

4601 Washington Ave, Suite 130  
Houston, Texas 77007

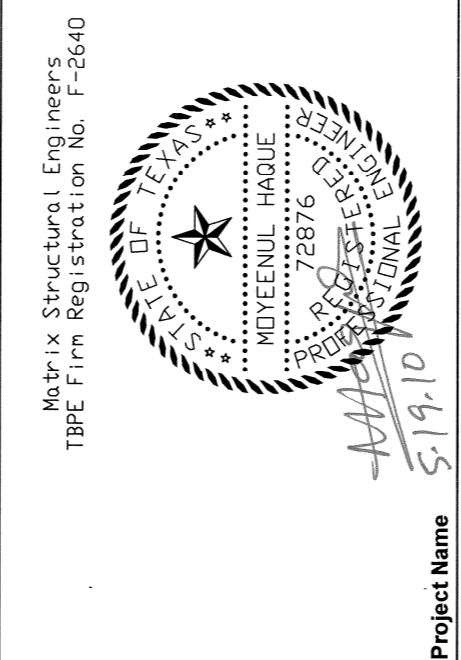
**Gensler**

**MATRIX**  
STRUCTURAL  
ENGINEERS  
MSE-10066

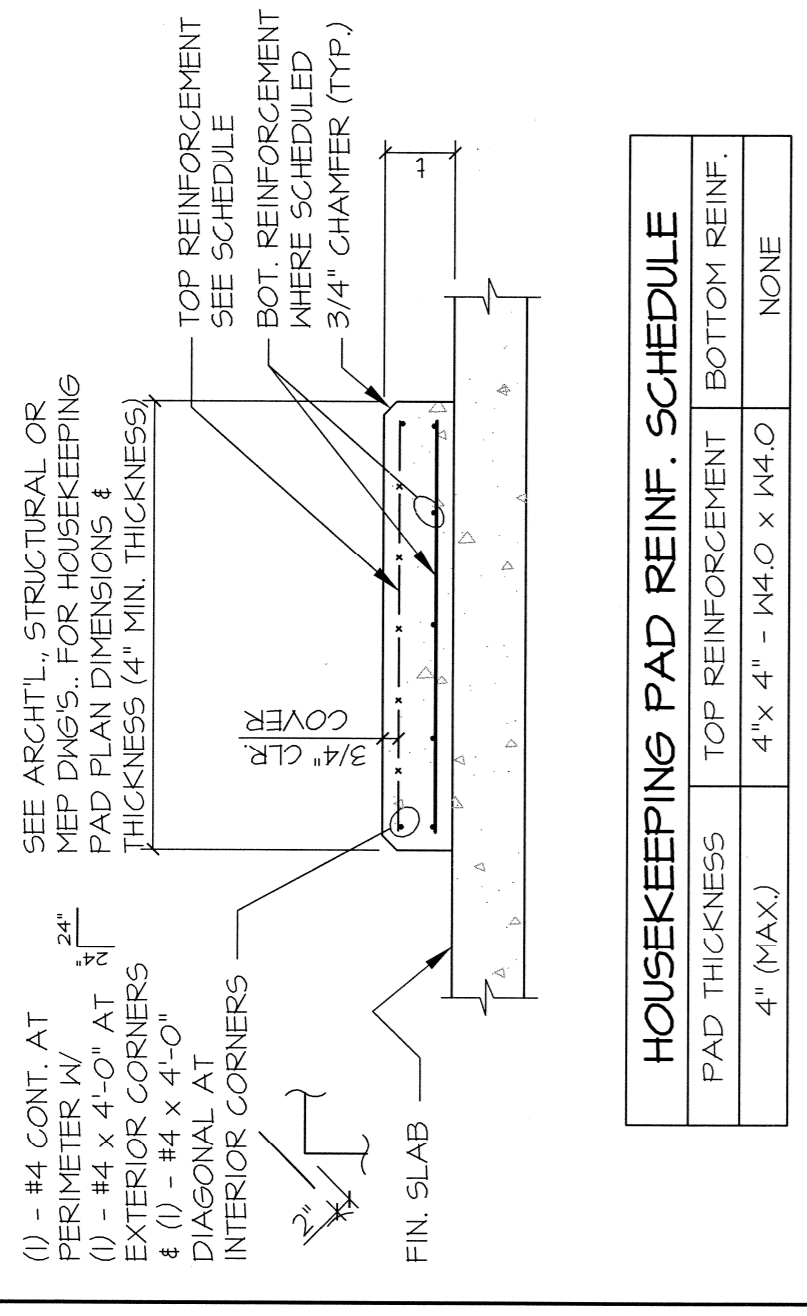
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Issue	Date & Issue Description	By	Check
06/19/10	ISSUE FOR BID & CONSTRUCTION		

