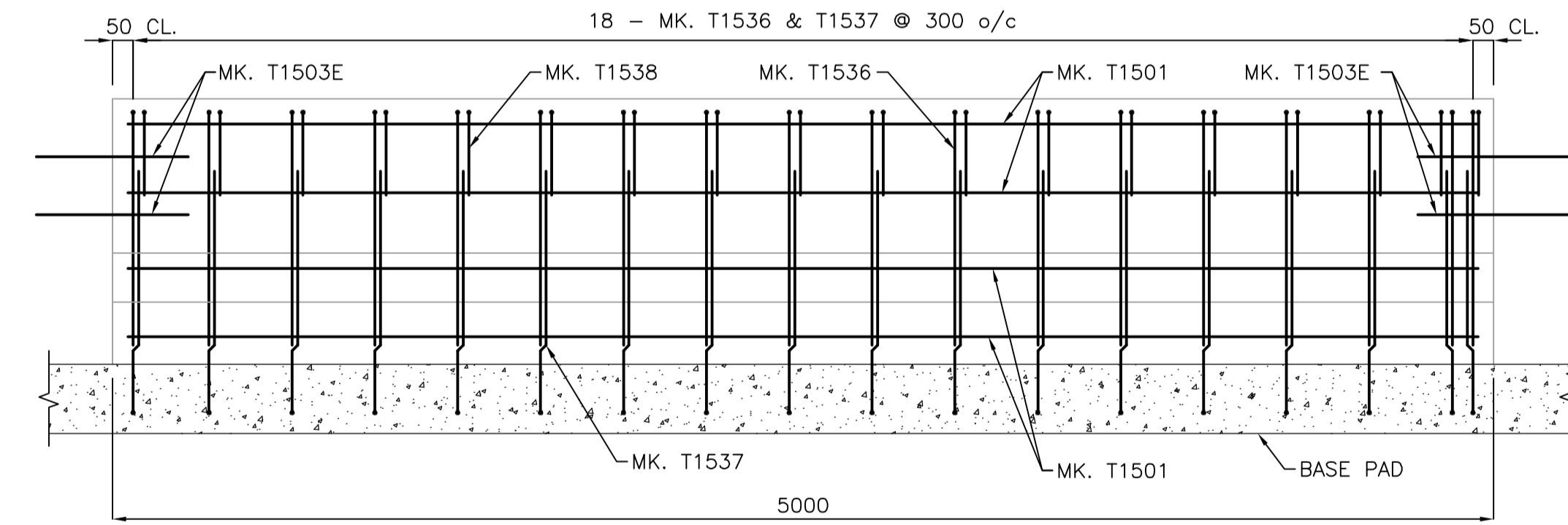
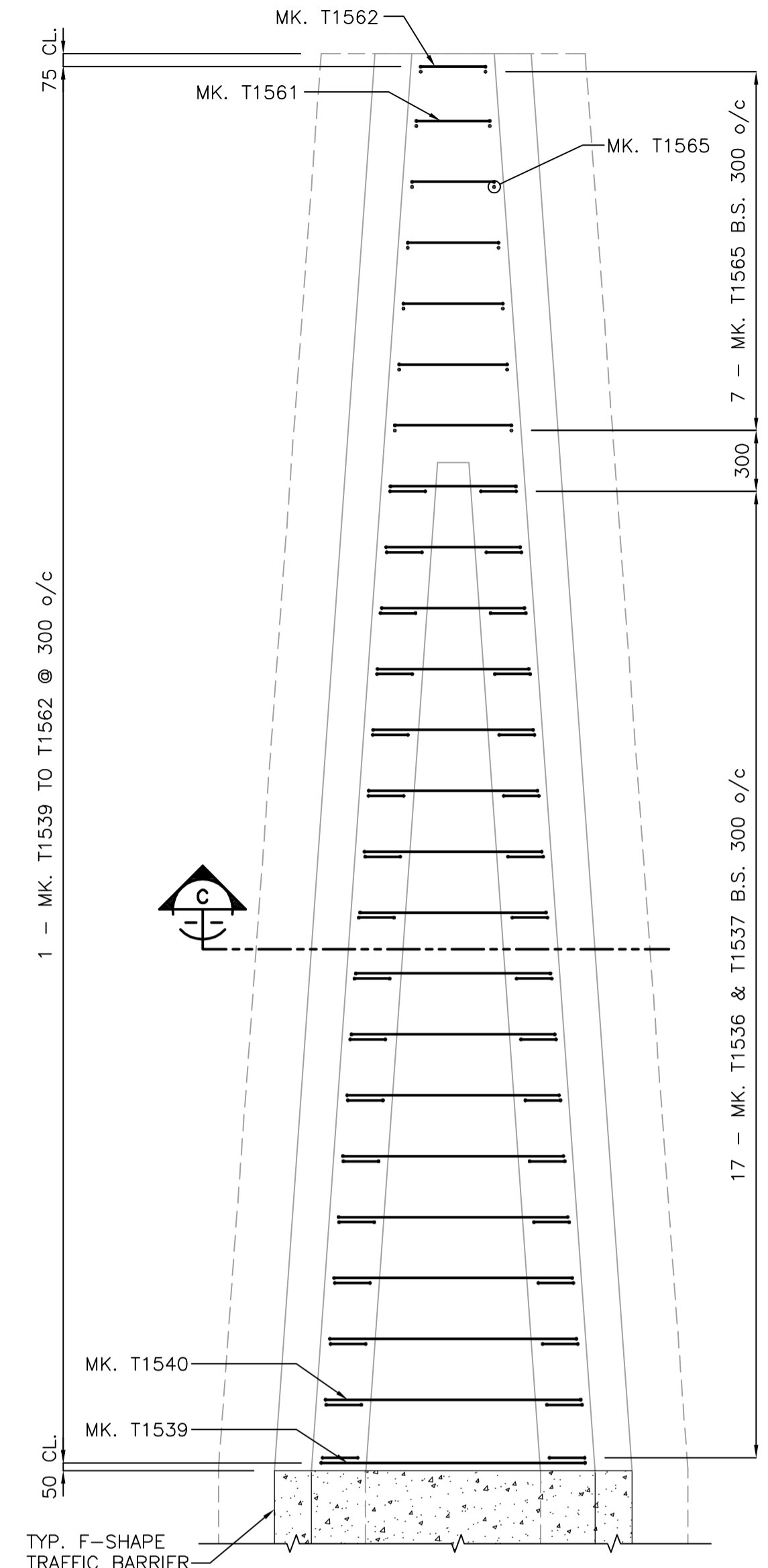
