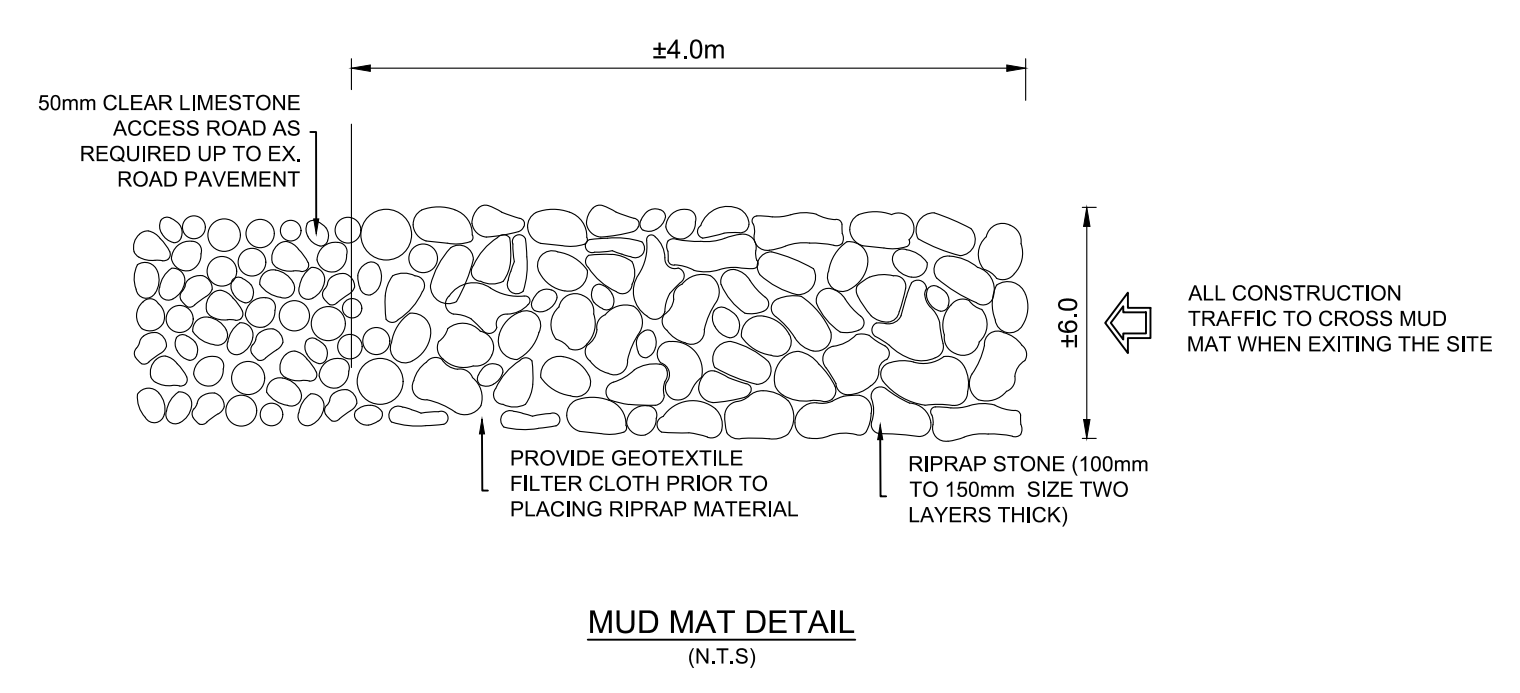
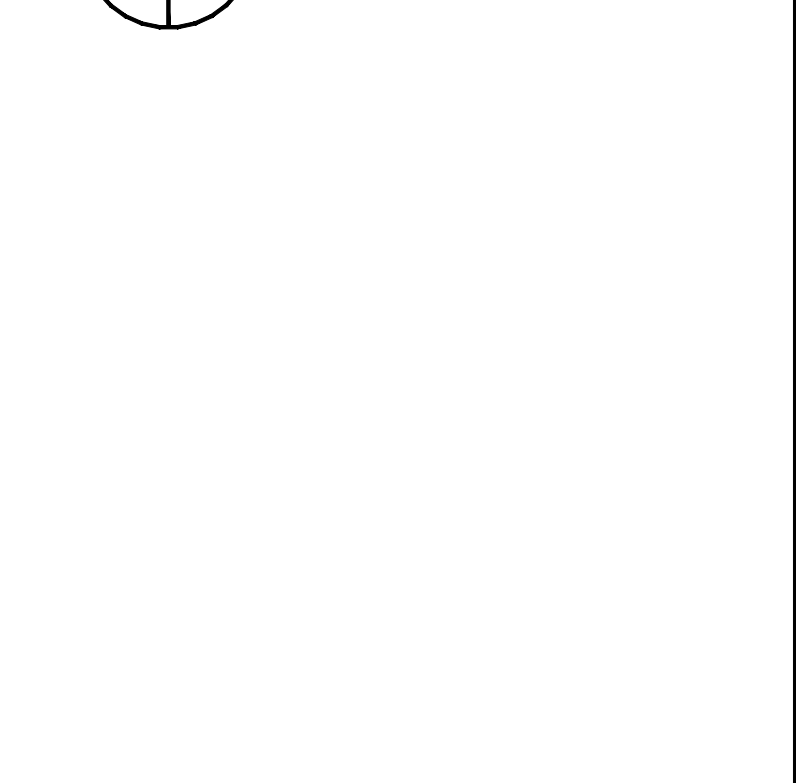
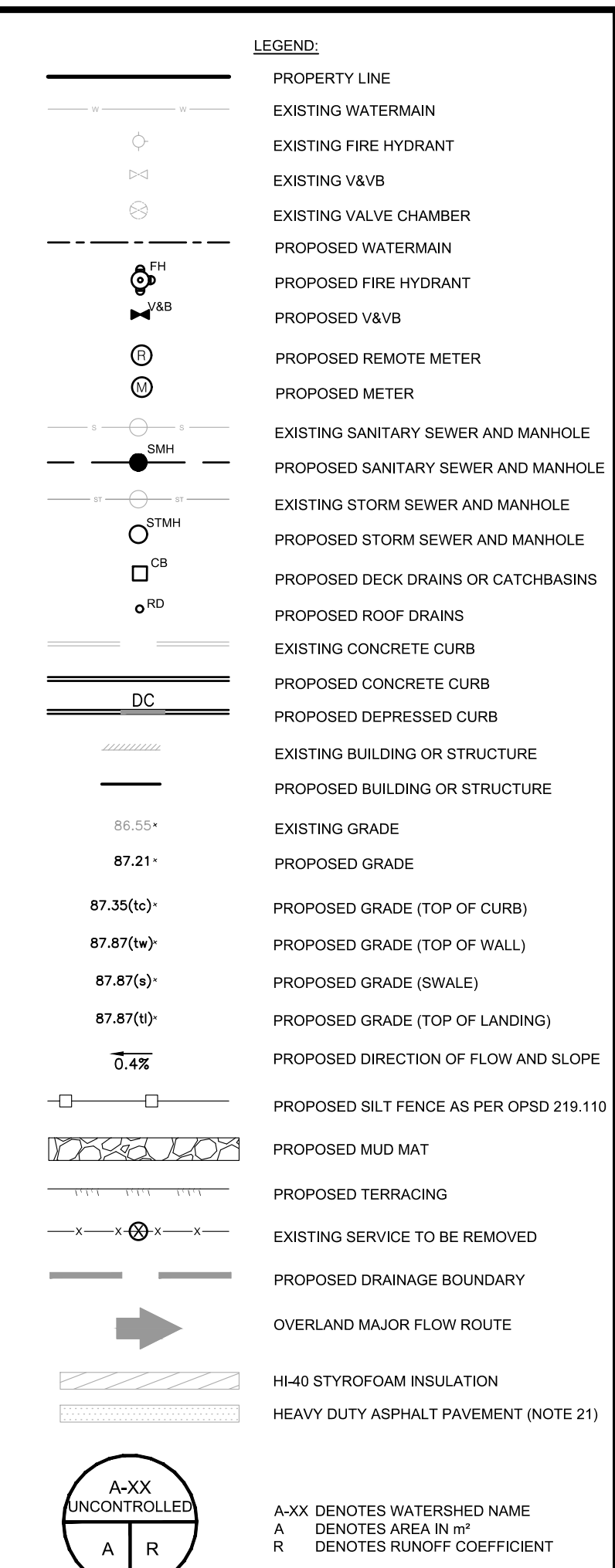


