#### **GENERAL NOTES:**

- 1. ALL WORK WITHIN THE CITY RIGHT-OF-WAY SHALL BE CONSTRUCTED ACCORDING TO THE LATEST CITY OF TORONTO STANDARD DRAWINGS AND SPECIFICATIONS. ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS MAY, SUBJECTED TO THE APPROVAL OF THE CITY OF TORONTO, BE USED WHERE NO CITY STANDARD OR SPECIFICATION IS AVAILABLE. ALL WORK SHALL BE COMPLETED ACCORDING TO THE CURRENT OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE
- 3. ALL TEMPORARY TRAFFIC CONTROL AND SIGNAGE DURING CONSTRUCTION SHALL BE ACCORDING TO THE CURRENT ONTARIO RAFFIC MANUAL BOOK 7: TEMPORARY CONDITIONS FIELD EDITION.
- 4. ALL TRENCHES WITHIN EXISTING RIGHT OF WAY SHALL BE BACKFILLED WITH UNSHRINKABLE FILL. TEMPORARY REPAIRS TO UTILITY CUTS WILL BE AS PER MUNICIPAL CONSENT REQUIREMENTS, APPENDIX D, TEMPORARY REPAIRS TO UTILITY CUTS. THE CONTRACTOR SHALL RECTIFY ALL DISTURBED AREAS TO THE ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE EXECUTIVE DIRECTOR, TECHNICAL SERVICES.
- PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL RIGHT OF WAY, THE CONTRACTOR OR DEVELOPER OR CONSULTANT WILL OBTAIN ALL NECESSARY ROAD OCCUPANCY PERMITS FROM THE CITY'S RIGHT-OF-WAY MANAGEMENT UNIT. CONTACT (NAME AND NUMBER) WILL DIFFER IN DIFFERENT PART OF THE CITY. EXISTING STRUCTURES ARE NOT TO BE DISTURBED, NOR ENCROACHMENT ON ADJACENT PROPERTIES UNLESS INSTRUCTED BY
- 8. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE OWNERS CONTRACTOR FROM OBTAINING AND PAYING FOR, BUT NOT
- LIMITED TO THE FOLLOWING PERMITS, ROAD CUTS, SEWER PERMITS, RELOCATION OF SERVICES, ENCROACHMENT AGREEMENTS, APPROACH APPROVAL PERMITS, ETC. ALL RESTORATION AS PER CITY STANDARDS. THE CONTRACTOR SHALL ENDEAVOR TO PREVENT MUD TRACKING ONTO EXISTING RIGHT-OF-WAYS AND SHALL PROVIDE FOR CLEANUP AT HIS OWN EXPENSE AS DIRECTED BY THE CITY. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO CONTROL DUST
- ON THE PROJECT AND HE SHALL PROVIDE AT HIS OWN EXPENSE, CONTROLLING MEASURES AS DIRECTED BY THE CITY. 10. ALL THE EXISTING SERVICES FROM 1637, 1639, 1641, 1643, AND 1645 BATHURST STREET SHALL BE DISCONNECTED BY THE CITY AT THE OWNER'S COST.
- 11. ALL THE PROPOSED SERVICE CONNECTIONS WITHIN MUNICIPAL RIGHT-OF-WAY TO BE INSTALLED BY THE CITY AT THE OWNER'S

### **CONSTRUCTION NOTES:**

- ALL AREAS DISTURBED DURING CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AND TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR. GRASS AREAS SHALL BE TREATED WITH 100mm OF TOPSOIL AND SHALL BE SODDED ACCORDING TO TS 5.00 AND TS 5.10.
- THE LOCATION OF ALL UNDER/ABOVE GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN AND, WHERE SHOWN ON THE DRAWING(S), THE ACCURACY OF THE LOCATION OF SUCH UTILITIES ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DIMENSION OF ALL SUCH UTILITIES AND STRUCTURES BY CONSULTING THE APPROPRIATE AUTHORITIES OR UTILITY COMPANIES CONCERNED. THE CONTRACTORS SHALL PROVE THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE OR RESTORATION TO SAME.
- L DIMENSIONS TO BE CHECKED AND VERIFIED ON THE SITE PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER BEFORE PROCEEDING. ANY DISCREPANCIES BETWEEN SITE CONDITIONS AND CONSTRUCTION DRAWINGS MUST BE REPORTED TO THE CITY PRIOR TO COMMENCEMENT OF CONSTRUCTION AND APPROPRIATE ACTION TAKEN TO THE SATISFACTION OF THE CONTRACT

ALL SURVEY STAKE LAYOUT POINTS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY

- DISCREPANCIES BETWEEN THE DRAWINGS AND THE LAYOUT SHALL BE IMMEDIATELY REPORTED THE CITY. ATTENTION IS DIRECTED TO THE POSSIBILITY OF EXISTING PRIVATE SPRINKLERS AND LIGHTING SYSTEMS WITHIN THE RIGHT-OF-WAY, WHICH ARE NOT SHOWN ON PLANS, LOCATING, WORKING AROUND AND PROTECTING THESE SYSTEMS SHALL BE COMPLETED AT NO EXTRA COST TO THE CITY.
- ALL DIMENSION ARE EXPRESSED IN METERS AND PIPE SIZES ARE EXPRESSED IN MILLIMETERS UNLESS OTHERWISE NOTED. ALL MATERIAL FOR SEWER, FORCEMAIN, WATERMAIN, HYDRANTS AND APPURTENANCES SHALL BE ACCORDING TO CITY OF TORONTO MATERIAL/MANUFACTURER SPECIFICATIONS AS REQUIRED BY CHAPTER 6, MATERIAL SPECIFICATIONS FROM DESIGN
- CRITERIA FOR SEWERS AND WATERMAINS MANUAL UTILITY SEPARATION SHALL BE ACCORDING TO APPENDIX 'D' OF THE CITY OF TORONTO DESIGN CRITERIA FOR SEWERS AND WATERMAINS MANUAL.
- 10. SERVICE CONNECTIONS AND UTILITY CUTS MADE IN ROAD PAVEMENTS SHALL BE BACKFILLED WITH UNSHRINKABLE FILL 11. AT ALL LOCATIONS WHERE THE PROPOSED WATERMAIN CROSSES UNDER OR ABOVE THE EXISTING SEWERS, OR UTILITIES,
- GRANULAR A BEDDING MATERIAL IS TO EXTEND FROM THE LOWER PIPE TO THE TOPE OF THE UPPER PIPE. GRANULAR A TO BE COMPACTED TO MINIMUM 98% OF MAXIMUM DRY DENSITY. CONTRACTOR TO PROVIDE ADEQUATE SUPPORT DURING CONSTRUCTION BETWEEN THE NEW WATERMAIN AND EXISTING GAS MAINS. MAINTAIN 300mm MINIMUM VERTICAL CLEARANCES BETWEEN THE NEW WATERMAIN AND EXISTING GAS MAINS LESS THAN
- 300mm IN DIAMETER. MAINTAIN 600mm MINIMUM VERTICAL CLEARANCES BETWEEN THE NEW WATERMAIN AND EXISTING GAS MAINS EQUAL TO OR GREATER THAN 300mm IN DIAMETER. ALL EXISTING WATERMAINS AND SEWER PIPES LARGER THAN 300mm DIAMETER SHALL BE SUPPORTED ACCORDING TO DRAWING
- T-1007.01-4. 14. ALL PROPOSED SERVICE CONNECTIONS WITHIN THE MUNICIPAL RIGHT-OF-WAY TO BE INSTALLED BY THE CITY AT THE OWNER'S

### **GRADING / EARTHWORKS**

- RECONSTRUCTION OF DRIVEWAY ENTRANCES SHALL BE ACCORDING TO T-310.050-8. RESIDENTIAL CURB AND GUTTER SHALL BE AS PER CITY OF TORONTO T-600.05-1 AND T-600.07-1 WITH SUBDRAINS AS PER
- 3. CURB RADII AT INTERSECTIONS SHALL BE 7.5m UNLESS SHOWN OTHERWISE. LIMITS OF SIDEWALK/CURB RECONSTRUCTION ARE APPROXIMATE, ACTUAL LIMITS ARE TO BE CONFIRMED IN THE FIELD BY THE CONTRACT ADMINISTRATOR.
- CHAINAGE IS ESTABLISHED FROM THE CENTRELINE OF CONSTRUCTION AND GUTTER GRADES ARE CALCULATED ALONG THE HEIGHT OF CURB FACES MAY VARY ALONG LENGTH OF GUTTER, AS SHOWN ON PROFILE, OR TO BE CONFIRMED IN THE FIELD.
- ADJUST ALL STRUCTURES (MAINTENANCE HOLES, CATCH BASINS, ETC.) TO SUIT NEW DESIGN ELEVATIONS INCLUDING BREAKING DOWN AND REMOVAL OF PORTION OF TOP OF STRUCTURES TO ALLOW FOR MINIMUM 150mm ADJUSTMENT. ALL CURB SHALL BE CONSTRUCTED WITH A LEDGE AT THE BACK OF THE CURB TO FACILITATE FUTURE SIDEWALK
- 9. FULL DEPTH SAW-CUTS ARE REQUIRED AT CONSTRUCTION LIMITS OF EXISTING CURB, SIDEWALK AND PAVEMENT UNLESS OTHERWISE SHOWN.
- 10. SAW CUT EXISTING PAVEMENT, SIDEWALK, CURB, GUTTER, DRIVEWAYS, WALKWAYS, ETC. AT CONSTRUCTION LIMITS TO PROVIDE A CLEAN JOINT FOR THE PROPOSED WORK. CONSTRUCT PEDESTRIAN SIDEWALK RAMPS WITH TACTILE WALKING SURFACE INDICATORS ACCORDING TO T-310.030-7,
- T-310.030-8 T-310.030-9 T-310.030-10 AND T-310.030-11 EXISTING ENTRANCE RAMPS TO BE RE-INSTATED. VEHICULAR SIDEWALK RAMPS SHALL BE ACCORDING TO T-310.050.1.
- ADJUSTMENT OF APPROACHES, WALKWAYS, AND STEPS MAY BE REQUIRED. LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACT ADMINISTRATOR. EXISTING ASPHALT THICKNESS MAY VARY, TAPER TO MATCH EXISTING AT CONSTRUCTION LIMITS (MINIMUM 2.0M).
- FILTER FABRIC TO BE PLACED UNDER GRATES ON ALL CATCHBASINS TO TRAP SEDIMENTS. SILT TRAPS ARE TO BE CLEANED REGULARLY AND ARE NOT TO BE REMOVED UNTIL SUCH TIME AS THE CURBS ARE CONSTRUCTED AT THE BOULEVARDS ARE SODDED OR BACKYARDS GRADED AND SODDED. FILTER FABRIC FOR SILT CONTROL TO BE TERRA FIX 270R OR APPROVED
- SUPERPAVE ASPHALT MIXES SHALL BE ACCORDING TO TS 1101 AND TS 1151. 17. ALL EARTHWORKS MATERIALS INCLUDING FILLING, BACKFILLING, BEDDING, SUBGRADE SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT AND COMPACTION.

