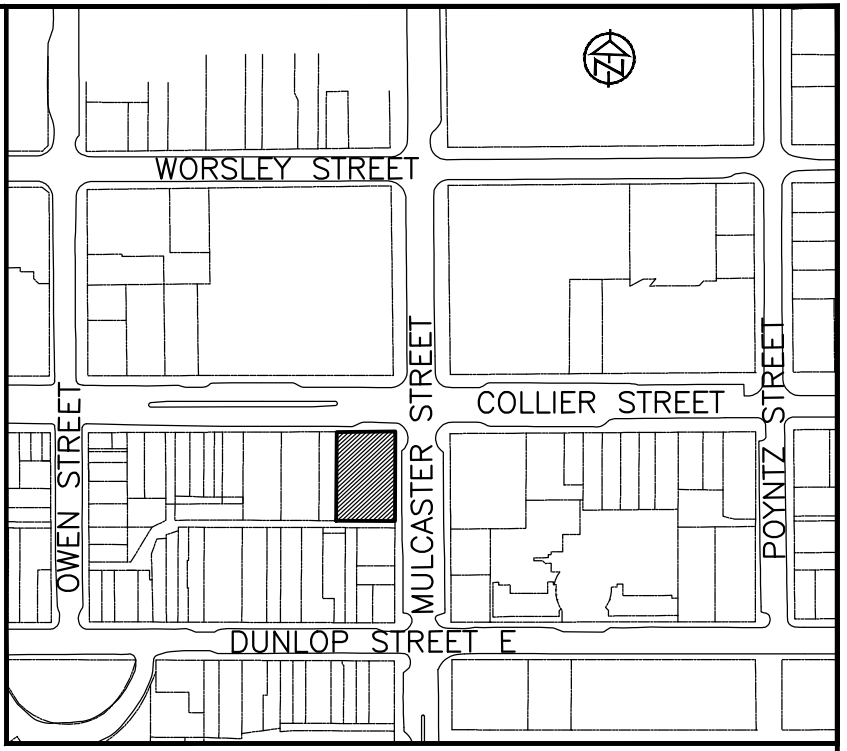
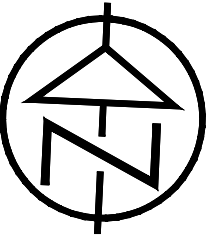
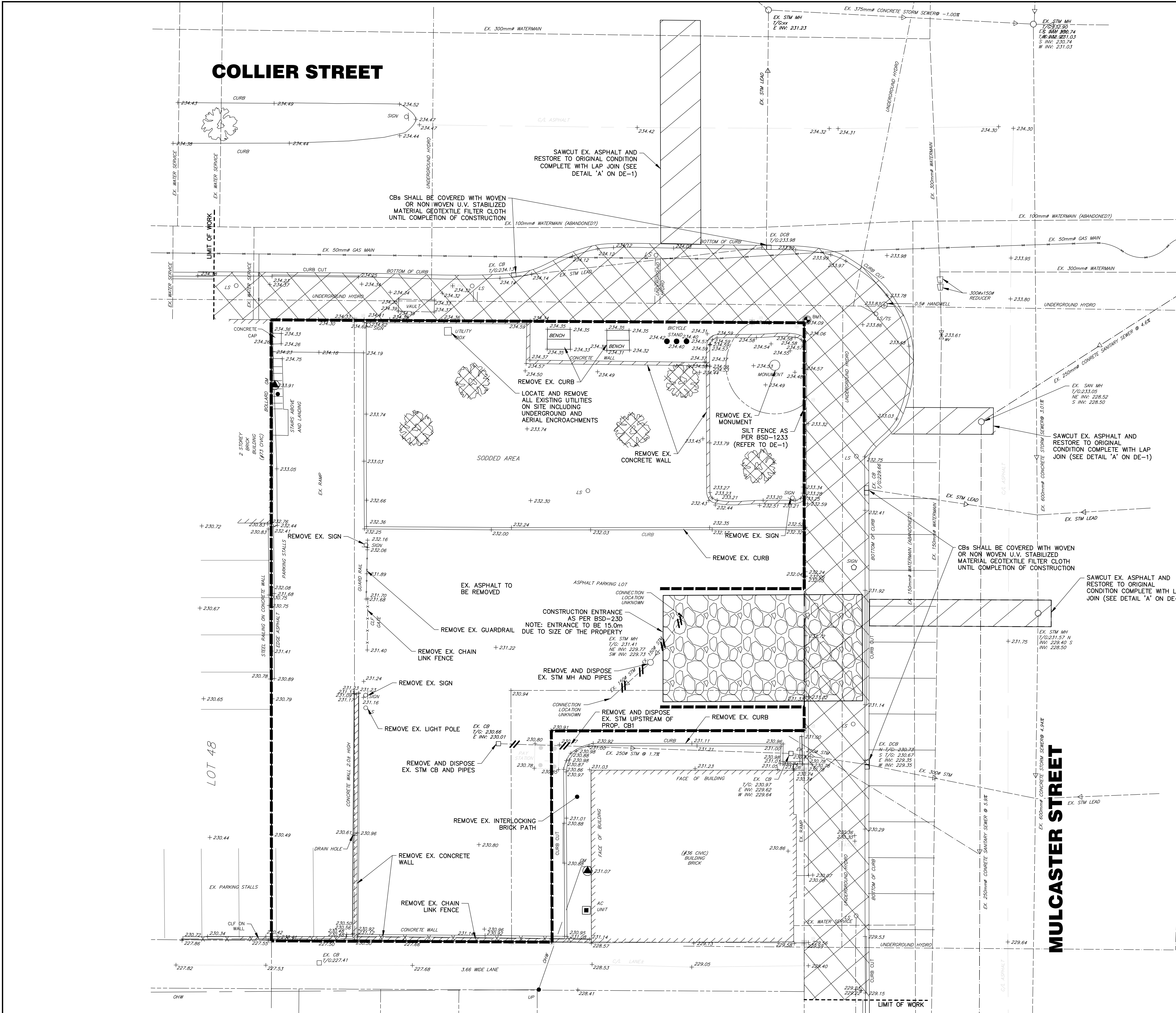




KEY PLAN
N.T.S.

SEC

LEGEND

- EXISTING PROPERTY LINE
- EXISTING LOT LINE
- EXISTING CENTERLINE
- EXISTING EDGE OF ASPHALT
- EXISTING SANITARY SEWER/SIZE
- EXISTING SANITARY SERVICE
- EXISTING WATERMAIN/SIZE
- EXISTING WATER SERVICE
- EXISTING STORM SEWER/SIZE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CABLE PEDESTAL
- EXISTING BELL PEDESTAL
- EXISTING BELL MAINTENANCE HOLE
- EXISTING HYDRO POLE
- EXISTING DECIDUOUS TREE
- EXISTING SANITARY MAINTENANCE HOLE/NUMBER
- EXISTING HYDRANT AND VALVE
- EXISTING WATER VALVE
- EXISTING STORM MAINTENANCE HOLE
- EXISTING CATCHBASIN
- SERVICES TO BE REMOVED
- SILT FENCE
- TREE TO BE REMOVED
- CONSTRUCTION ENTRANCE MAT
- CONCRETE SIDEWALK AND CURB REMOVAL
- ASPHALT REMOVAL

ACTIVITY:	EST. START DATE:	EST. END DATE:
1. INSTALL EROSION SEDIMENT CONTROLS	JULY 30, 2021	AUG. 03, 2021
2. REMOVALS	AUG. 03, 2021	AUG. 15, 2021
3. SERVICING AND FOUNDATION POURING	AUG. 16, 2021	SEPT. 15, 2021
4. FINE GRADING	SUMMER 2022	

NOTES:

- ALL SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO CONSTRUCTION.
- ALL SEDIMENT CONTROLS TO REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION INCLUDING ALL LANDSCAPING WORKS.
- MAINTAIN AND PROTECT ALL EXISTING MUNICIPAL SERVICES AND UTILITIES EXCEPT WHERE OTHERWISE NOTED.
- ALL EXISTING WATER SERVICES ARE TO BE DECOMMISSIONED AND DISCONNECTED BY CUTTING OFF AT THE WATERMAIN (COMPLETED BY CITY WATER OPERATIONS)
- THE FOLLOWING ITEMS ARE TO BE REMOVED FROM FRONTAGE OF SITE ON COLLIER ST AND MULCASTER ST:
 - ASPHALT SURFACE
 - CONCRETE SIDEWALK
 - ALL STREET TREES
 - ALL LIGHT STANDARDS
 - ALL STREET SIGNS

DISCLAIMER AND COPYRIGHT
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DRAWING REFERENCES
SURVEY INFORMATION SHOWN ON THIS PLAN PREPARED BY C.A. MACDONALD SURVEYING INC., RECEIVED MARCH 31, 2020.
SITE PLAN PREPARED BY MCL ARCHITECTS DATED SEPT 1, 2020

