

NOTICE OF PUBLIC HEARING – JULY 5, 2021

**BYLAW 2363: WHITE ROCK ZONING BYLAW, 2012, NO. 2000, AMENDMENT
(CD-64 -1485 FIR STREET) BYLAW, 2020, NO. 2363**

MAJOR DEVELOPMENT PERMIT: 19-009/ DP 432

CIVIC ADDRESS: 1485 FIR STREET

PURPOSE: Bylaw 2363 would rezone the subject property from ‘RM-2 Medium Density Multi-Unit Residential Zone’ to ‘CD-64 Comprehensive Development Zone (1485 Fir Street)’ to allow for the construction of a six-storey 80-unit rental residential building over two (2) levels of underground parking. The property is an existing rental building and the development would be subject to Council’s Tenant Relocation Policy. Following an earlier public hearing held for this property on January 18, 2021, the Bylaw 2363 has now been revised to include an additional requirement that four (4) of the units be rented for a period of ten (10) years at average White Rock rental rates based on the most recent Canada Mortgage and Housing Corporation (CMHC) rental market report.

WHITE ROCK
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Documents:

Author	Document	Item #
Director of Planning and Development Services	Land Use and Planning Committee corporate report dated October 19, 2020	R-1
Director of Planning and Development Services	Land Use and Planning Committee corporate report dated May 10, 2021	R-2
Corporate Administration Department	Minutes – Various Extracts	R-3

Written Submissions:

Author	Date Received	Resident?	Status	Item #
None to date.				

THE CORPORATION OF THE
CITY OF WHITE ROCK

15322 BUENA VISTA AVENUE, WHITE ROCK, B.C. V4B 1Y6

**NOTICE OF PUBLIC HEARING
MONDAY, JULY 5, 2021**

NOTICE is hereby given that the Council of the City of White Rock will hold an opportunity for public participation for a Public Hearing on **MONDAY, JULY 5, 2021** at **5:00 P.M.** in accordance with the *Local Government Act* and the Planning Procedures Bylaw. All persons who deem their interest in property is affected by the proposed bylaw/application shall be afforded an opportunity to be heard **via a telephone-in process** or by forwarding written submissions reflecting matters contained in the proposed bylaw/application that is the subject of the Public Hearing. At the Public Hearing, Council will hear and receive submissions from the interested persons in regard to the bylaw/application listed below:

BYLAW 2363: WHITE ROCK ZONING BYLAW, 2012, NO. 2000, AMENDMENT (CD-64 -1485 FIR STREET) BYLAW, 2020, NO. 2363

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CIVIC ADDRESS: 1485 FIR STREET (SEE SITE MAP ATTACHED)

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Further details regarding the subject of the Public Hearing may be obtained from the City's Planning and Development Services Department at City Hall by contacting 604-541-2136 | planning@whiterockcity.ca.

Electronic Meeting: The Provincial Health Officer has issued orders related to gatherings and events in the province of BC. As such, Public Hearings will be held virtually and will also be live streamed on the City website. To participate in a Public Hearing, please review the options below.

WHITE ROCK
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www.whiterockcity.ca

1. Submit written comments to Council:

You can provide your submission (comments or concerns) by email to clerksoffice@whiterockcity.ca or by mail to Mayor and Council, 15322 Buena Vista Avenue, White Rock, BC, V4B 1Y6. The deadline to receive submissions is by **12:00 p.m. on the date of the Public Hearing, July 5, 2021.**

You may forward your submissions by:

- Mailing to White Rock City Hall, 15322 Buena Vista Avenue, White Rock, BC V4B 1Y6, or hand delivery by leaving it in the “City Hall Drop Box” to the left outside the front door; or
- Emailing the Mayor and Council at clerksoffice@whiterockcity.ca with the following noted in the subject line: **PH 1 - Bylaw 2363 (CD-64, 1485 Fir Street)**

2. If you do not wish to speak or write in but would still like to convey that you are in support or that you are not in support of the Public Hearing item:

You may phone 604-541-2127 to register your support / or that you are not in support of the Public Hearing item. If the call is not answered please leave a voicemail with the call-in information noted below (all four (4) bullet points must be noted).

When you call-in, please be prepared to provide the following information:

- The public hearing item
- Your first and last name
- Civic address
- Whether you are in support of or not in support of the item

Note: Phone in submissions will be accepted until **3:00 p.m.** on the date of the Public Hearing (July 5, 2021).

3. You may register to speak to a Public Hearing item via telephone:

Registration will be open from 12:00 p.m. to 4:00 p.m. on the date of the Public Hearing, July 5, 2021. Registration will only be available during this time. Once you register, you will be sent an email with further instructions.

Register to speak by emailing clerksoffice@whiterockcity.ca or calling 604-541-2127.

Please note the following instructions when you call in:

- You will be put on hold in a queue for the respective item, and you will be connected when it is your turn to speak. **If you hang up during this time, you will lose your place in the queue.** You may watch the Council meeting through the City's Live Stream while you are on hold.
- Your comments must be relevant to the application (bylaw) being considered at the Public hearing
- You will have 5 minutes to speak
- **While speaking turn off all audio of the meeting. Note: There is a 1-minute delay in the live stream so please listen to the cues given over the phone**
- **Do not put your phone on speaker phone**
- Once you make your comments to Council, the call will end quickly so that the next speaker can join the meeting

If you miss the noted registration period, please watch the live meeting at the following link: whiterockcity.ca/Agendas as there will be an opportunity for you to call in for a limited period of time.

Note: Correspondence that is the subject of a Public Hearing, Public Meeting, or other public processes will be included, in its entirety, in the public information package and will form part of the public record. Council shall not receive further submissions from the public or interested persons concerning the bylaws/applications after the Public Hearing has been concluded.

The meeting will be streamed live and archived through the City's web-streaming service.

The proposed bylaw/application and associated reports can be viewed online on the agenda and minutes page of the City website, www.whiterockcity.ca, under Council Agendas from June 22, 2021, until July 5, 2021. **If you are unable to access the information online, please contact the Corporate Administration department at 604-541-2212, between the hours of 8:30 a.m. and 4:30 p.m., or leave a voicemail and staff will ensure you have the information made available to you.**

**The Corporation of the
CITY OF WHITE ROCK
BYLAW No. 2363**



A Bylaw to amend the
"White Rock Zoning Bylaw, 2012, No. 2000" as amended

The CITY COUNCIL of the Corporation of the City of White Rock in open meeting assembled ENACTS as follows:

1. THAT Schedule C of the *White Rock Zoning Bylaw, 2012, No. 2000* as amended is further amended by rezoning the following lands:

Lot 16 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-931
(1485 Fir Street)

Lot 17 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-965
(1485 Fir Street)

Lot 18 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-981
(1485 Fir Street)

as shown on Schedule "1" attached hereto, from the 'RM-2 Medium Density Multi-Unit Residential Zone' to 'CD-64 Comprehensive Development Zone (1485 Fir Street).'

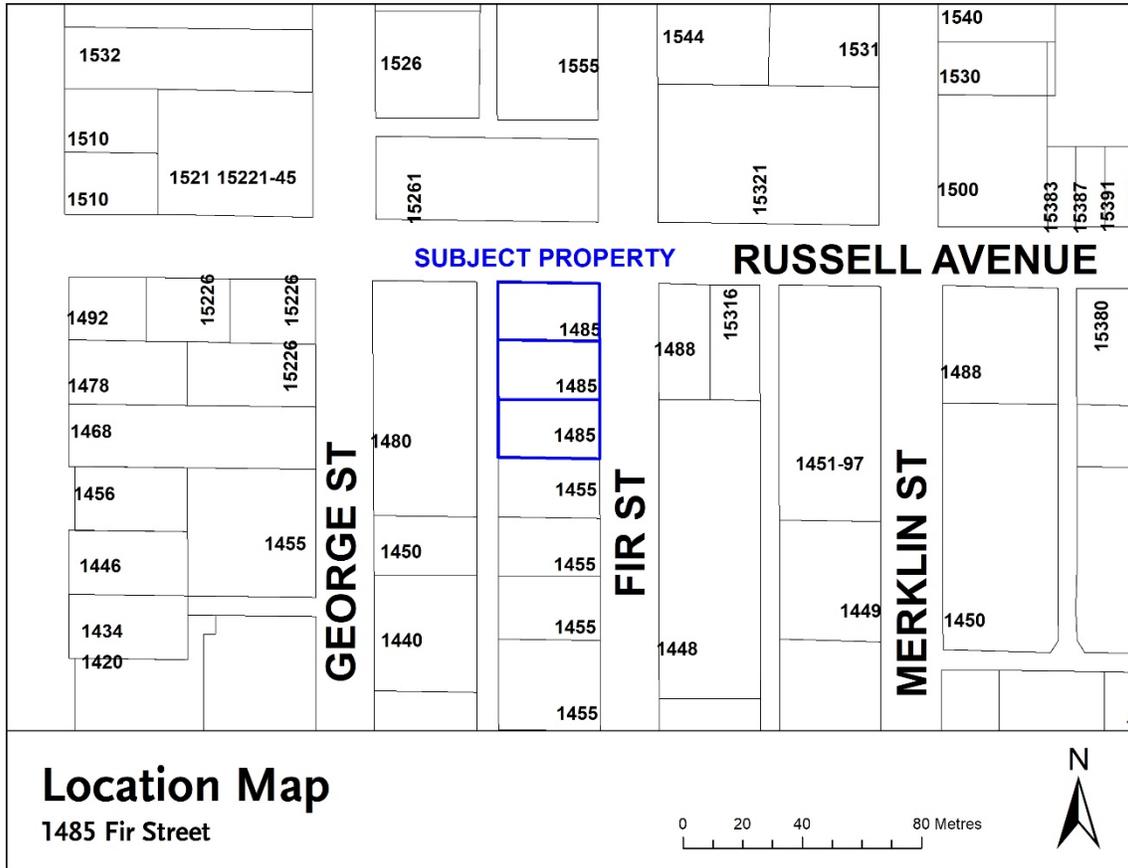
2. THAT *White Rock Zoning Bylaw, 2012, No. 2000* as amended is further amended:
 - (1) by adding to the Table of Contents for 'Schedule B (Comprehensive Development Zones)', Section 7.64 CD-64 Comprehensive Development Zone';
 - (2) by adding the attached Schedule "2" to 'Schedule B (Comprehensive Development Zones)' Section 7.64 CD-64 Comprehensive Development Zone'.
3. This bylaw may be cited for all purposes as "*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363*".

RECEIVED FIRST READING on the	19 th	day of	October, 2020
RECEIVED SECOND READING on the	19 th	day of	October, 2020
PUBLIC HEARING held on the	18 th	day of	January, 2021
SECOND READING RESCINDED on the	26 th	day of	April, 2021
PUBLIC HEARING held on the		day of	
RECEIVED THIRD READING on the		day of	
RECONSIDERED AND FINALLY ADOPTED on the		day of	

Mayor

Director of Corporate Administration

Schedule "1"



Schedule “2”

7.64 CD-64 COMPREHENSIVE DEVELOPMENT ZONE

INTENT

The intent of this zone is to accommodate the development of a multi-unit residential building on a site of approximately 2,036 square metres, with the provision of affordable housing and a housing agreement bylaw in accordance with section 482 of the *Local Government Act*.

1. Permitted Uses:

- (1) *multi-unit residential use; and*
- (2) *accessory home occupation* use in accordance with the provisions of section 5.3 and that does not involve clients directly accessing the *principal building*

2. Lot Coverage:

- (a) For *multi-unit residential uses*, *lot coverage* shall not exceed 49%

3. Maximum Base Density:

The following base density regulation applies generally for the zone:

Maximum *residential floor area* shall not exceed 1.1 times the lot area, and maximum *gross floor area* shall not exceed 1.5 times the lot area.

4. Maximum Increased Density:

Despite section 7.64.3, the reference to the maximum *gross floor area* of “1.5 times the lot area” is increased to a higher density of a maximum of 5,700 m² (61,356.85 ft²) of *gross floor area* (2.8 FAR; or gross floor area ratio) and 80 apartment dwelling units where a housing agreement has been entered into and filed with the Land Title Office to secure eighty (80) dwelling units as rental tenure for the life of the building, with four (4) of these dwelling units being secured for a period of 10 years as having maximum rents set at the average rent for a private apartment in White Rock as indicated by the most current rental market report from Canada Mortgage and Housing Corporation.

5. Building Height:

- (a) The *principal buildings* for *multi-unit residential uses*, inclusive of elevator shafts, stair housing, and all mechanical equipment, shall not exceed a *height* of 129.2 metres geodetic; and
- (b) *Ancillary buildings* and *structures* for *multi-unit residential uses* shall not exceed a height of 5.0 metres from *finished grade*.

6. Siting Requirements:

- (a) Minimum setbacks for *multi-unit residential uses* are as follows:
 - (i) Setback from north lot line = 5.05 metres

- (ii) Setback from south lot line = 5.25 metres
- (iii) Setback from west lot line = 3.08 metres
- (iv) Setback from east lot line = 3.47 metres

(b) *Ancillary structures* may be located on the subject property in accordance with the Plans prepared by Billard Architecture dated August 11, 2020 that are attached hereto and on file at the City of White Rock, with the exception that no *ancillary buildings* or *structures* are permitted within a 1.0 metre distance from a lot line.

7. Parking:

Parking for *multi-unit residential uses* shall be provided in accordance with Sections 4.14 and 4.17, with the minimum number of spaces required as follows:

- (a) A minimum of ninety-six (96) spaces shall be provided for residents of the *multi-unit residential use*;
- (b) A minimum of twenty-four (24) spaces shall be provided for visitors and marked as “visitor”;
- (c) A minimum of three (3) of the required one hundred and eight (108) spaces shall be provided as accessible parking spaces, shall be clearly marked, and shall have a minimum length of 5.5 metres. Of the three accessible parking spaces, one space shall be provided as a van-accessible loading space with a minimum width of 2.8 metres, and the other two spaces shall have a minimum width of 2.5 metres, provided that the three parking spaces have a shared or non-shared access aisle with a minimum width of 1.5 metres; and
- (d) The minimum height clearance at the accessible parking spaces and along the vehicle access and egress routes from the accessible parking spaces must be at least 2.3 metres to accommodate over-height vehicles equipped with a wheelchair lift or ramp.

8. Bicycle Parking:

Bicycle parking shall be provided in accordance with Section 4.16, with the minimum number of spaces required as follows:

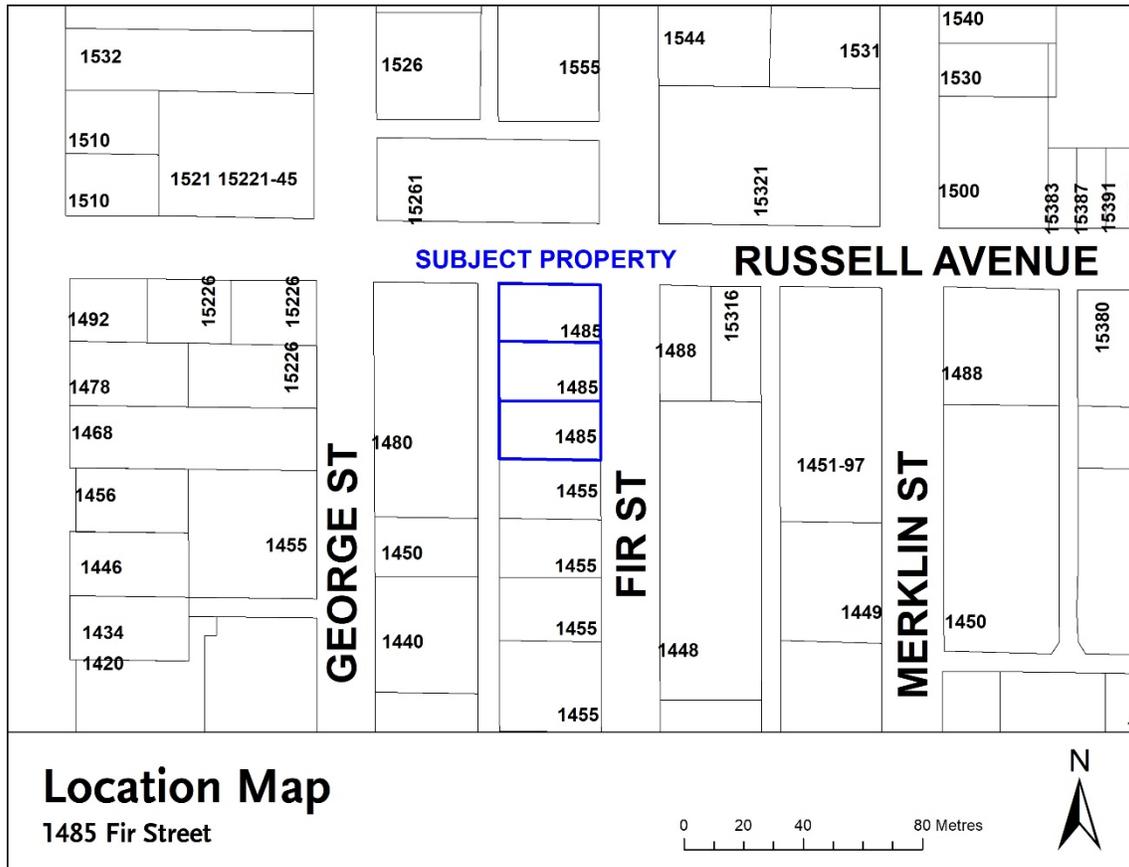
- (a) A minimum of 94 Class I spaces shall be provided; and
- (b) A minimum of 16 Class II spaces shall be provided

9. Loading:

- (a) One loading space shall be provided for a *multi-unit residential use* in accordance with Section 4.15

10. General:

Development in this zone that includes the additional (bonus) density referred to in Section 4 shall substantially conform to the Plans prepared by Billard Architecture dated August 11, 2020 that are attached hereto and on file at the City of White Rock



1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
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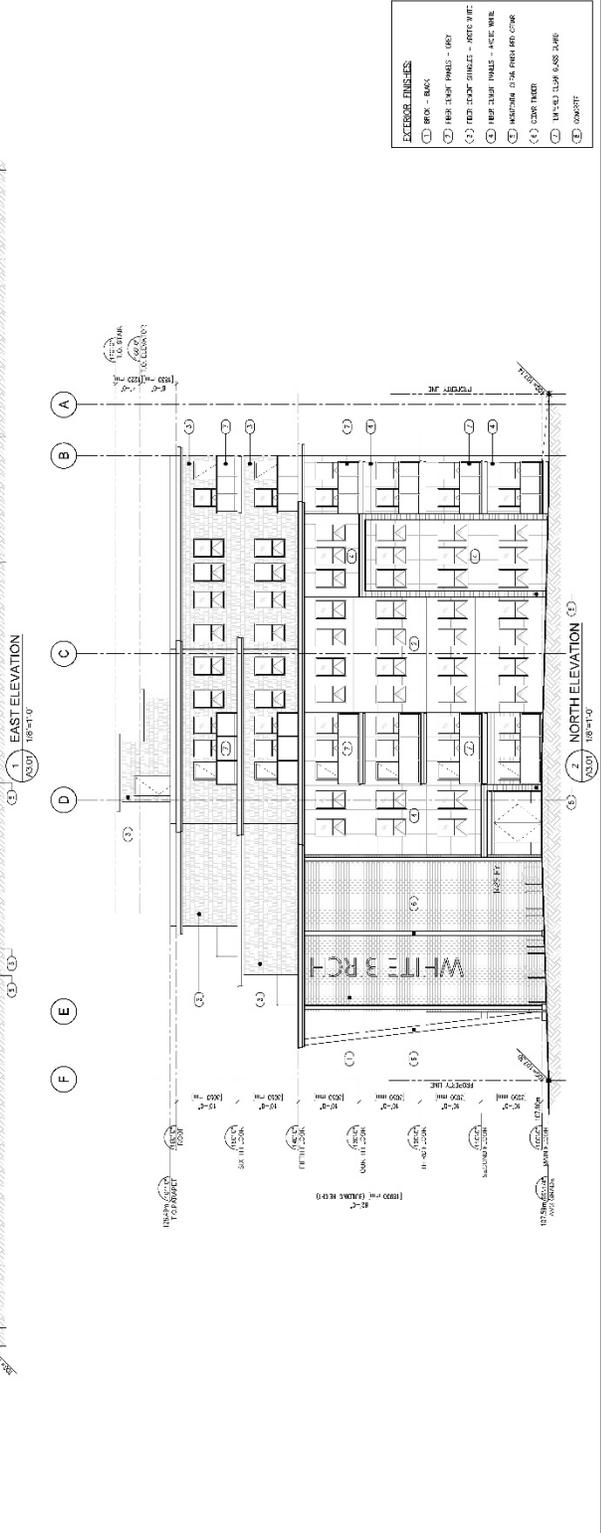
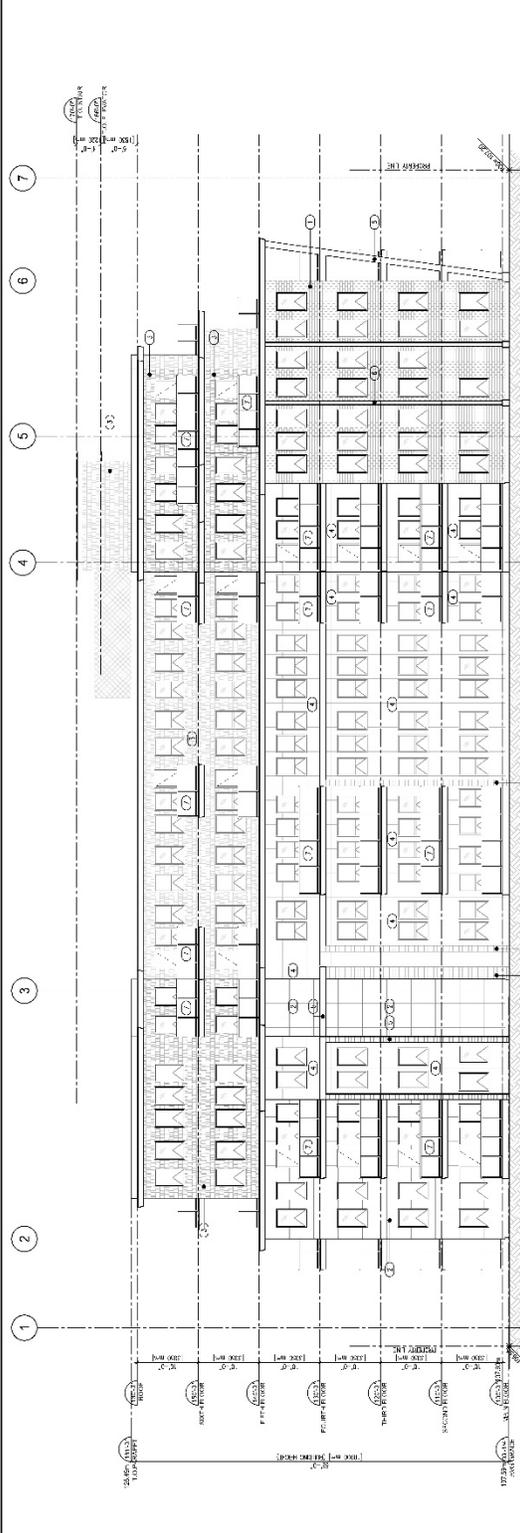
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1.5	1.5.1	1.5.1.1	1.5.1.1.1	1.5.1.1.1.1
1.6	1.6.1	1.6.1.1	1.6.1.1.1	1.6.1.1.1.1
1.7	1.7.1	1.7.1.1	1.7.1.1.1	1.7.1.1.1.1
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Billard Architecture
 4701 - 425 6th Avenue
 New Westminster, B.C. Canada
 V3M 1Y4
 (604) 699-0229
 info@billardarchitecture.ca
 www.billardarchitecture.ca

WHITEBIRCH APARTMENTS
 1405 VAN SIKS BLVD
 WHITEROCK, BC

EAST & NORTH ELEVATIONS

DATE: 10/10/2017
 DRAWN: [Name]
 CHECKED: [Name]
 PROJECT: [Name]
 SHEET: A3.01
 TOTAL SHEETS: 18



EXTERIOR FINISHES

(1)	BRICK - BLACK
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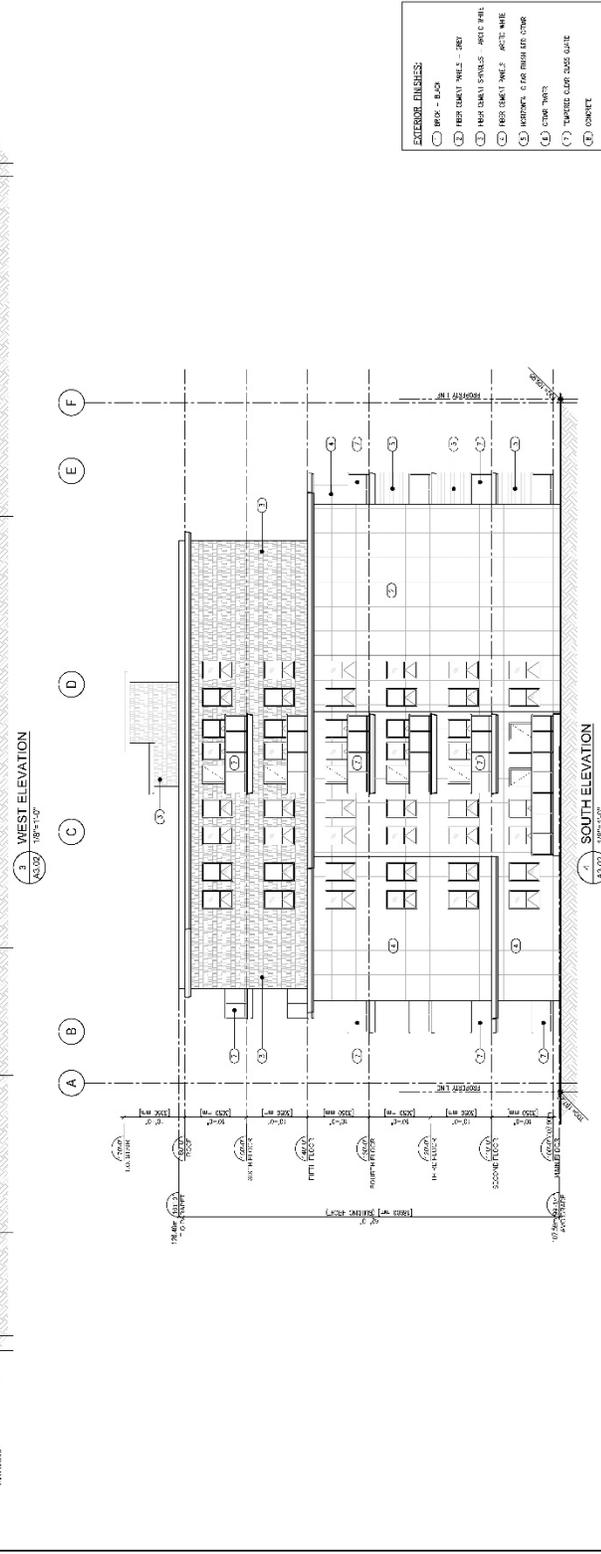
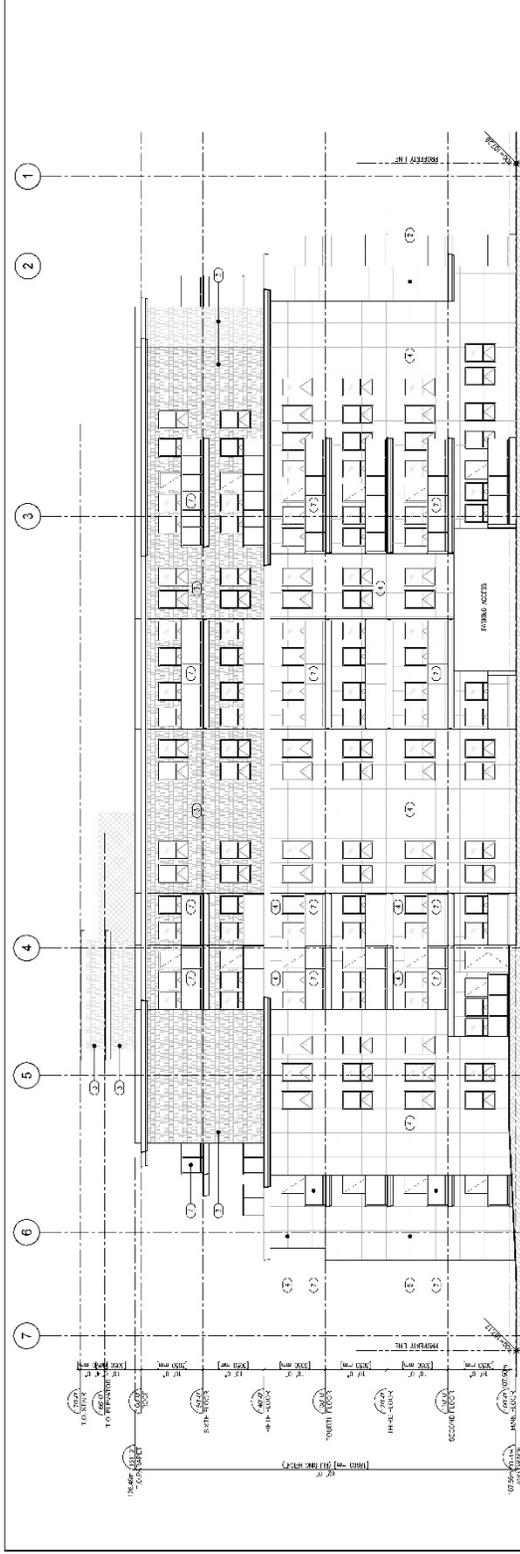
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13	15.11.2024	REVISION FOR IF 2025
14	05.08.2024	CLIP REVIEW
15	05.08.2024	CLIP REVIEW
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82	12.02.2025	FINAL FOR 4 - 2025/26
83	12.02.2025	FINAL FOR 4 - 2025/26
84	12.02.2025	FINAL FOR 4 - 2025/26
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86	12.02.2025	FINAL FOR 4 - 2025/26
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97	12.02.2025	FINAL FOR 4 - 2025/26
98	12.02.2025	FINAL FOR 4 - 2025/26
99	12.02.2025	FINAL FOR 4 - 2025/26
100	12.02.2025	FINAL FOR 4 - 2025/26

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WHITEBIRCH APARTMENTS
 1400 BIRCH STREET
 WHITEROCK, BC

WEST & SOUTH ELEVATIONS

A3.02



- EXTERIOR FINISHES:**
- (1) BRICK - BROWN
 - (2) BRICK - LIGHT TONES - 2ND
 - (3) BRICK - LIGHT TONES - 3RD
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THE CORPORATION OF THE
CITY OF WHITE ROCK
 CORPORATE REPORT



DATE: **October 19, 2020**

TO: **Land Use and Planning Committee**

FROM: **Carl Isaak, Director, Planning and Development Services**

SUBJECT: **Rezoning and Major Development Permit Application – 1485 Fir Street
 (ZON/MJP 19-009)**

RECOMMENDATIONS

THAT the Land Use and Planning Committee recommends:

1. That Council give first and second readings to “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 -1485 Fir Street) Bylaw, 2020, No. 2363 as presented, and direct staff to schedule the required Public Hearing;
 2. That Council direct staff to resolve the following issues prior to final adoption, if Bylaw No. 2363 is given Third Reading after the Public Hearing:
 - a) Ensure that all engineering requirements and issues, including dedication of a 5.0 metre by 5.0 metre corner cut on the corner of the site at Fir Street and Russell Avenue, intersection improvements including ‘watch for pedestrian’ signage as well as tactile paving on the northwest and northeast corners of George Lane and Thrift Avenue, and completion of a servicing agreement, are addressed to the satisfaction of the Director of Engineering and Municipal Operations;
 - b) A Tenant Relocation Plan and adoption of a Housing Agreement Bylaw are finalized; and
 - c) The consolidation of existing three lots and the demolition of the existing residential building occurs; and
 3. That, pending adoption of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363,” Council consider issuance of Development Permit No. 432 for 1485 Fir Street.
-

EXECUTIVE SUMMARY

The Land Use and Planning Committee (LUPC) received a corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled “Initial OCP Amendment Application Report – 1485 Fir Street (19-009 OCP/ZON/MJP).” The application at the time required an increase in gross floor area ratio (or ‘FAR’) density above what was permitted in the Official Community Plan (OCP) which would have required an OCP amendment and did not provide the number of three-bedroom units (10%) required in the OCP.

Council subsequently directed staff to work with the applicant on a revised application that did not require an OCP amendment. There was also discussion at the LUPC meeting regarding the adequacy of the applicant’s Tenant Relocation Plan. A subsequent report dated September 30,

2019 from the Director of Planning and Development Services, titled “Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009)” was prepared and provided a brief update including the applicant’s enhanced Tenant Relocation Plan and an overview of the changes to the form of the development which was revised to not require an OCP amendment and proceeded as a rezoning and major development permit application.

A separate corporate report on proposed revisions to Council Policy 511: Density Bonus / Amenity Contribution and Council Policy 514: Tenant Relocation Policy, is included earlier in the Land Use and Planning Committee agenda and would have an impact on this development application.

The application has been further revised to incorporate changes that follow the endorsement from the Governance and Legislation Committee to the Tenant Relocation Plan, discussed in the sections below. The proposal for 1485 Fir Street now presents a six-storey, 80-unit building, for which all units would be rental units. The rezoning, if approved, would create a Comprehensive Development (CD) zone largely designed to implement the height and density allowed within the Official Community Plan. A major development permit for form and character, energy and water conservation and the reduction of greenhouse gases is also required. Location and ortho photo maps of the subject property are attached as Appendix C.

PREVIOUS COUNCIL DIRECTION

Resolution # and Date	Resolution Details
LUPC July 8, 2019 2019-LU/P-022	THAT the Land Use and Planning Committee: 1. Receives for information the corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled "Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP);" and 2. Recommends that Council refuse the OCP amendment application, and direct staff to work with the applicant on a revised rezoning and Major Development Permit application, for a secured rental housing development that includes a reduced FAR (2. 8 gross floor area ratio consistent with the OCP), and amended building and site design.
LUPC September 30, 2019 2019-LU/P-025 2019-LU/P-026	THAT the Land Use and Planning Committee refers the report back to staff for a revision that permits existing tenants to return to the building after construction at the same rent they are currently paying, subject to the per annum increases permitted by the province; and THAT the proposed Community Amenity Contributions (CACs) be reduced further in recognition for current tenants being able to keep their current rent amounts. THAT the Land Use and Planning Committee receives for information the corporate report dated September 30, 2019 from the Director of Planning and Development Services, titled “Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009).”

INTRODUCTION/BACKGROUND

White Rock Official Community Plan 2017, No. 2220 (OCP) designates the subject property as ‘Town Centre Transition’, characterized by residential uses that provide a gradual height transition between the Town Centre area and surrounding lower density single-family neighbourhoods. Building heights in the Town Centre Transition area are encouraged to develop within the range presented in Figure 10 of the OCP. For the subject site, this is shown as a continuum between 18 storeys at North Bluff Road and 6 storeys at Thrift Avenue, suggesting that between ~6-10 storeys would be a supportable transitional height at this location.

Under OCP Policy 8.2.3, properties in the Town Centre Transition area including 1485 Fir Street, are identified as being eligible for additional density (up to 40% above the base density) where at least half this additional floor area is dedicated to and secured as residential rental units. The base density for this property is 2.0 FAR, therefore the total maximum density permitted, including the rental bonus density, is 2.8 FAR, of which 0.4 FAR would need to be comprised of rental units. There is no additional bonus available for projects that consist entirely of rental units. Policy 11.2.1(f) requires that a minimum one-to-one replacement of existing rental units be provided when an existing rental building is proposed for redevelopment, with an average unit size of the replacement units at least 80% of the units being replaced. The proposal for 1485 Fir Street would consist of a six-storey, 80-unit building, for which all units would be rental units; the size and number of units is sufficient to satisfy the replacement requirements of the OCP.

The development is subject to a Major Development Permit being within the ‘Multi-Family’ Development Permit Area (DPA). The DPA Guidelines, outlined in Section 22.6 of the OCP have been applied to the proposal to ensure the form and character of the development fits within the established character of the neighbourhood. The project has been reviewed by City staff and the City’s Advisory Design Panel. Staff believe the rezoning to be consistent with the applicable policies of the OCP and the City’s Multi-Family DPA Guidelines. The following sections give greater merit to the factors considered in evaluating this proposal.

ANALYSIS

Current Zoning and Land Use Context

The subject property is located at 1485 Fir Street, on the corner of Fir Street and Russell Avenue (see Appendix C for Location Map and Ortho Photo). The property is occupied by a 25-unit rental apartment building (“The Firs;” building address of 1475 Fir Street) which was constructed in 1965. The existing building is located on three separate parcels and straddles the shared property lines. The subject properties are currently zoned ‘RM-2 Medium Density Multi-Unit Residential Zone’, which permits townhouse or apartment complexes with a 10.7 metre (35.1 feet) maximum height.

The subject site is surrounded by a mix of commercial, institutional and residential uses. To the west across a lane is St. John’s Presbyterian Church and Daycare Centre, to the north across Russell Avenue is a three storey office building (Russell Professional Building), and to the south and east are existing multi-unit residential buildings (one storey building on the east side of Fir Street, and three storey buildings to the south).

Previous Design Proposals

The initial report titled "Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP);" on July 8, 2019 to the Land Use and Planning Committee (see Appendix D) included an overview of a new development application submitted on May 9, 2019, for a proposed development with a total of 84 rental residential units in a six (6) storey building. The proposed density for the apartment site exceeded the OCP maximum density by 0.53 FAR (3.23

FAR proposed; 2.8 FAR allowed). Council subsequently directed staff to work with the applicant on a revised application that did not require an OCP amendment (i.e. that did not exceed the maximum density in the OCP).

Following Council’s direction, the applicant submitted drawings for the rezoning and development permit application on August 15, 2019. An additional report on September 30, 2019 confirmed that the new proposal did not exceed the maximum density allowed in the OCP and therefore did not require an OCP amendment. The major changes that were proposed included:

- Reducing the amount of floor area density and increasing the number of three-bedroom units so that an OCP amendment is no longer necessary;
- Building massing was addressed by recessing the fifth and sixth storeys of the building to reduce the total floor area and the visual impact of the building height;
- Lot coverage was decreased to below 50%;
- Balconies were added to the homes along Fir Street; and
- The outdoor play area was relocated to the front of the building along Fir Street instead of in the rear along George Lane.

Table 1 below provides a summary of changes to the site statistics from the two previous proposals, in comparison to the current proposal. Design changes that have occurred following receipt of the last information report will be discussed in the sections that follow. Of note, there have been no changes to the number of units or building height and only minor reductions to lot coverage and floor area. Parking has been further reduced to 108 spaces, representing a 10% reduction to the required 120 spaces.

