



**February 28, 2020**

Via: Email

**Innovative Planning Solutions (Cameron Sellers)**  
**647 Welham Road, Unit 9**  
**Barrie, Ontario**  
**L4N 0B7**

**Re: Functional Servicing Brief**  
**2 Arbour Trail**  
**City of Barrie**  
**WMI File No.: 19-593**

Dear Mr. Sellers,

The following Functional Servicing Brief provides an analysis of the proposed water, sanitary and storm services associated with the existing lot located at 2 Arbour Trail in Barrie. The existing lot is proposed to be severed into 2 parcels as indicated by the Conceptual Site Plan prepared by Innovative Planning Solutions (IPS). This Functional Servicing Brief (FSB) is intended to support a planning (consent) application proposed to accommodate the development of 1 proposed and 1 existing single-family residential dwelling, for a total of 2 dwellings on the subject lot (2 Arbour Trail) via a severance.

### **Overview**

The site currently consists of 0.2 ha (2011m<sup>2</sup>) which contains an existing 2-storey dwelling. It is bordered by Cox Mill Road to the west, Arbour Trail to the South, an occupied single family residential lot to the east (10 Arbour Trail) and Lake Simcoe (Kempfenfelt Bay) to the North.

The proposed development of 2 Arbour Trail entails severing the lot into 2 parcels and changing the driveway location for the existing dwelling from Arbour Trail to Cox Mill Road. As noted above, the consent application is to accommodate the development of 1 proposed and 1 existing single-family residential dwellings, for a total of 2 dwellings. Refer to the Conceptual Site Servicing Plan (**FIG 1**), provided herein for additional details.

The subject lot is currently serviced by 1 municipal water service and 1 sanitary service from the Cox Mill Road and Arbour Trail right-of-ways respectively. No existing storm service lateral is provided to the property or is present along the property frontage. The existing storm sewer within the Cox Mill Road right-of-way is located 1.0m east of the centerline of the road and outlets into Lake Simcoe at the North end of Cox Mill Road. There is an existing double catchbasin, approximately 45.5m downstream (north) of the southwest corner of the subject lot.

All existing service information has been taken from an As-Built Plan and Profile for Cox Mill Road, Drawing No. P1 prepared by WMI & Associates dated Oct 21, 2015 and from As-built Plan and Profile for Cox Mill Road, Drawing No. 2005-30 prepared by the City of Barrie dated May 21, 2006. Refer to the appendix herein for the above mentioned drawings.

The site survey, Plan of Survey prepared by Rudy Mak Surveying LTD. File No. 5-3758, was used to determine the existing drainage patterns experienced on-site. All stormwater runoff generated from the site is currently in the form of overland sheet flow and is directed in a south to north direction via existing topographic relief. All site runoff ultimately discharges to Lake Simcoe immediately north of the subject property/grading.

### **Water & Sanitary Servicing**

#### **Existing Condition**

2 Arbour Trail has one existing municipal water service. The water service is located 38.5m north of the intersection of Cox Mill Road and Arbour Trail. The existing sanitary service to the existing building is a 100mmØ service lateral located 1.0m east of the southwest property corner along Arbour Trail.

An existing 150mmØ watermain and a 250mmØ sanitary sewer located within the Arbour Trail right-of-way are considered to be able to sufficiently service the proposed and existing single-family residential dwellings.

#### **Proposed Condition**

The severance of the lot into 2 separate parcels and the subsequent development of the dwellings will require two (2) proposed sanitary service connections to accommodate the aforementioned development.

A proposed 100mmØ sanitary service will be installed off of the 250mmØ sewer main on Arbour Trail to service the dwelling proposed. The proposed service will connect into the sanitary main via a service saddle and a cleanout will be installed on the property line. The 100mmØ service will be sufficient to service the proposed building.

It is proposed that the existing sanitary service to the existing dwelling will be cut at the property line and capped. A proposed 100mmØ sanitary service will be installed off of the 250mmØ main on Arbour Trail to service the existing building. The proposed service will connect into the sanitary main via a service saddle. The service will be installed along the boulevard of Cox Mill Road to minimize the disturbance to Cox Mill Road. A 90 degree sweep will be used to direct the service into the existing building at the same location as the existing sanitary service connection to the southwest corner of the building. A cleanout will be installed on property line.

A proposed 25mmØ water service will be installed off of the existing 150mmØ watermain located in Arbour Trail to service the proposed building. The water service will be located 16.6m east of the southwest property corner. The existing watermain will provide sufficient pressure and flow to service the proposed building. The proposed water and sanitary

service will be installed in a common trench to the proposed building to limit disturbance to the right-of-way.

The existing water service off of Cox Mill Road will continue to service the existing dwelling on the subject lot.

### **Lot Grading & Drainage**

#### **Existing Condition**

The existing grading on the retained lot 2 Arbour Trail drains from the south to the north towards Lake Simcoe. A portion of the lot drains westerly towards Cox Mill Road and ultimately drains in the existing storm sewer on Cox Mill Road. The existing lot has sufficient overland drainage and the finished floor of the existing dwelling is well above the high water level of Lake Simcoe.

#### **Proposed Condition**

The severed lot on 2 Arbour Trail is located on the high side of the property adjacent to Arbour Trail. This portion of the property consists of less topographic relief and as a result the proposed building will not result in drastic changes to the grading of the lot. Positive grade away from the proposed dwelling to the adjacent municipal right-of-ways and the existing east lot line is achievable and will ensure sufficient drainage is provided towards Arbour Trail and Cox Mill Road and eventually to the lake. The proposed driveways to both the proposed and existing dwellings will provide sufficient access to Cox Mill Road.

### **Summary**

As suggested above, the existing 150mmØ watermain and a 250mmØ sanitary sewer provided within the Cox Mill Road and Arbour Trail right-of-ways along the frontage of 2 Arbour Trail are considered to be able to adequately service and ultimately accommodate the proposed and existing dwellings. The existing 100mmØ sanitary service will be cut and capped at property line and two new 100mmØ sanitary services will be installed to service the existing and the proposed dwelling from Arbour Trail. The proposed 25mmØ water service will service the proposed dwelling and the existing water service will continue to service the existing dwelling.

Sufficient drainage will be via the grading design for the proposed south lot of 2 Arbour Trail to ensure that as much area as possible will be directed towards Cox Mill Road and Arbour Trail and away of the existing dwellings to the north and east. The residual site area (rear yards) will drain south to north via the existing east lot line swale to Lake Simcoe. Considering that all drainage in the surrounding area is directed in a south to north direction and all runoff ultimately drains to Lake Simcoe, no negative impacts are considered to be associated with the subject lots proposed grading and drainage design.

Based on the information provided herein, we request that this Functional Servicing Brief be received by the City of Barrie in support of the planning (consent) application submitted by Innovative Planning Solutions (IPS).

