

KEY PLAN

LEGEND

- X XXX.XXEX. EXISTING ELEVATION
- EXISTING CONTOUR
- XXXX.XX PROPOSED ELEVATION
- ⇨ EMERGENCY OVERLAND FLOW
- ⊙ EXISTING FIRE HYDRANT
- PROPOSED STORM MH
- PROPOSED SANITARY MH
- H&V ⊙ PROPOSED HYDRANT AND VALVE
- V&B ⇨ PROPOSED VALVE AND BOX
- PROPERTY LINE
- PROPOSED BOLLARDS

LEGAL & TOPOGRAPHY
 PROVIDED BY: KRCMAR SURVEYORS LTD.
 1137 CENTRE STREET
 THORNHILL, ON L4J 3M6
 PHONE: 905-738-0053

EXISTING STORM AND SANITARY SEWER INFORMATION IS BASED ON RECORD DRAWINGS FROM THE CITY OF BARRIE, OWEN STREET RECONSTRUCTION 95-07 SHEET PP4, OWEN AND MCDONALD PARKING LOT 2004-09 SHEET PPI, WORSLEY STREET RECONSTRUCTION 95-07 SHEET PP2.

BENCHMARK AND ELEVATION
 BEARINGS SHOWN HEREON ARE GRID AND ARE REFERRED TO THE NORTHERLY LIMIT OF PART 1, PLAN S1R-22644 HAVING A BEARING OF N87°46'40"E
 ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO CITY OF BARRIE BENCH MARK No. 68U502 HAVING AN ELEVATION OF 237.270 METRES.

| No. | REVISIONS/ISSUED | DATE | BY | CITY |
|-----|-------------------------------|------------|----|------|
| 4. | RE-ISSUED FOR SPA SUBMISSION | 2022/08/12 | KR | |
| 3. | ISSUED FOR SPA 3RD SUBMISSION | 2022/04/29 | KR | |
| 2. | ISSUED FOR SPA 2ND SUBMISSION | 2021/11/19 | KR | |
| 1. | ISSUED FOR SPA 1ST SUBMISSION | 2021/06/25 | TN | |

counterpoint ENGINEERING

COUNTERPOINT ENGINEERING INC.
 8395 Jane St., Suite 100, Vaughan, ON L4K 5Y2 Phone 905.326.1404 Fax 905.326.1405

ENGINEER'S STAMP
 PROFESSIONAL ENGINEER
 K. V. REPKA
 10011574
 AUG 2022
 PROVINCE OF ONTARIO

APPLICANT:
THE RESIDENCES ON OWEN LTD.
 40 WOBURN AVE
 TORONTO ONTARIO
 MSM 1K6

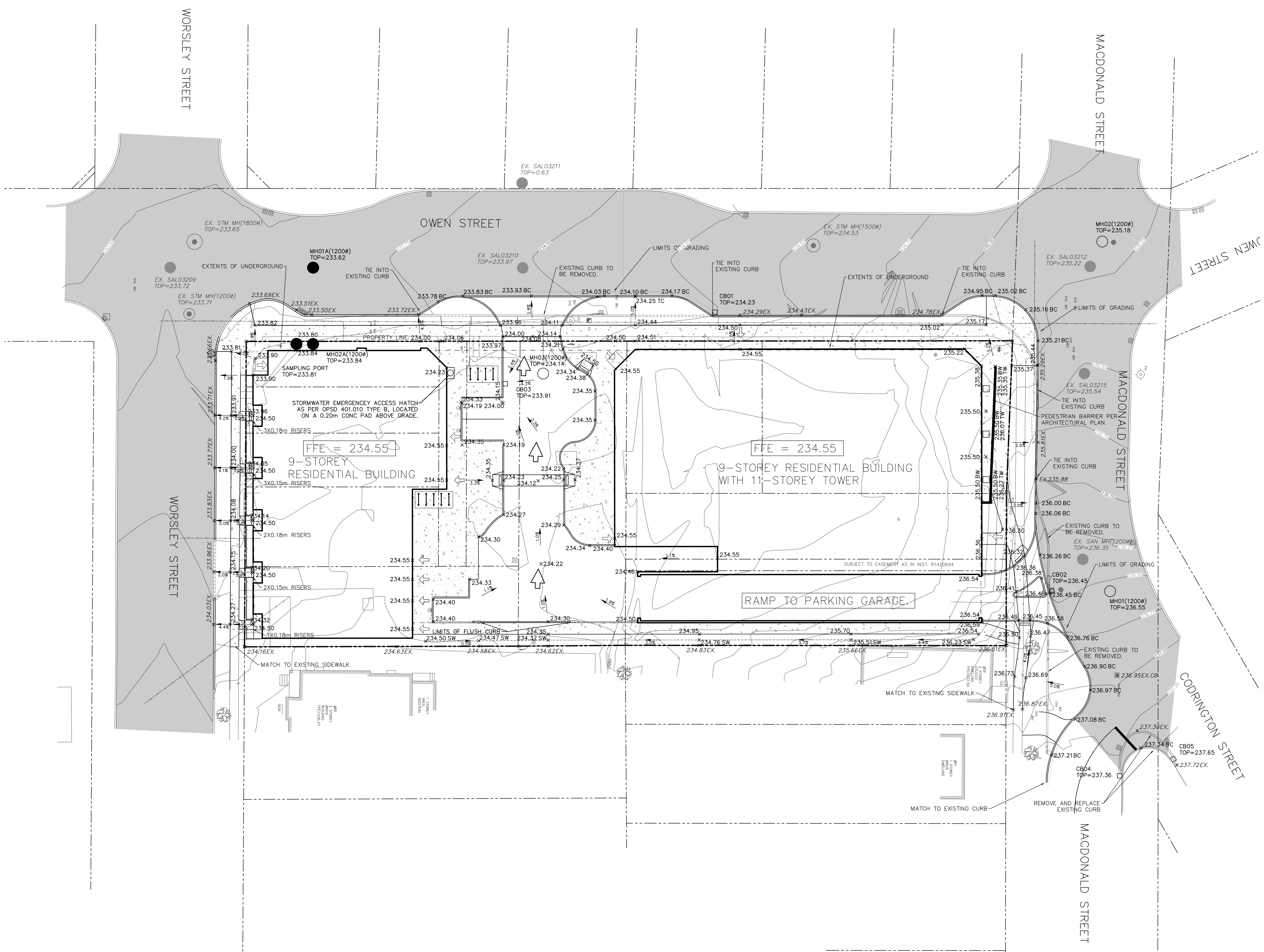
SITE LOCATION:
67 OWEN STREET
 BARRIE, ONTARIO
 L4M 3H2

