

- 1. WHERE NOTE APPLIES, BOLT TO BE CENTERED IN SLOTTED HOLE IN ANGLE. NUTS TO BE FINGER TIGHT. DAMAGE THREADS OF BOLT TO PREVENT BACK-OFF OF NUT.
- 2. PROVIDE U-BAR REINFORCEMENT PERPENDICULAR TO SLAB EDGE WHERE EMBED IS LOCATED 6" OR LESS FROM ADJACENT OPENING OR SLAB EDGE.

TYPICAL HSS POST TOP SLIP CONNECTION

STEEL COLUMN SLAB PLATE SCHEDULE

1'-4" 1 3/4

STEEL COLUMN SLAB PLATE SCHEDULE

# FIN COL END & BASE PL PER AISC NON-SHRINK GROUT CONTR SHALL HOLD BASE PL RIGIDLY IN PLACE WHILE GROUTING **ELEVATION**

# 1. TIGHTEN ANCHOR RODS SNUG TIGHT AND SCORE ROD THREADS TO PREVENT LOOSENING.

- 2. BASE PLATE HOLE DIAMETER AND PLATE WASHER SHALL BE SIZED PER "AISC MANUAL TABLE 14-2", UNLESS NOTED OTHERWISE.
- 3. ANCHOR ROD GAGE SHALL BE AS FOLLOWS: W10: 5 INCHES W12: 6 INCHES

W14: 8 INCHES

WORKABLE GAGE

FIN COLUMN END &

BASE PL PER AISC

PER AISC

CONTRACTOR TO COORDINATE ANCHOR ROD GAGE WITH CONCRETE REINFORCING.

CL COL

1 1/2" TYP

SEE "STL COL SCHED"

BASE PL, SEE "STL

FOR SIZE

COL SCHED"

FIT TO BEAR

STIFF PL3/8 ES TO

MATCH WIDTH OF

BM FLG, USE LARGER PL IF REQD BY

**INCOMING BM CONN** 

FIN COL END &

(4) 3/4" DIA STUDS

W/ 6" MIN EMBED

NOTES:

TYPICAL COLUMN BASE PLATE, TYPE 1

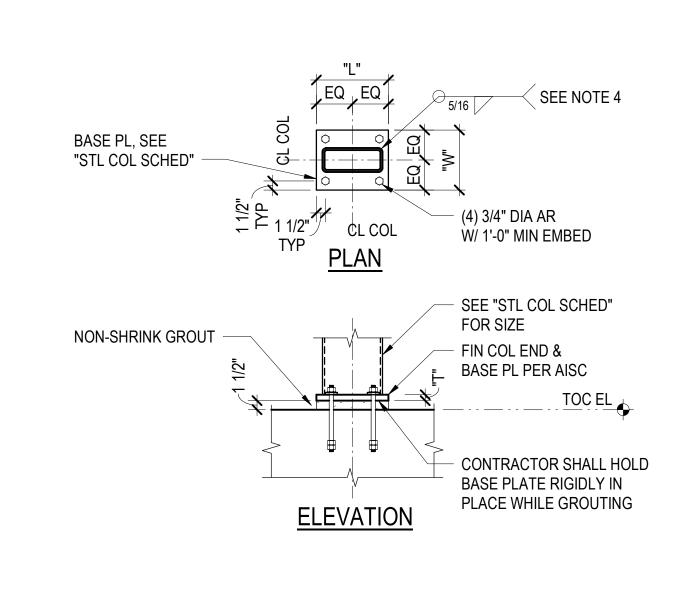
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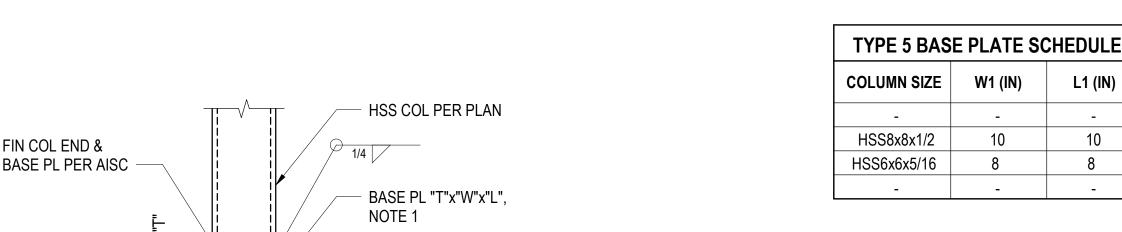
### 2" DIA MAX GROUT HOLE AT CONTR'S OPT (4) 3/4" DIA AR 5/16 W/ 1'-0" MIN EMBED -, GAGE SEE SEE "STL COL NOTE 3 SCHED" FOR SIZE BASE PL, SEE "STL COL SCHED" <u>PLAN</u>