BENCHMARKS
BM1: TOP OF CONCRETE PIN
ELEVATION: 234.09
VERTICAL BENCHMARK: 00119673109 (2nd ORDER)
ELEVATION: 220.21
HORIZONTAL BENCHMARK: 00119673109 (2nd ORDER)
NORTHING: 4915700.133 EASTING: 604482.056
HORIZONTAL BENCHMARK: 03120040004 (2nd ORDER)
NORTHING: 4917039.523 EASTING: 607010.380

No.	REVISION DESCRIPTION	DATE
1.	SPA - 1ST SUBMISSION	SEPT 4/20
2.	SPA - 2ND SUBMISSION	JAN 13/21

ENGINEER STAMP

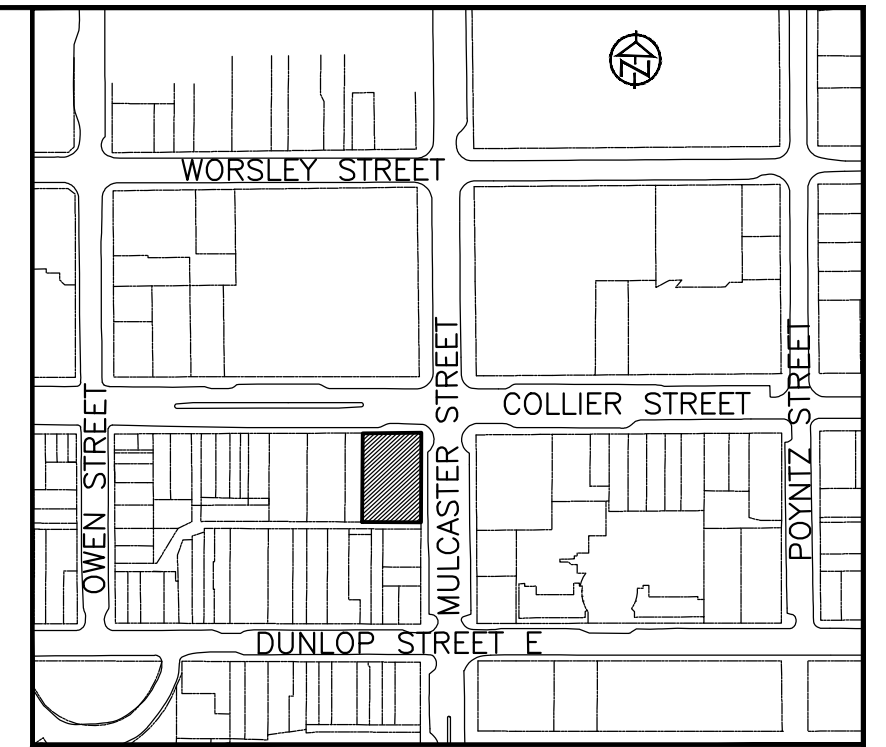
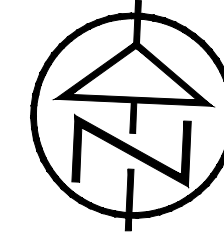
**BAYSIDE APARTMENTS
79 COLLIER STREET
CITY OF BARRIE**

REMOVALS

TATHAM ENGINEERING

DESIGN: LCG	FILE: 420373	DWG: RM-1
DRAWN: LCG	DATE: SEPT 2020	
CHECK: NM	SCALE: 1:150	

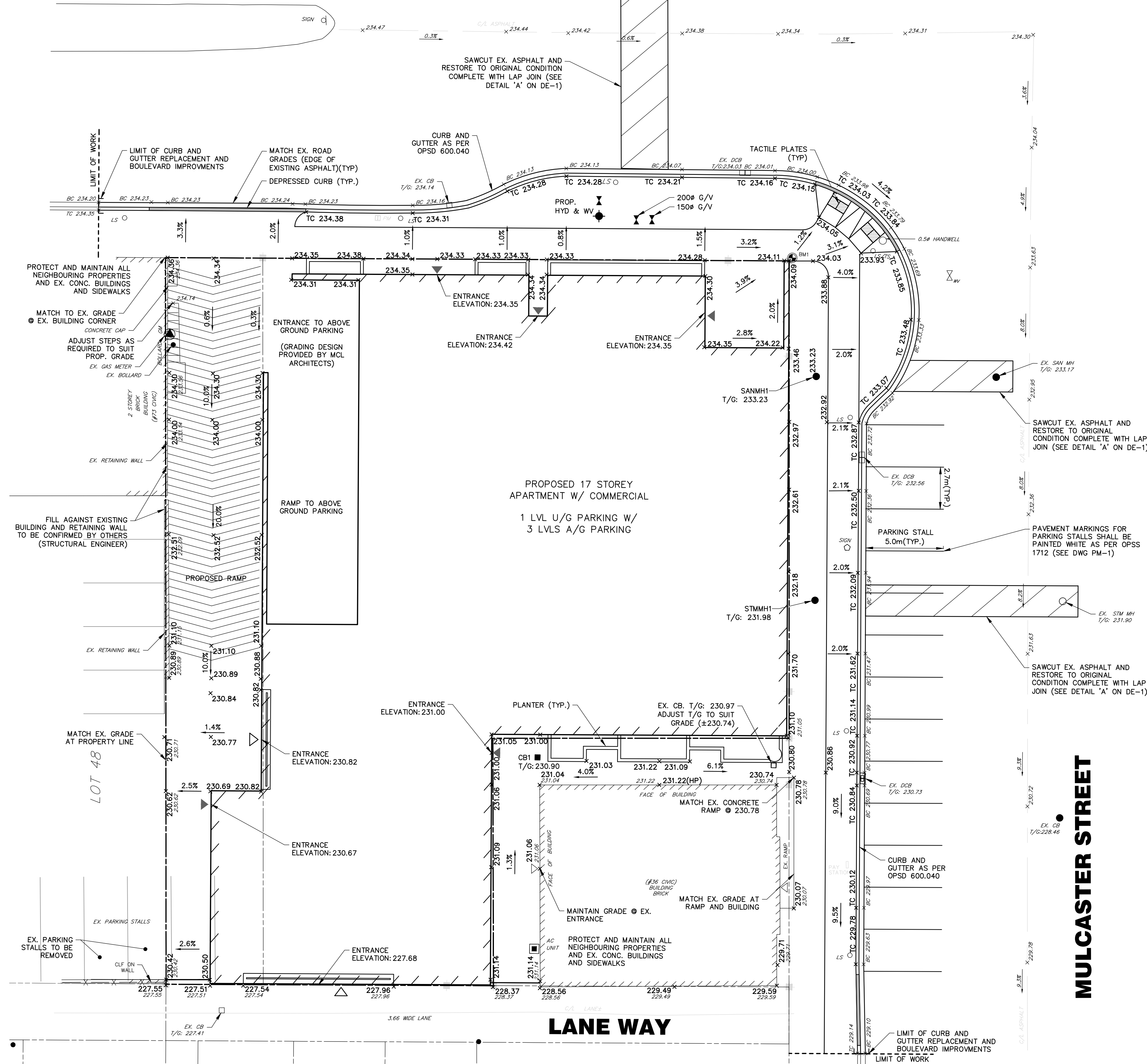
COLLIER STREET



KEY PLAN
N.T.S.

LEGEND

EXISTING PROPERTY LINE	---
EXISTING LOT LINE	---
EXISTING CENTERLINE	---
EXISTING EDGE OF ASPHALT	---
EXISTING CONTOUR	--- 230.00 ---
EXISTING SPOT ELEVATION	x 231.12
PROPOSED SPOT ELEVATION	x 232.20
EXISTING IRON BAR	■
EXISTING CABLE PEDESTAL	⊠ CABLE PED
EXISTING BELL PEDESTAL	⊠ BELL PED
EXISTING BELL MAINTENANCE HOLE	○ BELL MH
EXISTING HYDRO POLE	○ HP
PROPOSED HYDRO POLE	● HP
EXISTING HYDRANT AND VALVE	⬢ HYD & WV
PROPOSED HYDRANT	⬢ HYD
EXISTING SANITARY MAINTENANCE HOLE	○ EX. SAN MH
PROPOSED SANITARY MAINTENANCE HOLE/NUMBER	● SAN MH
EXISTING STORM MAINTENANCE HOLE/NUMBER	○ EX. STM MH
EXISTING CATCHBASIN MAINTENANCE HOLE/NUMBER	□ EX. CBMH
EXISTING CATCHBASIN	□ EX. CB
EXISTING DOUBLE CATCHBASIN	□ EX. DCB
PROPOSED CATCHBASIN	● CBMH
PROPOSED STORM MAINTENANCE HOLE/NUMBER	● STM MH
PROPOSED CATCHBASIN MAINTENANCE HOLE/NUMBER	○ CBMH
PROPOSED CATCHBASIN	■ CB
PROPOSED DOUBLE CATCHBASIN	■ DCB
EXISTING OVERLAND DRAINAGE DIRECTION	➔
PROPOSED BUILDING	▬
DEPRESSED CURB	▬
OVERHEAD DOOR	▷
ENTRANCE DOOR	▶
EXISTING ENTRANCE DOOR	▷



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No.	REVISION DESCRIPTION	DATE
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2.	SPA - 2ND SUBMISSION	JAN 13/21

