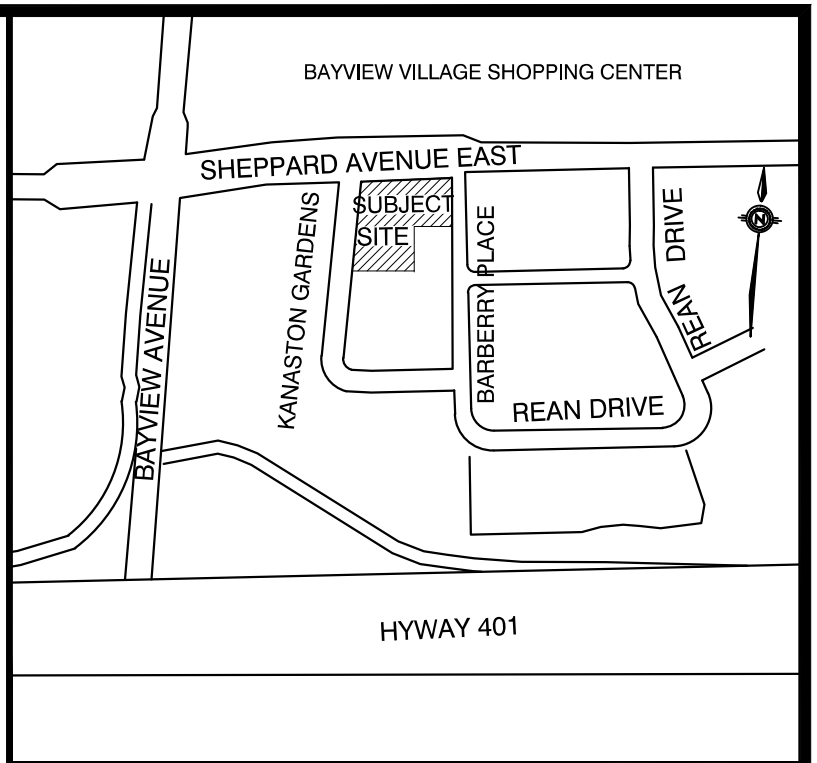
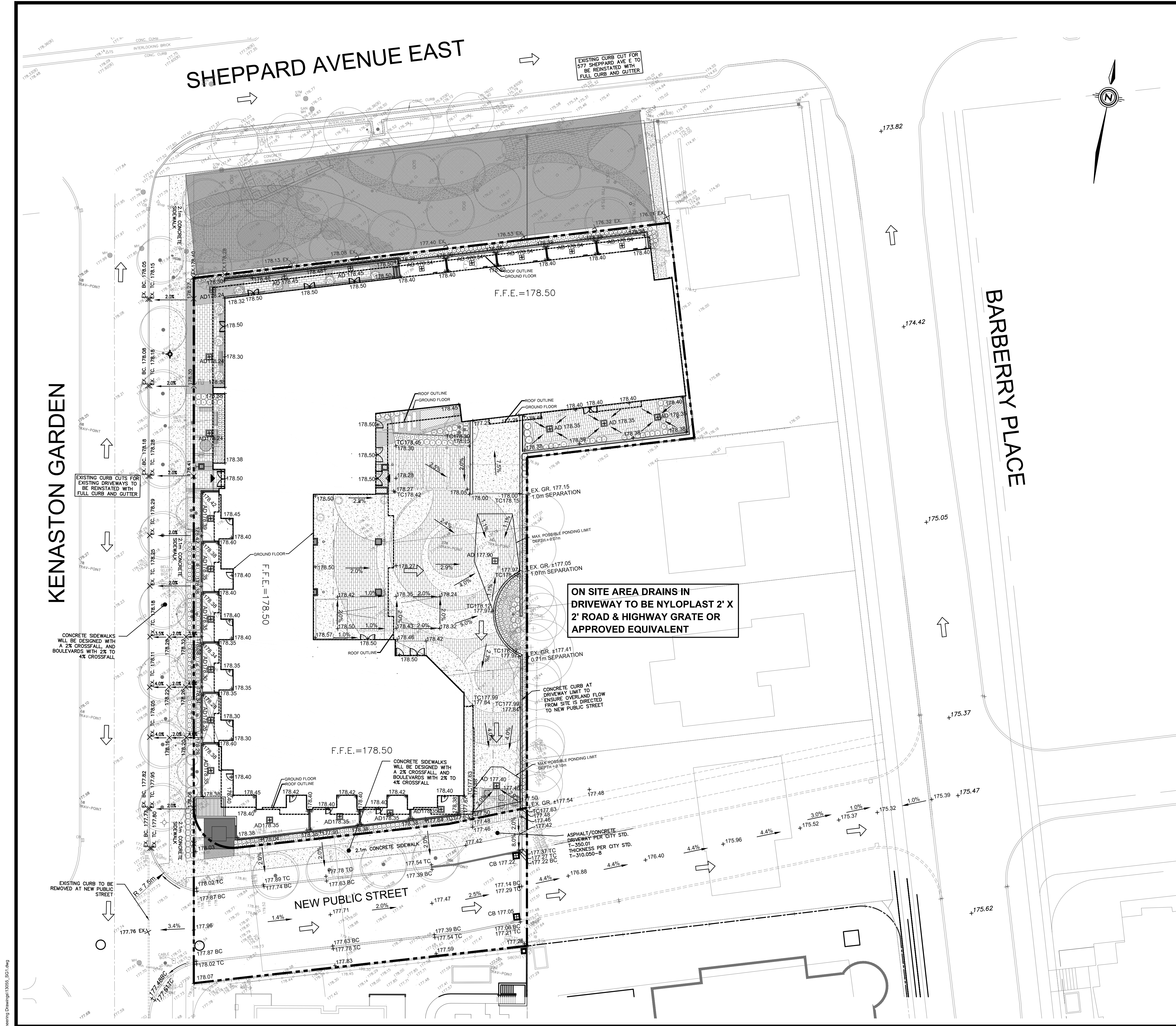


APPENDIX E



KEY PLAN N.T.S.

THE STORMWATER MANAGEMENT SYSTEM HAS BEEN DESIGNED TO CONTAIN THE 100 YEAR STORM EVENT ON SITE WITHOUT OVERLAND FLOW TO ADJACENT PROPERTIES. THE PROPOSED GRADING WILL NOT NEGATIVELY IMPACT THE GRADING OR STORM DRAINAGE OF ADJACENT PROPERTIES

ALL CONCRETE SIDEWALK WITHIN KENASTON GARDENS AND NEW PUBLIC ROAD RIGHT-OF-WAY TO HAVE 2.0% CROSS FALL. ALL LANDSCAPED BOULEVARDS WITHIN CITY'S RIGHT-OF-WAY TO BE GRADED BETWEEN 2.0% TO 4.0%

THE ASPHALT/CONCRETE THICKNESS ON PROPOSED PRIVATE DRIVEWAY ENTRANCES ON THE MUNICIPAL DRIVEWAY PORTION WILL BE CONSIDERED AS PER CITY STANDARD T-310.050.-8.

EXISTING CURBS AT DRIVEWAY ENTRANCES ARE TO BE REMOVED AND REPLACED WITH CURB AND GUTTER AS PER CITY STD T-600.05-1. ENTRANCE TO BE CONSTRUCTED AS PER CITY STD T-350.01

LEGEND

- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED FUTURE ELEVATION
- EXISTING VALVE & CHAMBER
- EXISTING HYDRANT
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCHBASIN
- SANITARY MANHOLE
- STORM MANHOLE
- AREA DRAIN
- CATCHBASIN
- VALVE AND BOX
- HYDRANT AND VALVE
- PROPERTY LINE
- LIMIT OF UNDERGROUND STRUCTURE
- OVERLAND FLOW

CLIENT: CHESTNUT HILL DEVELOPMENTS

CONSULTANT: **MMM GROUP**

100 Commerce Valley Dr. West, Thornhill, ON Canada L3T 0A1
t: 905.882.1100 f: 905.882.0055 www.mmm.ca

LICENSED PROFESSIONAL ENGINEER
R. G. KNIGHT
PROVINCE OF ONTARIO

| No. | DATE | REVISIONS | INITIAL | SIGNED |
|-----|----------|-------------------------------------|---------|--------|
| 8 | FEB25/16 | RE-ISSUED FOR SITE PLAN APPLICATION | R.G.K. | |
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| 1 | AUG12/13 | ISSUED FOR ZONING | R.G.K. | |

Toronto ENGINEERING AND CONSTRUCTION SERVICES DIVISION

ACCEPTED TO BE IN ACCORDANCE WITH THE CITY OF TORONTO STANDARDS. THIS ACCEPTANCE IS NOT TO BE CONSTRUED AS VERIFICATION OF ENGINEERING CONTENT.

