



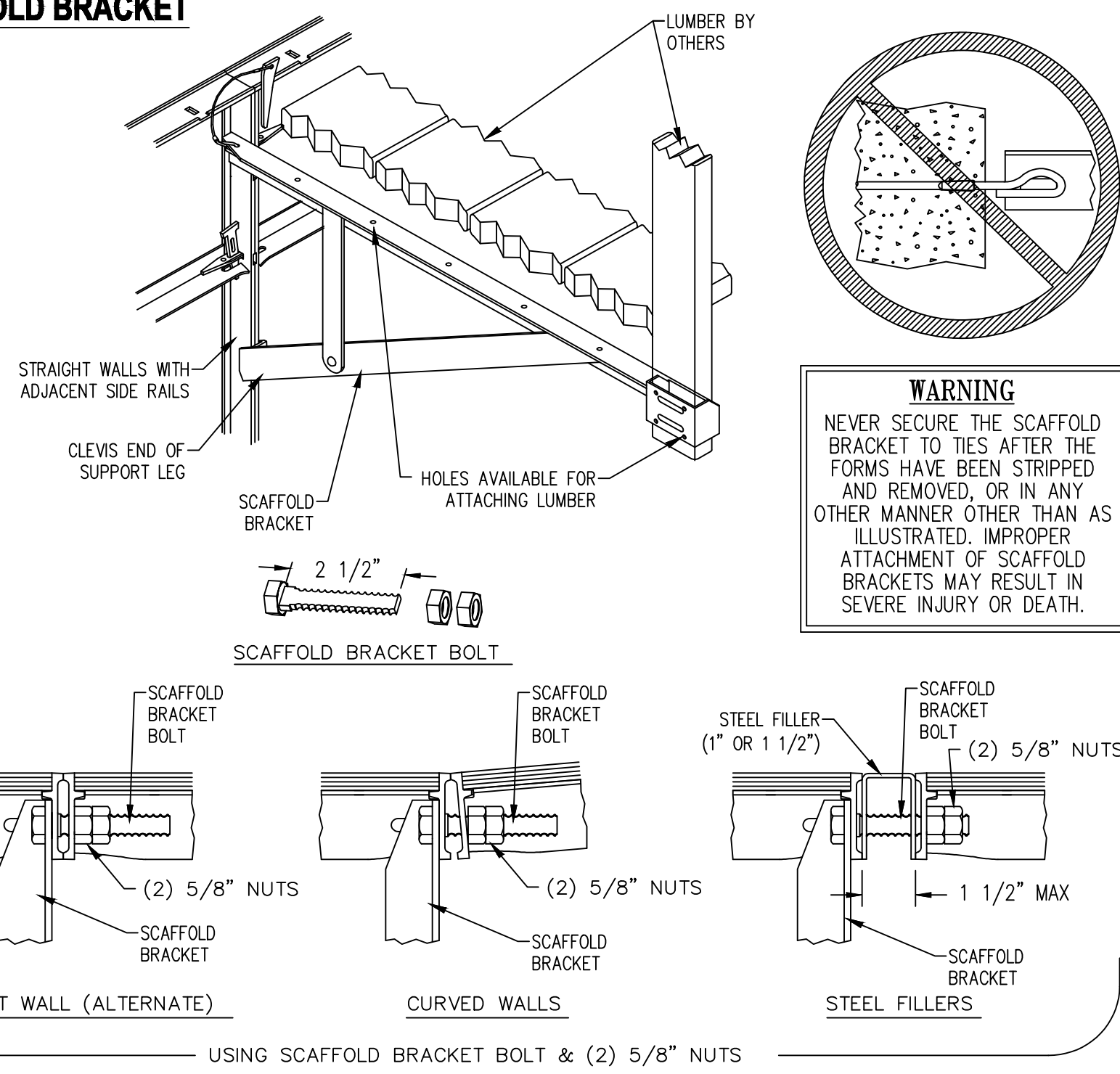
# SYMONS Steel-Ply Safety Applications

All Symons components and accessories are designed with safety and performance in mind. The application notes on this sheet will help you achieve a safe and productive forming operation. It is recommended that all construction personnel thoroughly familiarize themselves and comply with the applicable industry standards and safe practices established by The American Concrete Institute, American National Standards Institute, The Occupational Safety and Health Administration, and The Scaffolding, Shoring and Forming Institute.

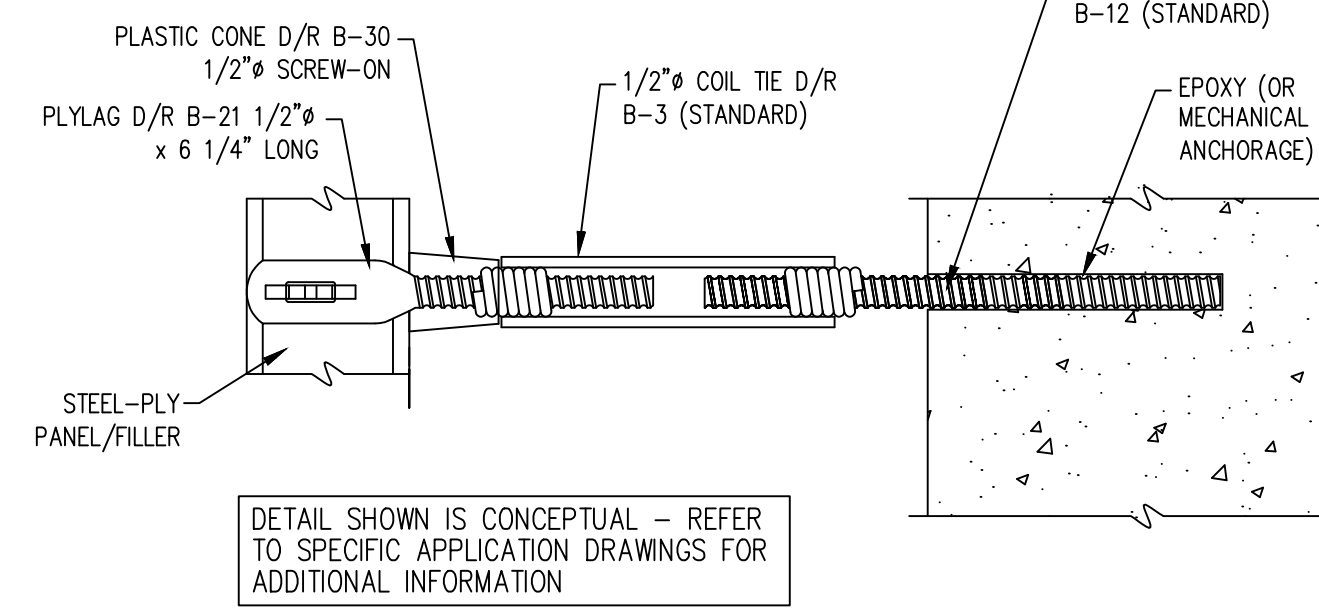
**IMPORTANT:**  
All forming and shoring components must be inspected regularly for damage or excessive wear. Equipment found to be damaged or excessively worn must be replaced immediately.

## STEEL-PLY SCAFFOLD BRACKET

- **WARNING** – IMPROPER ATTACHMENT OF WALKWAY BRACKETS AND WALKWAY COMPONENTS MAY RESULT IN SEVERE INJURY.
- DO NOT USE WALKWAY BRACKET AS A LIFTING BRACKET OR TIE-OFF.
- ALLOWABLE LOAD ON WALKWAY BRACKET IS 500 LBS. @ 4:1 SAFETY FACTOR. WHEN THE WALKWAY BRACKETS ARE SPACED AT 6'-0" C/C, MAXIMUM ALLOWABLE APPLIED LOAD ON BRACKETS = 25 PSF. SECURE PLANKING TO WALKWAY BRACKETS.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKERS HAVE ADEQUATE FALL PROTECTION DURING FORMWORK ERECTION.
- THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND SUPPLYING ANY ADDITIONAL COMPONENTS (PLANKING, GUARDRAILS, ETC.) REQUIRED TO CREATE A WORK PLATFORM WHICH MEETS OR EXCEEDS ALL APPLICABLE INDUSTRY STANDARDS.

