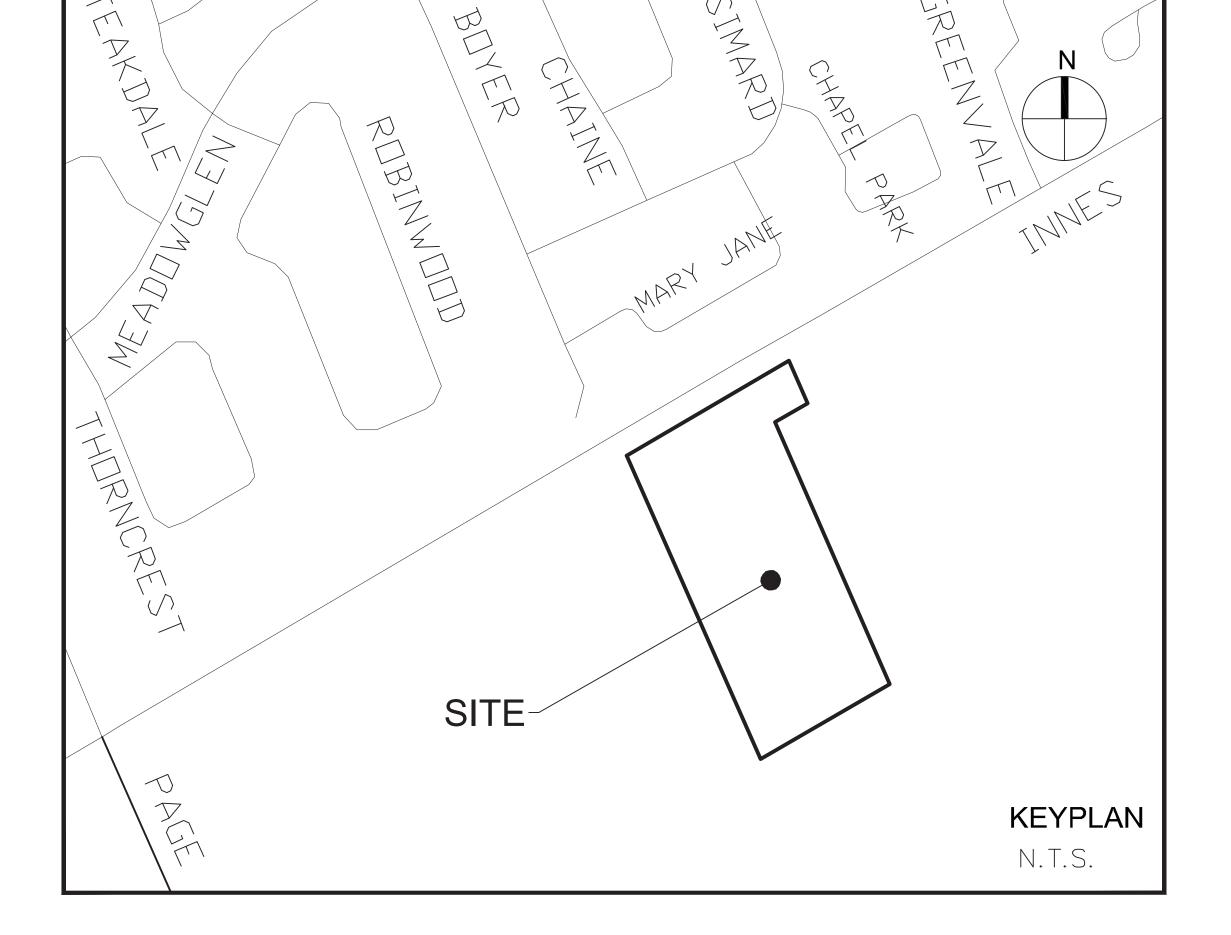


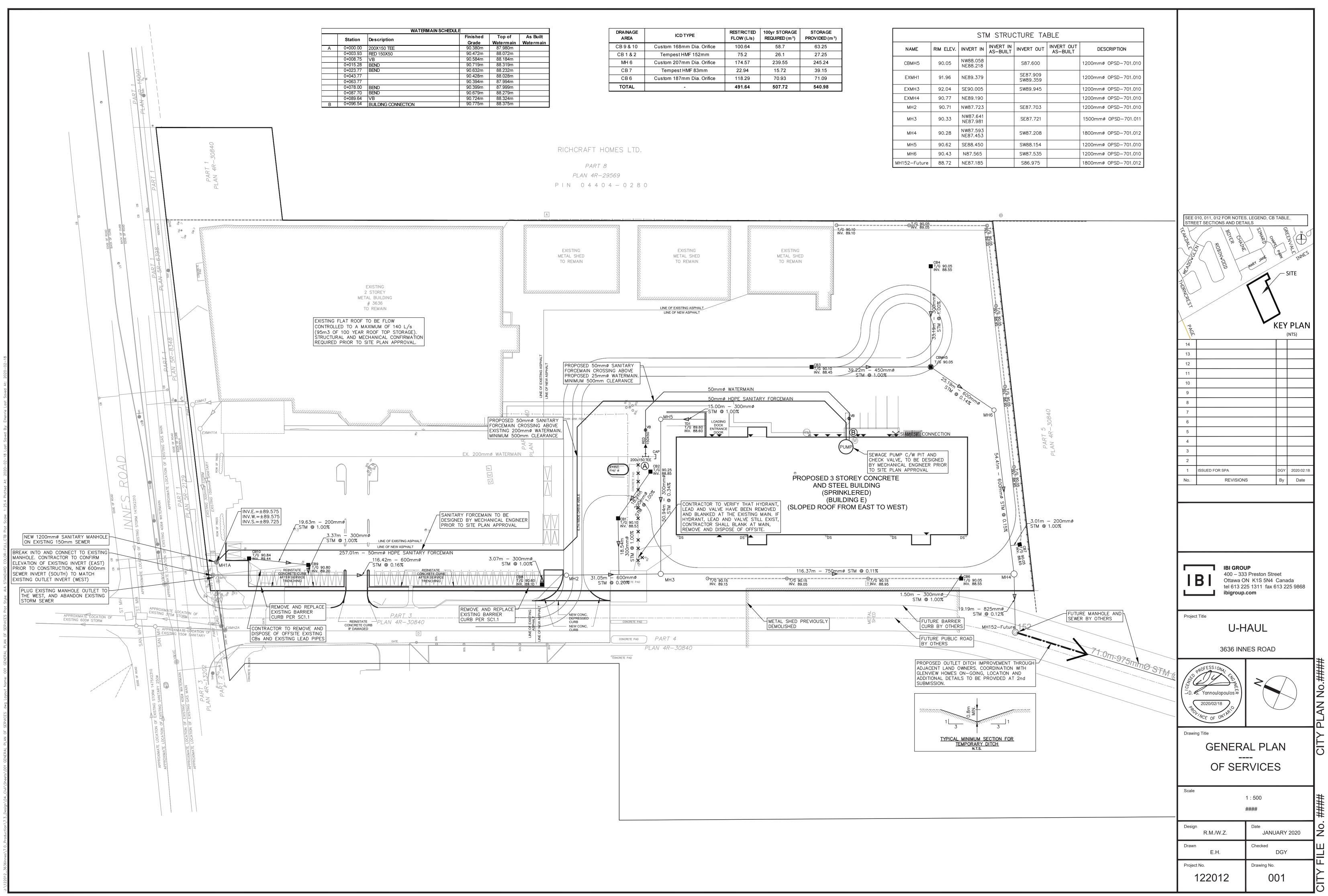
IBI GROUP 400 – 333 Preston Street Ottawa ON K1S 5N4 Canada tel 613 225 1311 fax 613 225 9868 ibigroup.com

## 3636 INNES ROAD CITY OF OTTAWA CONTRACT NO. 122012



# U-HAUL

Sheet List Table			
Sheet Number	Sheet Title		
	COVER		
001	GENERAL PLAN OF SERVICES		
010	NOTE, LEGENT AND CB DATA TABLE		
200	GRADING PLAN		
201	GRADING PLAN		
400	SANITARY DRAINAGE		
500	STORM DRAINAGE AREA PLAN		
600	PONDING PLAN		
900	EROSION - SEDIMENT PLAN		



Finished	Top of	As Built
Grade	Watermain	Watermain
90.380m	87.980m	
90.472m	88.072m	
90.584m	88.184m	
90.719m	88.319m	
90.632m	88.232m	
90.428m	88.028m	
90.394m	87.994m	
90.399m	87.999m	
90.679m	88.279m	
 90.724m	88.324m	
 90.775m	88.375m	

DRAINAGE AREA	ICD TYPE	RESTRICTED FLOW (L/s)	100yr STORAGE REQUIRED (m <sup>3</sup> )	STORAGE PROVIDED (m <sup>3</sup> )
CB9&10	Custom 168mm Dia. Orifice	100.64	58.7	63.25
CB 1 & 2	Tempest HMF 152mm	75.2	26.1	27.25
MH 6	Custom 207mm Dia. Orifice	174.57	239.55	245.24
CB 7	Tempest HMF 83mm	22.94	15.72	39.15
CB6	Custom 187mm Dia. Orifice	118.29	70.93	71.09
TOTAL	-	491.64	507.72	540.98

