

Stantec

300-675 COCHRANE DRIVE WEST TOWER
MARKHAM, ONTARIO L3R 0B8
TELEPHONE: (905) 944-7777
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PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT

1555 18th AVENUE EAST

CALLOWAY REAL ESTATE INVESTMENT TRUST INC.



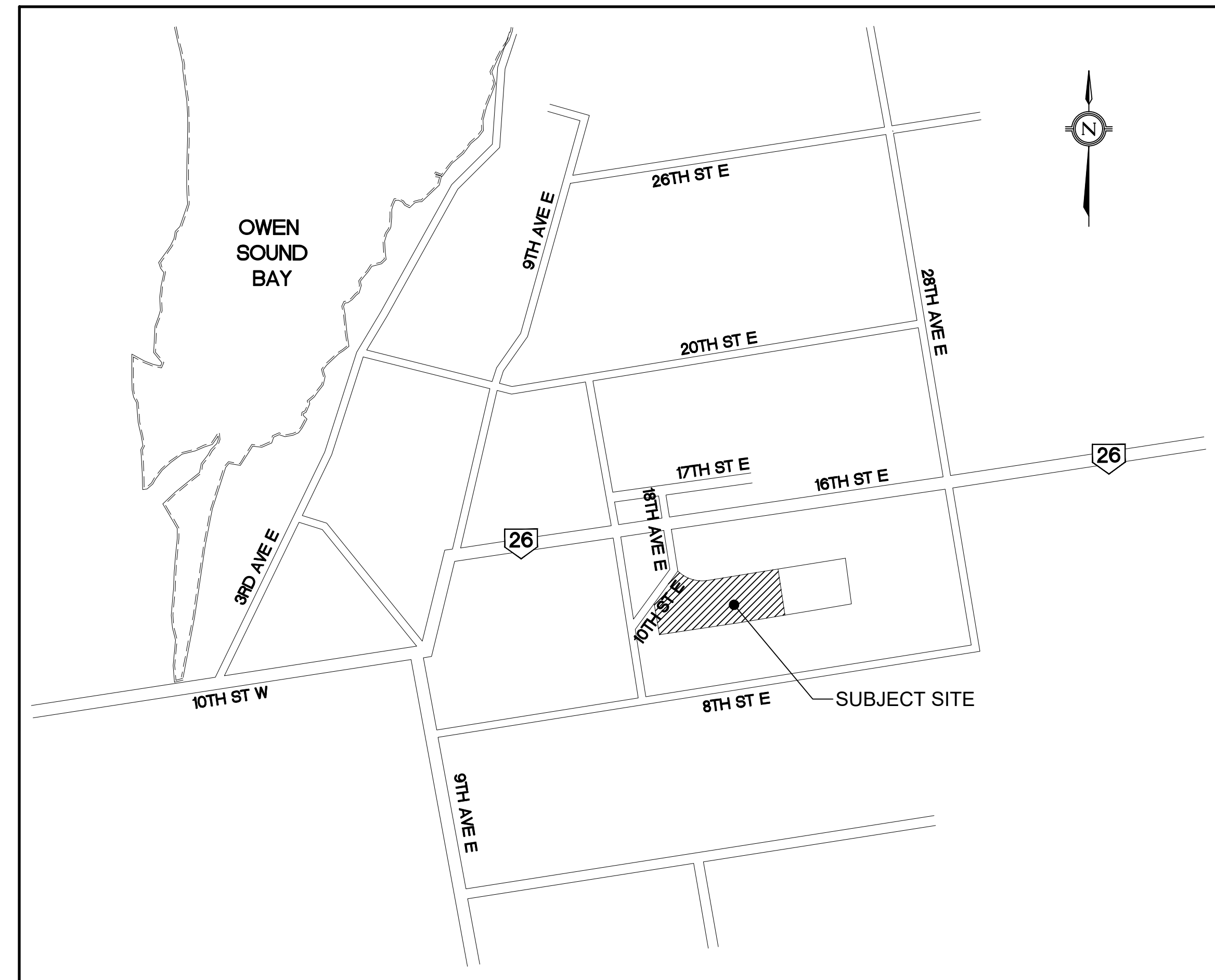
CITY OF OWEN SOUND
COMMUNITY SERVICING DEPARTMENT

CITY FILE No.: D06-21007

ISSUED FOR SITE PLAN APPROVAL (FIRST SUBMISSION)

JANUARY 2023

Project Number: 160623088

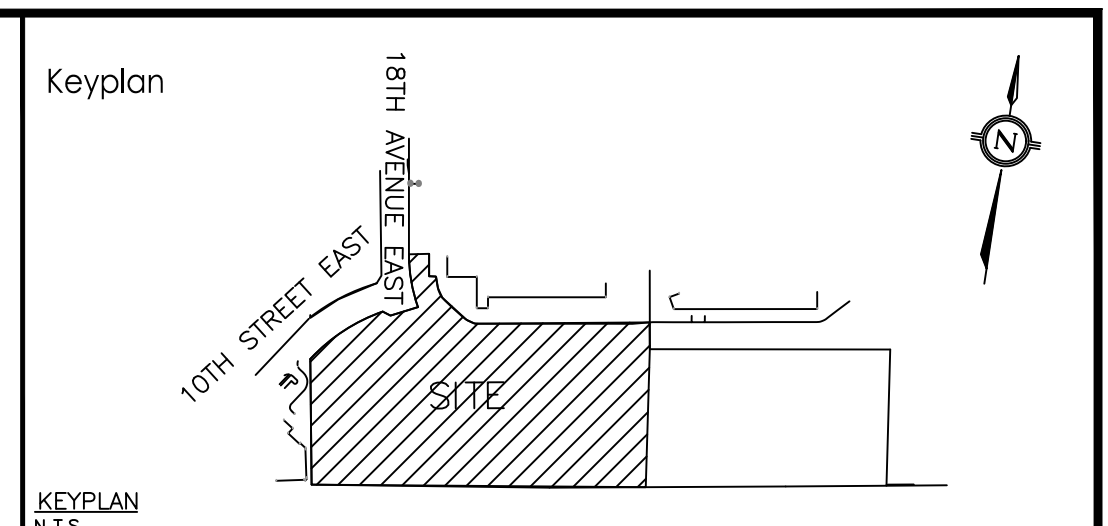
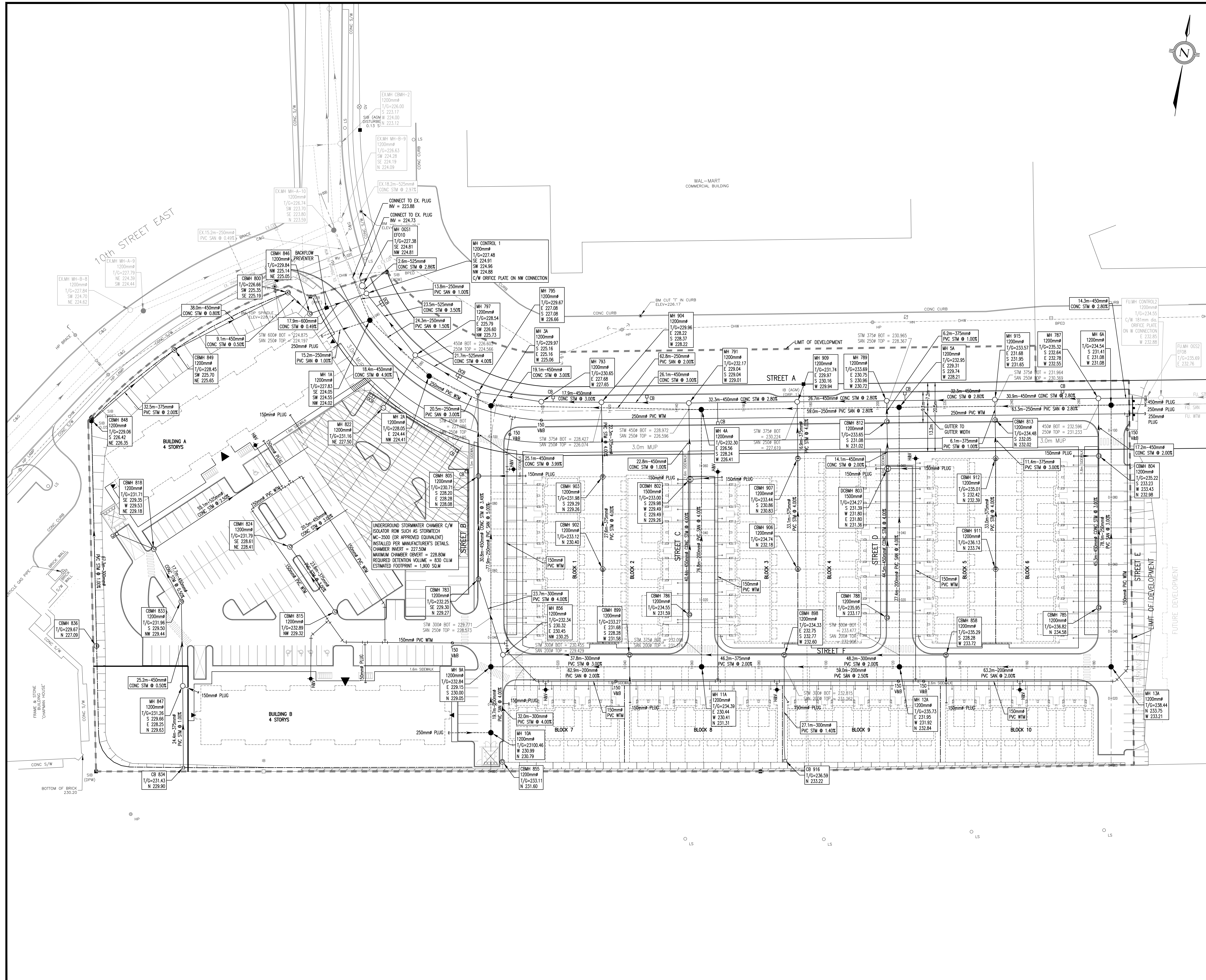


SITE PLAN
N.T.S

| Sheet List Table | |
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| 502 | Details and Notes |
| 701 | Erosion & Sediment Control Plan |
| 702 | Erosion & Sediment Control Details |

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1555 18th AVENUE EAST 160623088 ISSUED FOR SITE PLAN APPROVAL (FIRST SUBMISSION)



- LEGEND**
- PROPOSED STORM
 - PROPOSED SANITARY
 - FUTURE STORM
 - FUTURE SANITARY
 - EXISTING STORM
 - EXISTING SANITARY
 - PROPOSED WATERMAIN
 - EXISTING WATERMAIN
 - SINGLE OR REARLOT CATCHBASIN
 - CATCHBASIN MANHOLE
 - DITCH INLET CATCHBASIN
 - DOUBLE CATCHBASIN
 - HYDRANT & VALVE
 - VALVE & BOX
 - SINGLE SANITARY CONNECTION
 - SINGLE STORM LATERAL CONNECTION
 - EXISTING SANITARY CONNECTION
 - EXISTING STORM LATERAL CONNECTION
 - WATER SERVICE
 - EXISTING WATER SERVICE
 - DRIVEWAY LOCATION
 - DEAD END BARRICADE
 - PROPOSED SWALE
 - LIMIT OF CONSTRUCTION
 - 1.5m CHAINLINK FENCE
 - 1.2m CHAINLINK FENCE
 - PRIVACY FENCE (REFER TO LANDSCAPING DRAWINGS)
 - UNDERGROUND STORMWATER STORAGE TANK

SITE TOPOGRAPHIC SURVEYOR:
 SURVEY PREPARED BY: ARCHIBALD, GARY, & MCKAY LTD
 AUGUST 26, 2022

ELEVATION/BENCHMARK NOTE
 ELEVATION ARE GEODETIC COGS28 (HYD2.0), DERIVED FROM G.P.S. OBSERVATION AND THE LEICA GPS SMARTNET NETWORK.

