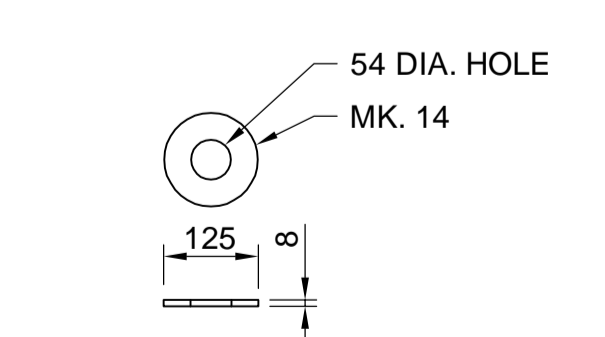


MK	QTY	DESCRIPTION
1	1	DODECAGONAL SHAFT 500 A/F x 9.525 THICK PLATE
2	1	BACK-UP STRIP 40x4.763
3	1	BASE PLATE 850 DIA. x 51 THICK
4	1	TOP PLATE 12 THICK
5	2	DODECAGONAL GUSSET PLATE 12 THICK
6	1	DODECAGONAL ARM 500 A/F TO 200 A/F x 9.525 THICK PLATE
7	1	DODECAGONAL END PLATE 200 A/F x 4.763 THICK
8	1	BACK-UP STRIP 40 x 4.763
9	2	FLANGE PLATE 51 THICK
10	12	38 DIA. BOLTS C/W NUT & 2 WASHERS (ASTM A325, TYPE 1 GALV.)
11	2	SIDE GUSSET PLATE 25 THICK
12	1	GUSSET PLATE 19 THICK
13	1	GUSSET PLATE 19 THICK
14	16	PLATE WASHER 13 THICK HANDHOLE MARK H1
15	1	COVER PLATE 11 GA. x 160 x 340 (ASTM A569)
16	1	REINFORCING RING 8 x 65 x 830
* 17	2	CLAMP BAR 6 x 40 x 180
* 18	2	10 DIA. x 140 BOLT S/S (TYPE 316)
* 19	1	GROUND STUD ASSEMBLY 10 DIA. x 40 HANDHOLE MARK H2
20	1	COVER PLATE 11 GA. x 130 x 220 (ASTM A569)
21	1	REINFORCING RING 8 x 65 x 555
* 22	1	CLAMP BAR 6 x 40 x 150
* 18	1	10 DIA. x 140 BOLT S/S (TYPE 316)
* 19	1	GROUND STUD ASSEMBLY 10 DIA. x 40 SIGN MOUNTING BRACKET (4 REQUIRED)
23	2	CLAMP BAR 12 x 76 (LENGTH TO SUIT)
24	1	BRACKET PLATE 12 THICK
25	2	19 DIA. ASTM F1554 GRADE 55 THREADED ROD C/W 2 A563 GRADE A NUTS & F436 WASHER AND LOCK WASHER (ALL GALVANIZED)
26	2	19 DIA. S/S BOLT C/W NUT, 2 WASHERS AND 1 LOCK WASHER (ASTM A193 GRADE B8)
27	1	ALUMINUM T-BAR 6061-T6 ASTM B221 102 x 76 x 8 LENGTH TO SUIT SIGN PANEL HEIGHT
28	1	HALF COUPLING (1 1/2" NOMINAL A105 3000 lb)

