

The DP included the following Zoning Bylaw variances:

- to permit surface parking outside of the triplex unit garages;
- to reduce the visitor parking from two spaces to one space;
- to provide 220-volt garage service outlets ready for EV plugs in each of the seventeen garages and conduit for one future Level-2 EV Charging Station in the surface parking area instead of one Level-2 EV Charging Station; and
- to permit reduced front and rear parcel line setbacks for buildings and no setback for the garbage and recycling enclosure structure

The following note was included in the November 18, 2019 report from the Manager of Planning:

An additional variance to Works and Services Bylaw 3158, 2017 is being requested and will be presented to Council at an upcoming meeting.

Works and Service Bylaw 3158, 2017 requires that the development provide an upgrade to the sanitary main from the existing 150 mm diameter sewer main to a 200 mm diameter sewer main. The applicant submitted an engineering report from McElhanney Consulting and Engineering Services justifying the sewer main remain at the same size. City staff are satisfied with the results of the engineering report.

As a result, staff are supportive of receiving a \$35,000 contribution for future replacement of the existing sewer main at a time when the rest of the College Street sewer main is replaced. However, this Works and Services Bylaw variance was inadvertently not included in the City's required public notification or the developer's signage at the subject property, and therefore will require separate notification. The variance request will be presented to Council at an upcoming meeting. As the Works and Services Bylaw variance was not included in the current recommendation and notification due to staff oversight, the applicant will not be required to pay additional application fees and the notification costs will be paid for by the City.

ANALYSIS:

Works and Service Bylaw 3185, 2017 requires that the development provide an upgrade to the sanitary main from the existing 150 mm diameter sewer main to a 200 mm diameter sewer main.

The applicant has submitted an engineering report from Cowichan Engineering Services justifying the sewer main remain at the same size.

The Engineering Department has reviewed the report and have agreed with the findings of the report.

A \$35,000 contribution is required for future replacement of the existing sewer main.

IMPLICATIONS:

Financial:

The applicant paid a \$2,000.00 Development Permit Application with variances. Development Cost Charges will be collected at Building Permit issuance if this development proceeds. A Works and Services estimate has been provided and fees and securities will be required prior to Building Permit issuance. As the Works and Services variance was not included in the original report, the applicant was not charged an additional fee for this amendment.

Legal Implications As per the *Local Government Act*, and City of Duncan bylaws, variance applications require public notification. Property owners and occupants within 60 metres (200 feet) have been notified.

Strategic Priority: Relates to the 2019-2022 Council Strategic Plan Goal *“To provide appropriate physical infrastructure to support a vibrant local, community connectivity and social and environmental health and safety.”*