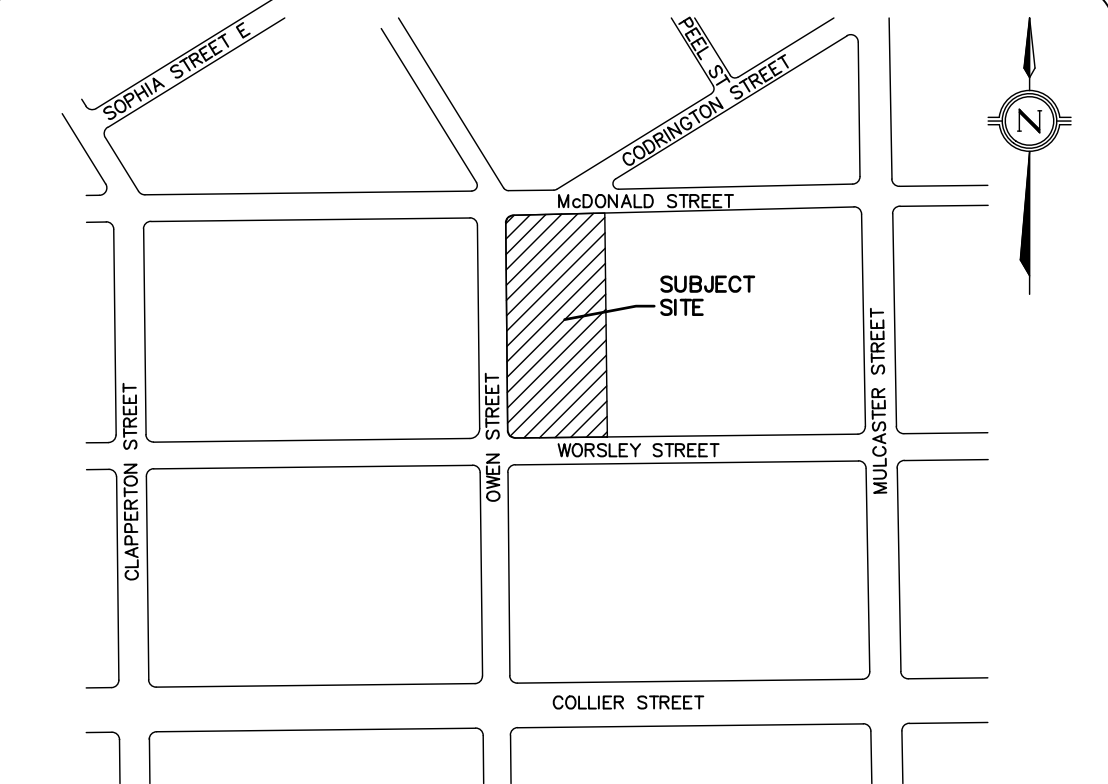
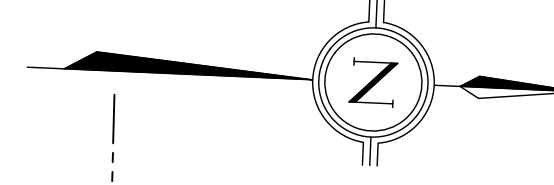
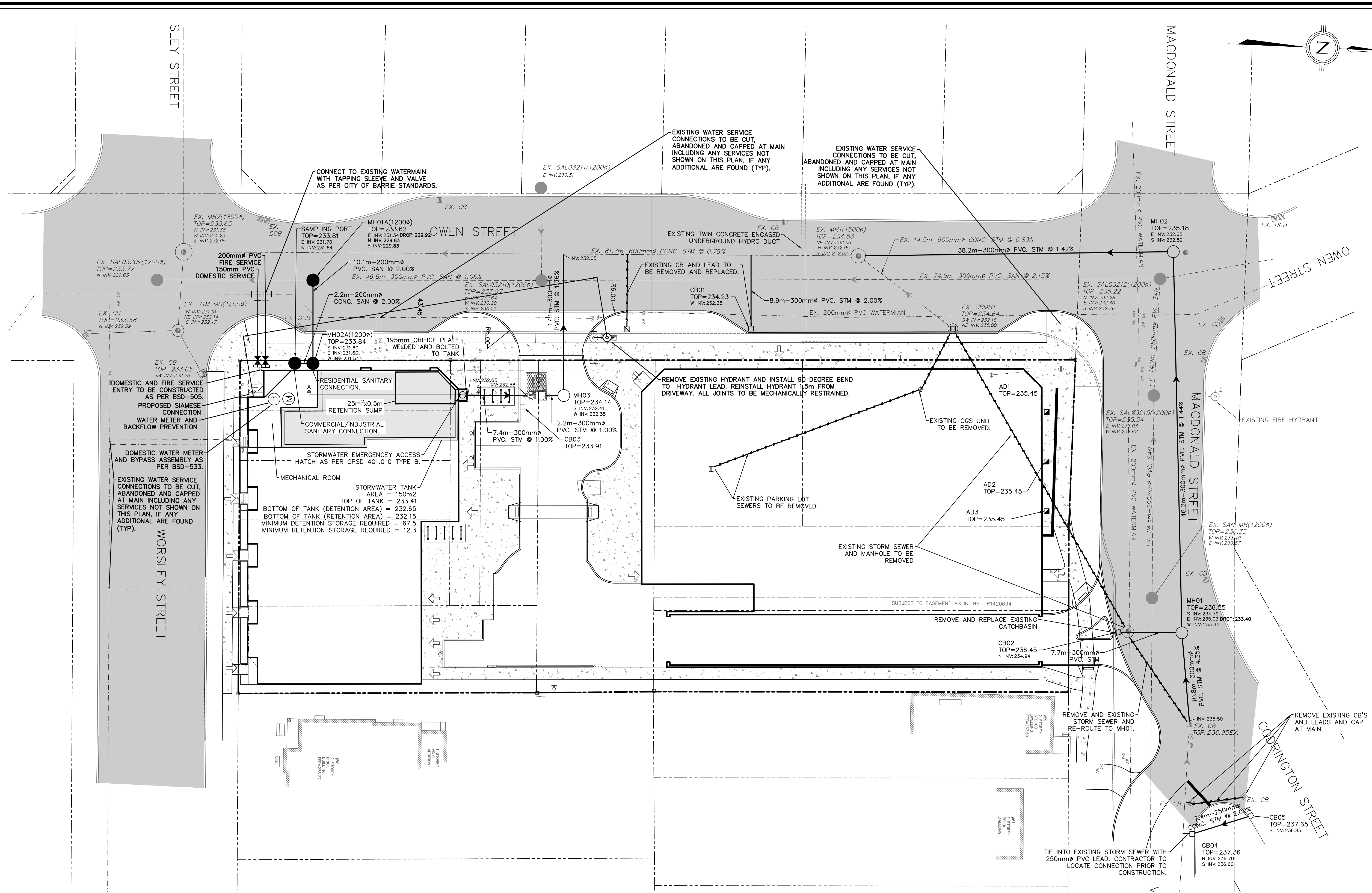
SITE PLAN FILE No.:

GRADING PLAN

| | | |
|------------------|-----------------|-------------------|
| DESIGNED BY: S.C | CHECKED BY: T.N | DATE: JUNE 2021 |
| DRAWING BY: S.C | CHECKED BY: T.N | PROJECT NO. 20020 |
| SWM BY: X.X | CHECKED BY: X.X | DRAWING NO. C-1 |

SCALE: 1:250m





LEGEND

- EXISTING HYDRANT
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- PROPOSED STORM SEWER AND MH
- PROPOSED SANITARY SEWER AND MH
- PROPOSED HYDRANT AND VALVE
- PROPOSED VALVE AND BOX
- PROPOSED BACKFLOW PREVENTOR
- PROPOSED WATER METER
- PROPOSED WATERMAIN
- PROPERTY LINE
- REMOVE EXISTING SEWER
- PROPOSED BOLLARDS

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 PROVIDED BY: KRCMAR SURVEYORS LTD.
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APPLICANT:
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 40 WOBURN AVE
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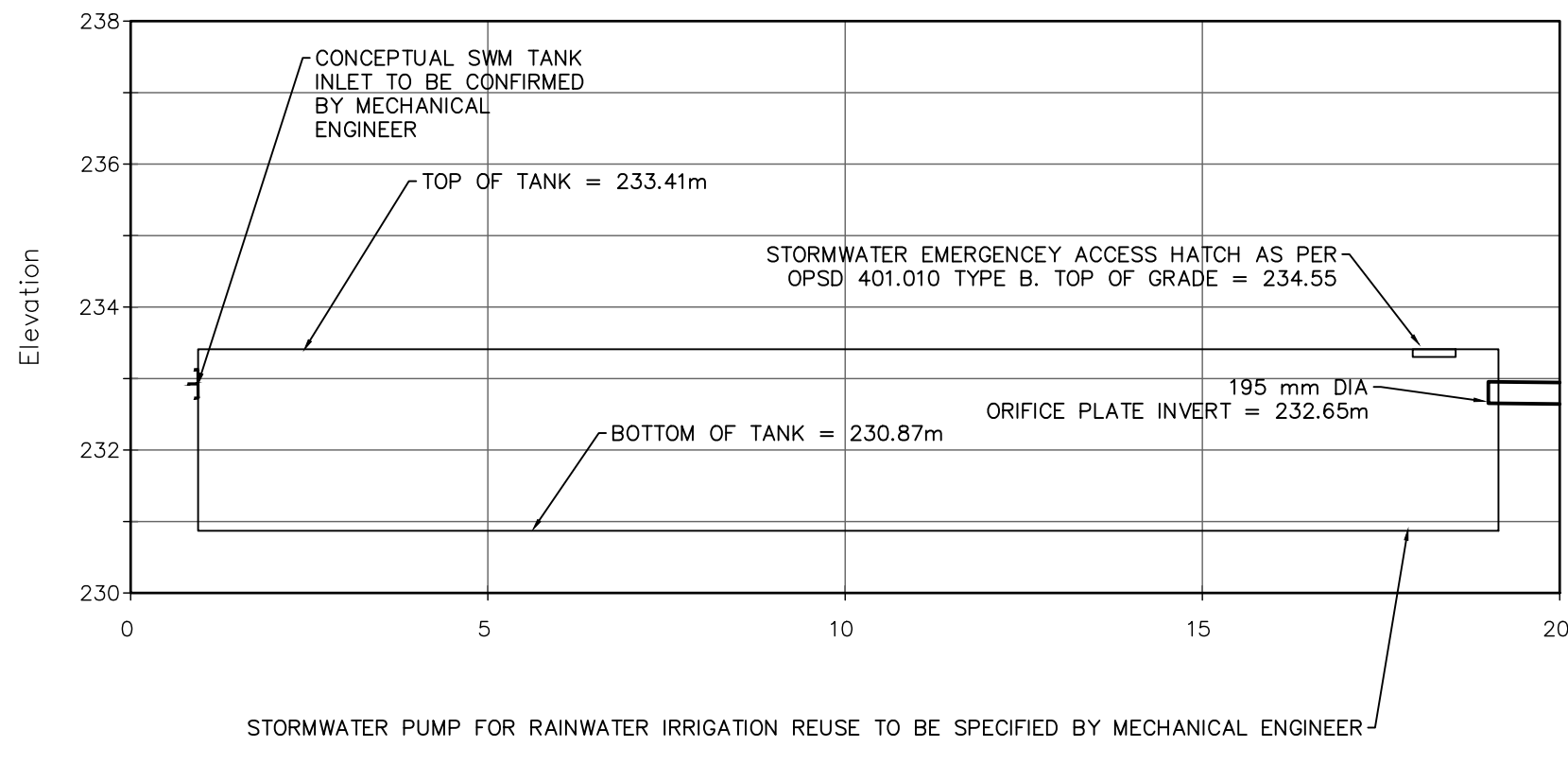
SITE LOCATION:
67 OWEN STREET
 BARRIE, ONTARIO
 L4M 3H2

