



J.H. COHOON ENGINEERING LIMITED

CONSULTING ENGINEERS

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November 17, 2023

Norfolk County
Community Development Division
185 Robinson Street
Suite 200
Simcoe, Ontario
N3Y 5L6

Attention: Ms. Annette Helmig, Dipl.M.A., AMP, CMMIII
Agreement and Development Coordinator

Fabian Serra,
Planner

Dear Ms. Helmig:

**Re: SPPL2023227
MN 600 Norfolk St N,
Simcoe, Ontario
Proposed Eighteen (18) Unit Stacked Condo
Engineering Comments 1st Submission
Norfolk County**

In response to the comments provided by Norfolk County dated October 30, 2023, with regards to the above noted application(s), we have provided you with the updated drawings and associated reports representing the changes that have occurred. For clarity, we have included the comments received with the appropriate explanation for your review and approval.

General:

1. Security calculations were not submitted with this 1st submission. Securities will be required in the form of a Schedule 'H' template. 10% for site works completed on private property and 100% of works completed within the municipal R.O.W.

Securities estimate was provided supplemental to the original submission. We have included an updated estimate of those securities for you review and consideration.

2. All Drawings are to be signed and sealed by a P.Eng.
The updated drawings are stamped.

3. As per Norfolk County design criteria section 16.4.05 and 16.5.05 please include an Electrical Services Plan with your next submission. This can be included with the General Services Plan as long as it is legible.

The electrical servicing plan has been included within this submission.



Professional Engineers
Ontario

Functional Servicing Report (Dated August 31, 2022):

4. In the FSR it identifies that the orifice in ST1 is to be 100mm. This orifice must be moved to a structure that properly restricts the Stormwater discharge for the entire site. Please re calculate the orifice size for the entire site. It seems that this orifice is quite large for such a small site. However, it is recognized that the minimum size of Orifice according to the Stormwater Management Planning and Design manual shall be 75mm Dia.

Subsequent to the discussion held with Mr. S. Gradish of Norfolk County, we have included an additional orifice plate at the location identified which will protect the downstream storm sewer system from surcharging as a result of large storm event. We note that the analysis carried out on this site, resulted in the post development flows being reduced to the pre-development levels with only the required orifice plate. The additional orifice plate that is being proposed is located within ST4.

Utilizing the falling head equation with the following input parameters

Permitted outlet Flow Rate (5-year storm event)	=	0.048 cms
Tog of Grate	=	218.00
Proposed Invert	=	215.80

Falling Head Equation

The sizing of orifice plates / pipes used as orifices and the resulting flow are based upon the following falling head equation:

$$Q = CA \sqrt{2gh} \quad \text{where:}$$

C is the inlet coefficient
A is the area of the orifice
g is the gravitational constant
h is the height of water above the opening

Orifice Plate Proposed

= 125mm

5. On page 15 of 76 the Post development Flows show roughly 1/3 of the building's roof water going to Norfolk Street N unattenuated. This is not permitted. Please revise the report and drawings to divert roof water leaders to the parking lot storage areas.

Subsequent to the discussion held with Mr. S. Gradish of Norfolk County, we have included an additional orifice plate at the location identified which will protect the downstream storm sewer system from surcharging as a result of large storm event. We note that the proposal has been modified to direct the downspouts to the storm system. We note that the analysis carried out on this site, resulted in the post development flows being reduced to the pre-development levels with only the required orifice plate.

6. Any requirements to upsize either the Water service or Sanitary servicing must be clearly justified in the Functional Servicing report. As stated in Comment 12 below there are concerns the existing water service may not be large enough for this proposal.

We have included an increase in the water service size to include a 50mm diameter service which adequately services the site. The sanitary sewer is sufficient to handle the discharge to the site.

7. Under Section 7.0 it references Brantford Power. Please change this to read Hydro One.
The attached functional servicing report is attached to this submission.

TRAFFIC IMPACT STATEMENT (Dated September 6, 2022):

8. As mentioned in the Pre consultation meeting notes, Development Engineering was looking for a Traffic Impact Study to assess the existing entrance to see that it is adequate for the new use. A Traffic Impact Statement was provided with the Zoning application and resubmitted with the Site Plan application. In Development Engineering review it is proposed that there are under 9 site trips from the site at Peak hour. In the opinion of Development Engineering this should not have an impact on the existing traffic in the area.

Information only and acknowledged.

Development Engineering has recognized that the existing entrance to the property does have some site line concerns. However, given the configuration of the property there is no other practical location for the driveway on the site. Through further review of the Detailed Engineering review for Site Plan approval, it is the recommendation of Development Engineering that site lines are reviewed to ensure adequate distances are maintained.

Our staff has attended the above noted site and reviewed the site lines in the vicinity of the proposed / existing entrance and feel that adequate site lines are available.

SITE DEVELOPMENT PLAN (Dwg. No. 15598-1):

9. Please identify the location of Roof water leaders. The locations shall ensure all roof water is directed to the proposed SWM areas. No roof water shall leave the site unattenuated.

The proposal has been updated to address the concerns / comment above. We note tat the stormwater management analysis previously (and now augmented) will restrict the runoff from this site to the pre-development levels (whether or not the flow is directed through the storm sewer system) and therefore, the Norfolk County criteria is being achieved.

10. In discussions with the Developer of the property an alternate concept for water servicing is being explored. In the alternate concept the water service will NOT go directly to a utility room and may have multiple service connections outside of the building. If this is the preferred concept, then Norfolk County will require the developer to install a Dual Check Valve Assembly (DCVA) device in a watertight chamber at Property line. Further details on this requirement can be available through Norfolk County's Environmental Services Department.

The proposal is to take the water service (now revised to 50mm directly to the utility room. The County will have a single water meter installed in the room and the provision of separate meters or the individual meter for the various units is a decision for the developer at a later date.

10. In discussions with Norfolk County Environmental Services, it is the opinion of Norfolk County that a Stacked Townhouse configuration must have a single Premise meter for the entire property. Any submetering for each unit will be the responsibility of the Developer at their expense.

Refer to the response under item 10 above.

11. In consultation with Norfolk County Environmental Services department there are concerns with the proposal of connecting to the existing 25mm Water service and whether it will be adequate for a development with 18 units. In your next submission please confirm the size of water service required to meet the demand of this proposal. This **MUST** be justified in a revised Functional Servicing Report. If the current water service is required to be up sized, please update the drawings accordingly.

A 50mm diameter service is being proposed in this case.

12. The proposed water service shows a bend within the County ROW. Bends are not permitted within the County ROW. On your next submission please have the water service extended to property line perpendicular to the main and then bend at the Property line valve (CS) and travel in a straight line to the building.

Although we have complied with the request, we would like to point out that the County during the reconstruction project included a water service (as illustrated on the plan) that "kinked" to the property line.

13. Please show the Property line Curb Stop valve on the proposed water service.
The site plan has been updated accordingly.

14. Please be aware that Norfolk County recommends a blow off on the dead-end of any private water service for future flushing and maintenance. If the proposal changes to a configuration where water servicing is outside of the building, then a blow off will be required.
With the configuration proposed, no blow off is required for this site.

15. San Inspection MH S1 has to be placed on the property line. County must have access, but the ownership is the property owner.
The site plan has NOT been modified due to the location of the various services in this area. With the limited frontage and respecting the location of those services, we are recommending that the manhole to remain as shown. The County may want a provision in the site plan agreement that the location may be impacted during the any reconstruction projects. In order to maintain the clearances that are required by the Ministry of the

Environment, the location of the sanitary manhole should be maintained to allow for the County testing (if required) and the appropriate clearances from the other services.

16. The sanitary Lateral is shown to have a bend within the County ROW. Please be aware that bends are not permitted within the County ROW. In your next submission please extend the Sanitary lateral to the property line and then place the Inspection manhole.

The site plan has been updated accordingly.

17. According to As-built drawings of Second St, the water and sanitary services are in different locations than shown on this site plan. Please review the attached drawing S-1042 and revise drawing as necessary.

Information only and acknowledged.

18. Development Engineering understands that private internal Sanitary sewers cannot run under Stacked townhouse configurations. If this requires a private sanitary main outside the building, then it is the recommendation of Development Engineering that a Manhole or cleanout should be placed at the dead-end for future maintenance.

The site plan has been updated accordingly.

19. This drawing identifies that the Orifice plate is to be in ST1. However, this would mean that much of the site is not controlled for stormwater. Please review the stormwater design and relocate the Orifice plate to the structure that will protect the entire site.

a. If all existing storm sewers on site are being removed, then will it be appropriate that the Orifice should be placed in ST4? Please confirm.

b. As mentioned in Comment 4 the sizing seems large for a site this small. Please confirm calculations for 100mm orifice are correct.

