

CONSTRUCTION NOTES:

1.0 GENERAL CONSTRUCTION

- ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF MISSISSAUGA STANDARDS, REGION OF PEEL STANDARDS, OPSS & OPSS. WHERE CONFLICT OCCURS, CITY OF MISSISSAUGA STANDARDS TO GOVERN FOR STORMWATER, ROADWORKS & INTERNAL GRADING, REGION OF PEEL STANDARDS TO GOVERN FOR SANITARY & WATERMAIN INSTALLATION.
- ALL TOPSOIL & EARTH EXCAVATION TO BE STOCK PILED ON-SITE OR REMOVED TO AN APPROVED SITE AS DIRECTED BY ENGINEER. THE DEVELOPER'S CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILED LAYOUT OF THE WORK. THE DEVELOPER'S ENGINEER WILL CONFIRM ALL BENCH MARK ELEVATIONS AND HORIZONTAL ALIGNMENT FOR THE DEVELOPER'S CONTRACTOR.
- ALL PROPERTY BARS TO BE PRESERVED AND REPLACED BY O.L.S. AT DEVELOPER'S CONTRACTOR'S EXPENSE IF REMOVED DURING CONSTRUCTION.
- THE DEVELOPER'S CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK & CO-ORDINATE CONSTRUCTION ACCORDINGLY.
- ALL CONSTRUCTION SIGNING MUST CONFORM TO THE M.T.O. MANUAL OF "UNIFORM TRAFFIC CONTROL DEVICES".
- CONTRACTOR, THE DEVELOPER'S CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF EXISTING UTILITIES DISTURBED DURING CONSTRUCTION.
- ALL AREAS BEYOND THE SITE PLAN AND APPROVED DEVELOPMENT & SERVICING LIMITS WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE DEVELOPER'S EXPENSE.
- ALL CONSTRUCTION SIGNING MUST CONFORM TO THE M.T.O. MANUAL OF "UNIFORM TRAFFIC CONTROL DEVICES".
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
- ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE DEVELOPER'S CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
- ROAD AND BOULEVARD RESTORATION AS PER CITY OF MISSISSAUGA ROAD CUT PERMIT, DETAIL 2220.030.

