

# APPENDIX A

West  
 South East North

**GENERAL NOTES:**

**FOUNDATIONS**

1. PROVIDE MINIMUM 12" GRANULAR BASE BELOW SLAB AND THICKENED EDGE. COMPACT TO SIZE STANDARD PRACTICE.
2. PLACE TANK SLAB ON 6" COMPACTED GRANULAR.
3. BACKFILL AROUND TANK WITH A DUNE GRANULAR COMPACTED TO 100% STANDARD PRACTICE IN 6" LIFTS.

**CAST-IN-PLACE CONCRETE**

1. ALL CONCRETE IS TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF CAN/CSA-A23.1-09 "METHODS AND MATERIALS OF CONCRETE CONSTRUCTION" AND CAN/CSA-A23.2-09 "METHOD OF TEST FOR CONCRETE".

**SLABS-ON-GRADE**

32 MPa MIN AT 28 DAYS  
 CLASS OF EXPOSURE F-1  
 ENHANCED AIR/CATEGORY: 2 (4% TO 7%)  
 SPECIFIC GRAVITY  
 CURING TYPE: T-BASIC

2. UNLESS NOTED OTHERWISE CONCRETE CURING TO CONFORM TO THE LATEST EDITION OF CAN/CSA-A23.1-09 AS FOLLOWS:
  - A) TYPE 1 - DUNE 3 DAYS ≥ 10°C AND FOR A TIME NECESSARY TO ACHIEVE AOE OF THE SPECIFIED STRENGTH.
  - B) TYPE 2 - ADDITIONAL 7 DAYS ≥ 10°C AND FOR A TIME NECESSARY TO ACHIEVE 70% OF THE SPECIFIED STRENGTH.
  - C) TYPE 3 - EXTENDED 7 DAYS NET CURING ≥ 10°C.

**REINFORCING STEEL**

2. ALL REINFORCING STEEL TO BE CAN/CSA-C31.13M GRADE 400R REFORMED BARS EXCEPT COLUMN TIES AND BEAM STIRRUPS WHICH SHALL BE GRADE 400M STEEL. ALL REINFORCING IN ACCORDANCE WITH THE LATEST EDITION OF THE REINFORCING STEEL INSTITUTE OF CANADA - MANUAL OF STANDARD PRACTICE, EXCEPT OTHERWISE NOTED.

**SLABS-ON-GRADE**

1 BE TOP

**MASONRY**

1. CONCRETE BLOCKS TO CONFORM TO CAN/CSA-A195-04 SERIES "STANDARD FOR CONCRETE MASONRY UNIT".
  - A) STANDARD HOLLOW MASONRY UNITS SHALL BE H/2100/A/M.
  - B) STANDARD SOLID MASONRY UNITS SHALL BE S/2100/A/M.
  - C) COMPRESSIVE STRENGTH IS BASED ON NET AREA.
2. COURSE AND LEAD BEARING WALLS ARE TO BE BUILT WITH 3" MORTAR JOINTS A MINIMUM JOINT THICKNESS OF 12 MM AT 28 DAYS. MORTAR SHALL CONFORM TO THE LATEST EDITION OF CSA A197, "MORTAR AND GROUT FOR MASONRY".
3. USE DRY-OR-WALL OR EQUAL, EVERY SECOND COURSE, EVERY COURSE FOR STACK BOWLS.
4. THE TOP COURSE OF ALL BLOCK WALLS IS TO BE A 1/2" BLOCK WITH 2-10# CONTINUOUS CORNER AND FLATS WITH 2# 10# CONCRETE BRICKS BUILT ON FLAT.
5. ALL MASONRY WALLS TO BE PROPERLY BRICKED UNIT. STRUCTURE IS CURED IN AND SHALL PROPERLY SUPPORTED.
6. DOOR UNITS IN BLOCK WALLS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
 

UP TO 1200 mm	300 mm HIGH 1/2" BLOCK
	20 MPa CONCRETE FILL
	2-10# BOTTOM
1200 mm TO 2400 mm	400 mm HIGH 1/2" BLOCK
	20 MPa CONCRETE FILL
	2-10# BOTTOM

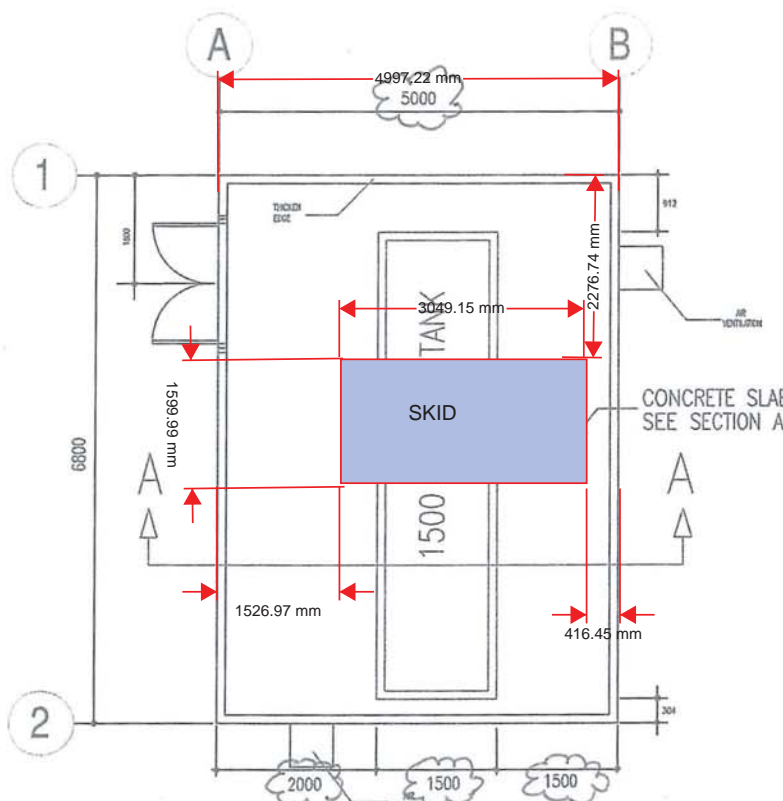
**WOOD**

1. WALL STUDS AND PLATES TO BE SOLID OR ALL WOOD TO BE KEM DRIED.
2. ALL WALLS TO BE ACCURATELY BRICKED UNIT, SHOWING INSTALLED ON WALLS AND STRUCTURES JOINTS.
3. TRUSS PATTERNS AND RAFTERS SHALL CONFORM TO TABLE A.3.3.1.4. AND A.2.3.1.1. OF THE NATIONAL BUILDING CODE RESIDENTIAL STANDARDS.
4. FLOORING SUB-FLOORING AND CEILING SHALL BE EXTENSIVE SOLID OR FPLYWOOD CONFORMING TO THE LATEST EDITION OF CSA B121 "TRUSS OR FPLYWOOD" UNLESS OTHERWISE NOTED.
5. ALL WOOD TRUSSES ARE TO BE DESIGNED IN ACCORDANCE WITH:
  - A) THE LATEST EDITION OF CAN/CSA-10 "TRUSSING DESIGN IN WOOD".
  - B) THE NATIONAL BUILDING CODE OF CANADA.
  - C) THE MINNETONKA BUILDING CODE AND FOR ANY UNRECORDED SHOW BUILD-UP LOADS.
6. TRUSSES FRAMED INTO BEAMS OR OTHER TRUSSES SHALL BE CONNECTED WITH PROPER METAL FRAMING ACCESSORIES APPROVED BY THE PROJECT ENGINEER.
7. THE TRUSS SUPPLIER IS TO SUBMIT ENGINEERING DRAWINGS BEARING THE SEAL OF A LICENSED ENGINEER IN THE PROVINCE OF MANITOBA TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO FABRICATION. ENGINEERING SHOP DRAWINGS SHALL INCLUDE LAYOUT PLAN SHOWING ALL TRUSSES, POORWAYS AND CHORD BRACES REQUIRED BY TRUSS DESIGN AND TRUSSING DRAWINGS. ALL MISCELLANEOUS METAL FRAMING CONNECTIONS AND BRACING SHALL BE SPECIFIED BY TRUSS SUPPLIER AND SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.

