

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 Oshawa) City of Oshawa" completed by Stantec Geomatics Ltd. on March 7, 2018. Project # 161613824-111.
- Temporary Benchmark (TBM) = the top of spindle for the fire hydrant on Fernbank Road, located about 14.5m northeast of the proposed site entrance. Elevation= 96.59m.
- This drawing does not represent a legal survey.
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- All materials and construction to be in accordance with City of Oshawa 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 Oshawa 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.

No.	REVISION	DATE	BY
5	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/02/20	RR
4	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/01/08	RR
3	REVISED AS PER MUNICIPAL COMMENTS	2018/12/11	RR
2	REVISED FOR INCL. IN SSMR	2018/09/11	RR
1	REVISED FOR SITE PLAN CONTROL	2018/08/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR


Kollaard Associates
Engineers

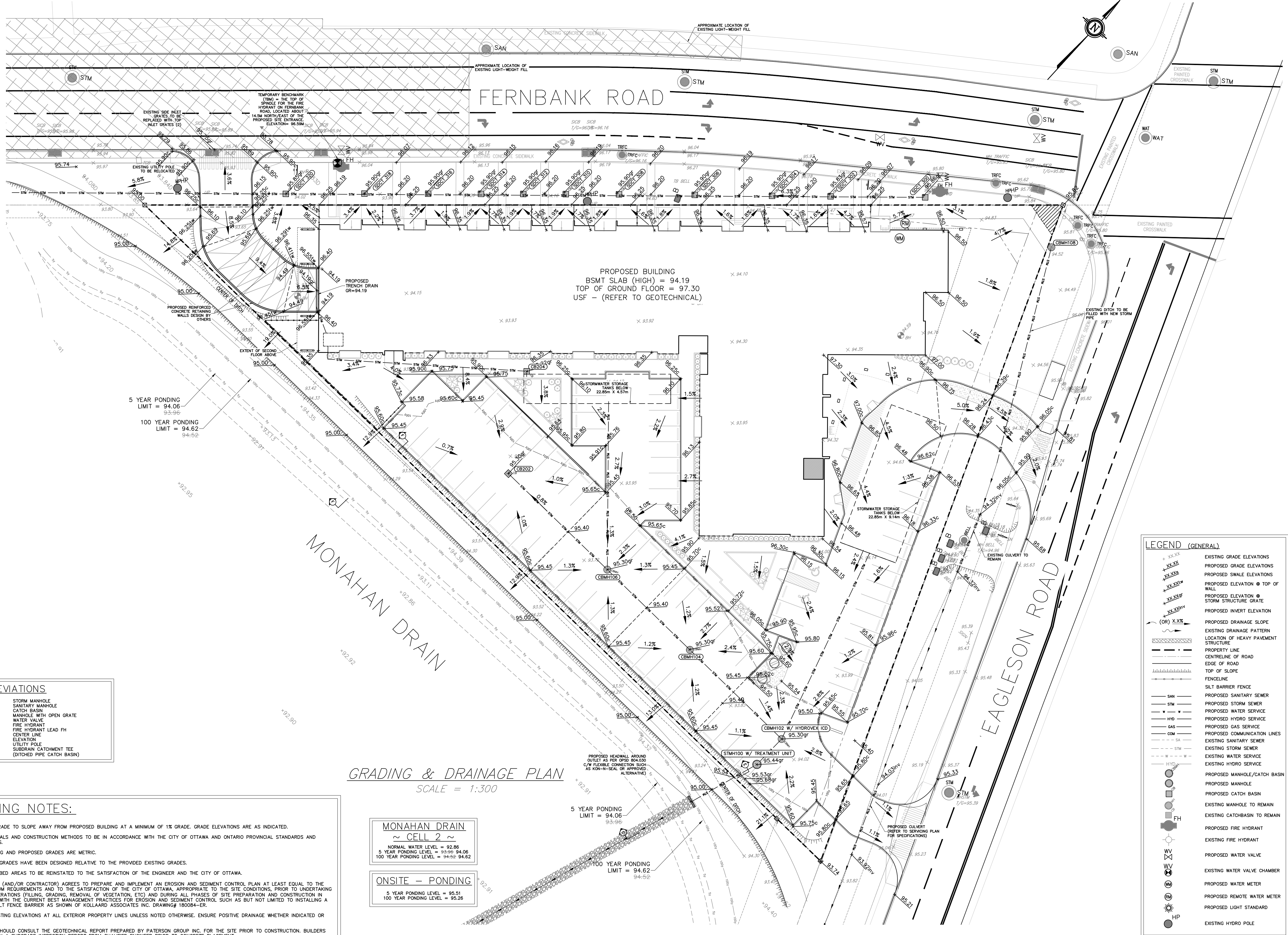
P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923
KEMPTVILLE, ONTARIO
K0G 1J0 FAX (613) 258-0475
http://www.kollaard.ca

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 1 of 8		



ABBREVIATIONS

STM	STORM MANHOLE
SAN	SANITARY MANHOLE
CBMH	CATCH BASIN
WV	WATER VALVE
FH	FIRE HYDRANT
C/L	CENTER LINE
ELEV	ELEVATION
UP	UTILITY POLE
SDCT	SUBURBAN CATCHMENT TEE (DITCHED PIPE CATCH BASIN)

- GRADING NOTES:
- FINISHED GRADE TO SLOPE AWAY FROM PROPOSED BUILDING AT A MINIMUM OF 1% GRADE. GRADE ELEVATIONS ARE AS INDICATED.
 - ALL MATERIALS AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.
 - ALL EXISTING AND PROPOSED GRADES ARE METRIC.
 - PROPOSED GRADES HAVE BEEN DESIGNED RELATIVE TO THE PROVIDED EXISTING GRADES.
 - ALL DISTURBED AREAS TO BE REINSTATED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA.
 - 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.
 - WATCH EXISTING ELEVATIONS AT ALL EXTERIOR PROPERTY LINES UNLESS NOTED OTHERWISE. ENSURE POSITIVE DRAINAGE WHETHER INDICATED OR NOT.
 - BUILDERS SHOULD CONSULT THE GEOTECHNICAL REPORT PREPARED BY PATERSON GROUP INC. FOR THE SITE PRIOR TO CONSTRUCTION. BUILDERS SHOULD OBTAIN A SUBGRADE INSPECTION REPORT FROM QUALIFIED ENGINEER PRIOR TO CONCRETE PLACEMENT.
 - DRIVEWAY, PARKING LOT AND BUILDING SUBGRADES SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
 - CONTRACTOR RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
 - CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
 - CONTRACTOR TO COMPLY WITH THE MUNICIPAL AUTHORITY REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING NEAR MUNICIPAL STREET.
 - RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
 - REFER TO SITE PLAN BY ARCHITECT FOR BUILDING DIMENSIONS AND SITE LAYOUT. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - THE CONTRACTOR SHALL CO-ORDINATE AND PAY FOR ALL CONSTRUCTION RELATED PERMITS, FEES, INSPECTIONS AND APPROVALS REQUIRED BY THE MUNICIPAL AUTHORITIES.
 - THE CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING AND SITE WORK.
 - FOR DETAILS OF GROUND CONDITIONS, REFERENCE SHOULD BE MADE TO THE GEOTECHNICAL REPORT PREPARED BY PATERSON GROUP INC.
 - DROP CURB HEIGHT AT DEPRESSED CURBS TO BE AS PER CITY OF OTTAWA DETAIL SC1.4. DROP CURB HEIGHT TO BE 5mm.
 - ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.

