

MONAHAN DRAIN  
~ CELL 2 ~  
NORMAL WATER LEVEL = 92.28  
5 YEAR PONDING LEVEL = 94.89  
100 YEAR PONDING LEVEL = 94.37

GRADING & DRAINAGE PLAN  
SCALE = 1:300

GRADING NOTES:

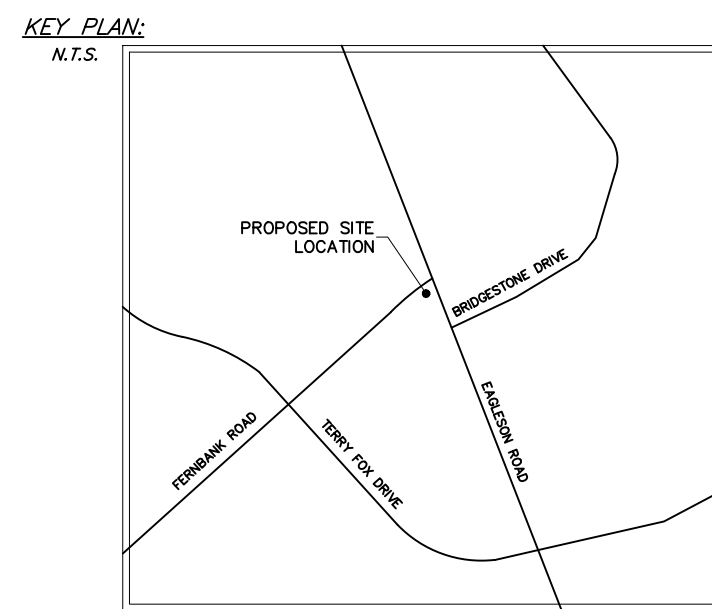
1. FINISHED GRADE TO SLOPE AWAY FROM PROPOSED BUILDING AT A MINIMUM OF 1% GRADE. GRADE ELEVATIONS ARE AS INDICATED.
2. ALL MATERIALS AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.
3. ALL EXISTING AND PROPOSED GRADES ARE METRIC.
4. PROPOSED GRADES HAVE BEEN DESIGNED RELATIVE TO THE PROVIDED EXISTING GRADES.
5. ALL DISTURBED AREAS TO BE REINSTATED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA.
6. THE OWNER (AND/OR CONTRACTOR) AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN AT LEAST EQUAL TO THE STATED MINIMUM REQUIREMENTS AND TO THE SATISFACTION OF THE CITY OF OTTAWA, APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL, SUCH AS BUT NOT LIMITED TO INSTALLING A LIGHT DUTY SILT FENCE BARRIER AS SHOWN OF KOLLAARD ASSOCIATES INC. DRAWING# 180084-ER.
7. MATCH EXISTING ELEVATIONS AT ALL EXTERIOR PROPERTY LINES UNLESS NOTED OTHERWISE. ENSURE POSITIVE DRAINAGE WHETHER INDICATED OR NOT.
8. BUILDERS SHOULD CONSULT THE GEOTECHNICAL REPORT FOR THE SITE PRIOR TO CONSTRUCTION. BUILDERS SHOULD OBTAIN A SUBGRADE INSPECTION REPORT FROM QUALIFIED ENGINEER PRIOR TO CONCRETE PLACEMENT.
9. DRIVEWAY, PARKING LOT AND BUILDING SUBGRADES SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
10. CONTRACTOR RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
11. CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
12. CONTRACTOR TO COMPLY WITH THE MUNICIPAL AUTHORITY REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING NEAR MUNICIPAL STREET.
13. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
14. REFER TO SITE PLAN BY ARCHITECT FOR BUILDING DIMENSIONS AND SITE LAYOUT. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
15. THE CONTRACTOR SHALL CO-ORDINATE AND PAY FOR ALL CONSTRUCTION RELATED PERMITS, FEES, INSPECTIONS AND APPROVALS REQUIRED BY THE MUNICIPAL AUTHORITIES.
16. THE CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING AND SITE WORK.
17. FOR DETAILS OF GROUND CONDITIONS, REFERENCE SHOULD BE MADE TO GEOTECHNICAL REPORT.
18. DROP CURB HEIGHT AT DEPRESSED CURBS TO BE AS PER CITY OF OTTAWA DETAIL SC1.4. DROP CURB HEIGHT TO BE 5mm.
19. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.

ABBREVIATIONS	
STM	STORM MANHOLE
SAN	SANITARY MANHOLE
CB	CATCH BASIN
WV	WATER VALVE
FH	FIRE HYDRANT
FHL	FIRE HYDRANT LEAD
C/L	CENTER LINE
ELEV	ELEVATION
UP	UTILITY POLE

LEGEND (GENERAL)	
	EXISTING GRADE ELEVATIONS
	PROPOSED GRADE ELEVATIONS
	PROPOSED SWALE ELEVATIONS
	PROPOSED ELEVATION @ TOP OF WALL
	PROPOSED ELEVATION @ STORM STRUCTURE GRATE
	PROPOSED INVERT ELEVATION
	PROPOSED TERRACING ELEVATIONS
	PROPOSED DRAINAGE SLOPE
	EXISTING DRAINAGE PATTERN
	DRAINAGE EASEMENT
	PROPERTY LINE
	CENTRELINE OF ROAD
	EDGE OF ROAD
	TOP OF SLOPE
	FENCELINE
	SILT BARRIER FENCE
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED WATER SERVICE
	PROPOSED HYDRO SERVICE
	PROPOSED GAS SERVICE
	PROPOSED COMMUNICATION LINES
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATER SERVICE
	EXISTING HYDRO SERVICE
	PROPOSED MANHOLE/CATCH BASIN
	PROPOSED MANHOLE
	PROPOSED CATCH BASIN
	EXISTING MANHOLE TO REMAIN
	EXISTING CATCH-BASIN TO REMAIN
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
	PROPOSED WATER VALVE
	EXISTING WATER VALVE CHAMBER
	PROPOSED LIGHT STANDARD
	EXISTING HYDRO POLE

DRAWING No. 180084-GR

GRADING & DRAINAGE PLAN



GENERAL PROJECT NOTES:

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4. Temporary Benchmark (TBM) = the top of spindle for the fire hydrant on Fernbank Road, located about 14.5m northwest of the proposed site entrance. Elevation= 96.59m.
5. This drawing does not represent a legal survey.
6. All dimensions to be verified on site by contractor prior to construction.
7. Any changes made to this plan must be verified and approved by Kollaard Associates Inc. All materials and construction to be in accordance with City of Ottawa standards and Ontario Provincial Standards and Specifications, including (but not limited to): sewer and watermain material types, disinfection, provide minimum 2.4 metres of cover for water services, cathodic protection, City of Ottawa insulation specifications for watermain, pipe bedding, reinstatement of disturbed areas and leakage testing.
8. Reference Kollaard file #180084 Servicing and SWM Report for additional information relating to the site services design and the stormwater management design for this site.

1	REVISED FOR SITE PLAN CONTROL	2018/06/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

**K Kollaard Associates Engineers**  
P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923  
KEMPTVILLE, ONTARIO info@kollaard.ca  
KOG 1J0 FAX (613) 258-0475  
http://www.kollaard.ca

