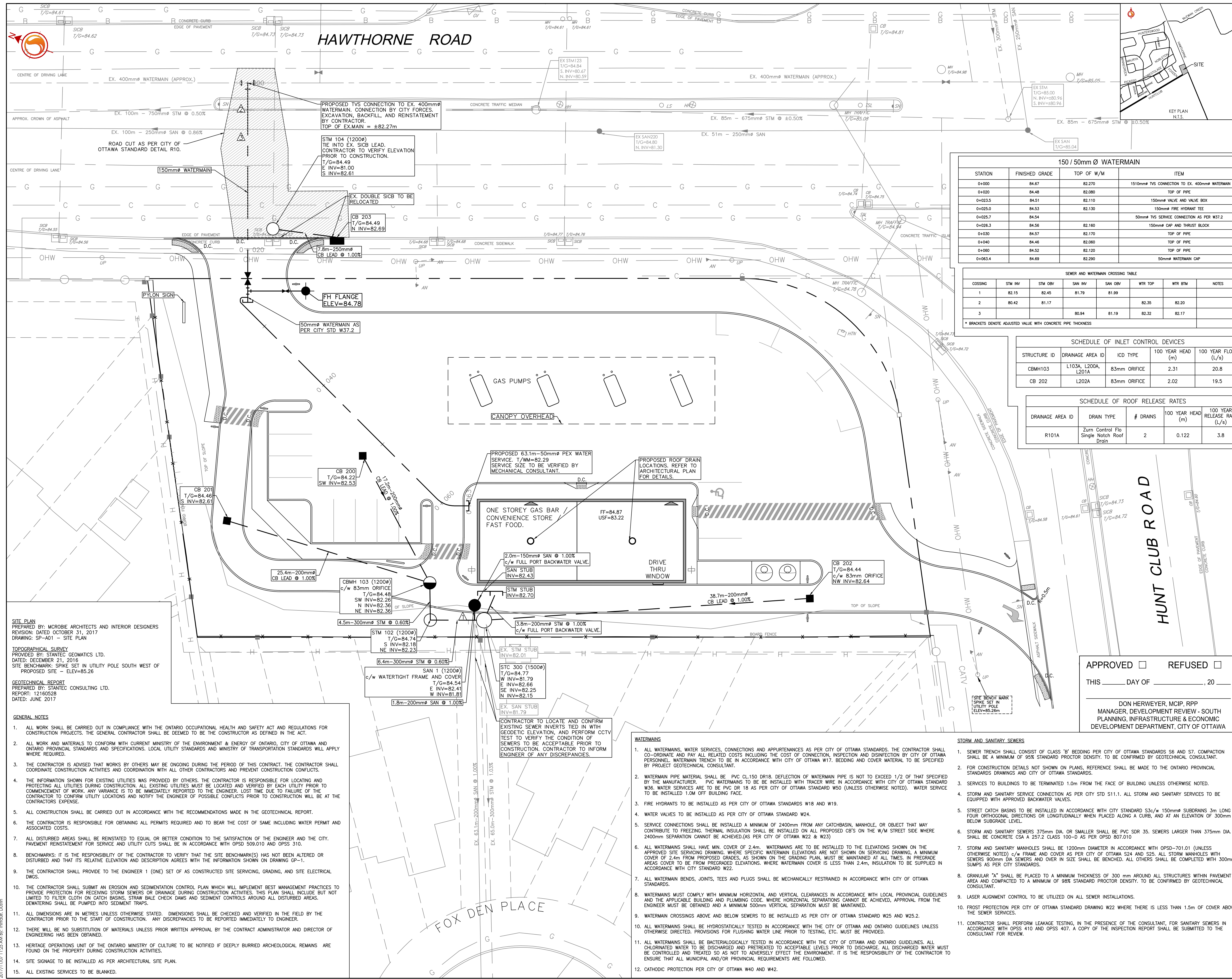


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150 / 50mm Ø WATERMAIN

STATION	FINISHED GRADE	TOP OF W/M	ITEM
0+000	84.67	82.270	150mm TVS CONNECTION TO EX. 400mm WATERMAIN
0+020	84.48	82.080	TOP OF PIPE
0+023.5	84.51	82.110	150mm VALVE AND VALVE BOX
0+025.0	84.53	82.130	150mm FIRE HYDRANT TEE
0+025.7	84.54	82.130	50mm TVS SERVICE CONNECTION AS PER W37.2
0+026.3	84.56	82.160	150mm CAP AND THRUST BLOCK
0+030	84.57	82.170	TOP OF PIPE
0+040	84.46	82.060	TOP OF PIPE
0+060	84.52	82.120	TOP OF PIPE
0+063.4	84.69	82.290	50mm WATERMAIN CAP