SITE PLAN FILE No.:

SERVICING PLAN

| | | |
|------------------|-----------------|-------------------|
| DESIGNED BY: S.C | CHECKED BY: T.N | DATE: JUNE 2021 |
| DRAWING BY: S.C | CHECKED BY: T.N | PROJECT NO. 20020 |
| SCALE: 1:250m | CHECKED BY: X.X | DRAWING NO. C-2 |

NOTE: THE OWNER WILL BE FULLY RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES (WATER AND SANITARY) AND PERMANENTLY CAPPING/CUTTING OFF AT THE MAIN FOR THOSE LATERALS THAT ARE NOT UTILIZED FOR THE PROPOSED DEVELOPMENT, ALL TO THE SATISFACTION OF THE WATER OPERATIONS AND THE DEVELOPMENT SERVICES DEPARTMENT.



STORMWATER PUMP FOR RAINWATER IRRIGATION REUSE TO BE SPECIFIED BY MECHANICAL ENGINEER

GENERAL NOTES

- ALL WORK SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE APPLICABLE HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- ALL WORK, MATERIAL AND CONSTRUCTION METHODS TO CONFORM WITH THE LATEST SPECIFICATIONS, POLICIES, REGULATIONS, GUIDELINES AND LAWS FOR THE CITY OF BARRIE, SIMCOE COUNTY, LSRC, ONTARIO BUILDING CODE (OBC), MINISTRY OF THE ENVIRONMENT AND CLIMATE CHANGE (MOCC), ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS (OPSD AND OPS), THE ENVIRONMENTAL PROTECTION ACT AND THE WATER RESOURCES ACT. WHERE A CITY STANDARD EXISTS, IT SHALL BE USED IN PLACE OF THE OPSD/OPS STANDARDS.
- THE INFORMATION SHOWN FOR EXISTING INFRASTRUCTURE IS FOR GENERAL INFORMATION ONLY AND THE ACCURACY OR COMPLETENESS OF THE PROVIDED INFORMATION HAS NOT BEEN CONFIRMED BY COUNTERPOINT ENGINEERING INC. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE COLLISIONS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
- THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROAD, PARKING CURBING, BUILDING LOCATIONS AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE ARCHITECT.
- THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
- ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
- A MINIMUM HORIZONTAL CLEARANCE OF 1.0m SHALL BE MAINTAINED BETWEEN ALL ABOVE GROUND SERVICES AND UTILITIES.
- THE CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION UNLESS OTHERWISE NOTED HEREON OR PURSUANT TO CONDITIONS OF PERMIT APPROVALS. WHERE APPLICABLE, THE CONTRACTOR SHALL OBTAIN CITY ROAD OCCUPANCY PERMIT A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL WORK ON THE MUNICIPAL RIGHT OF WAY AND EASEMENTS AND ANY WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY THE MUNICIPALITY PRIOR TO BACKFILLING.
- FOR DETAILED SPECIFICATIONS REGARDING:
 - STRIPPING
 - COMPACTION REQUIREMENTS
 - IMPORT MATERIALS
 - MANHOLE, CATCHBASIN, AND SERVICE TRENCH BACKFILLING
 - MANHOLE, CATCHBASIN, AND SERVICE TRENCH EXCAVATION
 - BEDDING
 SEE GEOTECHNICAL REPORT PREPARED BY GROUNDED ENGINEERING INC. MAY 18TH 2021 AND ALL APPLICABLE ADDENDUMS.
- DEWATERING PLAN SHALL BE PREPARED BY THE CONTRACTOR IN CONFORMANCE WITH THE HYDROGEOLOGICAL REPORT PREPARED BY GROUNDED ENGINEERING, DATED, OCTOBER 6, 2021, AND ALL APPLICABLE ADDENDUMS.
- ALL TRAFFIC CONTROL AND SIGNAGE SHALL BE IN ACCORDANCE WITH MTO'S "ONTARIO TRAFFIC MANUAL".
- ALL TRENCHING TO BE DONE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT.
- ALL UNSUITABLE OR SURPLUS MATERIAL OBTAINED FROM EXCAVATIONS TO BE COMPACTIONED OFF-SITE AT A LOCATION SELECTED BY THE CONTRACTOR THAT MEETS ALL APPLICABLE ENVIRONMENTAL REGULATIONS AND GUIDELINES.
- ALL OFFSITE CONCRETE CURBS, CONCRETE SIDEWALK, ASPHALT, LANDSCAPED AREAS, AND SERVICES DAMAGED BY CONSTRUCTION ACTIVITIES ARE TO BE REINSTATED BY THE CONTRACTOR TO EXISTING OR BETTER CONDITIONS.
- EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILT FENCE, LAYFIELD SEDIMENT TRAPS AND ROCK CHECK DAMS ARE TO BE IN PLACE PRIOR TO CONSTRUCTION.
- ANY REQUIRED DEWATERING IS TO BE TREATED AND RELEASED IN A WELL VEGETATED AREA OUTSIDE OF THE DISTURBED AREA AT A MINIMUM OF 30m FROM A WATERCOURSE.
- UPON COMPLETION OF SITE SERVICING AND GRADING WORKS, THE CONTRACTOR IS TO SUBMIT AN AS-CONSTRUCTED SURVEY, IN AUTOCAD AND HARDCOPY FORMATS, PREPARED BY AN ONTARIO LAND SURVEYOR, INDICATING ALL ABOVE GROUND AND BELOW GROUND AS BUILT INFORMATION, INCLUDING PIPE SIZES, SLOPES, INVERTS AT MANHOLES AND CATCHBASINS, MH AND CB TOPS, ALL SURFACE FEATURES AND SURFACE TYPES, TOP AND BOTTOM OF CURB ELEVATIONS, CURB DEPRESSIONS, SWALES, AND WITH ELEVATION POINTS CLARIFYING DRAINAGE DIRECTIONS FOR THE ENTIRE SITE. THE SURVEY IS TO EXTEND TO THE MUNICIPAL CURB AT ALL ROAD FRONTAGES. STRUCTURES TO FINAL GRADE, PARGE ADJUSTING UNITS ON THE OUTSIDE ONLY.
- SERVICES TO BUILDINGS TO BE TERMINATED 1.5m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
- VERTICAL AND HORIZONTAL LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
- THE CONTRACTOR IS TO FLUSH AND PROVIDE CCTV CAMERA INSPECTIONS OF ALL SANITARY AND STORM SEWERS, INCLUDING PICTORIAL REPORT AND TWO (2) CD'S, TO COUNTERPOINT ENGINEERING, PRIOR TO PLACEMENT OF ASPHALT AT PRELIMINARY ACCEPTANCE, AND AT FINAL ACCEPTANCE.
- ALL SERVICES TO BE CAPPED AND MARKED WITH A 2"x4" POST PAINTED GREEN (SANITARY) OR WHITE (STORM). THE 2"x4" POST SHALL EXTEND 0.6m ABOVE GRADE.