Project Name: TOLA  
Project Number: 02.7005.000  
CAD File Name: 10066-CD-DWG  
Description: FRAMING DETAILS  
Scale:

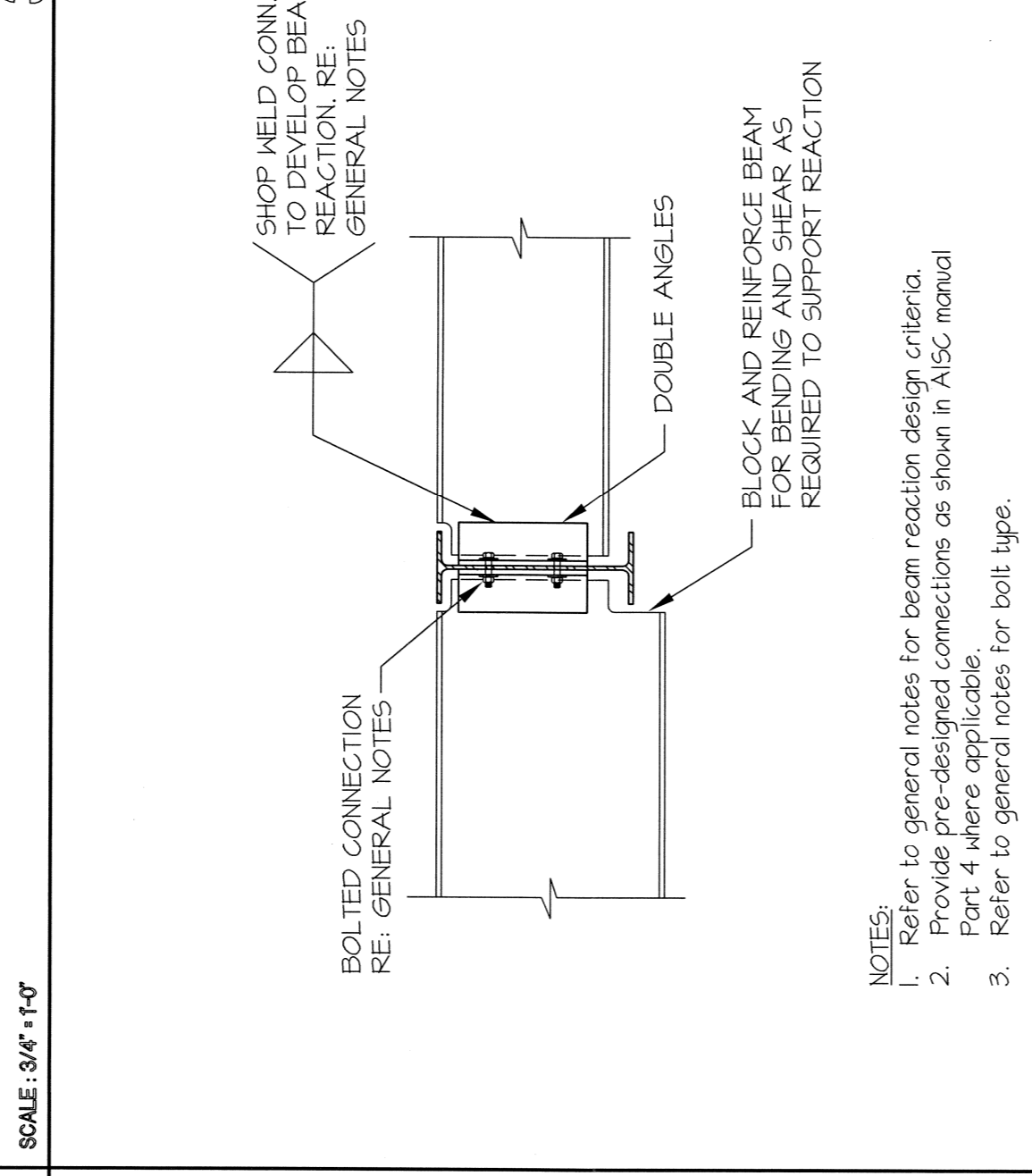