NAM
СВМ
EXM
EXM
EXM
МН
MH152-

No LAN CIT

#### o. Ž 

UTILITY LEGE	END
	TRANSFORMER
	TRANSFORMER C/W CONCRETE WINGS
HSG	HYDRO SWITCHGEAR
НМН	HYDRO MANHOLE
$\oslash$	BELL PEDESTAL
GLB	BELL GRADE LEVEL BOX (I=600mm, w=1200mm, d=750mm) C/W 1.5 x 3.0m easement
FC	BELL FIBER CABINET (I=1200mm, w=750mm, d=500mm)
CSP	BELL CENTRAL SPLITTING POINTS (I=1175mm, w=1200mm, d=500mm)
	ROGERS PEDESTAL
$\boxtimes$	ROGERS VAULT (I=1000mm, w=1000mm, d=1200mm) C/W 1m x 2m easement
P30 <sup>0</sup> →	STREET LIGHT
D	STREET LIGHT DISCONNECT
h	STREET LIGHT GROUNDING
————H/B/T/G/S———	JOINT UTILITY TRENCH
———н——	HYDRO CABLE AND DUCTS
————В-————	BELL CABLE
BB	BELL DUCTS
T	ROGERS CABLE

CONCRETE ENCASED DUCT BANK C/W NUMBER OF DUCTS

G  $(\mathbf{i})$ ROOT MANAGEMENT BARRIER SEDIMENT EROSION LEGEND

STREET LIGHT CABLE

—G—

 $\square$ 

\_\_\_\_\_

<u>10-DUCTS</u> 6-H 4-T

<u>ÉÇMB</u>

\_\_\_\_\_ GAS

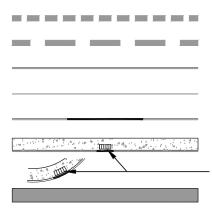
	HEAVY DUTY SILT FENCE
	SNOW FENCE
÷	STRAW BALE CHECK DAM
1970 1978 1187 3181 1181	STRAW BALE CHECK DAM WITH FILTER CLOTH
	ROCK CHECK DAM
	SEDIMENT SACK PLACED UNDER EXISTING CB COVER
	TEMPORARY MUD MAT 0.15m THICK 50mm CLEAR STONE ON NON WOVEN FILTER CLOTH

UTILITY DROP LOCATIONS

COMMUNITY MAILBOX

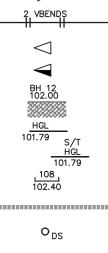
PROPOSED TREE LOCATION

## **GENERAL LEGEND**



BUS

LIMIT OF CONSTRUCTION
PHASING LINE
BARRIER CURB
MOUNTABLE CURB
DEPRESSED BARRIER CURB
CONCRETE SIDEWALK
 - TACTILE WALKING SURFACE INDICATOR
ASPHALT SIDEWALK / PATHWAY
BUS STOP CONCRETE / ASPHALT



GRADING LEGEND

 $\rightarrow \rightarrow \rightarrow \rightarrow$ 

1.3%
×104.62
×104.40 (s)
×104.50 (s)⊮₽
104.60 103.59×
86.45 EX ×
96.79
- <u>4</u> 6
103.50^ داياياياي
$\odot$
F.FL. 96.32 T.FND. 95.96 U.S.F. 93.36 RISERS 0
RISERS 0 M.U.S.F M.G.G.
WU
WO
NS
BS

### SERVICING LEGEND

200mmø SAN

825mmø STM

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DCICB101 G/G 104.25

CBMH101 T/G 103.59

<sup>МН109</sup>О МН118

900mmø STM

CBMH100 T/G 103.59

CB100 T/G 104.10

■ RYCB T/G 104.35

−<del>0 T</del>/G 104.35 INV 103.35

OT/G 104.50 NV 103.50

T/G 104.35 INV 103.35

\_\_\_\_\_T/G 104.35 \_\_\_\_\_INV 103.35

⊗ <sup>V&VB</sup>

⊗<sup>V&VC</sup>

♦ HYD 104.35

300mmø CSP

\_\_\_\_\_

MH118A SANITARY MANHOLE SANITARY SEWER STORM MANHOLE STORM SEWER - LESS THAN 900Ø STORM SEWER - 900Ø AND GREATER 200Ø WATERMAIN WATERMAIN CB100 T/G 104.10 STREET CATCHBASIN C/W TOP OF GRATE CICB101 G/G 104.25 CURB INLET CATCHBASIN C/W GUTTER GRADE 
 DCB100
 DOUBLE CATCHBASIN C/W TOP OF GRATE
 DITCH INLET CATCHBASIN C/W GUTTER GRADE CATCHBASIN MANHOLE C/W TOP OF GRATE DITCH INLET MANHOLE C/W TOP OF GRATE — ICD LOCATION REAR YARD CATCHBASIN IN ROAD CONNECTING STRUCTURE C/W SOLID GRATE REAR YARD "TEE" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT REAR YARD "END" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT REAR YARD "CUSTOM ANGLED " CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT REAR YARD "THREE WAY" CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT PERFORATED REAR YARD SUBDRAIN CSP CULVERT C/W DIAMETER VALVE AND VALVE BOX VALVE AND VALVE CHAMBER FIRE HYDRANT C/W BOTTOM OF FLANGE ELEVATION 200Ø WM RED 150Ø WM WATERMAIN REDUCER VERTICAL BEND LOCATION SINGLE SERVICE LOCATION DOUBLE SERVICE LOCATION INFERRED BEDROCK (SEE GEOTECHNICAL REPORT) 100 YEAR STORM HYDRAULIC GRADE LINE AT MANHOLE STRESS TEST STORM HYDRAULIC GRADE LINE AT MANHOLE UNDERSIDE OF FOOTING ELEVATION (WITH LOT #) CLAY SEAL IN SEWER / WATERMAIN TRENCH