SEWER AND WATERMAIN CROSSING TABLE

CROSSING	STM INV	STM OBY	SAN INV	SAN OBY	WTR TOP	WTR BTM	NOTES
1	82.15	82.45	81.79	81.99	82.35	82.20	
2	80.42	81.17					
3			80.94	81.19	82.32	82.17	

* BRACKETS DENOTE ADJUSTED VALUE WITH CONCRETE PIPE THICKNESS

SCHEDULE OF INLET CONTROL DEVICES

STRUCTURE ID	DRAINAGE AREA ID	ICD TYPE	100 YEAR HEAD (m)	100 YEAR FLOW (L/s)
CBMH103	L103A, L200A, L201A	83mm ORIFICE	2.31	20.8
CB 202	L202A	83mm ORIFICE	2.02	19.5

SCHEDULE OF ROOF RELEASE RATES

DRAINAGE AREA ID	DRAIN TYPE	# DRAINS	100 YEAR HEAD (m)	100 YEAR RELEASE RATE (L/s)
R101A	Zurn Control Flo Single Notch Roof Drain	2	0.122	3.8

Legend

- PROPOSED WATERMAIN
- PROPOSED VALVE AND VALVE BOX
- PROPOSED VALVE CHAMBER
- PROPOSED REDUCER
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER
- PROPOSED REMOTE WATER METER
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED CATCHBASIN
- PROPOSED CATCHBASIN MANHOLE
- EXISTING WATERMAIN
- EXISTING VALVE AND VALVE BOX
- EXISTING VALVE CHAMBER
- EXISTING REDUCER
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING CATCHBASIN MANHOLE
- EXISTING CATCHBASIN
- PROPOSED DEPRESSED CURB LOCATIONS
- PROPOSED MOUNTABLE/BARRIER CURB LOCATION

OWNER: 2520333 ONTARIO INC. 5 MILLCREEK COURT, NEPEAN, ON K2G 6Y7
 APPLICANT: STANTEC CONSULTING INC. 1331 CLYDE AVENUE, OTTAWA ON K2C 3G4
 SURVEYOR: STANTEC GEOMETRICS LTD. 1331 CLYDE AVENUE, OTTAWA ON K2C 3G4
 ARCHITECT: MICROBIE ARCHITECTS + INTERIOR DESIGNERS 68 QUEEN STREET, OTTAWA, ON K1P 5C6
 LANDSCAPE ARCHITECT: STANTEC CONSULTING INC.
 CIVIL ENGINEER: STANTEC CONSULTING INC.

APPROVED REFUSED

THIS _____ DAY OF _____, 20____

DON HERWEYER, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW - SOUTH PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