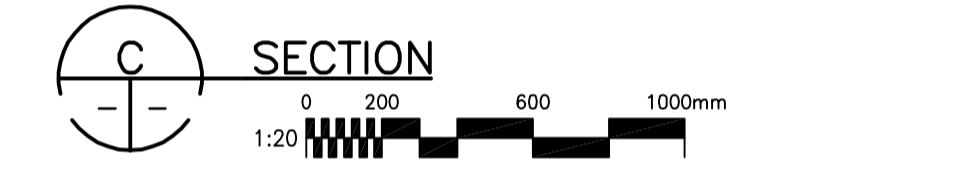
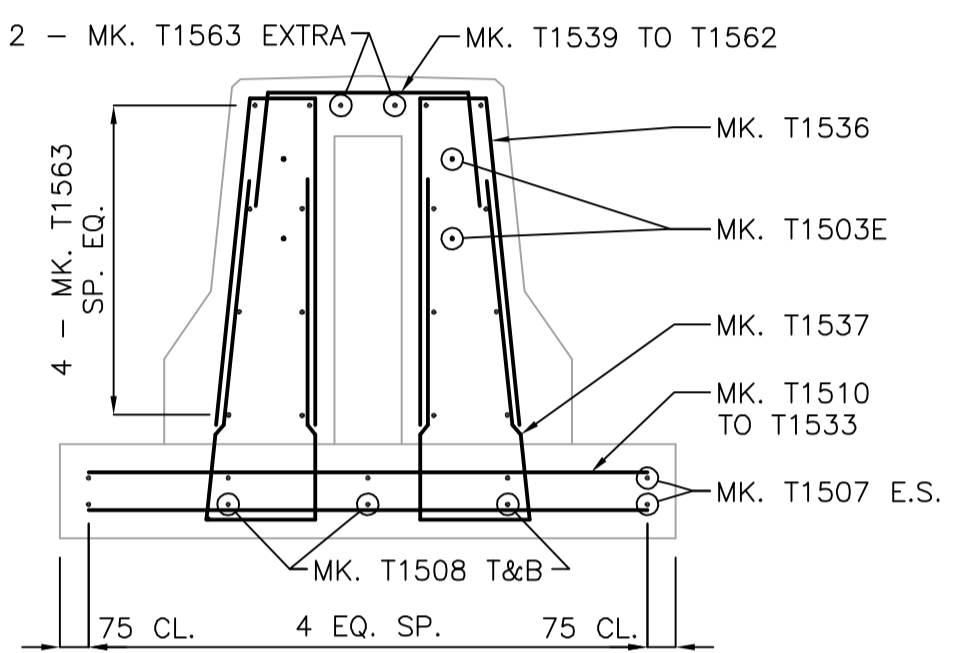