WOOD TRUSS SUPPLIER SHALL INCLUDE IN CONTRACT PRICE ALLOWANCE FOR TRUSS INSPECTION AND A LETTER SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA CONFIRMING THE TRUSSES ARE CONSTRUCTED AND DESIGNED AS PER TRUSS SUPPLIER'S DESIGN ASSUMPTIONS AND INSTALLATION REQUIREMENTS.

NOTE: IN PROVISION OF THESE DESIGN, THE WOOD CONNECTIONS, WOOD GRADE AND MEMBER SIZES EMPLOYED ARE TO MINIMIZE THE REQUIREMENTS FOR WOOD BRACING.

8. ALL JOISTS OR BEAMS FLUSH FRAMED INTO OTHER BEAMS SHALL BE CONNECTED USING METAL JOIST OR BEAM JOINTS.
9. DESIGN LOADS FOR TRUSSES ARE AS FOLLOWS:
  - A) TOP CHORD LIVE LOAD 27 P.S.F.
  - B) TOP CHORD DEAD LOAD 15 P.S.F.
  - C) BOTTOM CHORD DEAD LOAD 10 P.S.F.

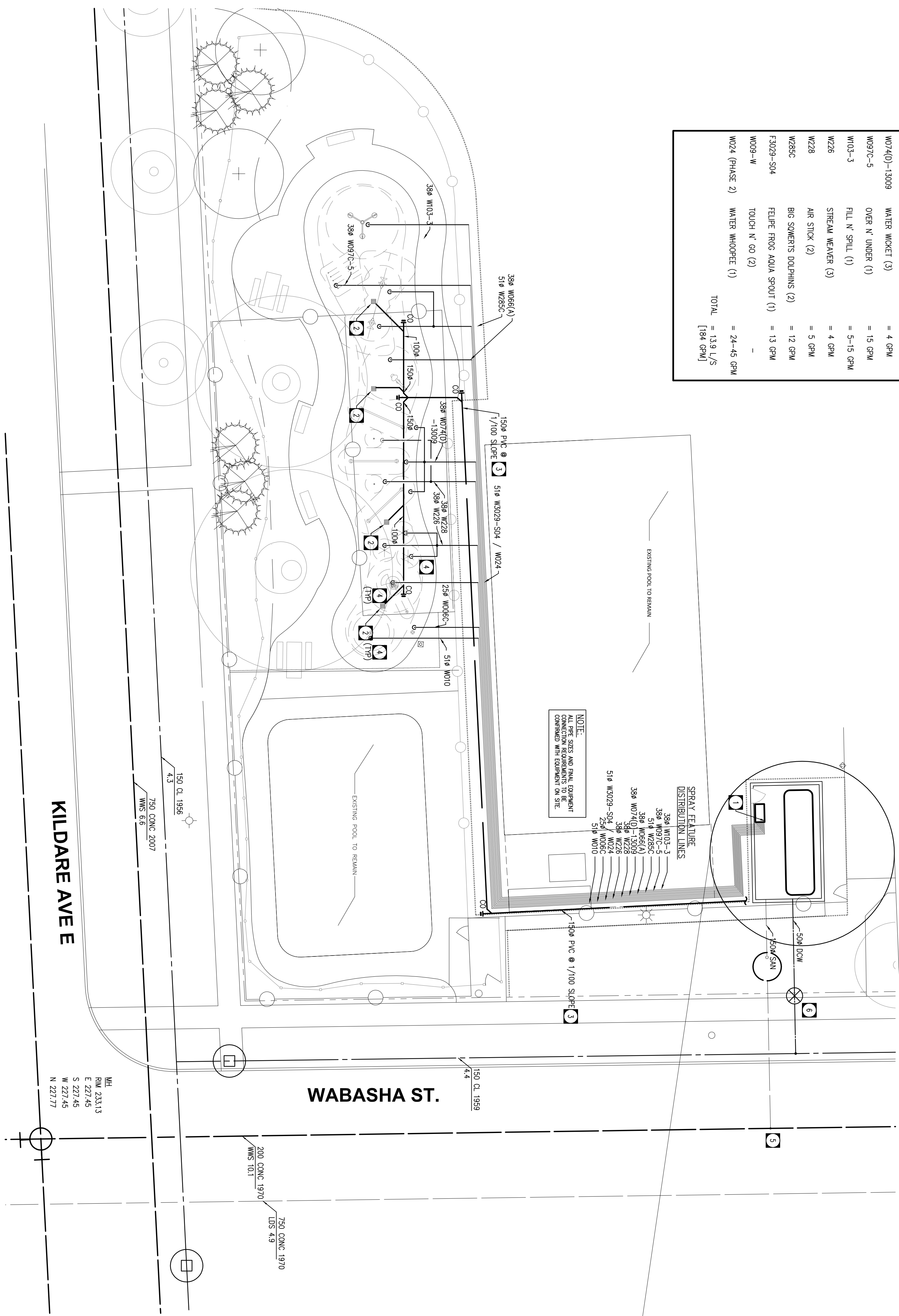


1 MECHANICAL PUMPHOUSE PLAN

PREPARED BY: <b>J &amp; D Penner</b> Paving Stone & Concrete 204 895 8602 // www.jdpenner.com	PROJECT TITLE: <b>PROPOSED PUMP HOUSE TRANSCONA SPLASH PAD</b>	SHEET TITLE: <b>FLOOR PLAN</b>	SHEET NO.: <b>1 / 8</b> REV.
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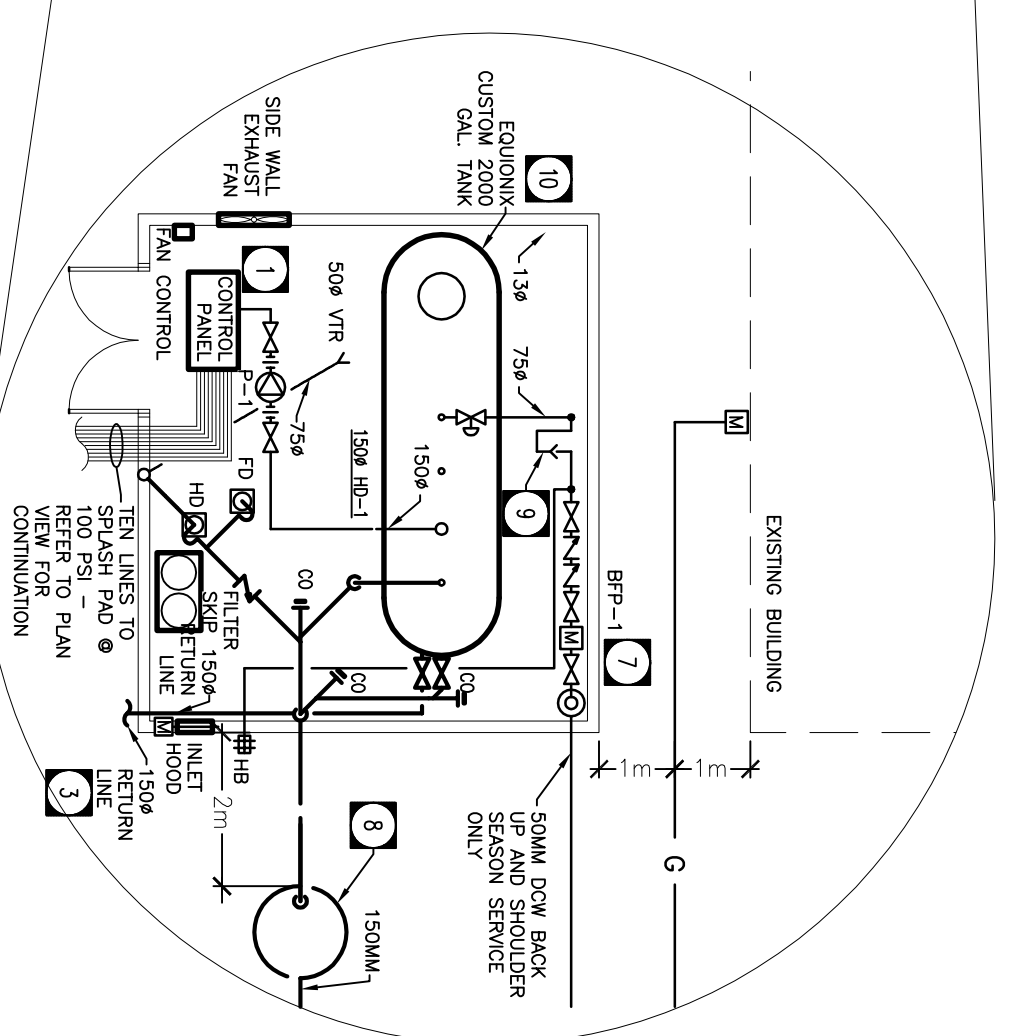
DESCRIPTION	FIXTURE (QTY)	FLOW
W006C	AQUA ARCH (1)	= 2 GPM
W010	MUSHROOM MAZE (1)	= 40 GPM
W066(A)	WATER SNAKE (1)	= 8 GPM
W074(0)-13009	WATER WICKET (3)	= 4 GPM
W097C-5	OVER N' UNDER (1)	= 15 GPM
W103-3	FLU N' SPILL (1)	= 5-15 GPM
W226	STREAM WEAVER (3)	= 4 GPM
W228	AIR STICK (2)	= 5 GPM
