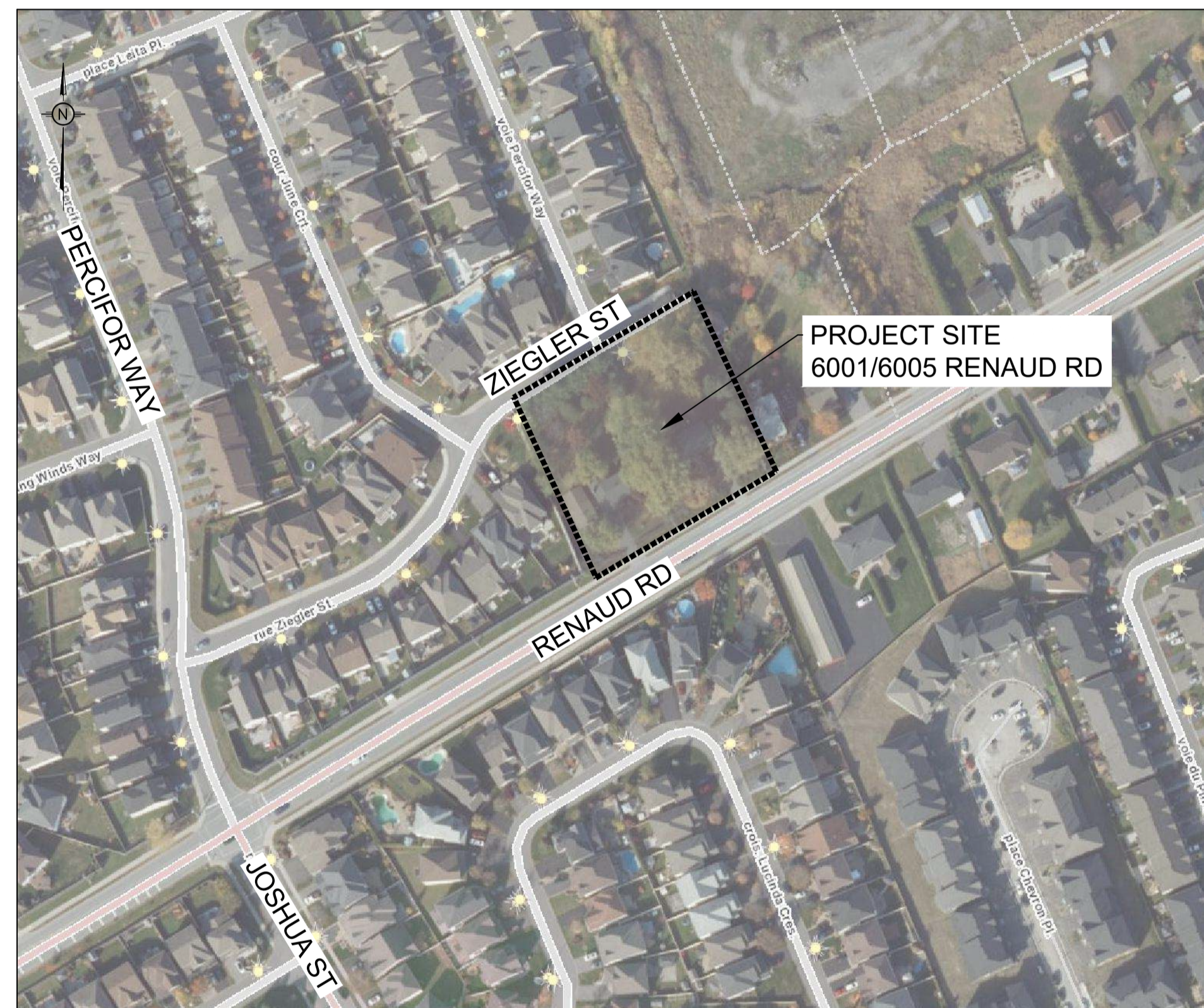


# NAVAN STACKED TOWN HOMES 6001 / 6005 RENAUD ROAD, OTTAWA, ON.

## REVISION 02



KEY PLAN (N.T.S.)

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**LRJ**

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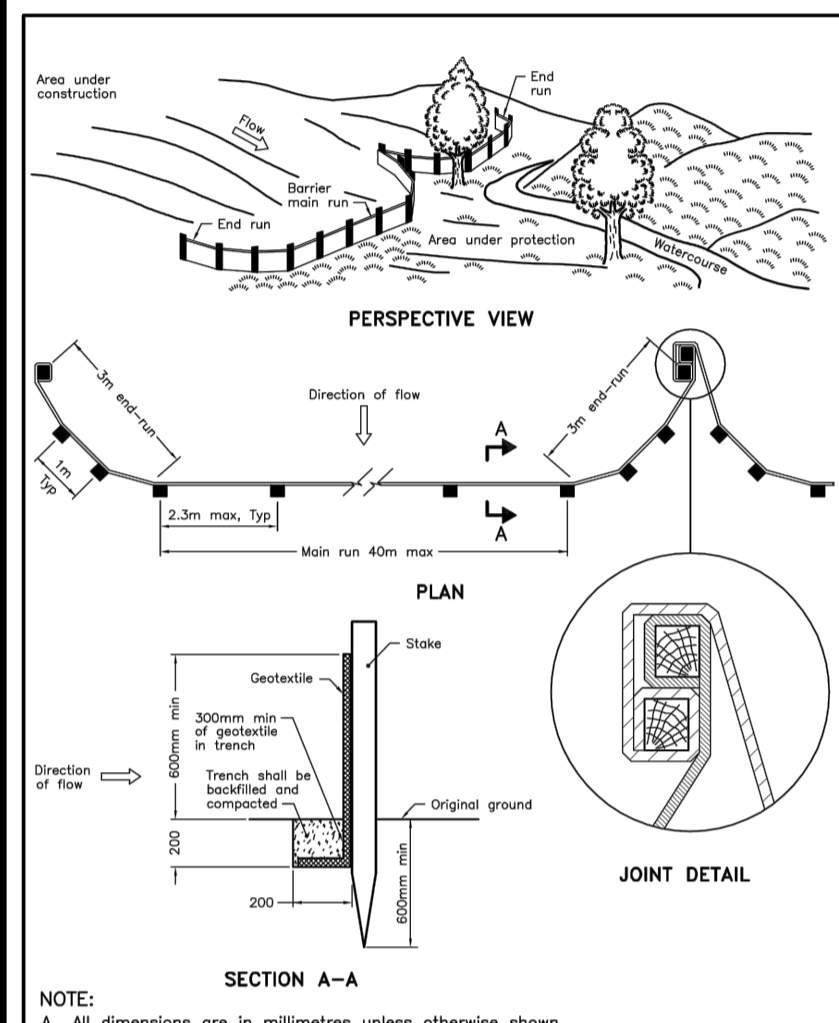
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lrl.ca | (613) 842-3434

NAVAN STACKED TOWN HOMES  
6001/6005 RENAUD ROAD, OTTAWA, ON.  
REV.02 - ISSUED FOR CLIENT APPROVAL - JUNE 9, 2023  
LRL PROJECT no: 210216-02

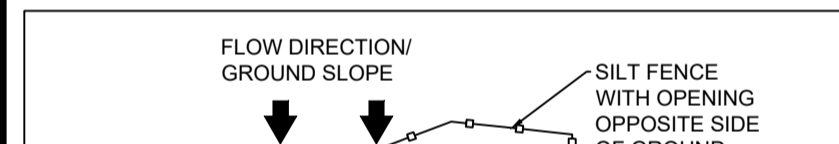


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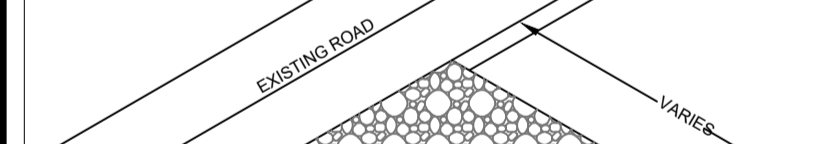
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
<b>LIGHT-DUTY SILT FENCE BARRIER</b>	OPSD 219.110	



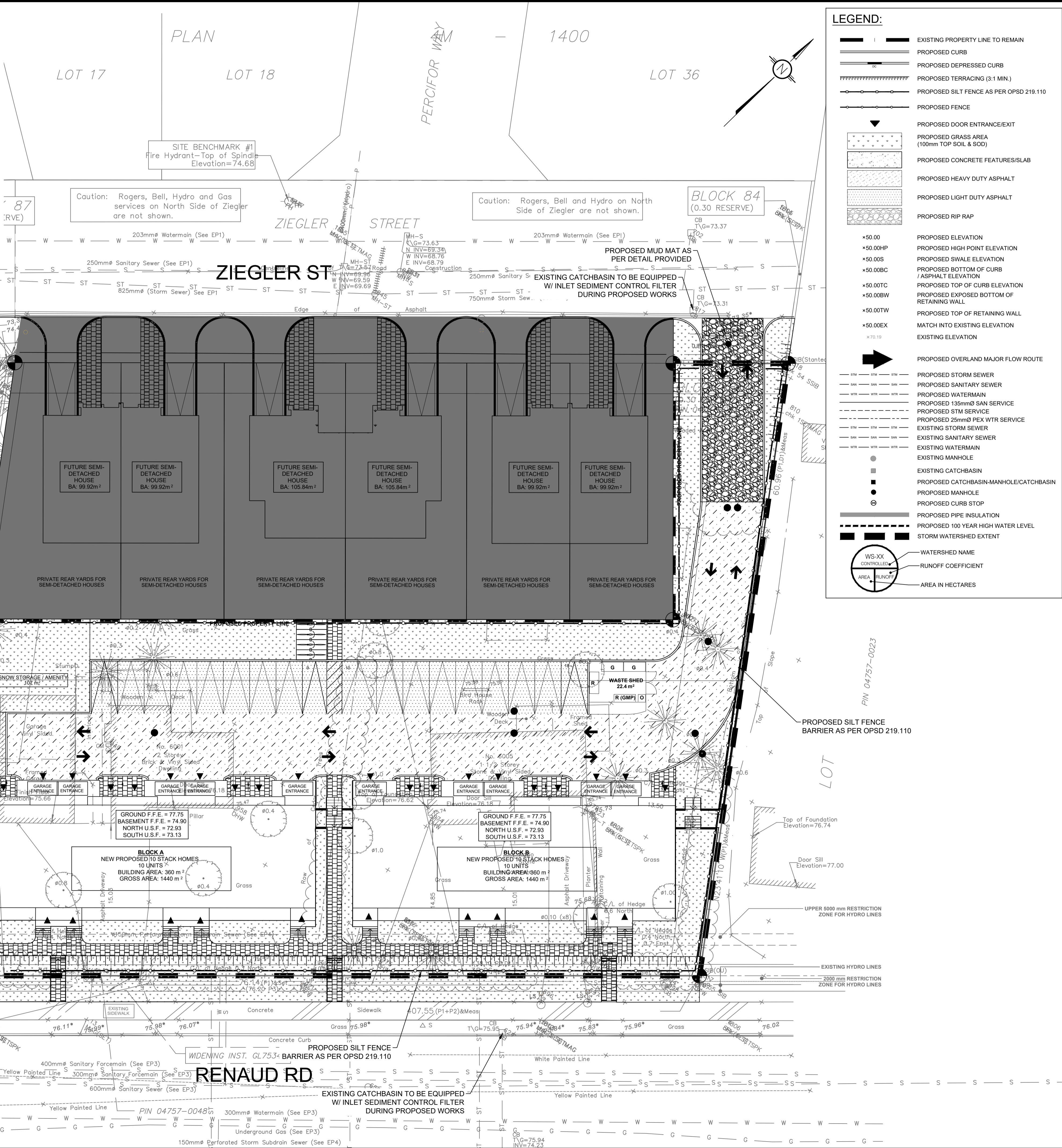
<b>STOCKPILE EROSION PROTECTION</b>	N.T.S.
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<b>MUD MAT - CONSTRUCTION ACCESS</b>	N.T.S.
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<b>INLET SEDIMENT CONTROL DEVICE</b>	N.T.S.
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- PROPOSED TOP OF RETAINING WALL
- MATCH INTO EXISTING ELEVATION
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SCALE: 1:200

5m 2 0 5m

**SUBJECT TO APPROVAL**

02	ISSUED FOR MUNICIPAL APPROVAL	K.H.	09 JUN 2023
01	ISSUED FOR MUNICIPAL APPROVAL	A.S.	24 DEC 2021
No.	REVISIONS	BY	DATE



NOT AUTHENTIC UNLESS SIGNED AND DATED

**LRJ**  
ENGINEERING | INGENIERIE  
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lri.ca | (613) 842-3434

CLIENT: **LANDRIC HOMES**  
1173 CYRILLE RD, SUITE 202,  
OTTAWA ON K1J 7S6

DESIGNED BY: K.H. DRAWN BY: K.H. APPROVED BY: J.V.

PROJECT: **NAVAN STACKED TOWN HOMES**  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

DRAWING TITLE: **EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NO.: 210216  
DATE: NOVEMBER 2021

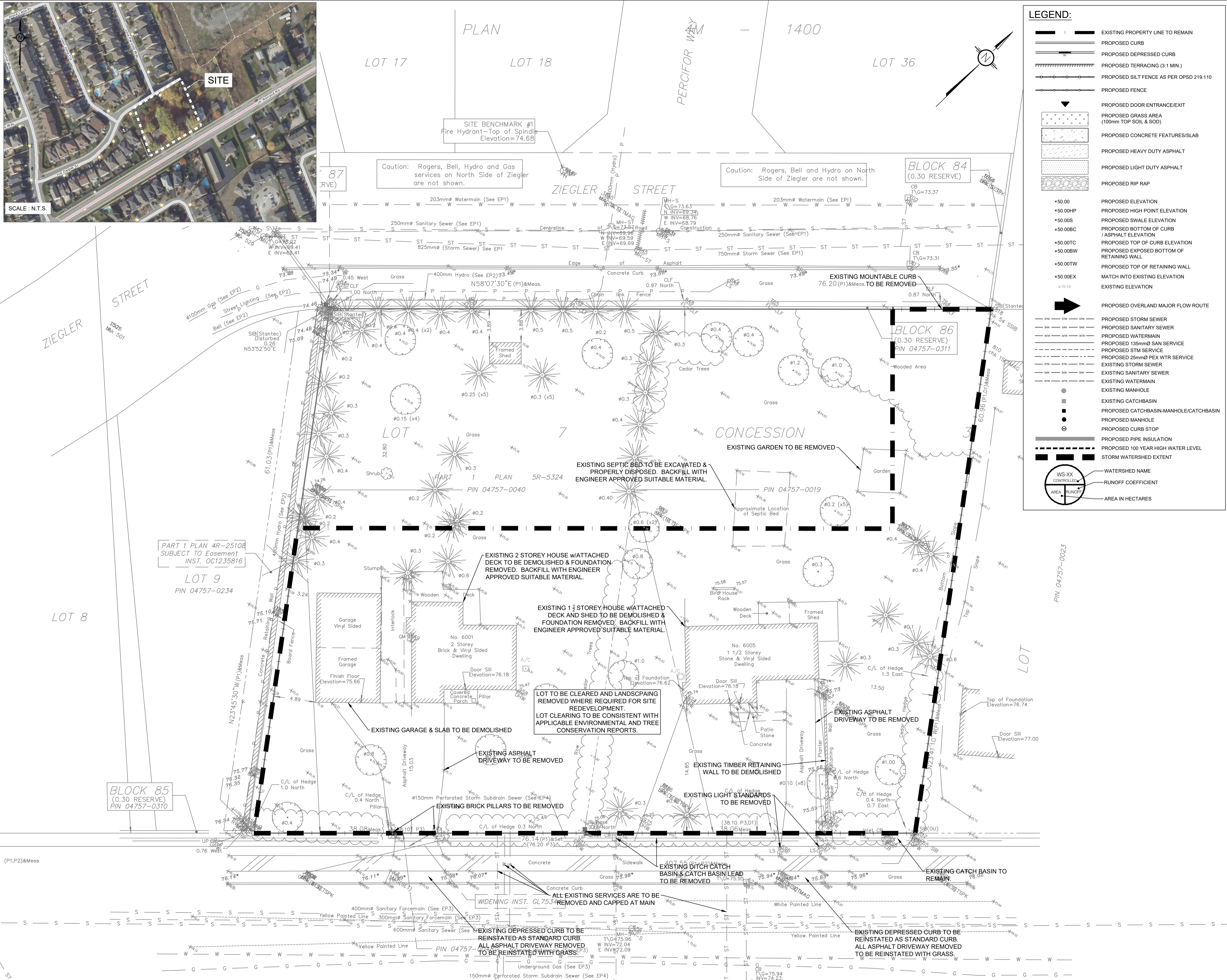
**C101**

DWG # 18659

CITY FILE # D07-12-21-0239



SCALE : N.T.S.