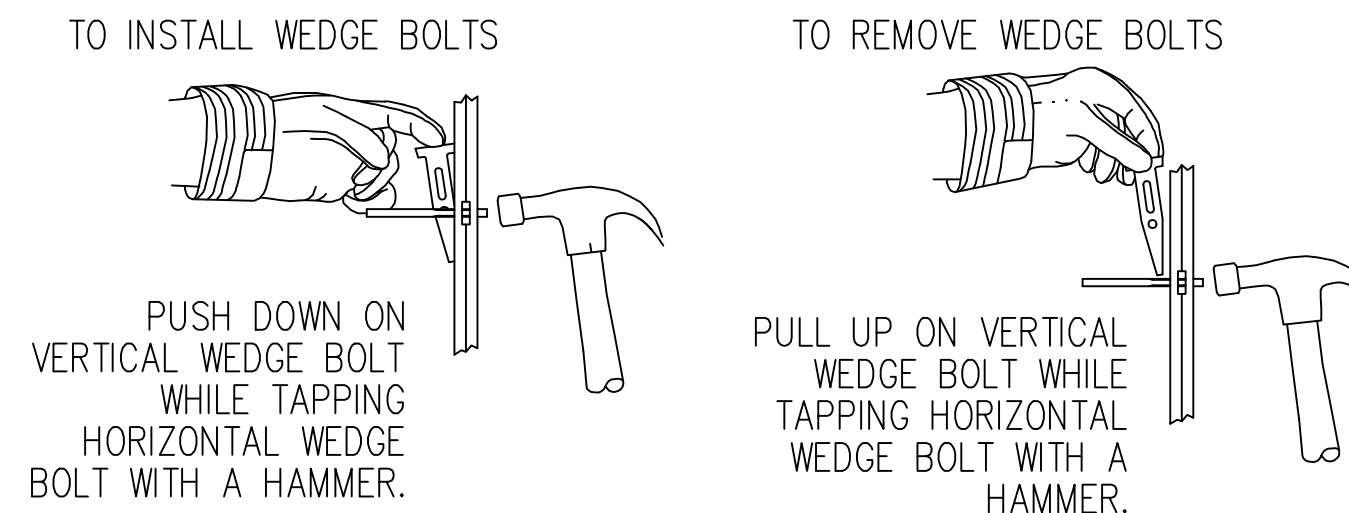


## ONE SIDED WALL APPLICATION

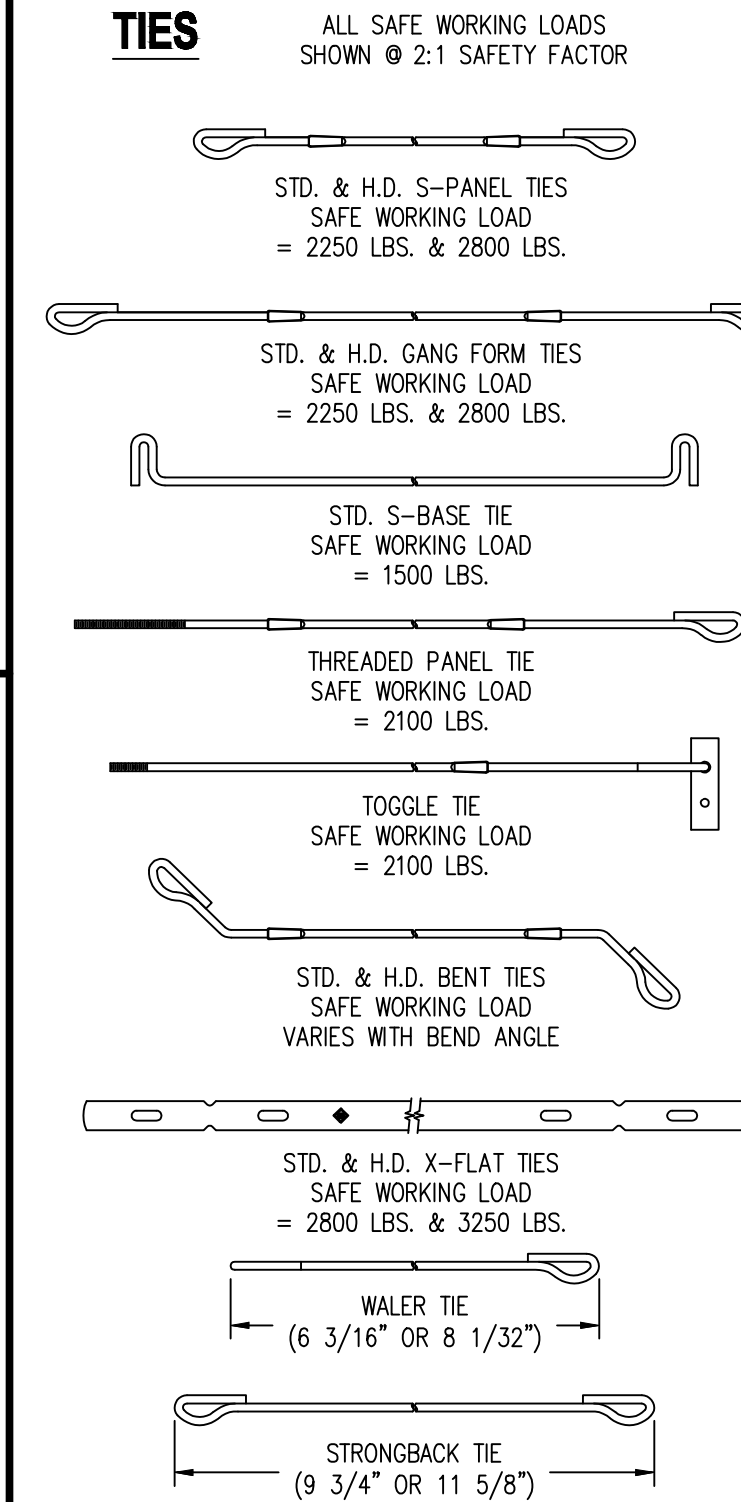


## WEDGE BOLTS

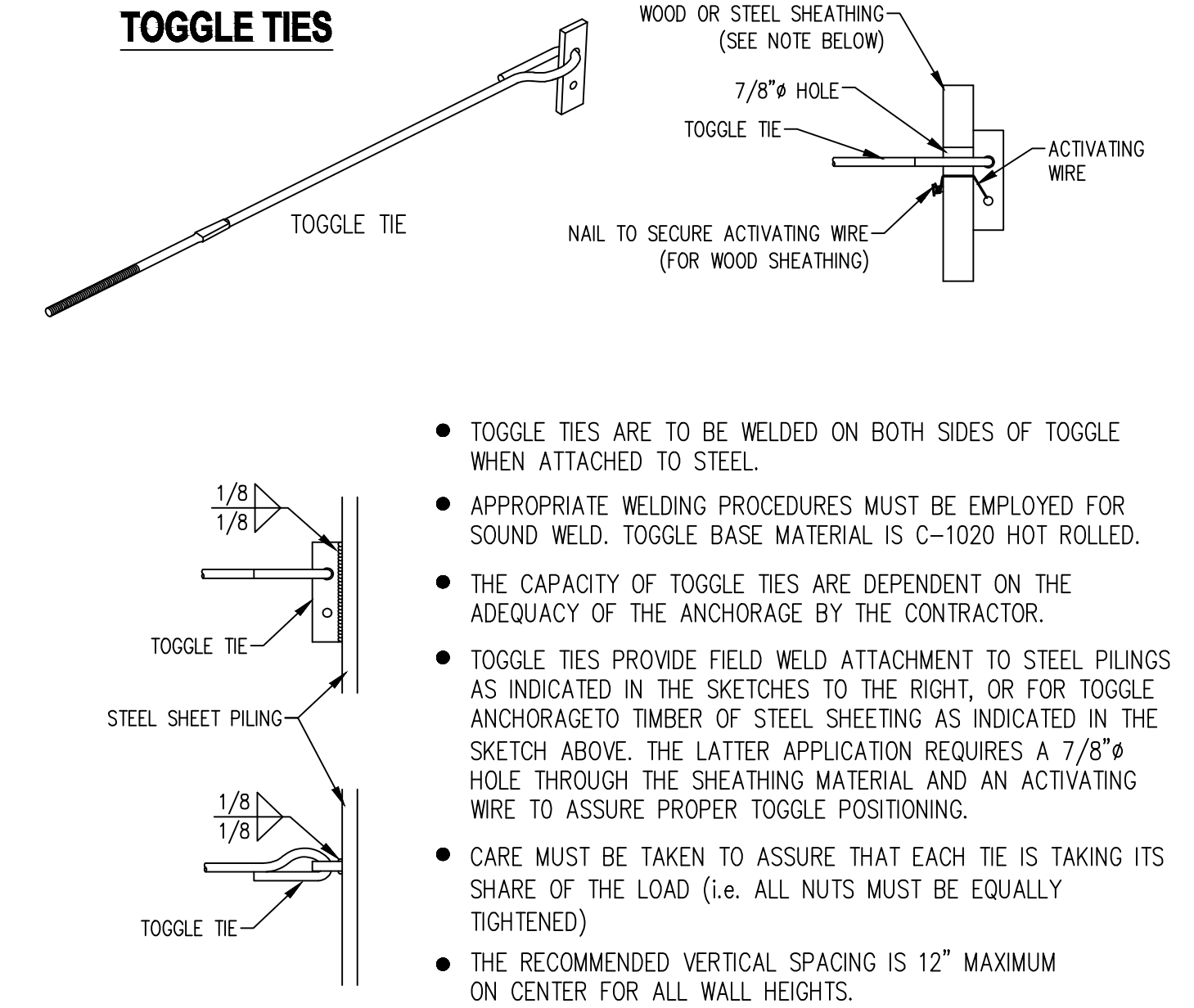
A SUFFICIENTLY TIGHT WEDGE BOLT CONNECTION CAN BE ACHIEVED BY PUSHING DOWN ON THE HEAD OF THE VERTICAL WEDGE BOLT WITH ONE HAND WHILE STRIKING THE HEAD OF THE LATERAL WEDGE BOLT WITH A HAMMER. THE VERTICAL WEDGE BOLT WILL RESPOND DOWNWARD TO A TIGHT, SECURE POSITION.



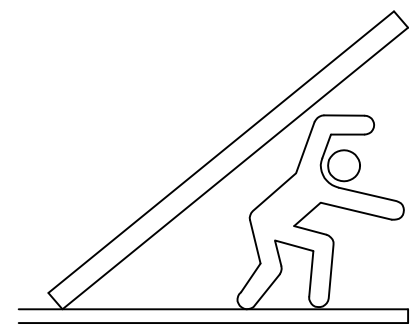
## TIES



## TOGGLE TIES



## WARNING



UNSECURED FORMWORK CAN FALL OVER CAUSING SEVERE INJURY OR DEATH !!

## IMPORTANT:

### BRACING

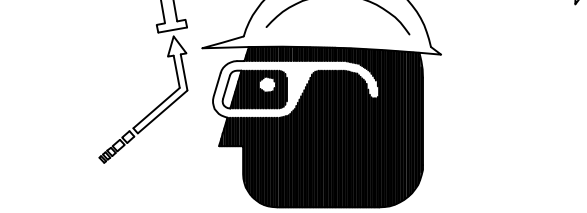
- BRACING MUST BE IN PLACE WHILE SETTING FORMWORK AND REMAIN IN PLACE UNTIL FORMS ARE STRIPPED.
  - CONTRACTOR IS TO INSURE THAT FORMWORK IS PROPERLY BRACED AND STABILIZED AGAINST WIND AND OTHER EXTERNAL FORCES.
- STRIPPING AND REMOVAL OF GANG FORMS**
- ATTACH THE CRANE RIGGING TO THE LIFTING BRACKETS AND SLOWLY TAKE UP THE SLACK IN THE RIGGING.
  - SAFELY REMOVE ALL TIES, BRACES, AND ALIGNERS.
  - BREAK THE BOND BETWEEN THE CONCRETE AND THE FORMS. DO NOT USE THE CRANE TO BREAK THE BOND.
  - MOVE THE GANG FORM TO THE NEXT LOCATION.
  - FULLY BRACE AND SECURE THE FORM BEFORE REMOVING CRANE RIGGING.

## BRACING / ALIGNERS

### ALIGNERS

SYMONS TURNBUCKLE ALIGNERS AND ATTACHMENT PLATES ARE CONSIDERED ONLY AS ALIGNMENT DEVICES AND ARE NOT TO BE USED AS FORM BRACING.