**NOTES - GENERAL**

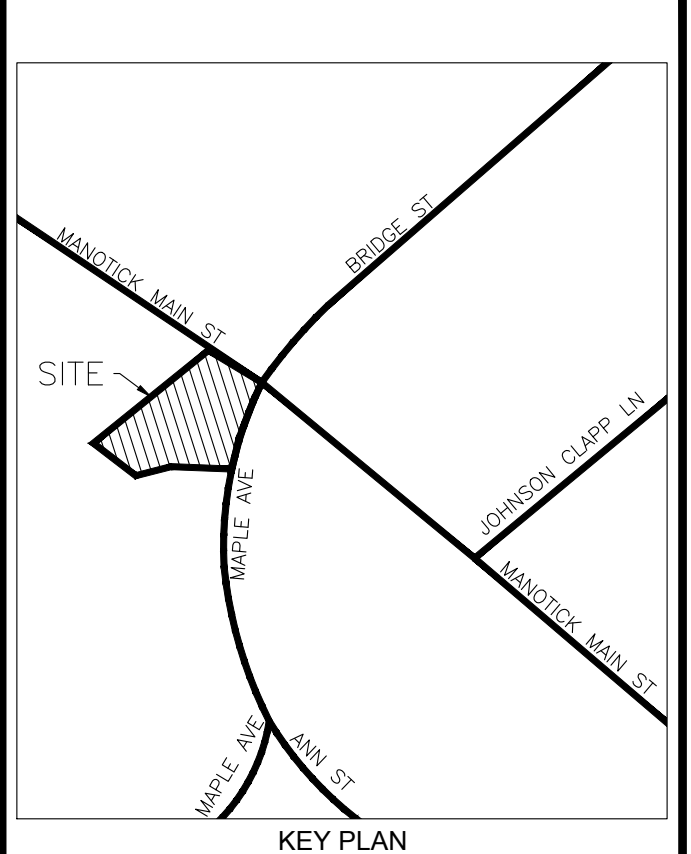
- ALL SERVICES, MATERIALS, CONSTRUCTION METHODS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND REGULATIONS OF THE CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS, ONTARIO PROVINCIAL SPECIFICATION STANDARD SPECIFICATION (OPSS) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), UNLESS OTHERWISE SPECIFIED, TO THE SATISFACTION OF THE CITY AND THE CONSULTANT.
- THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES, STRUCTURES AND APPURTENANCES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SATISFY HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM DURING THE COURSE OF CONSTRUCTION. ANY RELOCATION OF EXISTING UTILITIES REQUIRED BY THE DEVELOPMENT OF SUBJECT LANDS IS TO BE UNDERTAKEN AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR MUST NOTIFY ALL EXISTING UTILITY COMPANY OFFICIALS FIVE (5) BUSINESS DAYS PRIOR TO START OF CONSTRUCTION AND HAVE ALL EXISTING UTILITIES AND SERVICES LOCATED IN THE FIELD OR EXPOSED PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO HYDRO, BELL, CABLE TV, AND CONSUMERS GAS LINES.
- ALL TRENCHING AND EXCAVATIONS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND LAYOUT, REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION. ALL INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- TOPOGRAPHIC SURVEY COMPLETED AND PROVIDED BY H.A. KEN SHIPMAN SURVEYING LTD. DATED FEBRUARY 2, 2017. CONTRACTOR TO VERIFY IN THE FIELD PRIOR TO CONSTRUCTION OF ANY WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATION OF UNDERGROUND SERVICES ARE BASED ON THE SURVEY PROVIDED BY H.A. KEN SHIPMAN SURVEYING LTD. TOGETHER WITH THE INFORMATION FROM THE CITY OF OTTAWA ASBUILT PLAN NO. 14121 (CONTRACT NO. 15806-2055, SHEETS 17, 18, 23 AND 42) BY J.L. RICHARDS. HOWEVER, CONTRACTOR MUST ENSURE THAT THIS INFORMATION IS VERIFIED PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM.
- ALL DISTURBED AREAS OUTSIDE PROPOSED GRADING LIMITS TO BE RESTORED TO ORIGINAL ELEVATIONS AND CONDITIONS UNLESS OTHERWISE SPECIFIED. ALL RESTORATION SHALL BE COMPLETED WITH THE GEOTECHNICAL REQUIREMENTS FOR BACKFILL AND COMPACTION.
- ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 319 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
- ABUTTING PROPERTY GRADES TO BE MATCHED UNLESS SPECIFIED OTHERWISE.
- MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS.
- AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
- SERVICE TRENCHES ON MUNICIPAL RIGHT OF WAY TO BE REINSTATE AS PER CITY OF OTTAWA DETAIL R10.
- PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB-SURFACES FOR FOOTINGS, SERVICES AND PAVEMENT STRUCTURES.
- FOR ANY SOILS RELATED INFORMATION, REFER TO THE GEOTECHNICAL INVESTIGATION REPORT BY PATERSON GROUP DATED JANUARY 18, 2017.
- LIGHT DUTY PAVEMENT STRUCTURE SHALL CONSIST OF:  
300 mm - OPSS GRANULAR B TYPE II COMPACTED TO 100% SPD.  
150 mm - OPSS GRANULAR A COMPACTED TO 100% SPD.  
50 mm - HL3 OR SUPERPAVE 12.5 COMPACTED TO 96% MARSHALL DENSITY
- HEAVY DUTY PAVEMENT STRUCTURE SHALL CONSIST OF:  
450 mm - OPSS GRANULAR B TYPE II COMPACTED TO 100% SPD.  
150 mm - OPSS GRANULAR A COMPACTED TO 100% SPD.  
50 mm - HL8 OR SUPERPAVE 19.0 COMPACTED TO 96% MARSHALL DENSITY  
40mm - HL3 OR SUPERPAVE 12.5 COMPACTED TO 96% MARSHALL DENSITY