DOWNSPOUT LOCATION

PROPOSED SWALE C/W FLOW DIRECTION PROPOSED DITCH C/W FLOW DIRECTION AND SLOPE SLOPE C/W FLOW DIRECTION MAJOR OVERLAND FLOW ROUTE PROPOSED SPOT GRADE PROPOSED SWALE GRADE PROPOSED SWALE HIGH POINT GRADE LOT CORNER GRADE C/W EXISTING GRADE TIE INTO EXISTING GRADE FULL STATIC PONDING GRADE

RETAINING WALL C/W TOP OF WALL AND GRASS GRADE TERRACING 3:1 MAXIMUM UNLESS NOTED OTHERWISE PRESSURE REDUCING VALVE

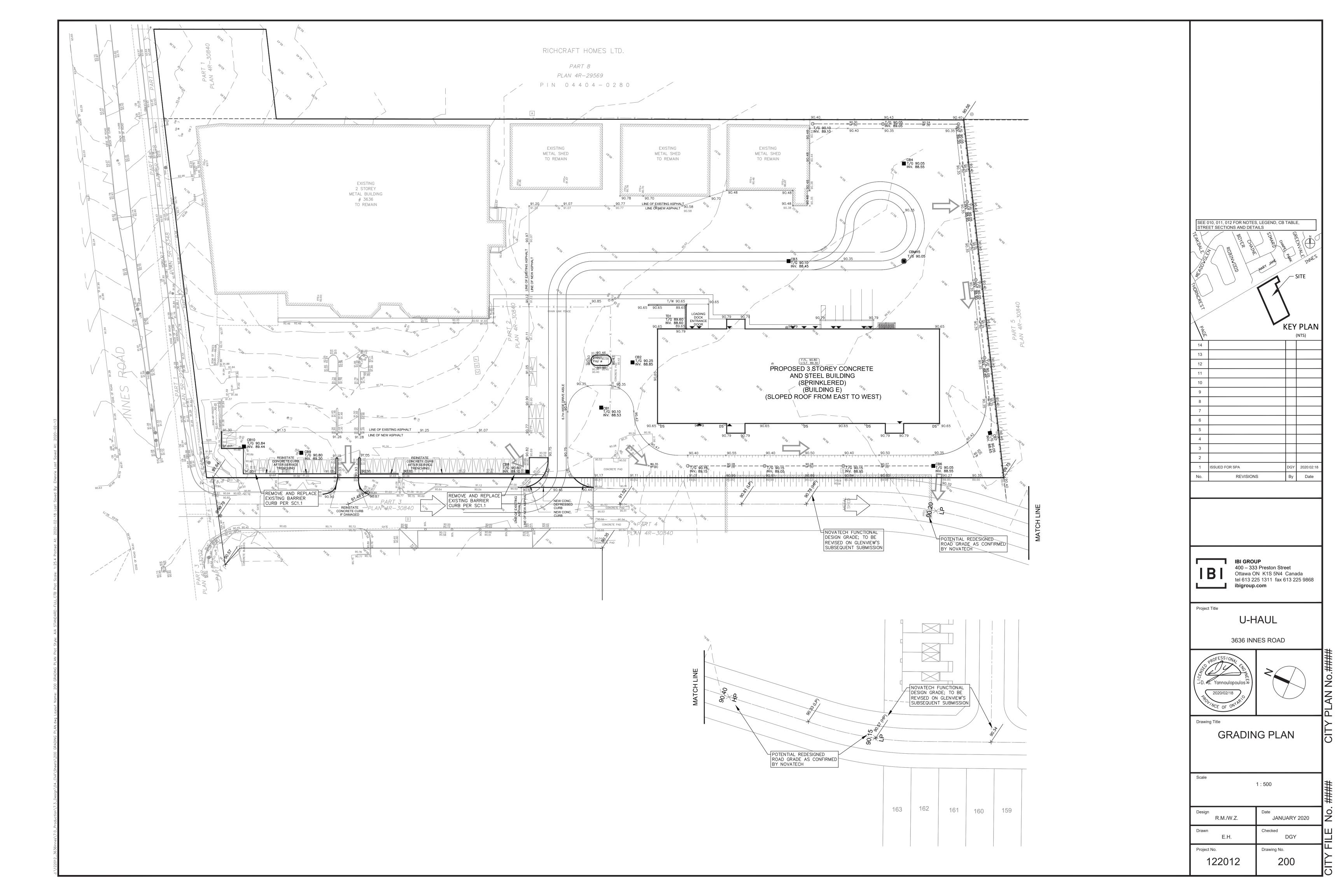
FINISHED FLOOR ELEVATION TOP OF FOUNDATION ELEVATION TOTAL NUMBER OF RISERS MINIMUM UNDERSIDE OF FOOTING (Based on the higher of the sewer obverts, or hydraulic grade line) MINIMUM GARAGE GRADE WALKUP UNIT WALKOUT UNIT NON-STANDARD FOUNDATION (Frost cover not provided for standard unit)