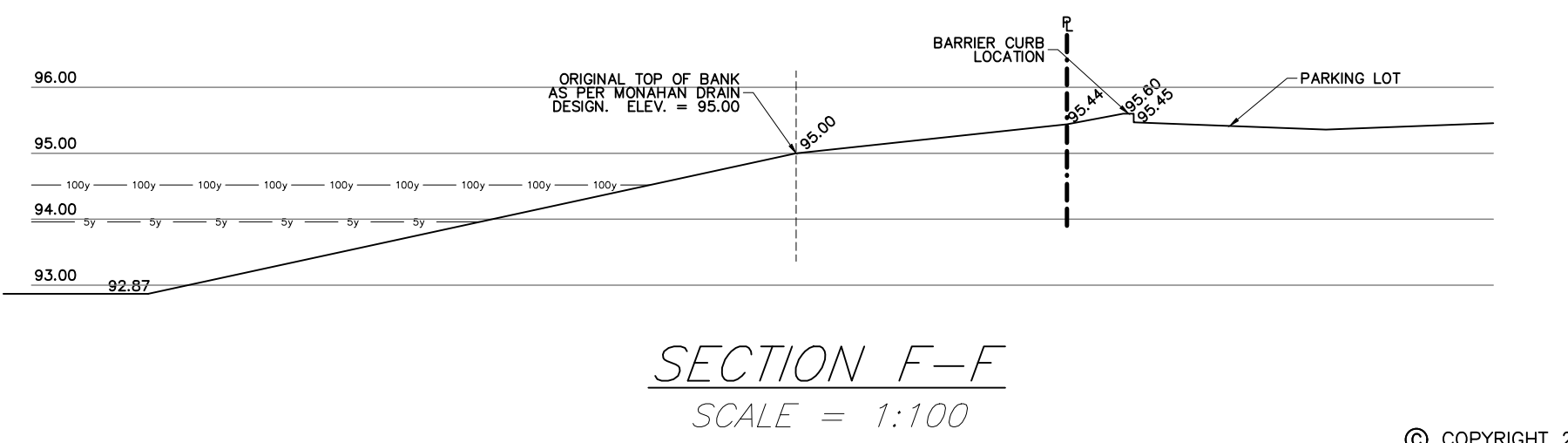
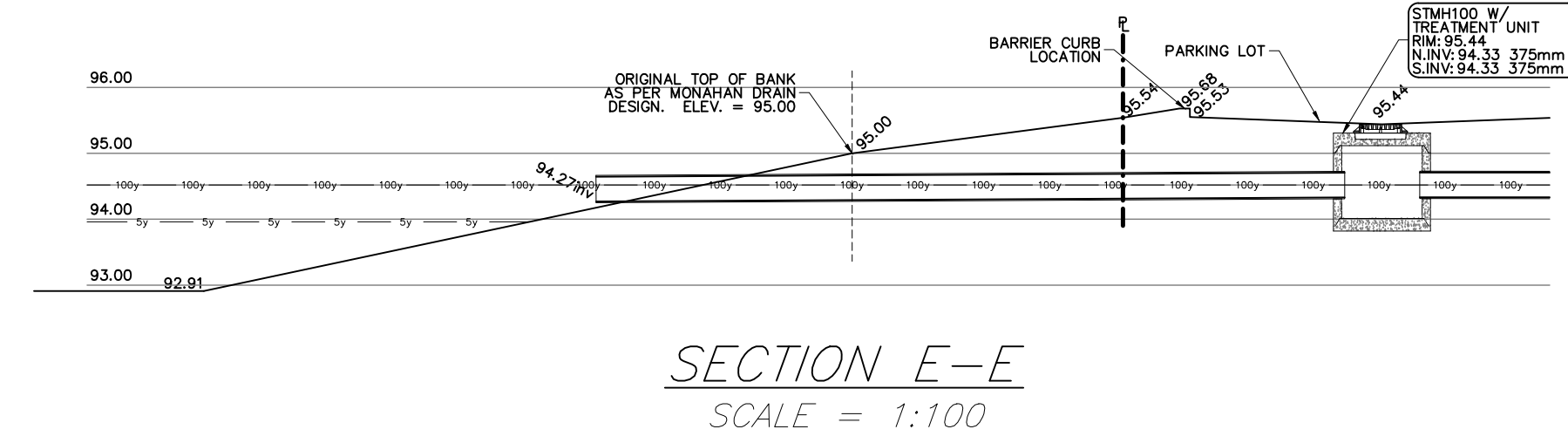
GRADING & DRAINAGE PLAN
SCALE = 1:300

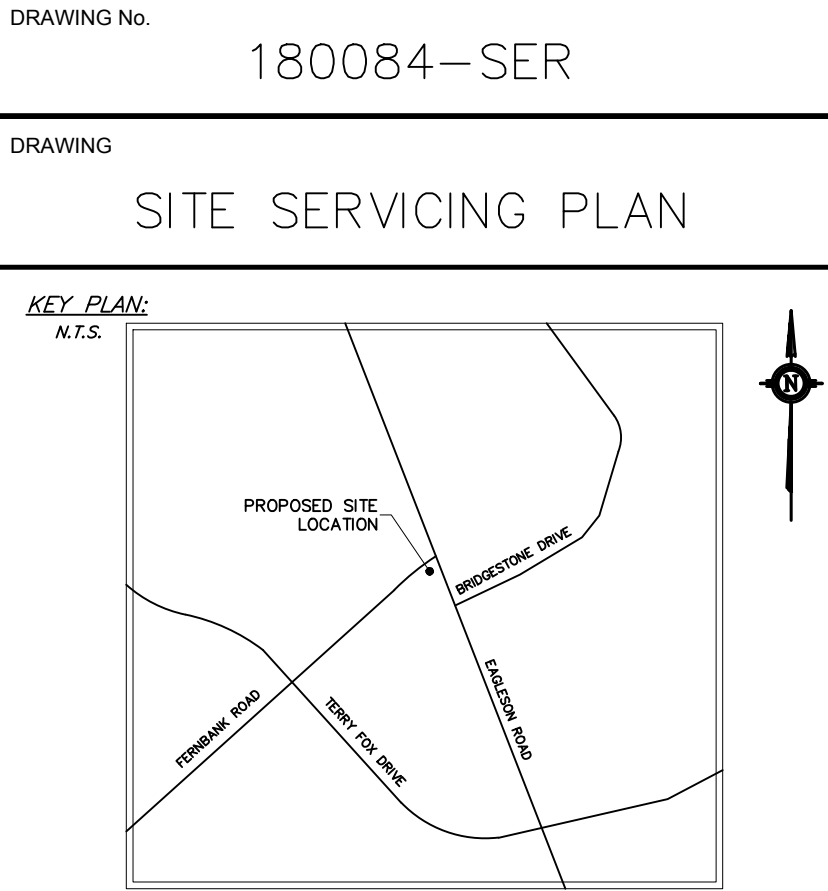
MONAHAN DRAIN
~ CELL 2 ~

NORMAL WATER LEVEL = 92.86
5 YEAR PONDING LEVEL = 93.99 94.06
100 YEAR PONDING LEVEL = 94.62 94.62

ONSITE - PONDING

5 YEAR PONDING LEVEL = 95.51
100 YEAR PONDING LEVEL = 95.28





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4. This drawing does not represent a legal survey.
5. All dimensions shown on this plan are for information only prior to construction.
6. Any changes made to this plan must be verified and approved by Kollard Associates Inc.
7. All materials and construction to be in accordance with City of Ottawa standards and Ontario Provincial Standards and Specifications, including (but not limited to) concrete and watermain material types; dissection, provide minimum 24 metres of cover for water services, and provide 30 metres of cover for stormwater services.
8. The City of Ottawa is not responsible for any damage to existing structures or utilities, or any disturbed areas and leakage testing.
9. Refer to the City of Ottawa Engineering and SIVM Report for additional information relating to the site services design and the stormwater management design for this location.

