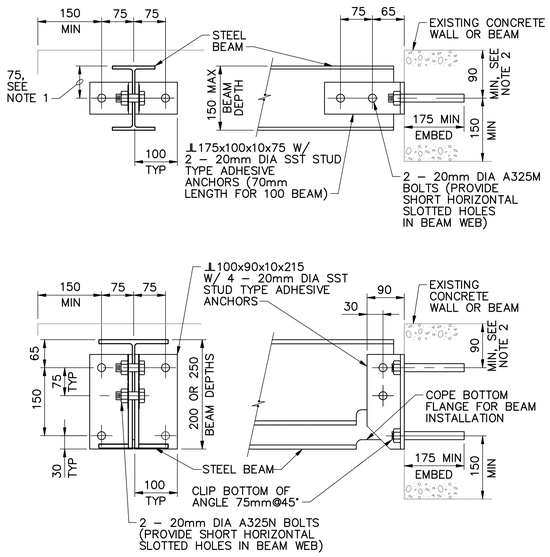
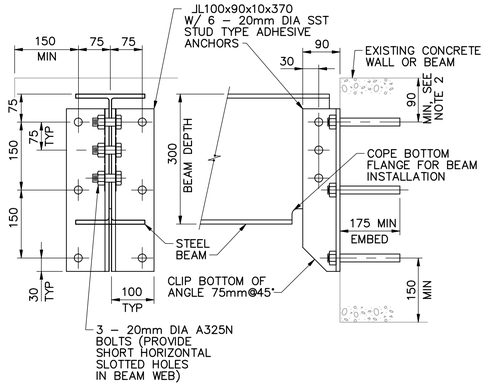
SHEET: COW-A1 (05/2005)

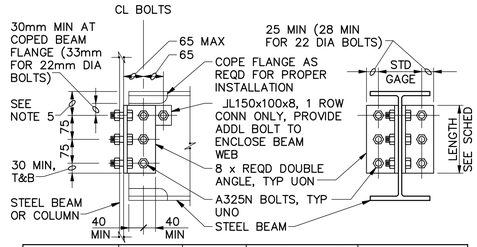



NOTES:

1. 75mm DIMENSION TYPICAL EXCEPT 65mm FOR 125mm BEAMS AND 50mm FOR 100mm BEAMS.
2. DO NOT CUT EXISTING CONCRETE BEAM TOP REINFORCING DURING DRILL–IN ANCHOR INSTALLATION. FIELD LOCATE BEAM REINFORCING PRIOR TO FABRICATION. ADD LENGTH TO CLIP ANGLES AS REQUIRED TO LOWER ANCHORS TO CLEAR REINFORCING WHILE MAINTAINING SPACING AND EDGE DISTANCE AS SHOWN.
3. WHERE BOTH ENDS OF BEAM ARE ATTACHED TO A WALL, PROVIDE LONG HORIZONTALLY SLOTTED HOLES IN BEAM WEB AT ONE END. TIGHTEN NUTS SNUG TIGHT, BACK OFF 1/2 TURN, AND LOCK WITH DOUBLE NUT.

1 – BEAM/WALL CONNECTION–STEEL
N.T.S.

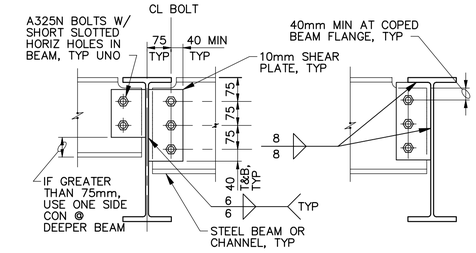



| NOMINAL BEAM DEPTH, mm | ROWS OF BOLTS | BOLT DIA, mm | DOUBLE ANGLE, LENGTH, mm | COMMENTS |
|---|---|---|---|---|
| 920 | 10 | 22 | 750 | ANGLE THK = 10 |
| 840 | 9 | 22 | 675 | ANGLE THK = 10 |
| 760 | 8 | 22 | 600 | ANGLE THK = 10 |
| 690 | 7 | 20 | 520 | – |
| 610 | 6 | 20 | 445 | – |
| 530 | 5 | 20 | 365 | – |
| 410–460 | 4 | 20 | 290 | – |
| 310–380 | 3 | 20 | 215 | – |
| 200–250 | 2 | 20 | 140 | – |
| 150 | 1 | 20 | 75 | SEE NOTE 3 |
| 100 | 1 | 20 | 65 | SEE NOTE 3 |