ENGINEER STAMP

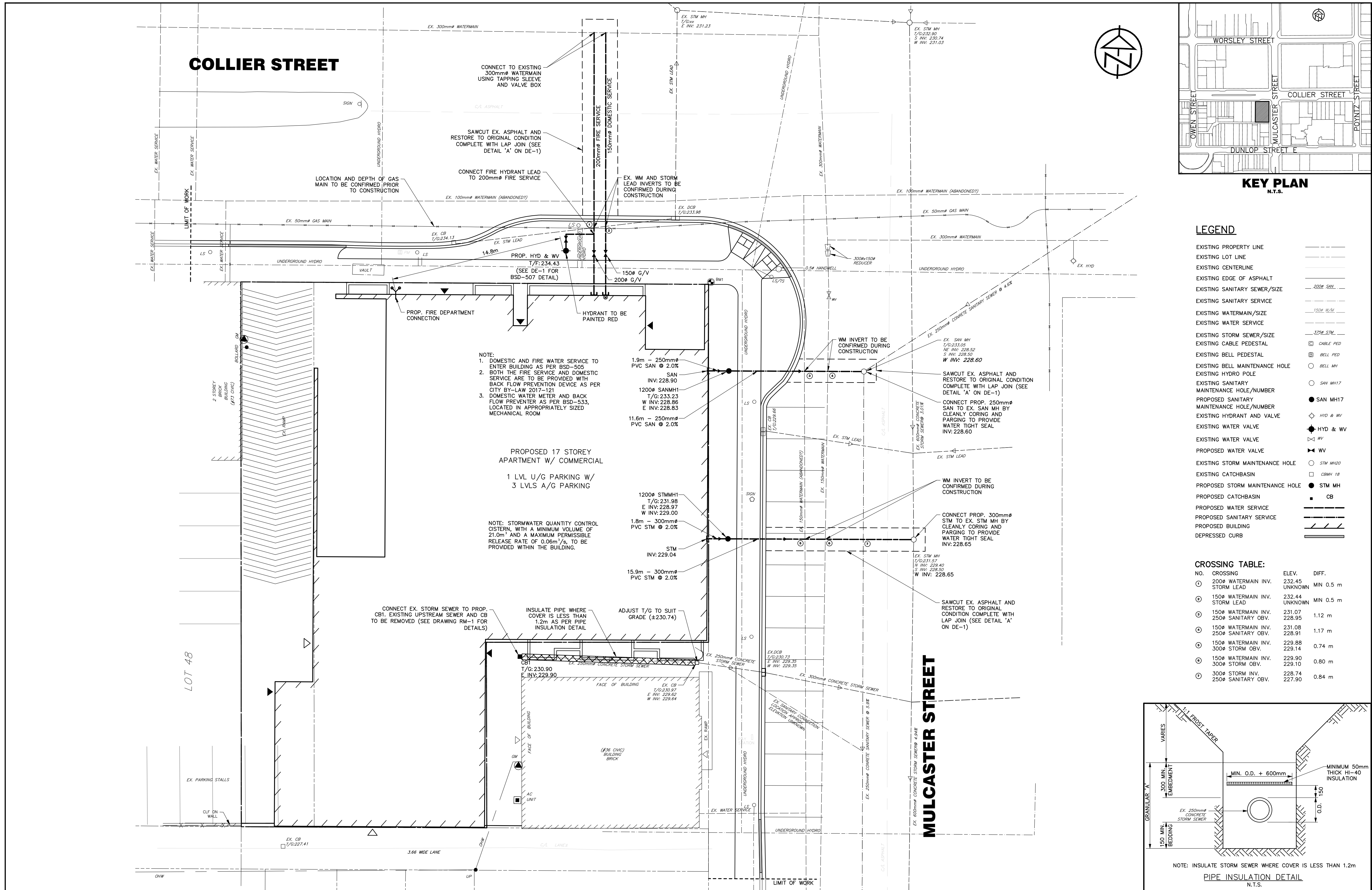


BAYSIDE APARTMENTS
79 COLLIER STREET
CITY OF BARRIE

SITE GRADING PLAN



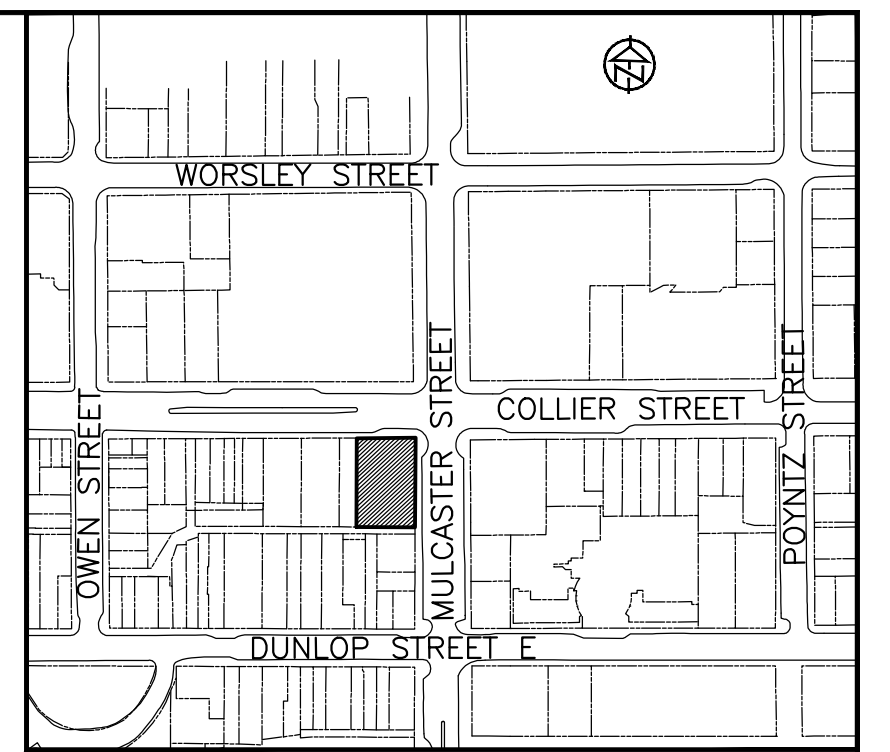
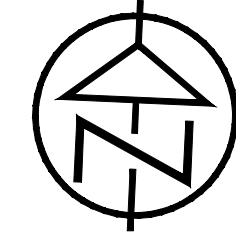
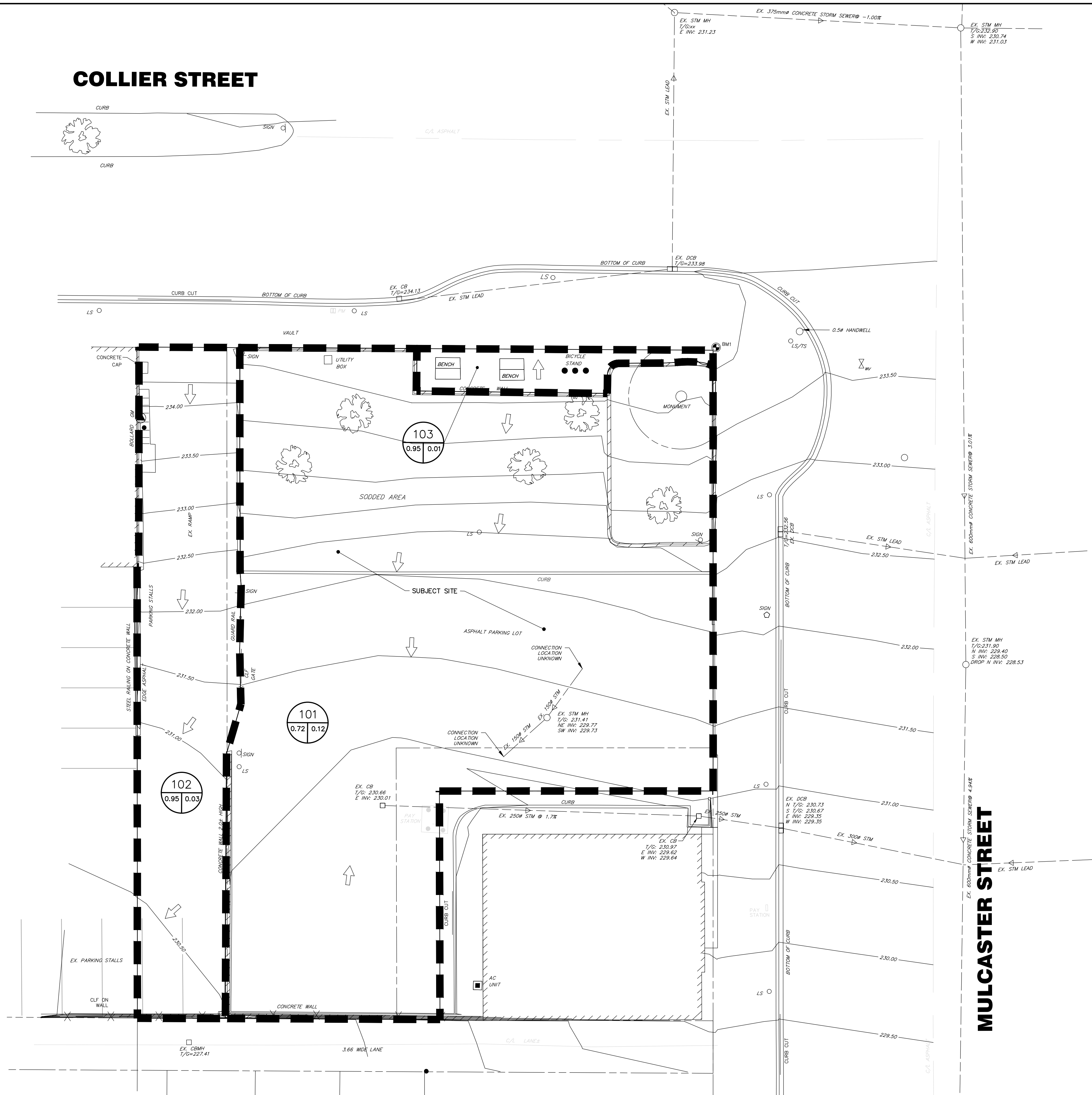
DESIGN: LCG	FILE: 420373	DWG:
DRAWN: LCG	DATE: SEPT 2020	SG-1
CHECK: NM	SCALE: 1:150	