WATER SERVICE NOTES:

- THE CITY OF OTTAWA FORCES TO COMPLETE THE CONNECTION OF THE WATER SERVICE TO THE EXISTING WATER MAIN. CONTRACTOR IS RESPONSIBLE FOR THE SUPPLY OF PARTS AND MATERIALS AS WELL AS FOR EXCAVATION, BACKFILL AND REINSTATEMENT OF THE ROADWAY AS PER STD DWG R10. CONTRACTOR RESPONSIBLE FOR DISINFECTION AND PRESSURE TESTING.
2. SPECIFICATIONS:
- | ITEM REFERENCE | SPEC. No. | City Std Dwg No. |
|--|----------------------|---------------------|
| WATERMAIN BEDDING AND BACKFILL
OFSD | 802.010/802.031 | W17 (trench detail) |
| CATHODIC PROTECTION
OFSD | 1109.010 | W40 |
| PRESSURE TESTING
AWWA | C-605-5 | |
| CHLORINATION
AWWA | C-651-05 | |
| WATERMAIN MATERIAL | PVC DR18 (CLASS 150) | |
3. 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-1 SEC. 5.2 OF THE ONTARIO DRINKING WATER RESOURCES ACT.
4. METALLIC WARNING TAPE SHALL BE USED OVER ALL WATERMANS.
5. INSTALL AND TEST TRACER WIRE FOR ALL PROPOSED WATERMAIN IN ACCORDANCE WITH THE CITY OF OTTAWA DESIGN STANDARDS AS SPECIFIED IN SECTION 8.28.
6. EXISTING WATERMAIN INFORMATION SHOWN ON FERMBANK ROAD IS BASED ON BEST CURRENT INFORMATION. CONTRACTOR TO VERIFY EXACT LOCATION OF WATERMAIN AND REPORT ANY DISCREPANCIES TO KOLLAARD ASSOCIATES INC.
7. 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 W48V and W49 are to be located 1.0 m minimum from the foundation wall). VALVE BOX ASSEMBLY AS PER STD. DWG. W24.
8. 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 ASTM F1674-11. JOINT RETRAINERS SHOULD BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
9. ALL CONNECTORS, RODS AND VALVE BOLTS SHALL BE STAINLESS STEEL.
10. CATHODIC PROTECTION TO BE PROVIDED ON ALL METAL FITTINGS AS PER STD 702 AND OFSD 1109.010.
11. VALVES ARE TO BE OPERATED BY CITY OF OTTAWA STAFF ONLY.
12. 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 STANDARD 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 (1200p) | OPSD 707.010 | S11 & S11.1 | |
| SEWER SERVICE CONNECTION | | | |
| SANITARY BENCHING | OPSD 701.021 | | |
| CATCH BASIN & MANHOLE ADJUSTMENTS | OPSD 704.010 | S24.1 & S25 | |
| STORM MANHOLE FRAME & COVER | OPSD 401.010 | S19, S22 & S23 | |
| CATCH BASIN FRAME & COVER | OPSD 400.020 | S6 & S7 | |
| SEWER TRENCH | | | |
| SANITARY MANHOLE FRAME & COVER | OPSD 401.030 | S24 & S25 | |
| DITCHED PIPE CATCH BASIN (FERRENBANK RD) | | S9 | |
| DITCHED PIPE CATCH BASIN (FERRENBANK RD) | | S31 | |
| SEWER TRENCH: | | | |
| SITE SERVICES EXCAVATION, BEDDING & BACKFILL AS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP INC. | | | |
| 3. 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. | | | |
| 4. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. | | | |
| 5. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTION PIPES TO MANHOLES (FOR STANDARD KOR-N-SEAL, PXS; POSITIVE SEAL AND DURA SEAL). SANITARY RUBBER GASKET TYPE JOINTS SHALL CONFORM TO CSA (B-182.3,4). | | | |
| 6. THE OWNER SHALL REQUIRE THAT THE SITE SERVING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SERVICE CONNECTIONS. FIELD TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH OPSPP 410.07.16, 410.07.16.04 AND OPSPP 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SIGNIFY A CERTIFIED COPY OF THE TEST RESULTS. | | | |
| 7. STORM MANHOLE, CATCH BASINS AND CBMS ARE TO HAVE 300mm SUMPS (AS PER SUMP DETAIL ON OPSD 701.010), UNLESS OTHERWISE INDICATED. | | | |
| 8. BUILDING CONTRACTOR TO PROVIDE TEMPORARY ADDITIONAL GRANULAR BACKFILL ABOVE SHALLOW CULVERTS AND STORM SEWERS TO SUPPORT HEAVY CONSTRUCTION EQUIPMENT. | | | |
| 9. CONTRACTOR TO TELETYPE (CCTV) ALL PROPOSED SEWERS, 200mm or GREATER PRIOR TO BASE COURSE ASPHALT. PRIOR COMPLETION OF SANITARY CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES TO BE FREE OF OBSTRUCTION. | | | |
| 10. 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. THE DEFLECTION THAT THE LENGTH OF THE WATER PIPE BE CENTERED AT THE POINT OF CROSSING SO THAT THE DEFLECTIONS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER. | | | |

MONAHAN DRAIN
~ CELL 2 ~
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ONSITE - PONDING

5 YEAR PONDING LEVEL = 95.51
100 YEAR PONDING LEVEL = 95.26

ABBREVIATIONS

STM	STORM MANHOLE
SAN	SANITARY MANHOLE
CB	CATCH BASIN
CBMH	MANHOLE WITH OPEN GRATE
WH	WATER VALVE
FH	FIRE HYDRANT
FHL	FIRE HYDRANT LEAD FH
C/L	CENTER LINE
ELEV	ELEVATION
UP	UTILITY POLE
SDCT	SUBDRAIN CATCHMENT TEE
	(DITCH PIPE CATCH BASIN)

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 DRAINAGE SLOPE
	EXISTING DRAINAGE PATTERN
	LOCATION OF HEAVY PAVEMENT STRUCTURE
	PROPERTY LINE
	CENTERLINE OF ROAD
	EDGE OF ROAD
	TOP OF SLOPE
	FENCE LINE
	SALT 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 CATCHBASIN TO REMAIN
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
	PROPOSED WATER VALVE
	EXISTING WATER VALVE CHAMBER
	PROPOSED WATER METER
	PROPOSED REMOTE WATER METER
	PROPOSED LIGHT STANDARD
	EXISTING HYDRO POLE



Kollaard Associates
Engineers

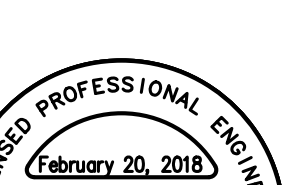
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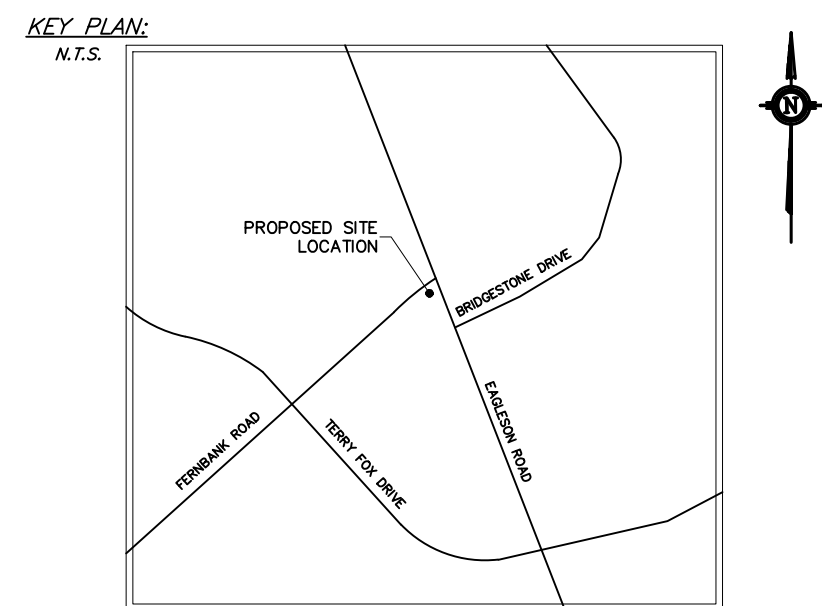
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APARTMENT DEVELOPMENT