CLIENT NAME  
IRONCLAD DEVELOPMENTS

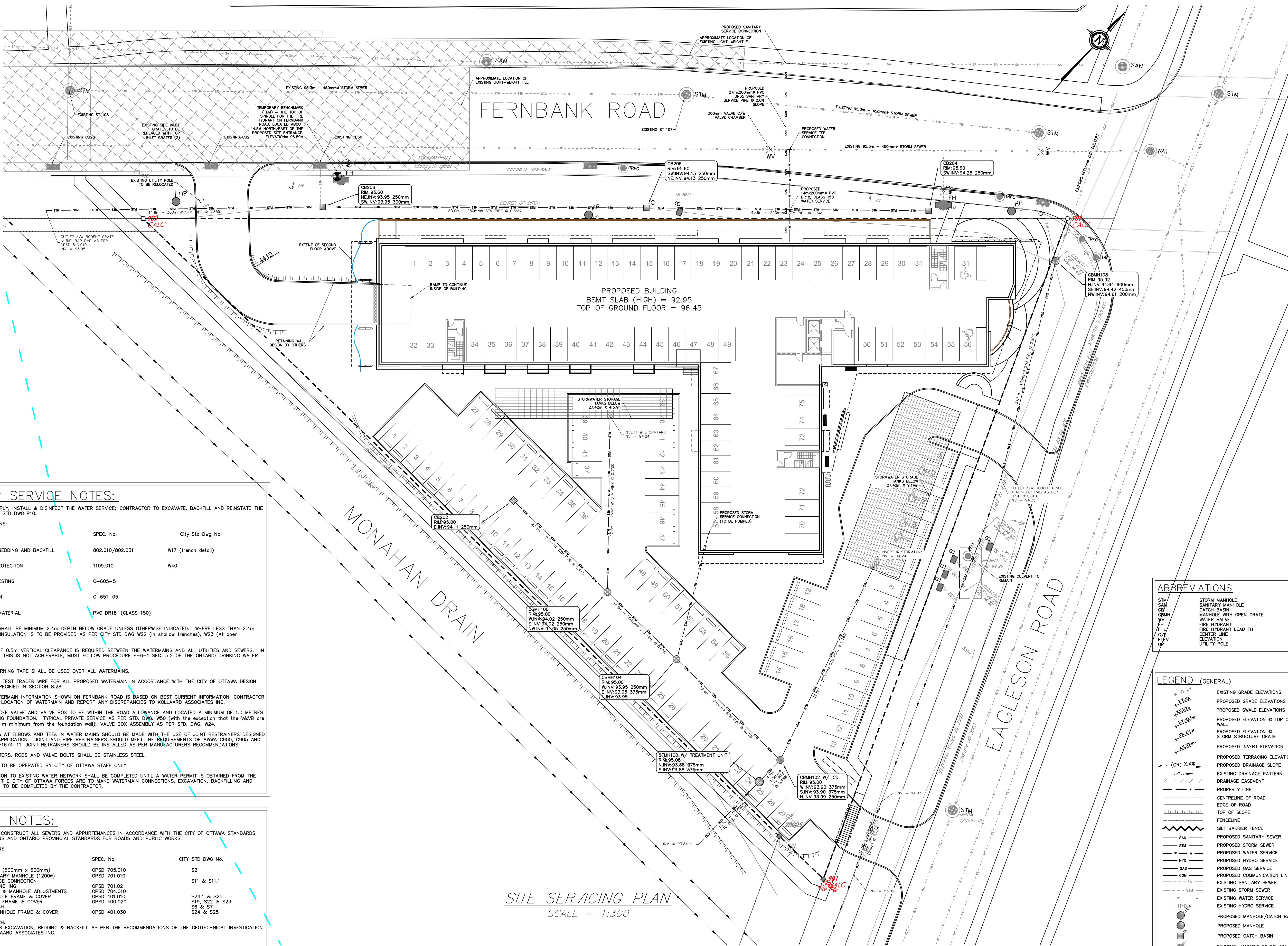
PROJECT NAME  
PROPOSED 6 STOREY APARTMENT DEVELOPMENT

PROJECT LOCATION  
800 EAGLESON RD  
KANATA, ON  
K2M 0A8

DESIGNED BY SD	CHECKED BY SD
DRAWN BY RR	APPROVED BY SD
DATE 23.APR.2018	
SCALE 1:300	
PROJECT No. 180084	
SHEET SET 1 OF 7	







### WATER SERVICE NOTES:

- CITY TO SUPPLY, INSTALL & DISINFECT THE WATER SERVICE; CONTRACTOR TO EXCAVATE, BACKFILL AND REINSTATE THE ROADWAY AS PER STD DWG R10.
- SPECIFICATIONS:

ITEM	SPEC. No.	City Std Dwg No.
WATERMAIN BEDDING AND BACKFILL OPSD	802.010/802.031	W17 (trench detail)
CATHODIC PROTECTION OPSD	1109.010	W40
PRESSURE TESTING AWWA	C-605-5	
CHLORINATION AWWA	C-651-05	
WATERMAIN MATERIAL	PVC DR18 (CLASS 150)	
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. WHERE LESS THAN 2.4m COVER, THERMAL INSULATION IS TO BE PROVIDED AS PER CITY STD DWG W22 (in shallow trenches), W23 (At open structures).
- A MINIMUM OF 0.5m VERTICAL CLEARANCE IS REQUIRED BETWEEN THE WATERMANS AND ALL UTILITIES AND SEWERS. IN LOCATIONS WHERE THIS IS NOT ACHIEVABLE, MUST FOLLOW PROCEDURE F-6-1 SEC. 5.2 OF THE ONTARIO DRINKING WATER RESOURCES ACT.
- METALLIC WARNING TAPE SHALL BE USED OVER ALL WATERMANS.
- INSTALL AND TEST TRACER WIRE FOR ALL PROPOSED WATERMAIN IN ACCORDANCE WITH THE CITY OF OTTAWA DESIGN STANDARDS AS SPECIFIED IN SECTION 8.28.
- EXISTING WATERMAIN INFORMATION SHOWN ON FERNBANK ROAD IS BASED ON BEST CURRENT INFORMATION. CONTRACTOR TO VERIFY EXACT LOCATION OF WATERMAIN AND REPORT ANY DISCREPANCIES TO KOLLAARD ASSOCIATES INC.
- WATER SHUTOFF VALVE AND VALVE BOX TO BE WITHIN THE ROAD ALLOWANCE AND LOCATED A MINIMUM OF 1.0 METRES FROM THE BUILDING FOUNDATION. TYPICAL PRIVATE SERVICE AS PER STD. DWG. W50 (with the exception that the V&B are to be located 1.0 m minimum from the foundation wall); VALVE BOX ASSEMBLY AS PER STD. DWG. W24.
- CONNECTIONS AT ELBOWS AND TEES IN WATER MAINS SHOULD BE MADE WITH THE USE OF JOINT RESTRAINERS DESIGNED FOR WATERMAIN APPLICATION. JOINT AND PIPE RESTRAINERS SHOULD MEET THE REQUIREMENTS OF AWWA C900, C905 AND C907 AND ASTM F1674-11. JOINT RESTRAINERS SHOULD BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
- ALL CONNECTORS, RODS AND VALVE BOLTS SHALL BE STAINLESS STEEL.
- VALVES ARE TO BE OPERATED BY CITY OF OTTAWA STAFF ONLY.
- NO CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT IS OBTAINED FROM THE CITY OF OTTAWA. THE CITY OF OTTAWA FORCES ARE TO MAKE WATERMAIN CONNECTIONS. EXCAVATION, BACKFILLING AND REINSTATEMENT IS TO BE COMPLETED BY THE CONTRACTOR.

### SEWER NOTES:

- SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARDS FOR ROADS AND PUBLIC WORKS.
- SPECIFICATIONS:

ITEM	SPEC. No.	CITY STD DWG No.
CATCH BASIN (600mm x 600mm)	OPSD 705.010	S2
STORM/SANITARY MANHOLE (1200mm)	OPSD 701.010	S11 & S11.1
SEWER SERVICE CONNECTION	OPSD 701.021	
SANITARY BENCHING	OPSD 704.010	
CATCH BASIN & MANHOLE ADJUSTMENTS	OPSD 401.010	S24.1 & S25
STORM MANHOLE FRAME & COVER	OPSD 401.010	S19, S22 & S23
CATCH BASIN FRAME & COVER	OPSD 400.020	S6 & S7
SEWER TRENCH	OPSD 401.030	S24 & S25
SEWER MANHOLE FRAME & COVER	OPSD 401.030	
- SEWER TRENCH: SITE SERVICES EXCAVATION, BEDDING & BACKFILL AS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION PREPARE BY KOLLAARD ASSOCIATES INC.
- INSULATE ALL STORM PIPES THAT HAVE LESS THAN 1.5m COVER AND ALL SANITARY PIPES THAT HAVE LESS THAN 2.1m COVER WITH THERMAL INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
- PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTION PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). SANITARY RUBBER GASKET TYPE JOINTS SHALL CONFORM TO CSA (B-182.2,3,4).
- 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 OPS5 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 (AS PER SUMP DETAIL ON OPSD 701.010), UNLESS OTHERWISE INDICATED.
- BUILDING CONTRACTOR TO PROVIDE TEMPORARY ADDITIONAL GRANULAR BACKFILL ABOVE SHALLOW CULVERTS AND STORM SEWERS TO SUPPORT HEAVY CONSTRUCTION EQUIPMENT.
- CONTRACTOR TO TELEVISION (CCTV) ALL PROPOSED SEWERS, 200mm OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES TO MUNICIPAL SATISFACTION.
- WHERE THE SANITARY SEWER CROSSES ABOVE THE WATERMAIN, THE CONTRACTOR IS TO PROVIDE A MINIMUM OF 0.50m VERTICAL SEPARATION. ADEQUATE STRUCTURAL SUPPORT OF THE SEWER TO PREVENT SETTLING AND EXCESSIVE JOINT DEFLECTION AND ENSURE THAT THE LENGTH OF THE WATER PIPE BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.