**S3.02**  
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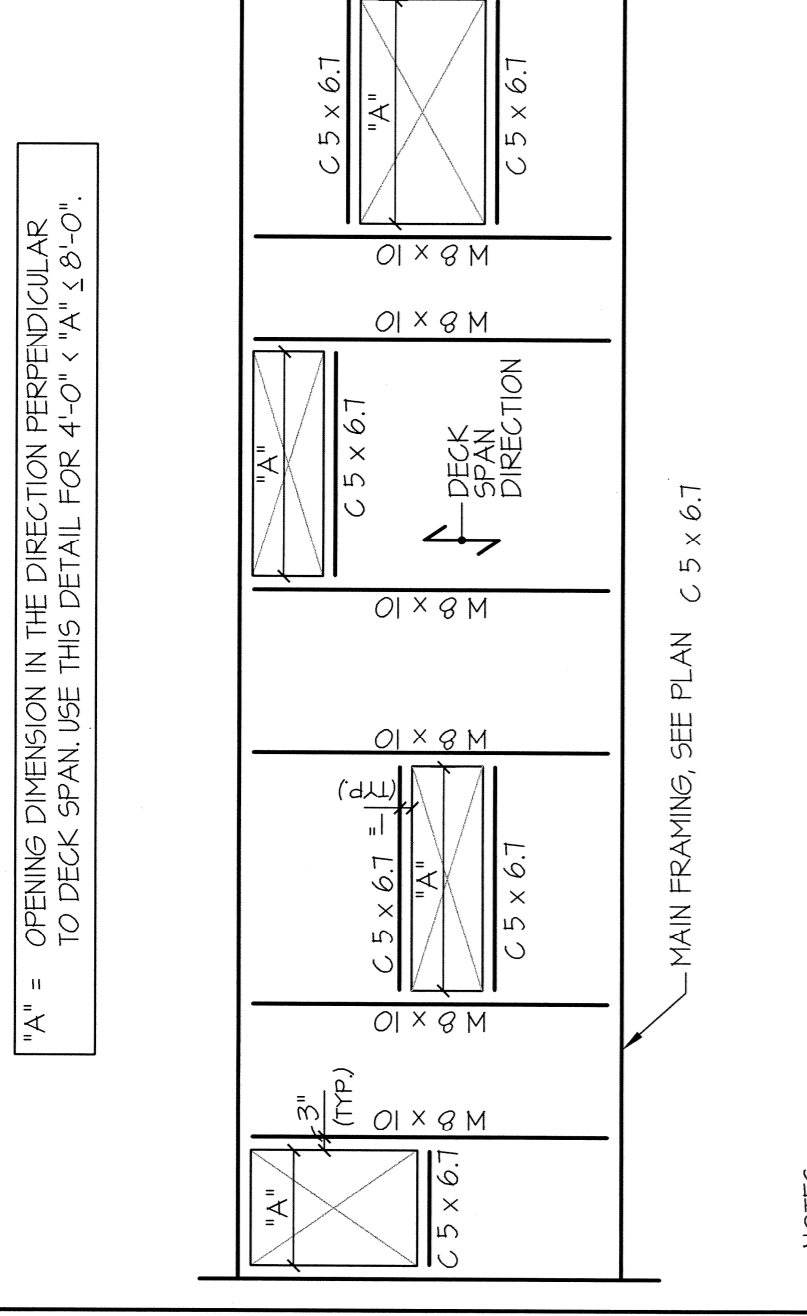
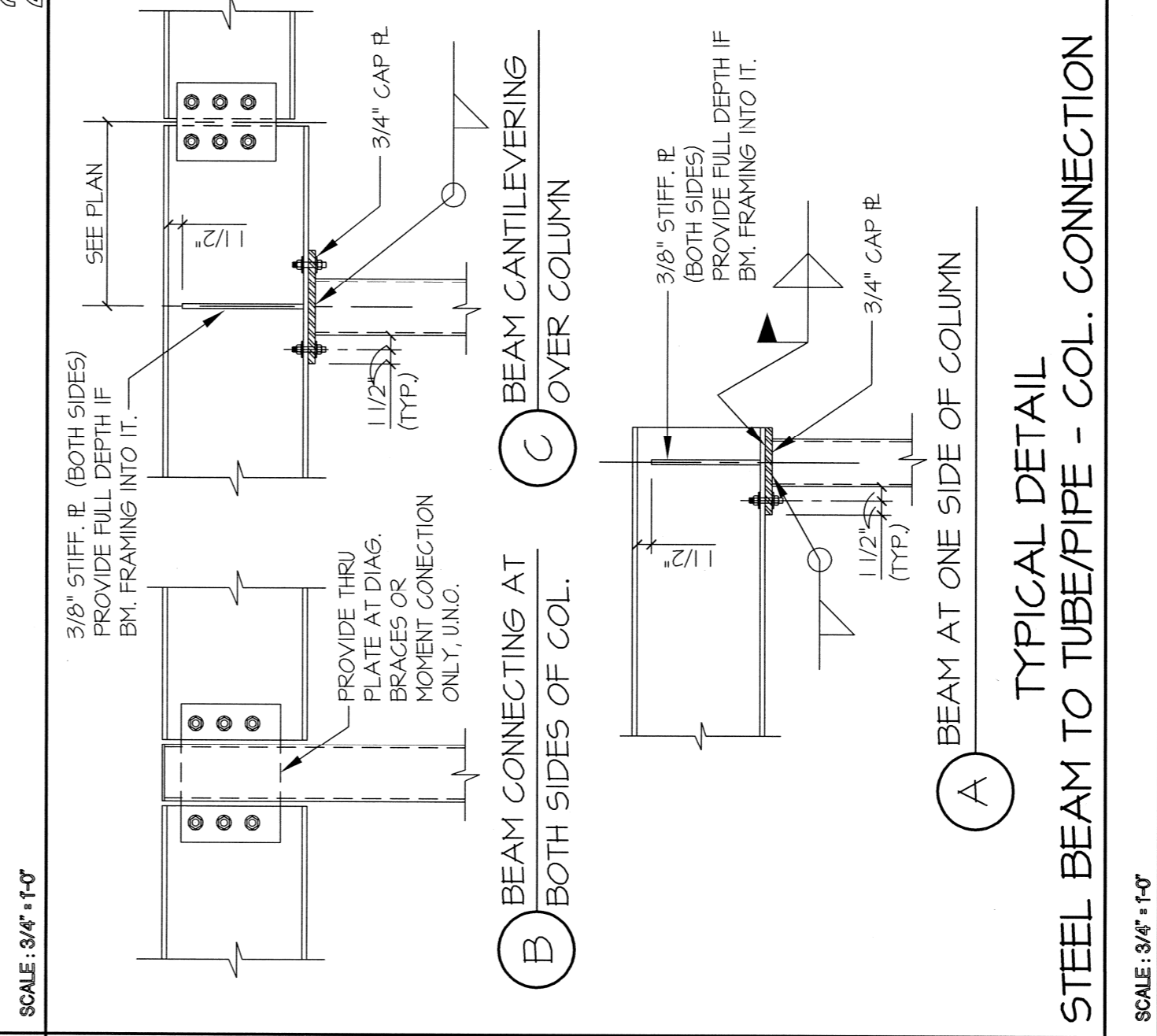