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5m 2 0 5m  
SCALE: 1:200

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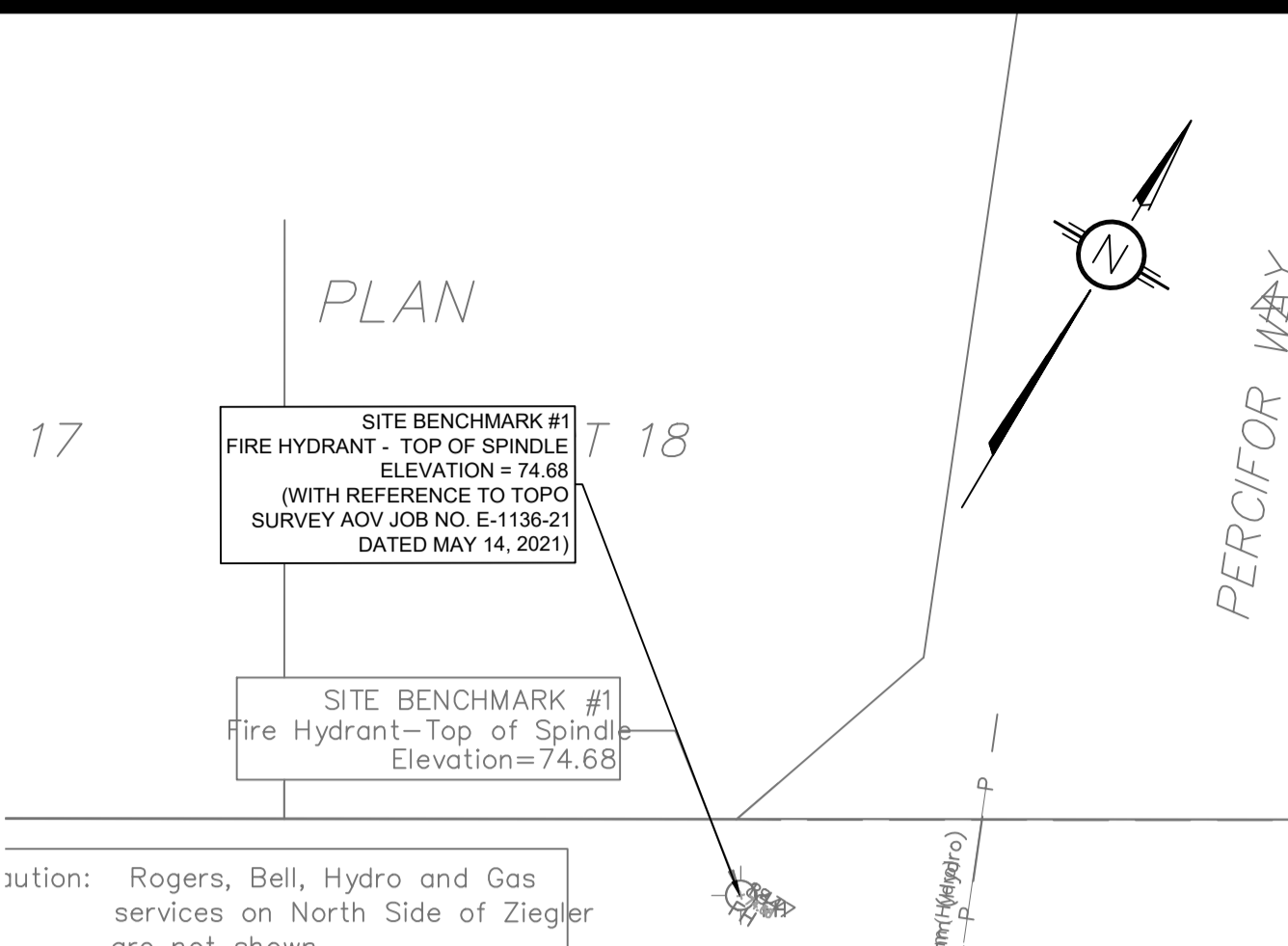
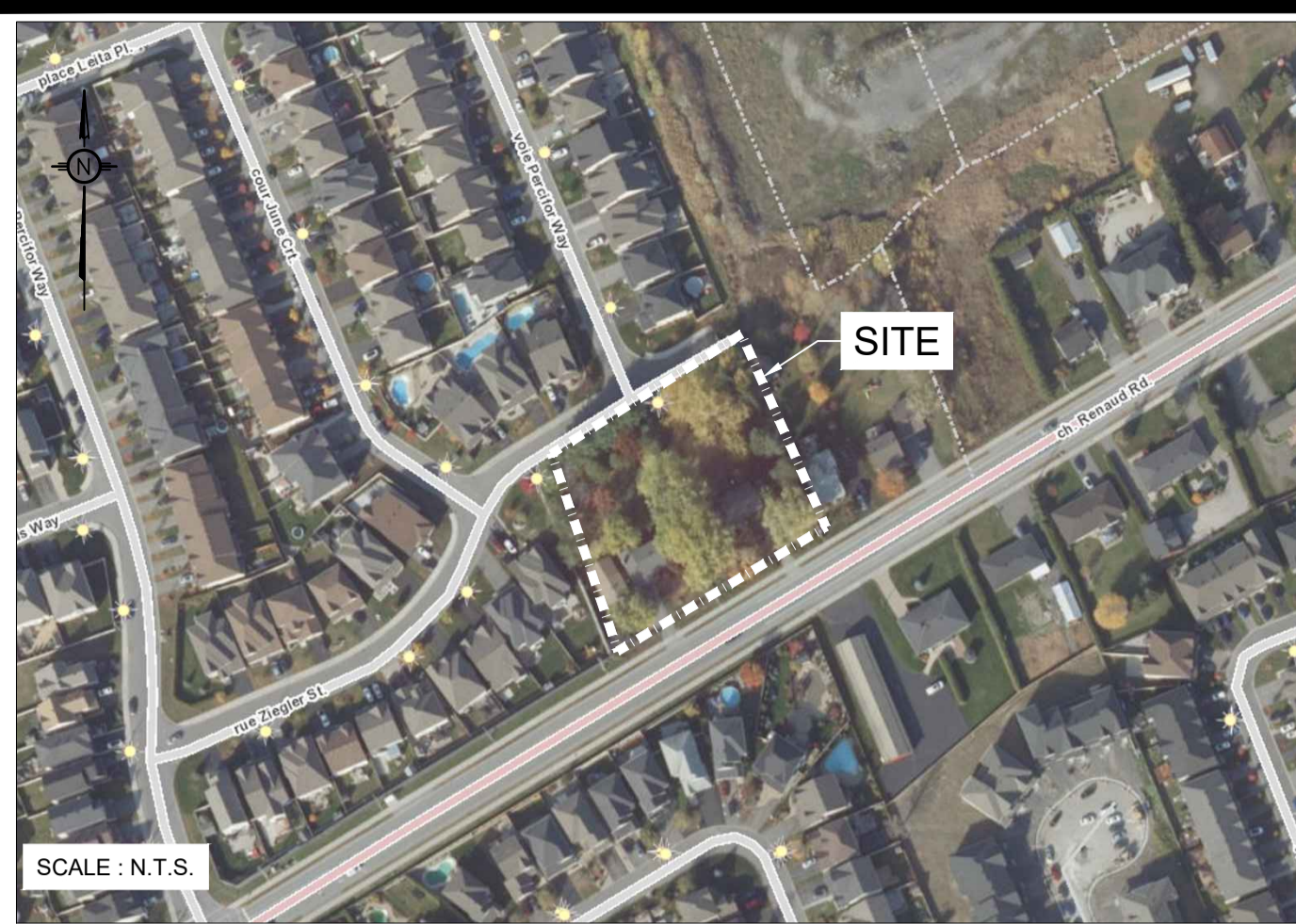
DRAWING TITLE: **DEMOLITION PLAN**

PROJECT NO: 210216  
DATE: NOVEMBER 2021

**C102**

CITY FILE # D07-12-21-0239

DWG # 18659



### PAVEMENT STRUCTURE

COURSE	MATERIAL	THICKNESS (mm)	
		AUTOMOBILE PARKING	TRUCK ROUTE (HEAVY TRAFFIC)
SURFACE	HL 3 A/C (PG 58-28)	50	40
BINDER	HL 8 A/C (PG 58-28)	-	50
BASECOURSE	OPSS GRANULAR "A"	150	150
SUBBASE	OPSS GRANULAR "B" TYPE II	300	450

**NOTE:** REFER TO GEOTECHNICAL INVESTIGATION BY PATERSON GROUP DATED APRIL 23, 2021. IN PREPARATION FOR PAVEMENT CONSTRUCTION AT THIS SITE, ANY SURFICIAL OR NEAR SURFACE/SUBGRADE LEVEL TOPSOIL AND ANY SOFT, WET OR DELETERIOUS MATERIALS SHOULD BE REMOVED FROM THE PROPOSED PAVED AREAS. THE EXPOSED SUBGRADE SHOULD BE INSPECTED AND APPROVED BY GEOTECHNICAL PERSONNEL AND ANY SOFT AREAS EVIDENT SHOULD BE SUBEXCAVATED AND REPLACED WITH SUITABLE EARTH BORROW APPROVED BY THE GEOTECHNICAL ENGINEER. THE SUBGRADE SHOULD BE SHAPED AND CROWNED TO PROMOTE DRAINAGE OF THE SITE DRAINAGE STRUCTURES. FOLLOWING APPROVAL OF THE PREPARATION OF THE SUBGRADE, THE PAVEMENT GRANULATES MAY BE PLACED.

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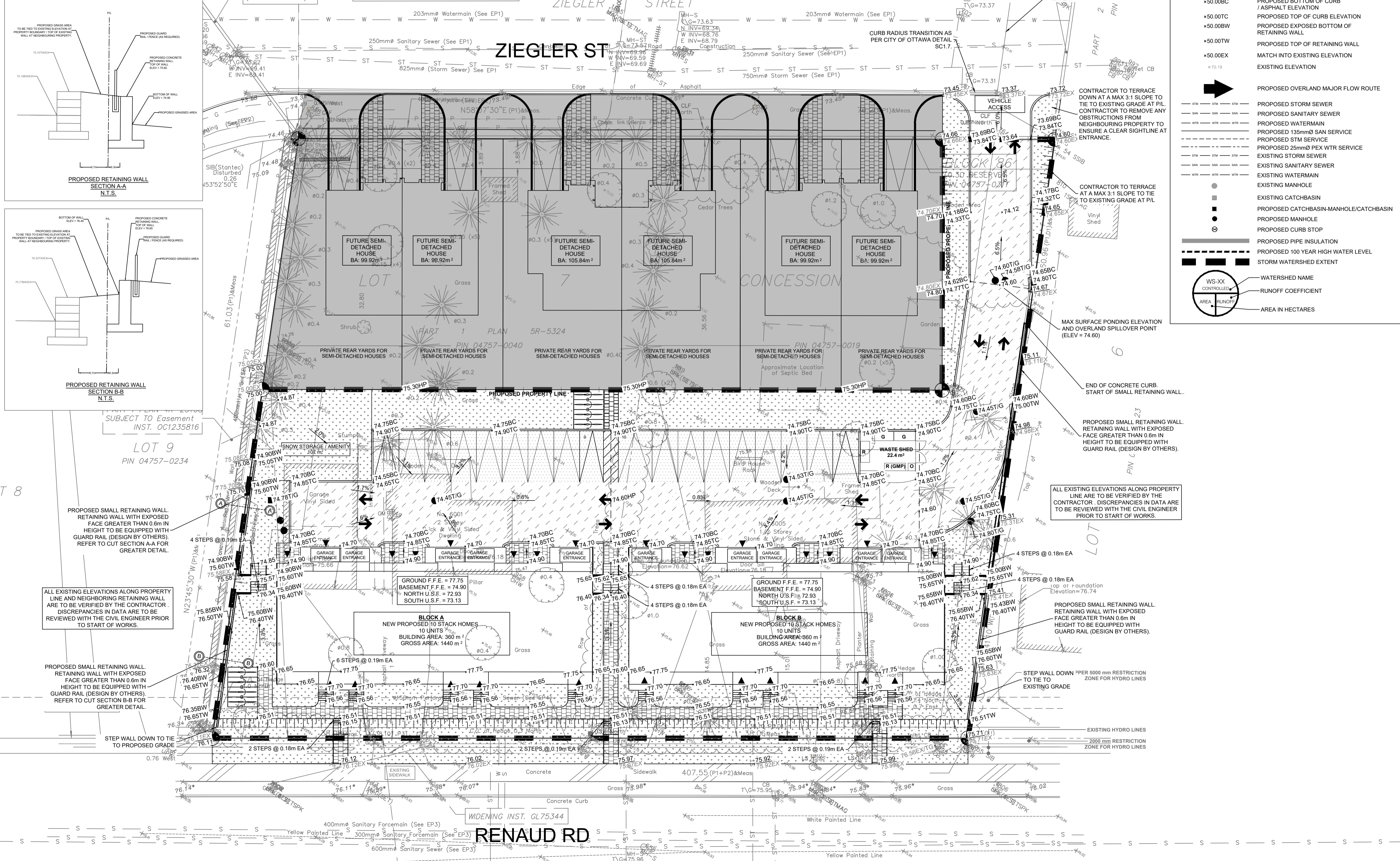
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PROJECT: **NAVAN STACKED TOWN HOMES**  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

DRAWING TITLE: **GRADING AND DRAINAGE PLAN**

PROJECT NO.: 210216  
DATE: NOVEMBER 2021

# C301

DWG # 18659

CITY FILE # D07-12-21-0239



PIPE CROSSING TABLE (±)						
CROSSING ID	PROP. 150mm WTR SERV INV	PROP. 150mm SAN SERV OBV	EX. 250mm SAN SWR OBV	EX. 750mm STM SWR OBV	EX. 750mm STM SWR INV	CLEARANCE (m)
1	70.81		69.18			1.63
2	71.14			70.64		0.50
3		69.22			69.89	0.77

PLAN

PERCIFOR WAY

1400

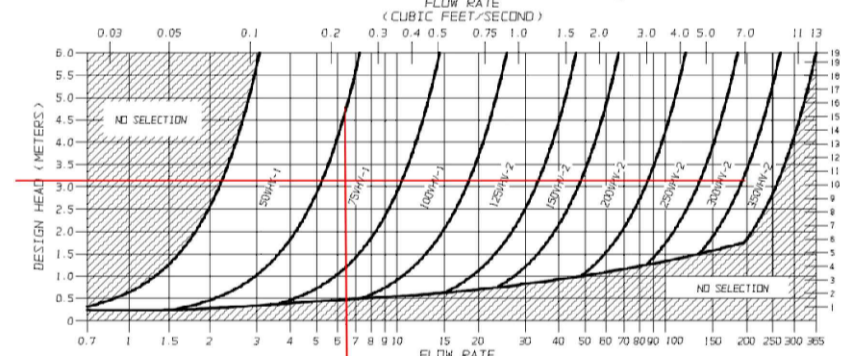
CONTRACTOR TO FIELD VERIFY ALL SEWER / MAIN ELEVATIONS. ANY DISCREPANCIES IN DATA ARE TO BE REVIEWED WITH THE CIVIL ENGINEER PRIOR TO SERVICE INSTALLATION.