W285C	BIG SOMER'S DOLPHINS (2)	= 12 GPM
F3029-S04	FELPE FROG AQUA SPOUT (1)	= 13 GPM
W009-W	TOUCH N' GO (2)	-
W024 (PHASE 2)	WATER WHOOPEE (1)	= 24-45 GPM
TOTAL		= 139 L/S [184 GPM]

PLAN VIEW  
SCALE: 1:100



NOTE:  
ALL PIPE SIZES AND RUAL EQUIPMENT  
CONTINUED WITH EQUIPMENT ON SITE

MECHANICAL ROOM SCHEMATIC  
SCALE: NTS



- DRAWING NOTES**
- 1 NEW SPRAY FEATURE CONTROL BOX AND WATER DISTRIBUTION HEADER.
  - 2 NEW 100MM WATER PARK DRAIN WITH TRAP (REFER TO DETAIL M-2). PROVIDE 30MM SQUARE EPOXY WATER CAST IRON WITH DEEP TRAP BODY, NON-ADJUSTABLE COLLAR AND EPOXY COATED TRAPTOR GRADE.
  - 3 NEW 150MM DRAIN FROM WATER PARK GRANS. INSTALL AT MINIMUM GRADE AS INDICATED. GROUND EXACT PLACEMENT ON SITE.
  - 4 PROVIDE 38MM BLOW-OUT VALVE AT ALL SUPPLY LINES TO INDIVIDUAL SPRAY FEATURES. REFER TO DETAIL 6/DWS M-2.
  - 5 CONNECT NEW 150MM SANITARY WASTE CONNECTION TO EXISTING SANITARY SEWER WITH "T"-CONNECTION. REFER TO DETAIL 4/DWS M-2.
  - 6 INSTALL NEW CURB STOP TO MUNICIPAL STANDARDS REFER TO DETAIL 2/DWS M-2.
  - 7 INSTALL WATER METER WITH BACK-FLOW PREVENTER AND ISOLATION VALVES TO CITY OF WINNIPEG BACK-FLOW PREVENTION BRANCH REQUIREMENTS.
  - 8 PROVIDE NEW MANHOLE TO CITY OF WINNIPEG STANDARDS.
  - 9 PROVIDE TANK FILL WITH AIR GAP.
  - 10 2000GAL TANK TO BE BURIED BELOW SLAB. CONTRACTOR TO RETAIN STRUCTURAL ENGINEER TO PROVIDE CONCRETE ANCHORS.