## **EROSION AND SEDIMENT CONTROL:**

ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY.

- EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING CONSTRUCTION PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED OR REPLACED WITHIN 48 HOURS OF INSPECTION OR BOTH. CHECK DAMS AND SILTATION CONTROL FENCES SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO PREVENT SILT FROM
- 3. HOARDING OR SNOW FENCING SHALL BE ERECTED AND MAINTAINED PRIOR TO ANY GRADING OR CONSTRUCTION AND SHALL REMAIN IN PLACE AND IN GOOD REPAIR THROUGHOUT THE CONSTRUCTION AND GRADING PHASE. FILTER FABRIC SHALL BE PLACED UNDER ALL STREET CATCHBASINS GRATES. SILT TRAPS ARE TO BE CLEANED REGULARLY AND ARE NOT TO BE REMOVED UNTIL CURBS ARE CONSIDERED AND BOULEVARD AND BACKYARDS ARE GRADED AND SODDED.
- FILTER FABRIC USED FOR SILT CONTROL SHALL BE TERRA FIX 270R OR AN APPROVED EQUIVALENT. THE CONTRACTOR SHALL ENDEAVOR TO PREVENT MUD TRACKING ONTO EXISTING RIGHT-OF-WAY AND SHALL PROVIDE FOR CLEANUP AT HIS OWN EXPENSE AS DIRECTED BY THE CITY. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO CONTROL
- DUST ON THE PROJECT AND SHALL PROVIDE, AT HIS OWN EXPENSE, CONTROLLING MEASURES AS DIRECTED BY THE CITY PROPOSED MUD MAT DETAIL SHALL BE IN ACCORDANCE TO "EROSION & SEDIMENT CONTROL GUIDELINE FOR URBAN
- CONSTRUCTION" DETAIL DECEMBER 2006. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE
- UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREA. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT EFFECTIVE IN PREVENTING THE RELEASE OF A DELETERIOUS SUBSTANCE, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS AND A TORONTO REGION CONSERVATION AUTHORITY ENFORCEMENT OFFICE SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL

# WATERMAIN:

- 1. PVC WATERMAINS SHALL BE MINIMUM DR 18 CLASS 235 (AWWA) C900-07 OR MOLECULAR ORIENTED POLYVINYL CHLORIDE (PVCO) PIPES RANGING IN SIZE FROM 100mm TO 300mm IN DIAMETER PRESSURE CLASS 235 AWWA C909.09. PVC PIPES RANGING IN SIZE FROM 350mm THROUGH 600mm IN DIAMETER, SHALL BE PRESSURE RATING 235, DR 18, ACCORDING TO
- EMBEDMENT MATERIAL FOR FLEXIBLE PIPE SHALL BE ACCORDING TO OPSD 802.010 AND USING GRANULAR A ACCORDING TO TS 1010 AND COMPACTED TO MINIMUM 98% OF MAXIMUM DRY DENSITY. MINIMUM COVER ON WATERMAINS SHALL BE 1.8m.
- ALL HYDRANTS SHALL BE CONSTRUCTED ACCORDING TO T-1105.01. HYDRANT LEADS SHALL BE MINIMUM DR 18 CLASS 235 (AWWA) C900-07 OR PRESSURE CLASS 235 AWWA C909-09. ALL SERVICE CONNECTIONS SHALL BE CONSTRUCTED ACCORDING TO T-1104.01, T-1104.02-1, T-1104.02-3, T-1105.02-1 AND
- SINGLE WATER SERVICE CONNECTIONS SHALL BE A MINIMUM OF 19mm DIA., TYPE 'K' SOFT COPPER ACCORDING TO T-1104.01.
- WHEN SERVICE LENGTH EXCEEDS 30m, THE DIAMETER SHALL BE 25mm DIA. 8. ALL CURB AND VALVE BOXES TO BE LOCATED AT STREET LINE. MECHANICAL THRUST RESTRAINTS SHALL BE INSTALLED AT ALL FITTINGS, BENDS, TEES, CROSSES, REDUCERS AND VALVES FOR
- ALL WATERMAIN SIZES. MECHANICAL RESTRAINTS AT JOINTS SHALL BE INSTALLED AT EVER PIPE JOINT 6.1m OF EITHER SIDE OF THE VALVE FOR WATERMAINS 100mm DIAMETER OR LARGER. ALL TEES, PLUGS, HORIZONTAL, VERTICAL BENDS, REDUCERS AND HYDRANTS TO HAVE CONCRETE THRUST BLOCKS ACCORDING
- TO T-1103.01 AND T-1103.020. 11. WATERMAINS MUST FOLLOW THE ONTARIO MINISTRY OF THE ENVIRONMENT PROCEDURE F-6-1 THAT GOVERN THE SEPARATION
- OF SEWERS AND WATERMAINS. A MINIMUM VERTICAL CLEARANCE OF 0.30m WHEN CROSSING OVER AND 0.5m WHEN CROSSING UNDER SEWERS AND ALL OTHER UTILITIES IS REQUIRES. A 2.5m HORIZONTAL SEPARATION WITH SEWERS MUST BE MAINTAINED. 12. ALL VALVES LESS THAN 400mm WILL BE IN A VALVE AND BOX ACCORDING TO T-1101.02-2. ALL VALVES 400mm AND
- LARGER SHALL BE A CHAMBER. 13. SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL METALLIC PIPES AND APPURTENANCES, WATER SERVICES AND FITTINGS ACCORDING TO T-1106.04, T-1106.05, T-1106.06 AND TS 7.22.
- 14. TRACER WIRE INSTALLATION SHALL BE ACCORDING TO TS 7.40 HYDROSTATIC PRESSURE TEST AND LEAKAGE TESTING OF THE WATERMAIN SHALL BE ACCORDING TO TS 441. 6. THE NEW WATERMAIN SHALL BE ISOLATED ACCORDING TO T-1104.03-3 OR T-1104.03-4 UNTIL BACTERIOLOGICAL TESTS ARE SATISFACTORILY COMPLETED.
- 17. PROVISIONS FOR FLUSHING THE WATERMAIN PRIOR TO TESTING AND SO FORTH MUST BE PROVIDED WITH AT LEAST A 50mm OUTLET ON 100mm AND LARGER LINES ACCORDING TO T-1104.03-1. COPPER WATER SERVICES SHALL HAVE FLUSHING POINTS AT THE END, THE SAME SIZE AS THE LINE. ON FIRE LINES, FLUSHING OUTLET TO BE 50mm DIAMETER MINIMUM OR A
- 18. DISINFECTION OF THE WATERMAIN SHALL BE ACCORDING TO TS 7.30 AND SHALL INCLUDE ALL NEW WATER SERVICES 100mm
- 19. TORONTO WATER REQUIRES THAT THE NEW DISTRIBUTION SYSTEM REMAIN ISOLATED UNTIL SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE RECEIVED. ECS CONTRACT ADMINISTRATOR SHALL NOTIFY TORONTO WATER WHEN SAMPLE RESULTS HAVE
- PASSED IN ORDER TO PROCEED WITH REMOVAL OF THE BLOW-OFF AND BACK FILLING OF THE ACCESS PIT. 20. AFTER SATISFACTORY DISINFECTION OF THE NEW WATERMAIN IS ACHIEVED, PERMANENT CONNECTIONS TO THE EXISTING
- WATERMAIN(S) WITH A FILTER PIECE SHALL BE MADE ACCORDING TO TS 7.70. CITY IN-SERVICE WATER VALVES, CURB STOPS, FIRE HYDRANTS CAN ONLY BE OPERATED BY TORONTO WATER STAFF. ALL NEW WATERMAINS SHALL BE INSULATED WHERE THE COVER IS LESS THAN 1.65m ACCORDING TO T-708.01-4. THE CONTRACTOR SHALL CONNECT OR RECONNECT ALL STRAY CURRENT DRAINAGE CABLES CONNECTED TO THE TTC
- 24. ALL WET TAPS PERFORMED ON CITY WATERMAINS MUST BE PERFORMED BY, OR UNDER THE SUPERVISION OF, A CERTIFIED OPERATOR IN ACCORDANCE WITH ONTARIO REGULATION 128/04.

# WATERMAIN - FILL AREAS:

- 1. PIPES ARE NOT TO BE LAID ON FILL UNTIL THE FIELD DENSITY TEST REPORTS HAVE BEEN SUBMITTED AND APPROVED BY THE
- FILL TO BE PLACED TO A MINIMUM OF 600mm ABOVE THE WATERMAIN GRADES AND TO 3 METERS MINIMUM ON EACH SIDE PRIOR TO WATERMAIN LAYING COMPACTED TO A MINIMUM OF 100 PERCENT STANDARD PROCTOR DENSITY IN 300mm LIFTS.
- SOIL DENSITY TESTS SHALL BE TAKEN ALONG CENTRELINE OF THE WATERMAIN AND LINES 1.5 METRES ON EITHER SIDE OF SAME AT A MAXIMUM INTERVAL OF 30 METERS. TESTS TO BE TAKEN AT EACH 600mm LIFT. ALL HYDRANTS, TEES, VALVES, BENDS, PLUGS AND EACH PIPE JOINT ARE TO BE MECHANICALLY RESTRAINED.