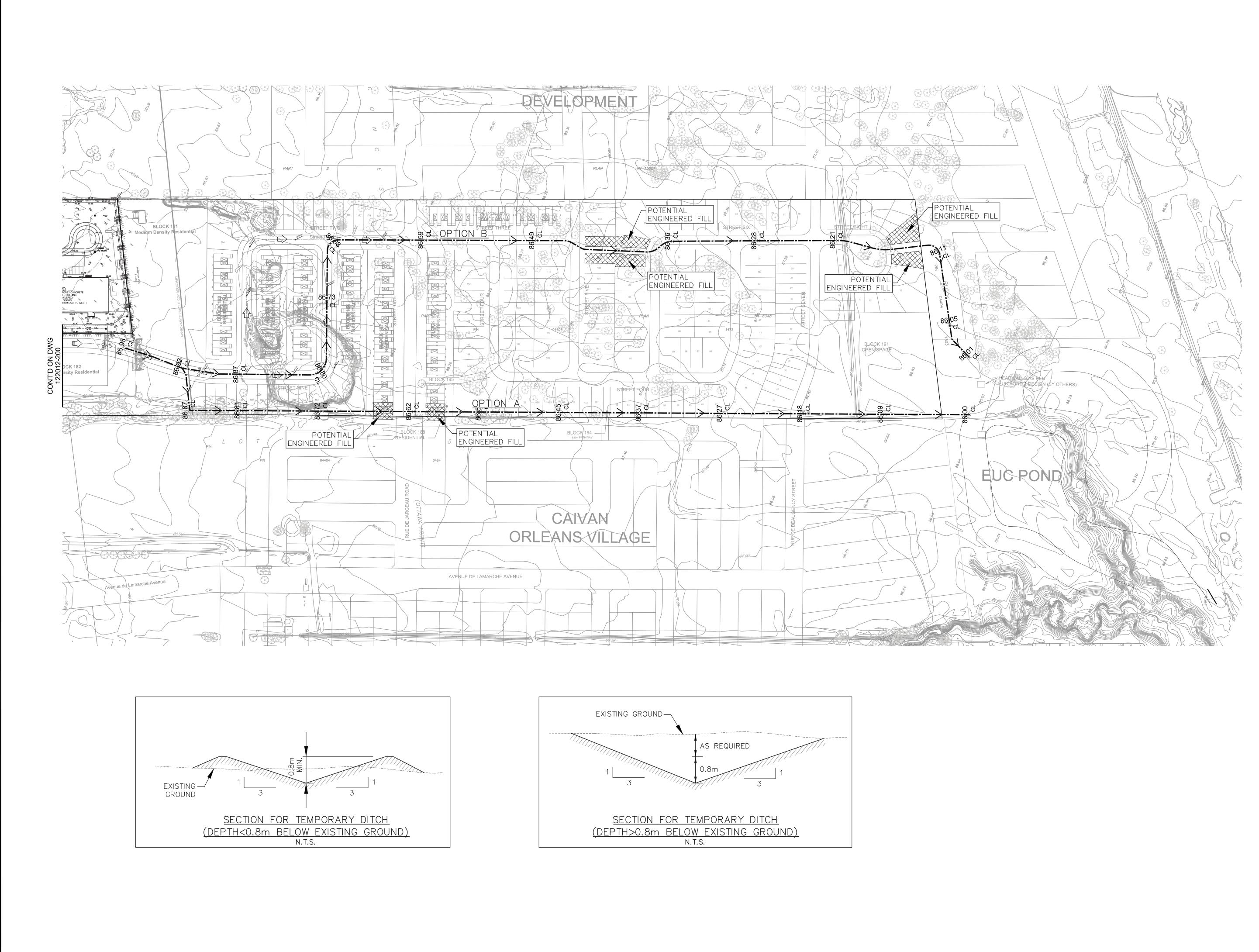
BACKSPLIT UNIT (1.5m frost cover on footings) F F F NOISE FENCE LOCATION