NOTES:

1. UNLESS OTHERWISE NOTED, NUMBER OF ROWS IS EQUAL TO NUMBER OF BOLTS TO ENCLOSE BEAM WEB.
2. ALL BEAM FRAMING CONNECTIONS SHALL CONFORM TO THIS DETAIL UNLESS SPECIFICALLY NOTED OTHERWISE OR APPROVED IN WRITING BY THE CONTRACT ADMINISTRATOR.
3. FOR NOMINAL BEAM DEPTHS LESS THAN 200mm, EXTEND LONG LEG OF DOUBLE ANGLE ALONG BEAM WEB AND PROVIDE ADDITIONAL BOLT TO ENCLOSE BEAM WEB AS SHOWN.
4. PROVIDE ADDITIONAL 40mm LENGTH TO DOUBLE ANGLE FOR STAGGERED BOLT CONNECTIONS WHEN REQUIRED OR USED.
5. DIMENSION SHALL BE 75mm UNLESS OTHERWISE REQUIRED FOR PROPER FABRICATION.

2 – TYPICAL BEAM CONNECTION
N.T.S.



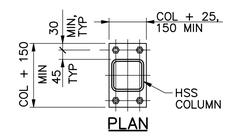

TWO SIDE CONN ONE SIDE CONN

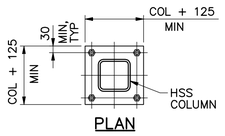
| NOMINAL BEAM DEPTH, mm | ROWS OF BOLTS | BOLT DIA, mm | LENGTH OF SHEAR PLATE, mm, SEE NOTE 3 |
|---|---|---|---|
| 690 | 8 | 22 | 610 |
| 610 | 7 | 20 | 530 |
| 530 | 6 | 20 | 460 |
| 460 | 5 | 20 | 380 |
| 410 | 4 | 20 | 300 |
| 310–380 | 3 | 20 | 225 |
| 200–250 | 2 | 20 | 150 |

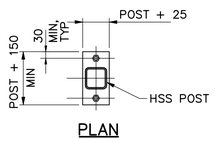
NOTES:

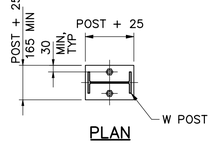
1. NUMBER OF ROWS IS EQUAL TO NUMBER OF BOLTS CONNECTING SHEAR PLATE TO BEAM.
2. THIS DETAIL APPLIES ONLY WHERE SPECIFICALLY SHOWN ON DRAWINGS.
3. AT ONE–SIDE CONNECTIONS, EXTEND TOP OF SHEAR PLATE TO UNDERSIDE OF BEAM TOP FLANGE AS SHOWN.
4. (*) INDICATES 75mm DIMENSION IS TYPICAL UNO

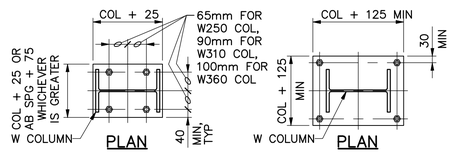
3 – BEAM SINGLE PLATE SHEAR CONNECTION
N.T.S.



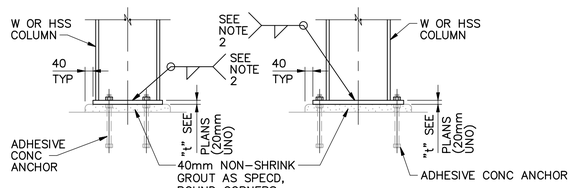



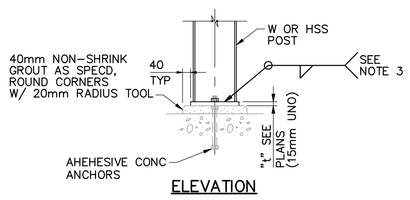









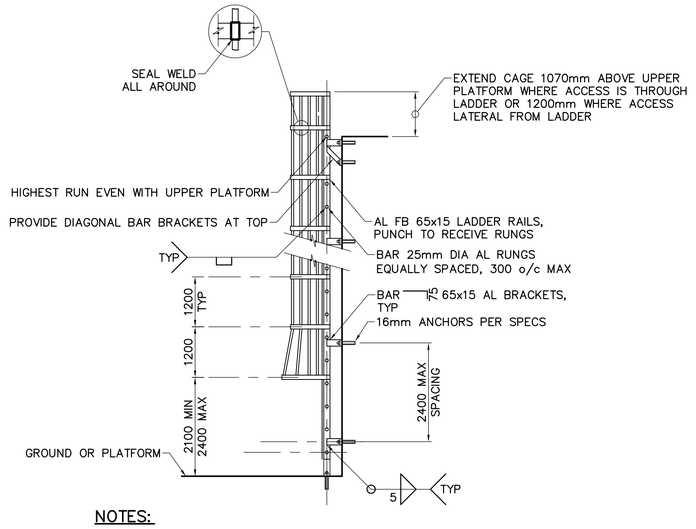

STEEL POST BASE

TYPE C

NOTES:

