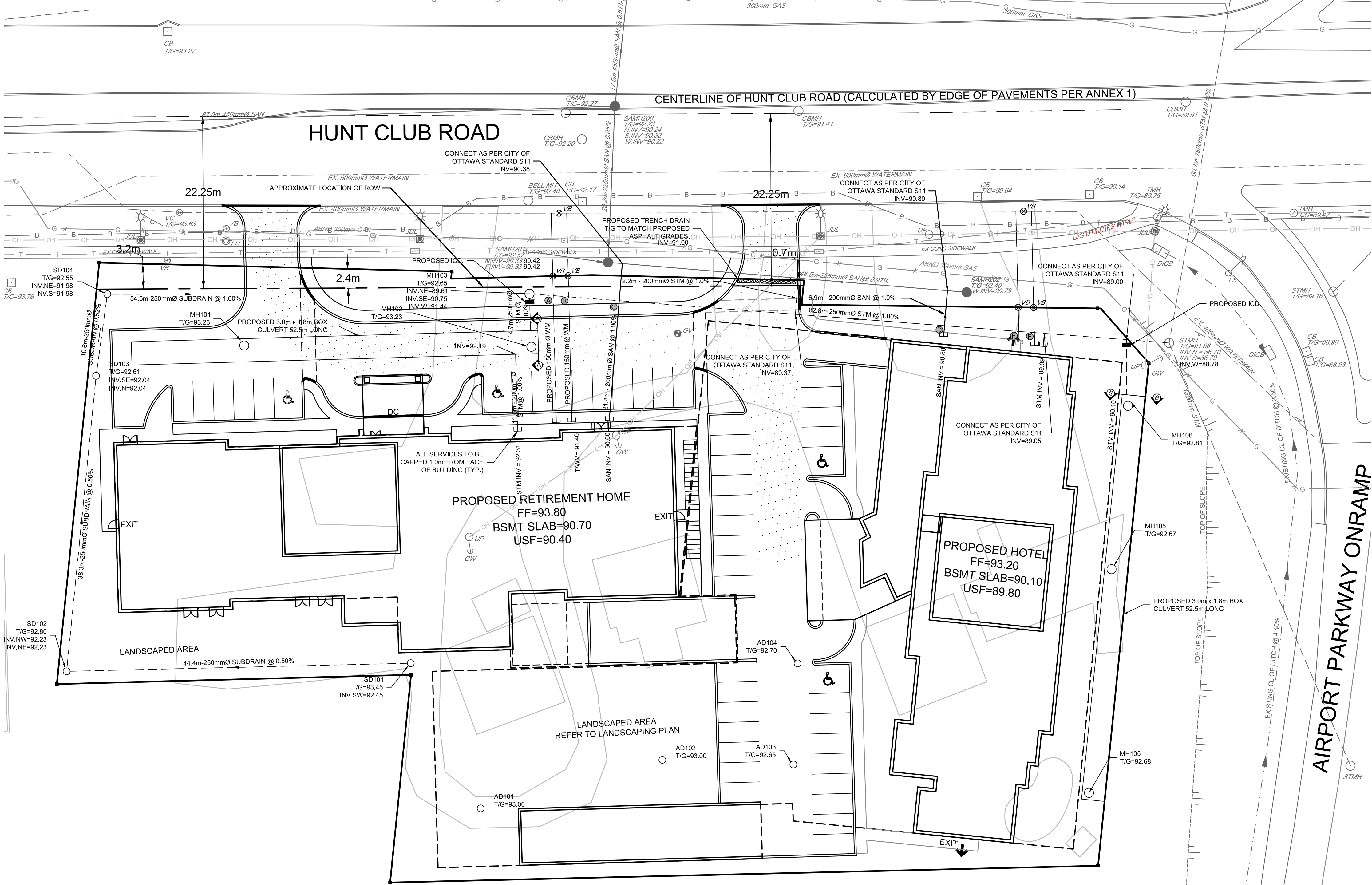


PIPE CROSSINGS				
NO.	TOP OF WATERMAIN	STORM INV	SANITARY INV	CLEARANCE (ACTUAL)
(A)	90.80	89.57		0.83
(B)	90.80	89.55		0.85
(C)		89.52	90.38	0.61
(D)		89.07	90.85	1.53
(E)	90.52	88.97		0.60
(F)	90.52	88.95		0.62



GENERAL NOTES:

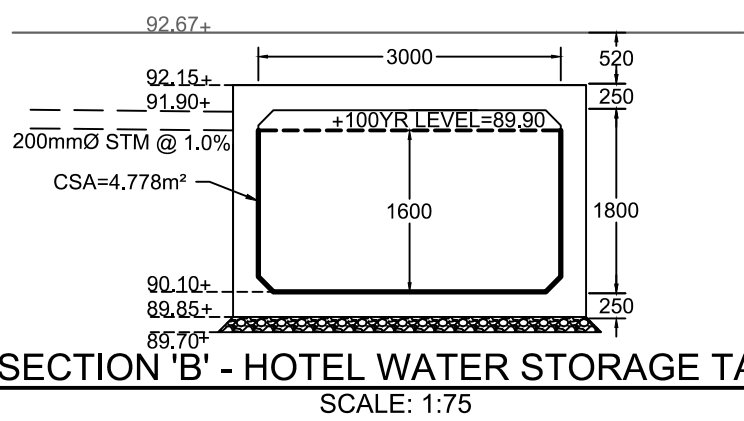
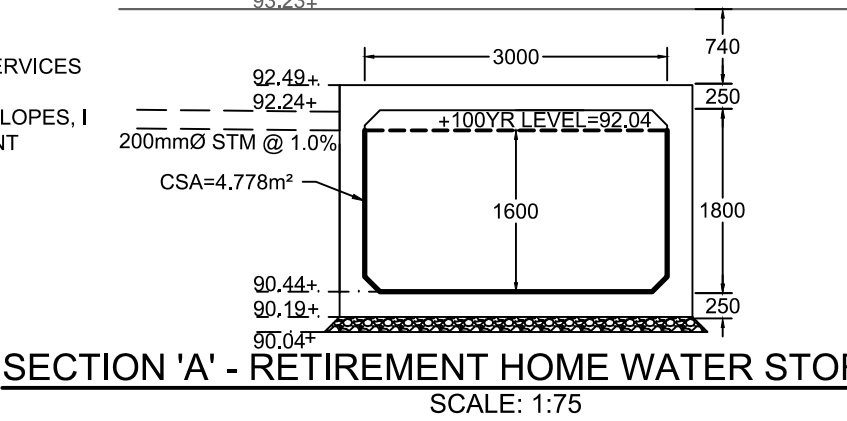
- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.

- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- ALL ELEVATIONS ARE GEODETIC.
- REFER TO GEOTECHNICAL REPORT (No. PQ4091-1, DATED APR 24 2017), PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
- REFER TO STORMWATER MANAGEMENT REPORT(R-2017-058) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.

- SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- PROVIDE LINE/PARKING PAINTING.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND TIG ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

PAVEMENT STRUCTURE:

	LIGHT DUTY 50mm HL3 150mm GRAN "A" 300mm GRAN "B" TYPE II
	HEAVY DUTY 40mm HL3 50mm HL3 150mm GRAN "A" 450mm GRAN "B" TYPE II



NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.