CRAIG A. KELLY, P.ENG., MANAGER, DEVELOPMENT ENGINEERING - NORTH YORK DISTRICT

DATE: _____

KENASTON GARDENS RESIDENTIAL DEVELOPMENT

| | | | | | | | |
|---------|-------------|-----------|-------|-----------------|--------------|--------------|----------|
| DESIGN: | A.K. | DRAFTING: | 1:250 | CHECK: | P.D. | CONTRACT No. | 10-13055 |
| SCALE: | 1:250 | | | DRAWING NUMBER: | GRADING PLAN | | |
| DATE: | AUGUST 2013 | | | | | SG1 | |

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PLOT: 2013-07-16 14:55:00

FILENAME: X:\01\10\1005 - Kenaston Gardens\K&E\Engineering Drawings\1005_ESC.dwg
AUTOCAD: 10-25-2015 10:16:45
DRAWN: JMM

CLIENT:

CHESTNUT HILL DEVELOPMENTS

CONSULTANT:

MMM GROUP

100 Commerce Valley Dr. West, Thornhill, ON Canada L3T 0A1
t: 905.882.1100 f: 905.882.0055 www.mmm.ca



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CRAIG A. KELLY, P.ENG., MANAGER,
DEVELOPMENT ENGINEERING - NORTH YORK DISTRICT
DATE: _____

KENASTON GARDENS
RESIDENTIAL DEVELOPMENT

DESIGN: A.K.

DRAFTING: 1:250

CHECK: P.D.

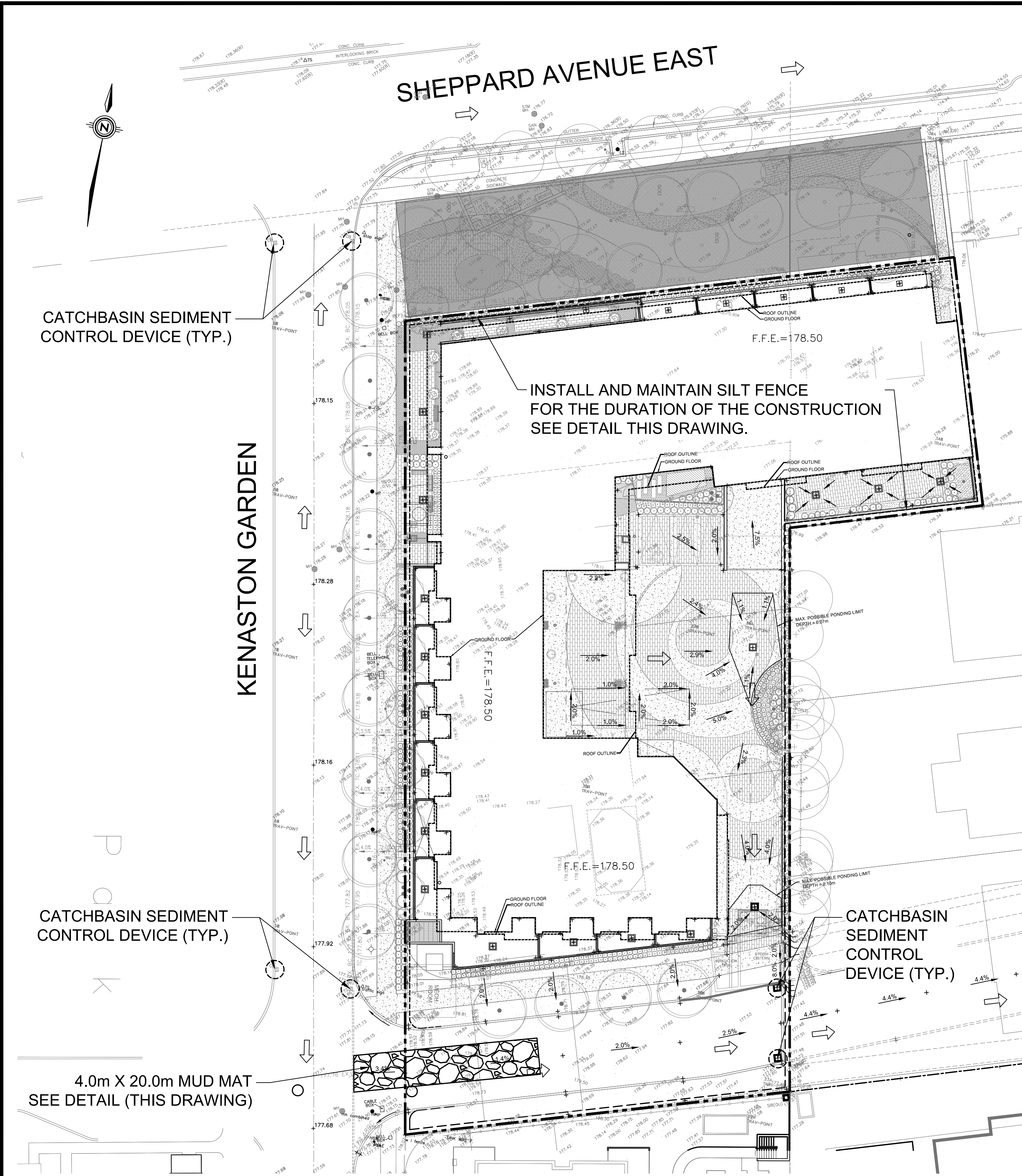
CONTRACT No. 10-13055

SCALE: 1:250

DRAWING NUMBER: EROSION AND SEDIMENT CONTROL PLAN

ESC1

DATE: DECEMBER 2015



EROSION AND SEDIMENT CONTROL GENERAL NOTES

The following general notes are for Removals and Erosion and Sediment Control works only. Additional general notes are to be referenced from the Servicing and Grading Drawing. All Notes and General Notes shall be read in conjunction with the Contract Specifications.

1 GENERAL

- Construction shall be in conformance with the EPA 832/R-92-005, Chapter 3, and the "Ontario Occupational Health and Safety Act and Regulations for Construction Projects".
- All dimensions are in metres or millimetres.
- The position of existing poles, overhead lines, conduits, watermain, sewers and other underground or aboveground utilities, structures and appurtenances is not necessarily shown on the drawings, and where shown, the accuracy of the position of such utilities is not guaranteed.
- Prior to construction, the contractor shall obtain all necessary utility stakeouts to verify the location of any Hydro, Bell, Cable TV or Gas utility lines, and where required, provide adequate protection of existing utility lines and plant. Before commencing construction, the contractor shall satisfy himself of the exact location of all existing utilities and structures, and assume all liability resulting from damage to them during the course of construction.
- The Contractor shall be responsible for maintaining positive surface drainage for the duration of the construction period.
- All geotechnical information, including borehole logs and engineered-fill specifications, are to be obtained from the Geotechnical Consultant.
- Construction shall not commence until all utility locations have been verified and all permits have been received.

2 SITE CONTROL MEASURES

- The contractor shall be responsible for the condition of the site at all times.
- If construction is interrupted and/or inactivity exceeds 30 days, stripped/bare areas will be stabilized by seeding.
- The development area for stripping and excavation is approximately 0.433ha.
- All erosion and sediment control measures including the sedimentation fencing, catchbasin control device, mud mat and other erosion control measures shall be installed prior to commencement of any earth moving.
- Contractor shall notify the Consultant 48 hours prior to the commencement of grading activities of construction.
- All roadside catchbasins to have sediment protection as per detail on this drawing. Sediment protection barrier to be maintained on a regular basis or to the satisfaction of the City of Toronto.
- All sediment removed from sediment traps shall be disposed off-site in locations acceptable to and in accordance with City regulations.
- Contractor shall be responsible for maintaining all erosion and sediment control devices in good working order at all times. The contractor shall inspect such devices at least once a week and after each rain fall event, and make all necessary repairs as required.
- Ongoing inspection, monitoring and maintenance of the siltation control fence shall be provided; relocation of the siltation control fence shall be undertaken during the course of construction when it is deemed necessary by the practitioner or when it is recommended by the environmental inspector.

3 TRAFFIC CONTROL AND MUD TRACKING

- Contractor to be responsible for all Traffic Control and Sinage. Contractor is required to adhere to all conditions set out by the City of Toronto Transportation Department.
- During all construction phases, mud tracking control, consisting of flushing and sweeping roads, is to be provided for all roads, as warranted, in accordance with the City of Toronto mud tracking control policy.
- All construction vehicles to enter and leave the site at approved locations only. All vehicles must travel over a vibratory mud mat when leaving the site.
- The Contractor is responsible for cleanup of mudtracking on a daily basis or on a more frequent basis if directed by the City or the Consultant.
- Contractor to limit construction activities within the Limits of Construction shown on the drawings. Contractor to restore all disturbed areas outside the working area to original conditions and to the satisfaction of the City of Toronto.
- If necessary, trucks shall be washed down before leaving the site.
- Contractor to conform to all City of Toronto Noise and Dust control standards and by-laws. The site must be wet down if necessary to control dust.