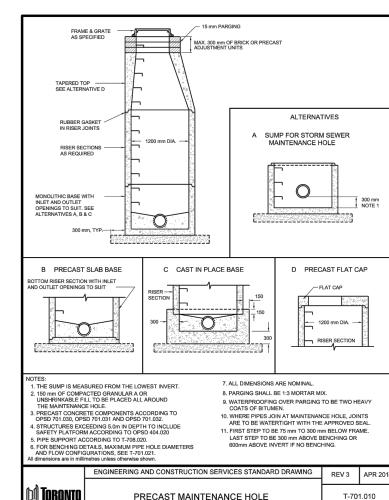
. PIPE JOINT DEFLECTIONS ARE NOT ALLOWED.

### SANITARY AND STORM SEWERS:

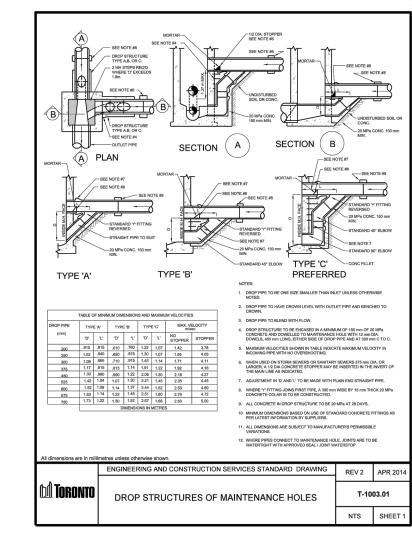
1820 MATERIAL SPECIFICATION.

AND COVER SHALL BE ACCORDING TO OPSD 400.070.

- ALL EXISTING SEWERS ARE TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION, INCLUDING SEWER INVERTS, MATERIAL, AND SIZE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. MAINLINE PVC PIPE SHALL BE DR 35.
- ALL SANITARY SEWER PIPES SMALLER THAN 300mm SHALL BE PVC AND HAVE SMOOTH INTERIOR AND EXTERIOR WALL AND CONFORM TO OPSS 1841 MATERIAL SPECIFICATION. ALL OTHER SIZED SANITARY PIPES SHALL BE COMPOSED OF REINFORCED CONCRETE AND COMPLY WITH OPSS 1820 MATERIAL SPECIFICATION. ALL STORM SEWER GREATER THAN 375mm SHALL BE STEEL REINFORCED CONCRETE AND SHALL CONFORM TO OPSS
- SANITARY SERVICE CONNECTIONS SHALL BE SINGLE, 150mm DIAMETER MINIMUM, PVC DR 28 INSTALLED AT 2 PERCENT AND THE COLOUR SHALL BE GREEN, FOR SINGLE RESIDENTIAL DWELLINGS. STORM SERVICE CONNECTION PIPE SHALL BE PVC DR 28, CSA B182.2-06 CERTIFIED, AND ASTM D3034-04A.
  EMBEDMENT MATERIAL FOR FLEXIBLE PIPE SHALL BE ACCORDING TO OPSD 802.010 AND USING GRANULAR A NATIVE OR GRANULAR A RCM ACCORDING TO TS 1010 AND COMPACTED TO MINIMUM 98% OF MAXIMUM DRY DENSITY. BEDDING FOR RIGID PIPE SHALL BE CLASS B BEDDING MATERIAL ACCORDING TO OPSD 802.031 AND USING GRANULAR
- A NATIVE OR GRANULAR A RCM BEDDING MATERIAL ACCORDING TO TS 1010 AND COMPACTED TO A MINIMUM OF 98% OF MAXIMUM DRY DENSITY. 9. ULTRA-RIB PIPE IS NOT PERMITTED WITHIN THE MUNICIPAL RIGHT-OF-WAY. MAINTENANCE HOLES SHALL BE ACCORDING TO T-701.010 (1200mm), T-701.011 (1500mm), T-701.012-1 (1800m)
- OR T-701.013 (2400mm). FRAME AND COVER SHALL BE ACCORDING TO OPSD 401.010 TYPE A CLOSED (SANITARY AND STORM) MAINTENANCE HOLE CHAMBER OPENING MUST BE LOCATED ON THE UPSTREAM SIDE OF THE MAINTENANCE HOLE. BENCHING DETAILS SHALL BE ACCORDING TO T-701.021 OR AS SHOWN ON THE DRAWINGS. DROP STURCTURES SHALL BE ACCORDING TO T-1003.01 (EXTERNAL) AND T-1003.01-2 (INTERNAL).
- SANITARY MAINTENANCE HOLES SHALL HAVE WATERTIGHT FRAMES AND COVERS IN PONDING AREA ACCORDING TO REINFORCED CONCRETE PIPE SHALL BE MINIMUM 65-D. HEIGHT OF FILL TO BE VERIFIED USING OPSD TABLE 807.010 16. NON-REINFORCED CONCRETE PIPE 150mm TO 250mm SHALL BE CLASS 3. HEIGHT OF FILL TO BE VERIFIED USING 17. SINGLE CATCHBASINS SHALL BE ACCORDING TO T-705.010 COMPLETE WITH GOSS TRAP, WHERE SPECIFIED. FRAME
- DOUBLE CATCHBASINS SHALL BE ACCORDING TO T-705.020 COMPLETED WITH GOSS TRAP, WHERE SPECIFIED. CATCHBASIN LEADS TO BE 250mm PVC DR 35 FOR SINGLE CATCHBASINS AND 300mm PVC DR 35 FOR DOUBLE 20. CONNECTION DETAIL FOR SEWER PIPE AT CATCHBASINS AND MAINTENANCE HOLES SHALL BE ACCORDING TO STORM SERVICE CONNECTION PIPE SHALL BE PVC SDR-28, CSA B182.2-06 CERTIFIED, AND ASTM D3034-04A. 22. FOR SERVICE CONNECTIONS ON EXISTING SEWERS, THE SEWER FLOW MUST BE MAINTAINED AT ALL TIMES. SEWER CONNECTIONS MUST BE CONNECTED TO THE MAIN SEWER BY MEANS OF A SADDLE, WHERE APPLICABLE. THE
- ECTION WILL TERMINATE AT THE PROPERTY LINE AND MUST BE PROPERLY PLUGGED. THE OPENING FOR THE SADDLE ON THE MAIN SEWER MUST BE MADE BY A CORE DRILL ONLY. THE DIAMETER OF THE CORE MUST NOT EXCEED THE OUTSIDE DIAMETER OF THE SADDLE BRANCH INSERT BY 25mm. WHERE CORE DRILLING IS NOT POSSIBLE, THE CONTRACTOR MUST CONNECT TO THE MAIN SEWER BY APPROPRIATE MEANS, APPROVED BY THE CITY. SEWER CONNECTIONS MUST BE LAID ON SOLID GROUND AND MUST HAVE A MINIMUM OF 75mm OF CLASS B BEDDING.