Please review the comments above.

20. Please label the size of existing storm sewer leaving the site onto Municipal property. Confirmation that this existing storm sewer is adequate is required.

The site plan has been updated accordingly.

21. It appears that sections of the proposed retaining wall will exceed 0.6m in height. It is the opinion of Development Engineering that heights over 0.6m will require a building permit and may require an Engineered Stamp. In your next submission please confirm all requirements for the final wall design. This retaining wall shall be identified in the securities at 100% as it may affect the neighbors.

The retaining wall meets the requirement for a separate building permit application. site plan has been updated accordingly. A detail (stamped) is an acceptable engineered solution (although various products are available to the developer to consider that will continue to meet the requirements.

#12598

November 17, 2023

SPPL2023227

MN 600 Norfolk St N,

Simcoe, Ontario

Proposed Eighteen (18) Unit Stacked Condo

Engineering Comments 1st Submission

Norfolk County

Page 6 of 6

22. It appears there is an existing communications pedestal located in the new driveway. Please add a note to the drawing that the Pedestal is to be relocated at the Developers expense. Also please confirm that the Utility has been notified and is aware of this relocation. The cost of relocating the pedestal is to be included in the Securities at 100%.

The Cost Estimate has been updated accordingly.

LANDSCAPE PLAN (Dwg. No. 15598-2):

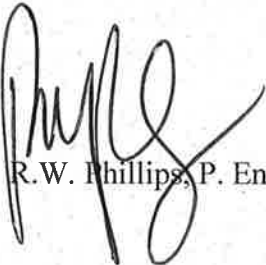
23. Please note that Development Engineering has not reviewed or Approved the Retaining wall design shown on this drawing. All approvals are to be granted by others. All retaining walls are to be shown in the securities at 100%.

The Cost Estimate has been updated accordingly.

If you have any further questions, or concerns, please do not hesitate to contact this office.

Yours truly,

J. H. COHOON ENGINEERING LIMITED



R.W. Phillips, P. Eng.

Orifice Plate Calculations
Proposed Townhouse Development

MN 600 Norfolk Street
Simcoe, Ontario

Job: 15598

"November 2023

Pond Area ST1

Stage (m)	Depth (m)	Storage (cu.m.)	Discharge (cms)	h (m)	2gh	$=(2gh)^{**0.5}$	C
218.00	218.00	22.40	0.0446	2.3625	46.35225	6.8082	0.63

Invert of Outlet/Orifice Plate
Orifice Plate Diameter
Centreline of Orifice Plate

215.58
115 mm
215.64

Area of Orifice
Structure Storage

0.0104 sq.m.
0 cu.m.

Target 0.048 cms

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

Comments on Site Plan	How addressed
Planning Department	
Indicate the proposed snow storage location on the site plan.	Revised on 2 nd Submission Site Plan Drawing
If community mailboxes are proposed, show the proposed location of the mailboxes on the site plan.	Community mailboxes will be added to the existing mailboxes on Second Ave.
Recommended that fencing provided to the south of the subject lands to provide screening and improved privacy.	Fencing shown on North & West property lines. Retaining wall on the South property line has a guard as required by Ontario Building Code.
See parking provisions outlined from zoning.	in progress
Building Department	
Revised Site Servicing Plan is required. 1. Separate services. Each stack of townhouses is to have a separate sanitary building drain connected to a sanitary building sewer located outside the building. OBC 7.1.5.4 (4) No plumbing serving a dwelling unit shall be installed in or under another unit of the building unless the piping is located in a tunnel, pipe corridor, common basement or parking garage, so that the piping is accessible for servicing and maintenance throughout its length without encroachment on any private living space, but this Sentence does not prevent plumbing serving a unit located above another unit from being installed in or under the lower unit.	Site Servicing plan revised
2. Water service is to be adequately sized to support 18-3/4" minimum water service lines at peak flow [OBC 7.6.3.4, 7.6.3.1	Site Servicing plan revised
Zoning Department	
Stacked townhouses permitted in zone	okay
Front lot line considered to be along Second Avenue West (i.e. shorter lot line abutting a street).	addressed By-law 4-Z-2023
Balcony (shown below) does not meet section 3.10(d) of ZBL; 6 meters from rear lot line required, only 3.15 meters provided	Email dated October 27, 2023 from Fabian Serra confirming balcony is acceptable. (attached)
It appears visitor parking may fall within sight triangle, see section 4.2.2 and 3.31 of ZBL below.	Email dated October 27, 2023 from Fabian Serra confirming Site triangle is satisfied. (attached) MV application in progress
Fire Department	
Ensure that adequate access for fire apparatus is provided along with turn around facilities (if required).	Fire access Route is provided as shown on Site Plan. Access route is less than 90.0 m long accordingly no Turn around facility is required as per Ontario Building Code

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

Comments on Site Plan	How addressed
Long Point Region Conservation Authority (LPRCA)	
After reviewing this application, staff have not reviewed any further information then during the first application circulated in July 2023. Therefore, LPRCA’s conditions have not changed. (see attached)	LPRCA's comments from the Zoning amendment are being reviewed. The storm water management plans will be sent to the CA for their review.
Source Water Protection	
This property is not within a Source Protection area.	okay
Canada Post	
Please be advised that Canada Post will install Community mailboxes for this development since it will not be 1 complete building with a common entry point for the 18 units. We can place these modules beside / near the building on the property which I will work with the developer on a site location or we can add modules to the existing site on Second Ave W for these units	Community mailboxes will be added to the existing mailboxes on Second Ave. Owner will contact Canada post at appropriate time.
GIS	
Please contact NorfolkGIS for new civic addresses when building	will contact GIS at appropriate time
Realty Services	
If the property owner is required to enter into a Development Agreement, then the County will require postponements of any charges/mortgages (if any) on title to the County’s Development Agreement.	in progress
Agreement Coordinator	
A condition of your site plan approval will be to enter into a development agreement with the County. The agreement will be registered on title at the owner’s expense. If there are any mortgage holders they will be added as a party to the agreement. We will collect and hold your performance securities for infrastructure and landscaping works until the end of your maintenance period if your site remains in compliance and deficiency free. Please reach out when you are ready to start your agreement or if you have any questions.	in progress
Social Services and Housing	
Social Services and Housing supports housing options within our communities; particularly affordable home ownership and purpose built rental options	No action required,
Paramedic Services	

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

Comments on Site Plan	How addressed
As the property is listed as 600 Norfolk St. N and the entrance is off Second Ave there could be confusion and delay accessing the building in an emergency if not properly signed/ addressed. I would suggest large signage visible from all directions directing traffic to the site to enter off Second Ave.	Visible signage will be utilized.
Hydro One	
We have reviewed the documents concerning the noted Plan and have no comments or concerns at this time. We have reviewed the documents concerning the noted Plan and have no comments or concerns at this time. Our preliminary review considers issues affecting Hydro One’s 'High Voltage Facilities and Corridor Lands' only. For proposals affecting 'Low Voltage Distribution Facilities' please consult your local area Distribution Supplier	No action required,
Bell Canada	

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

Comments on Site Plan	How addressed
<p>We have reviewed the circulation regarding the above noted application. The following paragraphs are to be included as a condition of approval: Bell Canada Condition(s) of Approval 1) The Owner acknowledges and agrees to convey any easement(s) as deemed necessary by Bell Canada to service this new development. The Owner further agrees and acknowledges to convey such easements at no cost to Bell Canada. 2) The Owner agrees that should any conflict arise with existing Bell Canada facilities where a current and valid easement exists within the subject area, the Owner shall be responsible for the relocation of any such facilities or easements at their own cost. Upon receipt of this comment letter, the Owner is to provide Bell Canada with servicing plans/CUP at their earliest convenience to planninganddevelopment@bell.ca to confirm the provision of communication/telecommunication infrastructure needed to service the development. It shall be noted that it is the responsibility of the Owner to provide entrance/service duct(s) from Bell Canada's existing network infrastructure to service this development. In the event that no such network infrastructure exists, in accordance with the Bell Canada Act, the Owner may be required to pay for the extension of such network infrastructure. If the Owner elects not to pay for the above noted connection, Bell Canada may decide not to provide service to this development. Concluding Remarks:</p> <p>To ensure that we are able to continue to actively participate in the planning process and provide detailed provisioning comments, we note that we would be pleased to receive circulations on all applications received by the Municipality and/or recirculations.</p> <p>If you believe that these comments have been sent to you in error or have questions regarding Bell's protocols for responding to municipal circulations and enquiries, please contact planninganddevelopment@bell.ca directly.</p> <p>We note that WSP operates Bell Canada's development tracking system, which includes the intake and processing of municipal circulations. However, all responses to circulations and requests for information, such as requests for clearance, will come directly from Bell Canada, and not from WSP. WSP is not responsible for Bell's responses and for any of the content herein</p>	<p>Applicant is in contact with Bell for all requirements and relocating utility pedestal in driveway</p>
Development Engineering	<p>Our response to Development Engineering comments are contained in the accompanying letter from R.W. Phillips of J. H. Cahoon Engineering Limited. Revised drawings and a securities estimate are also attached.</p>
General: 1. Security calculations were not submitted with this 1st submission. Securities will be required in the form of a Schedule 'H' template. 10% for site works completed on private property and 100% of works completed within the municipal R.O.W.	