Respectively submitted,

**WMI & Associates Limited**



Andrew K. Windrem

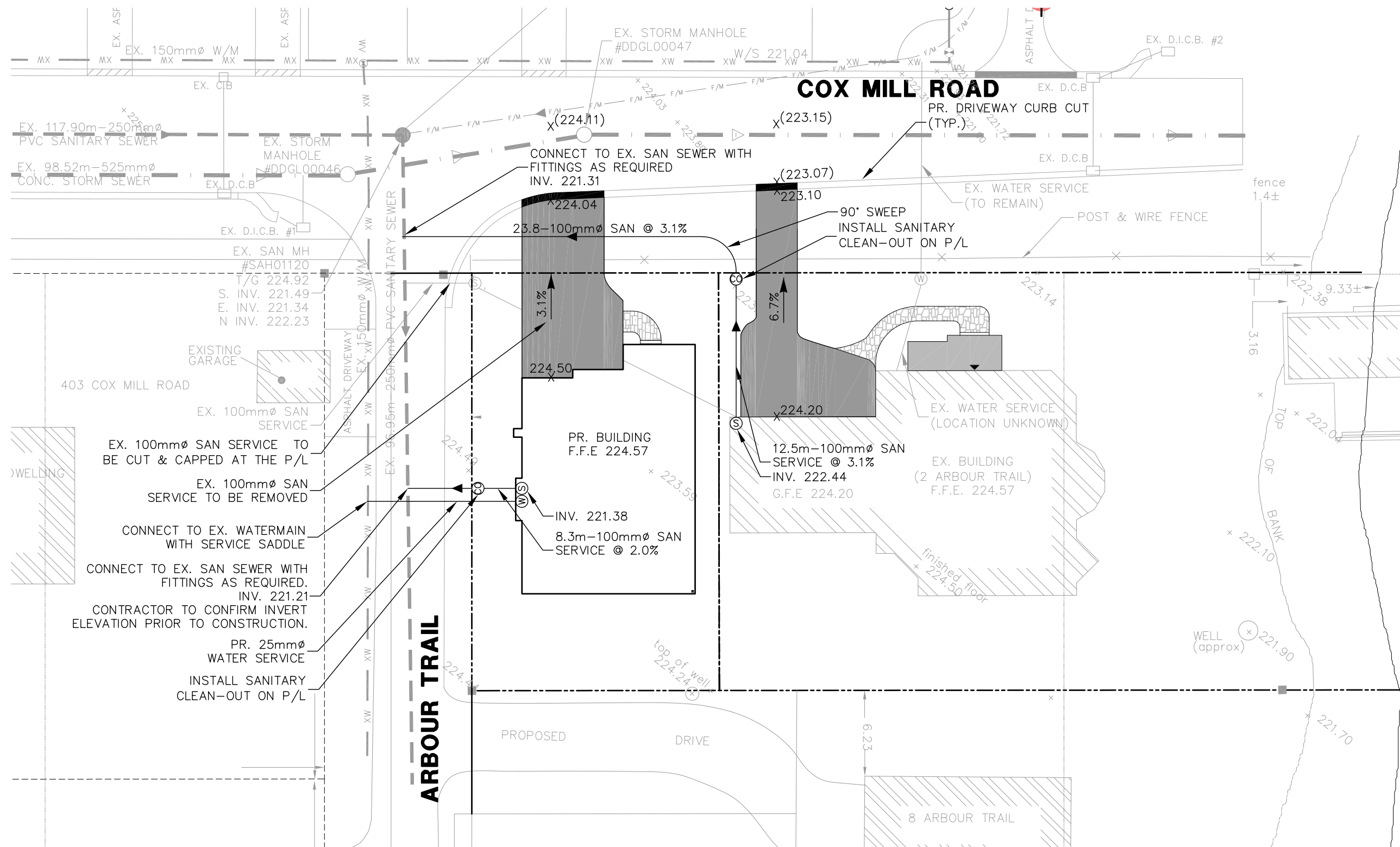
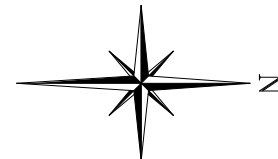


Jeremy W. Lighthouse, P. Eng.

**APPENDIX A**

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**Conceptual Site Servicing Plan**



- EXISTING SERVICES INFORMATION TAKEN FROM CITY OF BARRIE PLAN & PROFILE DWG No. 2005-30 DATED MAY 21, 2006
- SURVEY INFORMATION TAKEN FROM RUDY MAK SURVEYING LTD PLAN OF SURVEY FILE No. 5-3758.
- SITE PLAN INFORMATION TAKEN FROM IPS CONCEPTUAL SITE PLAN DATED OCT. 3, 2019.

Legend:	
EXISTING FEATURES (EX)	PROPOSED FEATURES (PR)
EX WATERMAIN & VALVE EX SAN SEWER & MH EX STM SEWER & MH EX WATER SERVICE EX FIRE HYD. EX STD IRON BAR EX IRON BAR	PR WATER SERVICE PR SANITARY SERVICE F.F.E. FIRST FLOOR ELEVATION G.F.E. GARAGE FLOOR ELEVATION x000.00 PR ELEVATION x(000.00) PR MATCH EXISTING ELEVATION (INTERPOLATED) PR. CURB CUT

**Drawing Title**  
 CONCEPTUAL SITE SERVICING PLAN

**Project Title**  
 2 ARBOUR TRAIL

**WMI & Associates Limited**  
 119 Collier Street  
 Barrie, Ontario  
 L4M 1H5  
 705-797-2027  
 www.wmiengineering.ca

Drawn By AW	Checked By JWL	<b>FIG 1</b>
Scale 1:300	Project No. 19-593	

## **APPENDIX B**

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### **Background Information**

**GENERAL NOTES - WATERMAIN**

- CONTRACTOR SHALL INFORM THE CITY OF BARRIE ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF THEIR INTENTIONS TO WORK.
- OPERATION OF THE HYDRANTS AND VALVES ON POTABLE WATER BY OTHER THAN ENGINEERING DEPARTMENT IS PROHIBITED BY BY-LAW 1-88 AS AMENDED BY BY-LAW 99-290. THE CITY WILL SWAG, PRESSURE TEST, CHLORINATE AND FLUSH ALL NEW WATERMANS.
- MINIMUM COVER OVER WATERMAIN TO BE 1.7m. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAIN AND SEWERS TO BE 2.5m WHERE WATERMAIN CONFLICTS WITH SEWER PIPES. DEFLECT WATERMAIN HORIZONTALLY OR VERTICALLY WHILE PROVIDING A MINIMUM OF 0.3m CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.
- 1) WATERMAIN SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD 802.010 (GRANULAR 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD 802.030 OR 802.031 CLASS 'B' (GRANULAR 'A' BEDDING MATERIAL, GRANULAR 'A' OR SELECT NATIVE COVER MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING, OR \* ALTERNATIVE.
- \* ALTERNATIVE EMBEDMENT MATERIAL - SAND MEETING GRADATION REQUIREMENTS OF OPSD 1004.05.02 COMPACTED TO 95% PROCTOR DENSITY. GEOTECHNICAL CERTIFICATION OF MATERIAL AND COMPACTION TESTING MUST BE PROVIDED EVERY 150 METRES. THE COMPACTION TESTING MUST INCLUDE THE ENTIRE EMBEDMENT ENVELOPE (CHANGES, BEDDING AND TOP OF PIPE).
- 2) COPPER WATER MAINS AND SERVICES 150mm TO 500mm IN DIAMETER SHALL BE EMBEDDED IN SAND 100mm ABOVE AND BELOW TO CONFORM TO OPSD 1004.05.05.
- CONCRETE THURST BLOCKS ARE TO BE INSTALLED AT ALL TEES, BENDS, HYDRANTS, END OF MAINS AND CONNECTIONS 100mm AND LARGER AS PER OPSD 1103.01 AND 1103.02. RESTRAINTS DEVICES MAY BE REQUIRED IN ADDITION TO STANDARD CONCRETE THURST BLOCKING WHERE SOIL CONDITIONS WARRANT.
- RESTRAINTS WILL BE REQUIRED ON ALL FREE HYDRANTS.
- NEW WATERMANS TO BE PVC DR18 CL150, DR SUCTILE IRON CL52.
- TRACING WIRE (#12 TWJ STRANDED COPPER) TO BE INSTALLED ON THE TOTAL LENGTH OF ALL NON-METALLIC WATERMAIN AND BROUGHT UP AT EACH HYDRANT AND CONNECTED TO BLANK BOLT.
- ALL WATER SERVICES SHALL BE MINIMUM 150mm TYPE 'K' COPPER UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING. WATER SERVICE SADDLES SHALL BE USED WHEN TAPPING INTO PVC WATERMAIN.
- RIGID PIPES ARE TO BE INSTALLED AS PER OPSD-45 (REV. #1), AND REMOVED AS DIRECTED. SHIMMING SCHEDULES TO BE SUPPLIED BY A CITY OF BARRIE FIELD REPRESENTATIVE.
- SERVICE TAPPINGS SHALL BE PLACED AT A MINIMUM SEPARATION OF 1.0m AND A MINIMUM OF 0.6m FROM JOINTS (ENDS OF PIPE) AND ALL NEW CLAMP STOPS AND BOXES TO BE LOCATED AT PROPERTY LINE AND OUT OF DRIVEWAYS AND SIDEWALKS.