**NOTES - EROSION AND SEDIMENT CONTROL**

- PRIOR TO START OF CONSTRUCTION:
  - INSTALL SILT FENCE ALONG THE PERIMETER OF THE PROPERTY LINE (SEE PLAN FOR LOCATION).
  - INSTALL SILT SACK FILTERS IN ALL THE STRUCTURES NOTED ON THE DRAWING.
  - INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.
- DURING CONSTRUCTION:
  - MINIMIZE THE EXTENT OF DISTURBED AREAS AND THE DURATION OF EXPOSURE AND IMPACTS TO EXISTING GRADING.
  - PERIMETER VEGETATION TO REMAIN IN PLACE UNTIL PERMANENT STORM WATER MANAGEMENT IS IN PLACE. OTHERWISE IMMEDIATELY INSTALL SILT FENCE WHEN THE EXISTING SITE IS DISTURBED AT THE PERIMETER.
  - PROTECT DISTURBED AREAS FROM OVERLAND FLOW BY PROVIDING TEMPORARY SWALES TO THE SATISFACTION OF THE FIELD ENGINEER. TIE-IN TEMPORARY SWALES TO EXISTING CURBS AS REQUIRED.
  - PROVIDE TEMPORARY COVER SUCH AS SEEDING OR MULCHING IF DISTURBED AREA WILL NOT BE REHABILITATED WITHIN 30 DAYS.
  - INSPECT SILT FENCES, SILT SACK FILTERS AND CATCH BASIN SUMPS WEEKLY AND WITHIN 24 HOURS AFTER A STORM EVENT. CLEAN AND REPAIR WHEN NECESSARY.
  - DRAWING TO BE REVIEWED AND REVISED AS REQUIRED DURING CONSTRUCTION.
  - EROSION CONTROL FENCING TO BE ALSO INSTALLED AROUND THE BASE OF ALL STOCKPILES AS SHOWN.
  - DO NOT LOCATE TOPSOIL PILES AND EXCAVATION MATERIAL CLOSER THAN 2.5m FROM ANY PAVED SURFACE, OR ONE WHICH IS TO BE PAVED BEFORE THE PILE IS REMOVED. ALL TOPSOIL PILES ARE TO BE SEEDED IF THEY ARE TO REMAIN ON SITE LONG ENOUGH FOR SEEDS TO GROW (LONGER THAN 30 DAYS).
  - CONTROL WIND-BLOWN DUST OFF SITE BY SEEDING TOPSOIL PILES AND OTHER AREAS TEMPORARILY (PROVIDE WATERING AS REQUIRED AND TO THE SATISFACTION OF THE ENGINEER).
  - NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE FIELD ENGINEER.
  - CITY ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM VEHICULAR TRACKING AS REQUIRED.
  - PROVIDE GRAVEL ENTRANCE (MUD MAT) WHEREVER EQUIPMENT LEAVES THE SITE TO PROVIDE MUD TRACKING ONTO PAVED SURFACES. IN THE EVENT ADDITIONAL EGRESS POINTS ARE REQUIRED THEY SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE MUD MAT DETAIL (SEE TYPICAL DETAIL).
  - DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPPED.
  - ANY MUD/MATERIAL TRACKED ONTO THE ROAD SHALL BE REMOVED IMMEDIATELY BY HAND OR RUBBER TIRE LOADER.
  - TAKE ALL NECESSARY STEPS TO PREVENT BUILDING MATERIAL, CONSTRUCTION DEBRIS OR WASTE BEING SPILLED OR TRACKED ONTO ADJUTING PROPERTIES OR PUBLIC STREETS DURING CONSTRUCTION AND PROCEED IMMEDIATELY TO CLEAN UP ANY AREAS SO AFFECTED.
  - ALL EROSION CONTROL STRUCTURE TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN STABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER.
  - THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.



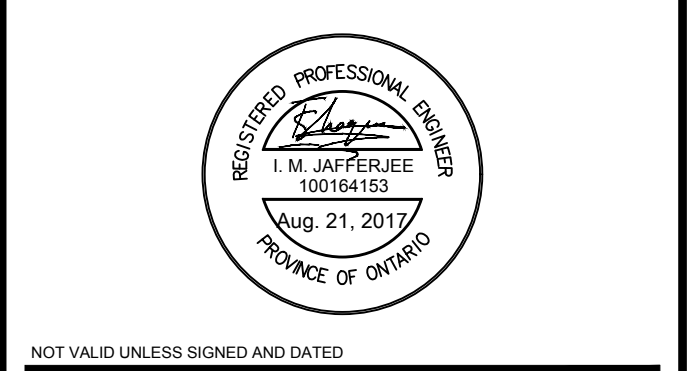
**GENERAL NOTES:**  
THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEERS GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES ABIGUITIES OR CONFLICTS WHICH ARE ALLEGED.  
CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



APPROVED	REFUSED
DATE: _____	
ADAM BROWN, MANAGER	
DEVELOPMENT REVIEW, RURAL SERVICES	

No.	REVISIONS	BY	DATE
02	ISSUED PER CITY COMMENTS	I.J.	AUG 21, 2017
01	ISSUED FOR SPC & ZBA	D.G.	MAR 2, 2017

HORIZONTAL SCALE: 3.0m, 1.5, 0, 3.0, 6.0m  
SCALE: 1:150  
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048