SITE SERVICING PLAN  
SCALE = 1:300

### ABBREVIATIONS

STM	STORM MANHOLE
SAN	SANITARY MANHOLE
CB	CATCH BASIN
CBM	MANHOLE WITH OPEN GRATE
WV	WATER VALVE
FH	FIRE HYDRANT
FHL	FIRE HYDRANT LEAD FH
C/L	CENTER LINE
ELEV	ELEVATION
UP	UTILITY POLE

### LEGEND (GENERAL)

	EXISTING GRADE ELEVATIONS
	PROPOSED GRADE ELEVATIONS
	PROPOSED SWALE ELEVATIONS
	PROPOSED ELEVATION @ TOP OF WALL
	PROPOSED ELEVATION @ STORM STRUCTURE GRATE
	PROPOSED INVERT ELEVATION
	PROPOSED TERRACING ELEVATIONS
	PROPOSED DRAINAGE SLOPE
	EXISTING DRAINAGE PATTERN
	DRAINAGE EASEMENT
	PROPERTY LINE
	CENTERLINE OF ROAD
	EDGE OF ROAD
	TOP OF SLOPE
	FENCE LINE
	SILT BARRIER FENCE
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED WATER SERVICE
	PROPOSED HYDRO SERVICE
	PROPOSED GAS SERVICE
	PROPOSED COMMUNICATION LINES
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATER SERVICE
	EXISTING HYDRO SERVICE
	PROPOSED MANHOLE/CATCH BASIN
	PROPOSED MANHOLE
	PROPOSED CATCH BASIN
	EXISTING MANHOLE TO REMAIN
	EXISTING CATCH-BASIN TO REMAIN
	PROPOSED FIRE HYDRANT
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	PROPOSED WATER VALVE
	EXISTING WATER VALVE CHAMBER
	PROPOSED LIGHT STANDARD
	EXISTING HYDRO POLE

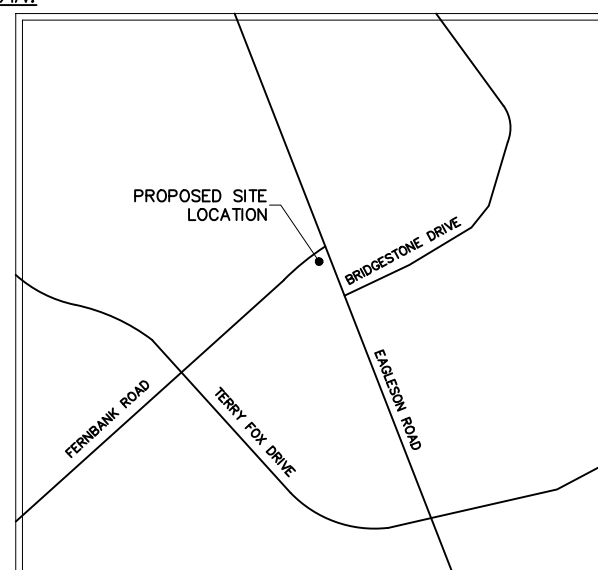
DRAWING No.

180084-SER

DRAWING

SITE SERVICING PLAN

KEY PLAN:  
N.T.S.



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- Reference Kollaard file #180084 Servicing and SWM Report for additional information relating to the site services design and the stormwater management design for this site.

**Kollaard Associates**  
Engineers

P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923  
KEMPSTON, ONTARIO info@kollaard.ca  
KOG 1J0 FAX (613) 258-0475  
http://www.kollaard.ca