4 REMOVALS AND REINSTATEMENT

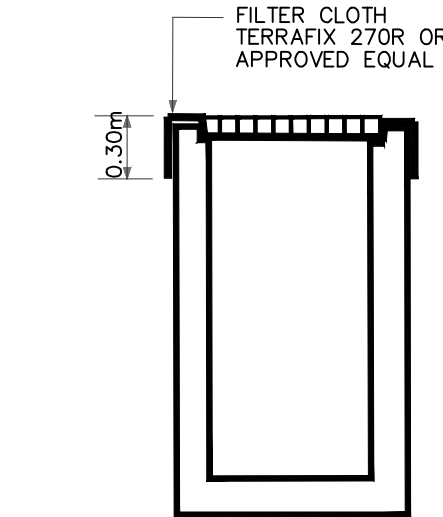
- All structures, surface treatments and materials removed from this site must be disposed of off-site meeting all regulations and requirements of the Ministry of the Environment and the city of Toronto.
- All site excavation and resulting drainage patterns shall not adversely affect adjacent lands.
- Any de-watering of excavations on this site must conform to the City of Toronto Sewer use by law.
- If any sewer or water services that are not identified on this plan are discovered on this site by the contractor, they shall notify the consultant immediately. If it is determined that the existing sewer or water service is abandoned or no longer required. The contractor shall remove the service and all associated structures to the limit of the property and dispose off-site. The existing service stub at the property line shall be plugged with a watertight plug. The Contractor shall then notify Toronto water of the abandoned service connection so that Toronto water can complete a formal disconnect of the municipal service connection.
- All surface features to remain such as asphalt, curbs and sidewalks that are disturbed, damaged or removed during the contractor activities shall be reinstated to the original condition.

5 CONSTRUCTION SEQUENCE

Initial sediment control installation.....TBD
Site excavating operations.....TBD
Building construction.....TBD
Final grading operations.....TBD

6 DECOMMISSIONING

- Contractor shall be responsible for removal of all erosion and sediment control devices and structures once the site has stabilized.

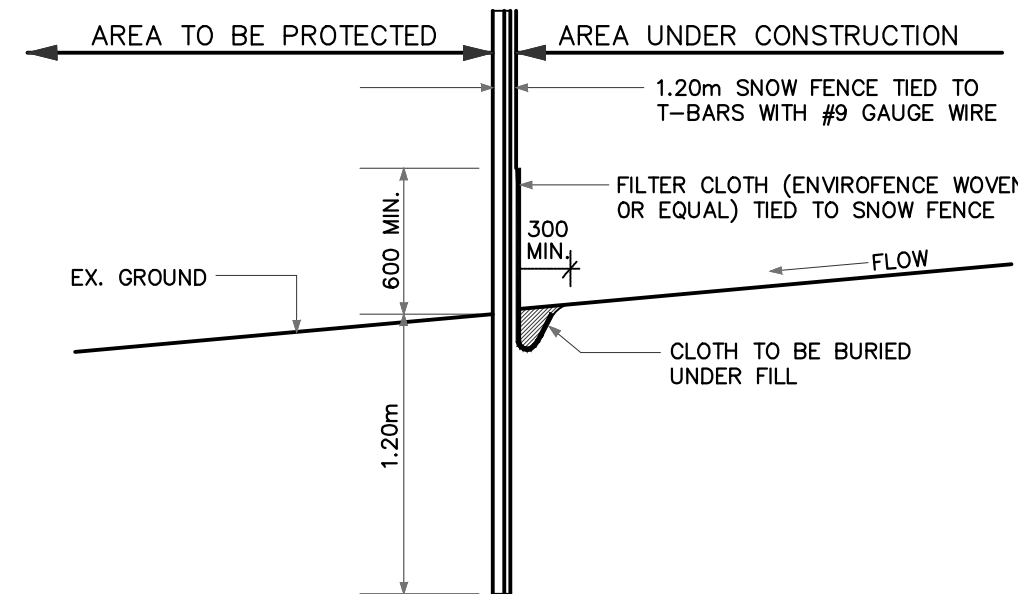


NOTE:

- Inspection of sediment control measures for all catchbasins should be carried out immediately after heavy rainfall and daily during prolonged rainfall events.

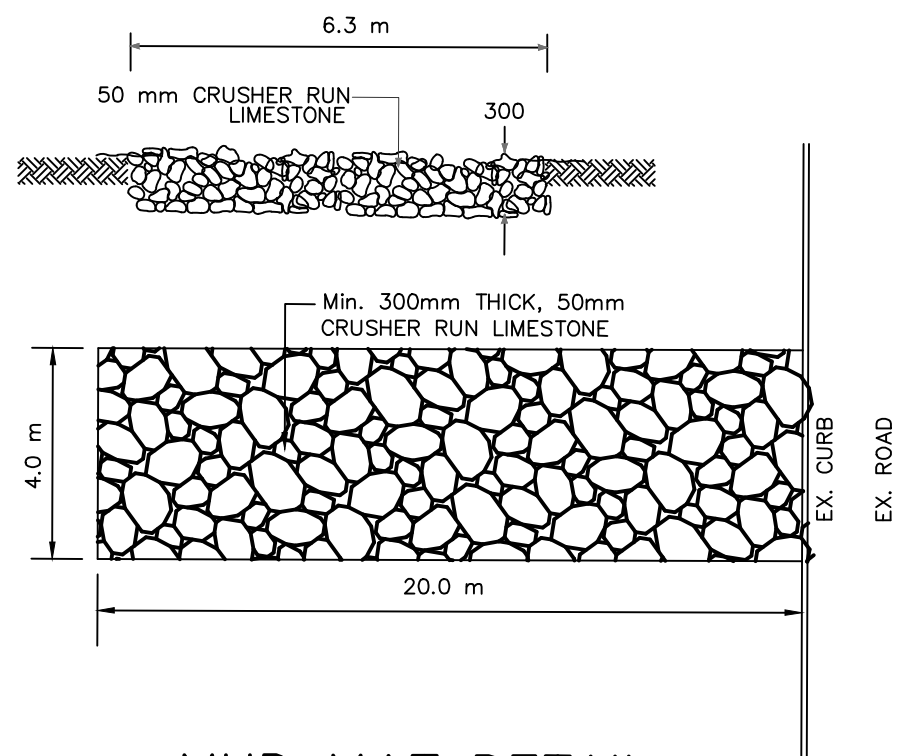
CATCHBASIN SEDIMENT CONTROL DEVICE

N.T.S.



SILTATION CONTROL FENCE

N.T.S.

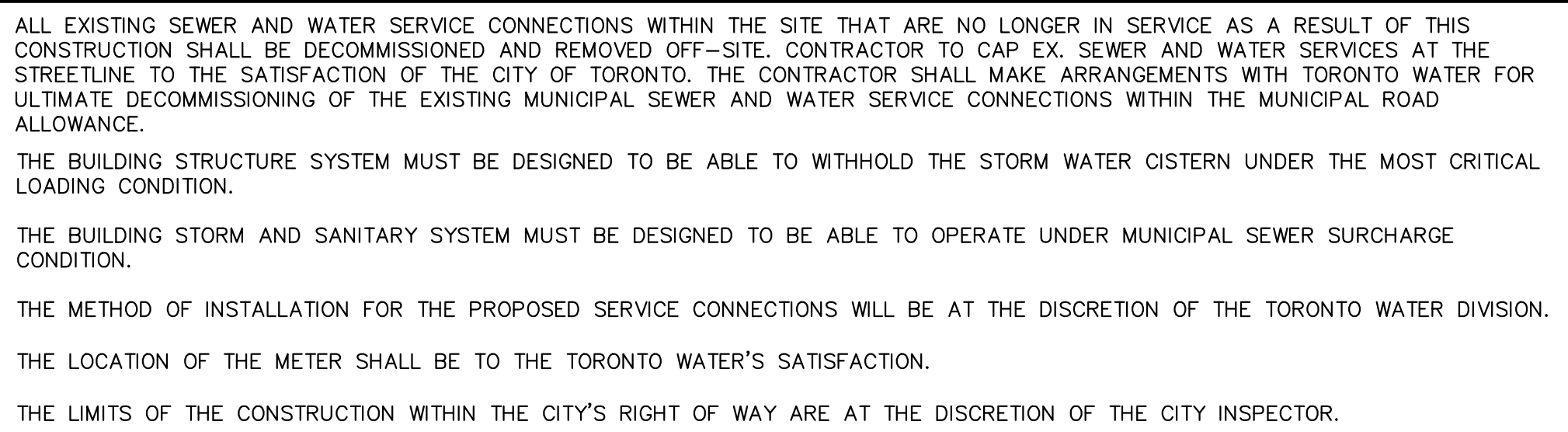


MUD MAT DETAIL

N.T.S.