**CITY OF BARRIE STANDARD**

NO.	REVISION	APPR'D	DATE	BSD-N10
1.	NOTE "ALTERNATIVE" NOTES TO D. 1)	R.G.N.	2002.10.23	
2.	* ALTERNATIVE WATERMAIN EMBEDMENT	DRWN	2000.08.01	
3.	NOTE D2 ADDED	R.G.N.	2000.05.09	

**GENERAL NOTES - SANITARY SYSTEM**

**SANITARY SERVICE LATERALS**

- SANITARY LATERAL CONNECTION TO BE LOCATED AT THE CENTRELINE OF THE LOT AND CAPPED (UNLESS SHOWN OTHERWISE). PAINTED GREEN, EXTENDING FROM SERVICE INVERT TO 300mm ABOVE GROUND LEVEL.
- PIPE TO BE MINIMUM 100 mm DIA. PVC SDR28, RUBBER GASKET TYPE JOINTS AND SHALL CONFORM TO C.S.A. (B22.3.4) (COLLOIDAL) FOR A RESIDENTIAL HOUSE AND 150mm MINIMUM DIA. PVC SDR28 FOR INDUSTRIAL/COMMERCIAL DEVELOPMENT.
- MINIMUM DEPTH OF LATERAL AT PROPERTY LINE SHALL BE 2.4m MEASURED FROM THE SEWER ORVERT TO FINISHED GROUND SURFACE UNLESS NOTED OTHERWISE.
- ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-FABRICATED, FABRICATED TEES, CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERT-TEES IN STRICT ACCORDANCE TO MANUFACTURER'S GUIDELINES.
- MINIMUM PIPE SLOPE TO BE 2.0% MAXIMUM 8.0% (SEE OPSD-1006.010, 1006.020).

**SANITARY FORCEMAIN**

- PROPOSED SANITARY FORCEMAIN TO BE PRESSURE TESTED AS PER CITY STANDARDS PRIOR TO COMMISSIONING.
- FORCEMAIN TO BE PLACED WITH A STEADY GRADIENT (i.e. NO UP/DOWN BENDS) TO REDUCE THE POSSIBILITY OF AIR-LOCKING THE SYSTEM.
- FORCEMAIN TO CONSIST OF 1.5m (MIN.) COVER.
- CAUTION TAPE TO BE PLACED 300mm ABOVE THE FORCEMAIN TO IDENTIFY IT AS A SEWAGE LINE.

**CITY OF BARRIE STANDARD**

NO.	REVISION	APPR'D	DATE	BSD-N4
1.	CHANGES TO B. TO G.	R.G.N.	95.04.24	
2.	OPSD NUMBERS REVISED	R.G.N.	2000.08.17	

**TYPICAL DETAIL OF SILTATION CONTROL FENCE**

**NOTES:**

- FENCE SHALL BE IN ACCORDANCE WITH SCHEDULE 'F' OF THE SITE SPECIFICATION. LOCATE THE FENCE AND MAINTAINANCE OF FENCE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONSTRUCTION CONTROL FENCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BARRIE STANDARD DRAWING BSD-23A.
- CONSTRUCTION CONTROL FENCE TO BE LOCATED IN AREA OF LOW SEWAGE FLOW OR TO BE LOCATED TO PREVENT FLOODING OF THE SITE.
- CONSTRUCTION CONTROL FENCE SHALL BE INSTALLED WITH FILTER FABRIC ATTACHED TO THE SOIL SIDE OF THE FENCE TO PREVENT FLOODING OF THE SITE.
- INSTALLATION OF FENCE SHALL BE IN ACCORDANCE WITH THE CITY OF BARRIE STANDARD DRAWING BSD-23A.
- STEEL T-BAR POSTS SHALL BE 300mm x 300mm x 3mm SPRAY PAINTED FLUORESCENT GREEN.
- MINIMUM SETBACK FROM PROPERTY LINE/TOP OF BANK: 3000mm.
- DIRECTION OF FLOW.
- MINIMUM SETBACK FROM PROPERTY LINE/TOP OF BANK: 3000mm.
- FASTEN FABRIC WITH WIRE TIES.
- STEEL T-BAR POSTS SHALL BE 300mm x 300mm x 3mm SPRAY PAINTED FLUORESCENT GREEN.
- MINIMUM SETBACK FROM PROPERTY LINE/TOP OF BANK: 3000mm.
- DIRECTION OF FLOW.
- MINIMUM SETBACK FROM PROPERTY LINE/TOP OF BANK: 3000mm.
- FASTEN FABRIC WITH WIRE TIES.
- STEEL T-BAR POSTS SHALL BE 300mm x 300mm x 3mm SPRAY PAINTED FLUORESCENT GREEN.
- MINIMUM SETBACK FROM PROPERTY LINE/TOP OF BANK: 3000mm.
- DIRECTION OF FLOW.
- MINIMUM SETBACK FROM PROPERTY LINE/TOP OF BANK: 3000mm.
- FASTEN FABRIC WITH WIRE TIES.

**CITY OF BARRIE STANDARD**

NO.	REVISION	APPR'D	DATE	BSD-23A
1.	MODIFICATIONS BY ENV. SER.	M.S.	04.04.04	
2.	FENCE DIA. & NOTE #4 CHANGE	M.S.	05.01.17	

**GENERAL NOTES**

- ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).
- ORDER OF PRECEDENCE OF STANDARD DRAWINGS IS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).
- LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- A ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE ROADS AND PARKS OPERATIONS BRANCH PRIOR TO THE COMMENCEMENT OF WORK WITHIN ANY CITY ROAD OR ALLEY.
- A SITE ALTERATION PERMIT IS REQUIRED FROM THE ENGINEERING DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EARTH WORKS ON THE SITE.
- NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- GRANULAR MATERIAL, USED FOR BACKFILL, SHALL BE PLACED IN LAYERS 150mm IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- H. ALL DISTURBED AREAS ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY ENGINEERING DEPARTMENT.
- I. ALL NEW CONTROL AND EROSION PREVENTION MEASURES TO BE PLACED 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.

**ROADWORKS**

- SINGLE - STAGE CURB & GUTTER TO COMPLY WITH OPSD 800.040.
- 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.
- THE ROAD BASE SHALL INCORPORATE 100mm DIAMETER SUBDRAIN WITH FACTORY INSTALLED FILTER FABRIC AS PER CITY OF BARRIE STANDARD BSD-34.
- NON-COMPRESSIBLE BACK FILL WILL BE USED DURING REBUILDING, ADJUSTING, OR ANY OTHER APPLICABLE CATCH BASIN OR MAINTENANCE HOLE WORKS.

**CITY OF BARRIE STANDARD**

NO.	REVISION	APPR'D	DATE	BSD-N6
1.	S.E. TOPSOIL PERMIT	R.G.N.	01.12.08	
2.	S.D. - "ENGINEERING DEPARTMENT"	R.G.	02.10.28	
3.	NOTE 3.E. REVISED & 3.I. ADDED	J.S.	05.01.10	

**Notes:**

- Unless noted otherwise, the measurements and distances shown on this drawing are shown in meters.
- Do not scale drawings.
- It is the contractor's responsibility to verify all dimensions, levels and datums on site and report any discrepancies or omissions to WMI & Associates Ltd. prior to construction.
- This drawing is to be read and understood in conjunction with all other relevant documents applicable to this project.
- This drawing is the exclusive property of WMI & Associates Ltd. and the reproduction of any part of this document without prior written consent is strictly prohibited.

**AS-BUILT INFORMATION**  
LOVERS HARBOUR, COX MILL ROAD

**NOTES:**

THIS DRAWING HAS BEEN PREPARED BY JEREMY W. LIGHTHEART AT WMI & ASSOCIATES LIMITED TO REFLECT AS-BUILT INFORMATION WITH RESPECT TO SERVING AND GRADING FOR LOVERS HARBOUR, COX MILL ROAD AND IS BELIEVED TO BE CORRECT.