## WEAR EYE AND HEAD PROTECTION

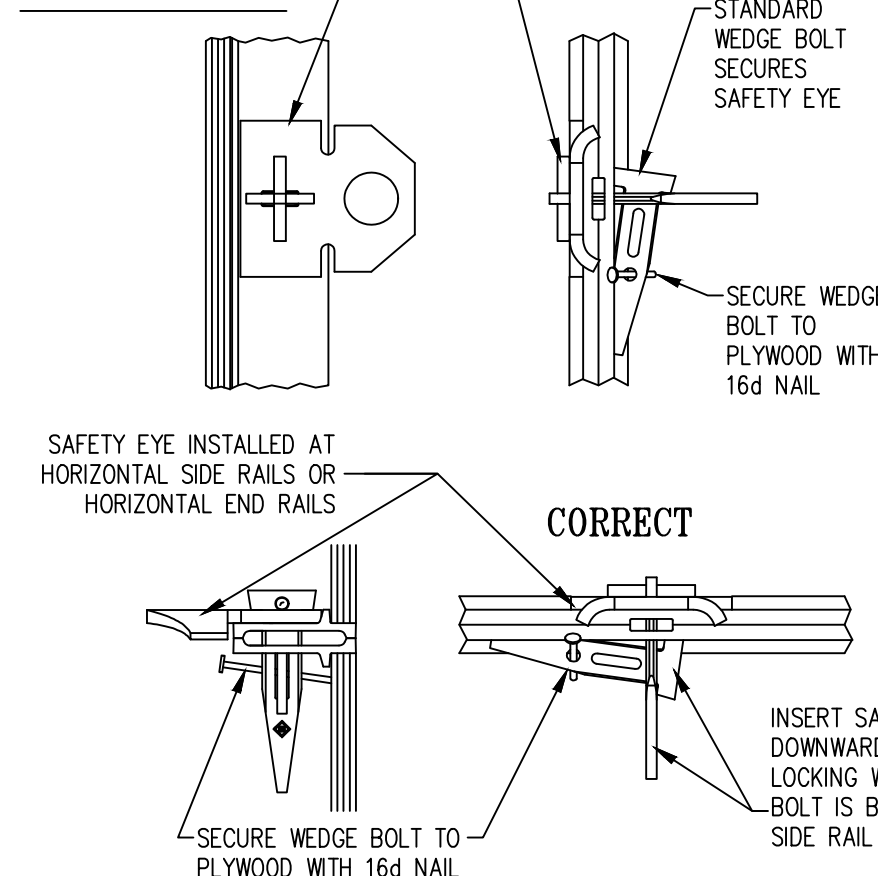


SYMONS RECOMMENDS GLOVES, HARDHATS, SAFETY SHOES, AND SAFETY GLASSES BE WORN DURING ALL FORMING AND POURING OPERATIONS.

## ATTACHMENT POINT FOR FALL PROTECTION EQUIPMENT

WHEN PROPERLY INSTALLED, BOTH THE SAFETY EYE AND QUICK HOOK HANDLE PROVIDE AN ATTACHMENT POINT FOR FALL PROTECTION EQUIPMENT THAT MEETS OR EXCEEDS THE LOAD REQUIREMENT UNDER FEDERAL OSHA STANDARD 1926.502(d)(14). (NOTE – FORMS MUST BE ADEQUATELY BRACED BY THE CONTRACTOR TO RESIST THE RESULTANT LOADS – SEE GENERAL FORMING NOTE 2)

## SAFETY EYE



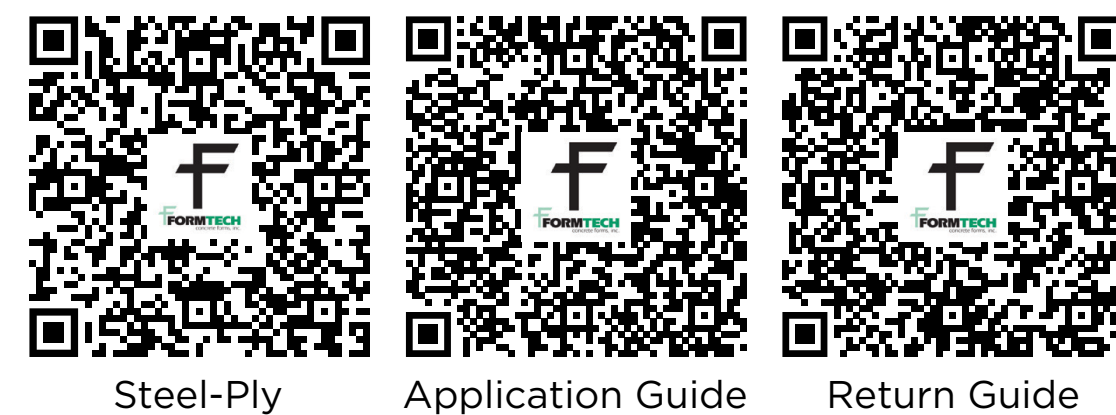
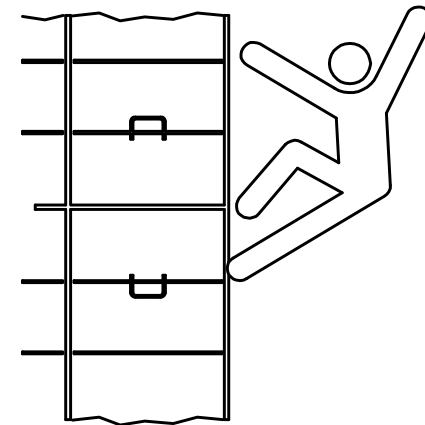
- A SAFETY EYE IS TO BE USED BY ONLY ONE PERSON AT ANY GIVEN TIME.
- ATTACH SAFETY BELT TO SAFETY EYE WHILE WORKING OR CLIMBING THE FORM.
- SAFETY EYES SHOULD BE SPACED AS REQUIRED TO PROVIDE THE NECESSARY FALL PROTECTION ATTACHMENT POINTS.
- FORMWORK MUST BE ADEQUATELY BRACED BY THE CONTRACTOR TO RESIST THE RESULTANT LOADS.

## WARNING

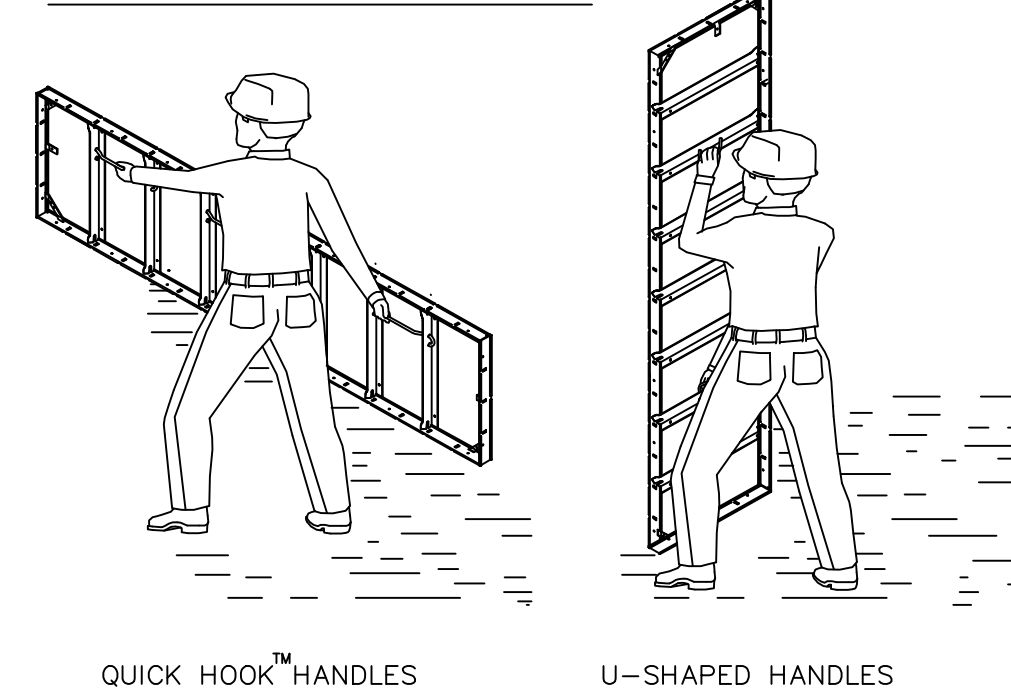
NEVER ATTACH THE SAFETY EYE AS A LIFT BRACKET, AS IT MAY BREAK AND CAUSE SEVERE INJURY OR DEATH.

NEVER ATTACH THE SAFETY EYE TO A SINGLE HORIZONTAL STEEL-PLY SIDE OR END RAIL SUCH ATTACHMENT WILL RESULT IN A LOOSE CONNECTION, WHICH MAY RESULT IN SEVERE INJURY OR DEATH.

NEVER CLIMB ON FORMS WITHOUT USE OF FALL PROTECTION EQUIPMENT



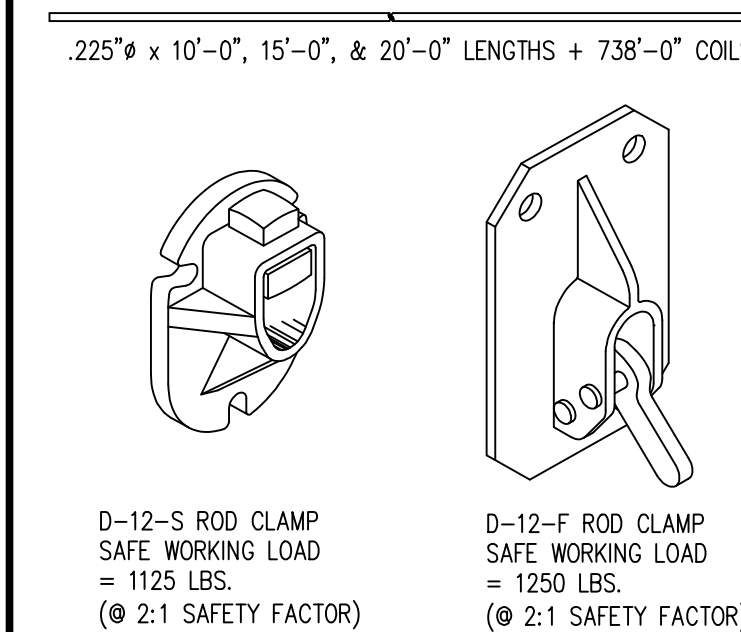
## PANEL CARRYING HANDLES



## WARNING

NEVER SECURE PANEL HANDLES AS A CONNECTING POINT FOR BRACING, ALIGNING, SCAFFOLDING, OR CRANE HOOK-UP ON GANGED PANELS. SUCH CONNECTIONS MAY CAUSE THE HANDLES TO BREAK, RESULTING IN SEVERE INJURY OR DEATH.