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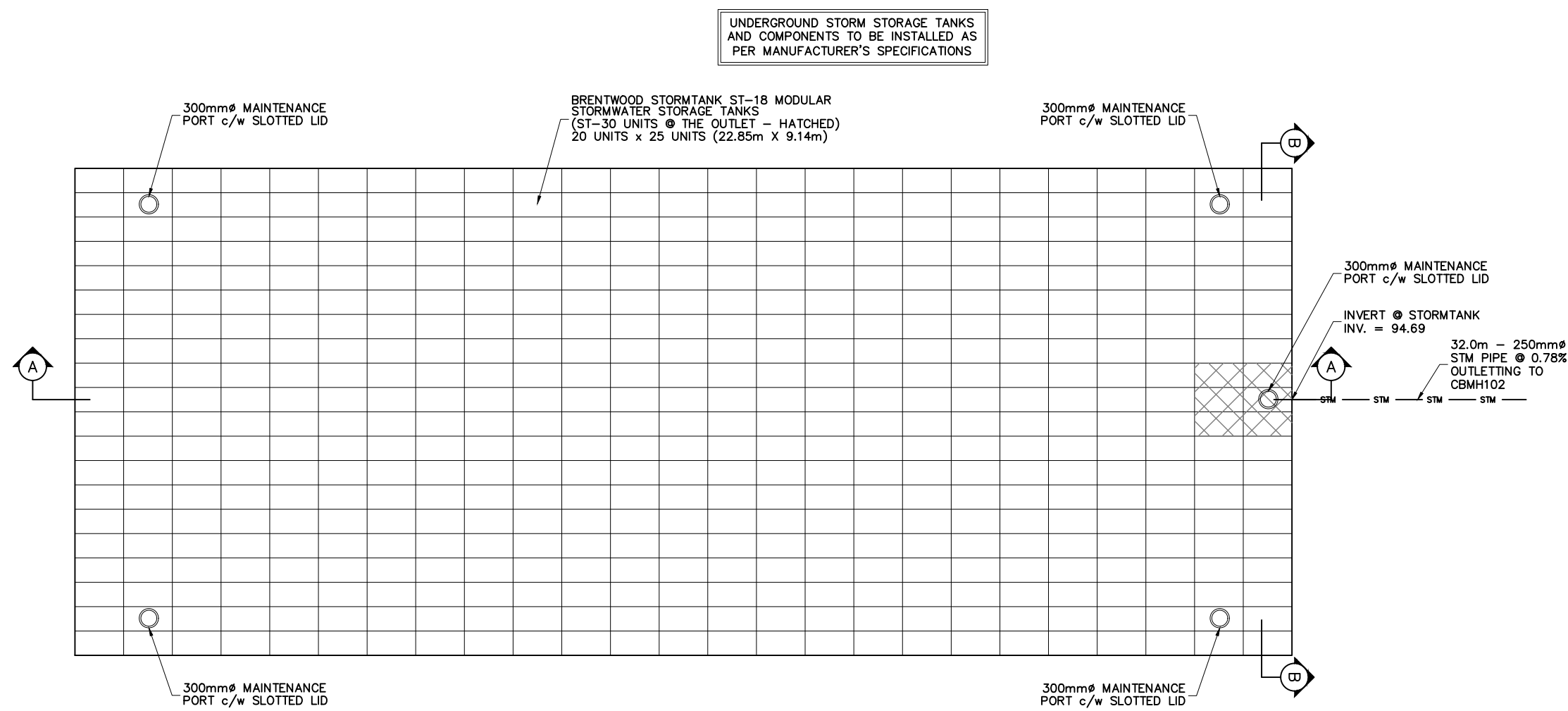
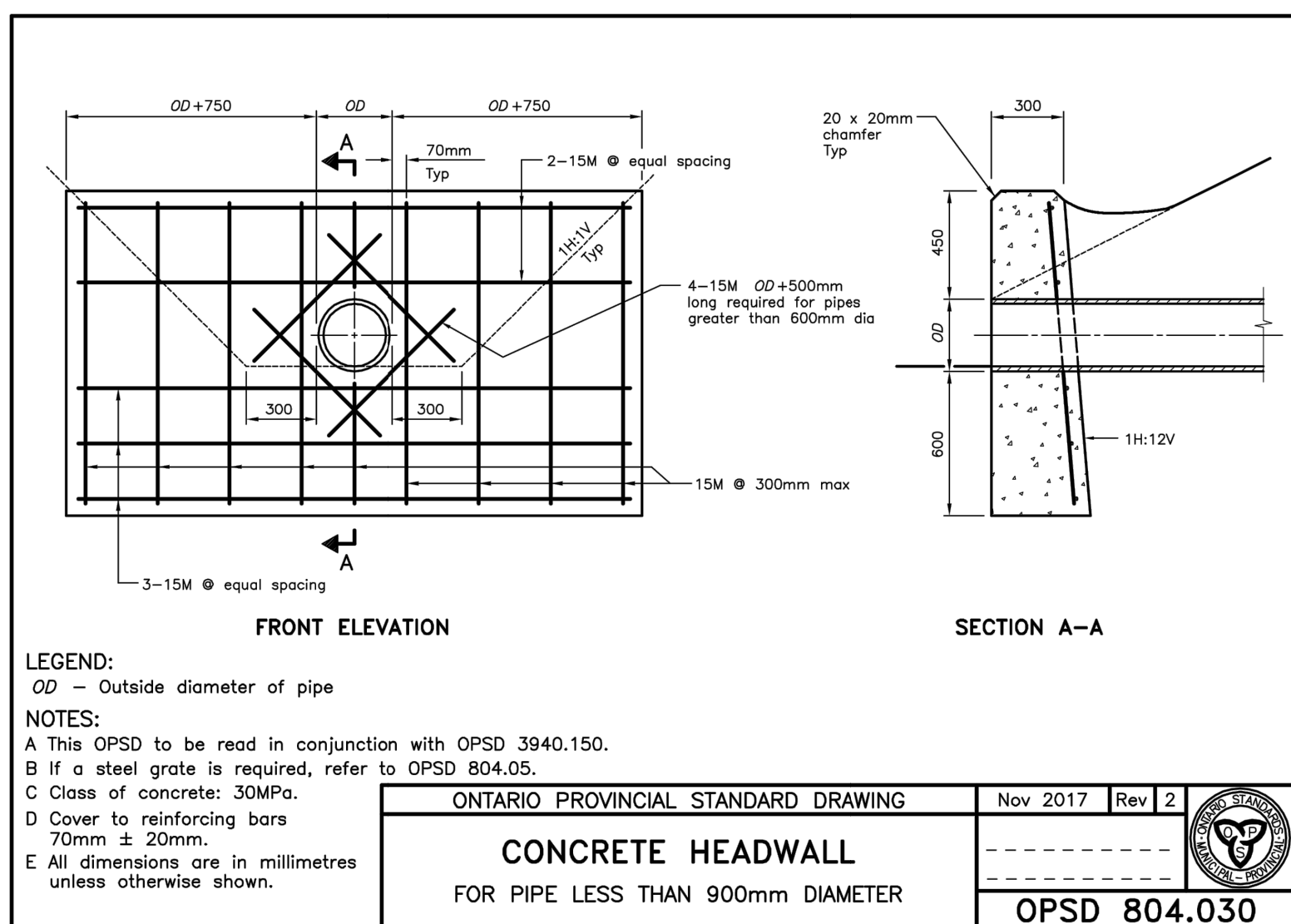
	DESIGNED BY	CHECKED BY
	SD	SD
	DRAWN BY	APPROVED BY
	RR	SD
	DATE	
23.APR.2018		
SCALE		
1: 300		
PROJECT No.		
180084		
SHEET SET		
2 of 8		