| No. | DESCRIPTION | DATE | BY | P.H. | P.F. |
|-----------|-----------------------------|----------|----|------|------|
| 1. | ISSUED FOR FIRST SUBMISSION | 01.31.23 | | | |
| REVISIONS | | | | | |

owen sound CITY OF OWEN SOUND
 PLANNING AND DEVELOPMENT SERVICES

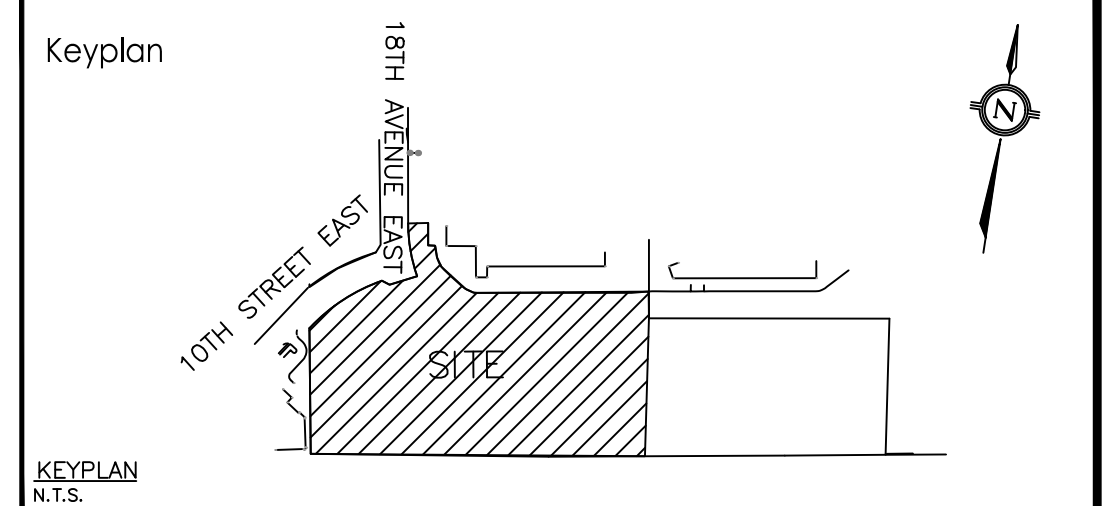
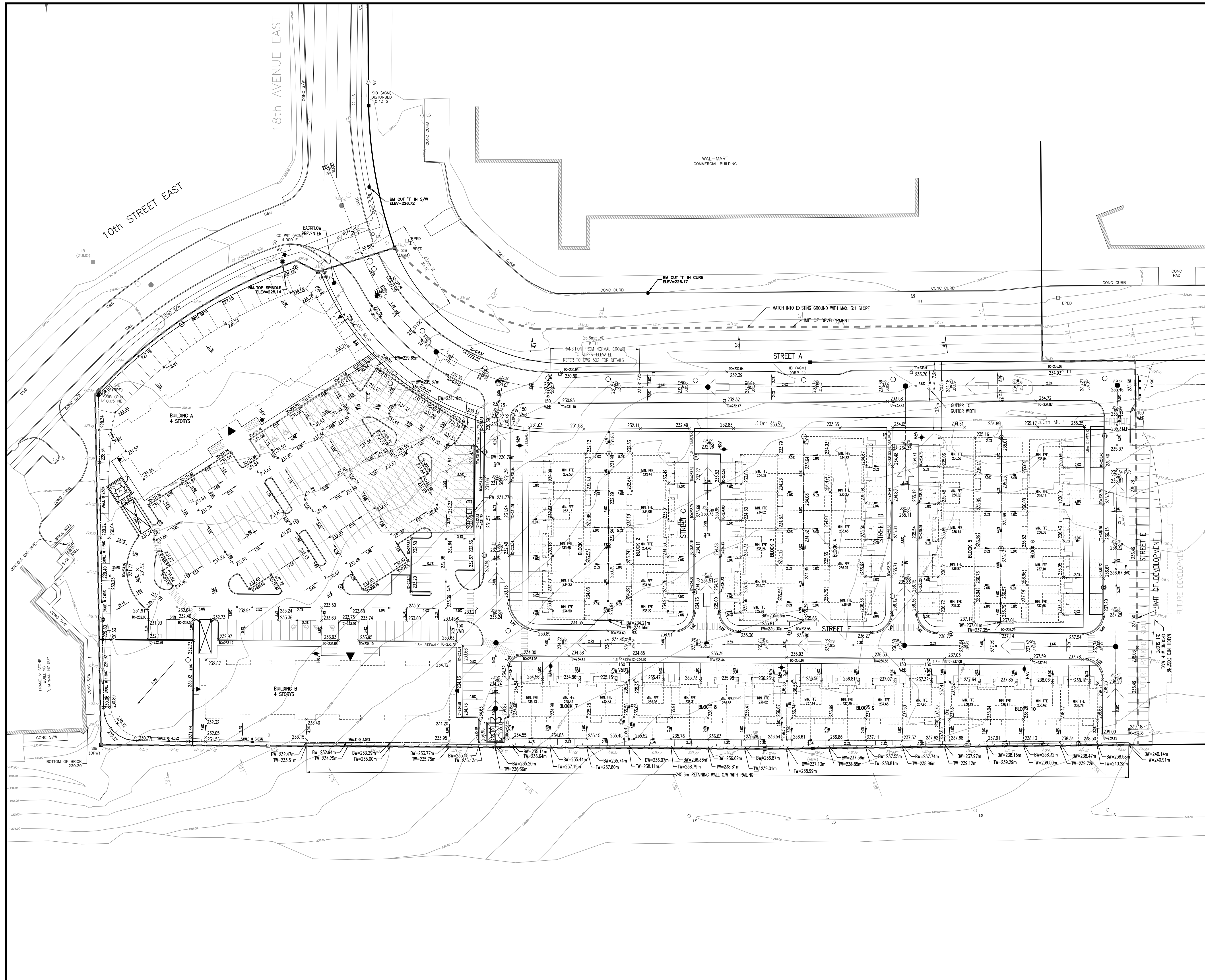
1555 18th AVENUE EAST
 CITY OF OWEN SOUND
 CITY FILE No.: D06-21007

SERVICING PLAN

Stantec Consulting Ltd.
 300 - 675 Cochrane Drive West Tower
 Markham, Ontario L3R 0B8
 Tel.: 905.944.7777
 www.stantec.com

SCALE: 0 5 15 25m
 1:500

DRAWN BY: P.H. PROJECT No.: 160623088
 DESIGNED BY: P.H.
 CHECKED BY: P.F. DRAWING No.:
 DATE: JANUARY 2023 101



- LEGEND**
- 184.15 EXISTING SPOT ELEVATION
 - 184.15 LP PROPOSED LOW POINT
 - 184.15 HP PROPOSED HIGH POINT
 - 184.15 BVC BEGINNING OF VERTICAL CURVE
 - 184.15 EVC END OF VERTICAL CURVE
 - TC=184.15 TOP OF CURB ELEVATION
 - 185.0 EXISTING CONTOUR & ELEVATION
 - 1.0% ROAD SLOPE
 - 2.0% PROPOSED SURFACE GRADE
 - 233.70 MAXIMUM PONDING ELEV
 - PROPOSED STORM/SANITARY
 - EXISTING STORM/SANITARY
 - SINGLE/DOUBLE CATCHBASIN
 - HYDRANT & VALVE
 - VALVE & BOX/CHAMBER
 - WATER SERVICE BOX LOCATION
 - PROP. LIGHT STANDARD/BOLLARD
 - LS • LB
 - PROPOSED TRANSFORMER AND GROUNDING RODS
 - STOP SIGN
 - STREET NAME SIGN
 - MAN PAD (SEE DWG C1206 FOR DETAIL)
 - STREET LIGHT PEDESTAL
 - ANTICIPATED ENGINEERED FILL LOT (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
 - MAXIMUM 3:1 SLOPE
 - MAJOR SYSTEM FLOW DIRECTION
 - PROPOSED RETAINING WALL
 - UNDERGROUND STORMWATER STORAGE TANK

SITE TOPOGRAPHIC SURVEYOR:
 SURVEY PREPARED BY: ARCHIBALD, GARY, & MCKAY LTD.
 AUGUST 26, 2022

ELEVATION/BENCHMARK NOTE
 ELEVATION ARE GEODETIC CODES28 (HTV2.0), DERIVED FROM G.P.S. OBSERVATION AND THE LEICA GPS SMARTNET NETWORK.

| No. | ISSUED FOR FIRST SUBMISSION | 01.31.23 | P.H. | P.F. |
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| REVISIONS | | | | |

owen sound CITY OF OWEN SOUND
 PLANNING AND DEVELOPMENT SERVICES

1555 18th AVENUE EAST
 CITY OF OWEN SOUND
 CITY FILE No.: D06-21007

GRADING PLAN

Stantec Stantec Consulting Ltd.
 300 - 475 Cochrane Drive West Tower
 Markham, Ontario L3R 0B8
 Tel. 905.944.7777
 www.stantec.com

SCALE: 0 5 15 25m
 1:500

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| DRAWN BY: P.H. | PROJECT No.: |
| DESIGNED BY: P.H. | 160623088 |
| CHECKED BY: P.F. | DRAWING No.: |
| DATE: JANUARY 2023 | 102 |

CITY STANDARD NOTES:

1. ALL CURBS CUTS OR CURB FILLS REQUIRE A SPECIAL SERVICES APPLICATION ISSUED BY THE ENGINEERING SERVICES DIVISION.
2. TAPPING OF WATER MAINS WILL BE PERFORMED BY CITY FORCES AND REQUIRES A SPECIAL SERVICES APPLICATION ISSUED BY THE ENGINEERING SERVICES DIVISION.
3. THE SIZING OF CULVERTS LOCATED ON THE ROAD ALLOWANCE IS TO BE VERIFIED BY THE ENGINEERING SERVICES DIVISION PRIOR TO INSTALLATION.

GENERAL NOTES – GENERAL

1. GENERAL
 - A. ALL WORK SHALL BE IN ACCORDANCE WITH OPSS / OPSD STANDARD SPECIFICATIONS AND DRAWINGS UNLESS OTHERWISE STATED.
 - B. LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL LOCATIONS & NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
 - C. A ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO WORKING WITHIN ANY CITY RIGHT-OF-WAY.
 - D. NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY, WHERE ENGINEERED FILL IS SPECIFIED COMPACT TO 98% SPD.
 - E. GRANULAR MATERIAL, USED FOR BACKFILL, SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND COMPACTED TO 100% STANDARD PROCTOR DENSITY.
 - F. ALL DISTURBED AREAS ARE TO BE REINSTITATED TO THEIR ORIGINAL CONDITION.
 - G. ALL SILT CONTROL AND EROSION PROTECTION DEVICES ARE TO BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE SURFACES STABILIZED, SUBJECT TO APPROVAL OF THE ENGINEER.
 - H. WHERE FROST WEDGE IS REQUIRED USE MINIMUM 4:1 SLOPE, OR AS OTHERWISE SPECIFIED BY THE GEOTECHNICAL CONSULTANT.

GENERAL NOTES – SANITARY SEWER

1. SANITARY SERVICE LATERALS
 - A. PIPE TO BE MINIMUM 125mm DIA. PVC DR28, RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO C.S.A. – B – 182.2.
 - B. 125mm x 100mm TEST FITTING TO BE INSTALLED ON LATERAL 5.0m PAST BACK OF CURB.
 - C. LOCATION OF LATERAL TO BE MARKED 5.0m PAST BACK OF CURB (AT THE TEST FITTING).
 - D. MINIMUM DEPTH OF COVER OVER LATERAL TO BE 1.5m.
 - E. MINIMUM SLOPE OF LATERAL TO BE 2.0%.
 - F. COLOUR OF SERVICE LATERAL PIPE TO BE GREEN OR BLACK.
 - G. ALL CONNECTIONS TO THE SANITARY MAIN SHALL BE MADE WITH INJECTION MOULDED, APPROVED TEES.
 - H. TEST FITTING TO BE MANUFACTURED BY CROWLE OR IPEX. PVC AS PER CSA B182.2. CAST IRON AS PER CSA B70.

SANITARY SEWER

- A. SANITARY SEWER TO BE LOCATED TYPICALLY AT THE CENTRELINE OF THE ROAD UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- B. PIPE SHALL BE PVC DR35.
- C. SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD 802.010, CLASS B, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- D. ALL CONNECTIONS TO THE SANITARY MAIN SHALL BE MADE WITH INJECTION MOULDED APPROVED TEES.
- E. "XOR-N-SEAL" GASKETS TO BE USED ON ALL PIPES ENTERING MANHOLES.
- F. MANHOLE TOPS ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE USING A MINIMUM OF 1 TO A MAXIMUM OF 3 ADJUSTMENT RINGS. MAXIMUM VERTICAL ADJUSTMENT OF MH BY ADJUSTMENT RINGS (MODULOC) SHALL NOT EXCEED 300mm. ADJUSTMENT EXCEEDING 300mm SHALL CONSIST OF PRECAST CONCRETE RISER SECTIONS.
- G. MANHOLE GRATES AS PER OPSD 401.010 (CLOSED COVER) WITH DATE AND "SANITARY" CAST INTO THE COVER.
- H. MANHOLE FRAMES TO BE ADJUSTABLE / AUTOSTABLE.
- I. ALL MANHOLES TO BE WATERTIGHT. EXTERIOR WATERPROOF MEMBRANE OR PETROLEUM TAPE SHALL BE APPLIED AROUND ALL JOINTS, INCLUDING ALL MODULOC AND SHALL BE OVERLAPPED HALFWAY UP THE STRUCTURE FRAME (AT FINAL ADJUSTMENT TO TOP COURSE ASPHALT). THE MEMBRANE SHALL BE INSTALLED AS PER MANUFACTURER SPECIFICATIONS AND PROTECTED DURING BACKFILL OPERATIONS.