1200 mm DIAMETER



WIDTH VARIES

ONCRETE -

50 mm ASPHALTIC CONCRETE SURFACE HL-1 OR HL-3 (OR AS SPECIFIED ON PLAN)

150 mm OR 200 mm CONCRETE (AS SPECIFIED ON

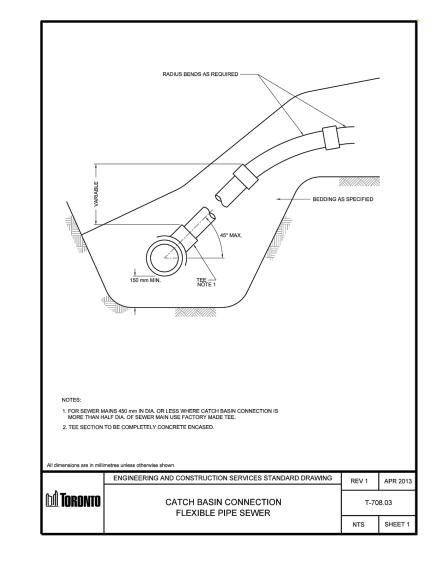
TYPICAL COMPOSITE PAVEMENT SECTION

COMPOSITE PAVEMENT CONSTRUCTION

2. PAVEMENT THICKNESS SHALL BE ACCORDING TO CITY OF TORONTO PAVEMENT STRUCTURAL DESIGN MATRIX TABLE AS SHOWN ABOVE.

3. CONTRACTION JOINTS SHALL BE ACCORDING TO T-216.02-4.

PAVEMENT THICKNESS



FOR USE WITH RIGID PAVEMENT

FOR USE WITH FLEXIBLE PAVEMENT

CONCRETE CURB AND GUTTER

T-600.05-1

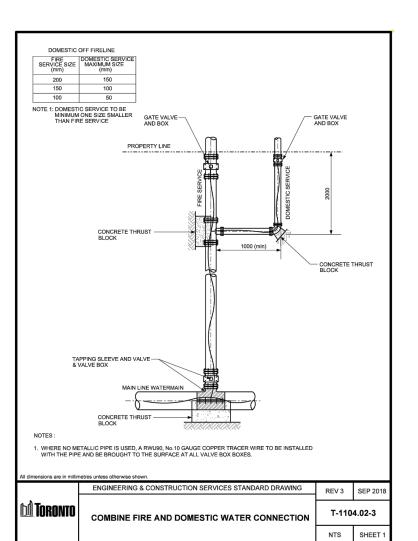
NTS SHEE

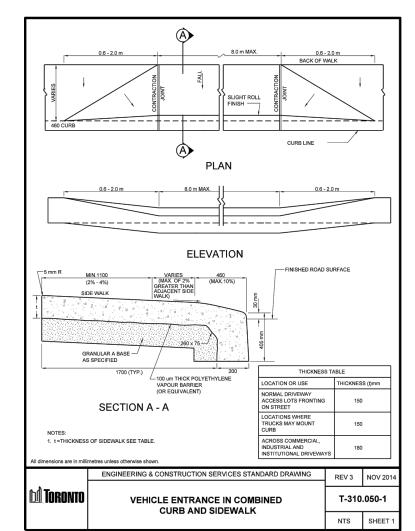
EXPANSION/CONTRACTION JOINTS SHALL BE SPACED 6 m APART OR COINCIDE
 WITH JOINTS IN ADJACENT SIDEWALK AND CONCRETE ROAD BASE