D07-12-18-0096

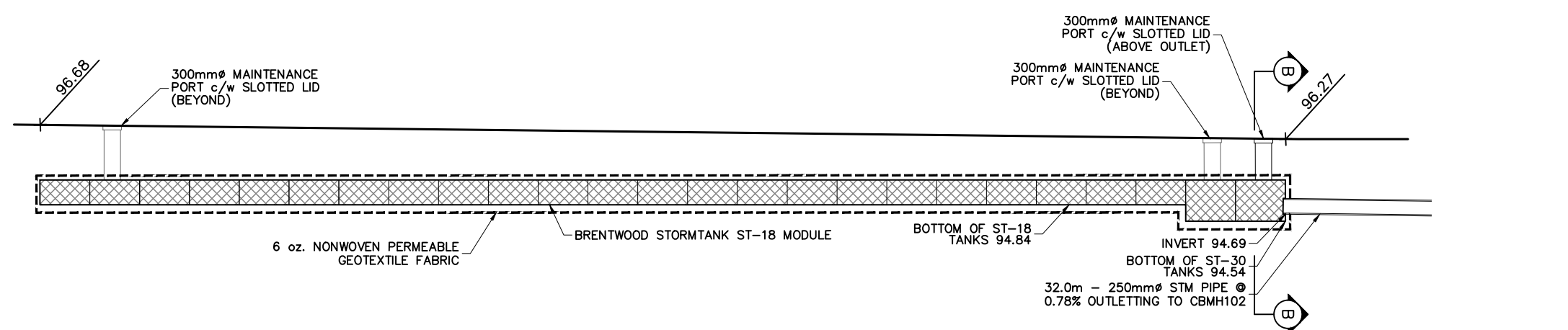


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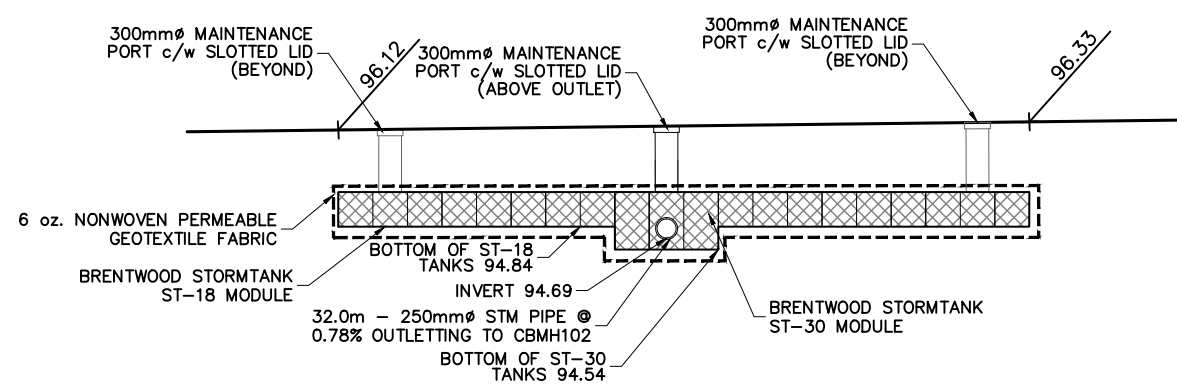
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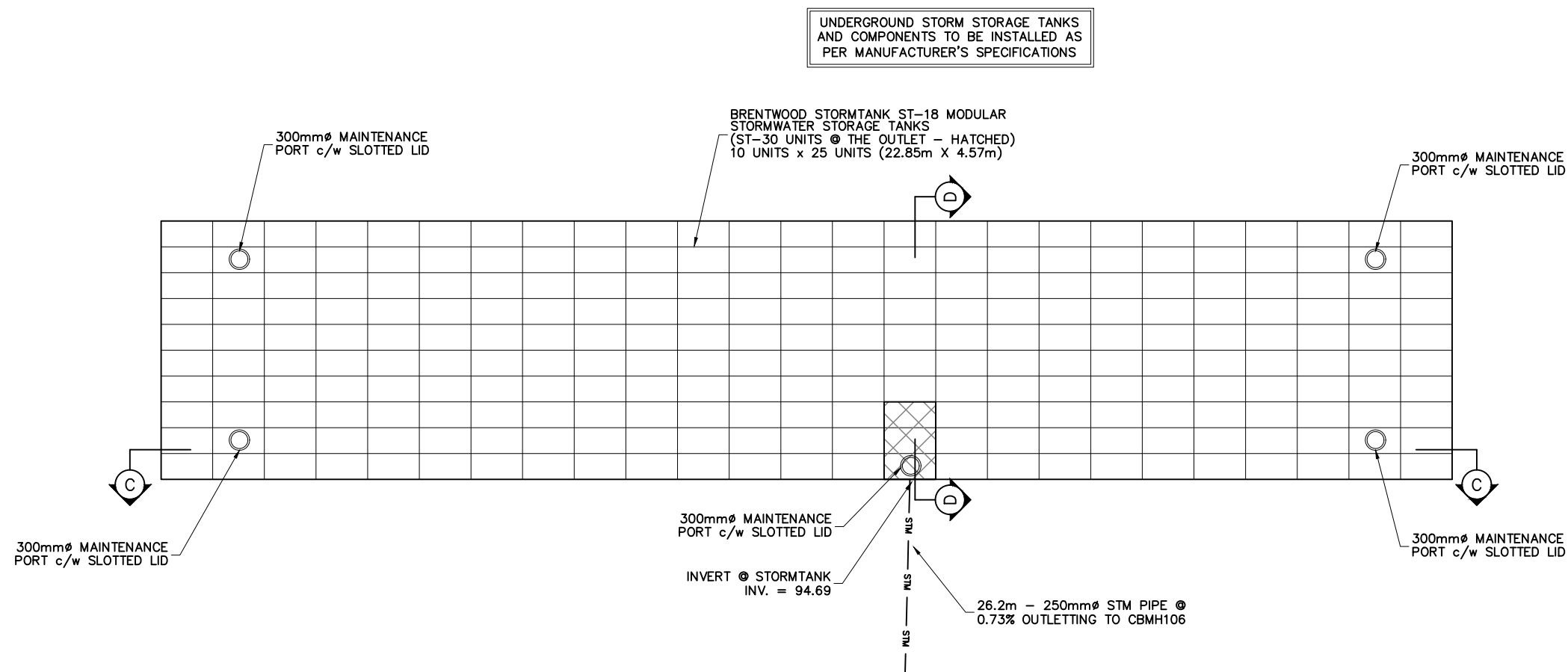
EAST UNDERGROUND
STORAGE TANK LAYOUT
SCALE = 1:100