- J. PIPE
 - POLYVINYL CHLORIDE (PVC):
 - CERTIFIED TO CSA B182.2
 - RUBBER GASKET IN INTEGRAL BELL & SPIGOT JOINTS CERTIFIED TO CSA B182.2
 - INJECTION-MOLDED GASKETED FITTINGS CERTIFIED TO CSA B182.2
 - MANUFACTURED BY IPEX ("RING-TITE"), ROYAL BUILDING PRODUCTS, REHAU ("DURALOC"), DIAMOND PLASTICS
 - COLOUR OF MAIN PIPE TO BE GREEN.
 - WHERE THE INVERT OF THE SEWER IS BELOW THE GROUNDWATER TABLE, CLAY/BENTONITE SEALS SHALL BE INSTALLED AT 50m INTERVALS PER OPSD 1205, OPSD 802.095, OR AS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER. PLUGS ARE TO BE 1m THICK MEASURED ALONG THE PIPE AND ARE TO REPLACE BEDDING AND COVER AND ARE TO BE KEPT INTO THE TRENCH BOTTOM AND WALLS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

- K. MANHOLES:
 - PRE-CAST CONCRETE CERTIFIED TO CSA A257.4
 - RUBBER GASKET TYPE JOINTS CERTIFIED TO CSA A257.3
 - MANUFACTURED BY OCPA PLANT PRE-QUALIFICATION MEMBER
 - APPROVED EXTERIOR WATERPROOF MEMBRANE OR PETROLEUM TAPE SHALL BE APPLIED OVER ALL JOINTS OF SANITARY MANHOLES AND CHAMBERS, INCLUDING ALL MODULOC AND SHALL OVERLAP HALFWAY UP THE CAST IRON FRAME TO THE SATISFACTION OF THE CITY.
- L. MANHOLE GRATES:
 - CERTIFIED TO OPSS 1850
- M. MANHOLE FRAMES:
 - CERTIFIED TO OPSS 1850.
- N. MANHOLE ADJUSTMENT UNITS:
 - CONCRETE
 - PRE-CAST CONCRETE GRADE ADJUSTMENT UNITS WITH MODULOC TAPE BETWEEN LAYERS
 - MANUFACTURED BY OCPA PLANT PRE-QUALIFICATION MEMBER.
 - DUCTILE IRON:
 - RESER RINGS (ONLY TO BE USED WHEN APPROVED BY THE CITY)
 - MANUFACTURED BY SIGMA, MH-640102DI (38 OR 51mm)

0. ALL SANITARY DROP STRUCTURES AS PER OPSD 1003.01.
- P. WATERTIGHT BULKHEADS AND PLUGS IN ACCORDANCE WITH THE DETAIL ON DRAWING C-1201 EXISTS IN EXHIBIT AND SHALL REMAIN INSTALLED UNTIL FIRST OCCUPANCY WITHIN THE DEVELOPMENT.

3. TESTING REQUIREMENTS
 - ALL NEW SANITARY SEWERS SHALL UNDERGO THE FOLLOWING TESTING REQUIREMENTS:
 - DEFLECTION TESTING IN ACCORDANCE WITH OPSS 410
 - INFILTRATION/EXFILTRATION TESTING IN ACCORDANCE WITH OPSS 410
 - CCTV INSPECTION IN ACCORDANCE WITH CITY OF INNISFIL STANDARDS APPENDIX D-CCTV INSPECTION REQUIREMENTS
 - VISUAL INSPECTION OF MAINTENANCE HOLES BY THE ENGINEER

GENERAL NOTES – STORM SEWER

2. CATCH BASINS
 - A. SINGLE CATCH-BASIN LEADS TO BE MINIMUM 250mm DIAMETER AT 0.70% SLOPE.
 - B. TWIN-INLET CATCH-BASIN LEADS TO BE MINIMUM 300mm DIAMETER AT 1.0% SLOPE OR GREATER OR LEADS TO BE MINIMUM 375mm at 0.7% SLOPE OR GREATER.
 - C. LEAD PIPE SHALL BE PVC DR35.
 - D. CATCHBASIN GRATES ARE TO BE RAMPED USING HOT-MIX ASPHALT.
 - E. WHERE CATCHBASIN LEADS ARE CONNECTED DIRECTLY TO SEWERS, INJECTION MOULDED TEES SHALL BE USED.
 - F. SINGLE CATCH-BASINS AS PER OPSD 705.010.
 - G. DOUBLE CATCHBASINS AS PER OPSD 705.020.
 - H. CATCHBASIN FRAME & GRATE AS PER OPSD 400.020.
 - I. REAR YARD CATCHBASIN FRAME & GRATE AS PER OPSD 400.120.
 - J. CATCHBASIN TOPS ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE USING A MINIMUM OF 1 TO A MAXIMUM OF 3 ADJUSTMENT RINGS.

3. STORM SEWER
 - A. STORM SEWER TO BE LOCATED TYPICALLY 2.8m TO THE EAST OR SOUTH OF CENTRELINE OF THE ROAD, OR AS OTHERWISE REQUIRED TO ENSURE CBMH INLETS ALIGN WITH CUTTER.
 - B. MINIMUM PIPE SIZE TO BE 300mm DIAMETER.
 - C. PIPE SHALL BE REINFORCED CONCRETE (525mm AND LARGER PIPE SIZE), OR PVC DR35 (300mm TO 450mm PIPE SIZE), ALL WITH RUBBER GASKET TYPE JOINTS.
 - D. SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD 802.010 (FLEXIBLE PIPE) 802.030 TO 802.032 (RIGID PIPE) INCLUSIVE, CLASS B, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
 - E. ALL CONNECTIONS TO THE STORM MAIN SHALL BE MADE WITH EITHER INJECTION MOULDED APPROVED TEES OR FACTORY-INSTALLED TEES.
 - F. MANHOLES AS PER OPSD 701.010 TO 701.012 INCLUSIVE.
 - H. MANHOLE TOPS ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE USING A MINIMUM OF 1 TO A MAXIMUM OF 3 ADJUSTMENT RINGS. MAXIMUM VERTICAL ADJUSTMENT OF MH BY ADJUSTMENT RINGS (MODULOC) SHALL NOT EXCEED 300mm. ADJUSTMENT EXCEEDING 300mm SHALL CONSIST OF PRECAST CONCRETE RISER SECTIONS.
 - I. MANHOLE GRATE AS PER OPSD 401.010 (TYPE 'A' - CLOSED COVER) WITH THE DATE AND "STORM" CAST INTO THE COVER.
 - J. WHERE SOFT OR WET TRENCH SUBGRADE CONDITIONS ARE ENCOUNTERED, FURTHER ON-SITE GEOTECHNICAL ASSESSMENT MAY BE REQUIRED TO DETERMINE THE APPROPRIATE BEDDING WHICH WILL STABILIZE THE SUBGRADE FOR SEWER CONSTRUCTION. (i.e. INCREASE BEDDING THICKNESS, STONE IMMERSON TECHNIQUES CLASS 'A' BEDDING, ETC.)

4. CULVERTS
 - A. PIPE SHALL BE HDPE (UP TO 600mm) BIG 'O' BOSS POLY-TITE, 320 kPa, OR GALVANIZED CORRUGATED METAL PIPE (CMP) WITH WALL THICKNESS AS RECOMMENDED BY THE MANUFACTURER FOR H20 LOADING (MIN. 2.0mm THICKNESS FOR ROAD CROSSING AND MIN. 1.6mm FOR DRIVEWAYS), OR REINFORCED CONCRETE.

5. STORM SEWER SYSTEM
 - A. PIPE
 - REINFORCED CONCRETE:
 - CERTIFIED TO CSA A257.2, CLASS 65-D.
 - RUBBER GASKET TYPE JOINTS CERTIFIED TO CSA A257.3
 - MANUFACTURED BY OCPA PLANT-PREQUALIFICATION MEMBER
 - POLYVINYL CHLORIDE (PVC):
 - CERTIFIED TO CSA B182.2
 - RUBBER GASKET IN INTEGRAL BELL & SPIGOT JOINTS CERTIFIED TO CSA B182.2
 - INJECTION-MOLDED GASKETED FITTINGS CERTIFIED TO CSA B182.2
 - MANUFACTURED BY IPEX ("RING-TITE"), ROYAL BUILDING PRODUCTS, DIAMOND PLASTICS.
 - COLOUR OF MAIN PIPE TO BE GREEN.
 - WHERE THE INVERT OF THE SEWER IS BELOW THE GROUNDWATER TABLE, CLAY/BENTONITE SEALS SHALL BE INSTALLED AT 50m INTERVALS PER OPSD 1205, OPSD 802.095, OR AS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER. PLUGS ARE TO BE 1m THICK MEASURED ALONG THE PIPE AND ARE TO REPLACE BEDDING AND COVER AND ARE TO BE KEPT INTO THE TRENCH BOTTOM AND WALLS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

- B. MANHOLES:
 - PRE-CAST CONCRETE CERTIFIED TO CSA A257.4
 - RUBBER GASKET TYPE JOINTS CERTIFIED TO CSA A257.3
 - MANUFACTURED BY OCPA PLANT-PRE-QUALIFIED MEMBER.

- C. MANHOLE GRATES:
 - CERTIFIED TO OPSS 1850
- D. MANHOLES FRAMES:
 - CERTIFIED TO OPSS 1850
 - MANUFACTURED BY BIBBY ST. CROIX (C-50M-ONT).
 - SIGMA (MH6202-0).
 - MUELLER CANADA (A1775, A1833/A22.5)
- E. MANHOLE ADJUSTMENT UNITS:
 - CONCRETE
 - CERTIFIED TO CSA A257.4
 - MANUFACTURED BY OCPA PLANT PRE-QUALIFICATION MEMBER
 - DUCTILE IRON:
 - USE TO BE APPROVED BY CITY
 - MANUFACTURED BY SIGMA MH-640102DI (38 OR 51mm)
- F. MANUFACTURED BY OCPA PLANT-PRE-QUALIFIED MEMBER.

6. TESTING REQUIREMENTS
 - ALL STORM SEWERS SHALL UNDERGO THE FOLLOWING TESTING REQUIREMENTS:
 - DEFLECTION TESTING IN ACCORDANCE WITH OPSS 410 (FOR PVC SEWERS ONLY)
 - INFILTRATION/EXFILTRATION TESTING IN ACCORDANCE WITH OPSS 410 (PVC SEWERS ONLY)
 - CCTV INSPECTION IN ACCORDANCE WITH CITY OF INNISFIL STANDARDS APPENDIX D-CCTV INSPECTION REQUIREMENTS
 - VISUAL INSPECTION OF MAINTENANCE HOLES BY THE ENGINEER

7. TESTING REQUIREMENTS
 - ALL NEW SANITARY SEWERS SHALL UNDERGO THE FOLLOWING TESTING REQUIREMENTS:
 - DEFLECTION TESTING IN ACCORDANCE WITH OPSS 410
 - INFILTRATION/EXFILTRATION TESTING IN ACCORDANCE WITH OPSS 410
 - CCTV INSPECTION IN ACCORDANCE WITH CITY OF INNISFIL STANDARDS APPENDIX D-CCTV INSPECTION REQUIREMENTS
 - VISUAL INSPECTION OF MAINTENANCE HOLES BY THE ENGINEER

GENERAL NOTES – WATERMAIN

1. WATER SERVICE CONNECTIONS
 - A. PIPE TO BE MINIMUM 25mm DIAMETER POLYETHYLENE TUBING, SERIES 200 OR TYPE 'K' COPPER TUBING. ANY SERVICES REQUIRING INSULATION SHALL BE URECON PRE-INSULATED 25mm TYPE 'K' COPPER WATER SERVICE PIPE.
 - B. CAST BRONZE SERVICE SADDLE-DOUBLE STRAP STAINLESS STEEL SERVICE SADDLES.
 - C. CURB STOPS TO BE LOCATED AS PER SERVING PLAN DRAWINGS WITH THE USE OF GPS EQUIPMENT OR OTHER SUITABLE MEANS. MAXIMUM ALLOWABLE DEVIATION OF CURB STOP NORTH/SOUTH/EASTING LOCATION IS 0.3m.
 - D. LOCATION OF WATER SERVICE TO BE MARKED AT THE CURB STOP LOCATION WITH A 38mm x 89mm x 2.4 METRE WOOD MARKER, PAINTED BLUE.
 - E. WATER SERVICES ARE NOT TO BE LOCATED IN DRIVEWAYS WHERE POSSIBLE. MINIMUM 1.0 METRE CLEARANCE REQUIRED.
 - F. MINIMUM DEPTH OF COVER OVER THE WATER SERVICE TO BE 1.7m AT ALL TIMES.

