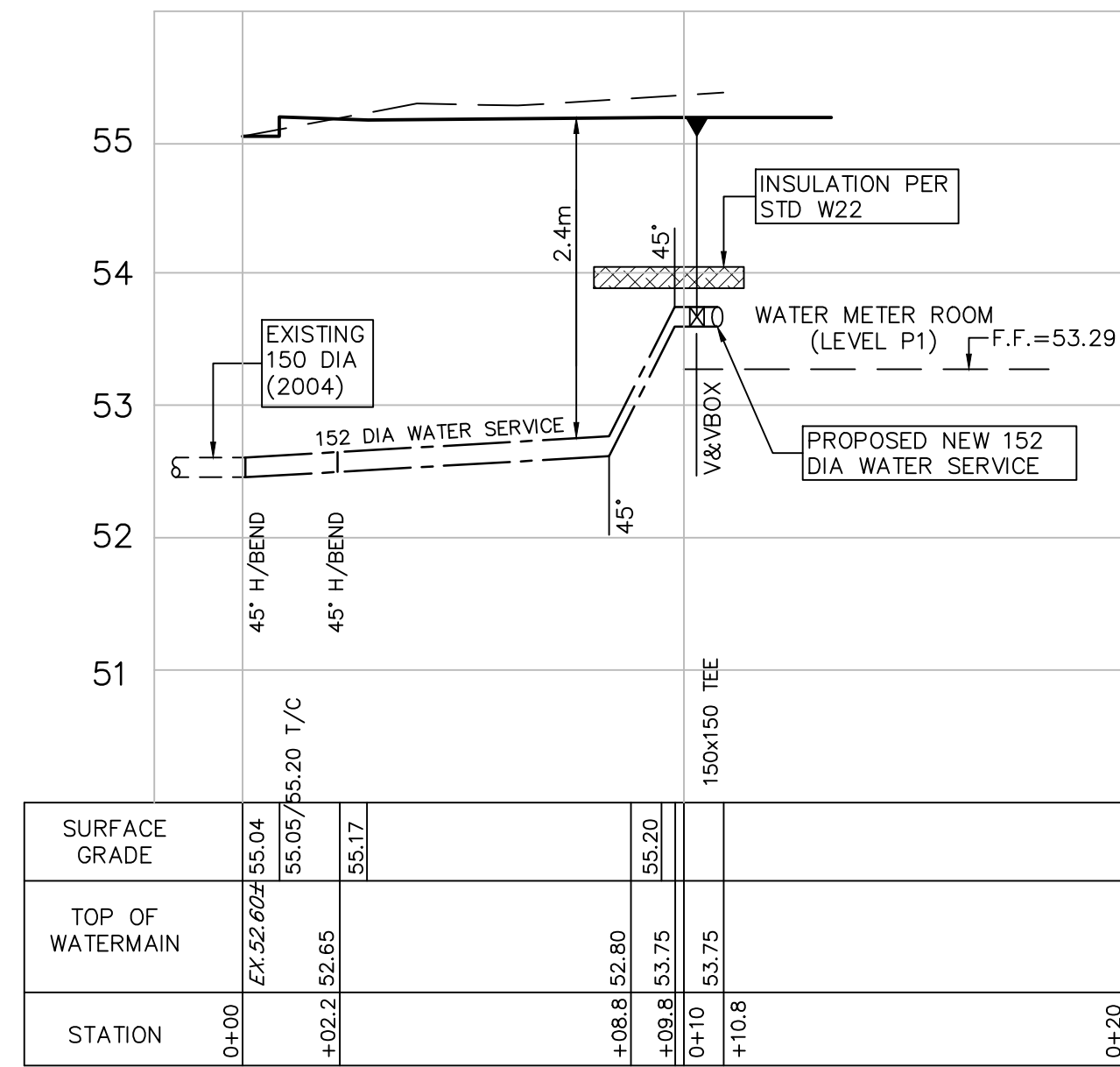


NEW WATER SERVICE PROFILE
H 1:150 V 1:50



CONNECTION BETWEEN EXISTING AND NEW WATER SERVICES
H 1:150 V 1:50

NOTES & SPECIFICATIONS

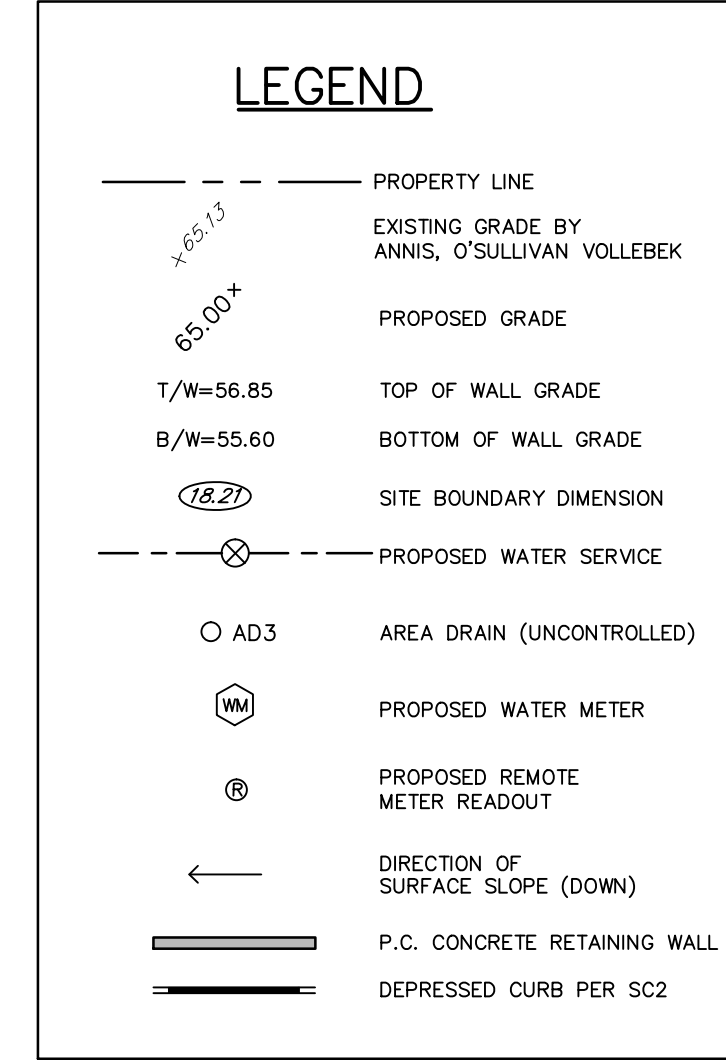
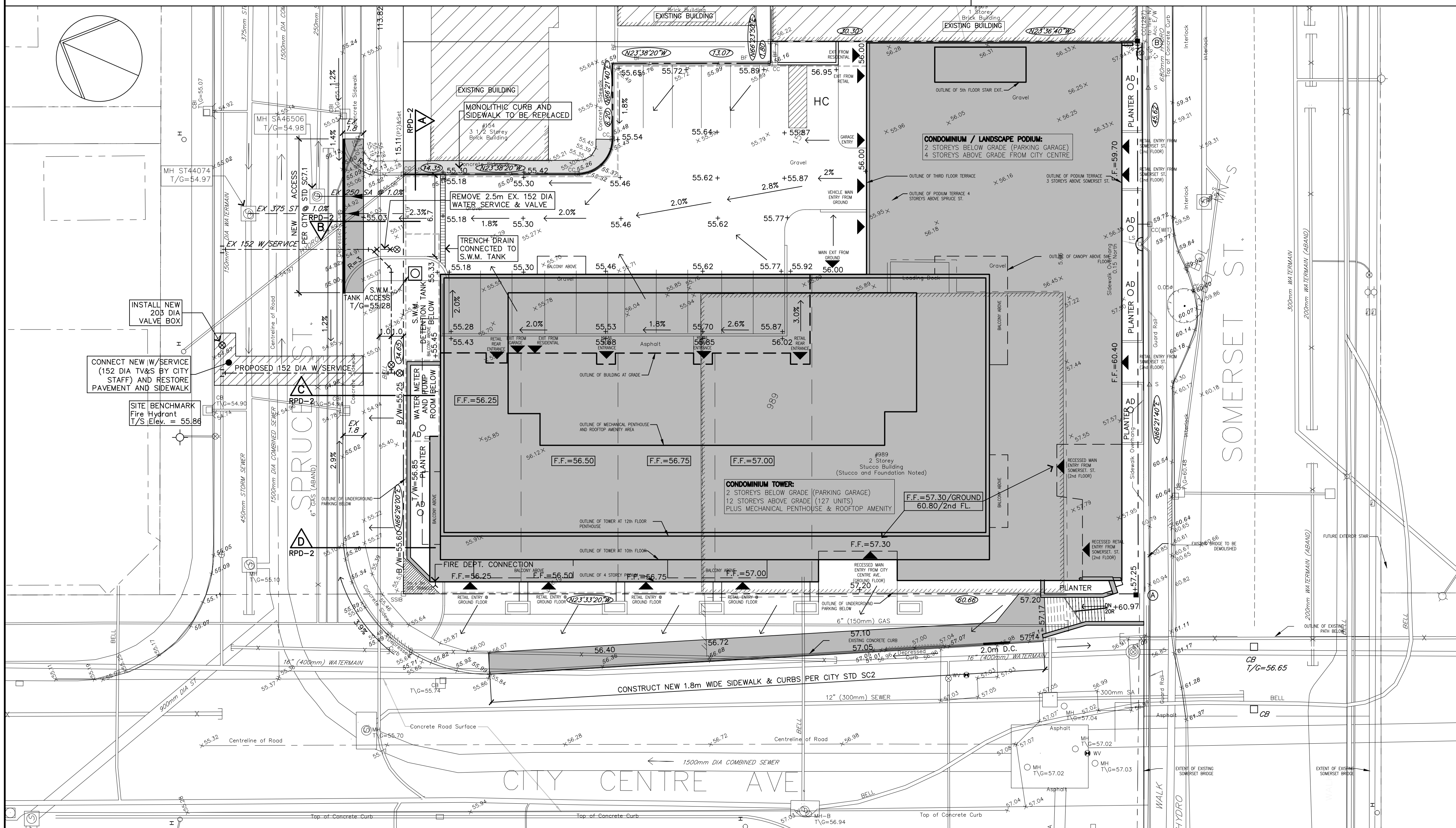
- GENERAL**
SITE INFORMATION COMPILED FROM EXISTING CITY RECORDS, TOPO AND SITE BOUNDARY SURVEY BY OTHERS AND ENGINEER'S FIELD NOTES. REPORT ALL DISCREPANCIES PRIOR TO ANY WORK.
- MODIFICATIONS/REVISIONS**
NO MODIFICATIONS TO THIS DRAWING AND SPECIFICATIONS AND NO MATERIALS SUBSTITUTION IS PERMITTED WITHOUT THE WRITTEN AUTHORIZATION OF BOTH THE ENGINEER AND THE OWNER.
- ENGINEER'S STAMP**
USE OF THIS DRAWING WITHOUT THE ENGINEER'S SIGNED STAMP CURRENT TO THE LATEST REVISION IS NOT ALLOWED AND SHOULD ANY SUCH USE OCCUR, THE ENGINEER IS RELEASED OF ANY RESPONSIBILITY.
- SITE BENCHMARKS**
FOR SITE BOUNDARY DIMENSIONS REFER TO TOPOGRAPHICAL PLAN BY ANNIS, O'SULLIVAN, VOLLEBEK LTD. DATED JULY 5, 2013.
