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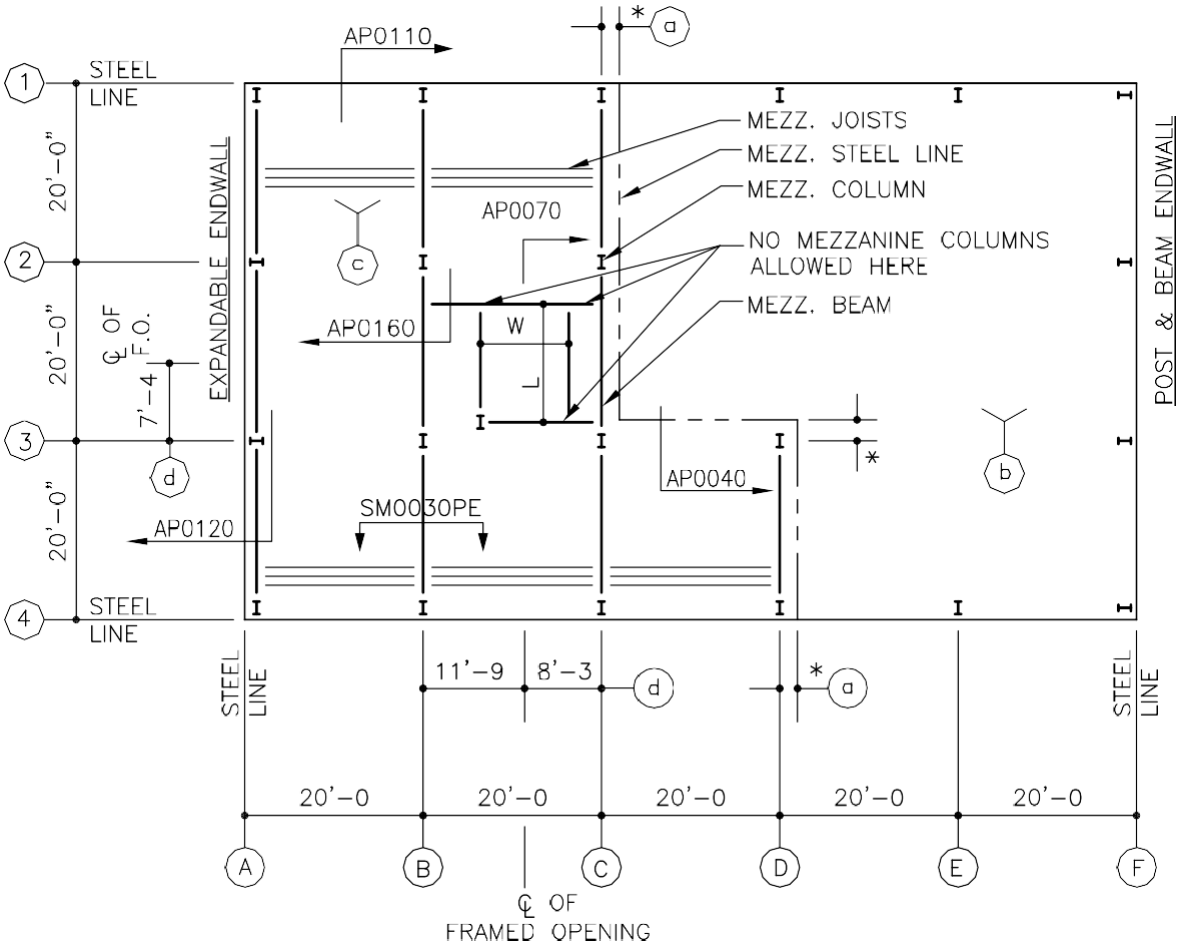
GENERAL MEZZANINE INFORMATION AND SPECIFICATIONS

1. A “Mezzanine,” as recognized by Valley Steel Building Systems, is an intermediate level between the floor and ceiling usually occupying a partial area of floor space.
2. Mezzanines may be ordered and designed to accommodate conditions involving storage and/or occupancy.
3. Valley Steel Building Systems will engineer all mezzanine material specified on the signed “Valley Steel Order Documents” that is to be supplied by Valley Steel. Valley Steel Building Systems will not be responsible for materials outside of that ordered on the contract. It is imperative therefore that all applicable information and an accurate sketch is generated to insure that Valley Steel understands and provides for the correct conditions.
4. Three general areas of information are involved with mezzanine structures. (This information must be provided by the builder.)
    - Establishment of mezzanine parameters including critical vertical clearances and penetration locations and sizes.
    - Specification of design criteria.
    - Specification of material to be supplied by Valley Steel.

5. Design of mezzanine material shall be determined by Valley Steel Building Systems, unless specifically noted otherwise. Size, shape and depths of material will be to the discretion of Valley Steel Engineering department limited only by the parameters documented in the “Valley Steel Order Documents”.
6. Mezzanine designs involving joist and/or decking require field work for erection. The manufacturer of the joist, deck or detailed drawings provided by Valley Steel shall provide installation literature for these items.
7. Refer to mezzanine plan information.

LAST REVISION
DATE: 04/08/02 **4.5.2**
BY: CDM CHK: RJF
SM0010PE – MEZZANINE PLAN INFORMATION



(a) * = "MINIMUM" OR CUSTOMER TO PROVIDE

(d) STAIRWELL OPENING
W = 6'-0 CLEAR
L = 8'-0 CLEAR

(○) REFERENCE PAGE 4.5.4 FOR DESCRIPTION OF NOTED AREAS ON ABOVE PLAN INVOLVING NECESSARY INFORMATION FOR MEZZANINE ORDERING.

EXAMPLE MEZZANINE LAYOUT

(PROVIDED BY NUCOR CUSTOMER)

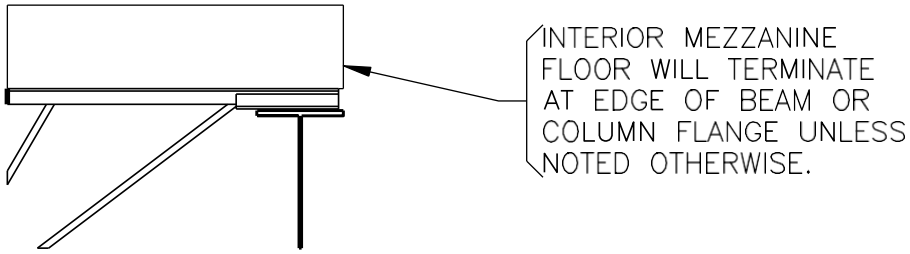
LAST REVISION DATE: 02/09/01 BY: CDM CHK: RJF
DETAIL NAME IF APPLICABLE

SM0010PE.DWG

INFORMATION REQUIRED FOR MEZZANINE STRUCTURES

NOTE: Accuracy showing mezzanine information on the Valley Steel Building Systems order documents greatly reduce the chance of additional costs and scheduling delays. Accurate and complete foundation reactions cannot be calculated without penetration locations and load requirements.

1. Establishment of mezzanine parameters and penetration locations and sizes: (Reference 'Example Mezzanine Layout' this section)
    a. The size and location of mezzanine within the building structure must be determined. A mezzanine/building sketch is an excellent way to ensure information and placement of mezzanine is correct.
    b. Provide information that allows for or prohibits additional support column placement. Also convey any other structural restrictions relevant to the mezzanine framing.
    c. Establish direction of joist. If direction of joist and placement of mezzanine beams is not provided by the customer, Valley Steel Building Systems will determine a framing layout utilizing Valley Steel Building Systems standards. Don't forget standard joist camber when calculating floor elevations and finishes. See SJI or manufacturer's information for requirements.
    d. Provide exact location of any floor penetrations requiring special framing. Provide "clear" width and length dimensions needed. Design of framing material will establish center to center of beams.
    e. Establish Mezzanine interior edge condition. Provide projection dimensions beyond support framing if applicable.
    f. Establish Mezzanine exterior edge condition. Provide projection dimensions beyond support framing if applicable
2. Define whether or not Valley Steel Building Systems is supplying support for stairwells. If so, show location and specify loads.
3. Mezzanine confirmation drawings will be issued to the builder on all jobs that have mezzanine steel by Valley Steel Building Systems, for coordination with other trades. These are not approval drawings; they simply convey what Valley Steel is supplying. If changes are required to these drawings, significant cost and delivery delays can occur. Therefore, it is important that accurate requirements are given as soon as possible.