NOT VALID UNLESS SIGNED AND DATED  
**MMM GROUP**

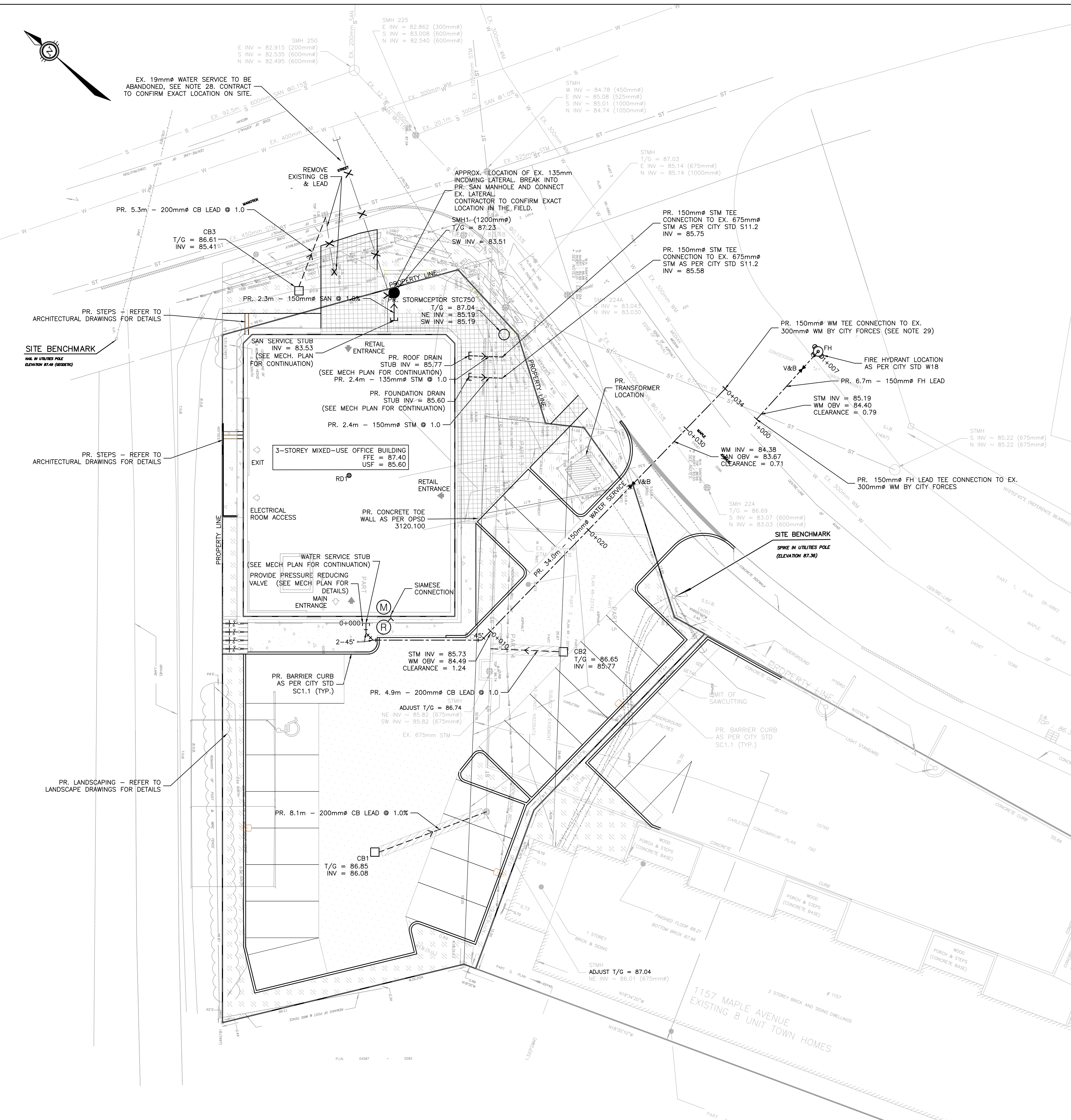
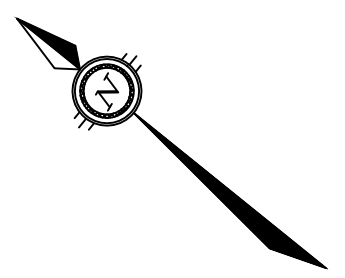
2611 Queensview Dr. Ottawa, ON Canada K2B 9K2  
t: 613.829.2800 f: 613.829.8299 www.wspgroup.com

CLIENT: 1846253 ONTARIO INC.  
STEPHEN PHILIP  
5572 CARRISON DRIVE  
MANOTICK, ON K4M 1K7  
TEL: (613) 608-7216

DESIGNED BY: D.G. DRAWN BY: I.J. APPROVED BY: I.J.  
PROJECT: MANOTICK MIXED-USE OFFICE BUILDING  
5514 MANOTICK MAIN ST.,  
MANOTICK, ONTARIO

DRAWING TITLE: EROSION & SEDIMENT CONTROL AND GRADING & DRAINAGE PLAN  
PROJECT NO: 17M-00198-00 DRAWING NO: C.01





NOTES - GENERAL

- 1. ALL SERVICES, MATERIALS, CONSTRUCTION METHODS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND REGULATIONS OF THE CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS...
2. THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES...
3. THE CONTRACTOR MUST NOTIFY ALL EXISTING UTILITY COMPANY OFFICIALS FIVE (5) BUSINESS DAYS PRIOR TO START OF CONSTRUCTION...
4. ALL TRENCHING AND EXCAVATIONS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS...
5. REFER TO ARCHITECTS PLANS FOR BUILDING DIMENSIONS AND LAYOUT. REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION...
6. TOPOGRAPHIC SURVEY COMPLETED AND PROVIDED BY H.A. KEN SHIPMAN SURVEYING LTD. DATED FEBRUARY 2, 2017...
7. THE LOCATION OF UNDERGROUND SERVICES ARE BASED ON THE SURVEY PROVIDED BY H.A. KEN SHIPMAN SURVEYING LTD. TOGETHER WITH THE INFORMATION FROM THE CITY OF OTTAWA ASBUILT PLAN NO. 14121...
8. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS...
9. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED...
10. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT...
11. ALL DISTURBED AREAS OUTSIDE PROPOSED GRADING LIMITS TO BE RESTORED TO ORIGINAL ELEVATIONS AND CONDITIONS UNLESS OTHERWISE SPECIFIED...
12. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED...
13. ABUTTING PROPERTY GRADES TO BE MATCHED UNLESS SPECIFIED OTHERWISE...
14. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS...
15. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER...
16. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES...
17. SERVICE TRENCHES ON MUNICIPAL RIGHT OF WAY TO BE REINSTATED AS PER CITY OF OTTAWA DETAIL R10...
18. PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB-SURFACES FOR FOOTINGS, SERVICES AND PAVEMENT STRUCTURES...
19. FOR ANY SOILS RELATED INFORMATION, REFER TO THE GEOTECHNICAL INVESTIGATION REPORT BY PATERSON GROUP DATED JANUARY 18, 2017...
20. LIGHT DUTY PAVEMENT STRUCTURE SHALL CONSIST OF: 300 mm - OPSS GRANULAR B TYPE II COMPACTED TO 100% SPD...
21. HEAVY DUTY PAVEMENT STRUCTURE SHALL CONSIST OF: 450 mm - OPSS GRANULAR B TYPE II COMPACTED TO 100% SPD...
22. ALL WATERMAIN AND WATERMAN APPURTANANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS...
23. THE WATERMAIN SHALL BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 18 MEETING AWWA SPECIFICATION C900...
24. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE...
25. WATERMAIN BEDDING TO BE AS PER CITY OF OTTAWA STANDARD W17...
26. VALVE AND VALVE BOX TO BE AS PER CITY OF OTTAWA STANDARD W24...
27. FIRE HYDRANTS TO BE AS PER CITY OF OTTAWA STANDARD W19...
28. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 & W42...
29. ALL CONNECTIONS OF NEW WATERMAIN TO EXISTING WATERMAIN & ALL BLANKINGS OF EXISTING MAINS AND SERVICES SHALL BE PERFORMED BY CITY OF OTTAWA FORCES...
30. ALL SANITARY SEWER, SANITARY SEWER APPURTANANCES AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS...
31. SANITARY SEWER PIPE SIZE 150mm DIAMETER AND GREATER TO BE PVC SDR-35 (UNLESS SPECIFIED OTHERWISE) WITH RUBBER GASKET TYPE JOINTS IN CONFORMANCE WITH CSA B-182.2.3.4...
32. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6...
33. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410...
34. ALL SANITARY MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01, FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24...
35. ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS...
36. STORM SEWERS 450mm DIAMETER AND SMALLER SHALL BE PVC SDR-35, WITH RUBBER GASKET PER CSA A-257.3...
37. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6...
38. ALL STORM MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01, FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24...
39. CATCH BASINS TO BE AS PER OPSD 706.010 WITH FRAME AND COVERS TO OPSD 400.010...
40. ALL CATCH-BASIN LEADS TO BE MINIMUM 200mm DIAMETER AT MINIMUM 1.0% SLOPE UNLESS OTHERWISE SPECIFIED...
41. ROOF DRAINS SHALL BE BY WATTS DRAINAGE. DRAINS SHALL BE SELECTED BASED ON THE RELEASE RATES.