DISCLAIMER AND COPYRIGHT CONTRACTOR MUST VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER BEFORE COMMENCING WORK. DRAWINGS ARE NOT TO BE SCALED. TATHAM ENGINEERING LIMITED CLAIMS COPYRIGHT TO THIS DRAWING WHICH MAY NOT BE USED FOR ANY PURPOSE OTHER THAN THAT PROVIDED IN THE CONTRACT BETWEEN THE OWNER/CLIENT AND THE ENGINEER WITHOUT THE EXPRESS CONSENT OF TATHAM ENGINEERING LIMITED.	DRAWING REFERENCES SURVEY INFORMATION SHOWN ON THIS PLAN PREPARED BY C.A. MACDONALD SURVEYING INC., RECEIVED MARCH 31, 2020. SITE PLAN PREPARED BY MCL ARCHITECTS DATED SEPT 1, 2020	BENCHMARKS BM1: TOP OF CONCRETE PIN ELEVATION: 234.09 VERTICAL BENCHMARK: 00119673109 (2nd ORDER) ELEVATION: 220.21 HORIZONTAL BENCHMARK: 00119673109 (2nd ORDER) NORTHING: 4915700.133 EASTING: 604482.056 HORIZONTAL BENCHMARK: 03120040004 (2nd ORDER) NORTHING: 4917039.523 EASTING: 607010.380	No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP	BAYSIDE APARTMENTS 79 COLLIER STREET CITY OF BARRIE	
			1.	SPA – 1ST SUBMISSION	SEPT 4/20			
			2.	SPA – 2ND SUBMISSION	JAN 13/21			

SITE SERVICING PLAN	DESIGN: LCG	FILE: 420373	DWG: SS-1
	DRAWN: LCG	DATE: SEPT 2020	
	CHECK: NM	SCALE: 1:150	

COLLIER STREET



KEY PLAN
N.T.S.

LEGEND	
	PRE-DEVELOPMENT DRAINAGE AREA
	CATCHMENT ID
	AREA (Ha)
	RUNOFF COEFFICIENT
	EXISTING CONTOURS (0.50m INTERVALS)
	EXISTING PROPERTY LINES
	SUBJECT LANDS
	EXISTING OVERLAND FLOW DIRECTION
	EXISTING STORM SEWERS

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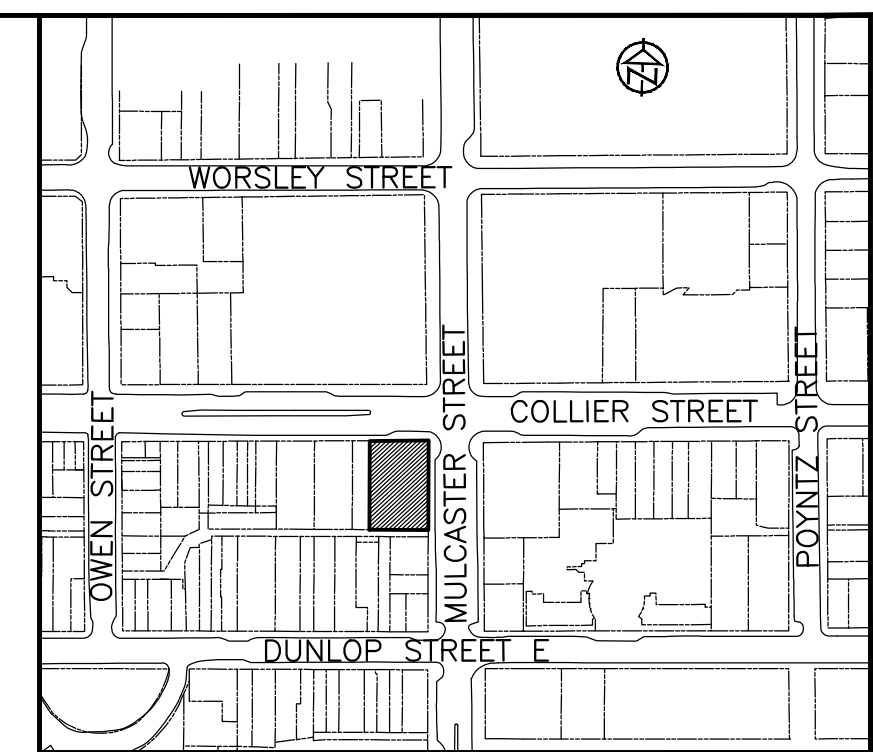
No.	REVISION DESCRIPTION	DATE
1.	SPA - 1ST SUBMISSION	SEPT 4/20
2.	SPA - 2ND SUBMISSION	JAN 13/21

ENGINEER STAMP

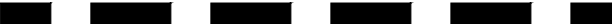
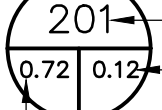
**BAYSIDE APARTMENTS
79 COLLIER STREET
CITY OF BARRIE**