LAST REVISION
DATE: 02/09/01
BY: CDM CHK: RJF

FLOOR AND/OR MEZZANINE DESIGN INFORMATION FORM

MEZZANINE I.D. (1, 2, 3…):_____

Design Loads:

Dead Load: _____ psf (Does **NOT** include the weight of the floor joist or support beams)

Live Load: _____ psf

Collateral Load: _____ psf (Top Chord)

_____ psf (Bottom Chord)

Mezzanine Dimensions:

Length: _____ (Perpendicular to frame)

Width: _____ (Parallel to frame)

_____ Slab Thickness

_____ Plywood Thickness

Light Weight Concrete

Standard Weight Concrete

Other: _____

Plywood

Metal deck

If the building has a stairwell, the size, location, and method of support, if required, **MUST** be shown on the Sketch page. **(Dimensions shown should be the inside clear dimensions)**

Sizes of required Floor Openings: _____

Total Stairwell Weight: _____

MATERIALS PROVIDED BY NUCOR BUILDING SYSTEMS:

Design for Load Provision **ONLY**

Auxiliary Support Columns

Support Beams

Bar Joists and Bridging

Bolted Joists Welded Joists

Deck Type: ____ C _____ Gauge

Deck Attachment: Welded

Deck Finish: Prime gray

Edge Angle / Pour Stop

_____ _____ _____ Gauge

Self-Drilling Screws

Galv. G-60 Other: _____

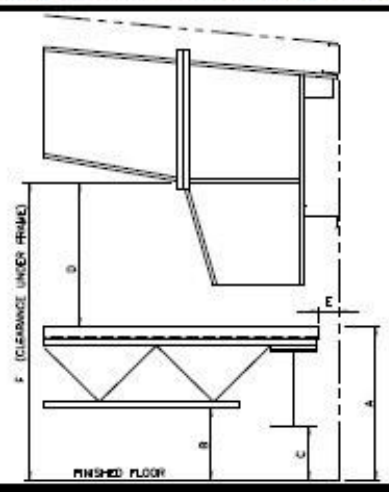
INDICATE APPLICABLE SIDEWALL DETAILS AND PROVIDE REQUESTED DIMENSIONS:

The details shown below are suggested methods of framing only. If framing methods other than shown below are required, show the details required on the sketch page. Frame columns will be straight or tapered, depending on the building type. Endwall column depth will vary depending on loads.

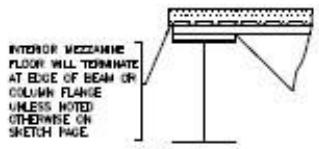
Use additional Mezzanine Design Information forms if there is more than one mezzanine area.

Joist design, including camber considerations, is performed in accordance with Steel Joist Institute (SJI) standards.

Deck is designed and fabricated in accordance with Steel Deck Institute (SDI) standards.

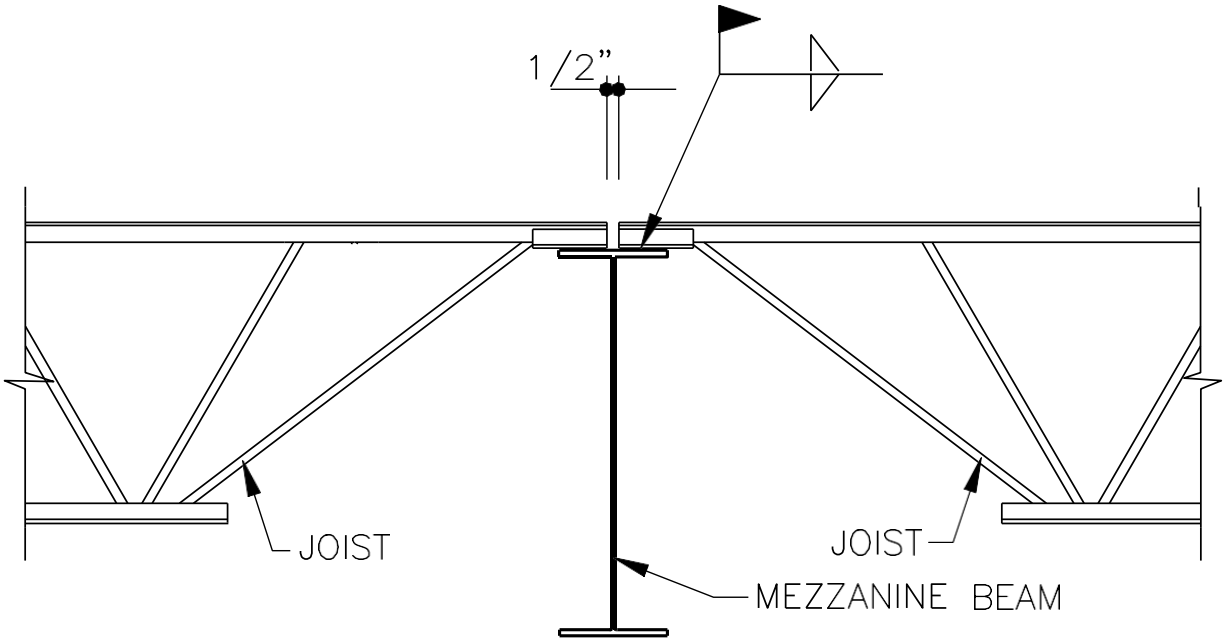


DIMENSIONAL DATA	REQUESTED	PROVIDED
A – FINISHED FLOOR TO TOP OF MEZZANINE		
B – MINIMUM REQUIRED CLEARANCE UNDER JOIST		
C – MINIMUM REQUIRED CLEARANCE UNDER FLOOR BEAMS		
D – MINIMUM REQUIRED CLEARANCE UNDER FRAME		
E – EDGE OF SLAB / DECK SETBACK FROM STEEL LINE		
F – CLEARANCE UNDER FRAME		
MEZZANINE JOIST SPACING / JOIST SEAT DEPTH	/	/