**TYPICAL DETAIL  
CONCRETE ISLAND OR HOUSEKEEPING PAD  
SECOND FLOOR**

NOTE:  
1. General Contractor to determine requirements for housekeeping pads over structural slabs and provide where required. Refer to structural drawings or notes. Coordinate dimensions and other special requirements with equipment manufacturers as required.

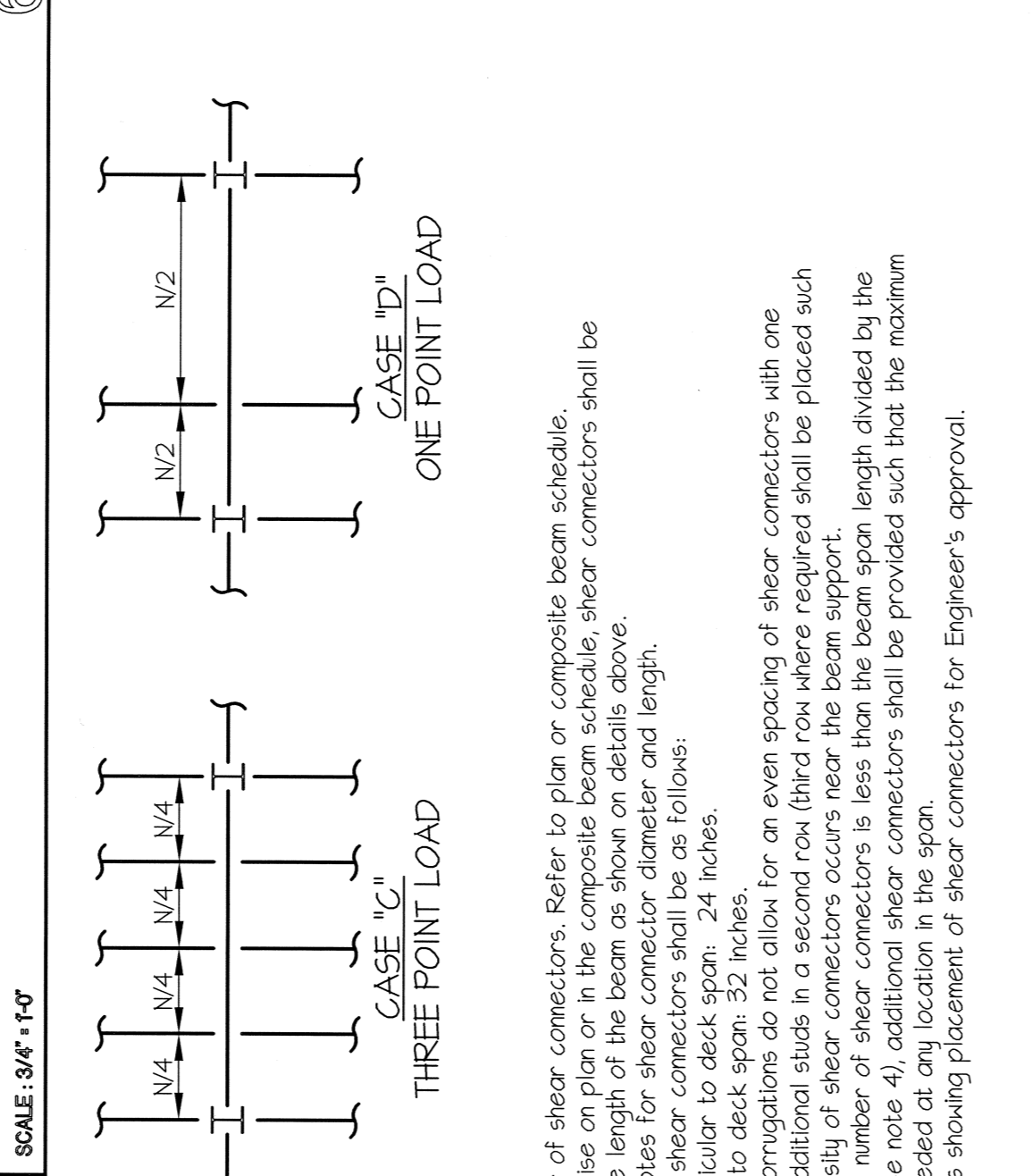


**TYPICAL DETAIL  
BEAM TO BEAM DOUBLE ANGLE  
SHEAR CONNECTION**



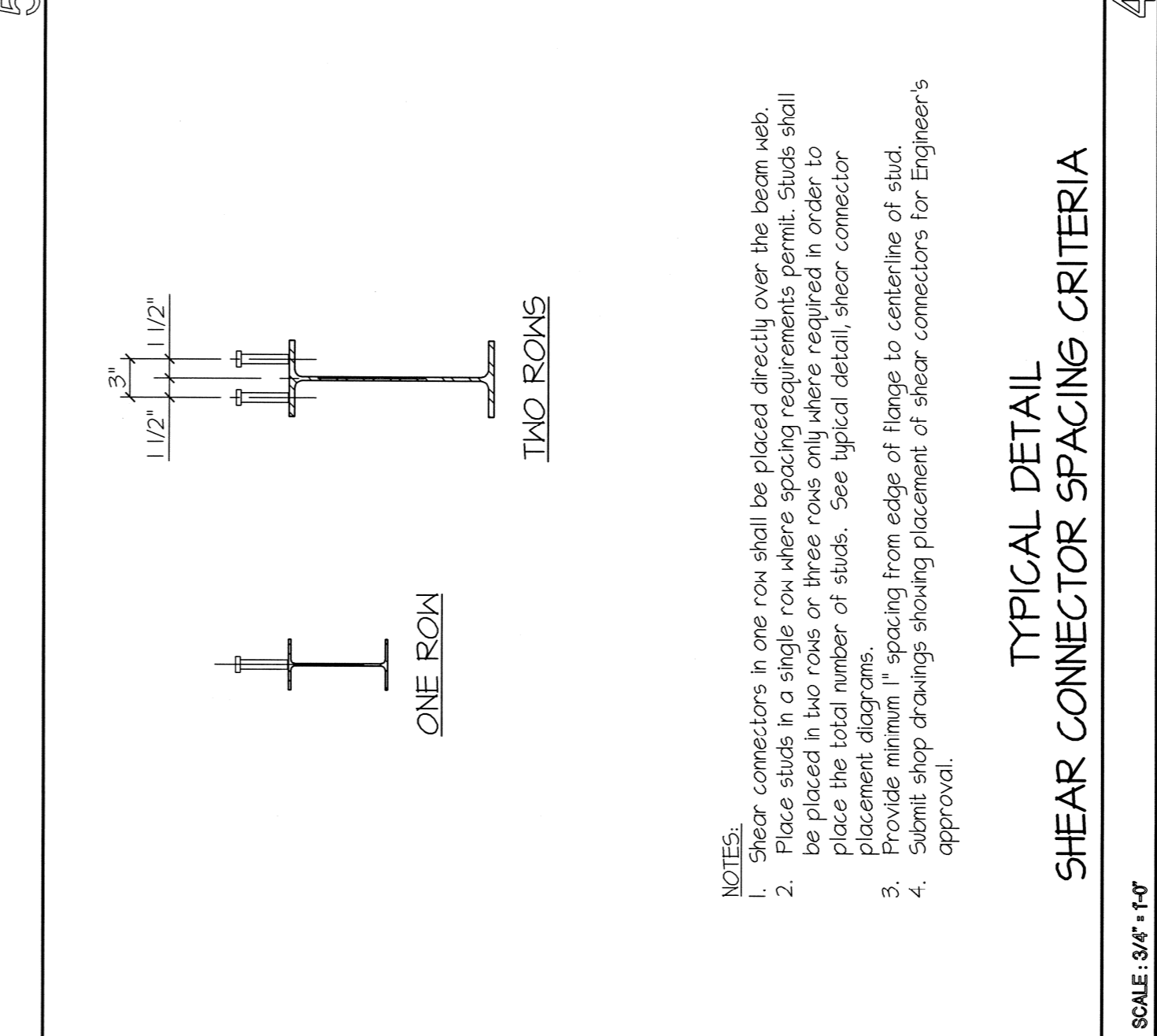
**TYPICAL DETAIL  
FRAMED OPENINGS IN COMPOSITE METAL DECK SLAB  
FLOOR OR ROOF**