LEGEND

- | | |
|---------------------------|---------------------------|
| EXISTING ELEVATION | PROPOSED ELEVATION |
| PROPOSED FUTURE ELEVATION | EXISTING VALVE & CHAMBER |
| EXISTING HYDRANT | EXISTING SANITARY MANHOLE |
| EXISTING STORM MANHOLE | EXISTING CATCH BASIN |
| SANITARY MANHOLE | STORM MANHOLE |
| AREA DRAIN | CATCH BASIN |
| VALVE AND BOX | HYDRANT AND VALVE |
| PROPERTY LINE | OVERLAND FLOW |
| SILTATION CONTROL FENCE | CONTROL BARRIER |
| MUD MAT | |

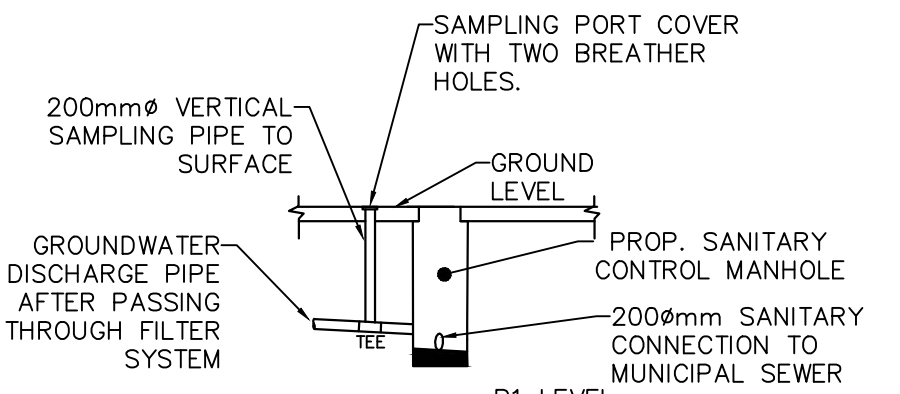
















NOTE 1:
THE BUILDING DRAINAGE SYSTEM TO
BE DESIGNED TO DRAIN ALL STORM
FLOWS UP TO THE 100 YEAR EVENT
WITH NO DISCHARGES OFF THE SITE.

NOTE 2:
THE OWNER IS REQUIRED TO INSTALL
AND MAINTAIN A PREMISE ISOLATION
DEVICE FOR ALL APPLICABLE WATER
SERVICES IN ACCORDANCE WITH
TORONTO MUNICIPAL CODE, CHAPTER
851 WATER SUPPLY

ASPHALT/CONCRETE THICKNESS ON PROPOSED DRIVEWAY ENTRANCES ON MUNICIPAL DRIVEWAY PORTION WILL BE CONSTRUCTED AS PER CITY STANDARD T-310.050-8.

THE STORMWATER MANAGEMENT SYSTEM HAS BEEN DESIGNED TO CONTAIN THE 100 YEAR STORM EVENT ON SITE WITHOUT OVERLAND FLOW TO ADJACENT PROPERTIES. THE PROPOSED GRADING WILL NOT NEGATIVELY IMPACT THE GRADING OR STORM DRAINAGE OF ADJACENT PROPERTIES

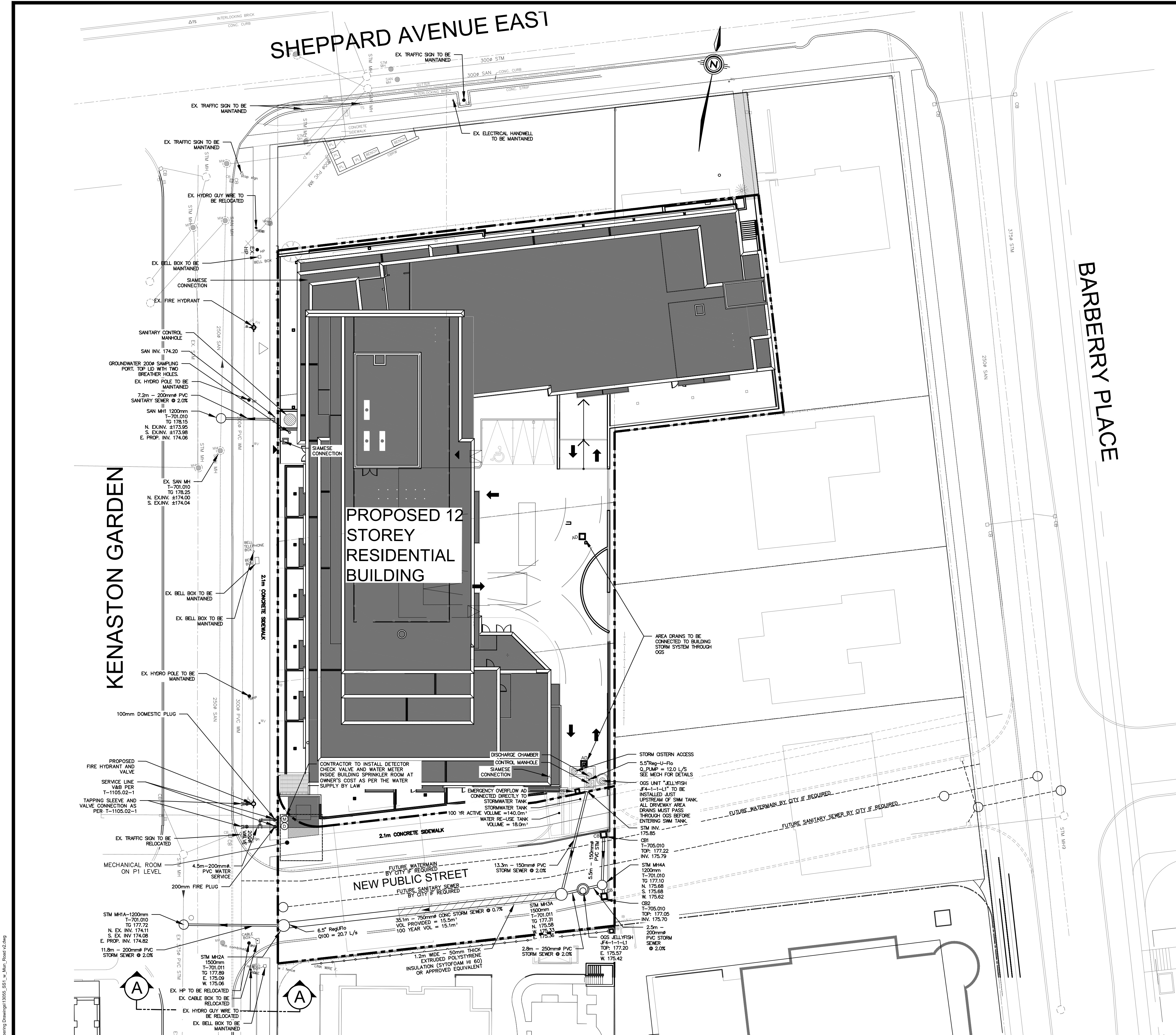


| LEGEND | |
|---------------------------------------------------------------------------------------|--------------------------------|
|  | EXISTING ELEVATION |
| 149.59 | PROPOSED ELEVATION |
|  | EXISTING VALVE & CHAMBER |
|  | EXISTING HYDRANT |
|  | EXISTING SANITARY MANHOLE |
|  | EXISTING STORM MANHOLE |
|  | EXISTING CATCHBASIN |
|  | SANITARY MANHOLE |
|  | STORM MANHOLE |
|  | AREA DRAIN |
|  | CATCHBASIN |
|  | VALVE AND BOX |
|  | HYDRANT AND VALVE |
|  | PROPERTY LINE |
|  | LIMIT OF UNDERGROUND STRUCTURE |

METRIC:
DISTANCES SHOWN ON THIS PLAN ARE IN
METERS AND CAN BE CONVERTED IN FEET BY
DIVIDING BY 0.3048

BENCHMARK
ELEVATIONS SHOWN HEREON ARE GEODETIC
AND ARE REFERRED TO CITY OF TORONTO
BENCHMARK No. 060049, HAVING AN
ELEVATION = 182.372 meters.

BEARING NOTE
BEARINGS ARE GRID BEARINGS AND
ARE REFERRED FROM THE HORIZONTAL
CONTROL MONUMENTS 02020020033
(N 4847559.731, E 314193.503) AND
02020020034 (N 4847503.253, E
313999.416).