## PENCIL ROD

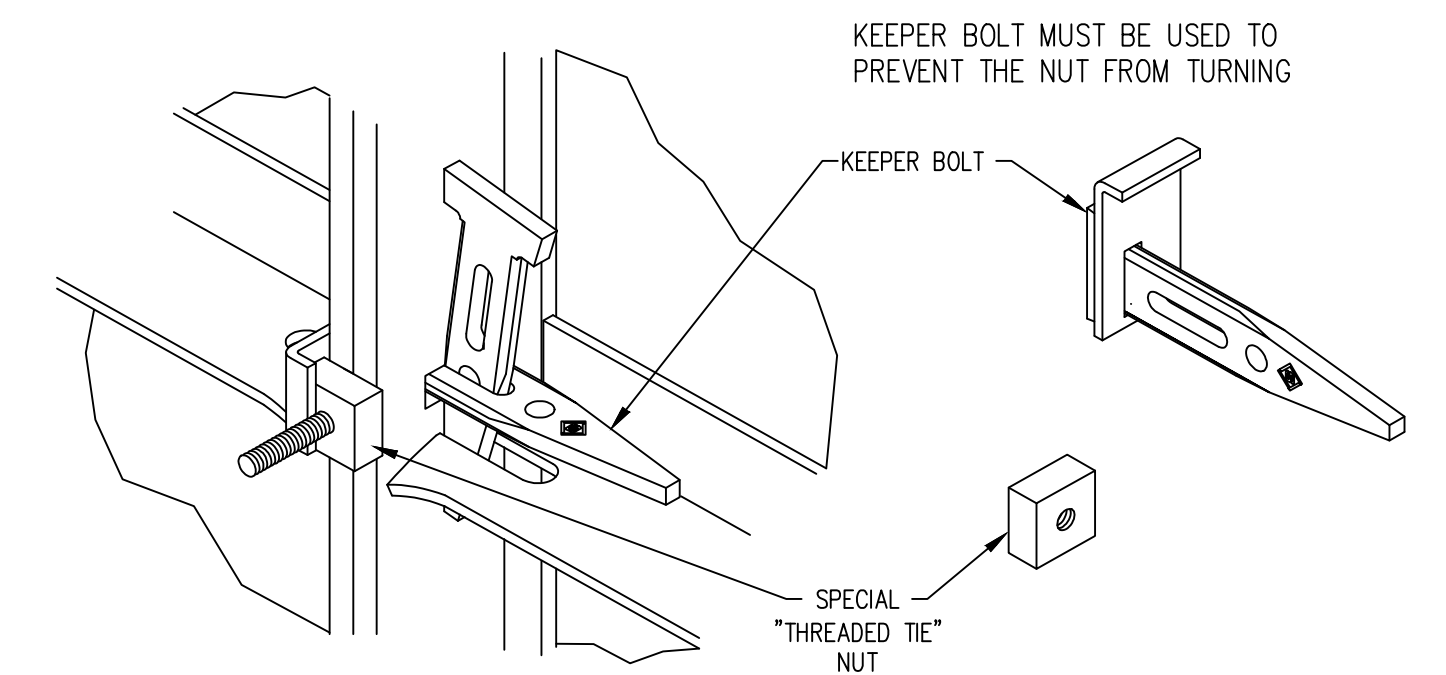


## THREADED PANEL TIES



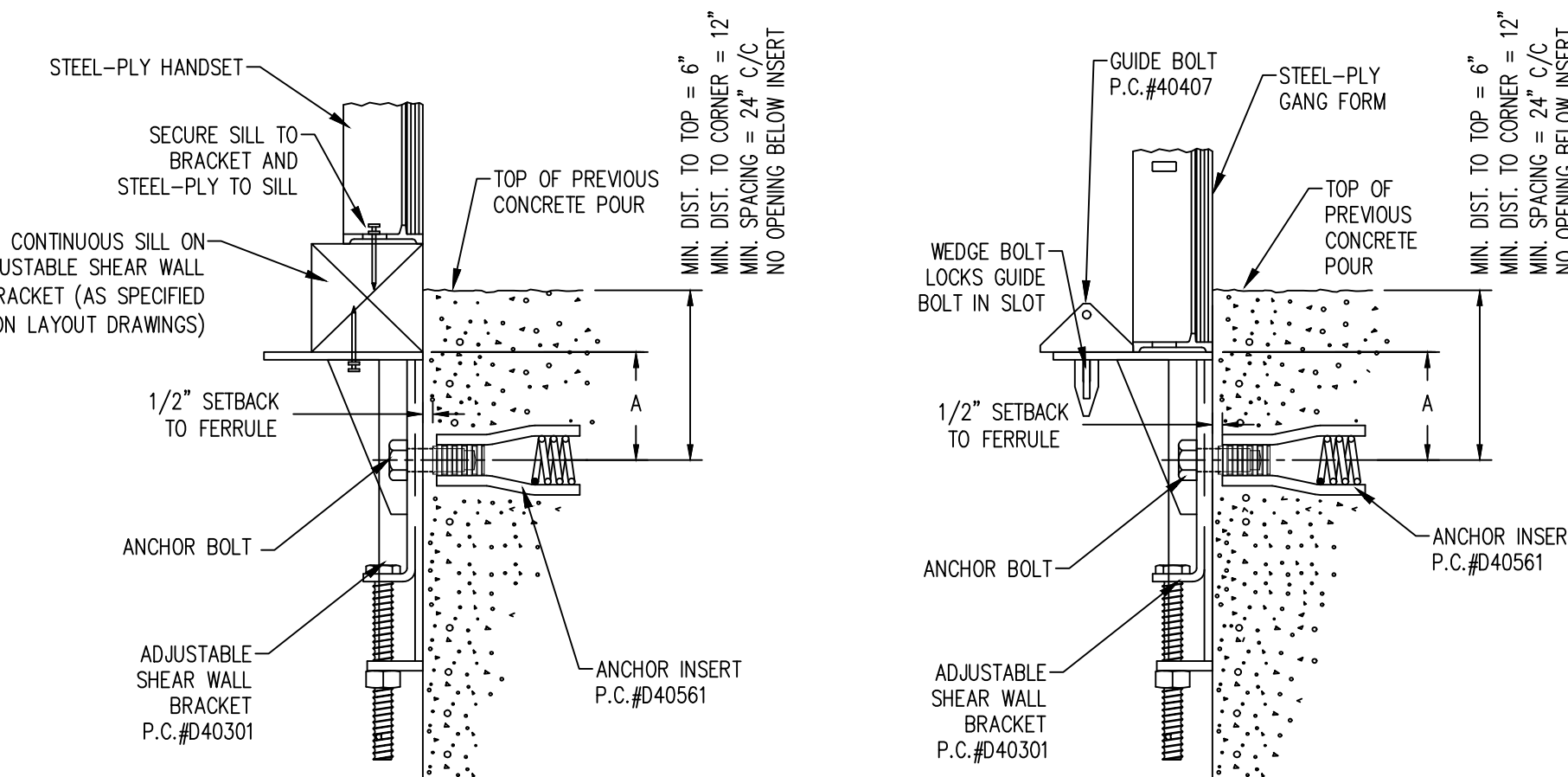
- CARE MUST BE TAKEN TO ASSURE THAT EACH TIE IS TAKING ITS SHARE OF THE LOAD (I.E. ALL NUTS MUST BE EQUALLY TIGHTENED)
- THE RECOMMENDED VERTICAL SPACING IS 12" MAXIMUM ON CENTER FOR ALL WALL HEIGHTS.
- THREADED TIES ALLOW APPROXIMATELY 2 INCHES OF ADJUSTMENT AND HAVE A SAFE WORKING LOAD = 2100 LBS (AT 2:1 SAFETY FACTOR)

NOTE – THREADED TIES HAVE A SPECIAL THREAD REQUIRING THE USE OF A SPECIAL NUT (P.C.#040338)



## ADJUSTABLE SHEARWALL BRACKET

- ANCHOR INSERT – DAYTON/RICHMOND EXPANDED COIL INSERT GALVANIZED F-57 3/4"-10UNC FERRULE, 4 5/8" LG.-P.C.#D40561
- 1/2" SETBACK
- SETTING PLUG – DAYTON/RICHMOND THREADED PLUG F-74 WITH 3/4"-10UNC THREADS-P.C.#D60426
- ANCHOR BOLT – 3/4"-10UNC x 2" LONG ZINC PLATED GRADE 5 WITH FULL LENGTH THREADS
- ANCHOR BOLT MUST BE TIGHTENED TO PREVENT ADJUSTABLE SHEAR WALL BRACKET FROM LOOSENING OR ROTATING.
- SAFE WORKING LOAD = 3000 LBS. AT 3:1 SAFETY FACTOR WHEN INSTALLED AS REQUIRED IN 3500 PSI CONCRETE.
- DO NOT REMOVE BRACKETS UNTIL FORMS ARE STRIPPED AND WEIGHT IS REMOVED FROM BRACKETS.
- THE ADJUSTABLE SHEARWALL BRACKET HAS AN ADJUSTMENT RANGE DIMENSION "A" FROM 3 1/2" TO 5 7/8".
- FORMS MUST BE BRACED TO SUPPORT ALL OVERTURNING/TIPPING LOADS.
- USE GUIDE BOLT TO GUIDE FORM INTO POSITION. IT LOCKS THROUGH PLATE SLOT WITH WEDGE BOLT.
- SEE FORM LAYOUT DRAWINGS BY SYMONS AND DAYTON/RICHMOND GUIDELINES FOR ANCHOR INSERTS.