**PRE-DEVELOPMENT
DRAINAGE PLAN**

		DWG: DP-1
DESIGN: LB	FILE: 420373	
DRAWN: LB	DATE: APRIL 2020	
CHECK: NM	SCALE: 1:150	

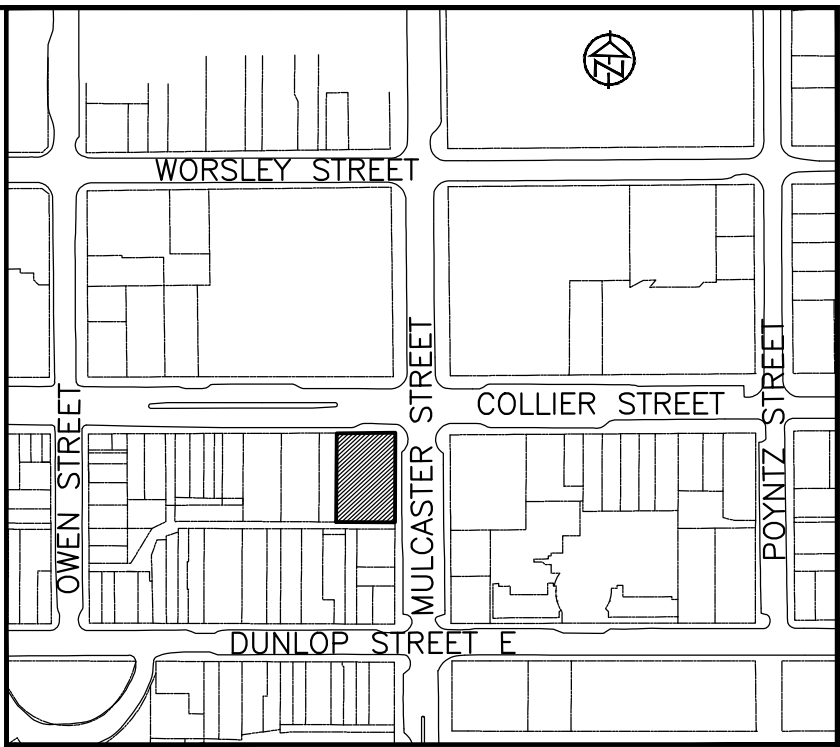
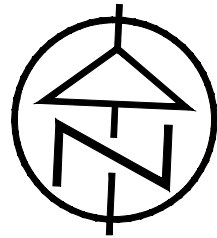
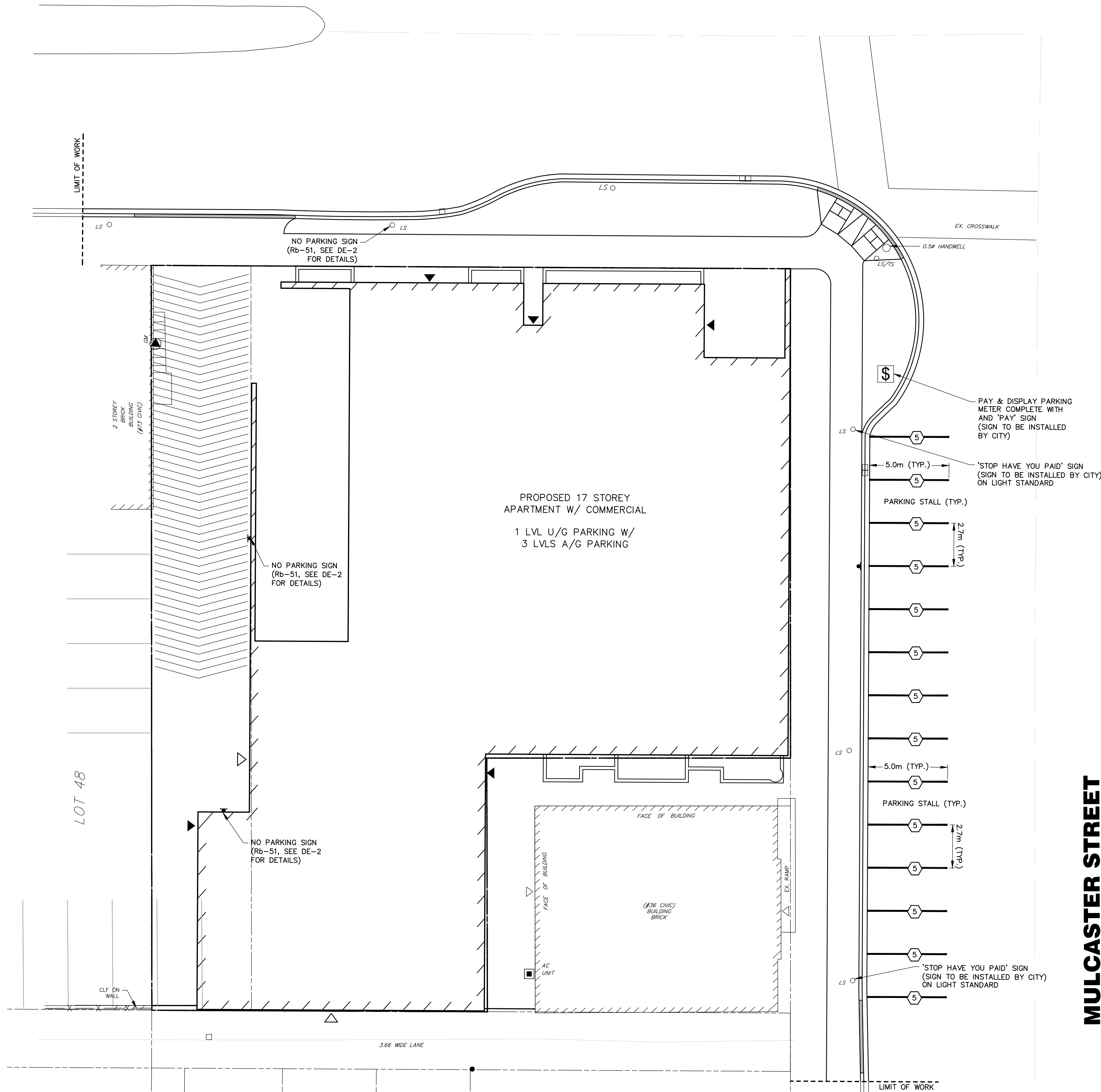
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LEGEND

	POST DEVELOPMENT DRAINAGE AREA
	CATCHMENT ID
	AREA (Ha)
	RUNOFF COEFFICIENT
	EXISTING CONTOURS (0.50m INTERVALS)
	EXISTING PROPERTY LINES
	SUBJECT LANDS
	EXISTING OVERLAND FLOW DIRECTION
	PROPOSED OVERLAND FLOW DIRECTION
	EXISTING STORM SEWERS
	PROPOSED STORM SEWERS

Drawing Name: 420373-DP-2.dwg, Plotted: Jan 13, 2021

COLLIER STREET



KEY PLAN
N.T.S.

1	SOLID YELLOW,10cm
2	SOLID DOUBLE YELLOW,10cm
3	363 BROKEN YELLOW,10cm
4	SOLID YELLOW,20cm
5	SOLID WHITE,10cm
6	333 BROKEN WHITE,10cm
7	363 BROKEN WHITE,10cm
8	393 BROKEN WHITE,10cm
9	SOLID WHITE,20cm
10	111 BROKEN WHITE,10cm
11	333 BROKEN WHITE,20cm
12	333 BROKEN WHITE,30cm
13	SOLID WHITE,30cm
14	SOLID WHITE,45cm
15	SOLID WHITE,60cm
20	SYMBOLS
[] LIMITS OF MARKINGS	

- NOTES:
1. 333, 363, 393, Denotes Pavement Marking Spacing (ie., 3 m line, 3 m gap, 3 m line)
 2. ① Denotes PAVEMENT MARKING, PAINT
 3. ② Denotes PAVEMENT MARKING, TEMPORARY
 4. △ Denotes PAVEMENT MARKING, TEMPORARY-REMOVABLE
 5. ③ Denotes PAVEMENT MARKING, DURABLE

DISCLAIMER AND COPYRIGHT

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No.	REVISION DESCRIPTION	DATE
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ENGINEER STAMP



BAYSIDE APARTMENTS
79 COLLIER STREET
CITY OF BARRIE



PAVEMENT MARKING PLAN

DESIGN: LCG	FILE: 420373	DWG:
DRAWN: LCG	DATE: SEPT 2020	PM-1
CHECK: NM	SCALE: 1:150	

1. GRADE AND CROSSFALL ADJUSTMENT OF MAINTENANCE HOLE AND CATCH BASIN FRAMES WILL BE MADE USING PRODUCTS SPECIFICALLY MANUFACTURED FOR THAT PURPOSE.

2. ADJUSTMENT UNITS MUST BE CERTIFIED TO MEET ALL PERTINENT C.P.S. C.A. AND MTO-MCM UNITS, OR OTHER INDUSTRY GUIDELINES FOR MATERIALS, PERFORMANCE AND USE AS APPLICABLE.

3. ADJUSTMENT UNITS AND JOINTS WILL BE SIZED AND OR PRODUCED IN COMPLIANCE WITH MANUFACTURERS' SPECIFICATIONS AND GUIDELINES.

4. 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.

Barrie GENERAL NOTES ROADWORKS

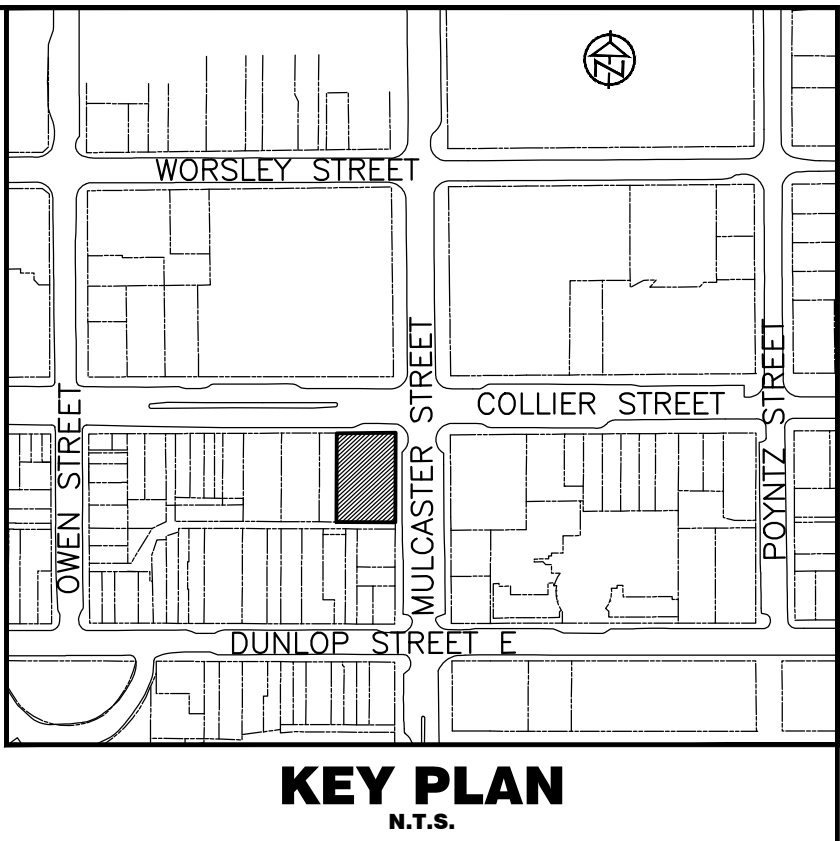
REV. NO. 1 DATE: OCT 2017 SCALE: N.T.S. **APPROVED** *Oct 2017* **BSD-N2**