LAST REVISION
DATE: 02/16/15
BY: AK CHK: EGB

SM0030PE – WELDED JOIST ATTACHMENT

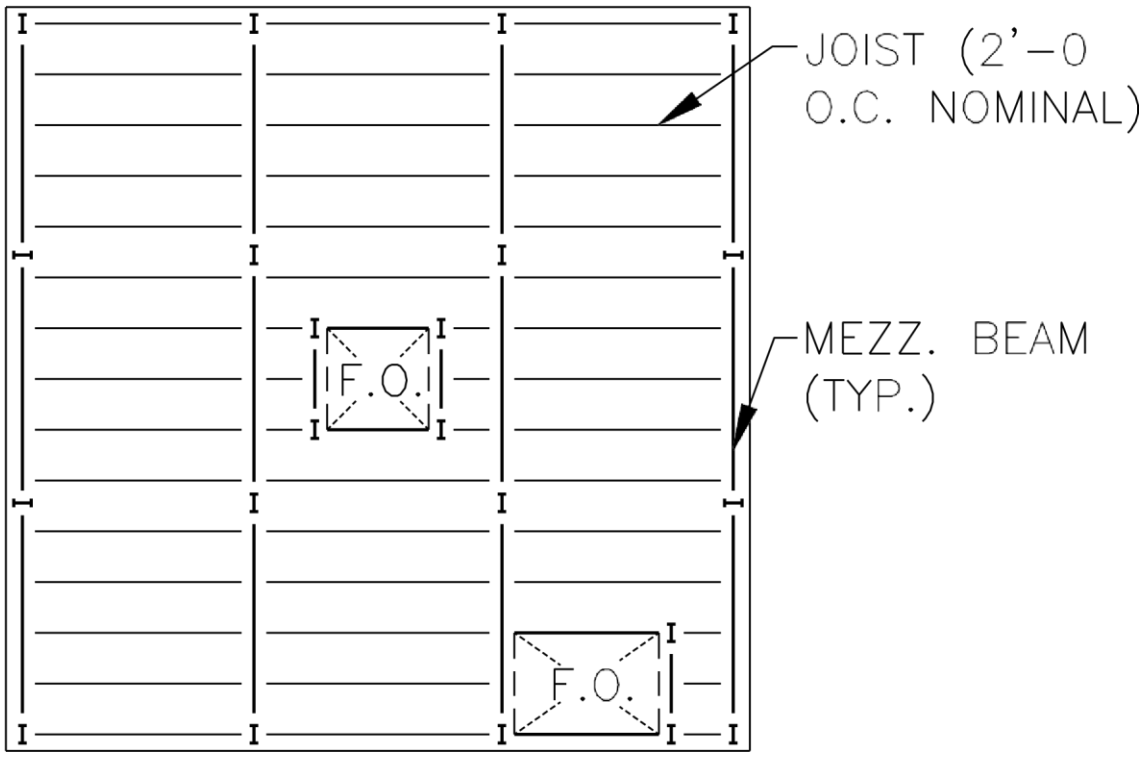


DETAIL APPLICABLE
DATE: **4.5.8**
BY:

LAST REVISION
06/08/09
AES CHK: EGB

NAME IF
SM0030PE.DWG

SM0040PE – MEZZANINE FRAMED OPENINGS



1. Mezzanine framed openings are typically achieved by placing a column at the edge of the opening that is not already adjacent to a mezzanine beam, as shown above. Because of that, it is important that opening sizes and locations are given at order entry, so as not to cause delays or pricing impacts. It is also important to include at least general framed opening information at the quote stage so that additional pricing can be avoided at order entry. For openings at stairwells, please indicate whether or not the Valley Steel steel is supporting the stairway on the mezzanine form of the order documents.
2. Typically, base plates for mezzanine columns are recessed below floor. Please indicate required base plate elevations in box 28 of the order documents. If not stated otherwise, they will be set at finished floor elevation.
3. Standard mezzanine column and beam shapes are built-up “H” sections. Special requirements can and ususlly do have pricing impacts. Consult Valley Steel Sales Enginering or estimating if special requirements are needed.

DETAIL APPLICABLE
DATE: **4.5.9**
BY:

4. If “X” bracing is allowed between mezzanine columns, please show available locations on the order document sketch.

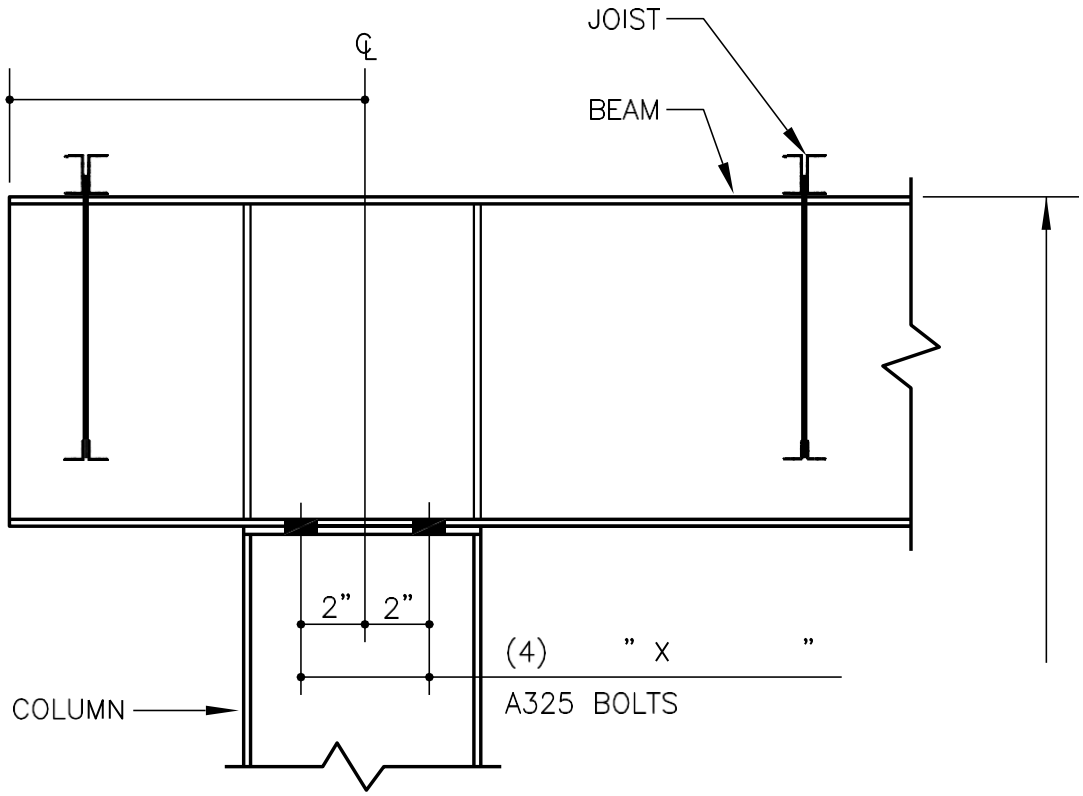
LAST REVISION
02/09/01
CDM CHK: RJF

NAME IF
SM0040PE.DWG

DETAIL APPLICABLE
DATE: **4.5.10**
BY:

BEAM CONNECTION DETAILS

AP0010 – BEAM END CONNECTION WITH "I" SHAPE COLUMN



BEAM CONNECTION DETAIL

MEZZ. BEAM END CONDITION WITH " I " SHAPE COLUMN

AP0010

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.11**
BY: AK CHK: EGB

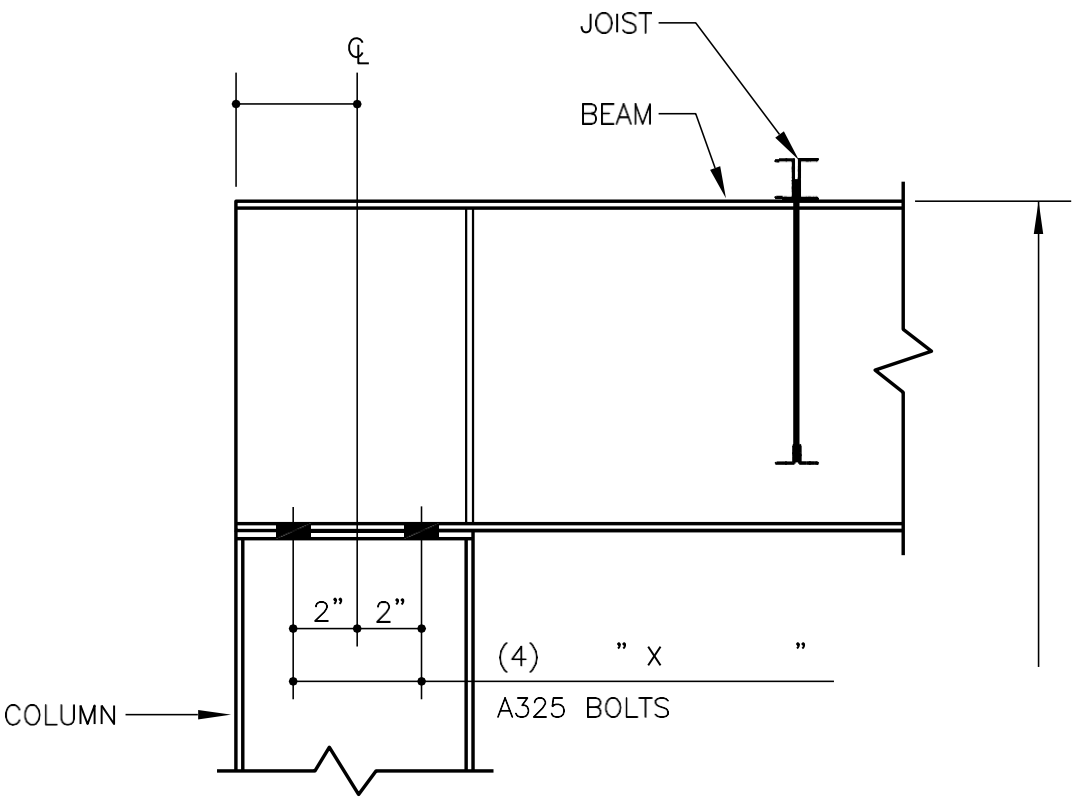
APPLICABLE

-

NAME IF

AP0010.DWG

AP0040 FLUSH BEAM END CONNECTION WITH "I" SHAPE COLUMN



BEAM CONNECTION DETAIL

MEZZ. BEAM END CONDITION WITH " I " SHAPE COLUMN

AP0040

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.12**
BY: AK CHK: EGB

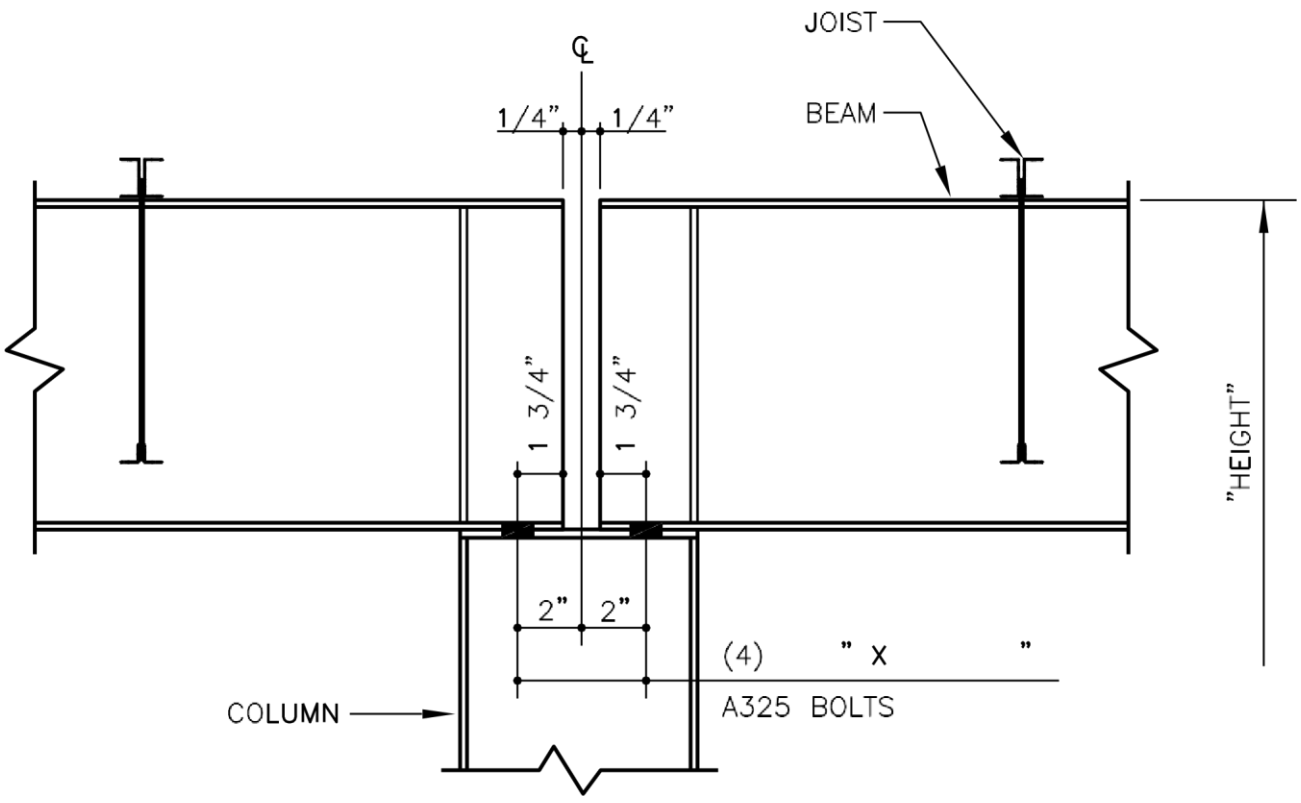
APPLICABLE

-

NAME IF

AP0040.DWG

AP0070 INTERIOR CONNECTION WITH "I" SHAPE COLUMN