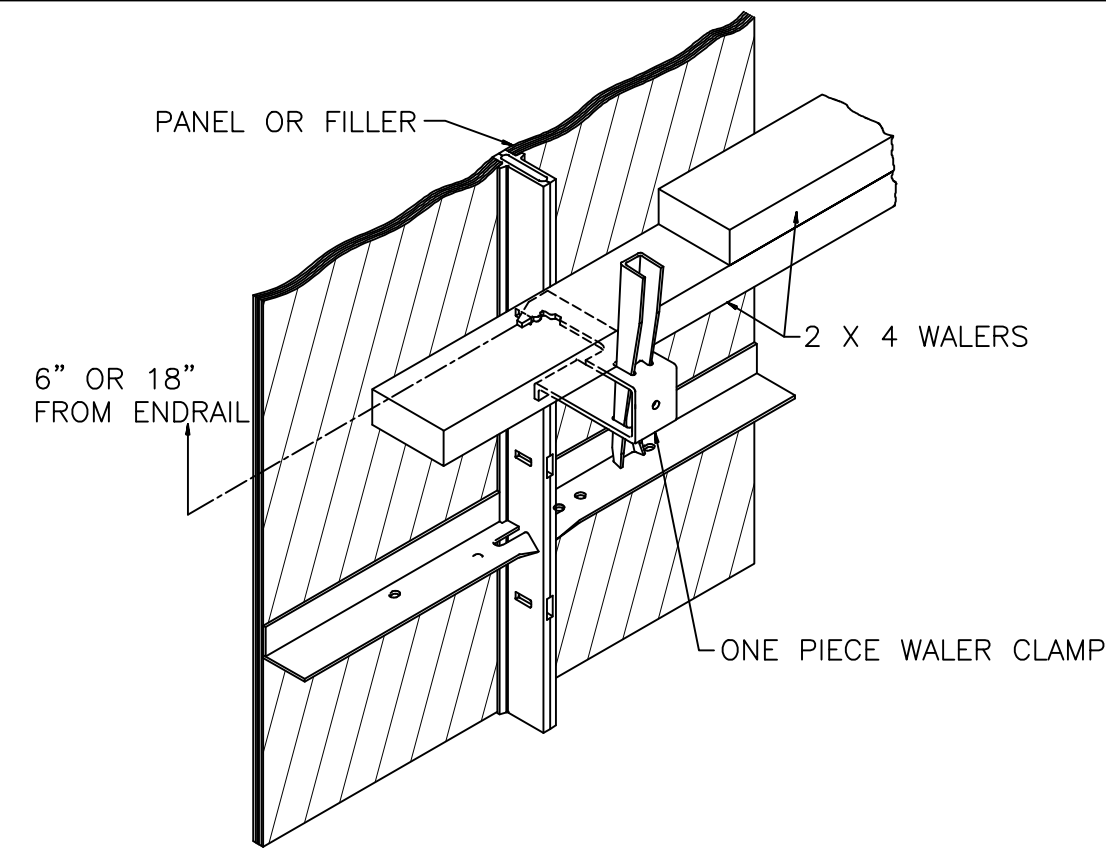


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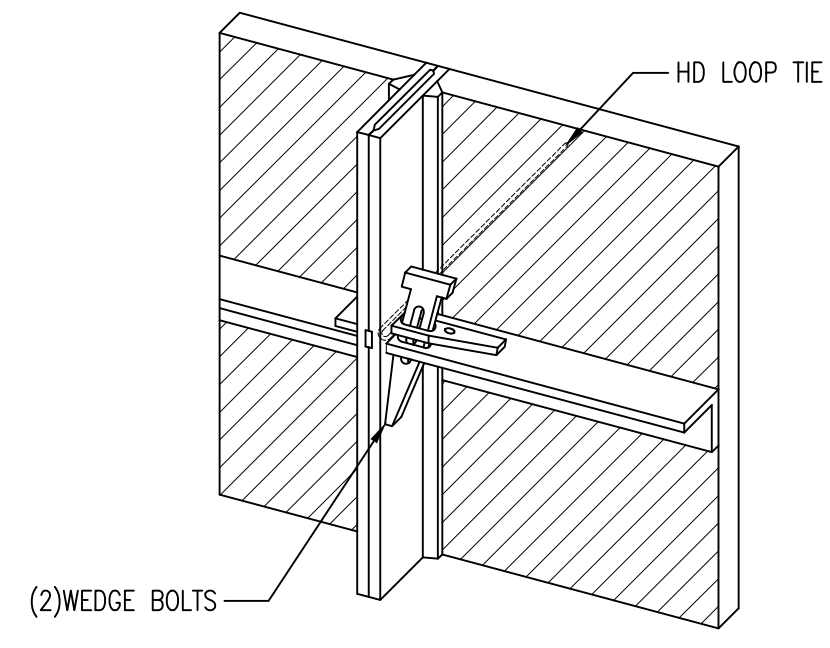
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DETROIT: 4875 DOWNING, WIXOM, MI 48393      PH# (248)344-4260

BRANCH OFFICES:

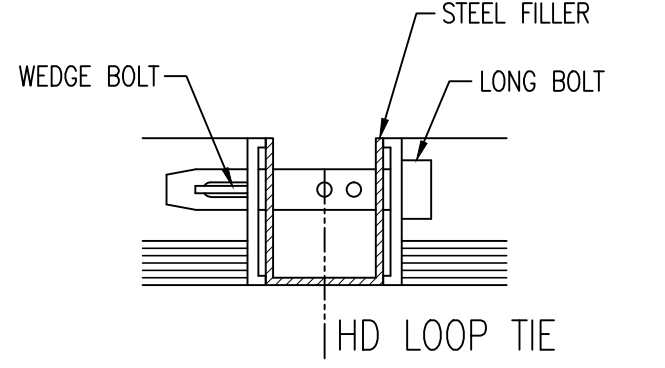
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COLUMBUS: 2580 HARRISON RD., COLUMBUS, OH 43204	PH# (614)328-5676
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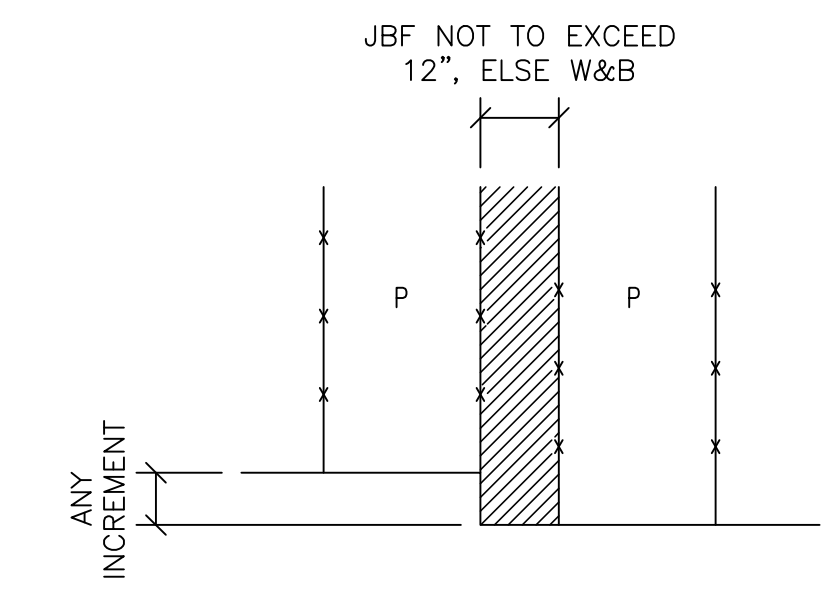
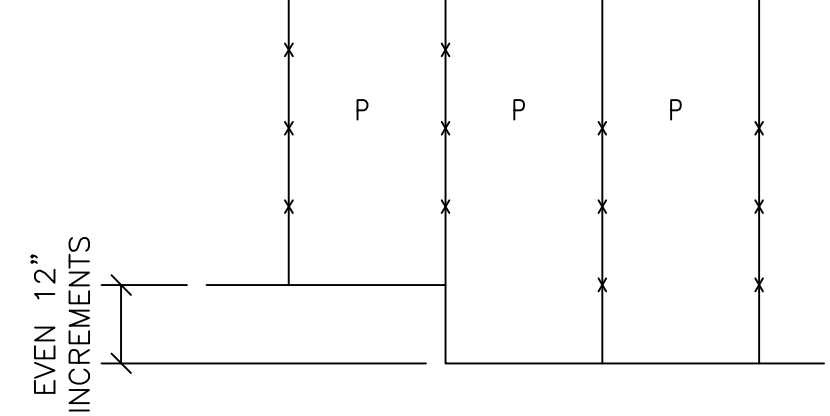
ONE PIECE WALER CLAMP



