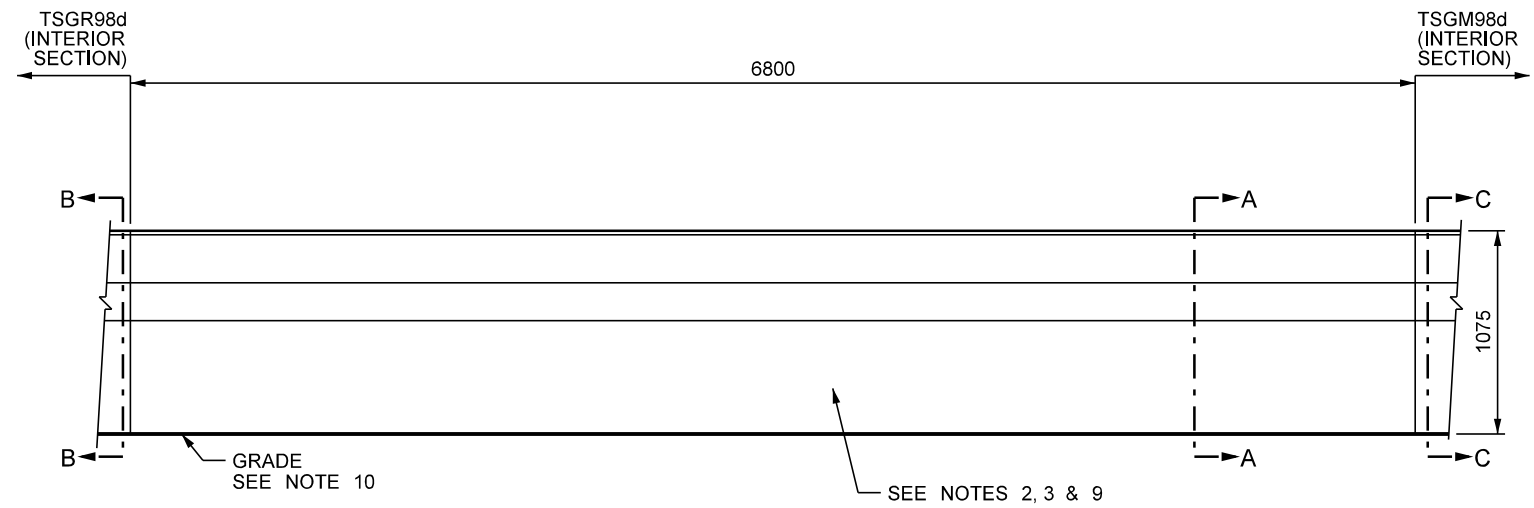
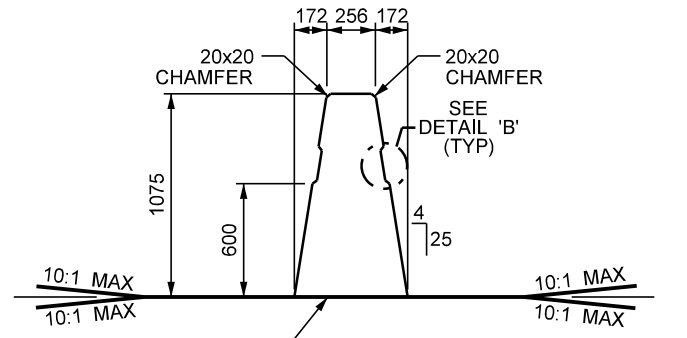


FOR FOOTING AND ANCHORAGE OPTIONS & DETAILS SEE SHEET 6 & TSGR98d

**SECTION 'B-B'**  
SCALE 1:40

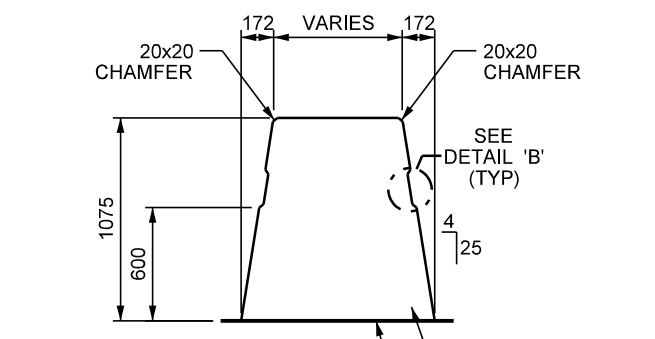


**ELEVATION**  
SCALE 1:40



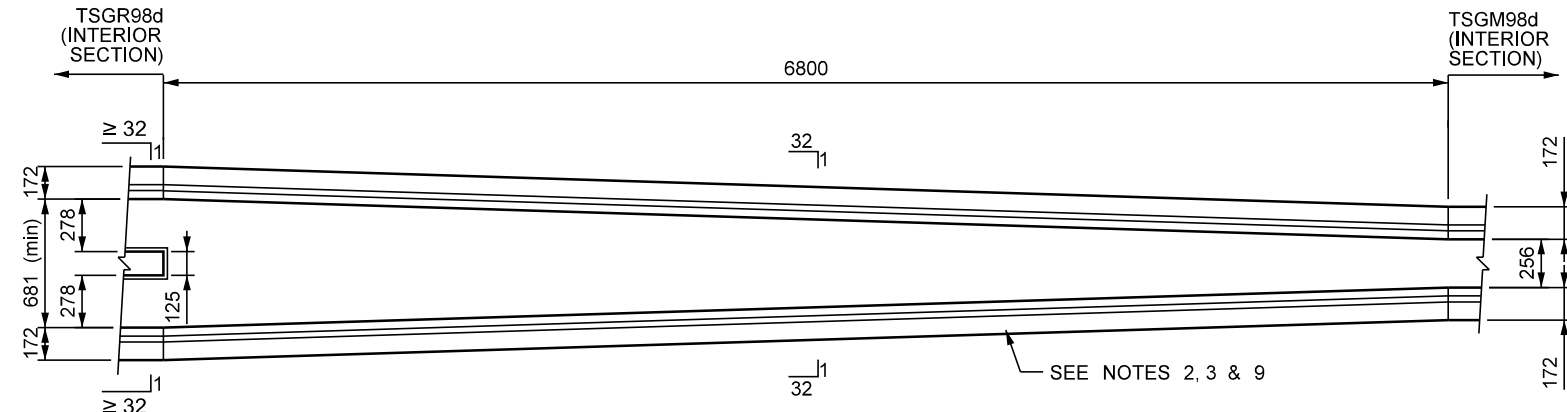
FOR FOOTING AND ANCHORAGE OPTIONS & DETAILS SEE TSGM98d