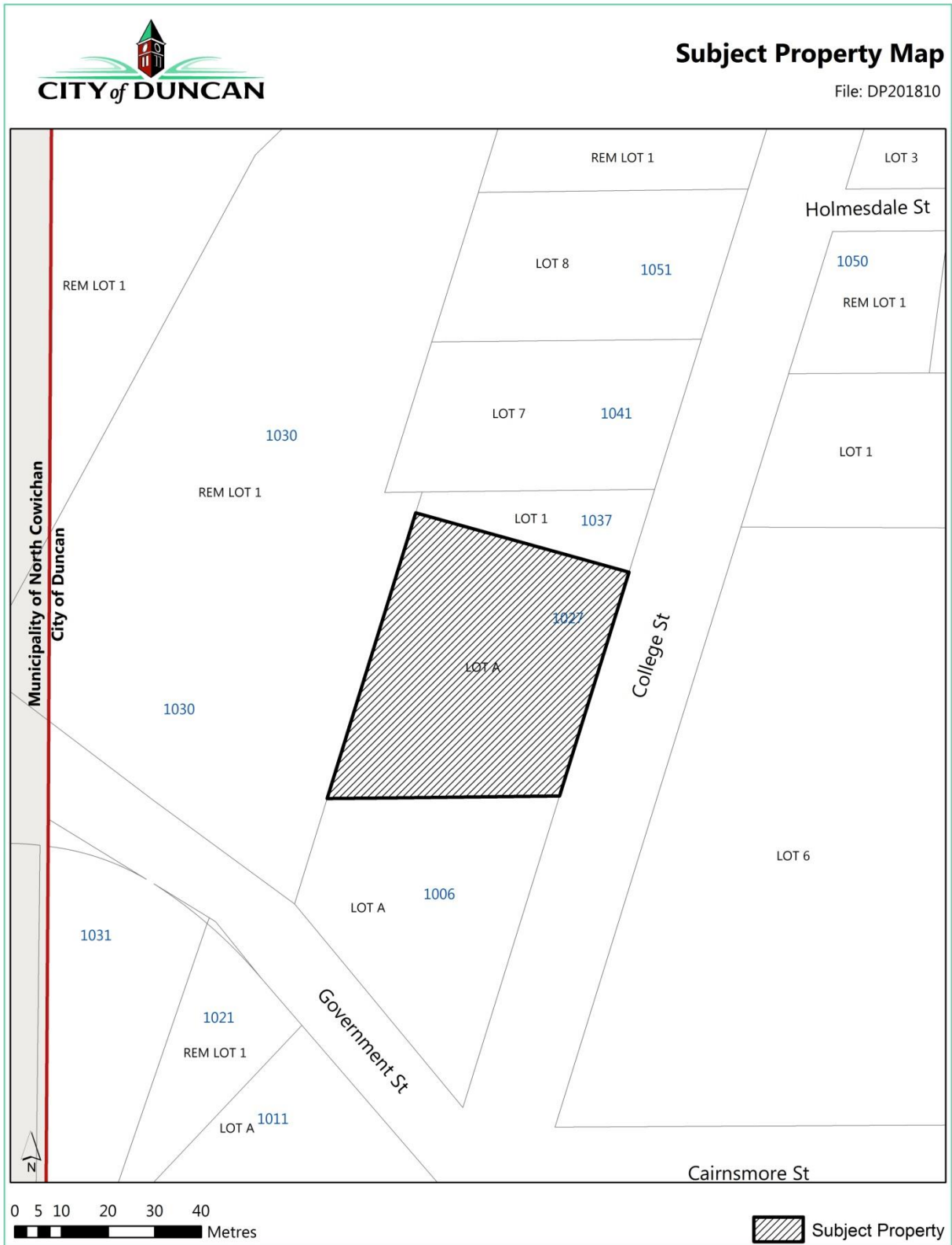
Sustainability: Furthers the City’s Official Community Plan goal - *To accommodate and manage population growth to meet the needs of Duncan’s residents, build on and enhance the City’s attributes, and work towards a more sustainable built and natural environment.* The Integrated Community Sustainability Plan supports the creation of new housing within walking distance of neighbourhood services

Communication: A summary of internal and external referrals and was provided to the applicant in February 2019. Public notification was distributed by staff and a sign was posted on the property. Information on the application is available on the City website and at City Hall. If Council approves DP-2018-10 amendment, staff will work with the applicant to meet the required conditions. The DP will be registered on Title at the provincial Land Title Office.

