENT STORM WATER POLLUTION. SEE SHEET BMP1. CONTRACTOR SHALL CONSTRUCT FRONTAGE PUBLIC IMPROVEMENTS INCLUDING CURB, GUTTER, SIDEWALK, DRIVEWAY AND OTHER APPURTENANT WORK IF AREAS ARE REQUIRED TO BE ALTERED.
- SEWER BACKWATER PROTECTION CERTIFICATION IS REQUIRED FOR THE INSTALLATION OF ANY NEW SEWER FIXTURE PER ORDINANCE NO. 1710. THE SEWER BACKWATER
- THE SANITARY SEWER LATERAL (BUILDING SEWER) SHALL BE TESTED PER ORDINANCE CODE CHAPTER 1512. TESTING INFORMATION IS AVAILABLE AT THE BUILDING DEPARTMENT COUNTER. A SEWER LATERAL TEST ENCROACHMENT PERMIT IS REQUIRED.
- SEE SHEET PW.1 FOR ADDITIONAL PUBLIC WORKS REQUIREMENTS
- GRADING PERMIT, IF REQUIRED, WILL BE OBTAINED FROM DEPART. OF PUBLIC WORKS.
- THE SANITARY SEWER LATERAL (BUILDING SEWER) SHALL BE TESTED PER ORDINANCE CODE CHAPTER 1512. A ENCROACHMENT PERMIT FOR THE SEWER LATERAL TEST IS REQUIRED. A PASSED SEWER LATERAL TEST CERTIFICATE MUST BE IN PLACE PRIOR TO FINAL OF THE BUILDING PERMIT.

**SITE DRAINAGE NOTE**

- CONTRACTOR TO PROVIDE 4" DIA. PVC SITE DRAINAGE LINE FROM AROUND RESIDENCE TO TO STREET PER CITY OF BURLINGAME PUBLIC WORKS REQUIREMENTS. THE ALL ROOF DOWNSPOUTS INTO 4" DRAINAGE LINE TO HAVE POSITIVE DRAINAGE TO STREET. ALL WORK AT CITY SIDEWALK AND CURB IS REQUIRED TO HAVE CITY PERMIT. REPLACED AND REPAIR AS REQUIRED PER DETAILS ON SHEET PW.1 AND PW.2
- SEE ROOF PLAN FOR ALL DOWNSPOUT LEADERS TO BOOT LOCATIONS.

**PARKS DEPARTMENT**

- CONTRACTOR TO PROTECT STREET TREES DURING CONSTRUCTION.
- EXISTING CITY STREET TREE MAY NOT BE CUT, TRIMMED OR REMOVED WITHOUT PERMIT FROM PARKS DIVISION (558-7350)
- NO EXISTING TREE OVER 48 INCHES IN CIRCUMFERENCE AT 54 INCHES FORM BASE OF TREE MAY BE REMOVED WITHOUT A PROTECTED TREE REMOVAL PERMIT FROM THE PARKS DIVISION.
- ALL NEW TREES SHALL BE DOUBLE STAKED WITH 2" POLES AND SECURED WITH AT LEAST TWO RUBBER TIES OR STRAPS.



*The City of Burlingame*

PUBLIC WORKS DEPARTMENT  
1st FLOOR, 558-7250  
FAX: (650) 958-3310

CITY HALL - 501 PRIMROSE ROAD  
BURLINGAME, CALIFORNIA 94010-3597  
Tel: (650) 558-7670

CORPORATION YARD  
Tel: (650) 558-7670

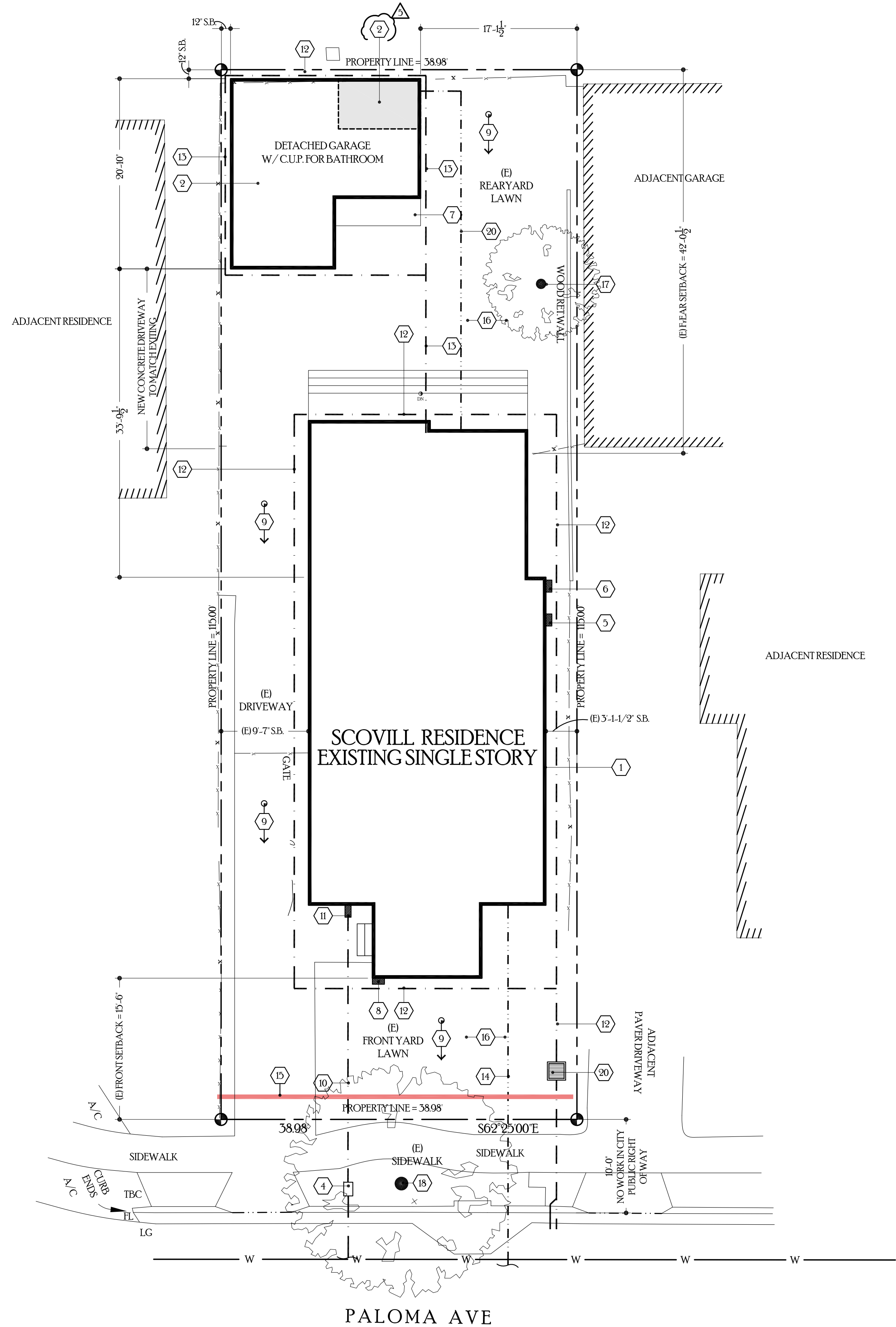
ADDITIONAL COMMENTS FOR PUBLIC WORKS ENGINEERING DEPARTMENT PLAN REVIEW  
FOR BUILDING PERMIT NO. **B18-0413**

Add the following 'Public Works Notes' to the plan sheet SP.1:

**PUBLIC WORKS NOTES**

- Any work in the City right-of-way, such as street, sidewalk area, public easements, and utility easements, is required to obtain an Encroachment Permit prior to starting work.
- Based on the scope of work, this is a **Type I** project that requires a Stormwater Construction Pollution Prevention Permit. This permit is required prior to issuance of a Building Permit. An initial field inspection is required prior to the start of any construction (on private property or in the public right-of-way).
- All damaged and displaced curb, gutter and/or sidewalk fronting site must be replaced prior to final of Building Permit.
- Construction hours in the City Public right-of-way are limited to weekdays and non-City Holidays between 8:00 a.m. and 5:00 p.m. This includes construction hauling.
- Per Municipal code section 18.08.090, no storm water or underground water draining from any lot, building, or paved area shall be allowed to drain to adjacent properties nor shall this water be connected to the city's sanitary sewer system. Regardless of the slope of the source property, such water shall drain to either artificial or natural storm drainage facilities by gravity or pumping.
- All water lines connections to city water mains for services or fire line protection are to be installed per city standard procedures and material specifications. Contact the city Water department for connection fees. If required, all fire services and services 2" and over will be installed by builder. All underground fire service connections shall be submitted as separate Underground Fire Service permit for review and approval.
- No structure shall be built into City's right-of-way. The property line on Paloma Avenue is approximately 10 feet (10') measured from face of curb.
- All debris/garbage containers location shall be on property. In a situation where that is not possible, an encroachment permit is required from Public Works department for placing debris/garbage containers in public right-of-way. No wet garbage fluid shall enter public right-of-way or the storm drain system.
- It is the responsibility of the owner and/or contractor to notify Underground Service Alert (USA) at least 48 hours before the start of any excavation work.

**PUBLIC WORKS CONDITIONS OF APPROVAL**



**SITE PLAN**

SCALE 1/8"=1'-0"

**SITE PLAN KEYNOTES**

- LINE OF EXISTING RESIDENCE.
- C.U.P. FOR BATHROOM WITH SHOWER (SHOWN SHADED)
- NOT USED
- LOCATION OF EXISTING WATER METER.
- LOCATION OF EXISTING GAS METER
- LOCATION OF EXISTING 300 AMP ELECTRICAL PANEL AND METER
- EXISTING CONCRETE LANDING
- LOCATION OF EXISTING BUILDING ADDRESS. NUMBERS ARE TO BE A MINIMUM OF ONE-HALF INCHES STROKE BY TWO AND ONE-HALF INCHES HIGH AND ARE EXTERNALLY ILLUMINATED BY LANDSCAPE FLOOD CONTROLLED BY SENSOR. INSTALL PER BURLINGAME CODE 15.08.050.
- EXISTING DIRECTION OF SITE DRAINAGE WITH POSITIVE FLOW TO STREET FRONTAGE AND STORM DRAIN
- EXISTING MAIN LATERAL FROM METER TO RESIDENCE
- EXISTING LOCATION FOR DOUBLE CHECK VALVE ASSEMBLY
- EXISTING PERIMETER ON-SITE 4" DRAINAGE LINE FROM REAR OF PROPERTY AND DAYLIGHTED OUT THROUGH EXISTING CURB
- EXISTING ROOF DOWNSPOUT TO EXISTING ON-SITE DRAINAGE LINE TO STREET TYP
- EXISTING SANITARY SEWER LATERAL TO REMAIN. EXISTING LINE TO BE VIDEO TAPE AND TESTED PER PUBLIC WORKS REQUIREMENTS. SEE GENERAL NOTES THIS SHEET, SHEET PW.1
- PROVIDE RIP RAP AT FRONT OF PROPERTY FOR MANAGEMENT OF STORM WATER DRAINAGE DURING CONSTRUCTION. REFER TO BMP1 FOR ADDITIONAL PROTECTION REQUIREMENTS DURING CONSTRUCTION. PROTECTION OF CREEK OR STORM DRAIN INLETS, PERIMETER CONTROLS, PROTECTIONS FOR CONSTRUCTION ACCESS POINTS, AND SEDIMENT CONTROL MEASURES.
- EXISTING LANDSCAPE TO REMAIN AS IS
- EXISTING 24" MIN. BOX TREE PER BURLINGAME APPROVED TREE LIST.
- EXISTING STREET TREE
- EXISTING CONCRETE DRIVEWAY TO MATCH EXISTING
- NEW SANITARY SEWER LATERAL FROM THE ACCESSORY DWELLING UNIT SHALL BE CONNECTED TO THE EXISTING LATERAL ON PRIVATE PROPERTY SIDE PER MUNICIPAL CODE 15.08.050. NO SUB-LATERAL TO THE MAIN SEWER IS PERMITTED.

**Geurse Conceptual Designs, Inc.**

405 baywater ave.  
Burlingame, California 94010  
tel: 650.703.6197  
email: jgeurse@bcglobal.net

SIGNATURE BOX  
NAME: JESSE GEURSE

CITY OF BURLINGAME BUSINESS LICENSE: GEURSE CONCEPTUAL DESIGNS, INC.  
NO. 22811. EXPIRATION DATE 06/30/2021

NO	DATE	BY	DESCRIPTION	CONST.
△	6-9-2022	JFG	CUP FOR BATHROOM -DELTA-5	
△	9-22-2020	JFG	PLANNING APPROVAL -CCA-DELTA-4	
△	7-14-2020	JFG	ADU GARAGE CONVERSION-BLDG.COM	
△	4-7-2020	JFG	FIELD REVISION	
△	11-7-2018	JFG	BUILDING DEPT. COMMENTS-DELTA-1	
△	10-1-2018	JFG	BUILDING DEPT. SUBMISSION	
NO				

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL FIELD CONDITIONS AND COMPARE THEM WITH THE CONSTRUCTION DOCUMENTS BEFORE COMMENCING ACTIVITIES. ERRORS, OMISSIONS, OR ANY OTHER INCONSISTENCIES DISCOVERED SHALL IMMEDIATELY BE REPORTED TO THE DESIGNER.

PROJECT NAME:  
**DETACHED GARAGE W/ C.U.P. BATHROOM**  
for  
**MR and MRS. SCOVILL**  
655 PALOMA AVENUE  
BURLINGAME, CALIFORNIA 94010

DRAWING TITLE:  
**SITE PLAN**

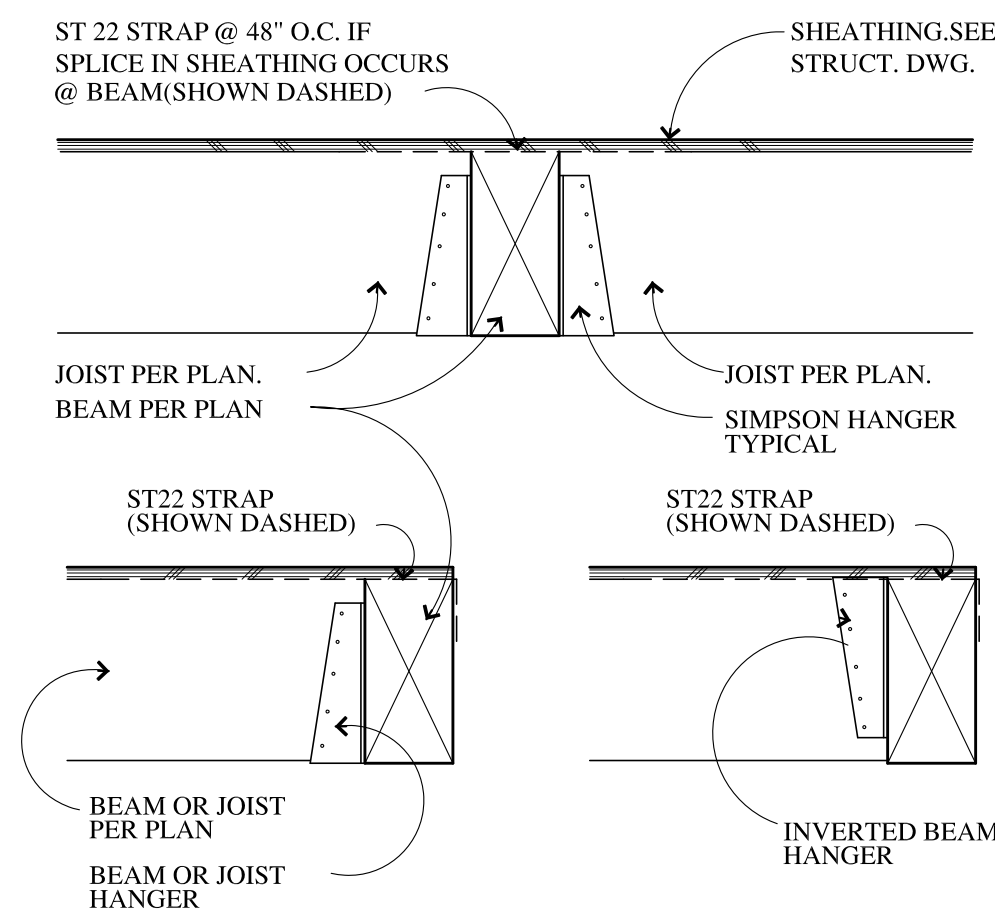
DATE	ENGINEER	DRAWING NO.
184	AART ASSINK	<b>SP.1</b>
JFG	SCALE: AS SHOWN	
JFG	RELEASED TO CONSTRUCTION	
JFG		