**SECTION 'C-C'**  
SCALE 1:40

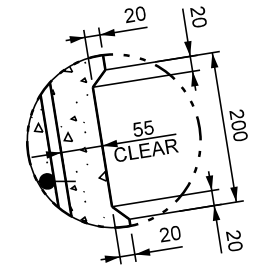


FOR FOOTING AND ANCHORAGE OPTIONS & DETAILS SEE SHEET 5

**SECTION 'A-A'**  
SCALE 1:40



**PLAN**  
SCALE 1:40



**DETAIL 'B'**  
SCALE 1:10

**INTERIOR SECTION DETAILS**

**NOTES:**

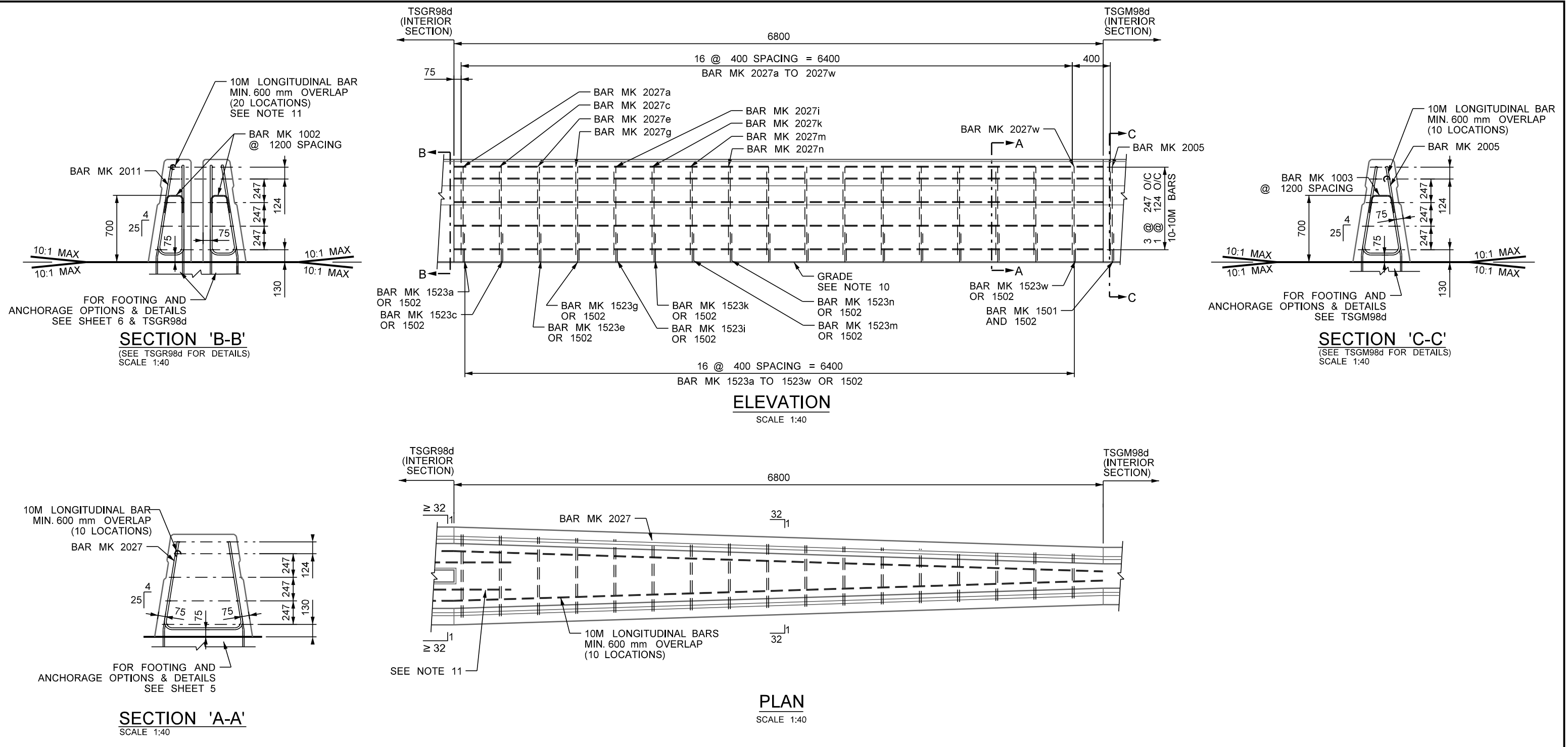
1. ALL SCALES ARE APPROXIMATE.
2. LONGITUDINAL REINFORCING NOT SHOWN FOR CLARITY.
3. FORMED OR CUT CONTRACTION JOINTS SHALL BE CREATED AT EACH PLACE WHERE THE BARRIER SHAPE CHANGES, TO MATCH ADJACENT PAVEMENT JOINT SPACING, OR AT A MAXIMUM OF 6000 mm.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
5. THE ORIGINAL SEALED AND SIGNED DRAWING IS IN TRAFFIC ENGINEERING.
6. ALL REINFORCING SHALL HAVE MINIMUM 75 mm COVER, UNLESS OTHERWISE NOTED.
7. NEW OR EXISTING REINFORCED CONCRETE FOOTING: CONCRETE: CSA A23.1, EXPOSURE CLASS C-1, AIR CONTENT CATEGORY 1, COMPRESSIVE STRENGTH FOOTING ≥ 35 MPa, @ 28 DAYS.
8. SEE SHEETS 7, 8, 9, & 10 FOR REINFORCING DETAILS.
9. TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY.
10. SEE SECTIONS 'A-A' AND 'B-B' FOR BELOW GRADE DESIGN OPTIONS.

REVISIONS		
DATE	DESCRIPTION	BY



MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

SHEET NO: 1 OF 10	DATE: 2020 - 08
DESIGNED BY: H. LARSEN	
DRAWN BY: L. LIEBRECHT	
REVIEWED BY: N. JOYAL	
<b>TSTM92d</b>	



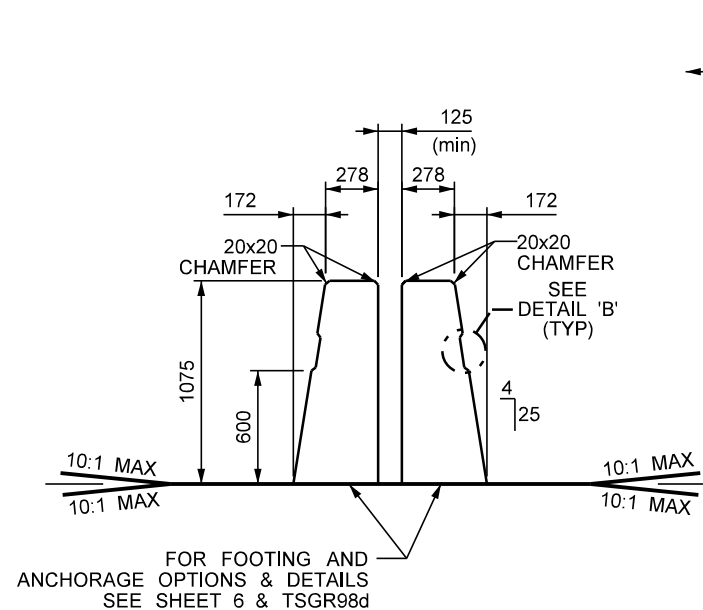
- NOTES:**
1. ALL SCALES ARE APPROXIMATE.
  2. LONGITUDINAL REINFORCING NOT SHOWN FOR CLARITY.
  3. FORMED OR CUT CONTRACTION JOINTS SHALL BE CREATED AT EACH PLACE WHERE THE BARRIER SHAPE CHANGES, TO MATCH ADJACENT PAVEMENT JOINT SPACING, OR AT A MAXIMUM OF 6000 mm.
  4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
  5. THE ORIGINAL SEALED AND SIGNED DRAWING IS IN TRAFFIC ENGINEERING.
  6. ALL REINFORCING SHALL HAVE MINIMUM 75 mm COVER, UNLESS OTHERWISE NOTED.
  7. NEW OR EXISTING REINFORCED CONCRETE FOOTING: CONCRETE: CSA A23.1, EXPOSURE CLASS C-1, AIR CONTENT CATEGORY 1, COMPRESSIVE STRENGTH FOOTING ≥ 35 MPa, @ 28 DAYS.
  8. SEE SHEETS 7, 8, 9, & 10 FOR REINFORCING DETAILS.
  9. TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY.
  10. SEE SECTIONS 'A-A' AND 'B-B' FOR BELOW GRADE DESIGN OPTIONS.
  11. 10M LONGITUDINAL BARS SHALL EXTEND A MINIMUM OF 600 mm INTO ADJACENT TRANSITION SECTION OF BARRIER.