CLIENT: CHESTNUT HILL DEVELOPMENTS

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ENGINEERING AND CONSTRUCTION
SERVICES DIVISION

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CRAIG A. KELLY, P.ENG., MANAGER,
DEVELOPMENT ENGINEERING – NORTH YORK DISTRICT

DATE:

KENASTON GARDENS
RESIDENTIAL DEVELOPMENT

| | | | | | | | |
|---------|-------------|-----------|-----------|--------------------|----------------|--------------|----------|
| DESIGN: | A.K. | DRAFTING: | 10/12 CAD | CHECK: | 1:250 | CONTRACT No. | 10-13055 |
| SCALE: | 1:250 | | | DRAWING NUMBER: | SITE SERVICING | | SS-1 |
| DATE: | AUGUST 2013 | | | | | | |

GENERAL NOTES

- ALL WORK TO CONFORM TO THE LATEST CITY OF TORONTO STANDARD DRAWINGS AND SPECIFICATIONS AS WELL AS THE LATEST ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
- ALL WORK TO BE COMPLETED IN ACCORDANCE WITH THE CURRENT "OCCUPATIONAL HEALTH AND SAFETY ACT". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THAT CONSTRUCTOR AS DEFINED IN THE ACT.
- ALL TEMPORARY TRAFFIC CONTROL AND SIGNAGE DURING THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT ONTARIO TRAFFIC MANUAL - BOOK 7 TEMPORARY FIELD CONDITIONS.
- ALL TRENCHES WITH EXISTING R.O.W SHALL BE BACKFILLED WITH UNSHRINKABLE FILL.
- THE CONTRACTOR SHALL RECTIFY ALL DISTURBED AREAS TO THE ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE EXECUTIVE DIRECTOR OF 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 SECTION. CONTACT 416-394-8422.
- UNLESS INDICATED OTHERWISE, ALL WORK WITHIN THE CITY RIGHT-OF-WAY SHALL BE UNDERTAKEN IN ACCORDANCE WITH CITY OF TORONTO DESIGN STANDARDS AND SPECIFICATION AND THE UNDERTAKING, ONTARIO PROVINCIAL STANDARDS MAY, SUBJECT TO THE APPROVAL OF THE CITY OF TORONTO, BE USED WHERE NO STANDARD OR SPECIFICATION IS NOTED.
- ANY DISCREPANCIES BETWEEN SITE CONDITIONS AND THE DRAWINGS MUST BE REPORTED TO THE CONSULTANT PRIOR TO COMMENCEMENT OF CONSTRUCTION AND APPROPRIATE ACTION TAKEN TO THE SATISFACTION OF THE CITY OF TORONTO.
- CONCRETE SIDEWALK TO BE COMPLETE WITH 150MM GRANULAR BASE AS OUTLINE IN CITY OF TORONTO SPECIFICATION T.S. 3.70 OR AS DIRECTED BY THE CITY INSPECTOR.
- NO PORTION OF THE WORK SHALL BE CARRIED OUT WITHOUT FIRST HAVING OBTAINED APPROVED CONSTRUCTION DRAWINGS, APPROVED PROJECT SCHEDULE(S), APPROVED TRAFFIC STAGING PLANS AND PERMITS FOR SUCH PORTION OF THE INFRASTRUCTURE WORK IN ACCORDANCE WITH THE PROVISIONS HEREOF AND GIVING 10 WORKING DAYS PRIOR WRITTEN NOTICE TO THE EXECUTIVE DIRECTOR OF TECHNICAL SERVICES THAT SUCH WORK IS TO BE CARRIED OUT WITH SUCH NOTICE TO SPECIFY THE ANTICIPATED DATE OF COMMENCEMENT OF THE WORK, A PRE-CONSTRUCTION COORDINATION MEETING WITH CITY STAFF IS TO BE HELD A MINIMUM OF 5 WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY OF THE WORK.
- THE REMOVAL OF TREES REQUIRES THE APPROVAL OF PARKS, FORESTRY & RECREATION DIVISION (CONTACT PETER DMYSTRASZ, SUPERVISOR URBAN FORESTRY, 416-944-8551 - CONTACT WILL DIFFER IN DIFFERENT PARTS OF THE CITY).
- ALL AREAS DISTURBED DURING CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. GRASSED AREAS SHALL BE PROVIDED WITH 100MM OF TOPSOIL AND SHALL BE SODDED AS PER T.S. 5.00 & T.S. 5.10.
- THE CONTRACTOR SHALL REFER TO THE ONTARIO TRAFFIC MANUAL BOOK 7, TEMPORARY CONDITIONS FOR TEMPORARY CONSTRUCTION SIGNAGE.
- CONTRACTOR SHALL VERIFY AND MATCH EXISTING PAVEMENT STRUCTURE IN DEPTH AND MATERIAL. ANY DISCREPANCIES SHALL BE REPORTED TO THE CONSULTANT PRIOR TO COMMENCEMENT OF CONSTRUCTION AND APPROPRIATE ACTION TAKEN TO THE SATISFACTION OF THE CITY OF TORONTO.
- ANY DAMAGE TO PROPERTY ADJACENT TO THE CONSTRUCTION SITE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL SURVEY POINTS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION, ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE LAYOUT SHALL BE REPORTED TO THE CONSULTANT AND THE CONSULTANT SHALL NOTIFY THE CITY OF THE NECESSARY CHANGES.