CLIENT NAME

IRONCLAD DEVELOPMENTS

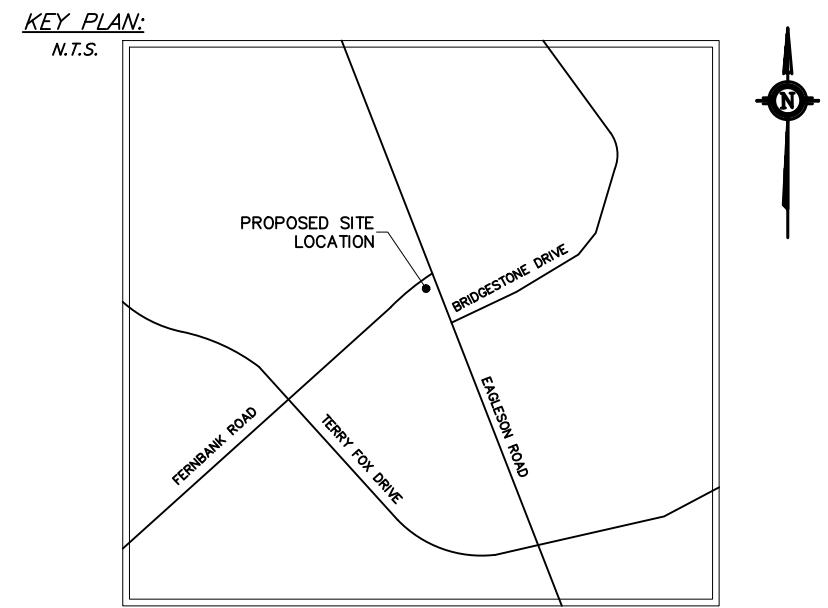
PROJECT NAME  
PROPOSED 6 STOREY  
APARTMENT DEVELOPMENT

PROJECT LOCATION

800 EAGLESON RD  
KANATA, ON  
K2M 0A8

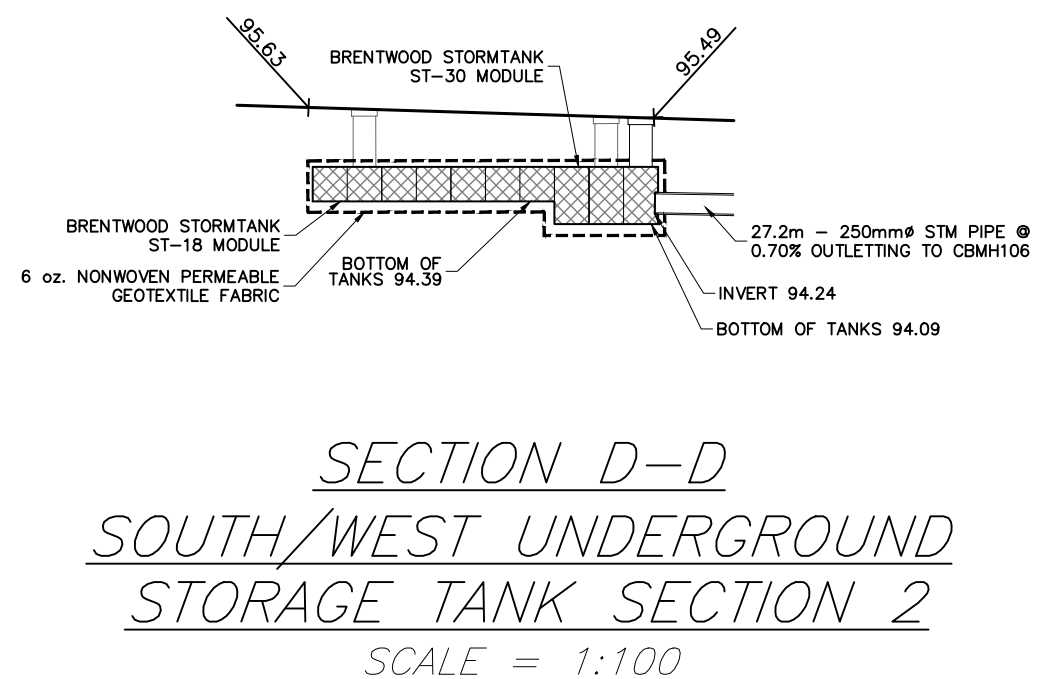
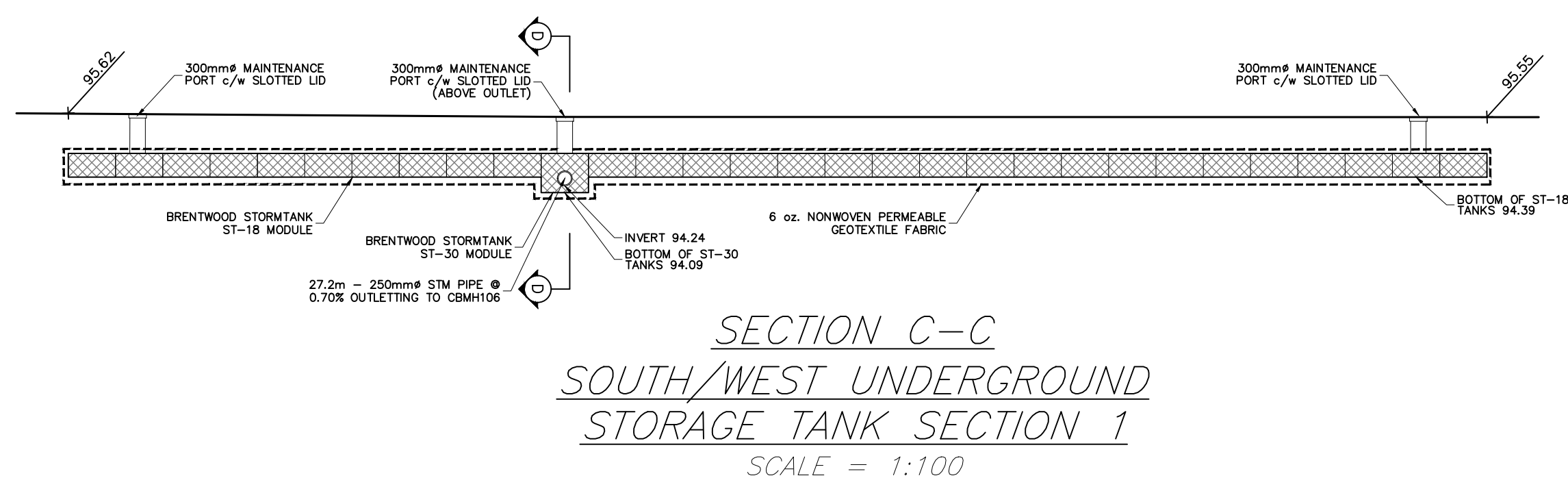
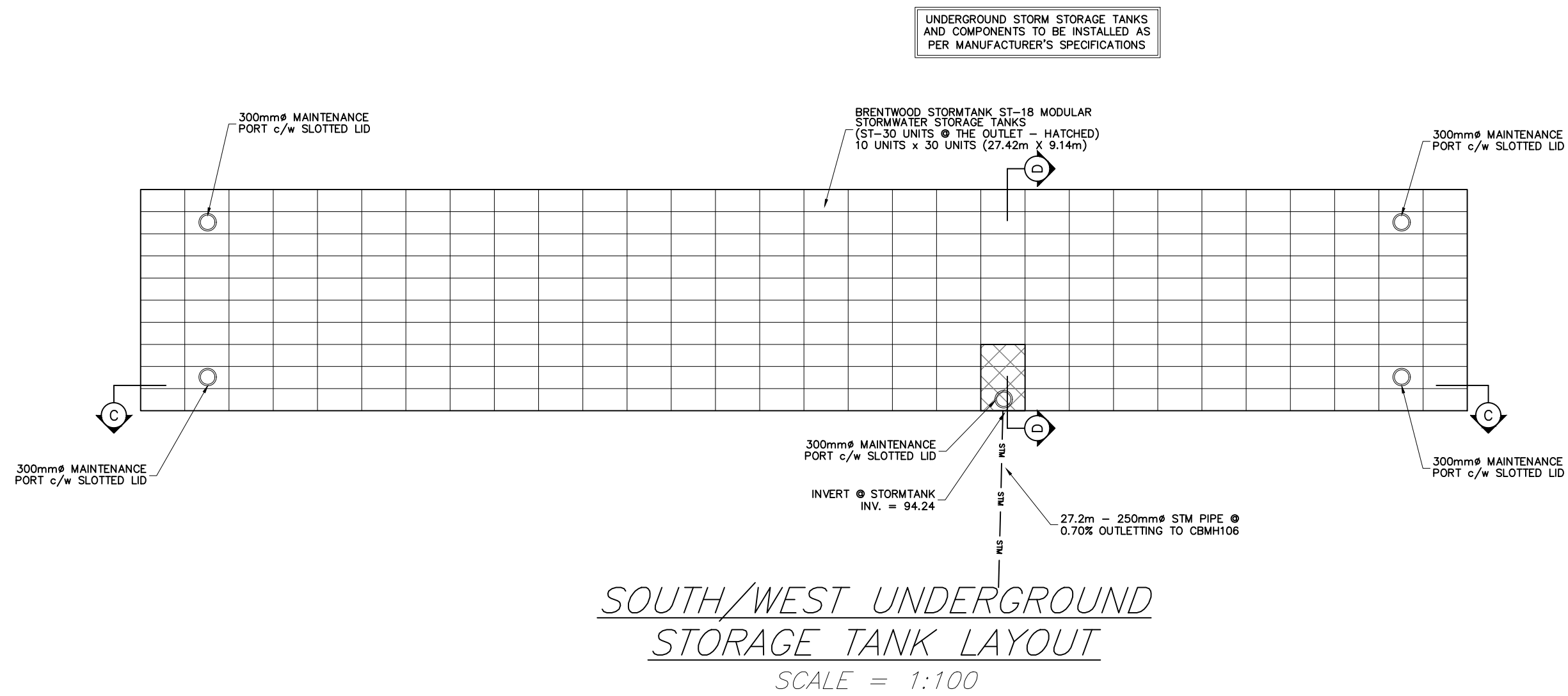
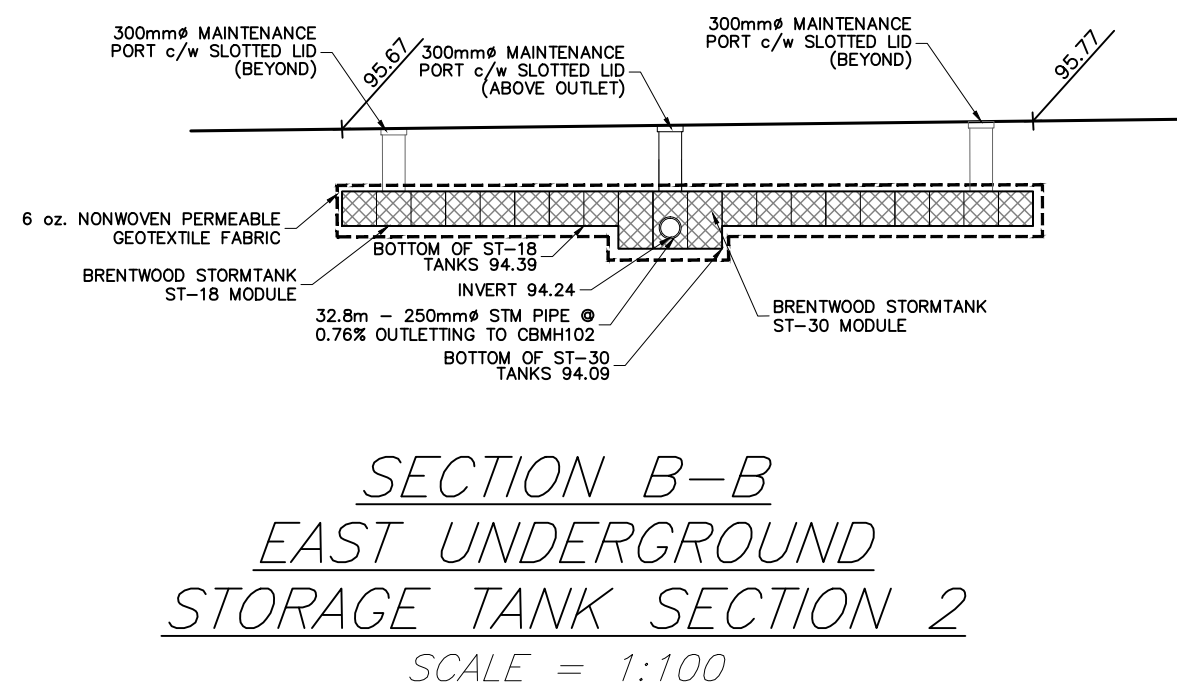
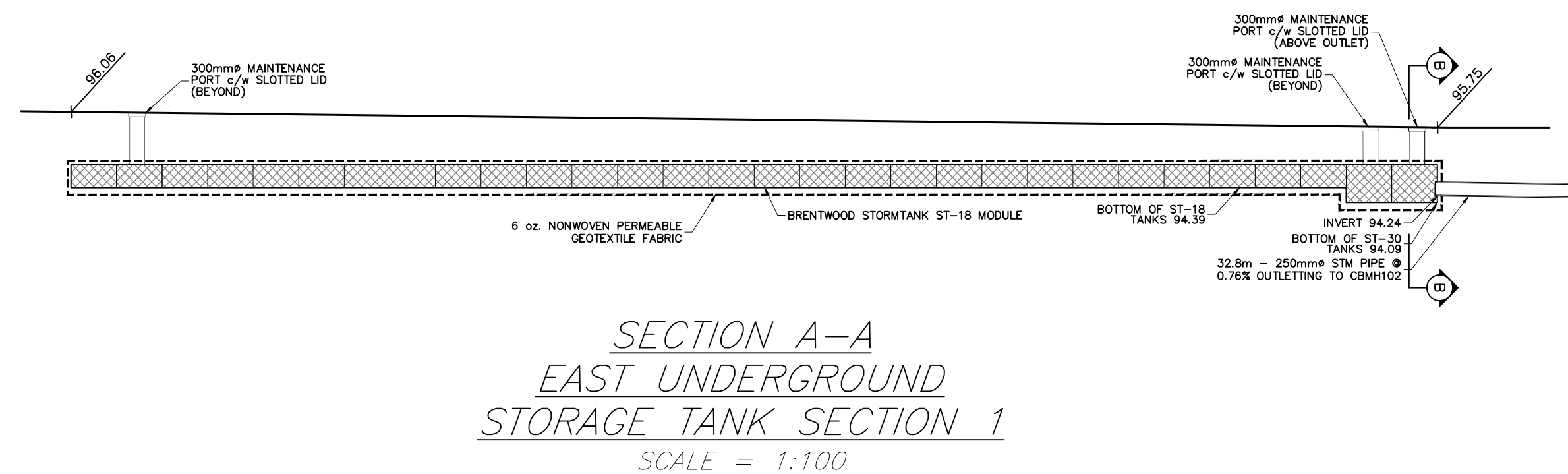
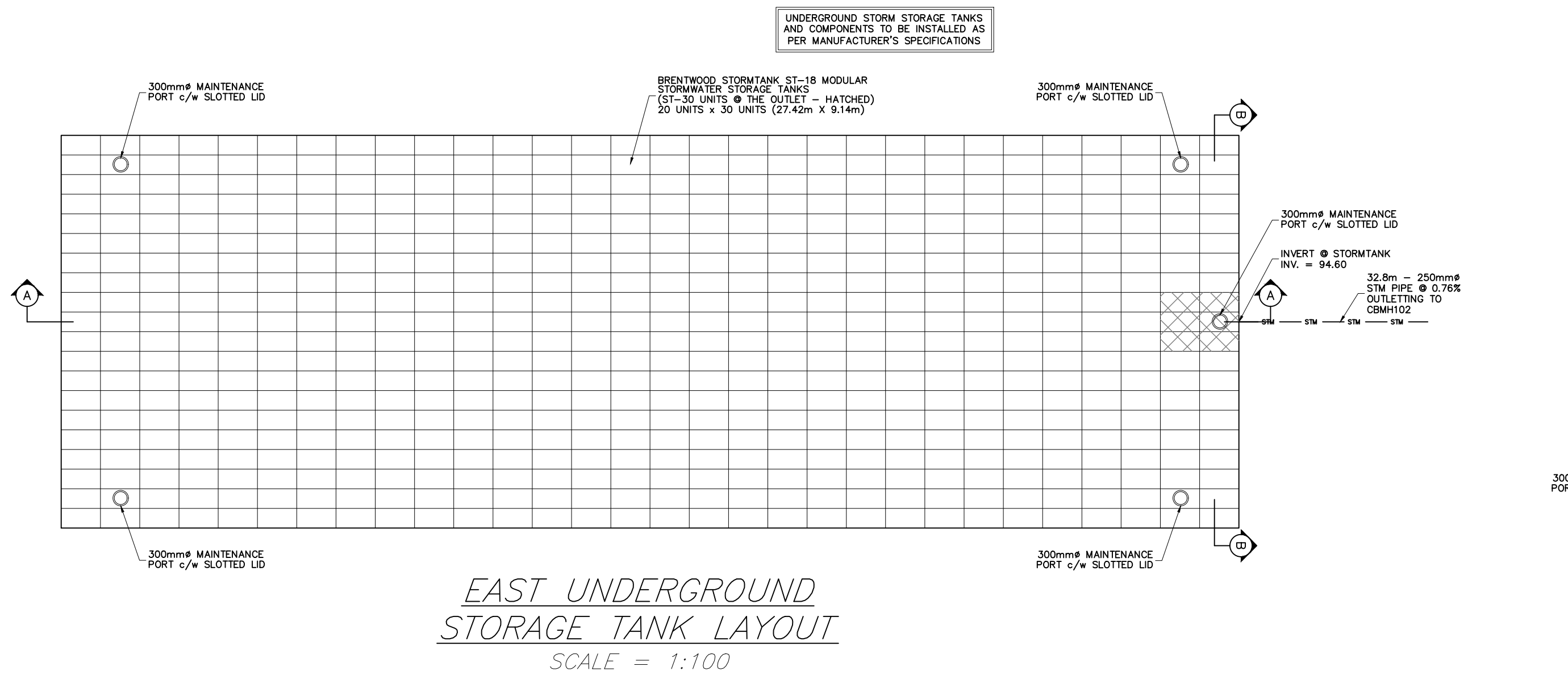
DESIGNED BY SD	CHECKED BY SD
DRAWN BY RR	APPROVED BY SD
DATE 23.APR.2018	
SCALE 1:300	
PROJECT No. 180084	
SHEET SET 2 OF 7	