BEAM CONNECTION DETAIL

MEZZ. BEAM TO INTERIOR " I " SHAPE COLUMN

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.13**
BY: AK CHK: EGB

APPLICABLE

-

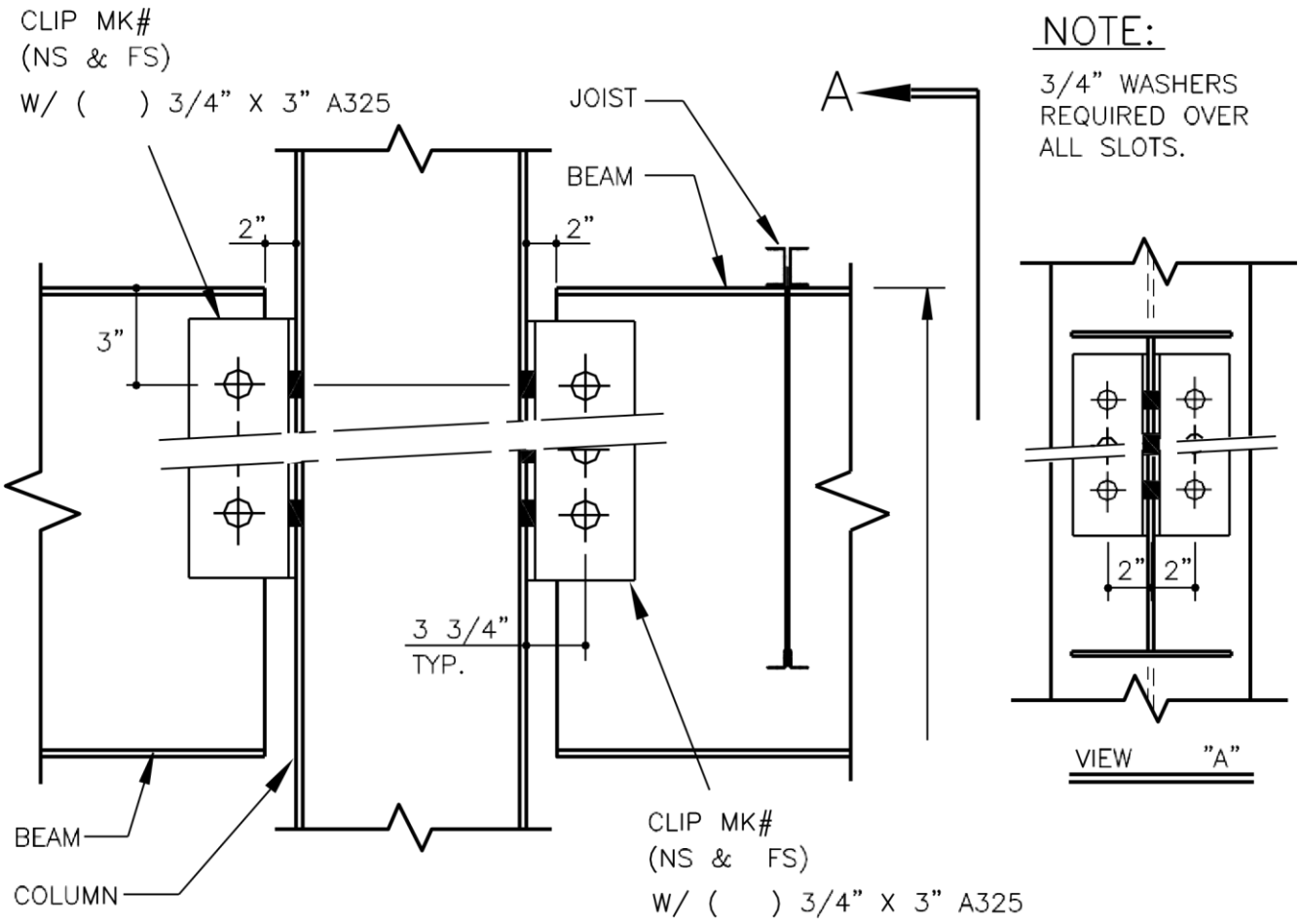
AP0070

NAME IF

AP0070.DWG

– FULL HEIGHT COLUMN

AP0100 (2 BEAMS – FLANGE CONNECTION)



BEAM CONNECTION DETAIL

MEZZ. BEAM TO FLANGE OF FULL HEIGHT COLUMN

LAST REVISION DETAIL APPLICABLE

DATE: 02/16/15 **4.5.15**

BY: AK CHK: EGB

– FULL HEIGHT COLUMN

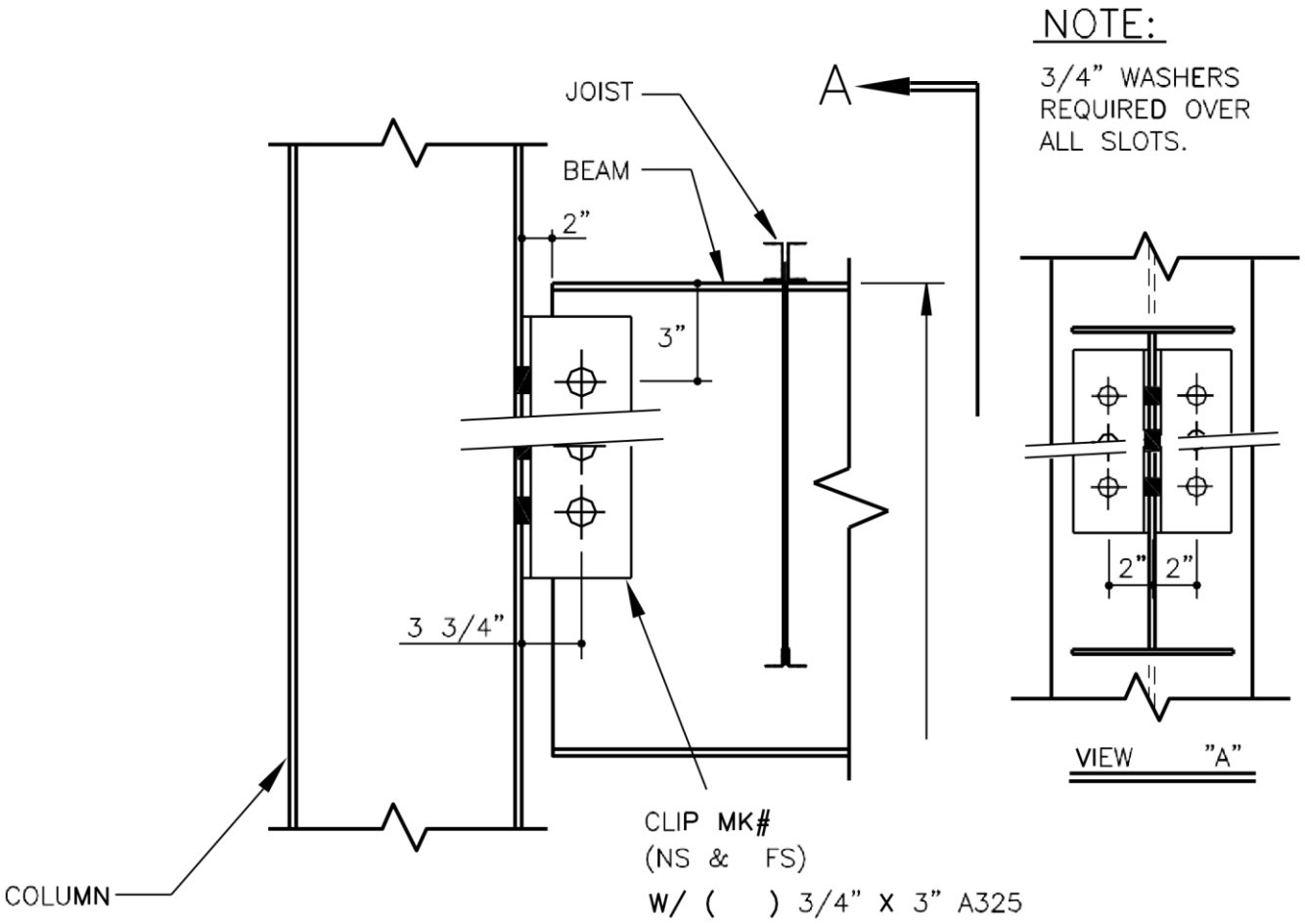
AP0100

NAME IF

AP0100.DWG

AP0110 (1 BEAM – FLANGE CONNECTION)

– FULL HEIGHT COLUMN



BEAM CONNECTION DETAIL

MEZZ. BEAM TO FLANGE OF FULL HEIGHT COLUMN.