## NOTES:

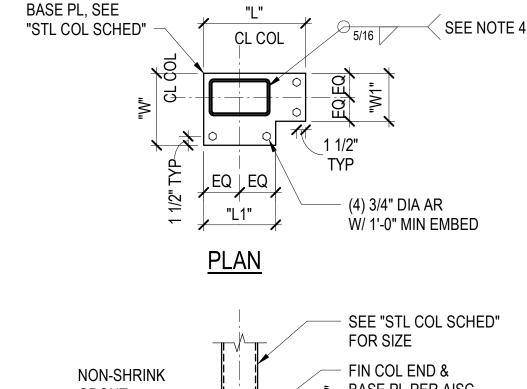
- 1. TIGHTEN ANCHOR RODS SNUG TIGHT AND SCORE ROD THREADS TO PREVENT LOOSENING.
- 2. BASE PLATE HOLE DIAMETER AND WASHER DIAMETER SHALL BE SIZED PER "AISC MANUAL-TABLE 14-2" UNLESS NOTED OTHERWISE
- 3. DIMENSION "L" IS PARALLEL TO WIDE FACE OF HSS UNLESS NOTED OTHERWISE.
- 4. WHERE EDGE OF BASE PLATE IS LESS THAN 9/16 INCH FROM THE FACE OF THE HSS, PROVIDE A PARTIAL PENETRATION GROOVE WELD OF THE HSS TO THE BASE PLATE IN LIEU OF FILLET WELD ON THAT FACE OF THE HSS. GROOVE WELD SIZE SHALL BE THE THICKNESS OF THE HSS WALL OR 5/16 INCH, WHICHEVER IS LESS.

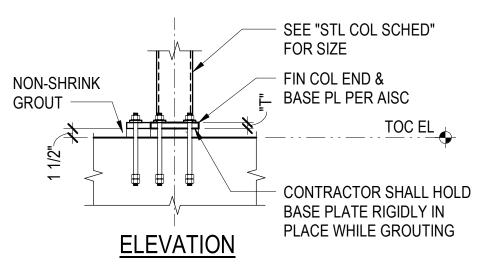
# TYPICAL COLUMN BASE PLATE, TYPE 4





- TIGHTEN ANCHOR RODS SNUG TIGHT AND SCORE ROD THREADS TO PREVENT LOOSENING.
- 2. BASE PLATE HOLE DIAMETER AND WASHER DIAMETER SHALL BE SIZED PER "AISC MANUAL-TABLE 14-2" UNLESS NOTED OTHERWISE
- 3. DIMENSION "L" IS PARALLEL TO WIDE FACE OF HSS UNLESS NOTED OTHERWISE.
- 4. WHERE EDGE OF BASE PLATE IS LESS THAN 9/16 INCH FROM THE FACE OF THE HSS, PROVIDE A PARTIAL PENETRATION GROOVE WELD OF THE HSS TO THE BASE PLATE IN LIEU OF FILLET WELD ON THAT FACE OF THE HSS. GROOVE WELD SIZE SHALL BE THE THICKNESS OF THE HSS WALL OR 5/16 INCH, WHICHEVER IS LESS.





# ÇL COL (4) 3/4"ø STUDS EMBED PL "T2"x"L2"x"W2" @ 8" OC EW FIN COL END & EMBED PL TO BEAR PER AISC

CONNECTION AT WF COL

1. SEE STEEL COLUMN SLAB PLATE SCHEDULE FOR PLATE DIMENSIONS.

NOTES:

# **CL COL** EMBED PL "T2"x"L2"x"W2" (4) 3/4"ø STUDS @ 8" OC EW 5/16 FIN COL END & EMBED PL TO BEAR PER AISC

**ELEVATION** 

1. DIMENSION "L" IS PARALLEL TO WIDE FACE OF HSS UNLESS NOTED OTHERWISE.

TYPICAL BASE PLATE, TYPE 6

# **CONNECTION AT HSS COL**

# AT TOP OF COL, SEE NOTE 2 - BOLTS **BOLTS**

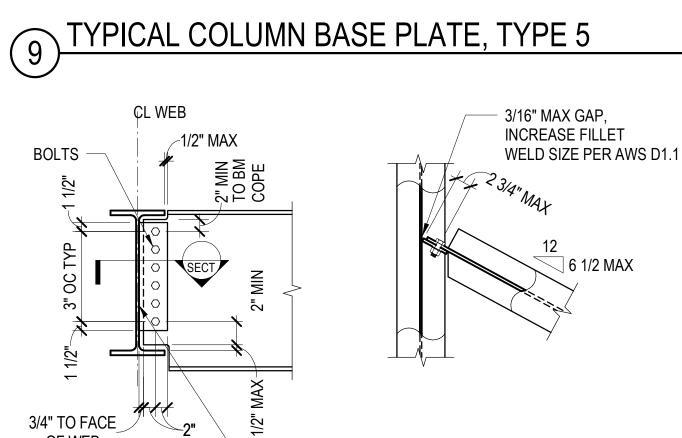
1. ALIGN BASE PLATE LONGER SIDE WITH LONGER SIDE OF HSS COLUMN.