Table 1: Comparison of Original Development Proposal Statistics, Second Revised Proposal, and Current Proposal

	Original Proposal (May 9, 2019)	Revised Proposal (August 15, 2019)	Current Proposal (October 19, 2020)
Number of Units	84 (all secured rental)	80 (all secured rental)	80 (all secured rental)
Gross Floor Area	6,586.9 m ² (70,900.4 ft ²)	5,706.7 m ² (61,426.8 ft ²)	5,700 m ² (61,356.85 ft ²)
Floor Area Ratio (Gross)	3.23	2.8	2.8
Lot Coverage	56%	49.9%	48.7%
Height (to top of roof)	Six storeys (18.9 metres)	Six storeys (18.9 metres)	Six storeys (18.9 metres)
Parking Spaces	115 (1.37 per unit)	112 (1.4 per unit)	108 (1.35 per unit)

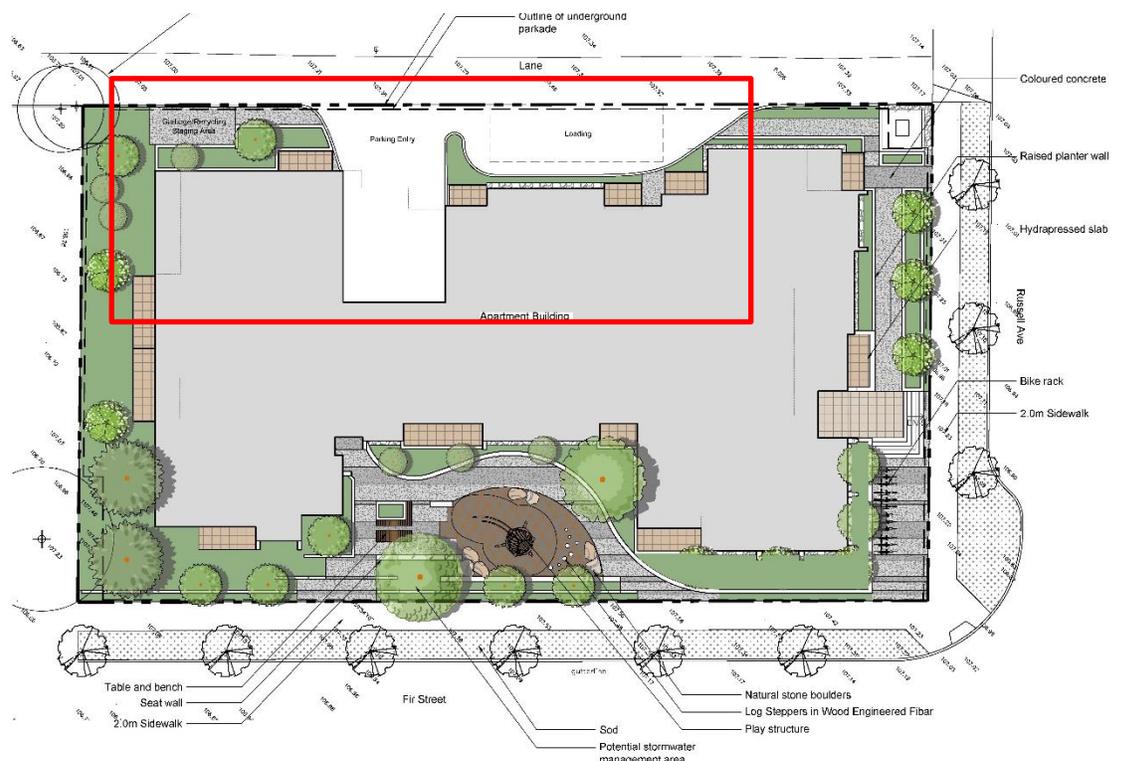
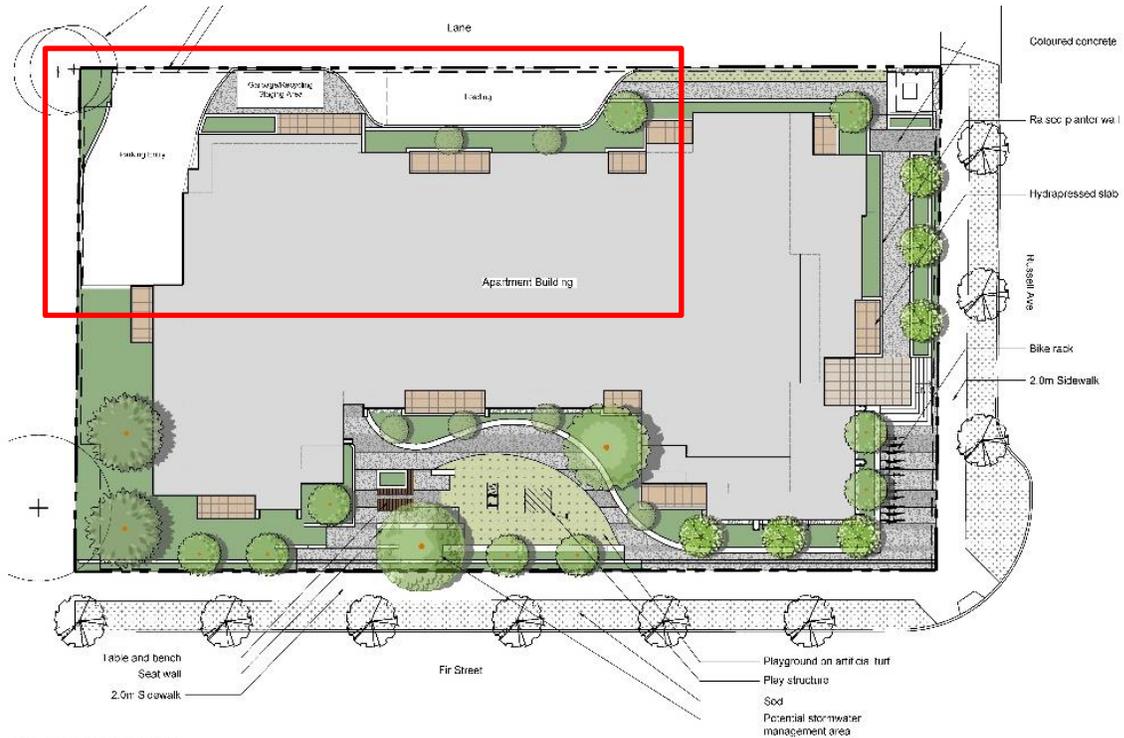
Current Proposal

The current development proposal would include a total of 80 units within a six-storey residential rental building. Unit sizes proposed range between 420 ft² – 520 ft² for a studio, 540 ft² – 625 ft² for a one-bedroom, 680 ft² – 990 ft² for a two-bedroom, and 980 ft² – 1010 ft² for a three-bedroom unit. It is important to note that the proposal now conforms to various elements of the OCP’s “Family-Friendly” housing policies, with 40 percent of the units containing either two or three bedrooms (32 units) and 12.5 percent of the units having three bedrooms (10 units).

Much of the design reflects the proposal in the information report presented to the LUPC from September 30, 2019 included as Appendix E. The major changes reflected in the current proposal pertain to the location of the parkade access which has been relocated to the middle of the site along George Lane, and a slight change in the configuration of the loading bay (see Figure 1). Access through an internal corridor has also been provided from the loading bay to the main elevator, so residents who are moving can easily access the building. A revision in the type of

play structure proposed in the communal courtyard area has also been accommodated in order to provide a more naturalized feel to the space with a ‘tree house’ structure instead of a more traditional playset; this latter revision stems from the feedback of the Advisory Design Panel. The revised parkade access location accommodates more green space on the south end of the site to provide a buffer between the proposed development and the existing property to the south.

Figure 1: Site Plan Comparison between September 30, 2019 version and Current Proposal



Public Information Meeting and Public Feedback

The applicant (Billard Architecture) held a public information meeting (PIM) on December 12, 2019, at ThirdSpace Community Café, Unit 1 - 1381 George Street) from 5:30 p.m. - 7:00 p.m. Approximately five-hundred and fifty (550) letters were circulated notifying owners within 100 metres of the subject property of the proposal. The meeting was also advertised in consecutive publications of the Peace Arch News in advance of the PIM. Appendix F to this report includes the PIM sign-in sheet, completed comment forms, and PIM summary submitted by the applicant. There was a total of 25 paper feedback forms submitted and 11 emails written to staff pertaining to the proposal. A total of 19 of the respondents were in favor of the application, 12 were in opposition of the proposal, and 2 were undecided about the proposal.

Support for the proposal was outlined through comments relating to:

- The rental aspect of the project;
- Elevators in the proposed building helping tenants/visitors to overcome mobility issues;
- Financial issues with maintaining the existing building and requirement for higher density on the site in order to meet the costs of owning the building; and
- The benefit that a new building and amenity space would provide to existing and new tenants as well as the surrounding neighbourhood considering the existing building is 60 years old.

Major concerns that were brought up during the meeting included the following:

- Compromised views for existing residents with the increase in building height;
- Several comments related to the increase in traffic congestion related to the proposed development and how City infrastructure will handle this;
- Not enough greenspace proposed on the site;
- Concerns with the proposed architectural style of the building;
- Concern expressed by existing building residents about the loss of their homes;
- Rental rates being too high to afford; and
- Many of the existing tenants being elderly and it being difficult for them to find alternative housing at an affordable rate.

Planning Review

As noted, the original proposal has undergone a series of revisions to address early concerns expressed by Council as well as feedback received through the PIM. The design has also been modified in response to technical issues identified by City staff and feedback received from the City's Advisory Design Panel (ADP). The project is now consistent with the OCP's Town Centre Transition policies. These policies contemplate development in the form of multi-unit residential buildings transitioning in height from 18 storeys at North Bluff Road down to six (6) storeys at Thrift Avenue. The following sections describe details of the proposal and key land use planning considerations made in preparing the staff recommendation outlined in this report.

The proposed multifamily building is rectangular in shape and is situated in the middle of the subject site. Building setbacks are greatest along Russell Avenue (north) and the residential lands to the south, being approximately 5 metres (16 feet) in width. Setbacks along Fir Street (east) and George Lane (west) are slightly less at approximately 3 metres (10 feet) in width. The lands within the yard setbacks are to be programmed with a mixture of trees and shrubs to ensure

adequate privacy and screening for neighbouring residents, and to help create a pleasant interface between the building and pedestrian realm / streetscape.

Since the original submission, the massing of the building has been stepped back on the fifth and sixth levels to reduce the impact of the structure as experienced at the ground level (i.e., opening up pedestrian views to the sky) while also reducing the impact of shadows on abutting properties. Further, the project has been enhanced with the creation of an outdoor amenity space on the east portion of the site, formerly situated off the laneway along the western side of the property. This amenity space offers an open, publicly-visible, play area for young children and a space for residents to enjoy the outdoors; this design enhancement is becoming increasingly important in light of the on-going COVID-19 pandemic and efforts to support social distancing while enabling access to private open-air green spaces. Finally, access to the parkade, space for loading, and a space for garbage and recycling pick-up, has been situated off of George Lane, being the western limit of the property. This design helps lessen breaks in the pedestrian realm (sidewalk) while helping to “hide” the operational needs of the project.

Table 2 below provides a comparison of the existing and proposed zoning standards tied to the property and project. As noted, the CD Zone is largely intended to implement the height and density permissions contemplated in the OCP.

Table 2: Existing Zoning Provisions versus Proposed Zoning

Existing Zoning Provisions: RM-2 Medium Density Multi-Unit Residential	Proposed Zoning Provisions: CD 64 - Comprehensive Development Zone
Permitted Uses	Permitted Uses
Townhouse or apartment complexes with densities not exceeding 50 units per acre	Multi-unit residential use with accessory home occupation use
Number of Dwelling Units	Number of Dwelling Units
25 units (50 units / 0.4 hectares) Existing Lot Area: 2,036 m ²	80 dwelling units (10 three-bedroom units, 22 two-bedroom units, 41 one-bedroom units, and 7 studio units)
Minimum Lot Requirements	Lot Dimensions
Lot Width: 18.0 m (59.04 ft) Lot Depth: 30.5 m (100.4 ft) Lot Area: 742.0 m ² (7,986.82 ft ²)	Lot Width: 34.48 m (113.12 ft) Lot Depth (averaged): 59.04 m (193.69 ft) Lot Area: 2,036 m ² (21,917 ft ²)
Lot Coverage	Lot Coverage
45% 916 m ² (9,962.9 ft ²)	48.7% 991 m ² (10,667 ft ²)
Gross Floor Area	Gross Floor Area
1.1 times the lot area 2,240 m ² (24,109 ft ²)	2.8 times the lot area 5,700 m ² (61,357 ft ²)
Building Height	Building Height
10.7 m (35.1 ft) for principal buildings	Six Storeys – 18.9 metres to top of parapet measured from average natural grade (62 feet) Geodetic height: 126.49 metres top of parapet and 129.2 metres top of elevator shaft

Minimum Setback	Setback
Front Lot Line: 6 m (19.68 ft)	Front Lot Line: 3.47 m (11.38 ft)
Rear Lot Line: 6 m (19.68 ft)	Rear Lot Line: 3.08m (10.1 ft)
Interior Side Lot Line: 5.0 m (16.4 ft)	Interior Side Lot Line: 5.25 m (17.22 ft)
Exterior Side Lot Line: 3.8 m (12.47 ft)	Exterior Side Lot Line: 5.05 m (16.57 ft)

Public Realm and Streetscape Improvements

The project includes short-term bicycle parking at the pedestrian entrance and an extended sidewalk / queuing space at the corner of Russell Avenue and Fir Street. These measures lessen the need for private automobile use while supporting improved overall pedestrian safety, respectively. Further, plantings are proposed along the sidewalk to, over time, support the growth of a tree canopy along streets. These measures support the objectives and policies of Section 13.1 of the OCP as they relate to “Transportation + Mobility”.

The dedication of land has been sought by the City’s Engineering and Operations Department to enable the creation of improvements to the City’s boulevard (e.g., additional on-street parking, sidewalks, street tree planting, etc.) thereby contributing to a more “complete” street. Efforts to design streets for all users can reduce collision rates (particularly for vulnerable road users, such as pedestrians and cyclists), better support adjacent land uses, support shifts to sustainable transportation methods of travel (walking, cycling, and transit), and improve the quality of the street as a positive space that is a destination and thoroughfare where residents, visitors, and passersby can feel safe.

Multi-Family DPA Guidelines

The applicant has submitted a response to the Multi-Family Development Permit Area Guidelines, which are applicable to the proposal pursuant to OCP Policy 22.1. The response to the guidelines is attached as Appendix G. Staff consider the submitted response to be in conformance with the Development Permit Guidelines. Figure 2 below provides a rendering of the current proposal, the form and character of which remains largely the same as the previous proposal considered in the report dated September 30, 2019.



Figure 2: Rendering of the Proposal from the corner of Russell Avenue and Fir Street Looking Southwest

The applicant has adequately identified how the proposed development meets the development permit guidelines by providing the following key aspects:

- a) A transition from high-rise buildings in the Town Center neighbourhood with much of the density located on the first to fourth level. The upper levels are then recessed back on all four sides of the building to reduce shadow and view impacts on neighbouring sites.
- b) Repetitive architectural details continue around all elevations of the building to create visual interest at all angles. The front entrance is clearly indicated with linear framework to create a vibrant space for residents and pedestrians to gather and connect in a safe, comfortable environment that is fully accessible with an integrated gradual access from the sidewalk.
- c) Natural materials will be used on the building's exterior including brick, exposed red cedar, fiber cement and natural metals such as aluminum. Natural tones are incorporated into the project to reflect the natural landscape with one dominate accent colour.
- d) The public realm will be improved by providing sidewalks and a boulevard that is 2m wide. An extra wide front entrance pathway is provided for bicycles, wheelchairs and scooters as well as a curb let-down at the intersection. Planting along the street fronting property lines will be provided to deter pedestrians from accessing the property on the grass and provide privacy from private patios that face the street.
- e) A light-coloured roof that is low in albedo will be used to reduce heat and energy efficient light fixtures will be used to conserve energy. Water efficient plumbing fixtures along with an abundance of zero-irrigation landscaping will be used to conserve water. A stormwater management plan will be set in place to alleviate heavy flooding from rainfall due to climate change.

Advisory Design Panel Review

During the Advisory Design Panel (ADP) meeting on July 21, 2020, the panel recommended that the application for the development proposal at 1485 Fir Street be referred to Council once the applicant had the opportunity to consider comments pertaining to the following items (see Appendix H for related ADP meeting minutes):

- a) Stormwater management plan must go to the Engineering Department – efforts to minimize the amount of stormwater going to the storm system;
Design Response: The stormwater is managed in a combined strategy between the civil and landscape designs. Raised planter beds are provided with soil to absorb water for uptake by the plant material. The excess water is collected in drains that connect to a storage tank located inside the parkade. The stormwater tank is sized so as to retain water and slowly release this water into the municipal storm sewer.
- b) Rooftop to be designed to reduce solar gain;
Design Response: It was confirmed that the roof would be light coloured and low albedo to reduce heat.
- c) Efforts to increase the number of electrical charging stations
Design Response: The addition of 12 electrical charging stations was incorporated into the design of the parkade.

- d) Efforts to increase the number of accessible parking spaces
Design Response: One more accessible parking space was incorporated into the design of the parkade for a total of three parking spaces
- e) Design of the children’s play space – naturalization of the space
Design Response: The playground was naturalized by using a form inspired by a tree house with earth toned materials and wood grain panels. Feature boulders were also introduced to blend the playground to the surrounding landscape treatment.

Staff believe the applicant has provided a satisfactory response to the comments noted above.

Tree Management

The Arborist Report prepared by Woodridge Tree Consulting Arborists Ltd. identifies that a total of three (3) “protected trees”, being those subject to City of White Rock Tree Management Bylaw, 2008, No. 1831, within the site area. One of the trees is a City tree and the other two are off-site trees. The Report recommends that all trees be retained as they are in good condition.

City staff have reviewed the recommendations of the Project Arborist and are comfortable with their retention subject to the posting of securities (i.e., \$9,500) for the three (3) offsite trees as required by the Tree Management Bylaw. Twenty-seven (27) trees are proposed as part of the development. Appendix B includes the proposed landscape plan which will be further reviewed upon receipt of an application for a Tree Management Permit (TMP), likely to accompany a future request for demolition of the existing building.

Traffic Study Review

The applicant has submitted a Traffic Study that analyses existing traffic volumes at the intersection of Fir Street and Russell Avenue. The peak traffic conditions (weekday morning and afternoon hours) for four different time frames – 2019 (existing), 2022 (full build-out), 2027 (5 years after build-out), and 2045 (the end of future timeframe for the White Rock OCP). A summary of the expected trip generation is shown in Table 3: Daily Trip Generation Statistics below:

Table 4: Daily Trip Generation Statistics

Peak Periods	Inbound Traffic	Outbound Traffic
Morning Hours: 8:00 a.m. to 9:00 a.m.	8 (28%)	21 (72%)
Afternoon Hours: 3:00 p.m. to 4:00 p.m.	22 (61%)	14 (39%)

The proposed development is estimated to add a total of 21 additional trips in the morning and 26 additional trips in the evening, which takes the total number from each category above (29 and 36 inbound and outbound trips respectively) and subtracts the number of existing trips made by residents in the current building. No major traffic issues are expected along this length of Russell Avenue and Fir Street. No major intersection improvements are proposed as a result of the study, however, additional ‘watch for pedestrian’ signage is suggested at the corner of George Lane and Thrift Avenue as well as tactile paving on the northwest and northeast corners of this intersection. The traffic study is attached as Appendix I.

Parking Standards and Requested Variance

The total number of required parking spaces for the proposed development equates to 120 spaces. A total of 96 spaces would be provided for residents and 24 parking spaces for visitors, totalling 108 spaces. This would be a 10% total reduction to the requirements of the Zoning Bylaw. CTS Traffic Consultants analyzed the peak parking demand using the Institute of

Transportation Engineers (ITE) Parking Generation Manual 5th Edition. Using representational data in the mid-rise multi-family category, the consultants estimated that 80 dwelling units would require 1.31 spaces per dwelling unit, or a total of 105 spaces to meet the peak average demand. The 108 spaces proposed for the development exceeds the estimated peak travel demand by three spaces. To supplement the request for a 10% parking variance, residents would be provided with a \$100.00 compass card to encourage the use of public transportation, with several routes located in close proximity to the development; the nine (9) routes include the 321, 345, 351, 354, 361, 362, 363, 375, and 531.

Further to the information provided above, under Zoning Bylaw No. 2000, a maximum of 40% of the stalls can be provided as small car spaces. The development is proposing a total of 33 small car spaces, equivalent to 30% of the total spaces. A total of two handicapped spaces are required as part of the proposed development. A total of three handicapped spaces will be provided, all located near the elevator. Electric vehicle (EV) charging is required as per Zoning Bylaw No. 2000, with a requirement of one charging station per every 10 parking spaces. The development proposes a total of 36 EV stations, significantly over the 18-space requirement. In consideration of the recommendations of the parking analysis prepared by CTS Traffic Consultants and the information noted above, City staff are supportive of the requested variance to parking.

Tenant Relocation Plan

In the original Tenant Relocation Plan, the applicant proposed to give the option to existing tenants to return to the new building at rents that would be 10% below the market rent that was being charged at that time for other similar units, which is consistent with the City's Tenant Relocation Policy No: 514. Due to concerns that were raised during the discussion at LUPC regarding the large increase that even 10% below market rent would be for existing tenants, the applicant then offered to reduce the rents charged to returning tenants to 20% below projected market rent for the building, which was estimated at \$2.80 per square foot. The rents at this rate for returning residents would have been \$2.24 per square foot, equating to:

- \$1,232 for an average size (550 square foot) one-bedroom unit
- \$1,859 for an average size (830 square foot) two-bedroom unit

Since this approach was discussed the City's Governance and Legislation Committee has advanced further discussions regarding potential amendments to Policy No. 514. These amendments were presented in a report to the Committee on January 27, 2020 titled "Options for Tenant Assistance During Redevelopment and Renovation". Stemming from this meeting, the developer has agreed to revise the Tenant Relocation Plan further to align with the draft amendments as presented in the noted report.

Per the draft policy amendments, for existing tenants compensation would be provided on a sliding scale dependent on the length of tenancy (number of years) of the resident. For example, someone who has lived in the building for 10 years and is currently paying \$1,540 for a one-bedroom unit would receive \$36,960 to be used towards alternative housing costs (i.e., 24 months times the monthly rent rate). Note that at the time of preparing this report alternative mechanisms to control the disposition of monies to tenants (i.e. via an annuity or Guaranteed Investment Fund or alternative) are under review and not yet solidified by way of amendments to the policy, and are discussed further in a previous corporate report on this LUPC agenda. That said, there exist opportunities to implement such controls by way of a Housing Agreement Bylaw if Council directs staff to further advance the review of this proposal.

For those who choose to move back into the building, the developer has also agreed to follow the recommendations of the January 27, 2020 report by significantly reducing the rate of the initial rent for returning tenants. The rental rates in the new building would be in accordance with the table below, outlining a rate between 21-30% below market depending on the length of tenancy.

Table 3: Length of Tenancy and Application Rent Reduction

Length of Tenancy (Years)	% Below Market Rent
1	21%
2	22%
3	23%
4	24%
5	25%
6	26%
7	27%
8	28%
9	29%
10 or more	30%

Based on a market rental rate of \$2.80 per square foot, the rents for returning residents at the rates identified above would equate to:

- Between \$1,078 (30%) and 1,216 (21%) for a one-bedroom unit (550 square foot); and
- Between \$1,627 (30%) and \$1,835 (21%) for two-bedroom unit (830 square foot)

These rents would be inclusive of a parking space and hot water, and following occupancy the owner would be permitted to increase rents in accordance with the annual increases regulated by the Residential Tenancy Branch. Finally, if a tenant did not opt to move back into the building, this unit would be available to a new tenant at a 10% reduced rental rate which would be formalized in the Housing Agreement Bylaw. Please see the financial section below for a discussion of how the Community Amenity Contribution could be reduced or waived to support the rental compensation, rent reduction, and reduced 10% rental rate if a tenant does not opt to move back into the building.

Amenity Contribution

Policy 511 provides Council with the opportunity to consider waiving all or a portion of the applicable amenity contribution for developments that provide either affordable (non-market) or market rental developments, recognizing that these developments offer a needed form of housing which is in itself a form of amenity to the community. The target contribution rate for properties in the ‘Town Centre Transition’ land use designation is a rate of \$430 per square metre over 1.5 FAR/gross floor area ratio as per the recommendations in the Governance and Legislation Committee Report dated January 27, 2020 (and discussed in the separate corporate report on this Land Use and Planning Committee agenda). The expectation would be that the full contribution could be reduced through the provision of housing for displaced tenants as well as the whole development being offered as purpose-built rental housing. Staff are supportive of this approach based on the additional compensation and rate of below market rent proposed for returning tenants as identified above.

Housing Agreement

The Housing Agreement Bylaw is the formal binding agreement between the Developer and the City that regulates and secures the rental rates based on the recommendations and discussion provided above. The Housing Agreement will be finalized pending the completion of of third

reading of the associated bylaw. All 80 residential units would be secured as rental in perpetuity through the Housing Agreement Bylaw. Additional controls tied to the disposition of monies to support tenant relocation may also be incorporated into the terms of a future agreement.

FINANCIAL IMPLICATIONS

The Rezoning and Major Development Permit, if approved, will not result in any additional costs to the City. Development cost charges will apply to the redevelopment.

Previously and in accordance with existing Council Policy 511: ‘Density Bonus / Amenity Contribution’, a community amenity contribution of \$922,000 would have been anticipated based on the target rates for the Town Centre (this site is in close proximity to the Town Centre and a similar target rate was considered appropriate). This rate would be increased under the proposed changes considered by the Governance and Legislation Committee report submitted on January 27, 2020 titled “Options for Tenant Assistance During Redevelopment and Renovation”, to a rate of \$430 square foot over 1.5 FAR.

As the project proposed a FAR of 2.8, the total contribution would equate to \$1,137,780 (i.e., Additional floor area from 1.5 to 2.8 {[lot area x 2.8] – [lot area x 1.5]} = 2,646 m² x \$430). The proposed changes to Policy 511 would establish a further reduction (up to 50%) of an applicable amenity contribution as the housing would be provided to displaced tenants in accordance with the Tenant Relocation Policy (i.e. compensation being provided to tenants and reduced rents are available), and where the initial rents for rental replacement units where the tenants are not returning are 10% below market and available for the general public. Council Policy 511 currently allows a reduction of up to 50% of an applicable amenity contribution for secured market rental floor space, which would amount to \$568,873 and could be further waived up to 100%.

LEGAL IMPLICATIONS

A Housing Agreement Bylaw would be prepared for Council’s consideration, based on the applicable provisions in Council Policy 511: Density Bonus / Amenity Contribution and Council Policy 514: Tenant Relocation, as directed by Council. A draft of this Housing Agreement Bylaw would be made available as part of the materials available prior to the Public Hearing.

COMMUNICATION AND COMMUNITY ENGAGEMENT IMPLICATIONS

This application has received a Public Information Meeting, and if Council provides 1st and 2nd reading to the draft zoning amendment bylaw, the public would have an opportunity to comment on this application via a Public Hearing.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS

The Rezoning and Major Development Permit applications were circulated to internal City departments and comments requiring a response / resolution by the proponent have been addressed.

CLIMATE CHANGE IMPLICATIONS

The application will enable the intensification of the ‘Town Centre Transition’ designation, thereby lessening the demand for outward sprawl otherwise necessary to accommodate growth. The applicant has also proposed several initiatives to address climate change, which include the following:

- Water, electric and gas will be individually metered to increase self-imposed conservation.
- Landscaping includes a variety of permeable surface areas and decreases consumption of irrigation water by the use of native, drought resistant planting.
- Lighting and plumbing fixtures to be energy/water efficient as well as the provision of Energy Star® rated appliances.
- High efficiency windows and doors with effective blinds will be preinstalled.
- Materials used in construction or finishing such as cabinets and floors will be made from renewable resources and sourced locally where possible
- Flooring, paint and other finishes will be non-toxic with low volatile organic compounds (VOCs)

ALIGNMENT WITH STRATEGIC PRIORITIES

The proposal is generally aligned with the Corporate Vision established as part of Council’s Strategic Priorities, particularly with respect to supporting a community where people can live, work and play in an enjoyable atmosphere.

OPTIONS / RISKS / ALTERNATIVES

As an alternative to the staff recommendation provided at the outset of this corporate report (to move the application forward to Public Hearing), Council may alternately:

1. Reject “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363” and Development Permit No. 432; or
2. Defer consideration of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363” and Development Permit No. 432 pending further information to be identified.

Staff recommend proceeding with the application to Public Hearing, which is incorporated into the recommendations of this corporate report.

CONCLUSION

The proposal for an 80-unit rental building at 1485 Fir Street is consistent with the objectives and policies of the ‘Town Centre Transition’ OCP land use designation and Development Permit Area Guidelines. Staff consider the proposed changes to the six-storey multi-unit residential building as improvements to the design and its impact on the surrounding neighbourhood from the original OCP amendment proposal, and have brought forward a draft Zoning Amendment Bylaw and draft Development Permit to move the application forward to a Public Hearing. The Tenant Relocation Plan requirements of the proposal would provide additional compensation and reduced rental rates outlining an additional benefit to those residents impacted by the redevelopment proposal. The proposed variance to parking is minor and supported by a rigorous analysis by the consultant. Staff recommend that the Zoning Amendment Bylaw be given first

and second reading, and that a Public Hearing be scheduled to receive additional input from the community on the proposal.

Respectfully submitted,



Carl Isaak, MCIP, RPP.
Director of Planning and Development Services

Comments from the Chief Administrative Officer

I concur with the recommendations of this corporate report.



Guillermo Ferrero
Chief Administrative Officer

- Appendix A: Draft Zoning Amendment Bylaw No. 2363
- Appendix B: Draft Development Permit No. 432
- Appendix C: Location and Ortho Photo Maps
- Appendix D: LUPC Report "Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP)" dated July 8, 2019
- Appendix E: LUPC Report "Information Report Update and Revised Tenant Relocation Plan 1485 Fir Street (ZON/MJP 19-009)" dated September 30, 2019
- Appendix F: Public Information Meeting Sign-in Sheet, Comment Forms, and Summary
- Appendix G: DPA Guidelines Response Table
- Appendix H: ADP Minutes dated July 21, 2020
- Appendix I: CTS Traffic Study dated November 25, 2019

APPENDIX A

Draft Zoning Amendment Bylaw No. 2363

(Attached Separately)

**The Corporation of the
CITY OF WHITE ROCK
BYLAW No. 2363**



A Bylaw to amend the
"White Rock Zoning Bylaw, 2012, No. 2000" as amended

The CITY COUNCIL of the Corporation of the City of White Rock in open meeting assembled ENACTS as follows:

1. THAT Schedule C of the *White Rock Zoning Bylaw, 2012, No. 2000* as amended is further amended by rezoning the following lands:

Lot 16 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-931
(1485 Fir Street)

Lot 17 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-965
(1485 Fir Street)

Lot 18 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-981
(1485 Fir Street)

as shown on Schedule "1" attached hereto, from the 'RM-2 Medium Density Multi-Unit Residential Zone' to 'CD-64 Comprehensive Development Zone (1485 Fir Street).'

2. THAT *White Rock Zoning Bylaw, 2012, No. 2000* as amended is further amended:

(1) by adding to the Table of Contents for 'Schedule B (Comprehensive Development Zones)', Section 7.64 CD-64 Comprehensive Development Zone';

(2) by adding the attached Schedule "2" to 'Schedule B (Comprehensive Development Zones)' Section 7.64 CD-64 Comprehensive Development Zone'.

3. This bylaw may be cited for all purposes as "*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363*".

Public Information Meeting held this 12th day of December, 2019

Read a first time this day of , 2020

7.64 CD-64 COMPREHENSIVE DEVELOPMENT ZONE

INTENT

The intent of this zone is to accommodate the development of a multi-unit residential building on a site of approximately 2,036 square metres, with the provision of affordable housing and a housing agreement bylaw in accordance with section 482 of the *Local Government Act*.

1. Permitted Uses:

- (1) *multi-unit residential use; and*
- (2) *accessory home occupation use in accordance with the provisions of section 5.3 and that does not involve clients directly accessing the principal building*

2. Lot Coverage:

- (a) For *multi-unit residential uses*, lot coverage shall not exceed 49%

3. Maximum Base Density:

The following base density regulation applies generally for the zone:

Maximum *residential floor area* shall not exceed 1.1 times the lot area, and maximum *gross floor area* shall not exceed 1.5 times the lot area.

4. Maximum Increased Density:

Despite section 7.64.3, the reference to the maximum *gross floor area* of “1.5 times the lot area” is increased to a higher density of a maximum of 5,700 m² (61,356.85 ft²) of *gross floor area* (2.8 FAR; or gross floor area ratio) and 80 apartment dwelling units where a housing agreement has been entered into and filed with the Land Title Office to secure eighty (80) dwelling units as rental tenure for the life of the building.

5. Building Height:

- (a) The *principal buildings* for *multi-unit residential uses*, inclusive of elevator shafts, stair housing, and all mechanical equipment, shall not exceed a *height* of 129.2 metres geodetic; and
- (b) *Ancillary buildings and structures* for *multi-unit residential uses* shall not exceed a height of 5.0 metres from *finished grade*.

6. Siting Requirements:

- (a) Minimum setbacks for *multi-unit residential uses* are as follows:
 - (i) Setback from north lot line = 5.05 metres
 - (ii) Setback from south lot line = 5.25 metres
 - (iii) Setback from west lot line = 3.08 metres

(iv) Setback from east lot line = 3.47 metres

- (b) *Ancillary structures* may be located on the subject property in accordance with the Plans prepared by Billard Architecture dated August 11, 2020 that are attached hereto and on file at the City of White Rock, with the exception that no *ancillary buildings* or *structures* are permitted within a 1.0 metre distance from a lot line

7. Parking:

Parking for *multi-unit residential uses* shall be provided in accordance with Sections 4.14 and 4.17, with the minimum number of spaces required as follows:

- (a) A minimum of ninety-six (96) spaces shall be provided for residents of the *multi-unit residential use*;
- (b) A minimum of twenty-four (24) spaces shall be provided for visitors and marked as “visitor”;
- (c) A minimum of three (3) of the required one hundred and eight (108) spaces shall be provided as accessible parking spaces, shall be clearly marked, and shall have a minimum length of 5.5 metres. Of the three accessible parking spaces, one space shall be provided as a van-accessible loading space with a minimum width of 2.8 metres, and the other two spaces shall have a minimum width of 2.5 metres, provided that the three parking spaces have a shared or non-shared access aisle with a minimum width of 1.5 metres; and
- (d) The minimum height clearance at the accessible parking spaces and along the vehicle access and egress routes from the accessible parking spaces must be at least 2.3 metres to accommodate over-height vehicles equipped with a wheelchair lift or ramp.

8. Bicycle Parking:

Bicycle parking shall be provided in accordance with Section 4.16, with the minimum number of spaces required as follows:

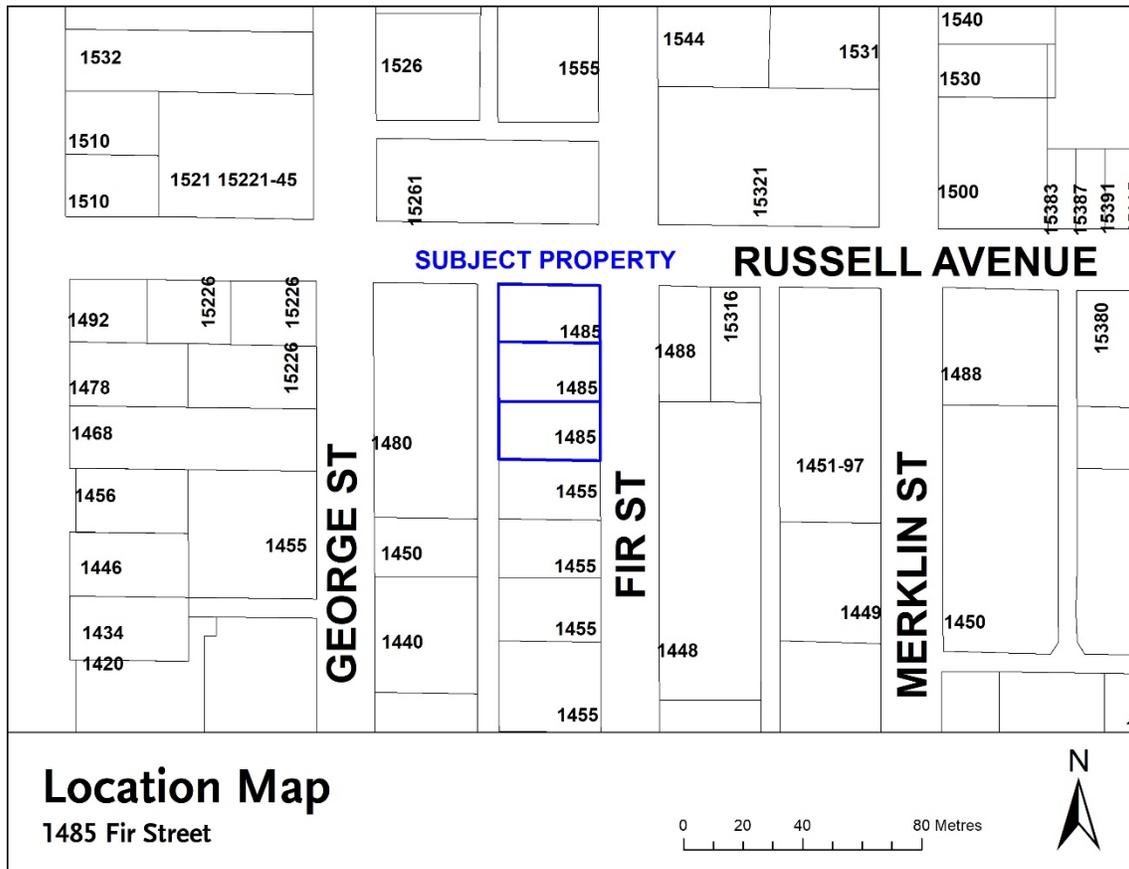
- (a) A minimum of 94 Class I spaces shall be provided; and
- (b) A minimum of 16 Class II spaces shall be provided

9. Loading:

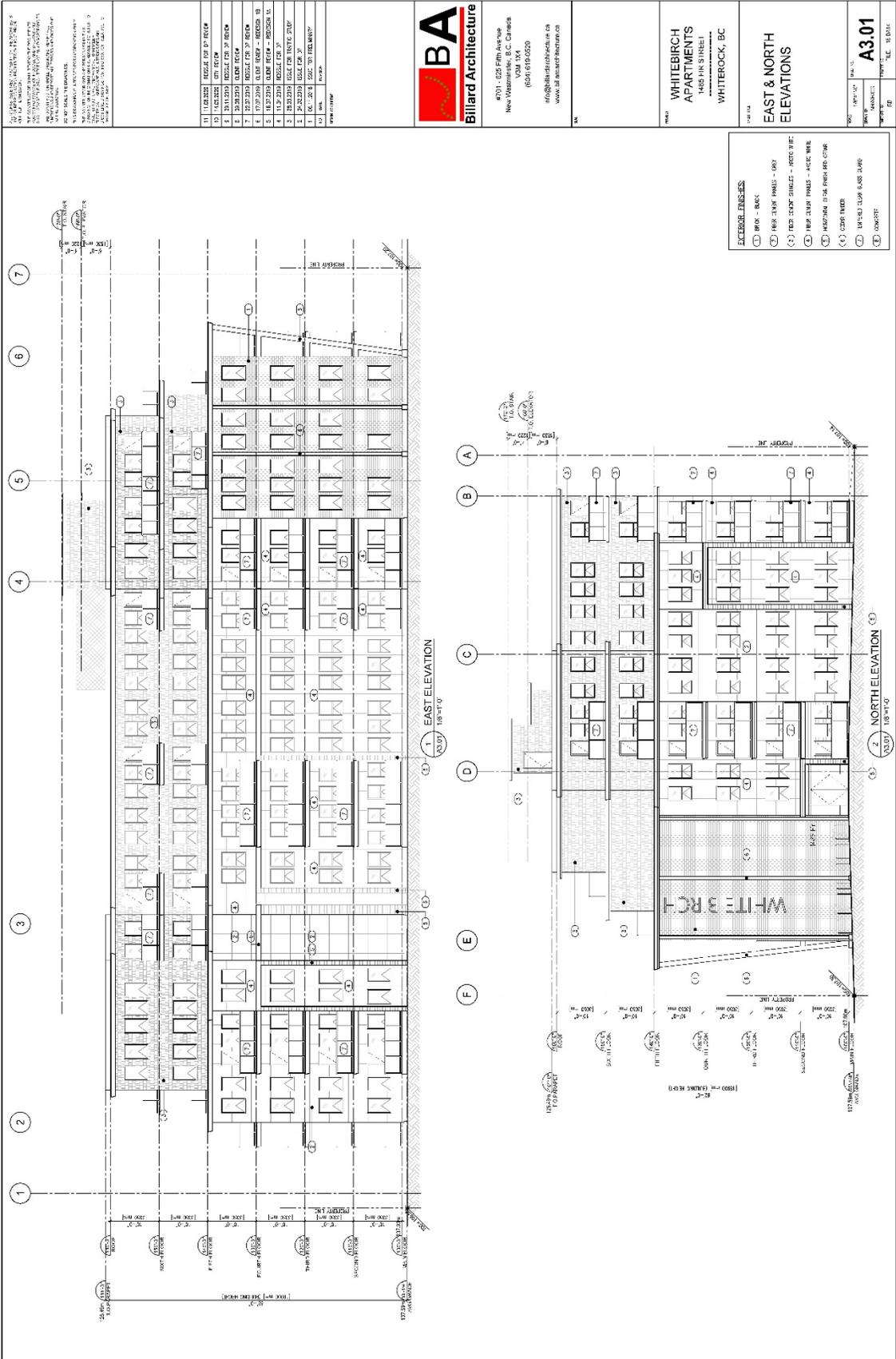
- (a) One loading space shall be provided for a *multi-unit residential use* in accordance with Section 4.15