AP0110

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.17**
BY: AK CHK: EGB

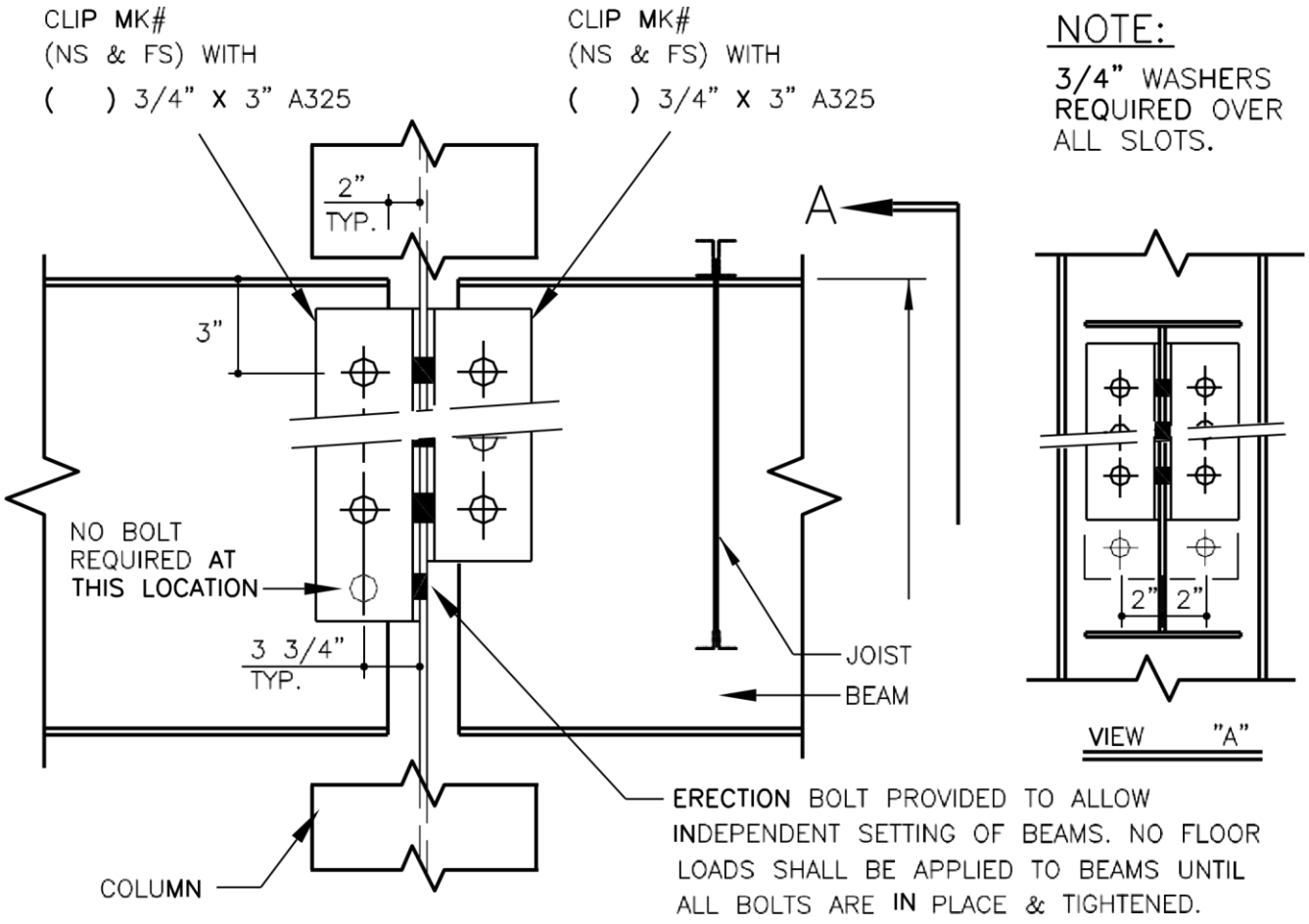
APPLICABLE

– FULL HEIGHT COLUMN

NAME IF

AH0110.DWG

AP0120 **(2 BEAMS – WEB CONNECTION)**



BEAM CONNECTION DETAIL

MEZZ. BEAM TO WEB OF FULL HEIGHT COLUMN

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.18**
BY: AK CHK: EGB

APPLICABLE

– FULL HEIGHT COLUMN

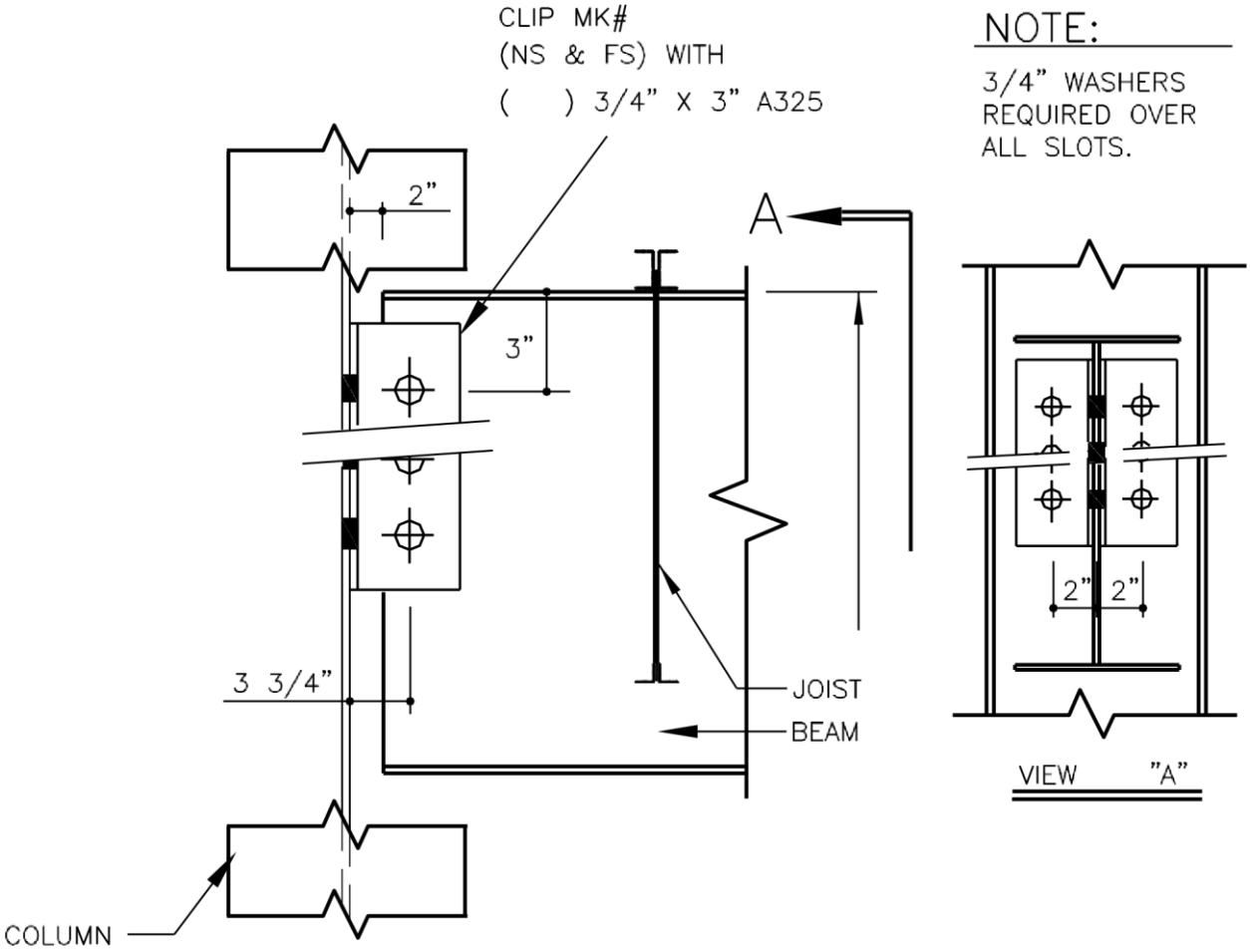
AP0120

NAME IF

AP0120.DWG

AP0130 (1 BEAM – WEB CONNECTION)