2.0 OPEN CUT INSTALLATION & RESTORATION PER CITY OF MISSISSAUGA STANDARD NO. 2220.030

- BACKFILL MATERIALS SHALL BE OPSS GRANULAR 'A', GRANULAR 'B' & UNSHRINKABLE FILL PLACED AT THE SPECIFIED DEPTHS AS PER STANDARD 2220.030. ALL GRANULAR MATERIAL SHALL CONFORM WITH OPSS 1010 & THE UNSHRINKABLE FILL SHALL CONFORM TO OPSS 1359. STEEL PLATES SHALL BE SECURED OVER THE EXCAVATION FOR A MINIMUM OF 24 HOURS AFTER WHICH THE GRANULAR MATERIALS CAN BE PLACED. ALL GRANULAR MATERIAL SHALL BE PLACED IN 150mm LIFTS AND COMPACTED TO 100% STANDARD PROCTOR DENSITY. AFTER BACKFILLING THE UTILITY TRENCH, A MIN. 300mm WIDE TOTAL ASPHALT REMOVAL SHALL BE CUT ON ALL SIDES OF THE TRENCH INTO THE EXISTING PAVEMENT STRUCTURE. THE PAVEMENT STRUCTURE MATERIALS SHALL MATCH THE EXISTING PAVEMENT TYPES. ASPHALT RESTORATION SHALL BE A MINIMUM OF 40mm HL-3 & 100mm MIN. DEPTH HL-8 & SHALL MATCH THE EXISTING PAVEMENT STRUCTURE. ALL ASPHALT RESTORATION SHALL BE IN COMPLIANCE WITH OPSS 310. ALL HOT-MIX MATERIAL SHALL CONFORM TO OPSS 1149, 1150 AND/OR 1154. EXPOSED ASPHALT AND CONCRETE FACES SHALL BE CLEANED AND COATED WITH AN RS-1 (OR EQUIVALENT) ASPHALT EMULSION & ALLOW TO 'BREAK' PRIOR TO COMMENCING ASPHALT PLACEMENT.
- WHEN THE REMAINING ASPHALT, FROM THE EDGE OF PAVEMENT TO THE SAWCUT IS 1.5m OR LESS, THE EXISTING ASPHALT WILL BE REMOVED FULL DEPTH & REPAVED AS PER NOTE 3. WHEN TWO OR MORE ROAD CUTS ARE REQUIRED AT A GIVEN SITE AND THE CUTS ARE LESS THAN 2.5m APART THE ENTIRE AREA MUST HAVE FULL DEPTH ASPHALT RESTORATION FROM THE OUTER LIMITS OF ALL REPAIRS.
- SIDEWALK RESTORATION SHALL BE A MINIMUM OF 1 FULL BAY INCLUDING EXPANSION JOINT MATERIAL. ALL CONCRETE SHALL BE AS PER OPSS 351. ALL SIDEWALKS SHALL BE 130mm THICK.
- SUB-DRAINS UNDER THE CURB SHALL BE RESTORED TO ENSURE THEIR OPERATION AND SHALL BE PLACED AS PER CITY OF MISSISSAUGA STANDARD DRAWING NUMBER 2220.040.
- WHERE THE CURB HAS BEEN UNDERMINED TO FACILITATE SANITARY AND WATER SERVICE & STORM SEWER INSTALLATION THE CURB SHALL BE REMOVED AND REPLACED. CURB RESTORATION SHALL BE MINIMUM OF 2.0m OR SHALL EXTEND 0.5m BEYOND THE OUTER TRENCH EDGES WHICH EVER IS GREATER. ALL CONCRETE SHALL BE AS PER OPSS 353.
- ALL GRASSED BOULEVARDS SHALL BE RE-INSTATED WITH NUMBER 1 NURSERY SOD PLACED ON TOP OF 100mm OF TOPSOIL. ALL SOD SHALL BE PLACED WITH STAGGERED JOINTS, BE ROLLED, AND WHERE APPLICABLE, STAKED INTO THE GROUND.

3.0 DRIVEWAYS

- GRANULAR 'A' & 'B' BASE TO BE COMPACTED TO 98% OF THE MATERIAL'S RESPECTIVE SPMD OR AS APPROVED BY GEOTECHNICAL ENGINEER.
- THE TOP 1.0m OF THE SUB-BASE SHALL BE COMPACTED TO A MINIMUM OF 98% OF STANDARD PROCTOR DENSITY WITHIN 2% OF OPTIMUM MOISTURE CONTENT.
- SUBGRADE TO BE PROOF ROLLED & CERTIFIED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING GRANULAR MATERIAL.
- DRIVEWAYS & PARKING LOT TO BE CONSTRUCTED AS PER RECOMMENDATIONS OF GEOTECHNICAL ENGINEER.
- ALL GRANULAR AND ASPHALT MATERIAL PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314 & OPSS 310.
- ALL GRANULAR CONNECTIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MISSISSAUGA STANDARD 2220.050.
- ALL CONCRETE SIDEWALKS TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MISSISSAUGA STANDARD 2240.010.
- ALL PEDESTRIAN SIDEWALK ENTRANCES AT INTERSECTIONS TO BE CONSTRUCTED IN ACCORDANCE WITH OPSS 350.010.

4.0 STORM SERVICES

- BEDDING & EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S SPMD.
- BEDDING & EMBEDMENT TO OPSS 802.010 (FLEXIBLE PIPE) GRANULAR 'A' EMBEDMENT.
- SUMP PUMP SYSTEM TO BE INSTALLED PER OBC PART 7 AND DISCHARGED ABOVE GRADE TO GRASS.