NOTES:  
1. Coordinate opening size and locations with architectural and mechanical drawings.  
2. This detail shows typical configurations. Verify with Structural Engineer for special cases.  
3. Refer to Structural Engineer for framing dimension 'A'. Exceeds 8'-0".  
4. Beams shall be spaced at 24" on center. Edge metal edge closure around each opening unless detailed otherwise.



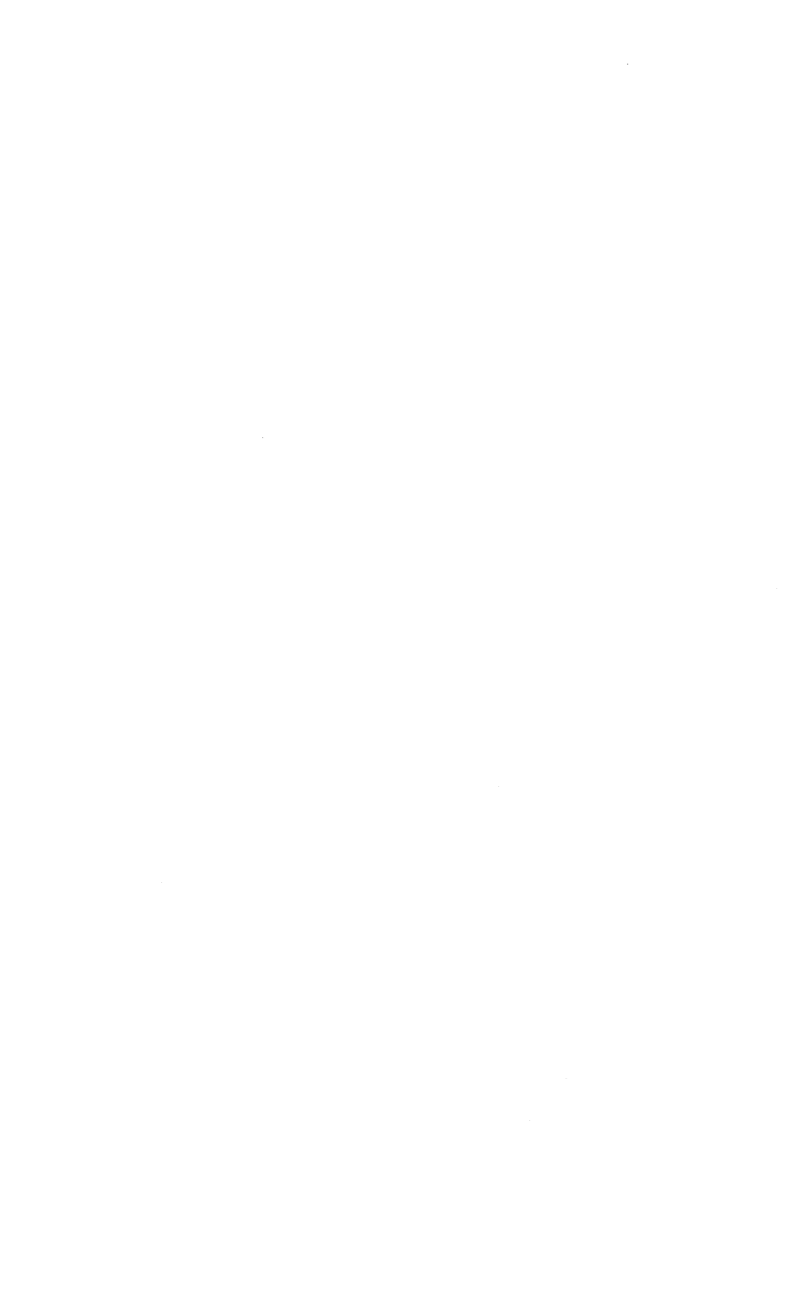
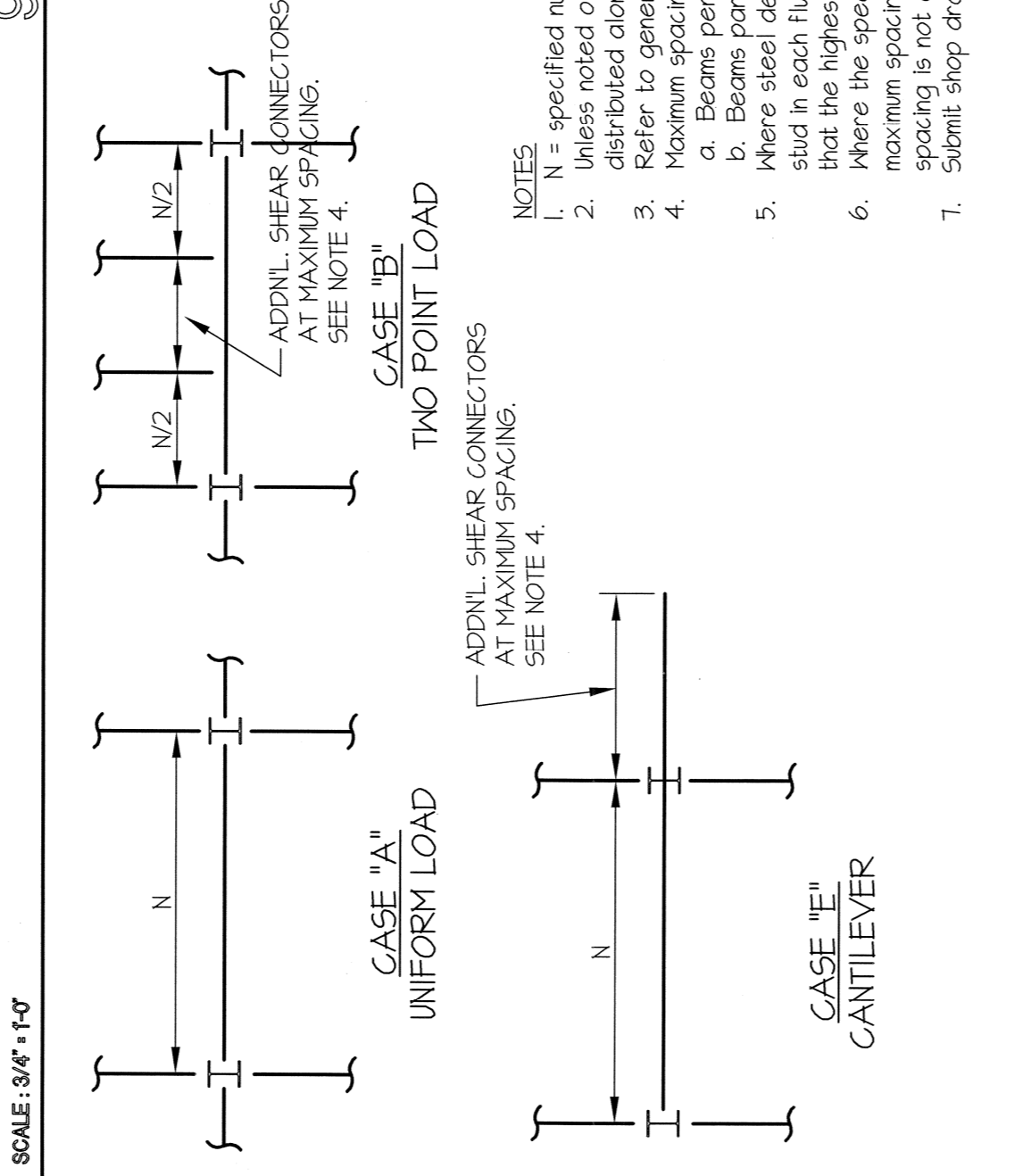
**TYPICAL DETAIL  
SHEAR CONNECTOR PLACEMENT DIAGRAMS  
COMPOSITE METAL DECK**