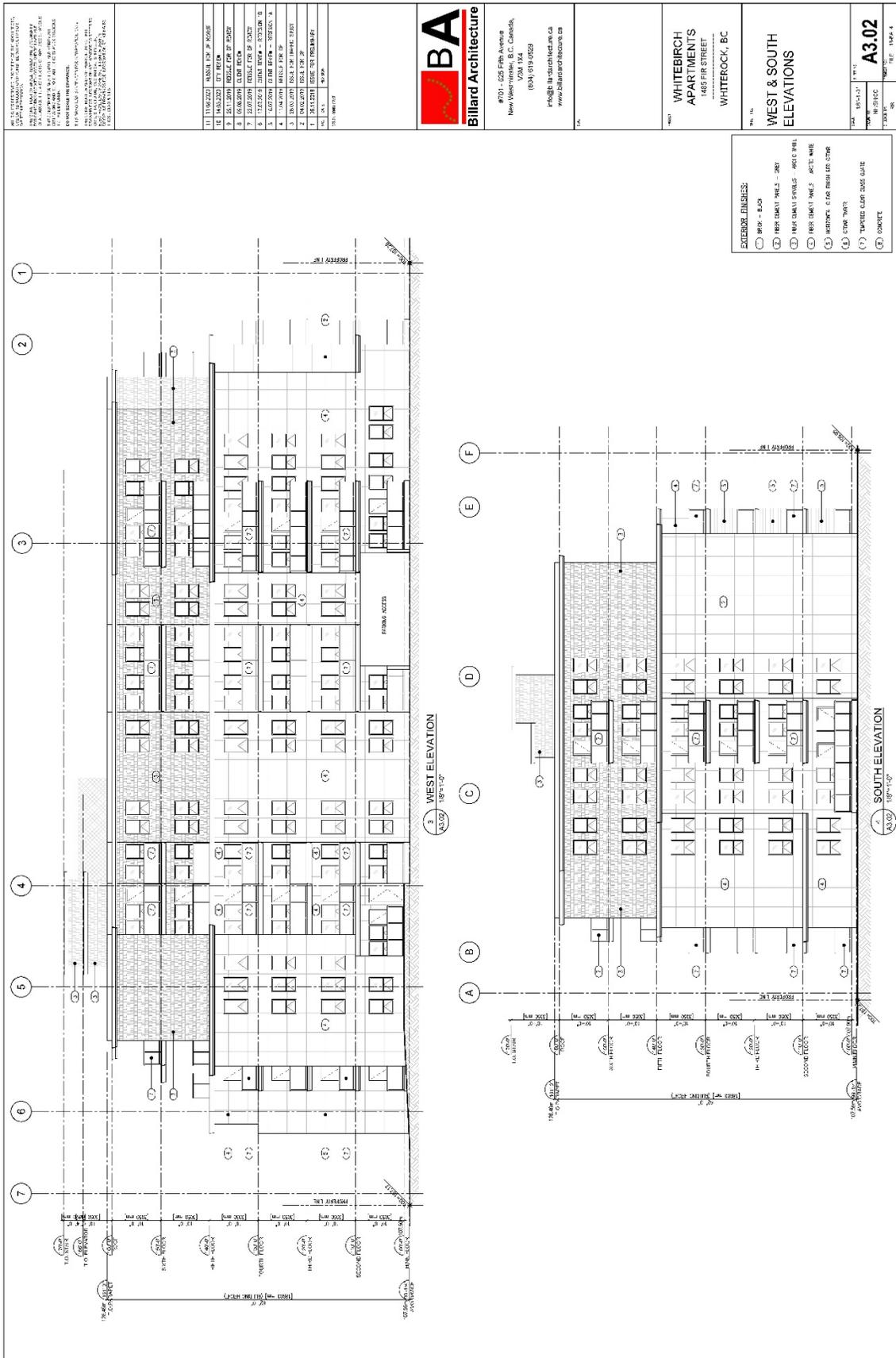
10. General:

Development in this zone that includes the additional (bonus) density referred to in Section 4 shall substantially conform to the Plans prepared by Billard Architecture dated August 11, 2020 that are attached hereto and on file at the City of White Rock



DR





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WHITE BIRCH
 APARTMENTS
 1400 6th Street
 WHITEROCK, BC

WEST & SOUTH
 ELEVATIONS

A3.02

DATE: 11/16/22
 DRAWN BY: M. ROUSE
 CHECKED BY: M. ROUSE
 SCALE: AS SHOWN



KEY	REF.	DESCRIPTION
	1 (LD-02)	GRAVEL (60% BTP)
	2 (LD-02)	GRAVEL (60% BTP)
	3 (LD-02)	GRAVEL (60% BTP)
	4 (LD-02)	GRAVEL (60% BTP)

KEY	REF.	DESCRIPTION
	1, 2 (LD-01)	EXISTING TREE (fresh)
	3 (LD-01)	PROPOSED TREE
	4 (LD-01)	PROPOSED TREE
	5 (LD-01)	PROPOSED TREE
	6 (LD-01)	PROPOSED TREE

KEY	REF.	DESCRIPTION
	1 (LD-02)	GRAVEL (60% BTP)
	2 (LD-02)	GRAVEL (60% BTP)
	3 (LD-02)	GRAVEL (60% BTP)
	4 (LD-02)	GRAVEL (60% BTP)
	5 (LD-02)	GRAVEL (60% BTP)
	6 (LD-02)	GRAVEL (60% BTP)

KEY	REF.	DESCRIPTION
	1 (LD-02)	GRAVEL (60% BTP)
	2 (LD-02)	GRAVEL (60% BTP)
	3 (LD-02)	GRAVEL (60% BTP)
	4 (LD-02)	GRAVEL (60% BTP)
	5 (LD-02)	GRAVEL (60% BTP)
	6 (LD-02)	GRAVEL (60% BTP)

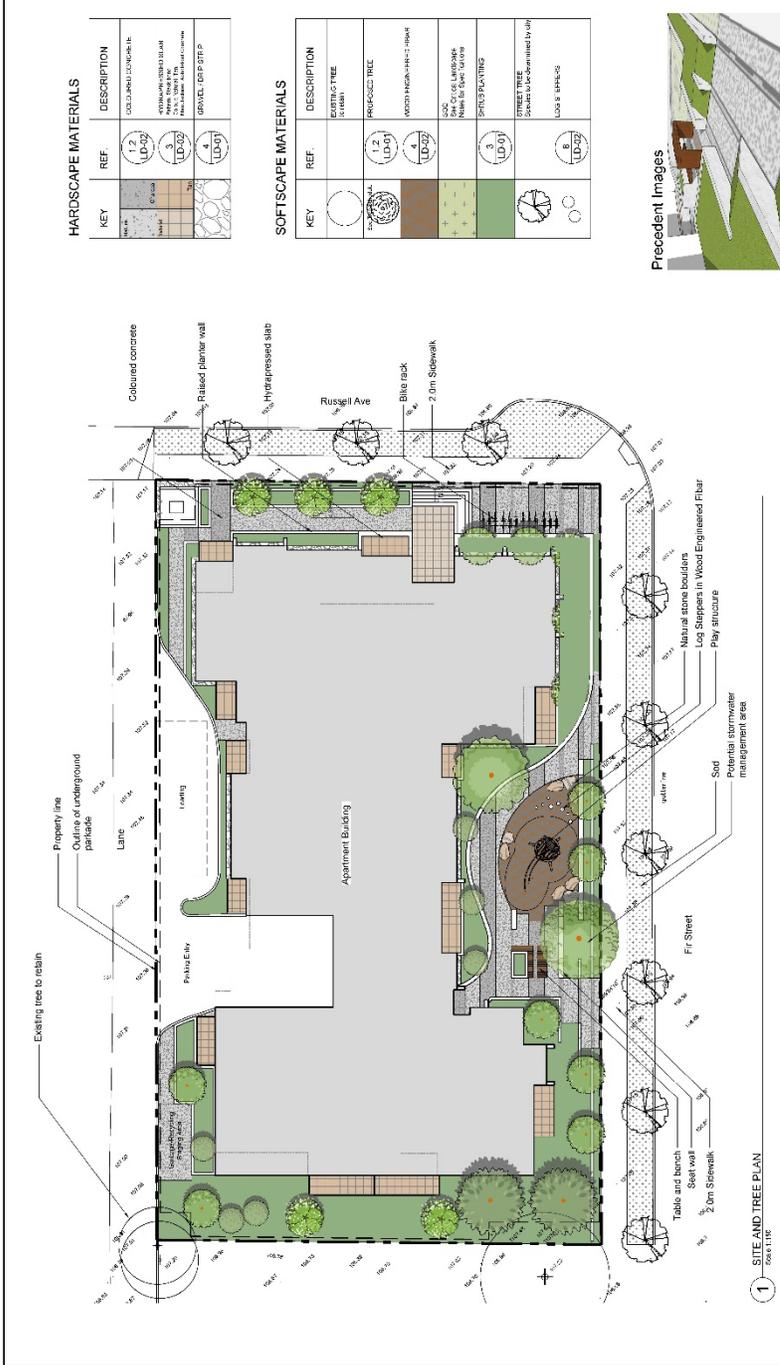
KEY	REF.	DESCRIPTION
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	4 (LD-02)	GRAVEL (60% BTP)
	5 (LD-02)	GRAVEL (60% BTP)
	6 (LD-02)	GRAVEL (60% BTP)

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	4 (LD-02)	GRAVEL (60% BTP)
	5 (LD-02)	GRAVEL (60% BTP)
	6 (LD-02)	GRAVEL (60% BTP)



1 SITE AND TREE PLAN
 SCALE 1:10

TREES	BOTANICAL COMMON NAME	ZONE	SIZE	QTY.	REMARKS
	Acacia saligna / Golden Wattle	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Alnus incana / Common Alder	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Crataegus monogyna / Hawthorn	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Prunella lauro-coccinea / Red-flowered Blackberry	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Quercus agrifolia / Black Oak	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Golden Delicious' / Golden Delicious	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Red Fuji' / Red Fuji	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Granny Smith' / Granny Smith	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Gala' / Gala	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Pink Lady' / Pink Lady	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Spartan' / Spartan	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Empire' / Empire	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Honeycrisp' / Honeycrisp	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Liberty' / Liberty	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Riverside' / Riverside	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Sundance' / Sundance	2B	4.5m	1	Urban landscaping, sunny, low, common tree
	Malus domestica 'Zestar!' / Zestar!	2B	4.5m	1	Urban landscaping, sunny, low, common tree

Notes:
 1. Subsoils are to be investigated from utility property line (top) at the contractor's expense.
 1:10 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23



APPENDIX B

Draft Development Permit No. 432

(Attached Separately)

**THE CORPORATION OF THE
CITY OF WHITE ROCK**



DEVELOPMENT PERMIT NO. 432

1. Development Permit No. 432 is issued to 1062822 B.C Ltd. as the owner and shall apply only to ALL AND SINGULAR those certain parcels or tracts of land and premises situate, lying and being in the City of White Rock, in the Province of British Columbia, and more particularly known and described as:

Legal Description:

Lot 16 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-931
(1485 Fir Street)

Lot 17 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-965
(1485 Fir Street)

Lot 18 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-981
(1485 Fir Street)

As indicated on Schedule A, including a consolidation of these three lots.

2. Development Permit No. 432 is issued pursuant to the authority of Sections 490 and 491 of the *Local Government Act, R.S.B.C. 2015, Chapter 1* as amended, the "White Rock Official Community Plan Bylaw, 2017, No. 2220" as amended, and in conformity with the procedures prescribed by the "City of White Rock Planning Procedures Bylaw, 2017, No. 2234" as amended.
3. The terms, conditions and guidelines as set out in "White Rock Official Community Plan Bylaw, 2017, No. 2220" as amended, that relate to the "Multi-Family Development Permit Area" shall apply to the area of land and premises hereinbefore described and which are covered by this Development Permit.
4. Permitted Uses of Land, Buildings and Structures

Land, buildings, and structures shall only be used in accordance with the provisions of the "CD-64 Comprehensive Development Zone" of the "White Rock Zoning Bylaw, 2012, No. 2000" as amended.

5. Dimensions and Siting of Buildings and Structures on the Land

All buildings and structures to be constructed, repaired, renovated, or sited on said lands shall be in substantial compliance with the Plans prepared by Billard Architecture and VDZ Landscape Architecture attached hereto in accordance with the provisions of Section 491 of the *Local Government Act*:

Schedule B	Site Plan
Schedule C	Building Elevations
Schedule D	Renderings
Schedule E	Landscaping Plans

These Plans form part of this development permit.

6. Terms and Conditions:

- a) The applicant shall enter into a Servicing Agreement to provide frontage improvements and on-site works and services in accordance with Section 506 of the *Local Government Act* and to the acceptance of the Director of Engineering and Municipal Operations;
- b) The applicant shall provide landscaping for the development in substantial compliance with the Landscape Plans (Schedule E) to the acceptance of the Director of Planning and Development Services and the Director of Engineering and Municipal Operations;
- c) The permittee must also submit an estimate for the cost of landscaping, along with securities in the amount of \$188,000.00 (125% of the cost of landscaping) to the City prior to the issuance of a building permit;
- d) Rooftop mechanical equipment shall be screened from view to the acceptance of the Director of Planning and Development Services; and
- e) The hydro kiosk is to be located on site to the acceptance of the Director of Planning and Development Services.

7. In the interpretation of the Development Permit all definitions of words and phrases contained in Sections 490 and 491 of the *Local Government Act, R.S.B.C. 2015, Chapter 1* as amended, and the “White Rock Official Community Plan Bylaw, 2017, No. 2220”, as amended, shall apply to this Development Permit and attachments.

8. Where the holder of this Permit does not obtain the required building permits and commence construction of the development as outlined in this Development Permit within two years after the date this Permit was authorized by Council, the Permit shall lapse, unless the Council, prior to the date the Permit is scheduled to lapse, has authorized further time extension of the Permit.

9. This permit does not constitute a subdivision approval, a tree management permit, a demolition permit, or a building permit.

Authorizing Resolution passed by the Council for the City of White Rock on the _____ day of _____, 20__.

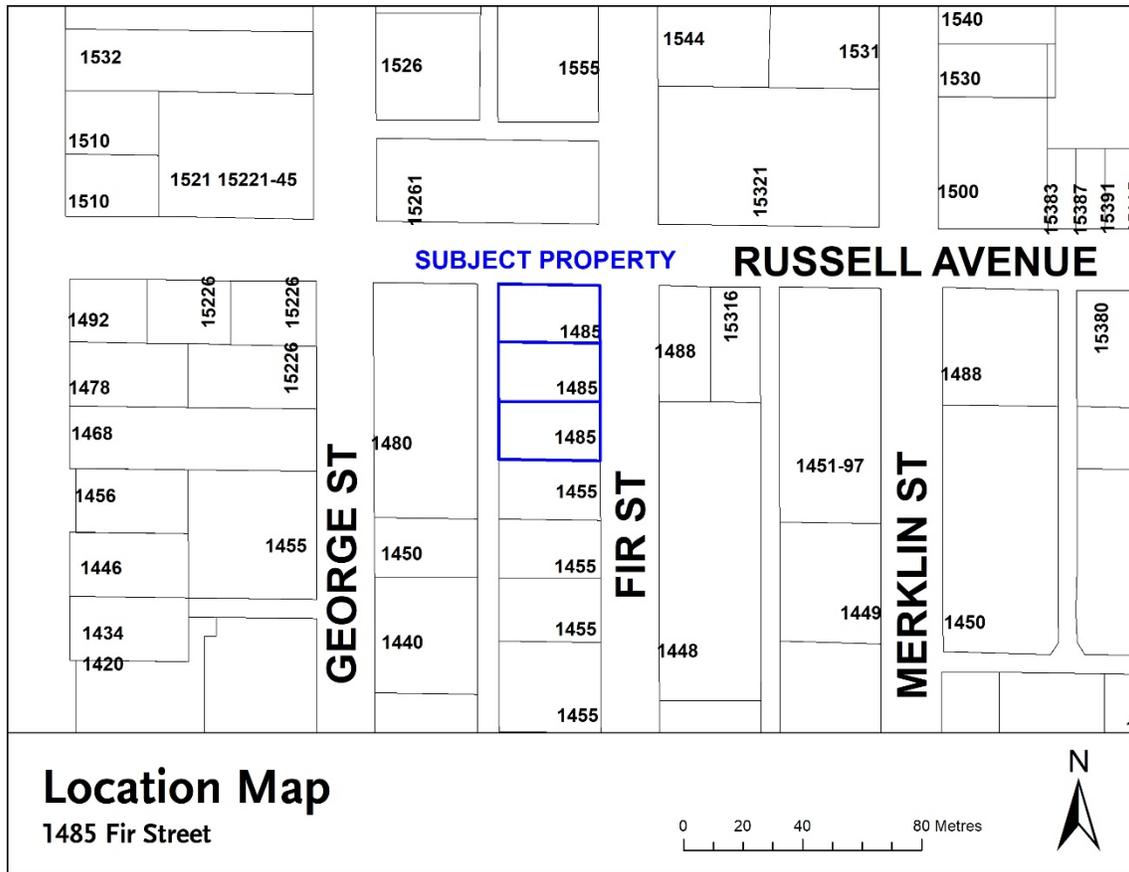
This development permit has been executed at White Rock, British Columbia on the _____ day of _____ 20__.

The Corporate Seal of THE CORPORATION OF THE CITY OF WHITE ROCK was hereunto affixed in the presence of:

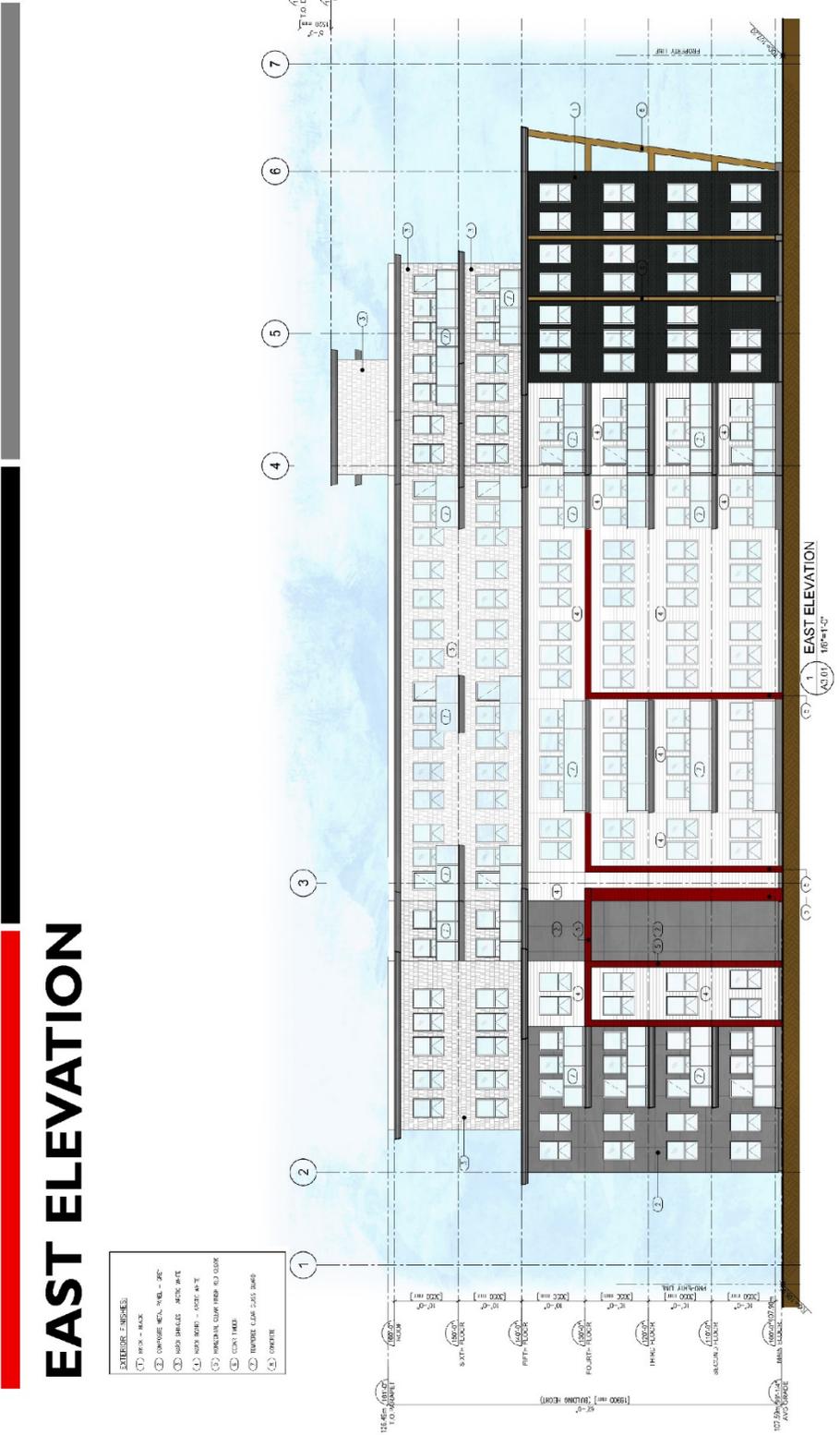
Mayor
Authorized Signatory

Director of Corporate Administration
Authorized Signatory

Schedule A – Location Map



Schedule C – Elevations



EAST ELEVATION

- EXTERIOR FINISHES:**
- ① BRICK - BRICK
 - ② CONCRETE - CONCRETE
 - ③ DARK GREY - DARK GREY
 - ④ LIGHT GREY - LIGHT GREY
 - ⑤ WHITE - WHITE
 - ⑥ DARK GREY - DARK GREY

WEST ELEVATION

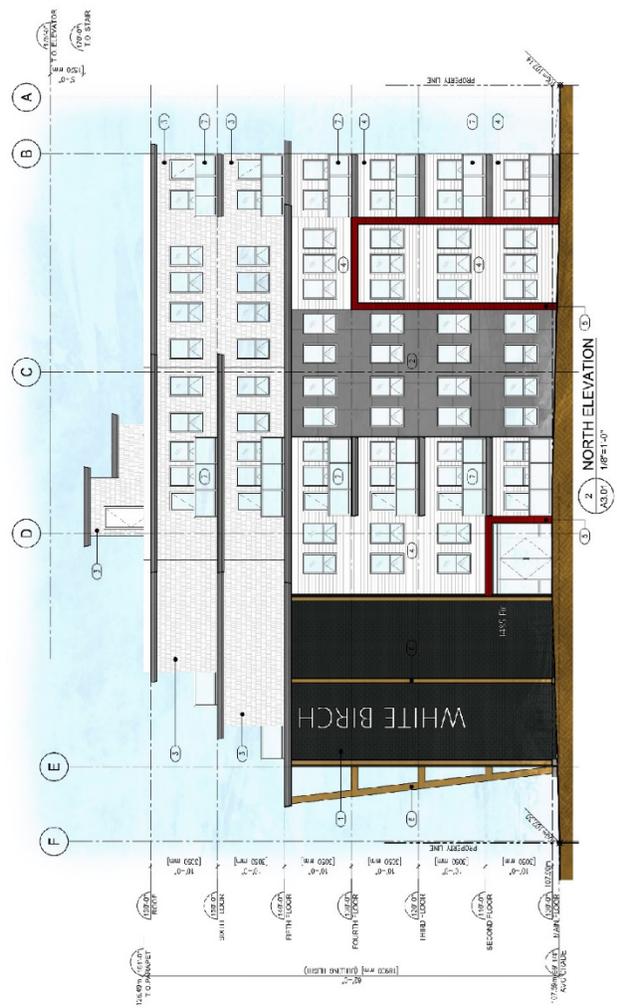
- EXTERIOR FINISHES:**
- (1) BRICK - BLACK
 - (2) COMPOSITE METAL PANEL - BRK
 - (3) HIPS SINGLE - WHITE BRICK
 - (4) HIPS ROUND - WHITE BRICK
 - (5) INSULATION CLAY BRICK RED GLAZ
 - (6) CONCRETE
 - (7) TYPICAL CLAY BRICK SAND
 - (8) CONCRETE



NORTH ELEVATION

EXTERIOR FINISHES:

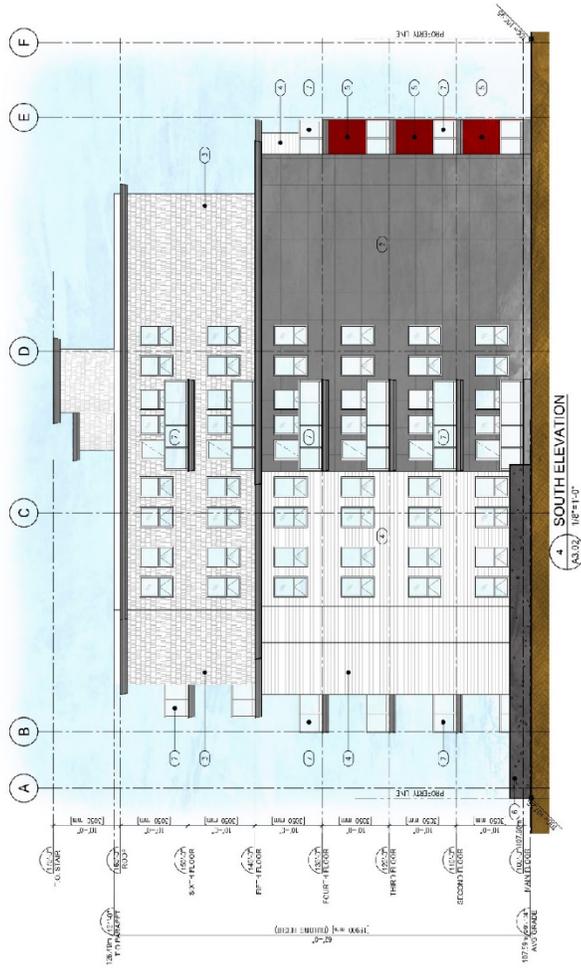
1	BRICK - BRICK
2	COMPOSITE WOOD, WOOD - BRK
3	WOOD SHAPES - WOOD WHITE
4	WOOD SHAPES - WOOD W/TE
5	WOOD SHAPES - WOOD W/TE
6	HORIZONTAL GRIP TRIP W/TE
7	CONCRETE
8	TERAZZO GRIP TRIP W/TE
9	CONCRETE



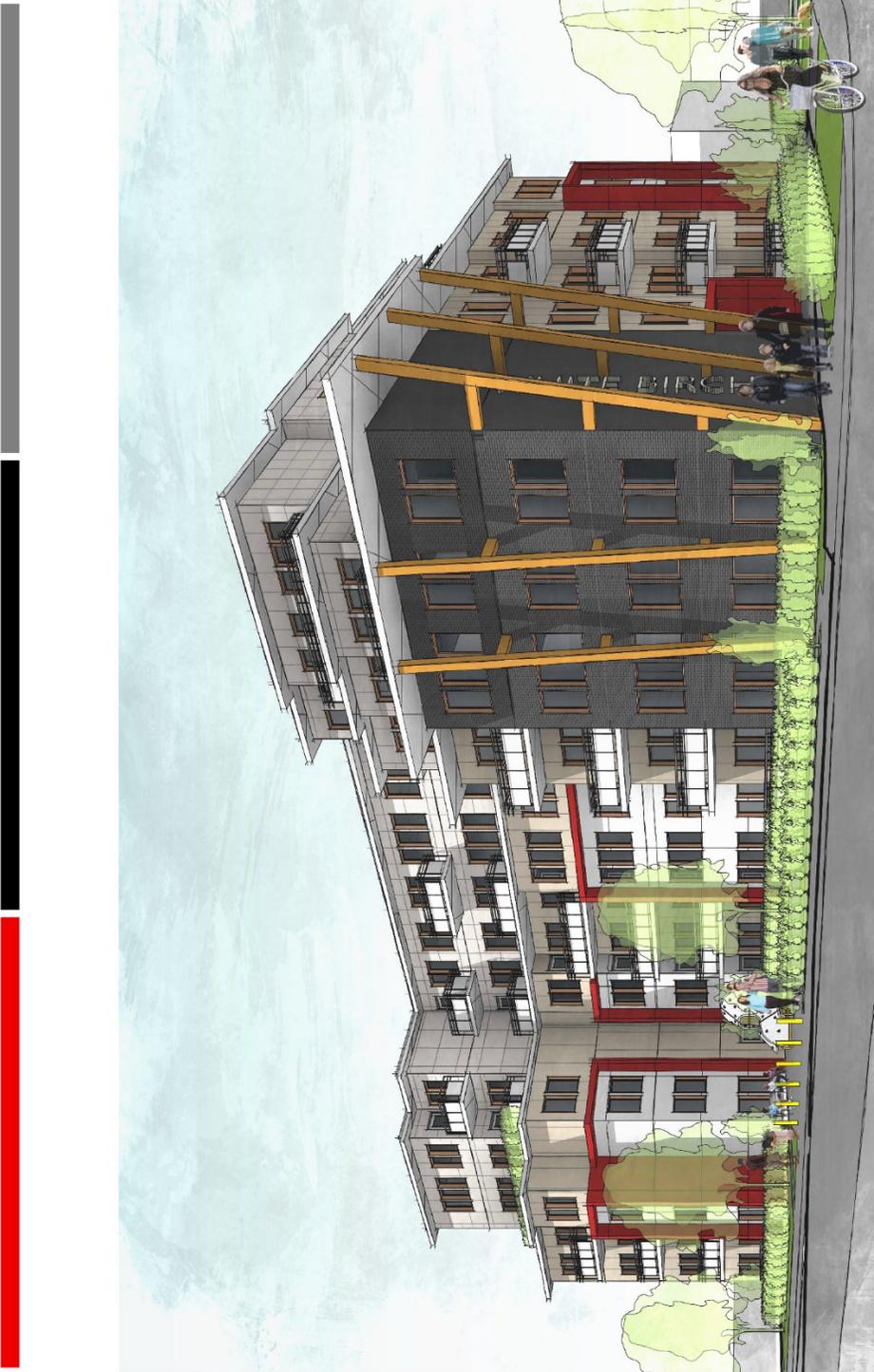


SOUTH ELEVATION

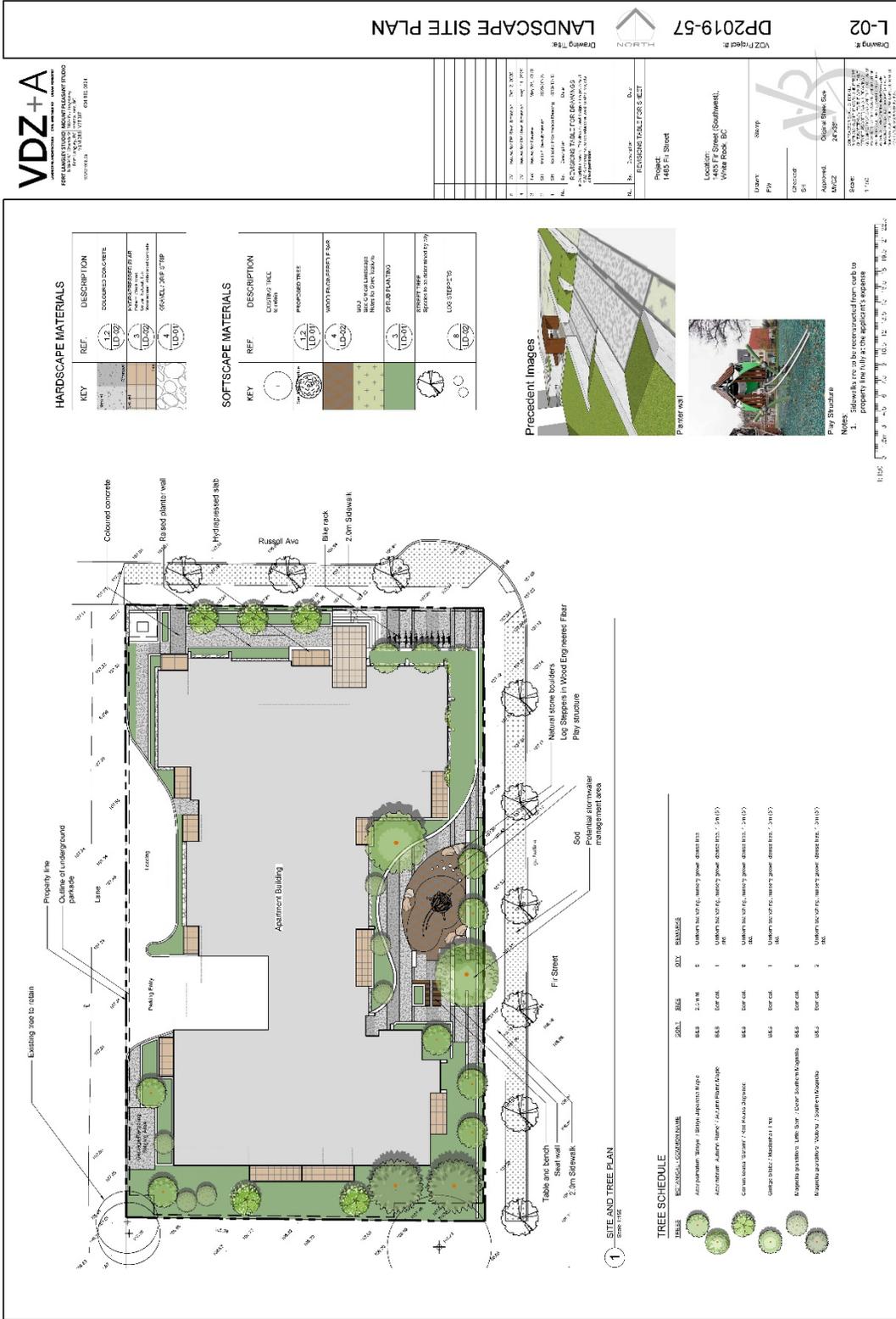
EXTERIOR FINISHES:	
(1)	BRICK - BLACK
(2)	CONCRETE W/CL. - 2PC
(3)	INS. BRICKS - WHITE W/TE
(4)	INS. BRICKS - BROWN W/TE
(5)	MINERAL WOOL BATT - R13 CLEAR
(6)	CEILING FINISH
(7)	INTERIOR CLAW CLUST DRAIN
(8)	CONCRETE



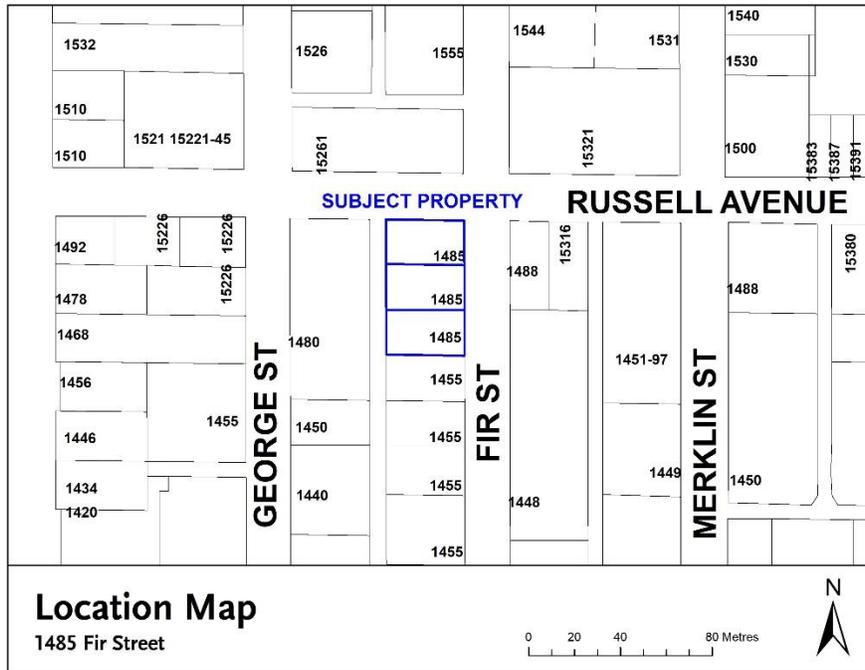
Schedule D – Renderings



Schedule E – Landscape Plans



APPENDIX C
Location and Ortho Photo Maps

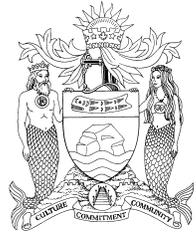


APPENDIX D

**LUPC Report "Initial OCP Amendment Application Report- 1485 Fir Street (19-009
OCP/ZON/MJP)" dated July 8, 2019**

(Attached Separately)

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: July 8, 2019

TO: Land Use and Planning Committee

FROM: Carl Johannsen, Director of Planning and Development Services

SUBJECT: Initial OCP Amendment Application Report – 1485 Fir Street (19-009 OCP/ZON/MJP)

RECOMMENDATIONS

THAT the Land Use and Planning Committee:

1. Receive for information the corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled “Initial OCP Amendment Application Report – 1485 Fir Street (19-009 OCP/ZON/MJP);” and
 2. Recommend that Council refuse the OCP amendment application, and direct staff to work with the applicant on a revised rezoning and Major Development Permit application, for a secured rental housing development that includes a reduced FAR (2.8 gross floor area ratio consistent with the OCP), and amended building and site design.
-

EXECUTIVE SUMMARY

An Official Community Plan (OCP) Amendment application has been received regarding a development proposal at 1485 Fir Street, which is the civic address for the land occupied by an existing three storey rental apartment building known as “White Birch Apartments” and addressed as 1475 Fir Street.

This proposal consists of redeveloping the site to replace the existing 25 unit building with a six (6) storey rental apartment building with 84 rental dwelling units. This exceeds the OCP minimum requirement of a 1:1 replacement policy by 59 units. As required by the Council Policy 514: Tenant Relocation Policy, the applicant has provided tenants with a Notice of Redevelopment and Tenant Assistance Package, which is attached to this report as Appendix D.

The application is requesting an amendment to the OCP to permit a density 15% higher than the maximum allowed, with a proposed gross Floor Area Ratio (FAR) density of 3.23 exceeding the maximum 2.8 FAR currently allowed in the OCP.

The proposed apartment development also does not meet the minimum percentage of three bedroom units required under OCP Policy 11.1.1 (10% minimum three bedroom and 35% either two or three bedroom), instead providing 7% (six units) out of the total 84 units as three bedroom and 37% (25 units) as either two or three bedroom.

While staff support the expansion of the rental housing supply that this project would help provide, staff do not support the proposed FAR increase beyond the maximum in the OCP and the resulting bulkiness of the proposed design.

Achieving the required minimum percentage of three bedroom units can be a financial challenge for projects as these larger units typically generate lower revenue per square foot; this financial obstacle is particularly relevant for rental apartment proposals which have historically been less profitable than strata residential development and therefore unable to compete with strata developers to acquire new sites. Staff recommend that as part of the “Improving Housing Affordability” topic within the OCP Review, that Council consider reducing the amount of three bedroom units required for rental apartment buildings to 5%.

This report sets out options for consideration by the Land Use and Planning Committee, in terms of giving direction to staff on how this application should be managed moving forward. These options include:

- 1) Committee refusing the OCP amendment related to this proposal and directing staff to work with the applicant on a revised rezoning application that is consistent with the current OCP FAR for these properties (2.8 gross floor area ratio) and includes a refined building design; or
- 2) directing staff to continue to process the entire proposal in its current form, including the OCP amendment, with the next step being a Public Information Meeting to be hosted by the Applicant.

INTRODUCTION

The Planning and Development Services Department has received an OCP Amendment application for 1485 Fir Street. This corporate report provides initial, high-level staff analysis and commentary on this application, for the Land Use and Planning Committee’s (LUPC) information.

Staff seek feedback from the LUPC on whether this OCP Amendment application should be:

- Refused and the rezoning application referred back to staff, with direction from the LUPC to staff regarding suggested revisions to the rezoning application; or
- Moved forward in its current form.

The proposed development is for a rental residential buildings that is six (6) storeys in height, with a proposed FAR of 3.23. The proposal includes 84 residential dwelling units (all of which would be secured as rental for the life of the building). The orthophoto and location maps are included as Appendix A of this corporate report, and the applicant’s drawing package is included as Appendix C (including site plan, conceptual massing drawings, and commentary on the relationship with City OCP policies).

PAST PRACTICE / POLICY / LEGISLATION

The City’s OCP (*White Rock Official Community Plan, 2017, No. 2220*) sets out land use, density, height and other policy directions for new development applications.

In the Land Use chapter of the OCP, under policy 8.2.3, properties in the Town Centre Transition area including 1485 Fir Street are identified as being eligible for additional density (up to 40% above the base density) where at least half this additional floor area is dedicated to and secured as residential rental units. The base density for this property is 2.0 FAR, there for the total maximum density permitted, including the rental bonus density, is 2.8 FAR, of which 0.4 FAR would be required to be for rental units. There is no additional bonus available for projects that consist entirely of rental units.

Building heights in the Town Centre Transition area are encouraged to develop within the range presented in Figure 10 of the OCP; for the subject site, this is shown in a continuum between 18

storeys at North Bluff Road and 6 storeys at Thrift Avenue, suggesting that between 6-8 storeys would be a supportable height on this block.

Policy 11.2.1(f) requires that a minimum one-to-one replacement of existing rental units be provided when an existing rental building is proposed for redevelopment, with an average unit size of the replacement units at least 80% of the units being replaced.

The new OCP also includes policy regarding OCP Amendment applications. According to Section 19.3 (page 76) OCP Amendment applications are to be reviewed by staff and an initial information report on the proposal presented to Council for review and feedback to staff. As stated in the OCP, Council may then refuse the application or direct City staff to continue processing it. Council may also refer it back to staff with specific direction.

This approach provides the Committee an opportunity to provide direction on OCP Amendment applications, prior to these applications being presented at a Public Information Meeting and proceeding through the application process (i.e. Advisory Design Panel, consultation with potentially affected groups, preparation of Amendment Bylaws, Public Hearings, etc.), as set out in the Planning Procedures Bylaw and Policy 512: Official Community Plan Consultation.

ANALYSIS

Existing Land Use Context

There are three separate parcels that form 1485 Fir Street (the existing building straddles the shared property lines) and the subject properties are currently zoned ‘RM-2 Medium Density Multi-Unit Residential Zone’ which permits townhouse or apartment complexes with a 10.7 metre (35.1 feet) maximum height.

On the outside edge of the Town Centre area, the subject site is surrounded by a mix of commercial, institutional and residential uses. To the west of the subject site across a lane is St. John’s Presbyterian Church and Daycare Centre, to the north across Russell Avenue is a three storey office building (Russell Professional Building), and to the south and east are existing multi-unit residential buildings (one storey building on the east side of Fir Street, and three storey buildings to the south).