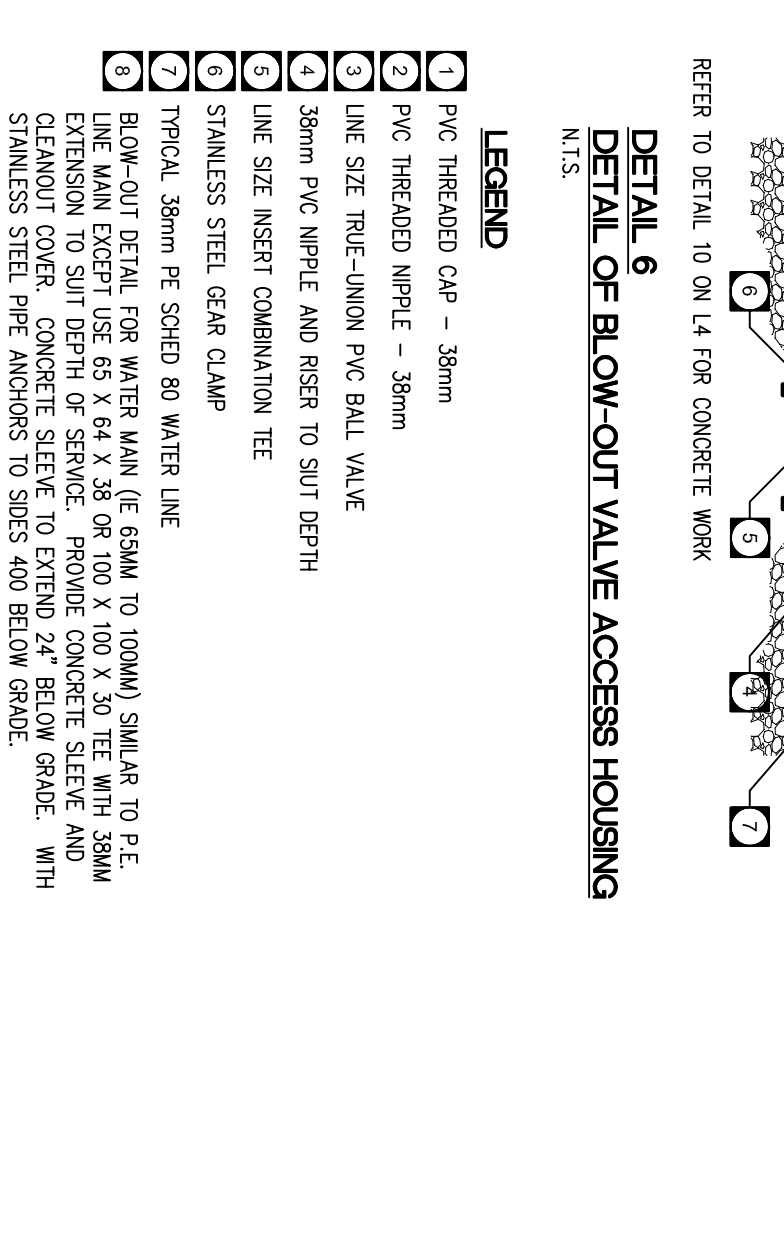
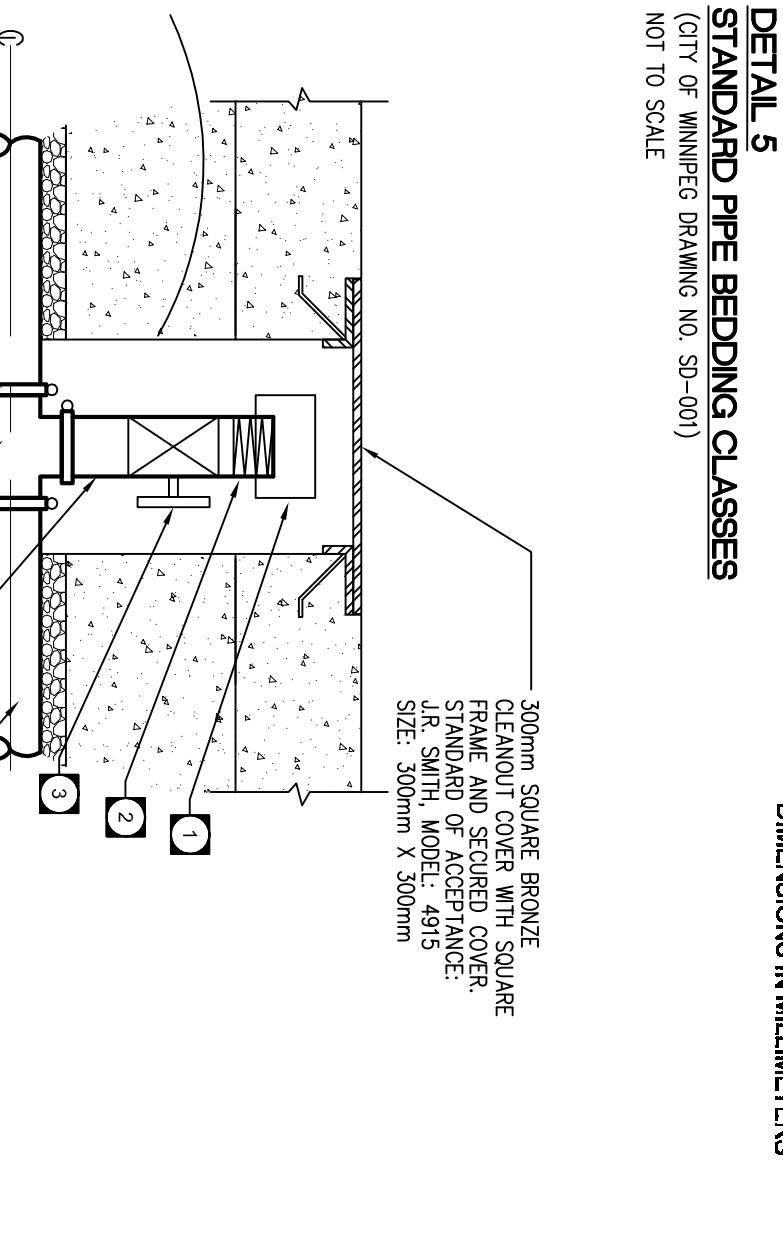
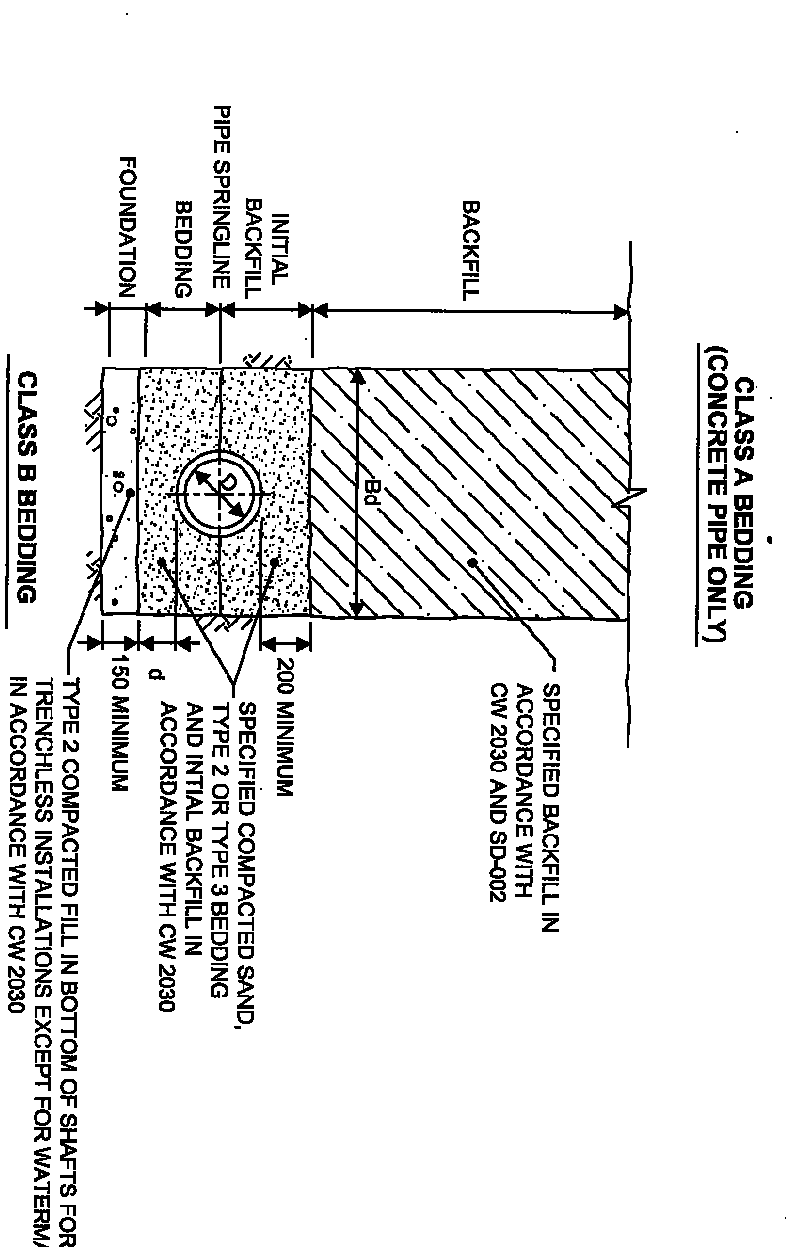
