

**GENERAL**

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH CONTRACT SPECIFICATIONS.
- GEOMETRY, REINFORCEMENT AND LAYOUT OF THE EXISTING STRUCTURE ARE BASED ON EXISTING DESIGN INFORMATION AND LIMITED FIELD SURVEY DATA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL NECESSARY DIMENSIONS SUCH THAT WORK CAN BE CONSTRUCTED AS SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR PRIOR TO CONSTRUCTION.
- CONTRACTOR TO REFER TO REFERENCE DRAWINGS FOR DETAILS OF EXISTING CONSTRUCTION.
- WHOLE DIMENSIONS SHOWN ON THESE DRAWINGS ARE IN MILLIMETERS. DECIMAL DIMENSIONS ARE IN METRES. THE ORIGINAL BRIDGE STRUCTURE WAS CONSTRUCTED WITH IMPERIAL UNITS OF MEASURE (HARD UNIT CONVERSION WHERE APPLICABLE).
- THE SCALES SHOWN ON THESE DRAWINGS ARE CORRECT FOR A1 SIZED DRAWING SHEETS. DO NOT DETERMINE DIMENSIONS BY SCALING OFF DRAWINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF ALL EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES AND REPORTING ANY DISCREPANCIES OR CONFLICTS TO THE CONSULTANT PRIOR TO CONSTRUCTION.
- EXCEPT WHERE INDICATED OTHERWISE THESE DRAWINGS SHOW DETAILS FOR THE COMPLETED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF WORKERS AND THE DESIGN AND STABILITY OF ANY TEMPORARY WORKS DURING CONSTRUCTION. CONSTRUCTION METHODS REQUIRING THE TEMPORARY INSTALLATION OF SHORING, SCAFFOLDING, BRACING, ETC. SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR FOR REVIEW AND ACCEPTANCE PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA TO PERFORM AND TAKE RESPONSIBILITY FOR ANY SUCH DESIGNS NECESSARY TO COMPLETE THE CONSTRUCTION AND AS REQUIRED BY THE CONTRACT DOCUMENTS.

**DESIGN DATA NOTES**

**TRAFFIC (FINAL CONDITION):**  
THE BRIDGE DECK SHALL ACCOMMODATE TWO SIDEWALKS, ONE CYCLE TRACK, AND TWO FIVE METER WIDE TRAFFIC LANES.

**SERVICE LIFE EXTENSION:**  
THE REHABILITATION WORK SHALL EXTEND THE SERVICE LIFE OF THE OVERPASS BY 40 YEARS.

**DESIGN SPECIFICATION:**  
CANADIAN HIGHWAY BRIDGE DESIGN CODE CAN/CSA-S6-14, WITH 2016 AND 2017 INTERIM REVISIONS

**LIVE LOADING:**  
CANADIAN HIGHWAY BRIDGE DESIGN CODE CL-626 TRUCK & LANE LOAD

**MATERIAL NOTES**

**PRESTRESSING STRANDS:**

- THE PRESTRESSING STRANDS SHALL CONFORM TO CSA G279-M1982.
- PRESTRESSING STRAND SHALL BE 15.2 mm DIAMETER , 7 WIRE LOW RELAXATION UNCOATED STRANDS. STRAND SIZE (15-24mm [06])
- CROSS-SECTION AREA (140mm<sup>2</sup>)
- F<sub>cu</sub> = 1860MPa

**STEEL H PILES:**

- STRUCTURAL HP 250X85, CSA G40.21, GRADE 350W OR ASTM A572 GRADE 50

**REFERENCE DOCUMENTS**

- EMPRESS STREET OVERPASS, ALTERNATIVE A, STRUCTURAL REHABILITATION, STRENGTHENING AND RELATED WORKS. P.D. No. 90-26, DRAWING No. B-5903-1 THRU B-5903-33
- BIDDING SPECIFICATION, EMPRESS STREET OVERPASS STRUCTURE REHABILITATION, STRENGTHENING AND RELATED WORKS IN THE CITY OF WINNIPEG, P.D. No. 90-26
- POLO PARK OVERPASS OVER PORTAGE AVENUE ON EMPRESS STREET EAST, DRAWING No. B-5072- 1-3, 5-6, 8-12, S1-S4
- EMPRESS OVERPASS PIER CAP RESISTANCE TESTING TO CONFIRM VIABILITY OF ECE APPLICATION, BY VECTOR JUNE 19, 2018

**MATERIAL NOTES**

**STEEL REINFORCEMENT:**

ALL DOWELS SHALL BE STAINLESS STEEL UNLESS NOTED.