– FULL HEIGHT COLUMN



BEAM CONNECTION DETAIL

MEZZ. BEAM TO WEB OF FULL HEIGHT COLUMN

AP0130

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.20**
BY: AK CHK: EGB

APPLICABLE

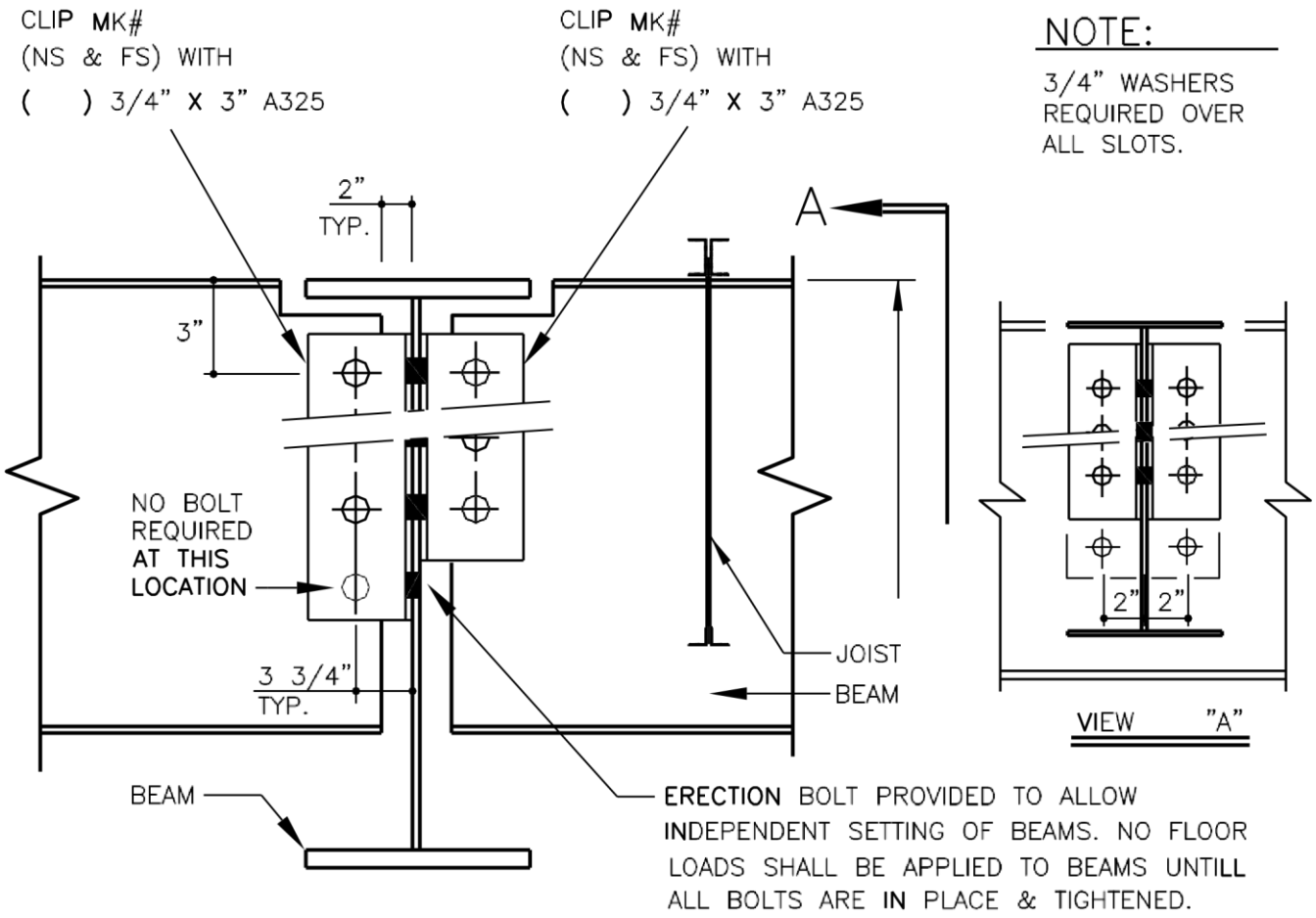
– FULL HEIGHT COLUMN

NAME IF

AP0130.DWG

– END CONNECTION TO DEEPER BEAM

AP0140 **(2 BEAMS – SAME ELEVATION)**



BEAM CONNECTION DETAIL

MEZZ. BEAM TO WEB OF DEEPER BEAM AT SAME ELEVATION

AP0140

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.22**
BY: AK CHK: EGB

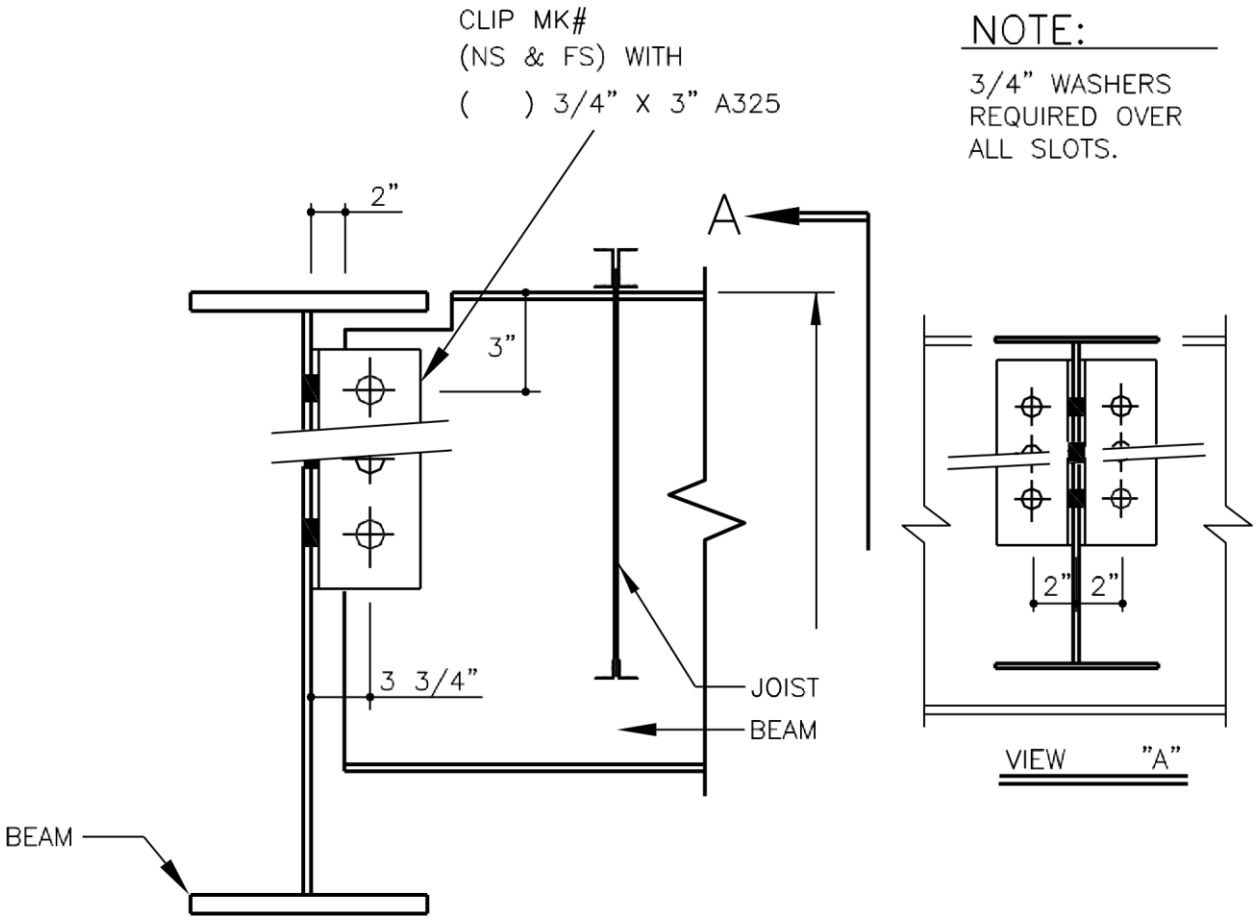
APPLICABLE

– END CONNECTION TO DEEPER BEAM

NAME IF

AP0140.DWG

AP0150 **(1 BEAM – SAME ELEVATION)**



LAST REVISION DETAIL
DATE: 02/16/15 **4.5.23**
BY: AK CHK: EGB

APPLICABLE

– END CONNECTION TO DEEPER BEAM

BEAM CONNECTION DETAIL

MEZZ. BEAM TO WEB OF DEEPER BEAM AT SAME ELEVATION

