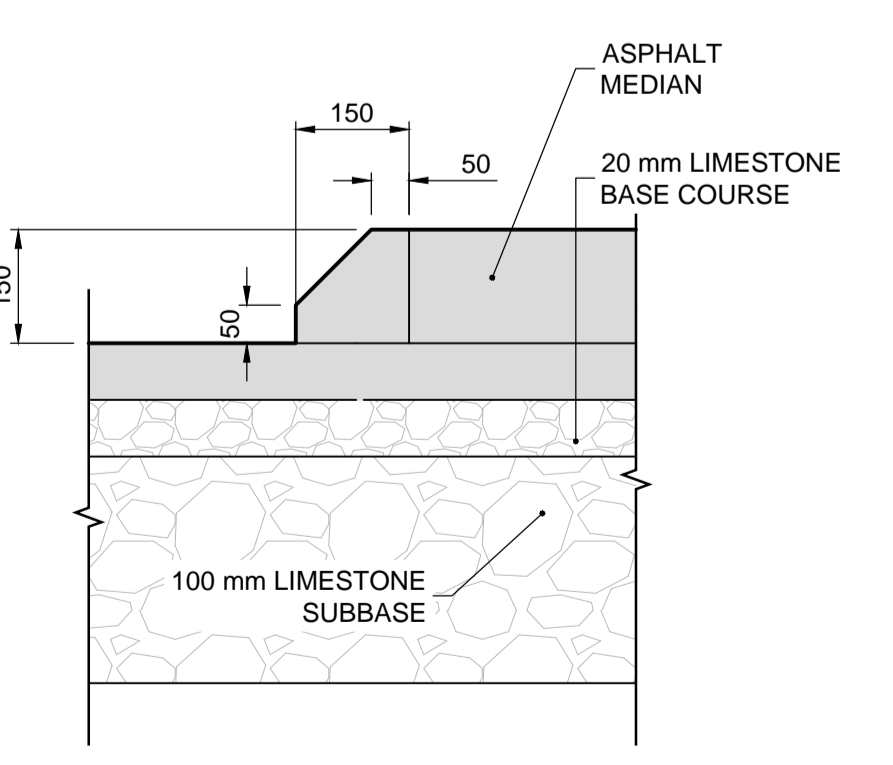
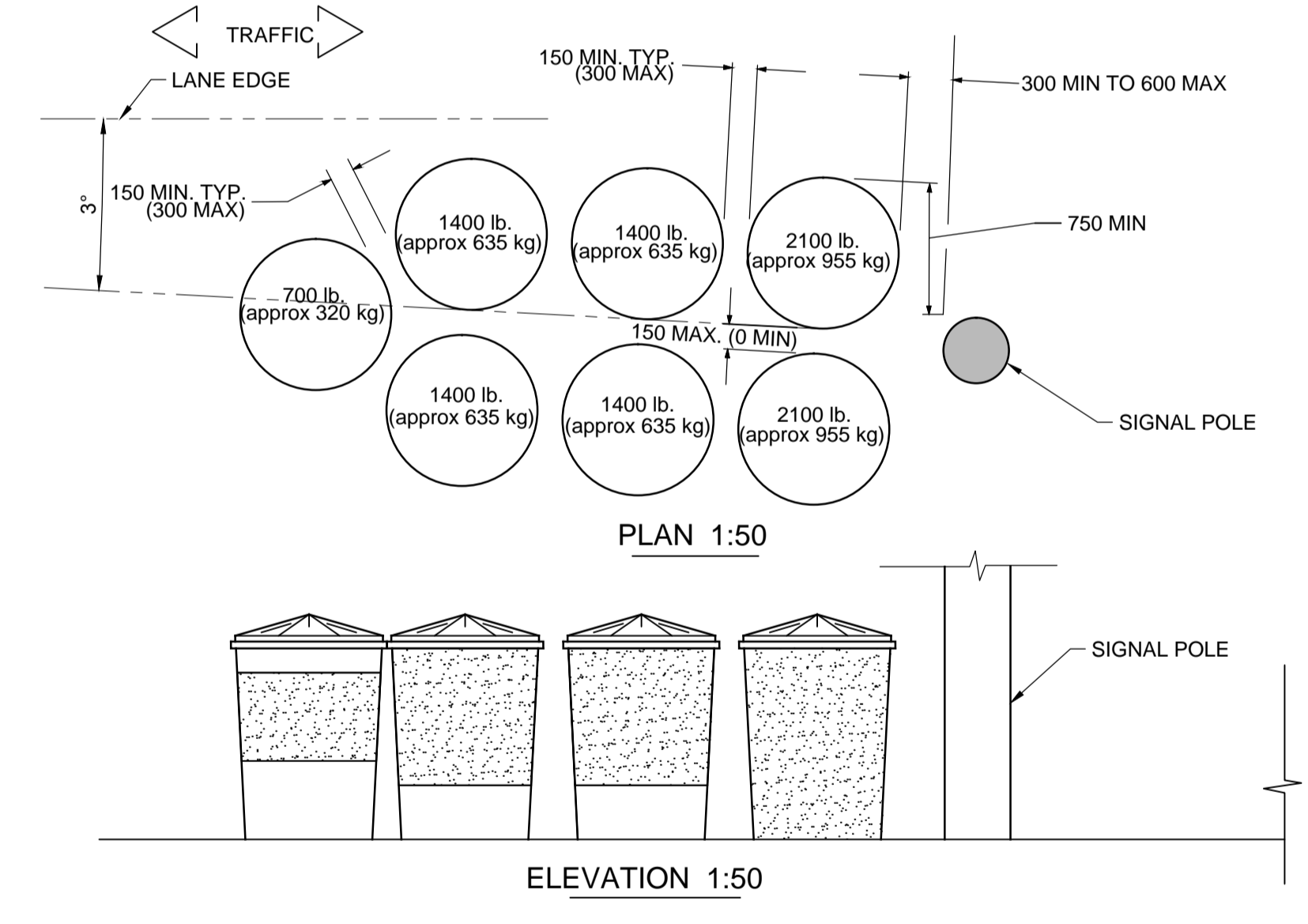


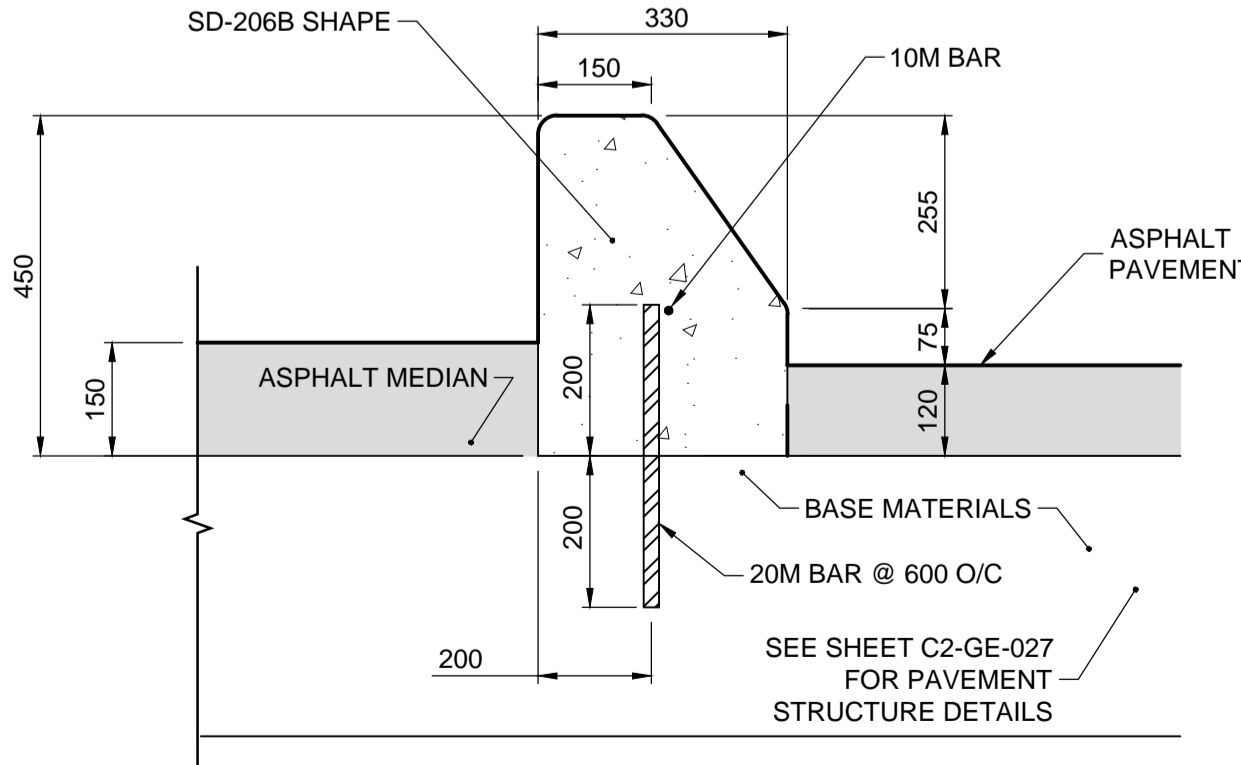
DESIGN CALCULATIONS FOR A POSTED VELOCITY OF 50 km/h (SEE NOTE 1)

ROW	816.5 kg CAR			2041.2 kg TRUCK		
	SAND WT (lb)	EXIT VEL (km/h)	AVG g's FOR ROW	EXIT VEL (km/h)	AVG g's FOR ROW	
0		50.00		50.00		
1	700	35.98	5.18	43.26	2.70	
2	2800	14.06	4.72	26.64	4.99	
3	2800	5.50	0.72	16.41	1.89	
4	4200	1.65	0.12	8.48	0.85	

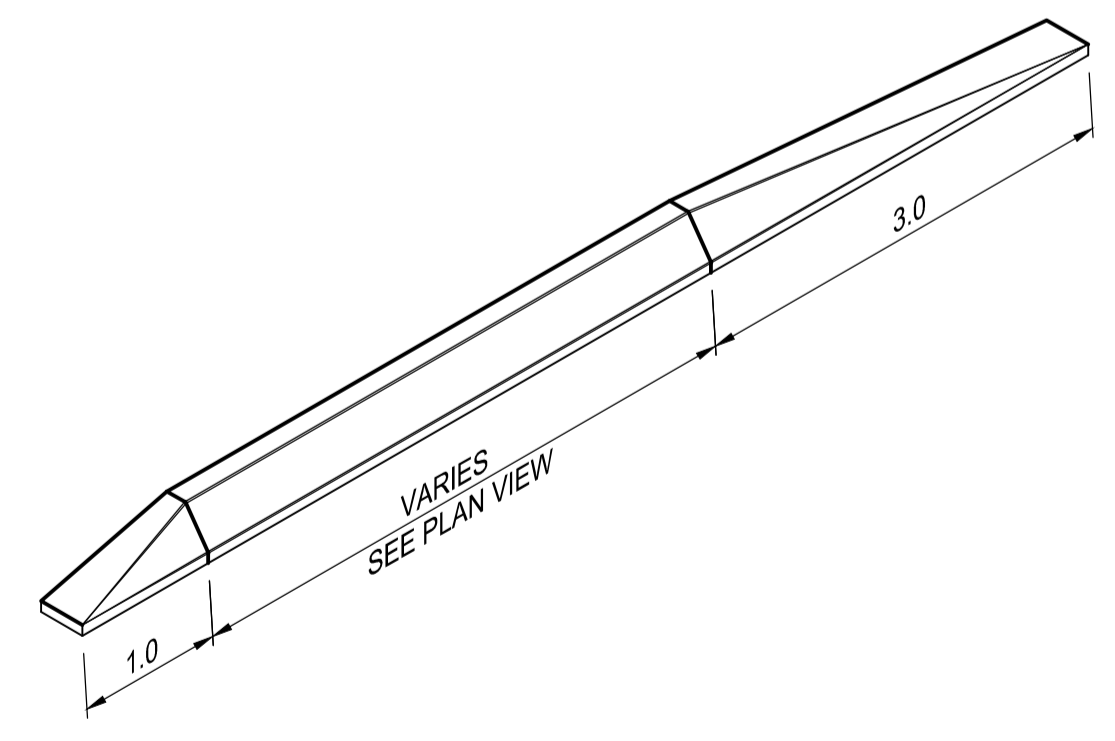
NOTE:
1. THE DESIGN CALCULATIONS APPLY ONLY FOR A FRONTAL IMPACT IN EITHER A UNIDIRECTIONAL OR BIDIRECTIONAL LAYOUT.



1 TEMPORARY ASPHALT CURB
SCALE: 1:10



2 SAFETY CURB-SECTION
SCALE: 1:10



3 SAFETY CURB
SCALE: NTS (ISOMETRIC VIEW)

3 SAND FILLED BARRELS
SCALE: NTS

LEGEND

- RAILWAY SIGNAL
- SAND FILLED BARRELS AND SIGNALS FOR PHASE II CONSTRUCTION SHOWN THUS
- SAND FILLED BARRELS AND SIGNALS FOR PHASE III CONSTRUCTION SHOWN THUS

APEGM
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date: 17/01/09

<p>UNDERGROUND STRUCTURES</p> <p>SUPV. U/G STRUCTURES DATE</p>	<p>B.M. ELEV.</p> <p>SEE SHEET C2-CT-007 FOR CONTROL POINT INFORMATION</p>	<p>DILLON CONSULTING</p> <p>DESIGNED BY RTP CHECKED BY DBW</p> <p>DRAWN BY PMW APPROVED BY DBW</p> <p>HOR. SCALE 1:150 RELEASED FOR CONSTRUCTION</p> <p>VERTICAL</p>	<p>ENGINEER'S SEAL</p> <p>PROVINCE OF MANITOBA</p> <p>D.B. WIEBE Member 22480 REGISTERED PROFESSIONAL ENGINEER</p> <p>CONSULTANT PROJECT NUMBER 16-3353</p>	<p>THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT</p> <p>Waverley Street Underpass at CN Mile 3.89 Rivers Sub Contract 2: Underpass Structures, Railworks, Roadworks, Land Drainage Sewer, Pumping Station and Landscaping Works</p> <p>CITY DRAWING NUMBER U-239-2016-C2-CT-006</p> <p>SHEET 006 OF 081</p> <p>CONSULTANT DRAWING NUMBER C2-CT-006</p>
<p>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.</p>	<p>0 ISSUED FOR TENDER 17/01/09 DBW</p> <p>NO. REVISIONS DATE BY</p>	<p>DATE</p>	<p>DATE</p>	<p>DETOUR PEDESTRIAN CROSSING DETAILS</p>

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