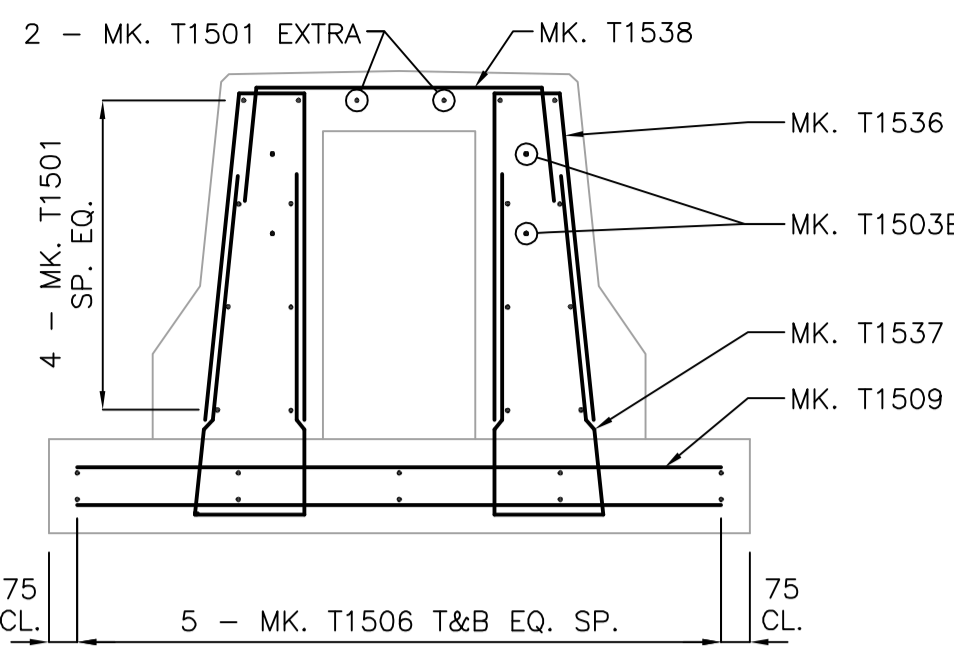
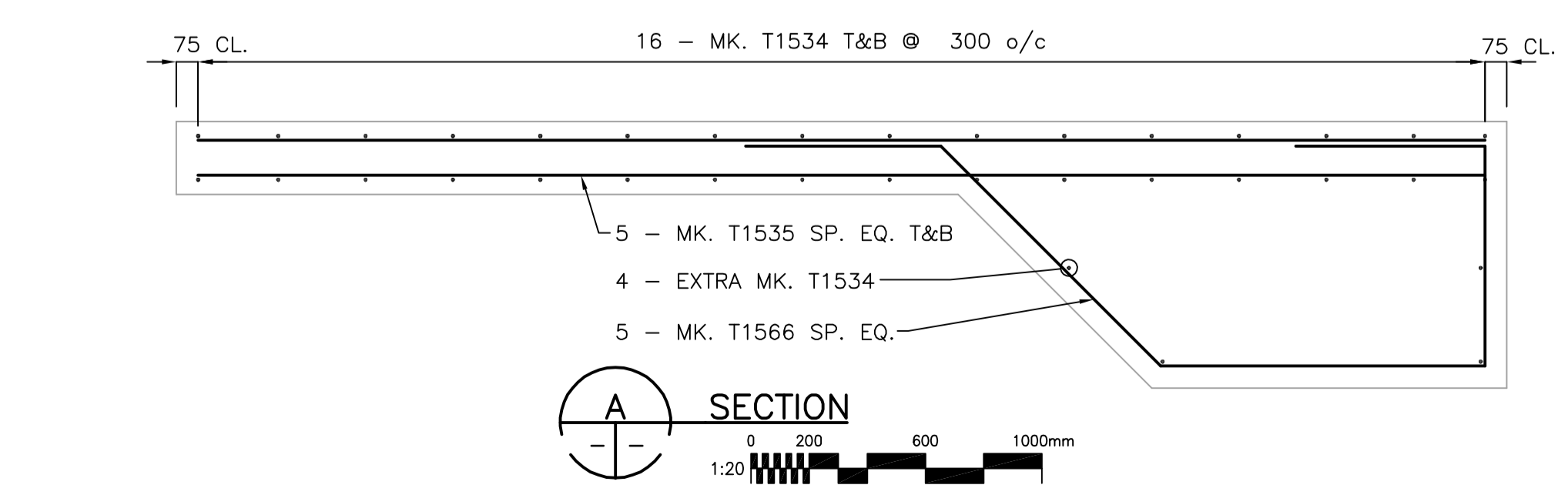