ADDITIONAL NOTES:

- ALL SURFACE DRAINAGE WILL BE SELF-CONTAINED, COLLECTED AND DISCHARGED AT A LOCATION TO BE APPROVED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
- THE PORTIONS OF THE DRIVEWAY WITHIN THE MUNICIPAL BOULEVARD WILL BE PAVED BY THE APPLICANT.
- AT THE ENTRANCES TO THE SITE, THE MUNICIPAL CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY AND A CURB DEPRESSION WILL BE PROVIDED FOR EACH ENTRANCE.
- ALL PROPOSED CURBING WITHIN THE MUNICIPAL BOULEVARD AREA FOR THE SITE IS TO SUIT AS FOLLOWS: A) FOR ALL SINGLE FAMILY RESIDENTIAL PROPERTIES INCLUDING ON STREET TOWNHOUSES, ALL CURBING IS TO S101 AT THE PROPERTY LIMIT OR THE BACK OF THE MUNICIPAL SIDEWALK, WHICHEVER IS APPLICABLE, OR, B) FOR ALL OTHER PROPOSALS INCLUDING INDUSTRIAL, COMMERCIAL AND CONDOMINIUM DEVELOPMENTS, ALL ENTRANCES TO THE SITE ARE TO BE IN ACCORDANCE WITH O.P.S.D. 350.010.
- ALL EXCESS EXCAVATED MATERIAL WILL BE REMOVED FROM THE SITE.
- THE EXISTING DRAINAGE PATTERN WILL BE MAINTAINED EXCEPT WHERE NOTED.
- THE APPLICANT WILL BE REQUIRED TO CONTACT ALL UTILITY COMPANIES TO OBTAIN ALL REQUIRED LOCATED PRIOR TO THE INSTALLATION OF BOARDING WITHIN THE [] CUT OFF [] NECESSITATED BY THE SITE PLAN.
- PRIOR TO CONSTRUCTION TAKING PLACE, ALL REQUIRED HOARDING IN ACCORDANCE WITH THE ONTARIO OCCUPATIONAL HEALTH & SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS MUST BE ERECTED AND THEN MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.
- SHOULD ANY WORKS BE REQUIRED WITHIN THE MUNICIPAL RIGHT OF WAY, A ROAD OCCUPANCY PERMIT WILL BE REQUIRED. P.U.C.C. APPROVAL WILL BE REQUIRED. FOR FURTHER INFORMATION, PLEASE CONTACT THE P.U.C.C./PERMIT TECHNOLOGIST, LOCATED AT 3185 MAVIS ROAD.
- WORKS IN THE MUNICIPAL RIGHT-OF-WAY BEING PERFORMED BY THE CITY'S CONTRACTOR WILL REQUIRE 4 TO 6 WEEKS' NOTICE PRIOR TO COMMENCEMENT OF CONSTRUCTION AFTER ALL DRAWINGS HAVE BEEN APPROVED AND SECURITIES HAVE BEEN RECEIVED. THE APPLICANT IS TO INDICATE IN THEIR SUBMISSION PACKAGE FOR THE RIGHT-OF-WAY WORKS THE IDEAL TIMING FOR THESE WORKS TO BE COMPLETED.
- ALL DAMAGED OR DISTURBED AREAS WITHIN THE MUNICIPAL RIGHT-OF-WAY ARE TO BE REINSTATED AT THE APPLICANT'S EXPENSE. * ALL LANDSCAPING AND GRADING WITHIN CLOSE PROXIMITY TO THE PROPOSED ACCESS POINTS IS TO BE DESIGNED TO ENSURE THAT ADEQUATE SIGHT DISTANCES ARE AVAILABLE FOR ALL APPROACHING AND EXITING MOTORISTS AND PEDESTRIANS. * THE PORTION OF THE DRIVEWAY WITHIN THE MUNICIPAL BOULEVARD IS TO BE PAVED BY THE APPLICANT. * DRIVEWAY ACCESSES SHALL MAINTAIN A 1.5 M SETBACK FROM ABOVEGROUND FEATURES SUCH AS UTILITIES AND TREES. ANY ABOVE GROUND UTILITIES LOCATED WITHIN 1.5 M OF A PROPOSED ACCESS ARE TO BE RELOCATED AT THE APPLICANT'S EXPENSE.