- ### WATERMANS
- ALL WATERMANS, WATER SERVICES, CONNECTIONS AND APPURTENANCES AS PER CITY OF OTTAWA STANDARDS. THE CONTRACTOR SHALL CO-ORDINATE AND PAY ALL RELATED COSTS INCLUDING THE COST OF CONNECTION, INSPECTION AND DISINFECTION BY CITY OF OTTAWA PERSONNEL. WATERMAIN TRENCH TO BE IN ACCORDANCE WITH CITY OF OTTAWA W17. BEDDING AND COVER MATERIAL TO BE SPECIFIED BY PROJECT GEOTECHNICAL CONSULTANT.
 - WATERMAIN PIPE MATERIAL SHALL BE PVC CL150 DR18. DEFLECTION OF WATERMAIN PIPE IS NOT TO EXCEED 1/2 OF THAT SPECIFIED BY THE MANUFACTURER. PVC WATERMANS TO BE INSTALLED WITH TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W36. WATER SERVICES ARE TO BE PVC DR 18 AS PER CITY OF OTTAWA STANDARD W90 (UNLESS OTHERWISE NOTED). WATER SERVICE TO BE INSTALLED 1.0M OFF BUILDING FACE.
 - FIRE HYDRANTS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W18 AND W19.
 - WATER VALVES TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W24.
 - SERVICE CONNECTIONS SHALL BE INSTALLED A MINIMUM OF 2400mm FROM ANY CATCHBASIN, MANHOLE, OR OBJECT THAT MAY CONTRIBUTE TO FREEZING. THERMAL INSULATION SHALL BE INSTALLED ON ALL PROPOSED CB'S ON THE W/M STREET SIDE WHERE 2400mm SEPARATION CANNOT BE ACHIEVED (AS PER CITY OF OTTAWA W22 & W23).
 - ALL WATERMANS SHALL HAVE MIN. COVER OF 2.4m. WATERMANS ARE TO BE INSTALLED TO THE ELEVATIONS SHOWN ON THE APPROVED SITE SERVICING DRAWING. WHERE SERVICE WATERMAIN ELEVATIONS ARE NOT SHOWN ON SERVICING DRAWING, A MINIMUM COVER OF 2.4m FROM PROPOSED GRADES, AS SHOWN ON THE GRADING PLAN, MUST BE MAINTAINED AT ALL TIMES. IN PREGRADE AREAS COVER TO BE FROM PREFERRED ELEVATIONS. WHERE WATERMAIN COVER IS LESS THAN 2.4m, INSULATION TO BE SUPPLIED IN ACCORDANCE WITH CITY STANDARD W22.
 - ALL WATERMAIN BENDS, JOINTS, TEES AND PLUGS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
 - WATERMANS MUST COMPLY WITH MINIMUM HORIZONTAL AND VERTICAL CLEARANCES IN ACCORDANCE WITH LOCAL PROVINCIAL GUIDELINES AND THE APPLICABLE BUILDING AND PLUMBING CODE. WHERE HORIZONTAL SEPARATIONS CANNOT BE ACHIEVED, APPROVAL FROM THE ENGINEER MUST BE OBTAINED AND A MINIMUM 500mm VERTICAL SEPARATION MUST BE MAINTAINED.
 - WATERMAIN CROSSINGS ABOVE AND BELOW SEWERS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W25 AND W25.2.
 - ALL WATERMANS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE DIRECTED. PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED.
 - ALL WATERMANS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES. ALL CHLORINATED WATER TO BE DISCHARGED AND PRETREATED TO ACCEPTABLE LEVELS PRIOR TO DISCHARGE. ALL DISCHARGED WATER MUST BE CONTROLLED AND TREATED SO AS NOT TO ADVERSELY AFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MUNICIPAL AND/OR PROVINCIAL REQUIREMENTS ARE FOLLOWED.
 - CATHODIC PROTECTION PER CITY OF OTTAWA W40 AND W42.