COUNTERPOINT ENGINEERING CONFORMANCE REQUIREMENTS

- THE FOLLOWING ITEMS AT A MINIMUM ARE TO BE PROVIDED TO COUNTERPOINT NO LESS THAN 10 WORKING DAYS PRIOR TO THE REQUEST FOR A LETTER OF GENERAL CONFORMANCE/FINAL CERTIFICATION. THE DOCUMENTS MUST INDICATE THAT THE SITE HAS BEEN CONSTRUCTED IN GENERAL CONFORMANCE WITH THE APPROVED DESIGN:
 - AS-CONSTRUCTED TOPOGRAPHIC/UNDERGROUND SURVEY COMPLETED BY A REGISTERED LAND SURVEYOR TO BE PROVIDED AT LEAST 10 DAYS PRIOR TO TOP WORKS PLACEMENT;
 - GEOTECHNICAL ENGINEER CERTIFICATION LETTER, WHICH INCLUDES SUB-GRADE COMPACTION RESULTS, BEDDING AND BACKFILL COMPACTION AND MATERIAL ACCEPTANCE, GRANULAR, ASPHALT, SITE CONCRETE MATERIAL ACCEPTANCE AND COMPACTION RESULTS;
 - CCTV INSPECTION OF FLUSHED STORM AND SANITARY PIPES AND STRUCTURES TO BE PROVIDED AT LEAST 10 DAYS PRIOR TO TOP WORKS PLACEMENT;
 - OIL/GRIT SEPARATOR MANUALS, RECORD OF INSPECTION AND CLEANING;
 - WATERMAIN PRESSURE, CHLORINATION AND BACTERIAL TEST RESULTS AND MUNICIPAL APPROVAL IF AVAILABLE.
- SHOULD THE SUBMITTED MATERIALS INDICATE NON-COMFORMANCE OR DEFICIENCIES, THEY MUST BE ADDRESSED TO COUNTERPOINT'S SATISFACTION WITH AN UPDATED SUBMITTAL PRIOR TO ISSUANCE OF A LETTER OF GENERAL CONFORMANCE/FINAL CERTIFICATION.
- COUNTERPOINT MUST ALSO COMPLETE ALL NECESSARY SITE INSPECTIONS AS OUTLINED IN THE APPROVED SERVICE PROGRAM, WITH ALL DEFICIENCIES ADDRESSED TO COUNTERPOINT'S SATISFACTION.

GENERAL NOTES

1. DRAWINGS

A. ALL DRAWINGS SHALL BE PRODUCED IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARDS AND SYMBOLS FOR PLAN & PROFILE DRAWINGS, GENERAL SERVICE PLANS AND LOT GRADING PLANS.

2. MEASUREMENTS

A. ALL DIMENSIONS ARE IN METRES, EXCEPT PIPE DIAMETERS, WHICH ARE IN MILLIMETERS, UNLESS SPECIFIED OTHERWISE.

3. GENERAL

A. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

B. ORDER OF PRECEDENCE OF STANDARD DRAWINGS IS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

C. LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED.

D. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.

E. A ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE ROADS AND PARKS OPERATIONS BRANCH PRIOR TO THE COMMENCEMENT OF WORK WITHIN ANY CITY RIGHT-OF-WAY.

F. A SITE ALLOCATION PERMIT IS REQUIRED FROM THE ENGINEERING DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS ON THE SITE.

G. NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.

H. ALL DISTURBED AREAS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY ENGINEERING DEPARTMENT.

I. ALL SILT CONTROL AND EROSION PROTECTION DEVICES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH. SUBJECT TO APPROVAL BY THE CITY ENGINEERING DEPARTMENT.