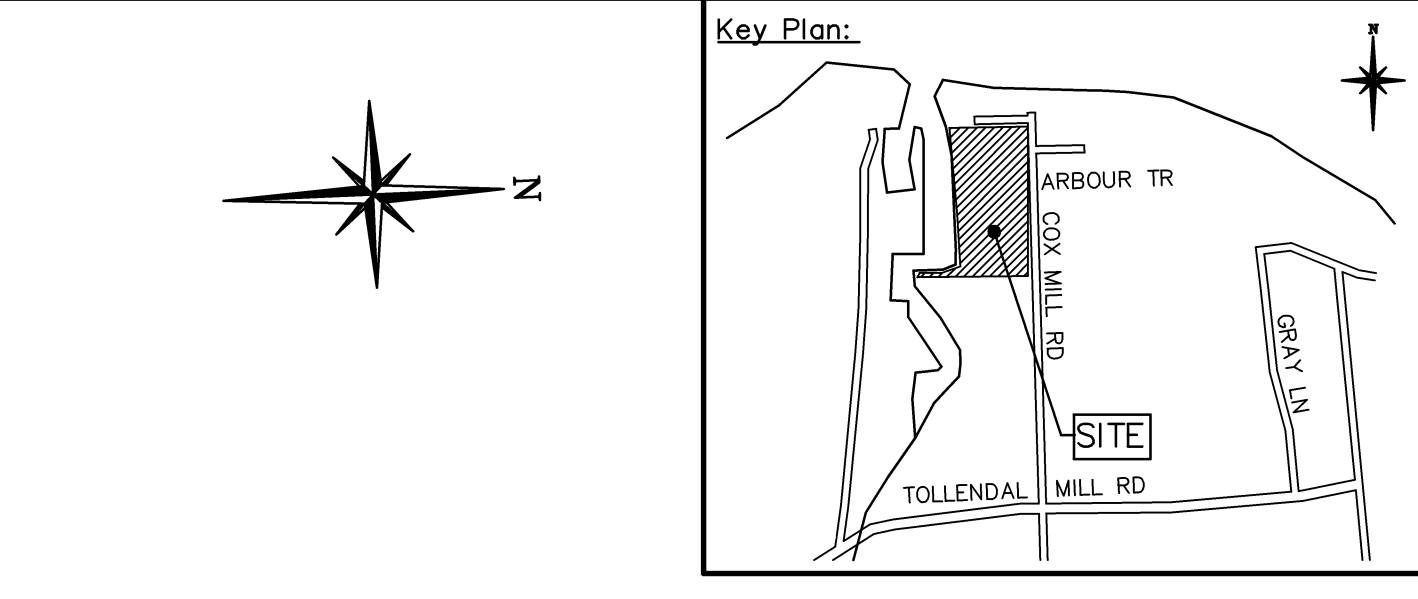
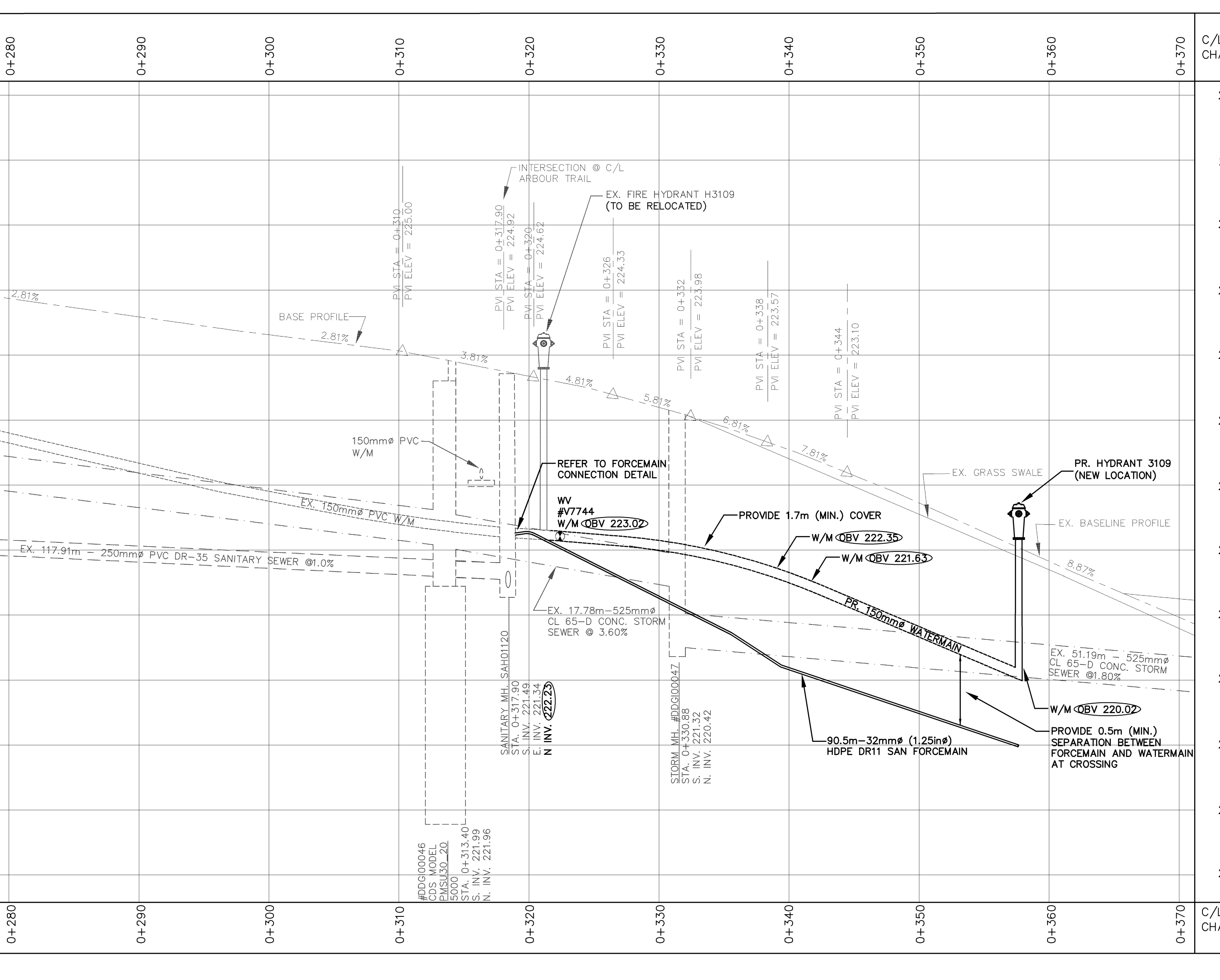
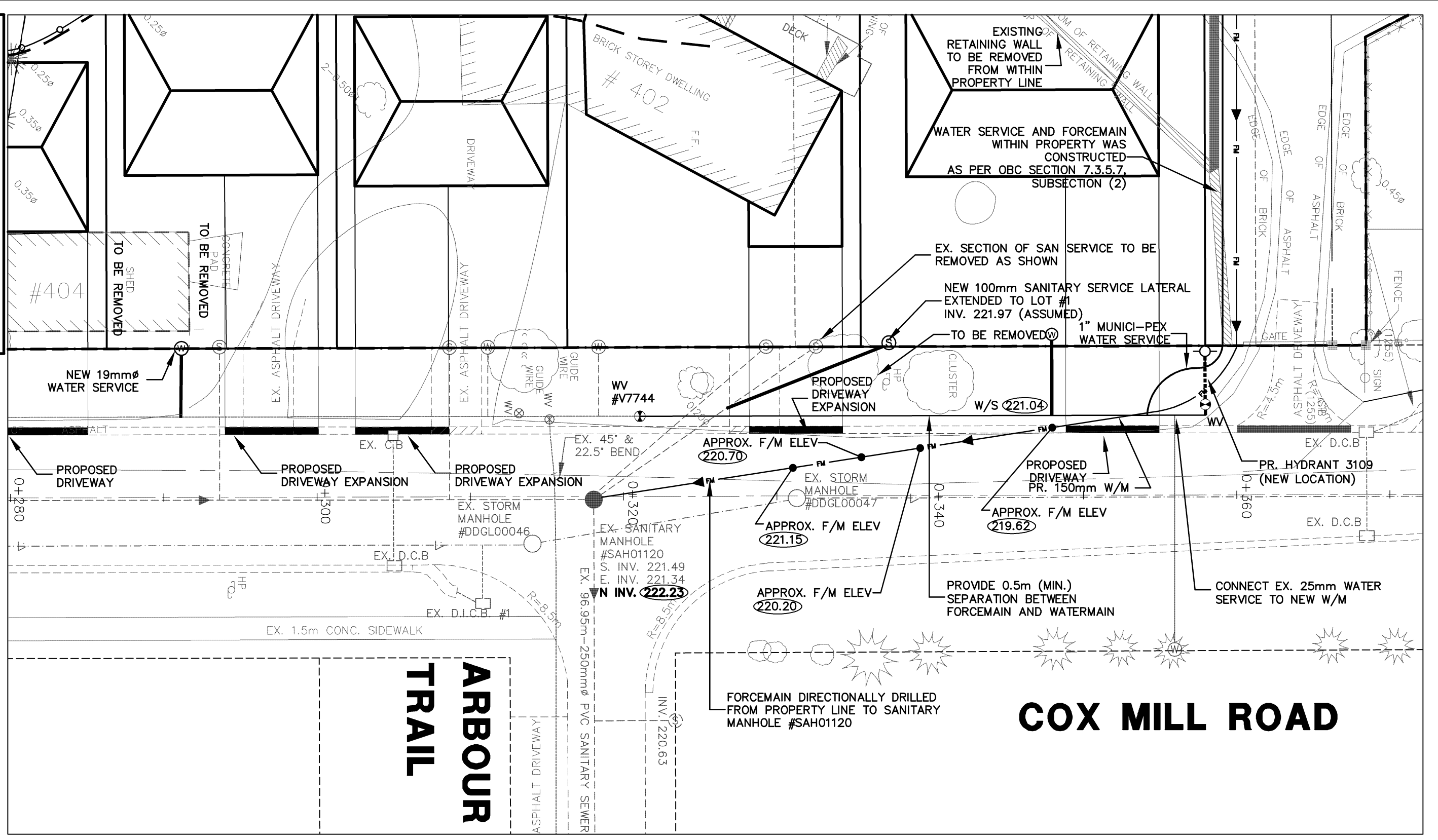
HOWEVER, THOSE RELYING ON THIS INFORMATION ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION AS TO ITS ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE.