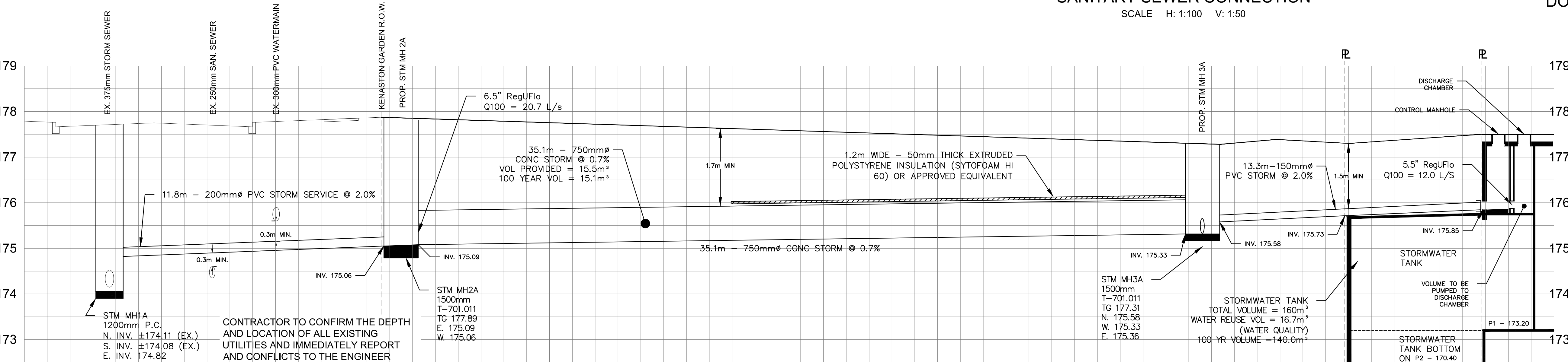
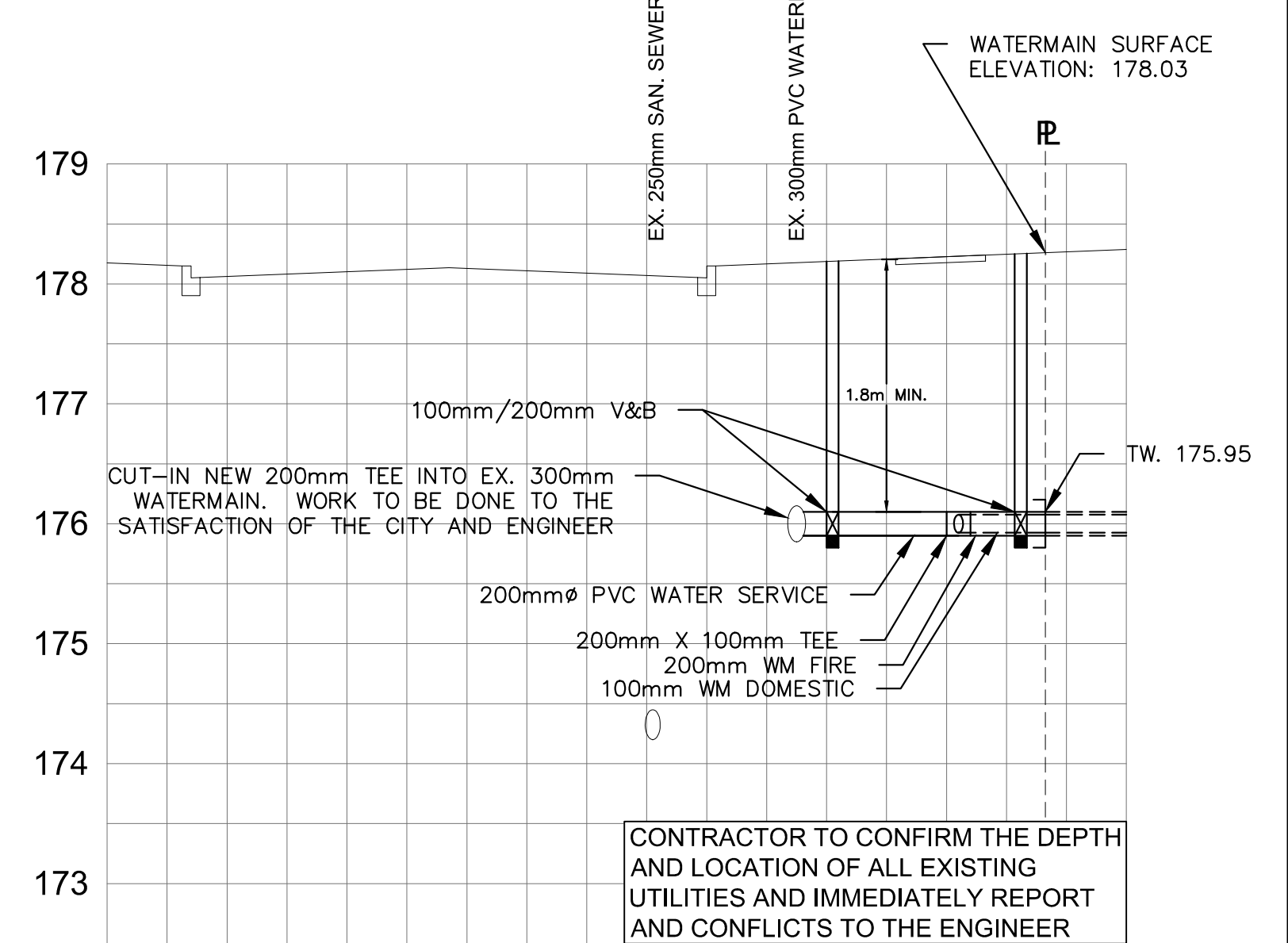
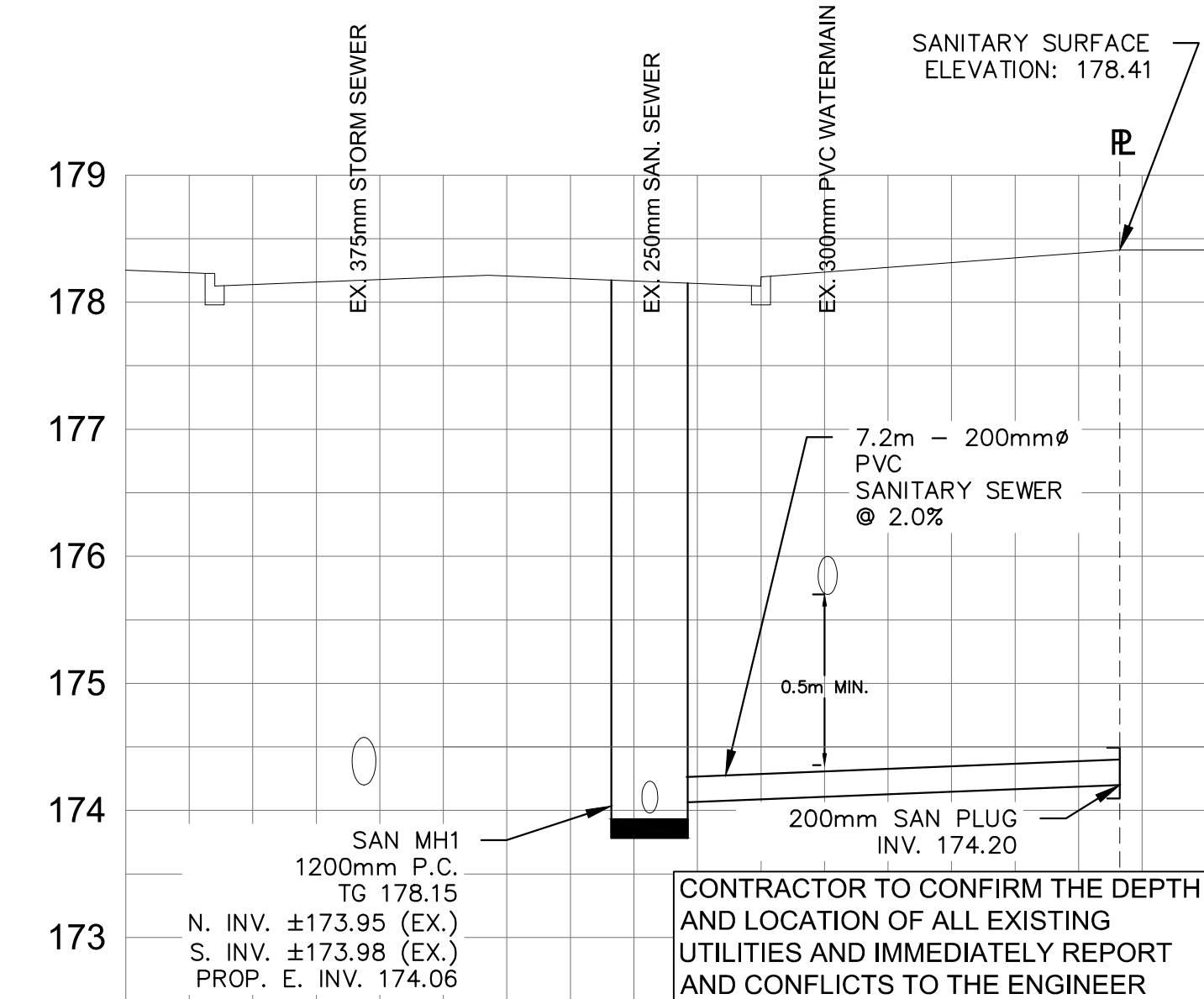
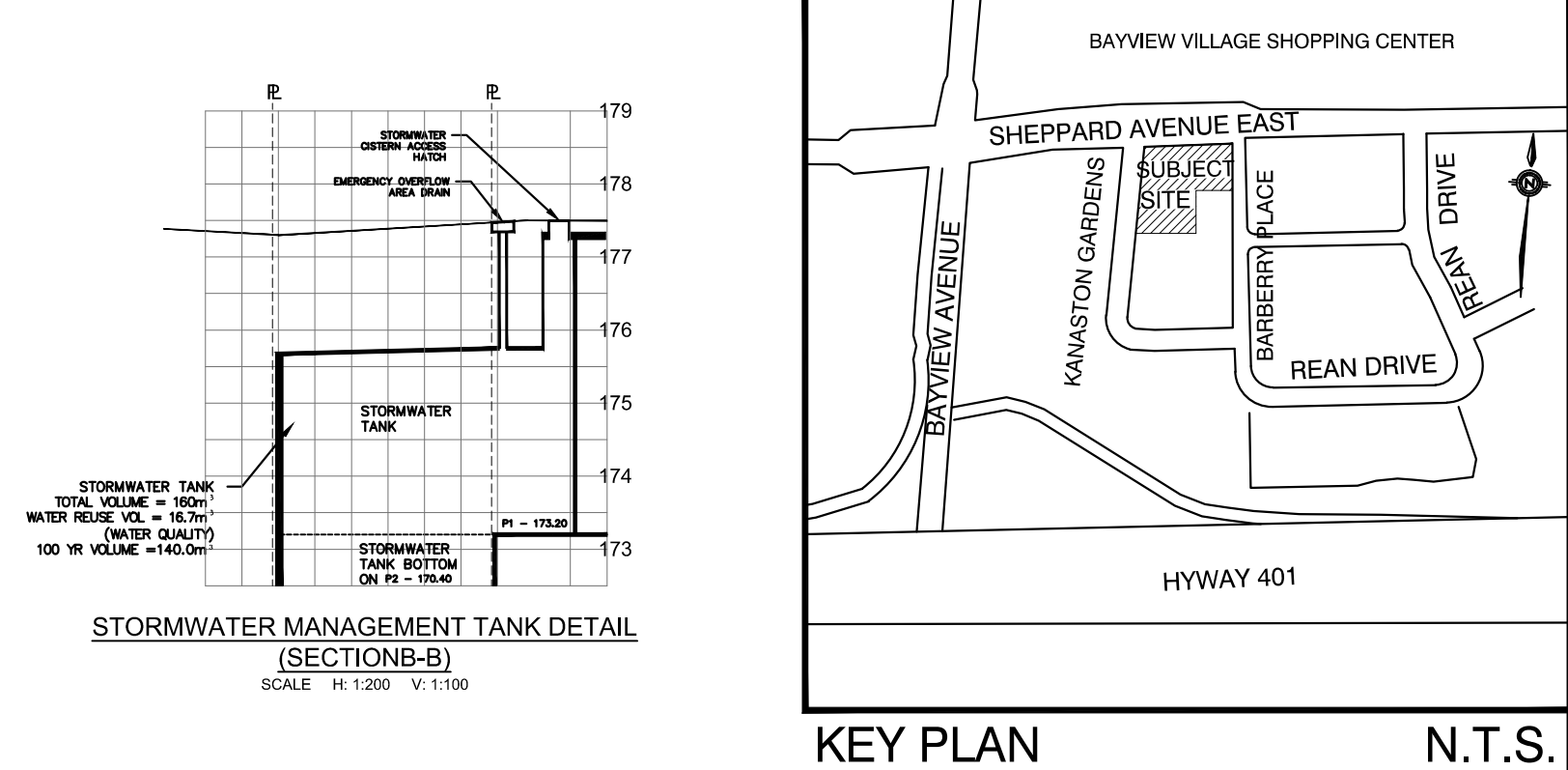
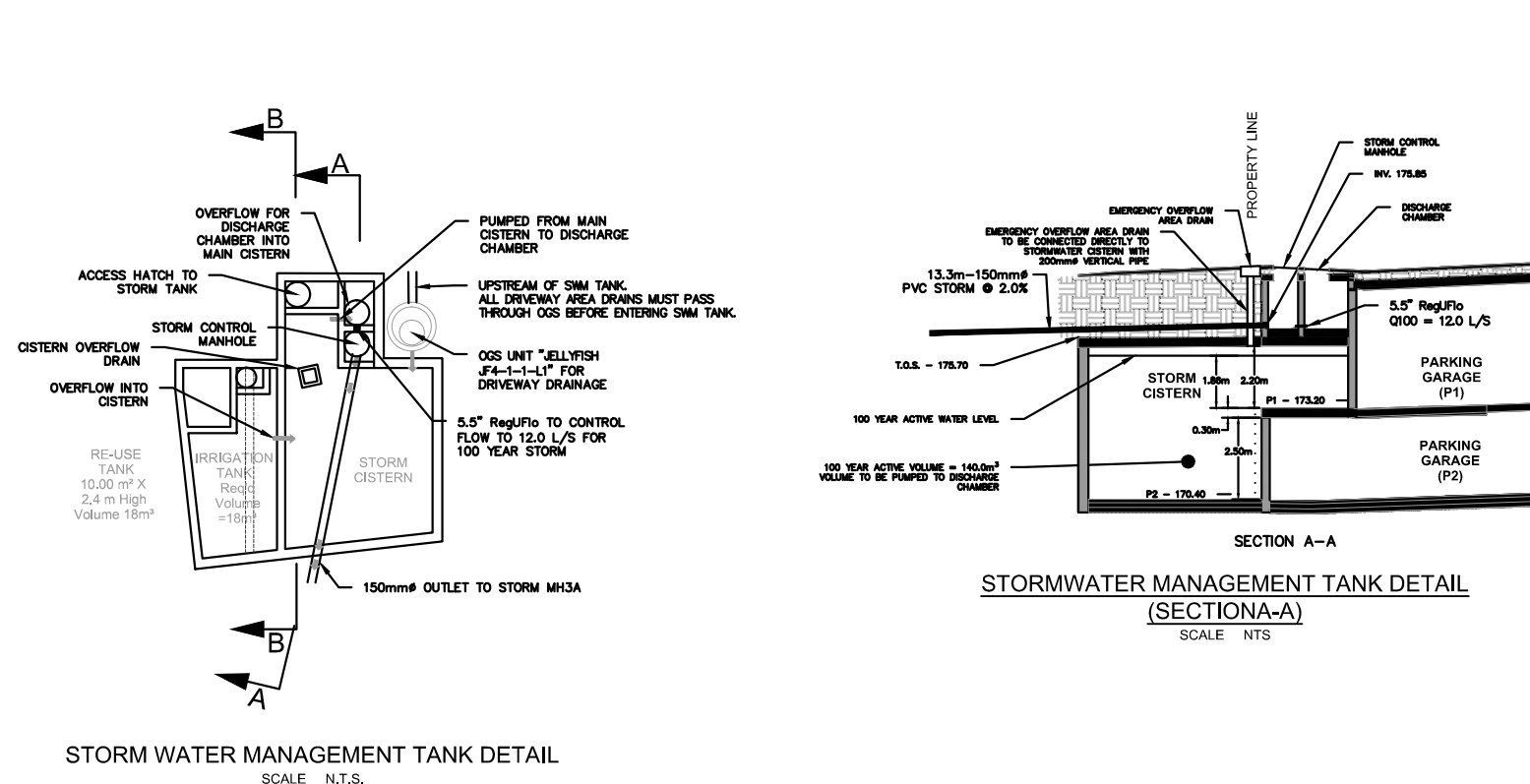
WATERMAINS