REVISIONS		
DATE	DESCRIPTION	BY

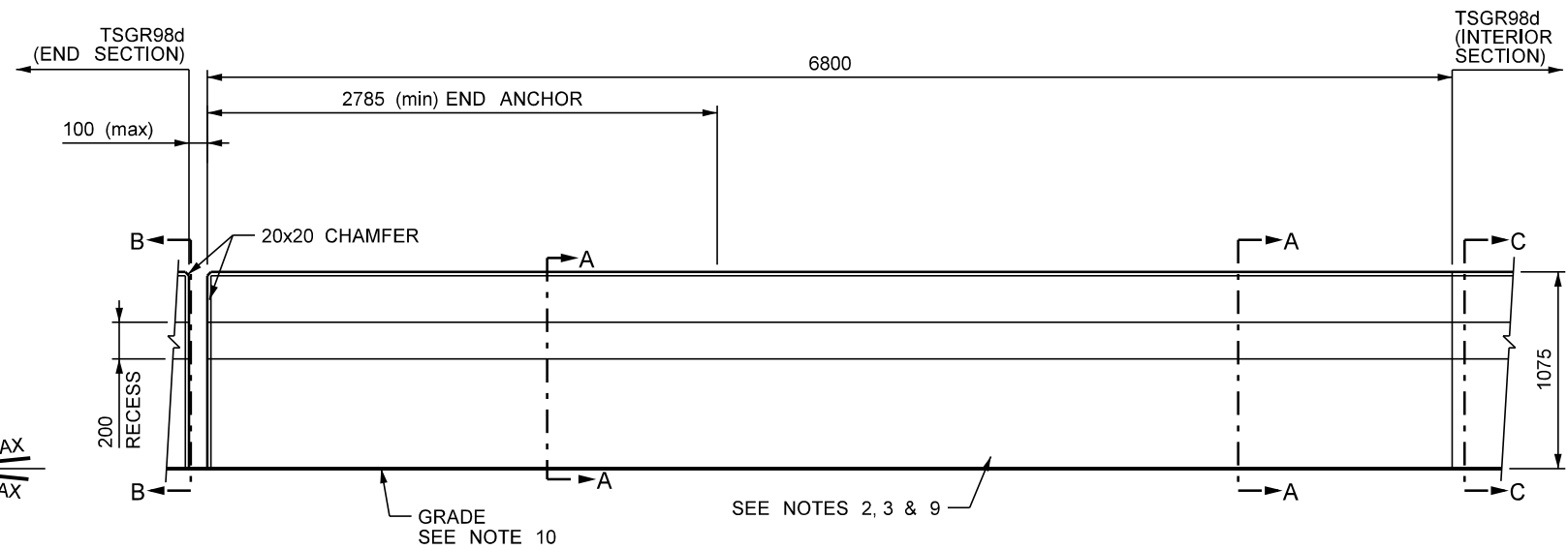


MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

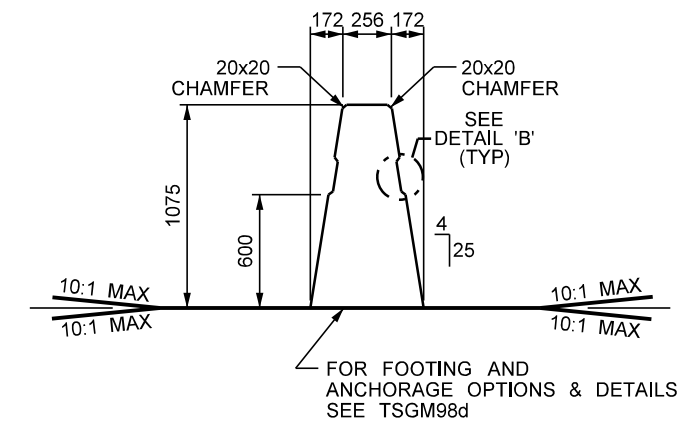
SHEET NO: 2 OF 10	DATE: 2020 - 08
DESIGNED BY:	H. LARSEN
DRAWN BY:	L. LIEBRECHT
REVIEWED BY:	N. JOYAL
<b>TSTM92d</b>	



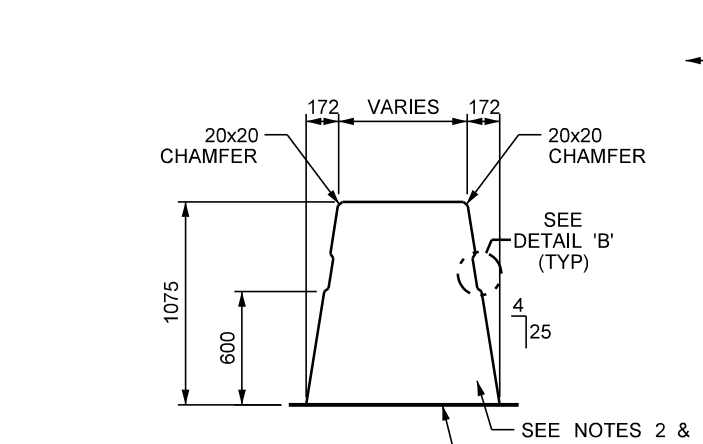
**SECTION 'B-B'**  
(SEE TSGR98d FOR DETAILS)  
SCALE 1:40