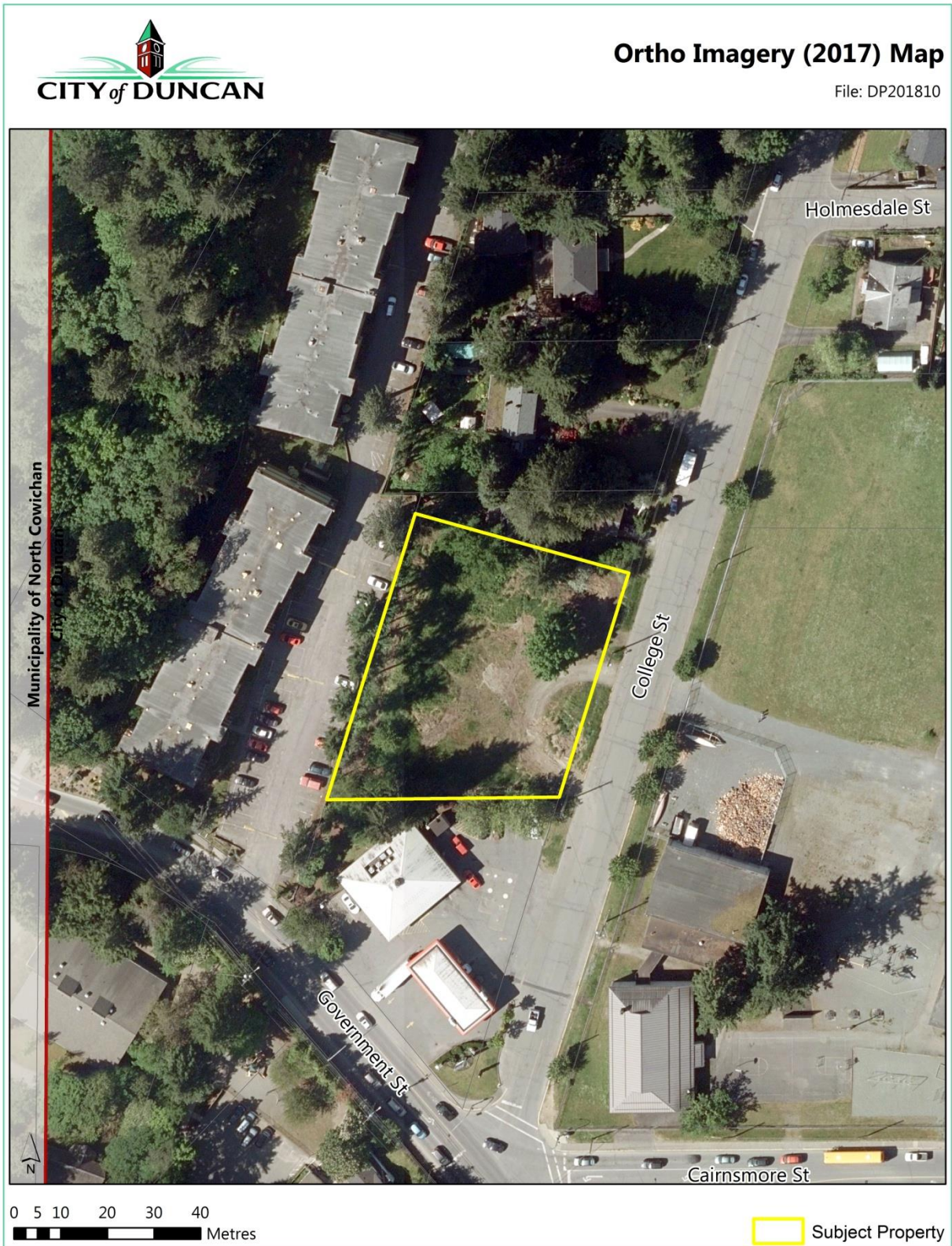
ATTACHMENTS:

- Appendix A: Project location
- Appendix B: McElhanney Consulting and Engineering Services Report
- Appendix C: Draft Development Permit Amendment
- Appendix D: Public Notification

APPENDIX A: Project Location



Subject Property Location



Aerial Perspective of Subject Property



SANITARY SEWER ASSESSMENT

**PROPOSED MULTI-FAMILY DEVELOPMENT
1027 COLLEGE STREET
LOT A, PLAN VIP62519, PID 023-302-437
DUNCAN, BC**

PREPARED FOR:

Nicon Developments Ltd.

PREPARED BY:

Cowichan Engineering Services Ltd.
6468 Norcross Road
Duncan BC V9L 6C5
Phone 250-737-1440
Fax 250-737-1551
Email: cowichanengineering@shaw.ca

Job No. 1345-C
July 24, 2019

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1. INTRODUCTION

Cowichan Engineering Services Ltd. (CES) was retained by Client Company to assess the capacity of the existing sanitary sewer system servicing the proposed 21-unit multi-family development at 1027 College Street in Duncan, BC, refer to Figure 1 below. The existing sanitary main is 150mm diameter. Per discussions with City of Duncan (COD) staff, it is required to assess the capacity of the existing sanitary mains to determine if and where upgrades are required.