Barrie TYPICAL TRENCH RESTORATION

REV. NO. 1 DATE: OCT 2017 SCALE: N.T.S. **APPROVED** *Oct 2017* **BSD-330**

Barrie MAINTENANCE HOLE AND CATCH BASIN ADJUSTMENT UNITS

REV. NO. 3 DATE: NOV 2019 SCALE: N.T.S. **APPROVED** *Nov 2019* **BSD-41**



City of Barrie GENERAL NOTES - WATERMAIN

REV. NO. 2 DATE: MAY 2015 SCALE: N.T.S. **APPROVED** *May 2015* **BSD-500**

Barrie CITY OF BARRIE STANDARD CONSTRUCTION ENTRANCE MAT

REV. NO. 1 DATE: OCT 2017 SCALE: N.T.S. **APPROVED** *Oct 2017* **BSD-23D**

Barrie SILTATION CONTROL FENCING

REV. NO. 2 DATE: OCT 2017 SCALE: N.T.S. **APPROVED** *Oct 2017* **BSD-1233**

Barrie GENERAL NOTES - STORM SEWER

REV. NO. 1 DATE: OCT 2017 SCALE: N.T.S. **APPROVED** *Oct 2017* **BSD-N5**

Barrie CITY OF BARRIE STANDARD GENERAL NOTES

REV. NO. 3 DATE: MAY 2019 SCALE: N.T.S. **APPROVED** *May 2019* **BSD-533**

Barrie GENERAL NOTES SANITARY SEWERS

REV. NO. 1 DATE: OCT 2017 SCALE: N.T.S. **APPROVED** *Oct 2017* **BSD-N3**

Barrie TYPICAL SERVICE ENTRY 100mm TO 300mm DIAMETER PIPE

REV. NO. 1 DATE: FEB 2015 SCALE: N.T.S. **APPROVED** *Feb 2015* **BSD-505**

Barrie Typical Meter Installation for Domestic Services Requiring By-passes

REV. NO. 3 DATE: MAY 2019 SCALE: N.T.S. **APPROVED** *May 2019* **BSD-533**

Barrie Tracer Wire Detail

REV. NO. 3 DATE: MAY 2019 SCALE: N.T.S. **APPROVED** *May 2019* **BSD-515**

Barrie TYPICAL 100mm SUBDRAIN DETAIL

REV. NO. 1 DATE: APR 2019 SCALE: N.T.S. **APPROVED** *Apr 2019* **BSD-315**

Barrie Standard Hydrant and Valve Installation

REV. NO. 2 DATE: APR 2019 SCALE: N.T.S. **APPROVED** *Apr 2019* **BSD-507**

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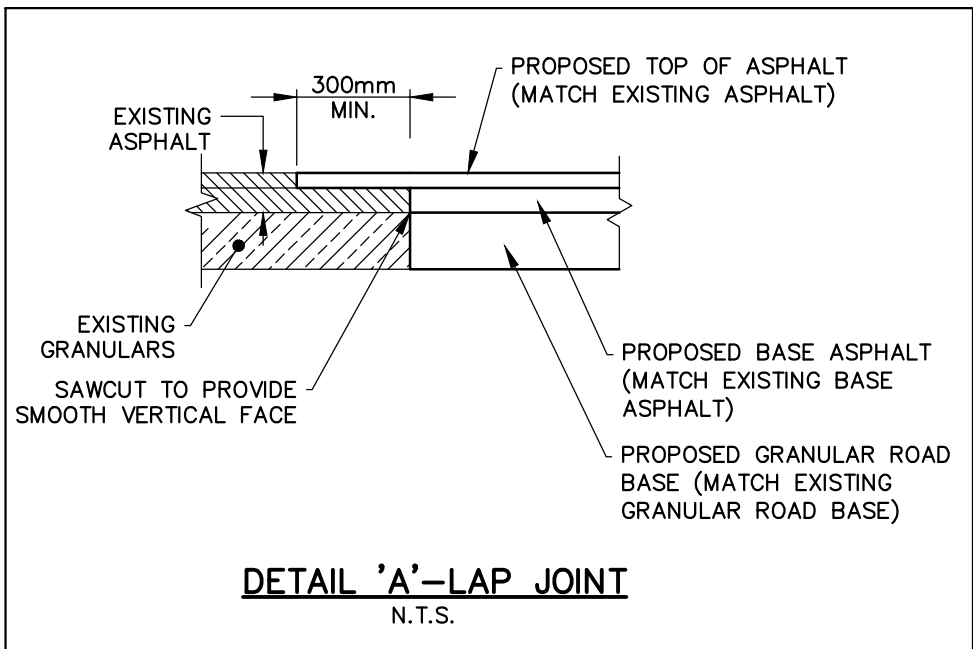
BAYSIDE APARTMENTS 79 COLLIER STREET CITY OF BARRIE

TATHAM ENGINEERING

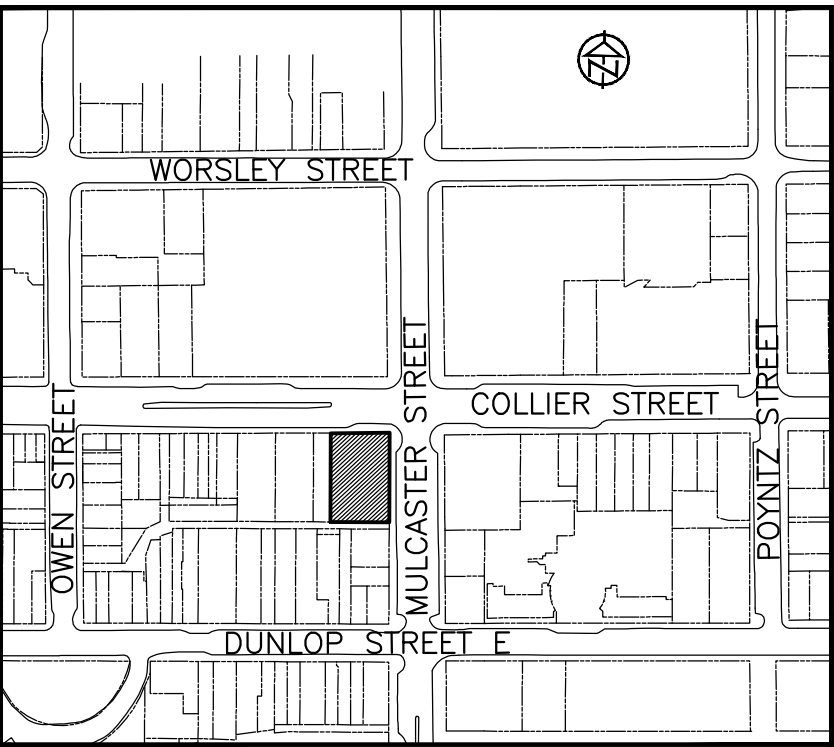
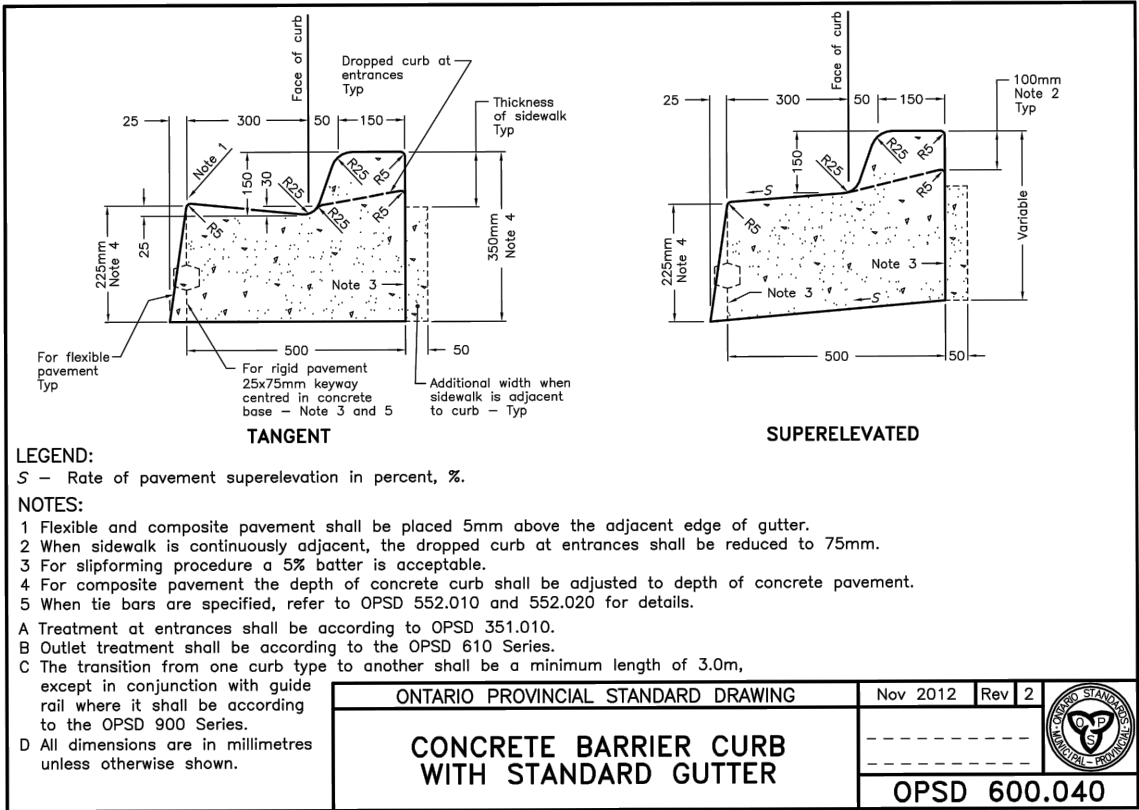
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DRAWN: LCG DATE: SEPT 2020