- G. SERVICE PIPE:
 - POLYETHYLENE TUBING AS PER CSA B137.1 (SERVICE 200)
 - TYPE 'K' COPPER TUBING AS PER ASTM B88-88
- H. MAIN STOP:
 - 25mm, ANWA C800
 - MUELLER H 25008
 - CAMBRIDGE BRASS 301-A3H3
 - FORD 25mm F1000-3-0
 - EMCO 1702Z COMPRESSION
- I. SADDLE:
 - CAST BRONZE SERVICE SADDLE BODY, DOUBLE STRAPS
 - ROBAR 2708
 - CAMBRIDGE BRASS SERIES 812
- J. CURB STOP:
 - NON SELF-DRAINING
 - 25mm, ANWA C800
 - EMCO 1740Z BALL COMPRESSION
 - MUELLER H-15009
 - CAMBRIDGE BRASS 202-H3H3
 - FORD B44-333

- K. SERVICE BOX:
 - STEEL, BOOT ONLY
 - CONCORD CLOW CLASS SIZE 8
 - MUELLER D1, D3, SIZE 8
 - BIBBY/TROJAN
 - EMCO A-714, A-715, A-716
 - SIGMA CORPORATION
 - SERVICE BOX ROODS - 36" STAINLESS STEEL
- L. COUPLINGS:
 - 25mm, ANWA C800
 - MUELLER H-15-403
 - CAMBRIDGE BRASS 118-H3H3
 - FORD C44-33
 - MCDONALD BRASS 4758T

- M. VALVE BOX:
 - 150mm COVER - MANUFACTURED BY BIBBY V8800, EMCO CONCORD 4 SL-48
 - GUIDE PLATE - BIBBY V8875, EMCO CONCORD GP
 - EXTENSION 300mm - BIBBY V8700, EMCO CONCORD 4SL-18C
 - EXTENSION 450mm - BIBBY V8705, EMCO CONCORD 4SL-18E
 - EXTENSION 600mm - BIBBY V8710, EMCO CONCORD 4SL-24E
 - WHERE VALVE BOXES ARE TO BE INSTALLED WITHIN A CONCRETE SURFACE, EAST JORDAN SELF-LEVEL VALVE BOX TOPS ARE TO BE INSTALLED
- N. VALVE STEM EXTENSIONS:
 - REQUIRED FOR ADDITIONAL DEPTH OVER 1.7m
 - 52mm TOP OPERATION C/W SET SCREW

- O. JOINT RESTRAINT DEVICES
 - RETAINING GLAND FOR PVC PIPE:
 - ASTM STANDARD F1614-96
 - ANSI/ANWA C111/A21.11 WHERE APPLICABLE
 - N. BELL STANDARD UN-B-13-94
 - UNI-FLANGE SERIES 1300
 - STARGRIP SERIES 4000
 - EBAA IRON SERIES 2000
 - RETAINING GLAND FOR DI PIPE:
 - UNI-FLANGE SERIES 1400
 - STARGRIP 3000
 - EBAA IRON 1100
 - SPLIT RING RESTRAINERS & TIE BOLTS:
 - UNI-FLANGE SERIES 1390
 - STARGRIP 1100C
 - EBAA IRON SERIES 1500
 - JOINT RESTRAIN SYSTEM IN-LINE FOR PVC WATER MAIN:
 - INTEGRAL JOINT RESTRAINT SYSTEM FOR USE WITH 100mm to 300mm DIAMETER PVC WATERMAIN
 - MANUFACTURED BY ROYAL BUILDING PRODUCTS ("BULLDOG"), IPEX ("TERRABRITE")
 - ANWA STANDARD C900
 - CSA B137.3
 - ASTM F1674
 - NSF 61

- P. FIRE HYDRANTS
 - ANWA C502, ANWA C509-01
 - POST TYPE DRY BARREL COMPRESSION SHUTOFF WITH BALL VALVE CLOSING WITH FLOW, OPENING COUNTER CLOCKWISE
 - M.J. ELBOW
 - 125MM VALVE BALL
 - 2 SIDE OUTLETS WITH 2.5" CSA STANDARD HOSE NOZZLE THREADS
 - 1 - 4" STORZ PUMPER NOZZLE OUTLET
 - BREAKAWAY FLANGE
 - SELF DRAINING
 - PVC DR18 HYDRANT LATERALS
 - BOND BREAKER BETWEEN CONCRETE SUPPORT AND FITTINGS
 - HYDRANT SHALL BE PAINTED M20 RAPID DRY GLOSS ENAMEL (SAFETY COLOURS), OR APPROVED EQUIVALENT.
 - 4-5 MM THICK PAINT WHEN WET
 - HYDRANT BARREL SHALL BE SAFETY RED M20-21
 - BONNET, SIDE OUTLET AND PUMPER NOZZLE CAPS SHALL BE LIGHT BLUE M20-35, GREEN M20- 41, ORANGE M20-65 OR RED M20-21,BASED ON HYDRANT FLOWS.
 - MICHARD HYDRANT LOCK ANTI-TAMPER DEVICE
 - MANUFACTURE BY CLOW PREMIER D-67-M, MUELLER CENTURY, AAK SERIES 2780, CONCORD DAGLE 67M, MCWATY BRIGADIER M-67
 - HYDRANTS ARE TO BE FIRE FLOW TESTED IN ACCORDANCE WITH NFPA 291
 - RESERS TO BE INSTALLED IN ONE SINGLE SECTION. EXTENSIONS WILL NOT BE PERMITTED

- Q. CATHODIC PROTECTION
 - CATHODIC NUTS AND SACRIFICIAL CAPS ON EVERY FITTING BOLT
 - 99.9% HIGH GRADE ZINC, STEEL CORE
 - COATED WITH LOW RESISTANT DEPOLARISING MATERIALS: 175 GRAMS ASTM B-418-73-TYPE II AT THEIR DISCRETION, THE CITY MAY ALSO REQUIRE ZINC ANODES OR OTHER CORROSION PROTECTION MEASURES.
- R. WATERMANS TO BE INSTALLED TO GRADES AS SHOWN ON APPROVED PLANS, COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK, WHERE REQUESTED BY INSPECTOR.

- S. ALL VALVE AND BOXES AS PER OPSD 1101.020.
- T. ALL WATERMANS AND WATER SERVICE MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO THE CURRENT CITY OF OWEN SOUND ENGINEERING STANDARDS AND SPECIFICATIONS.

- U. TESTING REQUIREMENTS
 - ALL WATERMANS SHALL UNDERGO THE FOLLOWING TESTING REQUIREMENTS. WATERMAIN COMMISSIONING AND TESTING PROCEDURES ARE TO BE IN ACCORDANCE WITH INNERSERVES WATERMAIN CONNECTION AND COMMISSIONING STANDARD MANUAL.
 - SWABBING
 - HYDROSTATIC TESTING AS PER ANWA C605
 - DISINFECTION AS PER ANWA C651
 - BACTERIOLOGICAL TESTING AS PER ANWA C651
 - CONTINUITY TESTING

GENERAL NOTES – WATERMAIN

2. WATERMAIN
 - A. ALL WORK ON ANY EXISTING WATERMANS TO BE COORDINATED WITH THE CITY.
 - B. PIPE SHALL BE PVC, MINIMUM PRESSURE CLASS 235, DR18. PIPE MAY BE CEMENT-LINED DUCTILE IRON UPON APPROVAL BY THE CITY.
 - C. ALL FITTINGS SHALL BE DUCTILE IRON CEMENT LINED WITH MECHANICAL JOINTS AND SHALL BE COMPLETE WITH CATHODIC PROTECTION.
 - D. MINIMUM DEPTH OF COVER OVER WATERMAIN SHALL BE 1.7m OR 1.9m BELOW ROAD CENTRELINE, WHICHEVER IS DEEPER.
 - E. TRACER WIRE SHALL BE INSTALLED ON ALL WATERMANS AND HYDRANT LATERALS. TRACER WIRE SHALL BE #12 AWG HIGH STRENGTH COPPER CLAD STEEL CONDUCTOR (H5-CCS). TRACER WIRE SHALL NOT BE WRAPPED AROUND BOLTS OR OTHER COMPONENTS ALONG MAINLINE AND SHALL NOT BE PLACED UNDER ANY PIPE OR APPURTENANCE. TRACER WIRE SHALL BE LAD FLAT AND SECURELY AFFIXED WITH MASTIC TAPE TO THE TOP OF THE WATERMAIN AT 5-METRE INTERVALS. BREAKS OR CUTS IN THE TRACER WIRE ARE ONLY PERMITTED AT THE FOLLOWING PRESCRIBED LOCATIONS: HYDRANT LATERALS, WATER SERVICES (FIRE AND DOMESTIC), TEES AND CROSSES. TRACER WIRE SHALL BE LOOPED AT EACH HYDRANT AS SUCH THAT THE TRACER WIRE FROM THE MAINLINE CONTIGUES UP THE HYDRANT LEAD AND IS BROUGHT ABOVE GROUND IN A 1" RIGID PVC CONDUIT PLACED AT THE BACK OF THE HYDRANT AND LOOPED BACK DOWN THE HYDRANT LEAD TO THE MAINLINE. THE LOOPED WIRES ARE TO BE TIGHTLY TAPED TOGETHER AND LEFT UNTOUCHED IN A HYDRANT TEST STATION WHICH IS TO BE INSTALLED AT THE BACK OF EACH HYDRANT AND BOLTED AT THE FLANGE. TRACER WIRE SHALL NOT BE BROUGHT UP ANY MAIN LINE VALVES OR HYDRANT VALVES.
 - F. HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH OPSD 1105.010, COMPLETE WITH THRUST BLOCKS AND MECHANICAL JOINTS.
 - G. VALVES SHALL BE MECHANICAL JOINT GATE VALVES WITH SLIDING TYPE VALVE BOX.
 - H. BEDDING AS PER OPSD 802.010.

- I. MAINPIPE
 - 25mm, ANWA C800
 - MUELLER H 25008
 - CAMBRIDGE BRASS 301-A3H3
 - FORD 25mm F1000-3-0
 - EMCO 1702Z COMPRESSION
- J. TRACER WIRE
 - #12 AWG (0.0808 DIAMETER) HIGH STRENGTH COPPER CLAD STEEL CONDUCTOR (H5-CCS), INSULATED WITH A 30mm HIGH DENSITY POLYETHYLENE (HDPE) INSULATION RATED FOR DIRECT BURIAL USE AT 30 VOLTS.
 - MANUFACTURED BY COPPERHEAD

- K. MAN FITTINGS
 - DUCTILE IRON:
 - MINIMUM PRESSURE CLASS 350
 - CEMENT MORTAR LINED
 - MECHANICAL JOINT
 - MANUFACTURED BY BIBBY ST. CROIX, TYLER PIPE, STAR, SIGMA, MACOTTEAX
 - AS PER ANWA C104/A21.4, C110/A21.10, C153/A21.53, C111/A21.11

- L. VALVES
 - RESILIENT SEAT GATE VALVE WITH NON-RISING STEM AND 50mm SQUARE OPERATING NUT, OPENING COUNTER CLOCKWISE.
 - EPOXY COATED INSIDE AND OUTSIDE PER ANWA C550
 - MECHANICAL JOINTS WITH RESTRAINERS
 - BOND BREAKER BETWEEN CONCRETE SUPPORT AND VALVE BODY
 - MANUFACTURED BY AAK ("SERIES 2507"), CLOW ("F-6100T"), MUELLER ("A2360"), CONCORD DAGLE ("COMPRESSION C2000M"), BIBBY, AFC.
 - ANWA C509, ANWA 515, ANWA C111/A21.11

- M. VALVE BOX:
 - 150mm COVER - MANUFACTURED BY BIBBY V8800, EMCO CONCORD 4 SL-48
 - GUIDE PLATE - BIBBY V8875, EMCO CONCORD GP
 - EXTENSION 300mm - BIBBY V8700, EMCO CONCORD 4SL-18C
 - EXTENSION 450mm - BIBBY V8705, EMCO CONCORD 4SL-18E
 - EXTENSION 600mm - BIBBY V8710, EMCO CONCORD 4SL-24E
 - WHERE VALVE BOXES ARE TO BE INSTALLED WITHIN A CONCRETE SURFACE, EAST JORDAN SELF-LEVEL VALVE BOX TOPS ARE TO BE INSTALLED

- N. VALVE STEM EXTENSIONS:
 - REQUIRED FOR ADDITIONAL DEPTH OVER 1.7m
 - 52mm TOP OPERATION C/W SET SCREW

- O. JOINT RESTRAINT DEVICES
 - RETAINING GLAND FOR PVC PIPE:
 - ASTM STANDARD F1614-96
 - ANSI/ANWA C111/A21.11 WHERE APPLICABLE
 - N. BELL STANDARD UN-B-13-94
 - UNI-FLANGE SERIES 1300
 - STARGRIP SERIES 4000
 - EBAA IRON SERIES 2000
 - RETAINING GLAND FOR DI PIPE:
 - UNI-FLANGE SERIES 1400
 - STARGRIP 3000
 - EBAA IRON 1100
 - SPLIT RING RESTRAINERS & TIE BOLTS:
 - UNI-FLANGE SERIES 1390
 - STARGRIP 1100C
 - EBAA IRON SERIES 1500
 - JOINT RESTRAIN SYSTEM IN-LINE FOR PVC WATER MAIN:
 - INTEGRAL JOINT RESTRAINT SYSTEM FOR USE WITH 100mm to 300mm DIAMETER PVC WATERMAIN
 - MANUFACTURED BY ROYAL BUILDING PRODUCTS ("BULLDOG"), IPEX ("TERRABRITE")
 - ANWA STANDARD C900
 - CSA B137.3
 - ASTM F1674
 - NSF 61