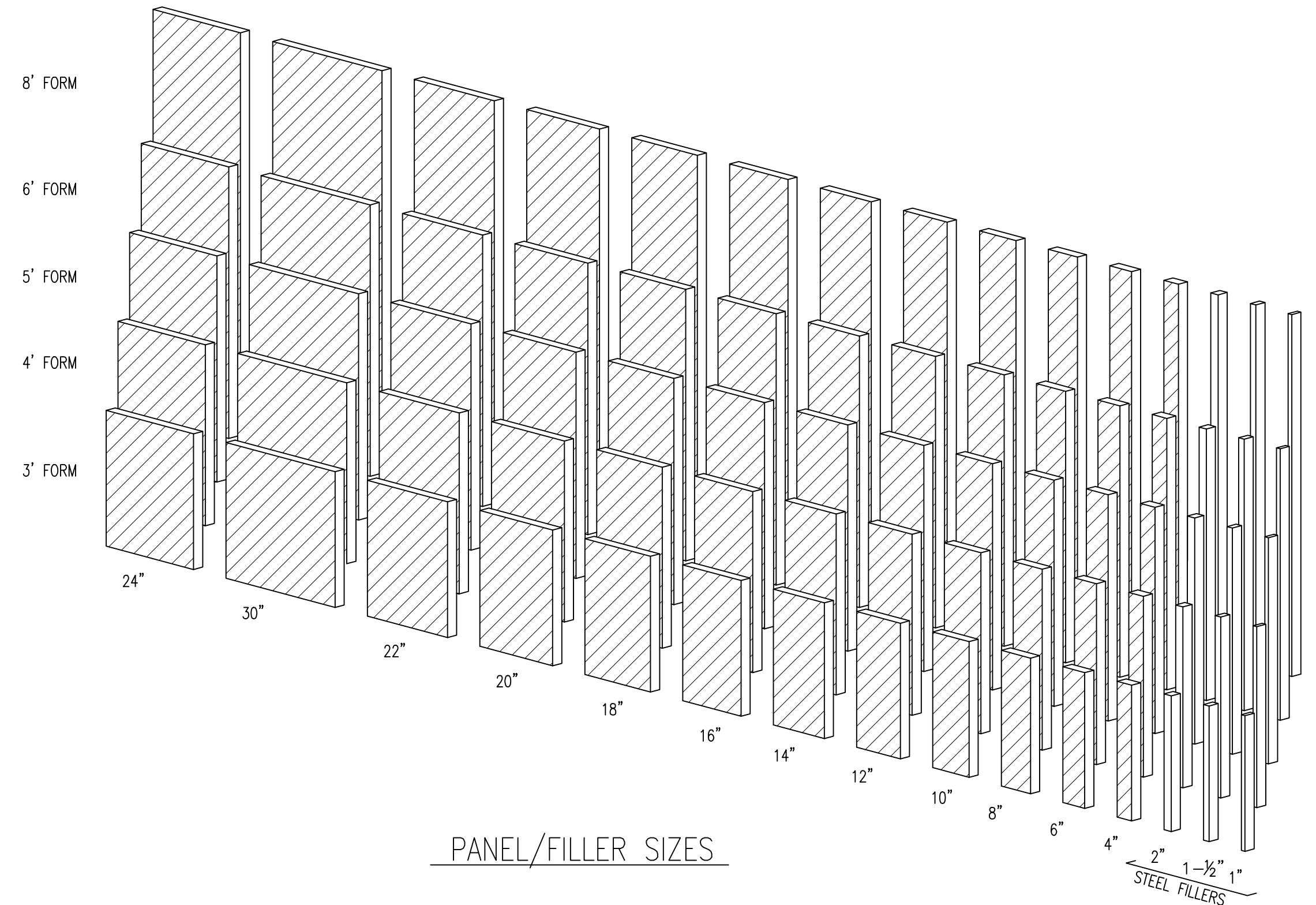
TYP PANEL-TIE CONNECTION



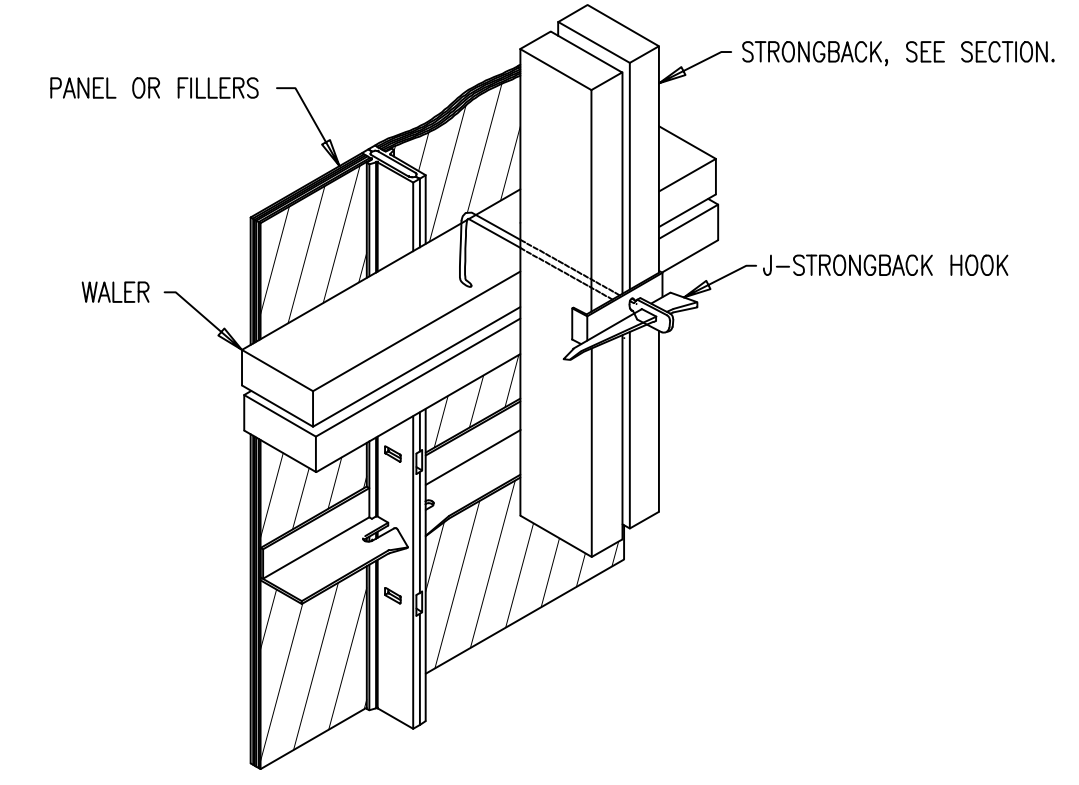
LONG BOLT CONNECTION  
1", 1-1/2" or 2" FILLERS