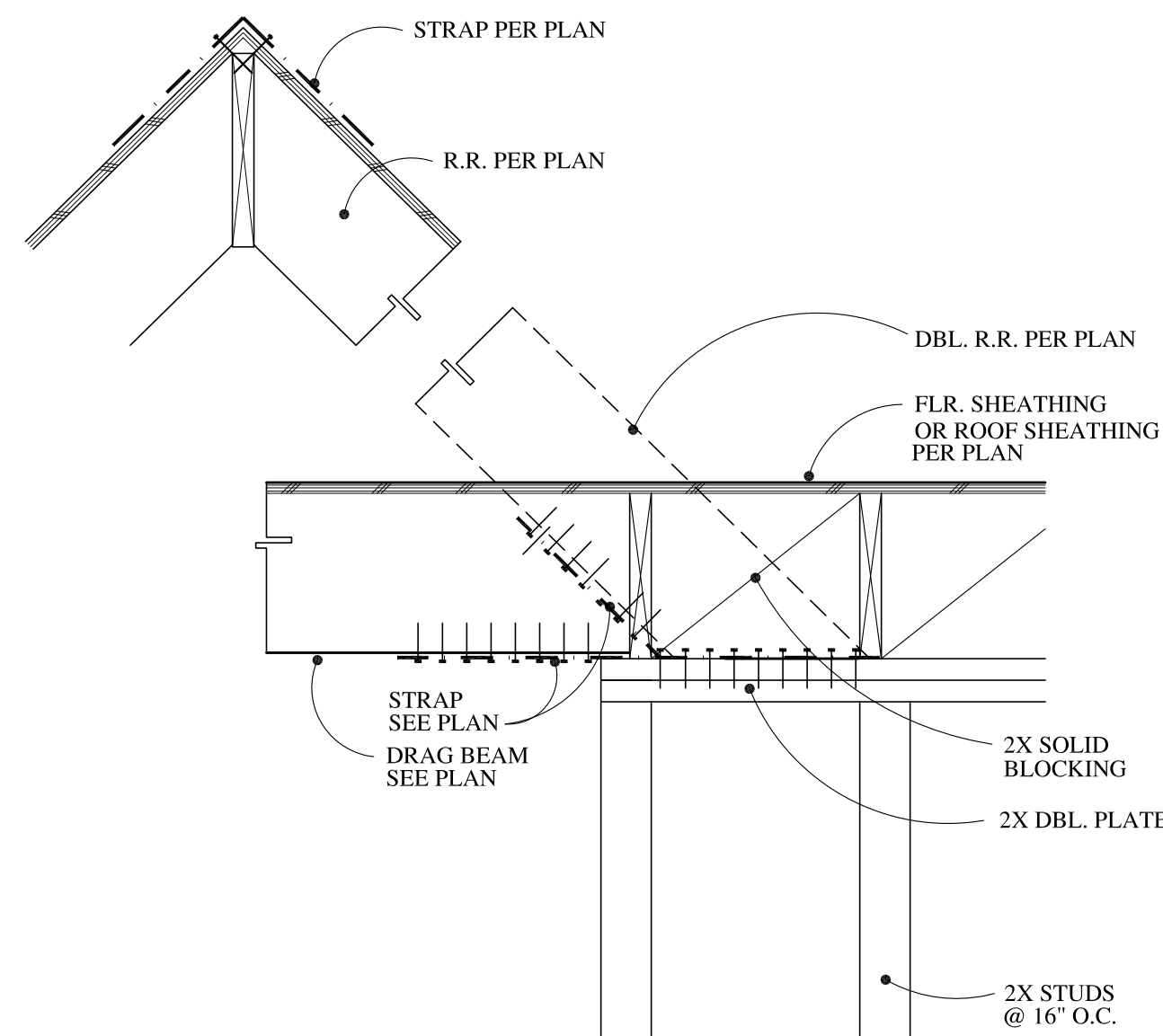




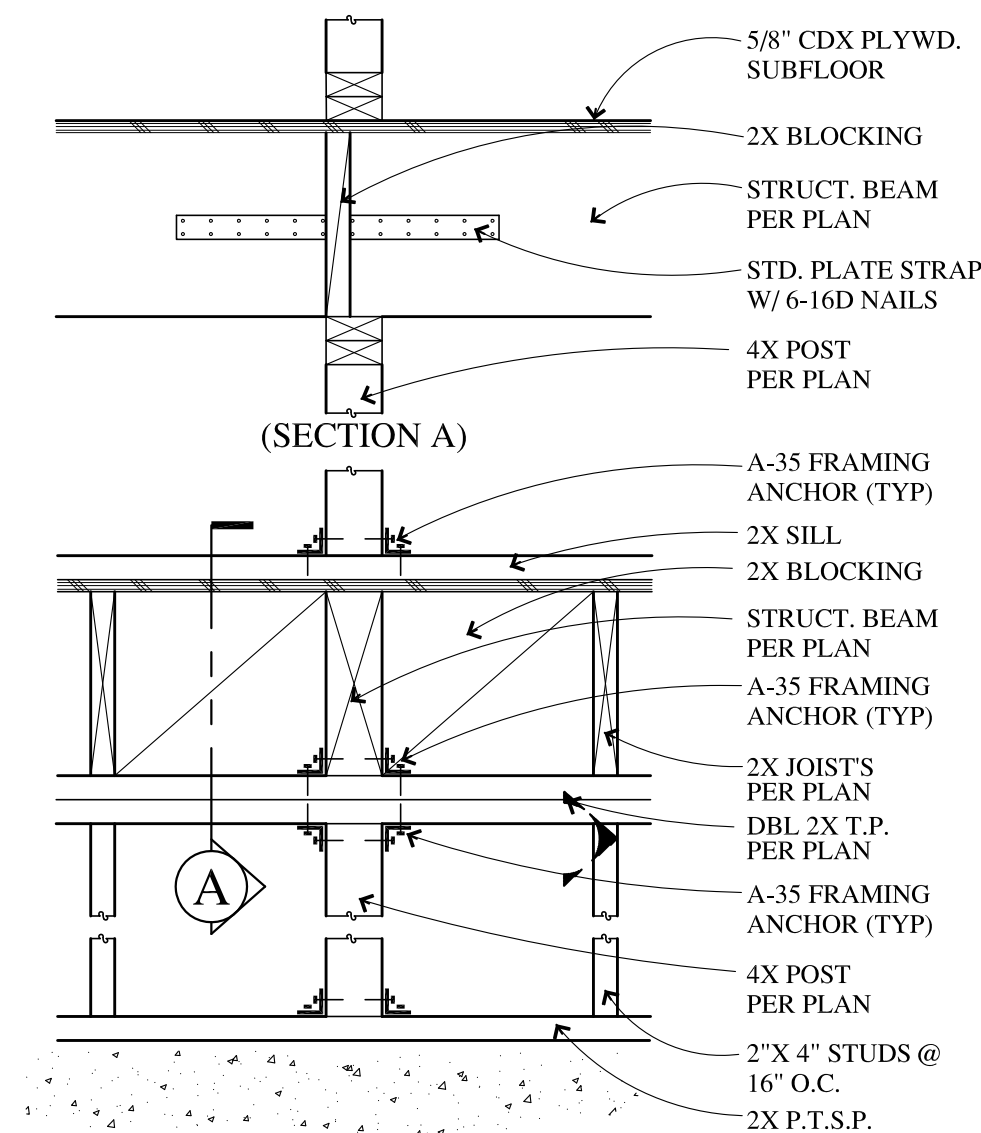




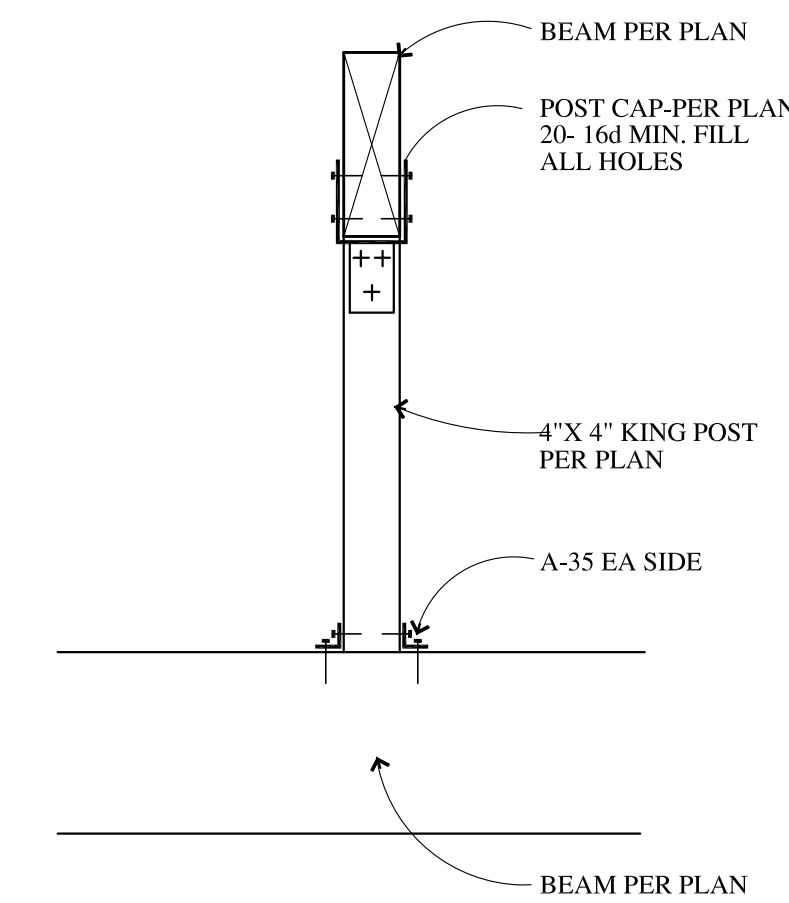
**11** BEAM TO JOIST CONNECTION  
SCALE=1"=1'-0"



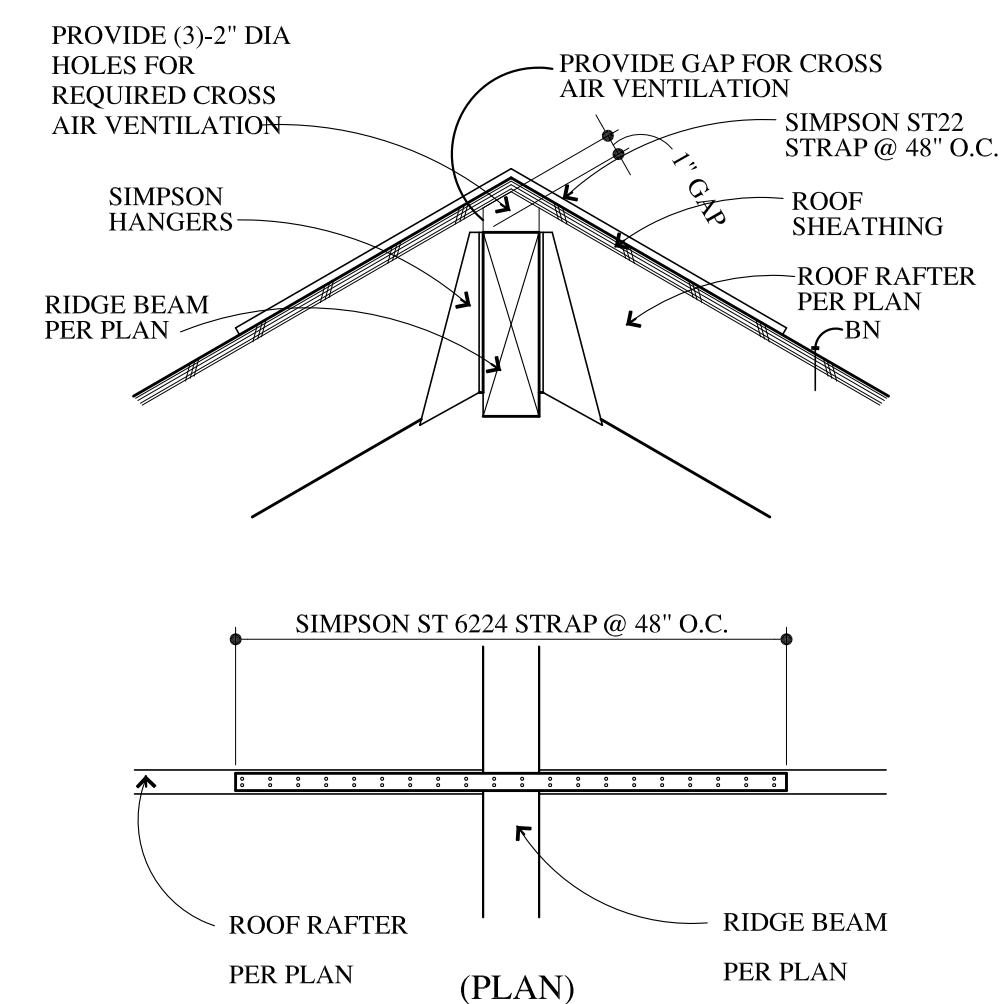
**8** DRAG DETAIL  
SCALE=1"=1'-0"