NOTES :		
<ol> <li>ALL MATERIALS AND CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS &amp; SPECIFICATIONS OR OPSD/OPSS IF CITY DRAWINGS AND SPECIFICATIONS DO NOT APPLY.</li> <li>ALL SEWER PIPE MATERIAL TO BE PVC DR35 UNLESS NOTED OTHERWISE</li> <li>ALL SUBDRAIN PIPE MATERIAL TO BE HDPE UNLESS NOTED OTHERWISE</li> <li>ALL WATERMAIN PIPE TO BE PVC DR18 UNLESS NOTED OTHERWISE</li> </ol>		
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING SERVICES AND UTILITIES PRIOR TO CONSTRUCTION AND SHALL PROTECT AND ASSUME RESPONSIBILITY FOR ALL UTILITIES WHETHER OR NOT SHOW ON THESE DRAWINGS.		
3. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL REPORT PREPARED BY		
4. FOR GEODETIC BENCHMARK AND GEOMETRIC LAYOUT OF STREET AND LOTS, REFER TO TOPOGRAPHICAL SURVEY AND PLAN OF SUBDIVISION PREPARED BY MACKAY MACKAY & PETERS LIMITED. BENCHMARK BASED ON CANNET VIRTUAL REFERENCE SYSTEM NETWORK.		
5. ROADWAY SECTIONS REQUIRING GRADE RAISE TO PROPOSED SUB GRADE LEVEL TO BE FILLED WITH ACCEPTABLE NATIVE EARTH BORROW OR IMPORTED OPSS SELECTED SUBGRADE MATERIAL IF NATIVE MATERIAL IS DEFICIENT AS PER RECOMMENDATION OF GEOTECHNICAL ENGINEER.		
6. IN AREAS WHERE EXISTING GROUND IS BELOW THE PROPOSED ELEVATION OF SEWER AND WATERMAINS, GRADE RAISING AND FILLING IS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. AS PER CITY GUIDELINES ALL WATERMAINS IN FILL AREAS ARE TO BE TIED WITH RESTRAINING JOINTS AND THRUST BLOCKS.	SEE 010, 011, 012 FOR NOTES STREET SECTIONS AND DET	AILS
<ol> <li>REFER TO DRAWING 011 FOR ROADWAY CROSS SECTIONS.</li> <li>SILT FENCE TO BE ERECTED PRIOR TO EARTH WORKS BEING COMMENCED. SILT FENCE TO BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED OR UNTIL START OF SUBSEQUENT PHASE.</li> </ol>	TEAKINAL E 133	
9. STRAW BALE SEDIMENT TRAPS TO BE PLACED AND MAINTAINED IN EXISTING AND CONSTRUCTED ROAD SIDE DITCHES. TRAPS TO REMAIN AND BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED (IF APPLICABLE).	RIBINING	MARY JANE 2 INNE
10. SILT SACK TO BE PLACED AND MAINTAINED UNDER COVER OF ALL CATCHBASINS. GEOTEXTILE SILT SACK IN STREET CBs TO REMAIN UNTIL ALL CURBS ARE CONSTRUCTED. GEOTEXTILE FABRIC IN RYCBs TO REMAIN UNTIL VEGETATION IS ESTABLISHED. ALL CATCHBASINS TO BE REGULARLY INSPECTED AND CLEANED, AS NECESSARY, UNTIL SOD AND CURBS ARE CONSTRUCTED.	THIRRICREST	TX -
11. ALL CONNECTIONS TO EXISTING WATERMAINS ARE TO BE COMPLETED BY CITY FORCES. CONTRACTOR IS TO EXCAVATE, BACKFILL, COMPACT AND REINSTATE.		KEY PLAN
12. ALL LEADS FOR STREET CB's TO AND CICB'S CONNECTED TO MAIN SHALL BE 250mmØ PVC DR35 @ MIN 2% SLOPE UNLESS NOTED OTHERWISE. ALL LEADS FOR RYCB'S CONNECTED TO MAIN SHALL BE 200mmØ PVC DR35 @ MIN 1% SLOPE UNLESS NOTED OTHERWISE.	14 72 72 72 72 7 7 7 7 7 7 7 7 7 7 7 7 7	
13. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY OR IMMEDIATELY FOLLOWING A STORM EVENT. ANY DAMAGED CONTROL MEASURE SHALL BE REPAIRED IMMEDIATELY. CONTRACTOR TO BE RESPONSIBLE FOR PROTECTING EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.	13 12 11	