Proposed Development

The subject properties are 0.50 acres (2,036 square metres; 21,917 square feet) in overall size. In terms of OCP land use the subject properties are in the ‘Town Centre Transition’ designation, which allows multi-unit residential uses in low-rise to high-rise buildings. The base density for this property is 2.0 FAR, and the total maximum density permitted including the rental bonus density (40% above the base density) is 2.8 FAR, of which 0.4 FAR would be required as rental floor area. A summary of development statistics are provided in Table 1 below:

Table 1: Development Proposal Statistics

	Original Proposal
Land Area	0.50 acres (2,036.m ²)
Total Number of Units	84
Residential Floor Area (Net)	5,825.6 m ² (62,706.1 ft ²)
Gross Floor Area	6,586.9 m ² (70,900.4 ft ²)
Density - Floor Area Ratio (Gross)	3.2347 (rounded to 3.23 for this report)
Lot Coverage	56%
Height	18.9 m (62.0 ft)
Residential Parking Spaces	115 (1.37 per unit)
Loading Spaces	1

A rendering of the proposed development is included below as Figure 1, the proposed site plan is included as Figure 2, and a more detailed drawing package is available in Appendix C.

Figure 1: Rendering



Figure 2: Proposed Site Plan (Main Floor Plan)



Proposed FAR in Relation to the OCP

The proposed OCP Amendment application involves an FAR of 3.23. Staff do not support the proposed FAR, which is 0.43 FAR above the maximum FAR available of 2.8.

FAR is calculated by using these measurement methods in the White Rock Zoning Bylaw:

- 1) General ‘gross floor area’ measurement: includes the sum total of floor areas of each storey in a building, and excludes community amenity spaces. The Zoning Bylaw defines this approach for buildings in commercial, mixed-use and public use zones.
 - This measurement approach results in a ‘**gross FAR**’ number. The gross FAR approach also reflects the overall massing and bulk of a building.
- 2) General ‘net floor area’ measurement: the Zoning Bylaw allows this approach for buildings in multi-family residential zones, and includes the sum total of floor areas of each storey but excludes unenclosed balconies, common stairwells, elevator shafts, common corridors, recreation and amenity areas and above grade enclosed parking areas.
 - This measurement approach results in a ‘**net FAR**’ number.
 - A net FAR number can typically be 10 to 20 percent lower than the gross FAR number for the same building, primarily due to removing the ‘circulation floor space’ (i.e. hallways, stairwells, elevator shafts) areas on each building floor plate or storey, and in some cases, removing above ground enclosed parking floor area contained within the same building. The net FAR approach does not reflect the overall massing and bulk of the building, and typically only includes saleable or leasable floor space.

The measurement of density in the OCP is always based on the **gross FAR** and is intended to regulate the overall massing and bulk of a building, whereas the Zoning Bylaw utilizes both gross and net approaches, depending on the zone.

Staff note that the base density allowed in the OCP without providing rental housing on these properties is 2.0 FAR. Since a replacement of the existing rental units is required it is likely that at least approximately 1.0 FAR on this site would be provided as rental which enables the bonus density provisions of up to 2.8 FAR, leaving the potential for approximately 1.8 FAR as either rental or strata. The development does not include any strata and instead proposes that the entire building be secured market rental units.

The applicant has provided an amendment rationale for the apartment site (attached as Appendix B) and has described the relationship with the proposal and other OCP objectives in their drawing package attached as Appendix C.

Should Council wish to advance this particular application at the currently proposed density (3.23 FAR) on the basis that it will make rental development more viable, it is recommended that staff also be directed to include in the “Improving Housing Affordability” topic within the OCP Review a proposal that would allow up to a larger density bonus (e.g. 50-65% above base density instead of the current 40%) for sites within the Town Centre Transition area that are proposed as entirely market rental buildings.

Apartment Design Commentary

Staff consider that the proposed mid-rise six (6) storey building, at 3.23 FAR and a lot coverage of 56%, presents a bulky/boxy form that would have an imposing and somewhat monolithic or institutional presence in the neighbourhood. Comparatively, a six (6) storey building at the 2.8 FAR allowed in the OCP would have an approximate lot coverage of 47%. While it is possible to

reduce the bulky/boxy effect of the building through revisions to exterior materials and architectural details that break up the mass of the building and therefore increase the visual interest and residential feel, the size of the building itself contributes to the bulkiness of the massing, and lack of articulation and recessing needed to provide relief and transitions from the street and adjacent properties.

By comparison, the OCP allows six (6) storey buildings on sites identified for affordable rental developments at a maximum density of 2.5 FAR, which is considered appropriate to allow for a design with adequate setbacks (i.e. reduced lot coverage of approximately 42% creating open space at the sidewalk level) and terracing (to reduce the perceived height impact of upper floors) of a six storey building.

On the subject property, the permitted OCP density increases to 2.8 FAR, which is close to the density at which a strata concrete tower would be a viable form of development on a large enough site. However, due to the rental replacement requirements and the applicant's interest in providing an entirely market rental development, the cost of concrete construction would likely not be financially viable.

Staff would consider it appropriate for the building to be redesigned to a density of 2.8 FAR, within the maximum allowed in the OCP for this property, which could provide for:

- reduced lot coverage (increased open space at the ground level) closer to or less than 50%
- deeper setbacks for the upper levels (reducing the perceived height impact), such as stepping levels 4 to 6 at the corner of Russell and Fir and on the south property line
- private function patios for residents on the 1st-4th floors facing the street (open balconies are not included in FAR, but are encouraged in the Development Permit Area guidelines)
- increasing the depth of the building's "bays" to break up the massing

Additional suggested design revisions, which do not relate directly to building size, would be:

- varying the fenestration (windows and doors) in size and/or colours (of muntin bars), which are currently the same across the entire building, to accent the residential character of the building
- emphasize the vertical elements to provide balance to the building's overall size
- consider potential for the reorientation/relocation of the outdoor amenity space to provide relief to the massing impact
- providing architectural details on portions of the west façade which are currently blank
- increase roofline variability to provide interest and punctuation
- consider a low maintenance landscaped (planted) edge on the fourth level roof to soften the appearance of the building and create a horizontal break in the building

Should Council direct staff to work with the applicant on a revised design within the maximum density permitted in the OCP or proceed with the current application, these design considerations could receive further feedback from the Advisory Design Panel.

The current parking ratio for the proposal is 1.37 spaces per unit, which is less than the typical Zoning Bylaw requirement of 1.5 spaces per unit. However, noting that the property is near bus stops and routes in the Town Centre, and that OCP policy 11.2.1(f) states that "Council will consider reviewing parking requirements to determine the extent to which they can be relaxed for nonmarket and rental housing within walking distance (i.e. 400-800 metres of real travel

distance) of frequent transit service and/or commercial areas,” staff would consider supporting the parking reduction for this rental housing proposal, subject to confirmation of the proposed Transportation Demand Management measures proposed by the applicant (pre-loaded Compass Cards for residents, etc.)

Tenant Relocation Plan

The applicant has submitted a complete tenant relocation plan. The associated Notice of Redevelopment and Tenant Assistance Package, which was distributed to tenants on May 17, 2019, is attached to this report as Appendix D. The information contained in the Notice is considered to be consistent with the Tenant Relocation Policy. However, staff note that a dedicated tenant coordinator is to be retained and is not intended to be the developer/owner. Staff have not undertaken an in-depth analysis of the tenant relocation plan, as the proposed application is beyond the OCP FAR and direction on this is required first as this may affect the proposed number of units and potential tenant approach. Staff note that the current low vacancy rate for rental apartments may make locating alternative accommodation challenging.

The LUPC may consider discussing the tenant relocation plan at this time, or defer discussion to a later corporate report / LUPC meeting according to direction provided by Committee.

OPTIONS

While staff support the proposed market rental tenure of the project, staff do not support the proposed OCP Amendment in its current form.

Increasing permitted OCP densities on a site-specific basis will likely lead to future requests for similar OCP amendments, as prospective purchasers will ‘bid’ higher for the land on the basis of an anticipated increase in density. Staff do not believe that the densities in the approved OCP need to be increased in order to accommodate the projected increases in population, however if Council is interested in further incentivizing the construction of new rental apartments, staff recommend that additional density only be considered for projects that consist entirely of secured rental units.

This being said and based on the above analysis, the LUPC can consider these options, amongst other feedback, in directing how staff should manage this application moving forward:

1. Refuse the OCP amendment aspect of this proposal and refer back to staff to work with the applicant to revise their rezoning and major development permit application to be consistent with the maximum FAR for the property (2.8 FAR maximum). This also involves refining the apartment design as discussed in the report, which would have the likely effect of reducing the FAR below 2.8 FAR; or
2. Staff continue to process the entire proposal in its current form, with the next step being referral to external agencies and internal departments, a Public Information Meeting, followed by review by the Advisory Design Panel.

If the OCP amendment application is refused per Option #1 above which is also the recommendation of this corporate report, the applicant would be refunded a portion of their application fees for the OCP amendment application and the existing rezoning and major development permit applications which were applied for concurrently would remain open. In order to proceed with the rezoning and major development permit applications the applicant would need to submit revised designs that do not require amendments to the OCP (i.e. within the allowable density, and meeting the minimum 10% three bedroom unit requirements).

Additional Considerations

Should this proposed application move forward, staff note there are additional considerations that the applicant will need to meet and that the LUPC should be aware of, including:

- requests to exceed the OCP should have a clear public benefit beyond 1:1 replacement and additional rental space as contemplated in the OCP. This additional benefit could be secured below market rental units for vulnerable/existing tenants;
- the market rental residential tenure of the building would be required to be secured by way of a Housing Agreement and related bylaw as rental for the life of the building;
- as a market rental project, this development may be eligible for a reduction of Community Amenity Contributions (CAC) up to 50% of the targeted value;
- the OCP and Zoning Bylaw requires new buildings to include one (1) electric vehicle charging station and one (1) ‘rough in’ for every ten (10) parking spaces (the applicant is proposing 24 electric vehicle charging stations, which is slightly more than the 23 stations that would be required with the proposed 115 off-street parking spaces); and
- noting that stormwater and sanitary servicing master plans are currently being developed to guide development-related upgrades to these services (and a water master plan was recently approved), and that these master plans are based on FARs in the current OCP, it is important to note that increasing the FAR on this property and potentially other properties may undermine the basis of these servicing plans, and require significant additional servicing upgrades and funding.

CONCLUSION

The Planning and Development Services Department has received an OCP Amendment application for 1485 Fir Street. While staff support the rental housing component, staff do not support the proposal in its current form, primarily due to the FAR being over what is identified in the OCP. Staff seeks feedback from the Land Use and Planning Committee on whether this OCP Amendment application should be:

- Refused and the rezoning application referred back to staff for revisions within the allowable density in the OCP and design refinements to the building as discussed in this report, with direction from the LUPC to staff regarding suggested revisions to the application; or
- Moved forward in its current form.

Respectfully submitted,



Carl Johannsen, MCIP, RPP
Director of Planning and Development Services

Comments from the Chief Administrative Officer:

I concur with the recommendations of this corporate report.



Dan Bottrill
Chief Administrative Officer

Note: Attachments removed for brevity

Appendix A: Location and Ortho Photo Maps

Appendix B: Applicant's Official Community Plan Amendment Rationale Letter

Appendix C: Drawing Package

Appendix D: Applicant's Notice of Redevelopment and Tenant Assistance Package

APPENDIX E

LUPC Report “Information Report Update and Revised Tenant Relocation Plan 1485 Fir Street (ZON/MJP 19-009)” dated September 30, 2019

(Attached Separately)

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: September 30, 2019

TO: Land Use and Planning Committee

FROM: Carl Isaak, Director of Planning and Development Services

SUBJECT: Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009)

RECOMMENDATION

THAT the Land Use and Planning Committee receive for information the corporate report dated September 30, 2019 from the Director of Planning and Development Services, titled “Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009).”

INTRODUCTION

The Land Use and Planning Committee (LUPC) received a corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled “Initial OCP Amendment Application Report – 1485 Fir Street (19-009 OCP/ZON/MJP).” The application at the time required an increase in gross floor area ratio (or ‘FAR’) density above what was permitted in the Official Community Plan (OCP) and did not provide the number of three-bedroom units (10%) required in the OCP, and would have required an OCP amendment.

Council subsequently directed staff to work with the applicant on a revised application that did not require an OCP amendment. There was also discussion at the LUPC meeting regarding the adequacy of the applicant’s Tenant Relocation Plan. This corporate report provides a brief update including the applicant’s enhanced Tenant Relocation Plan and an overview of the changes to the form of the development proposal application which now does not require an OCP amendment and will now proceed as a rezoning and major development permit application. Location and ortho photo maps of the subject property are attached as Appendix A. The revised Notice of Redevelopment and Tenant Assistance Package (components of the Tenant Relocation Plan) is attached as Appendix B. The corporate report from July 8, 2019 is attached as Appendix C, for LUPC’s information.

PAST PRACTICE / POLICY/LEGISLATION

OCP Land Use and Policy

The OCP land use designation for the subject properties is ‘Town Centre Transition.’ The City’s OCP (White Rock Official Community Plan, 2017, No. 2220) sets out land use, density, height and other policy directions for new development applications.

In the Land Use chapter of the OCP, under policy 8.2.3, properties in the Town Centre Transition area including 1485 Fir Street are identified as being eligible for additional density (up to 40% above the base density) where at least half this additional floor area is dedicated to and secured as residential rental units. The base density for this property is 2.0 FAR, therefore the total maximum density permitted, including the rental bonus density, is 2.8 FAR, of which 0.4 FAR would be required to be for rental units. There is no additional bonus available for projects that consist entirely of rental units.

Building heights in the Town Centre Transition area are encouraged to develop within the range presented in Figure 10 of the OCP; for the subject site, this is shown in a continuum between 18 storeys at North Bluff Road and 6 storeys at Thrift Avenue, suggesting that between 6-8 storeys would be a supportable height on this block.

Policy 11.2.1(f) requires that a minimum one-to-one replacement of existing rental units be provided when an existing rental building is proposed for redevelopment, with an average unit size of the replacement units at least 80% of the units being replaced.

ANALYSIS

Existing Land Use Context

There are three separate parcels that form 1485 Fir Street (the existing building straddles the shared property lines) and the subject properties are currently zoned 'RM-2 Medium Density Multi-Unit Residential Zone' which permits townhouse or apartment complexes with a 10.7 metre (35.1 feet) maximum height.

On the outside edge of the Town Centre area, the subject site is surrounded by a mix of commercial, institutional and residential uses. To the west across a lane is St. John's Presbyterian Church and Daycare Centre, to the north across Russell Avenue is a three storey office building (Russell Professional Building), and to the south and east are existing multi-unit residential buildings (one storey building on the east side of Fir Street, and three storey buildings to the south).

Previous Proposal

The July 8, 2019 report to the Land Use and Planning Committee included an overview of a new development application submitted on May 9, 2019, for a proposed development with a total of 84 rental residential units in a six (6) storey building

The proposed density for the apartment site exceeded the OCP maximum density by 0.53 FAR (3.23 FAR proposed; 2.8 FAR allowed).

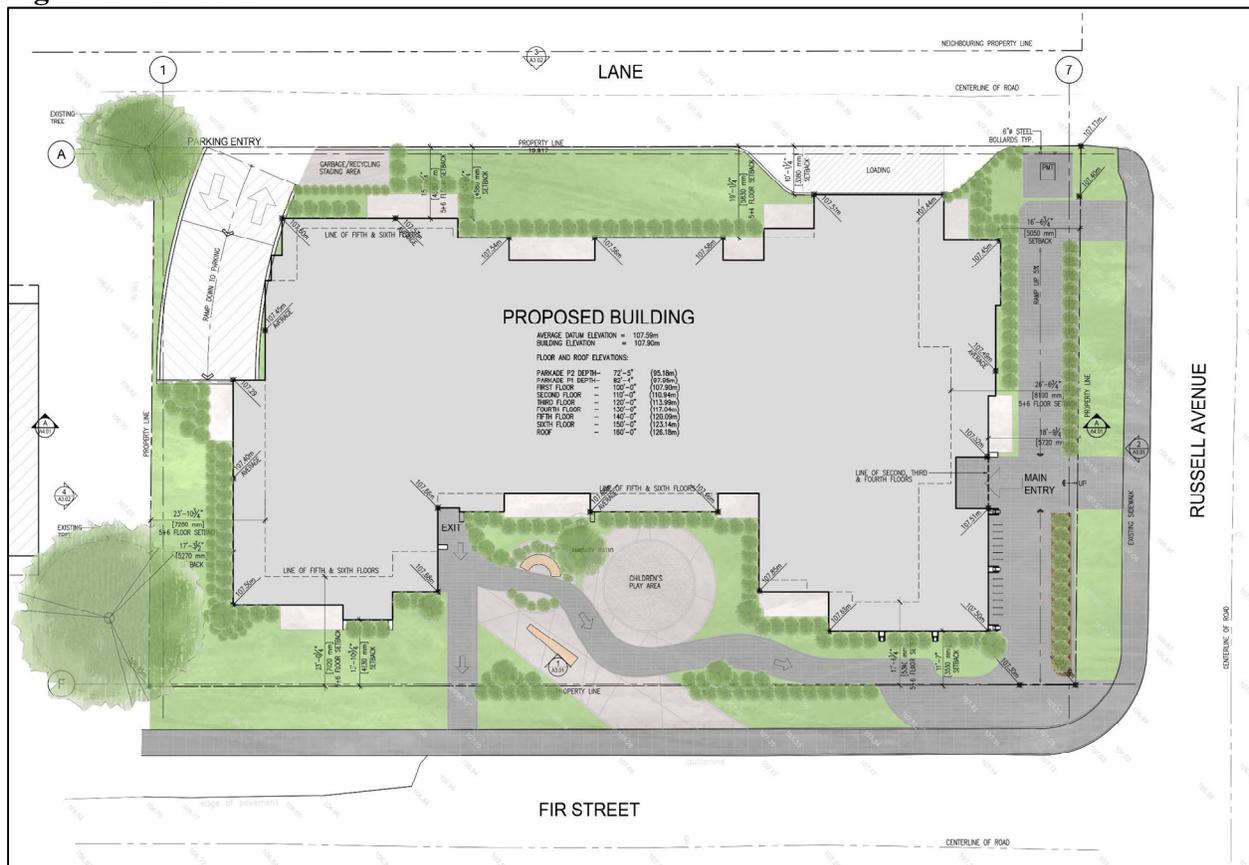
Council subsequently directed staff to work with the applicant on a revised application that did not require an OCP amendment (i.e. that did not exceed the maximum density in the OCP).

Revised Proposal

Following Council's previous direction to work with staff on a revised application that did not require an OCP amendment, the applicant has submitted drawings for the rezoning and development permit application on August 15, 2019. The new proposal does not exceed the maximum density allowed in the OCP and therefore does not require an amendment to the OCP. As the subject properties' current zoning is RM-2, an amendment to the zoning bylaw ('rezoning') would be required to allow the proposal, as well as a development permit to regulate the form and character of the development. Appendix D of the report provides a table outlining the changes in development statistics from the original application to the revised application.

A site plan of the revised proposal is included below as Figure 2, with an enlarged version of the same site plan included as Appendix E to this report.

Figure 1: Site Plan



Revisions to Tenant Relocation Plan

In the original Tenant Relocation Plan, the applicant proposed to give the option to existing tenants to return to the new building at rents that would be 10% below the market rent that was being charged at that time for other similar units, which is consistent with the City’s Tenant Relocation Policy No: 514. Due to concerns that were raised during the discussion at LUPC regarding the large increase that even 10% below market rent would be for existing tenants, the applicant has offered to reduce the rents charged to returning tenants to 20% below projected market rent for the building, which is estimated at \$2.80 per square foot. The proposed initial rents for returning residents would be \$2.24 per square foot, equating to:

- \$1,232 for an average size (550 square foot) one-bedroom unit
- \$1,859 for an average size (830 square foot) two-bedroom unit

These rents would be inclusive of a parking space and hot water, and following occupancy the owner would be permitted to increase rents in accordance with the annual increases regulated by the Residential Tenancy Branch.

In addition to the cost of the foregone revenue from the below market rents for existing tenants, the applicant has estimated that the total cost of the reduced rents and other forms of assistance to tenants would be \$145,000 (\$90,000 for compensation to tenants, \$23,000 for moving expenses, \$15,000 for moving assistance, and \$16,000 for a tenant relocation coordinator).

The applicant has also identified that the previous owner of the subject property, who also have another rental apartment in White Rock, have offered to relocate existing tenants to their building during the construction period as their units become vacant.

The applicant has also designated a new Tenant Relocation Coordinator instead of personally acting as the Tenant Relocation Coordinator.

Revisions to Architectural Drawings

The applicant has made several revisions to the drawing package in response to the comments provided in the corporate report dated July 8, 2019, attached as Appendix C. These revisions reduce the amount of floor area density and increase the number of three-bedroom units so that an OCP amendment is no longer necessary. The changes also begin to address the massing and design issues noted in the report. Some of the more significant design changes include:

- Decreasing the lot coverage to below 50%
- Increasing the setbacks on the upper floors to reduce the visual impact of the height
- Adding balconies onto the homes along Fir Street
- ‘Flipping’ the outdoor play area / courtyard to Fir Street (from the lane)

The design will likely have further changes through public feedback and Advisory Design Panel review, prior to being brought forward to Land Use and Planning Committee. Figures 2 and 3, showing the revised and original renderings of the building from the corner of Fir and Russell, are provided for comparison purposes.

Figure 2: Revised Rendering (from Russell Avenue and Fir Street)



Figure 3: Previous Rendering (from Russell Avenue and Fir Street)



Next Steps

Consistent with the process for a Zoning Bylaw amendment and Major Development Permit application (outlined in Schedules H and L of Planning Procedures Bylaw No. 2234), the following are the next steps for the application:

1. The application materials will be circulated to internal departments for comment, as well as to staff at the Surrey School District (this is already underway).
2. The applicant will install development notification signs on the property, and a public information meeting hosted by the applicant and attended by staff will be scheduled to allow residents an opportunity to provide early input on the proposal.
3. An Advisory Design Panel will be held meeting to receive advice and direction on the form and character of the proposed development.

A detailed corporate report for a future LUPC meeting to consider this application will be prepared upon completion of the technical and public review processes.

BUDGET IMPLICATIONS

Further details regarding the Development Cost Charges associated with the project will be brought forward in the detailed corporate report noted above.

In accordance with Council Policy 511: ‘Density Bonus / Amenity Contribution’, a community amenity contribution of \$922,000 would be anticipated based on the target rates for the Town Centre (this site is in close proximity to the Town Centre and a similar target rate is considered appropriate), and Council may consider reducing the amenity contribution target based on the provision of rental housing.

Council Policy 511 currently allows a reduction of up to 50% of an applicable amenity contribution for secured market rental floorspace, which would amount to \$461,000 based on the above noted target.

CONCLUSION

As a follow-up to a previous OCP amendment application information report, the applicant has revised the density of the proposal to below the maximum 2.8 gross floor area ratio (FAR) for

this rental apartment building, consistent with the OCP, and the application no longer requires an OCP amendment. This report is provided to Council for information regarding the revised proposal which includes a zoning bylaw amendment and Major Development Permit application. A detailed corporate report regarding this application will be provided to LUPC for consideration upon completion of the technical and public review processes.

Respectfully submitted,



Carl Isaak, MCIP, RPP
Director of Planning and Development Services

Comments from the Chief Administrative Officer:

This corporate report is provided for information.



Dan Bottrill
Chief Administrative Officer

Note: Attachments removed for brevity

- Appendix A: Location and Ortho Photo Maps
- Appendix B: Revised Notice of Redevelopment and Tenant Assistance Package
- Appendix C: Corporate Report dated July 8, 2019 titled “Initial OCP Amendment Application Report – 1485 Fir Street (19-009 OCP/ZON/MJP)”
- Appendix D: Comparison of Original Development Proposal Statistics with Revised Proposal
- Appendix E: Renderings and Landscape Site Plan

APPENDIX F

Public Information Meeting Sign-in Sheet, Comment Forms, and Summary

(Attached Separately)

PUBLIC INFORMATION MEETING
1485 FIR SREET
REZONING, MAJOR DEVELOPMENT PERMIT, FILE NO. 19-009
DECEMBER 12, 2019

THIRDSPEACE COMMUNITY CAFÉ 1381 GEORGE ST, UNIT #1 WHITE ROCK, BC V4B 2L1

	NAME (PLEASE PRINT)	ADDRESS	POSTAL CODE
1.	Elena	1475 - 204	
2.	B.H. Inu	14728 Upper Ropa Ave	V4B 2C9
3.	Pohly Pactor	101 - 1475 FIR ST.	
4.	Michelle McCallum	1544 Fir -	
5.	PAT PETRALA	15020N. BLUFF RD	V4B 5A4
6.	Ron Reid	1487 Merklin	V4B 4C9
7.	GEORGE WARTTIG	1475 FIR ST	V4B 4B7
8.	William King	1475 FIR ST.	✓
9.	ELIZABETH WARTTIG	147 FIR ST	✓
10.	Celine Chudow	1475 FIR ST	✓
11.	CHUCK BRYANT	1475 FIR ST	V4B-4B5
12.	Edgar DAVIS	1455 FIA ST	V4B 4B5
13.	PORAN POKOTOWSKI	1448 FIR ST	V4B 4B4
14.	Reg Nash	1481 Merklin ST.	V4B 4C4
15.	Inés Quiroga	1475 Fir ST.	V4B 4B5
16.	M. R. Becker	1475 Fir. #105	"

PUBLIC INFORMATION MEETING
 1485 FIR SREET
 REZONING, MAJOR DEVELOPMENT PERMIT, FILE NO. 19-009
 DECEMBER 12, 2019

THIRDSPACE COMMUNITY CAFÉ 1381 GEORGE ST, UNIT #1 WHITE ROCK, BC V4B 2L1

	NAME (PLEASE PRINT)	ADDRESS	POSTAL CODE
17.	ISABEL STORAR	1448 FIR ST	V4B 4B4
18.	EMILIE BELL	1497 MERKLIN ST	V4B 4C4
19.	EMILIE BELL	1493 MERKLIN ST	
20.	EMILIE BELL	1527 SCOTT	
21.	Liz Doucette	#1544 Fir Street	V4B 4B7
22.	Ray Doucette	1544 FIR STREET	V4B 4B7
23.	Anthony Manning	WR City Hall	
24.	IAN MIDDLETON		
25.	Phil Childers	Delta	V4M 2K7
26.	Fran MacLennan	White Rock	V4B 4B4
27.	Bob Dandson	Vancouver	V6J 2A6
28.	NELSON de AMARAL	Richmond	V7A 1G7
29.	KEN GUTHAIE	1521 GEORGE	V4B 4A4
30.			
31.			
32.			

PUBLIC INFORMATION MEETING
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THIRDSPACE COMMUNITY CAFÉ 1381 GEORGE ST, UNIT #1 WHITE ROCK, BC V4B 2L1

	NAME (PLEASE PRINT)	ADDRESS	POSTAL CODE
33.	Barton Jessup	302-1544 Fir St.	V4B4B7
34.	SAM DRAND	14835 MARINE DR.	V4B1C1
35.	MOTI BALI	14933 Beachview Ave	V4B1P2
36.	SHERRY SOOLE	1491 MERKIN ST.	V4B9C4
37.			
38.			
39.			
40.			
41.			
42.			
43.			
44.			
45.			
46.			
47.			
48.			

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

Please note that your completed feedback form will be disclosed to the public and presented to Mayor and Council as part of the information package attached to this development proposal application. Any personal information or commentary you provide on this document will form part of the public record.

Please provide your name and address below: (optional)

Name:

G. WARTTIG

Address:

1475 FIR ST.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

TOTAL FARCE .

RIDICULOUS .

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

Moti Bali

Address:

14933 Beachview Ave. White Rock

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I highly recommend the building. In White Rock we have over 60% old age personnel who have difficulty climbing steps. This will be the first building in over 30 years to have elevators to help the elderly and help people have affordable housing facility.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

ELIZABETH WARTTIC

Address:

1475 FIR ST

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

NOT ALLOWED TO SPEAK

COMPLETE FARCE

WE ARE NOT ALLOWED TO SPEAK

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

M. R. Becker

Address:

#105 - 1475 Fir St.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am **UNDECIDED** on the proposal.

I **OPPOSE** the proposal.

Please provide your comments in the box below:

The building/property owner has an ambition to redevelop his property; it would be 'daffy' of me to oppose his wishes. He has assured me that all obligations placed on him by the province & the City of White Rock will be observed. M. Becker

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

EWAINÉ BELL

Address:

1497 MERKLIN

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I AM WORRIED ABOUT SO MUCH MORE TRAFFIC IN OUR AREA WITH TWO STORIES OF UNDERGROUND PARKING + 6 STORIES. HAD THE BUILDING BEEN 3/4 STORIES, I PROBABLY WOULD HAVE SUPPORTED THE PROPOSAL.

HAVING MORE RENTAL PLACES IS IMPORTANT BUT WHITE ROCK ~~IS~~ HAS BEEN BURDENED WITH CONSTRUCTION SITES FOR SEVERAL YEARS NOW. PRESENTLY IT'S NOT THAT LIVEABLE

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

DORSEN POROTOWSKI

Address:

#313-1448 FIR ST

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I UNDERSTAND ZONINGS WILL BE CHANGED TO ALLOW THIS BUILDING TO GO AHEAD. WILL THAT EFFECT ALL OLDER BUILDINGS IN A CLOSE PROXIMITY?? IF SO I AM OPPOSED. I ~~HE~~ LIVE ON FIR ST ACROSS FROM PROPOSED BUILDING. I UNDERSTOOD THIS MEETING WOULD ALLOW QUESTIONS. A WASTE OF TIME

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

Reg Nash

Address:

1491 Mendelin St. White Rock V4B 4C4

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I oppose the proposal, as it is directly inline with my sunsets and I think it will invade my privacy.

No thank you to this project, at the proposed height.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

LILLIAN KING

Address:

102-1475 FIR ST

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

Mahdi is REPRESENTATIVE FOR what -
Company why ALL THE SECRETS WE SHOULD
PROTECT LOW RENTAL HOUSING NOT KNOCK
them down so SOME UNKNOWN CO. CAN BUILD
APT TO MAKE MONEY. I THINK THIS LOOKING
in to FIND OUT WHO THESE PEOPLE ARE

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name: SHERRY SOOLE

Address: 1491 MERKLIN ST.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- NOT ENOUGH GREEN SPACE (NO TREES)
- TOO HIGH BLOCKS SKY & SUN !!!
- TOO MUCH MORE TRAFFIC CONGESTION
- UGLY DESIGN - AGGRESSIVE FRONT THAT DOESN'T BLEND WITH THE NEIGHBOURHOOD.
- UNENVIRONMENTAL TO WASTE A SUBSTANTIAL BUILDING - & SEND ALL THE ^{QUALITY} MATERIAL TO THE JOM
- WHY DO THE RULES COMMUNITY PLAN KEEP CHANGING?

Thank you for your participation. If you have any questions, please contact the following:

- MY HOME WILL BE DEVALUED AS IT IS SUBMERGED INTO DARKNESS!

I want to contact the CITY ...

I want to contact the APPLICANT ...

Athena von Hausen
Planner, City of White Rock
Tel: (604)-541-2159
Email: avonhausen@whiterockcity.ca

Robert Billard
Billard Architecture Inc.
Tel: (604)-619-0529
Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

CHUCK BRYANT

Address:

202-1475 Fir St

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I UNDERSTAND WHY NEW RENTAL UNITS ARE NECESSARY. THE PROBLEM ~~IS~~ IS THAT THE RENT WILL BE TOO HIGH. BEING ON A FIXED INCOME I CAN'T AFFORD IT UNLESS SOME OF THE UNITS ARE SUBSIDIZED

Thank-you.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

McCallum Michelle ~

Address:

1544 Fir

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

if more rentals needed, if this site may be controversial, some would be less = sites like 1544 Fir would be more suitable - Maybe with an 8 Storey, in the middle of complexes and only 21 owners to deal with, who can relocate easily with the price paid per unit - No one would complain - Owners are ready for offers - if interested, or another investor, contact FIONA at

Thank you for your participation. If you have any questions, please contact the following: 604 831-0099

I want to contact the CITY ...

Athena von Hausen
Planner, City of White Rock
Tel: (604)-541-2159
Email: avonhausen@whiterockcity.ca

I want to contact the APPLICANT ...

Robert Billard
Billard Architecture Inc.
Tel: (604)-619-0529
Email: rbillard@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

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Please provide your name and address below: (optional)

Name:

Address:

R. Rodde
1493 Meeklin
W.R.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I'm very concerned.
I feel the Building is too high,
The design doesn't contribute to our
Town's Homeless!
I also feel it is too high!
I hope it isn't Built -

I wish you'd move your ideas
to a different City -

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name: ISABEL STEURER

Address: 304-1448 Fir St. 604 789 8600

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- ① This development doesn't represent a gain of 55 apartments, but the loss of 25 affordable ones, and I have a hard time supporting that.
- ② I would really like council to consider the impact of construction on the immediate neighborhood, not only in terms of parking, but also noise & emissions (i.e. heavy equipment idling). We have already put up with a lot uptown White Rock in the last couple of years. Please consider existing residents while welcoming new ones.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

Please note that your completed feedback form will be disclosed to the public and presented to Mayor and Council as part of the information package attached to this development proposal application. Any personal information or commentary you provide on this document will form part of the public record.

Please provide your name and address below: (optional)

Name:

Liz Doucette

Address:

#106-1544 Fir Street
White Rock, BC V4B 4B7

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- There is no enough water if there is a fire to go around as if now.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Address:

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

Concerns about more traffic congestion in area originally zoned residential

Concerns about adequate to serve a growing population in WRock in light of this proposed development

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

IAN MIDDLETON

Address:

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

THIS COMMUNITY DESPERATELY NEEDS
NEW RENTAL SUPPLY. THE CURRENT
SUPPLY IS OUT DATED AND DOES NOT
SUPPORT THE COMMUNITY.

THIS PROPOSAL IS MODEST IN SIZE AND
WILL HELP SUPPORT THE LACK OF SUPPLY
WE NEED TO REMEMBER THIS BUILDING
WILL BE HERE FOR 50+ YEARS WHICH ^{WILL} ~~WILL~~
HELP SUPPORT THE POPULATION GROWTH.

PLEASE APPROVE! WE NEED IT!

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

Barbara + Bjorn Holm

Address:

14728 Upper Reper Avenue.

What is your position on the development proposal application?

(Please circle your preferred response)

SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

We owned the White Birch - 1485 Fir Street and due to the high cost of running and maintaining the building had to sell. All tenants were told that it was sold as a development property & they all understood that. The costs - property taxes, insurance, heat, hot water, maintenance & repair require a higher density for it be to remotely viable. White Rock needs new

Thank you for your participation. If you have any questions, please contact the following:

Rental Buildings

I want to contact the CITY ...

Athena von Hausen
Planner, City of White Rock
Tel: (604)-541-2159
Email: avonhausen@whiterockcity.ca

I want to contact the APPLICANT ...

Robert Billard
Billard Architecture Inc.
Tel: (604)-619-0529
Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

Barton Jessup

Address:

302-1544 Fir St.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I think higher density and corresponding more green space is a sound overall principle. I would like this project to be higher - for example an FAR of 4 to 5. If the lower mainland continues to have increased population (as anticipated), then housing towers are necessary to preserve parks and agricultural land.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Harold M. DIXON

Address:

1022 Pacific Pl. Delta

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

The project seems to be "right sized" with 80 suites, in a desirable location.

The mix of suites offered will allow for a variety of family configurations.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Address:

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I support the project, I believe more rental housing is required in White Rock.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

JAN MAC LENNAN

Address:

13986 BLACKBURN AVE, WH, TO ROCK

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- MORE RENTAL HOUSING NEEDED.

- NEIGHBOURHOOD NEEDS UPDATING

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

PAT PETRACA

Address:

15020 N. BLUFF

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

How will this "Market" complex serve the needs of the CARLE Community of diverse income levels & comfortable homes. Cubicals/Urban micro squished spaces at inflated prices. The builder needs to work with Fed/CMHC + Provincial + NonProfits to enable inclusive better choices. Sterile Brutalists design is financially advantageous for builders profits yet and Zip to

Thank you for your participation. If you have any questions, please contact the following:

Community
Feedback

I want to contact the CITY ...

Athena von Hausen
Planner, City of White Rock
Tel: (604)-541-2159
Email: avonhausen@whiterockcity.ca

I want to contact the APPLICANT ...

Robert Billard
Billard Architecture Inc.
Tel: (604)-619-0529
Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

Pauline Paton

Address:

101-1475 FIR ST. WHITE ROCK, B.C.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I have lived at 1475 FIR ST.
FOR 9 YEARS.

I realize this building is aging
& I am happy to move into a
500 sq. ft. 1 bedroom. My current
rent is 1029.⁰⁰. Market value
is my concern. \$1200.⁰⁰ is my
max for rent as I am a senior
on a budget. I am not proposed
to a new building. East.

Thank you for your participation. If you have any questions, please contact the following:

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Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name: GEORGE WARTTIG.

Address: 1475 FIR ST.

What is your position on the development proposal application?

(Please circle your preferred response)

~~I SUPPORT the proposal.~~

I am ~~UNDECIDED~~ on the proposal.

I ~~OPPOSE~~ the proposal.

I OPPOSE THE PROPOSAL

Please provide your comments in the box below:

WE UNDERSTOOD THIS 'PUBLIC' MEETING WAS FOR US TO HAVE OUR SAY ABOUT THE PROJECT. WE ARE LOSING OUR HOMES! I AM FRANKLY DISGUSTED.

Thank you for your participation. If you have any questions, please contact the following:

G. Warthi

I want to contact the CITY ... ✓	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

SHARAD DHAND

Address:

14835 MARINE DR.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

This is exactly the kind of development this city needs.

This is NOT a condo project - it is a RENTAL building. This is very much needed as all the current rental buildings are very old with no elevators, which is terrible for seniors as well as all others. I strongly support this project. It is very good for the future of White Rock.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

Ines Quiroga

Address:

207 - 1475 - Fir St. White Rock.

What is your position on the development proposal application?

(Please circle your preferred response)

I **SUPPORT** the proposal.

I am **UNDECIDED** on the proposal.

I **OPPOSE** the proposal.

Please provide your comments in the box below:

This is an Open House - Gallery
Not a public meeting for discussion
& questions.

Thank you.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: rbillard@billardarchitecture.ca

From: [Carl Isaak](#)
To: [Athena von Hausen](#)
Subject: FW: 1075/1085 Fir Street, White Rock, BC
Date: Wednesday, May 22, 2019 2:24:00 PM

Ms. Brearley has emailed Carl J on several occasions and this email is the most recent and detailed correspondence from her regarding her concerns with redevelopment of the 1485 Fir Street (building addressed as 1475 Fir Street) property where she lives.

From: Elizabeth Brearley <elizabethbrearley@hotmail.com>
Sent: Sunday, May 19, 2019 10:45 AM
To: Darryl Walker <DWalker@whiterockcity.ca>; David Chesney <DChesney@whiterockcity.ca>; Helen Fathers <HFathers@whiterockcity.ca>; Erika Johanson <EJohanson@whiterockcity.ca>; Scott Kristjanson <SKristjanson@whiterockcity.ca>; Anthony Manning <AManning@whiterockcity.ca>; Christopher Trevelyan <CTrevelyan@whiterockcity.ca>; Carl Johannsen <CJohannsen@whiterockcity.ca>; Carl Isaak <CIsaak@whiterockcity.ca>
Subject: Re: 1075/1085 Fir Street, White Rock, BC

To His Worship the Mayor and White Rock City Councillors:

We, the tenants of the above property are aware that the owner of 1062822 BC Ltd. has submitted an OCP Amendment, a Zoning Bylaw Amendment and a Major Development Permit Application for the above property, which is a 25 unit rental property, not 24 as mentioned in the application. The mailing address is 1475, not 1485 as stated in the application. I understand this is an error on the part of City Hall.

We sent you a letter and a signed petition by the residents on February 11th 2019 stating our concerns and dismay at being evicted from our homes.

In the information given to us on May 14th 2019, by Mahdi Heidari on behalf of 1062822 BC Ltd., we would like to point out the following mis-information:

- The building has 25 suites not 24
- It has a state of the art heating system
- All windows were replaced with double-glazed high quality windows
- Blinds have been replaced
- New carpets have been installed in all suites
- Light fixtures and electrical outlets have been replaced in all suites

- WiFi is installed in the building for tenants use
- Telus installed optic fibre throughout the building last year

This building is not derelict and has been well maintained by the previous owners over the years.

Many of the tenants have lived here for over 20 years and are in their seventies and eighties. No one is on welfare. We are a very quiet and respectable community. There are no drugs or smoking in the building. There are 4 suites on the 3rd floor and they are occupied by young working adults. Rents are between \$800 and \$1150 per month. Since 1062822 BC Ltd. took over the building in November 2018, 1 tenant has died and 2 have moved into care homes. These suites have been re-rented at \$1,100 and \$1,300 per month. The new owners appear to be letting the building slide into disrepair. We are determined not to let this happen, so now we, the tenants, are now maintaining the building, cleaning the hallways, laundry room and cutting the grass at no cost to the owners. How can these owners morally do this to us? We are happy community that look out for each other. We are all stressed to the max with this hanging over our heads. Where will we go? As you know, market rents are astronomical and not affordable by this community.