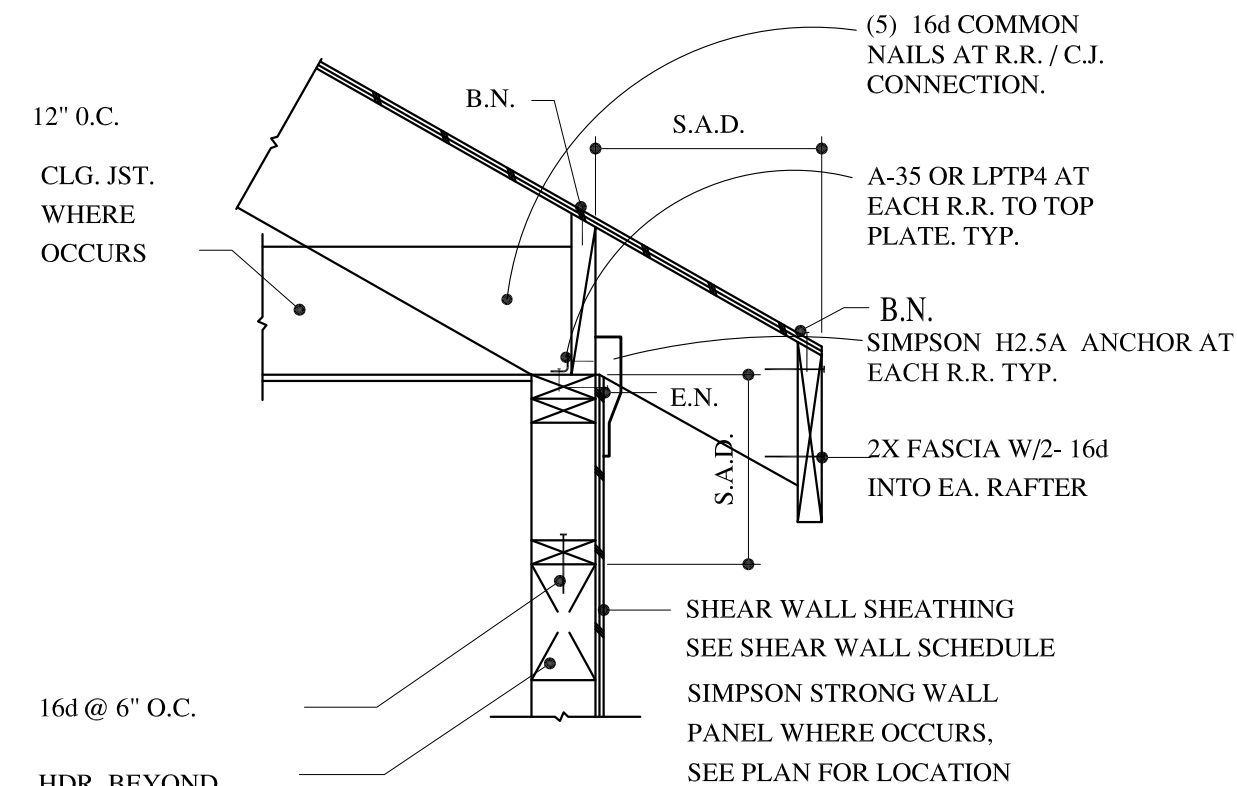
**5** CONNECTION  
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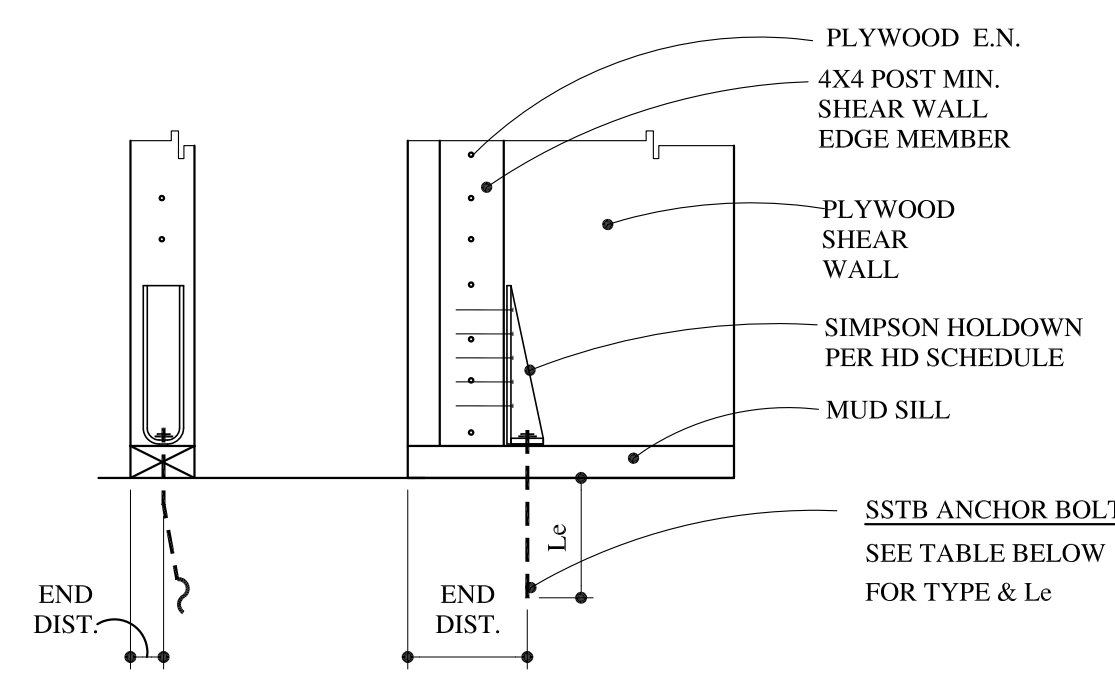
**3.A** CONNECTION  
SCALE=1"=1'-0"



**10** DRAG STRUT @ RIDGE  
SCALE=NTS



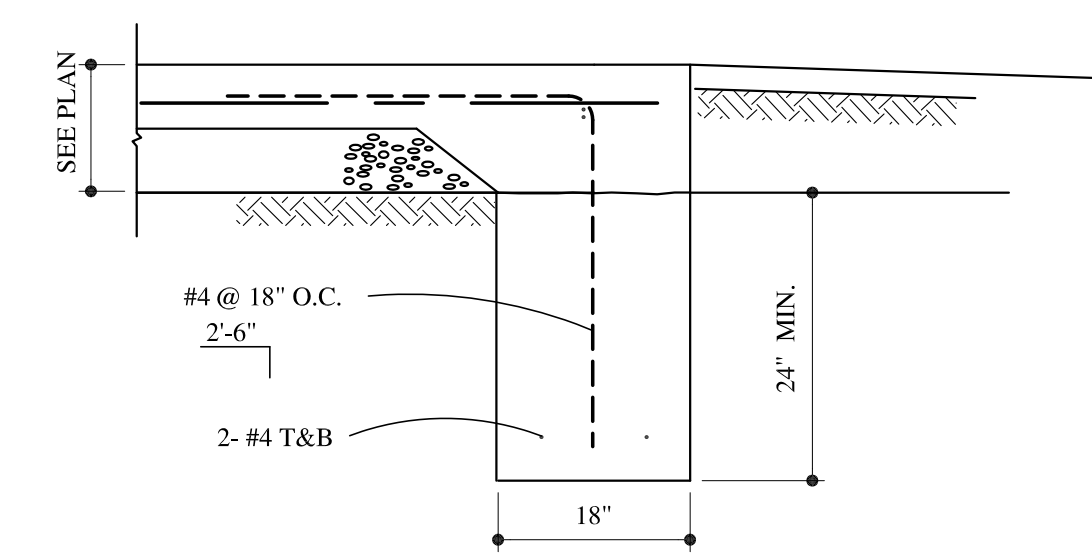
**7** CONNECTION  
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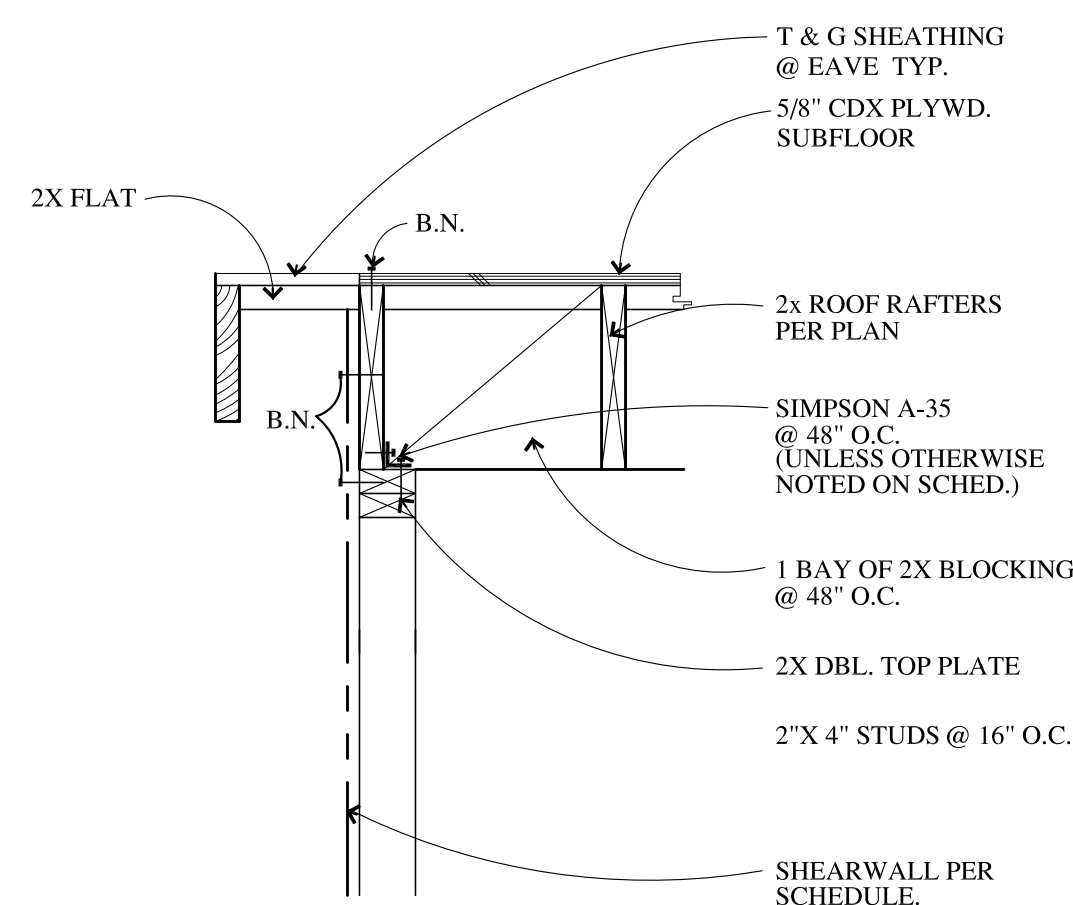
**3** HFX PAD FOOTING  
SCALE=1"=1'-0"

TYPE	le	END DIST.	EDGE DIST.	SSTB DIST.	SCREWS TO POST	COMMENTS	SSTB/AB CAPACITY	HDU CAPACITY
HDU2	12-5/8"	5"	1-3/4"	SSTB16	6	1/4" X 2-1/2" SDS WD. SCREWS	2550	2360
HDU4	16-5/8"	5"	1-3/4"	SSTB20	10	1/4" X 2-1/2" SDS WD. SCREWS	2690	3424
HDU5	20-5/8"	5"	1-3/4"	SSTB24	14	1/4" X 2-1/2" SDS WD. SCREWS	3325	4234
HDU8	24-7/8"	5"	1-3/4"	SSTB28	20	1/4" X 2-1/2" SDS WD. SCREWS	6395	5238

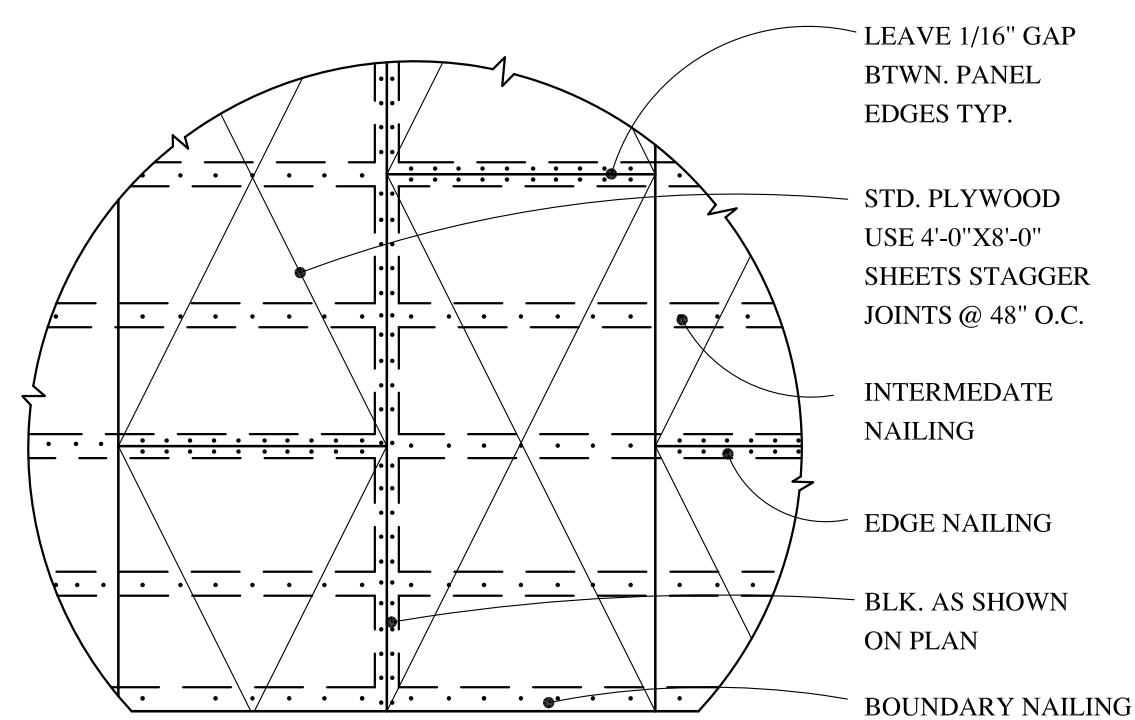
HDU SCHEDULE WITH SSTB



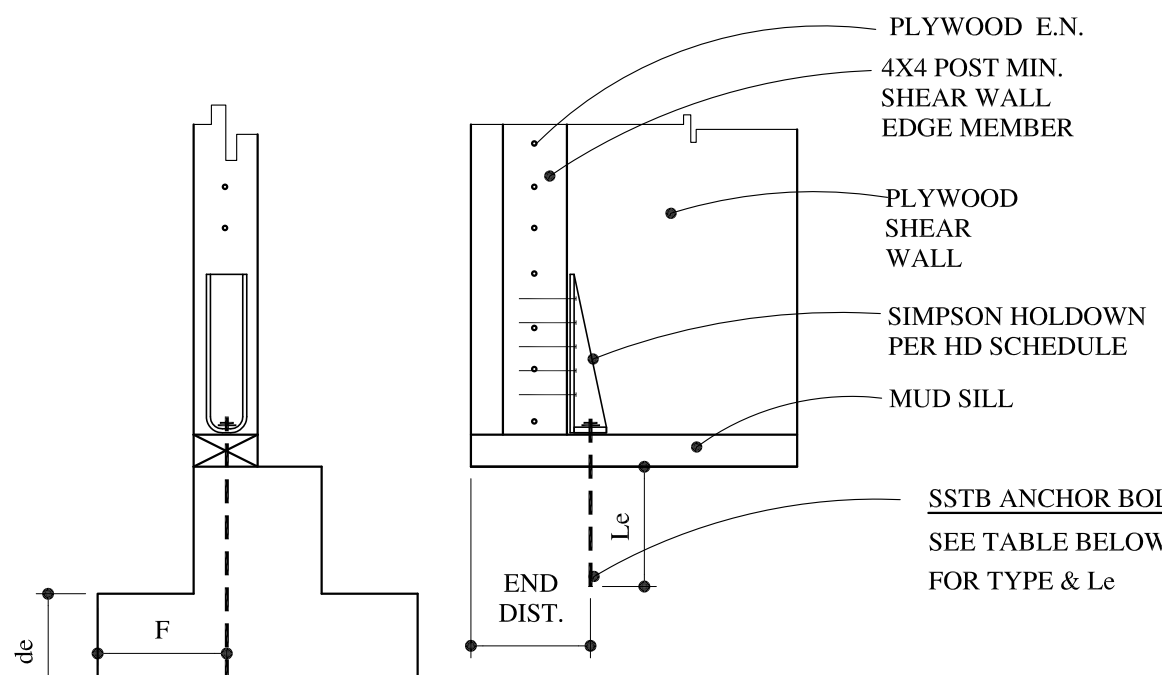
**2** GARAGE FOOTING AT OPENING  
SCALE=1"=1'-0"