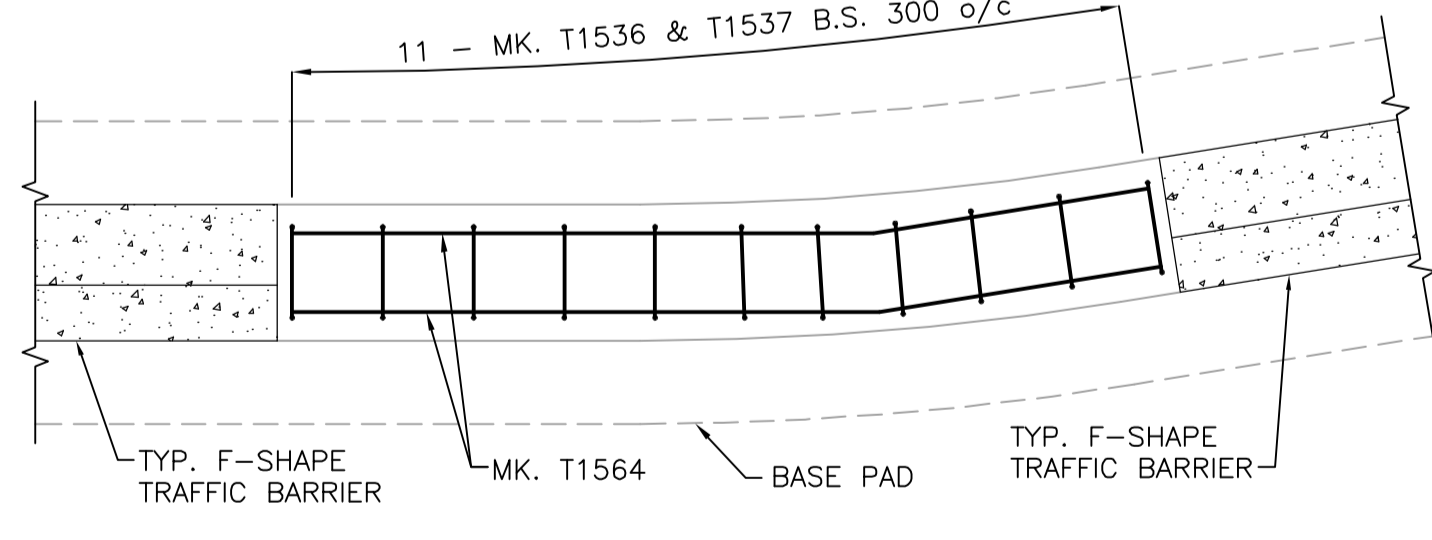
TRAFFIC BARRIER BASE PAD LAYOUT
 1:200



ELEV. OF TYP. F-SHAPE BARRIER
 1:200



TAPERED TRAFFIC BARRIER DETAIL
 1:250

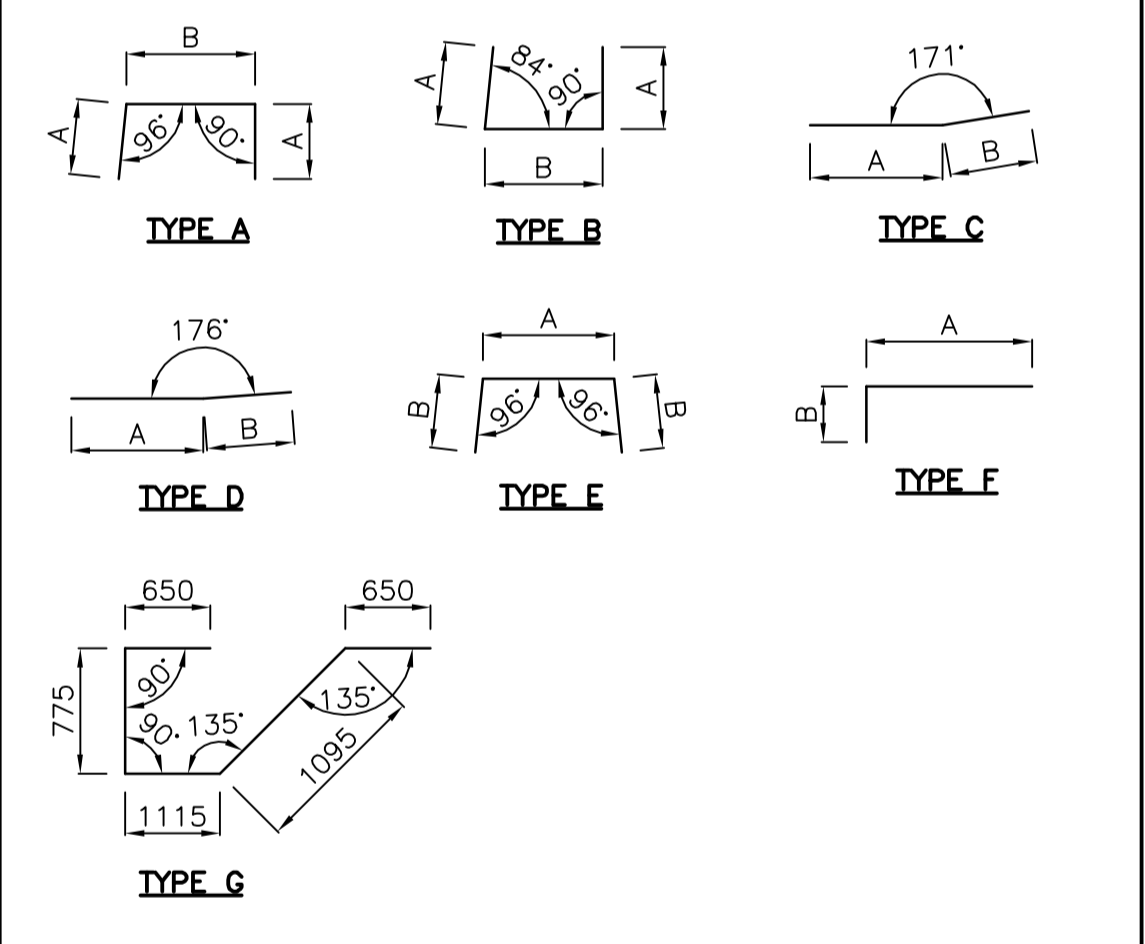


DETAIL AT CORNER
 1:250

BILL OF REINFORCING STEEL FOR F-SHAPE TRAFFIC BARRIERS

STRAIGHT BARS				BENT BARS			
MARK	QTY.	LENGTH (mm)	MASS (kg)	MARK	QTY.	TYPE	A B C LENGTH (mm) MASS (kg)
T1501	160	4850	1218.3	T1505	20	C	4900 3900 8800 276.3
T1502	580	850	774.0	T1507	8	D	6900 650 7550 94.8
T1503E	44	550	38.0	T1536	450	A	875 285 875 2035 1437.7
T1504	40	18000	1130.4	T1537	450	B	885 170 885 1900 1342.4
T1506	10	10000	157.0	T1538	36	E	1300 300 1900 107.4
T1508	12	7550	142.2	T1539	2	E	1300 300 1900 6.0
T1509	66	2155	223.3	T1540	2	E	1260 300 1860 5.8
T1510	4	2155	13.5	T1541	2	E	1215 300 1815 5.7
T1511	4	2110	13.3	T1542	2	E	1175 300 1775 5.6
T1512	4	2070	13.0	T1543	2	E	1130 300 1730 5.4
T1513	4	2025	12.7	T1544	2	E	1085 300 1685 5.3
T1514	4	1980	12.4	T1545	2	E	1045 300 1645 5.2