- P. FIRE HYDRANTS
 - ANWA C502, ANWA C509-01
 - POST TYPE DRY BARREL COMPRESSION SHUTOFF WITH BALL VALVE CLOSING WITH FLOW, OPENING COUNTER CLOCKWISE
 - M.J. ELBOW
 - 125MM VALVE BALL
 - 2 SIDE OUTLETS WITH 2.5" CSA STANDARD HOSE NOZZLE THREADS
 - 1 - 4" STORZ PUMPER NOZZLE OUTLET
 - BREAKAWAY FLANGE
 - SELF DRAINING
 - PVC DR18 HYDRANT LATERALS
 - BOND BREAKER BETWEEN CONCRETE SUPPORT AND FITTINGS
 - HYDRANT SHALL BE PAINTED M20 RAPID DRY GLOSS ENAMEL (SAFETY COLOURS), OR APPROVED EQUIVALENT.
 - 4-5 MM THICK PAINT WHEN WET
 - HYDRANT BARREL SHALL BE SAFETY RED M20-21
 - BONNET, SIDE OUTLET AND PUMPER NOZZLE CAPS SHALL BE LIGHT BLUE M20-35, GREEN M20- 41, ORANGE M20-65 OR RED M20-21,BASED ON HYDRANT FLOWS.
 - MICHARD HYDRANT LOCK ANTI-TAMPER DEVICE
 - MANUFACTURE BY CLOW PREMIER D-67-M, MUELLER CENTURY, AAK SERIES 2780, CONCORD DAGLE 67M, MCWATY BRIGADIER M-67
 - HYDRANTS ARE TO BE FIRE FLOW TESTED IN ACCORDANCE WITH NFPA 291
 - RESERS TO BE INSTALLED IN ONE SINGLE SECTION. EXTENSIONS WILL NOT BE PERMITTED

- Q. CATHODIC PROTECTION
 - CATHODIC NUTS AND SACRIFICIAL CAPS ON EVERY FITTING BOLT
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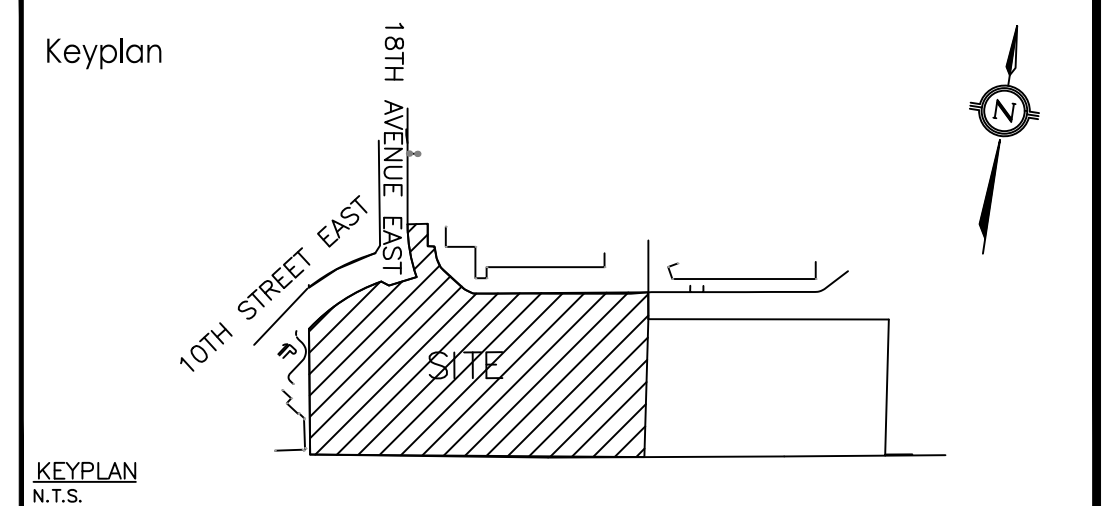
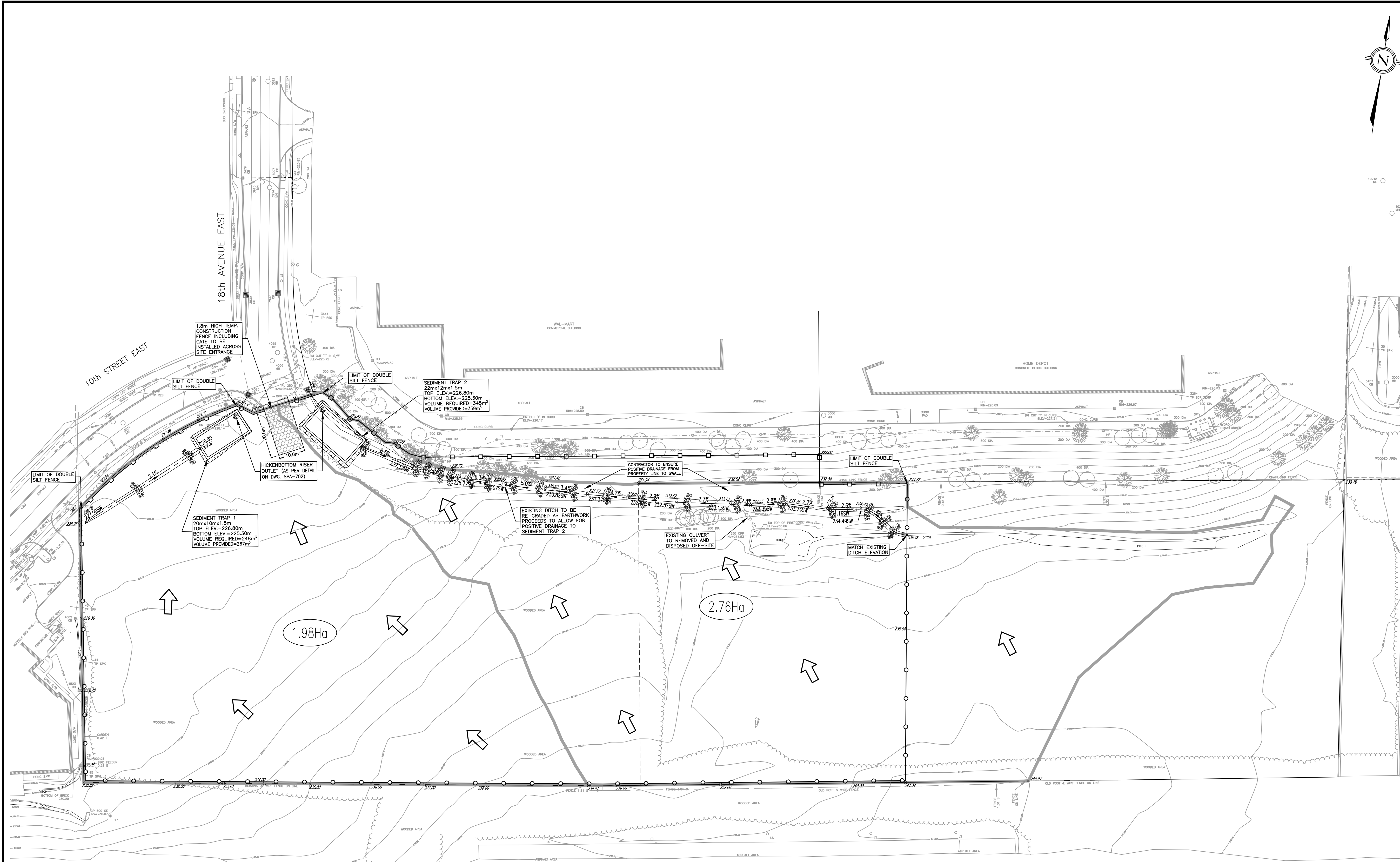
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 - CONTINUITY TESTING

GENERAL NOTES – WATERMAIN

3. WATERMAIN FILL AREAS
 - A. FILL TO BE PLACED TO A MINIMUM OF 600 mm ABOVE THE WATERMAIN GRATES AND TO 3.0m MINIMUM ON EACH SIDE PRIOR TO WATERMAIN LAYING COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR DENSITY IN 300mm LIFTS.
 - B. TESTS SHALL BE TAKEN ALONG THE CENTRE LINE OF THE WATERMAIN AND ON LINES 1.50m ON EITHER SIDE OF SAME AT A MAXIMUM INTERVAL OF 30.0m. TESTS TO BE TAKEN AT EACH 600mm LIFT.
 - C. ALL JOINTS, HYDRANTS, TEES, BRANCH VALVES AND HORIZONTAL BENDS ARE TO BE MECHANICALLY RESTRAINED WITH RODS IN ADDITION TO CONCRETE BLOCKING WHERE OTHERWISE REQUIRED.
 - D. PIPE JOINT DEFLECTIONS ARE NOT ALLOWED IN FILL AREAS.
 - E. ALL WATERMAIN JOINTS SHALL BE MECHANICALLY RESTRAINED IN AREAS OF EARTH FILL.

GENERAL NOTES – ROADWORK

1. CULVERTS
 - A. FROST TAPERS REQUIRED ON ALL CULVERTS AS PER OPSD 803.03 WITH 10:1 SLOPE.
 - B. MINIMUM SIZE OF ROAD CROSSING CULVERTS TO BE 500mm DIAMETER, 2.0mm THICK, WITH A MINIMUM LENGTH AS REQUIRED FROM CENTRE OF DITCH TO CENTRE OF DITCH. MINIMUM COVER OVER PIPE TO BE 300mm.
 - C. MINIMUM SIZE OF DRIVEWAY CULVERTS TO BE 400mm DIAMETER, 1.6mm THICK WITH MINIMUM LENGTH AS REQUIRED FROM CENTRE OF DITCH TO CENTRE OF DITCH.
2. ROADS
 - A. NATIVE SUBGRADE SHALL HAVE A CROSSFALL OF 3% AND THE MATERIAL SHALL BE APPROVED SUITABLE BY A SOILS CONSULTANT, AND ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER.
 - B. NATIVE SUBGRADE TO BE COMPACTED TO MINIMUM 98% STANDARD PROCTOR DENSITY AND SHALL BE PROOF ROLLED AND APPROVED PRIOR TO PLACEMENT OF GRANULAR ROAD BASE.
 - C. GRANULAR MATERIALS USED IN THE ROAD BASE SHALL BE COMPACTED TO 100% SPD.
 - D. THE ROAD BASE SHALL INCORPORATE 100mm DIAMETER CONTINUOUS SUB-DRAINS PER OPSD 1840, COMPLETE WITH GRANULAR A BACKFILL PIPE TO BE HDPE 210 KPA PIPE STIFFNESS, PERFORATED WITH GEO-TEXTILE SOCK FILTER. SUB-DRAIN PIPE TO BE A



- LEGEND**
- DOUBLE SILT FENCE AND STRAW BALES
 - SILTATION CONTROL FENCE INSTALLED ON GRADING LIMITS (AS PER OPSD STD. 219.131)
 - TEMPORARY INTERCEPTOR SWALE (SEE DETAIL ON DWG. SPA-702)
 - ROCK FLOW CHECK DAM (SEE DETAIL ON DWG. SPA-702)
 - TEMPORARY MUD MAT / CONSTRUCTION ACCESS (AS PER DETAIL ON DWG. SPA-702)
 - PROPERTY BOUNDARY
 - OVERLAND FLOW DIRECTION
 - CATCHBASIN SILT SACK (SEE DETAIL ON DWG. SPA-702)
 - MATCH TO EXISTING GRADES
 - PROPOSED SWALE GRADES
 - CONTRIBUTING DRAINAGE BOUNDARY

- EROSION AND SEDIMENT CONTROL NOTES**
1. ALL SILT FENCING IS TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY GRADING, EXCAVATING OR DEMOLITION.
 2. EROSION CONTROL FENCING TO BE INSTALLED AROUND THE BASE OF ALL STOCKPILES.
 3. EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MANS AND CFS.
 4. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES.
 5. THE CONTRACTOR IS TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.
 6. THE DESIGN CONSULTANT IS TO MONITOR EROSION CONTROL STRUCTURES TO ENSURE FENCING IS INSTALLED AND MAINTAINED AS PERFORMED TO CITY REQUIREMENTS.
 7. EROSION CONTROL STRUCTURES ARE TO BE MONITORED REGULARLY AND ANY DAMAGE TO STRUCTURES REPAIRED IMMEDIATELY. SEDIMENTS ARE TO BE REMOVED ON A REGULAR BASIS AND PRIOR TO ACCUMULATIONS REACHING A MAXIMUM OF 1/2 THE HEIGHT OF THE FENCE.
 8. ALL EROSION CONTROL STRUCTURES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN REVEGETATED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER.
 9. NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE DESIGN CONSULTANT AND THE CITY OF OWEN SOUND WORKS DEPARTMENT.
 10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MUNICIPAL ROADWAYS AND SIDEWALKS ARE CLEARED OF ALL SEDIMENTS FROM VEHICULAR TRACKING ETC. TO AND FROM THE SITE AT THE END OF EACH WORK DAY.