NOTES:  
1. N = specified number of shear connectors. Refer to plan or composite beam schedule.  
2. Unless noted otherwise on plan or in the composite beam schedule, shear connectors shall be placed in two rows.  
3. Refer to general notes for shear connector diameter and length.  
4. Maximum spacing of shear connectors shall be as follows:  
a. Beams perpendicular to deck span: 24 inches.  
b. Beams parallel to deck span: 32 inches.  
5. Where steel deck corrugations do not allow for an even spacing of shear connectors with one row, a second row shall be provided. The spacing between rows shall be 1/2 the spacing of the first row.  
6. Where the specified number of shear connectors is less than the beam span length divided by the maximum spacing (see note 4), additional shear connectors shall be provided such that the maximum spacing is not exceeded at any location in the span.  
7. Submit shop drawings showing placement of shear connectors for Engineer's approval.



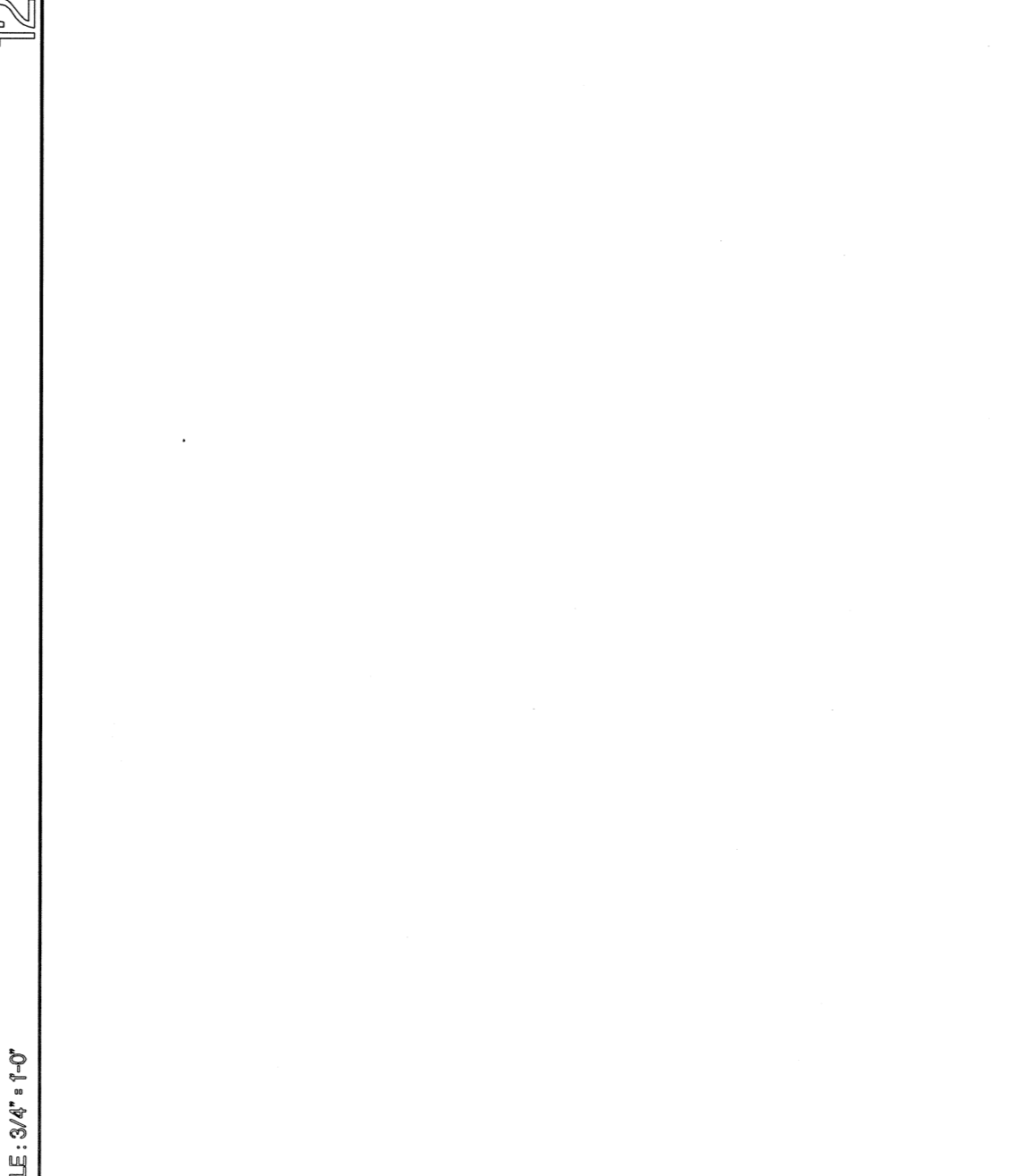
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