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

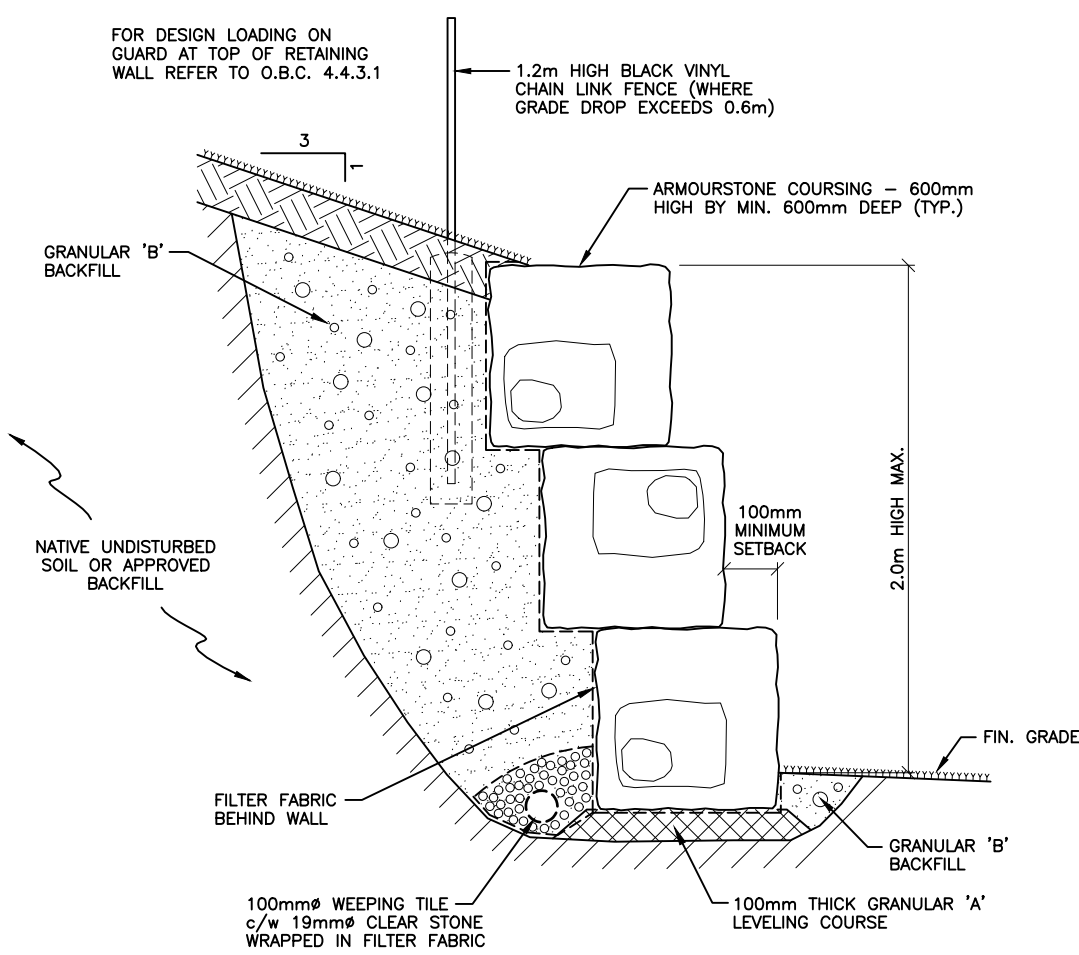
Comments on Site Plan	How addressed
2. All Drawings are to be signed and sealed by a P.Eng.	
3. As per Norfolk County design criteria section 16.4.05 and 16.5.05 please include an Electrical Services Plan with your next submission. This can be included with the General Services Plan as long as it is legible.	
Functional Servicing Report (Dated August 31, 2022):	
4. In the FSR it identifies that the orifice in ST1 is to be 100mm. This orifice must be moved to a structure that properly restricts the Stormwater discharge for the entire site. Please re calculate the orifice size for the entire site. It seems that this orifice is quite large for such a small site. However, it is recognized that the minimum size of Orifice according to the Stormwater Management Planning and Design manual shall be 75mm Dia	
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TRAFFIC IMPACT STATEMENT (Dated September 6, 2022):	
8. As mentioned in the Pre consultation meeting notes, Development Engineering was looking for a Traffic Impact Study to assess the existing entrance to see that it is adequate for the new use. A Traffic Impact Statement was provided with the Zoning application and resubmitted with the Site Plan application. In Development Engineering review it is proposed that there are under 9 site trips from the site at Peak hour. In the opinion of Development Engineering this should not have an impact on the existing traffic in the area. Development Engineering has recognized that the existing entrance to the property does have some site line concerns. However, given the configuration of the property there is no other practical location for the driveway on the site. Through further review of the Detailed Engineering review for Site Plan approval, it is the recommendation of Development Engineering that site lines are reviewed to ensure adequate distances are maintained	
SITE DEVELOPMENT PLAN (Dwg. No. 15598-1):	

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

Comments on Site Plan	How addressed
9. Please identify the location of Roof water leaders. The locations shall ensure all roof water is directed to the proposed SWM areas. No roof water shall leave the site unattenuated.	
10. In discussions with the Developer of the property an alternate concept for water servicing is being explored. In the alternate concept the water service will NOT go directly to a utility room and may have multiple service connections outside of the building. If this is the preferred concept, then Norfolk County will require the developer to install a Dual Check Valve Assembly (DCVA) device in a watertight chamber at Property line. Further	
11. In discussions with Norfolk County Environmental Services, it is the opinion of Norfolk County that a Stacked Townhouse configuration must have a single Premise meter for the entire property. Any submetering for each unit will be the responsibility of the Developer at their expense.	
12. In consultation with Norfolk County Environmental Services department there are concerns with the proposal of connecting to the existing 25mm Water service and whether it will be adequate for a development with 18 units. In your next submission please confirm the size of water service required to meet the demand of this proposal. This MUST be justified in a revised Functional Servicing Report. If the current water service is required to be up sized, please update the drawings accordingly. In an email from the developer, it was suggested the sizing would be changed to 50mm. This will need to be supported through the FSR as well. See Comment 6.	
13. The proposed water service shows a bend within the County ROW. Bends are not permitted within the County ROW. On your next submission please have the water service extended to property line perpendicular to the main and then bend at the Property line valve (CS) and travel in a straight line to the building.	
14. Please show the Property line Curb Stop valve on the proposed water service.	
15. Please be aware that Norfolk County recommends a blow off on the dead-end of any private water service for future flushing and maintenance. If the proposal changes to a configuration where water servicing is outside of the building, then a blow off will be required.	
16. San Inspection MH S1 has to be placed on the property line. County must have access, but the ownership is the property owner.	
17. The sanitary Lateral is shown to have a bend within the County ROW. Please be aware that bends are not permitted within the County ROW. In your next submission please extend the Sanitary lateral to the property line and then place the Inspection manhole.	
18. According to As-built drawings of Second St, the water and sanitary services are in different locations than shown on this site plan. Please review the attached drawing S-1042 and revise drawing as necessary.	