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|-------------------------|----------|----------|---------------------------------|--------|----------|----------|--------|-------|----------|
| CITY OF BARRIE STANDARD | | 3 | NOTE 3E REVISED & 3I ADDED | LS | 10.21.10 | APPROVED | R.C.N. | DATE | 92.05.15 |
| GENERAL NOTES | | 2 | S.D. - "ENGINEERING DEPARTMENT" | BR | 10.21.28 | DRAWN | L.A.J. | SCALE | N.T.S. |
| | | 1 | S.E. TOPSOIL PERMIT | LS | 01.12.08 | | | | |
| NO. | REVISION | APPROVED | DATE | BSD-N6 | | | | | |

GENERAL NOTES - WATERMAIN

1. CONTRACTOR SHALL NOTIFY THE CITY OF BARRIE WATER OPERATIONS DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF THEIR INTENDING TO PERFORM WORK ON WATER INFRASTRUCTURE.

2. OPERATIONS AND MAINTENANCE DEPARTMENT SHALL BE NOTIFIED 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK. PRESSURE TEST CONDITIONS AND FLUSH ALL SERVICES.

3. MINIMUM COVER OVER WATERMAIN SHALL BE 1.7m. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAIN AND SEWERS SHALL BE 0.5m. WATER MAINS SHALL BE INSTALLED WITH 100mm MINIMUM DEPTH OF COVER AT ALL TIMES. WHILE PROVIDING A MINIMUM OF 0.5m CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.

4. WATER MAINS SHALL BE INSTALLED WITH 100mm MINIMUM DEPTH OF COVER AT ALL TIMES. WHILE PROVIDING A MINIMUM OF 0.5m CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.

5. MINIMUM COVER OVER WATERMAIN SHALL BE 1.7m. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAIN AND SEWERS SHALL BE 0.5m. WATER MAINS SHALL BE INSTALLED WITH 100mm MINIMUM DEPTH OF COVER AT ALL TIMES. WHILE PROVIDING A MINIMUM OF 0.5m CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.

6. RESTRAINED BLANDS SHALL BE REQUIRED ON ALL HYDRANTS. THREAT BLOCKS AS PER OPSD-1006.010 AND 1006.020. RESTRAINED BLANDS MAY BE REQUIRED IN ADDITION TO STANDARD CONCRETE THREAT BLOCKS WHERE SOIL CONDITIONS WARRANT AT THE CITY'S DISCRETION.

7. WATER MAINS SHALL BE PVC DIPS 150mm MINIMUM. OUTLETS FROM CURBS AS PER THE APPROVED MANUFACTURER'S PRODUCTS FOR UNDER WATER SYSTEMS LIST.

8. THREAT BLOCKS SHALL BE 100mm MINIMUM DEPTH OF COVER AND SHALL BE INSTALLED ON THE EXTERNAL SIDE OF THE WATERMAIN AND SHALL BE INSTALLED AT PROPER INTERVALS AND CONNECTED TO THE WATERMAIN. ALL PROTECTIVE COVER SHALL BE APPROVED AND MANUFACTURED BY THE CITY OF BARRIE.

9. ALL WATER SERVICES SHALL BE MINIMUM 100mm TYPE 'K' COPPER OR 25mm CHLORINATED POLYETHYLENE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF WATER OPERATIONS. WATER SERVICES SHALL BE INSTALLED WITH 100mm MINIMUM DEPTH OF COVER AT ALL TIMES.

10. SERVICE TAPINGS SHALL BE PLACED AT A MINIMUM SEPARATION OF 150mm AND A MINIMUM OF 150mm FROM JOINTS. (GRADE OF PIPE).

11. WATER PIPES ARE TO BE INSTALLED AS PER BS-415 AND REMOVED AS DIRECTED. SCHEDULES TO BE SUPPLIED BY A WATER OPERATIONS FIELD REPRESENTATIVE. ALL SERVICES ARE TO BE REINSTATED OR REPAIRED.

12. ALL NEW CURB STOPS AND BOXES TO BE LOCATED AT PROPERTY LINE AND OUT OF DRIVERS AND BICYCLIST.

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|---------------------------|----------|----------|--------------------------------|---------|------------|----------|--------|------|----------|
| CITY OF BARRIE STANDARD | | 4 | NOTE 'W' - "ENGINEERING" | BR | 2002.10.29 | APPROVED | R.C.N. | DATE | 92.05.15 |
| GENERAL NOTES - WATERMAIN | | 2 | NOTE 'W' OPSPD NUMBER REVISION | K.C. | 2000.03.10 | | | | |
| | | 1 | NOTE 'W' CHANGED | K.C. | 18.03.20 | | | | |
| | | 1 | CHANGES TO B. TO G. | K.C. | 05.04.24 | | | | |
| NO. | REVISION | APPROVED | DATE | BSD-500 | | | | | |

GENERAL NOTES - SANITARY SEWER

1. SANITARY SEWERS

A. SANITARY SEWER TO BE LOCATED AT THE CENTRELINE OF THE ROAD.

B. SEWERS SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD-802.010 (GRAN. 'A' FILL/EMBEDMENT MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING.

C. MAXIMUM DEFLECTION FROM COMBINED LIVE AND DEAD LOADING SHALL NOT EXCEED ANY C.S.A. O.P.S. OR MANUFACTURER'S RECOMMENDED SPECIFICATIONS.

D. PVC, CONCRETE AND PROFILE WALL PVC SEWERS SHALL HAVE RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO CONFORM TO ALL APPLICABLE CURRENT C.S.A. SPECIFICATIONS.

E. CONCRETE SANITARY SEWERS SHALL HAVE A MINIMUM STRENGTH OF 30 N/m² CONFORMING TO CSA STANDARD A232.2-1982, CLASS 30-D (PREVIOUSLY C.S.A. STANDARD A232.2-1974, CLASS 3).

F. MAINTENANCE HOLE TOPS (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WITH THE TOP LIFT OF ASPHALT IN PLACE. ALL ADJUSTMENT WILL BE ACCORDANCE WITH BS-416.

G. ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-MANUFACTURED, FABRICATED TEES. CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSTALLED IN STRICT ACCORDANCE TO MANUFACTURER'S GUIDELINES.