AS-BUILT INFORMATION IS INDICATED AS (123.45) AND HAS BEEN COLLECTED BY WMI & ASSOCIATES LIMITED.

THE ORIGINAL DESIGN DRAWINGS APPROVED BY THE CITY OF BARRIE WERE STAMPED AND SEALED BY JEREMY W. LIGHTHEART ON MARCH 6, 2013.

**CITY OF BARRIE STANDARD**

NO.	REVISION	APPR'D	DATE	BSD-N10
1.	NOTE "ALTERNATIVE" NOTES TO D. 1)	R.G.N.	2002.10.23	
2.	* ALTERNATIVE WATERMAIN EMBEDMENT	DRWN	2000.08.01	
3.	NOTE D2 ADDED	R.G.N.	2000.05.09	

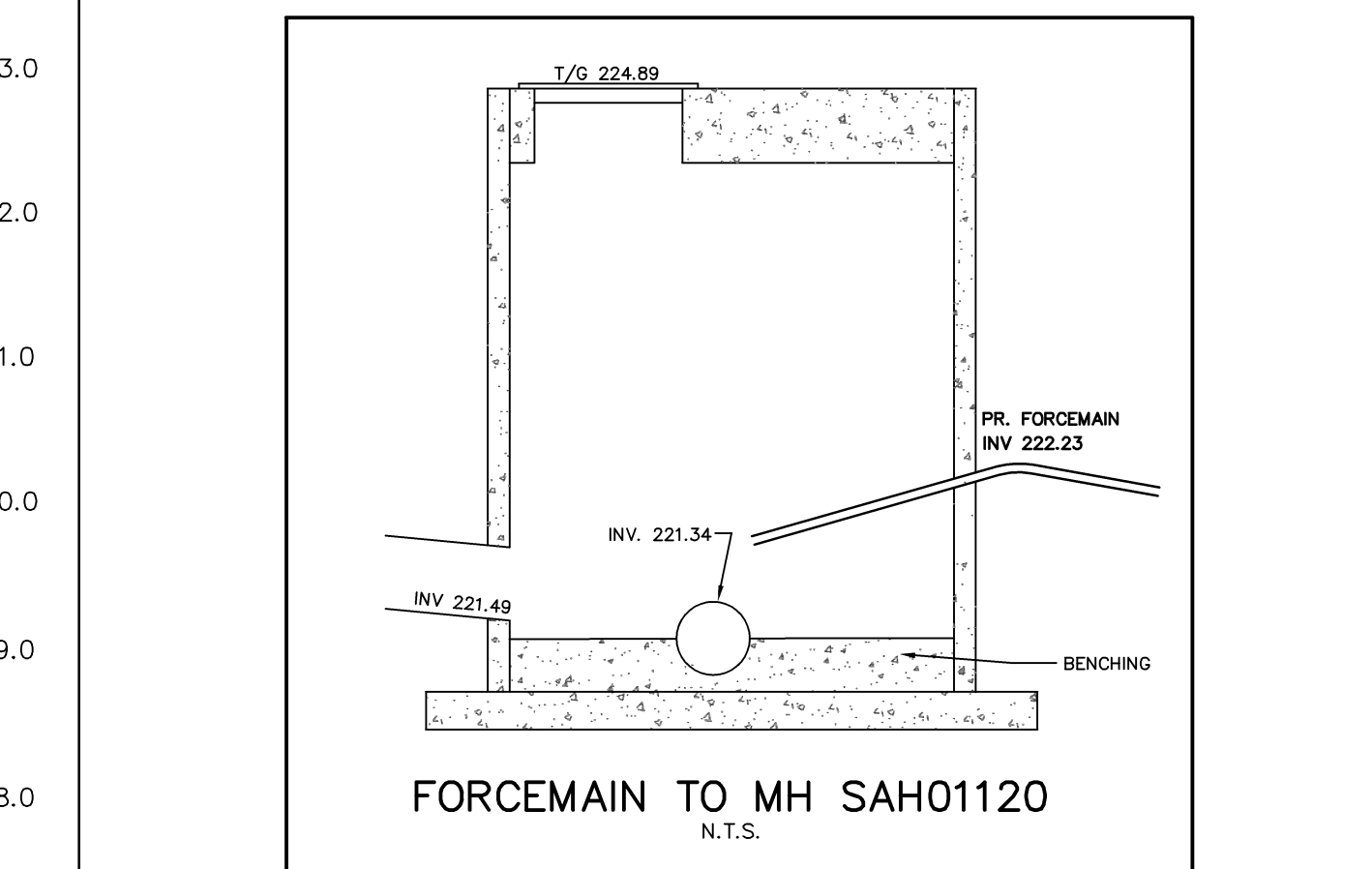
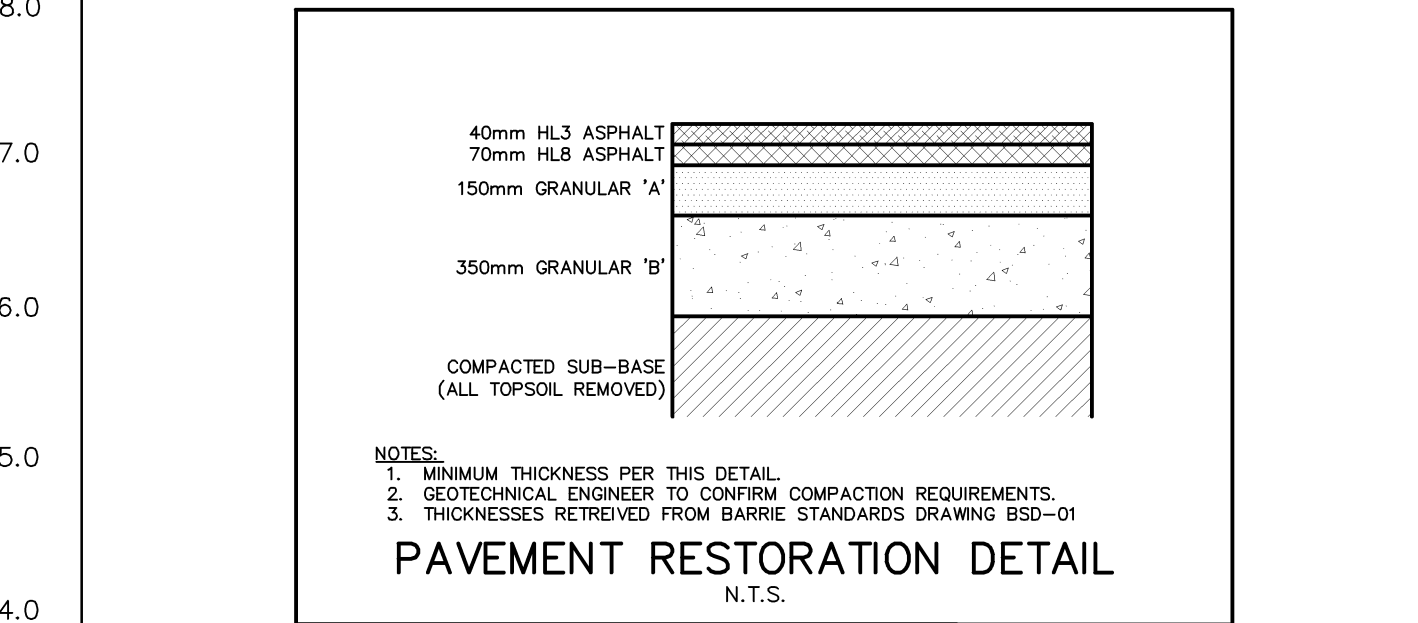
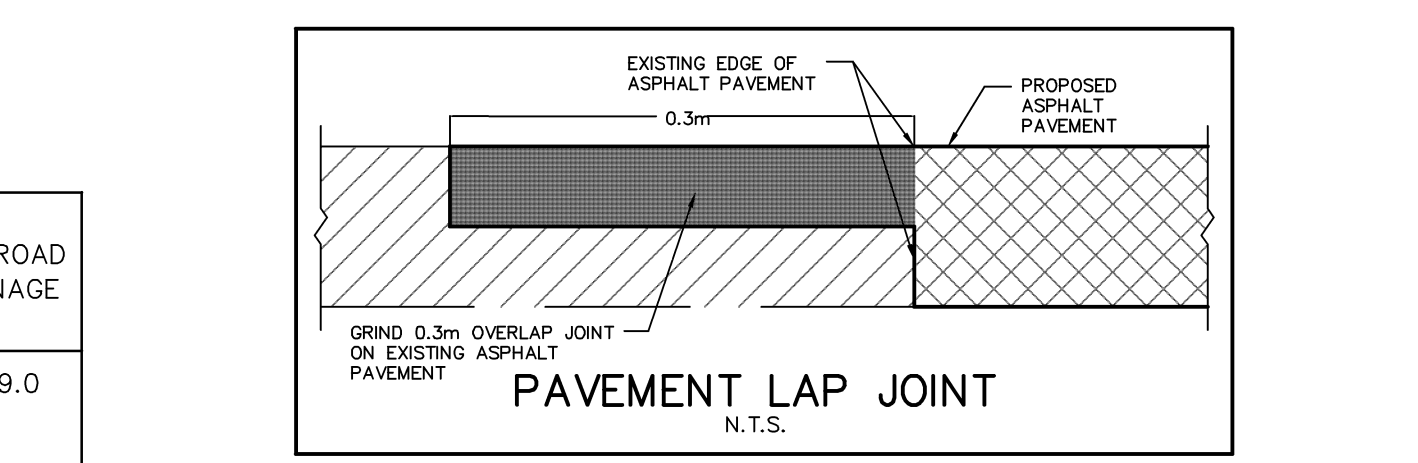