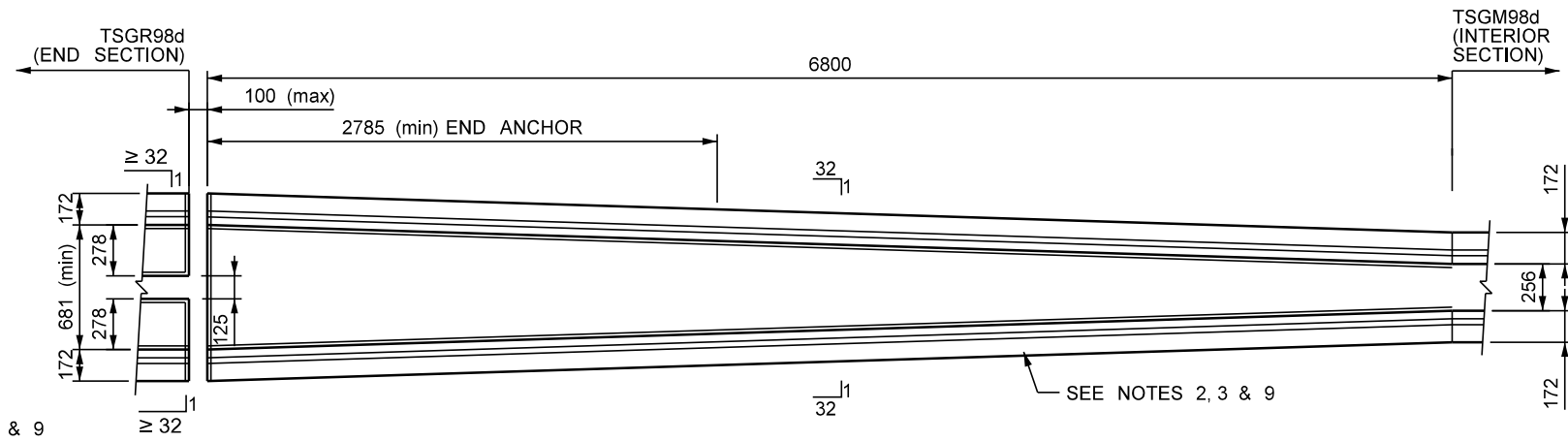
**ELEVATION**  
SCALE 1:40



**SECTION 'C-C'**  
(SEE TSGM98d FOR DETAILS)  
SCALE 1:40



**SECTION 'A-A'**  
SCALE 1:40



**PLAN**  
SCALE 1:40

**END SECTION DETAILS**

**NOTES:**

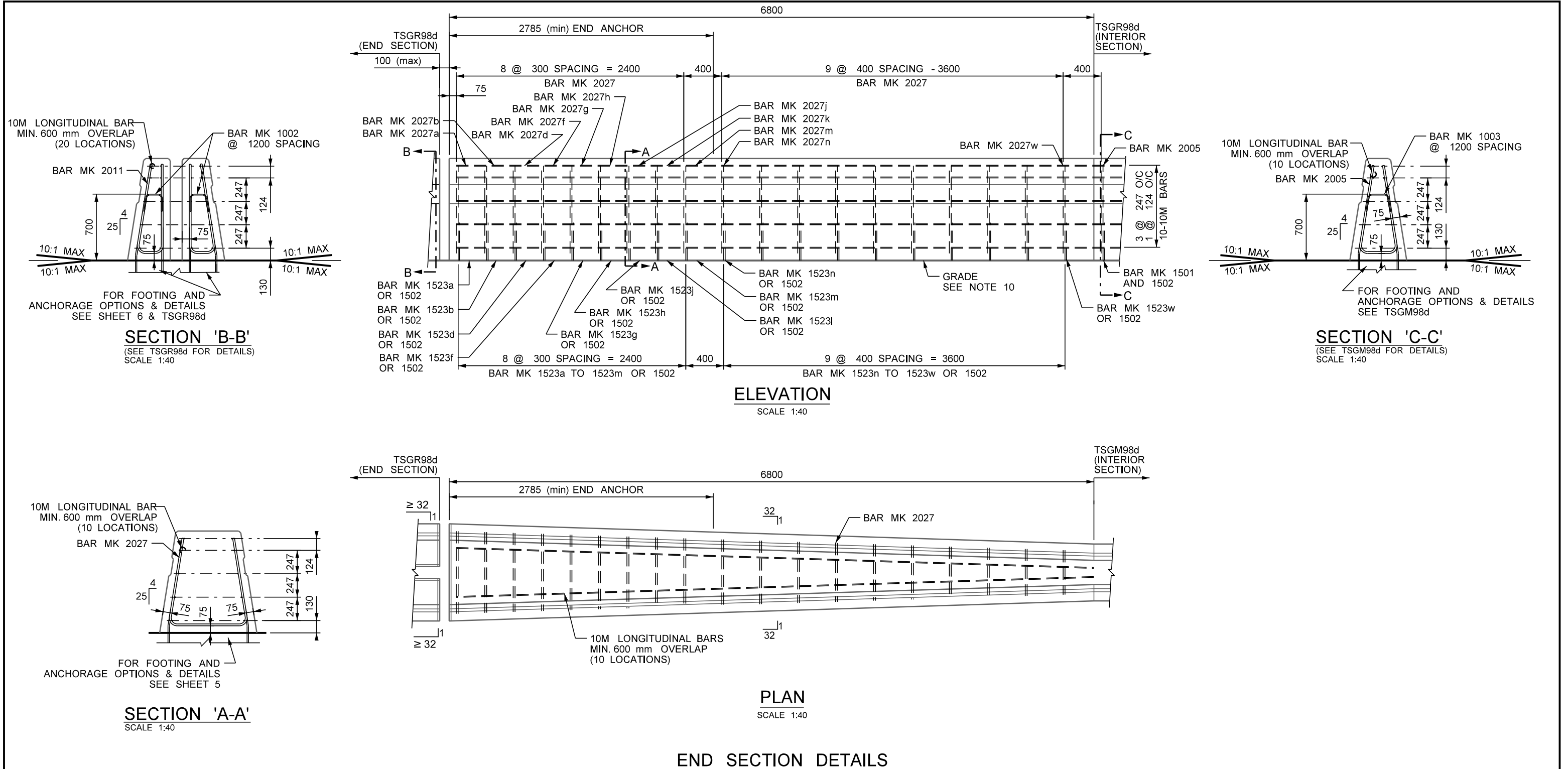
1. ALL SCALES ARE APPROXIMATE.
2. LONGITUDINAL REINFORCING NOT SHOWN FOR CLARITY.
3. FORMED OR CUT CONTRACTION JOINTS SHALL BE CREATED AT EACH PLACE WHERE THE BARRIER SHAPE CHANGES, TO MATCH ADJACENT PAVEMENT JOINT SPACING, OR AT A MAXIMUM OF 6000 mm.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
5. THE ORIGINAL SEALED AND SIGNED DRAWING IS IN TRAFFIC ENGINEERING.
6. ALL REINFORCING SHALL HAVE MINIMUM 75 mm COVER, UNLESS OTHERWISE NOTED.
7. NEW OR EXISTING REINFORCED CONCRETE FOOTING: CONCRETE: CSA A23.1, EXPOSURE CLASS C-1, AIR CONTENT CATEGORY 1, COMPRESSIVE STRENGTH FOOTING ≥ 35 MPa, @ 28 DAYS.
8. SEE SHEETS 7, 8, 9, & 10 FOR REINFORCING DETAILS.
9. TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY.
10. SEE SECTIONS 'A-A' AND 'B-B' FOR BELOW GRADE DESIGN OPTIONS.

REVISIONS		
DATE	DESCRIPTION	BY



MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

SHEET NO: 3 OF 10	DATE: 2020 - 08
DESIGNED BY: H. LARSEN	
DRAWN BY: L. LIEBRECHT	
REVIEWED BY: N. JOYAL	
<b>TSTM92d</b>	



**NOTES:**

1. ALL SCALES ARE APPROXIMATE.
2. LONGITUDINAL REINFORCING NOT SHOWN FOR CLARITY.
3. FORMED OR CUT CONTRACTION JOINTS SHALL BE CREATED AT EACH PLACE WHERE THE BARRIER SHAPE CHANGES, TO MATCH ADJACENT PAVEMENT JOINT SPACING, OR AT A MAXIMUM OF 6000 mm.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
5. THE ORIGINAL SEALED AND SIGNED DRAWING IS IN TRAFFIC ENGINEERING.
6. ALL REINFORCING SHALL HAVE MINIMUM 75 mm COVER, UNLESS OTHERWISE NOTED.
7. NEW OR EXISTING REINFORCED CONCRETE FOOTING: CONCRETE: CSA A23.1, EXPOSURE CLASS C-1, AIR CONTENT CATEGORY 1, COMPRESSIVE STRENGTH FOOTING ≥ 35 MPa, @ 28 DAYS.
8. SEE SHEETS 7, 8, 9, & 10 FOR REINFORCING DETAILS.
9. TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY.
10. SEE SECTIONS 'A-A' AND 'B-B' FOR BELOW GRADE DESIGN OPTIONS.

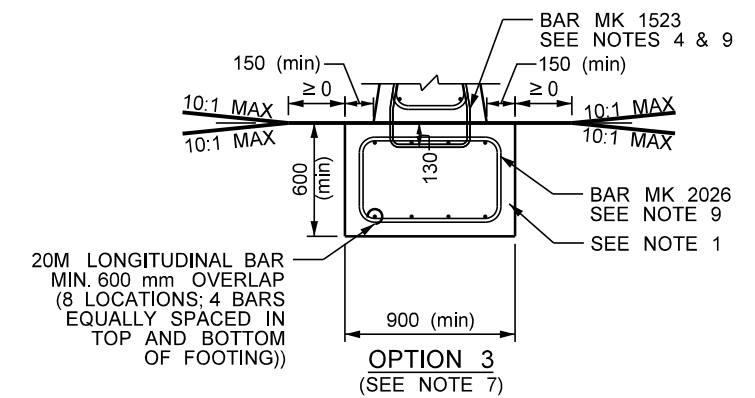
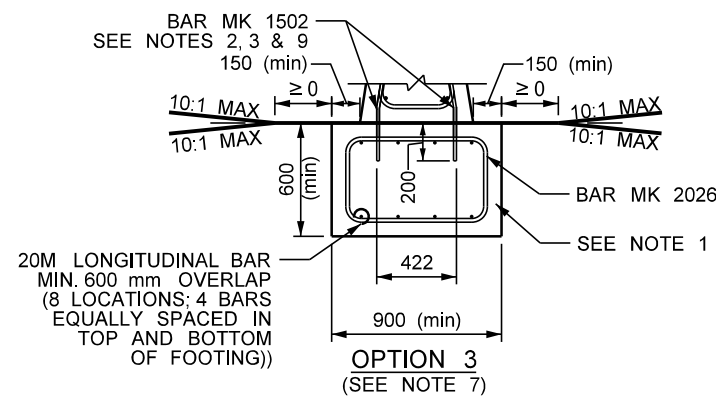
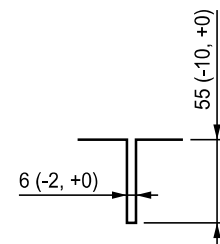
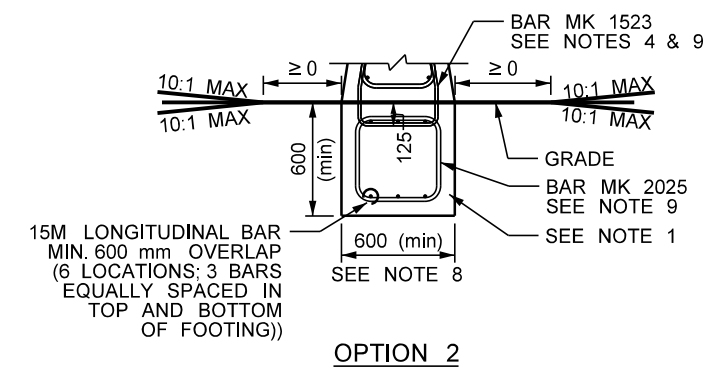
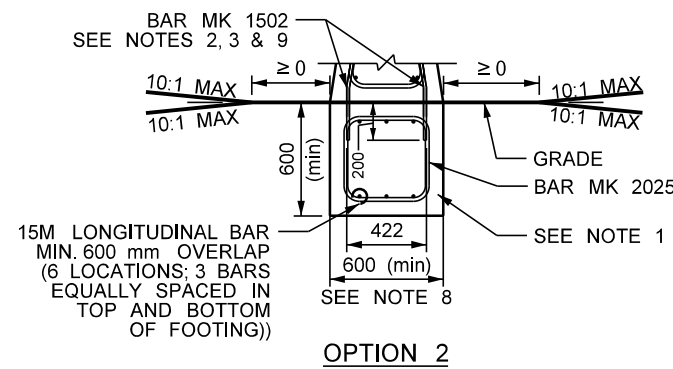
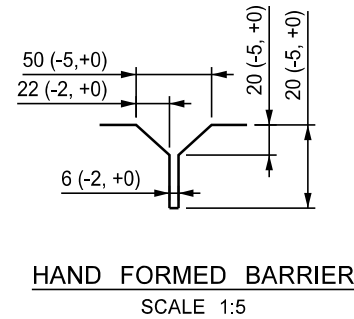
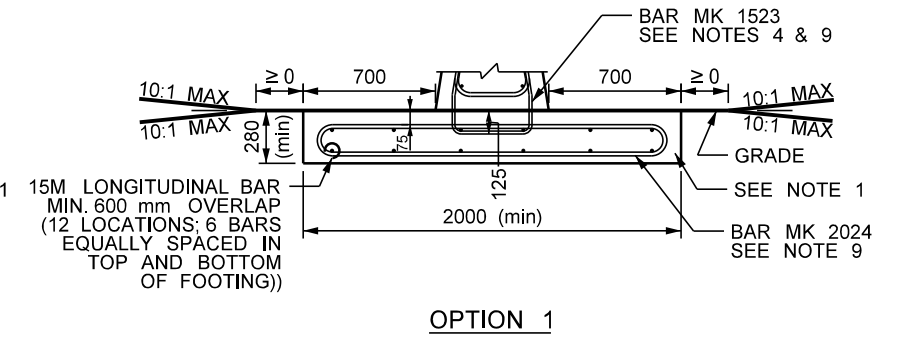
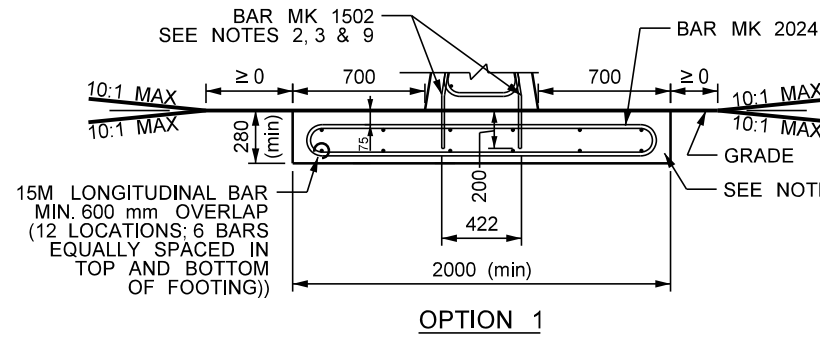
REVISIONS		
DATE	DESCRIPTION	BY



**MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075**

SHEET NO: 4 OF 10	DATE: 2020 - 08
DESIGNED BY:	H. LARSEN
DRAWN BY:	L. LIEBRECHT
REVIEWED BY:	N. JOYAL

**TSTM92d**



CONTRACTION JOINT DETAILS

EXISTING FOOTING  
SCALE 1:40

NEW FOOTING  
SCALE 1:40

SECTION 'A-A'  
INTERIOR SECTION FOOTING  
SCALE 1:40

NOTES:

- NEW OR EXISTING REINFORCED CONCRETE FOOTING: CONCRETE: CSA A23.1, EXPOSURE CLASS C-1, AIR CONTENT CATEGORY 1, COMPRESSIVE STRENGTH FOOTING  $\geq 35$  MPa, @ 28 DAYS.
- Holes in footing shall be drilled vertically 2 mm larger than reinforcing.
- Holes in footing shall be prepared for epoxy (HILTI HIT RE 500, OR APPROVED ALTERNATIVE) AS DIRECTED BY MANUFACTURER.
- STIRRUP SHALL BE SECURELY ATTACHED TO REBAR.
- ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED.
- SEE SHEETS OF 7, 8, 9, & 10 FOR REINFORCEMENT DETAILS.
- OPTION 3 MUST BE USED FOR END SECTION OF BARRIER.
- FOOTING WIDTH TO MATCH BARRIER WIDTH.
- SPACING TO MATCH BAR MK 2027.
- ALL REINFORCING SHALL HAVE MINIMUM 75 mm COVER, UNLESS OTHERWISE NOTED.

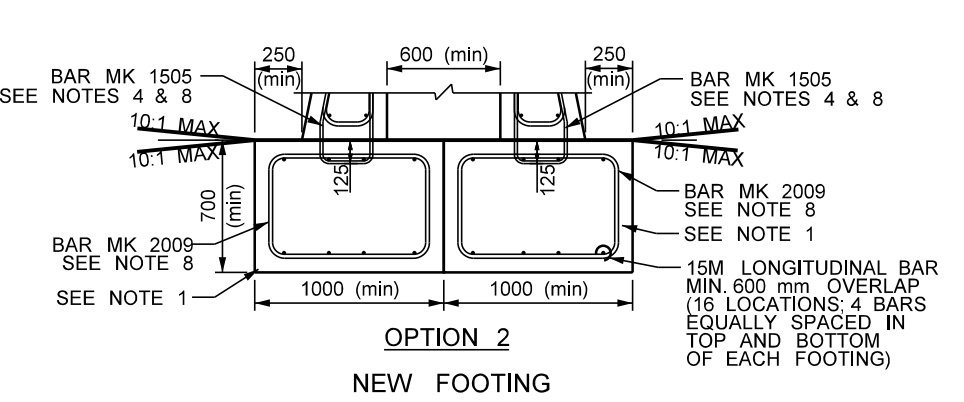
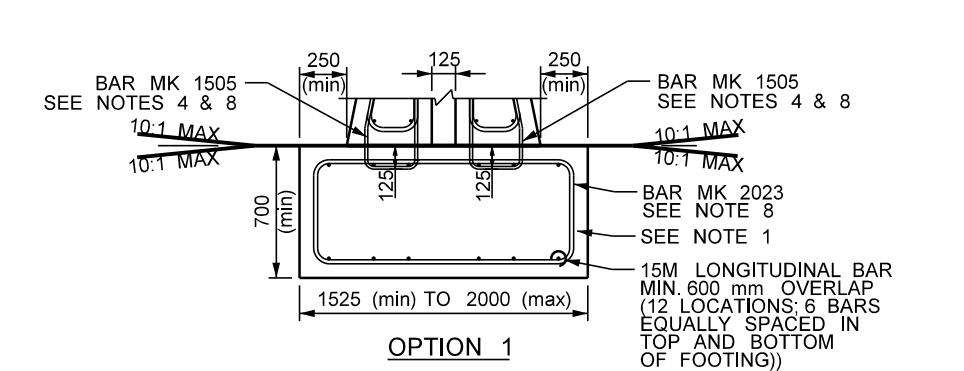
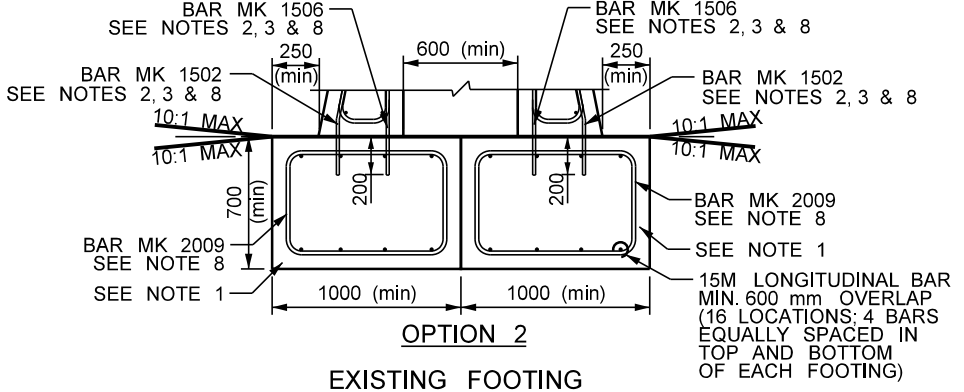
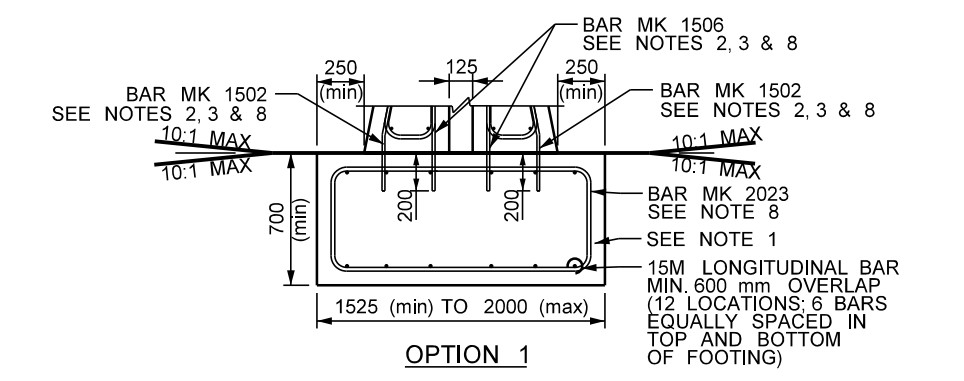
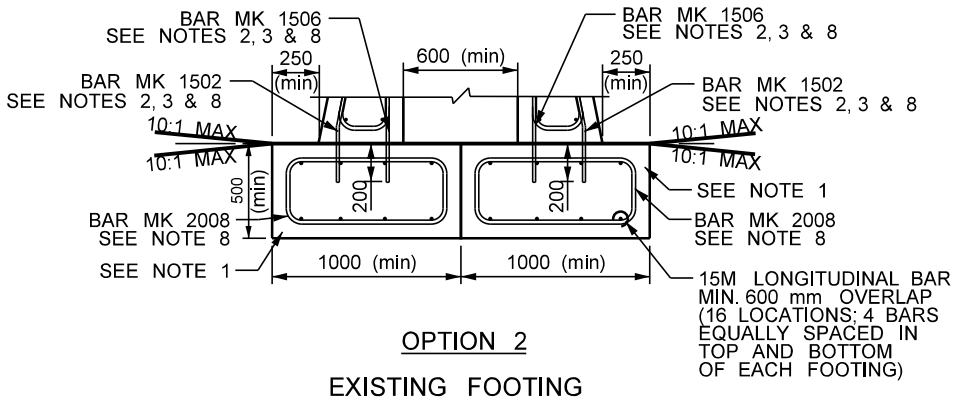
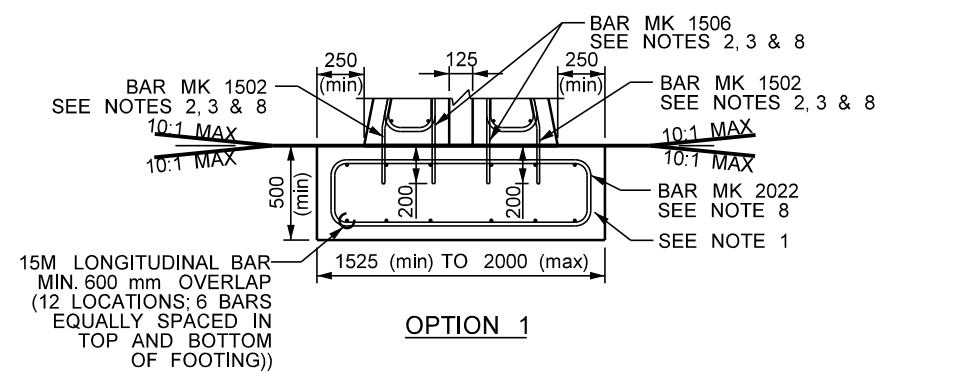
REVISIONS		
DATE	DESCRIPTION	BY



