GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH CONTRACT SPECIFICATIONS.
2. THE METRIC SYSTEM OF MEASUREMENT IS USED ON ALL DRAWINGS. ELEVATIONS AND STATIONS ARE SHOWN IN METRES AND ALL OTHER DIMENSIONS ARE SHOWN IN MILLIMETRES. HARD CONVERSIONS ARE USED FOR EXISTING MATERIALS IN IMPERIAL UNITS (I.E. ½" = 13 mm).
3. CONTRACTOR MUST VERIFY ALL EXISTING GEOMETRY AS WELL AS PROPOSED DIMENSION AND LAYOUT IN THE FIELD PRIOR TO FABRICATION AND CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR PRIOR TO CONSTRUCTION.
4. ALL REFERENCES TO CODES, STANDARDS, SPECIFICATIONS, GUIDELINES, ETC., SHALL MEAN THE LATEST EDITION.
5. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION. EXCEPT WHERE INDICATED OTHERWISE, THESE DRAWINGS SHOW DETAILS FOR THE COMPLETED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR 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 AS REQUIRED BY THE CONTRACT DOCUMENTS.
6. BRIDGE SOUTHBOUND CURB LANE TO BE CLOSED TO TRAFFIC AND BRIDGE WEST SIDEWALK TO BE CLOSED TO PEDESTRIANS DURING THE WORK. ASSINIBOINE RIVER WALK TRAIL SHALL BE CLOSED DURING WORK ON OR NEAR PIER 2 (SU.3).
7. ANY ADDITIONAL LOADS CAUSED BY THE CONSTRUCTION PROCESS MUST REMAIN WITHIN A LENGTH OF 8.5 m FROM THE CENTERLINE OF PIERS 1 AND 2 IN EACH DIRECTION ALONG THE LENGTH OF THE BRIDGE. THESE LOADS CAN NOT BE LOCATED NEAR THE MIDSPAN OF ANY BRIDGE SPANS. THIS IS FOR THE DURATION THAT GIRDERS ARE JACKED AND NEW PLATES ARE NOT YET INSTALLED IN THEIR FINAL POSITIONS.
8. ALL REQUIRED TEMPORARY LATERAL BRACING SHALL BE INSTALLED PRIOR TO REMOVAL OF EXISTING COVER PLATES.

STRUCTURAL DESIGN DATA

1. DESIGN SPECIFICATION:

   CAN/CSA-S6-19 (R2024) "CANADIAN HIGHWAY BRIDGE DESIGN CODE"

2. DESIGN LOAD:

   CAN/CSA S6-19 (R2024) CL-625 TRUCK AND LANE LOAD IN MEDIAN LANE ONLY

   MAXIMUM SPEED LIMIT 30 km/hr

   MAXIMUM CONSTRUCTION LIVE LOADS:

   8 kN/m UNIFORMLY DISTRIBUTED LOAD APPLIED TO THE EXTERIOR GIRDER. THIS SHALL EXTEND NO MORE THAN 8.5 m FROM THE CENTERLINE OF EACH OF PIER 1 AND 2 IN EACH DIRECTION. LOAD MAY VARY WITH REDUCED LENGTH OF DISTRIBUTION AS LONG AS THE TOTAL IS NOT GREATER THAN 136 kN.

UNFACTORED JACKING LOADS:

DEAD LOAD: (INCLUDES GIRDER, DECK, DIAPHRAGMS, WEARING SURFACE, AND ADDED BRACING BETWEEN GIRDERS	2578 kN
LIVE LOAD: (CL-625 TRUCK AND LANE LOAD ON MEDIAN LANE ONLY WITHOUT DYNAMIC LOADING)	158 kN
DYNAMIC LOAD ALLOWANCE FOR CL-625 TRUCK:	14 kN
MAXIMUM CONSTRUCTION LOAD: (ASSUMED 8 kN/m UNIFORMLY DISTRIBUTED CONSTRUCTION LOAD)	136 kN

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL CONFORM TO CAN/CSA-G40.21 GRADE 350W UNLESS NOTED OTHERWISE.
2. BOLTS SHALL BE 22 mm DIAMETER ASTM A325 COMPLETE WITH TWO WASHERS AND ONE HEAVY HEX NUT, ALL HOT DIP GALVANIZED, UNLESS NOTED OTHERWISE.
3. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.5M/D1.5, 2015 – BRIDGE WELDING CODE.
4. TEMPORARY LATERAL BRACING TO BE PROVIDED BETWEEN TWO WESTERNMOST GIRDER LINES AT EACH STIFFENER LOCATION (1/3 POINTS BETWEEN DIAPHRAGMS) BETWEEN GIRDER SPLICES AND PIERS.