- ### STORM AND SANITARY SEWERS
- SEWER TRENCH SHALL CONSIST OF CLASS 'B' BEDDING PER CITY OF OTTAWA STANDARDS S6 AND S7. COMPACTION SHALL BE A MINIMUM OF 95% STANDARD PROCTOR DENSITY. TO BE CONFIRMED BY GEOTECHNICAL CONSULTANT.
 - FOR CONSTRUCTION DETAILS NOT SHOWN ON PLANS, REFERENCE SHALL BE MADE TO THE ONTARIO PROVINCIAL STANDARDS DRAWINGS AND CITY OF OTTAWA STANDARDS.
 - SERVICES TO BUILDINGS TO BE TERMINATED 1.0m FROM THE FACE OF BUILDING UNLESS OTHERWISE NOTED.
 - STORM AND SANITARY SEWER CONNECTIONS AS PER CITY STD S11.1. ALL STORM AND SANITARY SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
 - STREET CATCH BASINS TO BE INSTALLED IN ACCORDANCE WITH CITY STANDARD S36/w 150mm SUBDRAINS 3m LONG IN FOUR ORTHOGONAL DIRECTIONS OR LONGITUDINALLY WHEN PLACED ALONG A CURB, AND AT AN ELEVATION OF 30mm BELOW SUBGRADE LEVEL.
 - STORM AND SANITARY SEWERS 375mm DIA. OR SMALLER SHALL BE PVC SDR 35. SEWERS LARGER THAN 375mm DIA. SHALL BE CONCRETE CSA A 257.2 CLASS 100-D AS PER OPSD 807.010
 - STORM AND SANITARY MANHOLES SHALL BE 1200mm DIAMETER IN ACCORDANCE WITH OPSD-701.01 (UNLESS OTHERWISE NOTED) c/w FRAME AND COVER AS PER CITY OF OTTAWA S24 AND S25. ALL STORM MANHOLES WITH SEWERS 300mm DIA SEWERS AND OVER IN SIZE SHALL BE BENCHED. ALL OTHERS SHALL BE COMPLETED WITH 300mm SUMP AS PER CITY STANDARDS.
 - GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300 mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA AND COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY. TO BE CONFIRMED BY GEOTECHNICAL CONSULTANT.
 - LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
 - FROST PROTECTION PER CITY OF OTTAWA STANDARD DRAWING W22 WHERE THERE IS LESS THAN 1.5m OF COVER ABOVE THE SEWER SERVICES.
 - CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSD 410 AND OPSD 407. A COPY OF THE INSPECTION REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW.

- ### GENERAL NOTES
- ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
 - ALL WORK AND MATERIALS TO CONFORM WITH CURRENT MINISTRY OF THE ENVIRONMENT & ENERGY OF ONTARIO, CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
 - THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AND COORDINATION WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
 - THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS PROVIDED BY OTHERS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY EACH UTILITY PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
 - ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF SAME INCLUDING WATER PERMIT AND ASSOCIATED COSTS.
 - ALL DISTURBED AREAS SHALL BE REINSTATED TO EQUAL OR BETTER CONDITION TO THE SATISFACTION OF THE ENGINEER AND THE CITY. PAVEMENT/REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH OPSD 509.010 AND OPSD 310.
 - BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON DRAWING GP-1.
 - THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER 1 (ONE) SET OF AS CONSTRUCTED SITE SERVICING, GRADING, AND SITE ELECTRICAL DWGS.
 - THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENTATION CONTROL PLAN WHICH WILL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE PROTECTION FOR RECEIVING STORM SEWERS OR DRAINAGE DURING CONSTRUCTION ACTIVITIES. THIS PLAN SHALL INCLUDE BUT NOT LIMITED TO FILTER CLOTH ON CATCH BASINS, STRAW BALE CHECK DAMS AND SEDIMENT CONTROLS AROUND ALL DISTURBED AREAS. DENATURING SHALL BE PUMPED INTO SEDIMENT TRAPS.
 - ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED. DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO ENGINEER.
 - THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL BY THE CONTRACT ADMINISTRATOR AND DIRECTOR OF ENGINEERING HAS BEEN OBTAINED.
 - HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE TO BE NOTIFIED IF DEEPLY BURIED ARCHEOLOGICAL REMAINS ARE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES.
 - SITE SIGNAGE TO BE INSTALLED AS PER ARCHITECTURAL SITE PLAN.
 - ALL EXISTING SERVICES TO BE BLANKED.

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Revision	By	Appd.	YY.MM.DD
3	WAJ	KJK	17.10.27
2	WAJ	KJK	17.08.03
1	WAJ	KJK	17.04.06

Permit/Seal

File Name: 16401284-03 WAJ KJK WAJ 17.03.06
Dwn. Chkd. Dgnr. YY.MM.DD

Client/Project
2520333 ONTARIO INC.

PROPOSED COMMERCIAL DEVELOPMENT
3500 HAWTHORNE ROAD
OTTAWA, ON

Title
SITE SERVICING PLAN

Project No. 16401284 Scale 0 2 6 10m
1:200

Drawing No. SSP-1 Sheet 1 of 5 Revision 3

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