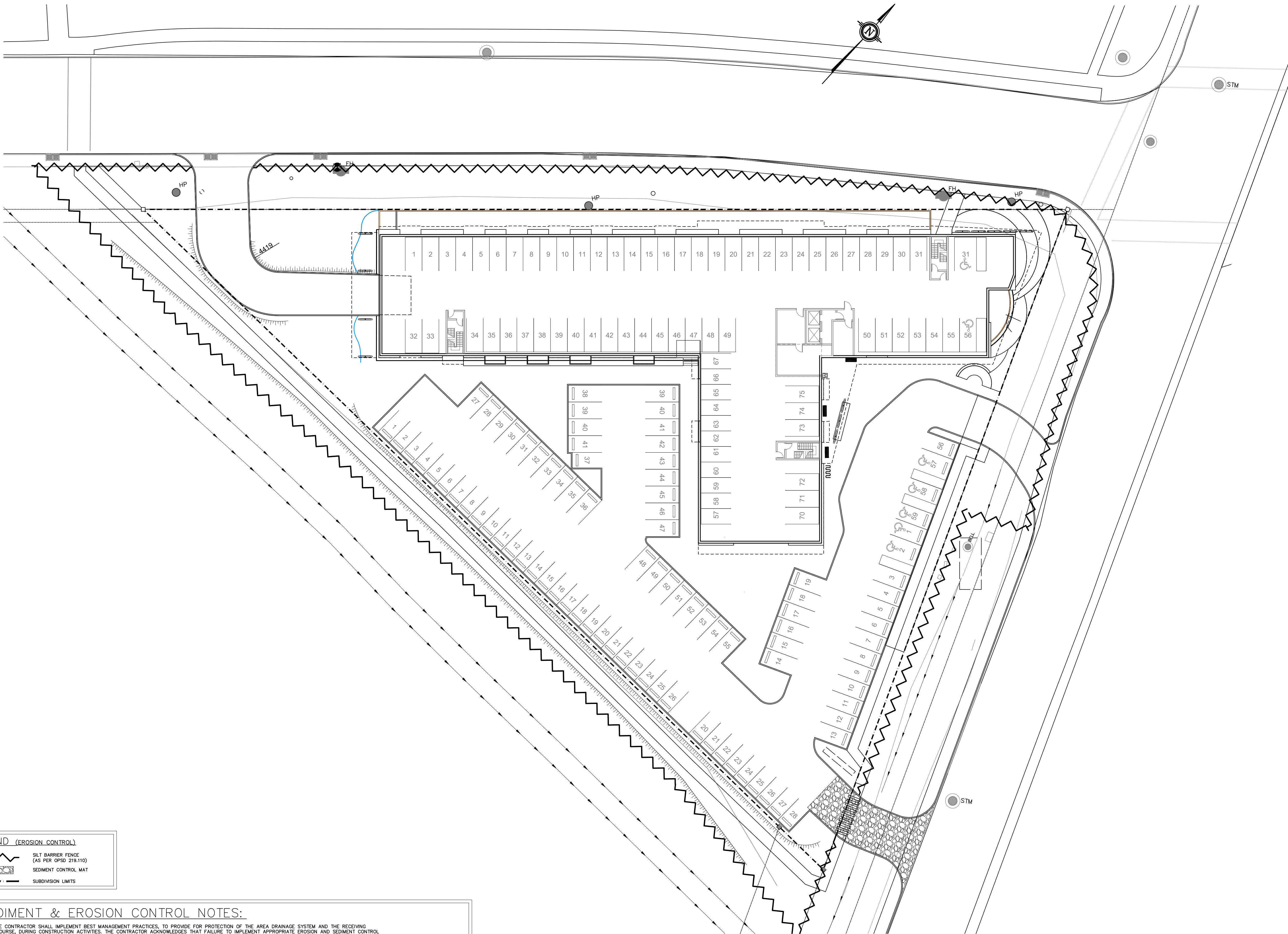


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LEGEND (EROSION CONTROL)	
	SILT BARRIER FENCE (AS PER OPSD 219.110)
	SEDIMENT CONTROL MAT
	SUBDIVISION LIMITS

#### SEDIMENT & EROSION CONTROL NOTES:

1. 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.
2. THE OWNER (AND/OR CONTRACTOR) AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN AT LEAST EQUAL TO THE STATED MINIMUM REQUIREMENTS AND TO THE SATISFACTION OF THE CITY OF OTTAWA, APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL.
3. THE CONTRACTOR IS TO ENSURE THAT THE SITE ACCESS POINTS AND ADJACENT STREETS TO THE ACCESS POINTS ARE MAINTAINED AND KEPT CLEAN OF CONSTRUCTION MATERIALS SUCH AS, BUT NOT LIMITED TO MUD, DIRT, CLAY AND GRANULARS ON A DAILY BASIS OR AS NECESSARY, TO THE SATISFACTION OF THE CITY OF OTTAWA.
4. EVERY EFFORT WILL BE MADE TO ENSURE THAT ALL DISTURBED AREAS ARE TOPSOILED AND SEEDED AS SOON AS REASONABLY POSSIBLE.
5. THE SEDIMENT AND EROSION CONTROL PLAN IS A LIVING DOCUMENT WHICH MAY BE AMENDED BY ONSITE REQUIREMENTS AT THE APPROVAL OF THE MUNICIPALITY AND THE CONSERVATION AUTHORITY.