**9** RAKE DETAIL  
SCALE=NTS



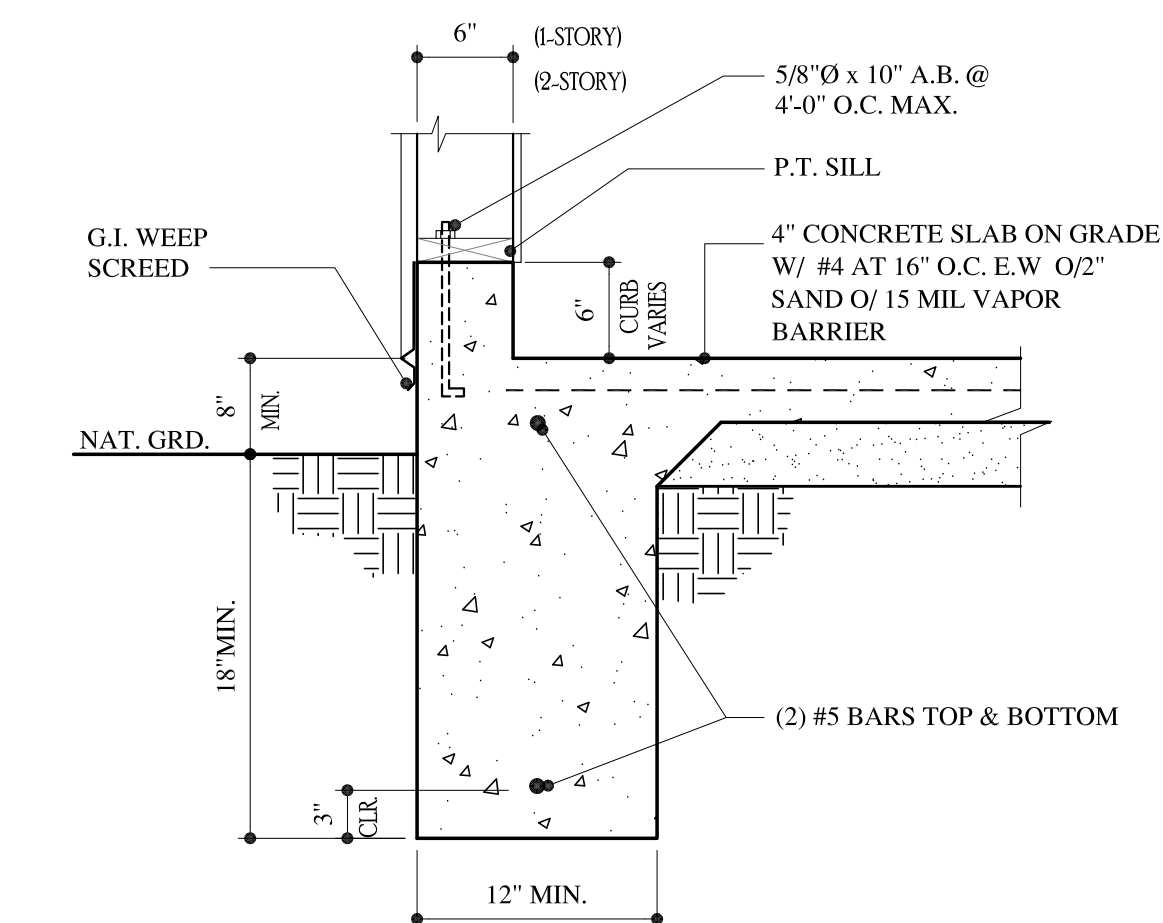
**6** ROOF PLYWOOD  
SCALE=1"=1'-0"



TYPE	de	END DIST.	F. DIST.	PAB	SCREWS TO POST	COMMENTS	PAB CAPACITY	HDU CAPACITY
HDU11	11"	9"	8"	PAB8	30	1/4" X 2-1/2" SDS WD. SCREWS	8400	8381
HDU14	11"	12"	12"	PAB8	36	1/4" X 2-1/2" SDS WD. SCREWS	14000	10781

HDU SCHEDULE WITH PAB

**4** HDU PAT (N) FOOTING  
SCALE=1"=1'-0"



**1** GARAGE FOOTING  
SCALE=1"=1'-0"

NO	DATE	BY	DESCRIPTION	CONST.
△	6-9-2022	JFG	CUP FOR BATHROOM-DELTA-5	
△	9-22-2020	JFG	PLANNING APPROVAL-CCA-DELTA-4	
△	7-14-2020	JFG	ADU GARAGE CONVERSION-BLDG.COM.	
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REVISIONS

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PROJECT NAME  
**DETACHED GARAGE W/ C.U.P. BATHROOM**  
for  
**MR and MRS. SCOVILL**  
035 PALOMA AVENUE  
BURLINGAME, CALIFORNIA 94010

DRAWING TITLE  
**DETAILS**

DATE	ENGINEER	DRAWING NO.
1814	AART ASSINK	SD.1
JOB NO.	SCALE	
DRAWN BY: JFG	AS SHOWN	
REVIEWED BY: JFG	RELEASED TO CONSTRUCTION	
	0.0	

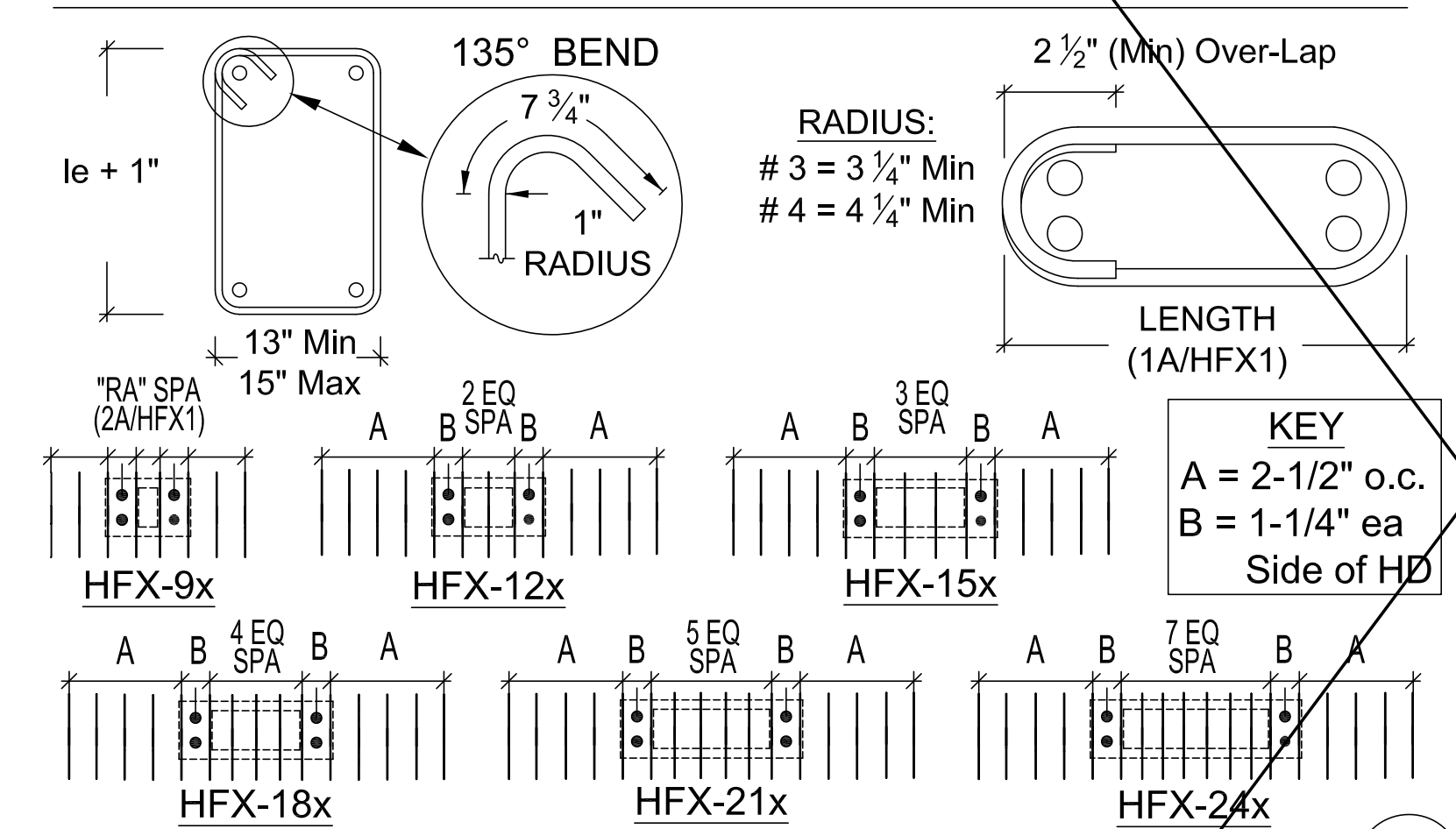
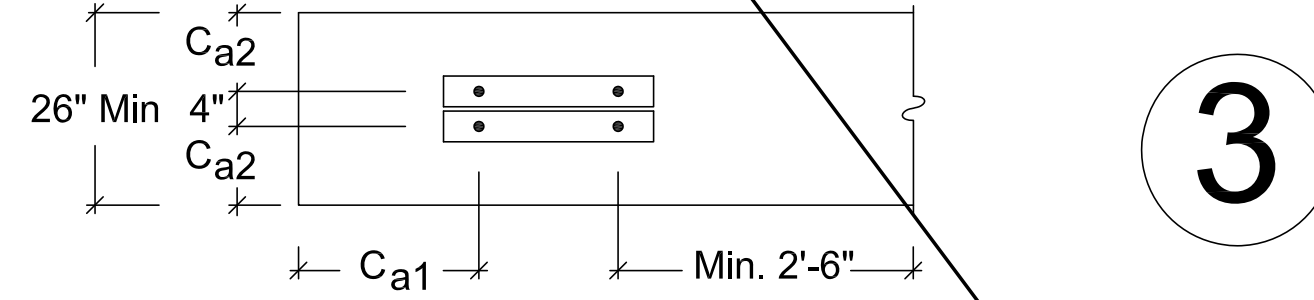
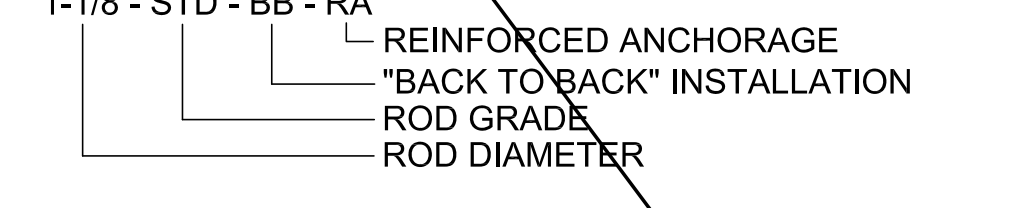




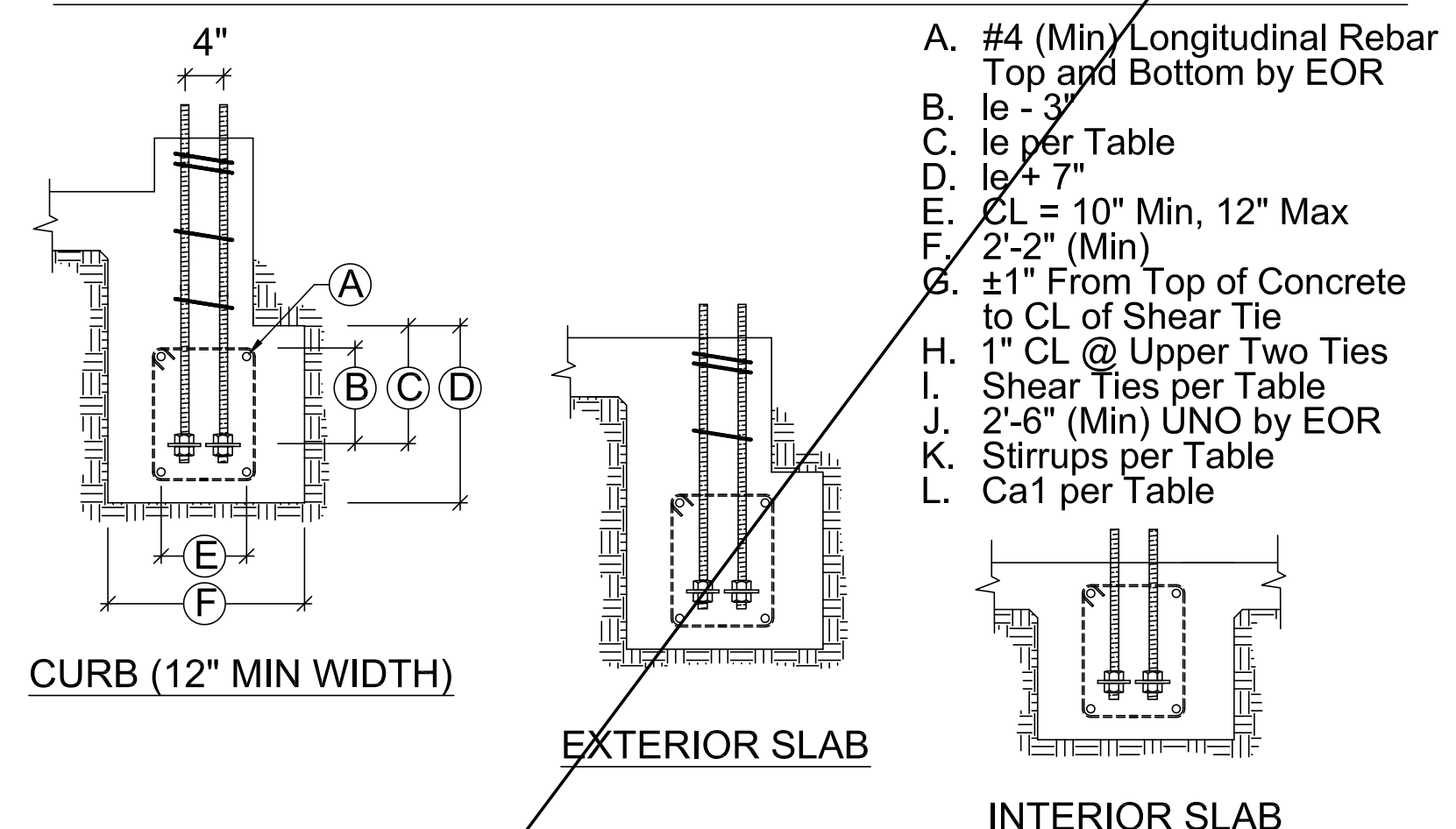
**BACK TO BACK REINFORCED ANCHORAGE (BB-RA)**

Model	Panel Width (in)	Anchorage <sup>1</sup>	Rod Dia (in)	Rod <sup>2,3</sup> Grade	BB-RA			Stirrups <sup>9</sup> (in)	Shear <sup>7</sup> Ties
					le <sup>4</sup> (in)	Ca <sup>1</sup> (in)	Ca <sup>2</sup> (in)		
HFX-9x	9	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA							
HFX-15x	15	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA	STD HS	23	20-5/8	11	14 - # 4	# 4 (min) @ 4" OC	
HFX-18x	18	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA	STD HS						23
HFX-21x	21	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA	STD HS	23	20-5/8	11	16 - # 4	# 4 (min) @ 4" OC	
HFX-24x	24	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA	STD HS						23