- SUGGESTED EROSION & SEDIMENT CONTROL PHASING**
1. INSTALL SEDIMENT CONTROL FENCE.
 2. INSTALL CONSTRUCTION ACCESS.
 3. INSTALL EROSION & SEDIMENT CONTROL MEASURES.
 - INSTALL SILT BALES
 - INSTALL ROCK CHECK DAMS
 - INSTALL SEDIMENT TRAP
 - CONSTRUCT SEDIMENT TRAP OUTFLOW
 - ETC.
 4. TREE REMOVAL, CLEARING AND GRUBBING AS PER ARBORIST PLAN.
 5. INSTALL SITE SERVING.
 6. COMPLETE SURFACE WORKS.
 7. REMOVE ESC MEASURES.

SITE TOPOGRAPHIC SURVEYOR:
 SURVEY PREPARED BY: ARCHIBALD, GARY, & MCKAY LTD.
 AUGUST 26, 2022

ELEVATION/BENCHMARK NOTE
 ELEVATION ARE GEODETIC COV228 (HTV2.0), DERIVED FROM G.P.S. OBSERVATION AND THE LEICA GPS SMARTNET NETWORK.

| No. | DESCRIPTION | DATE | BY | APPROVED |
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| 1. | ISSUED FOR FIRST SUBMISSION | 01.31.23 | P.H. | P.F. |

REVISIONS

owen sound where you want to live

CITY OF OWEN SOUND
 PLANNING AND DEVELOPMENT SERVICES

1555 18th AVENUE EAST
 CITY OF OWEN SOUND
 CITY FILE No.: D06-21007

EROSION & SEDIMENT CONTROL PLAN

Stantec Consulting Ltd.
 300 - 475 Cochrane Drive West Tower
 Markham, Ontario L3R 0B8
 Tel. 905.944.7777
 www.stantec.com

SCALE: 1:500

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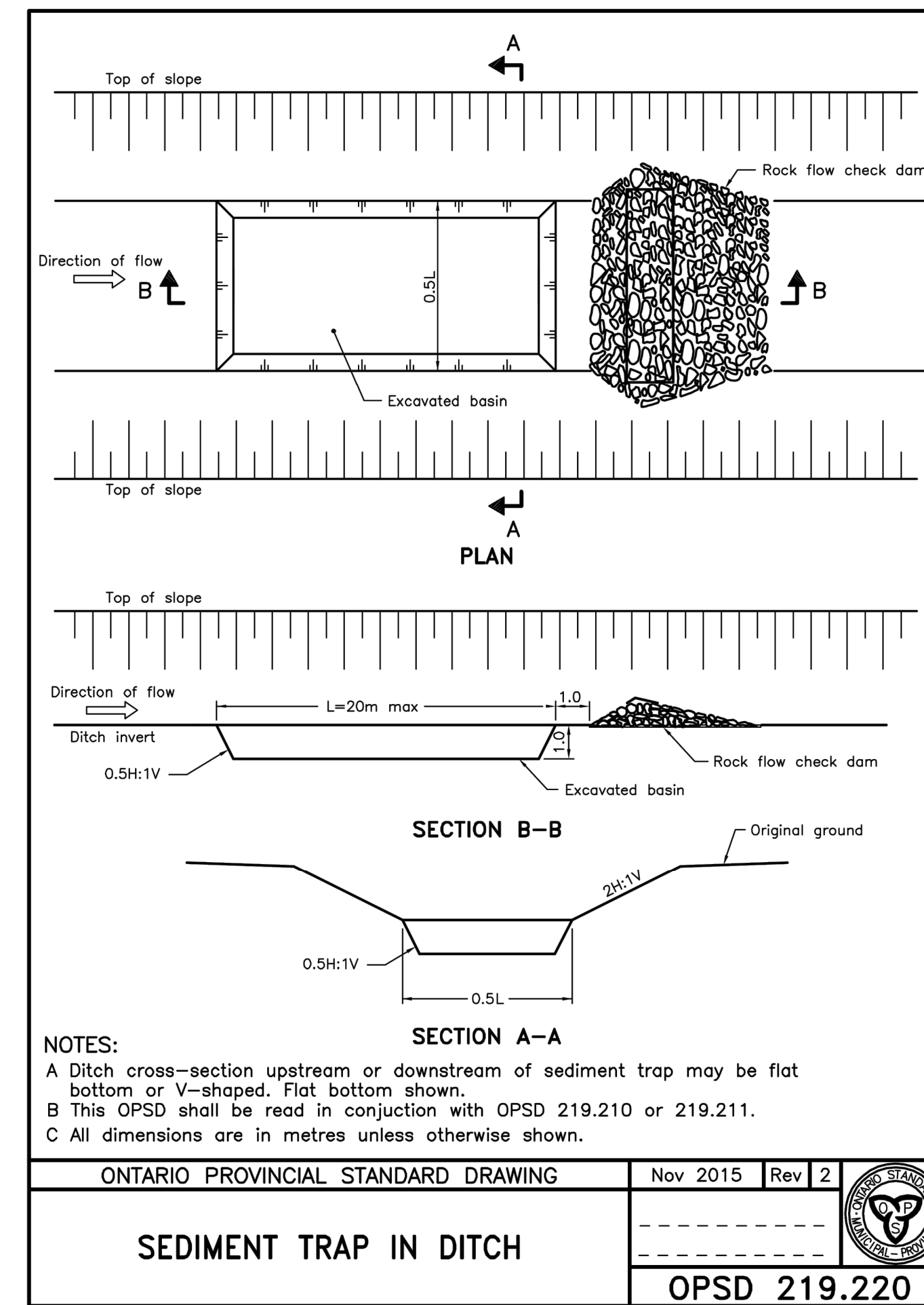
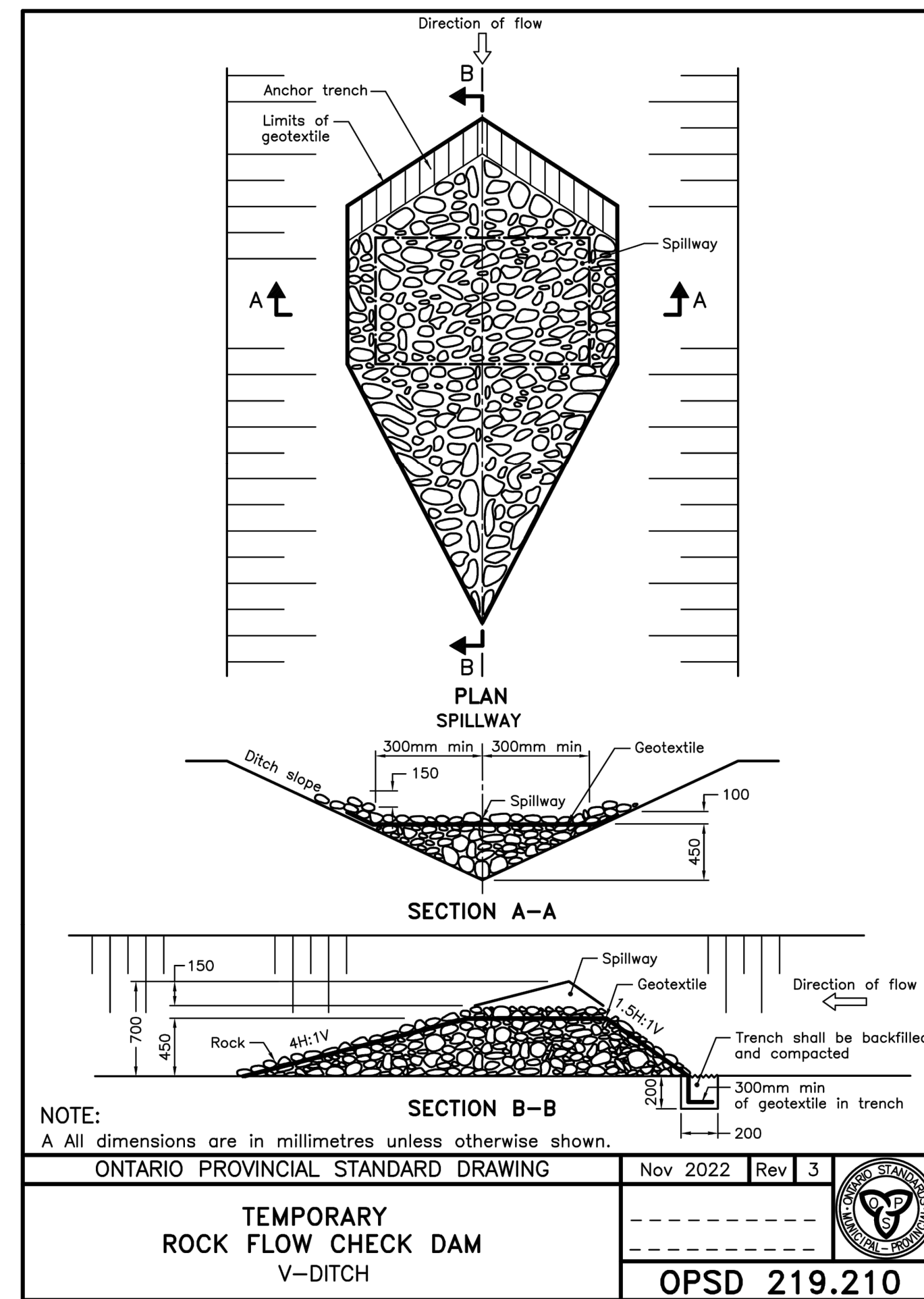
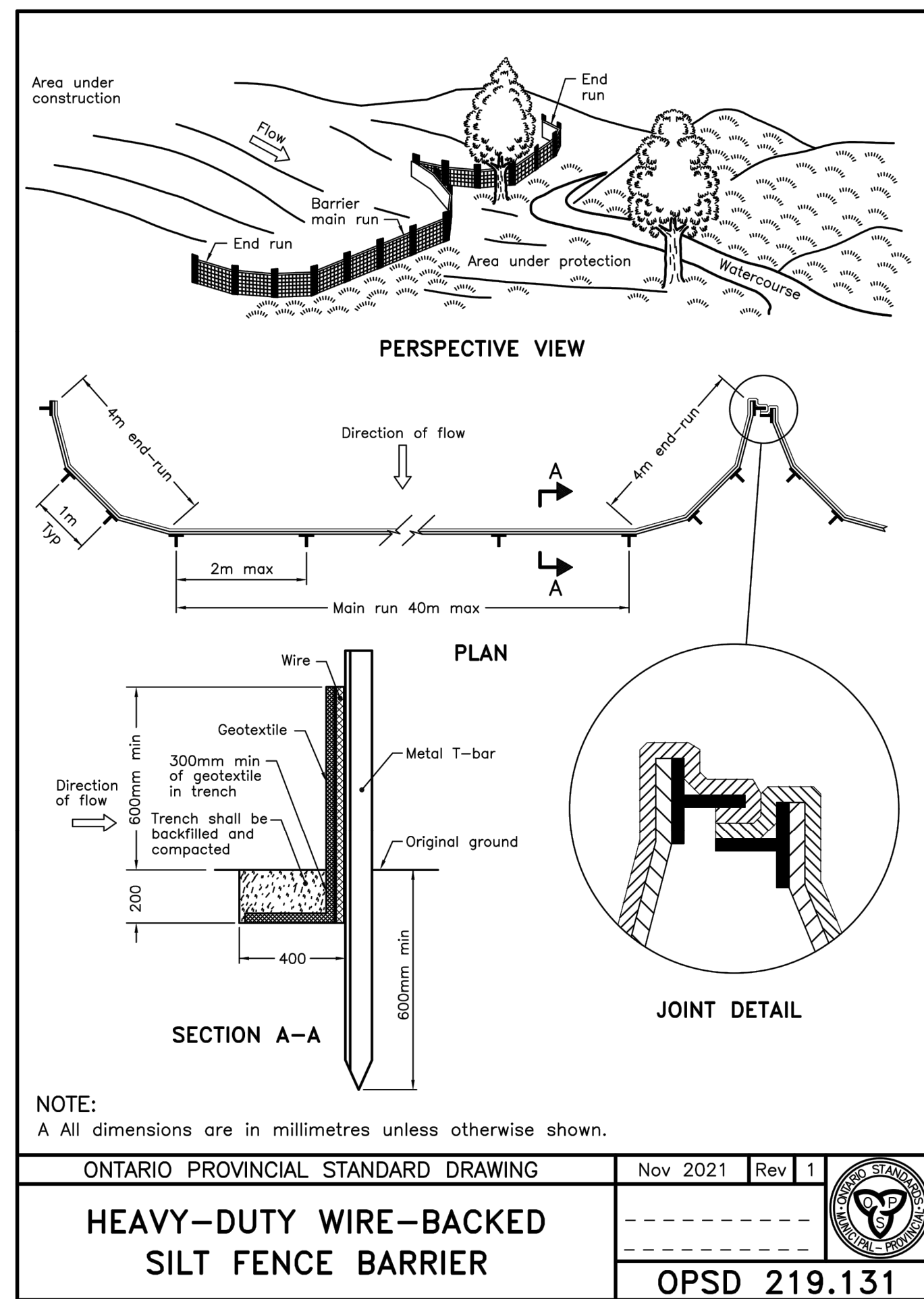
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DESIGNED BY: P.H. DRAWING No.: 701