- SITE BENCHMARK**
ALL ELEVATIONS SHOWN ON THIS PLAN ARE GEODETIC DATUM AND REFERRED TO A SITE BENCHMARK ON FIRE HYDRANT LOCATED ON THE NORTH SIDE OF SPRUCE STREET APPROX. 15m EAST OF CITY CENTRE AVENUE. TOP SPRINDLE = 55.86 METERS.
- EXISTING CONDITIONS**
6.1 SURFACE: EXISTING GROUND SURFACE ELEVATIONS SHOWN ON THIS DRAWING ARE TAKEN FROM THE TOPOGRAPHICAL PLAN REFERRED TO IN NOTE 4, ABOVE.
6.2 SUBSURFACE: REFER TO GEOTECHNICAL INVESTIGATION REPORT BY JOHN D. PATERSON & ASSOC. LTD. (REPORT NO. G 8584-2, DATED JAN. 3, 2003).
- LAYOUT**
ALL DIMENSIONS ARE SHOWN IN METRES UNLESS OTHERWISE NOTED. REFER TO ARCHITECT'S SITE PLAN FOR HORIZONTAL LAYOUT DIMENSIONS OF MAJOR SITE FEATURES INCLUDING BUILDINGS, ENTRANCE ROADWAY, DRIVEWAYS, SIDEWALKS AND RETAINING WALLS. THE CONTRACTOR IS RESPONSIBLE FOR LAYOUT OF ALL UNDERGROUND SERVICES, GRADING, ROADWAYS, DRIVEWAYS, SIDEWALKS AND RETAINING WALLS.
- PERMITS**
THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL CONSTRUCTION RELATED PERMITS, FEES, APPROVALS AND INSPECTIONS REQUIRED BY THE CITY AND THE PROVINCE.
- SPECIFICATIONS (GENERAL)**
ALL MATERIALS, CONSTRUCTION, TESTING AND DISINFECTION OF ON-SITE AND OFF-SITE UNDERGROUND SERVICES FOR WATER SUPPLY, SANITARY AND STORM DRAINAGE SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD SPECIFICATIONS CURRENTLY IN EFFECT (PUBLIC SERVICES & WORKS DEPARTMENT, INFRASTRUCTURE SERVICES BRANCH); BY REFERENCE TO ONTARIO STANDARDS OPSS & OPSD AND BY REFERENCE TO CSA, ASTM AND AWWA STANDARDS.
- CONNECTION TO CITY SERVICES**
10.1 THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND CITY SERVICES AND STRUCTURES FOR CONNECTION OF SITE SERVICES AND DETERMINE ANY DAMAGE OR POSSIBLE CONFLICT PRIOR TO CONSTRUCTION OF NEW SEWER AND WATER WORKS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, CONFLICTS OR OMISSIONS THAT ARE UNCOVERED.
10.2 THE CONTRACTOR SHALL NOTIFY CITY INSPECTION STAFF PRIOR TO EXCAVATING FOR CONNECTION TO CITY WATERMANS. CITY STAFF SHALL MAKE ALL CONNECTIONS TO CITY WATERMANS.

- WATER SERVICE CONNECTIONS**
CONNECT TO EXISTING 203mm DIA. PVC (2004) MAIN ON SPRUCE STREET WITH 152mm DIA USING TV&S. TO BE INSTALLED BY CITY STAFF, WITH EXCAVATION, BEDDING, BACKFILL, ROAD AND SIDEWALK RESTORATION BY THE CONTRACTOR.
CONNECT EXISTING 150mm DIA PVC WATER SERVICE (2004) TO NEW WATER SERVICE AFTER REMOVING 2.5m OF EXISTING SERVICE AND SALVAGING EXISTING VALVE AND VALVE BOX AS SHOWN ON THIS PLAN.