LEGEND:

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED TERRACING (3:1 MIN.)
- PROPOSED SILT FENCE AS PER OPSD 219-110
- PROPOSED FENCE
- PROPOSED DOOR ENTRANCE/EXIST
- PROPOSED GRASS AREA (100mm TOP SOIL & SOD)
- PROPOSED CONCRETE FEATURES/SLAB
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED RIP RAP
- PROPOSED ELEVATION
- PROPOSED HIGH POINT ELEVATION
- PROPOSED SWALE ELEVATION
- PROPOSED BOTTOM OF CURB / ASPHALT ELEVATION
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- MATCH INTO EXISTING ELEVATION
- EXISTING ELEVATION
- PROPOSED OVERLAND MAJOR FLOW ROUTE
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED 135mm SAN SERVICE
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- PROPOSED 100 YEAR HIGH WATER LEVEL
- STORM WATERSHED EXTENT
- WATERSHED NAME
- RUNOFF COEFFICIENT
- AREA IN HECTARES

HYDROVEX®

VHV Vertical Vortex Flow Regulator



JOHN MEUNIER

**GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK AND THE SAFETY ASPECTS OF CONSTRUCTION AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS AN ACKNOWLEDGEMENT OF THE RESPONSIBILITIES AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK AND THE COST THEREOF. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.**

**UNAUTHORIZED CHANGES:**

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRL FROM ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

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CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND MODIFICATIONS TO THESE CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

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SCALE: 1:200

**SUBJECT TO APPROVAL**

02	ISSUED FOR MUNICIPAL APPROVAL	K.H.	09 JUN 2023
01	ISSUED FOR MUNICIPAL APPROVAL	A.S.	24 DEC 2021
No.	REVISIONS	BY	DATE



NOT AUTHENTIC UNLESS SIGNED AND DATED

**LRL**  
ENGINEERING | INGENIERIE  
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lrl.ca | (613) 842-3434

CLIENT: **LANDRIC HOMES**  
1173 CYRVILLE RD, SUITE 202,  
OTTAWA ON K1J 756

DESIGNED BY: K.H. DRAWN BY: K.H. APPROVED BY: V.J.

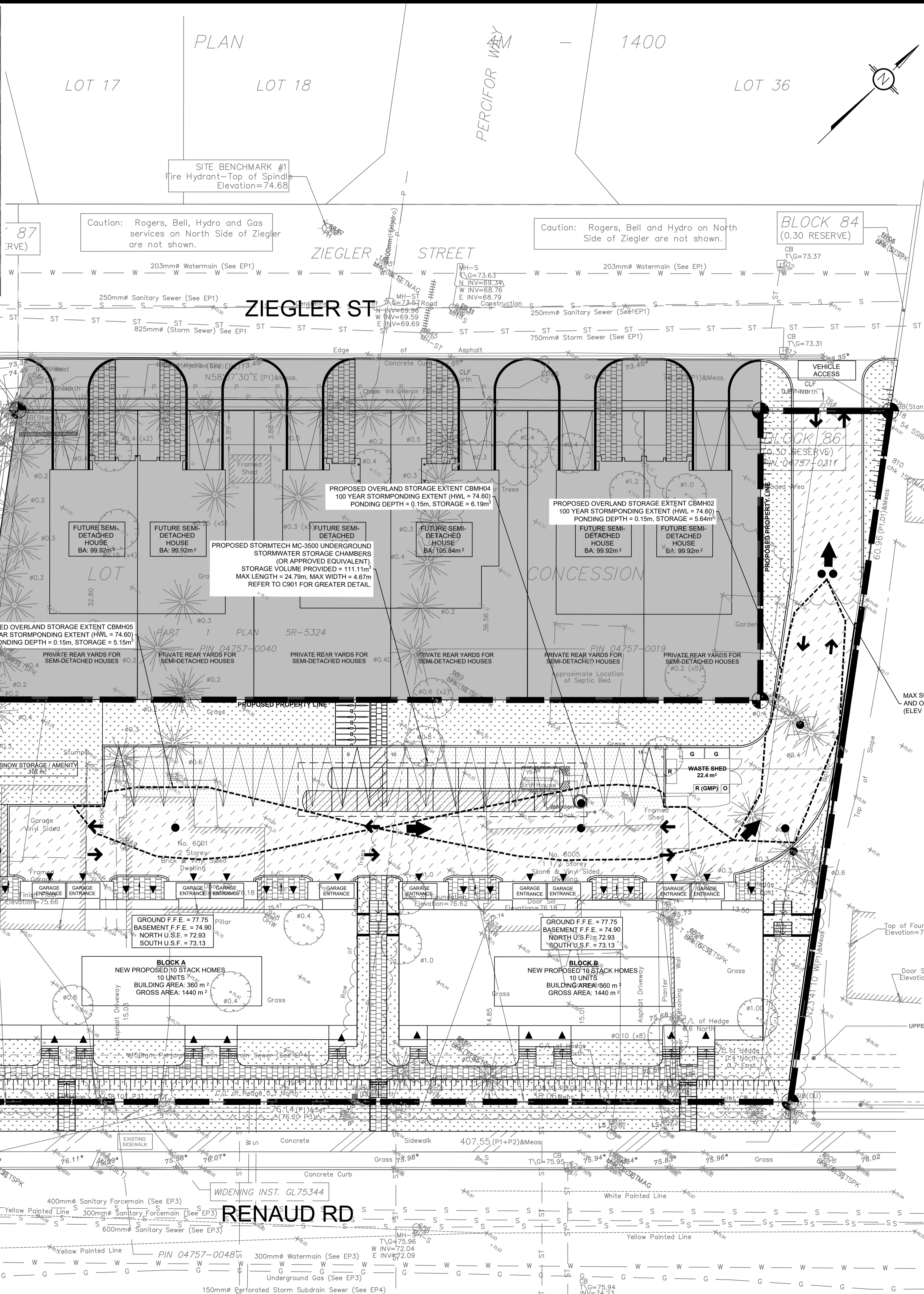
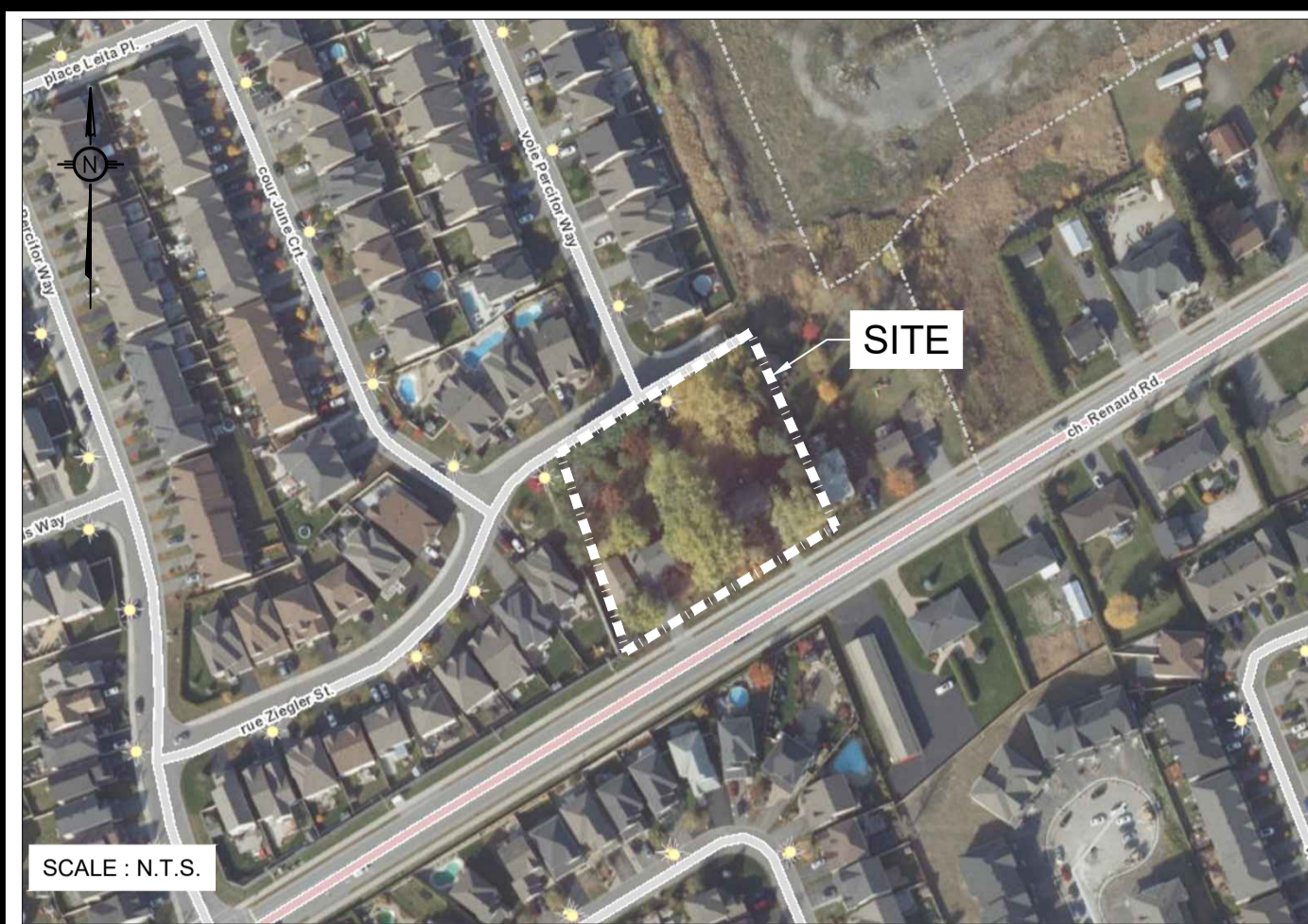
NAVAN STACKED TOWN HOMES  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

DRAWING TITLE: **SERVICING PLAN**

PROJECT NO: 210216  
DATE: NOVEMBER 2021  
**C401**

CITY FILE # D07-12-21-0239

DWG # 18659



**LEGEND:**

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED TERRACING (3:1 MIN.)
- PROPOSED SILT FENCE AS PER OPSD 219.110
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- WATERSHED NAME
- RUNOFF COEFFICIENT
- AREA IN HECTARES

**USE AND INTERPRETATION OF DRAWINGS**

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE THE INTENT OF THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

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THESE DRAWINGS ILLUSTRATE THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

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IN ADDITION, THE CLIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRI FROM ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES AND COSTS OF DEFENSE, ARISING FROM SUCH CHANGES.

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CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

5m 2 0 5m

SCALE: 1:200

**SUBJECT TO APPROVAL**

No.	REVISIONS	BY	DATE
02	ISSUED FOR MUNICIPAL APPROVAL	K.H.	09 JUN 2023
01	ISSUED FOR MUNICIPAL APPROVAL	A.S.	24 DEC 2021

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**LRJ**

ENGINEERING | INGENIERIE

5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lri.ca | (613) 842-3434

CLIENT: **LANDRIC HOMES**  
1173 CYRVILLE RD, SUITE 202,  
OTTAWA ON K1J 756

DESIGNED BY: K.H. DRAWN BY: K.H. APPROVED BY: V.J.

