

# TWINE -ANCHOR BOLTS 50 BASE PROJ. 50.8 (2") ANCHOR LANDSCAPED AREAS BOLT PROJ. **CONCRETE AREAS TWINE** 75 DIA. PVC CONDUIT (2 REQ'D) U/G SERVICE DUCT (BY OTHERS) **75 RADIUS PROTECTIVE ENVELOPE** GRANULAR **BACKFILL** PRE-CAST BASE (400 A/F HEX / 400 DIA. ROUND) 400 UNDISTURBED EARTH 600 DIA. **CRUSHED STONE** OR 800 x 800 **FOUNDATION EXCAVATION**

PRE-CAST BASE INSTALLATION

AT 292 BCD

600 DIA. AUGERED HOLE

OR 800 x 800 EXCAVATION

# **NOTES:**

# **ANCHOR BOLTS**

- 1. 4-16 mm DIA, ANCHOR BOLTS 725 LONG C/W 75 mm HOOK
- 2 CAN/CSA G40.21-GR.300W
- 3. TOP 125 mm THREADED UNC CLASS 2A
- 4. HOT DIP GALVANIZED FULL LENGTH TO ASTM A153 CLASS C
- 5. BCD = BOLT CIRCLE DIAMETER TO CENTER OF BOLT GROUP
- 6. BOLTS SHALL BE HELD IN PLACE ACCURATELY WITH A STEEL TEMPLATE.
- THREADED PORTION OF ANCHOR BOLTS SHALL BE PROTECTED FROM FOULING PRIOR TO CONCRETE POUR.

#### PRE-CAST CONCRETE BASE

- 1. CAN/CSA SPECIFICATION: CAN3-A23.4-09
- 2. CEMENT: TYPE HS SULPHATE RESISTANT, S2 EXPOSURE
- 3. CONCRETE STRENGTH: 35 MPa AT 28 DAYS
- MAXIMUM AGGREGATE: 20 mm, AIR CONTENT 3-6%
- 5. 25 mm CHAMFER ON ALL EXPOSED CONCRETE EDGES.
- 6. PVC CONDUITS: 75 (3") DIA. LONG RADIUS (24") SWEEP ELBOW (90°)
- 7. CONDUITS SHALL BE HELD SECURELY IN CENTER OF BASE PRIOR TO CONCRETE POUR.
- 8. CUT CONDUITS FLUSH AT TOP AND SIDES OF CONCRETE BASE AFTER CURING.
- 9. INDENT THE NUMBER "SD-315.A (1.0 m)" ON THE TOP OF THE BASE
- 10. LIFTING HOOKS: 5 mm 7 x 19 STAINLESS STEEL CABLE
- 11. WEIGHT OF PRE-CAST BASE: 302 kg

#### REINFORCING STEEL

- 1. CAN/CSA G30.18-GR.400W
- 2. ALL BARS TO BE HOT DIP GALVANIZED.
- 3. CLEAR COVER 35 mm

# BACKFILL MATERIAL

- CRUSHED STONE FOUNDATION: TYPE 3 AS PER CW 2030 2.1.2 AND 2.1.5.
- 2. BACKFILL: GRANULAR BACKFILL TYPE 2 AS PER CW 2030 2.1.2 TO 2.1.5.

# INSTALLATION

- 1. MARK THE CENTER AND OFFSET LOCATIONS BEFORE EXCAVATING.
- 2. OPEN CUT OR SOFT DIG/AUGER DRILL EXCAVATION.
- 3. EXCAVATION DEPTH EQUALS THE EMBEDMENT DEPTH PLUS 150 mm ± FOR CRUSHED STONE FOUNDATION.
- 4. AUGER HOLE 600 DIA. OR EXCAVATION 800 x 800.
- 5. PLACE, LEVEL, AND COMPACT CRUSHED STONE FOUNDATION TO EDGE OF EXCAVATION.
- 6. VERIFY ORIENTATION OF PRE-CAST BASE ANCHOR BOLTS AND CONDUIT HOLES TO SITE LAYOUT DRAWINGS.
- SET BASE UNIT WHILE IN A PLUMB ORIENTATION INTO FINAL LOCATION (DO NOT TILT UP).
- 8. SET UNIT TO PROPER ELEVATION, ±10 mm.
- BRACE BASE AS REQUIRED TO MAINTAIN UNIT IS LEVEL, TRUE, AND PLUMB UNTIL BACKFILL HAS BEEN PLACED AND CONSOLIDATED.
- PLACE AND COMPACT GRANULAR BACKFILL UNIFORMLY AROUND PERIMETER OF THE BASE IN 150 mm LIFTS.
- 11. PAUSE BACKFILLING AT BOTTOM OF CONDUIT TRENCH, THEN INSTALL BELOW GRADE ELECTRICAL CONNECTIONS.
- 12. FINISH BACKFILLING AND COMPACTING IN 150 mm LIFTS TO THE ROUGH GRADE OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.

DIMENSIONS ARE IN MILLIMETRES

13. REMOVE SOILS OR STAINS FROM THE EXPOSED CONCRETE.

Re



ORIGINAL

STAMPED BY

RIHAL

MAY 8, 2018

PROFESSIO

Certificate of Authorization

Dillon Consulting Limited (MB)

No. 1789 Date: 04/06/2018

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

Reference Spec. No.

CW 3620

CW 3620