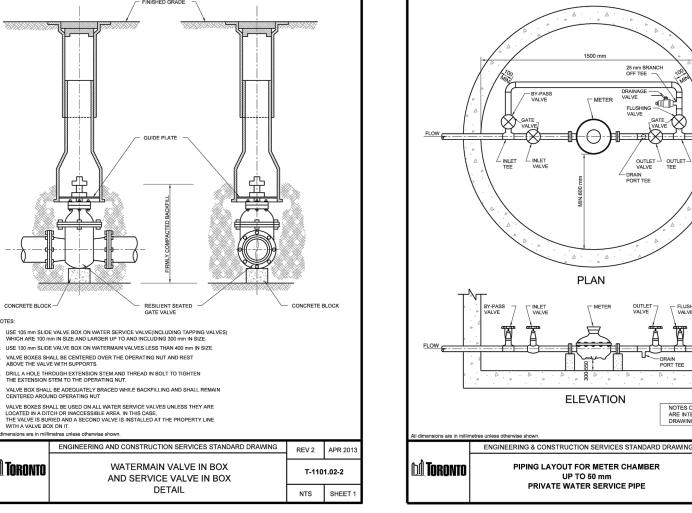
5. 2-15 M REINFORCING BARS FOR INDUSTRIAL DRIVEWAYS, 50 mm CONCRETE COVER,

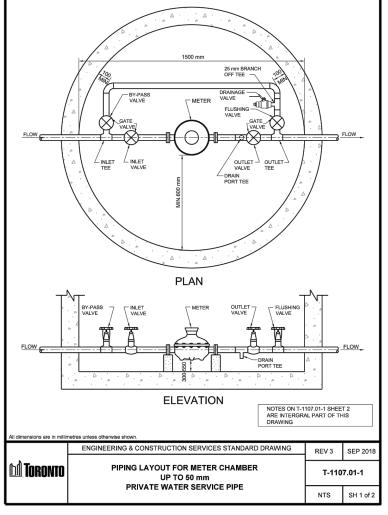
t=130 mm, 150 mm OR 180 mm TO SUIT CONCRETE SIDEWALK, CONCRETE BOULEVARD OR CONCRETE DRIVEWAY MEASURED FROM THE TOP OF CURB DEPRESSION.

3. 10 mm FOR SIDEWALK RAMPS AND DISABILITY ACCESSES.







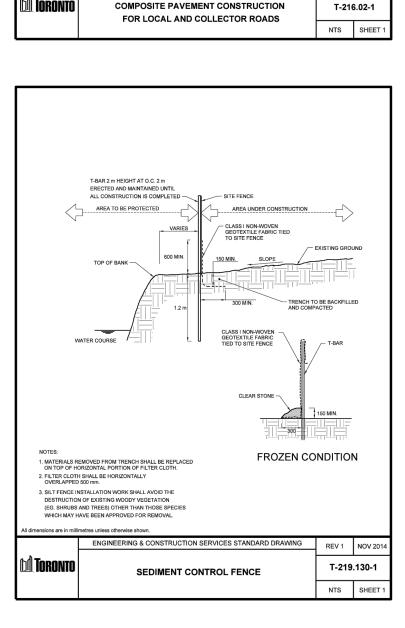


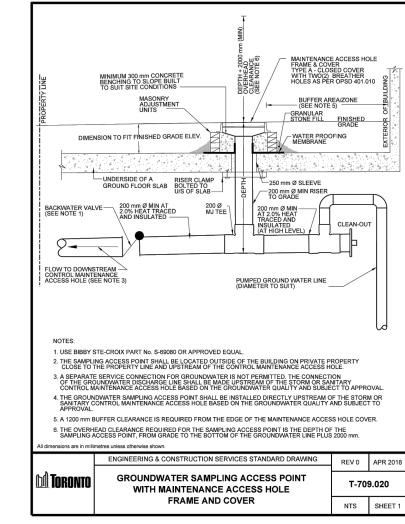
ALTERNATE CURB FACE WHERE PAVEMENT NOT BEING RECONSTRUCTED

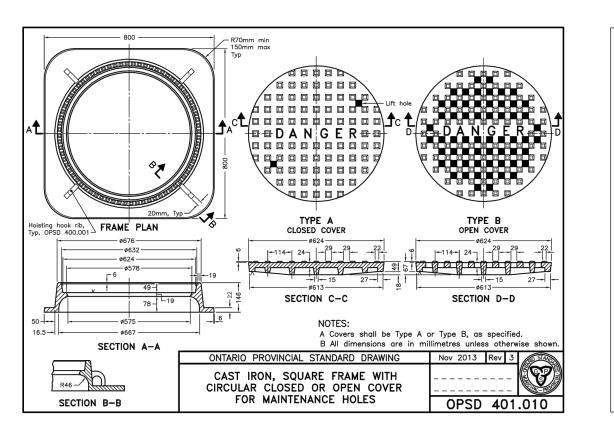
**COMBINED CONCRETE CURB** 

AND SIDEWALK

— 150-250 mm CONCRETE ROAD BASE







(SEE NOTE 1)

150 mm CONCRETE SIDEWALK

100 um THICK POLYETHYLENE VAPOUR BARRIER (OR EQUIVALENT) SECTION A - A

. CONCRETE PAVER TYPE, SIZE, COLOUR, LAYING PATTERN AND CURB TYPE AS SPECIFIED.