PROJECT: **NAVAN STACKED TOWN HOMES**  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

DRAWING TITLE: **STORMWATER MANAGEMENT PLAN**

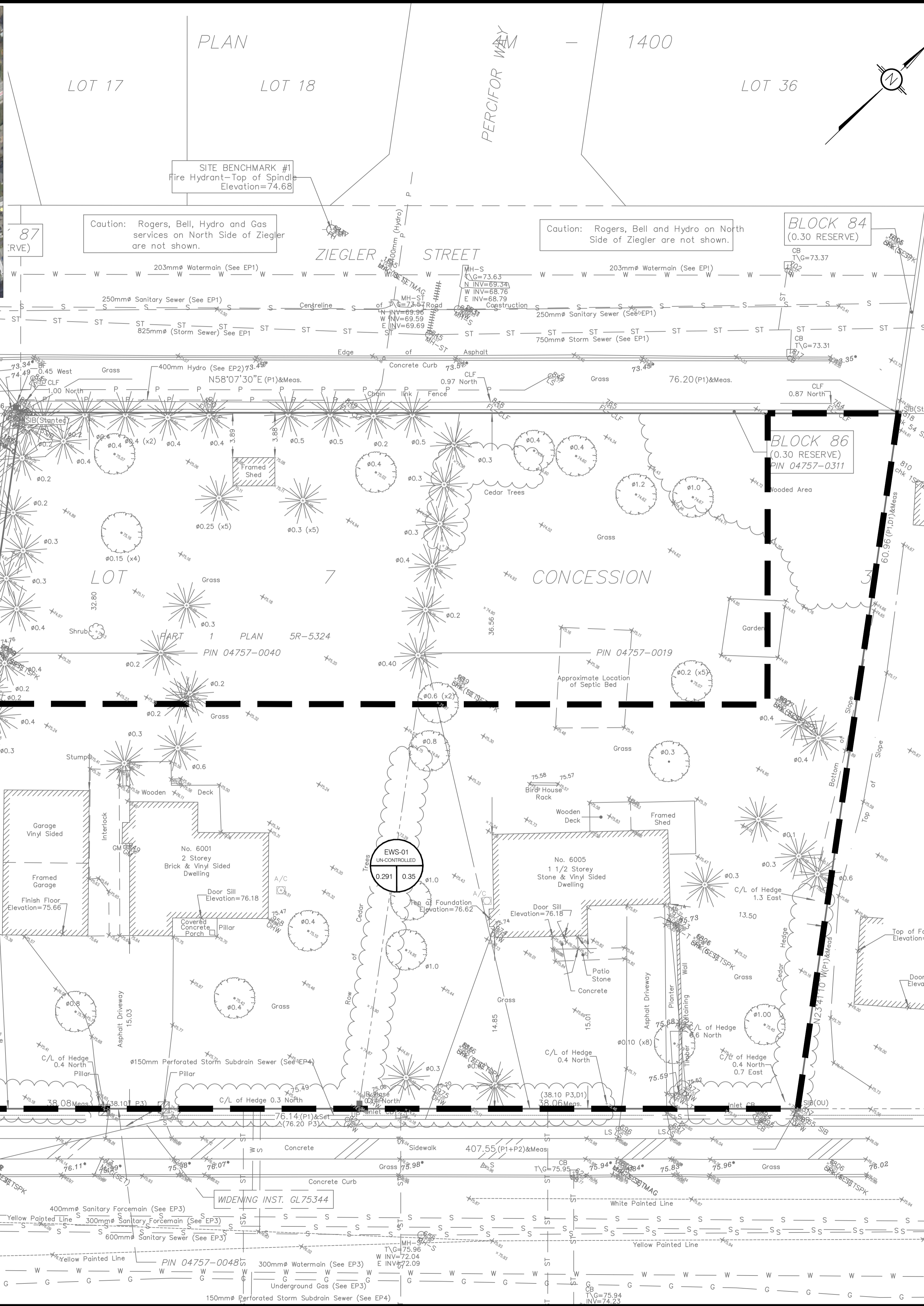
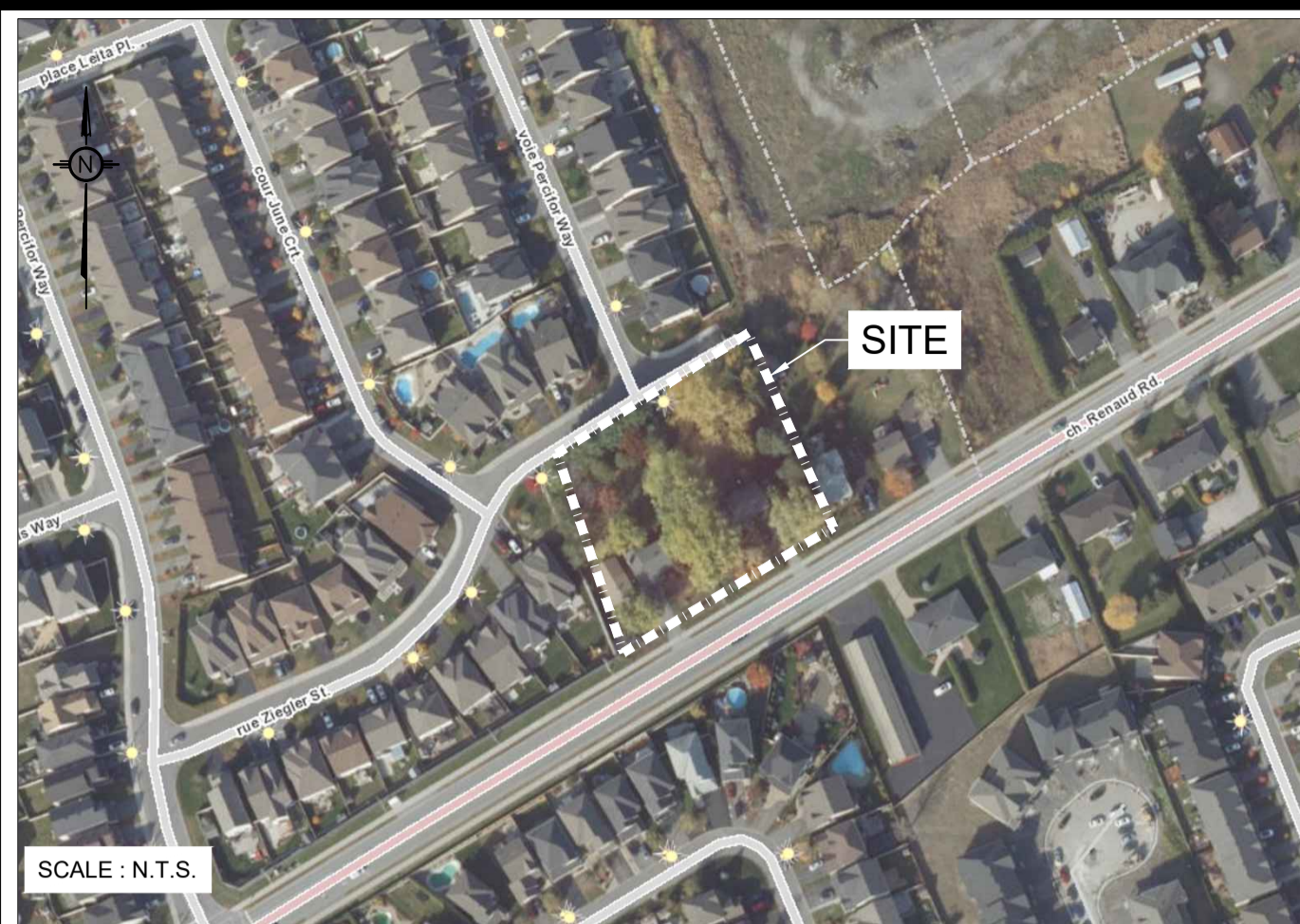
PROJECT NO: 210216

DATE: NOVEMBER 2021

**C601**

DWG # 18659

CITY FILE # D07-12-21-0239



**LEGEND:**

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED DEPRESSED CURB
- PROPOSED TERRACING (3:1 MIN.)
- PROPOSED SILT FENCE AS PER OPSD 219.110
- PROPOSED FENCE
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- STORM WATERSHED EXTENT
- WATERSHED NAME
- RUNOFF COEFFICIENT
- AREA IN HECTARES

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**BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.**

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SCALE: 1:200

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www.lrl.ca | (613) 842-3434

CLIENT: **LANDRIC HOMES**  
1173 CYRILLE RD, SUITE 202,  
OTTAWA ON K1J 7S6

DESIGNED BY: K.H. DRAWN BY: K.H. APPROVED BY: V.J.

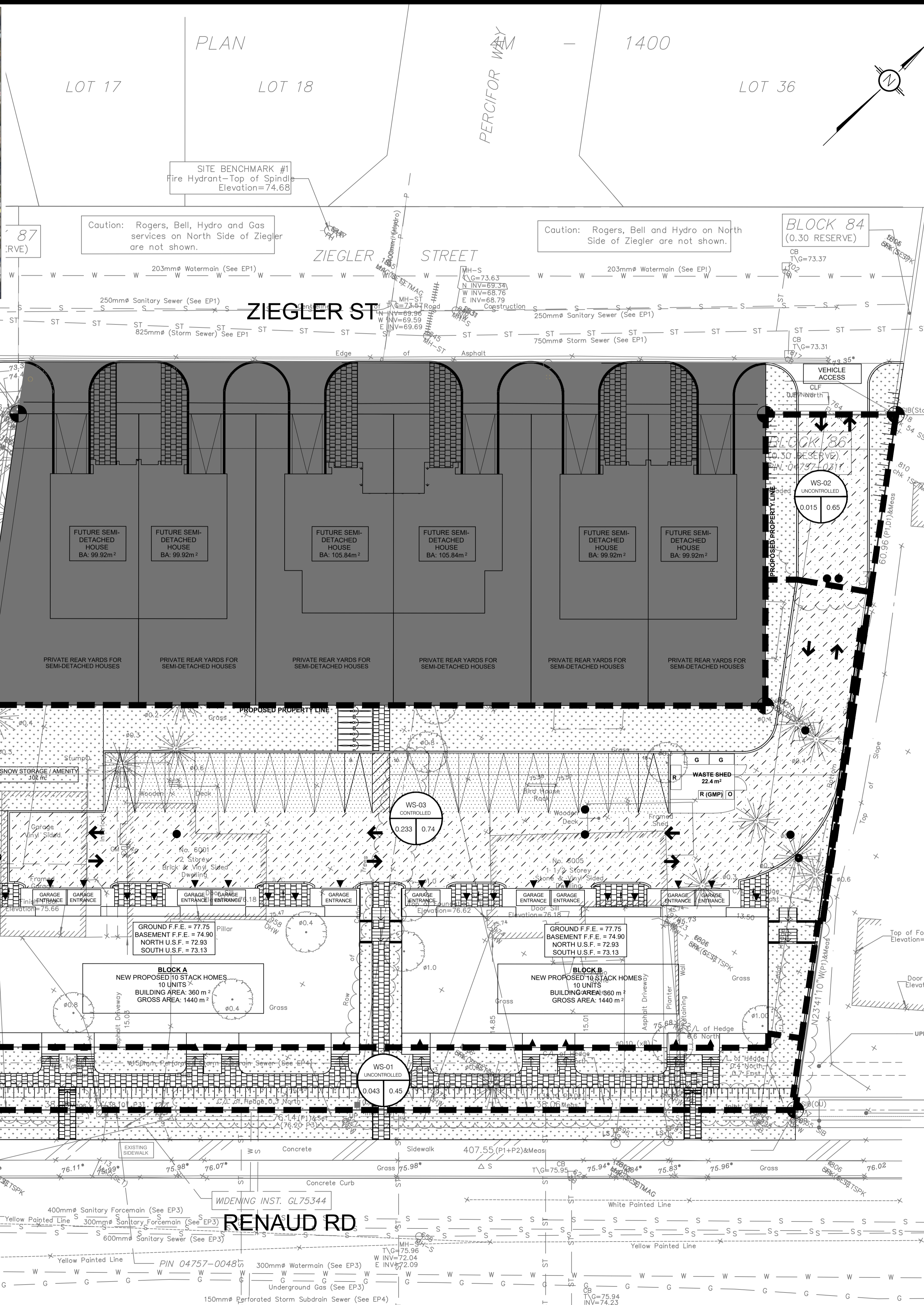
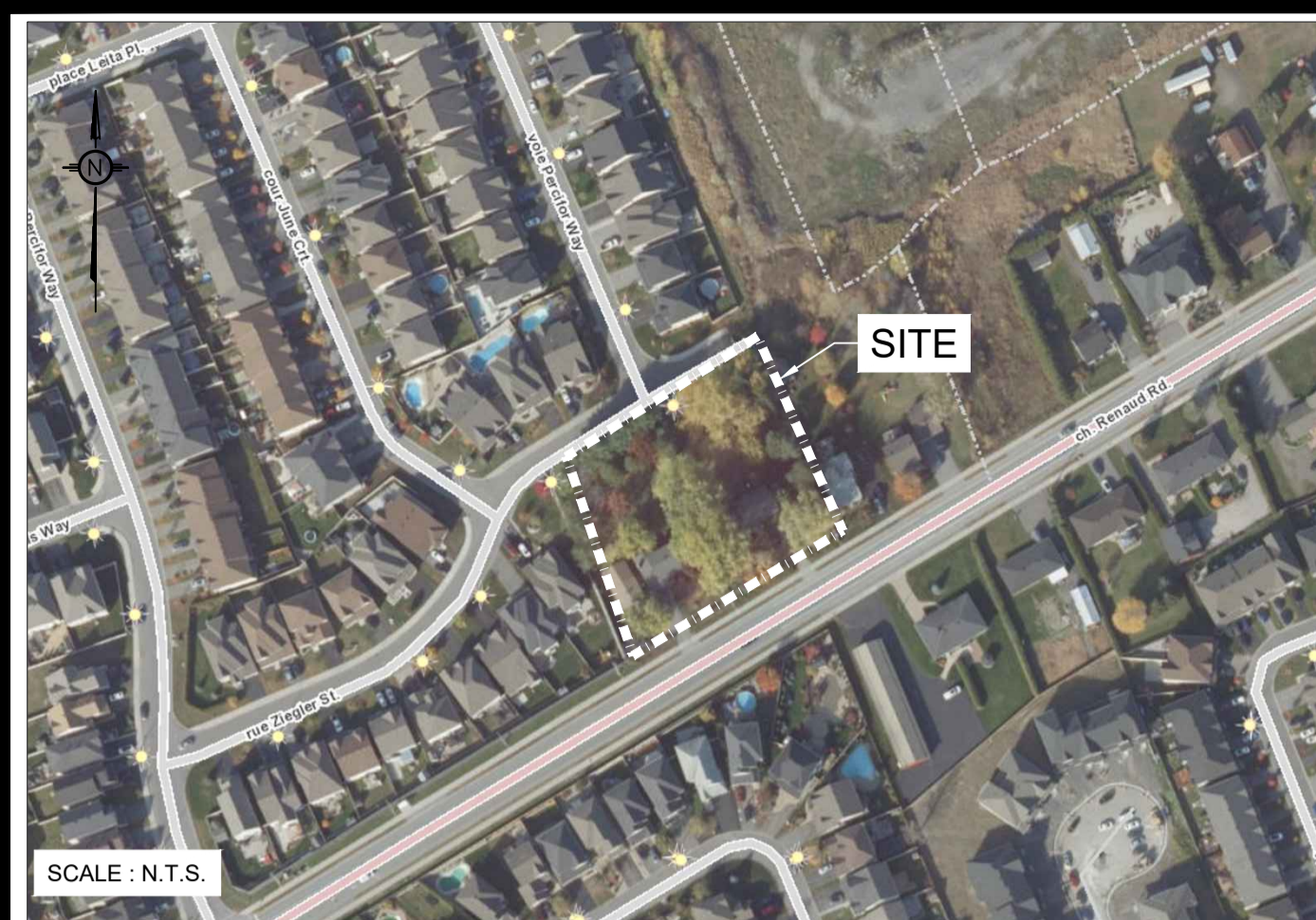
PROJECT: **NAVAN STACKED TOWN HOMES**  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

DRAWING TITLE: **PRE-DEVELOPMENT WATERSHED PLAN**

PROJECT NO: 210216  
DATE: NOVEMBER 2021  
**C701**  
DRAWING NO: DWG # 18559

CITY FILE # D07-12-21-0239





**LEGEND:**

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED TERRACING (3:1 MIN.)
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AS INSTRUMENTS OF SERVICE ALL DRAWINGS, SPECIFICATIONS, CAD FILES OR OTHER ELECTRONIC MEDIA AND COPIES THERE OF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

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SCALE: 1:200

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CLIENT: **LANDRIC HOMES**  
1173 CYRVILLE RD, SUITE 202,  
OTTAWA ON K1J 7S6

DESIGNED BY: K.H. DRAWN BY: K.H. APPROVED BY: V.J.