Site Plan application SPPL2023227 - 600 Norfolk Street North, Simcoe, 600 Norfolk St N LP c/o Darrin Knill

Comments on Site Plan	How addressed
19.Development Engineering understands that private internal Sanitary sewers cannot run under Stacked townhouse configurations. If this requires a private sanitary main outside the building, then it is the recommendation of Development Engineering that a Manhole or cleanout should be placed at the dead-end for future maintenance.	
20.This drawing identifies that the Orifice plate is to be in ST1. However, this would mean that much of the site is not controlled for stormwater. Please review the stormwater design and relocate the Orifice plate to the structure that will protect the entire site. a. If all existing storm sewers on site are being removed, then will it be appropriate that the Orifice should be placed in ST4? Please confirm. b. As mentioned in Comment 4 the sizing seems large for a site this small. Please confirm calculations for 100mm orifice are correct	
21.Please label the size of existing storm sewer leaving the site onto Municipal property. Confirmation that this existing storm sewer is adequate is required.	
22.It appears that sections of the proposed retaining wall will exceed 0.6m in height. It is the opinion of Development Engineering that heights over 0.6m will require a building permit and may require an Engineered Stamp. In your next submission please confirm all requirements for the final wall design. This retaining wall shall be identified in the securities at 100% as it may affect the neighbors.	
23.It appears there is an existing communications pedestal located in the new driveway. Please add a note to the drawing that the Pedestal is to be relocated at the Developers expense. Also please confirm that the Utility has been notified and is aware of this relocation. The cost of relocating the pedestal is to be included in the Securities at 100%.	
LANDSCAPE PLAN (Dwg. No. 15598-2):	
24.Please note that Development Engineering has not reviewed or Approved the Retaining wall design shown on this drawing. All approvals are to be granted by others. All retaining walls are to be shown in the securities at 100%	

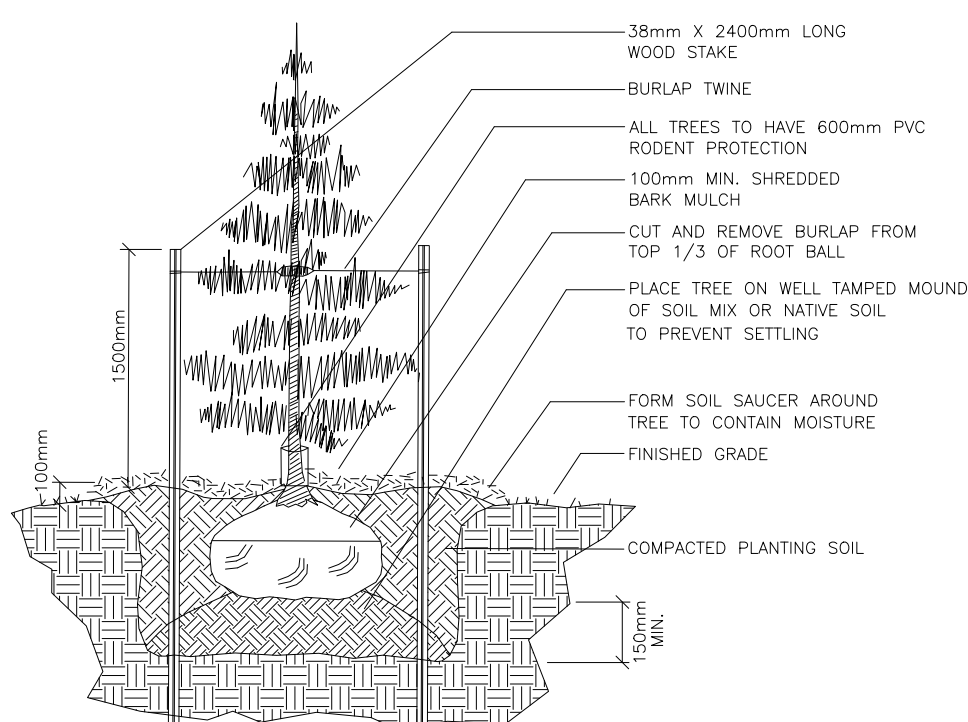


ARMOURSTONE RETAINING WALL

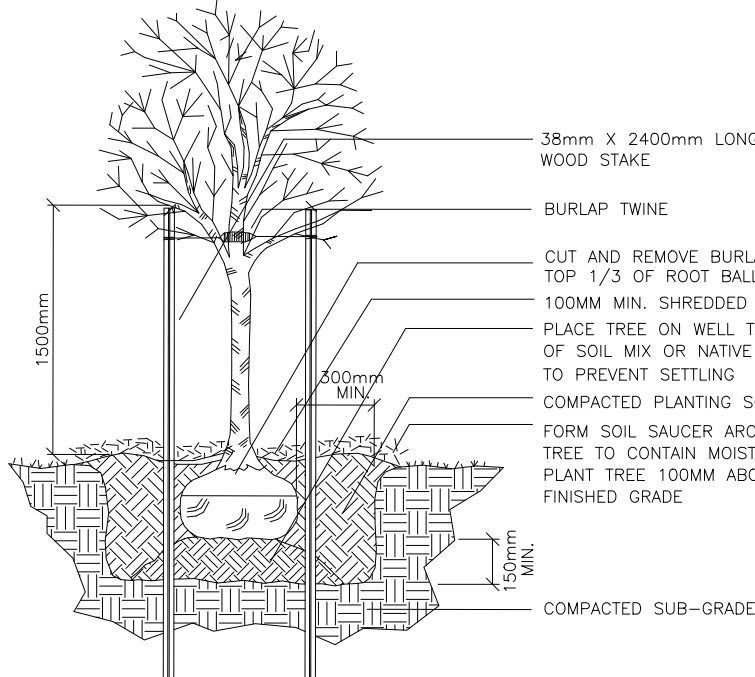
N.T.S.

GENERAL NOTES FOR ARMOURSTONE WALLS

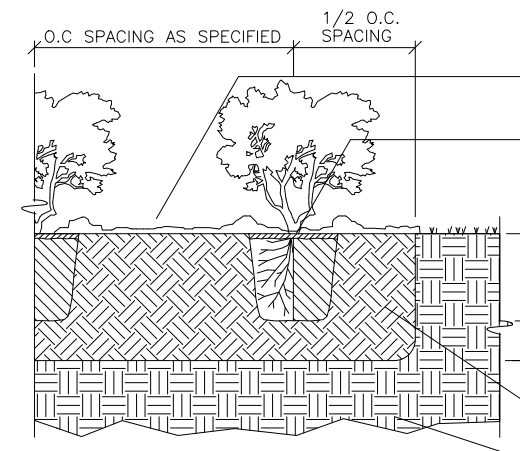
- THE FOUNDING SUBSOIL SHOULD BE INSPECTED BY A GEOTECHNICAL ENGINEER TO CONFIRM ADEQUATE BEARING CAPACITY.
- ENSURE CONTINUOUS BONDING BETWEEN FRONT AND BACK FACES EDGES OF ARMOURSTONE. CHINK VOIDS WITH GABION TYPE FILL PRIOR TO BACKFILLING. DO NOT LEAVE FILTER CLOTH EXPOSED.
- FILTER FABRIC PLACED BEHIND ARMOURSTONE SHOULD COMPRISE MIRAF P-150 OR TERRAFIX 270R. JOINTS TO BE OVERLAPPED 600mm CONTINUOUS.
- BACKFILL THE WALL WITH FREE-DRAINING GRANULAR 'B' MATERIAL. PLACE BACKFILL IN 300mm THICK LAYERS AND COMPACT TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- DO NOT OVERCOMPACT THE BACKFILL OR USE HEAVY COMPACTION EQUIPMENT WITHIN 600mm OF THE WALL.