T1515	4	1940	12.2	T1546	2	E	1000 300 1600 5.0
T1516	4	1895	11.9	T1547	2	E	960 300 1560 4.9
T1517	4	1850	11.6	T1548	2	E	915 300 1515 4.8
T1518	4	1800	11.3	T1549	2	E	875 300 1475 4.6
T1519	4	1765	11.1	T1550	2	E	830 300 1430 4.5
T1520	4	1720	10.8	T1551	2	E	790 300 1390 4.4
T1521	4	1675	10.5	T1552	2	E	745 300 1345 4.2
T1522	4	1635	10.3	T1553	2	E	700 300 1300 4.1
T1523	4	1590	10.0	T1554	2	E	660 300 1260 4.0
T1524	4	1545	9.7	T1555	2	E	620 300 1220 3.8
T1525	4	1505	9.5	T1556	2	E	575 865 2305 7.2
T1526	4	1460	9.2	T1557	2	E	535 865 2285 7.1
T1527	4	1415	8.9	T1558	2	E	490 865 2220 7.0
T1528	4	1375	8.6	T1559	2	E	450 865 2180 6.8
T1529	4	1330	8.4	T1560	2	E	405 865 2135 6.7
T1530	4	1285	8.1	T1561	2	E	360 865 2090 6.6
T1531	4	1240	7.8	T1562	2	E	320 865 2050 6.4
T1532	4	1200	7.5	T1564	16	C	1920 920 2840 71.3
T1533	4	1155	7.3	T1565	28	F	875 300 1175 51.7
T1534	64	1150	115.6				
T1535	20	4470	140.4				
T1563	32	6910	347.2				

