### **GENERAL NOTES**

- 1. THE GENERAL NOTES AND STRUCTURAL STANDARD DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.
- 2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE. ALL ELEVATIONS ARE IN METRES AND ARE TO GEODETIC DATUM. THE CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND REPORT DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
- 3. THE DESIGN AND CONSTRUCTION IS IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA 2005, ITS SUPPLEMENTS AND THE LATEST EDITIONS (UNLESS OTHERWISE NOTED) OF REFERENCED CODES AND STANDARDS THEREIN. WATER RETAINING STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH ACI 350.
- 4. REFER TO THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, SLEEVES AND OTHER BUILDING COMPONENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REPORT DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH CONSTRUCTION
- CONTRACTOR TO CONFIRM ALL OCCURRENCES OF INTERFERENCE BETWEEN NEW AND EXISTING. REPORT ALL DISCREPANCIES BETWEEN THAT SHOWN ON THE DRAWINGS AND THAT WHICH EXISTS TO THE CONTRACT ADMINISTRATOR, IMMEDIATELY UPON DISCOVERY. KEEP ACCURATE AS-CONSTRUCTED RECORDS OF ALL NEW WORKS AND RELOCATED OR MODIFIED EXISTING FACILITIES.
- 6. CONSTRUCTION METHODS REQUIRING TEMPORARY SHORING, OR BRACING, SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR FOR REVIEW. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER, REGISTERED IN THE PROVINCE OF MANITOBA, TO PERFORM AND TAKE RESPONSIBILITY FOR ANY SHORING OR OTHER DESIGNS REQUIRED TO COMPLETE THE CONSTRUCTION.
- 7. VERIFY LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING CONSTRUCTION AND BE RESPONSIBLE FOR DISRUPTIONS.

## DESIGN LOADS

FOLLOWING LOADS ARE SERVICE LOADS

- 1. DEAD LOADS: STRUCTURE SELF WEIGHT PLUS:
- 2. LIVE LOADS: .1) FRP PANELS AND FRAMING REFER TO SPECIFICATIONS 4.8 kPa .2) GRATING
  - .3) GUARD RAILINGS
- AS PER NBC 2005

# MISCELLANEOUS METALS

- 1. ALL STEEL TO CONFORM TO PROJECT SPECIFICATIONS.
- 2. THE STEEL ERECTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND ERECTING ALL TEMPORARY WORKS REQUIRED FOR THE STRUCTURE DURING
- 3. WELD TO CSA W59 BY FABRICATORS QUALIFIED TO CSA W47.1, IN DIVISION 2.1.
- 4. CLEAN ALL STEEL PRIOR TO PAINTING TO SSPC SURFACE PREPERATION SPECIFICATION NO. 7 "BRUSH-OFF BLAST CLEANING" EXCEPT STRUCTURAL STEEL MEMBERS WHICH ARE EXPOSED IN THE COMPLETED STRUCTURE, IN WHICH CASE CLEANING SHALL CONFORM TO SSPC SURFACE PREPERATION SPECIFICATION NO. 6 "COMMERCIAL BLAST CLEANING".