NOTES - WATERMAIN

- 22. ALL WATERMAIN AND WATERMAN APPURTANANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS...
23. THE WATERMAIN SHALL BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 18 MEETING AWWA SPECIFICATION C900...
24. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE...
25. WATERMAIN BEDDING TO BE AS PER CITY OF OTTAWA STANDARD W17...
26. VALVE AND VALVE BOX TO BE AS PER CITY OF OTTAWA STANDARD W24...
27. FIRE HYDRANTS TO BE AS PER CITY OF OTTAWA STANDARD W19...
28. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 & W42...
29. ALL CONNECTIONS OF NEW WATERMAIN TO EXISTING WATERMAIN & ALL BLANKINGS OF EXISTING MAINS AND SERVICES SHALL BE PERFORMED BY CITY OF OTTAWA FORCES...
30. ALL SANITARY SEWER, SANITARY SEWER APPURTANANCES AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS...
31. SANITARY SEWER PIPE SIZE 150mm DIAMETER AND GREATER TO BE PVC SDR-35 (UNLESS SPECIFIED OTHERWISE) WITH RUBBER GASKET TYPE JOINTS IN CONFORMANCE WITH CSA B-182.2.3.4...
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39. CATCH BASINS TO BE AS PER OPSD 706.010 WITH FRAME AND COVERS TO OPSD 400.010...
40. ALL CATCH-BASIN LEADS TO BE MINIMUM 200mm DIAMETER AT MINIMUM 1.0% SLOPE UNLESS OTHERWISE SPECIFIED...
41. ROOF DRAINS SHALL BE BY WATTS DRAINAGE. DRAINS SHALL BE SELECTED BASED ON THE RELEASE RATES.

ROOF DRAIN SUMMARY table with columns: Drainage Area, Deck Drain, 5 Year Event (5-YR Peak Flow, 5-YR Ponding Depth, 5-YR Ponding Volume), 100 Year Event (100-YR Peak Flow, 100-YR Ponding Depth, 100-YR Ponding Volume).

INLET CONTROL DEVICES SUMMARY table with columns: Release Rate (L/s), Head (m), Hydrex Type.

LEGEND section listing symbols for property line, existing watermain, existing fire hydrant, existing V&B, existing valve chamber, proposed watermain, proposed fire hydrant, proposed V&B, proposed remote meter, proposed meter, existing sanitary sewer and manhole, proposed sanitary sewer and manhole, existing storm sewer and manhole, proposed storm sewer and manhole, proposed deck drains or catchbasins, proposed roof drains, existing concrete curb, proposed concrete curb, proposed depressed curb, existing building or structure, proposed building or structure, existing grade, proposed grade, proposed grade (top of curb), proposed grade (top of wall), proposed grade (swale), proposed grade (top of landing), proposed direction of flow and slope, proposed silt fence as per OPSD 219.110, proposed mud mat, proposed terracing, existing service to be removed, proposed drainage boundary, overland major flow route, HI-40 styrofoam insulation, heavy duty asphalt pavement (note 21).

150mm WATERMAIN SCHEDULE table with columns: Chainages, Description, Top of Ground, Top of Watermain.

FIRE HYDRANT LEAD SCHEDULE table with columns: Chainages, Description, Top of Ground, Top of Watermain.

GENERAL NOTES section containing liability disclaimer, site verification requirements, and a KEY PLAN showing the project location relative to Manotick Main St, Bridge St, and Manotick Dr. Includes a legend for APPROVED and REFUSED status.