. WHEN SIDEWALK WIDTH IS LESS THAN 2.0 m REPLACE EXPANSION JOINT WITH TOOLED JOINT AND PLACE CURB, BASE AND WALK MONOLITHICALLY.

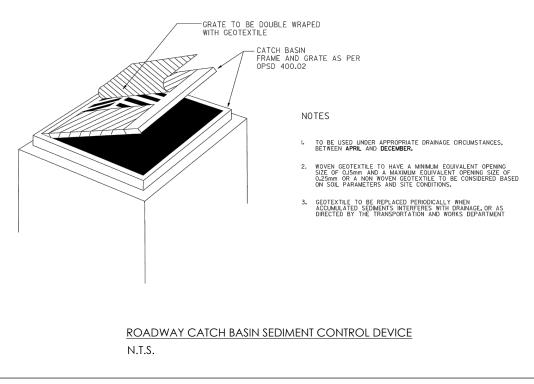
\_\_ 150 mm GRANULAR A BASE

CONCRETE CURB

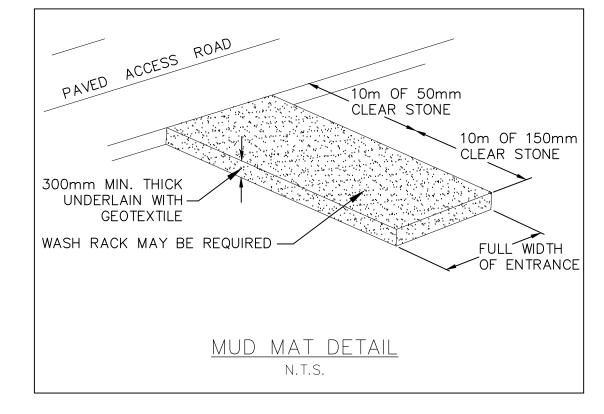
SIDEWALK PAVED WITH

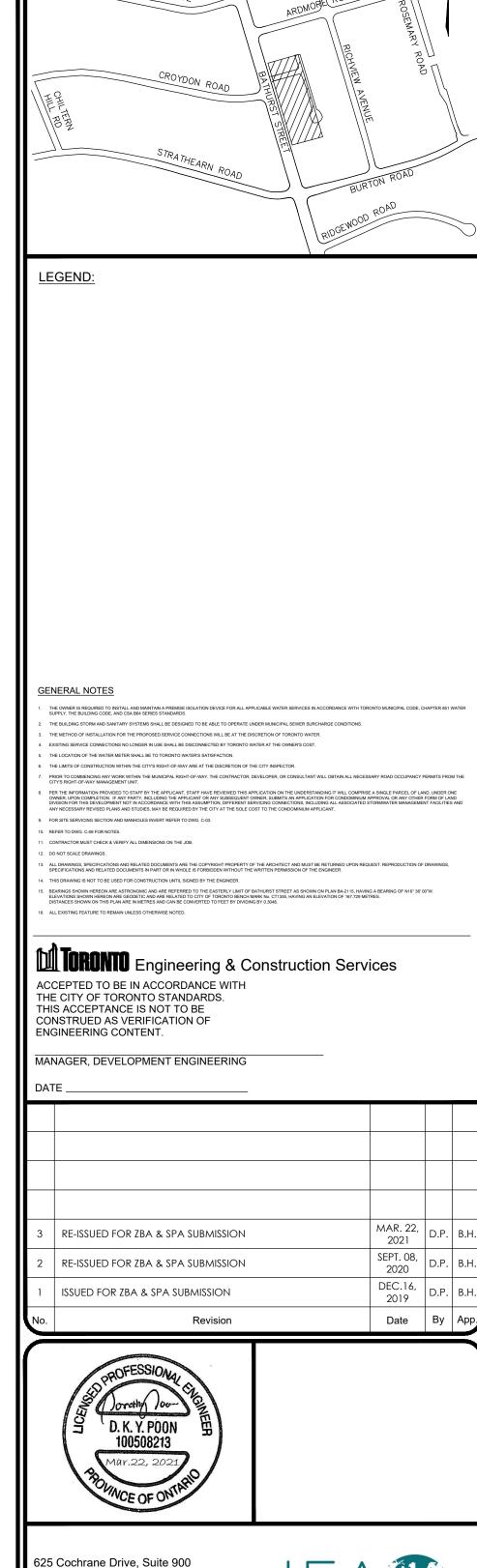
UNIT PAVER BAND AT CURB

T-310.020-2



T-310.010-4





KEY PLAN (NOT TO SCALE)



STARLIGHT INVESTMENTS

1637-1645 BATHURST STREET CITY OF TORONTO

Markham, Ontario

L3R 9R9, Canada Tel: (905)470-0015

Owner/Client:

Fax: (905)470-0030

**GENERAL NOTES & DETAILS** 

J.W. N.T.S. Date: DECEMBER 05, 2019 Drawing No.: C-06 roiect No. 20284