**BACK TO BACK REINFORCED ANCHORAGE NOMENCLATURE**



**BB-RA SHEAR TIES & STIRRUPS 3A**

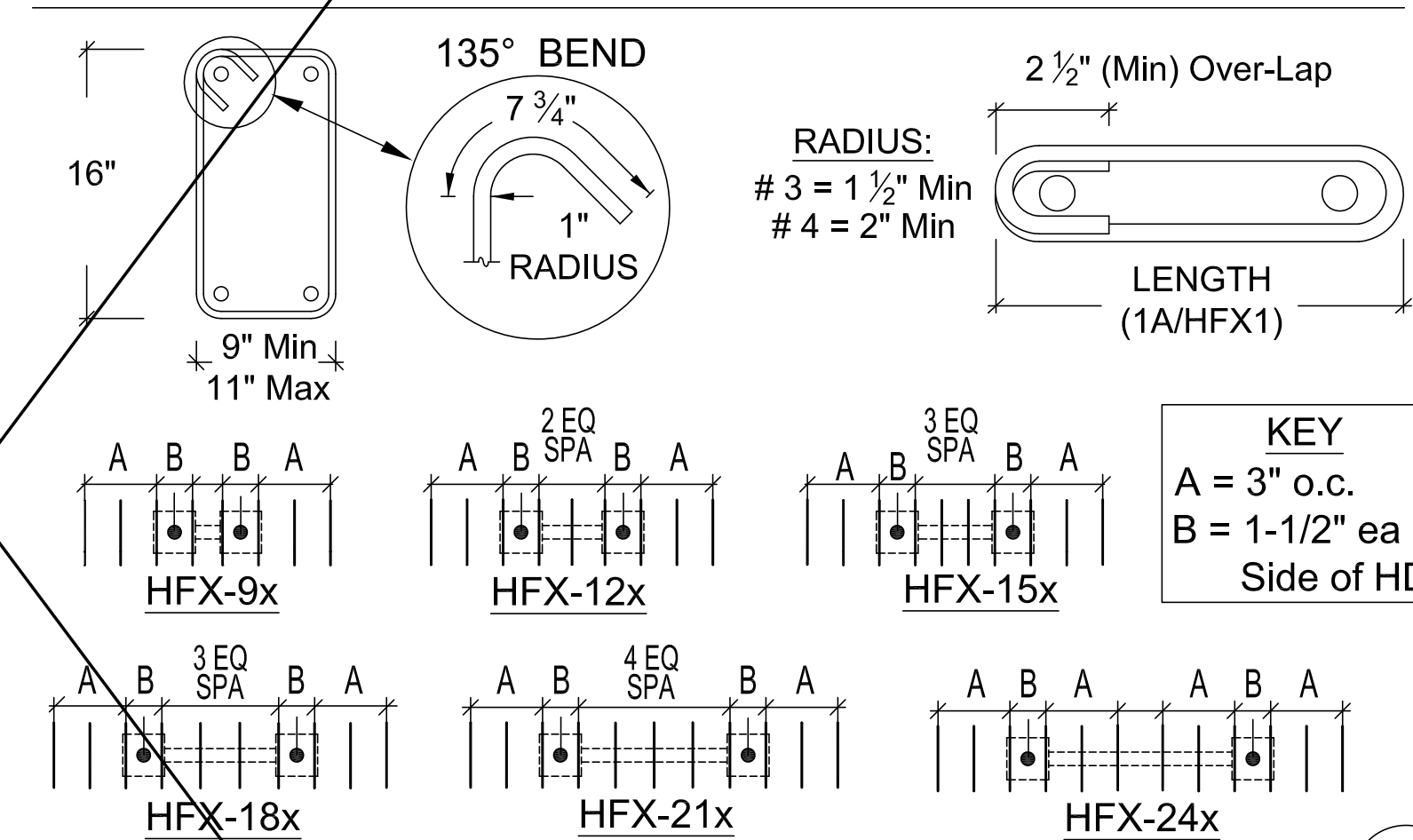
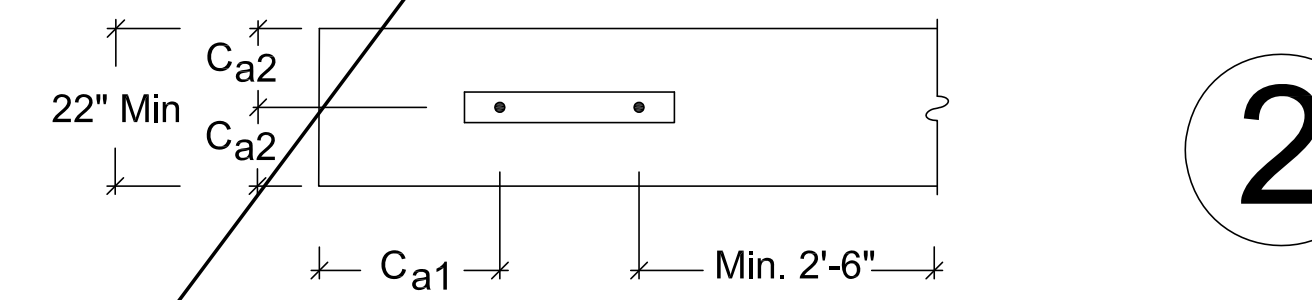
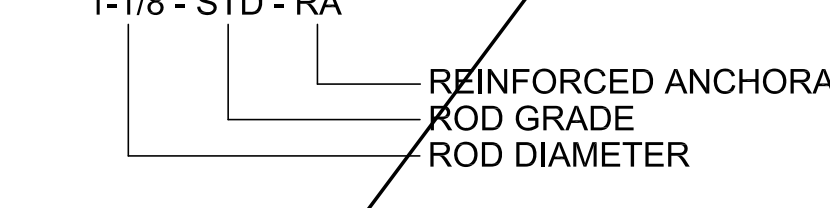


**BB-RA SECTIONS & ELEVATIONS 3B**

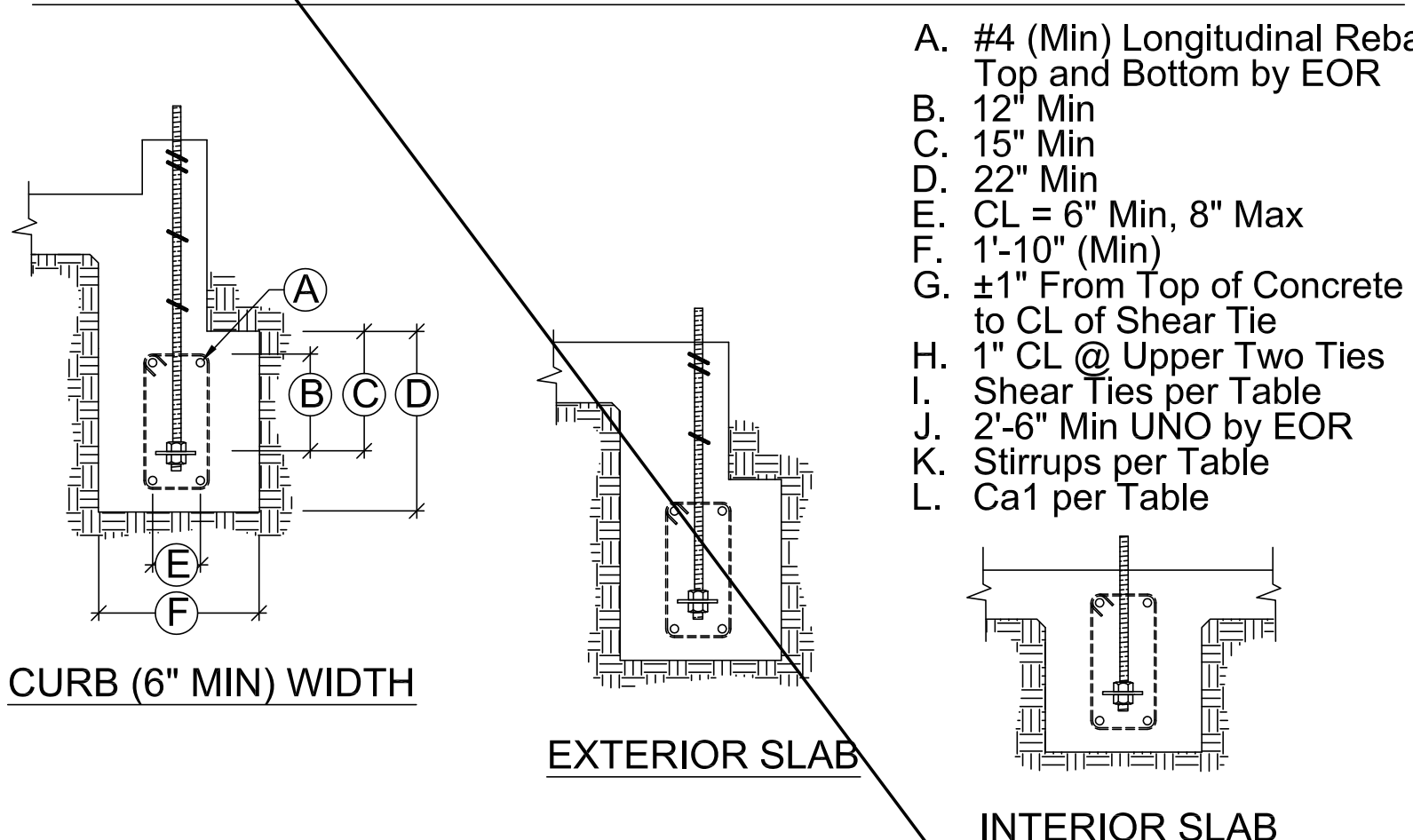
**REINFORCED ANCHORAGE (RA)**

Model	Panel Width (in)	Anchorage <sup>1</sup>	Rod Dia (in)	Rod <sup>2,3</sup> Grade	RA			Stirrups <sup>9</sup> (in)	Shear <sup>7</sup> Ties
					le <sup>4</sup> (in)	Ca <sup>1</sup> (in)	Ca <sup>2</sup> (in)		
HFX-9x	9	1-1/8-STD-RA	1-1/8	STD	15	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-RA 1-1/8-HS-RA							
HFX-15x	15	1-1/8-STD-RA 1-1/8-HS-RA	STD HS	23	20-5/8	11	14 - # 4	# 4 (min) @ 4" OC	
HFX-18x	18	1-1/8-STD-RA 1-1/8-HS-RA	STD HS						23
HFX-21x	21	1-1/8-STD-RA 1-1/8-HS-RA	STD HS	23	20-5/8	11	16 - # 4	# 4 (min) @ 4" OC	
HFX-24x	24	1-1/8-STD-RA 1-1/8-HS-RA	STD HS						23

**REINFORCED ANCHORAGE NOMENCLATURE**



**RA SHEAR TIES & STIRRUPS 2A**

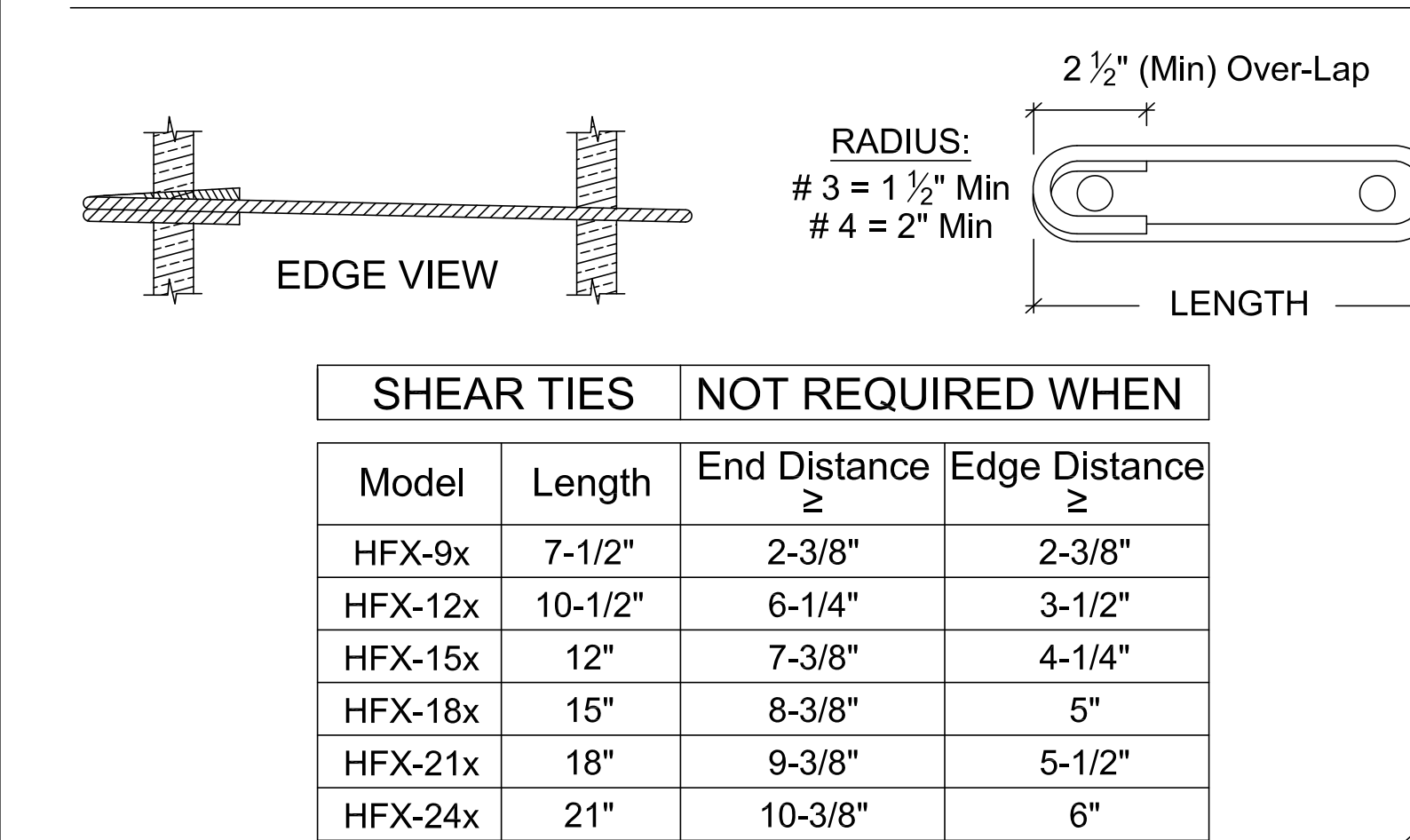
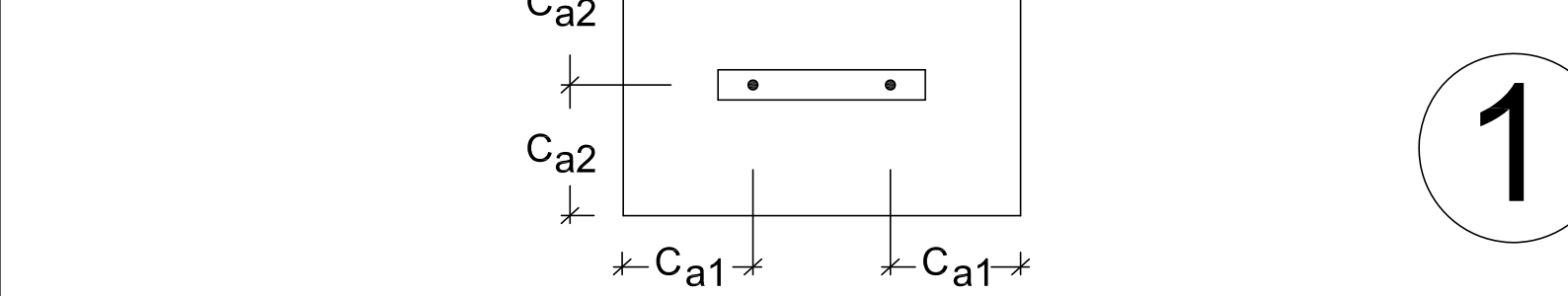
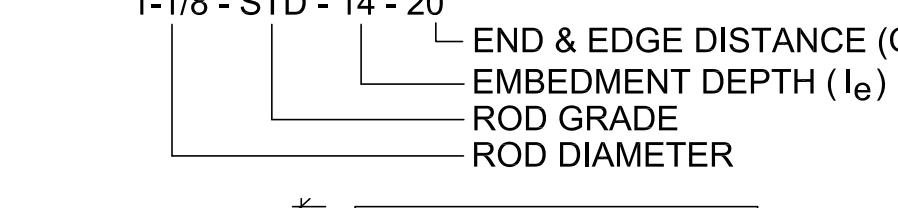