Professional Engineer seal for Adam Brown, Manager, Development Review, Rural Services, dated Aug 21, 2017. Includes a scale bar and horizontal scale information.

Professional Engineer seal for M. Jafferjee, dated Aug 21, 2017.

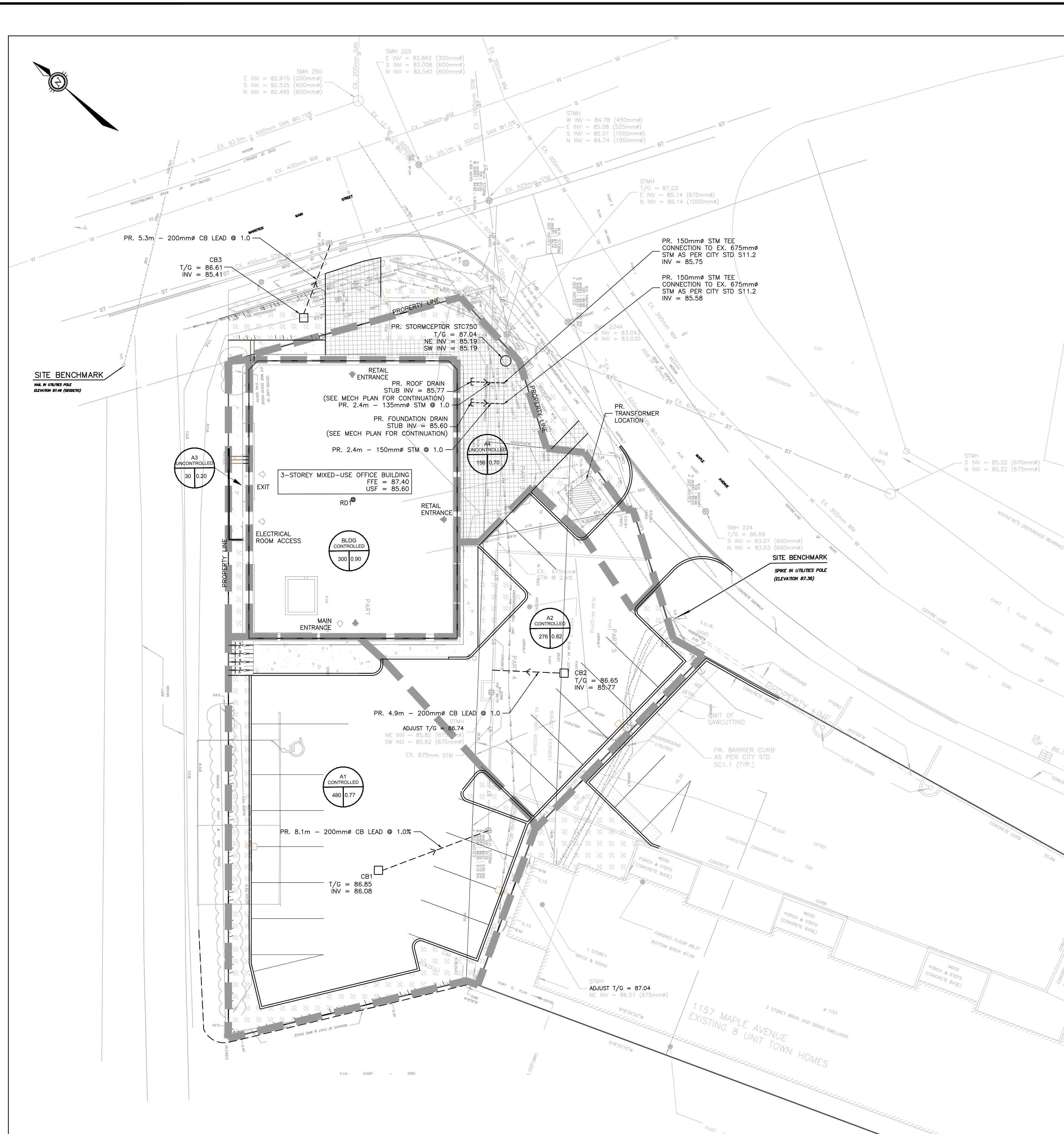
MMM GROUP logo and contact information: 2611 Queensview Dr. Ottawa, ON Canada K2B 8K2. Tel: 613.829.2800, Fax: 613.829.8299, www.wsprgroup.com.

CLIENT: 1846253 ONTARIO INC. STEPHEN PHILIP, 5572 CARRISON DRIVE, MANOTICK, ON K4M 1K7. TEL: (613) 608-7216.

DESIGNED BY: D.G., DRAWN BY: I.J., APPROVED BY: I.J. PROJECT: MANOTICK MIXED-USE OFFICE BUILDING, 5514 MANOTICK MAIN ST., MANOTICK, ONTARIO. DRAWING TITLE: SITE SERVICING PLAN. PROJECT NO: 17M-00198-00. DRAWING NO: C.02.