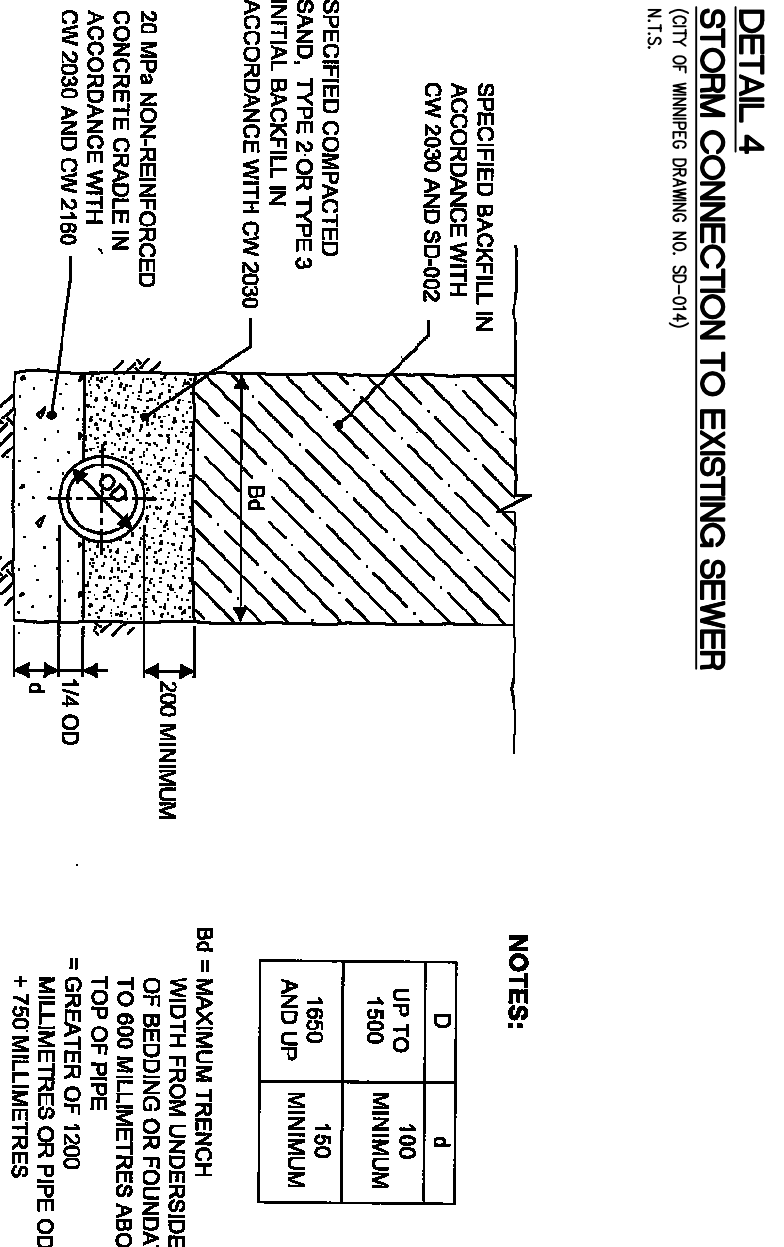
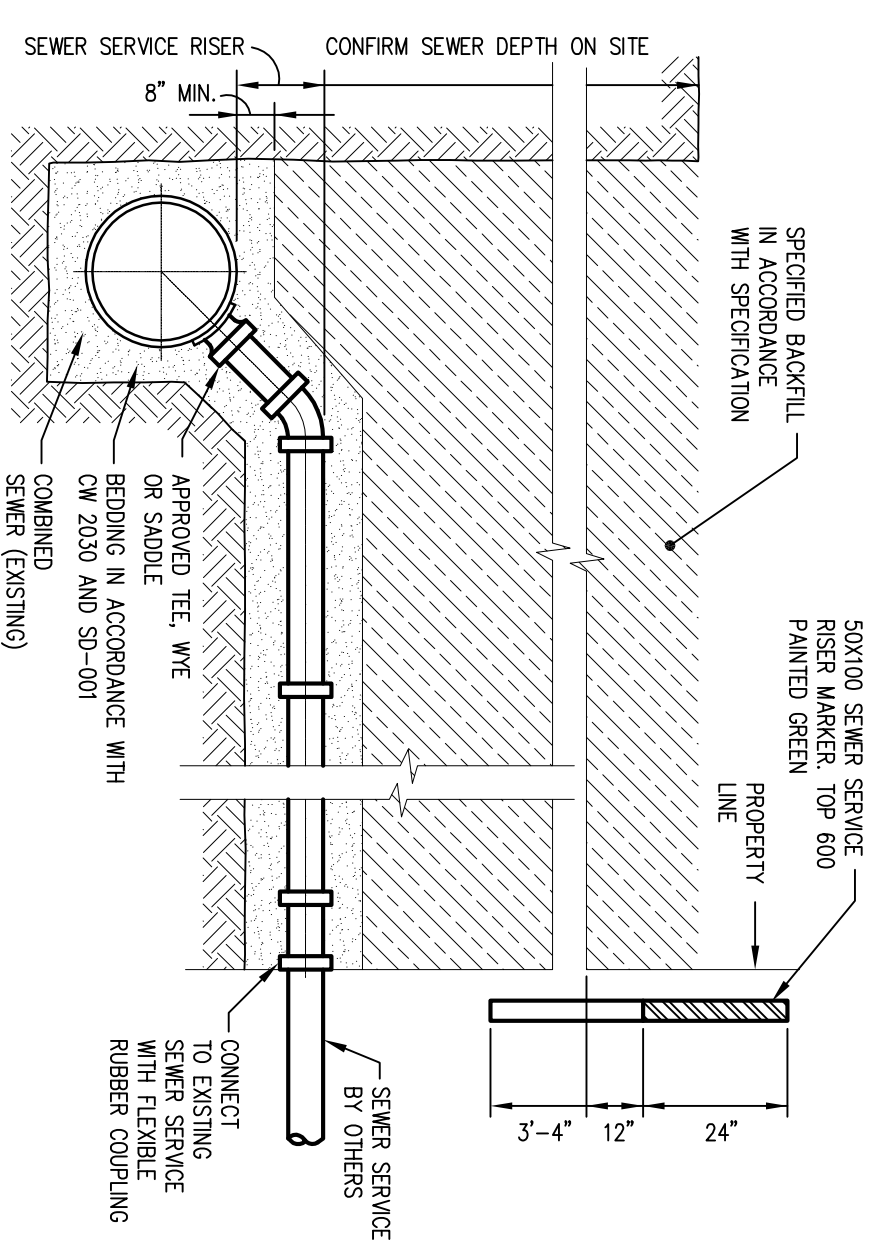
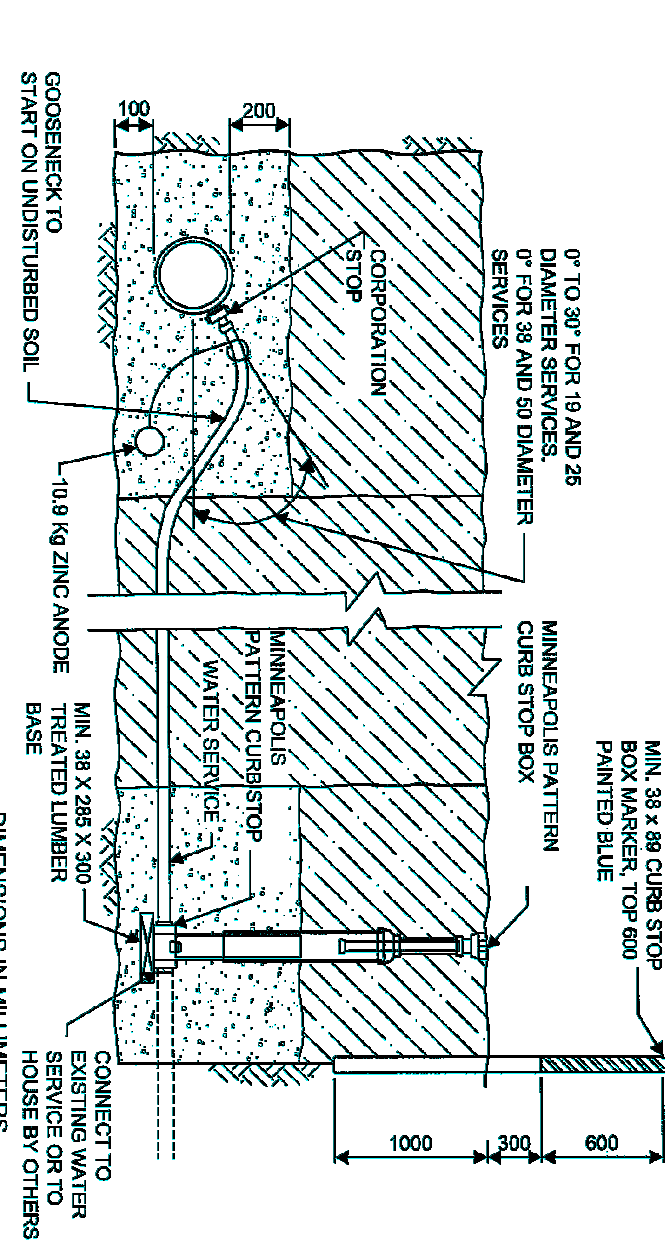
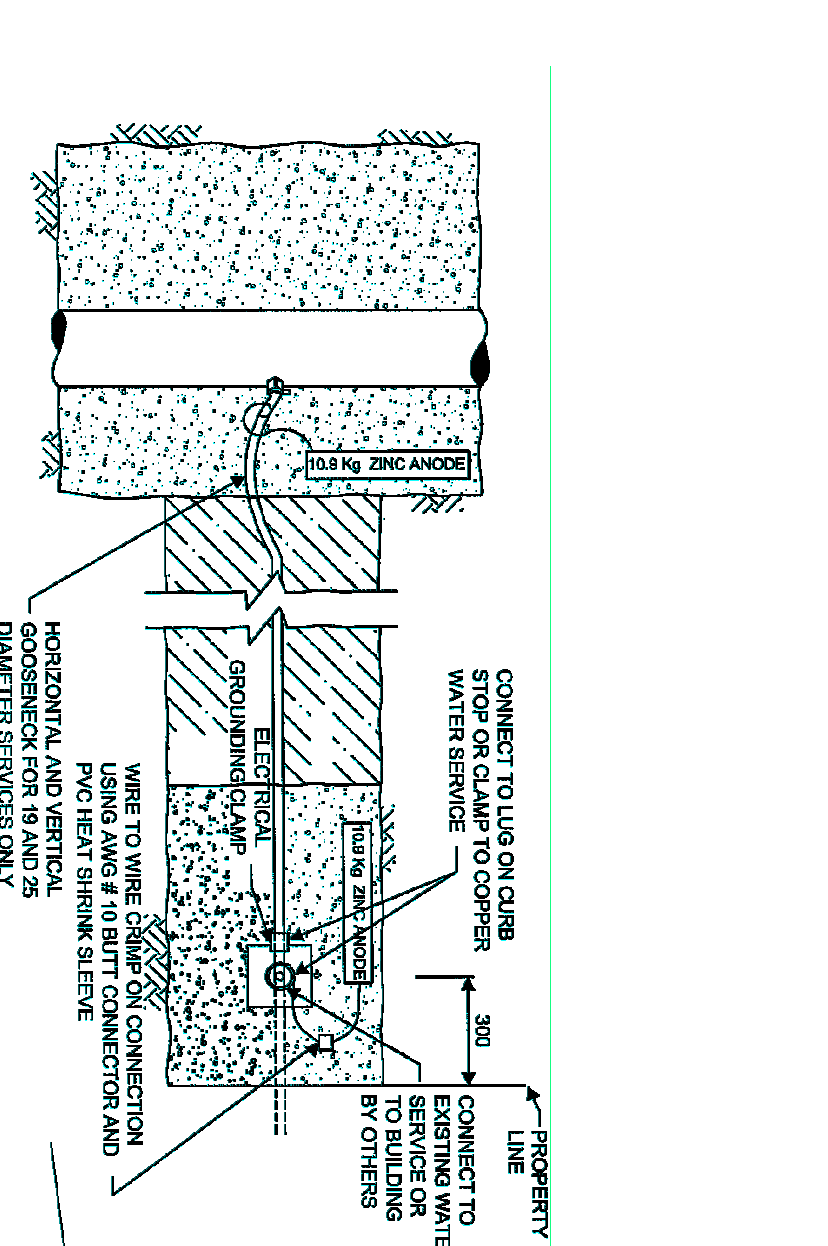