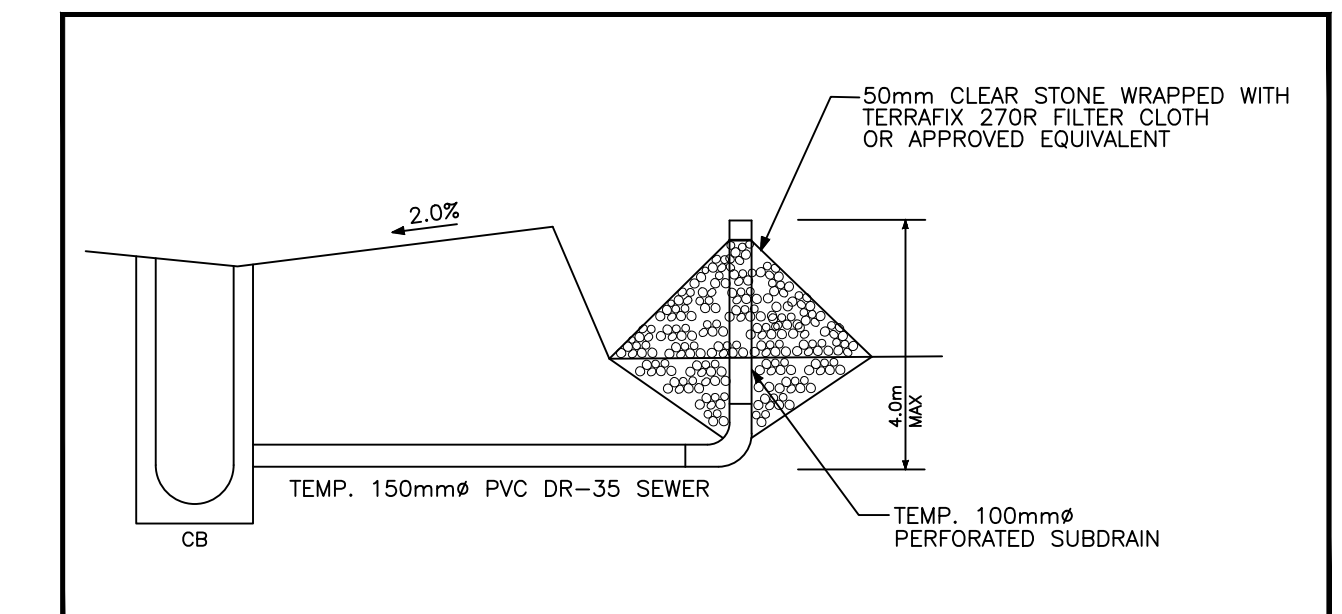
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DATE: JANUARY 2023

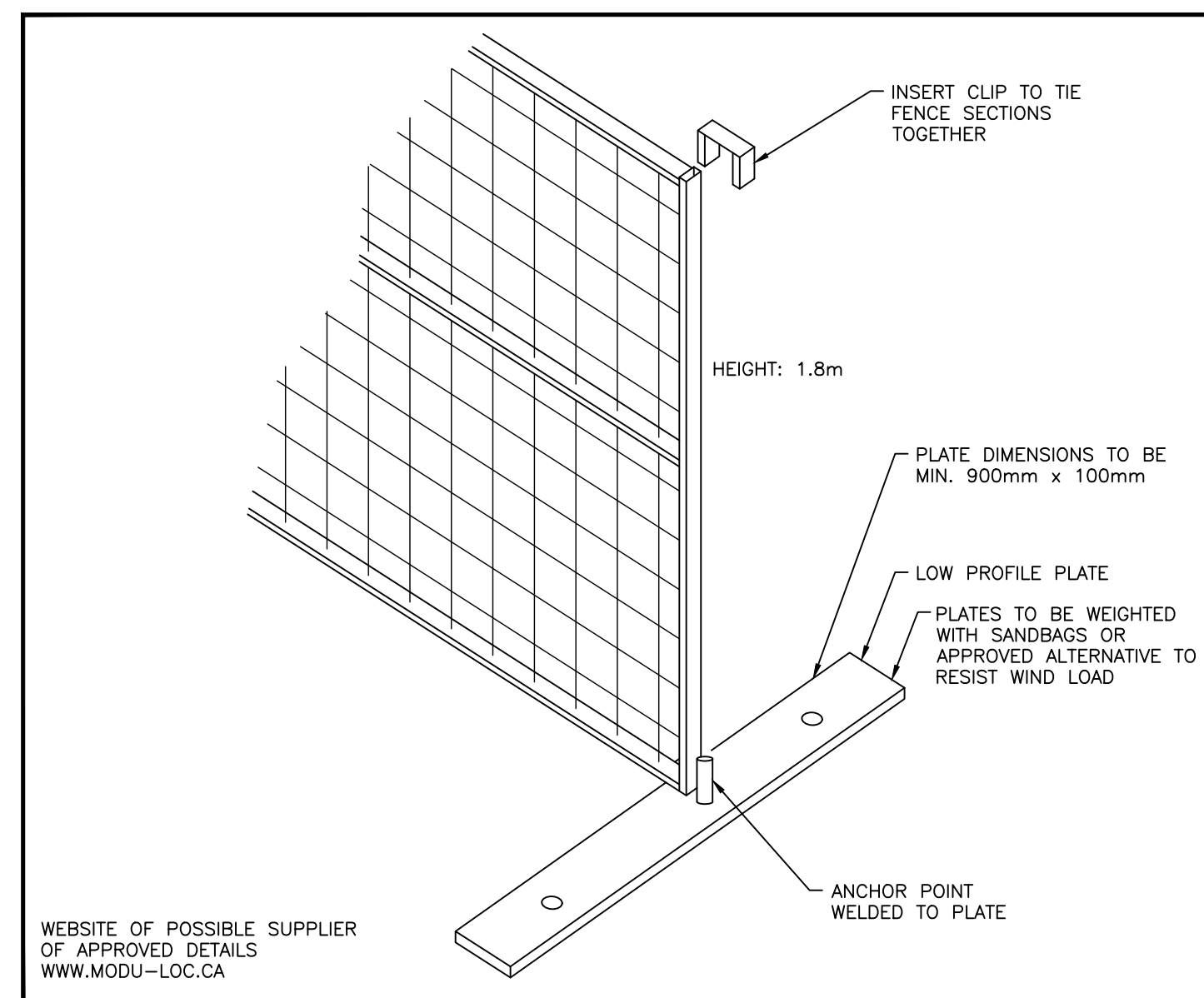




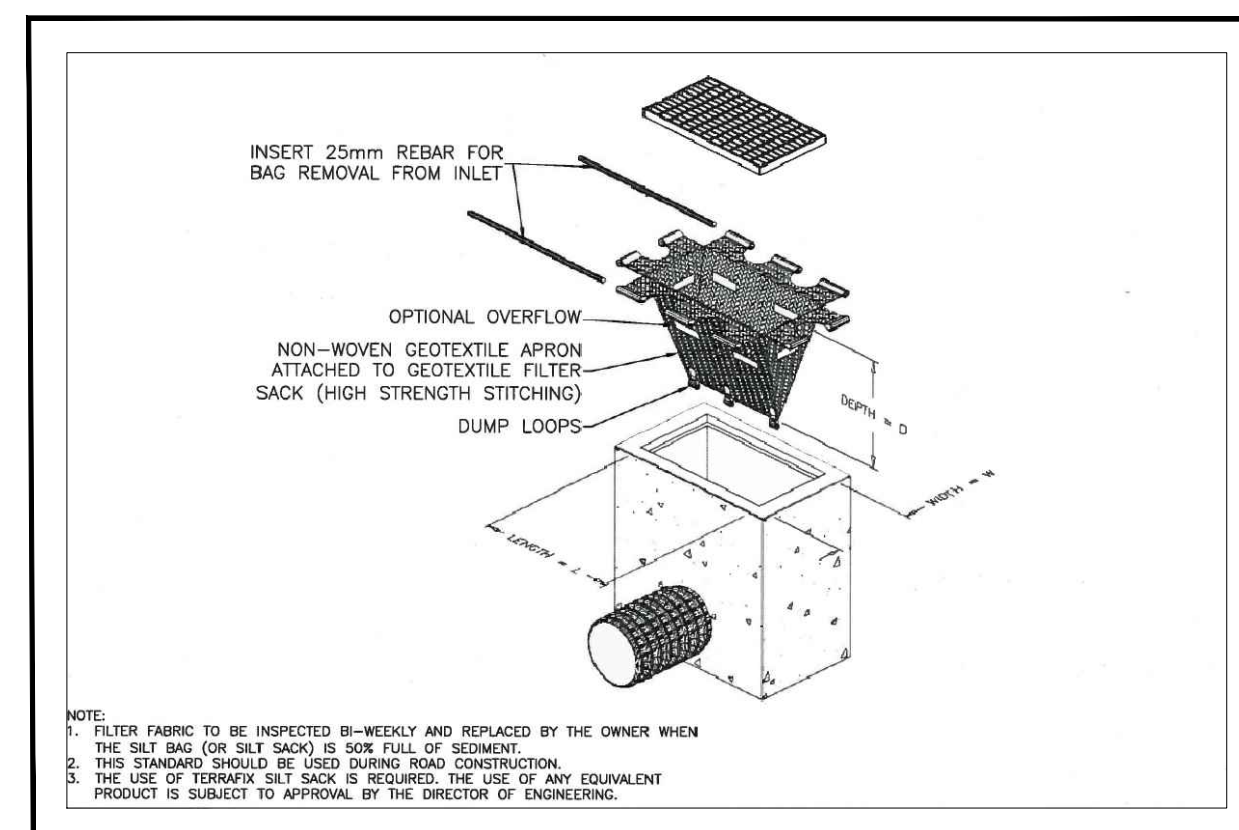
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 3. EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MHS AND C/S.
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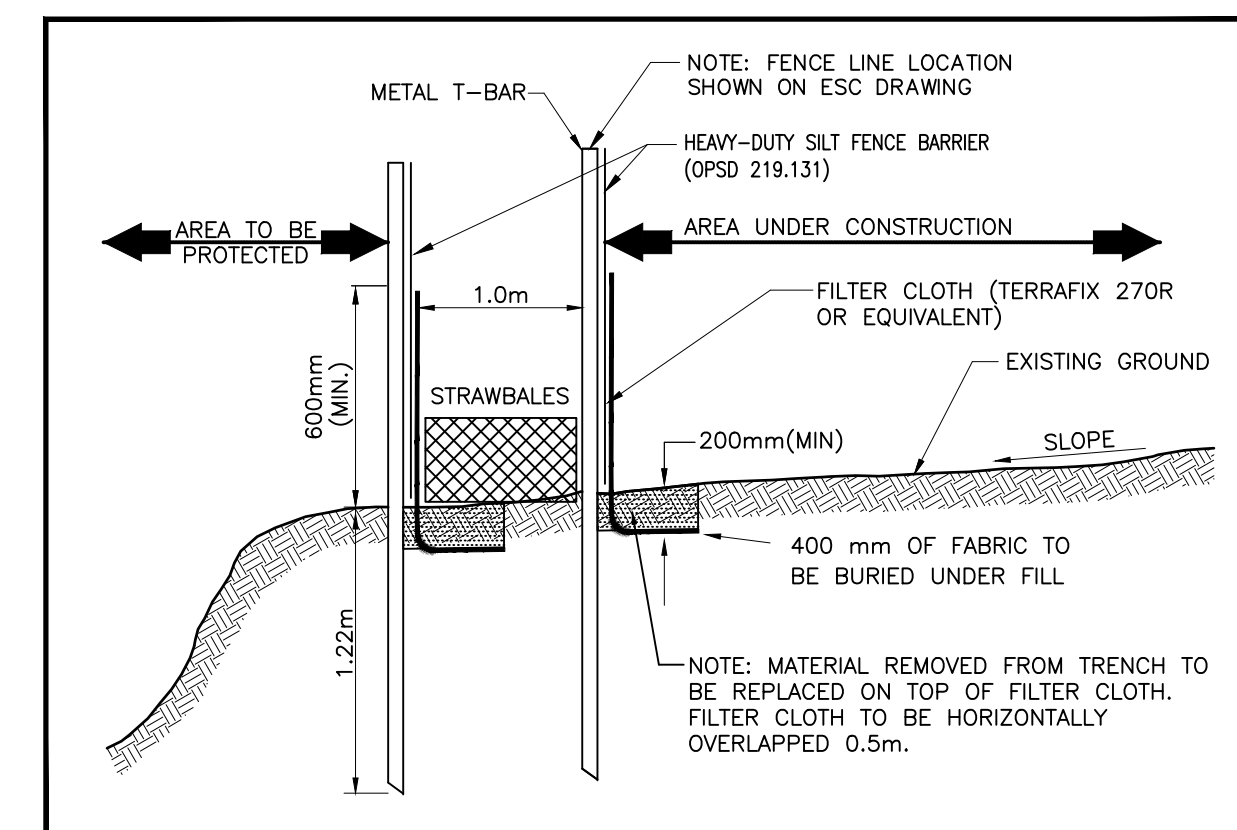
TEMPORARY HICKENSBOTTOM RISER DRAIN WITH FILTER SOCK SEDIMENTATION DETAIL
SCALE: N.T.S.