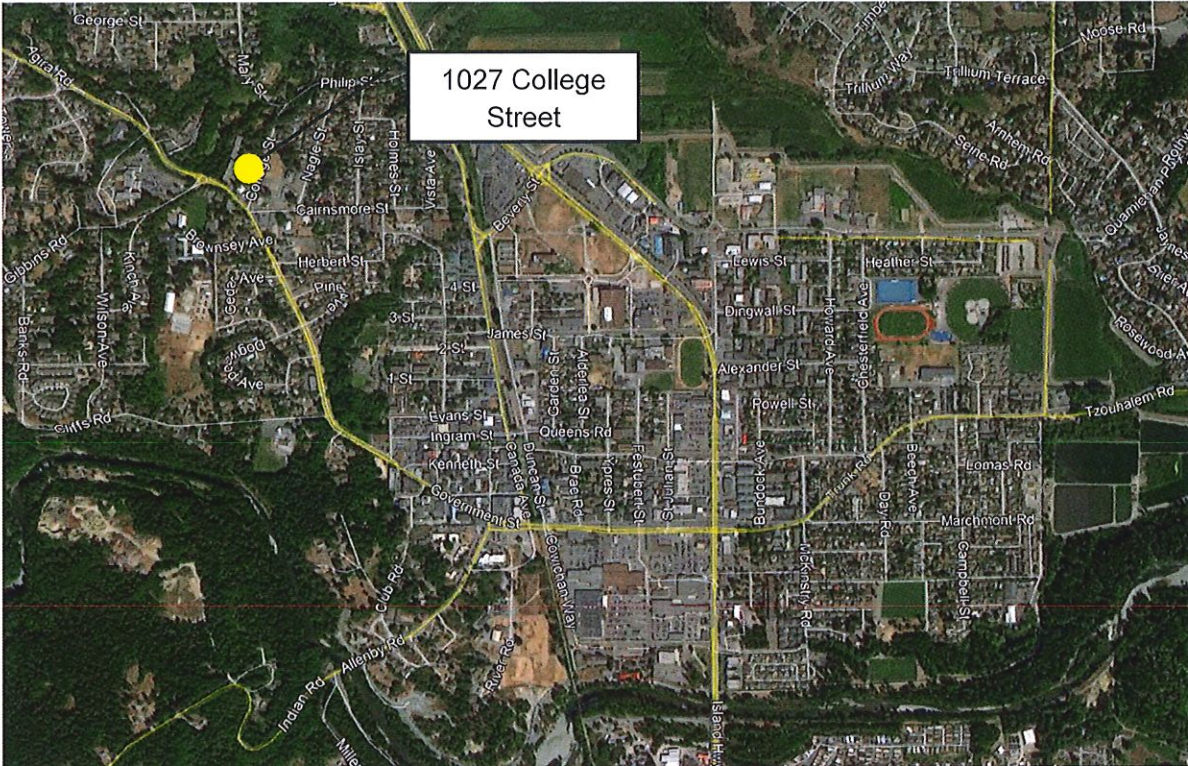


Figure 1: Site Location

2. SANITARY CATCHMENT AREA

The scope of this sanitary sewer assessment is limited to the immediate area serviced by the site, from the 7-11 located at College Street and Government Street and north to Mary and Philip Street. Refer to sketch included with calculations attached in Appendix A.

3. ZONING

There are four zones pertinent to this area:

- 1) Low Density Residential Zone (LDR)
- 2) Medium Density Residential Zone (MDR)
- 3) Community Services Zone (CS)
- 4) Neighbourhood Commercial Zone (NC)

Refer to the zoning map, below in Figure 3. The COD supplied drawing data that included sanitary main sizing, manhole locations, invert elevations where available, and the sewershed extents. Refer to Figure 3, below for the sewer location, manhole location with names referenced in this report, and the sewershed area.