Please do not let these greedy developers, who are not familiar with the area, throw us out of our homes. We do not know who they are. We do not know if the money is coming from off-shore and we do not know if the profits will be sent offshore!! They are hiding behind a numbered company.

We hope this information will help you in determining your consideration at the Land Use and Planning Committee.

We invite you all to come and visit the building to see for yourselves what a great community we have here. We will be happy to show you around.

With much respect and best regards,

Elizabeth Brearley-Warttig (on behalf of the tenants of 1475 Fir Street, White Rock, BC)

Tel: 778-294-0647

April 3, 2019

City of White Rock
15322 Buena Vista Avenue
White Rock, BC
V4B 1Y6

Attn: Carl Johannsen,
Director of Planning and Development

Dear Sir:

Re: 1475 Fir Street, White Rock, BC

Our building was sold to a Vancouver developer last fall. It is our understanding that the developer is planning to tear down the building. My husband and I are the caretakers of this rental building and we, along with the rest of the tenants, are concerned for the welfare of the tenants. This building is solid and well maintained. It is not a "slum". Most of the tenants are elderly, with low incomes. We are a close community that takes care of each other.

We are well aware of your Policy No. 514 (Tenant Relocation).

Why tear down a perfectly good building, for some greedy Vancouver developer?

Other properties that are being developed within the community are on land that was not occupied by residents of White Rock and no one lost their homes.

I enclose a letter that I have written to the Mayor and Council, signed by all the residents. Two councillors have responded.

We are prepared to do whatever it takes to keep our homes.

Best Regards,
Elizabeth Warttig - Suite 104 Tel: 778-294-0647 elizabethbreatley@hotmail.com

Residents of 1475 Fir Street, White Rock, BC V4B 4B5			
Suite No.	Name	Signature	Telephone
101	Pauline Paton	<i>Pauline Paton (70)</i>	604-990-0320
102	Lillian King (88)	<i>Lillian King</i>	
103	Peggy Best	<i>Peggy Best</i>	604-379-7997
104	George Warttig (68)	<i>George Warttig</i>	778 968 1947
104	Elizabeth Warttig	<i>E. Warttig (72)</i>	778-294-0647
105	Maria Tajaro (77)	<i>Mariano Tajaro</i>	
106	Mike Becker	<i>M. Becker</i>	604.791.2537
107	Sadie Hadley	<i>Sadie Hadley (87)</i>	604-536-8559.
108	Judy Belanger	<i>J. Belanger</i>	604-536-3342
109	Dan Jarvis	<i>Dan Jarvis</i>	
109	Sharon Jones	<i>Sharon Jones</i>	
201	Tony Brugger	<i>T. Brugger</i>	604-531-8490
201	Mrs. Brugger	<i>A. Brugger</i>	"
202	Charles Bryant	<i>Charles Bryant</i>	604-535-4634
203	Julia Rachev	<i>J. Rachev</i>	604-733-3349
204	Elena Udot (65)	<i>E. Udot</i>	604 778 - 545 8024
205	Chris McRae	<i>Chris McRae</i>	778-835-9699
206	Cindy Olynyk	<i>Cindy Olynyk</i>	604-536-9880
207	Leona Burnell	<i>ALZEMER</i>	
208	Sharon Wallace		
209	Jordon Wall Cameron	<i>Jordon Cameron</i>	604-836-7332
210	B. Intile		
211	Celine Chidlow	<i>Celine Chidlow (85)</i>	604-536-4749
212	Jillian Andrews	<i>Jillian Andrews</i>	604-536-0886
301	Maria Simpson	<i>Maria Simpson</i>	778-552-3926
302	Ken Romaniuk	<i>Ken Romaniuk</i>	604-626-7976
303	Neil McEathron (86)	<i>N.E. McEathron</i>	778 232 5976
304	Don Mooney	<i>Don Mooney</i>	604 771-1796

From: [Sadie Hadley](#)
To: [Planning](#)
Subject: tenant
Date: Tuesday, May 21, 2019 3:31:59 PM

I am a tenant at 1485 Fir st. in White Rock which has been bought by developers. I have lived here over 11 years and am 87 yrs. old because an development permit application has been made I have put my name in a senior residence with a 6-12 month waiting list. My question is if a space comes available am I still eligible for the Tenant Relocation package or is it only after the developers have City approval and permits are approved. Thanks Sadie

From: [Maret Erickson](#)
To: [Athena von Hausen](#)
Subject: 1485 Fir Street, White Rock, B.C.
Date: Friday, December 13, 2019 1:46:43 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Athena

I was unable to attend the public information meeting held on December 12, 2019. This is to advise that I support the project planned for 1485 Fir Street, White Rock, B.C.

Maret Erickson

From: [Elizabeth Brearley](#)
To: [Athena von Hausen](#)
Subject: Public Information Meeting December 12, 2019
Date: Friday, December 13, 2019 11:12:34 AM
Attachments: [Public Meeting Dec-12-2019.odt](#)
[IMG_20191213_0001.pdf](#)
[Letter to Johanssen Apr-3-2019.odt](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Von Hausen:

My name is Elizabeth Warttig and my husband and I attended the above meeting last evening. We mistakenly thought that it was a meeting that we could speak to. Many of the residents of 1475 Fir Street did not attend because they intended that I speak for them. Therefore I am attaching the letters and petition that was signed by all the residents last February. Your department may already have a copy. The Mayor and Council received a copy of this petition and letter also in February.

I did not see you at the meeting, or I would have given you the letters and the petition at that time. We are very opposed to this development. My comments to the planning department on behalf of the tenants of 1475 Fir Street, are below.

Regards, Elizabeth

My name is Elizabeth Warttig and I am representing the residents of 1475 Fir Street, who signed a petition in February of this year to protest the eviction of 30 people from this building. It was presented to the White Rock City council, along with a letter and forwarded to the planning department. We live in sound affordable housing. This building is not derelict and we respectfully ask that you do allow this unknown developer to evict us and tear down a perfectly sound building. I have researched the rental market in the White Rock South Surrey area for a year now and the average rents are much higher than those we are paying now. In fact they have increased considerably in November. The average for 1 bedroom is now \$1,500 and for a 2 bedroom the average is \$2,200. Burnaby has recently passed a revised residents assistance policy, which asks the developer to top up rents for tenants that

have been evicted and allow them back to the new building at the same cost of the rents that they are currently paying. I would suggest that the City of White Rock make that amendment to their policy.

We are a close knit community who look after each other. Many are elderly tenants who have lived there for 20 years. Some tenants are struggling young people on minimum wages. We cannot afford the so called market rents. Some of us have been subject to harassment and intimidation by the representative for our building, which has been reported to the Residential Tenancy Branch. It has been very traumatic and upsetting for the tenants. 17 new highrises have been slated for construction in White Rock. Those that have already been completed are struggling to fill them.

Everyone is stressed by the uncertainty of where they will go. As you are aware there is no affordable housing in White Rock and I urge you to consider this and do not have us evicted from our homes.

Thank you.

From: [Barbara Holm](#)
To: [Athena von Hausen](#)
Subject: Development Project 1485 Fir Street
Date: Sunday, December 15, 2019 3:14:09 PM

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Athena,

Thank you for listening at the information meeting December 12th.

As I outlined to you White Rock will soon be facing significant problems due to the ageing infrastructure of virtually all the rental buildings that date primarily from the 60's. They are expensive to run and maintain - lacking modern energy efficient building envelopes, windows, pipes and wiring that are expensive to replace and also to maintain. The small number of apartments relative to the size of the lots they are built on make the property taxes and other fixed costs, heat, water, gas, recycling, garbage quite exorbitant even before the high cost of maintenance is added. Just maintaining heat in suites in winter with 60 year old equipment (despite new boilers etc) had become a major, very time consuming, challenge - the great majority of plumbing contractors are not even familiar with these issues - even if OEM parts are available - which frequently they are not meaning that it is necessary to substitute with after market parts. These areas of concern will grow exponentially with ageing.

There are many significant advantages to dedicated rental buildings in comparison to condo's where tenants are at the mercy of individual owners and tend to be shorter term in most case.

I was concerned about some of the misconceptions and misunderstandings that many of the tenants from the building had. From money laundering and shady accounts to a total lack of trust and understanding of the commitments required by the developer in order for him to attempt to redevelop the site was misinformed and rather scary. We explained to all tenants in the building that we could no longer manage to deal with the maintenance ourselves and it would have been too expensive to hire a management company with the already high overhead costs and this would have been reflected in much lower maintenance levels.

I do not want to just ramble here so please contact me if you, Carl, or anyone else have any questions.

My husband and I feel that a dedicated rental building on such a convenient location would be a tremendous asset to the community and a huge benefit to tenants who would have the convenience of a safer modern building with all that new technology has to offer.

Kind Regards,

Barbara Holm

604 535 3585

From: [Mahmoud Mahmoud](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca; [MobileMe](#)
Subject: Support for Proposed Rental Development Project: 1485 Fir St, White Rock
Date: Monday, December 16, 2019 5:55:23 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attention: Athena von Hausen

Dear Ms. von Hausen,

I am writing in support of the above-referenced Rental Development project that is being proposed by C2C Construction. I understand that you will accept email communications from those who were unable to attend the Public Meeting that was held on the project last Thursday.

As someone who visits White Rock frequently, I understand that the City of White Rock has close to zero rental vacancy. Therefore, I am in support of any development which promotes rental accommodation for those who may wish to live in your beautiful municipality, but cannot afford to buy there. To that end, it seems very obvious that any developer that wishes to build rental accommodation in White Rock should be supported by the municipality.

I understand that the proposed project at 1485 Fir Street will be replacing an almost 60 year-old building into a brand new 80-unit fully rental property. I also understand that most of the current rental buildings in White Rock are old and poorly maintained, with no elevator, ramp or other amenities which are needed by the community's senior citizens. Given the location of the site to White Rock's town centre, it escapes me as to what barriers the municipality sees in approving this project. In the circumstances, I respectfully ask that the city support this fully rental development to address the current rental shortage in White Rock.

I'm copying the project architect, Mr. Robert Billard, so that he is aware of the support that this member of the public wishes to lend this worthy rental development project.

Yours truly,

Mahmoud Mahmoud, PhD, FEC
mahmoudmahmoud@icloud.com

From: [Michelle Guy](#)
To: [Athena von Hausen](#)
Subject: 1485 Fir Street
Date: Monday, December 16, 2019 8:29:05 PM

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Dear City of White Rock,

I write to express my support of this project. I was not able to attend the information meeting with council due to other commitments but thought I would send in my two cents, for what it is worth.

White Rock is a beautiful area and my mother, retired, very much would like to live there. She has a decent pension but does not have the asset base that would allow her to buy. As a result she rents and likely always will. That does not limit her ability to contribute to the local economy of coffee shops and local artists.

We have looked for a place for her and have only found either dated rental housing or basement suites. I was excited to see a proposal that might well meet her long term needs.

I do hope that City Council will see the wisdom in encouraging modern new builds for middle income people who are not able or interested to buy homes but would still prove to be valuable and desirable members of your community.

Michelle

From: [Parastoo Shirazi](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: 1485 Fir St white Rock
Date: Monday, December 16, 2019 6:15:53 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Avon Hausen,

Regrettably I was not able to attend the public information meeting for 1485 Fir St project in White Rock, yet I would like to express my support for the below reasons:

Most rental buildings in White Rock are older developments. The current building is 60 years old, it is of great timing to have the old building replaced with a new rental building.

White Rock would benefit from attracting younger population, to sustain and attract the younger population, newer rental buildings with such unique designs would offer attractive housing solutions for the younger population who are yet unable to afford to purchase properties.

White Rock's beautiful demographics could be supplemented by par rental buildings attracting great dynamics to the community.

Thanks

Parastoo Shirazi

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From: [Teresa Leung](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: 1485 Fir Street, Whitebirch Apartments
Date: Monday, December 16, 2019 10:47:51 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Athena (City of White Rock),

I am in support of the new rental development, Whitebirch at 1485 Fir Street to address the current rental shortage in White Rock. There are many people who cannot purchase, who NEED to rent, therefore, this project will greatly help those individuals, since the current vacancy rate is almost zero at this time. Please do what you can to push this project forward.

I can be reached at 604-618-2128 should you have any questions.

Best wishes,

Teresa Leung

This communication, including attachments, is confidential, may be subject to legal privileges, and is intended for the sole use of the addressee. Any use, duplication, disclosure or dissemination of this communication, other than by the addressee, is prohibited. If you have received this communication in error, please notify the sender immediately and delete or destroy this communication and all copies. Thank you.

From: [Farid Kazemzadeh](#)
To: [Athena von Hausen](#)
Cc: [LEED AP](#)
Subject: Rental Building Proposed
Date: Tuesday, December 17, 2019 4:04:12 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Athena,

I wanted to take this time to show my support for the rental building proposed at 1485 Fir Street. Firstly, the building proposed fits well within the neighbourhood given its design. But even more important, the City has very little rental opportunities which make it very hard to find a suitable place to live. We need newer rental buildings for both younger families and the baby boomer generation.

I hope the City makes the right decision to approve this proposed development and more rental buildings in the future.

Best regards,
Farid K

From: [Yolande Levasseur](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: Proposed building project at 1485 Fir street White Rock
Date: Thursday, December 19, 2019 5:42:02 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern,

I am writing to you to indicate my support of a rental building project awaiting city approval. The address of this project is 1485 Fir Street in White Rock.

I'm a 69 year old woman and, although I'm in excellent health right now, I can see the writing on the wall when I will not have the energy or the ability to trek up four flights of steps. The design of this proposed rental property has all the amenities I would want in the near future and, furthermore, has a lot of style without being ostentatious. I believe it would fit very well in a neighbourhood that is progressive, offering sound housing accommodations in a classy-looking building.

Respectfully,
Yolande Levasseur

Sent from my iPad

From: [Derek Townsend](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: 1485 Fir St white Rock Support
Date: Tuesday, December 17, 2019 11:35:53 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Athena,

I am email to express my support for the rental apartment development at 1485 Fir Street. I think new rental supply is key for our unaffordable market and any supply is great as we have had such a lack over the years.

The design is smart and well thought out and the only comment I would add is that it should be twice as big with twice as many units.

--

Derek Townsend
604.812.8312
dwtownsend@gmail.com

Public Feedback Summary Report



DEVELOPMENT APPLICATION FILE NO. 19-009
RE: 1485 FIR STREET



PREPARED BY BILLARD ARCHITECTURE INC.
JANUARY 8, 2020



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Overview

A Public Information Meeting was hosted by Billard Architecture at ThirdSpace Community Café, Unit #1 - 1381 George Street from 5:30 PM to 7:00 PM on Thursday, December 12, 2019 to discuss a development proposal application located at 1485 Fir Street, White Rock, BC. The purpose of this Public Information Meeting was to provide surrounding residents and business owners with an opportunity to provide their feedback on the proposal.

A Zoning Amendment and a Major Development Permit application have been submitted to allow for the construction of a six-storey multi-unit rental residential building over two levels of underground parking. The property is an existing rental building and the development would be subject to Council's Tenant Relocation Policy. The proposed use, height, and density is consistent with the Town Centre Transition Land Use Designation in the Official Community Plan.

Physical feedback forms and feedback letters sent by email were collected by the City of White Rock. Original feedback comments are presented as submitted, and have not been edited for spelling, grammar, or accuracy.

Total responses for 1485 Fir Street Feedback submitted:

Paper Feedback Form: **25** Feedback by Email: **11**

Responses:

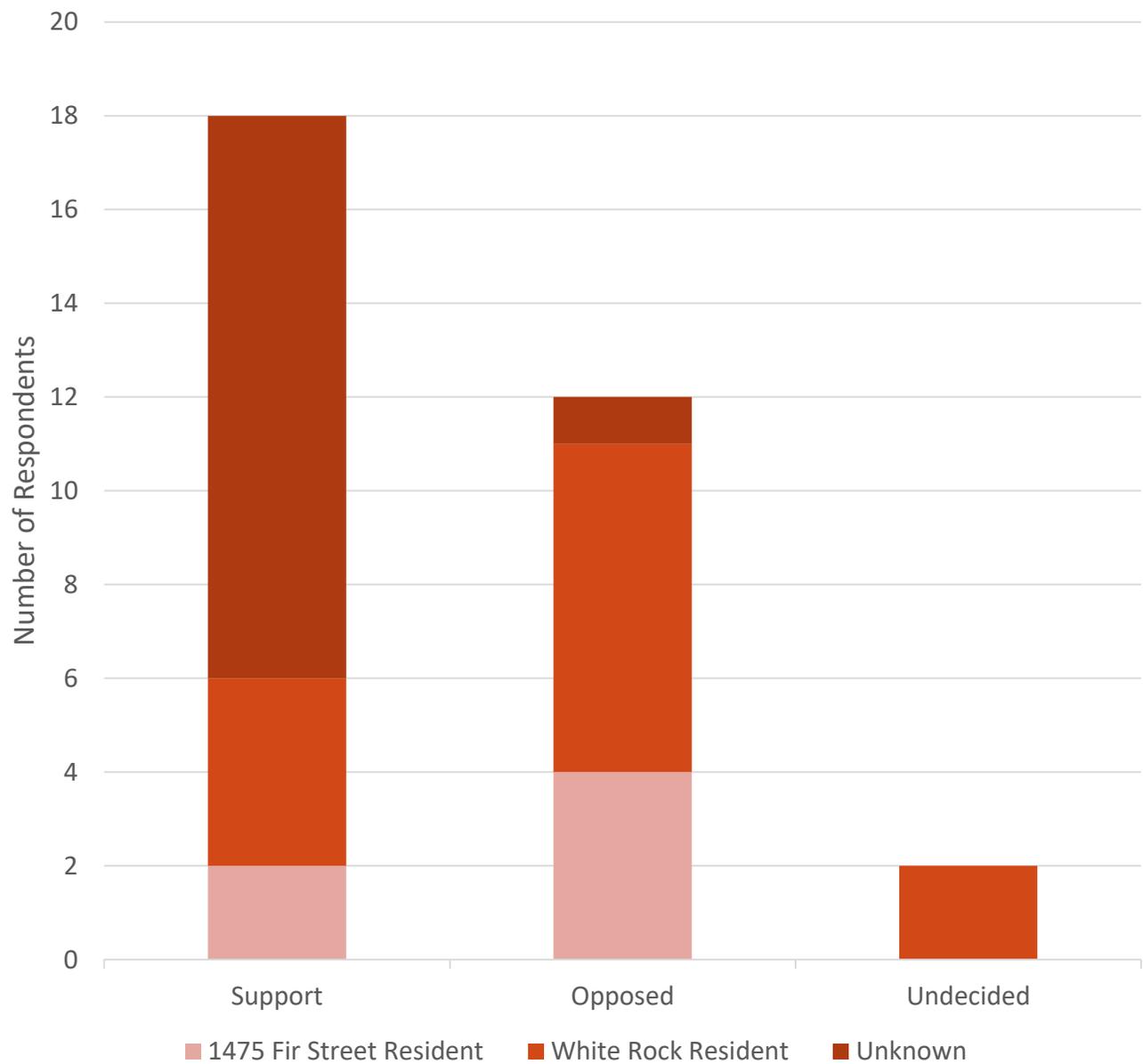
In favour of Proposal: **19**

Opposed to Proposal: **12** – multiple responses from two individuals counted as single response for each

Undecided of Proposal: **2**

Unrelated to Proposal: **2**

Feedback Data



Public Feedback Comments & Billard Architecture Inc. Responses

Support	Public Feedback Comments
1	The building/property owner has ambition to redevelop his property, it would be 'daffy' of me to oppose his wishes. He has assured me that all obligations placed on him by the province and the City of White Rock will be observed.
2	I highly recommend the building. In White Rock we have over 10% old age personnel who have difficulty climbing steps. This will be the first building in over 30 years to have elevators to help the elderly and help people have affordable housing finally.
3	This is exactly the kind of development this city needs. This is NOT a condo project - it is a RENTAL building. This is very much needed as all the current rental buildings are very old with no elevators, which is terrible for seniors as well as all others. I strongly support this project. It is very good for the future of White Rock.
4	I have lived at 1475 Fir Street for 9 years. I realize this building is aging and I am happy to move into a 500 sq ft, 1 bedroom. My current rent is \$1,029.00 Market value is my concern, \$1,200.00 is my max for rent as I am a senior on a budget. I am not proposed to a new building. East.
5	More rental housing is needed. Neighbourhood needs updating.
6	I support the project. I believe more rental housing is required in White Rock.
7	This project seems to be "right sized" with 80 suites, in a desirable location. The mix of suites offered will allow for a variety of family configurations.
8	I think higher density and corresponding more green spaces is a sound overall principle. I would like this project to be higher - for example an FAR of 4 to 5. If the lower mainland continues to have increased population (as anticipated) then housing towers are necessary to preserve parks and agricultural land.
9	We owned the White Birch - 1485 Fir Street and due to the high cost of running and maintaining the building had to sell. All tenants were told that it was as a development property and they all understood that. The costs - property taxes, insurance, heat, hot water, maintenance and repair require a higher density for it to be remotely viable. White Rock needs new rental buildings.

Support	Public Feedback Comments
10	<p>This community desperately needs new rental supply. The current supply is outdated and does not support the community. This proposal is modest in size and will help support the lack of supply. We need to remember this building will be here for 50+ years which will help support the population growth. Please approve! We need it!</p>
11	<p>Hello Athena (City of White Rock),</p> <p>I am in support of the new rental development, Whitebirch at 1485 Fir Street to address the current rental shortage in White Rock. There are many people who cannot purchase, who NEED to rent, therefore, this project will greatly help those individuals, since the current vacancy rate is almost zero at this time. Please do what you can to push this project forward.</p> <p>I can be reached at (redacted) should you have any questions.</p> <p>Best wishes, (redacted)</p>
12	<p>Dear Avon Hausen,</p> <p>Regrettably I was not able to attend the public information meeting for 1485 Fir St project in White Rock, yet I would like to express my support for the below reasons: Most rental buildings in White Rock are older developments. The current building is 60 years old, it is of great timing to have the old building replaced with a new rental building.</p> <p>White Rock would benefit from attracting younger population, to sustain and attract the younger population, newer rental buildings with such unique designs would offer attractive housing solutions for the younger population who are yet unable to afford to purchase properties.</p> <p>White Rock's beautiful demographics could be supplemented by par rental buildings attracting great dynamics to the community.</p> <p>Thanks</p>

Support	Public Feedback Comments
13	<p>Dear Ms. von Hausen,</p> <p>I am writing in support of the above-referenced Rental Development project that is being proposed by C2C Construction. I understand that you will accept email communications from those who were unable to attend the Public Meeting that was held on the project last Thursday.</p> <p>As someone who visits White Rock frequently, I understand that the City of White Rock has close to zero rental vacancy. Therefore, I am in support of any development which promotes rental accommodation for those who may wish to live in your beautiful municipality, but cannot afford to buy there. To that end, it seems very obvious that any developer that wishes to build rental accommodation in White Rock should be supported by the municipality.</p> <p>I understand that the proposed project at 1485 Fir Street will be replacing an almost 60 year-old building into a brand new 80-unit fully rental property. I also understand that most of the current rental buildings in White Rock are old and poorly maintained, with no elevator, ramp or other amenities which are needed by the community's senior citizens. Given the location of the site to White Rock's town centre, it escapes me as to what barriers the municipality sees in approving this project. In the circumstances, I respectfully ask that the city support this fully rental development to address the current rental shortage in White Rock.</p> <p>I'm copying the project architect, Mr. Robert Billard, so that he is aware of the support that this member of the public wishes to lend this worthy rental development project.</p> <p>Yours truly, (redacted)</p>
14	<p>Hello Athena,</p> <p>I am email to express my support for the rental apartment development at 1485 Fir Street. I think new rental supply is key for our unaffordable market and any supply is great as we have had such a lack over the years.</p> <p>The design is smart and well thought out and the only comment I would add is that it should be twice as big with twice as many units.</p>

Support	Public Feedback Comments
15	<p>Hi Athena,</p> <p>I wanted to take this time to show my support for the rental building proposed at 1485 Fir Street. Firstly, the building proposed fits well within the neighbourhood given its design. But even more important, the City has very little rental opportunities which make it very hard to find a suitable place to live. We need newer rental buildings for both younger families and the baby boomer generation.</p> <p>I hope the City makes the right decision to approve this proposed development and more rental buildings in the future.</p> <p>Best regards, (redacted)</p>
16	<p>To whom it may concern,</p> <p>I am writing to you to indicate my support of a rental building project awaiting city approval. The address of this project is 1485 Fir Street in White Rock.</p> <p>I'm a 69 year old woman and, although I'm in excellent health right now, I can see the writing on the wall when I will not have the energy or the ability to trek up four flights of steps. The design of this proposed rental property has all the amenities I would want in the near future and, furthermore, has a lot of style without being ostentatious. I believe it would fit very well in a neighbourhood that is progressive, offering sound housing accommodations in a classy-looking building.</p> <p>Respectfully, (redacted)</p>
17	<p>Athena,</p> <p>I was unable to attend the public information meeting held on December 12, 2019. This is to advise that I support the project planned for 1485 Fir Street, White Rock, B.C.</p>
18	<p>Dear City of White Rock,</p> <p>I write to express my support of this project. I was not able to attend the information meeting with council due to other commitments but thought I would send in my two cents, for what it is worth. White Rock is a beautiful area and my mother, retired, very much would like to live there. She has a decent pension but does not have the asset base that would allow her to buy. As a result she rents and likely always will. That does not limit her ability to contribute to the local economy of coffee shops and local artists. We have looked for a place for her and have only found either dated rental housing or basement suites. I was excited to see a proposal that might well meet her long term needs. I do hope that City Council will see the wisdom in encouraging modern new builds for middle income people who are not able or interested to buy homes but would still prove to be valuable and desirable members of your community.</p>

Support	Public Feedback Comments
19	<p>Athena,</p> <p>Thank you for listening at the information meeting December 12th. As I outlined to you White Rock will soon be facing significant problems due to the ageing infrastructure of virtually all the rental buildings that date primarily from the 60's.</p> <p>They are expensive to run and maintain - lacking modern energy efficient building envelopes, windows, pipes and wiring that are expensive to replace and also to maintain. The small number of apartments relative to the size of the lots they are built on make the property taxes and other fixed costs, heat, water, gas, recycling, garbage quite exorbitant even before the high cost of maintenance is added.</p> <p>Just maintaining heat in suites in winter with 60 year old equipment(despite new boilers etc)had become a major, very time consuming, challenge - the great majority of plumbing contractors are not even familiar with these issues - even if OEM parts are available - which frequently they are not meaning that it is necessary to substitute with after market parts. These areas of concern will grow exponentially with ageing.</p> <p>There are many significant advantages to dedicated rental buildings in comparison to condo's where tenants are at the mercy of individual owners and tend to be shorter term in most case.</p> <p>I was concerned about some of the misconceptions and misunderstandings that many of the tenants from the building had. From money laundering and shady accounts to a total lack of trust and understanding of the commitments required by the developer in order for him to attempt to redevelop the site was misinformed and rather scary. We explained to all tenants in the building that we could no longer manage to deal with the maintenance ourselves and it would have been too expensive to hire a management company with the already high overhead costs and this would have been reflected in much lower maintenance levels.</p> <p>I do not want to just ramble here so please contact me if you, Carl, or anyone else have any questions. My husband and I feel that a dedicated rental building on such a convenient location would be a tremendous asset to the community and a huge benefit to tenants who would have the convenience of a safer modern building with all that new technology has to offer.</p> <p>Kind Regards, (redacted)</p>

Opposed	Public Feedback Comments & Billard Architecture Inc Response
1	There is not enough water if there is a fire to go around as of now
	Response: Fire suppression systems, including sprinklers, will be in effect in all units. Water pressure should be addressed by the City of White Rock Engineering.
2	I oppose the proposal, as it is directly inline with my sunsets and I think it will invade my privacy. No thank you to this project, at the proposed height.
	Response: The designed height meets all zoning restrictions and bylaws set out by the City of White Rock.
3	I understand the zoning will be changed to allow this building to go ahead. Will that effect all older buildings in a close proximity? If so, I am opposed. I live on Fir Street across from proposed building. I understood this meeting would allow questions. A waste of time.
	Response: All new developments and redevelopments are subject to the current zoning and bylaws set out by the City of White Rock. The meeting provided opportunity for individuals to ask questions of the Architect, City Planner, and Developer as all three were present at the PIM.
4	I am worried about so much more traffic in our area with two stories of underground parking and 6 stories. Had the building been 3-4 stories I probably would have supported the proposal. Having more rental places is important but White Rock has been burdened with construction for several years now. Presently it's not that livable.
	Response: The amount of parking is mandated by the City of White Rock based on the number of units within the building. Underground parking reduces the number of vehicles parked on the street and enhances safety and security with well lit areas.
5	Not enough green space (no trees.) Too high blocks sky and sun. Too much more traffic congestion. Ugly design, aggressive front that doesn't blend in with the neighbourhood. Unevironmental to waste a substantial building and send all that quality material to the dump. Why do the community rules keep changing? My home will be devalued as it is submerged into darkness!
	Response: The proposed development provides more trees than are on the existing site and also has been revised in order to not impact the neighbouring trees. The proposed development will be substantially more energy efficient and uses materials with a higher level of recycled content than the existing building. The net result of this development will be significantly more sustainable than the existing building. The process of demolition is mandated to require as much of the existing building as possible to be sorted and recycled.

Opposed	Public Feedback Comments & Billard Architecture Inc Response
6	Concerns about more traffic congestion in an area originally zoned residential. Concerns about adequate to serve a growing population in White Rock in light of this proposed development.
	Response: The existing property's zoning does not change, it will still remain zoned for multifamily residential.
7a	Total farce. Ridiculous.
	Response:
7b	We understood this 'Public' meeting was for us to have our say about the project. We are loosing our homes! I am frankly disgusted.
	Response: The Notice of PIM was very clear that it would be an open house and not a public hearing. The Architect, City Planner, and Developer were present for questions and a feedback form was made available for comments and feedback, allowing for members of the public to voice their opinions.
8	Mahdi is representative for what company. Why all the secrets. We should protect low rental housing not knock them down so some unknown company can build apt to make money. I think this is looking in to find out who these people are.
	Response:
9	I understand why new rental units are necessary. The problem is that the rent will be too high. Being on a fixed income I cannot afford it unless some of the units are subsidized. Thank you.
	Response:
10	I'm very concerned. I feel the building is too high. The design doesn't contribute to our town's homeless! I also feel it is too high! I hope it isn't built. I wish you'd move your ideas to a different city.
	Response: The designed height meets all zoning restrictions and bylaws set out by the City of White Rock.

Opposed	Public Feedback Comments & Billard Architecture Inc Response
11a	Not allowed to speak. Complete farce. We are not allowed to speak.
	<p>Response: The Notice of PIM was very clear that it would be an open house and not a public hearing. The Architect, City Planner, and Developer were present for questions and a feedback form was available for comments and feedback, allowing for members of the public to voice their opinions.</p>
11b	<p>Dear Ms. Von Hausen: My name is (redacted) and my husband and I attended the above meeting last evening. We mistakenly thought it was a meeting that we could speak to. Many of the residents of 1475 Fir Street did not attend because they intended I speak for them. Therefore I am attaching the letters and petition that was signed by all the residents last February. Your department may already have a copy. The Mayor and Council recieved a copy of this petition at that time. We are very opposed to this development. My comments to the planning department on behalf of tenants of 1475 Fir Street are below.</p> <p>My name is (redacted) and I am representing the residents of 1475 Fir Street, who signed a petition in February of this year to protest the eviction of 30 people from this building. It was presented to the White Rock City Council, along with a letter and forwarded to the planning department. We live in sound affordable housing. This building is not derelict and we respectfully ask that you do allow this unknown developer to evict us and tear down a perfectly sound building. I have researched the rental market in the White Rock South Surrey area for a year now and the average rents are much higher than those we are paying now. In fact they have increased considerably in November. The average 1 bedroom is now \$1,500 and for a 2 bedroom the average is \$2,200. Burnaby has recently passed a revised residents assistance policy, which asks the developer to top up rents for tenants that have been evicted and allow them back to the new building at the same cost of the rents that they are currently paying. I would suggest that the City of White Rock make the amendment to their policy. We are a close knit community who look after each other. Many are elderly tenants who have lived there for 20 years. Some tenants are struggling young people on minimum wages. Some cannot afford the so called market rents. Some of us have been subject to harassment and intimidation by the representative for our building, which has been reported to the Residential Tenancy Branch. It has been very traumatic and upsetting for the tenants. 17 new highrises have been slated for construction in White Rock. Those that have already been completed are struggling to fill them. Everyone is stressed by the uncertainty of where they will go. As you are aware there is no affordable housing in White Rock and I urge you to consider this and do not have us evicted from our homes. Thank you.</p>
	<p>Response:</p>

Opposed	Public Feedback Comments & Billard Architecture Inc Response
<p>11c</p>	<p>Sent: Sunday, May 19, 2019 10:45 AM Subject: Re: 1075/1085 Fir Street, White Rock, BC To His Worship the Mayor and White Rock City Councillors: We, the tenants of the above property are aware that the owner of 1062822 BC Ltd. has submitted an OCP Amendment, a Zoning Bylaw Amendment and a Major Development Permit Application for the above property, which is a 25 unit rental property, not 24 as mentioned in the application. The mailing address is 1475, not 1485 as stated in the application. I understand this is an error on the part of City Hall. We sent you a letter and a signed petition by the residents on February 11th 2019 stating our concerns and dismay at being evicted from our homes. In the information given to us on May 14th 2019, by Mahdi Heidari on behalf of 1062822 BC Ltd., we would like to point out the following mis-information: The building has 25 suites not 24. It has a state of the art heating system. All windows were replaced with double-glazed high quality windows. Blinds have been replaced. New carpets have been installed in all suites Light fixtures and electrical outlets have been replaced in all suites. WiFi is installed in the building for tenants use. Telus installed optic fibre throughout the building last year. This building is not derelict and has been well maintained by the previous owners over the years. Many of the tenants have lived here for over 20 years and are in their seventies and eighties. No one is on welfare. We are a very quiet and respectable community. There are no drugs or smoking in the building. There are 4 suites on the 3rd floor and they are occupied by young working adults. Rents are between \$800 and \$1150 per month. Since 1062822 BC Ltd. took over the building in November 2018, 1 tenant has died and 2 have moved into care homes. These suites have been re-rented at \$1,100 and \$1,300 per month. The new owners appear to be letting the building slide into disrepair. We are determined not to let this happen, so now we, the tenants, are now maintaining the building, cleaning the hallways, laundry room and cutting the grass at no cost to the owners. How can these owners morally do this to us? We are happy community that look out for each other. We are all stressed to the max with this hanging over our heads. Where will we go? As you know, market rents are astronomical and not affordable by this community. Please do not let these greedy developers, who are not familiar with the area, throw us out of our homes. We do not know who they are. We do not know if the money is coming from off-shore and we do not know if the profits will be sent offshore!! They are hiding behind a numbered company. We hope this information will help you in determining your consideration at the Land Use and Planning Committee. We invite you all to come and visit the building to see for yourselves what a great community we have here. We will be happy to show you around. With much respect and best regards, (redacted) (on behalf of the tenants of 1475 Fir Street, White Rock, BC) Tel: (redacted)</p>
	<p>Response:</p>

Opposed	Public Feedback Comments & Billard Architecture Inc Response
<p>11d</p>	<p>April 3, 2019 City of White Rock 15322 Buena Vista Avenue White Rock, BC V4B 1Y6 Attn: Carl Johannsen, Director of Planning and Development Dear Sir: Re: 1475 Fir Street, White Rock, BC Our building was sold to a Vancouver developer last fall. It is our understanding that the developer is planning to tear down the building. My husband and I are the caretakers of this rental building and we, along with the rest of the tenants, are concerned for the welfare of the tenants. This building is solid and well maintained. It is not a "slum". Most of the tenants are elderly, with low incomes. We are a close community that takes care of each other. We are well aware of your Policy No. 514 (Tenant Relocation). Why tear down a perfectly good building, for some greedy Vancouver developer? Other properties that are being developed within the community are on land that was not occupied by residents of White Rock and no one lost their homes. I enclose a letter that I have written to the Mayor and Council, signed by all the residents. Two councillors have responded. We are prepared to do whatever it takes to keep our homes. Best Regards, (redacted)</p>
	<p>Response:</p>
<p>12</p>	<p>How will this "market" complex serve the needs of the caring community of diverse income levels and comfortable homes. Cubicles/urban micro squished spaces at inflated prices. The builder needs to work with Fed/CMHC and provincial non-profits to enable inclusive better choices. Sterile brutalistic design is financially advantageous for builders profits yet add zip to community feeling.</p>
	<p>Response: The homes designed within this project are larger than most market units being designed today. The initial design presented in February was larger and had more units. The revised design provided in July of 2019 is smaller, has fewer, yet larger, units. The design has also been dramatically revised to place the playground and courtyard facing Fir Street, significantly step back the fifth and sixth storeys and to introduce colour and West Coast elements such as wood. The design meets the design guidelines of the City of White Rock.</p>

Undecided	Public Feedback Comments & Billard Architecture Inc Response
1	<p>1.This development doesn't represent a gift of 55 apartments, but the loss of 25 affordable ones, and I have a hard time supporting that.</p> <p>2. I would really like council to consider the impact of construction on the immediate neighbourhood, not only in terms of parking, but also noise and emissions (ie heavy equipment idling.) We have already put up with a lot uptown White Rock on the last couple of years. Please consider existing residents while welcoming new ones.</p>
	Response:
2	<p>If more rentals needed, if this site may be controversial. Some would be less sites equal sites, like 1544 Fir would be more suitable. Maybe with 8 storey, in the middle of complexes and only 21 owners to deal with, who can easily relocate with the price paid per unit. No one would complain. Owners are ready for offers. If interested, or another investor, contact (redacted)</p>
	Response:

Other	General Questions & Comments from Public
1	<p>This is an open house - gallery. Not a public meeting for discussion and questions. Thank you.</p>
	<p>Response: The Notice of PIM was very clear that it would be an open house and not a public hearing. The Architect, City Planner, and Developer were present for questions and a feedback from was available for comments and feedback, allowing for members of the public to voice their opinions.</p>
2	<p>I am a tenant at 1485 Fir st. in White Rock which has been bought by developers. I have lived here over 11 years and am 87 yrs. old because an development permit application has been made I have put my name in a senior residence with a 6-12 month waiting list. My question is if a space comes available am I still eligible for the Tenant Relocation package or is it only after the developers have City approval and permits are approved. Thanks (redacted)</p>
	Response:

Appendices

	Page
Appendices	
• Notice of PIM Direct Mail Out	17
• PIM Display Boards	18 – 32
• PIM Sign In Sheets	33 - 35
• PIM Raw Feedback	36 - 77

NOTICE OF PUBLIC INFORMATION MEETING

Development Application File No. 19-009
RE: 1485 Fir Street

PLEASE TAKE NOTICE THAT a Public Information Meeting will be hosted by **Billard Architecture** at ThirdSpace Community Café, Unit #1 - 1381 George Street from **5:30 PM to 7:00 PM on Thursday, December 12, 2019** to discuss a development proposal application located at 1485 Fir Street (please see Location Map on the other side of this page).

A Zoning Amendment and a Major Development Permit application have been submitted to allow for the construction of a six-storey multi-unit rental residential building over two levels of underground parking. The property is an existing rental building and the development would be subject to Council's Tenant Relocation Policy. The proposed use, height, and density is consistent with the Town Centre Transition Land Use Designation in the Official Community Plan.



Proposal Statistics (approximate)	
Dwelling Units	80
Parking Spaces	112 spaces
Height	18.9 metres (6 storeys)
Density (Gross Floor Area)	2.8 FAR (5707 m ²)

Rendering provided by applicant looking southwest at the corner of Fir Street and Russell Avenue

The purpose of this Public Information Meeting is to provide surrounding residents and business owners with an opportunity to provide their feedback on the proposal. This feedback will be used to identify concerns, address issues, and make improvements to the proposal early on in the application process.

The meeting is an open house format where City staff will be in attendance to introduce and monitor the meeting and to report back to Council.

For more information, please contact the City of White Rock at 604-541-2159 or avonhausen@whiterockcity.ca.

Planning and Development Services
P: 604.541.2136 | F: 604.541.2153
City of White Rock
15322 Buena Vista Avenue, White Rock BC, Canada V4B 1Y6

WHITE ROCK
My City by the Sea!
www.whiterockcity.ca

Public Information Meeting – Direct Mail Out

Location Map of Proposal



HEIGHT TRANSITION



Figure 10 Conceptual Height Transitions in the Town Centre, Town Centre Transition, and Lower Town Centre Areas

7



MASSING ANALYSIS

Policy 8.1.2

Density and Height – Concentrate the highest heights and densities adjacent to the Town Centre along the North Bluff Road.