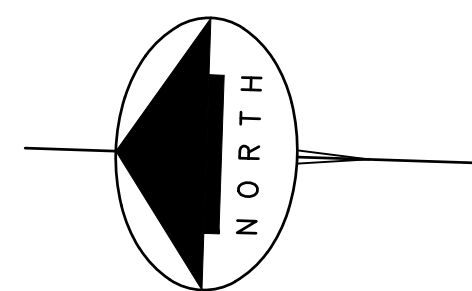
TYPICAL CONIFEROUS TREE PLANTING
NTS ALL DIMENSIONS IN MILLIMETRES



TYPICAL DECIDUOUS TREE PLANTING
NTS ALL DIMENSIONS IN MILLIMETRES

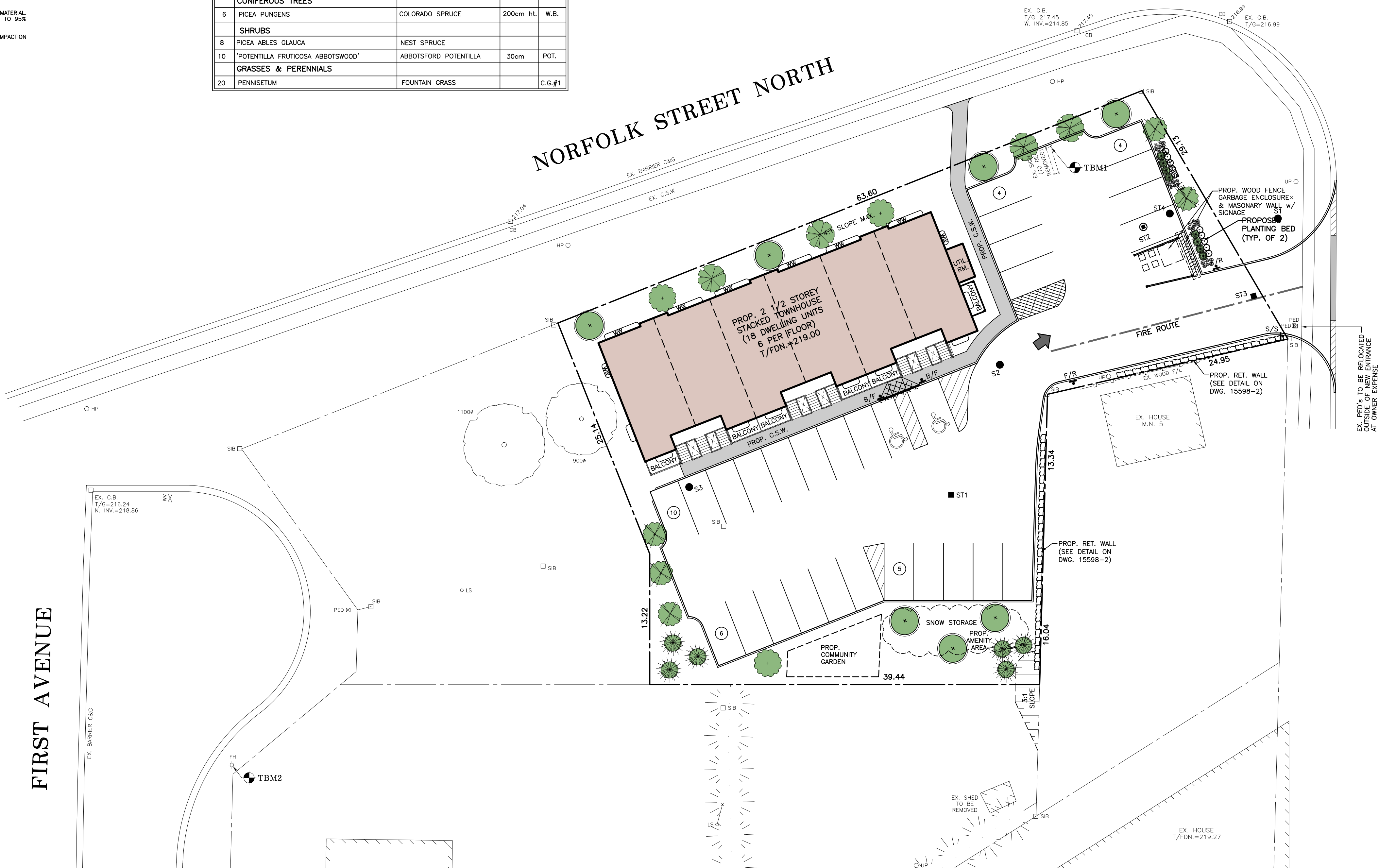


TYPICAL SHRUB PLANTING
NTS ALL DIMENSIONS IN MILLIMETRES



KEY PLAN

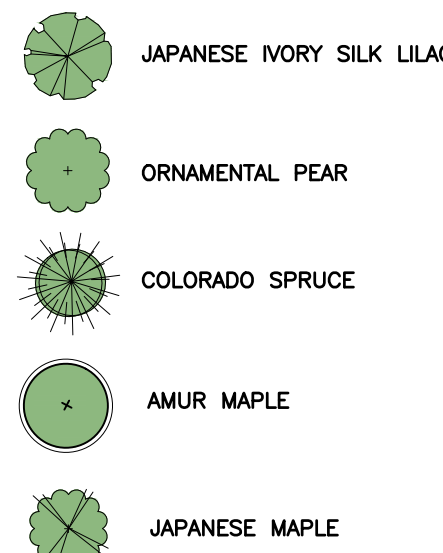
PLANT SCHEDULE				
TREES				
QTY.	BOTANICAL NAME	COMMON NAME	SIZE	COND.
DECIDUOUS TREES				
4	SYRINGA RETICULATA 'IVORY SILK'	JAPANESE IVORY SILK LILAC	50mm cal.	W.B.
3	PYRUS CALLERYANA	ORNAMENTAL PEAR	50mm cal.	W.B.
7	ACER GINNALA	AMUR MAPLE	60mm cal.	W.B.
5	ACER PALMATUM	JAPANESE MAPLE	50mm cal.	W.B.
CONIFEROUS TREES				
6	PICEA PUNGENS	COLORADO SPRUCE	200cm ht.	W.B.
SHRUBS				
8	PICEA ABIES GLAUCA	NEST SPRUCE		
10	'POTENTILLA FRUTICOSA ABBOTSWOOD'	ABBOTSFORD POTENTILLA	30cm	POT.
GRASSES & PERENNIALS				
20	PENNISETUM	FOUNTAIN GRASS		C.G.#1



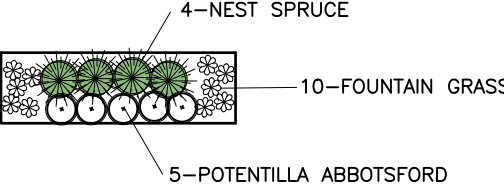
SECOND AVENUE

FIRST AVENUE

TREE PLANTING LEGEND



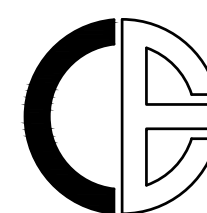
PROPOSED PLANTING BED (TYP. OF 2)



NOTES:

- THE LANDSCAPE PLAN HAS BEEN PREPARED IN COORDINATION WITH SITE PLAN & ENGINEERING PLANS.
- THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
- LIMIT OF WORK TO BE THE PROPERTY LINE SHOWN.
- ANY AREAS OUTSIDE THE LIMIT OF WORK DAMAGED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR TO CITY OF BRANTFORD STANDARDS AT NO ADDITIONAL COST TO THE OWNER.
- ALL UNDERGROUND UTILITIES TO BE LOCATED BY THE LANDSCAPE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ALL DIMENSIONS ARE IN METRES.
- ALL PLANT MATERIAL TO BE NO. 1 GRADE, NURSERY GROWN IN ACCORDANCE WITH THE CANADIAN NURSERY TRADES ASSOCIATION.
- PLANT MATERIAL QUANTITIES ON THE DRAWING SHALL TAKE PRECEDENT OVER THOSE IN THE PLANT LIST.
- ANY PLANT MATERIAL WHICH COMES OVER OR UNDER ANY UTILITY WILL BE RELOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- SUPPLY & INSTALL A SHREDDED BARK MULCH ON ALL PLANTING BED TO BE A 100mm DEPTH.

NO.	REVISION	DATE (MM/DD/YY)	BY
1	AS PER COUNTY COMMENTS	11/15/23	K.P.B.



**J.H. COHOON
ENGINEERING
LIMITED**
CONSULTING ENGINEERS

440 HARDY ROAD, UNIT #1, BRANTFORD - ONTARIO, N3T 5L8
TEL. (519) 753-2656 FAX. (519) 753-4263 www.cohooneg.com

PROJECT:

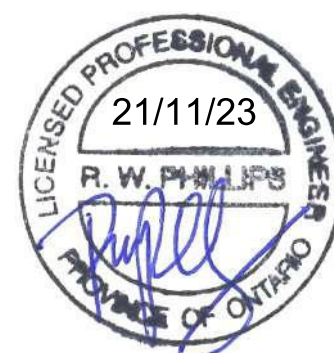
**PROPOSED
RESIDENTIAL
DEVELOPMENT**
600 NORFOLK STREET NORTH
NORFOLK COUNTY

CLIENT:

SENTRY PROPERTY GROUP

LANDSCAPE PLAN

DESIGN:	R.W.P.	SCALE:	1:250
DRAWN:	S.L.M.	JOB No:	15598
CHECKED:	R.W.P.		
SHEET:	2 of 3	DWG. No:	15598-2
DATE:	JUNE 29/23		