**City of Barrie Control Monument Schedule**

Station	Easting	Northing	Elevation
03120040025	607996.620	4914410.340	220.XXX
03120080040	606853.774	4913872.652	243.114
03120080007	607598.XXX	4914510.XXX	221.080

**Note:**  
1. Horizontal and vertical control information obtained from Ministry of Natural Resources, (NAD-1983).

DRAWING REFERENCED FROM CITY OF BARRIE ENGINEERING DEPARTMENTS RECORD DRAWINGS PP2 & PP3 OF COX MILL ROAD AND ARBOUR TRAIL APPROVED JUNE 6TH, 2006.



**Temporary Benchmark:** 225.76m

TOP OF SPINDLE OF FIRE HYDRANT ON WEST SIDE OF COX MILL ROAD IN FRONT OF LOT #402 (NOT TO BE USED AS GEO-REFERENCE)

No.	Issue / Revision	Date
1	CITY COMMENTS	DEC. 12, 2012
2	CLIENT REVIEW	FEB. 27, 2013
3	CITY COMMENTS	MAR. 6, 2013
4	AS-BUILT DRAWING	FEB. 10, 2015
5	AS-BUILT DRAWING (REVISED)	MAR. 31, 2015
6	AS-BUILT DRAWING (REVISED)	OCT. 21, 2015

**LOVERS HARBOUR, COX MILL ROAD**

**PLAN & PROFILE**  
STA. 0+280 TO 0+360  
(AS-BUILT)

**Client:**  
MARK PORTER  
75 KONRAD CRESCENT  
UNIT D  
MARKHAM, ONTARIO  
L3R 8T8

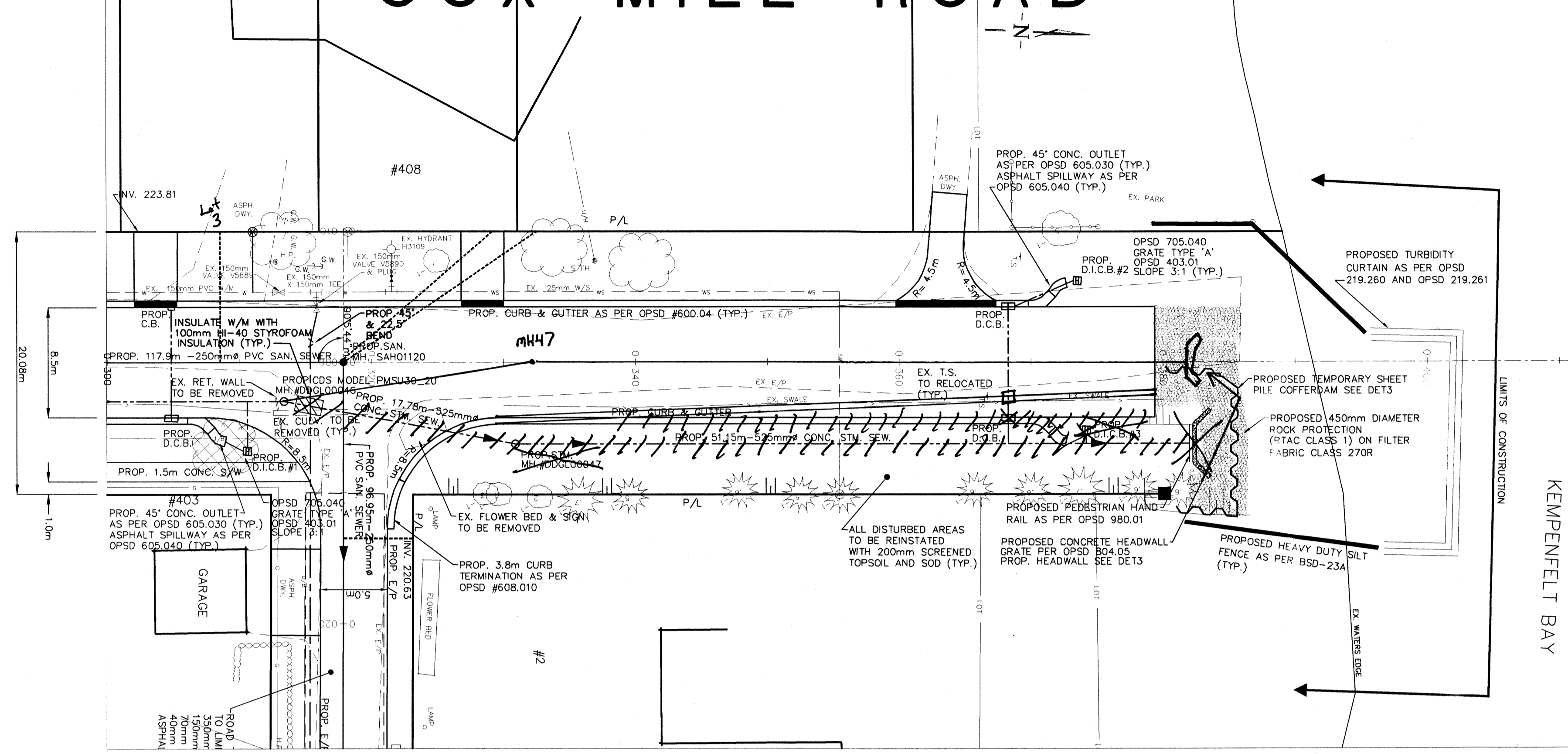
**wmi**

WMI & Associates Limited  
119 Collier Street  
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L4M 1H5  
PH 705-797-2027  
www.wmiengineering.ca

