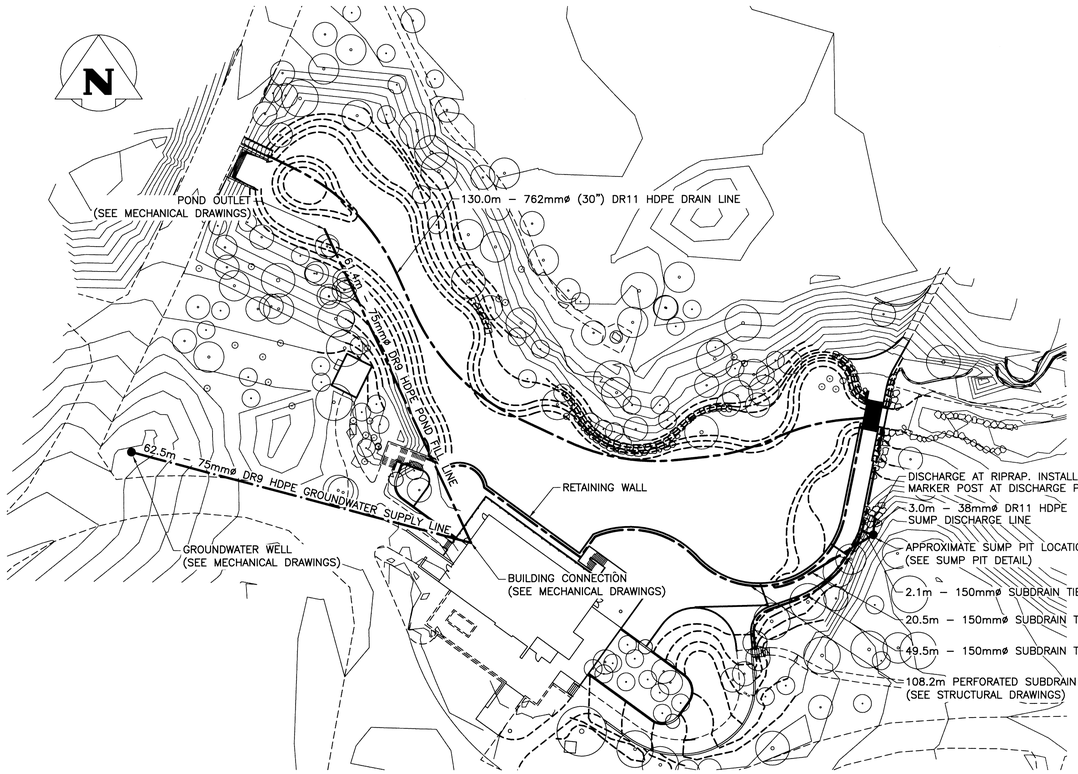
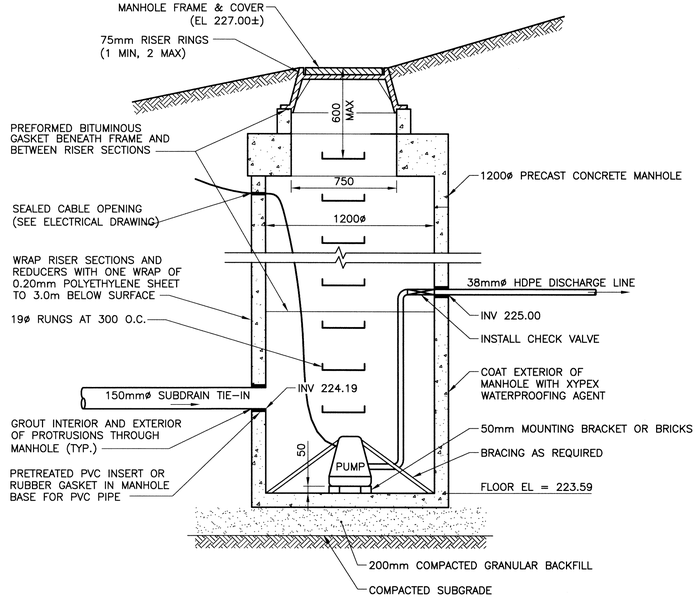


SITE PLAN
SCALE 1:500



SUMP PIT DETAIL
SCALE 1:50

NOTE:
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 EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

WARNING

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
3. SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

0 1.0 2.0 3.0 4.0m
SCALE: 1:50m (24"x36")
1:100m (11"x17")

0 10.0 20.0 30.0 40.0m
SCALE: 1:500m (24"x36")
1:1000m (11"x17")

GROUNDWATER SUPPLY LINE NOTES:

1. PIPE SHALL BE 75mm (3") OUTER DIAMETER DR9 HDPE, WITH A MINIMUM INNER DIAMETER OF 62mm (2½") AND PRESSURE RATING OF 1379 kPa (200psi).
2. PIPE SHALL BE INSTALLED USING THE DIRECTIONAL DRILLING METHOD, IN ACCORDANCE WITH CITY OF WINNIPEG STANDARD CONSTRUCTION METHODS.
3. PIPE JOINTS SHALL BE BUTT–FUSED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. COUPLERS SHALL NOT BE USED.
4. A MINIMUM OF 2.4m (8') COVER MEASURED TO THE TOP OF PIPE WILL BE MAINTAINED, EXCEPT WHERE CROSSING UNDER THE PATIO DIRECTLY ADJACENT TO THE BUILDING TIE–IN LOCATION.
5. WHERE PIPE CROSSES UNDER TREES, THE CONTRACTOR SHALL ENSURE THAT IT IS AT SUFFICIENT DEPTH TO AVOID DAMAGE TO THE TREES' ROOT SYSTEMS.
6. HEAT TRACING WILL BE REQUIRED ON THE LAST 10m OF THE PIPE, AS MEASURED FROM THE BUILDING TIE–IN LOCATION.
7. PRIOR TO ACCEPTANCE BY THE ENGINEER, THE GROUNDWATER SUPPLY LINE IS TO BE SUBJECTED TO PRESSURE TESTING IN ACCORDANCE WITH CITY OF WINNIPEG STANDARDS AT A PRESSURE OF 1241 kPa (180 psi).
8. REFER TO MECHANICAL DRAWINGS FOR WELL AND BUILDING TIE–IN DETAILS.

POND FILL LINE NOTES:

1. PIPE SHALL BE 75mm (3") OUTER DIAMETER DR9 HDPE, WITH A MINIMUM INNER DIAMETER OF 62mm (2½") AND PRESSURE RATING OF 1379 kPa (200psi).
2. PIPE SHALL BE INSTALLED USING THE DIRECTIONAL DRILLING METHOD, IN ACCORDANCE WITH CITY OF WINNIPEG STANDARD CONSTRUCTION METHODS.
3. PIPE JOINTS SHALL BE BUTT–FUSED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. COUPLERS SHALL NOT BE USED.
4. A MINIMUM OF 1.8m (6') COVER MEASURED TO THE TOP OF PIPE WILL BE MAINTAINED.
5. WHERE PIPE CROSSES UNDER TREES, THE CONTRACTOR SHALL ENSURE THAT IT IS AT SUFFICIENT DEPTH TO AVOID DAMAGE TO THE TREES' ROOT SYSTEMS.
6. PRIOR TO ACCEPTANCE BY THE ENGINEER, THE POND FILL LINE IS TO BE SUBJECTED TO PRESSURE TESTING IN ACCORDANCE WITH CITY OF WINNIPEG STANDARDS AT A PRESSURE OF 1241 kPa (180 psi).
7. REFER TO MECHANICAL DRAWINGS FOR BUILDING TIE–IN AND POND OUTLET DETAILS.

DRAIN LINE NOTES:

1. PIPE SHALL BE 762mm (30") OUTER DIAMETER DR11 HDPE, WITH A MINIMUM INNER DIAMETER OF 600mm (24") AND PRESSURE RATING OF 1103 kPa (160psi).
2. PIPE SHALL BE INSTALLED USING THE OPEN TRENCH METHOD, IN ACCORDANCE ACCORDANCE WITH GEOTECHNICAL DRAWINGS.
3. PIPE SHALL BE INSTALLED AT A SINGLE, FIXED VERTICAL GRADE FROM THE INLET STRUCTURE TO THE OUTLET STRUCTURE. NO GRADE CHANGES OR POINTS OF VERTICAL INFLECTION WILL BE ACCEPTED.
4. PIPE JOINTS SHALL BE BUTT–FUSED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. COUPLERS SHALL NOT BE USED.
5. PIPE ALIGNMENT SHALL BE ACHIEVED BY INCREMENTAL PIPE DEFLECTION/BENDING. NO BENDS OR FITTINGS WILL BE EMPLOYED. MINIMUM CURVE RADIUS SHALL BE THE GREATER OF THE MANUFACTURER'S RECOMMENDED MINIMUM RADIUS OR 50 TIMES THE PIPE OUTER DIAMETER.
6. PENETRATIONS OF THE POND'S CLAY LINER SHALL BE MINIMIZED AND REPAIRED IN ACCORDANCE WITH GEOTECHNICAL DRAWINGS.
7. GABION BASKET CROSSINGS SHALL BE AVOIDED WHERE POSSIBLE. WHERE GABION BASKET CROSSINGS ARE REQUIRED, DRAIN PIPE SHALL CROSS PERPENDICULAR TO GABION BASKET LINE.
8. PRIOR TO ACCEPTANCE BY THE ENGINEER, THE DRAIN LINE MUST BE FLUSHED OF ALL AIR POCKETS THAT COULD RESULT IN PIPE HEAVE.
9. REFER TO GEOTECHNICAL DRAWINGS FOR TYPICAL INSTALLATION CROSS–SECTIONS.
10. REFER TO STRUCTURAL DRAWINGS FOR INLET AND OUTLET STRUCTURE TIE–IN DETAILS.