PROJECT: **NAVAN STACKED TOWN HOMES**  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

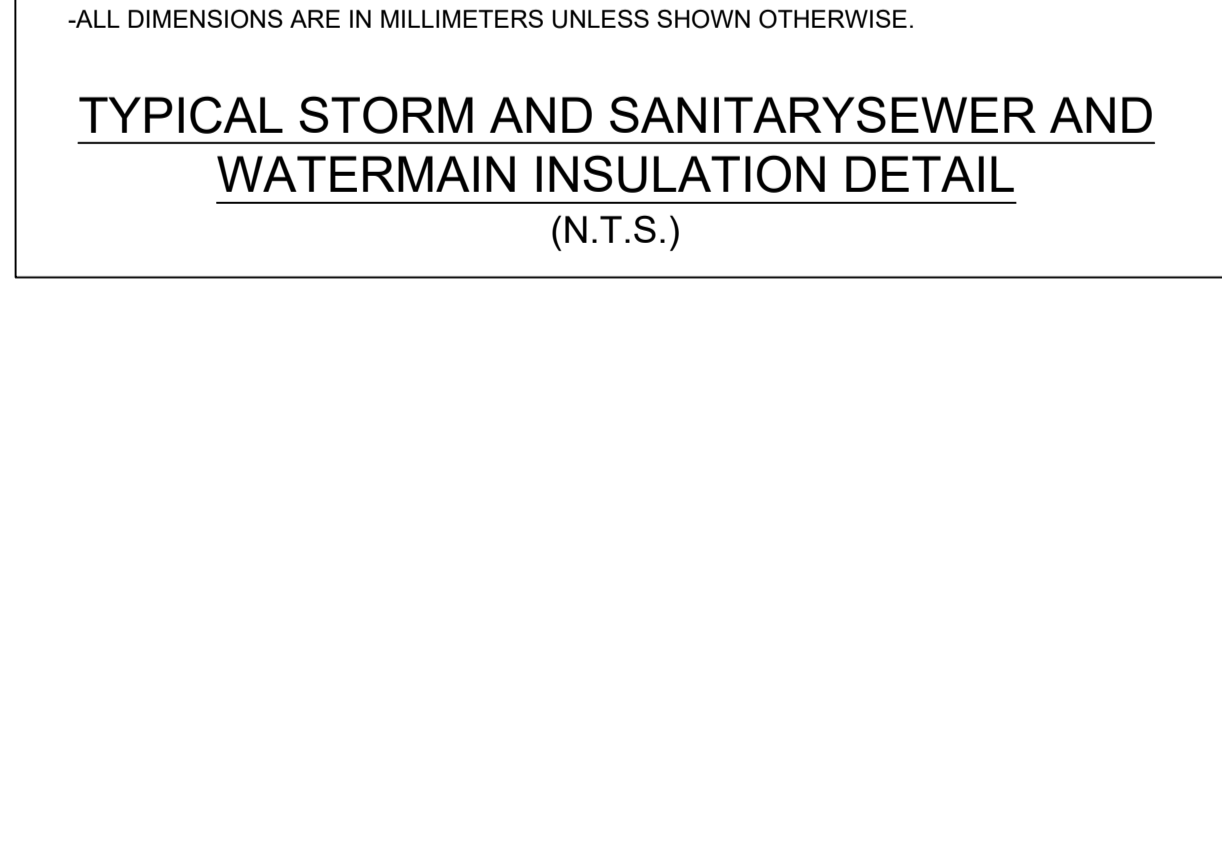
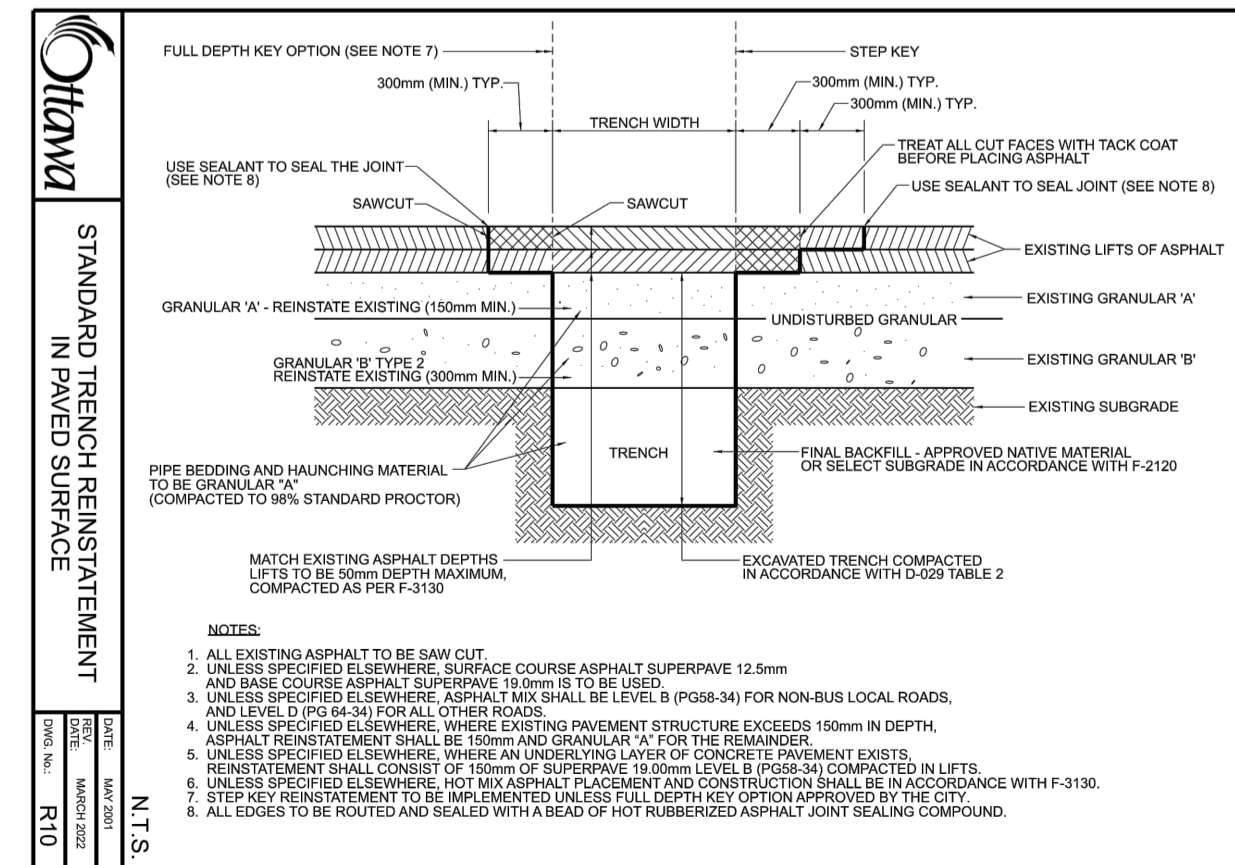
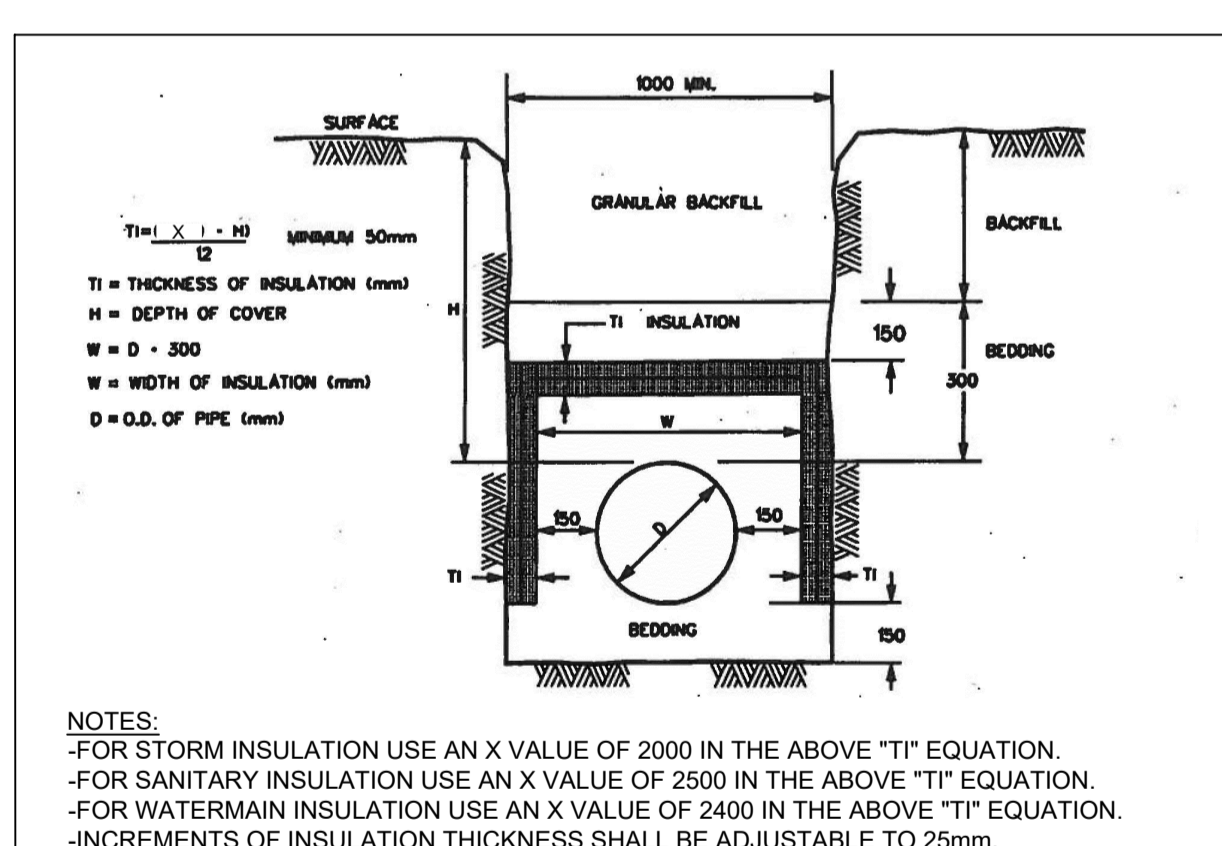
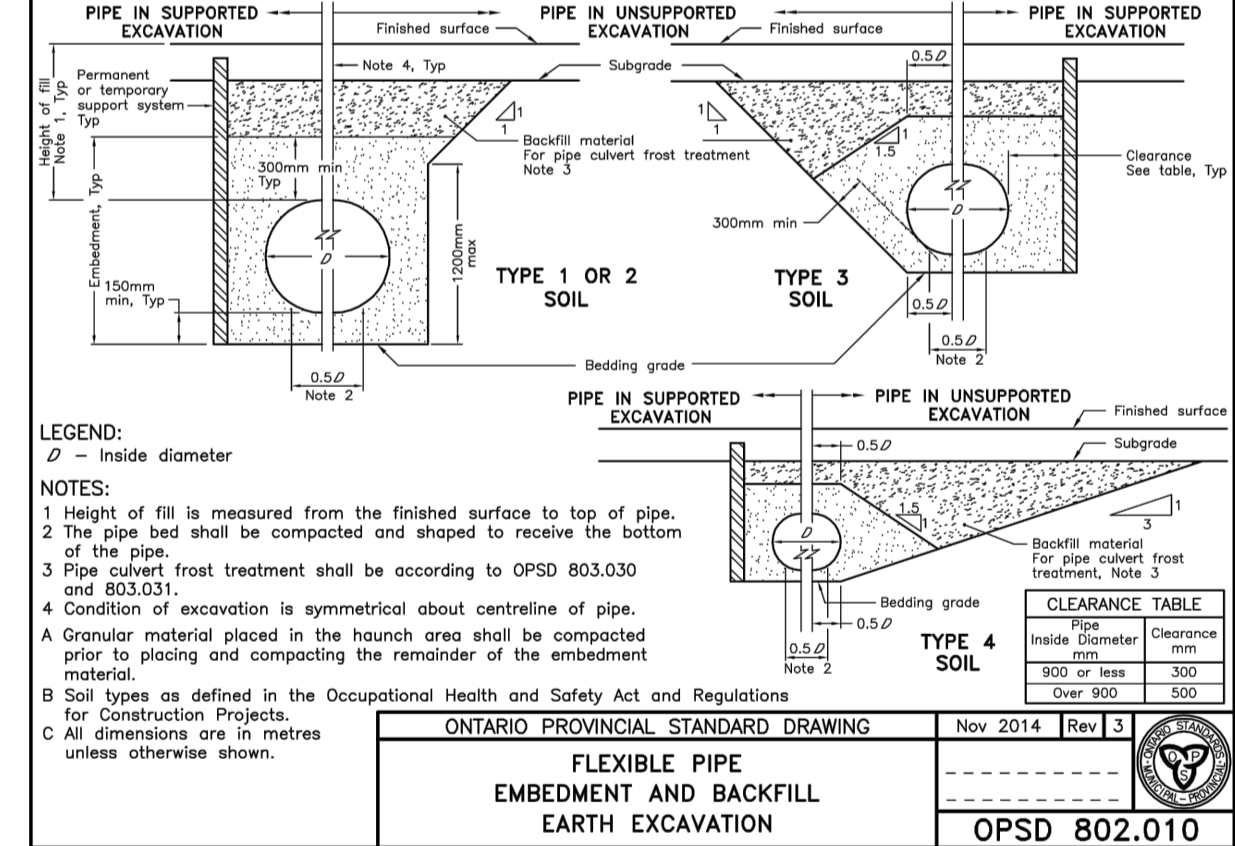