Maximum allowable densities (FAR) are outlined in Figure 9 and policy 8.1.3 and guidelines for height conditions are illustrated in Figure 10.

Policy 8.1.3

Rental Housing – Allow a 40% increase to maximum FARs where at least half of this additional floor area is dedicated to and secured as residential rental units.

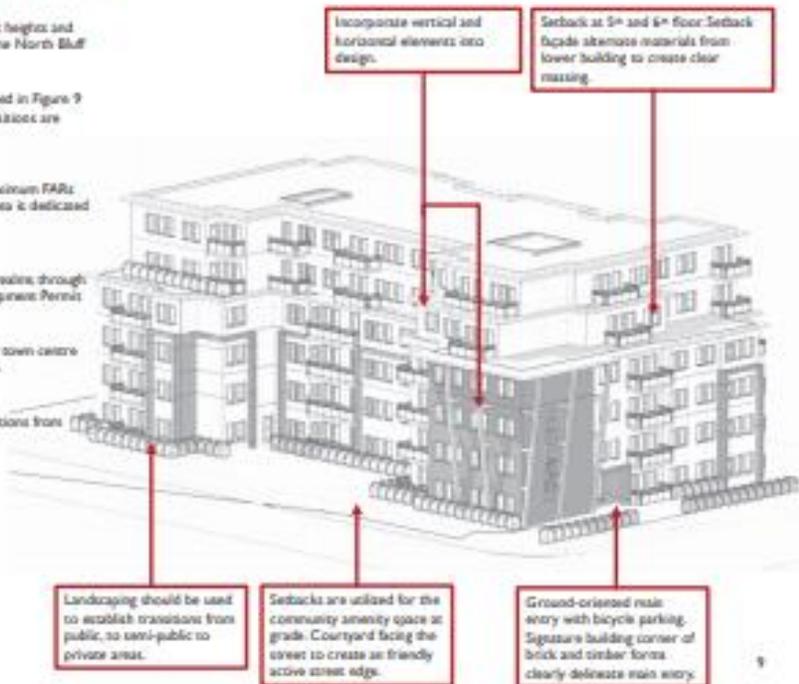
Policy 8.2.4

Urban Design – Enhance the built and public realm through guidelines included in the Multi-Family Development Permit Area in Part D.

Focus on the establishment of a greenway the town centre and ceremonial Park as per Sections 1.3 and 1.5.

DPA Guideline 11.6.2 (d)

Landscaping should be used to establish transitions from public, to semi-public to private areas.



Adjacent to Urban Neighbourhood areas at Thrift Avenue

NORTH ELEVATION

LEVEL	HEIGHT
1	0.00
2	3.00
3	6.00
4	9.00
5	12.00
6	15.00
7	18.00
8	21.00
9	24.00
10	27.00
11	30.00
12	33.00
13	36.00
14	39.00
15	42.00
16	45.00
17	48.00
18	51.00
19	54.00
20	57.00
21	60.00
22	63.00
23	66.00
24	69.00
25	72.00
26	75.00
27	78.00
28	81.00
29	84.00
30	87.00
31	90.00
32	93.00
33	96.00
34	99.00
35	102.00
36	105.00
37	108.00
38	111.00
39	114.00
40	117.00
41	120.00
42	123.00
43	126.00
44	129.00
45	132.00
46	135.00
47	138.00
48	141.00
49	144.00
50	147.00
51	150.00
52	153.00
53	156.00
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69	204.00
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84	249.00
85	252.00
86	255.00
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235	702.00
236	705.00
237	708.00
238	711.00
239	714.00
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241	720.00
242	723.00
243	726.00
244	729.00
245	732.00
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248	741.00
249	744.00
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262	783.00
263	786.00
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266	795.00
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269	804.00
270	807.00
271	810.00
272	813.00
273	816.00
274	819.00
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276	825.00
277	828.00
278	831.00
279	834.00
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282	843.00
283	846.00
284	849.00
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392	1173.00
393	1176.00
394	1179.00
395	1182.00
396	1185.00
397	1188.00
398	1191.00
399	1194.00
400	1197.00
401	1200.00
402	1203.00
403	1206.00
404	1209.00
405	1212.00
406	1215.00
407	1218.00
408	

EAST ELEVATION

- 1. Concrete
- 2. Brick
- 3. Glass
- 4. Metal
- 5. Wood
- 6. Stone
- 7. Paint



11

SOUTH ELEVATION

- 1. Concrete
- 2. Brick
- 3. Glass
- 4. Metal
- 5. Wood
- 6. Stone
- 7. Paint



12

WEST ELEVATION



13

CONTEXT ELEVATION – FIR STREET



14

COLOUR ELEVATION & MATERIAL LEGEND



DESIGN RATIONALE

Zoning + Density

Existing Zoning: RM-2
Existing Buildings: Multi-Unit Residential
Existing Height: 3 Storey

Proposed Zoning: CD, BASED ON RM-4
Proposed Building: 80 Rental Apartments
Proposed Height: 6 Storeys

Location

80 modern rental homes near White Rock Town Centre with walkable access to retail and restaurants.

Within 800 m (10 minutes walking)

Community Services:

- White Rock Elementary School
- White Rock Community Centre
- Bryant Park
- White Rock Child Care Centre
- White Rock Farmers Market

Health Care:

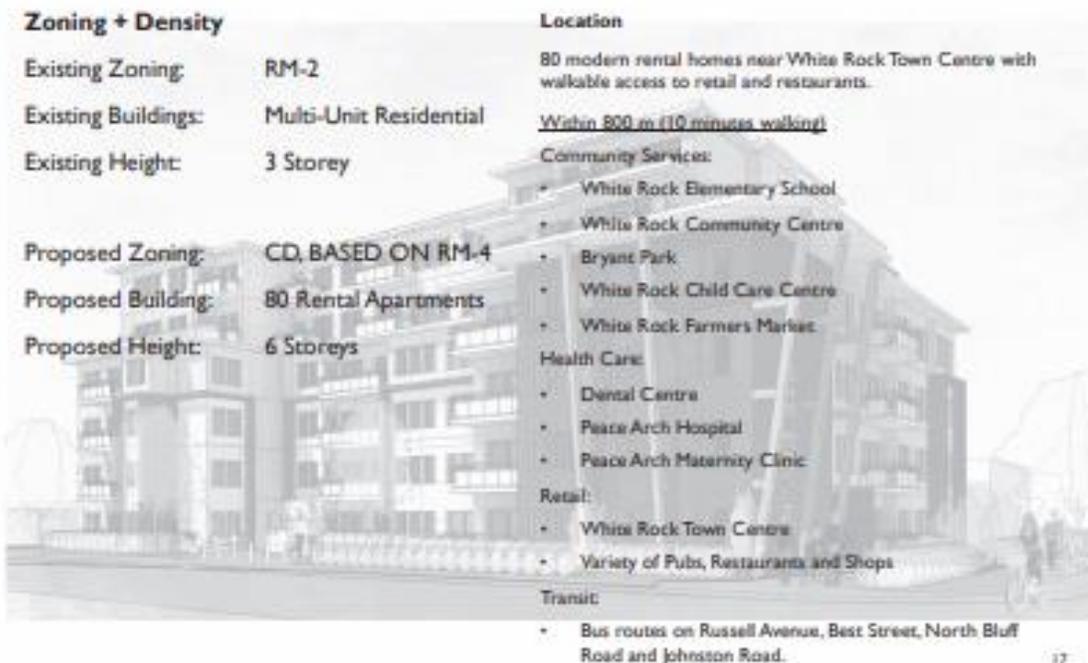
- Dental Centre
- Peace Arch Hospital
- Peace Arch Maternity Clinic

Retail:

- White Rock Town Centre
- Variety of Pubs, Restaurants and Shops

Transit:

- Bus routes on Russell Avenue, Best Street, North Bluff Road and Johnson Road.



DESIGN RATIONALE

Project Brief

80 modern rental apartments to replace 25 aging, non-accessible apartments.

Increase number of rental homes with long term livability and community feel provided by age-friendly amenity spaces.

6-storey wood construction.

Unit mix includes:

5 Studio	(6.25%)
42 Rental 1 Bed	(52.50%)
19 Rental 2 Bed	(23.75%)
4 Rental 2 Bed + Den	(5.00%)
10 Rental 3 Bed	(12.50%)

19 Adaptable Homes (23.75%) –

- Larger bathrooms
- Wider doorways
- Provision for grab-bars
- Mix of 1, 2 and 3-bedroom units

Landscape + Public Realm

Outdoor amenities will include tenant gardens and a children's play area in the courtyard.

Low-maintenance, hardy, local planting will create green space along pathways and existing sidewalks. Existing trees will be protected along the property line where possible to help create a park-like transition from public to residential realm.

Strategic lighting will enhance the development and create safe and welcoming spaces.

DESIGN RATIONALE

Traffic + Parking

Access to the underground parking is provided by the lane on the west side of the building. Access to the lane is available from Russell Avenue and Thrift Avenue.

Residential, visitor and accessible parking spaces are provided as well as a loading zone which can be accessed from the lane. In addition to the minimum parking requirements, this development includes ample bicycle storage and electric car charging stations.

Access to tenant garbage and recycling is located on-site in an enclosed area on the first floor of the underground parking.

Parking Breakdown:

- 112 Total Parking Spaces
 - 87 Residential
 - 24 Vehicle Charging
 - 2 Accessible
 - 1 Loading
 - 25 Visitor
 - 1 Accessible
 - 84 Long Term Bicycle Parking
 - 16 Short Term Bicycle Parking

Pedestrian / Bicycle Focus

Leave the Car Behind initiatives:

- Live updates on transit schedules at lobby
- Directional signage to nearest transit routes and local destinations at Lobby
- Secured bicycle storage with direct access to elevators and Lobby
- New tenant package to include:
 - Compass Pass
 - Transit info
 - Cycling info
 - Estimated walking times and distances
 - Car share info
 - Etc.

Community Development

The project intends to create a dynamic residential setting and easy access to community amenities. Providing contemporary design and thoughtful landscaping creates homes that residents can be proud to be part of.

The courtyard amenities are designed to bring residents together to connect and form a lasting community.

VIEW ANALYSIS

- 1) FIR STREET SOUTH
- 2) GEORGE STREET/
RUSSELL AVENUE
- 3) FIR STREET NORTH



- 4) RUSSELL AVENUE
(WEST)
- 5) FIR STREET/
RUSSELL AVENUE
- 6) RUSSELL AVENUE
(EAST)



- 7) AERIAL LOOKING EAST
(15152 RUSSELL AVENUE)
- 8) AERIAL LOOKING
NORTHWEST (1455 GEORGE
STREET)
- 9) AERIAL LOOKING SOUTH
(15280 NORTH BLUFF ROAD)



STATISTICS SUMMARY

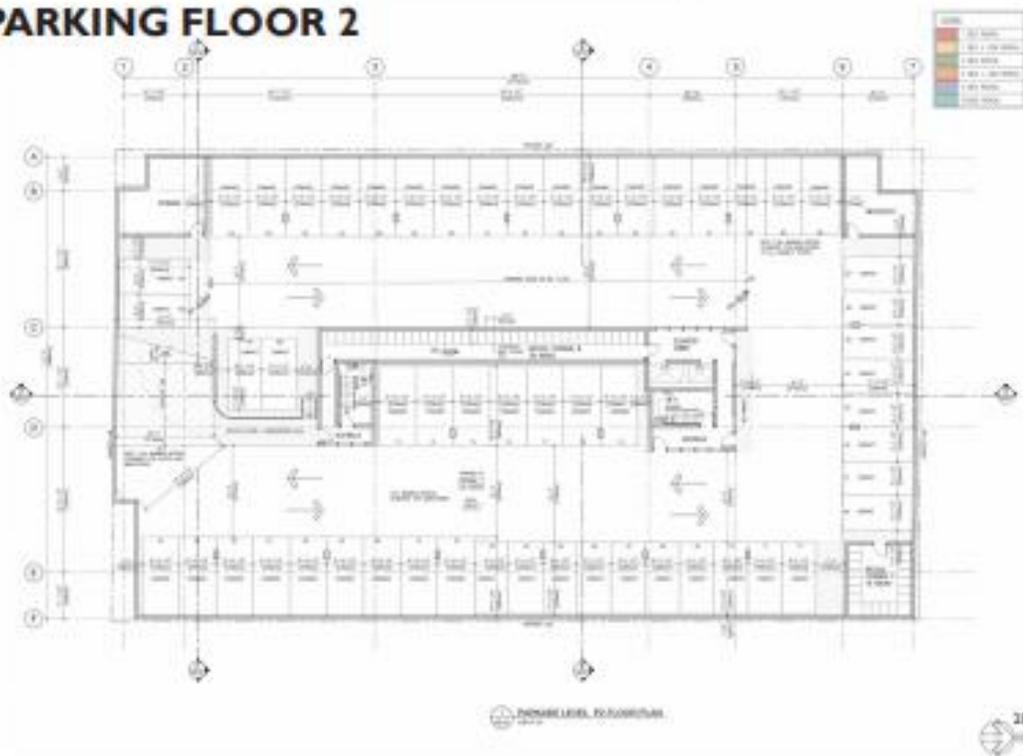
	Required / Allowed	Proposed
Lot Area		2036.15 SM
Lot Coverage	60%	49.98% (1017.69 SM)
FSR		2.80 (5706.73 SM)
Storeys		6
Setbacks	Front 9'-10" Rear 5'-11" Side (North) 9'-10" Side (South) 3'-11"	Front 11' - 4 ½" Rear 10' - 1 ½" Side (North) 16' - 6 ¾" Side (South) 17' - 2 ¾"
Building Height	N/A	62.0 FT
Number of Units		80
Parking	108	108

24

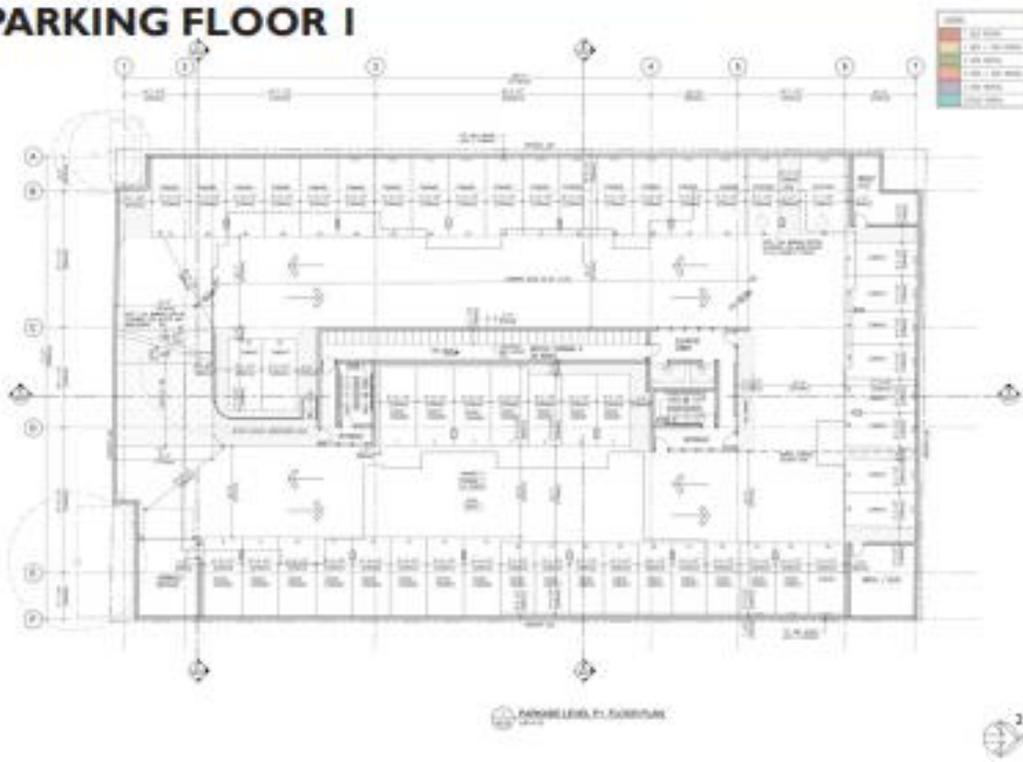
SITE



PARKING FLOOR 2



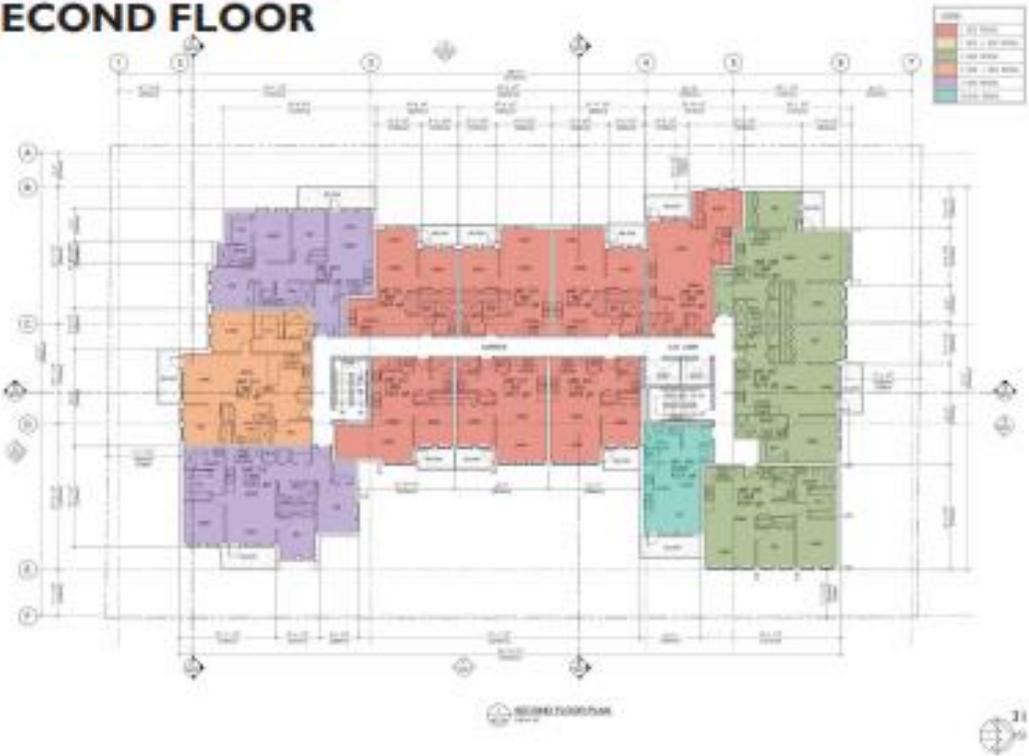
PARKING FLOOR I



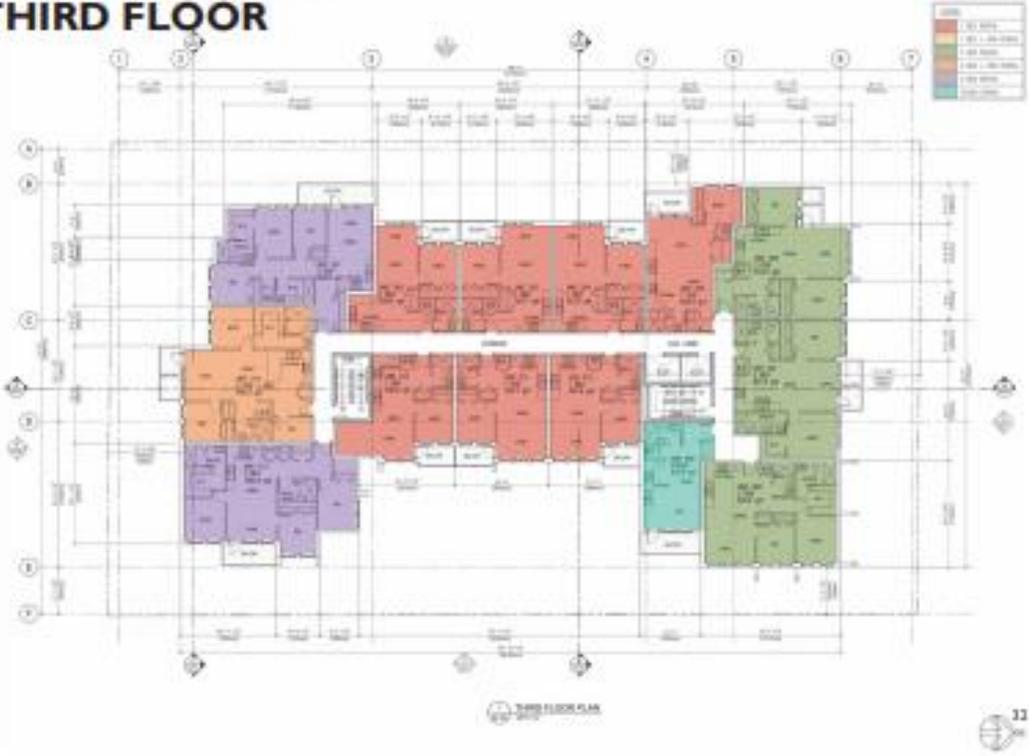
MAIN FLOOR



SECOND FLOOR



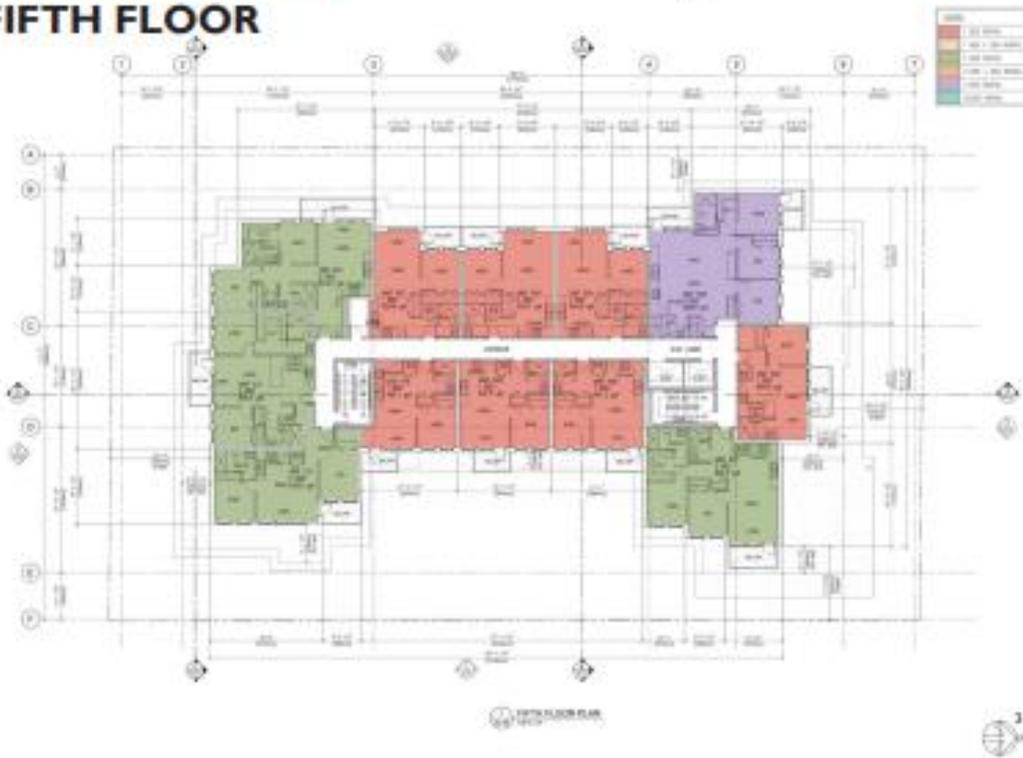
THIRD FLOOR



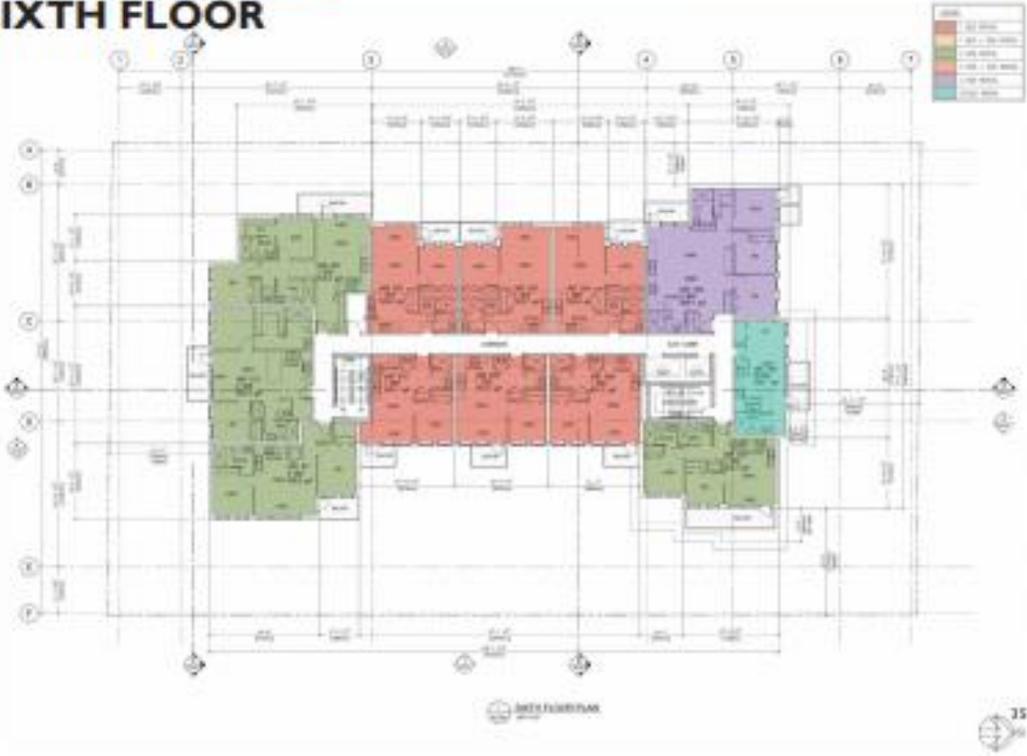
FOURTH FLOOR



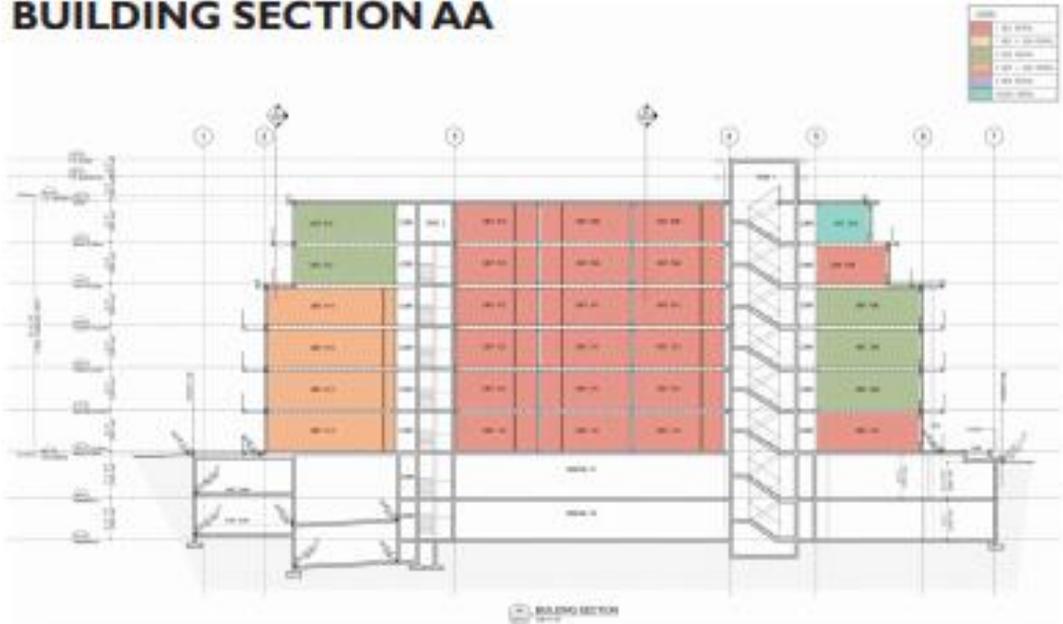
FIFTH FLOOR



SIXTH FLOOR



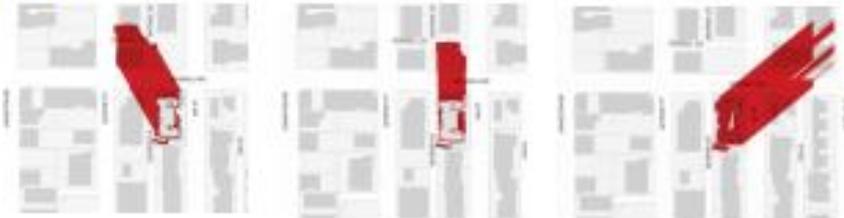
BUILDING SECTION AA



SHADOW STUDY

DECEMBER 21

10:00 AM
12:00 PM
4:00 PM



JUNE 21

10:00 AM
12:00 PM
4:00 PM



MARCH 21

10:00 AM
12:00 PM
4:00 PM



Public
Information
Meeting –
Display Boards

1485 Fir Street White Rock Apartment

Issue for Development Permit



Sheet Number	Sheet Title
L-01	COVER SHEET
L-02	SITE PLAN
L-03	DETAILS
L-04	DETAILS

Contact Information

VDZ+A
 Project Landscape Architect
 2nd Langley Studio
 102-9181 Church Street
 Fort Langley, British Columbia, V1M 2R8
 Mount Pleasant Studio
 100-305 Kingsway
 Vancouver, British Columbia, V5T 3J7

Contact Information

Blair Architecture
 Project Building, Arch Building
 4751-425 5th Avenue
 New Westchase, B.C. Canada,
 V3M 1A1
 604-271-0229
 info@blairarchitecture.ca
 www.blairarchitect.com

Project	1485 Fir Street
Location	1485 Fir Street (Southwest), White Rock, BC
Client	VDZ+A
Scale	1:100
Date	2019-05-17
Author	VDZ+A
Check	VDZ+A
Approved	VDZ+A

PROJECT NO: DP2019-57
 SHEET NO: L-01
 COVER SHEET



HARDSCAPE MATERIALS

KEY	REF	DESCRIPTION
(Symbol)	1	Coloured concrete
(Symbol)	2	Hydroseeded area
(Symbol)	3	Blue rock
(Symbol)	4	2.0m Sidewalk

SOFTSCAPE MATERIALS

KEY	REF	DESCRIPTION
(Symbol)	1	Existing trees to retain
(Symbol)	2	Planting trees
(Symbol)	3	Planting shrubs
(Symbol)	4	Planting perennials
(Symbol)	5	Planting groundcover
(Symbol)	6	Planting lawn



Note:
 1. Materials are to be removed from each lot property line fully at the applicant's expense.

TREE SCHEDULE

SYMBOL	COMMON / COMMON NAME	HT (m)	DBH (cm)	AGE	REMARKS
(Symbol)	Iron palm tree / Chamaedorea Sealei	300	2.0	10	Existing tree, remove prior to construction
(Symbol)	Amelanchier / Eastern Flowering Dogwood	300	3.0	10	Existing tree, remove prior to construction (1.0m x 2.0m)
(Symbol)	Common Hawthorn / Hawthorn	300	3.0	10	Existing tree, remove prior to construction (1.0m x 2.0m)
(Symbol)	Shagbark Hickory / Tree	300	3.0	10	Existing tree, remove prior to construction (1.0m x 2.0m)
(Symbol)	Red maple / Red Maple	300	3.0	10	Existing tree, remove prior to construction (1.0m x 2.0m)
(Symbol)	Red maple / Red Maple	300	3.0	10	Existing tree, remove prior to construction (1.0m x 2.0m)



Project	1485 Fir Street
Location	1485 Fir Street (Southwest), White Rock, BC
Client	VDZ+A
Scale	1:100
Date	2019-05-17
Author	VDZ+A
Check	VDZ+A
Approved	VDZ+A

PROJECT NO: DP2019-57
 SHEET NO: L-02
 SITE PLAN

PUBLIC INFORMATION MEETING

1485 FIR STREET

REZONING, MAJOR DEVELOPMENT PERMIT, FILE NO. 19-009

DECEMBER 12, 2019

THIRDSPACE COMMUNITY CAFÉ 1381 GEORGE ST, UNIT #1 WHITE ROCK, BC V4B 2L1

	NAME (PLEASE PRINT)	ADDRESS	POSTAL CODE
1.	Shena	1475 - 204	
2.	Stephanie Kator	14728 Upper Roper Ave 101 - 1475 FIR ST.	V4B2C9
3.			
4.	Michelle McCallum	1544 FIR -	
5.	FAT PERARA	5020N. BUFFRD	V4B5A4
6.	Ron Reid	1467 Merchiz	V4B4C9
7.	GEORGE WARTTIG	1475 FIR ST	V4B4B2
8.	ALLIANTIA	1475 FIR ST.	✓
9.	HELENE WARTTIG	147 FIR ST	✓
10.	Celine C hudson	1475 FIR ST	✓
11.	CHUCK BRYANT	1475 FIR ST	V4B4D5
12.	Edgar Davics	1475 FIA ST	V4B4B5
13.	Doreen Porowski	1448 FIR ST	V4B4B4
14.	Reg Nash	1481 Market St	V4B4C4
15.	Tim Quivon M.R. Becker	1475 Fir St. 1475 Fir. #105	V4B4B5 "
16.			

PUBLIC INFORMATION MEETING

1485 FIR STREET

REZONING, MAJOR DEVELOPMENT PERMIT, FILE NO. 19-009

DECEMBER 12, 2019

THIRDSPACE COMMUNITY CAFÉ 1381 GEORGE ST, UNIT #1 WHITE ROCK, BC V4B 2L1

	NAME (PLEASE PRINT)	ADDRESS	POSTAL CODE
17.	ISABEL STEWARD	1448 FIR ST	V4B 4B4
18.	EMILIE BELL	1497 MERKLIN ST	V4B 4C4
19.	EMILIE BELL	1493 Myrtle St	
20.	Bill Brennan	157 Scott	
21.	Liz Doucette	#1544 Fir Street	V4B 4B7
22.	Ray Doucette	1544 Fir Street	V4B 4B7
23.	Anthony Manning	WR City Hall	
24.	ANDREW ROSE		
25.	And Chelida	Delta	V4M 2K7
26.	FAN MACHOYAN	White Rock	V4B 4B4
27.	Bob Dandron	Vancouver	V6J 2A6
28.	NELSON de AMANAL	Richmond	V7A 1G7
29.	KEVIN GAUTHAIE	1571 GERRARD	V4B 4A4
30.			
31.			
32.			

PUBLIC INFORMATION MEETING

1485 FIR STREET

REZONING, MAJOR DEVELOPMENT PERMIT, FILE NO. 19-009

DECEMBER 12, 2019

THIRDSPACE COMMUNITY CAFÉ 1381 GEORGE ST, UNIT #1 WHITE ROCK, BC V4B 2L1

	NAME (PLEASE PRINT)	ADDRESS	POSTAL CODE
33.	Barton Jessup	302-1544 Fir St.	V4B 4B7
34.	SAM IRAND	14835 MARINE DR.	V4B 1C1
35.	MATI BALI	14933 Beachview Ave	V4B 1P2
36.	SHERRY SOOLE	1491 MERKIN ST.	V4B 9C4
37.			
38.			
39.			
40.			
41.			
42.			
43.			
44.			
45.			
46.			
47.			
48.			

From: [Elizabeth Brearley](#)
To: [Athena von Hausen](#)
Subject: Public Information Meeting December 12, 2019
Date: Friday, December 13, 2019 11:12:34 AM
Attachments: [Public Meeting Dec-12-2019.odt](#)
[IMG_20191213_0001.pdf](#)
[Letter to Johanssen Apr-3-2019.odt](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Von Hausen:

My name is Elizabeth Warttig and my husband and I attended the above meeting last evening. We mistakenly thought that it was a meeting that we could speak to. Many of the residents of 1475 Fir Street did not attend because they intended that I speak for them. Therefore I am attaching the letters and petition that was signed by all the residents last February. Your department may already have a copy. The Mayor and Council received a copy of this petition and letter also in February.

I did not see you at the meeting, or I would have given you the letters and the petition at that time. We are very opposed to this development. My comments to the planning department on behalf of the tenants of 1475 Fir Street, are below.

Regards, Elizabeth

My name is Elizabeth Warttig and I am representing the residents of 1475 Fir Street, who signed a petition in February of this year to protest the eviction of 30 people from this building. It was presented to the White Rock City council, along with a letter and forwarded to the planning department.

We live in sound affordable housing. This building is not derelict and we respectfully ask that you do allow this unknown developer to evict us and tear down a perfectly sound building. I have researched the rental market in the White Rock South Surrey area for a year now and the average rents are much higher than those we are paying now. In fact they have increased considerably in November. The average for 1 bedroom is now \$1,500 and for a 2 bedroom the average is \$2,200. Burnaby has recently passed a revised residents assistance policy, which asks the developer to top up rents for tenants that

have been evicted and allow them back to the new building at the same cost of the rents that they are currently paying. I would suggest that the City of White Rock make that amendment to their policy.

We are a close knit community who look after each other. Many are elderly tenants who have lived there for 20 years. Some tenants are struggling young people on minimum wages. We cannot afford the so called market rents. Some of us have been subject to harassment and intimidation by the representative for our building, which has been reported to the Residential Tenancy Branch. It has been very traumatic and upsetting for the tenants. 17 new highrises have been slated for construction in White Rock. Those that have already been completed are struggling to fill them.

Everyone is stressed by the uncertainty of where they will go. As you are aware there is no affordable housing in White Rock and I urge you to consider this and do not have us evicted from our homes.

Thank you.

From: [Carl Isaak](#)
To: [Athena von Hausen](#)
Subject: FW: 1075/1085 Fir Street, White Rock, BC
Date: Wednesday, May 22, 2019 2:24:00 PM

Ms. Brearley has emailed Carl J on several occasions and this email is the most recent and detailed correspondence from her regarding her concerns with redevelopment of the 1485 Fir Street (building addressed as 1475 Fir Street) property where she lives.

From: Elizabeth Brearley <elizabethbrearley@hotmail.com>
Sent: Sunday, May 19, 2019 10:45 AM
To: Darryl Walker <DWalker@whiterockcity.ca>; David Chesney <DChesney@whiterockcity.ca>; Helen Fathers <HFathers@whiterockcity.ca>; Erika Johanson <EJohanson@whiterockcity.ca>; Scott Kristjanson <SKristjanson@whiterockcity.ca>; Anthony Manning <AManning@whiterockcity.ca>; Christopher Trevelyan <CTrevelyan@whiterockcity.ca>; Carl Johannsen <CJohannsen@whiterockcity.ca>; Carl Isaak <CIsaak@whiterockcity.ca>
Subject: Re: 1075/1085 Fir Street, White Rock, BC

To His Worship the Mayor and White Rock City Councillors:

We, the tenants of the above property are aware that the owner of 1062822 BC Ltd. has submitted an OCP Amendment, a Zoning Bylaw Amendment and a Major Development Permit Application for the above property, which is a 25 unit rental property, not 24 as mentioned in the application. The mailing address is 1475, not 1485 as stated in the application. I understand this is an error on the part of City Hall.

We sent you a letter and a signed petition by the residents on February 11th 2019 stating our concerns and dismay at being evicted from our homes.

In the information given to us on May 14th 2019, by Mahdi Heidari on behalf of 1062822 BC Ltd., we would like to point out the following mis-information:

- The building has 25 suites not 24
- It has a state of the art heating system
- All windows were replaced with double-glazed high quality windows
- Blinds have been replaced
- New carpets have been installed in all suites
- Light fixtures and electrical outlets have been replaced in all suites

- WiFi is installed in the building for tenants use
- Telus installed optic fibre throughout the building last year

This building is not derelict and has been well maintained by the previous owners over the years.

Many of the tenants have lived here for over 20 years and are in their seventies and eighties. No one is on welfare. We are a very quiet and respectable community. There are no drugs or smoking in the building. There are 4 suites on the 3rd floor and they are occupied by young working adults. Rents are between \$800 and \$1150 per month. Since 1062822 BC Ltd. took over the building in November 2018, 1 tenant has died and 2 have moved into care homes. These suites have been re-rented at \$1,100 and \$1,300 per month. The new owners appear to be letting the building slide into disrepair. We are determined not to let this happen, so now we, the tenants, are now maintaining the building, cleaning the hallways, laundry room and cutting the grass at no cost to the owners. How can these owners morally do this to us? We are happy community that look out for each other. We are all stressed to the max with this hanging over our heads. Where will we go? As you know, market rents are astronomical and not affordable by this community.

Please do not let these greedy developers, who are not familiar with the area, throw us out of our homes. We do not know who they are. We do not know if the money is coming from off-shore and we do not know if the profits will be sent offshore!! They are hiding behind a numbered company.

We hope this information will help you in determining your consideration at the Land Use and Planning Committee.

We invite you all to come and visit the building to see for yourselves what a great community we have here. We will be happy to show you around.

