LEGEND

- NEW CONCRETE
- EXISTING CONCRETE
- CUT AND REMOVE EXISTING FEATURES
- EARTH
- GRATING
- LADDER
- — — — — WATERPROOFING

GENERAL NOTES

1. DIMENSIONS IN MILLIMETRES.
   ELEVATIONS IN METRES.
2. DIMENSIONS, ELEVATIONS, AND DETAILS OF EXISTING STRUCTURES ARE BASED ON PREVIOUS CONTRACT DRAWINGS. VERIFY IN THE FIELD ALL DIMENSIONS, ELEVATIONS, AND DETAILS BEFORE COMMENCEMENT OF CONSTRUCTION.
3. DESIGN LOADS INDICATED ON DRAWINGS ARE SERVICE LOADS (UNFACTORED), UNLESS NOTED OTHERWISE. DESIGN LOADS INDICATED ON DRAWINGS WITH SUBSCRIPT 'f' ARE FACTORED LOADS.
4. COMPACTION DENSITIES INDICATED ON DRAWINGS ARE PERCENTAGES OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D698.
5. FOR REINFORCING LAP TABLE AND SIMILAR ITEMS, SEE STANDARD DETAILS DRAWING NO. S0006 & S0007.

DESIGN NOTES

(NOTE: THIS INFORMATION IS FOR REFERENCE PURPOSES ONLY. CONTRACTOR TO REFER TO SPECIFICATIONS.)

1. ASSUMED DESIGN BEARING CAPACITY:
   SQUARE/RECTANGULAR FOOTINGS — 100kPa
2. CONCRETE 28-DAY COMPRESSIVE STRENGTH:
   TYPE A — 30MPa MINIMUM, UNLESS NOTED OTHERWISE
   PRECAST — 35MPa
3. REINFORCEMENT BARS: CAN/CSA-G30.18-M92; GRADE 400R.
4. STRUCTURAL STEEL:
   CAN/CSA-G40.21-M98; GRADE 350W
5. ANCHOR BOLTS:
   ASTM A307-04; UNLESS NOTED OTHERWISE
   HILTI HVA ANCHORS
6. BACKFILL:
   UNIT WEIGHT — 21.5kN/m^3
7. SNOW LOAD DATA:
   GROUND SNOW LOADING (S_s) — 1.9kPa
   ASSOCIATED RAIN LOADING (S_r) — 0.2kPa
8. WIND LOAD DATA:
   1/10 YEAR PRESSURE (q_{10}) — 0.35kPa
   1/50 YEAR PRESSURE (q_{50}) — 0.45kPa
9. SEISMIC DATA:
   PEAK GROUND ACCELERATION — PGA=0.059
   $S_a(0.2)$=0.12
   $S_a(0.5)$=0.056
   $S_a(1.0)$=0.023
   $S_a(2.0)$=0.006
10. REFERENCE CODES:
    i) MANITOBA BUILDING CODE
    ii) NATIONAL BUILDING CODE OF CANADA 2005
    iii) CONCRETE AND REINFORCEMENT: CSA A23.1-04, CSA A23.2-04 AND CSA A23.3-04
    iv) STRUCTURAL STEEL: CAN/CSA-S16-01

ABBREVIATIONS

AB	ANCHOR BOLT
AL	ALUMINUM
ALT	ALTERNATE
BLDG	BUILDING
BLL	BOTTOM LOWER LAYER
BM	BEAM
BOT	BOTTOM
B PL	BASE OR BEARING PLATE
BUL	BOTTOM UPPER LAYER
C TO C	CENTRE TO CENTRE
CB	CATCH BASIN
CHKD PL	CHECKERED PLATE
CJ	CONSTRUCTION JOINT
CL	CENTRE LINE
CLJ	CONTROL JOINT
CLSM	CONTROLLED LOW STRENGTH MATERIAL
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CW	CAPILLARY WATERPROOFING
C/W	COMPLETE WITH
DIA	DIAMETER
DBS	DOWEL BAR SPLICER(S)
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DO.	DITTO
DWG	DRAWING(S)
DWL	DOWEL(S)
EF	EACH FACE
EL	ELEVATION
EQL	EQUAL
EQPT	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXST	EXISTING
EXP JT	EXPANSION JOINT
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FAR FACE
FNSH	FINISH
FL	FLOOR
FRP	FIBRE REINFORCED PLASTIC
FTG	FOOTING
GALV	GALVANIZED
GD	GUTTER DRAIN
GID	GROUTED-IN DOWEL
GRAN	GRANULAR
HORIZ	HORIZONTAL
HPT	HIGH POINT
HSS	HOLLOW STRUCTURAL STEEL
HWL	HIGH WATER LEVEL
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INSUL	INSULATION
INVT	INVERT
JT	JOINT
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LPT	LOW POINT
LSSJ	LONG SPAN STEEL JOIST
MAX	MAXIMUM
MC	MOMENT CONNECTION
MEZZ	MEZZANINE
MH	MANHOLE
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MW	MEMBRANE WATERPROOFING
NF	NEAR FACE
NO.	NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OWSJ	OPEN-WEB STEEL JOIST
PCC	PRECAST CONCRETE
PERF	PERFORATED
PL	PLATE
PVC	POLYVINYL CHLORIDE
R	RISERS
R	RADIUS
REINF	REINFORCING STEEL BAR
REQD	REQUIRED
SEP JT	SEPARATION JOINT
SIM	SIMILAR
SPEC	SPECIFICATION
SPMDD	STANDARD PROCTOR MAXIMUM DRY DENSITY
SQ	SQUARE
SST	STAINLESS STEEL
STD	STANDARD
STGR	STAGGERED
STIF	STIFFENER
STIRR	STIRRUP
SYMM	SYMMETRICAL
T	TREADS
T&B	TOP AND BOTTOM
TJ	TIE JOIST
TLL	TOP LOWER LAYER
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TUL	TOP UPPER LAYER
TYP	TYPICAL
U/S	UNDERSIDE
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/	WITH
WS	WATERSTOP
WWF	WELDED WIRE FABRIC

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B.M. ELEV.	FIELD BOOK #:		
POSTED TO LBIS			
0	ISSUED FOR TENDER	07/11/28	AJ
NO.	REVISIONS	DATE	BY

CH2MHILL

DESIGNED BY	R.ZENG	CHECKED BY	R.PARIKH
DRAWN BY	A.JANSSENS	APPROVED BY	E.SHARP
HOR. SCALE	NTS	RELEASED FOR CONSTRUCTION	
VERTICAL			K. ZUREK
DATE	2007 06 20	DATE	2007/11/29

ENGINEER'S SEAL
ORIGINAL SIGNED BY
R.P. PARIKH
2007/11/28
PROJECT No.: 358676
PLOT DATE: 2007/11/28

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END WATER POLLUTION CONTROL CENTRE
WET WELL REHABILITATION
STRUCTURAL
LEGEND & GENERAL NOTES

SHEET 4 OF 24
CONSULTANT DRAWING NUMBER
S0001
CITY DRAWING NUMBER
1-0101M-D-S0001-001-00D

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