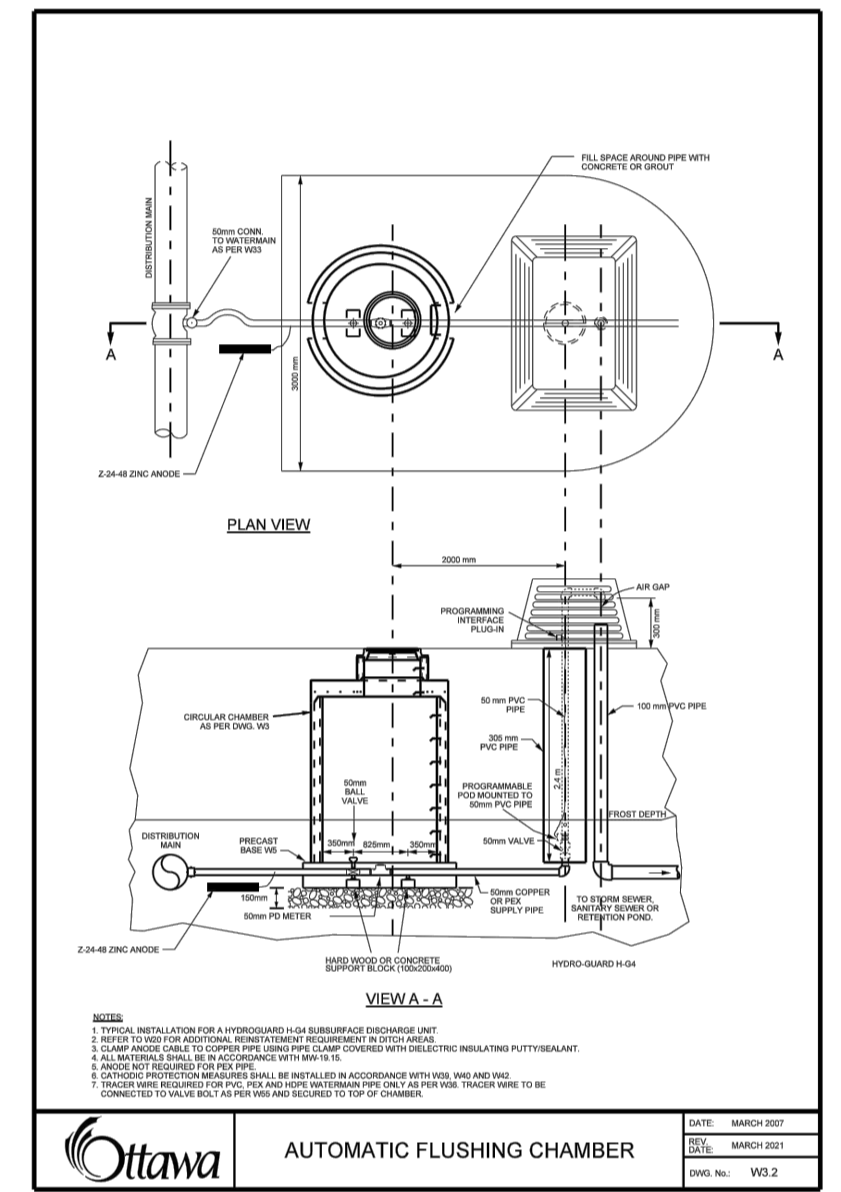
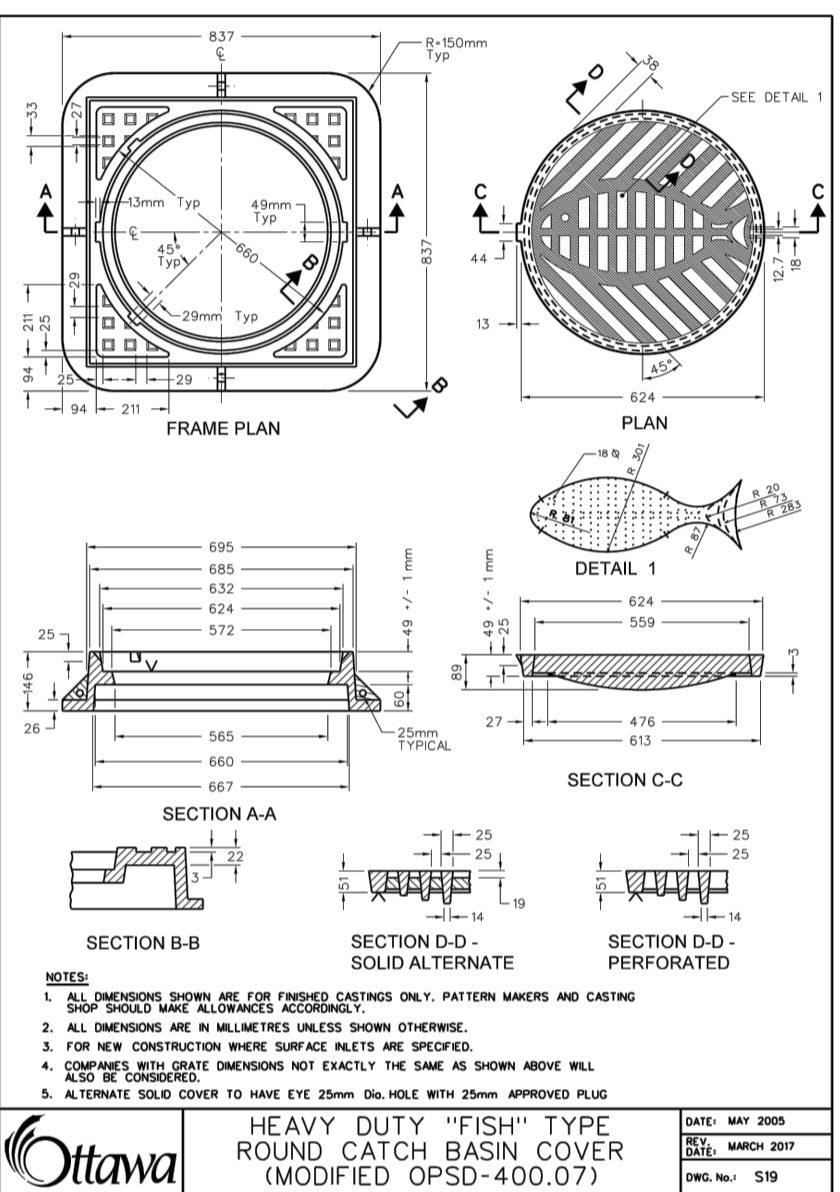
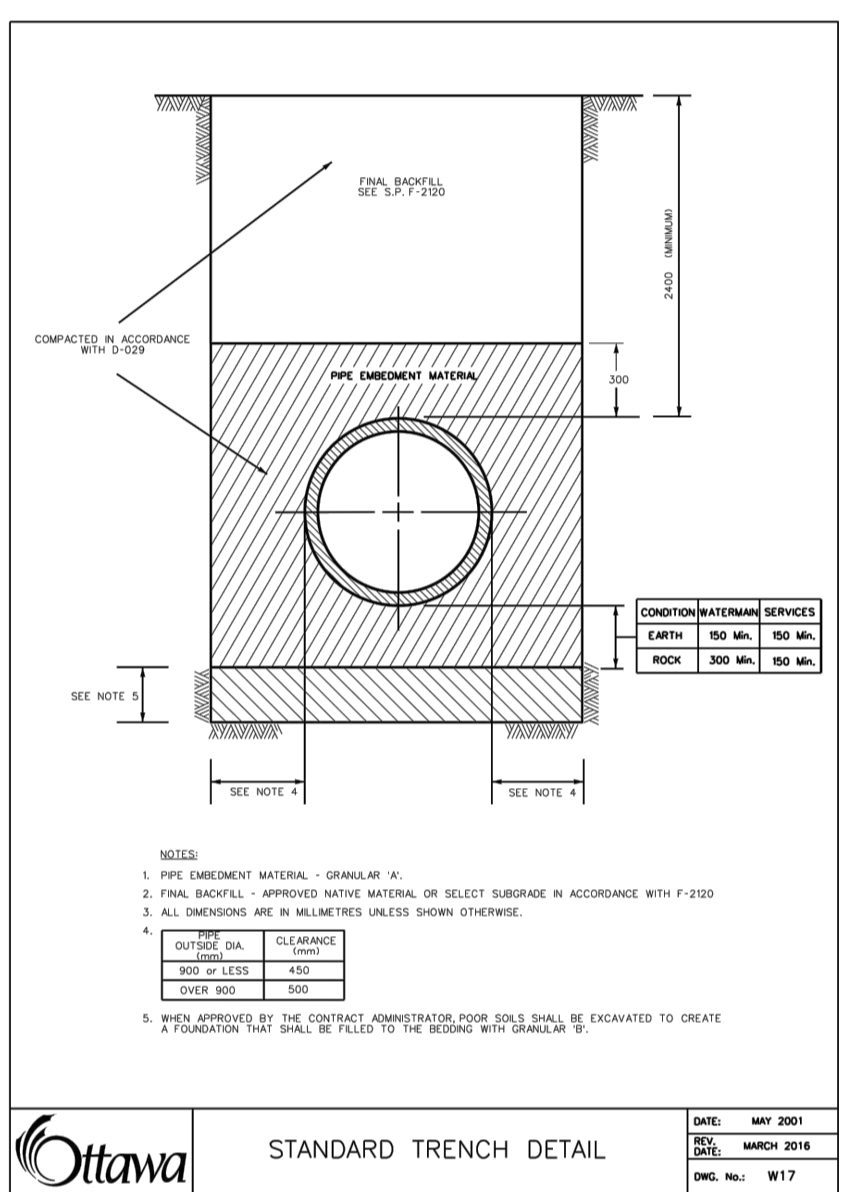
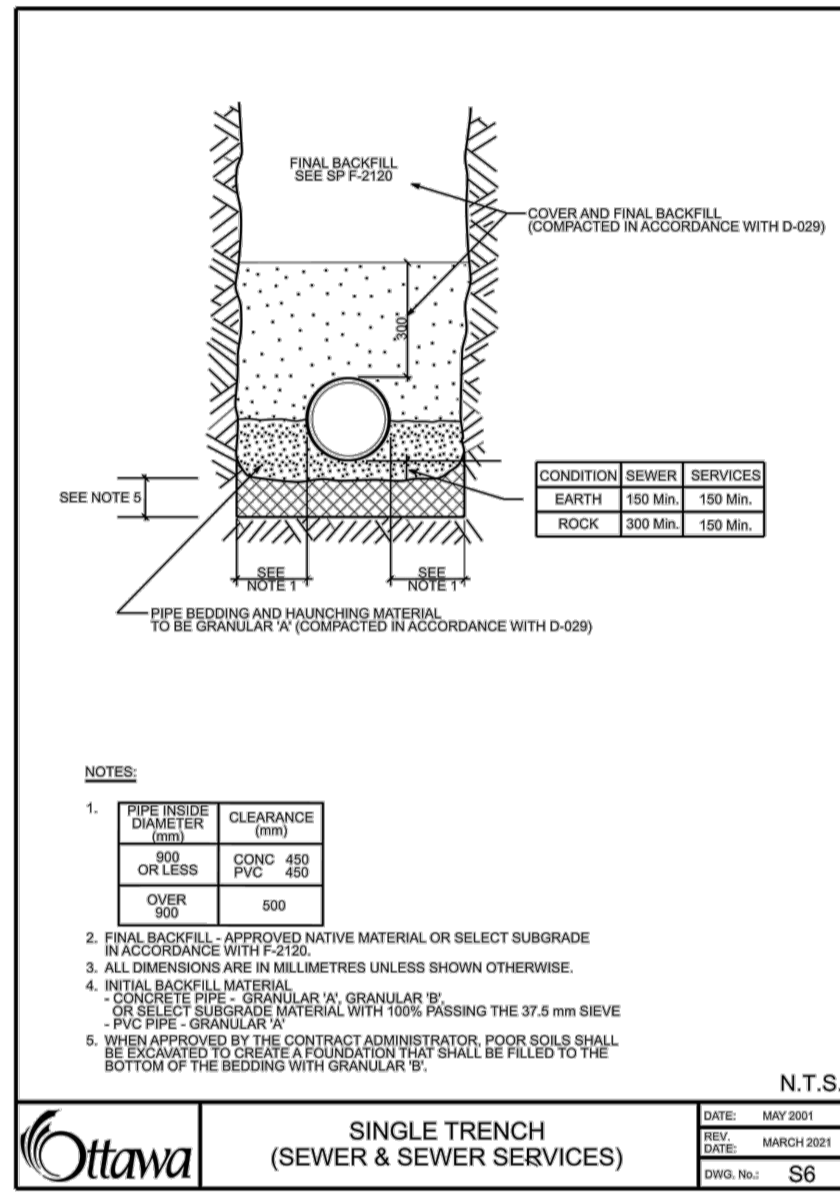
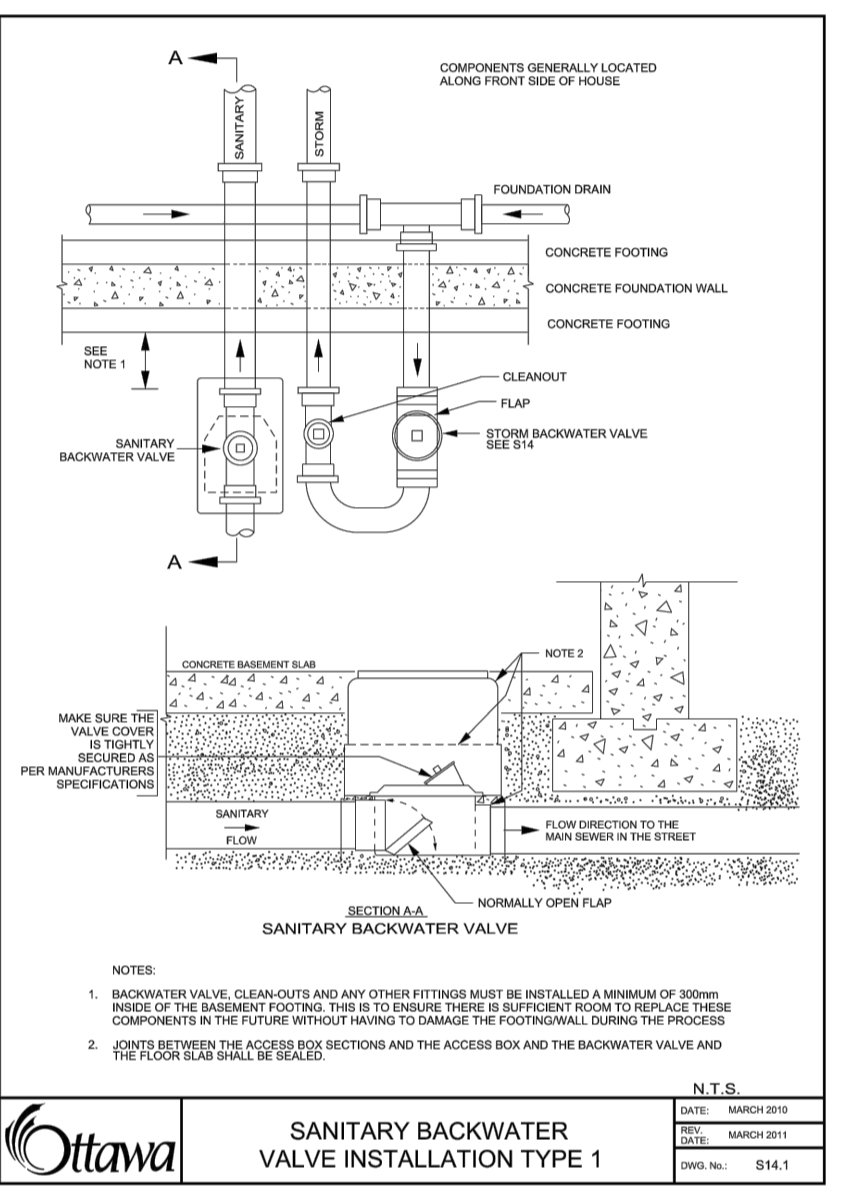
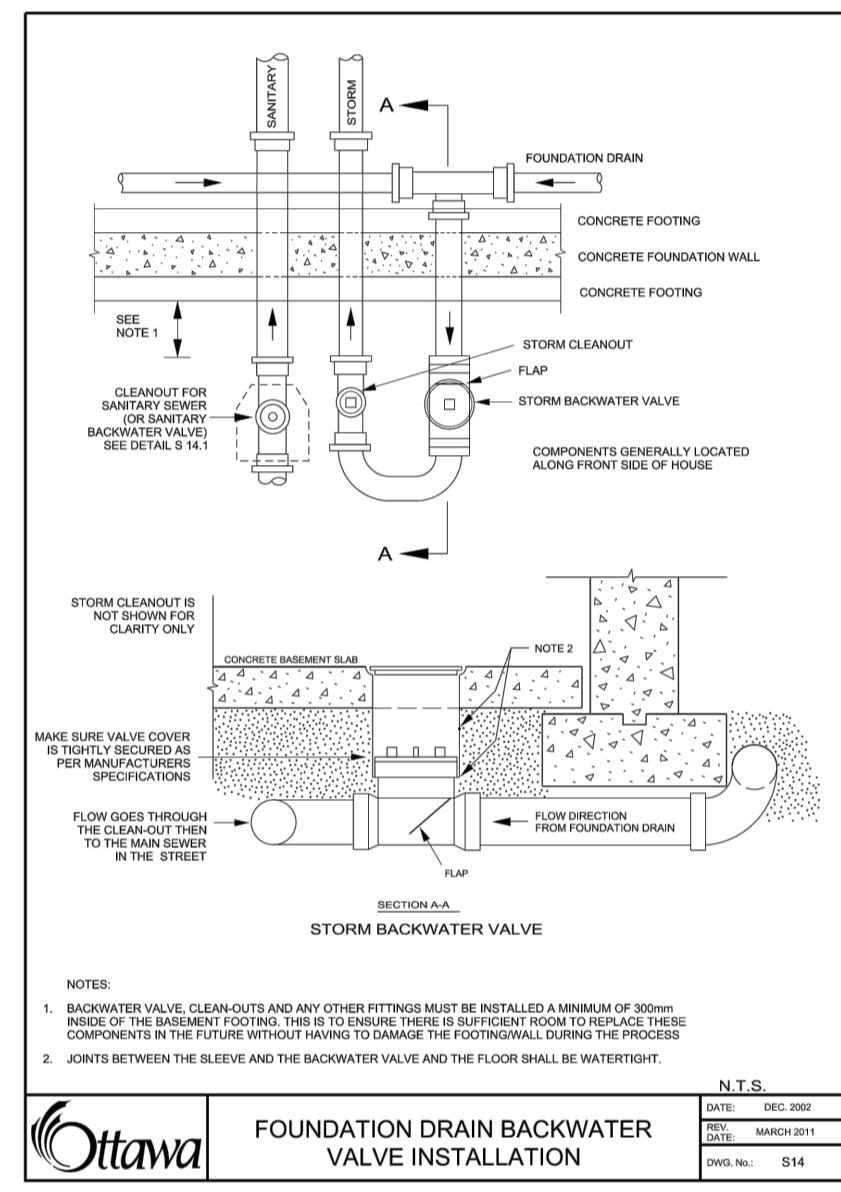
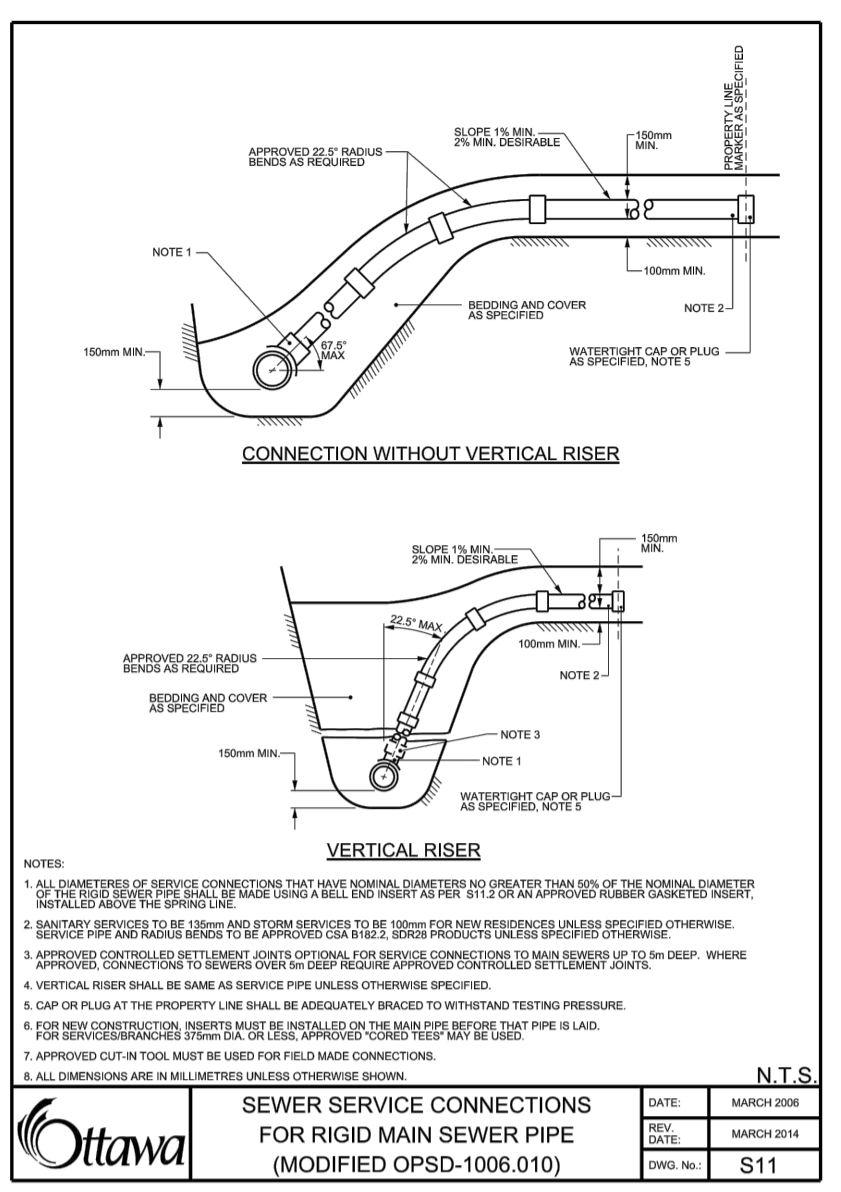