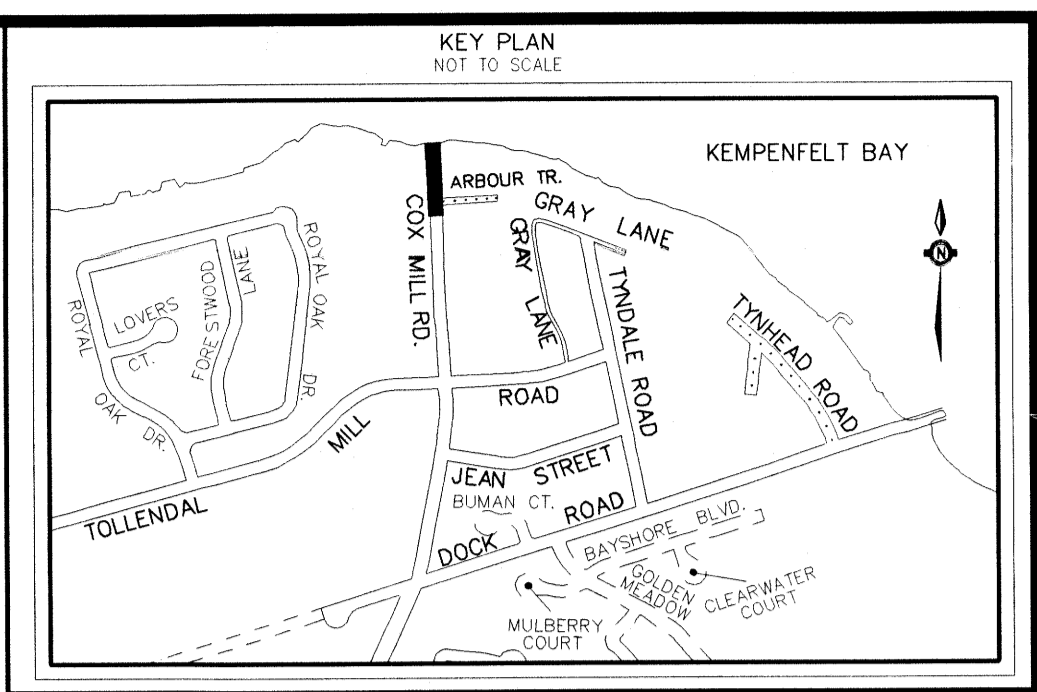
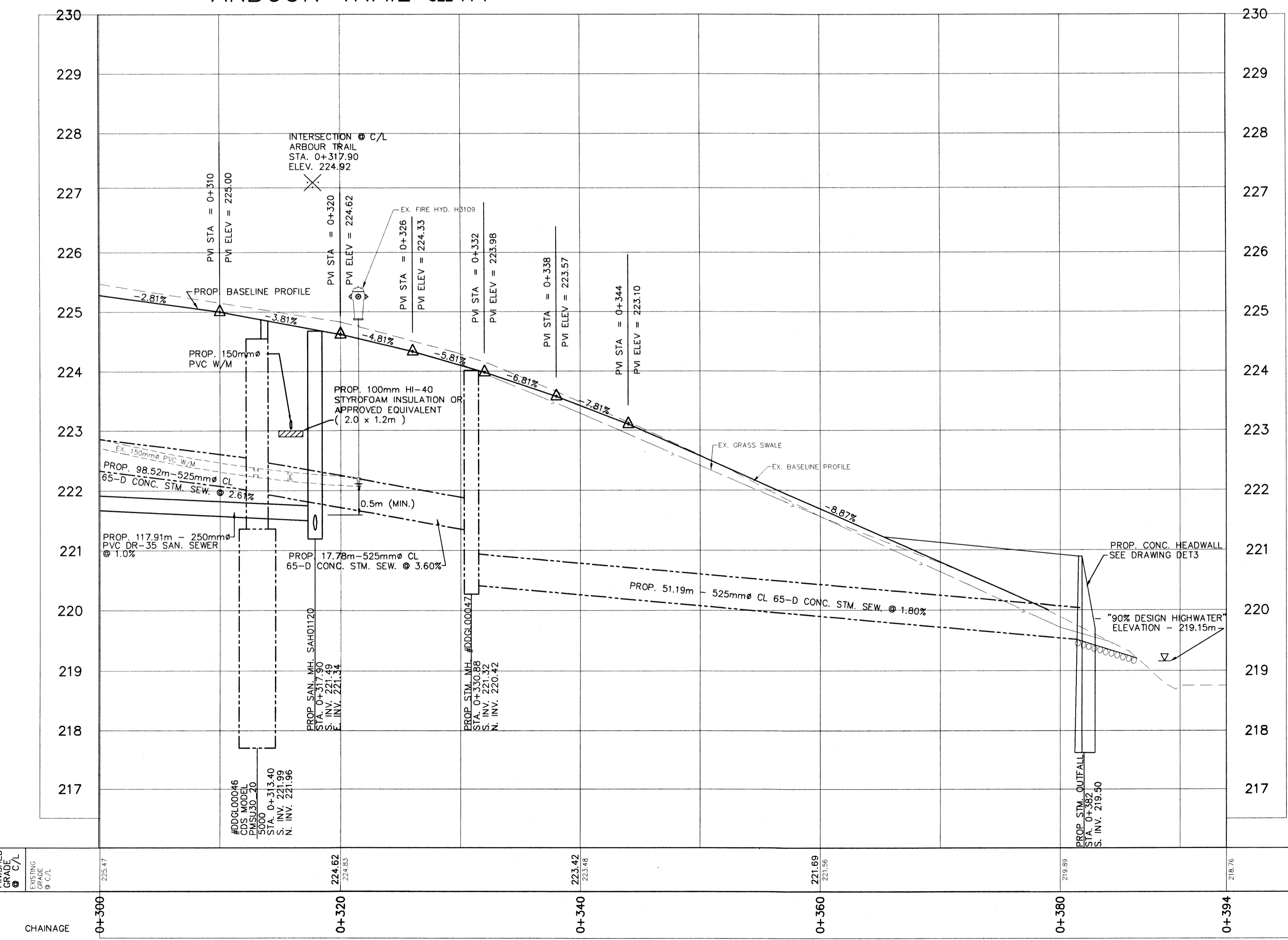
Drawn By: TG  
Checked By: JWL  
Project No.: 09-078  
Drawing No.: P1



# COX MILL ROAD



ARBOUR TRAIL SEE PP4



- GENERAL NOTES**
1. LOCATION OF GAS MAIN PER ENBRIDGE CONSUMERS GAS MARKED DRAWINGS. ALL EXISTING MAINS AND SERVICES TO BE FIELD LOCATED.
  2. EXISTING HYDRO, BELL AND CABLE SERVICES MARKED ON DRAWINGS. ARE AS PER UTILITY COMPANY. ALL SERVICES TO BE FIELD LOCATED.
  3. FOR TYPICAL SECTIONS, SEE DETAIL SHEET DET2. GENERAL NOTES & LEGEND SEE DETAIL SHEET DET1.
  4. LOCATION OF WATER SERVICE SUBJECT TO FIELD CONFIRMATION WITH HOMEOWNER.
  5. SAWCUT ASPHALT AND REPLACE WITH 40mm HL3, 70mm HL4 OR HLB, 150mm GRAN. 'A' AND 350mm GRAN 'B' ON ROAD.
  6. ASPHALT DRIVEWAYS TO BE RECONSTRUCTED TO MINIMUM 200mm GRANULAR 'A' AND 50mm HL3 ASPHALT FOR RESIDENTIAL AND 250mm GRANULAR 'A' AND 75mm HL3 ASPHALT FOR COMMERCIAL, INDUSTRIAL PROPERTIES.

- WATERMAIN NOTES**
- ALL WATERMAIN TO BE PVC DR18 CL150
  - INSTALL 19mm COPPER WATER SERVICES FROM NEW PVC WATERMAIN TO NEW CURB STOP ON P/L
  - ALL VALVES TO BE RESILIENT SEAT GATE VALVES
  - FOR GENERAL WATERMAIN NOTES SEE DETAIL SHEET DET6.

**BENCH MARKS**

**DISTANCE NOTE**  
DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.9999884.

**BEARING NOTE**  
BEARINGS HEREIN ARE GRID BEARINGS AND ARE DERIVED FROM CONTROL MONUMENTS 031910021 (N=4914550.926, E=606123.998) AND 010860486 (N=4916453.725, E=606933.539) AND ARE REFERRED TO THE CENTRAL MERIDIAN (81 DEGREES OF LONGITUDE) IN ZONE, 17 AND ARE BASED ON NAD83.