- ALL WATERMAIN SERVICE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH T-1104.01, T-1104.02-1, T-1104.02-2, T-1105.02-1 OR T-1105.02-2
- WATERMAIN AND WATERMAIN APPURTENANCES SHALL CONFORM TO CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION 2007.
- ALL POLYVINYL CHLORIDE (PVC) PIPES, RANGING IN SIZE FROM 100 MM THROUGH 300 MM IN DIAMETER, SHALL BE CLASS 150, SDR 18 AND MANUFACTURED IN ACCORDANCE AWWA C900-07 AND TO CSA B137.3-05 AND SHALL HAVE CAST IRON OUTSIDE DIAMETER DIMENSIONS; ALL PVC PIPE LARGER THAN 300 MM THROUGH 600 MM IN DIAMETER, SHALL BE PRESSURE RATING 165, SDR 25 AND MANUFACTURED IN ACCORDANCE TO AWWA C905-97 STANDARD AND CSA B137.3-05 AND SHALL HAVE CAST IRON OUTSIDE DIAMETER DIMENSIONS.
- BEDDING FOR FLEXIBLE PIPE SHALL BE AS PER OPSD 802.010, 802.013 OR 802.014.
- COVER REQUIRED ON WATERMAIN IS 1.8M MINIMUM.
- PROVISIONS FOR FLUSHING THE WATER LINE PRIOR TO TESTING ETC. MUST BE PROVIDED WITH AT LEAST A 50MM OUTLET ON 100MM AND LARGER LINES AS PER T-1104.03-1, COPPER LINES ARE TO HAVE FLUSHING POINTS AT THE END, THE SAME SIZE AS THE LINE, ON FIRE LINES, FLUSHING OUTLET TO BE 100MM DIAMETER MINIMUM OR A HYDRANT.
- ALL HYDRANTS TO BE AS PER CITY OF TORONTO STANDARD T-1105.01, IT SHALL CONFORM WITH THE MATERIAL SPECIFICATIONS CONTAINED IN CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION 2007.
- WATERMAINS TO BE INSTALLED TO GRADES AS SHOWN ON APPROVED PLANS, COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK, WHERE REQUESTED BY INSPECTOR.