LOCATION		STEEL REINFORCEMENT	BAR Mk. SUFFIX
OVERPASS SUBSTRUCTURE WORKS	COLUMNS	PLAIN STEEL	NONE
	PIER CAPS	PLAIN STEEL	NONE
OVERPASS SUPERSTRUCTURE WORKS	DECK	STAINLESS STEEL	SS
	ABUTMENT BACKWALLS	STAINLESS STEEL	SS
	APPROACH SLABS	STAINLESS STEEL	SS
	TRAFFIC BARRIERS	STAINLESS STEEL	SS
	EXPANSION SLABS	CHRÖMX 9100	X
	ROADWAY SLABS	CHRÖMX 9100	X
SOUTH RAMP	SLABS ON GRADE	CHRÖMX 9100	X
	DRAINAGE CHANNEL	PLAIN STEEL	NONE
NORTH RAMP SUBSTRUCTURE	ROCK SOCKETED CAISSONS	PLAIN STEEL	NONE
	PIERS	CHRÖMX 9100	X
NORTH RAMP SUPERSTRUCTURE	CIP PIER CAP/DIAPHRAGMS	CHRÖMX 9100	X
	SLABS ON GRADE	CHRÖMX 9100	X
	PRECAST SLABS	CHRÖMX 9100	X
EMPRESS STREET RETAINING WALL	PILE CAP BEAM	CHRÖMX 9100	X
	WALL	CHRÖMX 9100	X

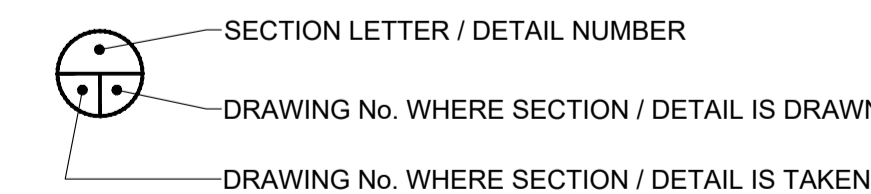
**CONCRETE:**

LOCATION		NOMINAL COMPRESSIVE STRENGTH (MPa)	EXPOSURE CLASS	CEMENT TYPE	NOMINAL AGGREGATE SIZE	AIR CONTENT (%)	CLEAR COVER	MIN. POST RESIDUAL CRACKING INDEX	SPECIAL REQUIREMENTS
OVERPASS SUBSTRUCTURE REPAIR	COLUMNS	35 @ 28 DAYS	C-1	TYPE GU	20	5-8	75	0.15	SYNTHETIC FIBERS
	PIER CAPS		C-1	TYPE GU	20	5-8	70	0.15	SYNTHETIC FIBERS
OVERPASS SUPERSTRUCTURE REPAIR	DECK		C-1	TYPE GU	20	5-8			
	ABUTMENT BACKWALLS		C-1	TYPE GU	20	5-8			
	APPROACH SLABS		C-1	TYPE GU	20	5-8			
	TRAFFIC BARRIERS		C-1	TYPE GU	20	5-8			
	EXPANSION SLABS		C-1	TYPE GU	20	5-8			
	ROADWAY SLABS		C-1	TYPE GU	20	5-8			
SOUTH RAMP	SLABS ON GRADE		C-1	TYPE GU	20	5-8	70	0.15	SYNTHETIC FIBERS
	DRAINAGE CHANNEL		C-1	TYPE GU	20	5-8	100	-	-
NORTH RAMP SUBSTRUCTURE	ROCK SOCKETED CAISSONS	F-1, S-1	HS, Hsb, HSe	20	4-7				
	PIERS	C-1	TYPE GU	20	5-8	70	0.15	SYNTHETIC FIBERS	
NORTH RAMP SUPERSTRUCTURE	CIP PIER CAP/DIAPHRAGMS	40 @ 28 DAYS	C-1	TYPE GU	20	5-8	TOP:70 BOT:60 VERT:70	0.15	SYNTHETIC FIBERS
	PRECAST SLABS		C-1	TYPE GU	20	5-8	TOP:55 BOT:50 VERT:60	0.15	
EMPRESS STREET RETAINING WALL	PILE CAP BEAM	35 @ 28 DAYS	F-1, S-1	HS, Hsb, HSe	20	4-7	70	0.15	SYNTHETIC FIBERS
	WALL		F-1, S-1	HS, Hsb, HSe	20	4-7	60	0.15	SYNTHETIC FIBERS