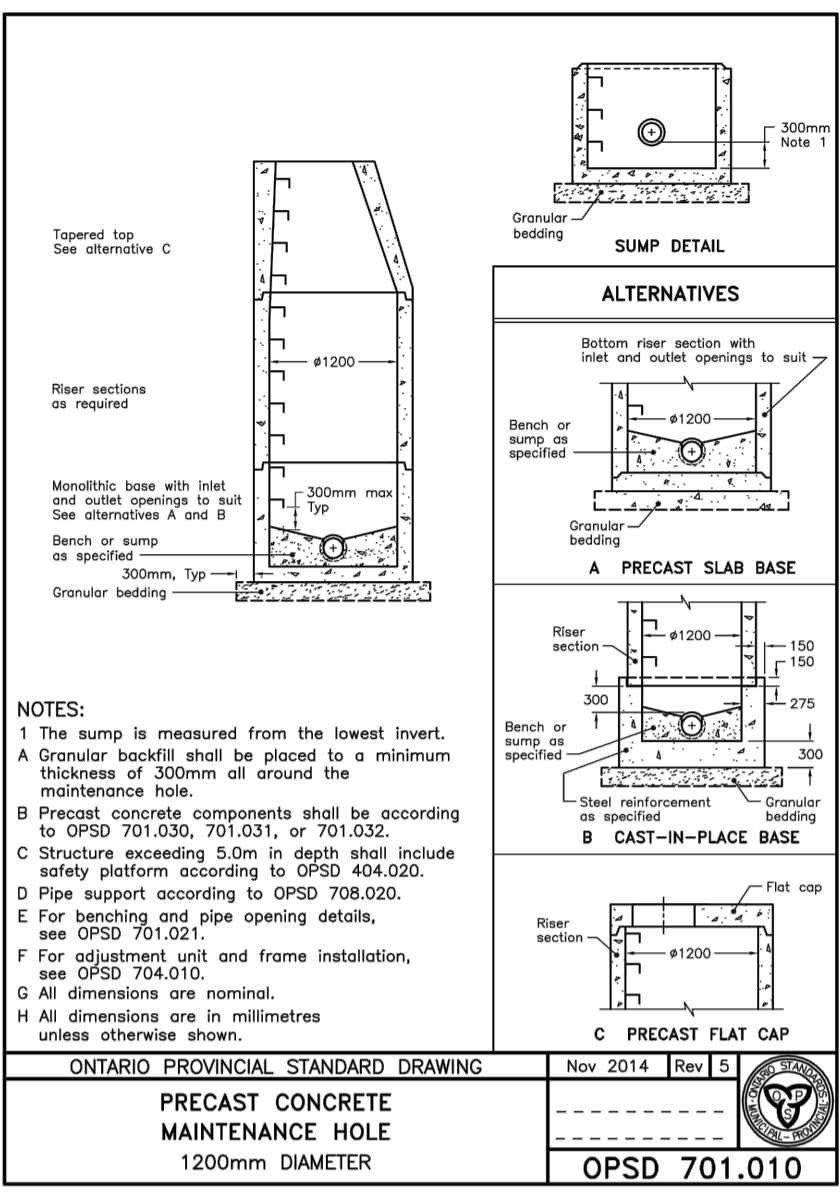
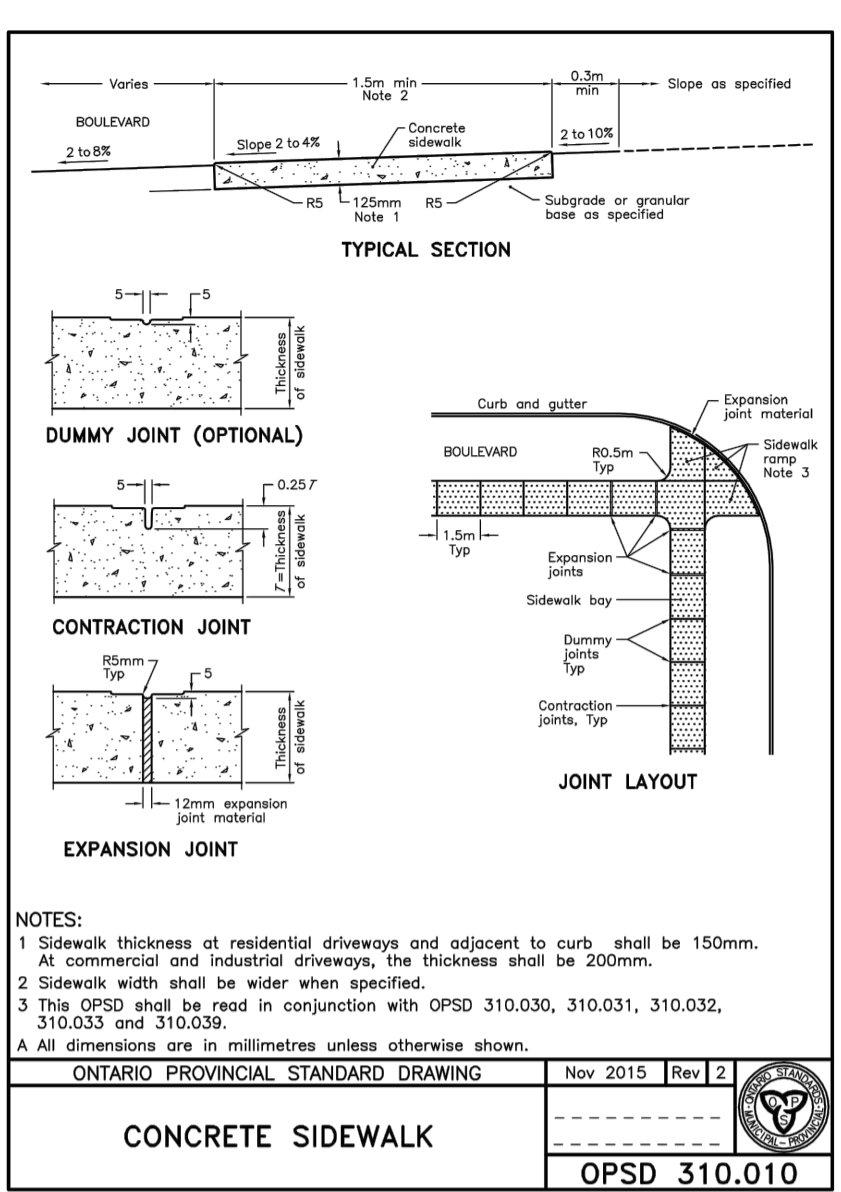
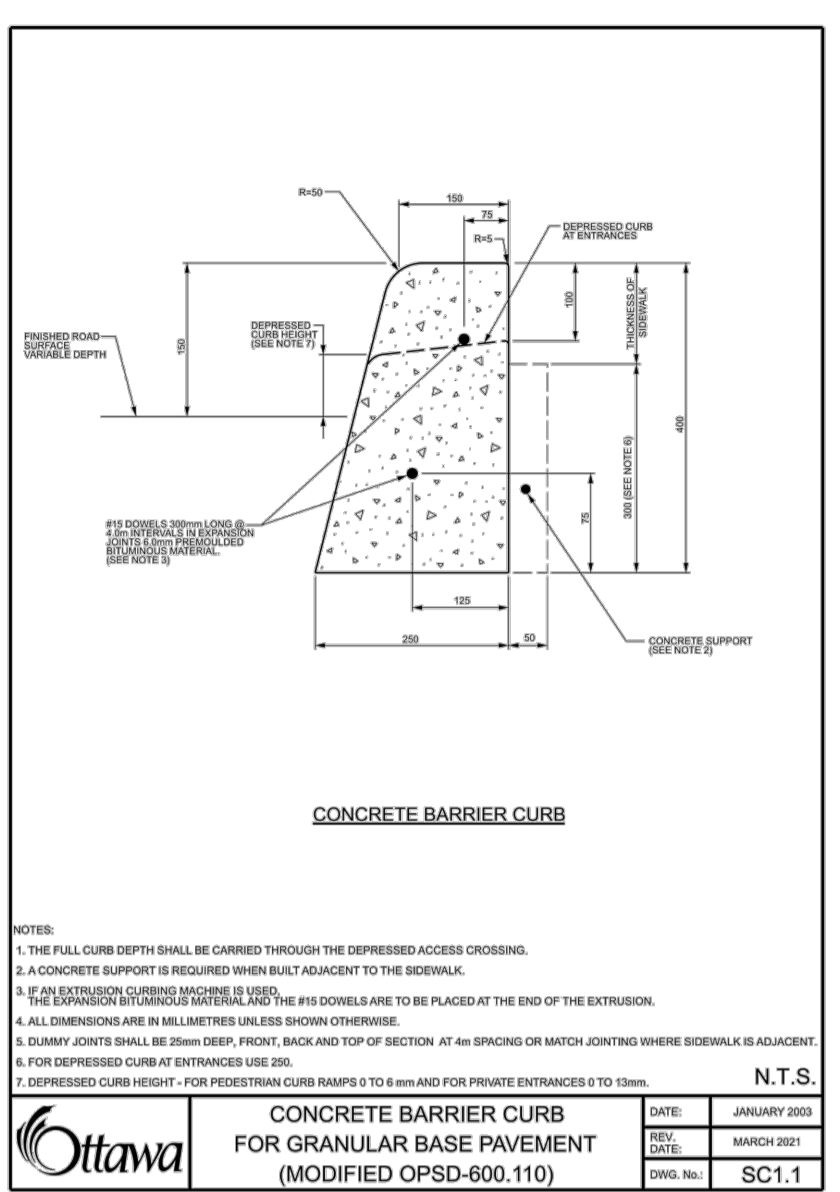
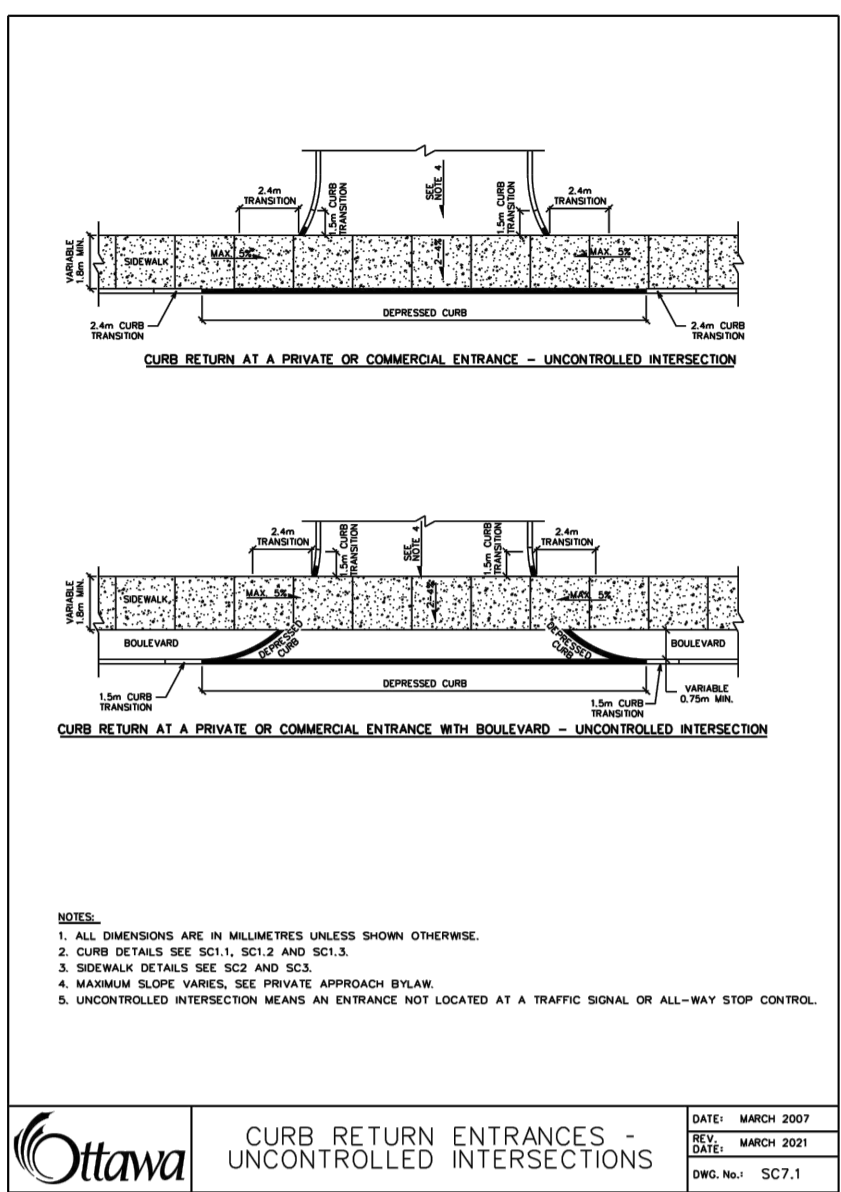
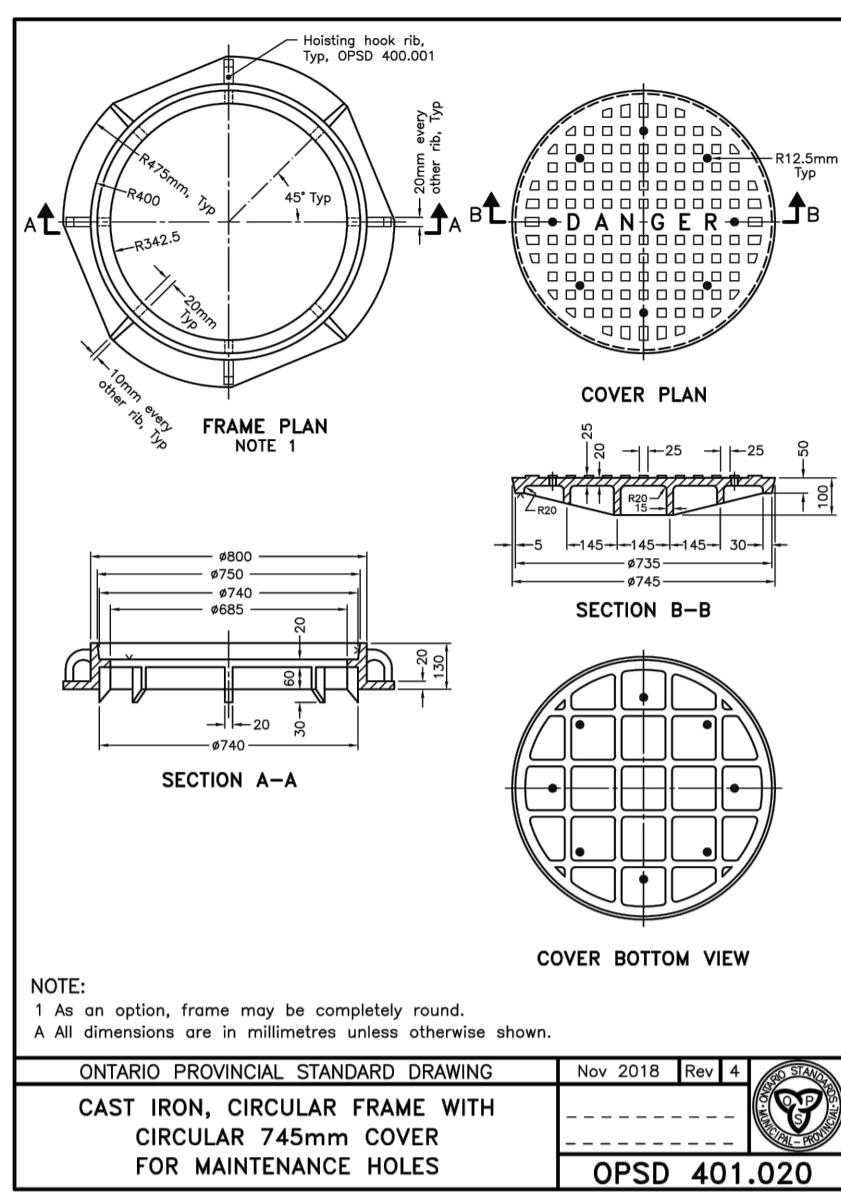
DRAWING TITLE: **POST-DEVELOPMENT WATERSHED PLAN**