WELL NOTES:

PUMPS

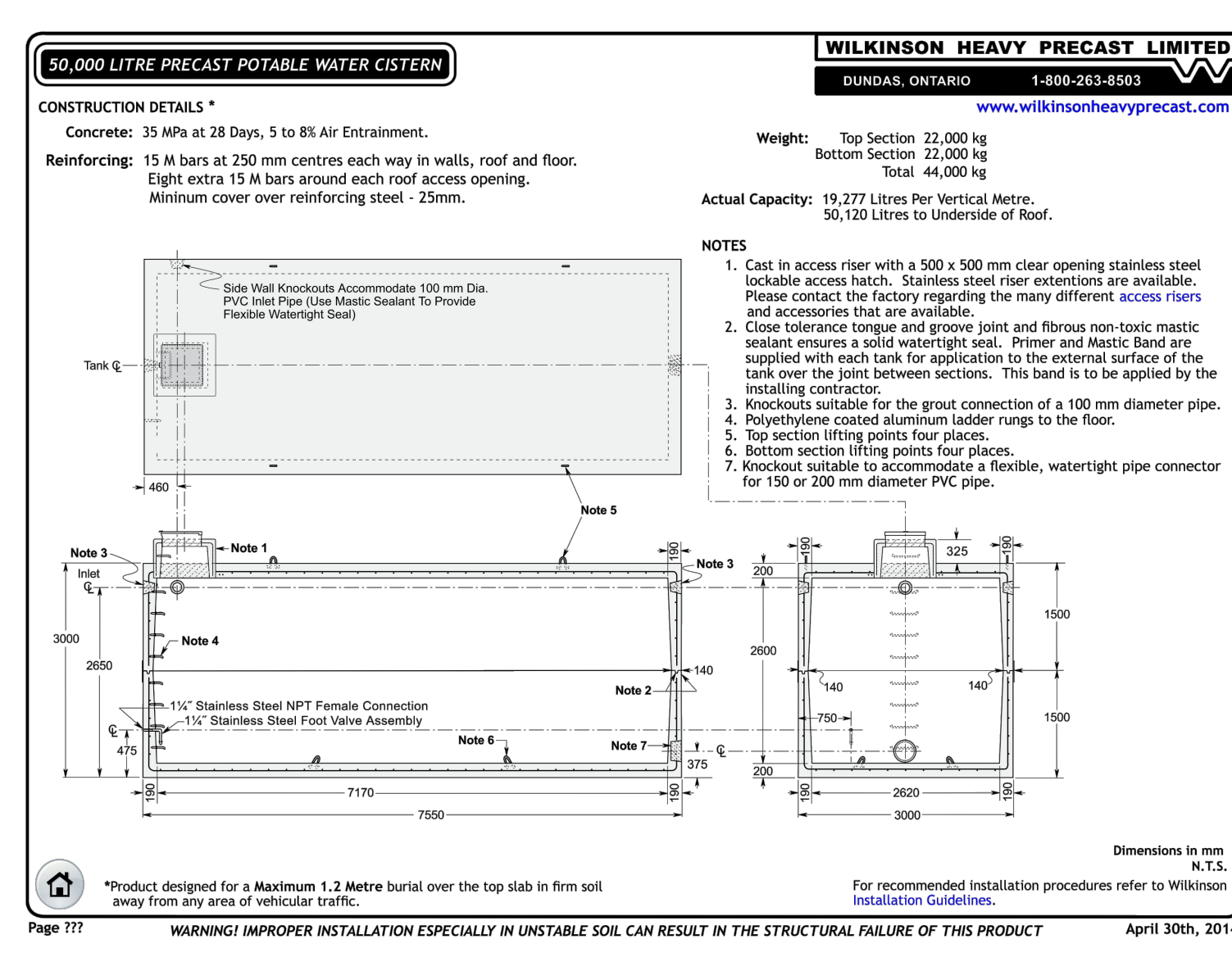
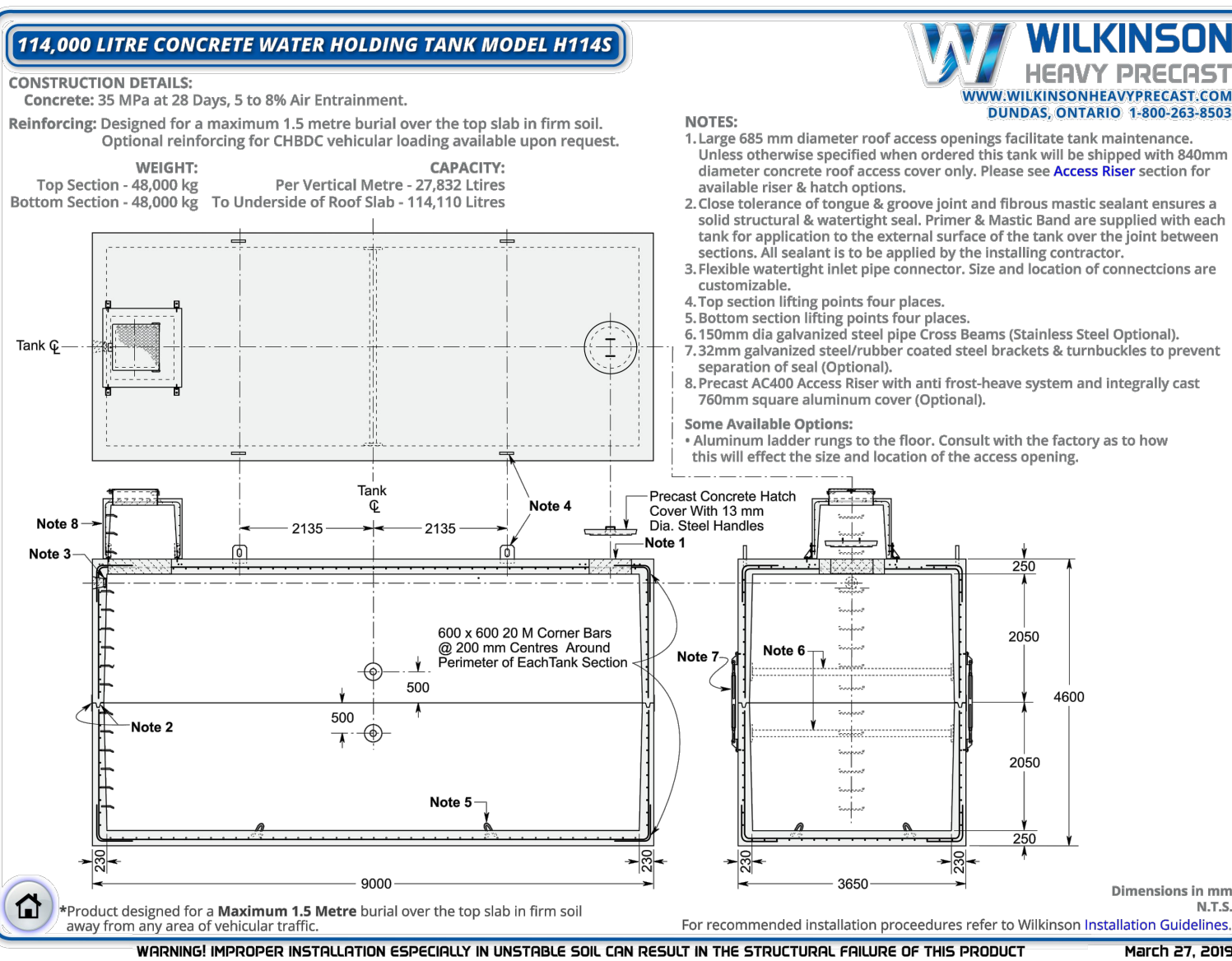
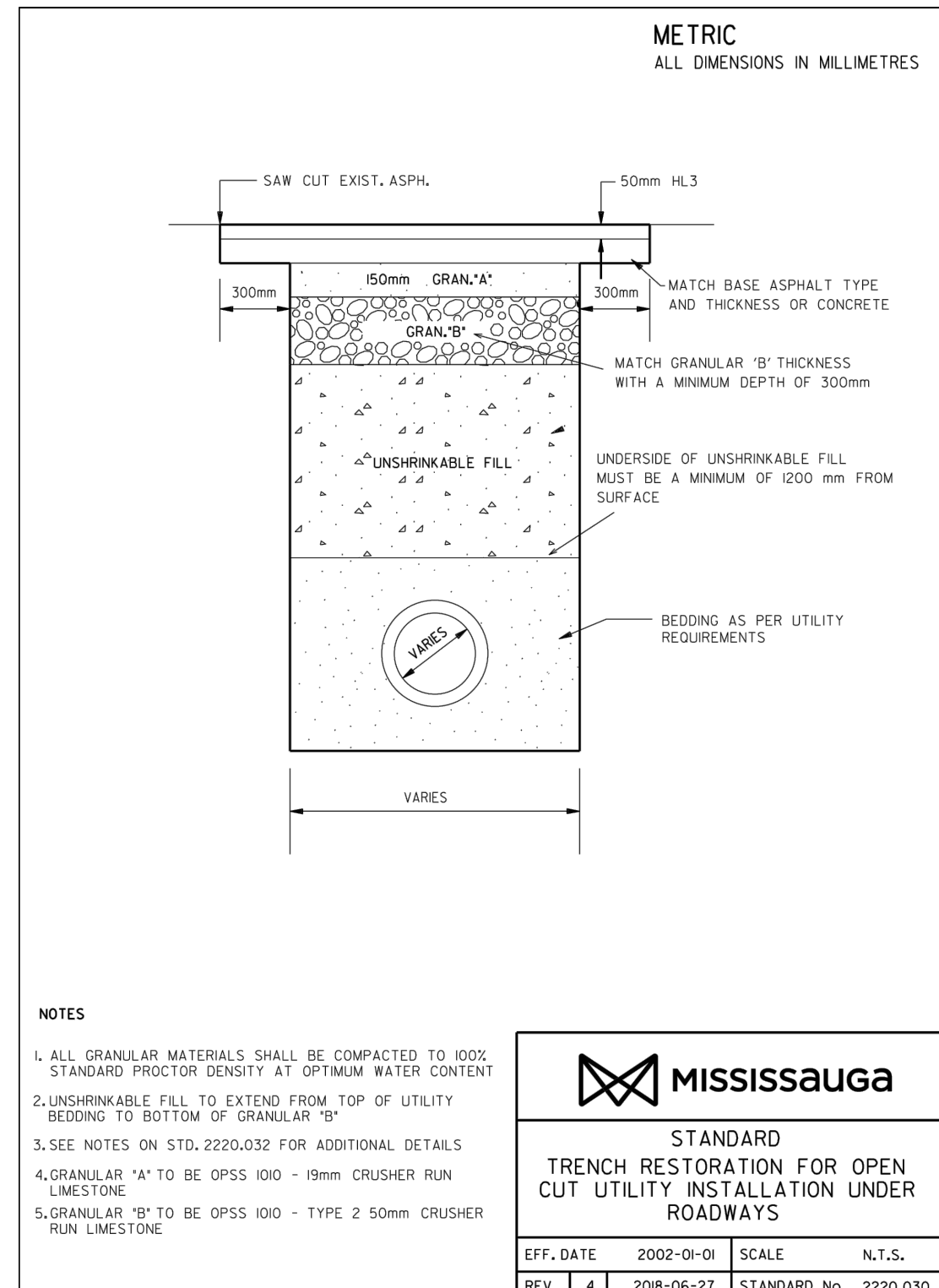
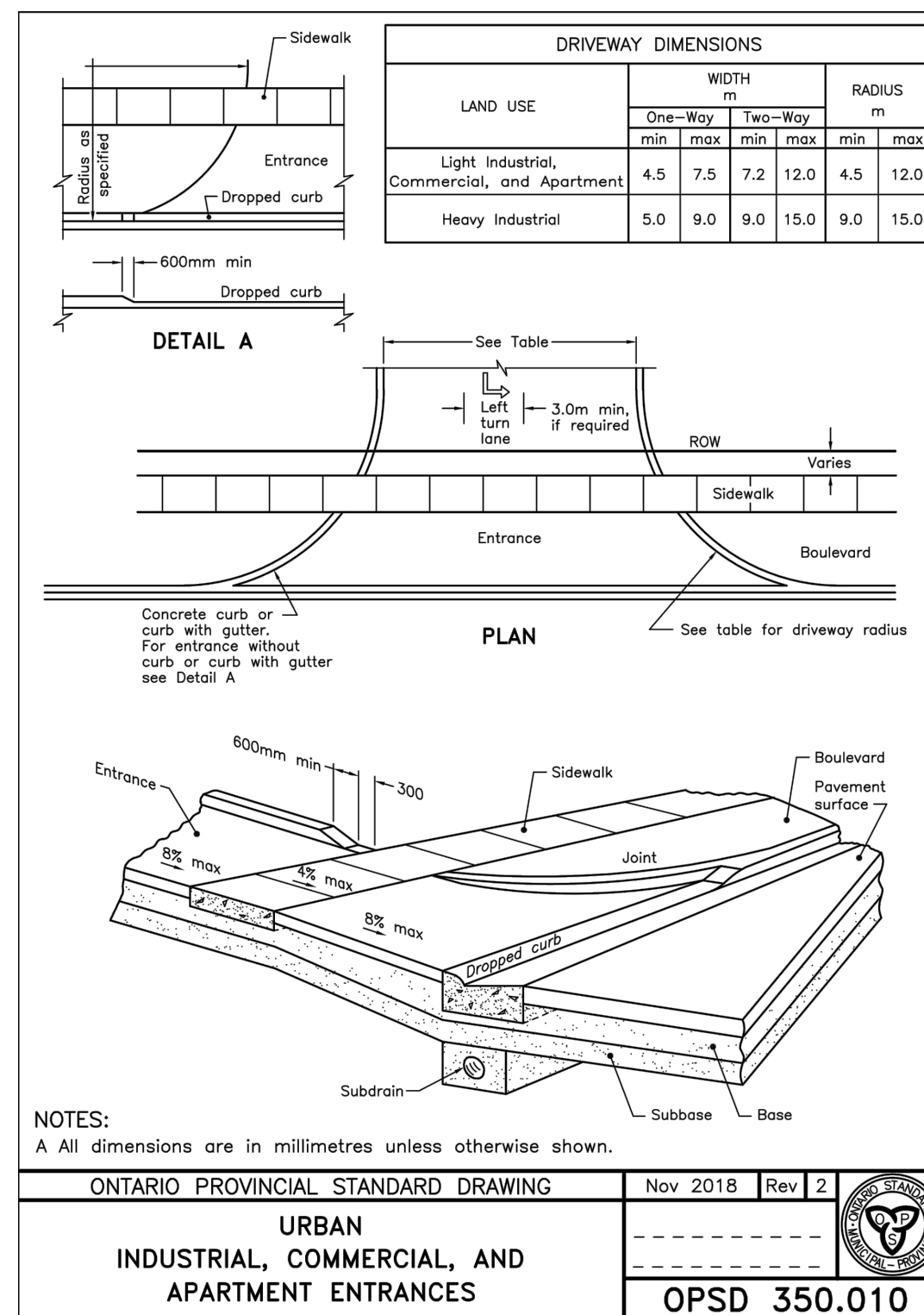
- EACH OF THE TWO WELLS AND THE DOMESTIC WATER CISTERN SHOULD BE EQUIPPED WITH A 1/2HP 2 WIRE 230V GRUNDFOS 10S010-290 COMPLETE WITH FRANKLIN ELECTRIC MOTOR OR APPROVED EQUIVALENT.
- ALTERNATIVELY, CONTRACTOR CAN REPLACE CISTERN PUMP WITH JET PUMP IN BUILDING.
- BOTH WELL PUMPS TO BE INSTALLED WITH A BOSCH RT P100 BRASS PILESS ADAPTER
- ALL FITTINGS USED IN THE INSTALLATION OF THE PUMPING SYSTEM TO BE BRASS. NO GALVANIZED OR PLASTIC FITTING.
- 25mm WATER LINES TO BE BURIED MINIMUM OF 2.0M BELOW FINAL GRADE AND COVERED WITH 25mm OF RIGID STYROFOAM INSULATION PRIOR TO BACKFILLING.
- 25mm WATER LINE FROM THE DRILLED WELL IS NOT TO BE INSTALLED BENEATH THE PAVED PORTION OF THE PARKING LOT, LINE SHOULD BE ROUTED SUCH THAT THE ENTIRETY OF THE WATER LINE IS BENEATH GRASS OR GRAVEL.