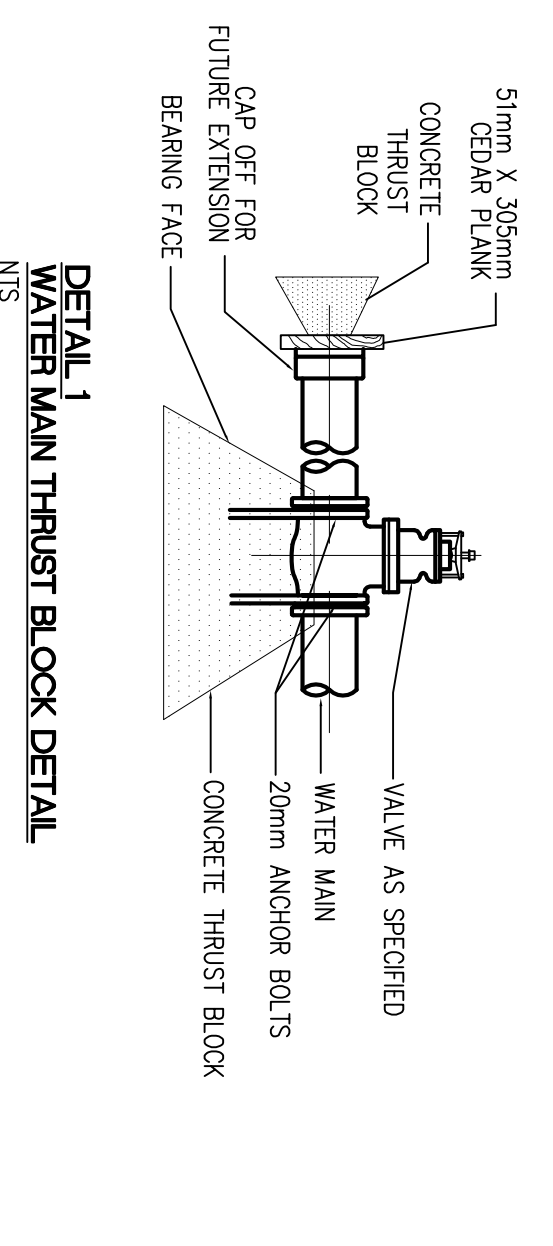
NO.	REVISION	ISSUED FOR CONST.	BY	DATE
0	ISSUED FOR CONST.	HC	13/03/13	
1	REVISIONS	HC	13/03/25	