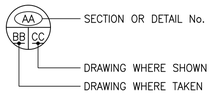
JACKING PROCEDURE (APPLIED AT PIERS 1 AND 2)

1. AFTER INSTALLATION OF TEMPORARY LATERAL BRACING, RAISE STRUCTURE AT PIER 1 AND PIER 2'S TEMPORARY JACK LOCATIONS JUST ENOUGH TO REMOVE BEARING TOP PLATES AND NO MORE THAN 5 mm.
2. AFTER JACKING, POSITION OF STRUCTURE TO BE LOCKED IN PLACE BY MECHANICAL MEANS.
3. GRIND OFF EXISTING WELD BETWEEN GIRDER BOTTOM FLANGE COVER PLATE AND BEARING TOP PLATE TO REMOVE GIRDER SOLE PLATE AND BEARING TOP PLATE.
4. REMOVE EXISTING GIRDER BOTTOM FLANGE COVER PLATES.
5. CLEAN FAYING SURFACES TO REMOVE RUST. COMPLETED SURFACE TO BE APPROVED BY CONTRACT ADMINISTRATOR. PLEASE BE ADVISED THAT EXISTING PAINTED STEEL IS LEAD-BASED AND CONTAINMENT WITH PROPER DISPOSAL WILL BE REQUIRED AS PER THE CONTRACT SPECIFICATIONS.
6. INSTALL NEW GIRDER FLANGE COVER PLATES C/W NEW HOT DIP GALVANIZED A325 BOLTS.
7. INSTALL NEW GIRDER SOLE PLATE.
8. INSTALL NEW BEARING TOP PLATE. CONTRACT ADMINISTRATOR TO PROVIDE REQUIRED POSTION OF BEARING TOP PLATE.
9. LOWER THE STRUCTURE. CONTRACT ADMINISTRATOR TO INSPECT THE FINAL POSITION BEFORE REMOVING JACKS.
10. REMOVE JACKS.
11. REMOVE TEMPORARY LATERAL BRACING.

ABBREVIATIONS

@	AT
ABUT.	ABUTMENT
ALT.	ALTERNATING
APPROX.	APPROXIMATELY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B.C.	BEGIN CURVE
BLL	BOTTOM LOWER LAYER
BLVD.	BOULEVARD
B.O.	BOTTOM OF
BRG.	BEARING
B.S.	BOTH SIDES
BTM.	BOTTOM
BUL	BOTTOM UPPER LAYER
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CB	CATCH BASIN
C/C	CENTER TO CENTER
℄	CENTER LINE
CONC.	CONCRETE
CONT.	CONTINUOUS
CMP	CORRUGATED METAL PIPE
CS	COMBINED SEWER
CSA	CANADIAN STANDARDS ASSOCIATION
C/W	COMPLETE WITH
DIA.	DIAMETER
ø	DIAMETER
D.L.	DEAD LOAD
DWL.	DOWEL
EB	EASTBOUND
E.C.	END CURVE
E.F.	EACH FACE
ELEV.	ELEVATION
EL.	ELEVATION
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXP.	EXPANSION
EXIST.	EXISTING
EXT.	EXTERIOR
F.F.	FAR FACE
FM	FEEDERMAIN
FTG.	FOOTING
GALV.	GALVANIZED
G.B.M.	GEODETIC BENCH MARK
HORIZ.	HORIZONTAL
H.W.L.	HEAD WATER LEVEL
I.F.	INSIDE FACE
INT.	INTERIOR
INV.	INVERT
K	K VALUE
LDS	LAND DRAINAGE SYSTEM
LVC	LENGTH OF VERTICAL CURVE
MAX.	MAXIMUM
MIN.	MINIMUM
MK.	MARK
N.F.	NEAR FACE
NB	NORTHBOUND
No.	NUMBER
N.S.W.L.	NORMAL SUMMER WATER LEVEL
N.T.S.	NOT TO SCALE
PCS.	PIECES
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O/H	OVERHEAD
O/O	OUT TO OUT
OPP.	OPPOSITE
ℙ	PLATE
PNT.	POINT
PVI	POINT OF VERTICAL INTERSECTION
REINF.	REINFORCING
R.C.	REINFORCED CONCRETE
REQ'D	REQUIRED
R.O.W.	RIGHT OF WAY
SB	SOUTHBOUND
SD	STANDARD DRAWING (CITY OF WINNIPEG STANDARD SPECIFICATION)
SHLD.	SHOULDER
SL	STREET LIGHT
SP.	SPACES
SPDD	STANDARD PROCTOR DRY DENSITY
S.S.	STAINLESS STEEL
STA.	STATION
TC	TANGENT TO CURVE
TLL	TOP LOWER LAYER
THK.	THICK
T.O.	TOP OF
TUL	TOP UPPER LAYER
TYP.	TYPICAL
VERT.	VERTICAL
U/G	UNDERGROUND
U.N.O.	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
WB	WESTBOUND
W.O.	WORKING POINT
WM	WATER MAIN
W.W.S.	WASTE WATER SEWER

SECTION AND DETAIL SYMBOLS LEGEND



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

NOTE:
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ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
WSP Canada Inc.
No. 5750

LOCATIONS APPROVED UNDERGROUND STRUCTURES

SIGNED BY: _____ SUPV U/G STRUCTURES _____ DATE

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 EXISTANCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING

G.B.M.
ELEV.

No.	REVISIONS	DATE	BY
1	REVISED FOR ADDENDUM No. 3	25.06.12	MLW
0	ISSUED FOR TENDER	25.05.13	MLW

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DESIGNED BY	GN	CHECKED BY	EH
DRAWN BY	CP	APPROVED BY	MLW
HOR. SCALE	N.T.S.	RELEASED FOR CONSTRUCTION	M. MADY, Ph.D., P.ENG. CITY OF WINNIPEG
VERTICAL	N.T.S.		
DATE	25.05.13	DATE	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
2025-06-12
E. HO
Member
22317
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT PROJECT No.
CA0047563.3090

Winnipeg

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

MIDTOWN BRIDGE MAINTENANCE REPAIRS AND RELATED WORKS

DESIGN DATA AND GENERAL NOTES

CITY DRAWING NUMBER: B114-25-02
BID OPPORTUNITY NUMBER: 329-2025
SHEET 2 OF 9
REV 1