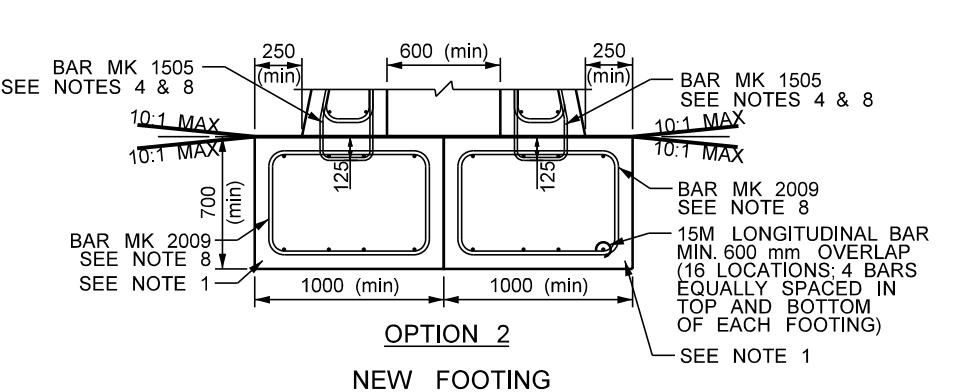
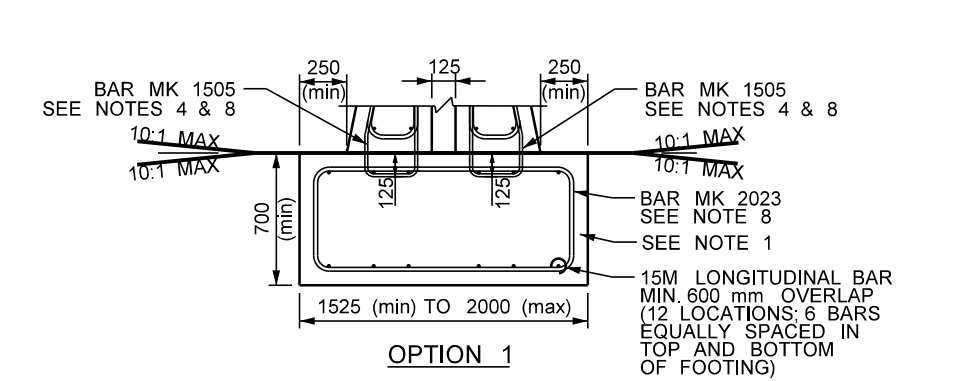
MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

SHEET NO: 5 OF 10	DATE: 2020 - 08
DESIGNED BY:	H. LARSEN
DRAWN BY:	L. LIEBRECHT
REVIEWED BY:	N. JOYAL

TSTM92d



**SECTION 'B-B'**  
INTERIOR SECTION FOOTING  
SCALE 1:40



**SECTION 'B-B'**  
END SECTION FOOTING  
SCALE 1:40

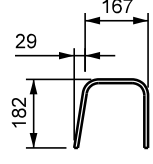
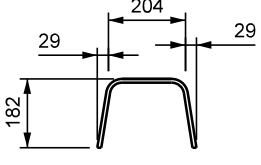
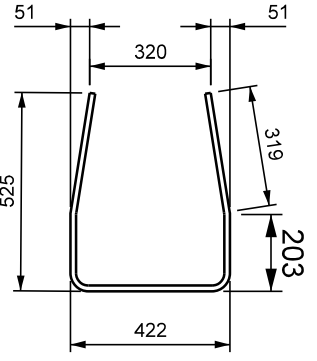
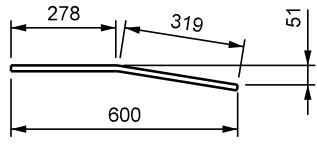
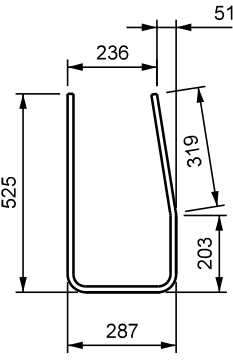
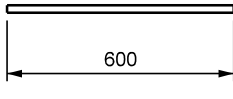
- NOTES:**
- NEW OR EXISTING REINFORCED CONCRETE FOOTING: CONCRETE: CSA A23.1, EXPOSURE CLASS C-1, AIR CONTENT CATEGORY 1, COMPRESSIVE STRENGTH FOOTING  $\geq 35$  MPa, @ 28 DAYS.
  - HOLES IN FOOTING SHALL BE DRILLED VERTICALLY 2 mm LARGER THAN REINFORCING.
  - HOLES IN FOOTING SHALL BE PREPARED FOR EPOXY (HILTI HIT RE 500, OR APPROVED ALTERNATIVE) AS DIRECTED BY MANUFACTURER. STIRRUP SHALL BE SECURELY ATTACHED TO REBAR.
  - ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE INDICATED.
  - ALTERNATE LONGITUDINAL REINFORCEMENT FOR TOP TWO BARS MAY BE ONE (1) SINGLE 15M BAR.
  - SEE SHEETS 7, 8, 9, & 10 FOR REINFORCEMENT DETAILS.
  - SPACING TO MATCH BAR MK 2011.
  - ALL REINFORCING SHALL HAVE MINIMUM 75 mm COVER, UNLESS OTHERWISE NOTED.

REVISIONS		
DATE	DESCRIPTION	BY



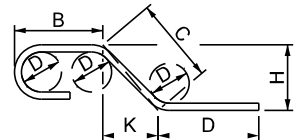
MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIUM TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

SHEET NO: 6 OF 10	DATE: 2020 - 08
DESIGNED BY:	H. LARSEN
DRAWN BY:	L. LIEBRECHT
REVIEWED BY:	N. JOYAL
<b>TSTM92d</b>	

MARK	TYPE	PIN DIAMETER (mm)	TOTAL LENGTH (mm)	MASS			BENDING DIAGRAM
				kg	kg/m		
					INTERIOR SEC.	END SEC.	
1002	BENT	65	503	0.39	0.39	0.39	
1003	BENT	65	548	0.43	0.43	0.43	
1501	BENT	65	1439	2.26	6.78	9.04	
1502	BENT	65	604	0.95	2.85	3.80	
1505	BENT	65	1300	2.04	6.12	8.16	
1506	STR	0	600	0.94	2.82	3.76	

**NOTES:**

- ALL DIMENSIONS GIVEN IN BENDING DIAGRAM ARE OUT TO OUT, EXCEPT RADII AND EXTENSIONS ON 90°, 135° & 180° HOOKS. EXTENSIONS ON 90°, 135° & 180° HOOKS ARE THE "A" OR "G" DIMENSIONS FOR THE STANDARD 90°, 135° & 180° HOOKS REFERENCED FROM THE RSIC "MANUAL OF STANDARD PRACTICE". RADII ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL BENDS AND HOOKS SHALL CONFORM TO CLAUSE 6.6.2 OF CSA A23.1 UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL BE DEFORMED STEEL UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 "BILLET STEEL BARS FOR CONCRETE REINFORCEMENT" GRADE 400W, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- LIKE BARS SHALL BE BUNDLED, SECURELY TIED, AND IDENTIFIED AS TO MARK No. BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
- BARS MARKED WITH THE SUFFIX "P" SHALL BE PLAIN UNDEFORMED BARS IN ACCORDANCE WITH CAN/CSA G40.21-M92 GRADE 300W.
- ALL BARS SHALL BE BENT IN ACCORDANCE WITH THE FOLLOWING DETAIL:



REVISIONS		
DATE	DESCRIPTION	BY

**Manitoba** Infrastructure  
Traffic Engineering

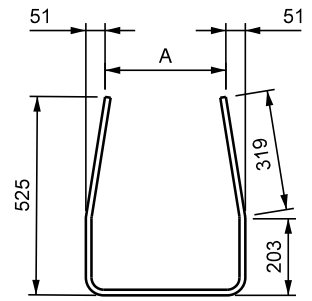


MANITOBA CONSTRAINED  
WIDTH CONSTANT SLOPE  
BARRIER - MEDIAN TL-5 TO  
DUAL TL-5 VERTICAL BACK  
TRANSITION AT 1075

SHEET NO: 7 OF 10    DATE: 2020 - 08  
DESIGNED BY: H. LARSEN  
DRAWN BY: L. LIEBRECHT  
REVIEWED BY: N. JOYAL

TSTM92d

MARK	TYPE	PIN DIAMETER (mm)	TOTAL LENGTH (mm)	MASS			BENDING DIAGRAM
				kg	kg/m		
					INTERIOR SEC.	END SEC.	
							DIMENSION
							A
1523a	BENT	125	1860	2.92	0.43	0.43	740
1523b	BENT	125	1842	2.89	---	0.43	722
1523c	BENT	125	1835	2.88	0.42	---	715
1523d	BENT	125	1823	2.86	---	0.42	703
1523e	BENT	125	1810	2.84	0.42	---	690
1523f	BENT	125	1804	2.83	---	0.42	684
1523g	BENT	125	1785	2.80	0.41	0.41	665
1523h	BENT	125	1767	2.77	---	0.41	647
1523i	BENT	125	1760	2.76	0.41	---	640
1523j	BENT	125	1748	2.74	---	0.40	628
1523k	BENT	125	1735	2.72	0.40	---	615
1523l	BENT	125	1729	2.71	---	0.40	609
1523m	BENT	125	1710	2.68	0.39	0.39	590
1523n	BENT	125	1695	2.66	0.39	0.39	576
1523o	BENT	125	1660	2.61	0.38	0.38	540
1523p	BENT	125	1635	2.57	0.38	0.38	515
1523q	BENT	125	1610	2.53	0.37	0.37	490
1523r	BENT	125	1585	2.49	0.37	0.37	465
1523s	BENT	125	1560	2.45	0.36	0.36	440
1523t	BENT	125	1535	2.41	0.35	0.35	415
1523u	BENT	125	1510	2.37	0.35	0.35	390
1523v	BENT	125	1485	2.33	0.34	0.34	365
1523w	BENT	125	1460	2.29	0.34	0.34	340



2005	BENT	125	2196	5.17	15.51	20.68	
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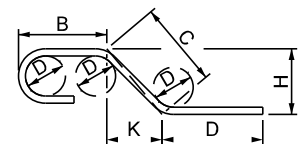
2008	BENT	125	2885	6.79	20.37	27.16	
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2009	BENT	125	3283	7.73	23.19	30.92	
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2011	BENT	125	2063	4.86	14.58	19.44	
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**NOTES:**

- ALL DIMENSIONS GIVEN IN BENDING DIAGRAM ARE OUT TO OUT, EXCEPT RADII AND EXTENSIONS ON 90°, 135° & 180° HOOKS. EXTENSIONS ON 90°, 135° & 180° HOOKS ARE THE "A" OR "G" DIMENSIONS FOR THE STANDARD 90°, 135° & 180° HOOKS REFERENCED FROM THE RSIC "MANUAL OF STANDARD PRACTICE". RADII ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL BENDS AND HOOKS SHALL CONFORM TO CLAUSE 6.6.2 OF CSA A23.1 UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL BE DEFORMED STEEL UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 "BILLET STEEL BARS FOR CONCRETE REINFORCEMENT" GRADE 400W, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- LIKE BARS SHALL BE BUNDLED, SECURELY TIED, AND IDENTIFIED AS TO MARK No. BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
- BARS MARKED WITH THE SUFFIX "P" SHALL BE PLAIN UNDEFORMED BARS IN ACCORDANCE WITH CAN/CSA G40.21-M92 GRADE 300W.
- ALL BARS SHALL BE BENT IN ACCORDANCE WITH THE FOLLOWING DETAIL:



REVISIONS		
DATE	DESCRIPTION	BY

**Manitoba Infrastructure**  
Traffic Engineering

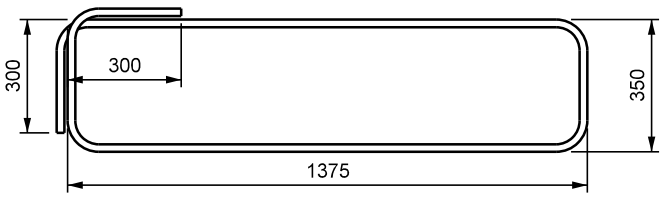

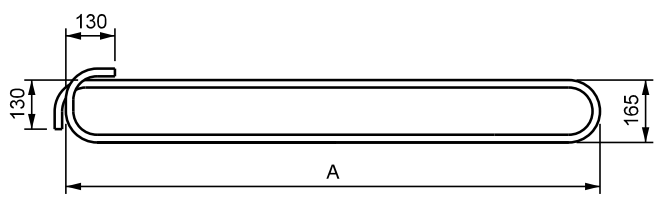


MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

SHEET NO: 8 OF 10      DATE: 2020 - 08  
DESIGNED BY: H. LARSEN  
DRAWN BY: L. LIEBRECHT  
REVIEWED BY: N. JOYAL

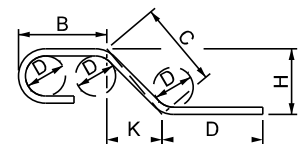
TSTM92d



MARK	TYPE	PIN DIAMETER (mm)	TOTAL LENGTH (mm)	MASS			BENDING DIAGRAM																																																																																																																																																																																																								
				kg	kg/m																																																																																																																																																																																																										
					INTERIOR SEC.	END SEC.																																																																																																																																																																																																									
2022	BENT	125	3931 TO 4881	9.26 TO 11.49	23.15 TO 28.73	--	 <p>*NOTE: WIDTHS AND WEIGHTS OF INDIVIDUAL BARS ARE DEPENDENT ON DESIGN TAPER ANGLE OF BARRIER</p>																																																																																																																																																																																																								
2023	BENT	125	4331 TO 5281	10.20 TO 12.44	--	25.50 TO 62.20	 <p>*NOTE: WIDTHS AND WEIGHTS OF INDIVIDUAL BARS ARE DEPENDENT ON DESIGN TAPER ANGLE OF BARRIER</p>																																																																																																																																																																																																								
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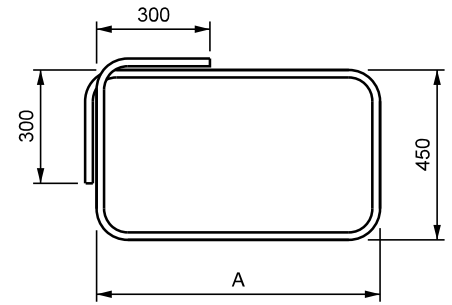
**NOTES:**

- ALL DIMENSIONS GIVEN IN BENDING DIAGRAM ARE OUT TO OUT, EXCEPT RADII AND EXTENSIONS ON 90°, 135° & 180° HOOKS. EXTENSIONS ON 90°, 135° & 180° HOOKS ARE THE "A" OR "G" DIMENSIONS FOR THE STANDARD 90°, 135° & 180° HOOKS REFERENCED FROM THE RSIC "MANUAL OF STANDARD PRACTICE". RADII ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL BENDS AND HOOKS SHALL CONFORM TO CLAUSE 6.6.2 OF CSA A23.1 UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL BE DEFORMED STEEL UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 "BILLET STEEL BARS FOR CONCRETE REINFORCEMENT" GRADE 400W, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- LIKE BARS SHALL BE BUNDLED, SECURELY TIED, AND IDENTIFIED AS TO MARK No. BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
- BARS MARKED WITH THE SUFFIX "P" SHALL BE PLAIN UNDEFORMED BARS IN ACCORDANCE WITH CAN/CSA G40.21-M92 GRADE 300W.
- ALL BARS SHALL BE BENT IN ACCORDANCE WITH THE FOLLOWING DETAIL:

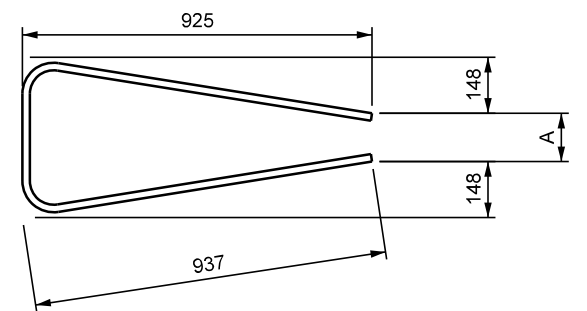


REVISIONS					<b>MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075</b>	SHEET NO: 9 OF 10	DATE: 2020 - 08
DATE	DESCRIPTION	BY				DESIGNED BY: H. LARSEN	DRAWN BY: L. LIEBRECHT
						<b>TSTM92d</b>	

MARK	TYPE	PIN DIAMETER (mm)	TOTAL LENGTH (mm)	MASS			BENDING DIAGRAM
				kg	kg/m		
					INTERIOR SEC.	END SEC.	
							DIMENSION A
2026a	BENT	125	3721	8.76	1.29	1.29	1170
2026b	BENT	125	3684	8.68	---	1.28	1152
2026c	BENT	125	3671	8.65	1.27	---	1145
2026d	BENT	125	3646	8.59	---	1.26	1133
2026e	BENT	125	3621	8.53	1.25	---	1120
2026f	BENT	125	3609	8.50	---	1.25	1114
2026g	BENT	125	3571	8.41	1.24	1.24	1095
2026h	BENT	125	3534	8.32	---	1.22	1077
2026i	BENT	125	3521	8.29	1.22	---	1070
2026j	BENT	125	3496	8.23	---	1.21	1058
2026k	BENT	125	3471	8.17	1.20	---	1045
2026l	BENT	125	3459	8.15	---	1.20	1039
2026m	BENT	125	3421	8.06	1.19	1.19	1020
2026n	BENT	125	3385	8.04	1.18	1.18	995
2026o	BENT	125	3371	7.93	1.17	1.17	970
2026p	BENT	125	3321	7.82	1.15	1.15	945
2026q	BENT	125	3271	7.70	1.13	1.13	920
2026r	BENT	125	3221	7.59	1.12	1.12	895
2026s	BENT	125	3171	7.47	1.10	1.10	870
2026t	BENT	125	3121	7.35	1.08	1.08	845
2026u	BENT	125	3071	7.23	1.06	1.06	820
2026v	BENT	125	3021	7.11	1.05	1.05	795
2026w	BENT	125	2971	7.00	1.03	1.03	770



MARK	TYPE	PIN DIAMETER (mm)	TOTAL LENGTH (mm)	kg	INTERIOR SEC.	END SEC.	DIMENSION
							A
2027a	BENT	125	2628	6.19	0.85	0.85	549
2027b	BENT	125	2610	6.15	---	0.84	531
2027c	BENT	125	2603	6.13	0.84	---	524
2027d	BENT	125	2591	6.10	---	0.84	512
2027e	BENT	125	2578	6.07	0.83	---	499
2027f	BENT	125	2572	6.06	---	0.83	493
2027g	BENT	125	2553	6.01	0.82	0.82	474
2027h	BENT	125	2535	5.97	---	0.82	456
2027i	BENT	125	2528	5.95	0.82	---	449
2027j	BENT	125	2516	5.93	---	0.81	437
2027k	BENT	125	2503	5.89	0.81	---	424
2027l	BENT	125	2497	5.88	---	0.81	418
2027m	BENT	125	2478	5.84	0.80	0.80	399
2027n	BENT	125	2463	5.80	0.80	0.80	384
2027o	BENT	125	2428	5.72	0.78	0.78	349
2027p	BENT	125	2403	5.66	0.78	0.78	324
2027q	BENT	125	2378	5.60	0.77	0.77	299
2027r	BENT	125	2353	5.54	0.76	0.76	274
2027s	BENT	125	2328	5.48	0.75	0.75	249
2027t	BENT	125	2303	5.42	0.74	0.74	224
2027u	BENT	125	2278	5.36	0.74	0.74	199
2027v	BENT	125	2253	5.31	0.73	0.73	174
2027w	BENT	125	2228	5.25	0.72	0.72	149

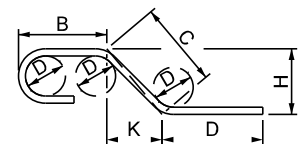


LONGITUDINAL REINFORCING - MASS (kg/m)

BAR	INTERIOR SECTION	END SECTION	FOOTING			DIMENSION
			OPTION 1	OPTION 2	OPTION 3	
10M	6.59	6.59	---	---	---	6000
15M	---	---	20.72	9.89	---	6000
20M	---	---	---	---	19.78	6000

NOTES:

- ALL DIMENSIONS GIVEN IN BENDING DIAGRAM ARE OUT TO OUT, EXCEPT RADII AND EXTENSIONS ON 90°, 135° & 180° HOOKS. EXTENSIONS ON 90°, 135° & 180° HOOKS ARE THE "A" OR "G" DIMENSIONS FOR THE STANDARD 90°, 135° & 180° HOOKS REFERENCED FROM THE RSIC "MANUAL OF STANDARD PRACTICE". RADII ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL BENDS AND HOOKS SHALL CONFORM TO CLAUSE 6.6.2 OF CSA A23.1 UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL BE DEFORMED STEEL UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 "BILLET STEEL BARS FOR CONCRETE REINFORCEMENT" GRADE 400W, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- LIKE BARS SHALL BE BUNDLED, SECURELY TIED, AND IDENTIFIED AS TO MARK No. BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
- BARS MARKED WITH THE SUFFIX "P" SHALL BE PLAIN UNDEFORMED BARS IN ACCORDANCE WITH CAN/CSA G40.21-M92 GRADE 300W.
- ALL BARS SHALL BE BENT IN ACCORDANCE WITH THE FOLLOWING DETAIL:



REVISIONS		
DATE	DESCRIPTION	BY

**Manitoba Infrastructure**  
Traffic Engineering



MANITOBA CONSTRAINED WIDTH CONSTANT SLOPE BARRIER - MEDIAN TL-5 TO DUAL TL-5 VERTICAL BACK TRANSITION AT 1075

SHEET NO: 10 OF 10 DATE: 2020 - 08  
DESIGNED BY: H. LARSEN  
DRAWN BY: L. LIEBRECHT  
REVIEWED BY: N. JOYAL

TSTM92d