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DESIGNED BY	C.S. / H.C.	APPROVED BY	J.H.G.
DATE	25 MAR 2013	SCALE	1:100
PROJECT	32-210	DWG No.	M-1

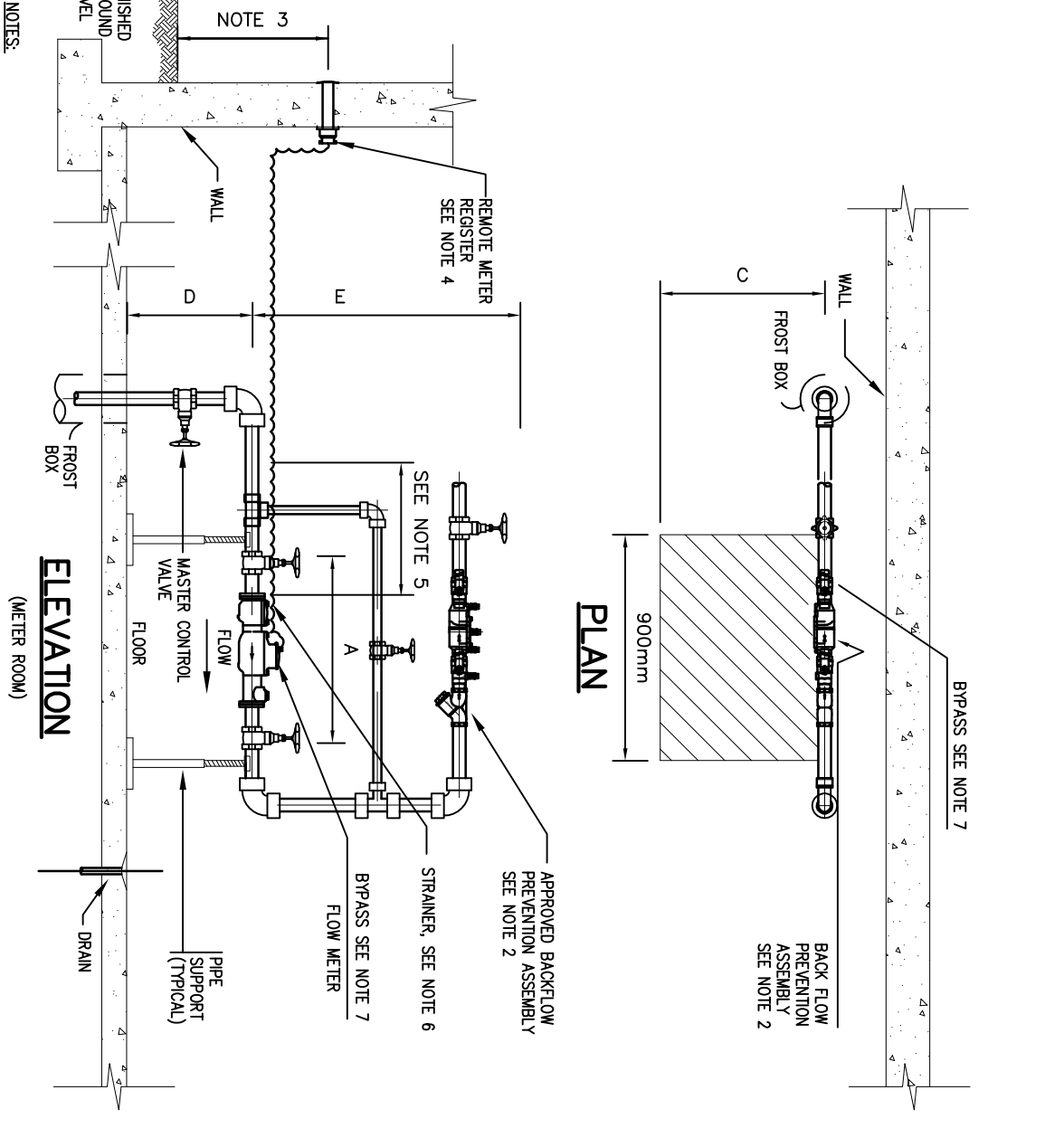
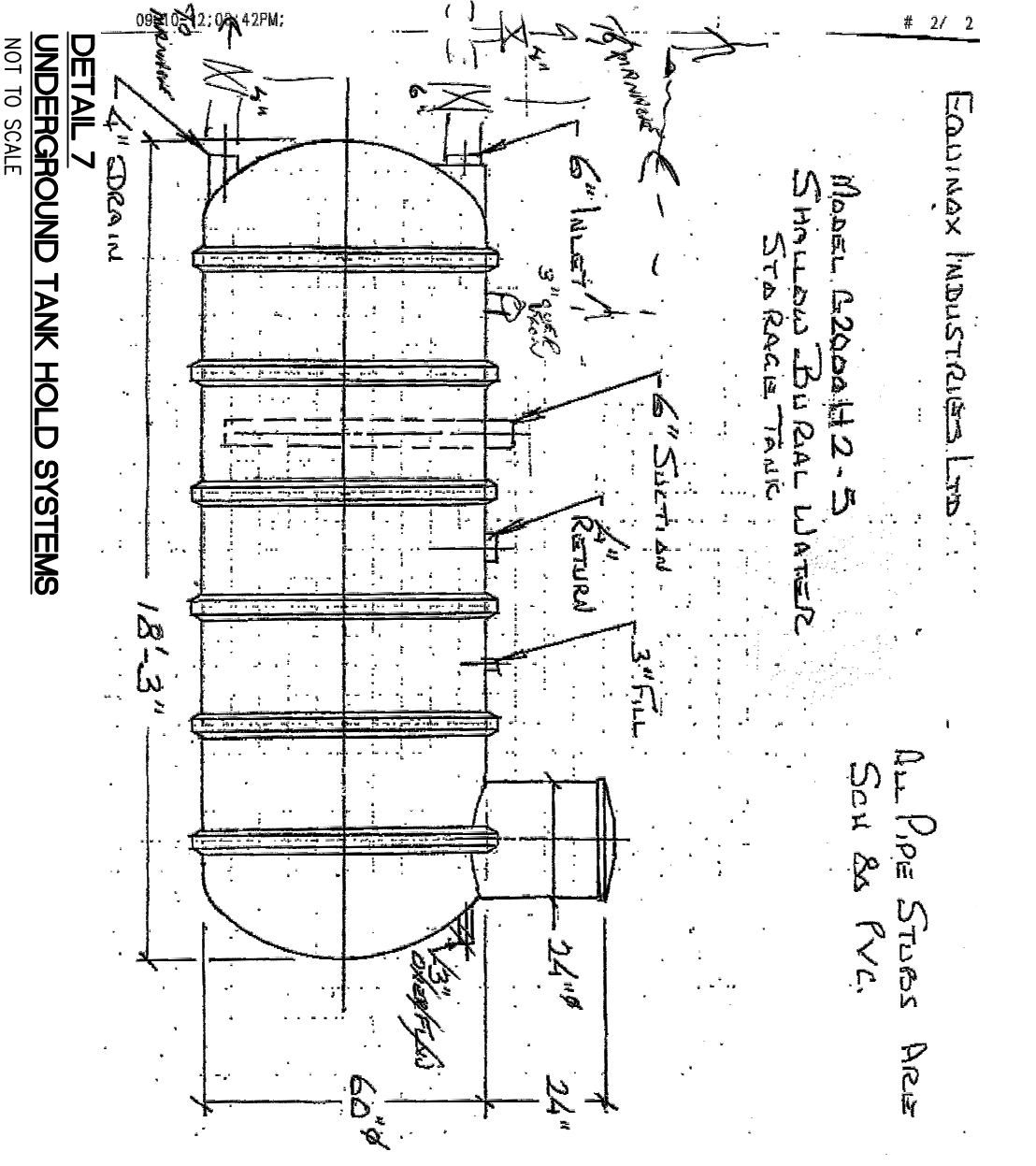
**CONSULTANT**  
NOVA 3 ENGINEERING LTD.  
201-120 FORT STREET  
WINNIPEG, MANITOBA  
TEL: (204) 943-6142  
FAX: (204) 942-1276  
WWW.NOVA3ENGINEERING.COM