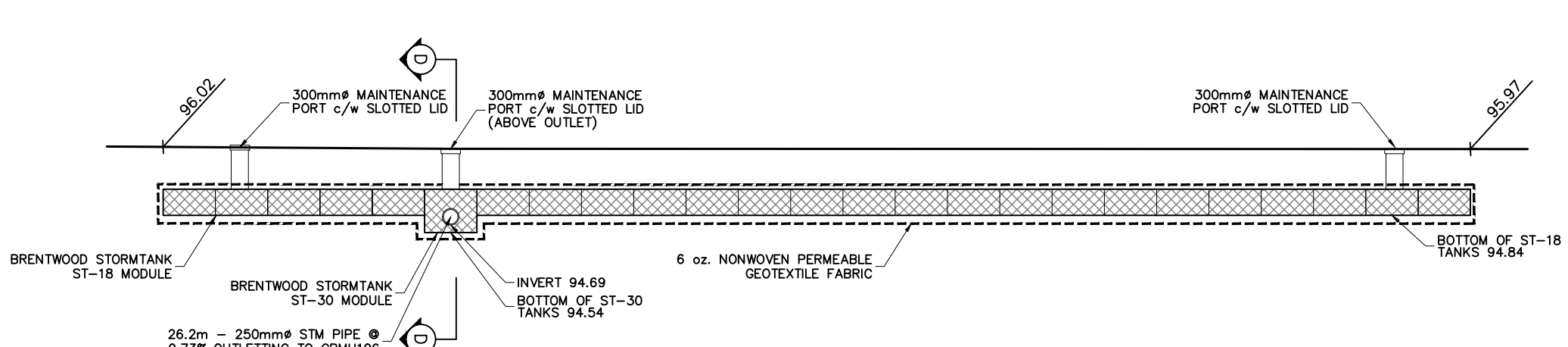
SECTION A-A
EAST UNDERGROUND
STORAGE TANK SECTION 1
SCALE = 1:100



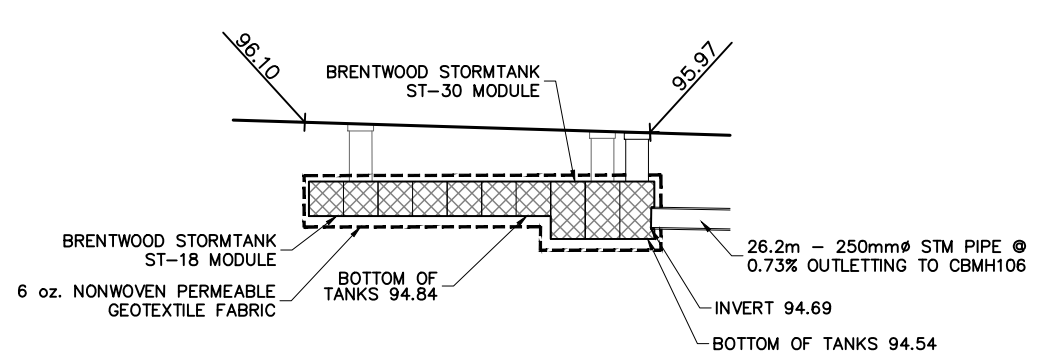
SECTION B-B
EAST UNDERGROUND
STORAGE TANK SECTION 2
SCALE = 1:100



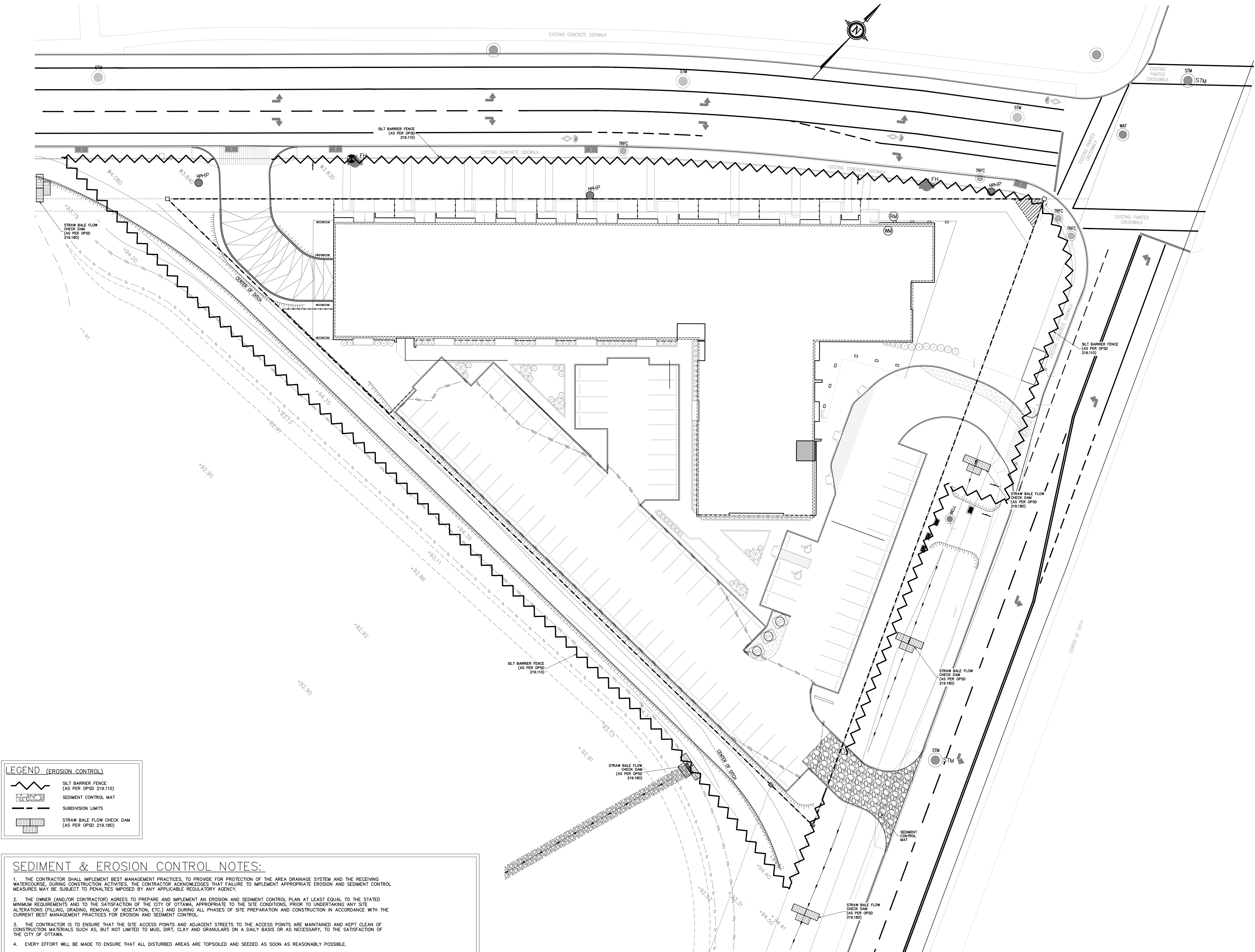
SOUTH/WEST UNDERGROUND
STORAGE TANK LAYOUT
SCALE = 1:100



SECTION C-C
SOUTH/WEST UNDERGROUND
STORAGE TANK SECTION 1
SCALE = 1:100



SECTION D-D
SOUTH/WEST UNDERGROUND
STORAGE TANK SECTION 2
SCALE = 1:100



LEGEND (EROSION CONTROL)

- SILT BARRIER FENCE (AS PER OPSD 219.110)
- SEDIMENT CONTROL MAT
- SUBDIVISION LIMITS
- STRAW BALE FLOW CHECK DAM (AS PER OPSD 219.180)

SEDIMENT & EROSION CONTROL NOTES:

- 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.
- 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.
- 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.
- EVERY EFFORT WILL BE MADE TO ENSURE THAT ALL DISTURBED AREAS ARE TOPSOILED AND SEEDED AS SOON AS REASONABLY POSSIBLE.
- 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

KEY PLAN:
N.T.S.

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2	NO CHANGES TO THIS SHEET	2018/09/11	RR
1	REVISED FOR SITE PLAN CONTROL	2018/08/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

Kollaard Associates Engineers

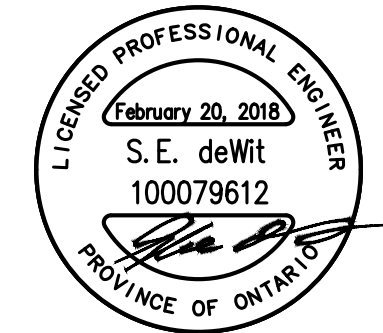
P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923
KEMPTVILLE, ONTARIO info@kollaard.ca
KOG 1JO FAX (613) 258-0475
http://www.kollaard.ca