OPERATION

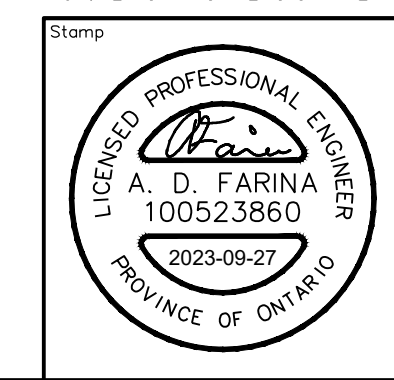
- BORED WELL TO OPERATE ON A CONSTANT BASIS AT A MAXIMUM RATE OF 1.6 L/MIN. THE FLOW SHOULD BE CONTROLLED WITH A DOLE FLOW CONTROL VALVE PLUMBED INTO THE SYSTEM PER MANUFACTURERS DETAILS AND SPECIFICATIONS. THE BORED WELL SHOULD OPERATE 24/7 AND BE EQUIPPED WITH A HIGH WATER LEVEL SHUT OFF.
- THE DRILLED WELL WOULD BE OPERATED WITH A HIGH/LOW LEVEL SHUTOFF LINKED TO THE DOMESTIC WATER CISTERN. THE SUPPLY PUMP FROM THE CISTERN TO THE BUILDING SHOULD OPERATE AS REQUIRED TO MEET THE DEMAND OF THE BUILDING. THE PRESSURE TANK SHOULD BE SET TO A 40/60 PSI LEVEL AND THE PRESSURE SWITCH WOULD CALL FOR WATER FROM THE CISTERN ONCE THE SYSTEM PRESSURE DROPS BELOW 40PSI AND THEN SHUT OFF ONCE THE SYSTEM PRESSURE REACHES 60PSI.

TREATMENT

- WE RECOMMEND USING A UV LIGHT AND PRE-FILTER TO TREAT DOMESTIC WATER. INSTALL PER MANUFACTURERS DESIGN AND SPECIFICATIONS.



NOT FOR CONSTRUCTION



CROZIER CONSULTING ENGINEERS
211 YONGE STREET SUITE 301 TORONTO, ON M5B 1M4 416-477-3392 T WWW.CFCROZIER.CA

Drawn	I.M./D.B.	Design	I.M./A.D.F.	Project No.	1644-5477
Check	J.L.	Check	A.S.	Scale	NTS
				Dwg.	C 104