TRENCHING, BEDDING, BACKFILLING, CATHODIC PROTECTION, TESTING AND DISINFECTION PER CITY STANDARDS AND SPECIFICATIONS.
WATER SERVICE TO BE 152mm DIA PVC DR 18, PRESSURE CLASS 150 INSTALLED WITH 2" MIN COVER BELOW SURFACE GRADE.
INSTALL WATER SERVICE TO SOUTH LIMIT OF SPRUCE STREET AT SHUT-OFF VALVE AND VALVE BOX.
WATER SERVICE INSTALLED TO 2.4m DEPTH: NO INSULATION REQUIRED. INSULATE PER STD. W22 FOR SERVICES LESS THAN 2.4m COVER TO FINISHED GRADE. INSULATE BETWEEN WATERMAIN/SEWER CROSSINGS PER CITY STANDARDS.
- ROOF DRAIN CONTROLS (RDC)**
ON VARIOUS ROOF LEVELS INSTALL A TOTAL OF SIX (6) ROOF DRAINS WITH ADJUSTABLE CONTROL WEIRS (RDC'S) AT LOCATIONS AND WITH WEIR SETTINGS AS SPECIFIED ON ROOF PONDING PLAN (DWG. RPD-2).
INSTALL A PLUG-TYPE CIRCULAR ORIFICE CENTRED ON THE 200mm DIA STORM SERVICE OUTLET INSIDE UNDERGROUND GARAGE. I.C.D. TO HAVE 128mm DIA CIRCULAR ORIFICE WITH 45° BEVEL ON DOWNSTREAM SIDE. I.C.D. RELEASE RATE TO BE 27.3 L/Sec @ 0.62m HEAD.
- AREA DRAINS (AD)**
REFER TO MECHANICAL DRAWINGS FOR SPECIFICATIONS OF AREA DRAINS TO BE USED AT PLANTER BOX LOCATIONS ABOVE UNDERGROUND GARAGE CEILING SLABS WHERE INDICATED ON THIS PLAN.
- INLET CONTROL DEVICES (ICD)**
IMMEDIATELY UPON COMPLETION OF ALL ROOF DRAINS (CONTROLLED AND UNCONTROLLED) AND AREA DRAINS IN FINISHED LANDSCAPED SURFACES, INSTALL A PLUG-TYPE CIRCULAR ORIFICE CENTRED ON THE 200mm DIA STORM SERVICE OUTLET INSIDE UNDERGROUND GARAGE. I.C.D. TO HAVE 128mm DIA CIRCULAR ORIFICE WITH 45° BEVEL ON DOWNSTREAM SIDE. I.C.D. RELEASE RATE TO BE 27.3 L/Sec @ 0.62m HEAD.
- UNDERGROUND GARAGE DRAINAGE**
REFER TO MECHANICAL DRAWINGS FOR DETAILS OF SITE, LOCATION & PIPING FOR SLIMPS AND PUMPS LOCATED BELOW FLOOR OF PARKING LEVEL P2. DISCHARGE OF SUMP PUMPS TO BE PIPED TO THE FOLLOWING OUTLETS:
GARAGE FLOOR DRAINAGE TO SANITARY SEWER CONNECTION AT N/E CORNER OF PARKING LEVEL P1.
FOUNDATION DRAINAGE TO STORM SEWER CONNECTION ON PARKING LEVEL P1 AND TO BE CONNECTED DOWNSTREAM OF THE ICD CONTROL FOR THE S.W.M. TANK.
- EXTERIOR PAVEMENT SURFACES**
REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR SPECIFICATIONS OF ALL EXTERIOR ON-SITE PAVEMENT SURFACES INCLUDING ENTRY COURTYARD, ACCESS DRIVEWAY AND WALKWAYS TO RESIDENTIAL AND RETAIL ENTRIES ALONG CITY CENTRE AVE. AND SPRUCE STREET.