**CLIENT**  
TRANSCONA WATER  
PARK  
101 WABASHA AVE  
WINNIPEG, MANITOBA



**LEGEND**

- 1. 38mm PVC THREADED CAP - 38mm
- 2. 38mm PVC THREADED NIPPLE - 38mm
- 3. 38mm TRIPLE-UNION PVC BALL VALVE
- 4. 38mm PVC NIPPLE AND RISER TO SUIT DEPTH
- 5. LINE SIZE INSERT COMBINATION TE
- 6. STAINLESS STEEL GEAR CLAMP
- 7. TYPICAL 38mm PE SCHED 80 WATER LINE
- 8. BLOW-OUT DETAIL FOR WATER MAIN (E RDMAL TO 100MM) SIMILAR TO P.E. LINE MAIN EXCEPT USE 65 X 64 X 38 OR 100 X 100 X 30 TE WITH 30MM CLEARANCE COVER, CONCRETE SLEEVE TO EXTEND 24\"/>



**NOTES:**

1. COPIES AND BRASS FITTINGS ONLY.
2. DETAILS OF BACKFLOW PREVENTION ASSEMBLY FOR WASTEWATER HAZARDOUS SERVICE.
3. REPORT WATER RELOCATION LOCATION IN ALL WATER RELOCATION MUST BE EASILY ACCESSIBLE FOR WATER RELOCATIONS (WHERE REQUIRED BY UTILITY).
4. CONTRACTOR TO INSTALL WALL COUPLER FOR WATER CABLE WHERE APPLICABLE.
5. MINIMUM TO PIPE DIMENSIONS OF STRAIGHT PIPE BEFORE AND 3 PIPES TO BE INSTALLED IN TRENCH.
6. WATER INSTALLATIONS Types 4 AND 5 REQUIRE A SPINNER.
7. BRASS PIPE SHALL USE SIZE, GRADE AND STRAIGHT.

**MINIMUM WORKING SIZE**

- A. SPACE FOR WATER INSTALLATION, COMPACTANT WITH UTILITY FOR WATER DIMENSION.
- B. DISTANCE FROM BRASS (MINIMUM).
- C. MINIMUM DISTANCE IN FRONT OF WATER TO WALKWAY PERMANENT OBSTRUCTION IS 900mm.
- D. HEIGHT (MIN-300mm, MAX-1200mm).
- E. TRENCH DEPTH FROM WATER TO WALKWAY PERMANENT OBSTRUCTION (MIN-1200mm).

**DETAIL 8 INCOMING WATER SERVICE DETAIL**  
N.T.S.

Edmax Industries Ltd  
All Pipe Streets Area  
Saskatoon, Saskatchewan  
Shaheen Industrial Water  
Storage Tank  
# 2 / 2

**DETAIL 7 UNDERGROUND TANK HOLD SYSTEMS**  
N.T.S.

**DETAIL 8 INCOMING WATER SERVICE DETAIL**  
N.T.S.

**DETAIL 9 ELEVATION AND PLAN OF UNDERGROUND TANK HOLD SYSTEMS**  
N.T.S.

**DETAIL 10 INCOMING WATER SERVICE DETAIL**  
N.T.S.

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**DETAIL 1**  
WATER MAIN THRUST BLOCK DETAIL  
N.T.S.

**DETAIL 2**  
NEW SOIL WATER SERVICE CONNECTION DETAIL  
(COPY OF MINNESOTA DRAWING NO. SP-012)  
NOT TO SCALE

**DETAIL 3**  
WATER SERVICE AND FROST BOX DETAIL  
N.T.S.

**DETAIL 4**  
STORM CONNECTION TO EXISTING SEWER  
(COPY OF MINNESOTA DRAWING NO. SP-014)  
N.T.S.

**DETAIL 5**  
STANDARD PIPE BEDDING CLASSES  
(COPY OF MINNESOTA DRAWING NO. SP-001)  
NOT TO SCALE

**DETAIL 6**  
DETAIL OF BLOW-OUT VALVE ACCESS HOUSING  
N.T.S.

**DETAIL 7**  
UNDERGROUND TANK HOLD SYSTEMS  
N.T.S.

**DETAIL 8**  
INCOMING WATER SERVICE DETAIL  
N.T.S.

**LEGEND**

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**DETAIL 9**  
ELEVATION AND PLAN OF UNDERGROUND TANK HOLD SYSTEMS  
N.T.S.

**DETAIL 10**  
INCOMING WATER SERVICE DETAIL  
N.T.S.

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**ISSUED FOR CONST. BY DATE**  
HC 13/03/13

**REVISION**

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**THIS DRAWING MUST NOT BE SCALED**

**DESIGNED BY**  
C.S. / H.C.

**APPROVED BY**  
J.H.G.

**DATE**  
13 MAR 2013

**SCALE**  
1:100

**PROJECT**  
32-210

**DWG No.**  
M-2

**LOCATION**  
TRANSCONA WATER  
PARK  
101 WABASHA AVE  
WINNIPEG, MANITOBA

**PLAN VIEW SCHEMATICS**