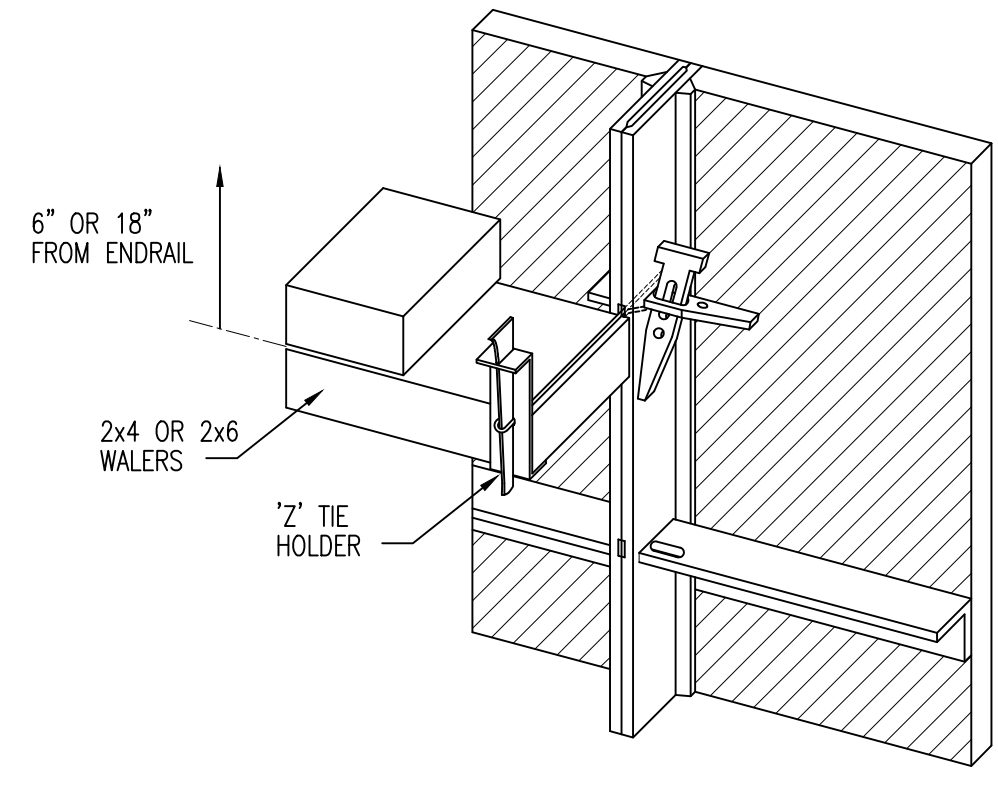
TYP FOOTING STEP DETAILS  
x-INDICATES HD LOOP TIE LOCATIONS



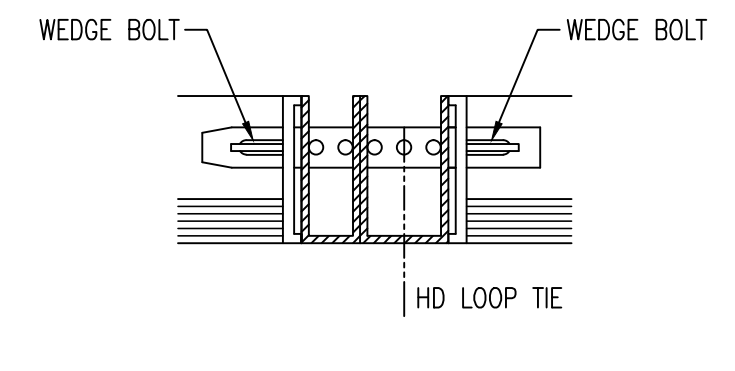
PANEL/FILLER SIZES



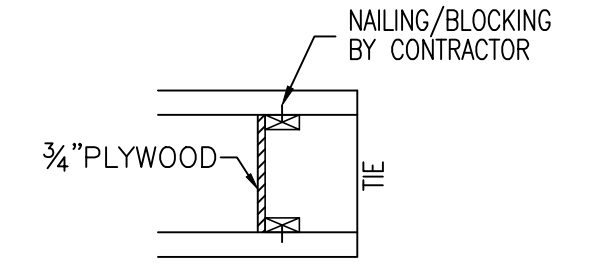
J-STRONGBACK HOOK



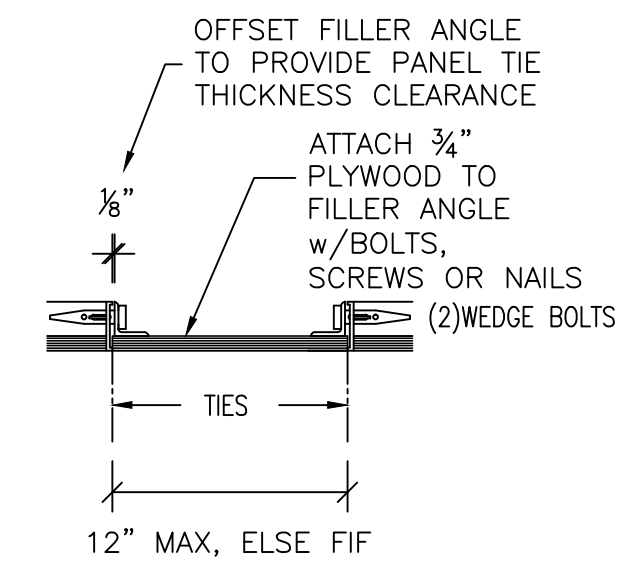
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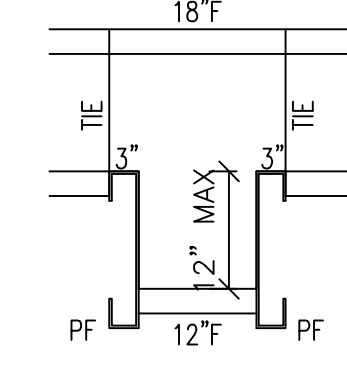
ADJ LONG BOLT CONNECTION  
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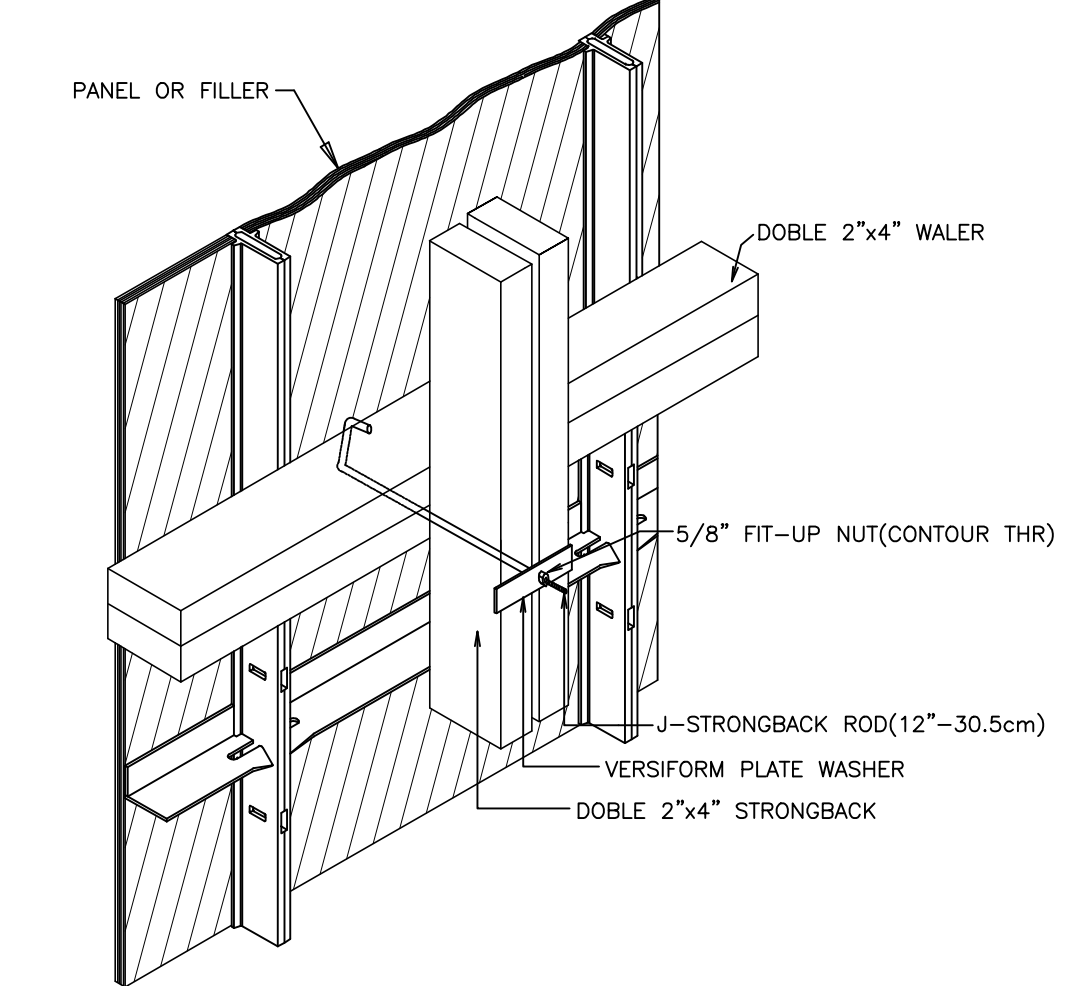
BLKHD BY CONTR DETAIL



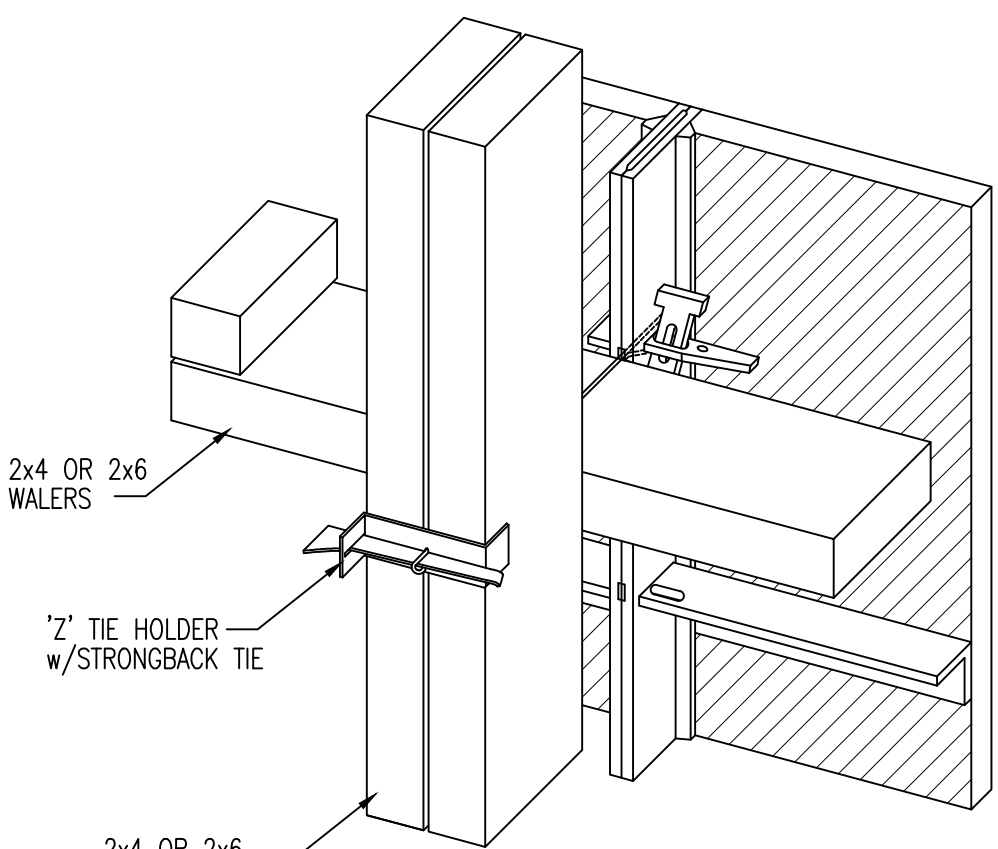
FILLER ANGLE DETAIL



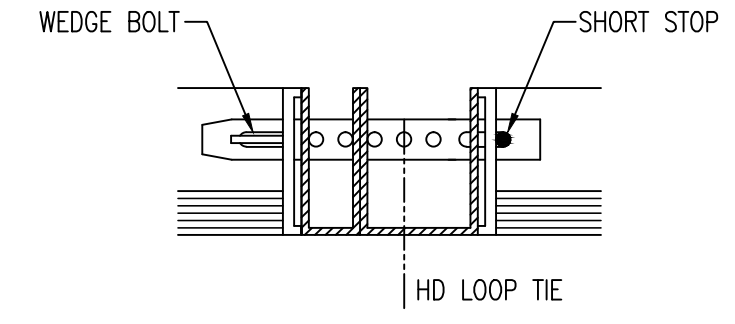
PILASTER FORM PLAN



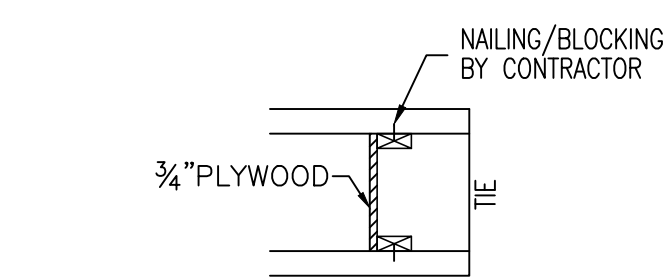
J-STRONGBACK ROD



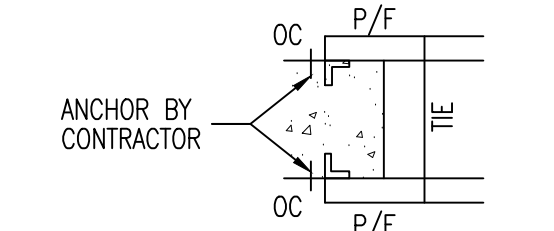
'Z' TIE HOLDER APPLICATIONS



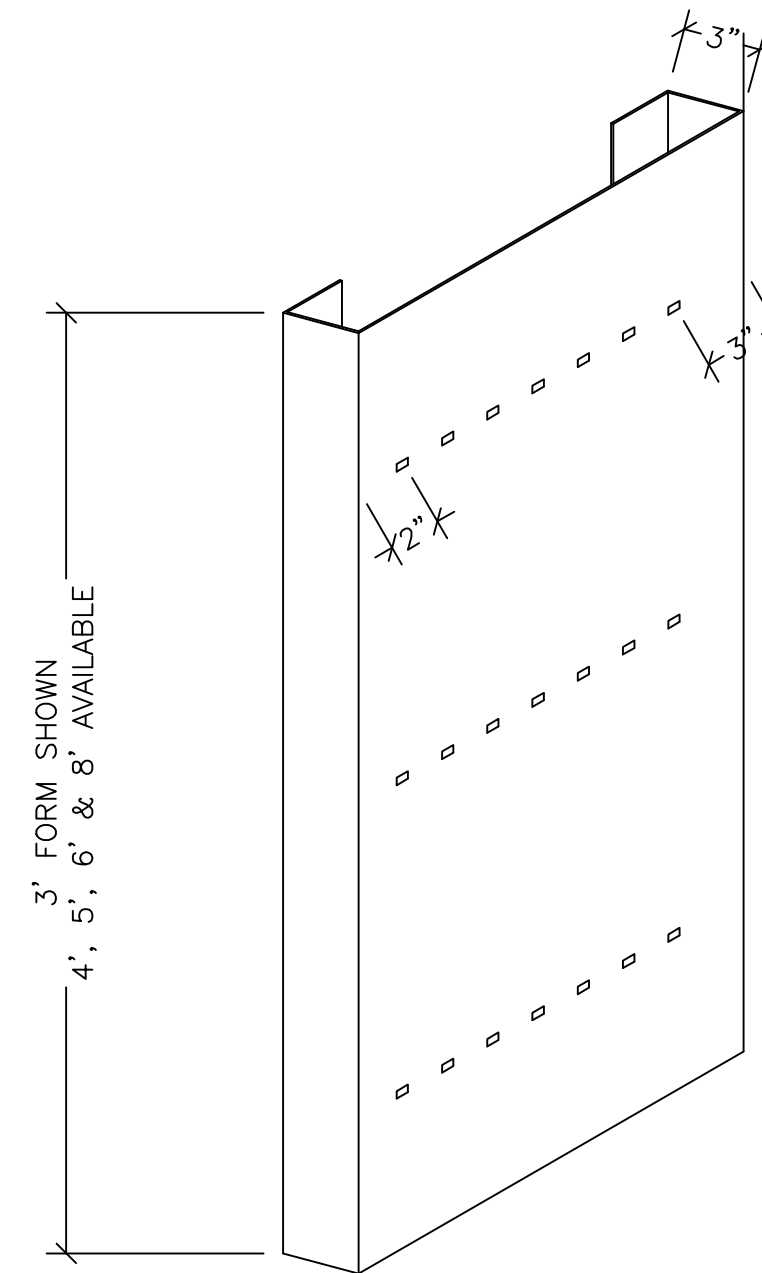
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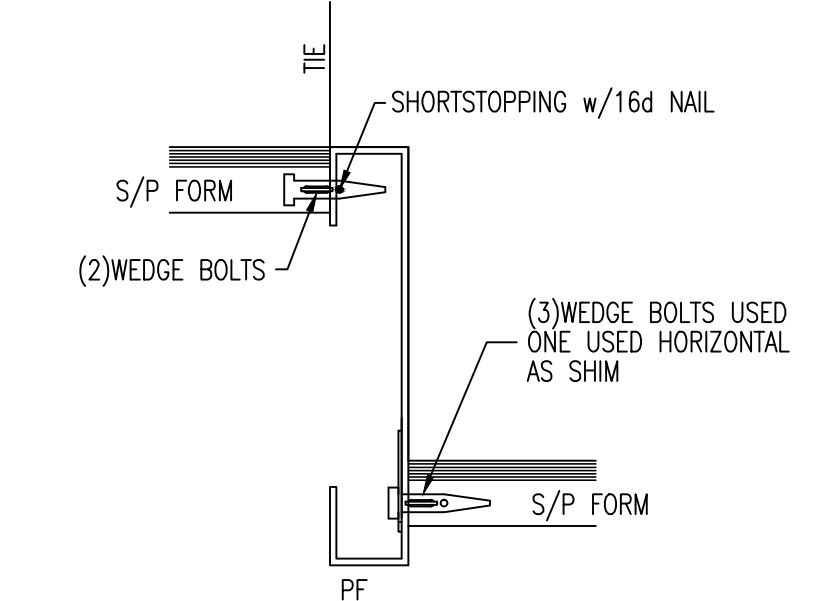
PRIMARY POUR