FOUNDATION DRAINAGE TO STORM SEWER CONNECTION ON PARKING LEVEL P1 AND TO BE CONNECTED DOWNSTREAM OF THE ICD CONTROL FOR THE S.W.M. TANK.
REMOVE EXISTING SIDEWALK AND CURB AT SPRUCE STREET VEHICLE ENTRANCE AND REPLACE WITH MONOLITHIC CURB AND SIDEWALK PER CITY STD. SC2.1.
CONSTRUCT CITY SIDEWALK ON CITY CENTRE AVENUE ACROSS ENTIRE FRONTAGE PER CITY STD. SC2.
ALL CONCRETE FOR CURBS AND SIDEWALKS SHALL BE 32MPa CLASS C-2 CONCRETE MIX PER CITY SPEC. NO. F-3510.
REINSTATEMENT SHALL BE TO THE MINIMUM LIMITS SHOWN ON THE PLAN OR SUCH FURTHER EXTENT AS DETERMINED BY THE CITY TO COVER ALL AREAS OF ACTUAL CONSTRUCTION DAMAGE.
- PAVEMENT CUTS AND RESTORATION**
PAVEMENT CUTS FOR SERVICES INSTALLATION IN ROADWAYS SHALL BE TEMPORARILY REINSTATED TO MATCH EXISTING PAVEMENT STRUCTURE AND PAVEMENT SURFACES SHALL BE PERMANENTLY REINSTATED FOLLOWING REPLACEMENT OF SIDEWALK CUT(S) ON SPRUCE STREET AND CONSTRUCTION OF NEW CURB AND SIDEWALK ON CITY CENTRE AVENUE.
- CITY SIDEWALKS**
REMOVE EXISTING SIDEWALK AND CURB AT SPRUCE STREET VEHICLE ENTRANCE AND REPLACE WITH MONOLITHIC CURB AND SIDEWALK PER CITY STD. SC2.1.
CONSTRUCT CITY SIDEWALK ON CITY CENTRE AVENUE ACROSS ENTIRE FRONTAGE PER CITY STD. SC2.
ALL CONCRETE FOR CURBS AND SIDEWALKS SHALL BE 32MPa CLASS C-2 CONCRETE MIX PER CITY SPEC. NO. F-3510.
REINSTATEMENT SHALL BE TO THE MINIMUM LIMITS SHOWN ON THE PLAN OR SUCH FURTHER EXTENT AS DETERMINED BY THE CITY TO COVER ALL AREAS OF ACTUAL CONSTRUCTION DAMAGE.

- PLANTER BOXES**
REFER TO ARCHITECTURAL, STRUCTURAL AND LANDSCAPE DRAWINGS FOR ALL DETAILS TO CONSTRUCT P/C PLANTER BOXES AT LOCATIONS SHOWN ON THIS PLAN.
- SITE GRADING AND DRAINAGE**
PROPOSED GRADES SHOWN ON THIS PLAN ARE DESIGNED TO MEET SPECIFIC REQUIREMENTS OF THE CITY OF OTTAWA RELATING TO STORMWATER MANAGEMENT (SWM).
FINAL GRADING OF ALL OUTSIDE SURFACES MUST BE IN ACCORDANCE WITH THE PROPOSED GRADES AND SURFACE SLOPE DIRECTION ARROWS SHOWN ON THIS DRAWING IN ORDER TO ALLOW THE SWM SYSTEM TO FUNCTION AS INTENDED BY THE APPROVED DESIGN.
INSTALL WATER SERVICE TO SOUTH LIMIT OF SPRUCE STREET AT SHUT-OFF VALVE AND VALVE BOX.
WATER SERVICE INSTALLED TO 2.4m DEPTH: NO INSULATION REQUIRED. INSULATE PER STD. W22 FOR SERVICES LESS THAN 2.4m COVER TO FINISHED GRADE. INSULATE BETWEEN WATERMAIN/SEWER CROSSINGS PER CITY STANDARDS.
