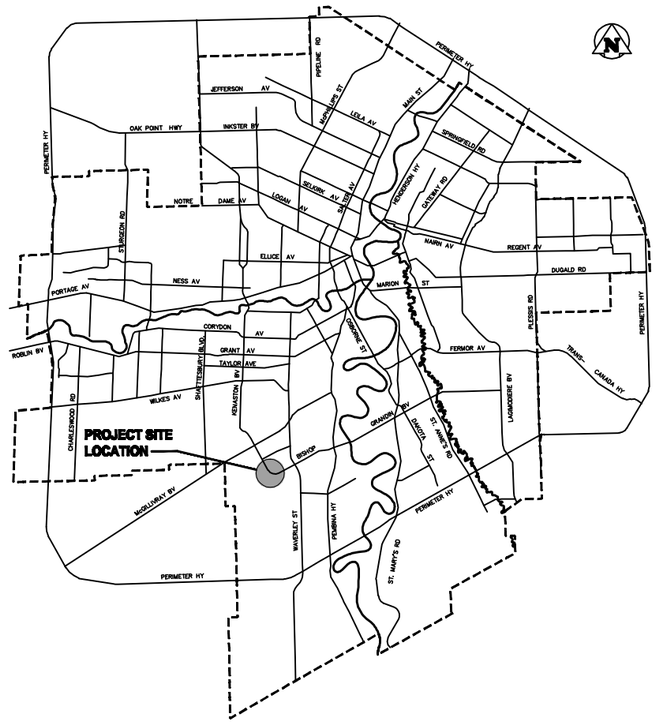
Winnipeg

THE CITY OF WINNIPEG

PUBLIC WORKS DEPARTMENT
TRANSPORTATION ENGINEERING DIVISION

KENASTON BOULEVARD AT BISHOP GRANDIN BOULEVARD

CONCRETE CULVERT EXTENSION



BID OPPORTUNITY No. 1003-2010

DESIGN DATA

DESIGN SPECIFICATION	– CAN/CSA-S6-06
LIVE LOAD	– CL625 – DESIGN LANE LOAD
REINFORCING STEEL	– CSA G30.18 – M92 (R2002) GRADE 400W
CONCRETE STRENGTH AT 28 DAYS	– 35 MPa

GENERAL NOTES

THESE DRAWINGS TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS.

CONTRACTOR SHALL SITE VERIFY ALL EXISTING DIMENSIONS.

INVERT ELEVATION OF EXISTING CULVERT AT DOWNSTREAM END IS APPROXIMATE ONLY. CONTRACTOR SHALL SITE VERIFY THIS ELEVATION.

REINFORCING

CONCRETE CLEAR COVER TO REINFORCEMENT 65mm FOR TOP FACE OF CULVERT, 50mm FOR ALL OTHER SURFACES.

SUPPLY SUPPORT BARS FOR MAIN REINFORCEMENT AS REQUIRED.

LAP SPLICE SCHEDULE

BAR SIZE	EMBEDMENT	TENSION LAP
15M	400	550
20M	500	700
25M	800	1100

LAP SPLICE SCHEDULE IS FOR CLASS B SPLICE UNLESS NOTED OTHERWISE.

LOCATE REINFORCING SPLICES NOT INDICATED ON THE DRAWINGS AT POINTS OF MINIMUM STRESS. LOCATIONS OF SPLICES TO BE APPROVED BY THE ENGINEER.

BEFORE PLACING REBAR ENSURE IT IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER DELETERIONS MATERIAL WHICH WOULD REDUCE THE BOND TO CONCRETE.

STAGING REQUIREMENTS

1. STAGING AS SHOWN ON THE DRAWINGS IS NOT MANDITORY. THE CONTRACTOR MAY DEVELOPE ALTERNATIVE CONSTRUCTION STAGING AND SEQUENCING FOR REVIEW AND APPROVAL BY THE CONTRACT ADMINSTRATOR.
2. THE CONTRACTOR DEVELOPED CONSTRUCTION STAGING AND CONSTRUCTION SEQUENCING MUST MEET THE CRITICAL STAGES, SUBSTANTIAL PERFORMANCE, TOTAL PERFORMANCE AND REGULATORY DATES AS STATED IN THE SPECIFICATION.

DRAWING INDEX

LIST OF ABBREVIATIONS

@	AT	IB	IRON BAR
ALT.	ALTERNATING	I.F.	INSIDE FACE
ALUM.	ALUMINUM	LG.	LONG
APPROX.	APPROXIMATE	MK.	MARK
AVE.	AVENUE	MAX.	MAXIMUM
B.C.	BEGINNING OF CURB	m	METRE
BOT.	BOTTOM	MIN.	MINIMUM
B/W	BOTH WAYS	mm	MILLIMETRE
C.I.P.	CAST-IN-PLACE	No.	NUMBER
CJ.	CONTRUCTION JOINT	O.F.	OUTSIDE FACE
℄	CENTRE LINE	O/C	ON CENTRE
C/W	COMPLETE WITH	O/O	OUTSIDE TO OUTSIDE
CONC.	CONCRETE	PL.	PLATE
CONT.	CONTINUOUS	QTY.	QUANTITY
CL.	CLEAR	R	RADIUS
CRES.	CRESCENT	REINF.	REINFORCEMENT
DBL.	DOUBLE	SHT.	SHEET
DIA.	DIAMETER	S.U.	SUBSTRUCTURE UNIT
DTL.	DETAIL	THK.	THICK
DWG.	DRAWING	TYP.	TYPICAL
E.C.	END OF CURB	T/O	TOP OF
E.E.	EACH END	U.N.O.	UNLESS NOTED OTHERWISE
E.F.	EACH FACE	U/S	UNDERSIDE
E.W.	EACH WAY	VERT.	VERTICAL
EQ.	EQUAL	WM	WATERMAIN
EQ. SP.	EQUAL SPACE	WP	WORKING POINT
EL.	ELEVATION	W/	WITH
GALV.	GALVANIZING		
GRAN.	GRANULAR		
HORIZ.	HORIZONTAL		

LOCATION PREFIX

H – HEADWALL

REINFORCING MARK NUMBERING SYSTEM

eg: H 25 15

- 15 – MARK
- 25 – SIZE OF BAR
- H – LOCATION PREFIX

SECTION AND DETAILS

A SECTION NUMBER OR DETAIL LETTER

B DRAWING WHERE SECTION OR DETAIL IS TAKEN

C DRAWING WHERE SECTION OR DETAIL IS DRAWN

APEGM
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301 Date:_____

RELEASED FOR CONSTRUCTION BY:

MICHELLE HARMS, P.ENG. DATE:

Stantec

Stantec Consulting Ltd.

WINNIPEG MANITOBA

CONSULTANT DRAWING No.	CITY DRAWING No.	CAD FILE DRAWING No.
G-001	C375-11-01	04840g-001-727.dwg