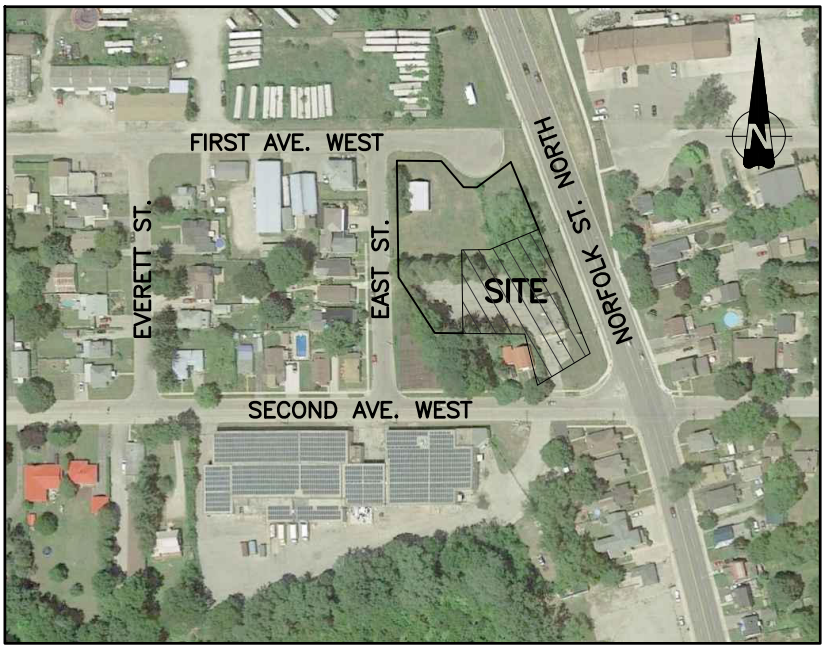
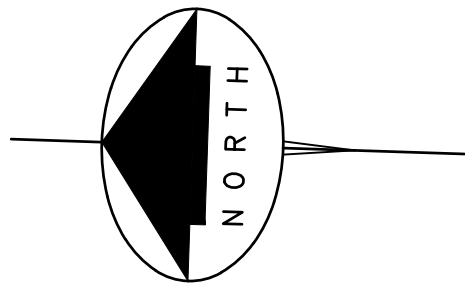




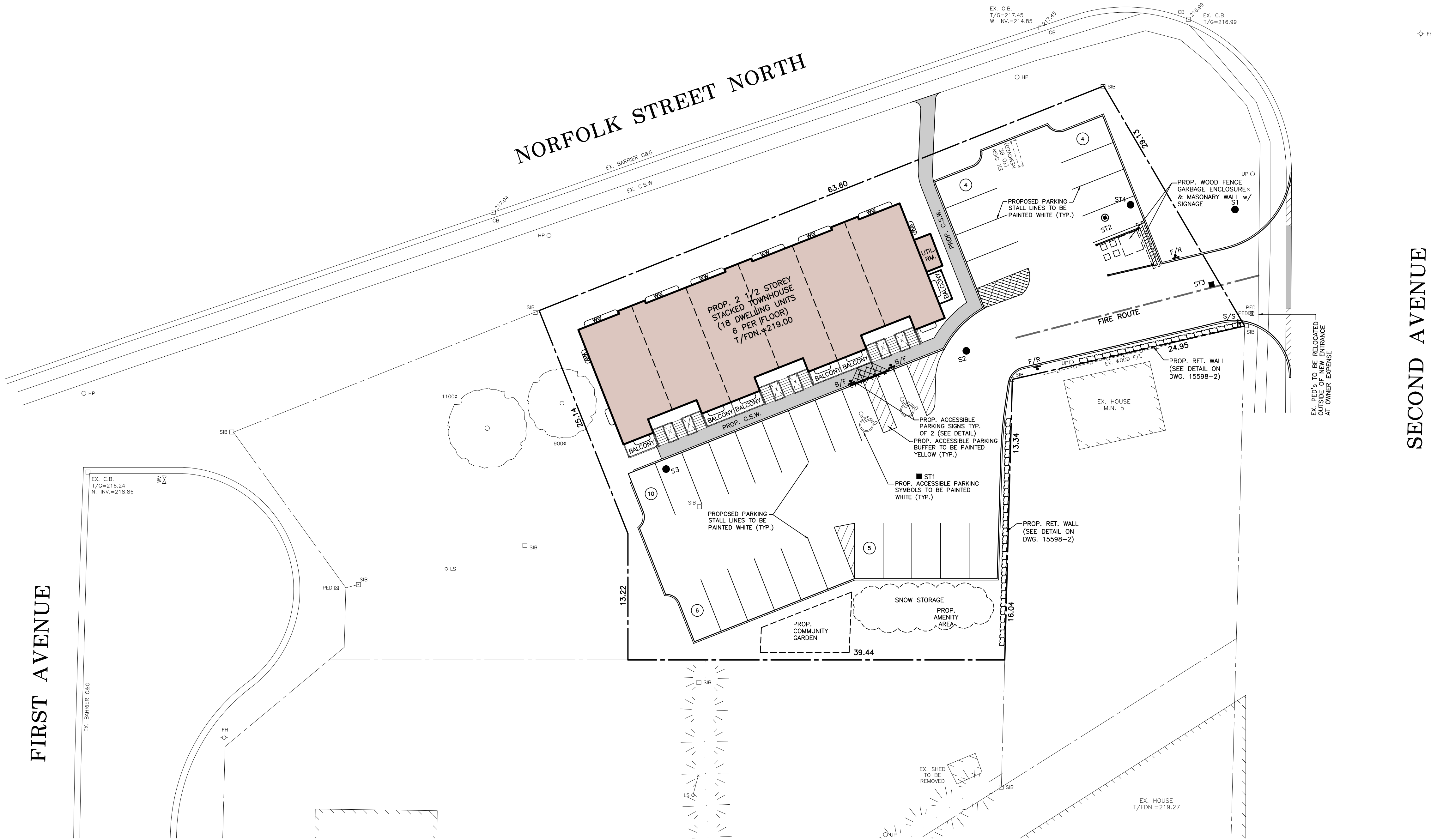
**BARRIER FREE PARKING
SIGN DETAIL**
N.T.S.



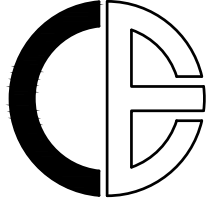
**FIRE ROUTE
SIGN DETAIL**
N.T.S.



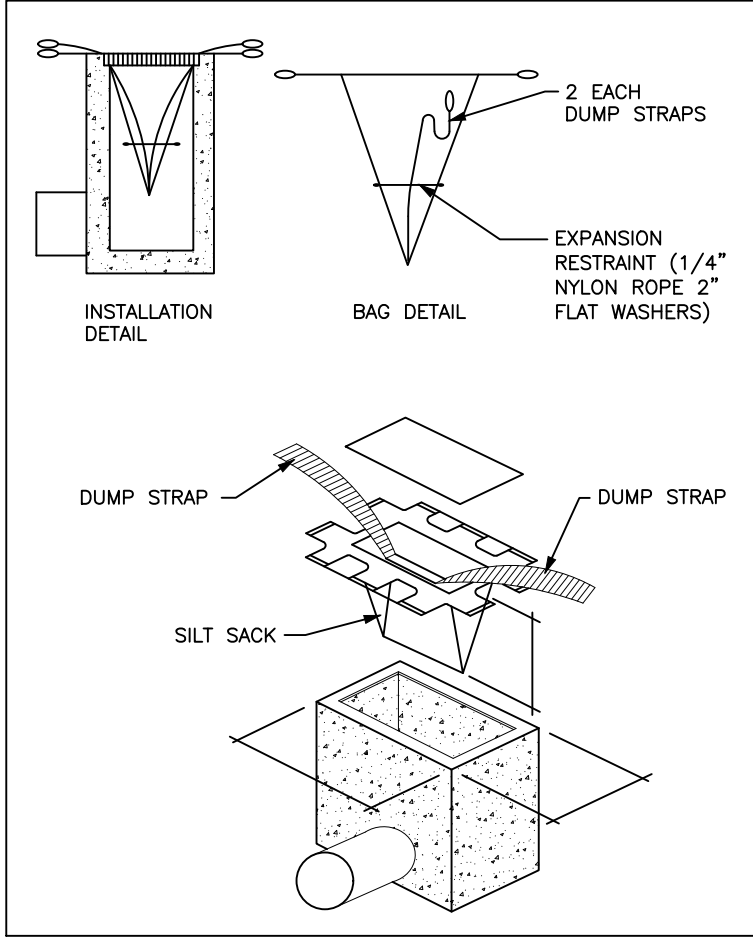
KEY PLAN



- LEGEND:**
- F/R PROPOSED FIRE ROUTE SIGN (30m MIN. SEPARATION)
 - B/F PROPOSED ACCESSIBLE PARKING SIGN
 - S/S PROPOSED STOP SIGN