- SEDIMENT CONTROL**
USE BEST MANAGEMENT PRACTICE TECHNIQUES (B.M.P.'S) TO CONTROL RELEASE OF SEDIMENT AND POLLUTANTS OFF-SITE TO ADJACENT PROPERTIES AND TO CITY STREETS AND SEWERS. SUCH B.M.P.'S INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
INSTALL AND MAINTAIN A SILT FENCE ALONG THE ENTIRE EASTERLY SITE BOUNDARY PER O.P.S.D. 219.110 DURING BOTH DEMOLITION AND CONSTRUCTION PHASES OF THIS PROJECT.
DOUBLE WRAP C.B./M.H. INLET GRATES WITH WOVEN GEOTEXTILE UNTIL PAVING AND LANDSCAPING IS COMPLETE.
NO RE-FUELING, LUBRICATING OR CLEANING OF HEAVY EQUIPMENT NEAR C.B. INLETS OR TRENCHES WITH OPEN PIPES.
INSTALL TRUCK WASHING RAMP AND HOSE DOWN FACILITIES ON-SITE DURING EXCAVATION OPERATIONS TO REMOVE SEDIMENT FROM TRUCK TIRES AND ARRANGE FOR PERIODIC FLUSHING AND SWEEPING OF ADJACENT CITY STREETS TO REMOVE SEDIMENTS TRACKED FROM THE SITE BY TRUCK AND HEAVY EQUIPMENT.
GROUNDWATER PUMPING FROM OPEN EXCAVATIONS MUST BE FILTERED THROUGH SILT TRAPS.
MAINTAIN THE EFFICIENCY AND PERFORMANCE OF ALL INSTALLED B.M.P. DEVICES THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL LANDSCAPE SURFACES HAVE BEEN PLACED.
FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY REGULATORY AGENCIES.

22. SPECIAL NOTE/OTHER DRAWINGS
THIS DRAWING MUST BE READ TOGETHER WITH THE LATEST REVISIONS OF THE FOLLOWING OTHER DRAWINGS IN ORDER TO PROPERLY CONSTRUCT THE WORKS:
DWG. TITLE DWG. No. BY
ROOF PONDING PLAN AND DETAILS RPD-2 ERION ASSOCIATES
SITE PLAN SP-1 ALGABE WESTER ARCHITECTS INC.
LANDSCAPE PLAN L-1 GINO J. AIELLO LANDSCAPE ARCHITECT

23. DESIGN CALCULATIONS
FOR DESIGN CALCULATIONS, REFER TO "SITE SERVICES AND STORMWATER MANAGEMENT DESIGN BRIEF" BY ERION ASSOCIATES, PROJECT EA 13-272.



CAUTION:
THE EXACT LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES IS APPROXIMATE ONLY AND MAY BE INCOMPLETE. THE CONTRACTOR IS RESPONSIBLE TO CONTACT ALL MUNICIPAL AUTHORITIES AND UTILITY COMPANIES TO DETERMINE EXACT LOCATION OF ALL SEWERS, WATERMANS, GAS, ELECTRICAL AND COMMUNICATIONS, CABLE TV AND OTHER UNDERGROUND INSTALLATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTION AGAINST DAMAGE OF ALL EXISTING INSTALLATIONS AND IS LIABLE FOR ALL COST SHOULD DAMAGE OCCUR.

no.	date	revision
1	MAR 5/14	SITE PLAN APPLICATION
0	MAR 4/14	ISSUED FOR CLIENT REVIEW

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PROPOSED MIXED USE CONDOMINIUM (RESIDENTIAL/RETAIL)
OTTAWA ONTARIO

SITE SERVICES AND GRADING PLAN
drawing title
drawn **MarCAD** date DEC 2013 scale 1:200
project EA 13-272
drawing no. SSG-1
revision no. 1