#### **STANDARD ABBREVIATIONS:**

ADDITIONAL	400 <sup>2</sup> 1
ADDITIONAL	ADD'L
AT	<b>@</b>
ANCHOR BOLT	A. BOLT
ALTERNATE	ALTER.
ALUMINUM	ALUM.
APPROXIMATE	APPROX.
ARCHITECTURAL	ARCH.
AVERAGE	AVG.
BOTTOM	BOT.
BETWEEN	BET.
BUILDING	BLDG.
BENCH MARK	B.M.
BEARING	BRG.
BY (Between dims)	x (lower case)
CENTERLINE	Q.
CAST IN PLACE	C.I.P.
CONCRETE MASONRY UNIT	C.M.U.
CONSTRUCTION	CONST.
CONSTRUCTION JOINT	C.J.
COMPLETE WITH	C/W
COLUMN	COL.
CONCRETE	CONC.
CONTINUOUS	CONT.
DEAD LOAD	D.L.
DIAMETER	DIA.
DIMENSION	DIM.
DOWN	DN.
DOUBLE	DBL.
DRAWING	DWG.
DOWEL	DWL.
EACH FACE	E.F.
EACH	EA.
EACH WAY	E.W.
ELEVATION	EL.
ELECTRICAL	ELEC.
EQUAL	EQ.
EXISTING	EXIST.
EXPANSION JOINT	EXP. J.
EXPANSION	EXP.
EXTERIOR	EXT.
FACE TO FACE	F. to F.
FLOOR	FLR.
FACE OF CONCRETE	F.O.C.
FIBERGLASS REINFORCED PLASTIC	
FOUNDATION	FDN.
FOOTING	FTG.
GALVANIZE	GALV.
HANGER	HGR.
HIGH WATER LEVEL	H.W.L.
HORIZONTAL	HORIZ.
HOLLOW STRUCTURAL STEEL	HSS
HEIGHT	HT.
HOLLOWCORE	H.C.
INSIDE FACE	I.F.
INSIDE DIAMETER	I.D.
INTERIOR	INT.
INVERT	INVT.
KILONEWTON	
	kN
K.O. MASONRY BLOCK	K.O.
K.O. MASONRY BLOCK KILOPASCAL	
KILOPASCAL	K.O. kPa
KILOPASCAL LIVE LOAD	K.O. kPa L.L.
KILOPASCAL LIVE LOAD LONG	K.O. kPa L.L. LG.
KILOPASCAL LIVE LOAD LONG LOCATION	K.O. kPa L.L. LG. LOC.
KILOPASCAL LIVE LOAD LONG	K.O. kPa L.L. LG.
KILOPASCAL LIVE LOAD LONG LOCATION	K.O. kPa L.L. LG. LOC.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM	K.O. kPa L.L. LG. LOC. MATL. MAX.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL	K.O. kPa L.L. LG. LOC. MATL. MAX.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP. ORIG.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP. ORIG. PL.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE POLY VINYL COMPOSITE	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OPP. ORIG. PL. PVC.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP. ORIG. PL.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE POLY VINYL COMPOSITE PRELIMINARY	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OPNG. OPP. ORIG. PL. PVC. PRELIM.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE POLY VINYL COMPOSITE PRELIMINARY PROJECTION	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP. ORIG. PL. PVC. PRELIM. PROJ.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE POLY VINYL COMPOSITE PRELIMINARY PROJECTION REINFORCE WITH	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP. ORIG. PL. PVC. PRELIM. PROJ. R/W
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE POLY VINYL COMPOSITE PRELIMINARY PROJECTION REINFORCE WITH REINFORCING	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OPNG. OPP. ORIG. PL. PVC. PRELIM. PROJ. R/W REINF.
KILOPASCAL LIVE LOAD LONG LOCATION MATERIAL MAXIMUM MEGA PASCAL MECHANICAL MILLIMETER MINIMUM MISCELLANEOUS NUMBER NOT TO SCALE ON CENTER OUTSIDE FACE OUT TO OUT OUTSIDE DIAMETER OPENING OPEN WEB STEEL JOIST OPPOSITE ORIGINAL PLATE POLY VINYL COMPOSITE PRELIMINARY PROJECTION REINFORCE WITH	K.O. kPa L.L. LG. LOC. MATL. MAX. MPa MECH. mm MIN. MISC. No. N.T.S. o/c (lower case O.F. o/o O.D. OPNG. OWSJ. OPP. ORIG. PL. PVC. PRELIM. PROJ. R/W
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B.M. ELEV.				<b>EarthTech</b>			ENGINEER'S SEAL		
				A Tyco International Ltd. Company				ORIGINAL SIGNED BY	
				DESIGNED BY	GGP	CHECKED BY	LLR	L.L. RIDING	
				DRAWN BY	CMF	APPROVED BY	H.H.	2007/03/07	
				HOR. SCALE: VERTICAL SCAL	AS NOTED	RELEASED CONSTRUC	CTION BY:	CONSULTANT DRAWING NO.	
$\vdash$		07/03/07				K. MARTENS		S0.01	
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THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT Winnipeg ENGINEERING DIVISION

SECTION

SIMILAR

SCHEDULE

STANDARD

STIFFENER

STRUCTURAL

SYMMETRICAL

UNLESS NOTED

STIRRUP

TOP OF

**TYPICAL** 

VERTICAL

WIND LOAD

SPECIFICATION

STAINLESS STEEL

SHT.

SIM.

SCH.

S.S.

STD.

STIFF.

STIRR.

SYM.

T.O.

TYP.

U/N

W.L.

VÉRT.

STRUCT.

SPEC.

SHEET

NEWPCC GRIT HANDLING UPGRADES CONTRACT 1 STRUCTURAL

GENERAL NOTES

CITY FILE NUMBER SHEET OF CITY DRAWING NUMBER