TYPICAL COLUMN BASE PLATE, TYPE 7

BEAM TO COLUMN FLANGE BEAM TO HSS OR PIPE COLUMN

# 3/4" TO FACE

OF WEB



**SECTION** 

# BEAM TO BEAM

SHALLOW BM,

SEE NOTE 1

(2) 7/8" DIA

FOR DEEPER BEAMS.

ALL PLATES SHALL HAVE Fy = 50 KSI MINIMUM.

NOTES:

GR A325 BOLTS

1. THIS DETAIL SHALL BE USED ONLY FOR BEAMS UP TO 8 INCHES DEEP AND WEIGHING

TYPICAL SHALLOW BEAM CONNECTION

AT LEAST 8 LB/FT. SEE "TYPICAL BEAM TO BEAM / BEAM TO COLUMN CONNECTION"

# (SKEWED BEAMS)

FIN COL END &

BASE PL PER AISC

NON-SHRINK GROUT

(4) 3/4"ø AR; EXTEND

THROUGH CONCRETE

SLAB/BEAM

TO EMBED PL

SEE NOTE 6.

TYP AR TO

EMBED PL 1/4

FIN COL END & EMBED

PL TO BEAR PER AISC

1. SEE "GENERAL NOTES FOR STEEL CONNECTIONS" FOR ADDITIONAL INFORMATION

**CONNECTION AT HSS COL** 

ABOVE WITH WF COL BELOW

2. AT TOP OF HSS OR PIPE COLUMN, PROVIDE 1/2 INCH CAP PLATE WITH 5/16 INCH FILLET WELD ALL AROUND. IF BEAM IS SHOWN RUNNING OVER TOP OF COLUMN ON PLAN, SEE "TYPICAL BASE PLATE, TYPE 6" DETAIL.

TYPICAL BEAM TO BEAM / BEAM TO COLUMN CONNECTION

BASE PL "T1"x"L1"x"W1"

INFO NOT SHOWN

GROUTING

2" TO EDGE OF EMBED PL

SEE TYPE 4 BASE PL FOR

CONTR SHALL HOLD BASE

PL RIGIDLY IN PLACE WHILE

EMBED PL "T2"x"L2"x"W2"