With much respect and best regards,

Elizabeth Brearley-Warttig (on behalf of the tenants of 1475 Fir Street, White Rock, BC)

Tel: 778-294-0647

April 3, 2019

City of White Rock
15322 Buena Vista Avenue
White Rock, BC
V4B 1Y6

Attn: Carl Johannsen,
Director of Planning and Development

Dear Sir:

Re: 1475 Fir Street, White Rock, BC

Our building was sold to a Vancouver developer last fall. It is our understanding that the developer is planning to tear down the building. My husband and I are the caretakers of this rental building and we, along with the rest of the tenants, are concerned for the welfare of the tenants. This building is solid and well maintained. It is not a "slum". Most of the tenants are elderly, with low incomes. We are a close community that takes care of each other.

We are well aware of your Policy No. 514 (Tenant Relocation).

Why tear down a perfectly good building, for some greedy Vancouver developer?

Other properties that are being developed within the community are on land that was not occupied by residents of White Rock and no one lost their homes.

I enclose a letter that I have written to the Mayor and Council, signed by all the residents. Two councillors have responded.

We are prepared to do whatever it takes to keep our homes.

Best Regards,

Elizabeth Warttig - Suite 104 Tel: 778-294-0647 elizabethbrearley@hotmail.com

Residents of 1475 Fir Street, White Rock, BC V4B 4B5			
Suite No.	Name	Signature	Telephone
101	Pauline Paton	<i>Pauline Paton (70)</i>	604-990-0320
102	Lillian King (88)	<i>Lillian King</i>	
103	Peggy Best	<i>Peggy Best</i>	604-379-7997
104	George Warttig (68)	<i>George Warttig</i>	778 968 1947
104	Elizabeth Warttig	<i>E. Warttig (72)</i>	778-294-0647
105	Maria Tajaro (71)	<i>Mariano Tajaro</i>	
106	Mike Becker	<i>M. Becker</i>	604.791.2537
107	Sadie Hadley	<i>Sadie Hadley (87)</i>	604-536-8559
108	Judy Belanger	<i>J. Belanger</i>	604-536-3342
109	Dan Jarvis	<i>Dan Jarvis</i>	
109	Sharon Jones	<i>S. Jones</i>	
201	Tony Brugger	<i>T. Brugger</i>	604-531-8490
201	Mrs. Brugger	<i>M. Brugger</i>	"
202	Charles Bryant	<i>C. Bryant</i>	604-535-4634
203	Julia Racher	<i>J. Racher</i>	604-733-3349
204	Elena Udot (65)	<i>E. Udot</i>	604 778-5458024
205	Chris McRae	<i>C. McRae</i>	778-835-9699
206	Cindy Olynyk	<i>Cindy Olynyk</i>	604-536-9880
207	Leona Burnell	ALZHEIMER	
208	Sharon Wallace		
209	Jordon Hart Cameron	<i>J. Cameron</i>	604-836-7332
210	B. Intile		
211	Celine Chidlow	<i>C. Chidlow (85)</i>	604-536-4749
212	Jillian Andrews	<i>Jillian Andrews</i>	604-536-0880
301	Maria Simpson	<i>Maria Simpson</i>	778-552-3926
302	Ken Romaniuk	<i>K. Romaniuk</i>	604-626-7976
303	Neil McEathron (86)	<i>N.E. McEathron</i>	778 232 5976
304	Don Mooney	<i>Don Mooney</i>	604 771-1796

From: [Sadie Hadley](#)
To: [Planning](#)
Subject: tenant
Date: Tuesday, May 21, 2019 3:31:59 PM

I am a tenant at 1485 Fir st. in White Rock which has been bought by developers. I have lived here over 11 years and am 87 yrs. old because an development permit application has been made I have put my name in a senior residence with a 6-12 month waiting list. My question is if a space comes available am I still eligible for the Tenant Relocation package or is it only after the developers have City approval and permits are approved. Thanks Sadie

From: [Maret Erickson](#)
To: [Athena von Hausen](#)
Subject: 1485 Fir Street, White Rock, B.C.
Date: Friday, December 13, 2019 1:46:43 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Athena

I was unable to attend the public information meeting held on December 12, 2019. This is to advise that I support the project planned for 1485 Fir Street, White Rock, B.C.

Maret Erickson

From: [Barbara Holm](#)
To: [Athena von Hausen](#)
Subject: Development Project 1485 Fir Street
Date: Sunday, December 15, 2019 3:14:09 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Athena,

Thank you for listening at the information meeting December 12th.

As I outlined to you White Rock will soon be facing significant problems due to the ageing infrastructure of virtually all the rental buildings that date primarily from the 60's. They are expensive to run and maintain - lacking modern energy efficient building envelopes, windows, pipes and wiring that are expensive to replace and also to maintain. The small number of apartments relative to the size of the lots they are built on make the property taxes and other fixed costs, heat, water, gas, recycling, garbage quite exorbitant even before the high cost of maintenance is added. Just maintaining heat in suites in winter with 60 year old equipment (despite new boilers etc) had become a major, very time consuming, challenge - the great majority of plumbing contractors are not even familiar with these issues - even if OEM parts are available - which frequently they are not meaning that it is necessary to substitute with after market parts. These areas of concern will grow exponentially with ageing.

There are many significant advantages to dedicated rental buildings in comparison to condo's where tenants are at the mercy of individual owners and tend to be shorter term in most cases.

I was concerned about some of the misconceptions and misunderstandings that many of the tenants from the building had. From money laundering and shady accounts to a total lack of trust and understanding of the commitments required by the developer in order for him to attempt to redevelop the site was misinformed and rather scary. We explained to all tenants in the building that we could no longer manage to deal with the maintenance ourselves and it would have been too expensive to hire a management company with the already high overhead costs and this would have been reflected in much lower maintenance levels.

I do not want to just ramble here so please contact me if you, Carl, or anyone else have any questions.

My husband and I feel that a dedicated rental building on such a convenient location would be a tremendous asset to the community and a huge benefit to tenants who would have the convenience of a safer modern building with all that new technology has to offer.

Kind Regards,
Barbara Holm
604 535 3585

From: [Mahmoud Mahmoud](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca; [MobileMe](#)
Subject: Support for Proposed Rental Development Project: 1485 Fir St, White Rock
Date: Monday, December 16, 2019 5:55:23 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attention: Athena von Hausen

Dear Ms. von Hausen,

I am writing in support of the above-referenced Rental Development project that is being proposed by C2C Construction. I understand that you will accept email communications from those who were unable to attend the Public Meeting that was held on the project last Thursday.

As someone who visits White Rock frequently, I understand that the City of White Rock has close to zero rental vacancy. Therefore, I am in support of any development which promotes rental accommodation for those who may wish to live in your beautiful municipality, but cannot afford to buy there. To that end, it seems very obvious that any developer that wishes to build rental accommodation in White Rock should be supported by the municipality.

I understand that the proposed project at 1485 Fir Street will be replacing an almost 60 year-old building into a brand new 80-unit fully rental property. I also understand that most of the current rental buildings in White Rock are old and poorly maintained, with no elevator, ramp or other amenities which are needed by the community's senior citizens. Given the location of the site to White Rock's town centre, it escapes me as to what barriers the municipality sees in approving this project. In the circumstances, I respectfully ask that the city support this fully rental development to address the current rental shortage in White Rock.

I'm copying the project architect, Mr. Robert Billard, so that he is aware of the support that this member of the public wishes to lend this worthy rental development project.

Yours truly,

Mahmoud Mahmoud, PhD, FEC
mahmoudmahmoud@icloud.com

From: [Michelle Guy](#)
To: [Athena von Hausen](#)
Subject: 1485 Fir Street
Date: Monday, December 16, 2019 8:29:05 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear City of White Rock,

I write to express my support of this project. I was not able to attend the information meeting with council due to other commitments but thought I would send in my two cents, for what it is worth.

White Rock is a beautiful area and my mother, retired, very much would like to live there. She has a decent pension but does not have the asset base that would allow her to buy. As a result she rents and likely always will. That does not limit her ability to contribute to the local economy of coffee shops and local artists.

We have looked for a place for her and have only found either dated rental housing or basement suites. I was excited to see a proposal that might well meet her long term needs.

I do hope that City Council will see the wisdom in encouraging modern new builds for middle income people who are not able or interested to buy homes but would still prove to be valuable and desirable members of your community.

Michelle

From: [Parastoo Shirazi](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: 1485 Fir St white Rock
Date: Monday, December 16, 2019 6:15:53 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Avon Hausen,

Regrettably I was not able to attend the public information meeting for 1485 Fir St project in White Rock, yet I would like to express my support for the below reasons:

Most rental buildings in White Rock are older developments. The current building is 60 years old, it is of great timing to have the old building replaced with a new rental building.

White Rock would benefit from attracting younger population, to sustain and attract the younger population, newer rental buildings with such unique designs would offer attractive housing solutions for the younger population who are yet unable to afford to purchase properties.

White Rock's beautiful demographics could be supplemented by par rental buildings attracting great dynamics to the community.

Thanks

Parastoo Shirazi

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From: [Teresa Leung](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: 1485 Fir Street, Whitebirch Apartments
Date: Monday, December 16, 2019 10:47:51 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Athena (City of White Rock),

I am in support of the new rental development, Whitebirch at 1485 Fir Street to address the current rental shortage in White Rock. There are many people who cannot purchase, who NEED to rent, therefore, this project will greatly help those individuals, since the current vacancy rate is almost zero at this time. Please do what you can to push this project forward.

I can be reached at 604-618-2128 should you have any questions.

Best wishes,

Teresa Leung

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From: [Farid Kazemzadeh](#)
To: [Athena von Hausen](#)
Cc: [LEED AP](#)
Subject: Rental Building Proposed
Date: Tuesday, December 17, 2019 4:04:12 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Athena,

I wanted to take this time to show my support for the rental building proposed at 1485 Fir Street. Firstly, the building proposed fits well within the neighbourhood given its design. But even more important, the City has very little rental opportunities which make it very hard to find a suitable place to live. We need newer rental buildings for both younger families and the baby boomer generation.

I hope the City makes the right decision to approve this proposed development and more rental buildings in the future.

Best regards,
Farid K

From: [Yolande Levasseur](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: Proposed building project at 1485 Fir street White Rock
Date: Thursday, December 19, 2019 5:42:02 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern,

I am writing to you to indicate my support of a rental building project awaiting city approval. The address of this project is 1485 Fir Street in White Rock.

I'm a 69 year old woman and, although I'm in excellent health right now, I can see the writing on the wall when I will not have the energy or the ability to trek up four flights of steps. The design of this proposed rental property has all the amenities I would want in the near future and, furthermore, has a lot of style without being ostentatious. I believe it would fit very well in a neighbourhood that is progressive, offering sound housing accommodations in a classy-looking building.

Respectfully,
Yolande Levasseur

Sent from my iPad

From: [Derek Townsend](#)
To: [Athena von Hausen](#)
Cc: robert@billardarchitecture.ca
Subject: 1485 Fir St white Rock Support
Date: Tuesday, December 17, 2019 11:35:53 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Athena,

I am email to express my support for the rental apartment development at 1485 Fir Street. I think new rental supply is key for our unaffordable market and any supply is great as we have had such a lack over the years.

The design is smart and well thought out and the only comment I would add is that it should be twice as big with twice as many units.

--

Derek Townsend
604.812.8312
dwtownsend@gmail.com

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

Please note that your completed feedback form will be disclosed to the public and presented to Mayor and Council as part of the information package attached to this development proposal application. Any personal information or commentary you provide on this document will form part of the public record.

Please provide your name and address below: (optional)

Name:

G. WARTTIG

Address:

1475 FIR ST.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

TOTAL FARCE .

RIDICULOUS .

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

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Please provide your name and address below: (optional)

Name:

Moti Bahi

Address:

14933 Beacchini Ave. White Rock

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I highly recommend the building. In White Rock we have over 60% of all age personnel who have difficulty climbing steps. This will be the first building in over 30 years to have elevators to help the elderly and help people have affordable housing facility.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

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Application No. 19-009 – 1485 Fir Street

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Please provide your name and address below: (optional)

Name:

ELIZABETH WARTTIC

Address:

1475 FIR ST

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

NOT ALLOWED TO SPEAK

COMPLETE FARCE

WE ARE NOT ALLOWED TO SPEAK

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

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Please provide your name and address below: (optional)

Name:

M. R. Becker

Address:

#105 - 1475 Fir St.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

The building/property owner has an ambition to redevelop his property; it would be 'daffy' of me to oppose his wishes. He has assured me that all obligations placed on him by the province & the City of White Rock will be observed. M. Becker

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

Please note that your completed feedback form will be disclosed to the public and presented to Mayor and Council as part of the information package attached to this development proposal application. Any personal information or commentary you provide on this document will form part of the public record.

Please provide your name and address below: (optional)

Name:

ELAINE BELL

Address:

1497 MERKLIN

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I AM WORRIED ABOUT SO MUCH MORE TRAFFIC IN OUR AREA WITH TWO STORIES OF UNDERGROUND PARKING + 6 STORIES HAD THE BUILDING BEEN 3-4 STORIES, I PROBABLY WOULD HAVE SUPPORTED THE PROPOSAL.

HAVING MORE RENTAL PLACES IS IMPORTANT BUT WHITE ROCK ~~IS~~ HAS BEEN BURDENED WITH CONSTRUCTION SITES FOR SEVERAL YEARS NOW. PRESENTLY IT'S NOT THAT LIVEABLE

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

PUBLIC INFORMATION MEETING FEEDBACK FORM

Rezoning & Major Development Permit Proposal

Application No. 19-009 – 1485 Fir Street

5:30 PM to 7:00 PM, December 12, 2019

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Please provide your name and address below: (optional)

Name: DORSEY POROTOWSKI

Address: #313-1448 FIR ST

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I UNDERSTAND ZONINGS WILL BE CHANGED TO ALLOW THIS BUILDING TO GO AHEAD. WILL THAT EFFECT ALL OLDER BUILDINGS IN A CLOSE PROXIMITY?? IF SO I AM OPPOSED. I ~~HE~~ LIVES ON FIR ST ACROSS FROM PROPOSED BUILDING I UNDERSTOOD THIS MEETING WOULD ALLOW QUESTIONS. A WASTE OF TIME

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name:

Reg Nash

Address:

1481 Merklein St. White Rock V4B 4C4

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I oppose the proposal, as it is directly inline with my sunsets and I think it will invade my privacy.

No thank you to this project, at the proposed height.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name: LILLIAN KING
Address: 102-1475 FIR ST

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

Mahdi is REPRESENTATIVE FOR what Company why ALL THE SECRETS WE SHOULD PROTECT LOW RENTAL HOUSING NOT KNOCK THEM DOWN SO SOME UNKNOWN CO. CAN BUILD apt TO MAKE MONEY. I think this looking in to FIND OUT WHO THESE PEOPLE ARE

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

SHERRY SOOLE

Address:

1491 MERKLIN ST.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- NOT ENOUGH GREEN SPACE (NO TREES)
- TOO HIGH BLOCKS SKY & SUN!!!
- TOO MUCH MORE TRAFFIC CONGESTION
- UGLY DESIGN - AGGRESSIVE FRONT THAT DOESN'T BLEND WITH THE NEIGHBOURHOOD.
- UNENVIRONMENTAL TO WASTE A SUBSTANTIAL BUILDING - & SEND ALL THE ^{QUALITY} MATERIAL TO THE JOM
- WHY DO THE RULES COMMUNITY PLAN KEEP CHANGING?

Thank you for your participation. If you have any questions, please contact the following:

- MY HOME WILL BE DEVALUED AS IT IS SUBMERGED INTO DARKNESS!

I want to contact the CITY ...

Athena von Hausen
Planner, City of White Rock
Tel: (604)-541-2159
Email: avonhausen@whiterockcity.ca

I want to contact the APPLICANT ...

Robert Billard
Billard Architecture Inc.
Tel: (604)-619-0529
Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name: CHUCK BRYANT

Address: 202-1475 Fir ST

What is your position on the development proposal application?

(Please circle your preferred response)

I **SUPPORT** the proposal.

I am **UNDECIDED** on the proposal.

I **OPPOSE** the proposal.

Please provide your comments in the box below:

I UNDERSTAND WITH NEW RESIDENTIAL UNITS ARE NECESSARY. THE PROBLEM ~~IS~~ IS THAT THE RENT WILL BE TOO HIGH. BEING ON A FIXED INCOME I CAN'T AFFORD IT UNLESS SOME OF THE UNITS ARE SUBSIDIZED

THANK-YOU.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

McCallum Michelle ~

Address:

1544 Fir

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am **UNDECIDED** on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

if more rentals needed, if this site may be controversial, some would be less = sites like 1544 Fir would be more suitable - Maybe with an 8 Storey, in the middle of complexes and only 21 owners to deal with, who can relocate easily with the price paid per unit - No one would complain - Owners are ready for offers. if interested, or another investor, contact FIONA at

Thank you for your participation. If you have any questions, please contact the following: 604 831-0099

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name:

Address:

M. Rode
1493 Merklein
W.R.

What is your position on the development proposal application?

(Please circle your preferred response)

I **SUPPORT** the proposal.

I am **UNDECIDED** on the proposal.

I **OPPOSE** the proposal.

Please provide your comments in the box below:

I'm very concerned.
I feel the Building is too high.
The design doesn't contribute to our
Town's Homeness!
I also feel it is too high!
I hope it isn't Built-

I wish you'd move your ideas
to a different City -

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name: ISABEL STEURER

Address: 304-1448 Fir St. 604 789 8600

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- ① This development doesn't represent a gain of 55 apartments, but the loss of 25 affordable ones, and I have a hard time supporting that.
- ② I would really like council to consider the impact of construction on the immediate neighbourhood, not only in terms of parking, but also noise & emissions (i.e. heavy equipment idling). We have already put up with a lot up town White Rock in the last couple of years. Please consider existing residents while welcoming new ones.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Liz Doucette

Address:

#106-1544 Fir Street
White Rock, BC V4B 4B7

What is your position on the development proposal application?

(Please circle your preferred response)

I **SUPPORT** the proposal.

I am **UNDECIDED** on the proposal.

I **OPPOSE** the proposal.

Please provide your comments in the box below:

- There is no enough water if there is a fire to go around as if now.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Address:

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

① concerns about more traffic congestion in area originally zoned residential

② concerns about adequate to serve a growing population in WRock in light of this proposed development

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name:

IAN MIDDLETON

Address:

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

THIS COMMUNITY DESPERATELY NEEDS
NEW RENTAL SUPPLY. THE CURRENT
SUPPLY IS OUT DATED AND DOES NOT
SUPPORT THE COMMUNITY.

THIS PROPOSAL IS MODEST IN SIZE AND
WILL HELP SUPPORT THE LACK OF SUPPLY
WE NEED TO REMEMBER THIS BUILDING
WILL BE HERE FOR 50+ YEARS WHICH WILL
HELP SUPPORT THE POPULATION GROWTH.

PLEASE APPROVE! WE NEED IT!

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Barbara + Bjorn Holm

Address:

14728 Upper Reper Avenue.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

We owned the White Birch - 1485 Fir Street and due to the high cost of running and maintaining the building had to sell. All tenants were told that it was sold as a development property & they all understood that. The costs - property taxes, insurance, heat, hot water, maintenance & repair require a higher density for it be to remotely viable. White Rock needs new

Thank you for your participation. If you have any questions, please contact the following:

rental buildings

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name: Barton Jessup

Address: 302-1544 Fir St.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I think higher density and corresponding more green space is a sound overall principle. I would like this project to be higher. For example an FAR of 4 to 5. If the lower mainland continues to have increased population (as anticipated), then housing towers are necessary to preserve parks and agricultural land.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name: Harold Middleton

Address: 1022 Pacific Pl Delta BC

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

The project seems to be "right sized" with 80 suites, in a desirable location.

The mix of suites offered will allow for a variety of family configurations.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name:

Address:

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I support the project. I believe more rental housing is required in White Rock.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

IAN MAC LENNAN

Address:

13986 BLACKBURN AVE, White Rock

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

- MORE RENTAL HOUSING NEEDED.

- NEIGHBOURHOOD NEEDS UPDATING

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
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Please provide your name and address below: (optional)

Name:

PAT PETRALA

Address:

15020 N. BLUFF

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

How will this "Market" complex serve the needs of the CARLE Community of diverse income levels & comfortable homes. Cubicals/Urban micro squished spaces at inflated prices. The builder needs to work with Fed/CMHC + Provincial + NonProfits to enable inclusive better choices. Sterile brutalists design is financially advantageous for builders profits yet and Zip to

Thank you for your participation. If you have any questions, please contact the following:

Community
Feedback

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name: Pauline Paton

Address: 101-1475 FIR ST. WHITE ROCK, B.C.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

I have lived at 1475 FIR ST.
FOR 9 YEARS.

I realize this building is aging
& I am happy to move into a
500 sq. ft. 1 bedroom. My current
rent is 1029.⁰⁰. Market value
is my concern. \$1200.⁰⁰ is my
max for rent as I am a senior
on a budget. I am not proposed
to a new building. East.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name: GEORGE WARTTIG.

Address: 1475 FIR ST.

What is your position on the development proposal application?

(Please circle your preferred response)

~~I SUPPORT the proposal.~~

I am ~~UNDECIDED~~ on the proposal.

I ~~OPPOSE~~ the proposal.

I OPPOSE THE PROPOSAL

Please provide your comments in the box below:

WE UNDERSTOOD THIS 'PUBLIC' MEETING WAS FOR US TO HAVE OUR SAY ABOUT THE PROJECT. WE ARE LOSING OUR HOMES! I AM FRANKLY DISGUSTED .

Thank you for your participation. If you have any questions, please contact the following:

G. Wantha

I want to contact the CITY ... ✓	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

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Please provide your name and address below: (optional)

Name:

SARAD DHAND

Address:

14835 MARINE DR.

What is your position on the development proposal application?

(Please circle your preferred response)

I SUPPORT the proposal.

I am UNDECIDED on the proposal.

I OPPOSE the proposal.

Please provide your comments in the box below:

This is exactly the kind of development this city needs.

This is NOT a condo project - it is a RENTAL building. This is very much needed as all the current rental buildings are very old with no elevators, which is terrible for seniors as well as all others. I strongly support this project. It is very good for the future of White Rock.

Thank you for your participation. If you have any questions, please contact the following:

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Please provide your name and address below: (optional)

Name:

Ines Quiroga

Address:

207-1475-Fir St. White Rock

What is your position on the development proposal application?

(Please circle your preferred response)

I **SUPPORT** the proposal.

I am **UNDECIDED** on the proposal.

I **OPPOSE** the proposal.

Please provide your comments in the box below:

This is an Open House - Gallery
Not a public meeting for discussion
& questions.

Thank you.

Thank you for your participation. If you have any questions, please contact the following:

I want to contact the CITY ...	I want to contact the APPLICANT ...
Athena von Hausen Planner, City of White Rock Tel: (604)-541-2159 Email: avonhausen@whiterockcity.ca	Robert Billard Billard Architecture Inc. Tel: (604)-619-0529 Email: robert@billardarchitecture.ca

Thank you



ROCHELE POTTER, PROJECT COORDINATOR
ROCHELE@BILLARDARCHITECTURE.CA

APPENDIX G
DPA Guidelines Response Table

(Attached Separately)

The objectives of the **Multi-Family Development Permit Area** are to:

- Establish an attractive, comfortable, well-connected, pedestrian-oriented environment that fosters vibrant public life
- Ensure the compatibility of new development with adjacent existing buildings
- Enhance quality of life
- Conserve energy, conserve water, and reduce GHGs
- Enhance the character of the built environment and public realm in the City of White Rock

Please provide a summary of how your proposal achieves the objectives and policies of the Multi-Family DPA below:

[Empty response area for applicant summary]

NOTE 1: All 'Applicant Response' sections must be filled out by the applicant.
NOTE 2: If your proposal cannot adequately address one of the below-listed DPA guidelines, provide a rationale (and alternative resolution) above, and in the applicable response section.

Section 22.6.1 - Buildings

Multi-Family DPA Guideline 22.6.1 (a)

Ensure buildings are compatible with or complementary to adjacent developments in terms of height, density, and design, with height transitions as outlined in Figure 9 in applicable areas. Vary heights, rooflines, and massing to minimize impacts to views and solar exposure enjoyed by adjacent buildings and open spaces.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (b)

Set buildings back from the property line at least 3 metres to provide enough space for gardens and shade trees in the front yard. Include a further step back above the fourth floor and consider an additional step back above the seventh floor. Tower portions of all buildings should be slim and be set back a minimum of 6 metres from the edge of the podium level to minimize view impacts and shading and to facilitate a minimum tower separation of 30 metres.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (c)

Create visual interest and comfort for pedestrians along all elevations with architectural details. Incorporate windows, doors, bay windows, porches, setbacks, and vary colours, massing, and materials. Townhouse developments are encouraged to provide for individuality from site to site and unit to unit, and to vary the front set-back between units. Non-street facing elevations shall be treated with the same architectural details as the street facing elevations.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (d)

Ensure the main entrances of residential apartment buildings are level with the sidewalk to create a barrier free environment for aging in place. Townhouses may have elevated patios and entrances. Entrances shall be clearly identifiable, and weather protection with overhangs and awnings shall be provided over all entrances. Residential units on the ground floor should be ground-oriented.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (e)

Address all street edges on properties fronting multiple streets or public walkways. Orient buildings toward intersections or design independent frontages along both intersecting streets, and incorporate windows, doorways, landscaping, and architectural detailing along all street frontages and walkways.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (f)

Provide articulation to break up building mass and to establish a rhythm along the street front in commercial areas. Ground-level commercial spaces should reflect traditional patterns of diverse, small-scale retail with storefronts of approximately ten metres wide. Include no more than six contiguous units fronting a given street without incorporating architectural elements.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (g)

Provide shared outdoor amenity spaces for residents in mixed-use and residential buildings. Shared roof decks with gardens are encouraged where appropriate. Incorporate dining and seating areas with outdoor cooking facilities, play areas for children, areas for air-drying laundry, communal vegetable gardens, and appropriate landscaping.

Provide each residential unit with a private outdoor space where possible. Incorporating green-roofs to manage stormwater, reduce urban heat island effect, and contribute to biodiversity is encouraged.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (h)

Follow passive solar design principles and orient and site buildings to maximize views to the waterfront. Design roofs to maximize opportunities for solar collection in winter and control solar gain on south-facing facades by blocking high-angle sun in summer. Alternatively, provide operable shading devices or window overhangs to control summer solar gain. Maximize passive ventilation and passive cooling through building orientation.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (i)

Incorporate west coast design elements with the use of natural materials, including brick, stone, concrete, exposed heavy timber, and/or steel. Vinyl siding and stucco will not be considered for cladding. Use rich natural tones which reflect the natural landscape and seascape as the dominant colours, with brighter colours used only as accents.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (j)

Integrate commercial signage with the building and/or landscaping. Signage shall have a pedestrian scale and be coordinated throughout each development and compatible with signage on adjacent properties to establish a unified and attractive commercial area. The use of natural materials and projecting signs is encouraged.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (k)	
Blocks of side-by-side townhouses are limited to a maximum of eight contiguous units. Lot consolidation to allow for street-fronting townhouse developments are encouraged.	
Applicant Response	

Section 22.6.2 – Public Realm and Landscape

Multi-Family DPA Guideline 22.6.2 (a)

Improve the public realm with widened sidewalks (minimum 1.8 metres). Plant street trees and design curb let-downs to accommodate wheelchairs and scooters.

**Applicant
Response**

Multi-Family DPA Guideline 22.6.2 (b)

Provide consistency with street trees, plant materials, street furniture, and other aspects of the public realm to create cohesive streetscapes. Incorporate public art in both the public and private realm that is reflective of the local landscape and heritage.

**Applicant
Response**

Multi-Family DPA Guideline 22.6.2 (c)

Site buildings to create through-block walking connections. These will create opportunities for a variety of pedestrian-oriented activities and a finer-grained street grid. Special attention should be paid to establishing a linear park connection between the Town Centre and Centennial Park. Enhance these public spaces with public art and opportunities for programmed uses.

Applicant Response

Multi-Family DPA Guideline 22.6.2 (d)

Use light coloured reflective paving materials such as white asphalt or concrete for paths, driveways, and parking areas to reduce heat absorption and urban heat island effect. Ensure all areas not covered by buildings, structures, roads, and parking areas are landscaped. Use landscaping to establish transitions from public, to semi-public, to private areas.

Applicant Response

Multi-Family DPA Guideline 22.6.2 (e)

Increase the quantity, density, and diversity of trees planted. Ensure all trees are planted with sufficient soil volume, using soil cells where appropriate, and incorporate diverse native shrub layers below trees to intercept stormwater. Projects should be designed to allow for the retention of large, mature, healthy trees, and landscape design should employ CPTED safety principles.

Applicant Response

Multi-Family DPA Guideline 22.6.2 (f)

Select trees that will maximize passive solar gain, natural ventilation, and natural cooling, and increase the entry of natural light into buildings. Maximize the use of drought tolerant species that can withstand the seaside setting and require minimal irrigation. Avoid planting invasive species. The planting of hedges directly adjacent to sidewalks is discouraged, unless they are screening a garbage/recycling area.

Applicant Response

Multi-Family DPA Guideline 22.6.1 (g)

Incorporate Low Impact Development Techniques for stormwater management, where appropriate and in accordance with the City’s ISWMP. This includes but is not limited to bio-swales, cisterns, and permeable paving. Narrower lanes/access roads and the use of porous asphalt are encouraged.

Applicant Response

Multi-Family DPA Guideline 22.6.2 (h)

Provide sufficient on-site illumination for pedestrian/vehicle safety and good exposure for retail uses. Light facades and highlight building entrances, and avoid “light spill” onto adjacent properties. The use of lighting systems that are powered by renewable energy, such as solar-power, are encouraged.

Applicant Response

Section 22.6.3 – Parking and Functional Elements

Multi-Family DPA Guideline 22.6.3 (a)

Locate parkade entrances at the rear or side of buildings where possible and separate from pedestrian entrances. Vehicular access from North Bluff Road will only be considered when alternative access is not available. If a parkade entrance faces a street, it shall be subordinate to the pedestrian entrance in terms of size, prominence on the streetscape, location, and design emphasis. The use of landscaping to screen and soften the appearance of the parkade entrance is encouraged. Access ramps must be designed with appropriate sight lines and incorporate security features.

Applicant Response

Multi-Family DPA Guideline 22.6.3 (b)

Use a single internal vehicular access for townhouse developments where possible, with a shared parkade or individual garages. Provide landscaped areas between garages in townhouse developments that have multiple direct vehicular accesses from the street.

Applicant Response

Multi-Family DPA Guideline 22.6.3 (c)	
Provide all off-street parking below grade or enclosed within a building, with the exception of some visitor parking spaces and short-term commercial parking spaces. Bicycle and scooter parking shall be provided for residents within parkades, with temporary bicycle parking available near building entrances. Ensure buildings are accessible from parkades for those with mobility impairments.	
Applicant Response	
Multi-Family DPA Guideline 22.6.3 (d)	
Provide sufficient space for garbage, recycling, and composting within parkades. These areas are to be located so that they are convenient for users and accessible for waste/recycling/ compost collection and removal. Loading areas must also be incorporated within buildings wherever possible.	
Applicant Response	

Multi-Family DPA Guideline 22.6.3 (e)

Locate mechanical equipment to minimize exposure to the street and nearby buildings. Screening of rooftop mechanical equipment must be integrated into the overall architectural form of the building, and be designed to dampen noise where required.

**Applicant
Response**

APPENDIX H
ADP Minutes July 21, 2020

(Attached Separately)

MEETING MINUTES

PRESENT:	K. Hammersley, Chairperson P. Byer J. Muego N. Waissbluth R. Dhall P. Rust
ABSENT:	None
NON-VOTING MEMBERS:	S. Greysen, BIA Representative
GUESTS:	R. Gill (Owner) (14947 Buena Vista Avenue) D. Funk, Su Casa Design (Designer) (14947 Buena Vista Avenue) N. Pullman, CitiWest (Applicant) (14947 Buena Vista Avenue) M. Heidari (Owner) (1485 Fir Street) R. Billard, Billard Architecture (Architect) (1485 Fir Street) R. Potter, Billard Architecture (Architect) (1485 Fir Street) S. Heller, VDZ (Landscape Architect) (1485 Fir Street)
STAFF:	G. Newman, Manager of Planning A. von Hausen, Planner

1. CALL TO ORDER

The meeting was called to order at 3:30pm.

2. MOTION TO HOLD ADVISORY DESIGN PANEL MEETING VIA ELECTRONIC MEANS

It was MOVED and SECONDED

THAT the Advisory Design Panel hold meetings as digital meetings using Microsoft Teams recognizing the COVID-19 global pandemic and efforts to support physical distancing while maintaining open government and the advancement of business.

CARRIED

3. ADOPTION OF AGENDA

It was MOVED and SECONDED

THAT the Advisory Design Panel adopts the July 21, 2020 agenda as circulated.

CARRIED

4. ADOPTION OF MINUTES

It was MOVED and SECONDED

THAT the Advisory Design Panel adopts the minutes from the July 7, 2019 meeting as amended.

CARRIED

5. SUBMISSION TO THE ADVISORY DESIGN PANEL

At the beginning of this section of the agenda, Athena von Hausen, Planner, provided an overview of the policy and regulatory framework applicable to the two applications under review by the ADP. The following subsections outlined the minutes of the meeting as they relate to each of the two applications.

5.1. Application 1: 14947 Buena Vista Avenue

A. Von Hausen provided overview of zoning, OCP and DP Guidelines.

D. Funk (Su Casa) presented the design background for the project.

P. Byer asked about the setbacks and impacts on view from decks on the neighbouring property to the east, and whether that neighbour received notice of the Public Information Meeting (PIM); A. von Hausen confirmed that the neighbours did receive notice and that outside of the height variance the building satisfies the requirements of the zoning bylaw.

P. Byer asked whether the homes were accessible. The designer noted that they have elevators off Blackwood Lane to address accessibility. P. Byer asked if the patios could be made permeable / light coloured. Designer – yes, we can do as much grass as client would like to do (e.g., permeable paver, lawn, etc.). Mr. Byer noted concern with tree removals & need for replacement trees, which he understands to include at least one per property as per city requirements.

J. Muego asked whether the building would be sprinklered. The designer provided that the building would be sprinklered. J. Muego – counting four storeys per BC Building Code offered caution regarding Code Requirements. J. Muego asked what is the cut in the grades (along sides) to accommodate window wells; building is 4 feet from the property line. The design will require significant retaining walls, important to identify that construction along the east property line would be extreme in terms of retaining walls being 10 feet high. Applicant acknowledged. J. Muego noted that the rendering does not show how the rooftop deck may be programed with patio furniture or how people may use the space, which could further encumber views.

P. Rust – likes design, illustrates angle of containment well, would be good to allow a little higher to be able to get an SUV in the garage – the bunker as presented is quite problematic as a space. The designer confirmed the intended use of the space is for storage. P. Rust noted that the design would need a railing on top of the retaining wall for safety of neighbour – materials on exterior of both houses – nice in and of themselves but may be a bit too much disharmony – are the forms enough to distinguish one property from the other? Perhaps better to harmonize the materials with form being more the distinguishing factor.

R. Dhall – height of bunker being 16 – 17 feet – is there an intent to create a space with a mezzanine and other space – noted concerns about steep slope – can the driveway be sloped downward to lower the height of the garage? – Applicant – looked at this earlier (with use of a trench drain) but noted that City Engineering would not consider this. R. Dhall raised a question of planters – lots at various levels – what type? Built in or portable? More information should be provided on how the plants will

be planted in the planter areas. Applicant – would defer to landscape architect – would design to be waterproof and meet the direction provided by the Landscape Architect. R. Dhall noted that the Applicant should explore ways to avoid the need for height variance. Noted neighbours were concerned about slope and effects on property with the slope cuts.

P. Byer recognized from the City’s preliminary comments that the City Arborist noted concerns with landscaping plan and potential ability to accommodate planting without causing structural issues and have sufficient soil to allow trees to reach maturity. G. Newman clarified that a Tree Management Plan will be required and the City Arborist will review for compliance with the Tree Management Bylaw. P. Rust acknowledged that many people seeking to remove trees that become an obstruction to their view. P. Byer also noted that many trees are coming down and wanted to confirm the one per lot requirement. G. Newman confirmed that the Tree Management Bylaw requires a minimum of one replacement tree within the lot when removals are proposed through a permit.

N. Waissbluth asked that the applicant look at the overhangs. Larger overhangs would benefit upper floors to decrease amount of heat retention, provide weather protection. Vertical slats should have more weight in the renderings. Walls along the sidewalk (originally 3 – 4 feet) now the walls are much higher (as proposed). N. Waissbluth noted that “recent developments” shown do not have as significant retaining walls along the sidewalk. Would like to see them stepped up (staggered/tiered retaining wall) – staircases that lead up to the house from the lower end are quite narrow – not very user-friendly, should widen by even a few inches.

P. Byer – concern with the height precedent– looking for a solution that does not require a variance – does like the designs – perhaps remove the mudroom by pushing the building down the slope to satisfy the height requirement of the zoning bylaw. Is there another solution to height variance—this should be explored.

J. Muego – pushing up and down – want to push back to clients – wants versus needs – views – perhaps rooftop deck shouldn’t be accessible (occupied) or should be smaller with garage pushed further back – guardrails staying within angle of containment would pull activities towards the garage – depth of the bunker too much for the site (logistics and costs) – leveling of Lot 1 (front yard) is creating a 6 foot high retaining wall – how is this going to affect the westerly neighbours enjoyment of their lot – would look to tier it back south-to-north and west-to-east – patio – capture interesting views through screening – slats blocking windows to frame the view – educate clients on tools available to designers to give them the best performance.

S. Greyson – planting massive trees where massive trees were – can the City not plant trees elsewhere? Noted concern with the bunker if used as living space as it would not have sprinklers / egress.

R. Dhall – landscape plan – more variety in the planting – mostly all HB – reasonably large patches of plantings here – looking at the front side (south) there is more variety – but more sought (more colour) – would like more details about planting systems – details of planters, how they’re supported (structurally) – represent paving systems (materials) in the landscape plan (surfaces) – label properly.

K. Hammersley – summary of issues regarding landscaping, tree planting, solar exposure (passive solar gain), issues of the bunker, height variance.

Designer (D. Funk) – noted that Engineering is not supportive of the variance to driveway slope.

P. Byer – owners / designers to re-consider the height variance sought.

J. Muego – owner may wish to look at alternatives (reduction to the rear yard setback) – Applicant – could look at moving the home down towards Buena Vista Avenue – reducing square footage of the home while maintaining the 15% slope.

P. Rust – garage built with hydraulics set into the bunker to raise and lower the garage enough so that it would not encroach on the height limit and allow for SUV’s to be stored.

Following the receipt of final comments the Chair asked for a motion

It was MOVED and SECONDED

THAT the Advisory Design Panel recommends that the application for the development proposal at 14947 Buena Vista Avenue be **referred to Council** once the applicant has had an opportunity to consider the comments pertaining to:

- 1) Providing a broader mix of plantings and surface treatments (e.g., patios) as shown in the Landscape Plan, and that plantings are satisfactory to the City Arborist;
- 2) Implementing a tiered southern retaining wall so that the structure does not overwhelm the pedestrian realm along the sidewalk of Buena Vista Avenue;
- 3) Efforts to mitigate solar gain (e.g., overhangs, eyebrows, etc.) and passive cooling options along the south facing elevation of the dwellings;
- 4) The intended use and function of the “bunker” and the compliance of the space with the applicable provisions of the Zoning Bylaw; and
- 5) The requested height variance and efforts to alter the design such that a variance is no longer required; in the event that the applicant proceeds with the variance, that staff identify to Council the efforts taken by the applicant to address this constraint.

CARRIED

5.2. Application 2: 1485 Fir Street

A. von Hausen began the review of the second application with an overview of the OCP, Zoning and DP Area.

R. Billard (Project Architect) – walked through the application – the various iterations of the design, efforts to address comments from City staff, mitigate traffic and access issues, program and locate amenity spaces, and step back the massing of the building. Mr. Billard also walked through materials as proposed in the design, the context of development within two blocks of the subject property, the composition of units (by # bedrooms), and efforts to support bicycle and transit use.

S. Heller (Landscape Architect) – parkade notched to accommodate the retention of trees, street trees will be replaced along Fir Street (depending on what happens with overhead power lines); overview of access to building, treatment of spaces to delineate public and private spaces, surface material treatment.

J. Muego – excited to see the front entrance (6 steps w/ accessible ramp) – not shown on the renderings. R. Billard – pointed to the access (ramp) versus stairs shared along Russell Avenue. R. Dhall requested to see Main Floor plan – requested confirmation of parkade access – wanted confirmation of the planters to be used and whether or not they are acceptable to the City. S. Heller confirmed that they have done similar plantings on other projects in the City. R. Dhall requested confirmation of whether fencing would be used to enclose the parkette. R. Billard noted they want to keep the space open so it reads as part of the community.

P. Byer – parking entrance - unclear whether there was adequate clearance into the parkade. R. Billard clarified that there would be sufficient clearance. P. Byer asked if there was a vehicle drop off within the boulevard near the access. P. Byer asked if there was accommodation to expand electrical charging to more spots in the future. R. Billard noted that White Rock does not require anything. G. Newman clarified that the City requires 1/10 spaces an energized outlet (level 2) and an additional 1/10 spaces to have a rough-in for EV charging.