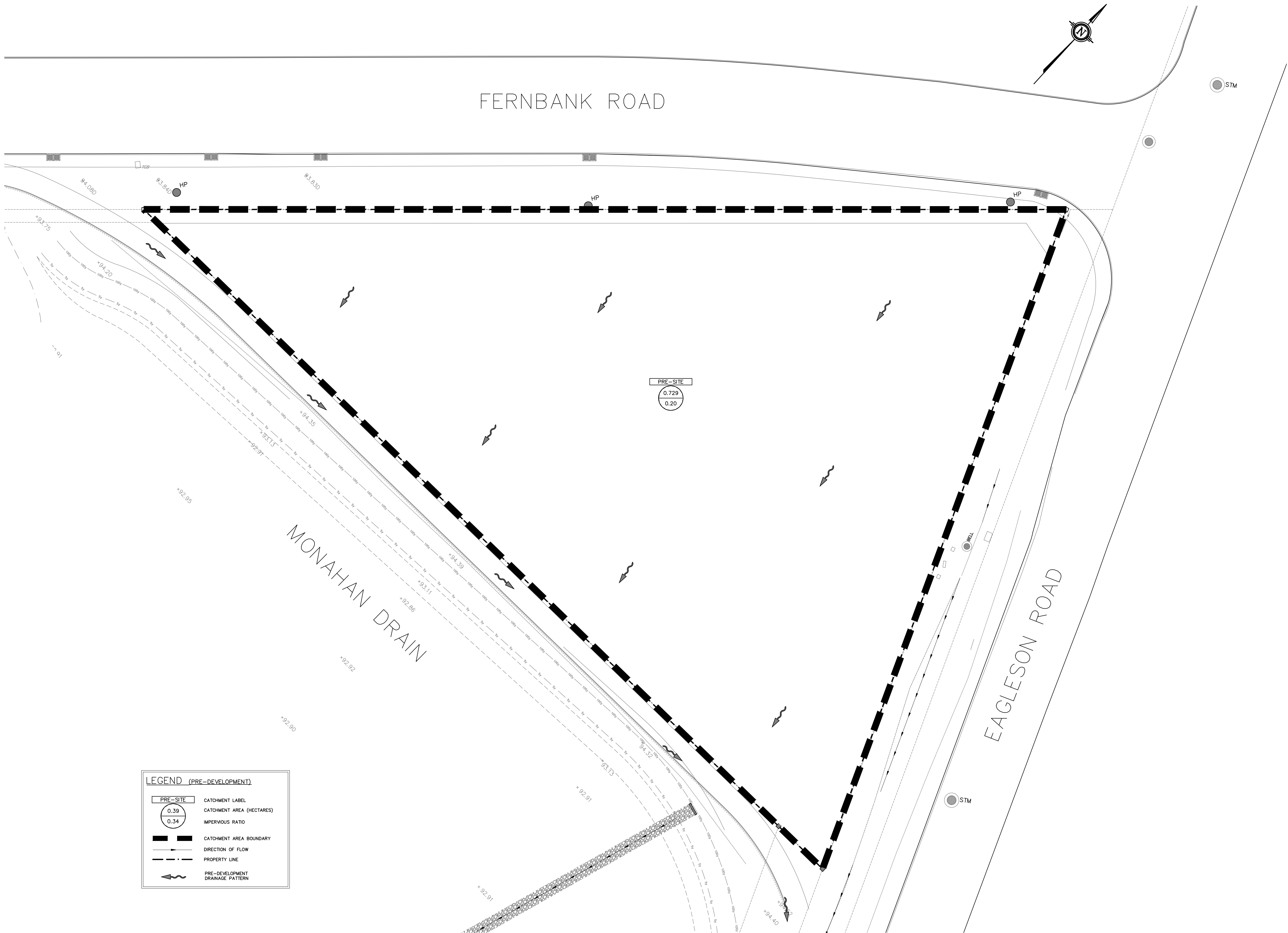
CLIENT NAME
IRONCLAD DEVELOPMENTS

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 4 OF 8





PRE-DEVELOPMENT CATCHMENT AREAS
SCALE = 1:300

DRAWING No.
180084-PRECA

DRAWING
PRE-DEVELOPMENT CATCHMENT AREAS

KEY PLAN:
N.T.S.

- 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 Stattec Geomatics Ltd. on March 7, 2018, Project # 161613824-111
 - Temporary Benchmark (TBM) is the top of spindle for the fire hydrant on Fernbank Road, located about 14.5m northwest of the proposed site entrance. Elevation 86.58m.
 - 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.

5	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/02/20	RR
4	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/01/08	RR
3	REVISED AS PER MUNICIPAL COMMENTS	2018/12/10	RR
2	NO CHANGES TO THIS SHEET	2018/09/11	RR
1	REVISED FOR SITE PLAN CONTROL	2018/08/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/15	RR

No.	REVISION	DATE	BY
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Kollaard Associates
Engineers

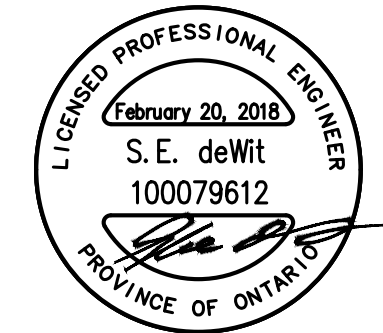
P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923
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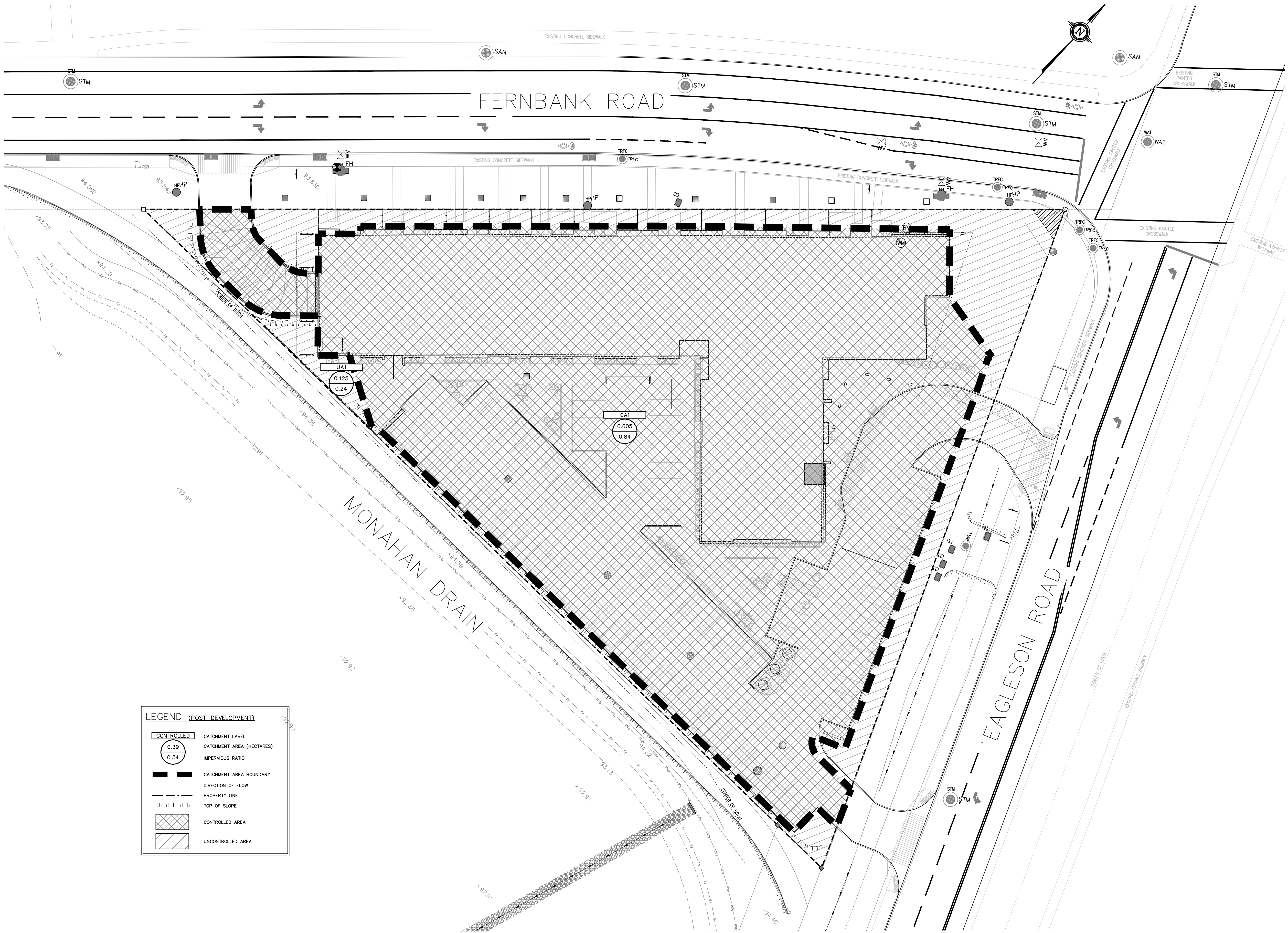
CLIENT NAME
IRONCLAD DEVELOPMENTS