#### SEDIMENT & EROSION CONTROL PLAN REQUIREMENTS:

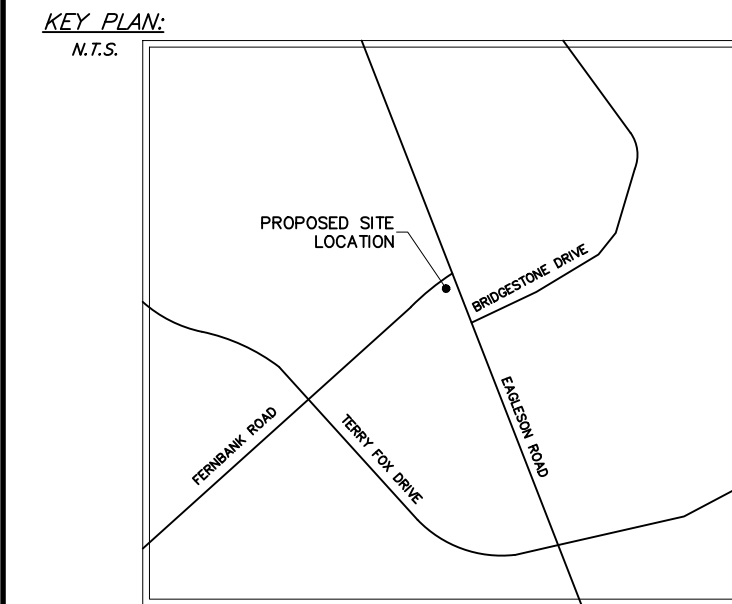
- TIME THE DEMOLITION AND EXCAVATION ACTIVITIES SO THAT THEY OCCUR NO SOONER THAN IS NECESSARY FOR SUBSEQUENT CONSTRUCTION ACTIVITIES.
- LANDSCAPE THE SITE AS SOON AS PRACTICALLY POSSIBLE.
- USE SILT FENCES AROUND ANY STOCKPILES OF SOIL.
- PRIOR TO CONSTRUCTION, SILT FENCE BARRIERS (OPSD 219.110) WILL BE PLACED ALONG THE PROPERTY LINES AS ON THE DRAWING.
- THE SILT FENCE SHOULD BE REMOVED ONLY WHEN THE SITE IS STABILIZED.
- INSTALL FILTER CLOTH ACROSS ALL EXISTING CATCH BASINS AND CATCH BASIN MANHOLES PRIOR TO CONSTRUCTION.
- INSTALL FILTER CLOTH ACROSS ALL PROPOSED CATCH BASINS, MANHOLES AND CATCH BASIN MANHOLES AS THEY ARE PLACED.

#### SEDIMENT & EROSION CONTROL PLAN

SCALE = 1:300

DRAWING No. 180084-ER

#### DRAWING SEDIMENT & EROSION CONTROL PLAN



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1	REVISED FOR SITE PLAN CONTROL	2018/06/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

No.	REVISION	DATE	BY
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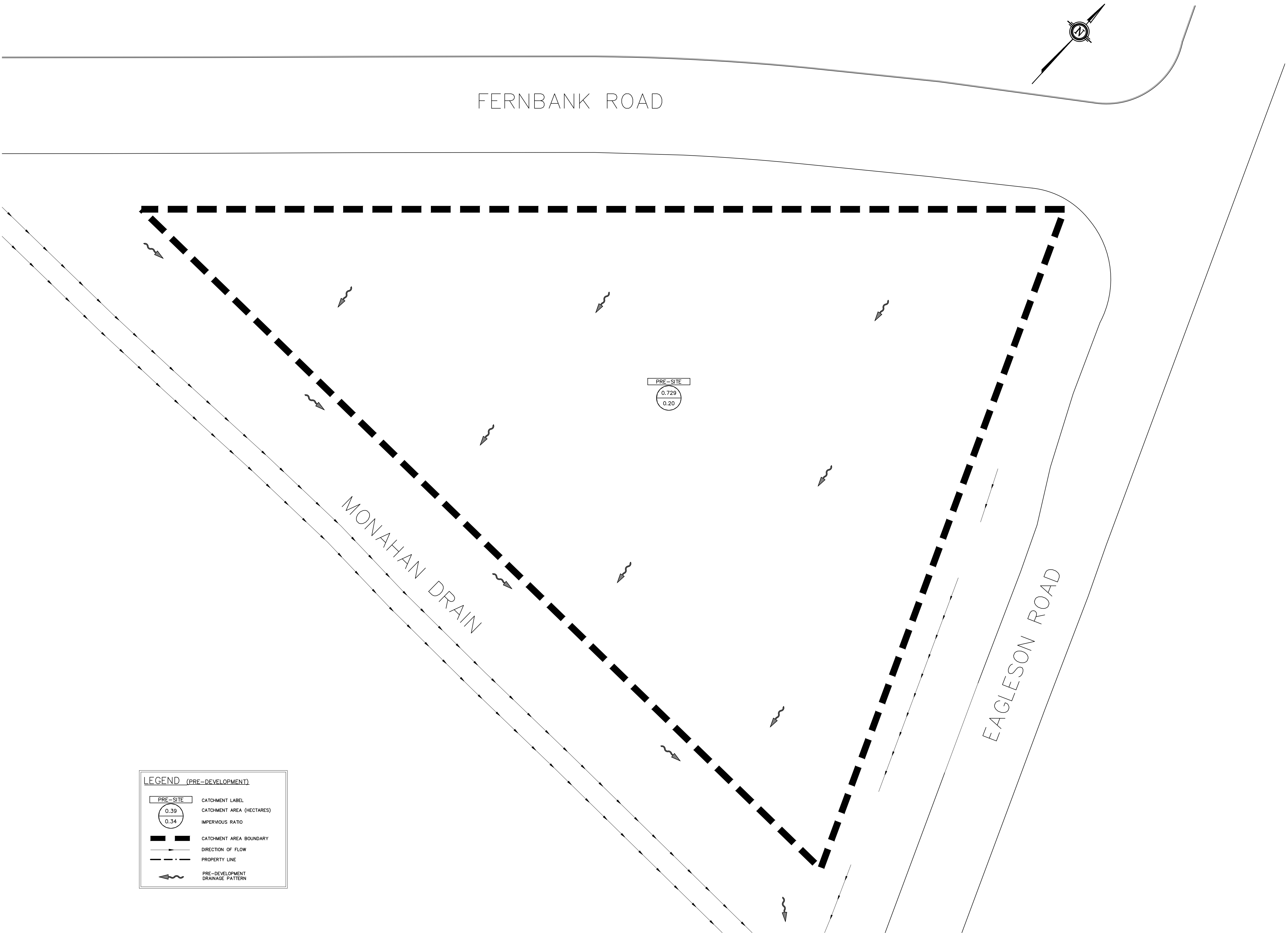
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CLIENT NAME  
IRONCLAD DEVELOPMENTS

PROJECT NAME  
PROPOSED 6 STOREY  
APARTMENT DEVELOPMENT

PROJECT LOCATION  
800 EAGLESON RD  
KANATA, ON  
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	DESIGNED BY SD	CHECKED BY SD
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	DATE 23.APR.2018	
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PROJECT No. 180084		
SHEET SET 4 OF 7		