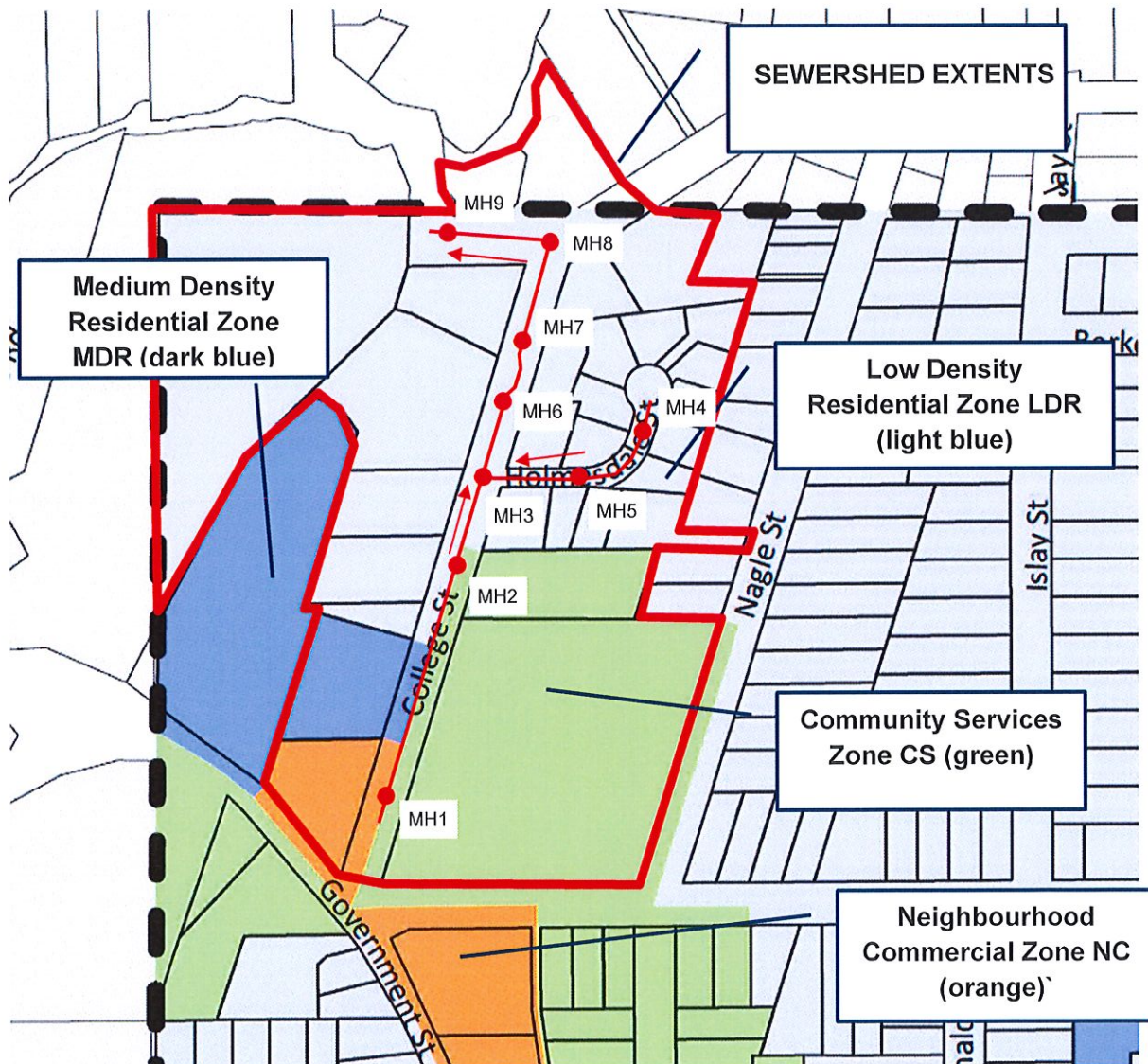


Figure 2: Zoning

4. POPULATION DENSITY

COD Works and Services Bylaw No. 3158, 2017 indicates population densities are provided in Table 1 but Table 1 has not been included in the bylaw. In lieu of Table 1, the COD accepts the City of Nanaimo population densities. A summary of COD zoning with comparable City of Nanaimo population densities is summarized in Table 1 below.

Table 1: Population Density vs Zoning

Zoning Reference (City of Nanaimo)	Comparable COD Zoning	Population Per Unit	Population Per Hectare
Single Family Dwellings	Low Density Residential	2.8	36
Low Density Multiple Family Dwellings	Medium Density Residential	1.7	48
Commercial Equivalent	Neighbourhood Commercial		90*
Institutional Equivalent	Community Services		50**

* Includes parking area.

** Includes parking area but not green space.

5. SANITARY HYDRAULIC CALCULATIONS

Physical characteristics of the catchment and conveyances were defined using the assumptions and parameter values summarized in Table 3 below.

Table 2: Hydraulic Parameters

PARAMETER	DESCRIPTION & VALUE
Infiltration	Average Infiltration Rate 0.1 L/s/ha ¹
Manning's n	n= 0.013 for all pipes ¹
Infrastructure Material & Dimensions	Material and diameter for sewers as referenced per COD data or by CES survey data, where available.

6. CALCULATIONS

A summary of the Sanitary Sewer Analysis is attached in Appendix A following the letter body of this report.

¹ COD Works and Services Bylaw No. 3158, 2017

7. OBSERVATIONS

Key observations from the calculations are summarized below:

- Sewer mains generally have low slopes, near the minimum permissible value of 0.6%
- Invert data for most down-gradient sewer mains not provided from the City of Duncan;
 - assumed minimum slope for calculations: 0.6%
 - assumed 10% slope for steep gradient between College Street and Mary/Philip Street.
- **Maximum percent full is approximately 36%.**
 - maximum design value for percent full is 80% (assuming MMCD criteria).
- Demand flow velocities are generally less than the minimum required rate of 0.6 m/s.