**BENCH MARK V010865456 - ELEV 231.4921 m**  
EXPOSED ROCK SHEPPARD PARK ON WEST SIDE OF COX MILL ROAD 1.7m NORTH OF YONGE STREET. TABLE IS SET HORIZONTALLY IN NORTH FACE OF ROCK 45.0m SOUTH OF CENTERLINE OF TOLLENDAL MILL ROAD, 14.1m WEST OF CENTERLINE OF COX MILL ROAD, 13cm ABOVE GRADE.

BENCH MARKS WILL BE FROM CITY OF BARRIE VERTICAL CONTROL NETWORK. INITIAL BENCH MARK TO BE OF 2nd ORDER ACCURACY

NO.	REVISIONS	DATE	APPROVED
1.	STORM SEWER FROM STMMH #DDGL00043 TO HEADWALL REVISED (525mm PREVIOUSLY 450mm)	06/14/06	
2.	STORMCEPTOR 5000 REPLACED WITH CDS MODEL PMSU30_20	08/21/06	

APPROVED

DATE: \_\_\_\_\_

DIRECTOR OF ENGINEERING

**COX MILL ROAD, ARBOUR TRAIL, GRAY LANE AND TYNDALE ROAD URBANIZATION - PHASE 2**


COX MILL ROAD  
STA. 0+300 TO 0+394

**CITY OF BARRIE**  
ENGINEERING DEPARTMENT

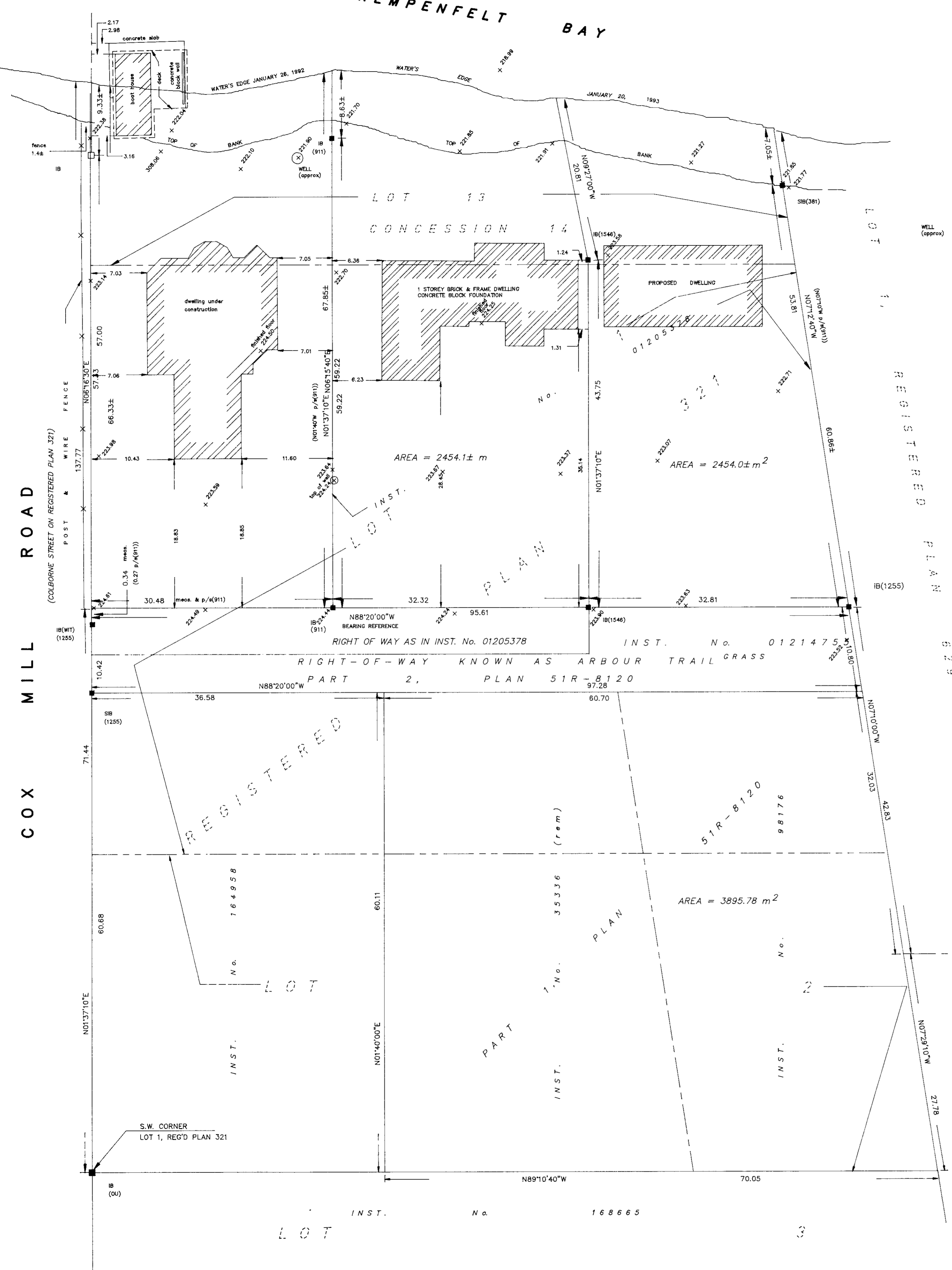
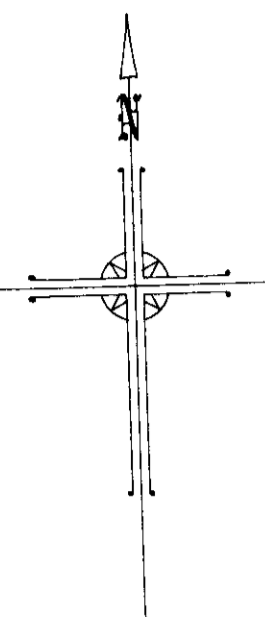
SCALE HOR: 1:250	VERT: 1:50	DRAWING NO. 2005-30
DESIGN C.L.Mc.	DRAWN C.L.Mc.	SHEET NO. PP3
REVIEWED LHB	DATE 2006.03.02	

2005-030-006

KEMPENFELT BAY

SKETCH FOR SEVERANCE PURPOSES  
 OF PART OF  
**LOT 13, CONCESSION 14**  
 AND PART OF  
**LOTS 1 & 2, REGISTERED PLAN 321**  
 FORMERLY IN THE TOWNSHIP OF INNISFIL  
 NOW IN THE  
**CITY OF BARRIE**  
 IN THE  
**COUNTY OF SIMCOE**  
 SCALE 1 : 300  
  
 RUDY MAK SURVEYING LTD.  
 1993

COX MILL ROAD  
 (COLBORNE STREET ON REGISTERED PLAN 321)



**BEARING NOTE**  
 BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE NORTHERLY LIMIT OF THE RIGHT-OF-WAY KNOWN AS ARBOUR TRAIL AS SHOWN ON PLAN OF SURVEY BY B. BRADBURY DATED APRIL 27, 1987 AND BEING  $N88^{\circ}20'W$

**NOTE**  
 THIS SKETCH IS TO BE USED FOR SEVERANCE PURPOSES ONLY AND NOT TO BE USED FOR MORTGAGE OR TRANSACTION PURPOSES.

THE POSSIBLE EXISTENCE OF A WATER LOT IN FRONT OF THESE LANDS IS YET TO BE DETERMINED BY THE SOLICITOR.  
 THIS PLAN WAS UPDATED JULY 12, 1993 TO SHOW ELEVATIONS.

**LEGEND**

- DENOTES FOUND SURVEY MONUMENT
  - DENOTES PLANTED SURVEY MONUMENT
  - SIB DENOTES STANDARD IRON BAR
  - IB DENOTES IRON BAR
  - WT. DENOTES WITNESS
  - X— DENOTES FENCING
  - (911) DENOTES J. BRADBURY O.L.S.
  - (381) DENOTES A.G. ARDAGH O.L.S.
  - (1255) DENOTES R.C. RAIKES O.L.S.
  - p/s(911) DENOTES PLAN OF SURVEY BY J. BRADBURY O.L.S. DATED APRIL 27, 1987
- THIS PLAN IS NOT VALID UNLESS EMBOSSED WITH A SEAL

BLOCK C  
 REGISTERED PLAN 659

**METRIC**  
 DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.



**RUDY MAK SURVEYING LTD.**  
 ONTARIO LAND SURVEYOR  
 15 CEDAR POINTE DRIVE, UNIT 21  
 BARRIE, ONTARIO L4N 5R7  
 722-3845