- \* NOTES:**
- MARK No. 17 & 22 C/W 8-DIA. PUNCHED 10 N.C. TAPPED AT THE CENTER OF PLATE
  - MARK No. 18 C/W CUP WASHER.
  - MARK No. 19 C/W 2-10 DIA. HEX NUT, 2-TERMINAL WASHER & 1-LOCKWASHER
- GENERAL NOTES:**
- DESIGN DATA
    - AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 5TH EDITION, 2020, PLUS INTERIMS.
    - DESIGN WIND LOAD = 1.5 kPa
    - DESIGN ICE LOAD = 0.15 kPa
    - FATIGUE CATEGORY I CONSIDERING NATURAL WIND GUSTS AND TRUCK INDUCED GUSTS.
    - FATIGUE CATEGORY II FOR GALLOPING
  - ALL PLATE MATERIALS SHALL BE CSA G40.21 - 300W STRUCTURAL STEEL.
  - ALL MATERIALS EXCEPT STAINLESS STEEL AND ALUMINUM SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 TO A MIN. NET RETENTION OF 610 g/m2 UNLESS INDICATED OTHERWISE.
  - ALL AREAS OF DAMAGED GALVANIZING SHALL BE REPAIRED WITH SPRAY-ON COATING CALLED "ZINGA" OR APPROVED EQUIVALENT, HAVE A MINIMUM 96% ZINC CONTENT IN THE DRY FILM.
  - ALUMINUM T-BARS AND SIGNS
    - CONTRACTOR SHALL SUPPLY AND DELIVER ALUMINUM T-BARS TO THE CITY OF WINNIPEG TRAFFIC SERVICES SIGN SHOP A MINIMUM OF 3 WEEKS IN ADVANCE OF INTENDED DATE FOR PICKUP. CITY WILL INSTALL SIGN PLATES ON SUPPLIED T-BARS.
    - 1 SIGN PANEL SUPPLIED BY THE CITY OF WINNIPEG TRAFFIC SERVICES BRANCH. PICK UP AND INSTALLATION BY CONTRACTOR.
    - SIGN PANELS SHALL BE INSTALLED ON THE SIGN SUPPORT STRUCTURE IMMEDIATELY FOLLOWING ERECTION OF THE SUPPORT STRUCTURE (SAME DAY).
  - INSTALL HOLES IN THE GUSSET PLATES FOR DRAINAGE DURING GALVANIZING AS DETAILED.
  - PROVIDE "RAISED" IDENTIFICATION NO. WITH WELDING ELECTRODE FOR THE SIGN STRUCTURE.
  - GRIND ALL SHARP POINTS AND EDGES.
  - EXTERIOR WELD JOINING SHAFT TO TRANSVERSE PLATE SHALL BE AN UNEQUAL LEG COMPLETE PENETRATION WELD WITH THE LONG LEG OF THE WELD ALONG THE SHAFT TERMINATING AT 30° FROM THE SHAFT SURFACE.
  - SEAM WELDS SHALL BE 100% PENETRATION WITHIN 200mm OF BOTH ENDS OF THE VERTICAL AND ARM SHAFTS.

NOTE: REFER TO ORIENTATION DETAIL FOR LOCATION OF HANDHOLES. WELDED JOINTS TO COMPLETE REINFORCING RING SHALL BE 100% PENETRATION

**HANDHOLE - MK. H1 & H2**  
SCALE 1:10

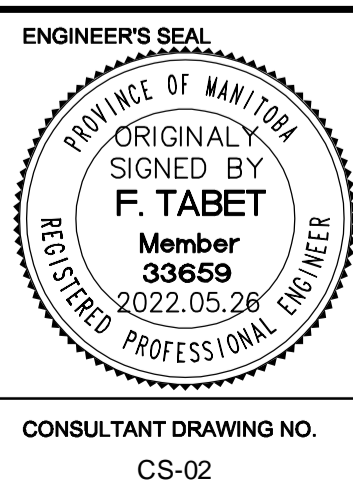


**ENGINEERS  
GEOCONSULTANTS  
MANITOBA**

Certificate of Authorization  
AECOM Canada Ltd.  
No. 4671 Date: 2022.05.26

**AECOM**

DESIGNED BY	CC	CHECKED BY	FT
DRAWN BY	KC	APPROVED BY	EBL
HOR. SCALE: AS NOTED		RELEASED FOR CONSTRUCTION BY:	
VERTICAL: AS NOTED			
1	ISSUED FOR ADDENDUM 2	22/06/10	FT
0	ISSUED FOR TENDER	22/05/26	FT
NO.	REVISIONS	DATE	BY
		2022-05-26	



**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

2022 REGIONAL STREET RENEWAL PROGRAM  
UNIVERSITY CRESCENT FROM  
THATCHER DRIVE TO PEMBINA HIGHWAY

CITY DRAWING NUMBER  
S-797-22-02

SHEET 11 OF 11

S797 NB UNIVERSITY CR NORTH OF WEDGEWOOD DR  
OVERHEAD SIGN SUPPORT STRUCTURE  
FABRICATION DETAILS

CONSULTANT DRAWING NO.  
CS-02

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