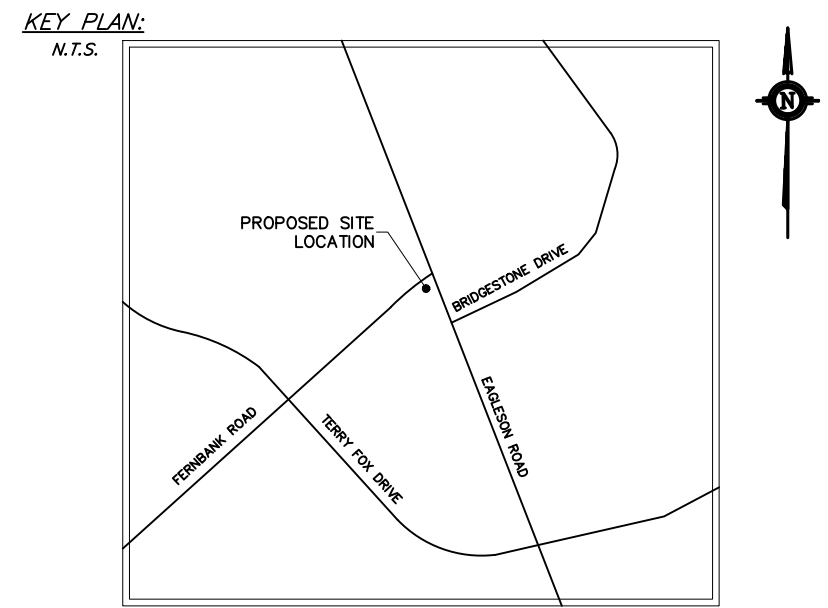
**LEGEND (PRE-DEVELOPMENT)**

<div>PRE-SITE</div> <div><div>0.39</div><div>0.34</div></div>	CATCHMENT LABEL
	CATCHMENT AREA (HECTARES)
	IMPERVIOUS RATIO
<div></div>	CATCHMENT AREA BOUNDARY
<div></div>	DIRECTION OF FLOW
<div></div>	PROPERTY LINE
<div></div>	PRE-DEVELOPMENT DRAINAGE PATTERN

PRE-DEVELOPMENT CATCHMENT AREAS  
SCALE = 1:300

DRAWING No. 180084-PRECA

DRAWING  
PRE-DEVELOPMENT CATCHMENT AREAS



- GENERAL PROJECT NOTES:**
- All dimensions are in metres.
  - Do not scale drawings.
  - All elevations are in metres and are geodetic. Geodetic information was obtained from the "Plan of Survey of part of Lot 31, Concession 9 (Geographic Township of Goulbourn ) City of Ottawa" completed by Stanley Geomatics Ltd. on March 7, 2018, Drawing# GH1, 15161/3524-111.
  - Temporary Benchmark (TBM) = the top of spindle for the fire hydrant on Fernbank Road, located about 14.5m northwest of the proposed site entrance. Elevation= 96.59m.
  - This drawing does not represent a legal survey.
  - All dimensions to be verified on site by contractor prior to construction.
  - Any changes made to this plan must be verified and approved by Kollaard Associates Inc.
  - All materials and construction to be in accordance with City of Ottawa standards and Ontario Provincial Standards and Specifications, including (but not limited to): sewer and watermain material types, disinfection, provide minimum 2.4 metres of cover for water services, cathodic protection, City of Ottawa insulation specifications for watermain, pipe bedding, reinstatement of disturbed areas and leakage testing.
  - Reference Kollaard file #180084 Servicing and SWM Report for additional information relating to the site services design and the stormwater management design for this site.

1	REVISED FOR SITE PLAN CONTROL	2018/06/13	RR	
0	ISSUED FOR SITE PLAN CONTROL	2018/06/15	RR	
No.	REVISION	DATE	BY	

**Kollaard Associates  
Engineers**

P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923  
KEMPTVILLE, ONTARIO info@kollaard.ca  
KOG 1JO FAX (613) 258-0475  
http://www.kollaard.ca

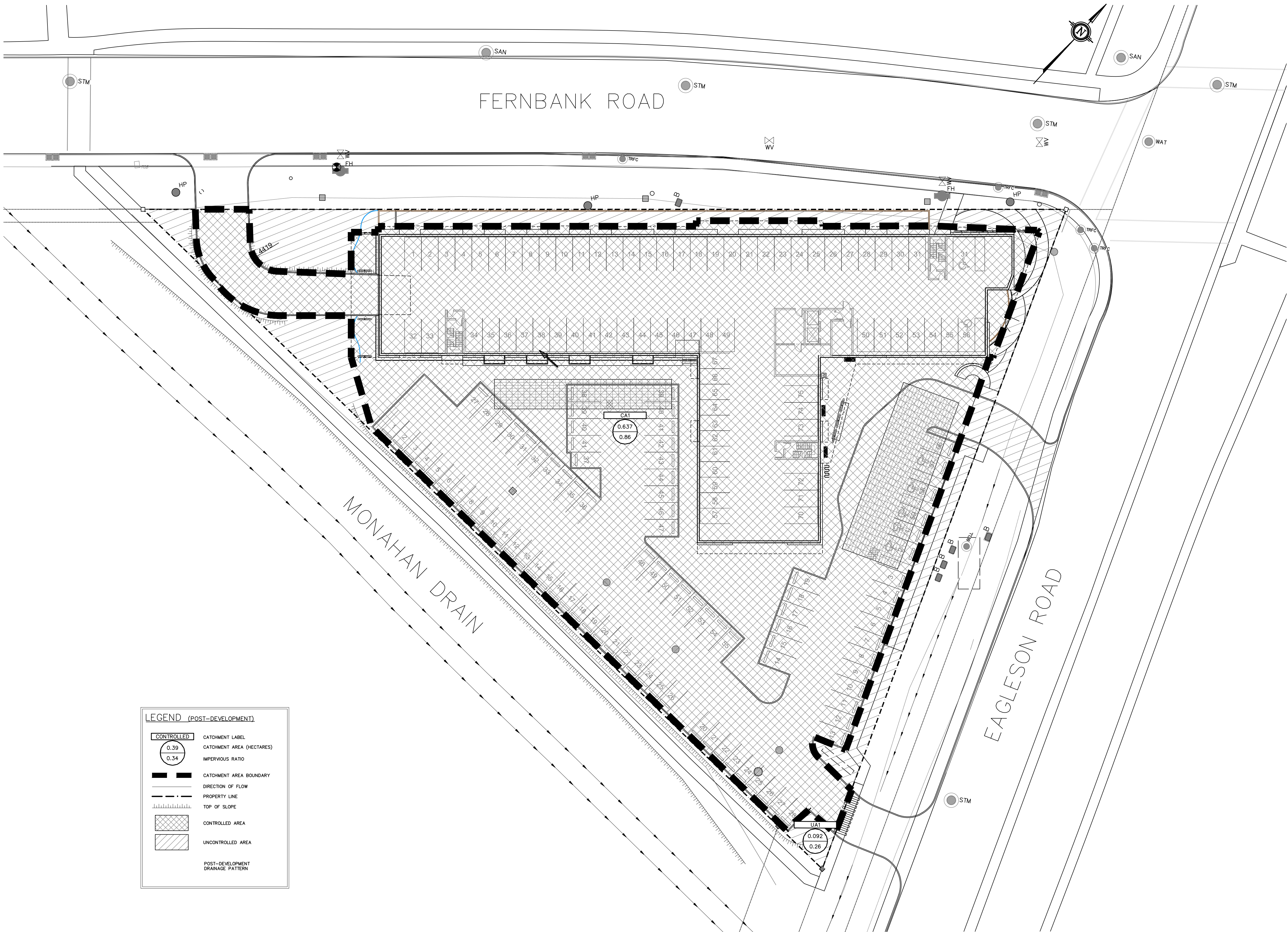
CLIENT NAME  
IRONCLAD DEVELOPMENTS

PROJECT NAME  
PROPOSED 6 STOREY  
APARTMENT DEVELOPMENT

PROJECT LOCATION  
800 EAGLESON RD  
KANATA, ON  
K2M 0A8

DESIGNED BY SD	CHECKED BY SD
DRAWN BY RR	APPROVED BY SD
DATE 23.APR.2018	
SCALE 1:300	
PROJECT No. 180084	
SHEET SET 5 OF 7	





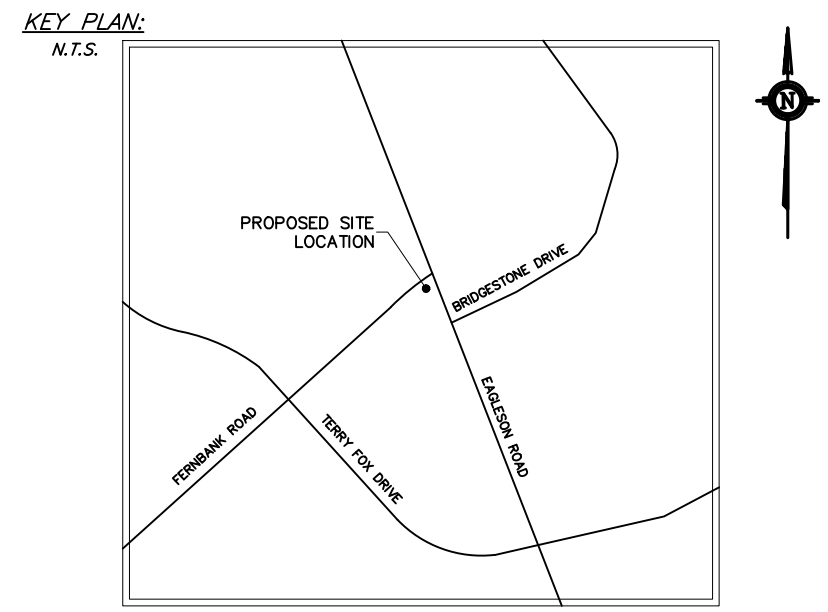
LEGEND (POST-DEVELOPMENT)