1	AS PER COUNTY COMMENTS	11/15/23	K.P.B.
NO.	REVISION	DATE (MM/DD/YY)	BY
<div>J.H. COHOON ENGINEERING LIMITED CONSULTING ENGINEERS</div> <div>440 HARDY ROAD, UNIT #1, BRANTFORD - ONTARIO, N3T 5L8 TEL. (519) 753-2656 FAX. (519) 753-4263 www.cohooneng.com</div>			
PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT 600 NORFOLK STREET NORTH NORFOLK COUNTY			
CLIENT: SENTRY PROPERTY GROUP			
TRAFFIC CONTROL & SIGNAGE PLAN			
DESIGN:	R.W.P.	SCALE:	1:250
DRAWN:	S.L.M.	JOB No:	15598
CHECKED:	R.W.P.		
SHEET:	3 of 3	DWG. No:	15598-3
DATE:	JUNE 29/23		

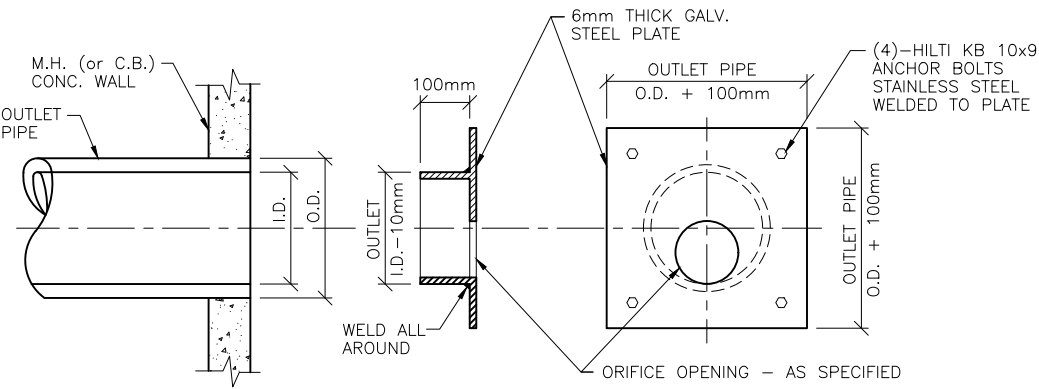
DEVELOPMENT STATISTICS			June 5, 2023	
Municipal Address	600 Norfolk Street North, Simcoe			
Legal Description	Part of lots 2, 3, 4, 6, 7, 9, 10, 11, 12, 13 Block 6, Plan 182, Norfolk County			
ZONING REGULATIONS	Urban Residential Type 4 – R4 (H) Updated 14.604	Proposed		Compliance Yes /No
Site Data				
Lot Frontage (Measured 1.50m back from front lot line)	28.80 m min. Corner Lot	28.80 m		Existing
Lot Area	195.0 m² min.	2531.75 m²		Existing
Yards & Setbacks				
Front Yard (South)	1.50 m min.	23.50 m		Yes
Street Side Yard (East)	3.00 m min.	3.10 m		Yes
Side Yard (West)	3.00 m min.	22.55 m		Yes
Rear Yard (North)	3.00 m min.	3.05 m		Yes
Exemptions from Yard Provisions				
Balconies	1.50m max. into rear, front, or side yards. No closer than 3.0m from an interior lot line	1.50m into front yard		Yes
Building Size				
Lot Coverage	N/A	444m² = 17.53%		N/A
Building Height	11.0m max.	11.0m from grade to peak		Yes
Number of Units	18 Units Max.	18 Units		N/A
Landscape Buffer				
Landscape strip	27.8 % at front yard	100% for Exterior side yard 27.8% for Front yard (195.5/703.1) x 100 = 27.8%		Yes
Parking and Driveway				
Required Parking for Residential Use	24 spaces	24 Spaces		Yes
Required Parking for Visitors	5 Spaces	5 Spaces		
Total Required Parking	29 spaces	29 Spaces		Yes
Parking Space Sizes for 90 degrees parking	3.0m x 5.80m	3.0m x 5.80m		
Parking Aisle for 90 degrees Parking & 2-way traffic	7.30m	7.30m		Yes
Required Accessible parking	1 Type-A 1 Type-B For 26-50 parking spaces	1 Type-A 1 Type-B		Yes
Accessible parking space Dimensions	Type-A width = 3.40m Type-B = 2.40m	Type-A width = 3.40m Type-B = 2.40m		Yes
Access aisle	1.50m	1.50m		Yes
Floor Area				
Basement Floor Area		444.02 m²		
First Floor Area		444.02 m²		
Second Floor Area		444.02 m²		
Total		1,332.06 m²		



SILT SACK DETAIL
N.T.S.

C.B. ORIFICE PLATE SIZING

ORIFICE PLATE CONFIGURATION NUMBER	DIAMETER OF ORIFICE PLATE OPENING
1	100mm
2	125mm



FLOW CONTROL DEVICE ORIFICE PLATE
N.T.S.

SANITARY SYSTEM

MH No.	DESCRIPTION	T/G	INVERTS
S1	1.2m ^ø P/C CB/MH (INSPECTION M.H.)	217.75	EX. 214.50± NW 214.88
S2	1.2m ^ø P/C CB/MH	218.45	SE 215.90 NW 215.26
S3	1.2m ^ø P/C CB/MH	218.55	SE 215.68

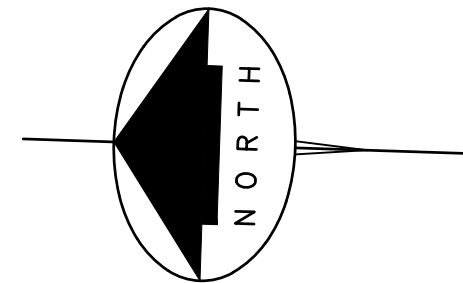
NOTE:
EXISTING SANITARY SERVICE STUB ELEVATION TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DEVIATION FROM DESIGN DRAWING TO BE REPORTED TO ENGINEER FOR APPROVAL

STORM SYSTEM

MH No.	DESCRIPTION	T/G	INVERTS
ST1	0.6x0.6x1.52 P/C C.B.	218.10	SE 216.73
ST2	1.2m ^ø P/C CB/MH	217.85	SE 215.90 NW 216.03
ST3	0.6x0.6x1.52 P/C C.B.	217.72	NE 216.35
ST4	1.2m ^ø P/C MH	218.00	EX. 215.98± NW 215.84 SW 215.68



KEY PLAN



LEGEND:

	EXISTING ELEVATIONS
	PROPOSED ELEVATIONS
	PROPOSED SWALE ELEVATIONS
	GENERAL DRAINAGE
	EXISTING SANITARY MANHOLE
	EXISTING STORM MANHOLE
	EXISTING CATCHBASIN
	EXISTING DOUBLE CATCHBASIN
	EXISTING DITCH INLET CATCHBASIN
	EXISTING FIRE HYDRANT
	EXISTING VALVE & BOX
	EXISTING WATER BOX
	LIMIT OF MAXIMUM S.W.M. POND (100 Yr. EVENT) MAX. POND ELEVATION AS NOTED
	OVERLAND FLOW ROUTE
	SILTATION FENCE
	SILT SACK AS SHOWN
	PROPOSED DOWNSPOUT c/w SPLASH PAD

NOTES:

- ALL ELEVATIONS & DIMENSIONS SHOWN ARE METRIC.
- THE SILTATION & EROSION CONTROL (SEC) MEASURES ILLUSTRATED ON THIS PLAN ARE CONSIDERED TO BE THE MINIMUM REQUIREMENT. SITE CONDITIONS MAY REQUIRE ADDITIONAL MEASURES WHICH WILL BE IDENTIFIED BY THE ENGINEER DURING CONSTRUCTION.
- ALL SEC MEASURES ARE TO BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- OWNER/CONTRACTOR TO MAINTAIN EROSION CONTROL MEASURES THROUGHOUT SITE UNTIL A COMPLETE GRASS/VEGETATION COVER IS ACHIEVED.
- ONLY AT THE DIRECTION OF THE ENGINEER ARE THE SEC MEASURES TO BE REMOVED.
- SITE WORKS ARE TO BE STAGED IN SUCH A MANNER THAT EROSION WILL BE MINIMIZED, AND THE CONSULTANT MUST PROVIDE CONFIRMATION THAT ALL APPROVED SILTATION AND EROSION CONTROL FACILITIES HAVE BEEN INSTALLED PRIOR TO THE COMMENCEMENT OF ANY GRADING, EXCAVATION OR DEMOLITION.
- CLEARING AND GRUBBING OF THE SITE SHOULD BE KEPT TO A MINIMUM AND VEGETATION REMOVED ONLY IN ADVANCE OF IMMEDIATE CONSTRUCTION.
- STOCKPILES OF EARTH OR TOPSOIL ARE TO BE LOCATED AND PROTECTED TO MINIMIZE ENVIRONMENTAL INTERFERENCE. EROSION CONTROL FENCING IS TO BE INSTALLED AROUND THE BASE OF ALL STOCKPILES.
- THE OWNER IS RESPONSIBLE TO ENSURE THE MUNICIPAL ROADSWAYS ARE KEPT CLEANED OF SEDIMENTS FROM VEHICULAR TRACKING ETC. TO AND FROM THE SITE, AT THE END OF EACH WORKDAY.
- ALL EXISTING AND PROPOSED CATCHBASINS ON THE SUBJECT PROPERTY, PLUS ANY CATCHBASINS WITHIN THE INFLUENCE OF RUNOFF FROM THE SITE, ARE TO BE PROTECTED WITH FILTER CLOTH OR APPROVED EQUIVALENT.

T.B.M. No. 1 ELEV. = 218.35m (GEO)

TOP SOUTH-EAST CORNER OF CONCRETE SIGN BASE ON SUBJECT PROPERTY AS SHOWN.

T.B.M. No. 2 ELEV. = 220.11m (GEO)

TOP NUT OF FIRE HYDRANT ON THE SOUTH SIDE OF FIRST AVENUE AS SHOWN.

NO.	REVISION	DATE (MM/DD/YY)	BY
1	AS PER COUNTY COMMENTS	11/15/23	K.P.B.

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PROJECT:

PROPOSED RESIDENTIAL DEVELOPMENT
600 NORFOLK STREET NORTH
NORFOLK COUNTY

CLIENT:

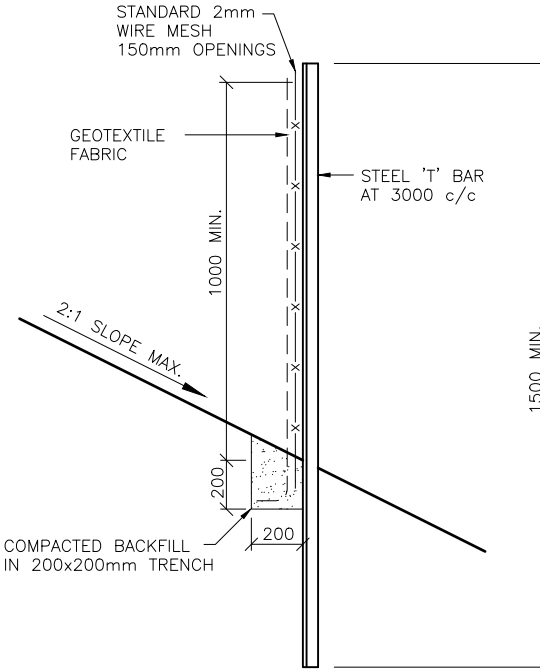
SENTRY PROPERTY GROUP

SITE DEVELOPMENT PLAN

DESIGN:	R.W.P.	SCALE:	1:250
DRAWN:	K.P.B.	JOB No:	15598
CHECKED:	R.W.P.	DWG. No:	15598-1
SHEET:	1 of 3		
DATE:	JUNE 29/23		



SILT FENCE DETAIL
N.T.S.



FIRST AVENUE

SECOND AVENUE

NORFOLK STREET NORTH

PROPOSED RESIDENTIAL DEVELOPMENT

NORFOLK COUNTY - MN 600 NORFOLK STREET NORTH, SIMCOE

SECURITIES AND CONSTRUCTION ESTIMATES

REVISION

SEPTEMBER 23, 2023 - PRELIMINARY ESTIMATE

NOVEMBER 21, 2023 - 2ND SUBMISSION

DATE - COLLECTED AT REGISTRATION

DATE - HELD AFTER ACCEPTANCE

ITEM	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL COST	Securities	
						10%	100%

BELOW GROUND

SANITARY SEWERS

Sanitary Sewer

a) 150mm Diameter (Public)	M	14	\$125	\$1,750		\$1,750
a) 150mm Diameter (Private)	M	58	\$125	\$7,250	\$725	
1200mm Diameter Manholes (Public)	EACH	1	\$3,000	\$3,000		\$3,000
1200mm Diameter Manholes (Private)	EACH	2	\$3,000	\$6,000	\$600	
Video Inspection and Report	L.S.	1	\$750	\$750		\$750

TOTAL SANITARY SEWERS

\$18,750 \$1,325 \$5,500

WATERMAIN

Watermain

a) 50mm Diameter (Public)	M	14	\$120	\$1,680		\$1,680
a) 50mm Diameter (Private)	M	19	\$120	\$2,280	\$228	
Watervalves						
a) 50mm Diameter	EACH	1	\$1,750	\$1,750		\$1,750

TOTAL WATERMAIN

\$5,710 \$228 \$3,430

STORM SEWERS

Storm Sewer

a) 150mm Diameter (Private)	M	150	\$125	\$18,750	\$1,875	
b) 250mm Diameter (Private)	M	44	\$150	\$6,600	\$660	
c) 300mm Diameter (Public)	M	5	\$175	\$875	\$88	\$875
1200mm Diameter Manholes	EA	2	\$3,000	\$6,000	\$600	
Catch Basin	EA	2	\$1,500	\$3,000	\$300	
Video Inspection and Report	L.S.	1	\$1,750	\$1,750	\$175	

TOTAL BELOW STORM SEWER

\$36,975 \$3,698 \$875

\$61,435 \$5,251 \$9,805

ABOVE GROUND

ROAD CONSTRUCTION (PUBLIC)

ITEM	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL COST	Securities	
						10%	100%
	Sidewalk	M²	6	\$40	\$240		\$240
	Granular 'A'	sq.m.	35	\$17	\$595		\$595
	Granular 'B'	sq.m.	35	\$11	\$385		\$385
	Curb and Gutter	M	25	\$50	\$1,250		\$1,250
	HL4 Base Asphalt	Tonne	6	\$140	\$840		\$840

ROAD CONSTRUCTION (PRIVATE)

Granular 'A'	sq.m.	1330	\$17	\$22,610	\$2,261
Granular 'B'	sq.m.	1330	\$11	\$14,630	\$1,463
Curb and Gutter	M	220	\$50	\$11,000	\$1,100
HL4 Base Asphalt	Tonne	170	\$140	\$23,800	\$2,380
Sidewalk	M²	82	\$40	\$3,280	\$328
Tactile (at sidewalk ramps)	L.S.	1	\$400	\$400	\$40
Painted Linework on Pavement	L.S.	1	\$2,500	\$2,500	\$250
Supply and Install Street Signs	L.S.	1	\$750	\$750	\$75

TOTAL ROAD CONSTRUCTION

\$78,970	\$7,897	\$3,310
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\$78,970	\$7,897	\$3,310
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FINISHING WORKS

40mm HL3 Asphalt (Top Lift- Public)	M²	35	\$100	\$3,500	\$3,500
40mm HL3 Asphalt (Top Lift- Private)	M²	120	\$100	\$12,000	\$1,200
Top Soil and Sodding	L.S.	1	\$7,500	\$7,500	\$750

\$19,500	\$1,950	\$3,500
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LANDSCAPING AND ON SITE WORKS

Relocation of Utility PED		1	\$2,500	\$2,500	\$2,500
Trees		25	\$400	\$10,000	\$10,000
Shrubs		18	\$30	\$540	\$540
Grasses		20	\$10	\$200	\$200
Fencing		30	\$65	\$1,950	\$1,950

ITEM	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL COST	Securities	
						10%	100%
	Signage		4	\$100	\$400		\$400
	Retaining Wall	sq.m.	26	\$400	\$10,400		\$10,400
					\$23,490		\$25,990

SUMMARY

BELOW GROUND	\$61,435	\$5,251	\$9,805
ABOVE GROUND	\$78,970	\$7,897	\$3,310
FINISHING WORKS	\$19,500	\$1,950	\$3,500
LANDSCAPING AND ON SITE WORKS	\$23,490	\$0	\$25,990
		\$15,098	\$42,605

TOTAL SECURITIES REQUIRED AT REGISTRATION

\$57,703