FILENAME: V:\10-13-16\120514 Manotick Main St03 Drawing\working drawings\0514 Manotick - Engineering Drawings.dwg  
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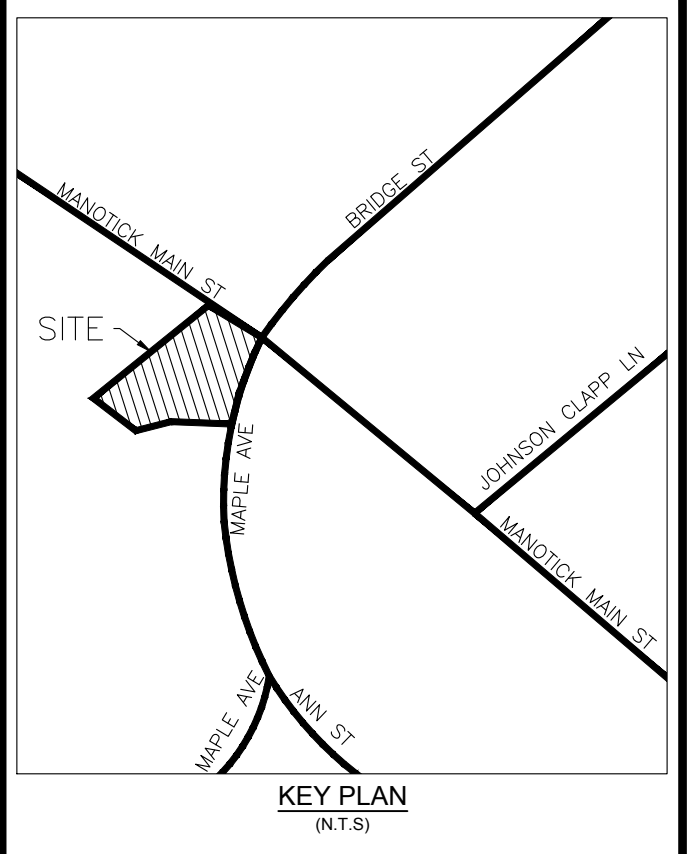
**LEGEND:**

- PROPERTY LINE
- EXISTING WATERMAIN
- EXISTING FIRE HYDRANT
- EXISTING V&VB
- EXISTING VALVE CHAMBER
- PROPOSED WATERMAIN
- PROPOSED FIRE HYDRANT
- PROPOSED V&VB
- PROPOSED REMOTE METER
- PROPOSED METER
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED STORM SEWER AND MANHOLE
- PROPOSED DECK DRAINS OR CATCHBASINS
- PROPOSED ROOF DRAINS
- EXISTING CONCRETE CURB
- PROPOSED CONCRETE CURB
- PROPOSED DEPRESSED CURB
- EXISTING BUILDING OR STRUCTURE
- PROPOSED BUILDING OR STRUCTURE
- 86.50+ EXISTING GRADE
- 87.21+ PROPOSED GRADE
- 87.35(w)- PROPOSED GRADE (TOP OF CURB)
- 87.87(w)- PROPOSED GRADE (TOP OF WALL)
- 87.87(s)- PROPOSED GRADE (SWALE)
- 87.87(0)- PROPOSED GRADE (TOP OF LANDING)
- 0.4% PROPOSED DIRECTION OF FLOW AND SLOPE
- PROPOSED SILT FENCE AS PER PSD 219:110
- ▨ PROPOSED MUD MAT
- ▨ PROPOSED TERRACING
- EXISTING SERVICE TO BE REMOVED
- ▨ PROPOSED DRAINAGE BOUNDARY
- ➔ OVERLAND MAJOR FLOW ROUTE
- ▨ HI-40 STYROFOAM INSULATION
- ▨ HEAVY DUTY ASPHALT PAVEMENT (NOTE 21)
- A-XX UNCONTROLLED
- A DENOTES WATERSHED NAME
- A DENOTES AREA IN m<sup>2</sup>
- R DENOTES RUNOFF COEFFICIENT

**GENERAL NOTES:**

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEERS GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



APPROVED  REFUSED

DATE: \_\_\_\_\_

ADAM BROWN, MANAGER  
DEVELOPMENT REVIEW, RURAL SERVICES

**ROOF DRAIN SUMMARY**

Drainage Area	Deck Drain	5 Year Event			100 Year Event		
		5-YR Peak Flow (L/s)	5-YR Ponding Depth (mm)	5-YR Ponding Volume (m <sup>3</sup> )	100-YR Peak Flow (L/s)	100-YR Ponding Depth (mm)	100-YR Ponding Volume (m <sup>3</sup> )
BLDG	RD1	1.4	108	5.6	1.7	135	11.0

**INLET CONTROL DEVICES SUMMARY**

	CB1	CB2
RELEASE RATE (L/s)	1.1	7.0
HEAD (m)	1.01	2.03
HYDROVEX TYPE	40SVHV-1	75SVHV-1

02 ISSUED PER CITY COMMENTS I.J. AUG 21, 2017

01 ISSUED FOR SPC & ZBA D.G. MAR 2, 2017

No. REVISIONS BY DATE

HORIZONTAL SCALE: 3.0m 1.5 3.0 6.0m  
SCALE: 1:150

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048



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CLIENT: 1846253 ONTARIO INC.  
 STEPHEN PHILIP  
 5572 CARRISON DRIVE  
 MANOTICK, ON K4M 1K7  
 TEL: (613) 608-7216

DESIGNED BY: D.G. DRAWN BY: I.J. APPROVED BY: I.J.

PROJECT: MANOTICK MIXED-USE OFFICE BUILDING  
 5514 MANOTICK MAIN ST.,  
 MANOTICK, ONTARIO

DRAWING TITLE: STORM DRAINAGE AREA PLAN

PROJECT NO. 17M-00198-00 DRAWING NO. C.03

D07-12-17-0026