SUMP PIT NOTES:

1. THE SUMP PIT SHALL BE A STANDARD 1200mmø PRECAST MANHOLE, CONFORMING TO CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS, WITH PRECAST PIPE AND CABLE ENTRIES AS INDICATED ON THE DRAWINGS.
2. THE PIT SHALL HAVE A STANDARD MANHOLE REDUCER, FRAME AND SOLID COVER, CONFORMING TO CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
3. THE FINISHED COVER ELEVATION SHALL BE SET SUCH THAT IT IS APPROXIMATELY FLUSH TO THE SURROUNDING GRADE AND WILL INCLUDE A MINIMUM OF ONE (1) 76mm LIFTER RING IN ITS INITIAL INSTALLATION TO ACHIEVE THIS GRADE. NO MORE THAN TWO (2) LIFTER RINGS WILL BE PERMITTED IN INITIAL INSTALLATION TO ACHIEVE A MATCHING GRADE.
4. SUMP PUMP SHALL BE A ½ HP, 115V ZOELLER M98 OR APPROVED EQUIVALENT, WITH A 38mmø DISCHARGE LINE AND CAPABLE OF PASSING UP TO 13mm SOLIDS.
5. THE PUMP SHALL BE ABLE TO DELIVER A FLOW OF APPROXIMATELY 160 LITRES PER MINUTE UNDER 5m OF TOTAL DYNAMIC HEAD.
6. THE PUMP SHALL HAVE AN OPERATIONAL TEMPERATURE RANGE FROM –20°C TO 55°C.
7. THE PUMP SHALL BE MOUNTED, EITHER ON BLOCKS OR A PERMANENT STAND, SUCH THAT IT RESTS APPROXIMATELY 50mm ABOVE THE FLOOR OF THE SUMP CHAMBER, AND SHALL BE BRACED, IF REQUIRED, TO ENSURE THAT IT DOES NOT BECOME DISLODGED FROM ITS MOUNT.
8. THE PUMP SHALL HAVE AN AUTOMATED ON/OFF MECHANISM, WHICH ENGAGES THE PUMP AT A WATER LEVEL 290mm MEASURED FROM THE SUMP PIT FLOOR AND DISENGAGES THE PUMP AT A WATER LEVEL OF 125mm MEASURED FROM THE SUMP PIT FLOOR.
9. THE PUMP SHALL BE LOCATED AT AN APPROXIMATELY CENTRAL POINT IN THE SUMP PIT, WITH ADEQUATE CLEARANCE ON ALL SIDES FOR INSPECTION AND MAINTENANCE PURPOSES.
10. THE SUMP PUMP BASED ON A SUBDRAIN LENGTH OF APPROXIMATELY 100m, WHICH IS ROUGHLY EQUIVALENT TO A 7,000 ft² BUILDING. SUMP PUMP DEMAND AND FLOW WERE BASED ON THIS ASSUMPTION.

APEGM
Certificate of Authorization
KGS Group
No. 245

ENG. STAMP
PROVINCE OF MANITOBA
R.B. OFFMAN
Member
24791
REGISTERED PROFESSIONAL ENGINEER

NO.	YY/MM/DD	DESCRIPTION	BY
0	14/04/14	ISSUED FOR TENDER	RBO

REVISIONS / ISSUE

CLIENT:
SCATLIFF + MILLER + MURRAY Inc.
TEL 204 927-3444 FAX 204 927-3443
- 130 MARKET AVENUE WINNIPEG, MB, CANADA

PROJECT:
PEGUIS PAVILION
POND REDEVELOPMENT
& LANDSCAPE RENOVATIONS

DWG. DESCRIPTION:
GROUNDWATER SUPPLY SYSTEM
AND SUBDRAIN SUMP DETAIL

KGS GROUP CONSULTING ENGINEERS

DESIGN BY:	JB	DATE (YY/MM/DD): 14/04/14
DESIGN CHECK:	RBO	DATE: 14/04/14
DRAWN BY:	GEL	DATE: 14/04/14
DWG CHECK:		DATE: 14/04/14

DWG. NO. 13–0109–001 C01
REV: 0

FileName: P:\Projects\2013\13-0109-001\Doc.Control\ToBeIssued\DWG\13-0109-001_C01-Rev 0.dwg – Tab: C01 Plotted By: DDaroche 14/04/14 [Mon 3:49pm]
24"x36" PLOT SCALE: 1:1