14. ALL SEDIMENT DEPOSITS SHALL BE REMOVED FROM SITE AND DISPOSED OF AT APPROPRIATE DISPOSAL FACILITY, OR SHALL BE TESTED BY GEOTECHNICAL ENGINEER WHO MAY PROVIDE RECOMMENDATIONS FOR MATERIALS TO BE USED ONSITE PRIOR TO LANDSCAPING.	10 9	
15. ALL LEADS FOR STREET CB's TO AND CICB'S CONNECTED TO MAIN SHALL BE 200mmØ PVC DR35 @ MIN 2% SLOPE UNLESS NOTED OTHERWISE. ALL LEADS FOR RYCB'S CONNECTED TO MAIN SHALL BE 200mmØ PVC DR35 @ MIN 1% SLOPE UNLESS NOTED OTHERWISE.	8 7	
<ol> <li>THESE DRAWINGS ARE NOT TO BE SCALED OR USED FOR LAYOUT PURPOSES.</li> <li>THE COMPOSITE UTILITY PLAN HAS BEEN REVIEWED BY IBI GROUP FOR CONFORMITY TO THE DESIGN CONCEPT FOR THE DEVELOPMENT AND FOR GENERAL ARRANGEMENT ONLY AND AS SUCH SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN EITHER LAYOUT OR WORKMANSHIP.</li> </ol>	6 5 4	
18. THIS DRAWING IS A COMPILATION OF OTHER UTILITY DESIGNS AND DOES NOT INDICATE IN ANY WAY THAT THE PARTY SIGNING THIS DRAWING HAS DESIGNED OR APPROVED THE RESPECTIVE UTILITY PLANTS INDICATED ON THIS DRAWING. THE DRAWING WAS PREPARED	3 2 1 ISSUED FOR SPA	DGY 2020:02:18
TO BE USED AS REFERENCE ONLY AS PER REQUIREMENTS OF THE CITY OF OTTAWA. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE IT HAS REVIEWED THE CURRENT AND EXISTING DESIGNS BY HYDRO, STREET LIGHTING, BELL, CANADA POST, O.C. TRANSPO, CABLE TV AND ANY OTHER PARTIES INCLUDED BUT NOT MENTIONED AND COMPLETE THE INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE STAKEHOLDER UTILITY DESIGNS.	No. REVISI	ONS By Date
19. THE HGL PROVIDED IS BASED ON HYDRAULIC MODELING COMPLETED USING XPSWMM AND THE 100 YEAR CHICAGO STORM EVENT (C3H10010).		
20. ALL UTILITY BOXES (I.E. PEDESTALS, TRANSFORMERS, ETS) ARE TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF OTTAWA'S "GUIDELINES FOR UTILITY PEDESTALS WITHIN THE ROAD RIGHT OF WAY".		
21. ALL WATERMAINS TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE, WHERE WATERMAINS CROSS OVER OTHER UTILITIES, A MINIMUM OF 0.25m CLEARANCE SHALL BE MAINTAINED. WHERE WATERMAINS CROSS UNDER OTHER UTILITIES, A MINIMUM OF 0.50m SHALL BE MAINTAINED. WHERE THE SEPERATION CANNOT BE ACHIEVED, THE WATERMAIN SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W25 AND W25.2. WHERE 2.4m MINIMUM DEPTH CANNOT BE ACHIEVED, THERMAL INSULATION SHALL BE	IBI GROU	
PROVIDED AS PER CITY OF OTTAWA STANDARD W22. WHERE A WATERMAIN IS IN CLOSE PROXIMITY TO AN OPEN STRUCTURE, THERMAL INSULATION SHALL BE PROVIDED AS PER CITY OF OTTAWA STANDARD W23. 22. ANY SANITARY AND STORM SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL	Ottawa O	3 Preston Street N K1S 5N4 Canada 25 1311 fax 613 225 9868 <b>com</b>
INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR APPROVED BY THE ENGINEER.	Project Title	
PAVEMENT STRUCTURE :( 540mm )	U-H	IAUL
40mm- SUPERPAVE 12.5 ASPHALTIC CONCRETE50mm- SUPERPAVE 19.0 ASPHALTIC CONCRETE150mm- OPSS GRANULAR "A" CRUSHED STONE300mm- OPSS GRANULAR "B" TYPE II	3636 INN	IES ROAD
	E. S.	
	$ \begin{array}{c} \neg D. & \overleftarrow{K}. & Yannoulopoulos \\ \hline & & \\ \hline \\ \hline$	
	Drawing Title	
	GENERA	
	LEGEN CB DAT/	A TABLE
	Scale N. <sup>-</sup>	Г.S.
	Design R.M./W.Z.	Date JANUARY 2020
	Drawn E.H.	Checked DGY
	Project No. 122012	Drawing No.