TOTAL MASS OF REINFORCING STEEL (kg.) = 7430.6



LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	06.03.03	MJB

Stantec Consulting Ltd.
 905 Waverley Street, Winnipeg, Manitoba
 Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY: MJB, KSA
 DRAWN BY: JMB
 HOR. SCALE: AS SHOWN
 VERTICAL: AS SHOWN

CHECKED BY: GWM
 APPROVED BY: MJB
 AUTHORIZED BY: R. FINGAS
 DATE: 06.03.03
 R. FINGAS, P. ENG.
 BRIDGE PROJECTS ENGINEER

ENGINEER'S SEAL
 ORIGINAL SEALED BY: M.J. BOISSONNEAULT
 P. ENG. 06.03.03

CONSULTANT DRAWING NO. I13703042-S28

THE CITY OF WINNIPEG
 PUBLIC WORKS DEPARTMENT
 Winnipeg ENGINEERING DIVISION

KENASTON UNDERPASS PROJECT
 KENASTON BOULEVARD RECONSTRUCTION

SHEET 32 OF 52
 CAD FILE DRAWING NUMBER ku-32-665.dwg
 CITY DRAWING NUMBER P-3258-203

KENASTON BOULEVARD
 CONCRETE TRAFFIC BARRIER
 REINFORCING DETAILS

APEGM
 Certificate of Authorization
 Stantec Consulting Ltd.
 No. 1301 Expiry: April 30, 2006

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES