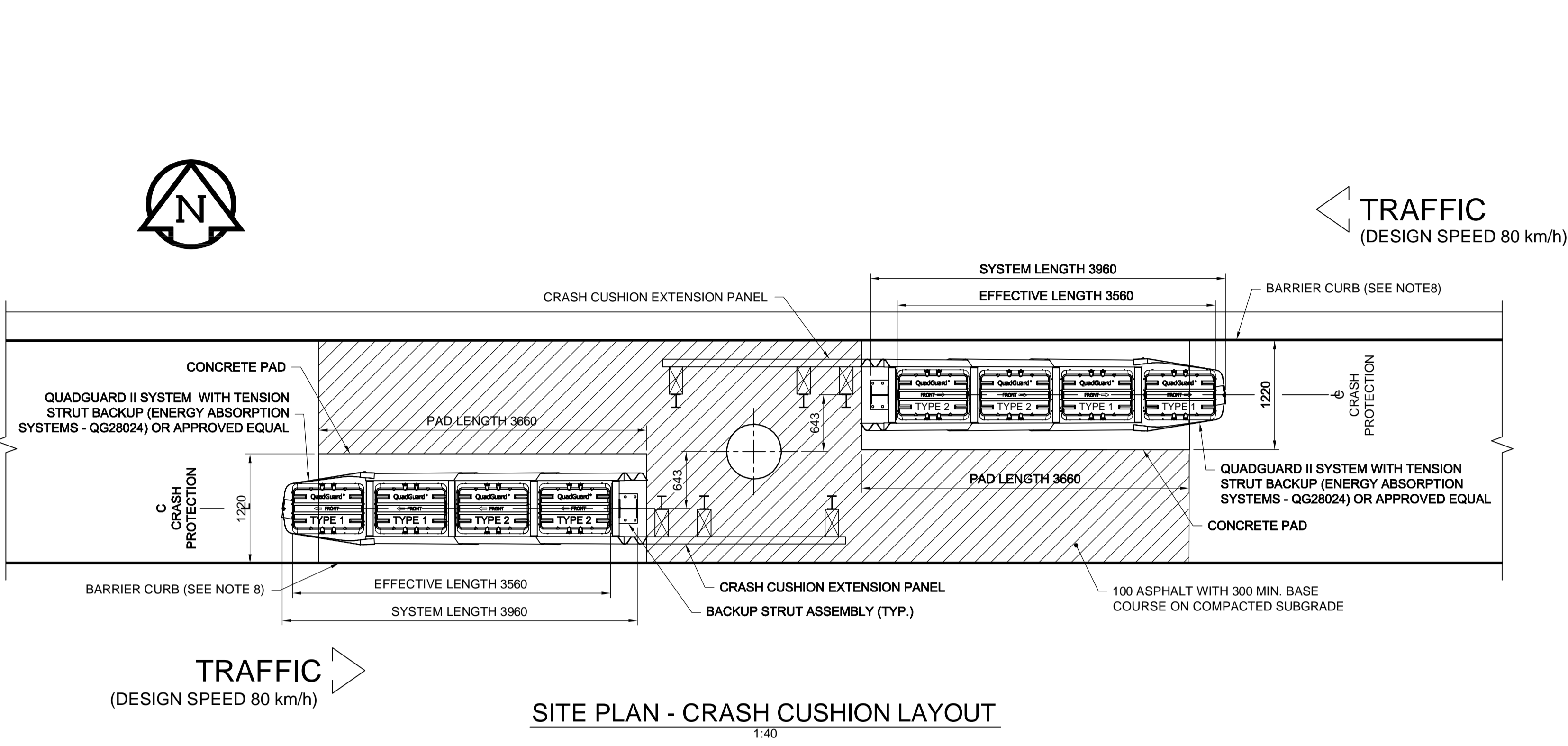
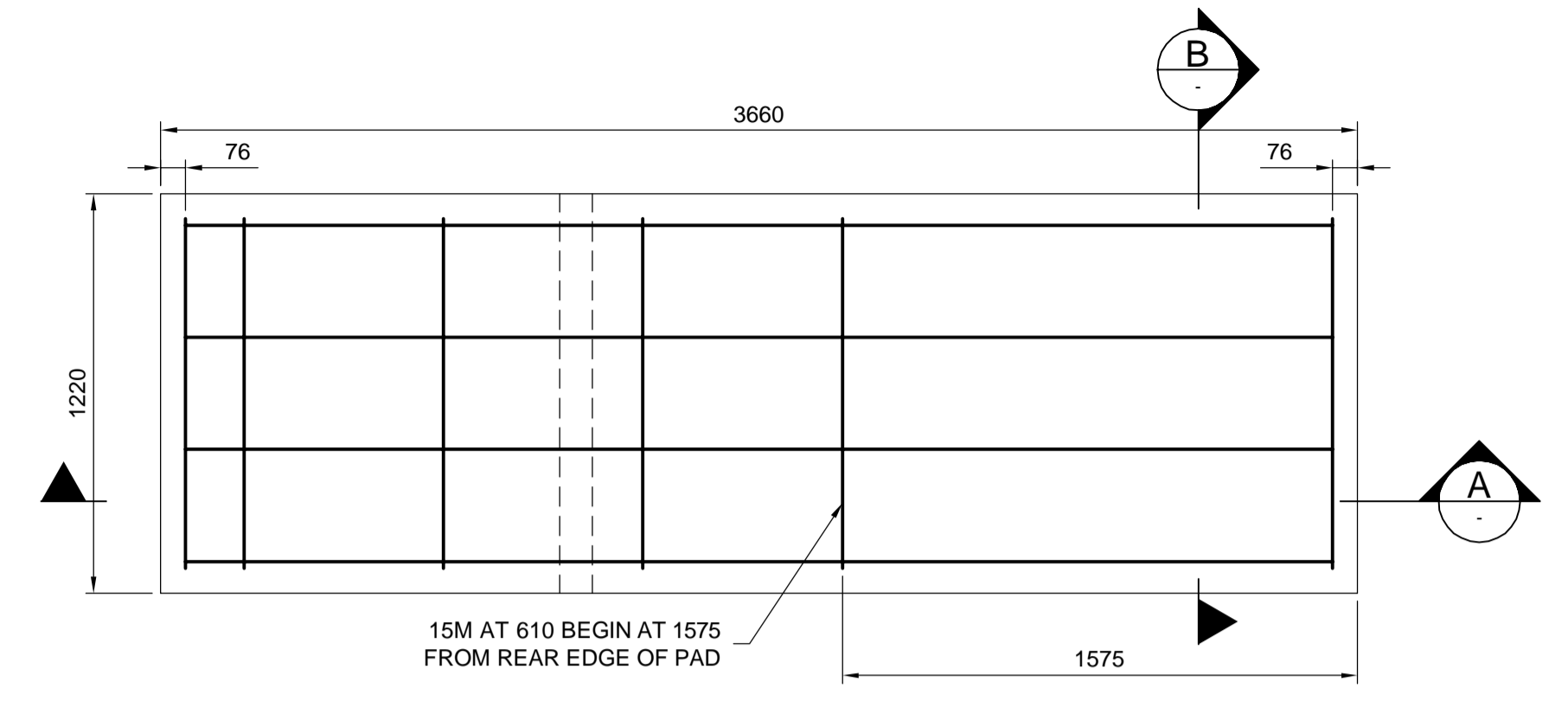


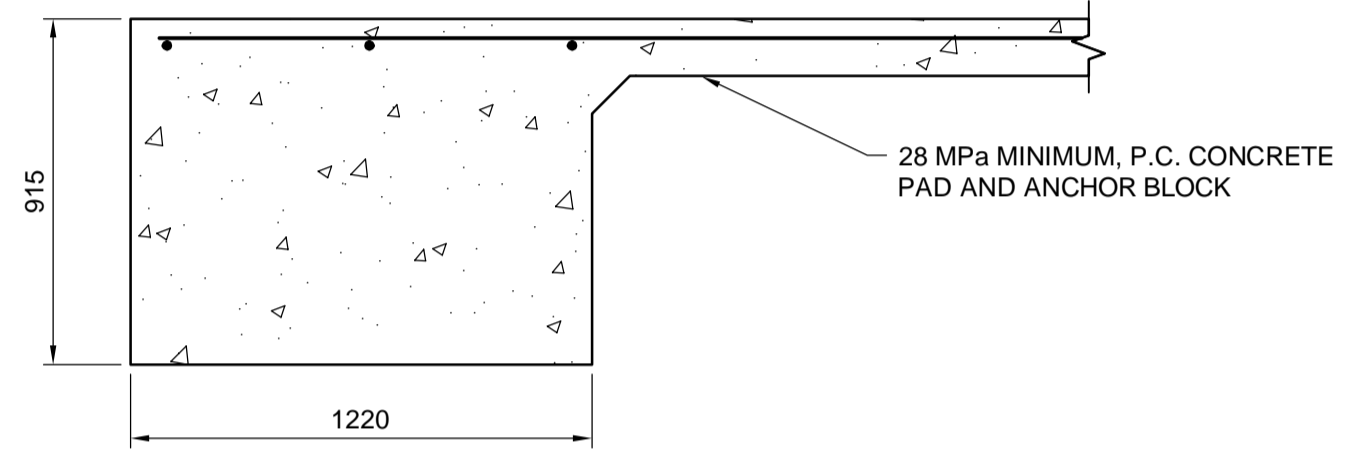
2013-07-05



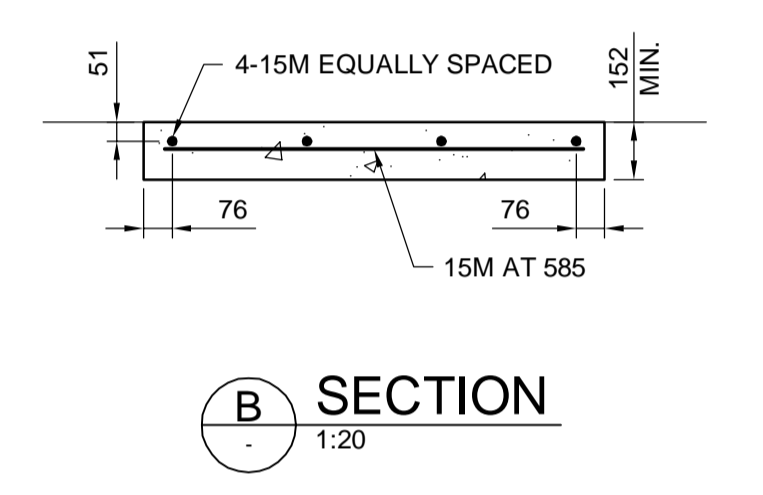
SITE PLAN - CRASH CUSHION LAYOUT
1:40



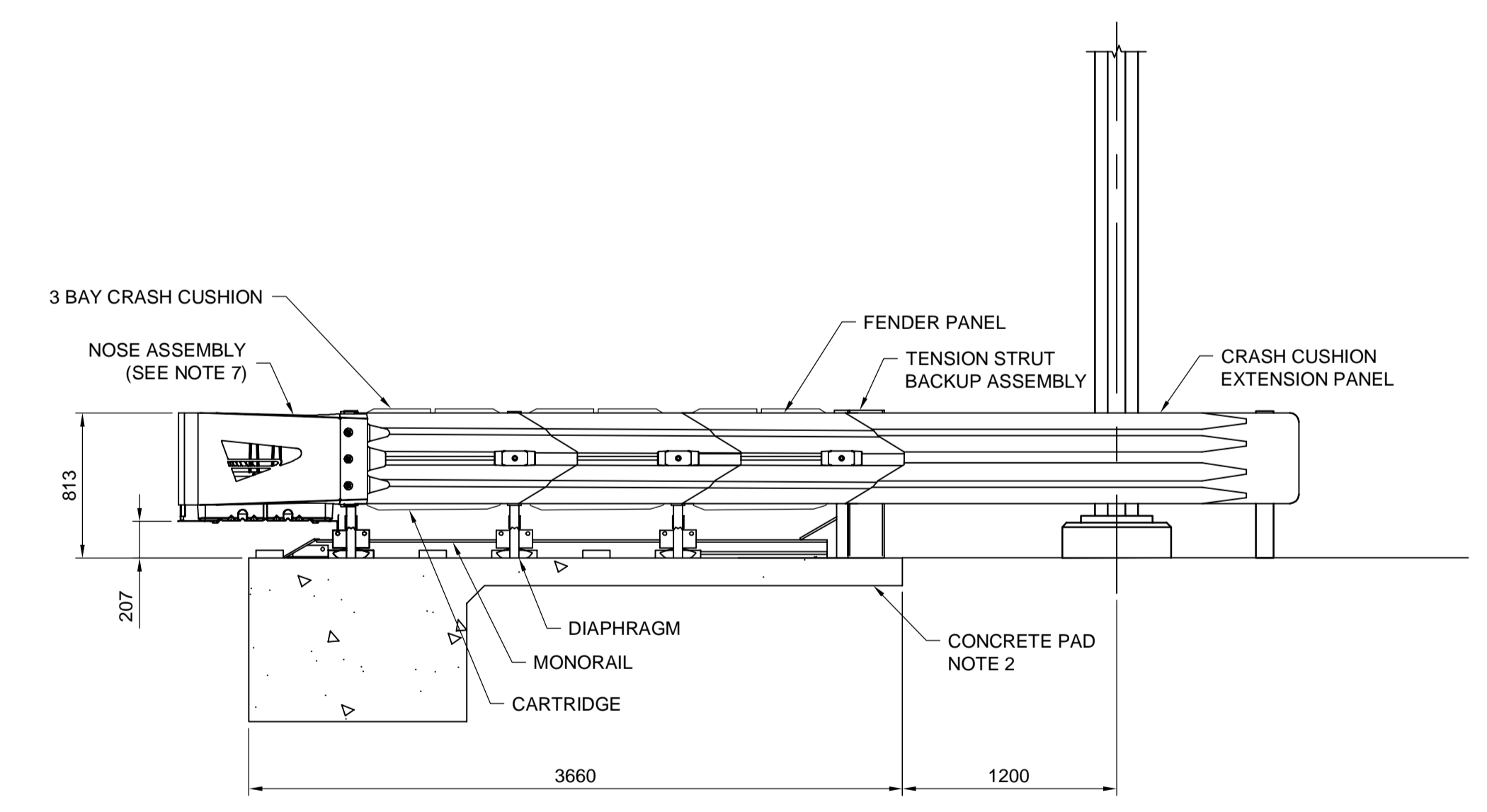
PLAN - REINFORCING
1:20



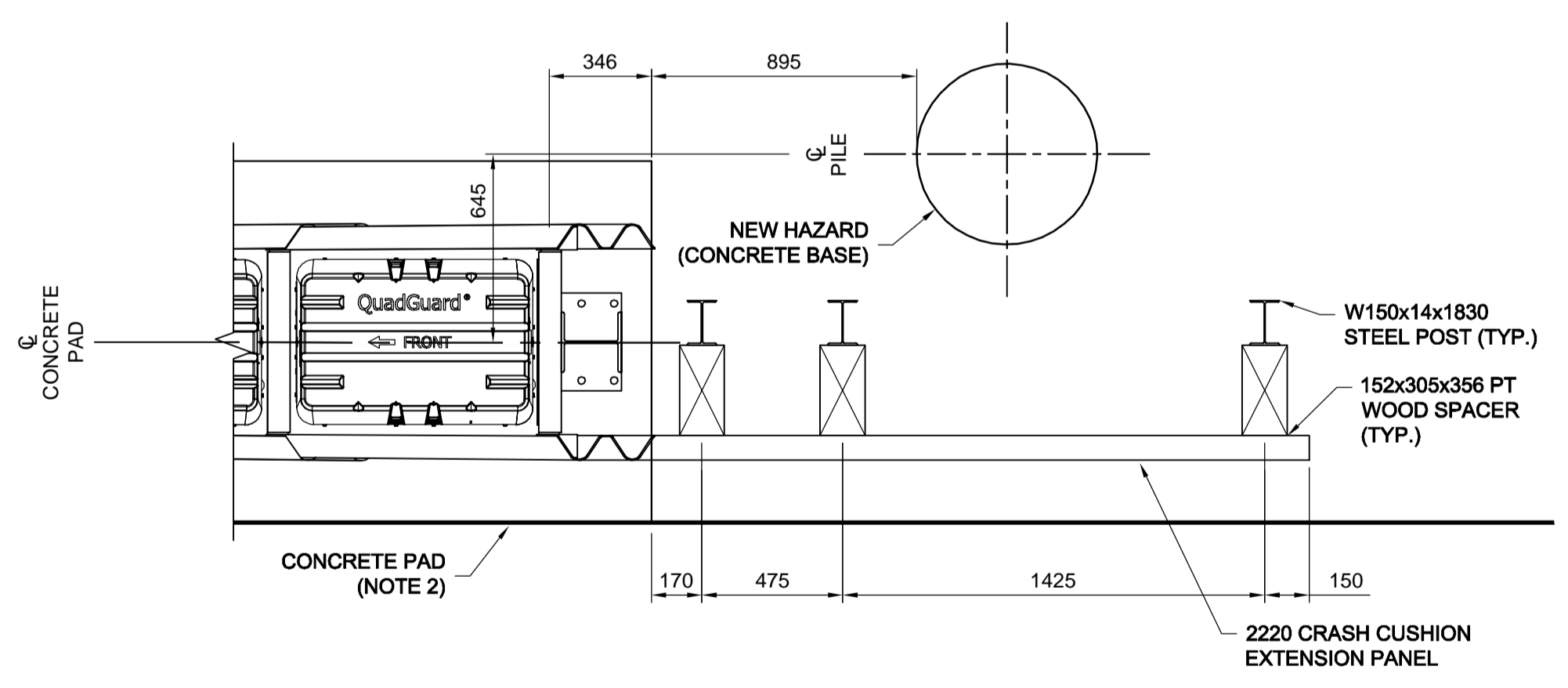
A SECTION
1:20



B SECTION
1:20



SIDE VIEW
1:30



CRASH CUSHION EXTENSION PANEL
1:20 (TYP. E.B. & W.B. QUADGUARDS)

NOTE: DETAILS AND NOTES SHOW QUADGUARD II SYSTEM WITH CONCRETE BACKUP. EQUIVALENT CRASH CUSHION SYSTEM CAN BE USED PENDING APPROVAL FROM THE CONTRACT ADMINISTRATOR.

CRASH CUSHION WITH TENSION STRUT BACKUP NOTES:

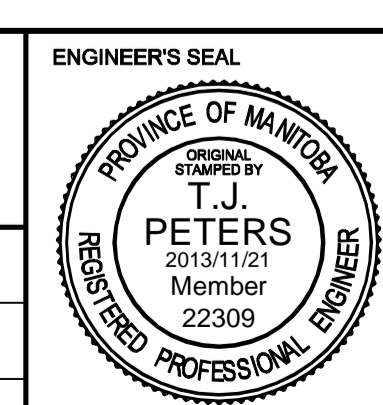
1. IN COMPLIANCE WITH AASHTO 4th EDITION 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
2. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD UPON IMPACT 762 MIN.
3. 152 MIN. REINFORCED 28MPa P.C. CONCRETE PAD OR 200 MIN. NON-REINFORCED 28MPa P.C. CONCRETE ROADWAY, MEASURING AT LEAST 3.66m WIDE BY 15.24m LONG.
4. WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY AN ADEQUATE TRANSITION FROM THE QUADGUARD II SYSTEM TO THE OBJECT BEING SHIELDED.
5. ALL UNITS ARE MILLIMETERS UNLESS OTHERWISE NOTED.
6. BACKUP, EXTENSION PANEL, AND NOSE ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
7. CURB SHALL BE SD-205 BARRIER CURB (100 HEIGHT) ALONG ENTIRE LENGTH OF QUADGUARD II SYSTEM. CURB SHALL BE SD-205 BARRIER CURB (100 HEIGHT) 15m IN FRONT OF QUADGUARD II SYSTEM IN THE DIRECTION OF TRAVEL.
8. THE QUADGUARD II SYSTEM HAS BEEN TESTED TO NCHRP 350.
9. CRASH CUSHION SHALL BE SUPPLIED TO ACCOMMODATE A DESIGN SPEED OF 80 km/h.

ENGINEER'S SEAL FOR CONCRETE PAD AND REINFORCING ONLY. CRASH CUSHION DESIGN AND INSTALLATION SHALL BE AS PER MANUFACTURER'S DETAILS.

BID OPPORTUNITY NO. 712-2013



B.M. ELEV.					
DESIGNED BY	JLD	CHECKED BY	TJP		
DRAWN BY	JLD	APPROVED BY	DPK		
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION BY:			
VERTICAL:		DATE	2013/11/21		
A	ISSUED FOR TENDER	2013/11/21	TJP		
NO.	REVISIONS	DATE	BY	DATE	



THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT

PLESSIS ROAD TWINNING AND GRADE SEPARATION AT CN REDDITT SUBDIVISION CONTRACT 3

S776 - CRASH CUSHION WITH TENSION STRUT BACKUP

CITY DRAWING NUMBER S776-2013-03
SHEET 66 OF 66

CT-0066