**RA SECTIONS & ELEVATIONS 2B**

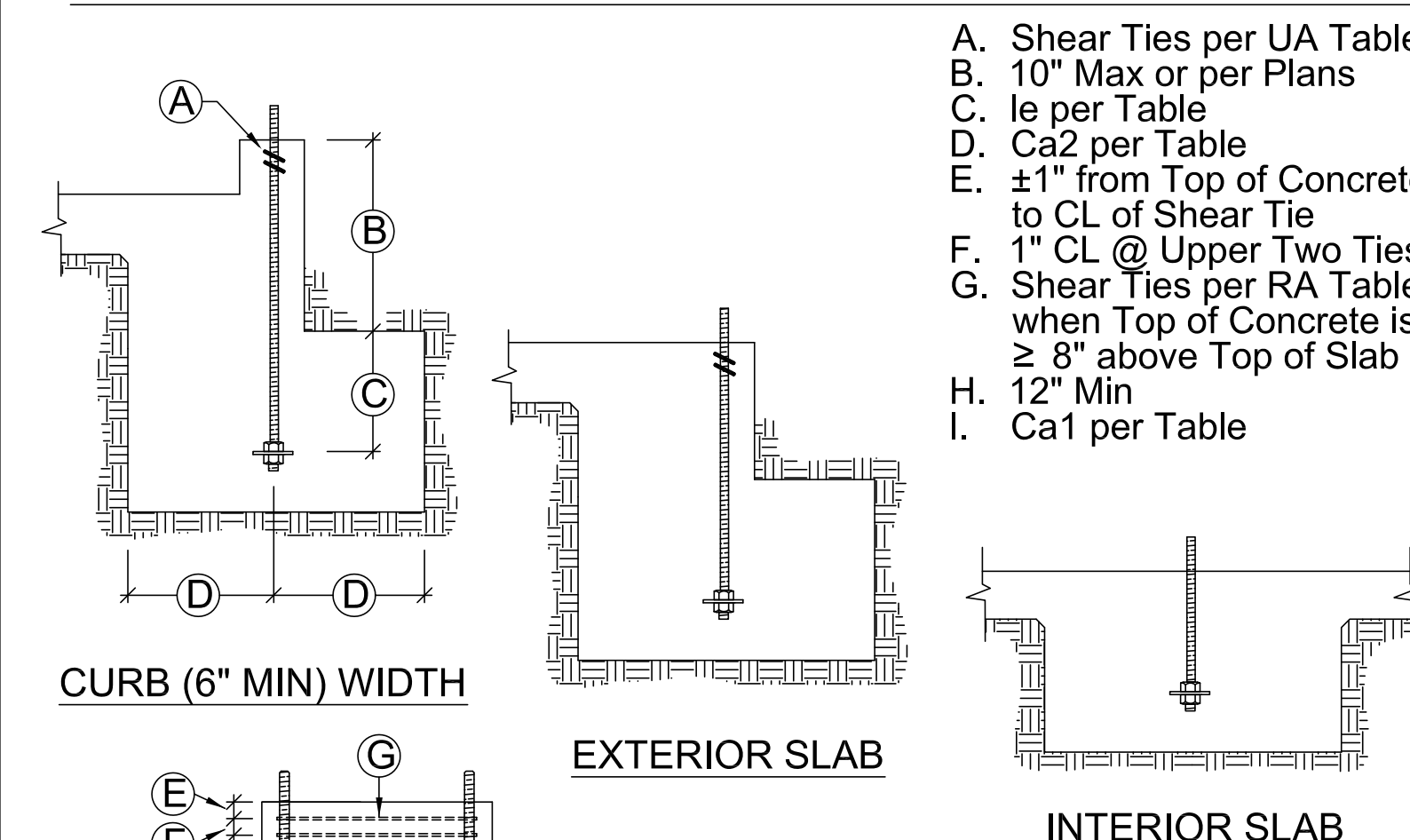
**UNREINFORCED ANCHORAGE (UA)**

Model	Panel Height	Anchorage <sup>1</sup>	Rod Dia (in)	Rod <sup>2,3</sup> Grade	UA		Shear <sup>7,8</sup> Ties
					le <sup>4</sup> (in)	Ca <sup>1</sup> <sup>5</sup> & Ca <sup>2</sup> <sup>6</sup> (in)	
HFX-9x	79.5" - 8'	1-1/8-STD-13-19	1-1/8	STD	13	19	1 - # 3
HFX-12x	78" - 10'	1-1/8-HS-20-30			20	30	
HFX-15x, 18x	78" - 13'	1-1/8-STD-14-20	1-1/8	HS	14	20	2 - # 3
HFX-15x, 18x Balloon	14' - 20'	1-1/8-HS-20-30			20	30	
HFX-21x, 24x	78" - 13'	1-1/8-STD-14-20 1-1/8-HS-23-34	1-1/8	STD	14	20	2 - # 3
HFX-21x, 24x Balloon	14' - 20'	1-1/8-HS-20-30			23	34	

**UNREINFORCED ANCHORAGE NOMENCLATURE**



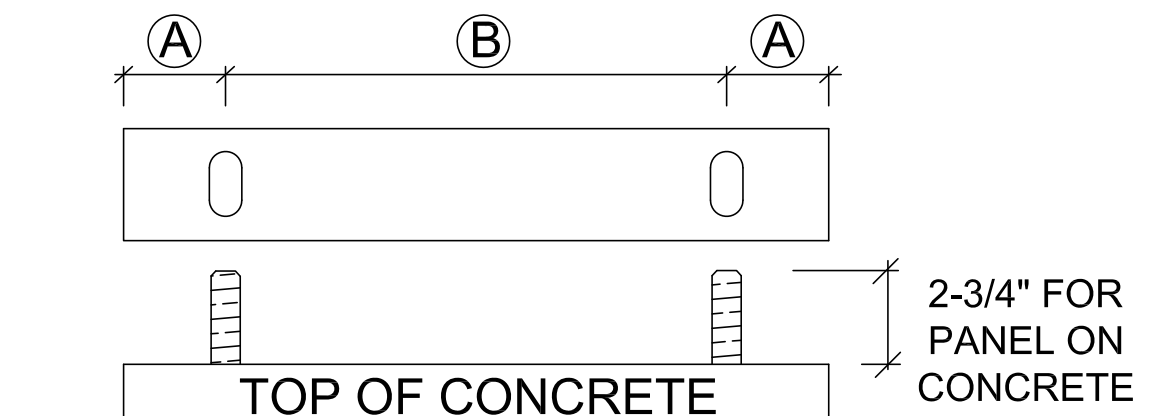
**UA SHEAR TIES 1A**



**UA SECTIONS & ELEVATIONS 1B**

**TABLE NOTES**

- DESIGNS ARE TO RESIST LOADING PER ACI 318-14, SECTION 17.2.3.4.3.
- STD INDICATES ANCHORS COMPLYING WITH ASTM F1554 GRADE 36 WITH A HARDY FRAME BOLT BRACE (HFXBB) INSTALLED WITH DOUBLE NUTS ON THE EMBED END.
- HS INDICATES ANCHORS COMPLYING WITH ASTM A193 GRADE B7 WITH A 1/2"x3"x3"(MIN) HFPW PLATE WASHER INSTALLED WITH DOUBLE NUTS ON THE EMBED END (HFXBB NOT REQUIRED).
- LE = LENGTH OF EMBEDMENT FROM THE TOP OF FOOTING OR GRADE BEAM TO THE TOP OF THE HFXBB BOLT BRACE (TOP OF THE EMBEDDED HFPW PLATE WASHER @ HS ANCHORS)
- CA1 = DISTANCE FROM HD CENTERLINE TO THE END OF THE FOOTING OR GRADE BEAM.
- CA2 = DISTANCE FROM HD CENTERLINE TO BOTH THE FRONT AND THE BACK FACE OF THE FOOTING OR GRADE BEAM.
- SHEAR TIES ARE GRADE 60 (MIN) REBAR AND REQUIRED FOR NEAR EDGE DISTANCE CONDITIONS PER ACI-318-14, F'C = 2,500 PSI. CURBS AND STEM WALLS MUST BE 6 INCH (MIN) WIDTH FOR UA AND RA, 12 INCH (MIN) WIDTH FOR BB-RA.
- FOR UA APPLICATIONS, ADDITIONAL TIES MAY BE REQUIRED AT STEM WALLS. SHEAR TIES ARE NOT REQUIRED FOR INSTALLATION AWAY FROM EDGE (SEE DETAIL 1A), INSTALLATION ON WOOD FRAMING, OR FOR IRC BRACED WALL PANEL APPLICATIONS.
- STIRRUPS ARE GRADE 60 (MIN) REBAR. SEE TABLE FOR SIZE AND SPACING. SEE "STIRRUP LAYOUT" DIAGRAMS AND "KEY" FOR LAYOUT PATTERNS.
- CONCRETE EDGE DISTANCES MUST COMPLY WITH ACI 318-14, SECTION 17.7.1



Model	Width	A	B
HFX-9x	9"	1-3/4"	5-1/2"
HFX-12x	12"		8-1/2"
HFX-15x	15"	2-5/8"	9-3/4"
HFX-18x	18"		12-3/4"
HFX-21x	21"		15-3/4"
HFX-24x	24"		18-3/4"

**HFX ANCHOR CENTERLINES A**

**IMPORTANT!**

- ANCHORAGE IS DESIGNED FOR TENSION AND SHEAR TRANSFER ONLY, FOUNDATION DESIGN PER EOR.
- REINFORCEMENT SHOWN IS THE MINIMUM REQUIREMENT AND IS NOT INTENDED TO REPLACE REINFORCEMENT DESIGNED BY THE EOR.
- FOR RA AND BB-RA INSTALLATIONS, THE HFXBB BOLT BRACE MAY BE PLACED ON TOP OF THE STIRRUPS WITH DOUBLE-NUTS INSTALLED AT EMBED END OF STANDARD GRADE ANCHOR RODS. (NOTE: 1/2" x 3" x 3" MIN. HFPW PLATE WASHERS ARE REQUIRED TO BE DOUBLE-NUTTED AT EMBED END OF HIGH STRENGTH ANCHOR RODS.)
- HIGH STRENGTH ALL-THREAD RODS PROVIDED BY HARDY FRAMES ARE STAMPED ON BOTH ENDS.



**IMPORTANT NOTES B**

REVISIONS DATE

**ANCHORAGE DETAILS - HFX PANELS**

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

**HARDY FRAME**  
SHEARWALL SYSTEM

1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
TELEPHONE: 800 754-3030 / www.hardyframe.com

**MiTek**

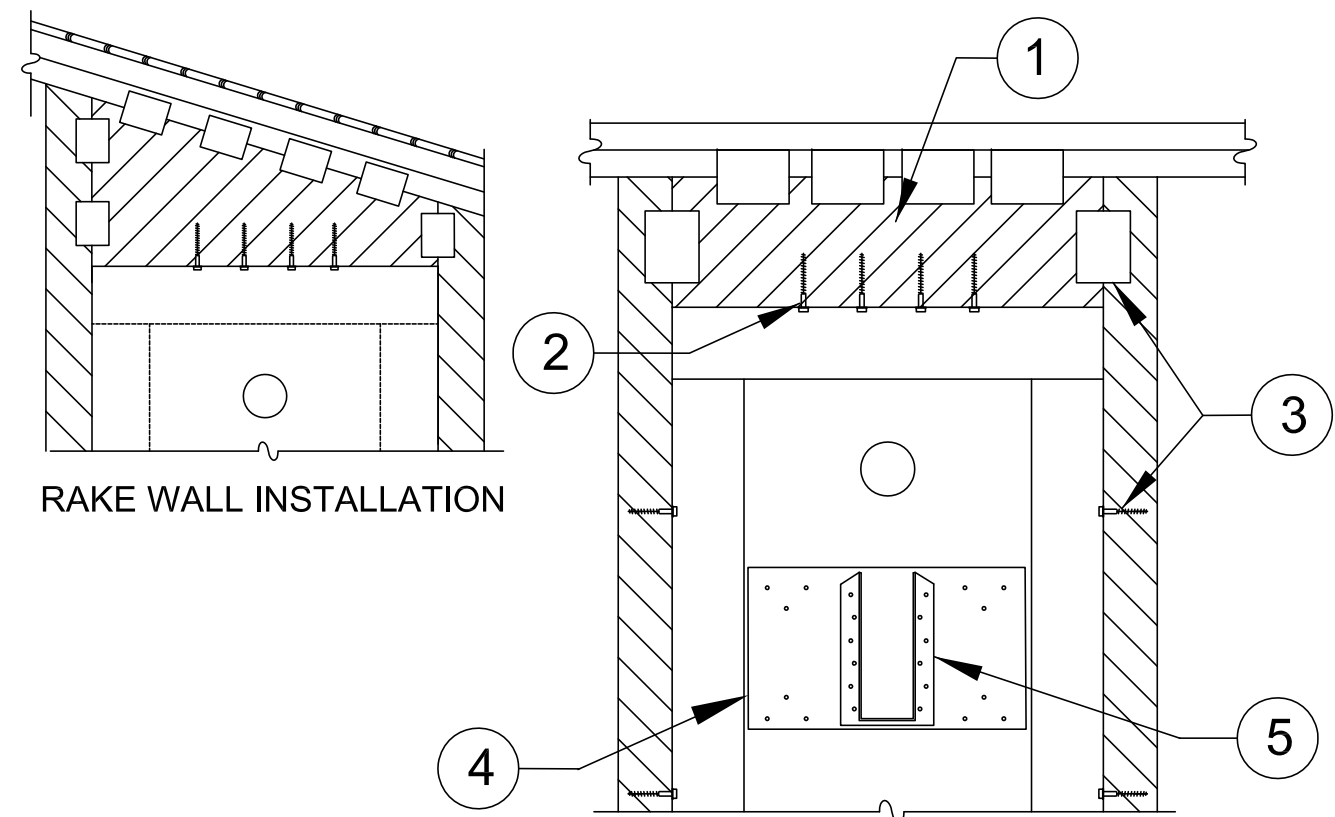
DATE: 1-1-2018

**HFX1**

**SECTION A**

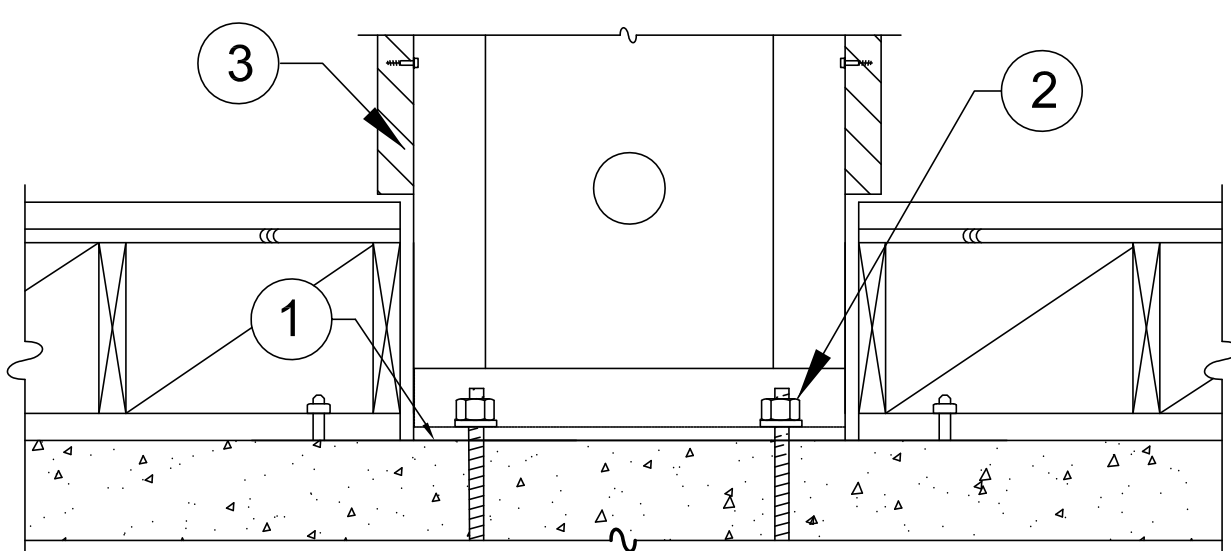
1. CAVITY ORIENTED FOR CONNECTION ACCESS.
2. NUTS AND WASHERS PER TABLE NOTE 1.
3. NOMINAL 8 INCH FRAMING ABOVE (MIN).
4. A 2x FILLER WITH 1/4" x 4-1/2" MINIMUM WS SCREWS IS PERMITTED.
5. FIELD INSTALLED WOOD BACKING AS NEEDED.