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 8	





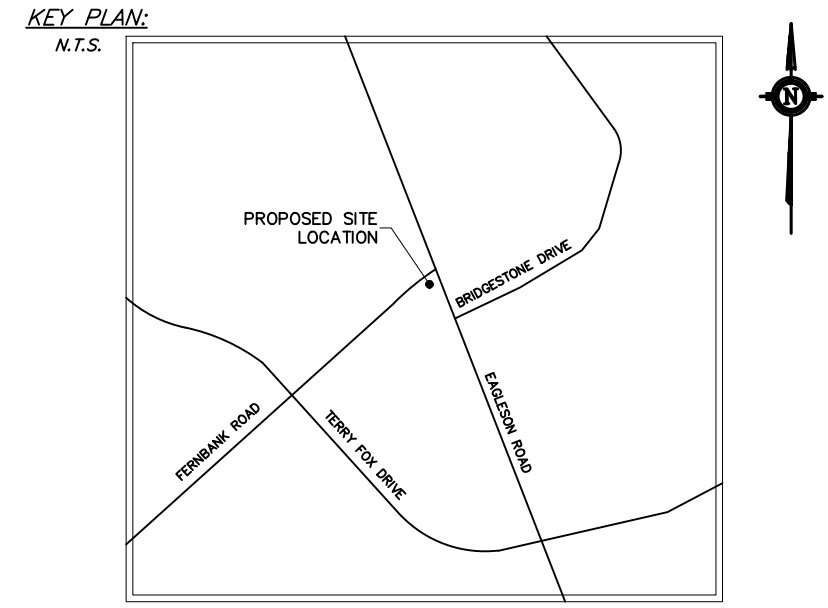
LEGEND (POST-DEVELOPMENT)

	CATCHMENT LABEL
	CATCHMENT AREA (HECTARES)
	IMPERVIOUS RATIO
	CATCHMENT AREA BOUNDARY
	DIRECTION OF FLOW
	PROPERTY LINE
	TOP OF SLOPE
	CONTROLLED AREA
	UNCONTROLLED AREA

POST-DEVELOPMENT CATCHMENT AREAS
SCALE = 1:300

DRAWING No. 180084-POSTCA

DRAWING
POST-DEVELOPMENT CATCHMENT AREAS



GENERAL PROJECT NOTES:

No.	REVISION	DATE	BY
5	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/02/20	RR
4	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/01/08	RR
3	REVISED AS PER MUNICIPAL COMMENTS	2018/12/11	RR
2	REVISED FOR INCL. IN SSMR	2018/09/11	RR
1	REVISED FOR SITE PLAN CONTROL	2018/08/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

**Kollaard Associates
Engineers**

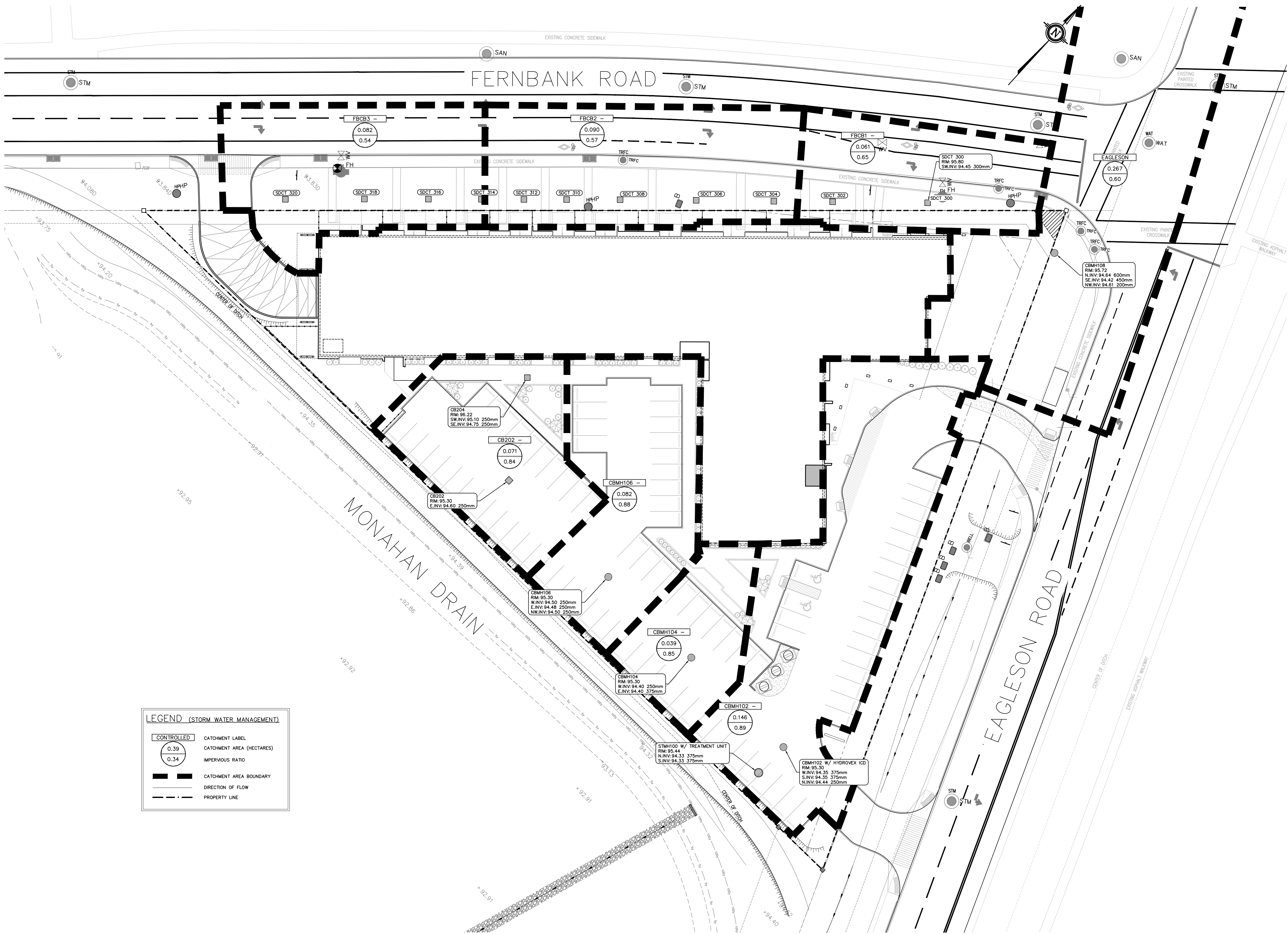
P.O. BOX 189, 210 PRESCOTT ST.(613) 860-0923
KEMPTVILLE, ONTARIO info@kollaard.ca
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CLIENT NAME
IRONCLAD DEVELOPMENTS

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 8	



STORM SEWER CATCHMENT AREAS
SCALE = 1:300

DRAWING No. 180084-SSCA

DRAWING
STORM SEWER CATCHMENT AREAS

KEY PLAN:
N.T.S.

GENERAL PROJECT NOTES:

No.	REVISION	DATE	BY
5	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/02/20	RR
4	REVISED AS PER 2nd MUNICIPAL COMMENTS	2019/01/08	RR
3	REVISED AS PER MUNICIPAL COMMENTS	2018/12/11	RR
2	REVISED FOR INCL. IN SMR	2018/09/11	RR
1	REVISED FOR SITE PLAN CONTROL	2018/08/13	RR
0	ISSUED FOR SITE PLAN CONTROL	2018/06/18	RR

K Kollaard Associates
Engineers

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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 7 OF 8		