AP0150

NAME IF

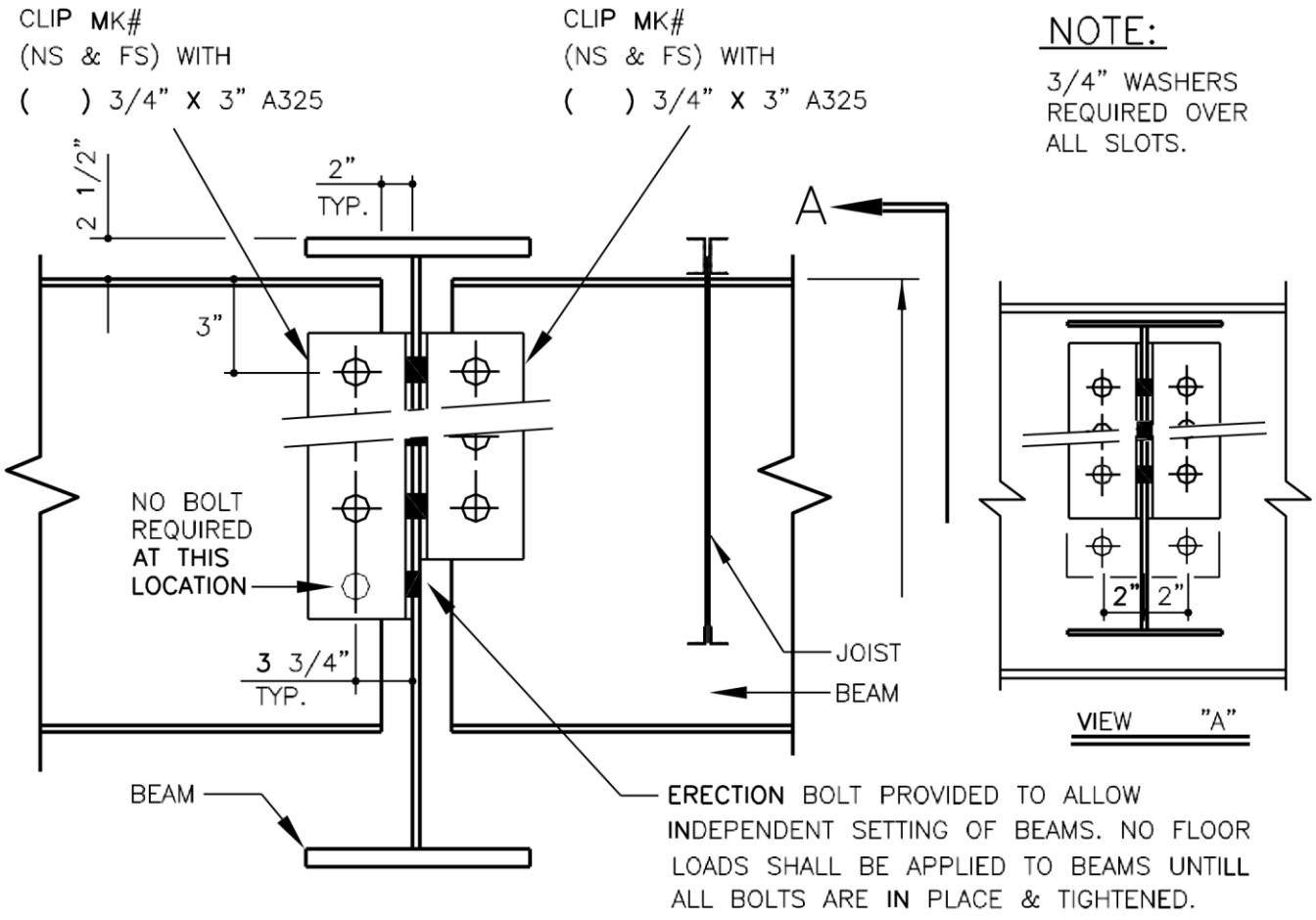
AP0150.DWG

AP0160 **(2 BEAMS – DIFFERENT ELEVATION)**

LAST REVISION DETAIL
DATE: 02/16/15 **4.5.24**
BY: AK CHK: EGB

APPLICABLE

– END CONNECTION TO DEEPER BEAM



BEAM CONNECTION DETAIL

MEZZ. BEAM TO WEB OF DEEPER BEAM AT DIFF. ELEVATION

AP0160

– END CONNECTION TO DEEPER BEAM

NAME IF

AP0160.DWG

– END CONNECTION TO DEEPER BEAM

AP0170 (1 BEAM – DIFFERENT ELEVATION)

DETAIL APPLICABLE

DATE: **4.5.27**

BY: CHK: EGB

– END CONNECTION TO DEEPER BEAM

LAST REVISION

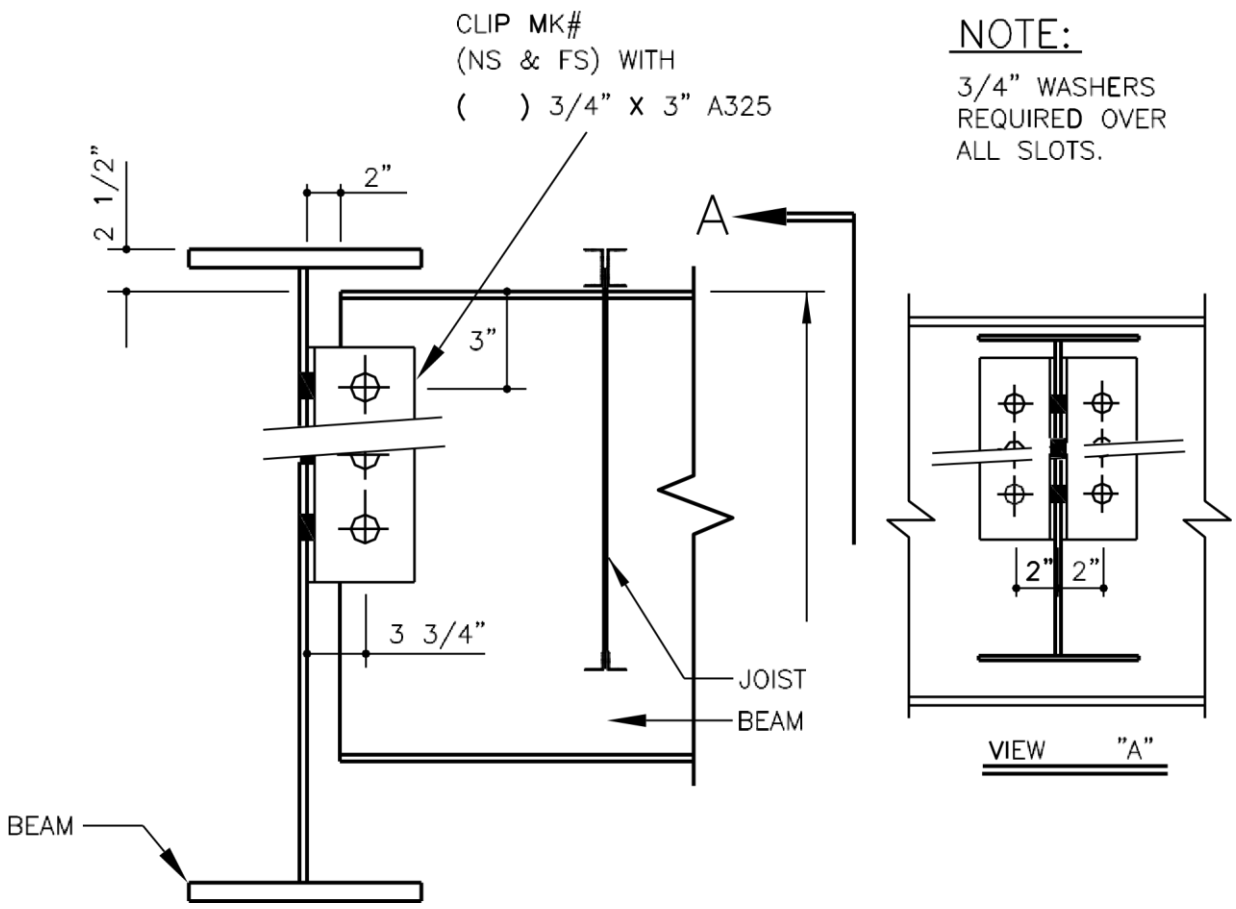
NAME IF
AP0170.DWG

DETAIL APPLICABLE
DATE: **4.5.28**
BY: CHK: EGB

– END CONNECTION TO DEEPER BEAM

09/01/11

RT



BEAM CONNECTION DETAIL

MEZZ. BEAM TO WEB OF DEEPER BEAM AT DIFF. ELEVATION

AP0170

DETAIL APPLICABLE

DATE: **4.5.29**

BY: CHK: EGB