CLARIDGE HOMES
BUILDING QUALITY & VALUE FOR OVER 25 YEARS

1.	ISSUED FOR SITE PLAN APPLICATION	MAY 25/17	GJM
No.	REVISION	DATE	BY

SCALE
1:300
0 3 6 9 12

DESIGN
MTL
CHECKED
GJM
DRAWN
MTL
CHECKED
GJM
APPROVED
GJM

FOR REVIEW ONLY



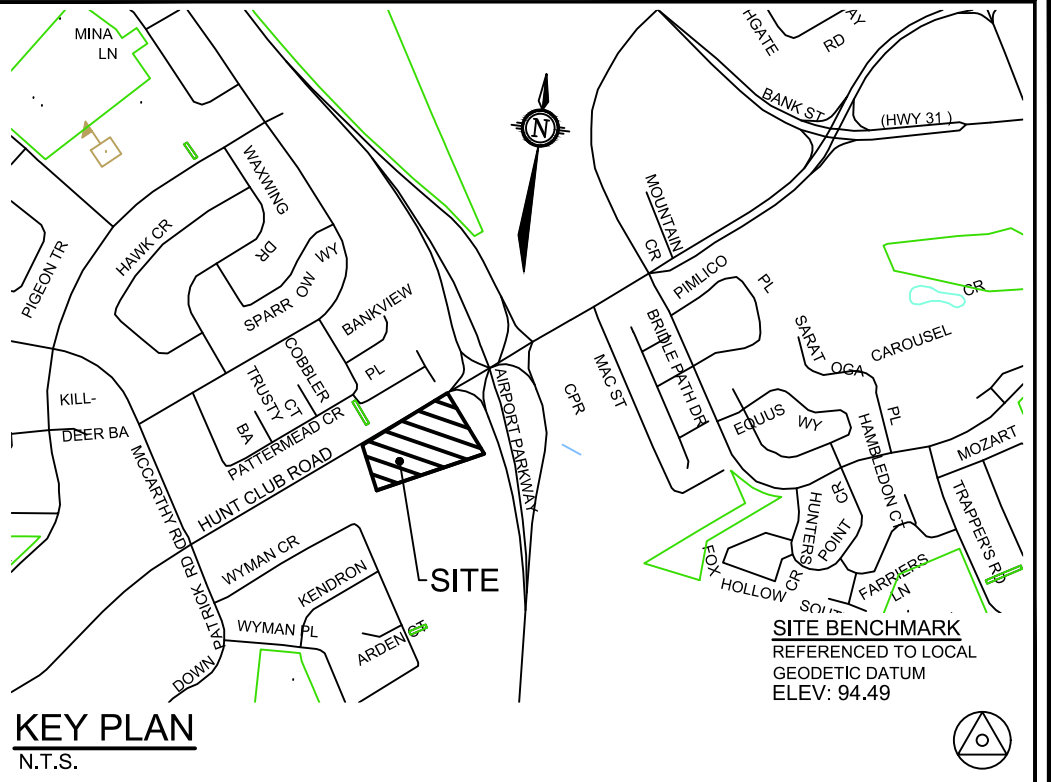
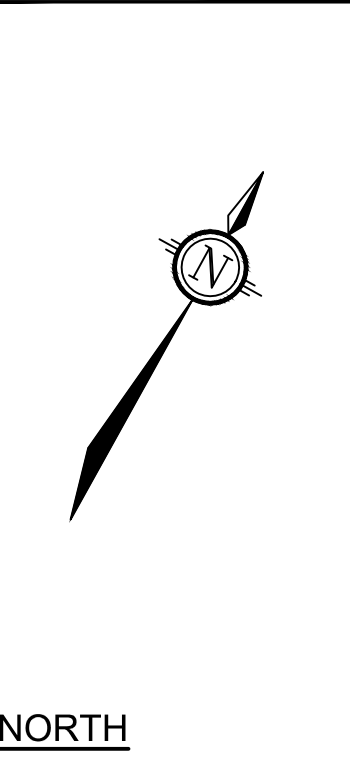
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Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

LOCATION
CITY OF OTTAWA
HUNT CLUB DEVELOPMENT

DRAWING NAME

GENERAL PLAN OF SERVICES
PHASE 2

PROJECT No.	117036-00
REV	REV # 1
DRAWING No.	117036-GP2



LEGEND	
	PROPOSED PROPERTY LINE
	PROPOSED WATERMAIN
	PROPOSED VALVE BOX
	PROPOSED STORM MANHOLE
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED STORM TRENCH DRAIN
	PROPOSED CAP
	EXISTING LEGAL ADJACENT LINE
	EXISTING STANDARD IRON BAR / CONTROL POINT
	EXISTING FLOW DIRECTION OF SEWERS
	EXISTING SANITARY MANHOLE & SEWER
	EXISTING STORM MANHOLE & SEWER
	EXISTING CATCH BASIN
	EXISTING DITCH INLET
	EXISTING DITCH BASIN
	EXISTING WATERMAIN VALVE CHAMBER
	EXISTING WATERMAIN SHUT-OFF VALVE BOX
	EXISTING WATERMAIN
	EXISTING HYDRANT C/W LEAD & SHUT-OFF VALVE BOX
	EXISTING GAS VALVE
	EXISTING ABANDONED GAS MAIN
	EXISTING BELL CONDUIT
	EXISTING OVER HEAD WIRE
	EXISTING HYDRO-UTILITY POLE
	EXISTING GUY WIRE
	EXISTING TRAFFIC MANHOLE
	EXISTING JOINT USE STREET LIGHT
	EXISTING STREET LIGHT
	EXISTING TRAFFIC HAND HOLE
	EXISTING TRAFFIC SIGN

SEWER NOTES:

- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200Ø)	701.010	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
SEWER TRENCH - BEDDING (GRANULAR A)		
COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)		
STORM SEWER	PVC DR 35	
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	
- INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
- SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
- PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
- FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX- POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
- THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSD 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
- STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
- CONTRACTOR TO TELEWISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

WATERMAIN NOTES:

- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN	PVC DR 18	
- SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
- PROVIDE MINIMUM 0.25m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
- WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
- WATER DEMAND HAS BEEN CALCULATED AND INCLUDED IN THE "SERVICING AND STORMWATER MANAGEMENT REPORT" PREPARED BY NOVATECH

NOTE:
ALL LOCATIONS SHOWN ON PLAN OF STRUCTURES AND UTILITIES ARE APPROXIMATE.
BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NOTE:
CONTRACTOR TO ADJUST ANY AFFECTED MANHOLE COVERS, WATERMAIN SHUT OFF VALVES OR OTHER MANHOLE COVERS IN AREAS OF CONSTRUCTION TO NEWLY CONSTRUCTED GRADE ELEVATIONS. ANY MANHOLE STRUCTURES NOT ON THIS PLAN WITHIN THE AREA OF CONSTRUCTION ALSO TO BE ADJUSTED AND ENGINEER TO BE NOTIFIED.