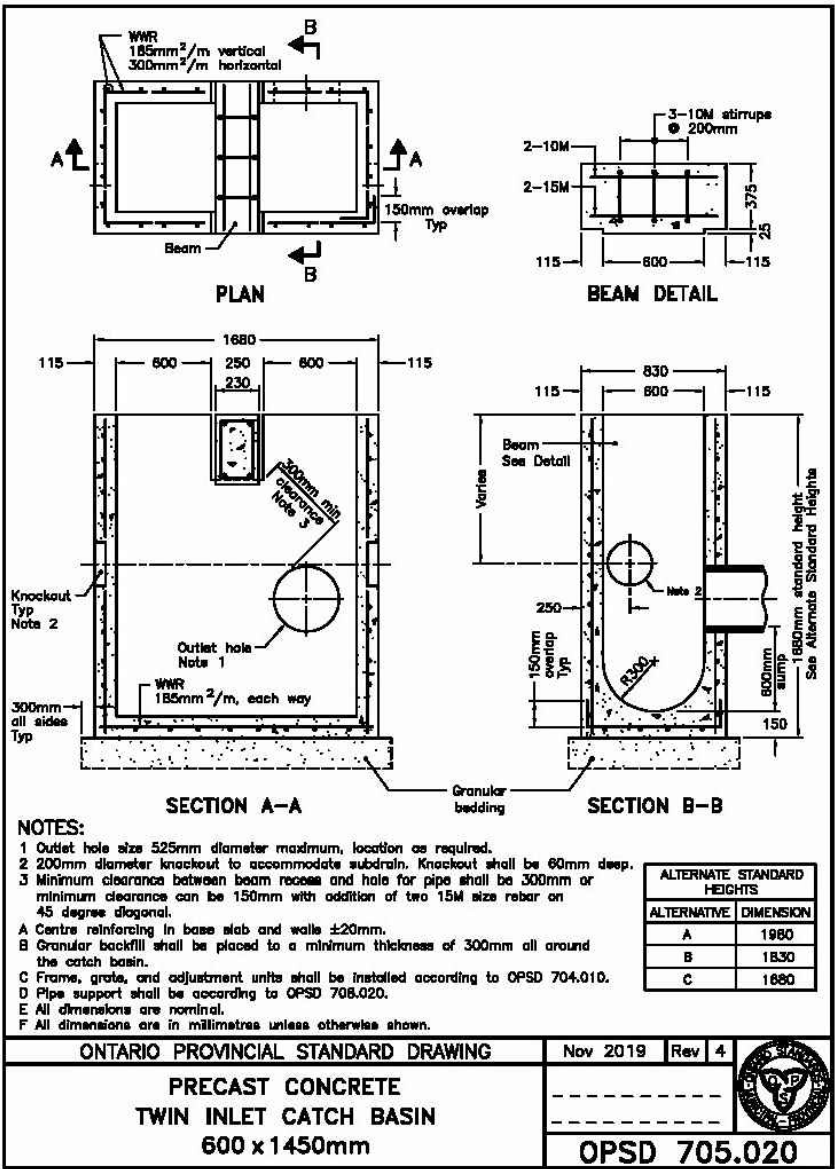
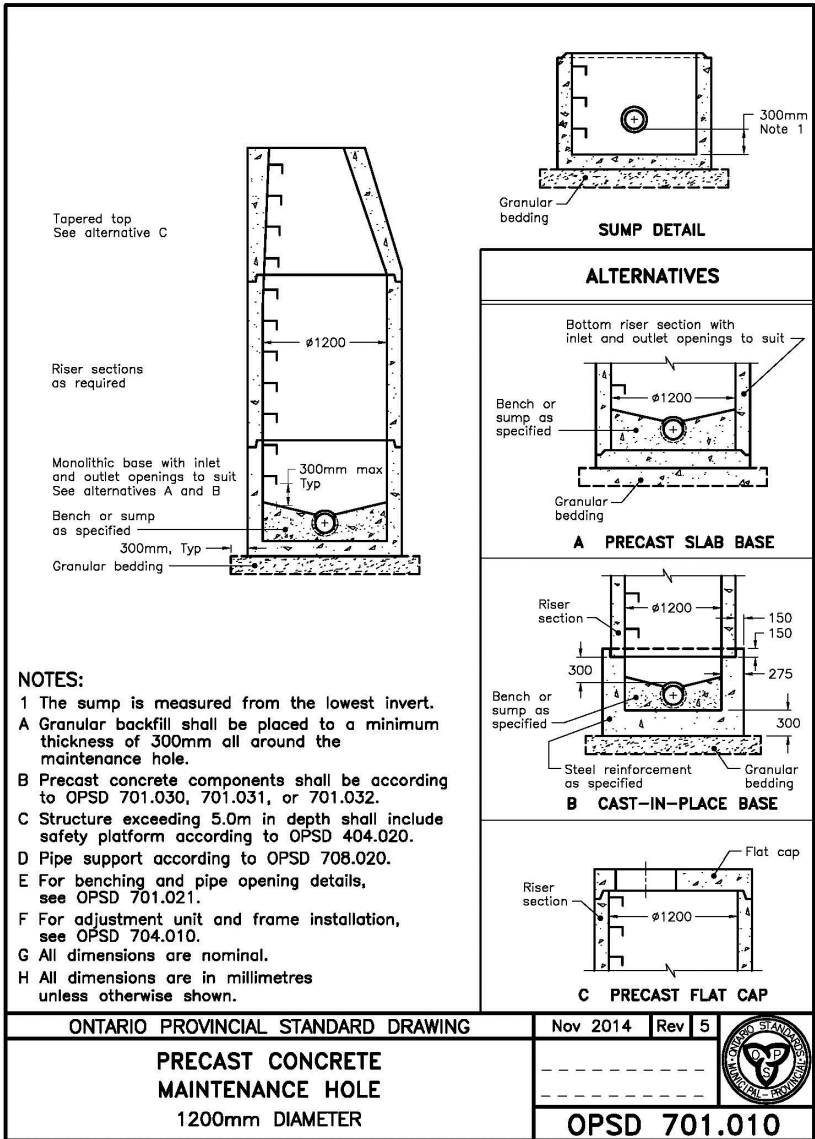
CHECK: NM SCALE: 1:150



NO PARKING (Rb-51) TO BE INSTALLED IN ACCORDANCE WITH THE ONTARIO TRAFFIC MANUAL



KEY PLAN
N.T.S.



STORM SEWER DESIGN SHEET (5-YEAR STORM)