8. CONCLUSION

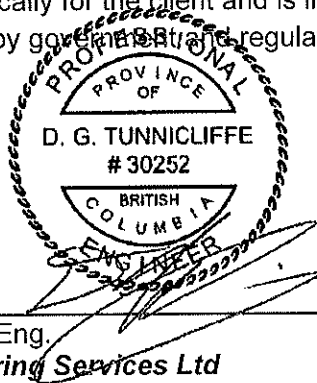
The calculations indicate that there is adequate capacity in the College Street sewershed to handle the sewage demand from the proposed multi-family development at 1027 College Street.

CLOSURE

This report, observations, methodology, are based on professional judgment, calculations, and experience. Observed conditions other than those indicated above may exist on the site. If different conditions are observed, CES should be contacted so that this report may be reviewed and amended accordingly.

The recommendations contained in this report are based on preliminary data only. This report was prepared specifically for the client and is intended for their direct use only and as needed by the client for use by government and regulatory agencies. This report cannot be relied on by other parties.

Sincerely;



Darryl Tunncliffe, P.Eng.
Cowichan Engineering Services Ltd

Reviewed By;

A handwritten signature in black ink, appearing to read "Cam Williams".

Cam Williams, ASCT
Cowichan Engineering Services Ltd.

APPENDIX A

Sanitary Sewer Analysis



SANITARY SEWER ANALYSIS

Date: June 25, 2019
 Prepared By: Courtney OHS
 Reviewed By: Cam Williams, A.S.C.
 File Number: 1345-C

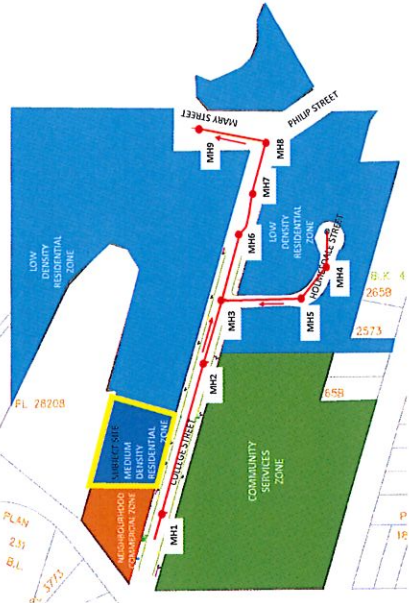
Client: Nison Developments Ltd.
 Address: 1027 College Street
 Legal: Lot 283, Plan V1962519 & South half of Lot 5 Plan 1265

Design Parameters: 0.003 Minimum Velocity
 Manning's n: 0.011 Minimum Velocity
 Peaking Factor: 2.5

Designs: 0.61 m/s
 New Applicable Address Sizing and Annotating

Velocity Requirements: 0.61 m/s
 Minimum Velocity: 0.61 m/s
 Maximum Velocity: 1.55 m/s

Lot(s)	Plan	Description	Zoning	CATCHMENT DEFINITION		POPULATION		SANITARY DEMAND			MANHOLES			SEWER CHARACTERISTICS			CAPACITY		VELOCITY				
				Lot Area	Comm. Bldg/Parking Area	Pop. Density	Equip. Density	Comm. Pop.	Equip. Pop.	Peak Flow	Sanitary Infiltration	Total Flow	From	To	Invert	Diameter	Length	Slope	Manhole's n	Full Capacity	Percent Full	Full Flow	Demand Flow
A	V1964586	7-11	NC	0.291	0.291	90	26	2.5	0.27	0.03	0.30												
1265B	School	CS	2.091	2.382	0.526	College	29	55	2.5	0.57	0.24	0.81											
A	V1962519	SUBJECT SITE	MDR	0.321	2.702	College	36	91	2.5	0.95	0.27	1.22											
1.7	4459.1265A	Resid.	LDR	0.292	2.995	College	36	11	2.5	1.06	0.30	1.36	MH1	27.525	MH2	26.758	0.013	0.013	12.9	22%	0.73	0.47	
8	1265A	Resid.	LDR	0.220	3.215	College	36	8	2.5	1.14	0.32	1.46											
1	4471	Resid.	LDR	0.116	3.330	College	36	4	2.5	1.18	0.33	1.52	MH2	26.722	MH3	26.411	0.013	0.013	12.7	23%	0.72	0.46	
3 to 9	38071	Resid.	LDR	0.458	0.458	Home	36	16	2.5	0.17	0.05	0.22											
A and B	40992	Resid.	LDR	0.097	0.525	Home	36	2	2.5	0.20	0.05	0.25	MH4	26.04	MH5	26.76	0.013	0.013	12.0	10%	0.68	0.37	
A.A	V1970645, V1968319	Resid.	LDR	0.115	0.640	Home	36	4	2.5	0.24	0.06	0.30	MH5	26.76	MH9	26.411	0.013	0.013	11.6	11%	0.66	0.28	
3	7807	Resid.	LDR	0.116	4.086	College	36	4	2.5	1.47	0.41	1.87											
PT1	10277	Resid.	LDR	0.681	4.767	College	36	15	2.5	1.72	0.48	2.20	MH3	26.389	MH6	26.11	0.013	0.013	11.8	20%	0.67	0.51	
1	9654	Resid.	LDR	0.113	4.881	College	36	4	2.5	1.76	0.49	2.25	MH6	150	MH7	150	0.013	0.013	48.2	15%	2.73	1.39	
1.1.B	7907, 3618, V1971115	Resid.	LDR	0.403	5.281	Philip	36	14	2.5	1.91	0.53	2.44											
A.1.A	25259, 2156, V1971115	Resid.	LDR	1.845	7.127	Mary	36	65	2.5	2.61	0.71	3.32	MH8	MH9			0.013	0.013	11.8	38%	0.67	0.57	