CONTROLLED	CATCHMENT LABEL
0.39	CATCHMENT AREA (HECTARES)
0.34	IMPERVIOUS RATIO
CATCHMENT AREA BOUNDARY	
DIRECTION OF FLOW	
PROPERTY LINE	
TOP OF SLOPE	
CONTROLLED AREA	
UNCONTROLLED AREA	
POST-DEVELOPMENT DRAINAGE PATTERN	

POST-DEVELOPMENT CATCHMENT AREAS  
SCALE = 1:300

DRAWING No. 180084-POSTCA

DRAWING  
POST-DEVELOPMENT CATCHMENT AREAS



GENERAL PROJECT NOTES:

No.	REVISION	DATE	BY
1	REVISED FOR SITE PLAN CONTROL	2018/06/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

**K** Kollaard Associates  
Engineers

P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923  
KEMPTVILLE, ONTARIO info@kollaard.ca  
KOG 1J0 FAX (613) 258-0475  
http://www.kollaard.ca

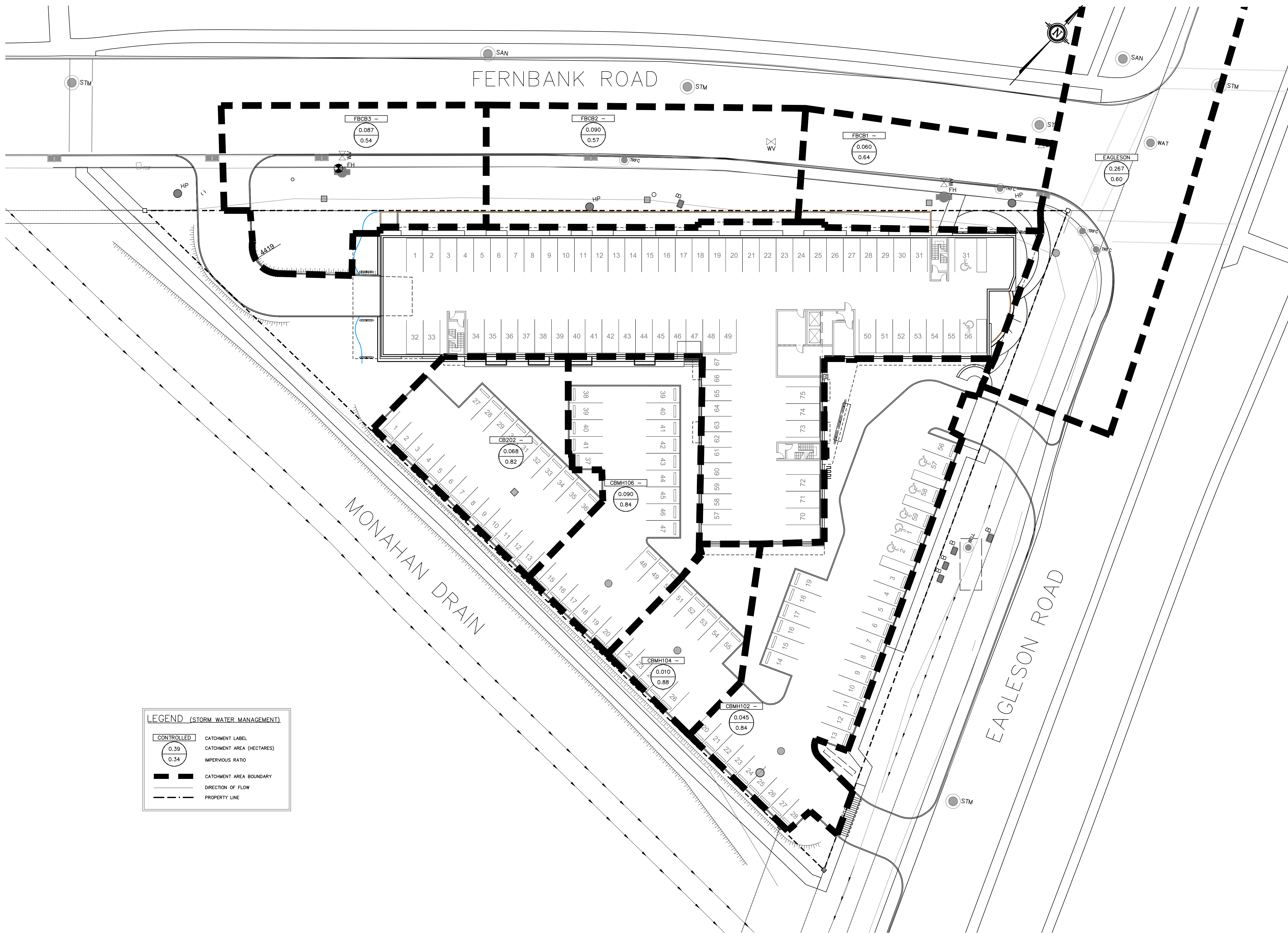
CLIENT NAME  
IRONCLAD DEVELOPMENTS

PROJECT NAME  
PROPOSED 6 STOREY  
APARTMENT DEVELOPMENT

PROJECT LOCATION  
800 EAGLESON RD  
KANATA, ON  
K2M 0A8

	DESIGNED BY SD	CHECKED BY SD
	DRAWN BY RR	APPROVED BY SD
	DATE 23.APR.2018	
	SCALE 1:300	
	PROJECT No. 180084	
SHEET SET 6 OF 7		

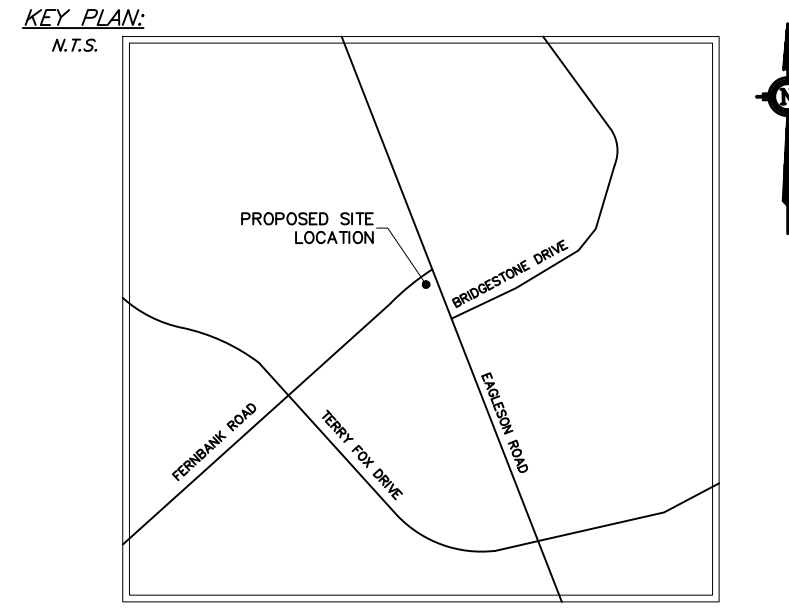




STORM SEWER CATCHMENT AREAS  
SCALE = 1:300

DRAWING No. 180084-SSCA

DRAWING  
STORM SEWER CATCHMENT AREAS



GENERAL PROJECT NOTES:

No.	REVISION	DATE	BY
1	REVISED FOR SITE PLAN CONTROL	2018/06/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

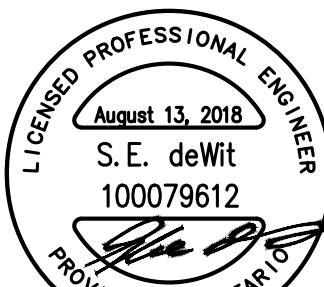
**K** Kollaard Associates  
Engineers

P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923  
KEMPTVILLE, ONTARIO info@kollaard.ca  
K0G 1J0 FAX (613) 258-0475  
http://www.kollaard.ca

CLIENT NAME  
IRONCLAD DEVELOPMENTS

PROJECT NAME  
PROPOSED 6 STOREY  
APARTMENT DEVELOPMENT

PROJECT LOCATION  
800 EAGLESON RD  
KANATA, ON  
K2M 0A8

	DESIGNED BY SD	CHECKED BY SD
	DRAWN BY RR	APPROVED BY SD
	DATE 23.APR.2018	
	SCALE 1:300	
	PROJECT No. 180084	
	SHEET SET 7 OF 7	