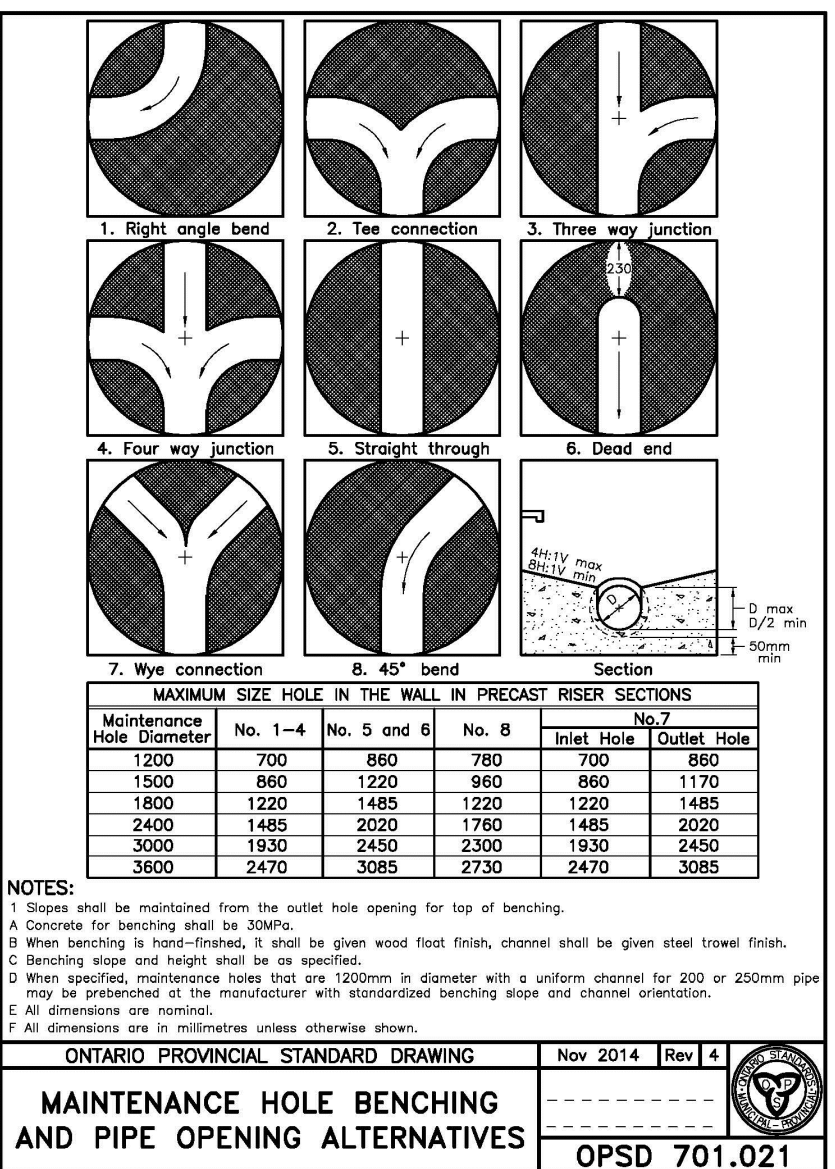
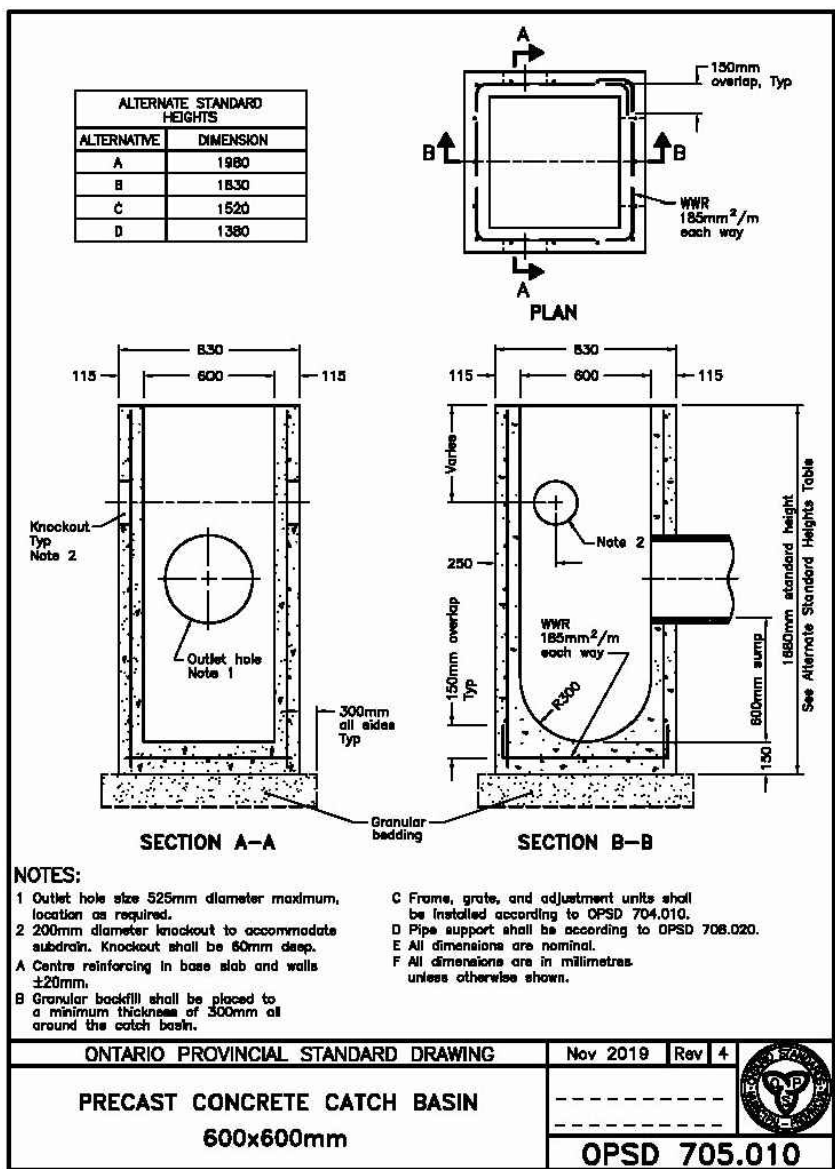
Location - 79 Collier Street
Municipality - Barrie
Project No. - 420373
Designed By - LB
Date - August 6, 2020
Revised By - DJR
Date - January 5, 2021
Checked - NM

IDF Curve Coefficients			
Storm	A	B	C
2 Year	-	-	-
5 Year	853.600	4.700	0.766
25 Year	-	-	-
100 Year	-	-	-

Manning's Coefficient	
CSP	0.024
Conc.	0.013
PVC	0.013

PHASE	LOCATION OF SECTION	AREA LABEL	UPSTREAM MAINTENANCE HOLE	DOWNSTREAM MAINTENANCE HOLE	TRIBUTARY AREA - A	RUNOFF COEFFICIENT - C	INDIVIDUAL A x C	CUMULATIVE AREA	CUMULATIVE A x C	TIME OF CONCENTRATION	RAINFALL INTENSITY	PEAK FLOW	MANING'S ROUGHNESS COEFFICIENT	LENGTH	SLOPE	DIAMETER	FULL FLOW VELOCITY	FULL FLOW CAPACITY	ACTUAL VELOCITY	TIME OF FLOW	CALCULATED PIPE DIAMETER	TIME OF CONCENTRATION
			MH No.	MH No.	ha					min.	mm/hr	cms		m	m/m	mm	m/s	cms	m/s	min	mm	min
	From Site			Prop. STMMH1	0.160	0.95	0.152	0.160	0.152	10.00	108.92	0.063	0.013	15.9	0.0200	300	1.93	0.137	1.77	0.15	224	10.15
	Existing Storm Sewer as per City of Barrie As-Built (1985-001-007)		EX. STMMH	EX. STMMH									0.013	44.0	0.0490	600	4.81	1.359	0.00			

Notes:
Peak flow shown is 5-year peak flow rate as per Rational Method Design Calculations Sheet for Catchment 201



SANITARY SEWER DESIGN SHEET

Location - 79 Collier Street
Municipality - Barrie
Project No. - 420373
Designed By - LB
Date - August 6, 2020
Revised By - DJR
Date - January 5, 2021
Checked - NM

FLOW CRITERIA			
LAND USE	AVERAGE FLOW	PEAKING FACTOR	
RESIDENTIAL	225 L/cap/d	HARMON	
COMMERCIAL	28 m³/ha/day	M = 1 + 14 / (4 + p ^{0.5})	
PEOPLE/UNIT (HIGH DENSITY)	1.67 cap/unit		
INFILTRATION	0.10 L/ha/s		

LOCATION OF SECTION	AREA LABEL	FROM UPSTREAM	TO DOWNSTREAM	NUMBER OF UNITS	POPULATION	CUMULATIVE POP.	PEAKING FACTOR	COMMERCIAL AREA	SITE AREA	CUMULATIVE AREA	AVERAGE FLOW				PEAK FLOW			PROPOSED SEWER				
											RESIDENTIAL	COMMERCIAL	INFILTRATION	TOTAL	RESIDENTIAL	COMMERCIAL	INFILTRATION	TOTAL	LENGTH	DIAMETER	GRADE	FULL FLOW CAP.
		MH #	MH #	Ea.	CAP.	CAP.		ha	ha	ha	V/s	V/s	V/s	V/s	V/s	V/s	V/s	V/s	m	mm	%	V/s
Bayside Apartments	A1	N/A	Prop. SANMH	136	227	227	4.13	0.04	0.16	0.16	0.59	0.01	0.02	0.62	2.44	0.01	0.02	2.47	11.6	250	2.00%	84.09
Existing Sanitary Sewer (Based on Available As-Built Drawing 1985-001-007)		EX. SANMH	EX. SANMH																	250	5.90%	144.43

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DRAWING REFERENCES

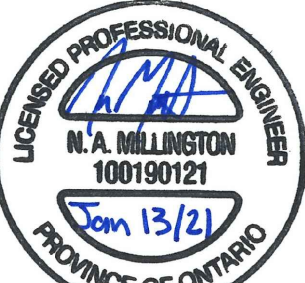
SURVEY INFORMATION SHOWN ON THIS PLAN PREPARED BY C.A. MACDONALD SURVEYING INC., RECEIVED MARCH 31, 2020.
SITE PLAN PREPARED BY MCL ARCHITECTS DATED SEPT 1, 2020

BENCHMARKS

B.M1: TOP OF CONCRETE PIN
ELEVATION: 234.09
VERTICAL BENCHMARK: 00119673109 (2nd ORDER)
ELEVATION: 220.21
HORIZONTAL BENCHMARK: 00119673109 (2nd ORDER)
NORTHING: 4915700.133 EASTING: 604482.056
HORIZONTAL BENCHMARK: 03120040004 (2nd ORDER)
NORTHING: 4917039.523 EASTING: 607010.380

No.	REVISION DESCRIPTION	DATE
1.	SPA - 1ST SUBMISSION	SEPT 4/20
2.	SPA - 2ND SUBMISSION	JAN 13/21

ENGINEER STAMP



BAYSIDE APARTMENTS
79 COLLIER STREET
CITY OF BARRIE



DETAILS

DESIGN: LCG	FILE: 420373	DWG:
DRAWN: LCG	DATE: SEPT 2020	DE-2
CHECK: NM	SCALE: 1:150	