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|---------------------------------|----------|----------|--------------------------------|--------|------------|----------|--------|------|----------|
| CITY OF BARRIE STANDARD | | 4 | NOTE 'W' - "ENGINEERING" | BR | 2002.10.29 | APPROVED | R.C.N. | DATE | 92.05.15 |
| GENERAL NOTES - SANITARY SEWERS | | 2 | NOTE 'W' OPSPD NUMBER REVISION | K.C. | 2000.03.10 | | | | |
| | | 1 | NOTE 'W' CHANGED | K.C. | 18.03.20 | | | | |
| | | 1 | CHANGES TO B. TO G. | K.C. | 05.04.24 | | | | |
| NO. | REVISION | APPROVED | DATE | BSD-N3 | | | | | |

TYPICAL SERVICE ENTRY
100mm TO 300mm DIAMETER PIPE

APPROVED DATE: 6 FEB 2015

REV No: 1 DATE: FEB 2015

SCALE: N.T.S.

BSD-505 (PREVIOUSLY BSD-494)

Typical Meter Installation for Domestic Services Requiring Bypasses

APPROVED DATE: MAY 2019

REV No: 3 DATE: MAY 2019

SCALE: N.T.S.

BSD-533

GENERAL NOTES - ROADWORKS

ROADS

A. SINGLE - STAGE CURB & GUTTER TO COMPLY WITH OPSD 600.040

B. TWO - STAGE CURB & GUTTER TO COMPLY WITH OPSD 600.070

C. SIDEWALKS TO COMPLY WITH OPSD-310.010 AND ARE TO BE 1.5 METRES WIDE. MINIMUM THICKNESS AS FOLLOWS:

- RESIDENTIAL DRIVEWAY 150mm
- COMMERCIAL/INDUSTRIAL DRIVEWAY 200mm
- REINFORCEMENT AS PER OPSD IF REQUIRED
- WHEN NO SIDEWALK IS PRESENT, 150mm

D. NATIVE SUBGRADE SHALL HAVE A CROSSFALL OF 3% AND THE MATERIAL SHALL BE APPROVED BY A SOILS CONSULTANT AND IS SUBJECT TO APPROVAL BY THE DIRECTOR OF ENGINEERING.

E. THE ROAD BASE SHALL INCORPORATE 150mm DIAMETER SUBGRANULAR WITH FACTORY INSTALLED FILTER FABRIC AS PER CITY OF BARRIE STANDARD BS-34

F. ALL CURB RADI TO BE MINIMUM OF 15.0 METRES AT THE EDGE OF ASPHALT.

G. NATIVE SUBGRADE TO BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR MAXIMUM DRY DENSITY AND SHALL BE PROOF ROLLED.

H. GRADE AND CROSS FALL ADJUSTMENT OF MAINTENANCE HOLES AND CATCH BASIN FRAMES WILL BE MADE USING PRODUCTS SPECIFICALLY MANUFACTURED FOR THAT PURPOSE. THE TOP ADJUSTMENT UNIT OF ALL CATCH BASIN AND MAINTENANCE HOLES SHALL BE RUBBER.

I. ADJUSTMENT UNITS MUST BE CERTIFIED TO MEET ALL PERTINENT OPS, CSA, ASTM AND MTD-ISM LIST, OR OTHER INDUSTRY GUIDELINES FOR MATERIALS PERFORMANCE AND USE AS APPLICABLE.

J. ADJUSTMENT UNITS AND JOINTS WILL BE SEALED AND OR PARGED IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND GUIDELINES.

K. MORTAR IS USED FOR LEVELING OF PRECAST UNITS ONLY. THE THICKNESS OF MORTAR WILL BE 10mm TO FILL ALL VOIDS CREATED BY IRREGULARITIES IN THE PRECAST UNITS TO ENSURE AN EVEN SURFACE ONLY.

L. NON-COMPRESSIBLE BACK FILL WILL BE USED DURING REBUILDING, ADJUSTING, OR ANY OTHER APPLICABLE CATCH BASIN OR MAINTENANCE HOLE WORKS.

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|-------------------------|----------|----------|-------------------------------|--------|------------|----------|--------|------|----------|
| CITY OF BARRIE STANDARD | | 4 | REVISED OPSD NUMBERS IN NOTES | K.C. | 2000.08.17 | APPROVED | R.C.N. | DATE | 92.05.15 |
| GENERAL NOTES ROADWORKS | | 2 | NOTE 'L' ADDED | K.C. | 08.03.20 | | | | |
| | | 1 | NOTE 'C' | K.C. | 05.07.10 | | | | |
| NO. | REVISION | APPROVED | DATE | BSD-N2 | | | | | |

GENERAL NOTES - SANITARY SEWER

SANITARY SERVICE LATERALS

A. SANITARY LATERAL CONNECTION TO BE LOCATED AT THE CENTRELINE OF THE LOT AND CAPPED.

B. LOCATION OF LATERAL TO BE MARKED 2.0m PAST PROPERTY LINE WITH A 50 x 100mm WOOD MARKER, PAINTED GREEN, EXTENDING FROM SERVICE INVERT TO 300mm ABOVE GROUND LEVEL.