STUD RAIL

PER PLAN

### **BEAM DEPTH BOLTS REQUIRED REACTION (KIPS)** W12, W14 W16, W18 W21 W24 W27 W30 - W44

**WIDE-FLANGE** 

**TABLE A** 

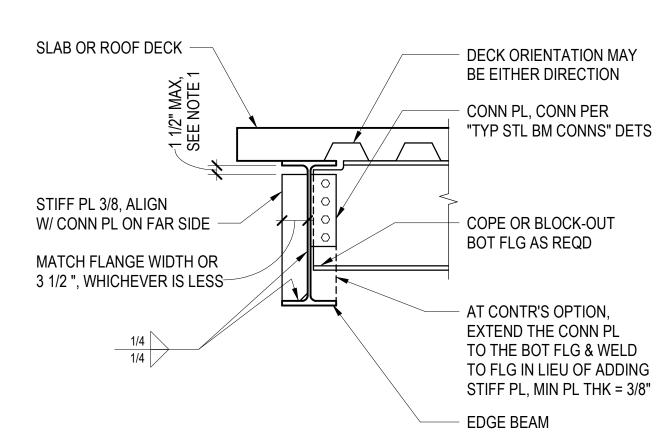
MAXIMUM

**NUMBER OF** 

## NOTES BELOW APPLY TO ALL TYPICAL CONNECTIONS UNLESS NOTED OTHERWISE

- 1. SEE PLANS FOR BEAM SIZE. UNLESS NOTED OTHERWISE, PROVIDE THE NUMBER OF 7/8 INCH DIAMETER GRADE A325 BOLTS SHOWN IN "TABLE A" BASED ON THE BEAM
- 2. SHEAR TAB PLATES SHALL BE GRADE 50 MATERIAL, AND BE 1/4 INCH THICK WITH 3/16 INCH WELD EACH SIDE FOR (2) BOLTS, 5/16 INCH THICK WITH 1/4 INCH WELD EACH SIDE FOR (3) BOLTS TO (5) BOLTS, AND 3/8 INCH THICK WITH 1/4 INCH WELD EACH SIDE FOR (6) BOLTS OR MORE
- 3. BEAMS AND SHEAR TAB PLATES SHALL HAVE STANDARD ROUND HOLES (STD) UNLESS NOTED OTHERWISE. AT CONTRACTOR'S OPTION, HOLES IN SHEAR TAB PLATES MAY BE HORIZONTAL SHORT-SLOTTED HOLES.
- 4. WHEN CONDITIONS VARY FROM THOSE SHOWN IN THE TYPICAL DETAIL, DESIGN CONNECTIONS ACCORDING TO THE AISC MANUAL OF STEEL CONSTRUCTION.

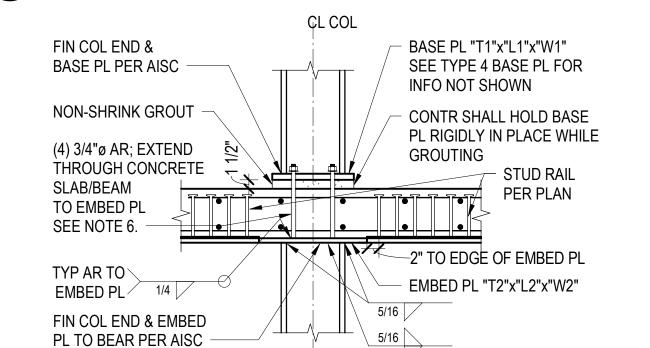
# GENERAL NOTES FOR STEEL CONNECTIONS



## NOTES:

—— SUPT BM

- 1. AT LOCATIONS WHERE A CONCRETE SLAB DOES NOT EXIST AT EDGE BEAM, THE STIFFENER PLATE OR CONNECTION PLATE SHALL BE EXTENDED TO FULL DEPTH AND WELDED ON THREE SIDES.
- 2. THIS DETAIL APPLIES AT ALL EDGE OF SLAB CONDITIONS.
- TYPICAL STEEL EDGE BEAM STIFFENER

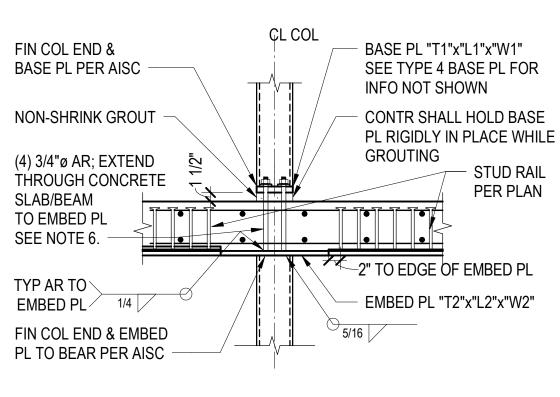


## NOTES:

- 1. TIGHTEN ANCHOR RODS SNUG TIGHT AND SCORE ROD THREADS TO PREVENT LOOSENING.
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CONNECTION AT WF COL

3. SEE STEEL COLUMN SLAB PLATE SCHEDULE FOR PLATE DIMENSIONS.



## **CONNECTION AT HSS COL**

- WHERE COLUMN ABOVE IS WIDE FLANGE, ANCHOR ROD GAGE SHALL BE AS FOLLOWS: W10: 5 INCHES W12: 6 INCHES W14: 8 INCHES
- WHERE COLUMN ABOVE IS HSS AND WHERE EDGE OF BASE PLATE IS LESS THAN 9/16 INCH FROM THE FACE OF THE HSS, PROVIDE A PARTIAL PENETRATION GROOVE WELD OF THE HSS TO THE BASE PLATE IN LIEU OF FILLET WELD ON THAT FACE OF THE HSS. GROOVE WELD SIZE SHALL BE THE THICKNESS OF THE HSS WALL OR 5/16 INCH, WHICHEVER IS LESS
- 6. ANCHOR ROD TO BE SMOOTH SHANK THROUGH BEAM/SLAB THICKNESS.

TYPICAL STEEL COLUMN SUPPORTING CONCRETE FRAMING

YPICAL TOP OF STEEL COLUMN SUPPORTING CONCRETE FRAMING

checked by job no. 20052 date 05/17/2024 3 8/19/2024 ASI-004 7/26/2024 ASI-002 05/17/2024 IFC 2 04/08/2024 IFC SET 1 OF 3 11/18/2022 95% CD no. date

principal architect

project manager\_\_

Reserved for permit stamp

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IFC SET 2 OF 3 05/17/2024

TYPICAL STEEL **DETAILS** 

S4.11