**LIST OF ACRONYMS & SYMBOLS\***

N,S,E,W	COMPASS DIRECTIONS
ALT	ALTERNATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BLL	BOTTOM LOWER LAYER
BRG	BEARING
BML	BOTTOM MIDDLE LAYER
BUL	BOTTOM UPPER LAYER
CB	CATCH BASIN
CIP	CAST-IN-PLACE
CL	CENTRELINE
CPR	CANADIAN PACIFIC RAILWAY
CSA	CANADIAN STANDARDS ASSOCIATION
C/W	COMPLETE WITH
EB	EASTBOUND
EL	ELEVATION
EX	EXISTING
FM	FEEDERMAIN
HWL	HIGH WATER LEVEL
MIN	MINIMUM
O/C	ON CENTRE
O/H	OVERHEAD
OHWL	ORDINARY HIGH WATER LEVEL
RSIC	REINFORCING STEEL INSTITUTE OF CANADA
SD	STANDARD DRAWING (CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS)
SHLD	SHOULDER
SPMDD	STANDARD PROCTOR MODIFIED DRY DENSITY
TLL	TOP LOWER LAYER
TML	TOP MIDDLE LAYER
TUL	TOP UPPER LAYER
TYP	TYPICAL
UNS	UNIFIED CLASSIFICATION SYSTEM
W/	WITH
WP	WORKING POINT
WB	WESTBOUND
WL	WATER LEVEL
WM	WATER MAIN
@	AT
Ø	DIAMETER

**SECTION & DETAIL SYMBOLS**



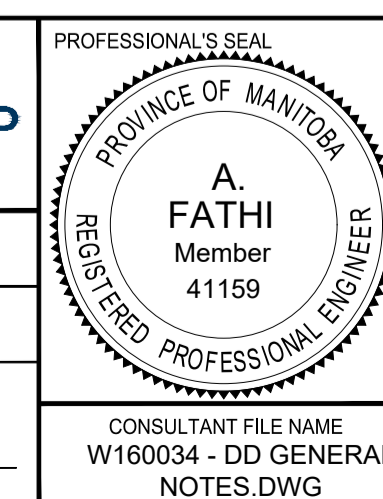
BID OPPORTUNITY No. 602-2018



**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

LOCATION APPROVED UNDERGROUND STRUCTURES	
SUPR. U/G STRUCTURES	DATE
COMMITTEE	
<b>NOTE:</b> 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.	
C	ISSUED FOR TENDER 18/09/04 BAP
B	ISSUED FOR 95% DESIGN REVIEW 18/08/07 BAP
A	ISSUED FOR 50% DESIGN REVIEW 18/06/28 AF
No.	REVISIONS YYMMDD BY DATE

DESIGNED BY		CHECKED BY	
AF	YM		
DRAWN BY		APPROVED BY	
AH	BE		
HOR SCALE AS SHOWN		RELEASED FOR CONSTRUCTION	
VERT SCALE AS SHOWN		N/A	
DATE		DATE	



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

<b>EMPRESS STREET PROJECT</b>		CITY DRAWING NUMBER
<b>STRUCTURAL WORKS</b>		P-3494-85
<b>GENERAL NOTES AND DESIGN DATA</b>		SHEET OF 85 168
		DRAWING No. REV
		<b>85</b> C