1# No.### PLAN ≻ CIT

# ### No  $\succ$ 

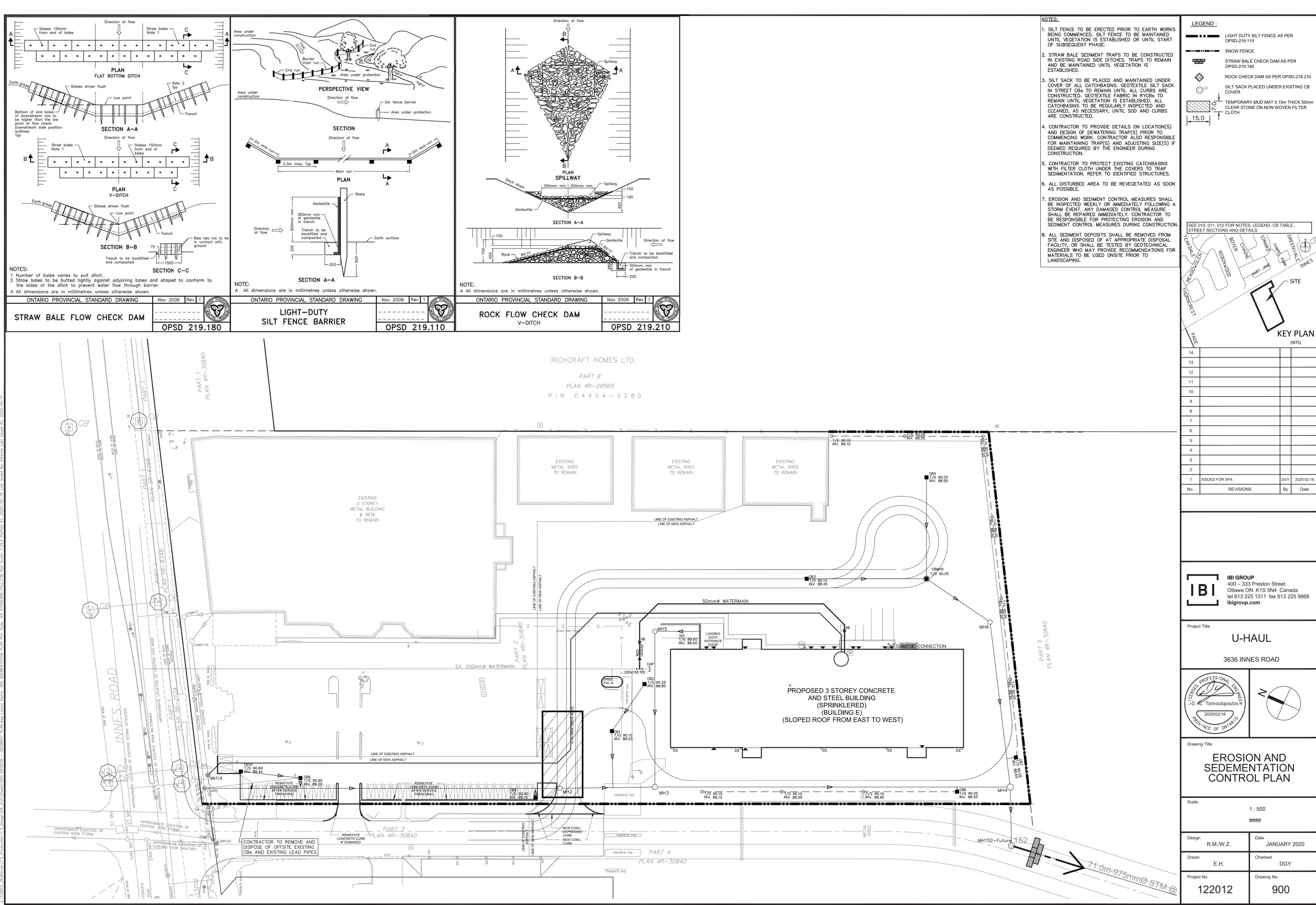




0.36Innes\7.0\_Production\7.3\_Design\04\_Civil\Sheets\201 GRADING PLAN.dwg Layout Name: 201 GRADING PLAN Plot Style: AIA STANDARD-FULL.CTB Plot Scale: 1:50.8 Plotted At: 2020-02-18 Last Saved By: EHenrie Last Saved At: 2020-0

SEE 010, 011, 012 FOR NOTES STREET SECTIONS AND DET, TEAKINALER RIBIN	AILS		E, N PET PET PET PET PET PET PET PET
BITYER BITYER RITBINWIIIID RITBINWIIID RITBINWIIID RITBINWIIID	MARY JANE	/	× ¥
THURMCREST	R		SITE
PAGE			<b>PLAN</b>
14 13 12			
11 10			
9 8 7			
6 5			
4 3 2			
1 ISSUED FOR SPA No. REVISION	S	DGY By	2020:02:18 Date
Ottawa O	3 Preston Str N K1S 5N4 25 1311 fax	Cana	
Project Title	IAUL		
3636 INN	IES ROAD	)	
PROFESSIONAL FR	~		
	IG PL/	۹N	
Scale	IG PL/	<u></u>	
Scale Design R.M./W.Z.	1 : 750 Date		7 2020
Design	1 : 750 Date	UARY	

CITY PLAN No.####



0 Z Z CIT