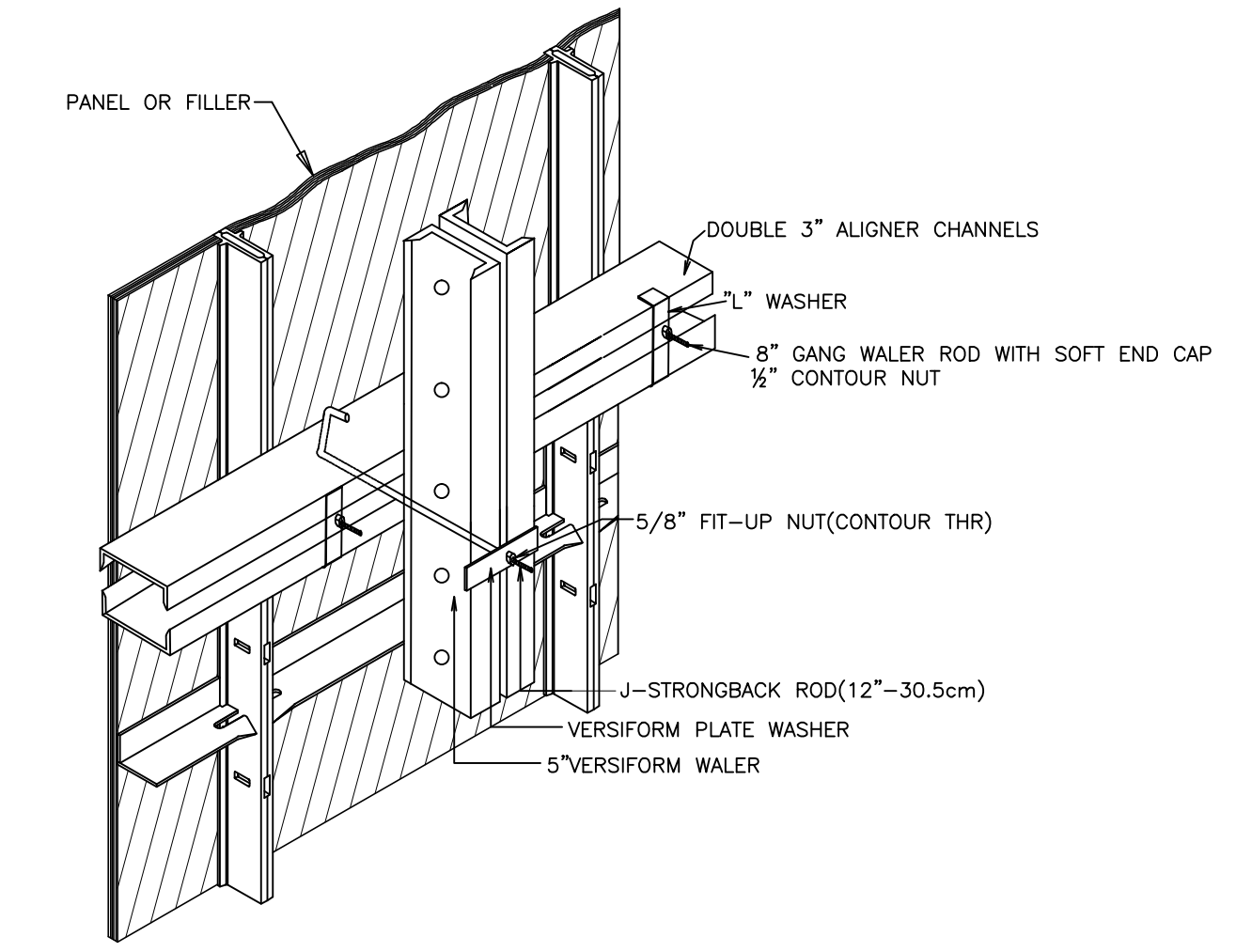
SECONDARY POUR



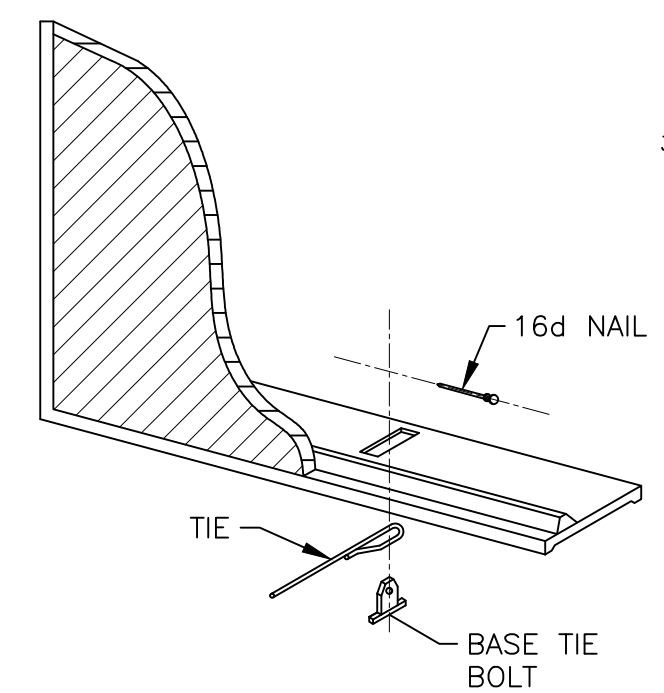
PILASTER FORM ELEVATION  
ALLOWS FOR PILASTER IN ANY INCREMENT FROM 2\"/>



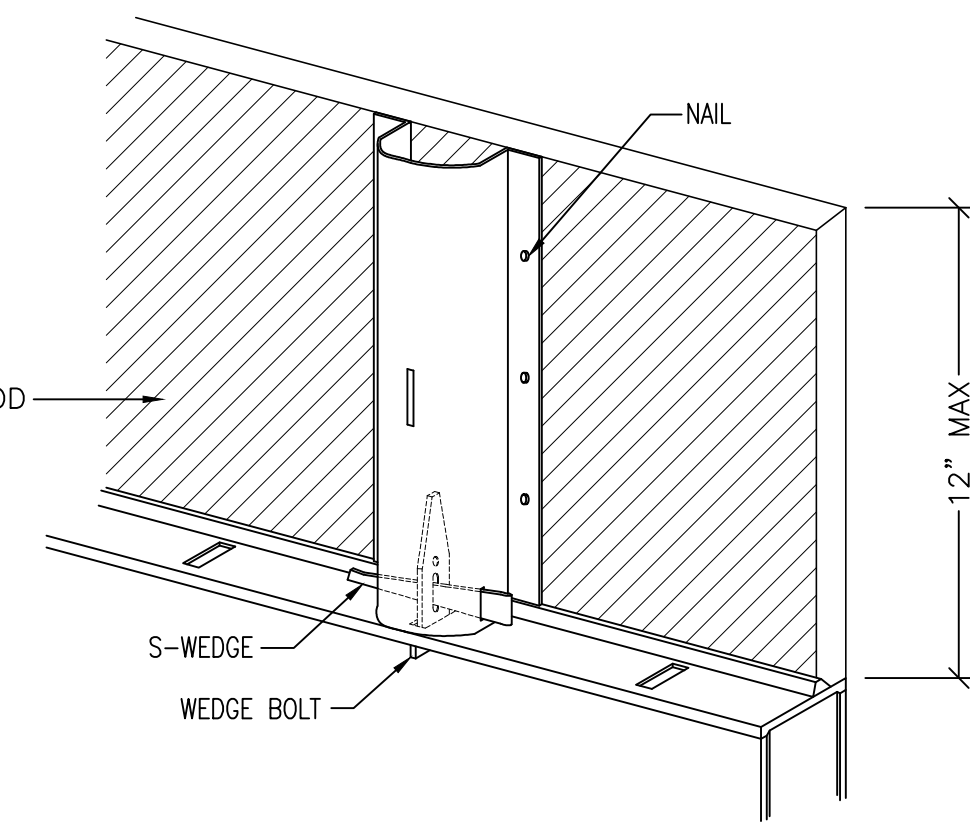
PILASTER FORM CONNECTION DETAIL



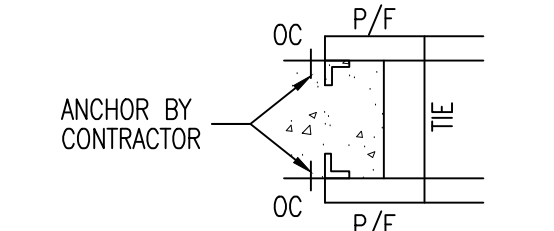
J-STRONGBACK ROD



BASE TIE CONNECTOR DETAIL



FORM EXTENSION BKT DETAIL  
SP @ 6\"/>



CONSTRUCTION JOINT DETAILS

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