PROJECT NO: 210216  
DATE: NOVEMBER 2021

**C702**

DWG # 18659

CITY FILE # D07-12-21-0239



**USE AND INTERPRETATION OF DRAWINGS**

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE THE SCOPE AND INTENT OF THE DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND REVIEWING ALL CONTRACT DOCUMENTS, SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAIL UNLESS OTHERWISE SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS REVIEWED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE ALL DRAWINGS, SPECIFICATIONS, CAD FILES OR OTHER ELECTRONIC MEDIA AND COPIES THEREOF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATE THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND SCHEDULES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS AN ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRI ASSOCIATES LTD. (LRI) WITHOUT OBTAINING LRI'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRI AND TO RELEASE LRI FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRI FROM ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

**GENERAL NOTES:**

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DRAWINGS INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHER FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

02	ISSUED FOR MUNICIPAL APPROVAL	K.H.	09 JUN 2023
01	ISSUED FOR MUNICIPAL APPROVAL	A.S.	24 DEC 2021
No.	REVISIONS	BY	DATE

**Licensed Professional Engineer**  
V. JOHNSON  
100510576  
06-09-2023  
PROVINCE OF ONTARIO

**LRJ**  
ENGINEERING | INGENIERIE  
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lri.ca | (613) 842-3434

CLIENT: **LANDRIC HOMES**  
1173 CYRVILLE RD, SUITE 202,  
OTTAWA ON K1J 7S6

DESIGNED BY: K.H. DRAWN BY: K.H. APPROVED BY: V.J.

PROJECT: **NAVAN STACKED TOWN HOMES**  
6001/6005 RENAUD RD,  
OTTAWA, ONTARIO

DRAWING TITLE: **CONSTRUCTION DETAIL PLAN**

PROJECT NO: 210216  
DATE: NOVEMBER 2021

**C901**

DWG # 18659



User Inputs

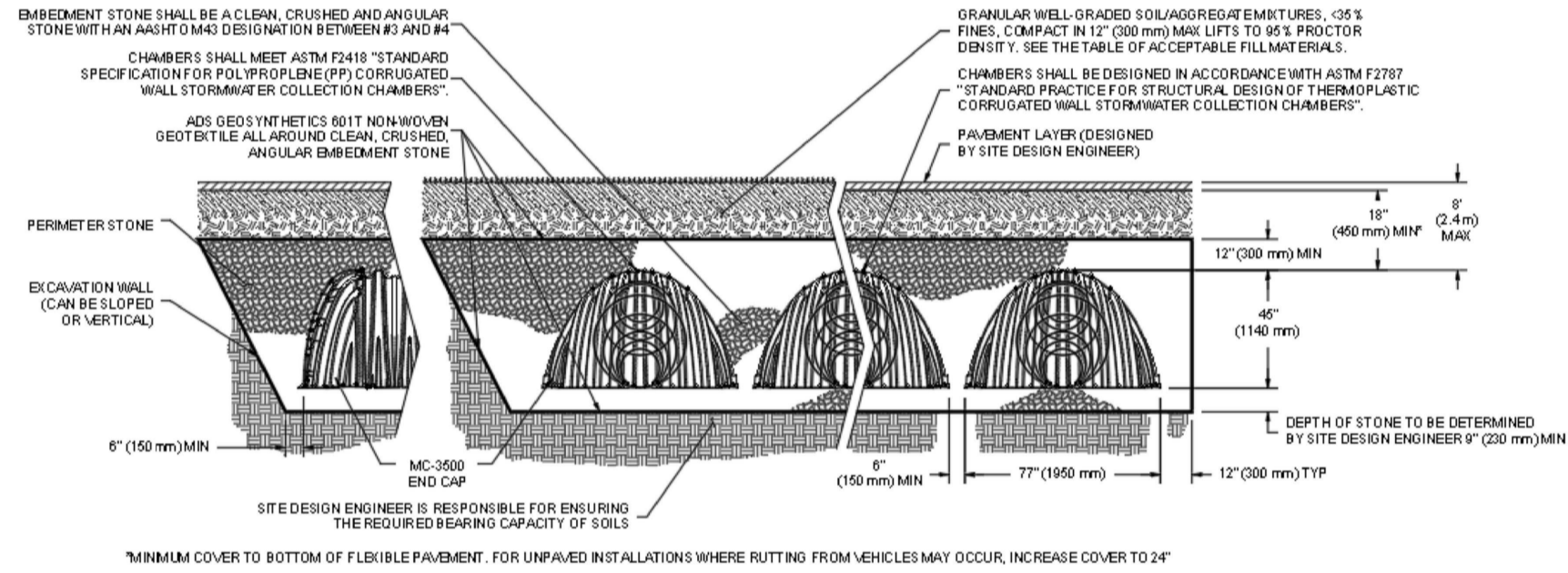
Chamber Model: MC-3500
Outlet Control Structure: No
Project Name: 6001/6005 Renaud
Engineer: N/A
Project Location: Ontario
Measurement Type: Metric
Required Storage Volume: 102.01 cubic meters.
Stone Porosity: 40%
Stone Foundation Depth: 229 mm.
Stone Above Chambers: 305 mm.
Average Cover Over Chambers: 458 mm.
Design Constraint Dimensions: (6.10 m. x 25.00 m.)

Results

System Volume and Bed Size
Installed Storage Volume: 111.11 cubic meters.
Storage Volume Per Chamber: 3.12 cubic meters.
Number Of Chambers Required: 19
Number Of End Caps Required: 4
Chamber Rows: 2
Maximum Length: 24.80 m.
Maximum Width: 4.68 m.
Approx. Bed Size Required: 111.28 square meters.

System Components

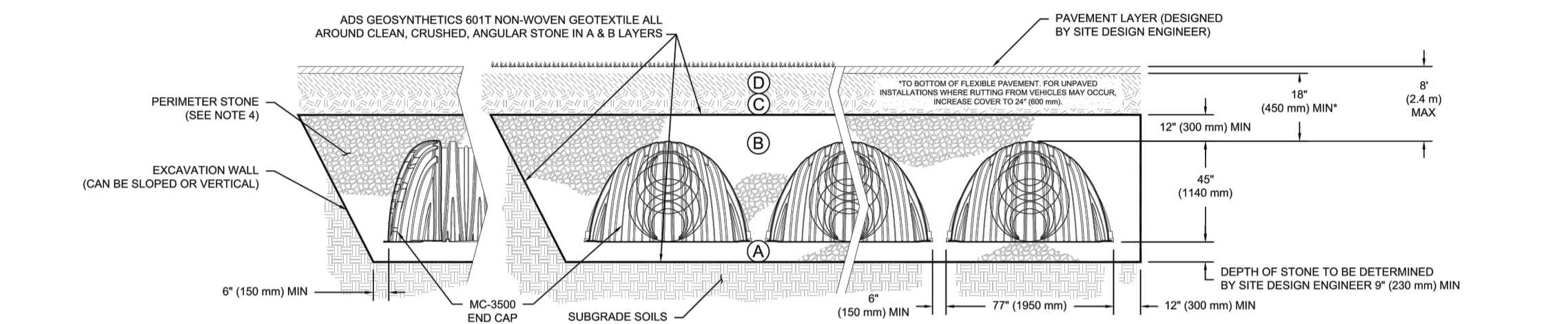
Amount Of Stone Required: 126 cubic meters
Volume Of Excavation (Not Including Fill): 187 cubic meters
Total Non-woven Geotextile Required: 386 square meters
Woven Geotextile Required (excluding Isolator Row): 14 square meters
Woven Geotextile Required (Isolator Row): 74 square meters
Total Woven Geotextile Required: 88 square meters
Impervious Liner Required: 0 square meters



ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

Table with 4 columns: MATERIAL LOCATION, DESCRIPTION, AASHTO MATERIAL CLASSIFICATIONS, COMPACTION / DENSITY REQUIREMENT. Rows A-D describe different layers and materials.

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY...
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR ALL LOCATION MATERIALS...
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION...
4. ONCE LAYER 'C' IS PLACED, ANY SOIL MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE.



- NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a...
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787...
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE...
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL...
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING...
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL...
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION...

StormTech Chamber System logo and contact information. Includes phone number 416-735-5255 and website www.stormtech.com.

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Table with 4 columns: No., REVISIONS, BY, DATE. Shows revision 02 issued for municipal approval and revision 01 issued for municipal approval.



NOT AUTHENTIC UNLESS SIGNED AND DATED

LRJ ENGINEERING | INGENIERIE
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6001/6005 RENAUD RD, OTTAWA, ONTARIO

DRAWING TITLE: CONSTRUCTION DETAIL PLAN

PROJECT NO: 210216
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C902

CITY FILE # D07-12-21-0239