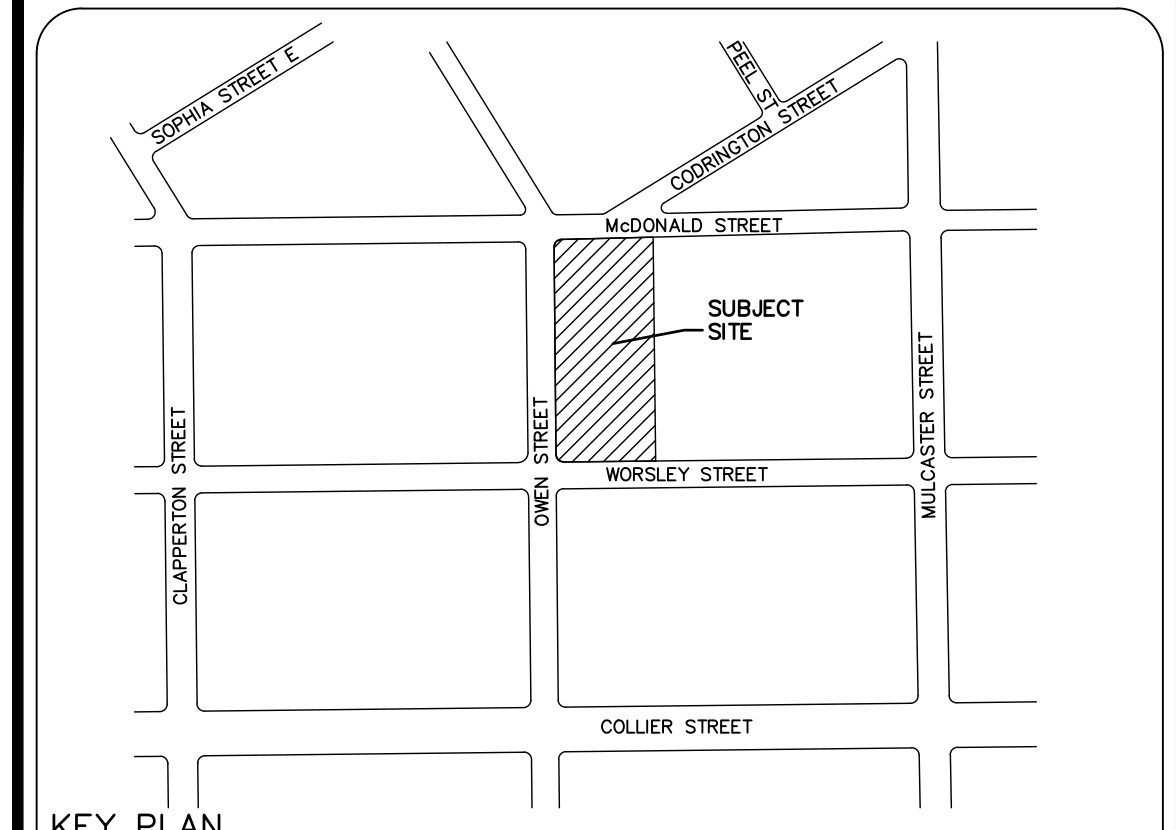
C. PIPE TO BE MINIMUM 100 mm DIA. PVC SDR20, RUBBER GASKET TYPE JOINTS AND SHALL CONFORM TO C.S.A. (E-192.2.3.4) (COLOURED) FOR A RESIDENTIAL HOUSE AND 100mm MINIMUM DIA. PVC SDR20 FOR INDUSTRIAL/COMMERCIAL DEVELOPMENT.

D. MINIMUM DEPTH OF LATERAL AT PROPERTY LINE SHALL BE 2.4m MEASURED FROM THE SEWER OVERTOP TO FINISHED GROUND SURFACE ELEVATION UNLESS NOTED OTHERWISE.

E. ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-MANUFACTURED, FABRICATED TEES. CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSTALLED IN STRICT ACCORDANCE TO MANUFACTURER'S GUIDELINES.

F. MINIMUM PIPE SLOPE TO BE 2.0% MAXIMUM 8.0% (SEE OPSD-1006.010, 1006.020).

| | | | | | | | | | |
|-------------------------------|----------|----------|----------------------|--------|------------|----------|--------|------|----------|
| CITY OF BARRIE STANDARD | | 3 | OPSD NUMBERS REVISED | K.C. | 2000.08.17 | APPROVED | R.C.N. | DATE | 92.05.15 |
| GENERAL NOTES SANITARY SEWERS | | 1 | CHANGES TO B. TO G. | K.C. | 05.04.24 | | | | |
| NO. | REVISION | APPROVED | DATE | BSD-N4 | | | | | |



LEGEND

EXISTING STORM AND SANITARY SEWER INFORMATION IS BASED ON RECORD DRAWINGS FROM THE CITY OF BARRIE. OWEN STREET RECONSTRUCTION 95-07 SHEET PP4, OWEN AND DONALD PARKING LOT 2004-09 SHEET PP1, WORSLEY STREET RECONSTRUCTION 95-07 SHEET PP2.

BEARINGS SHOWN HEREON ARE GRID AND ARE REFERRED TO THE NORTHERLY LIMIT OF PART 1, PLAN 51R-22644 HAVING A BEARING OF N87°46'40"E. ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE RELATED TO CITY OF BARRIE BENCH MARK NO. 68U502 HAVING AN ELEVATION OF 237.270 METRES.

| NO. | REVISIONS/ISSUED | DATE | BY | CITY |
|-----|-------------------------------|------------|----|------|
| 4. | RE-ISSUED FOR SPA SUBMISSION | 2022/08/12 | KR | |
| 3. | ISSUED FOR SPA 3RD SUBMISSION | 2022/04/29 | KR | |
| 2. | ISSUED FOR SPA 2ND SUBMISSION | 2021/11/19 | KR | |
| 1. | ISSUED FOR SPA 1ST SUBMISSION | 2021/06/25 | TN | |

LEGAL & TOPOGRAPHY

PROVIDED BY: KROMAR SURVEYORS LTD.
1137 CENTRE STREET,
THORNHILL, ON L4J 3M6
PHONE: 905-738-0053

BENCHMARK AND ELEVATION

APPLICANT:
THE RESIDENCES ON OWEN LTD.
40 WOBURN AVE
TORONTO ONTARIO
M5M 1K6

SITE LOCATION:
67 OWEN STREET
BARRIE, ONTARIO
L4M 3H2

SITE PLAN FILE NO.:

NOTES AND DETAILS

| | | |
|------------------|-----------------|-----------------|
| DESIGNED BY: S.C | CHECKED BY: T.N | DATE: JUNE 2021 |
| DRAWING BY: S.C | CHECKED BY: T.N | PROJECT: 20020 |
| SCALE: | CHECKED BY: X.X | DRAWING NO. C-4 |