Population Density

Comparable Population Density	Area	Population	PHU	PHU
Single Family Dwellings	2.8	35	1.25	28
Medium Density Residential	1.7	90	50	1.8
Commercial Equivalent	NC	50	Incl. parking	
Institutional Equivalent	CS	50	Incl. parking, not green space	

PHU: Population Per Unit
 PHU: Population Per House
 AG: City of Nanaimo, Engineering Standards & Specifications, November 2016 Edition, 6.014 Sewer Flow, Page 6-3

School Demand: 30 litres per day per student
 School, non-residential, no cafeteria, no showers: 15 x 30 = 450
 Number of students: 15
 Total Flowrate: 450 + 2.5 Peaking Factor = 0.304 US

Calculation based on City of Nanaimo population density values:
 50 PHU x 0.328 ha, building & parking area = 16.4
 2.5 Peaking Factor x 16.4 = 41
 2.274 US

Conservative calculation per student is greater than calculation based on City of Nanaimo population density; used demand/student calculation.
 Equiv. Pop. calculated, based on per student demand and 2.5 PF.
 Ref. Sewerage System Standard Practice Manual Version 3, Table 10-12 Non-Residential Average Daily Flow Rate Guide.
 Number of Students Reference: <https://studentsuccess.gov.bc.ca/foiweb079950083/report/contenual-information>



CITY of DUNCAN DEVELOPMENT PERMIT - WITH VARIANCES

Permit No:	DP-2018-10 AMENDMENT
Registered Owner:	Woywitka's Building Supplies, Ltd., Inc. No. C0240026 1747 Westlock Road, Duncan, BC V9L 0B8
Subject Property:	1027 College Street
Description of Land:	
Parcel Identifier:	023-302-437
Legal Description:	LOT A, SECTION 19, RANGE 5, QUAMICHAN DISTRICT, PLAN VIP62519
Proposal:	TWENTY-ONE UNIT MULTI-FAMILY RESIDENTIAL DEVELOPMENT WITH FIVE BUILDINGS

Conditions of Permit:

1. This permit is issued subject to compliance with all relevant City of Duncan bylaws, except as specifically varied or supplemented by this Permit.
2. This permit applies to the lands described above, and any buildings, structures, and other development thereon (hereinafter called 'the Lands').
3. The Lands and building which are subject to this Permit shall be developed strictly in accordance with the terms and conditions of this Permit and in accordance with the existing DP-2018-10 schedules.
4. This Development Permit includes the following variances to *Works and Services Bylaw 3158, 2017*, Schedule C – Sewage Collection Works:
 - a. The sanitary main upgrade size is varied from 200 mm diameter to 150 mm diameter.
5. As a condition to varying the *Works and Services Bylaw* and prior to Building Permit issuance, the applicant must provide the following:
 - a. The applicant will provide a \$35,000 contribution towards the future sanitary main replacement for College Street.
6. Provision of an agreement to construct and install required works and services in accordance with City of Duncan, Engineering/Public Works Department requirements including roadwork and access, water servicing, sanitary sewer, storm drainage, electrical and telecommunications, and administration and inspection, and related securities and fees is a requirement prior to issuance of a Building Permit.
7. Pursuant to section 504(2) of the *Local Government Act*, this permit will lapse two years from the date of the Development Permit approval unless construction, in accordance with the terms and conditions of this permit, has substantially started.
8. This permit is not a building permit.