- SINGLE WATER SERVICE CONNECTIONS SHALL BE A MINIMUM OF 20MM AND CONFORM TO ASTM B88-03 (ASTM B88M-05 FOR METRIC SIZES) TYPE "K" SOFT COPPER AS PER T-1104.01.
- ALL CURB AND VALVE BOXES TO BE LOCATED AT STREET LINE.
- MECHANICAL RESTRAINTS SHALL BE INSTALLED AT ALL JOINTS BETWEEN FITTINGS, BENDS, TEES, CROSSES AND VALVES. MECHANICAL RESTRAINTS SHALL CONFORM TO THE MATERIAL SPECIFICATIONS CONTAINED IN CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION JUNE 2007
- ALL TEES, PLUGS, HORIZONTAL AND VERTICAL BENDS, REDUCERS AND HYDRANTS TO HAVE CONCRETE THRUST BLOCKS AS PER CITY OF TORONTO STANDARD T-1103.01, T-1103.02
- WATERMAINS MUST FOLLOW THE MINISTRY OF THE ENVIRONMENT PROCEDURES THAT GOVERN THE SEPARATION OF SEWERS AND WATERMAINS F-6-1. A MINIMUM VERTICAL CLEARANCE 0.30M OVER, 0.5M UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING, MUST ALSO MAINTAIN 2.5M HORIZONTAL SEPARATION.
- ALL VALVES LESS THAN 400MM TO BE IN A VALVE AND BOX AS PER CITY OF TORONTO STANDARD T-1101.02-2. ALL VALVES 400MM AND LARGER SHOULD BE IN A CHAMBER
- SACRIFICIAL ANODES TO BE INSTALLED FOR ALL METAL PIPES AND APPURTENANCES, WATER SERVICES AND FITTINGS AS PER CITY OF TORONTO STANDARD T-1106.04, T-1106.05 AND T-1106.06 CONSTRUCTION SPECIFICATION T.S. 7.22 & T.S. 7.20
- TRACER WIRE INSTALLATION AS PER CITY OF TORONTO CONSTRUCTION SPECIFICATION T.S. 7.40.
- ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM THE EXISTING SYSTEM. FLUSHING, SNIFFING AND TESTING OF WATERMAIN AS PER ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS, AS WELL AS CITY OF TORONTO SPECIFICATION TS 7.30 OR LATEST AMENDMENT.
- AFTER PASSING THE HYDROSTATIC PRESSURE TEST AND LEAKAGE TEST, CHLORINATION CAN PROCEED, SAMPLING OF THE NEW MAINS IS TO BE DONE AT THE REQUIRED LOCATIONS PRIOR TO CONNECTING TO THE CITY WATERMAIN SYSTEM, THE TEE FITTING IS TO BE CUT INTO THE EXISTING WATERMAIN TO MAKE THE CONNECTION, TO MAINTAIN THE PRESSURE IN THE NEW MAIN DURING INSTALLATION OF SERVICE, A 50 MM BY-PASS WITH AN APPROVED PRESSURE DIFFERENTIAL BACKFLOW PREVENTER, MOUNTED ABOVE GROUND LEVEL IS TO BE INSTALLED AROUND THE CLOSED ISOLATING VALVE.
- CITY WATER VALVES CAN ONLY BE OPERATED BY CITY STAFF.
- WHERE APPLICABLE A WATER METER CHAMBER SHALL BE LOCATED WITHIN THE PROPERTY OF THE OWNER AND WITHIN 3M OF THE STREETLINE, IN A LOCATION APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
- WHERE APPLICABLE ALL LANDSCAPING (TREES AND SHRUBS) SHALL BE KEPT 1.5M AWAY FROM THE OUTER PERIMETER OF THE WATER METER CHAMBER.
- ALL REMOTE READOUT UNITS WILL BE INSTALLED AS REQUIRED BY THE CURRENT WATER SUPPLY BY-LAW, CHAPTER 851 AND AS PER CITY OF TORONTO CONSTRUCTION SPECIFICATION TS 7.50
- BOTH THE FIRE AND DOMESTIC WATER SERVICES MUST COMPLY WITH THE CURRENT BUILDING CODE ACT, THE CURRENT WATER SUPPLY BY-LAW, CHAPTER 851 AND CSA B-64 SERIES STANDARDS.

SANITARY & STORM SEWERS

- MAIN LINE PVC PIPE AS PER SDR-35 CSA B182.2-06 CERTIFIED ASTM D3034-04A, F69-03. SERVICE CONNECTION PVC PIPE TO BE AS PER SDR-26 CSA B182.2-06 CERTIFIED ASTM D3034-04A.
- BEDDING FOR FLEXIBLE PIPE SHALL BE AS PER OPSD 802.010, 802.013 OR 802.014.
- ULTRA-RIB PIPE IS NOT PERMITTED WITHIN THE MUNICIPAL RIGHT OF WAY.
- MAINTENANCE HOLES AS PER CITY OF TORONTO STANDARD, T-701.010 (1200MM), T-701.011 (1500MM), T-701.012-1 (1800MM) OR T-701.013 (2400MM). FRAME AND COVER AS PER OPSD 401.010 TYPE A CLOSED (SANITARY) TYPE B OPEN (STORM)
- BENCHING SHALL BE AS PER CITY OF TORONTO STANDARD T-701.021.
- DROP STRUCTURES TO BE AS PER CITY OF TORONTO STANDARD T-1003.01 (EXTERNAL) AND T-1003.01-2 (INTERNAL).
- SANITARY SERVICE CONNECTIONS SHALL BE SINGLE, 150 MM MINIMUM, PVC CLASS DR 28 INSTALLED AT 2 % AND ANY COLOUR EXCEPT WHITE, FOR SINGLE RESIDENTIAL DWELLINGS.
- SANITARY MAINTENANCE HOLE SHALL HAVE WATERTIGHT FRAME AND COVER IN PONDING AREAS AS PER OPSD 401.030
- REINFORCED CONCRETE PIPE SHALL BE AS PER CSA A257.2-03 (MINIMUM 650). HEIGHT OF FILL TO BE VERIFIED USING OPSD TABLES 807.010 AND 807.030.
- NON-REINFORCED CONCRETE PIPE 150MM TO 250MM SHALL BE AS PER CSA A257.1-03 CLASS 3. HEIGHT OF FILL TO BE VERIFIED USING OPSD TABLES 807.040.
- BEDDING FOR RIGID PIPE SHALL BE CLASS B AS PER OPSD 802.030, 802.031, 802.032 OR 802.033
- SINGLE CATCHBASINS SHALL BE AS PER CITY OF TORONTO STANDARD T-705.010 COMPLETE WITH GOSS TRAP, FRAME AND COVER AS PER OPSD 400.070. (NOTE OPSD 400.070 FRAME AND COVER IS REQUIRED WITHIN THE MUNICIPAL RIGHT OF WAY. ON SITE FRAME AND COVERS MAY BE DIFFERENT. THE PROPER OPSD SHOULD BE LISTED)
- DOUBLE CATCHBASINS SHALL BE AS PER CITY OF TORONTO STANDARD T-705.020 COMPLETE WITH GOSS TRAP.
- SERVICE CONNECTIONS AND UTILITY CUTS TO BE BACKFILLED WITH UNSHRINKABLE FILL.
- CB LEADS TO BE 200MM PVC SDR-35 FOR SINGLE CATCHBASINS AND 250MM PVC SDR-35 FOR DOUBLE CATCHBASINS UNLESS OTHERWISE NOTED. ALL NON-PRESSURE POLYETHYLENE PIPES SHALL CONFORM TO OPSD 1840 MATERIAL SPECIFICATION.



CONNECTION DETAIL (SECTION A-A)
STORM SEWER CONNECTION

SCALE H: 1:100 V: 1:50

FILENAME: X:\DIV\010-10205 - Kanaston Gardens\Main Engineering Drawings\12005_181_s_w_mn_dwd_v2.dwg
DATE: Feb 28, 2012 2:20:00 PM
DRAWN: R.G.K.

CLIENT: CHESTNUT HILL DEVELOPMENTS

CONSULTANT: **MMM GROUP**

100 Commerce Valley Dr. West, Thornhill, ON Canada L3T 0A1
t: 905.882.1100 f: 905.882.0055 www.mmm.ca

R. G. KNIGHT
PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

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|-----|----------|-------------------------------------|---------|--------|
| 8 | FEB25/16 | RE-ISSUED FOR SITE PLAN APPLICATION | R.G.K. | |
| 7 | DEC18/15 | RE-ISSUED FOR SITE PLAN APPLICATION | R.G.K. | |
| 6 | DEC15/15 | BUILDING PERMIT SUBMISSION | R.G.K. | |
| 5 | AUG27/15 | RE-ISSUED FOR SITE PLAN APPROVAL | R.G.K. | |
| 4 | JUL29/15 | REVISED PER CITY COMMENTS | R.G.K. | |
| 3 | OCT17/14 | RE-ISSUED FOR SITE PLAN APPROVAL | R.G.K. | |
| 2 | APR3/14 | ISSUED FOR SITE PLAN APPROVAL | R.G.K. | |
| 1 | AUG12/13 | ISSUED FOR REZONING | R.G.K. | |
| No. | DATE | REVISIONS | INITIAL | SIGNED |

Toronto ENGINEERING AND CONSTRUCTION SERVICES DIVISION

ACCEPTED TO BE IN ACCORDANCE WITH THE CITY OF TORONTO STANDARDS. THIS ACCEPTANCE IS NOT TO BE CONSTRUED AS VERIFICATION OF ENGINEERING CONTENT.

CRAIG A. KELLY, P.ENG., MANAGER,
DEVELOPMENT ENGINEERING - NORTH YORK DISTRICT

DATE: _____

**KENASTON GARDENS
RESIDENTIAL DEVELOPMENT**

| | | | | | | | |
|---------|--------------|-----------------|-----------------|--------|------|--------------|----------|
| DESIGN: | A.K. | DRAFTING: | 10/12 CAD | CHECK: | P.D. | CONTRACT No. | 10-13055 |
| SCALE: | AS SPECIFIED | DRAWING NUMBER: | NOTES & DETAILS | | | SS2 | |
| DATE: | AUGUST 2013 | | | | | | |