**BACK TO BACK INSTALLATION**



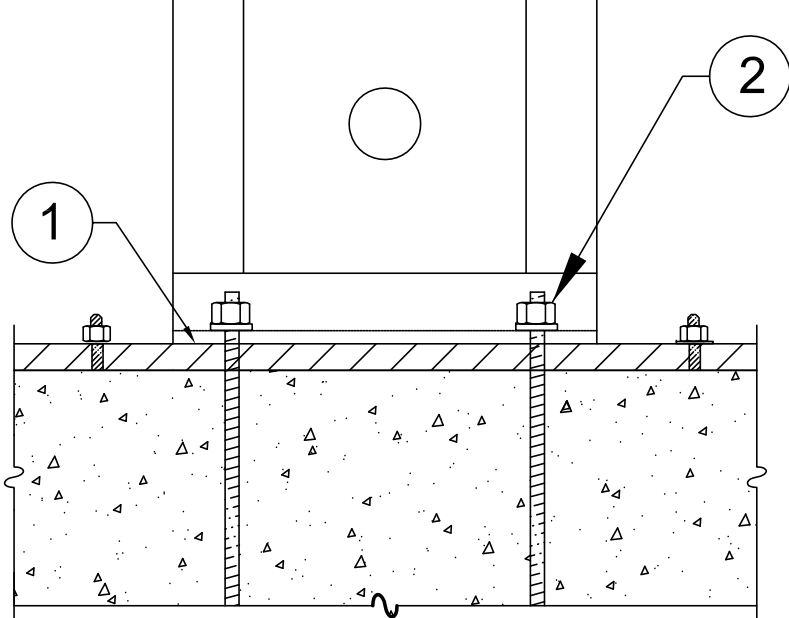
1. WOOD FILLER WITH USP MP4F CONNECTORS BOTH SIDES, QUANTITY BY BUILDING DESIGN PROFESSIONAL.
2. 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS INSTALLED THROUGH PRE-PUNCHED HOLES IN PANEL EDGES REQUIRED WHEN INSTALLING A FILLER GREATER THAN 1-1/2" ABOVE TO BRACE OUT-OF-PLANE HINGE OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.
4. PRE-DRILL 3/16" DIA. HOLES, EVENLY SPACED IN FACE OF PANEL NO LESS THAN 2-1/4" OC AND INSTALL 1/4" DIA. WOOD SCREWS INTO 2x (MIN.) WOOD "LEDGER" IN PANEL CAVITY.
5. CONNECTOR AND ATTACHMENT BY BUILDING DESIGN PROFESSIONAL.

**FILLER GREATER THAN 1-1/2 IN.**



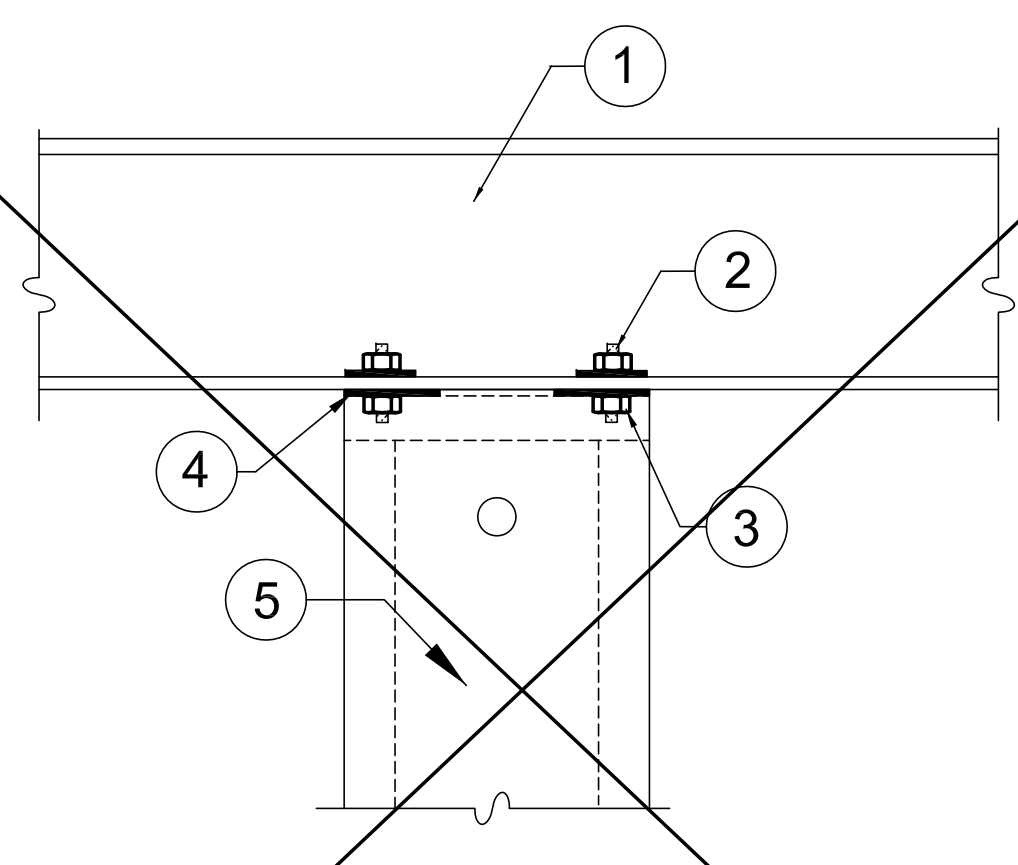
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. NUTS AND WASHERS PER TABLE NOTE 1.
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS INSTALLED AT THE PANEL EDGES WHEN INSTALLING A FILLER GREATER THAN 1-1/2" ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.

**RAISED FLOOR HEAD-OUT**



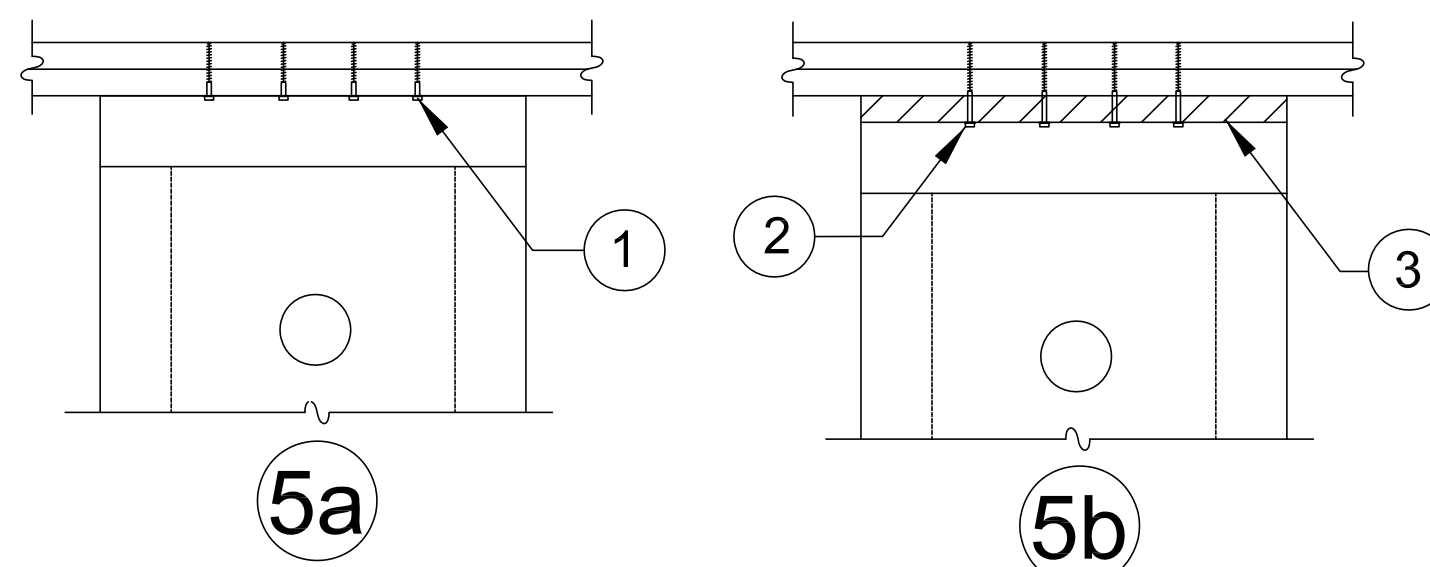
- ALLOWABLE VALUES ON 2x PLATE ARE LESS THAN INSTALLATION ON CONCRETE
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND TREATED PLATE.
  2. NUTS AND WASHERS PER TABLE NOTE 1.

**INSTALLATION ON 2x PLATE**



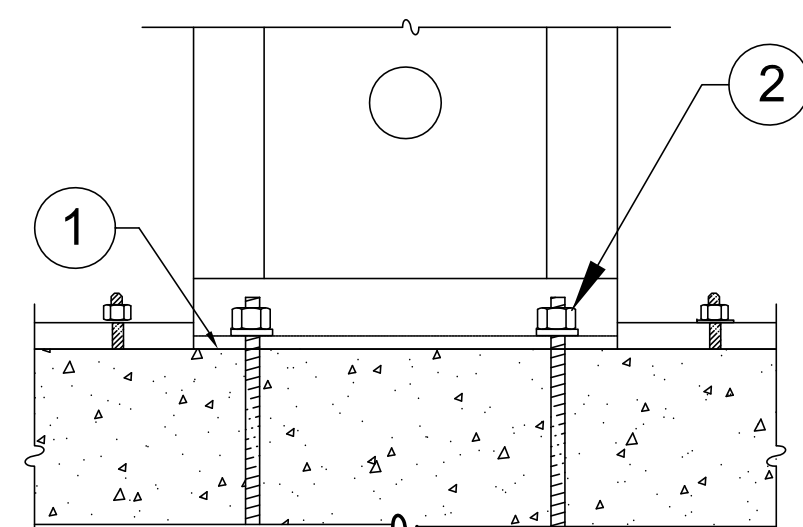
1. STEEL BEAM PER PLANS
2. ALL THREAD RODS THRU-BOLTED TO STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
3. NUTS AND WASHERS PER TABLE NOTE 1.
4. HARDY FRAME™ STACKING WASHERS (HFSW) (REQUIRED TO BE WELDED INSIDE TOP CHANNEL OF LOWER PANEL.
5. HARDY FRAME™ "STK" PANEL WITH STACKING WASHERS WELDED INSIDE THE TOP CHANNEL BY MANUFACTURER.

**STEEL BEAM ABOVE THRU-BOLT**



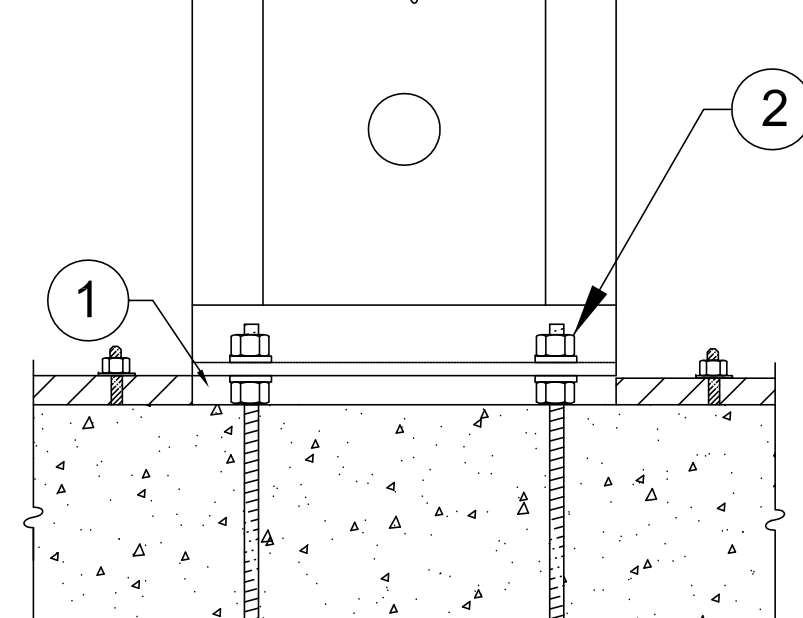
1. 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
2. 1/4" x 4-1/2" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
3. 2x WOOD FILLER.

**TOP PLATE CONNECTIONS**



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. NUTS AND WASHERS PER TABLE NOTE 1.

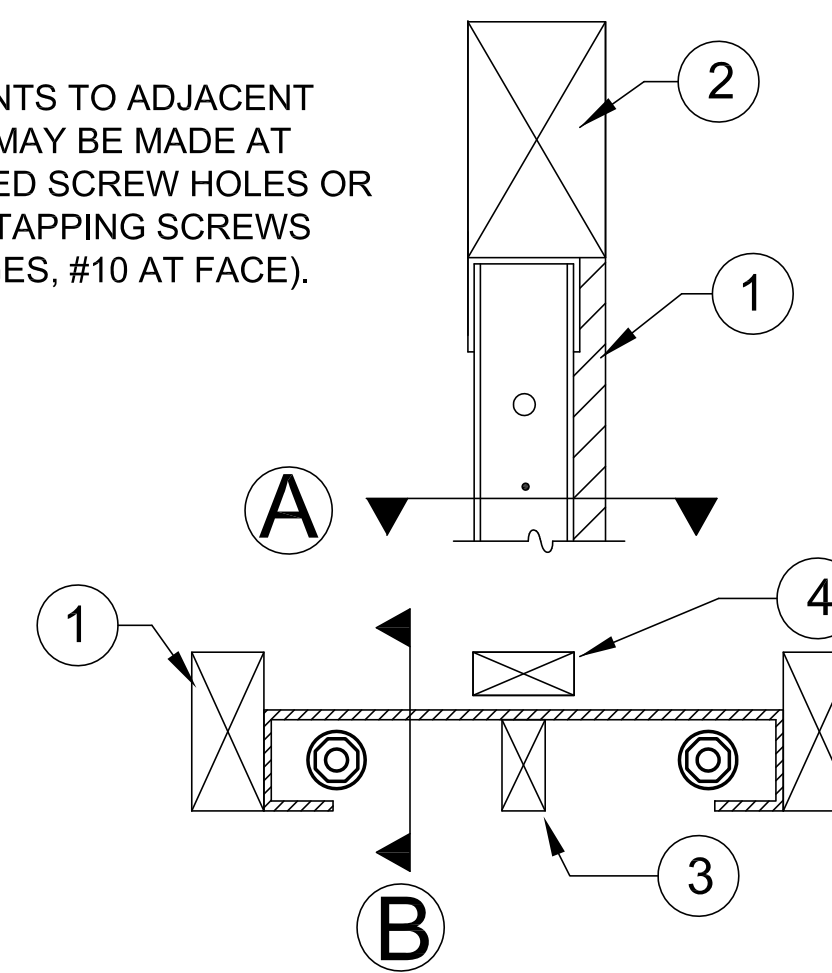
**INSTALLATION ON CONCRETE**



- ALLOWABLE VALUES ON N&W ARE LESS THAN INSTALLATION ON CONCRETE
1. PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH 5,000 PSI NON-SHRINK GROUT (MINIMUM).
  2. NUT AND WASHER GRADES PER TABLE NOTE 1.

**INSTALLATION ON NUTS & WASHERS**

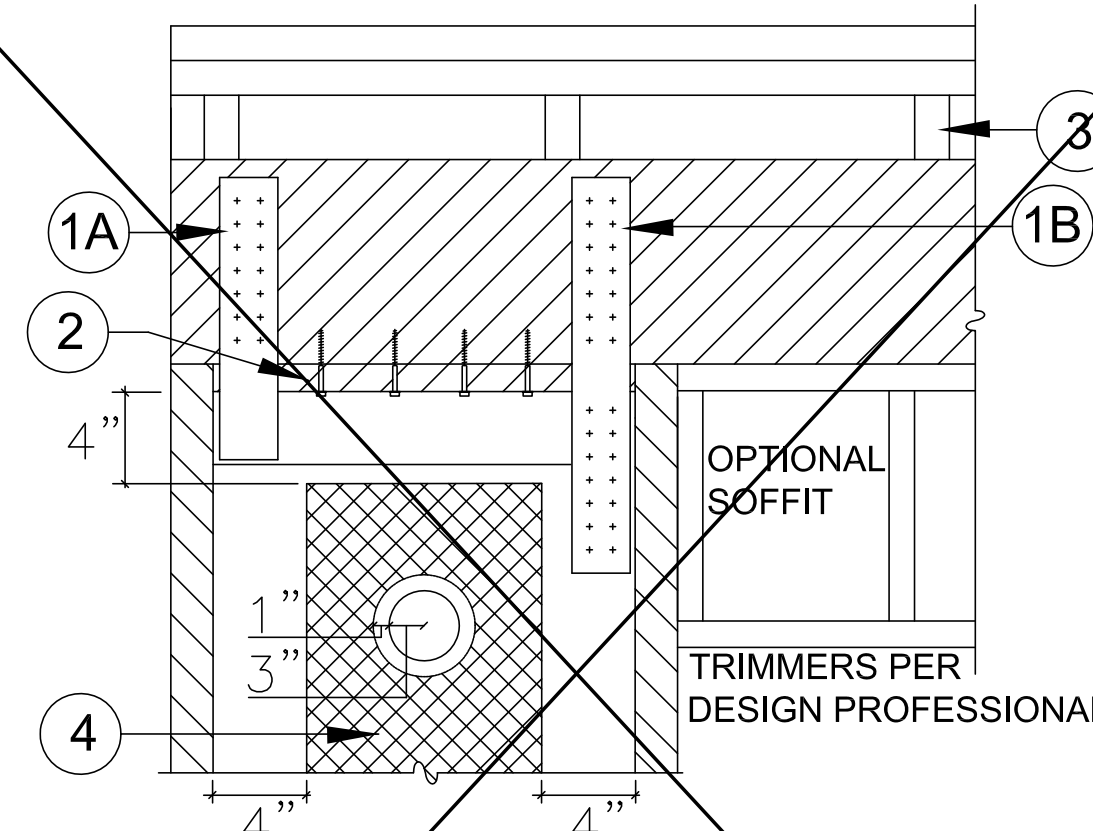
**NOTE:**  
ATTACHMENTS TO ADJACENT TRIMMERS MAY BE MADE AT PREPUNCHED SCREW HOLES OR WITH SELF TAPPING SCREWS (#12 AT EDGES, #10 AT FACE).



1. TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY BUILDING DESIGN PROFESSIONAL.
2. 6x HEADER.
3. WOOD MEMBERS FOR BACKING MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN THE PANEL CAVITY AS NEEDED.
4. WOOD MEMBER FLUSH TO FACE OF WALL FOR BACKING AS NEEDED.

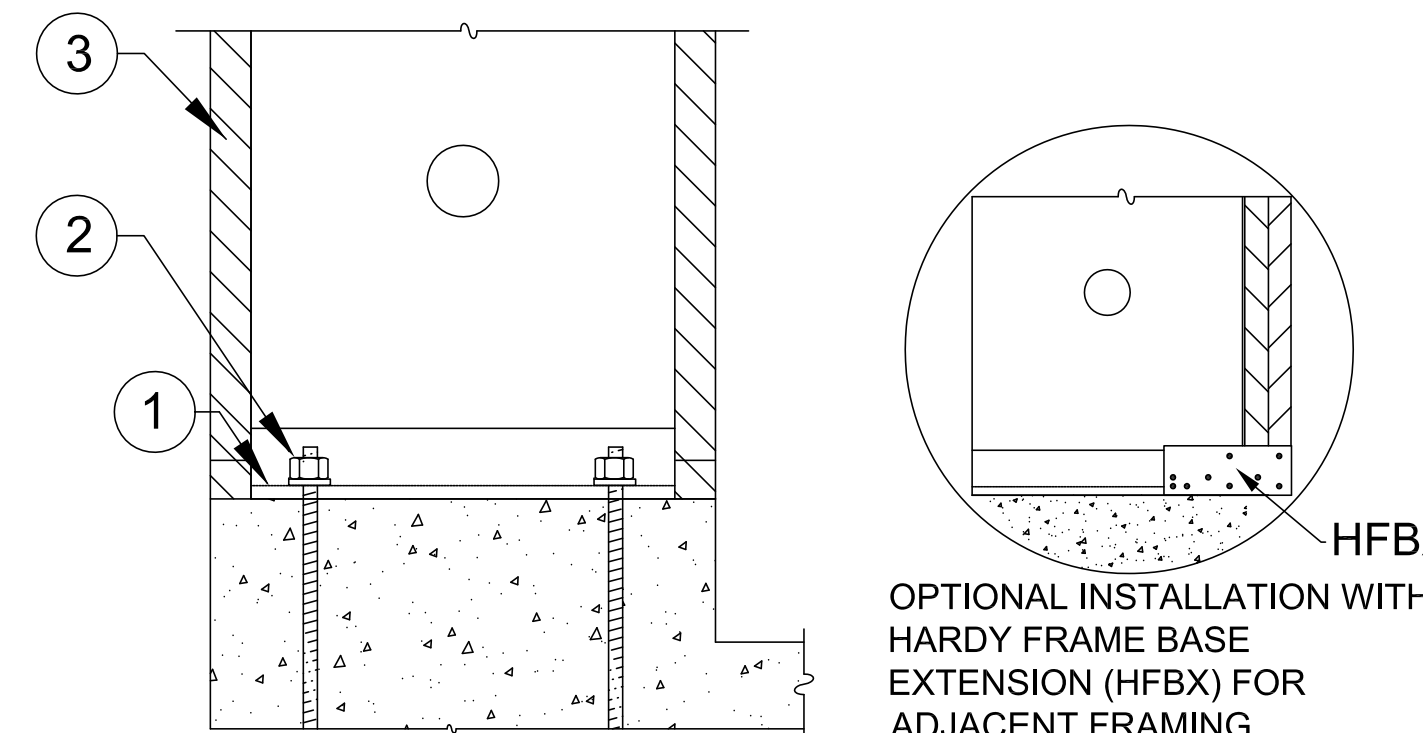
**6x HEADER ABOVE-SECTIONS**

**NOTE:**  
TO PREVENT DRILLING ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.



1. (A) PRE-WELDED STRAPS ARE PROVIDED ON 78" AND 79-1/2" PANEL HEIGHTS. THEY ARE AVAILABLE FOR OTHER HEIGHTS UPON REQUEST. (B) FIELD INSTALLED STRAPS WITH SELF TAPPING SCREWS ARE PERMITTED. THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL.
2. A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) WS SCREWS IS PERMITTED.
3. WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE BUILDING DESIGN PROFESSIONAL.
4. A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MINIMUM FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST BE OFFSET 1" MINIMUM FROM THE 3" DIA. PREPUNCHED HOLE. FOR HOLES LARGER THAN 1" DIAMETER OR TO ADD MORE THAN ONE HOLE CONTACT MITEK HARDY FRAME TECHNICAL SUPPORT AT (800) 754-3030.

**TOP CONNECTION TO HEADER**



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. NUTS AND WASHERS PER TABLE NOTE 1.
3. ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

**INSTALLATION ON CURB**

**SECTION B**

**SECTION A**

**HFX PANELS 78 IN. THROUGH NOMINAL 13 FEET**

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-12,15,18,21 & 24x78	78	3-1/2	1-1/8	9" Width = 5	4
HFX-9x79.5	79-1/2			12" Width = 6	
HFX-12,15,18,21 & 24x8	92-1/4	3-1/2	1-1/8	15" Width = 8	5
HFX-9x8	93-3/4			18" Width = 10	
HFX-12,15,18,21 & 24x9	104-1/4	3-1/2	1-1/8	21" Width = 12	6
HFX-12,15,18,21 & 24x10	116-1/4			24" Width = 14	
HFX-15,18,21 & 24x11	128-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x12	140-1/4			18" Width = 10	
HFX-15,18,21 & 24x13	152-1/4	3-1/2	1-1/8	21" Width = 12	7
HFX-15,18,21 & 24x14	164-1/4			24" Width = 14	
HFX-15,18,21 & 24x15	176-1/4	3-1/2	1-1/8	18" Width = 10	8
HFX-15,18,21 & 24x16	188-1/4			21" Width = 12	
HFX-15,18,21 & 24x17	200-1/4	3-1/2	1-1/8	24" Width = 14	8
HFX-15,18,21 & 24x18	212-1/4			15" Width = 8	
HFX-15,18,21 & 24x19	224-1/4	3-1/2	1-1/8	18" Width = 10	7
HFX-15,18,21 & 24x20	236-1/4			21" Width = 12	

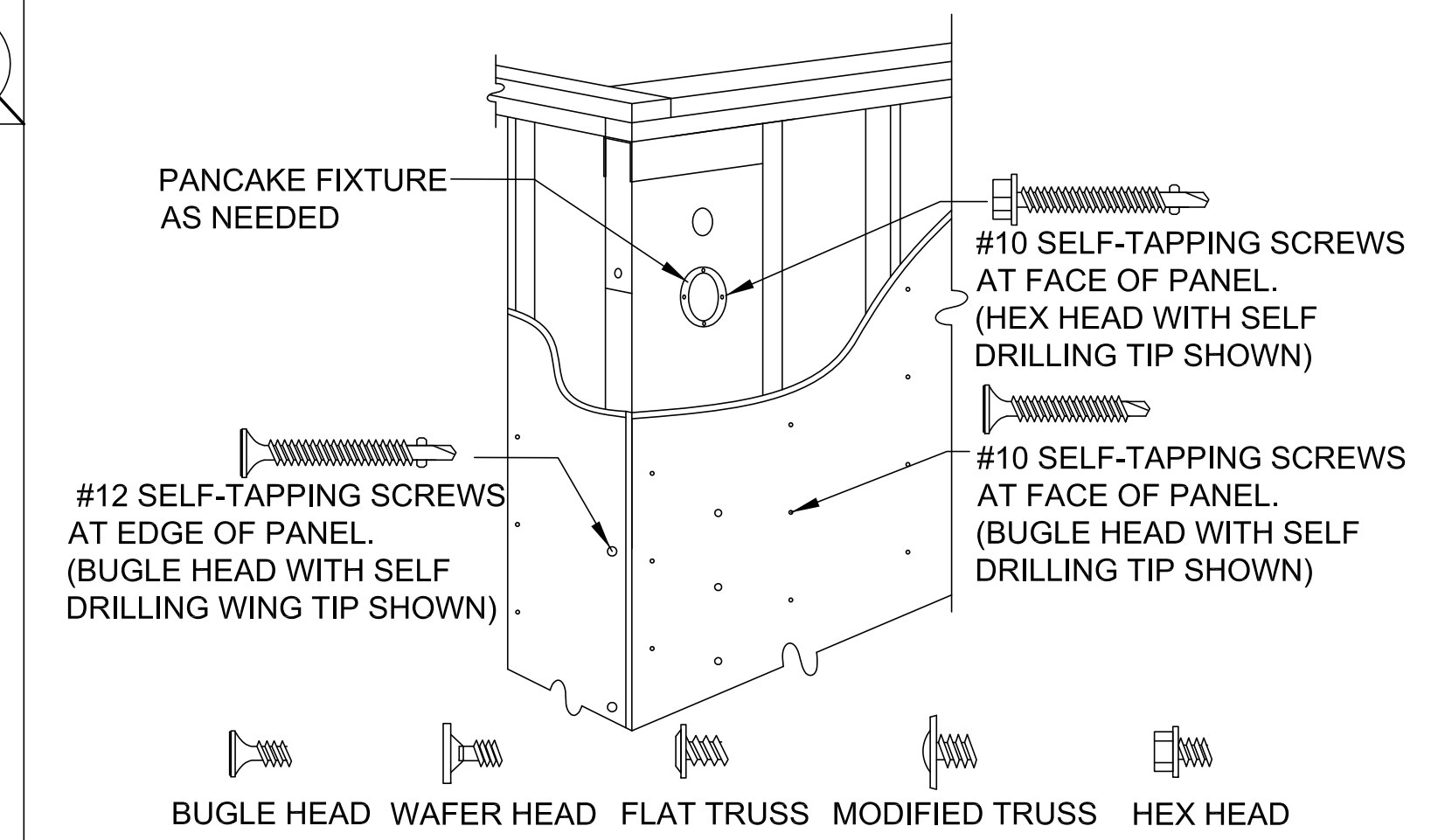
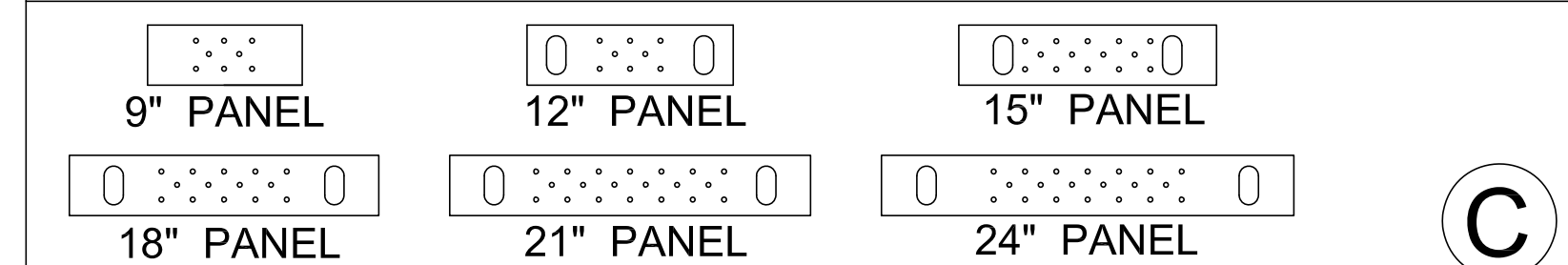
**BALLOON PANELS 14 FEET THROUGH 20 FEET**

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	
HFX-15,18,21 & 24x16	188-1/4	3-1/2	1-1/8	21" Width = 12	7
HFX-15,18,21 & 24x17	200-1/4			24" Width = 14	
HFX-15,18,21 & 24x18	212-1/4	3-1/2	1-1/8	15" Width = 8	8
HFX-15,18,21 & 24x19	224-1/4			18" Width = 10	
HFX-15,18,21 & 24x20	236-1/4	3-1/2	1-1/8	21" Width = 12	8
HFX-15,18,21 & 24x21	248-1/4			24" Width = 14	

1. HOLD DOWN ANCHOR BOLTS CONNECT TO THE PANEL BASE WITH HARDENED ROUND WASHERS BELOW GRADE 8 NUTS. ALTERNATE WASHERS ARE (2 EA) ROUND-FLAT OR (2 EA) SAE WASHERS ON EACH BOLT. ALTERNATE NUTS ARE 2H HEAVY HEX.
2. 1/4" DIAMETER MITEK® PRO SERIES™ WS SCREWS. LENGTH IS 3" (MINIMUM) WHEN ATTACHED DIRECTLY TO THE COLLECTOR AND 4-1/2" (MINIMUM) WHEN INSTALLING A 2x FILLER ABOVE THE PANEL.
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS REQUIRED AT THE PANEL EDGES WHEN INSTALLING A FILLER ABOVE THE TOP CHANNEL THAT IS GREATER THAN 1-1/2" OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.

**INSTALLATION INSTRUCTIONS**

1. WHEN INSTALLING ON CONCRETE CONNECT WITH (1 EA) HARDENED ROUND WASHER BELOW (1 EA) GRADE 8 NUT, SECURE WITH A DEEP SOCKET (RECOMMENDED) UNTIL SNUG TIGHT. ALTERNATE WASHERS AND NUTS ARE PROVIDED IN TABLE NOTE 1.
2. INSTALLATION ON CONCRETE PROVIDES THE HIGHEST ALLOWABLE VALUES. CONFIRM WITH THE DESIGN PROFESSIONAL BEFORE INSTALLING ON OTHER SUPPORTING SURFACES.
3. USE 1/4"x4-1/2" MITEK® PRO SERIES™ WS SCREWS AT TOP CONNECTIONS WITH A 2x FILLER. IF THE TOP OF PANEL IS IN DIRECT CONTACT WITH THE COLLECTOR ABOVE (TOP PLATES, HEADER, BEAM, ETC.) USE 1/4 x 3" (MINIMUM)
4. FOR INSTALLATIONS WITH A FILLER GREATER THAN 1-1/2" ABOVE, OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL, ADJACENT KING POSTS TO BRACE THE OUT-OF-PLANE HINGE CAN BE CONNECTED WITH 1/4" DIA. SCREWS THROUGH PRE-PUNCHED HOLES AT THE PANEL EDGES.



- NOTES:**
- A. SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.
  - B. ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.
  - C. STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.
  - D. STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAUGE.

REVISIONS DATE

**FRAMING DETAILS - HFX PANELS**

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH MITEK® HARDY FRAME® PRODUCTS

**HARDY FRAME®**  
SHEAR WALL SYSTEM  
1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
TELEPHONE: 800 754-3030 / www.hardyframe.com

**MiTek®**

DATE:  
1-1-2018

**HFX2**