9. Further to condition 7, construction is considered to be substantially started when a valid building permit for the development has been issued and shall not have lapsed; and excavation or construction works associated with the development hereby approved must have commenced to the satisfaction of the Director of Development Services. Demolition does not constitute construction.

10. Where any security is required by the City of Duncan, the security provided by the Permit holder in the amount agreed to by the Director of Public Works and Development Services is to be submitted prior to Building Permit issuance.

11. Where the development authorized by this Permit has lapsed prior to commencement of any work pursuant to this Permit, the security shall be returned to the Permit holder.

Date of Development Permit Amendment Approval/Issue by Council or its Delegate:

This permit was approved on _____, **2019**

This permit was issued on _____, **2019**

This permit expires on _____, **2021**

The City of Duncan

Designated Municipal Officer

I HEREBY CERTIFY that I have read the terms and conditions of the Development Permit contained herein. I understand and agree that the City of Duncan has made no representations, covenants, warranties, guarantees, promises, or agreements (verbal or otherwise) with Nick Woywitka, Woywitka's Building Supplies, Ltd., other than those contained in this Permit.

Owner/Agent (signature)

Witness (signature)

Print Name

Print Name

Date

Date

Advisory Comments

The following comments are provided for information purposes only:

1. An inspection of the application site by Development Services staff will take place prior to the issuance of an Occupancy Permit to ensure that the development is in complete accordance with the approved Development Permit plans. The applicant is responsible for contacting the Development Services Division to arrange the inspection at least two weeks prior to applying for an Occupancy Permit. Additional site inspections by Development Services staff may occur during the construction phase of the project.
2. This Permit does not constitute a building, sign or awning permit or a subdivision approval. The applicant may contact Development Services to determine whether further permits are required in association with the development hereby approved.
3. This Permit does not authorize altering an archaeological site. The owner/applicant is responsible for ensuring compliance with the *Heritage Conservation Act*, including steps to determine whether or not a site is an archaeological site. Under s.36 of the *Heritage Conservation Act* it is an offence to alter an archaeological site without first obtaining a permit to do so from the Province of British Columbia.



**NOTICE OF AMENDMENT TO DEVELOPMENT PERMIT WITH VARIANCES
DP-2018-10 – 1027 COLLEGE STREET**

This notice is to advise that Council will consider an amendment to Development Permit with Variances DP-2018-10 respecting LOT A, PLAN VIP62519, SECTION 19, RANGE 5, QUAMICHAN DISTRICT, located at 1027 College Street, Duncan, BC.

On November 18, 2019, Council authorized a Development Permit with Variances to construct a twenty-one unit strata development, which consists of five structures: two six-plex and three tri-plex units. In addition to the variances to the Zoning Bylaw for DP-2018-18, a variance to Works and Services Bylaw 3158, 2017 is also required to permit this development.

The applicant is requesting the following variance to Works and Services Bylaw 3158, 2017, Schedule C: Sewage Collection Works:

1. To vary the size requirement for the sewer main, from 200 mm diameter required by the bylaw, to the existing 150 mm diameter main. An engineering report, reviewed by the Engineering Department, confirms that the proposed size will be adequate. The applicant will provide a financial contribution for the future replacement of the sewer main.

A copy of the application and staff reports will be available for public review from **Wednesday, December 4th, 2019** to **Monday, December 16th, 2019** on the City's website at www.duncan.ca and at:

Duncan City Hall,
200 Craig Street, Duncan, BC
8:30 a.m. to 4:00 p.m., Monday – Friday

Council will consider this application at the Regular Meeting scheduled for **Monday, December 16th, 2019, 6:00 p.m.** in Council Chambers, Duncan City Hall, 200 Craig Street, Duncan.

Any person who believes their interests may be affected by this proposed amendment to the Development Permit with Variances may appear in person, or by agent, the evening of the Regular Council meeting. Written comments will also be accepted by mail or email to *Director of Corporate Services, City of Duncan, 200 Craig Street, Duncan, BC V9L 1W3*; Email: duncan@duncan.ca, until 4:00 p.m., Wednesday, December 11th, 2019, to ensure their inclusion in the public record.

For more information on this application please contact Development Services, at (250) 746-6126 or DevelopmentServices@duncan.ca

Date: December 3rd, 2019

Subject Property Map



Subject Property Map

File: DP201810