1. UNLESS OTHERWISE NOTED, ADHESIVE CONC ANCHORS SHALL BE 20mm DIA x REQUIRED WITH LEVELING NUTS AND 300mm MINIMUM EMBED AND BASEPLATES SHALL BE CENTERED ON COLUMN. LOCATE CONCRETE REINFORCEMENT PRIOR TO MAKING HOLE.
2. WELD SIZE SHALL BE DETERMINED BY THE THICKEST MEMBER JOINED; MINIMUM WELD SIZE SHALL BE 5mm FILLET FOR MATERIAL THICKNESSES UP TO AND INCLUDING 15mm, 6mm FILLET FOR THICKNESSES OVER 15mm TO 20mm, AND 8mm FILLET FOR MATERIAL THICKNESSES OVER 20mm. ALL WELDS SHALL BE SINGLE–PASS WELDS.
3. USE OF 2 – BOLT STEEL POST BASEPLATE ANCHORAGE DETAIL SHOWN SHALL BE LIMITED TO STEEL SUPPORT MEMBERS WEIGHING LESS THAN 135kg.

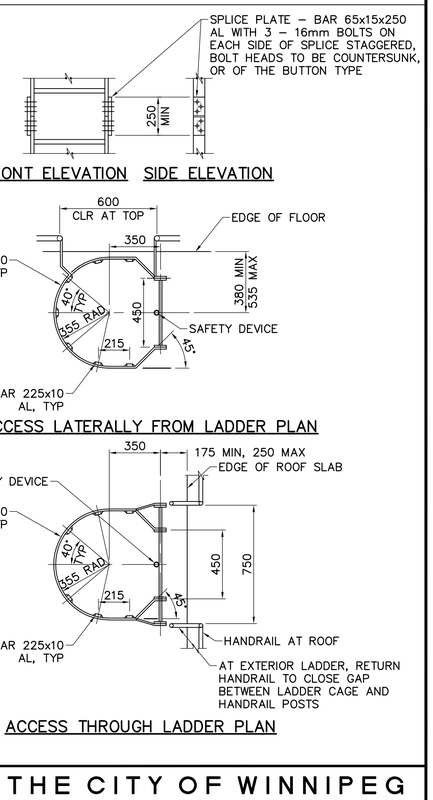
4 – STEEL COLUMN BASE
N.T.S.




NOTES:

1. PROVIDE PROTECTION FOR ALUMINUM IN CONTACT WITH CONCRETE AS SPECIFIED.
2. USE WHEN ACCESS IS THROUGH LADDER.
3. USE WHEN ACCESS IS LATERALLY FROM LADDER.

5 – LADDER WITH SAFETY CAGE – ALUMINUM
N.T.S.




APEGM
Certificate of Authorization
CH2M HILL Canada Ltd.
No. 1441 Expiry: April 30, 2008

B.M.
ELEV.

| NO. | REVISIONS | DATE | BY |
|---|---|---|---|
| 00 | ISSUED FOR TENDER | 07/06/05 | MH |

CH2MHILL
Fredericksen Cooper ARCHITECTS
EarthTech A Tyco International Ltd. Company

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|---|---|---|---|
| DESIGNED BY | MH | CHECKED BY | AP |
| DRAWN BY | CR | APPROVED BY | AHL |
| SCALE: | NTS | RELEASED FOR CONSTRUCTION BY: | R. SOROKOWSKI |
| DATE | 2007/06/05 | DATE | 2007/05/06 |

ENGINEER'S SEAL
ORIGINAL SIGNED BY
C. MILITANO
2007/06/05

CONSULTANT DRAWING NO.
WB–S4452

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

WATER TREATMENT PLANT
MAIN BUILDING
OFFICE AND PLANT INTERIOR FINISHES
STRUCTURAL
STANDARD DETAILS

CITY FILE NUMBER
SHEET OF
CITY DRAWING NUMBER
1–0601B–A–S4452–001–000

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