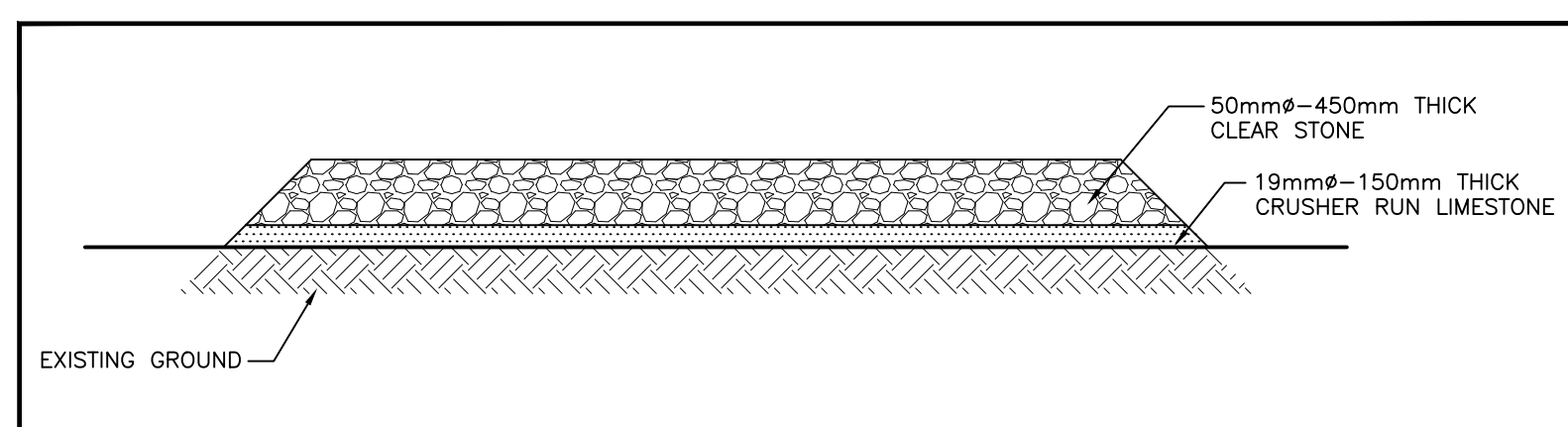
TEMPORARY CONSTRUCTION FENCE DETAIL
SCALE: N.T.S.



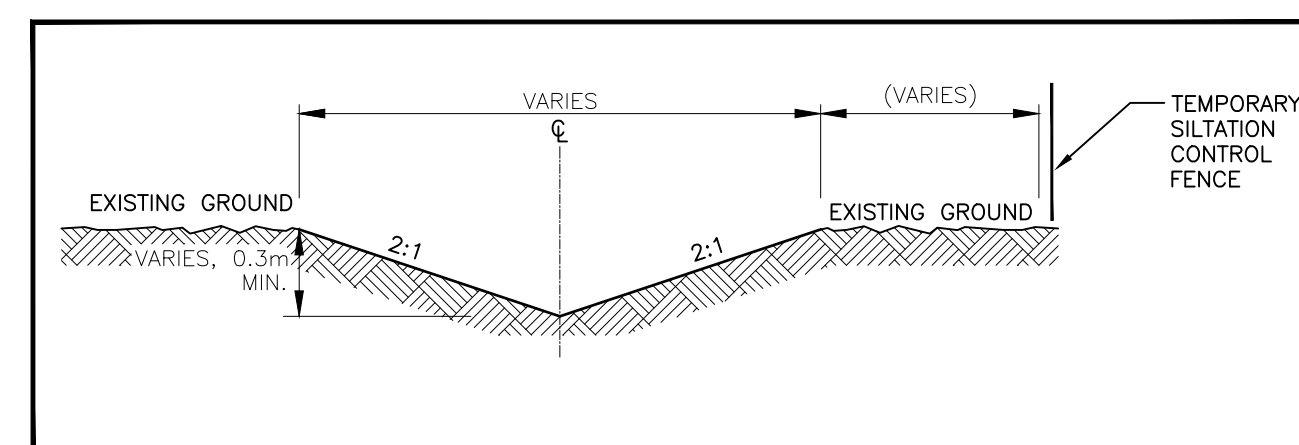
CATCHBASIN SILT SACK DETAIL
SCALE: N.T.S.



DOUBLE SILT FENCE AND STRAW BALES
SCALE: N.T.S.



CONSTRUCTION ACCESS ROAD
SCALE: N.T.S.



TYPICAL TEMPORARY INTERCEPTOR SWALE
SCALE: N.T.S.

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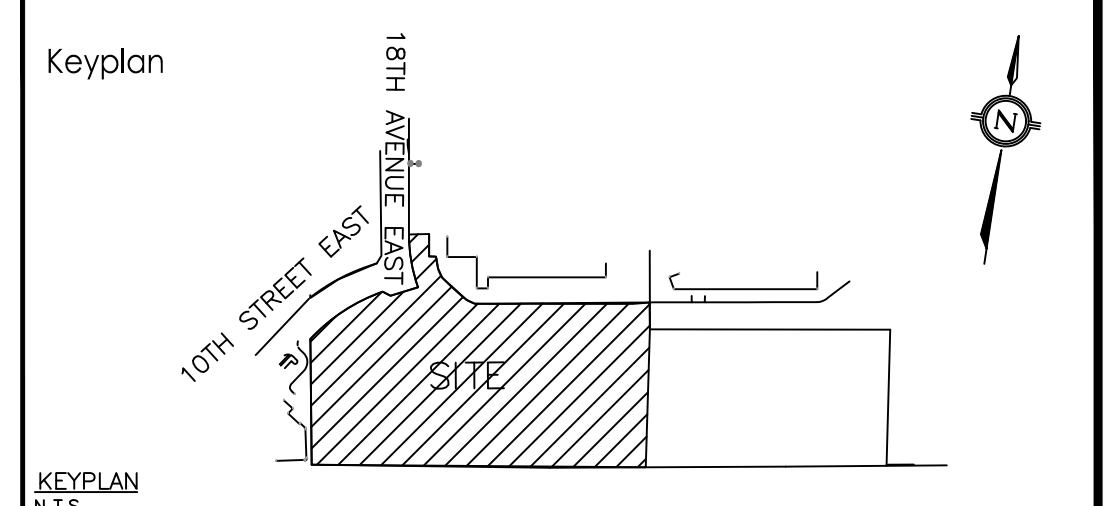
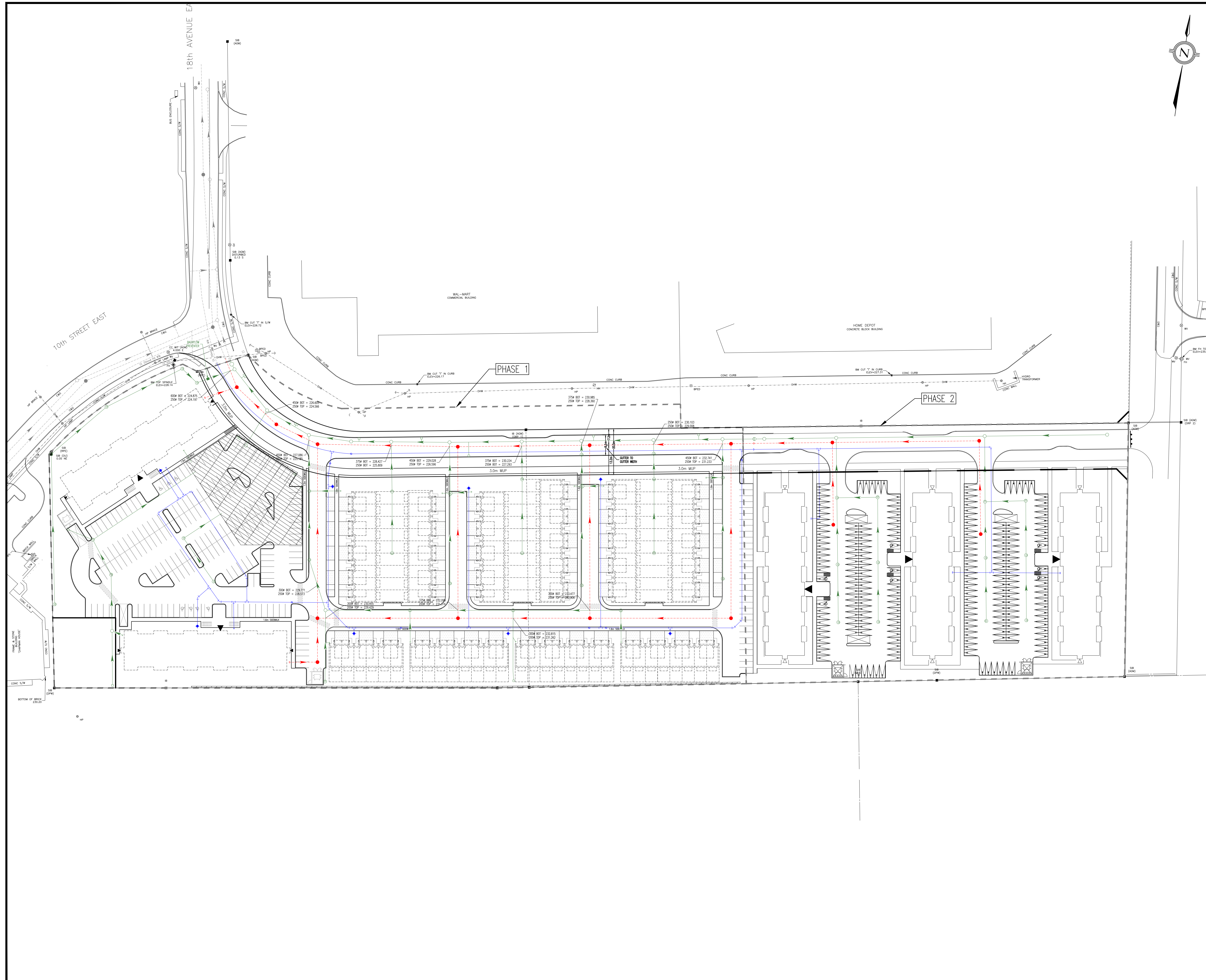
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DESIGNED BY: P.H. DRAWING No.: 702

CHECKED BY: P.F.

DATE: JANUARY 2023

LICENSED PROFESSIONAL ENGINEER
P. J. H. HSIEH
100222501
JAN 31, 2023
PROVINCE OF ONTARIO



- LEGEND**
- DEVELOPMENT LIMIT
 - PROPOSED STORM
 - PROPOSED SANITARY
 - PROPOSED WATERMAIN
 - SINGLE OR REARLOT CATCHBASIN
 - ⊕ CATCHBASIN MANHOLE
 - DITCH INLET CATCHBASIN
 - DOUBLE CATCHBASIN
 - ⊕ HYDRANT & VALVE
 - ⊕ VALVE & BOX
 - ▭ UNDERGROUND STORMWATER STORAGE TANK

SITE TOPOGRAPHIC SURVEYOR:
 SURVEY PREPARED BY: ARCHIBALD, GARY, & MCKAY LTD
 AUGUST 26, 2022

ELEVATION/BENCHMARK NOTE
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OVERALL SERVICING CONCEPT PLAN

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| | |
|--------------------|------------------------|
| SCALE: 1:750 | 0 7.5 22.5 37.5m |
| DRAWN BY: P.H. | PROJECT No.: 160623088 |
| DESIGNED BY: P.H. | DRAWING No.: OV |
| CHECKED BY: P.F. | |
| DATE: JANUARY 2023 | |