P. Byer asked how recycling / garbage was being managed and whether it would be carried outside the building for collection. R. Billard confirmed that a hauling company would be retained for collection. P. Byer noted that a community garden / tenant garden appear to be planned for the roof as illustrated in the DP Guidelines Matrix. G. Newman clarified that the matrix was submitted with the first submission and that subsequent design has not been captured in a revised matrix. P. Byer asked about rooftop stormwater retention. R. Billard noted this is a costly component of the design and that a cistern may be used. S. Heller added reference to some of the features for stormwater management incorporated into the landscape design. P. Byer noted that there are only 2 handicapped (accessible) parking spaces for residents and encouraged more handicapped spaces to be offered.

S. Greyson identified a potential conflict between trees and overhead wires. A. von Hausen confirmed that wires would need to be underground as a City engineering requirement.

K. Hammersley – impressed with the proposal based on previous review

R. Dhall – good treatment of spaces along the street – encompassed most design elements – inconsistency in drawings showing access to parkade in other location (reference to the design matrix). Crime Prevention Through Environmental Design (CPTED) principles to be applied along edges – east elevation – use of a lot of fenestration (windows). R. Dhall noted that it would be good to consolidate the number of openings and windows alongside the red accents. 60% of units are one bedroom or less (studio). R. Dhall would like to see higher proportion of two bedroom units. R. Billard provided that at this time there is not an opportunity to change the mix of units (lending constraints). R. Dhall would like to see a little bit more design development of the entry feature with the inclusion of the feature within the heavy timber frame currently at the corner of Russell and Fir.

J. Muego – commended the Landscape Architect in looking at the ground plane – streetscape elements are good – design elements good (stepping down levels five and six). J. Muego notes that the upper levels need something more to distinguish them and cut down on the massing (colour / material treatment). Muego reiterated R. Dhall's comment regarding the repetition of the window patterns – would like to see some consolidation – corner buttress quite heavy / strong considering the roof they are holding as well as the base being quite ambiguous, more design development should be considered.

P. Rust – structure on the corner didn't quite capture the entrance – would like to see one more bay to capture the entrance – look at use of panels along the fifth and sixth storey – an original rendering indicated a panel system of cladding which would be more appropriate than shingles proposed at this height – use of 9 foot ceilings (why not 8 foot). R. Billard provided that higher ceilings are currently preferred by tenants. P. Rust - would like to see a galley kitchen. R. Billard noted that galley kitchens are less desired by target market.

P. Byer – bullet points for final

- Stormwater management plan must go to the Engineering Department – efforts to minimize the amount of stormwater going to the storm system;

- Rooftop to be designed to mitigate solar gain;
- Electrical charging – sufficient rough-in for future expansion
- Two accessible parking spots not sufficient – more should be made accessible

N. Waissbluth – main comment pertains to the landscaping in the amenity / courtyard space – concern that the play space may not be used – needs to be more purposefully activated without the use of “pre-builts”. R. Billard – wanting to re-evaluate the design of the space to ensure it is more accessible and more purposefully used as intended.

Following the receipt of final comments, the Chair asked for a motion.

It was MOVED and SECONDED

THAT the Advisory Design Panel recommends that the application for the development proposal at 1485 Fir Street be referred to Council once the applicant has had an opportunity to consider the comments pertaining to:

- 1) Stormwater management plan must go to the Engineering Department – efforts to minimize the amount of stormwater going to the storm system;
- 2) Rooftop to be designed to reduce solar gain;
- 3) Efforts to increase the number of electrical charging stations
- 4) Efforts to increase the number of accessible parking spaces
- 5) Design of the children’s play space – naturalization of the space

CARRIED

6. CONCLUSION OF THE MEETING

There being no further business, the Chairperson declared the meeting concluded at 6:40 pm.

Karen Hammersley
Chairperson, Advisory Design Panel

Greg Newman
ADP, Committee Secretary

APPENDIX I
CTS Traffic Study dated November 25, 2019

(Attached Separately)

Date: 25 November 2019
Our File No: 7025-01

BY EMAIL

Mahdi Heidari
1062822 BC Ltd.
1005-583 Beach Crescent
Vancouver, BC
V6Z 3E6

Dear Mr. Heidari,

**Re: 1485 Fir Street – Whitebirch Apartments Traffic Impact Assessment
White Rock, BC**

Creative Transportation Solutions Ltd. (CTS) is pleased to submit this DRAFT report summarising our work on the above study. CTS was retained by 1062822 BC Ltd. on March 21st, 2019 to undertake a traffic impact study for a proposed rental apartment development in the City of White Rock. The primary objectives of this study are as follows:

1. To undertake a traffic impact assessment of the development site; and,
2. To document the results in a report suitable for submission to the City of White Rock.

This report documents our analyses and findings.

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1.0 BACKGROUND

1.1 The Site

1062822 BC Ltd is proposing to build a rental apartment development at 1485 Fir Street in the City of White Rock.

The proposed development consists of 80 rental apartment dwelling units with two levels of underground parking.

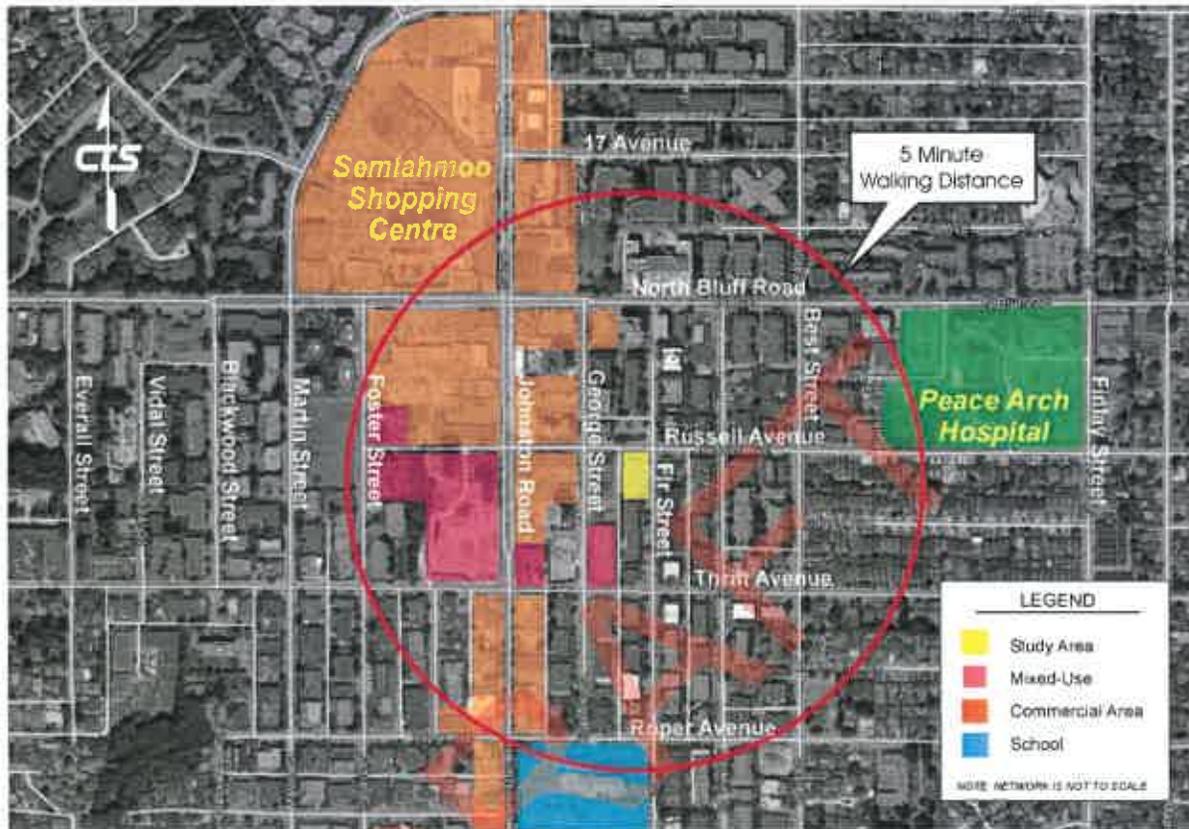
The property is currently occupied by a 3 level multifamily building with 21 residential units.

Vehicular access to the proposed development will be from George Lane and the main pedestrian access will be on the north face of the building, facing Russell Avenue.

The proposed development is to be constructed as per the architectural drawings included as **APPENDIX A**. The site context is illustrated in **FIGURE 1**.

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**FIGURE 1
SITE CONTEXT**



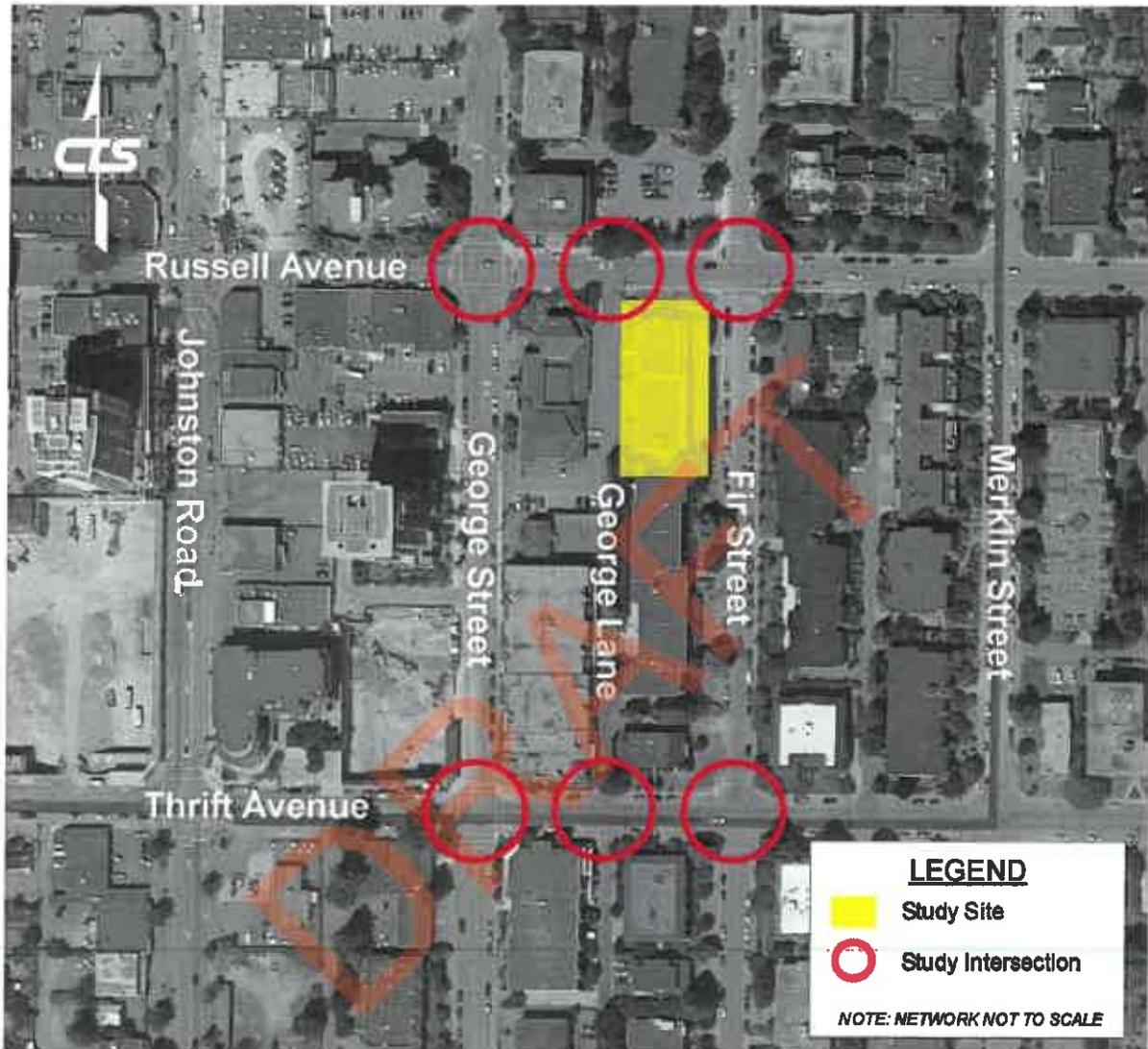
The 400 metre radius illustrated in **FIGURE 1** above represents a five minute walk from the site.

As illustrated in **FIGURE 1**, the site has excellent walking access to significant commercial and retail areas.

The following attractions and destinations are all approximately a five (5) to fifteen (15) minute walk from the study site:

- Semiahmoo Shopping Centre
- Peace Arch Hospital
- Commercial / retail developments all along Johnstone Road
- White Rock Centre transit exchange
- Earl Marriott Secondary School
- Peach Arch Elementary
- Kent Street Activity Centre

**FIGURE 2
STUDY AREA AND INTERSECTIONS**



1.2 Site Visit/Road Network

A site visit was conducted in order to document current conditions. The following were the key observations from the site visit:

Fir Street

- North-South local road
- Two undivided lanes, one in each direction.
- East side of the road:
 - Concrete curb and gutter
 - Sidewalk
- West side of the road:
 - Concrete curb, gutter, and sidewalk for first 40 m south of Russell Avenue
 - Gravel shoulder, with some sections of a wooden curb on the rest of the block between Russell Avenue and Thrift Avenue
- Street lighting
- 50 km/h speed limit
- Parking permitted on both sides of the road

Russell Avenue

- East-West collector road
- Two lanes, one in each direction
- Parking permitted on the north side of the road between George Street and Fir Street
- Concrete curb and gutter
- Sidewalk on both sides of the road
- Street lighting
- Bus stops
- 50 km/h speed limit

George Street

- North-South local road
- Two lanes, one in each direction
- Parking permitted on both sides of the road
- Concrete curb and gutter along both sides of the road
- Sidewalk on both sides of the road
- Street lighting
- 50 km/h speed limit

Thrift Avenue

- East-West local road
- Two lanes, one in each direction
- Parking permitted on both sides of the road
- Concrete curb and gutter along both sides of the road
- Sidewalk on both sides of the road

- Street lighting
- 50 km/h speed limit

George Lane

- North-South laneway
- Off-street parking accesses and parking spaces on either side
- Only wide enough for one vehicle to travel at a time

George Lane at Thrift Avenue

During the site visit, it was observed that the sightlines for southbound vehicles exiting the laneway are deficient when looking west. The eastern sight lines are sufficient as drivers are able to look around the tree on the northeast corner as show in **FIGURE 3** below.

**FIGURE 3
GEORGE LANE AT THRIFT AVE – SOUTHBOUND**



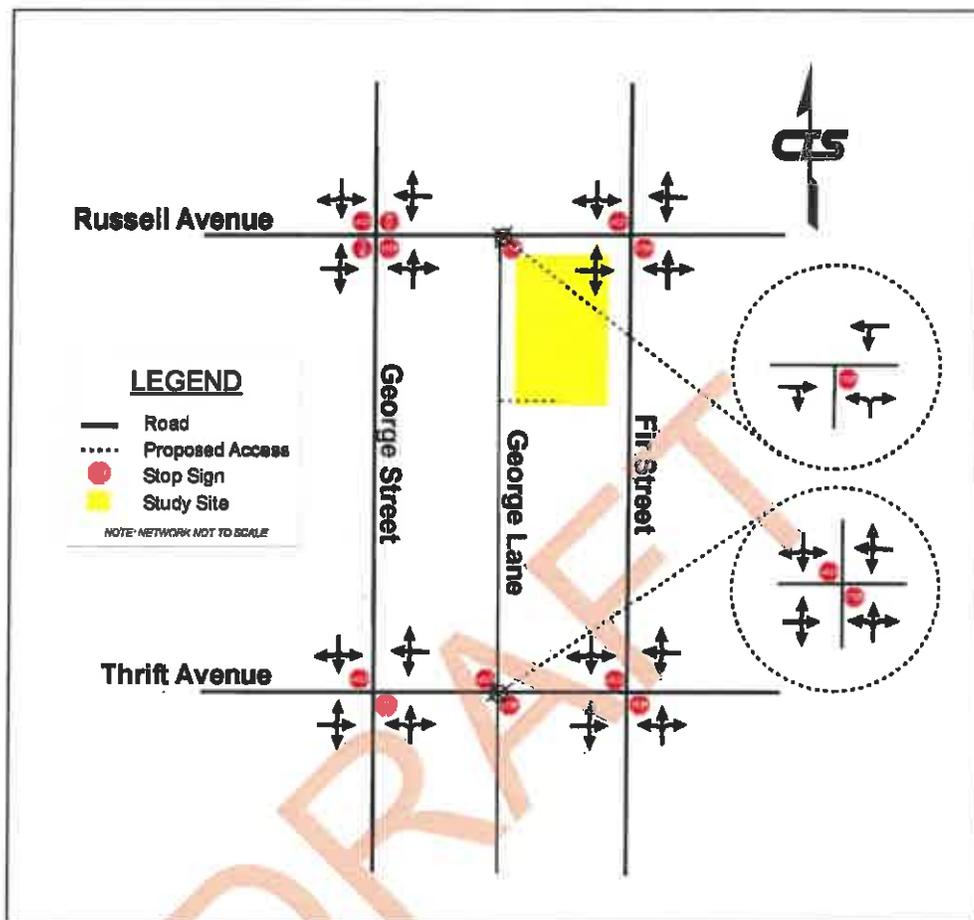
FIGURE 4
GEORGE LANE AT THRIFT AVENUE – SOUTHBOUND LOOKING WEST



As shown in **FIGURE 4** above, the western sightlines are deficient as the foliage and planter obstructs driver sightlines when stopped behind the stop bar. Sightlines for vehicular traffic are improved if drivers pull forward into the parking lane. However, sightlines for pedestrians crossing the laneway from the west side remain deficient. This poses a safety concern as pedestrians, especially those using mobility aids and / or children, are blocked from the driver's view by the planter and foliage. It is recommended that the City of White Rock consider installing yellow tactile paving blocks on the let-downs of either side of the crossing and a warning sign stating "Watch for Pedestrians" for southbound traffic at this intersection.

The laning configuration and current traffic control for the study intersections are illustrated in **FIGURE 5**.

**FIGURE 5
LANING CONFIGURATION**



1.3 Alternative Modes of Travel

Transit Network

The study area is in a transit oriented neighbourhood. The White Rock Centre transit exchange is only a six (6) minute walk from the site. 152nd Street is part of Translink's Frequent Transit Network. The site is serviced by the following bus routes:

- Route #321 Surrey Central Station / Newton Exchange / White Rock Centre / White Rock South – bus stops are serviced every 15 minutes all week
- Route #345 King George Station / White Rock Centre – bus stops are serviced every 30 minutes Monday to Friday
- Route #351 Bridgeport Station / Crescent Beach – bus stops are serviced every 15 minutes or less during weekday peak periods. Frequency decreases during off peak periods during the rest of the week.
- Route #354 Bridgeport Station / White Rock South – bus stops are serviced during weekday morning and afternoon peak periods every 15 to 30 minutes.
- Route #361 Ocean Park / White Rock Centre – bus stops are serviced every 30 minutes during the weekday and every hour during the weekend.
- Route #362 Seaside / White Rock Centre – bus stops are serviced every 30 minutes throughout the week.
- Route #363 Peace Arch Hospital / Southpoint – bus stops are serviced every 30 minutes throughout the week.
- Route #375 King George Station / White Rock South – bus stops are serviced every 30 minutes for most of the day during the week. Frequency decreases to every hour later in the evening and during the off peak periods on the weekend.
- Route #531 White Rock Centre / Willowbrook – bus stops are serviced every 30 minutes throughout the week.

Bicycle Network

Within the adjacent road network, Thrift Avenue is a shared lane bike route. Martin Street, Best Street, and Finlay Street are also shared lane bike routes as illustrated in **FIGURE 6** below.

Pedestrian Network

The study area is well connected with sidewalks. All roads within the study area have a sidewalk on at least one side.

**FIGURE 6
ALTERNATIVE MODES OF TRAVEL WITHIN 400 METRES**



1.4 Scope of Work

CTS selected the weekday morning and afternoon peak hours as the analysis design hours for this study as it represents the peak traffic time for the adjacent road network and the peak traffic times for the proposed development.

The following scenarios were used in this traffic impact assessment:

1. 2019 existing base traffic (from traffic surveys)
2. 2022 future base traffic
3. 2027 future base traffic
4. 2022 future base traffic + proposed development traffic
5. 2027 future base traffic + proposed development traffic
6. 2045 estimated link traffic volumes

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2.0 BASE TRAFFIC VOLUMES

2.1 Existing Base Traffic Volumes

2019 Base Traffic Volumes

CTS conducted turning movement counts on Wednesday April 3rd, 2019 from 07:00 to 09:00, 11:00 to 13:00, and 15:00 to 18:00 to document the typical weekday peak hour traffic volumes for the following intersections:

- George Street at Russell Avenue
- George Lane at Russell Avenue
- Fir Street at Russell Avenue
- Fir Street at Thrift Avenue
- George Lane at Thrift Avenue
- George Street at Thrift Avenue

The traffic count data was summarized and reviewed to ensure data integrity and validity. The summarized traffic data sheets are included in **APPENDIX C**.

From the collected data, the weekday morning and afternoon peak hours were chosen as the dominant design hours and was observed to occur from 08:00 to 09:00 and from 15:00 to 16:00.

The 2019 base weekday morning and afternoon peak hour volumes are illustrated in **FIGURE 7** and **FIGURE 8**.

FIGURE 7
2019 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

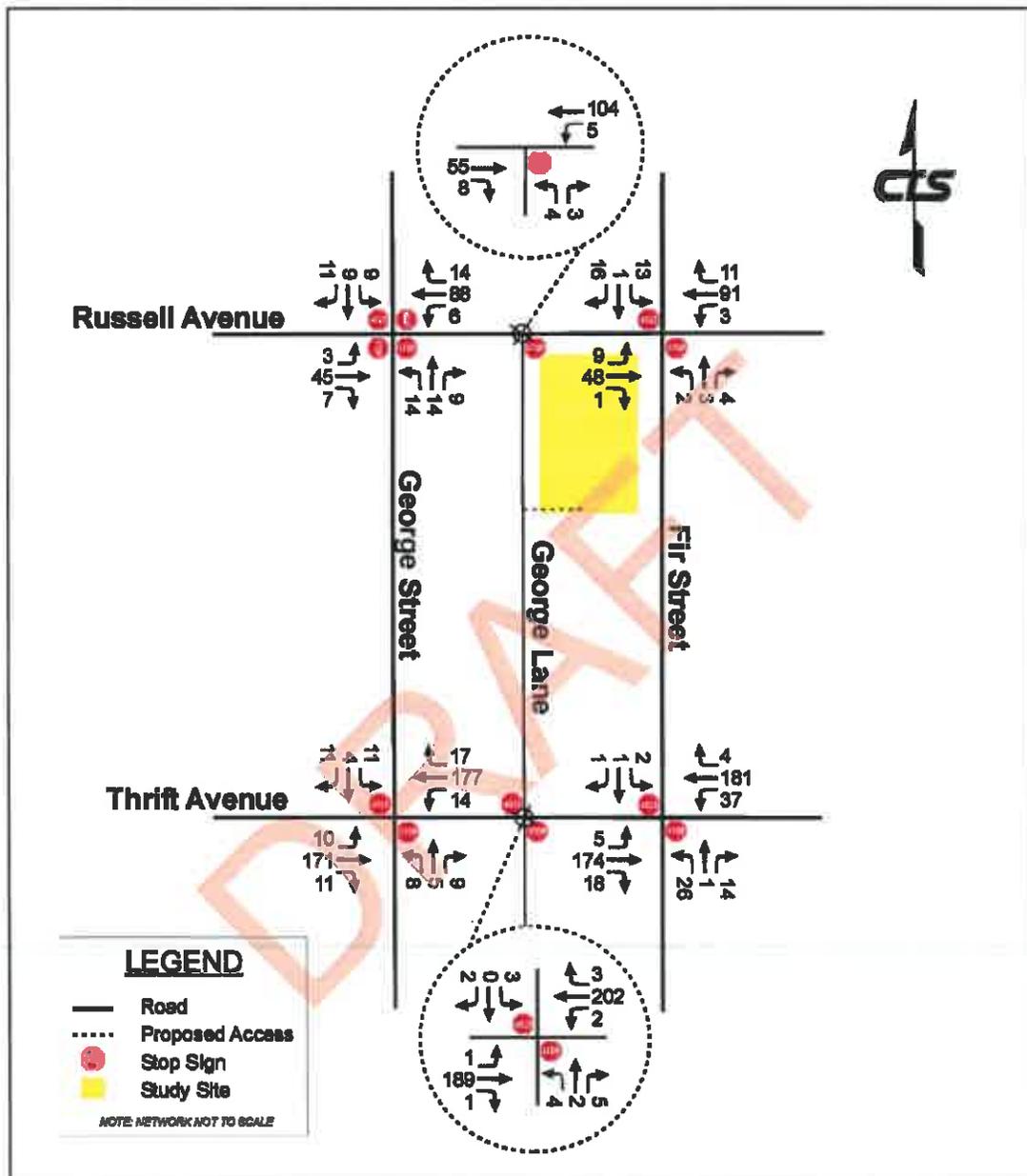
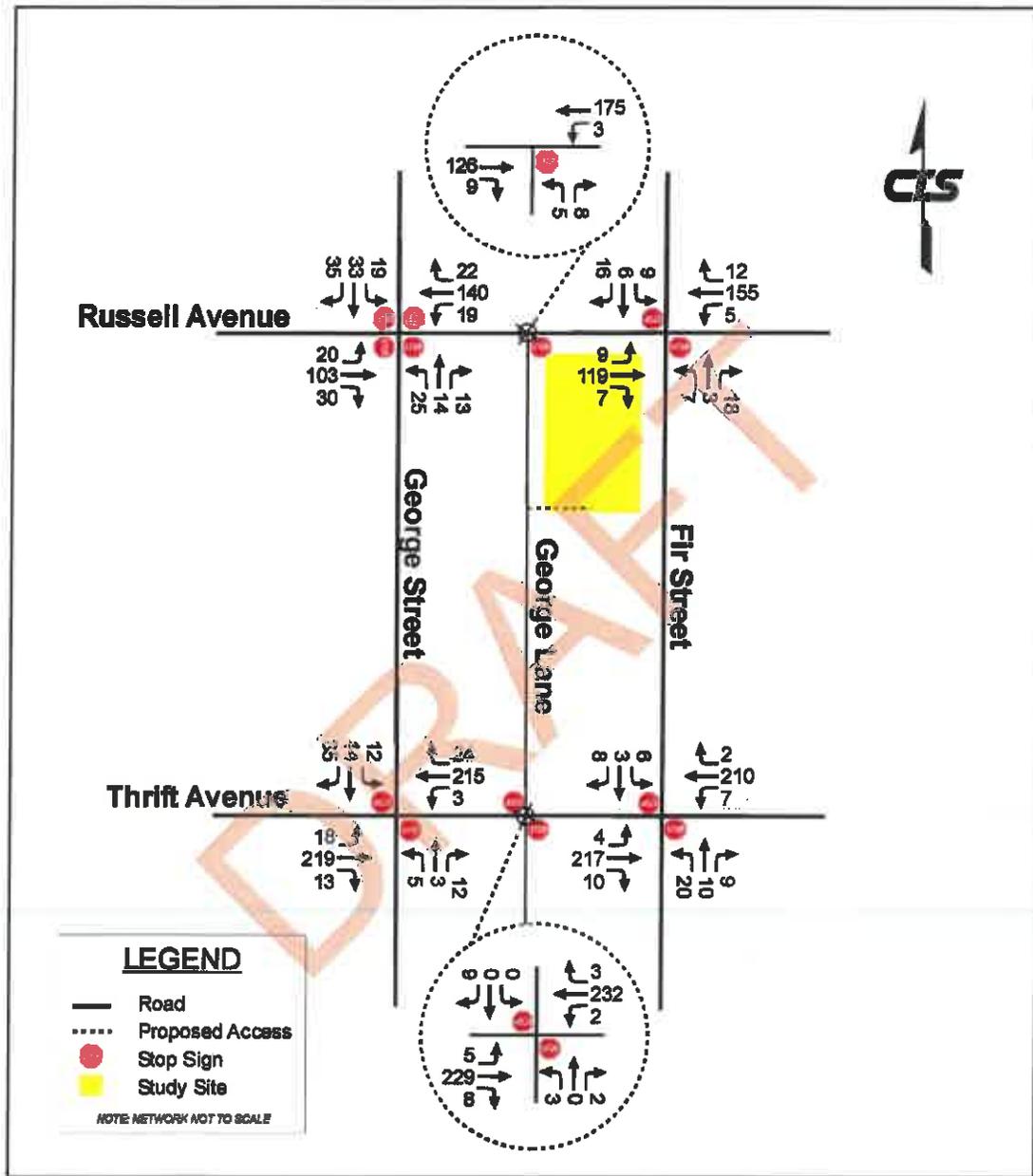


FIGURE 8
2019 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES



2.2 Future Base Traffic Volumes

The 2019 base volumes were factored up by a traffic volume growth rate of 2.0% to the 2022 and 2027 horizon years.

2022 Future Base Traffic Volumes

The expected build-out year for the proposed development is 2022. The 2019 base traffic volumes were factored up by an approved traffic volume growth rate of 2.0% per annum (simple-straight line) within the study network to represent the base 2022 traffic volumes.

FIGURE 9 and **FIGURE 10** illustrates the future base weekday morning and afternoon peak hour vehicle volumes for the year 2022.

2027 Future Base Traffic Volumes

2027 is five (5) years after the anticipated year of full buildout for the proposed development. The 2019 base traffic volumes were factored up by a traffic volume growth rate of 2.0% per annum (simple straight line) to represent the base 2027 volumes.

FIGURE 11 and **FIGURE 12** illustrates the future base weekday morning and afternoon peak hour vehicle volumes for the year 2027.

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FIGURE 9
2022 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

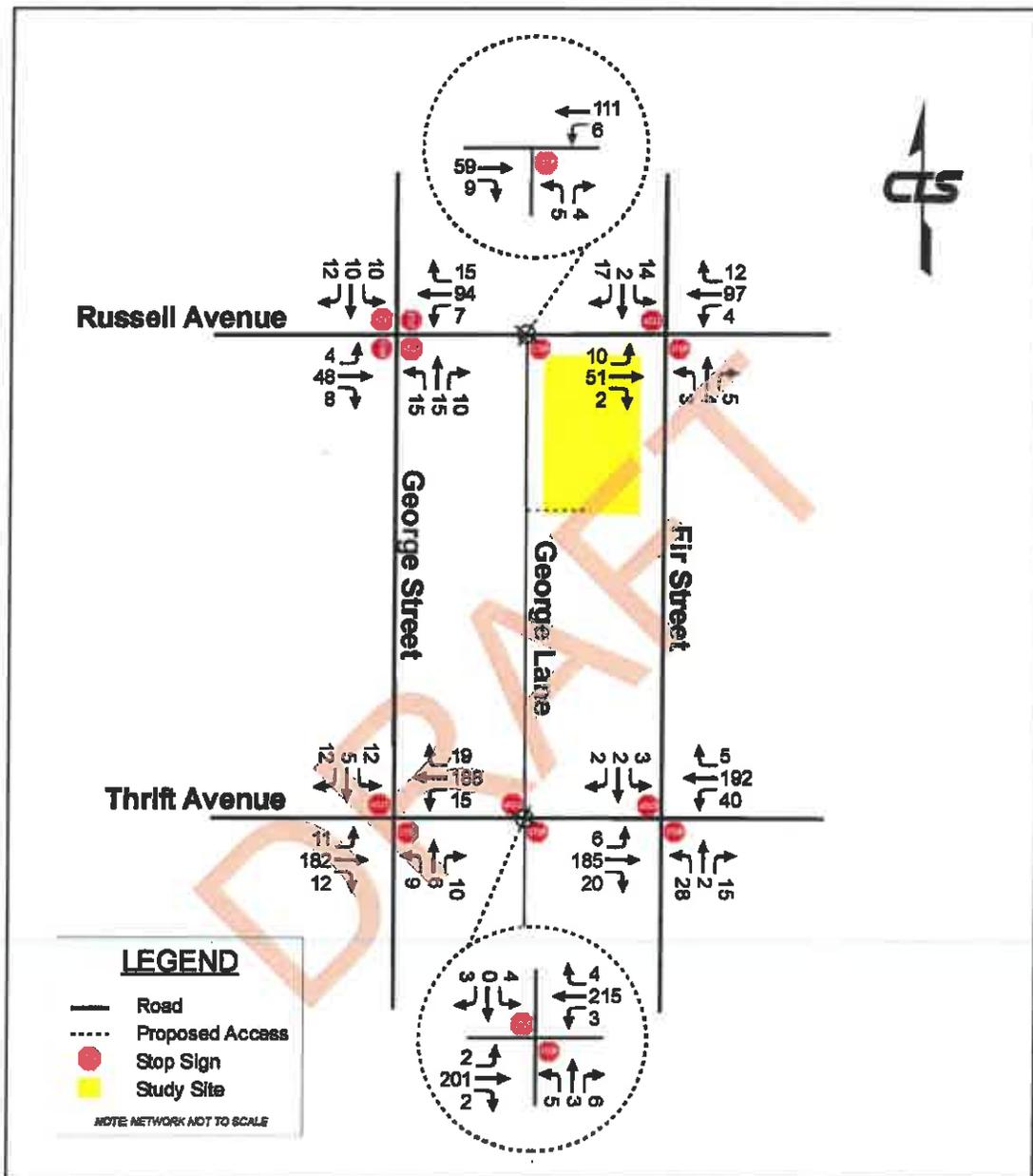


FIGURE 10
2022 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES

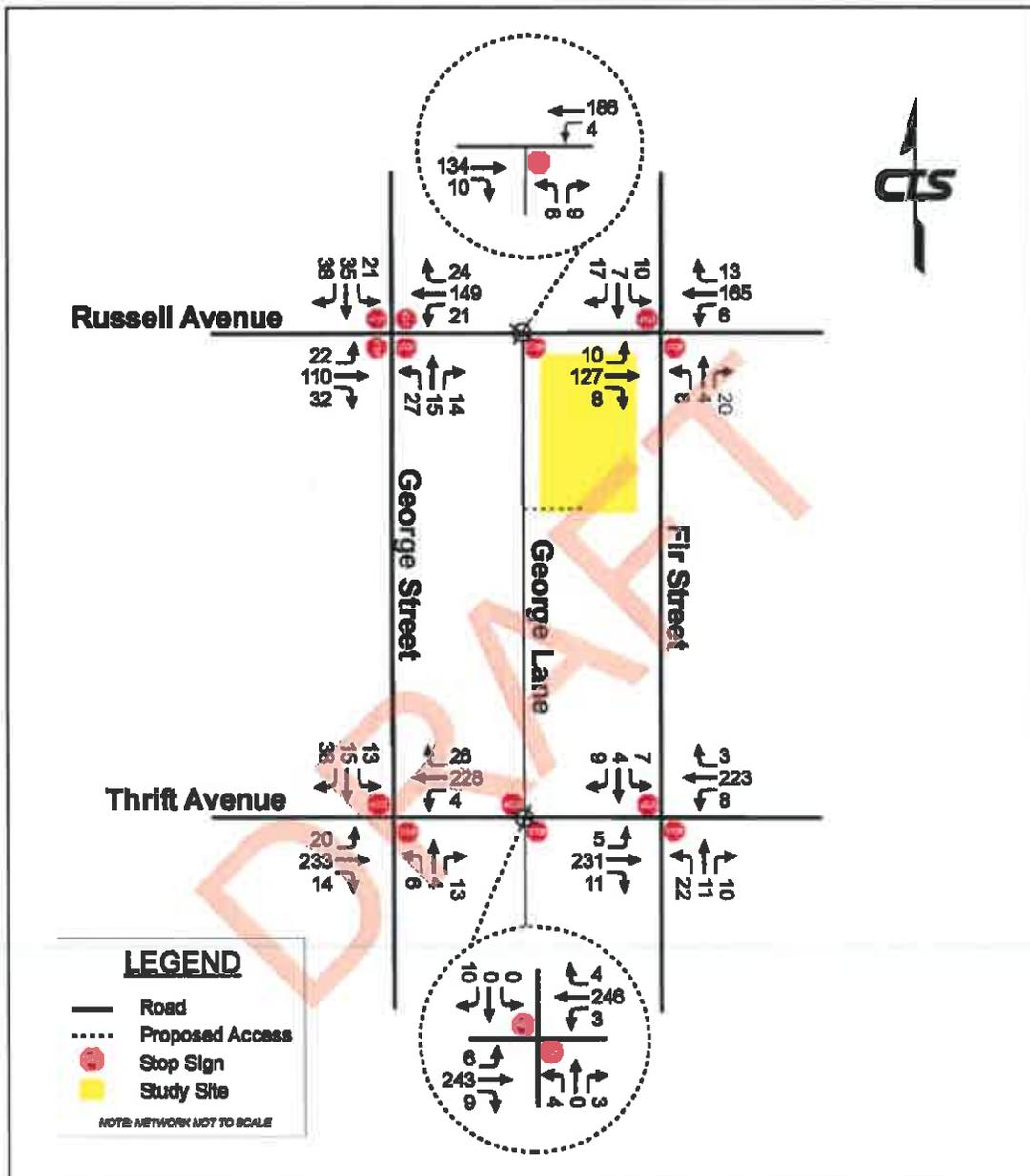


FIGURE 11
2027 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

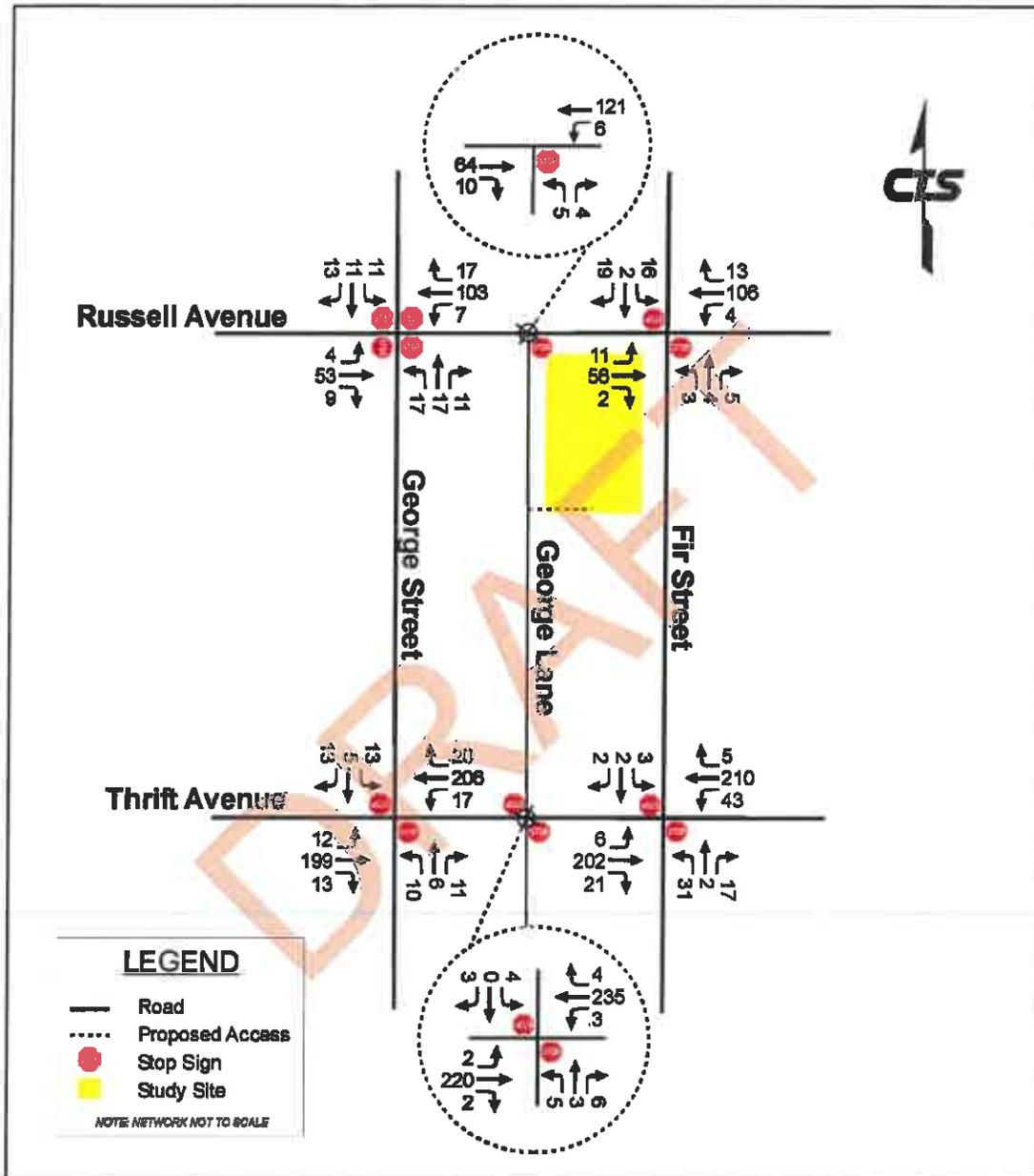
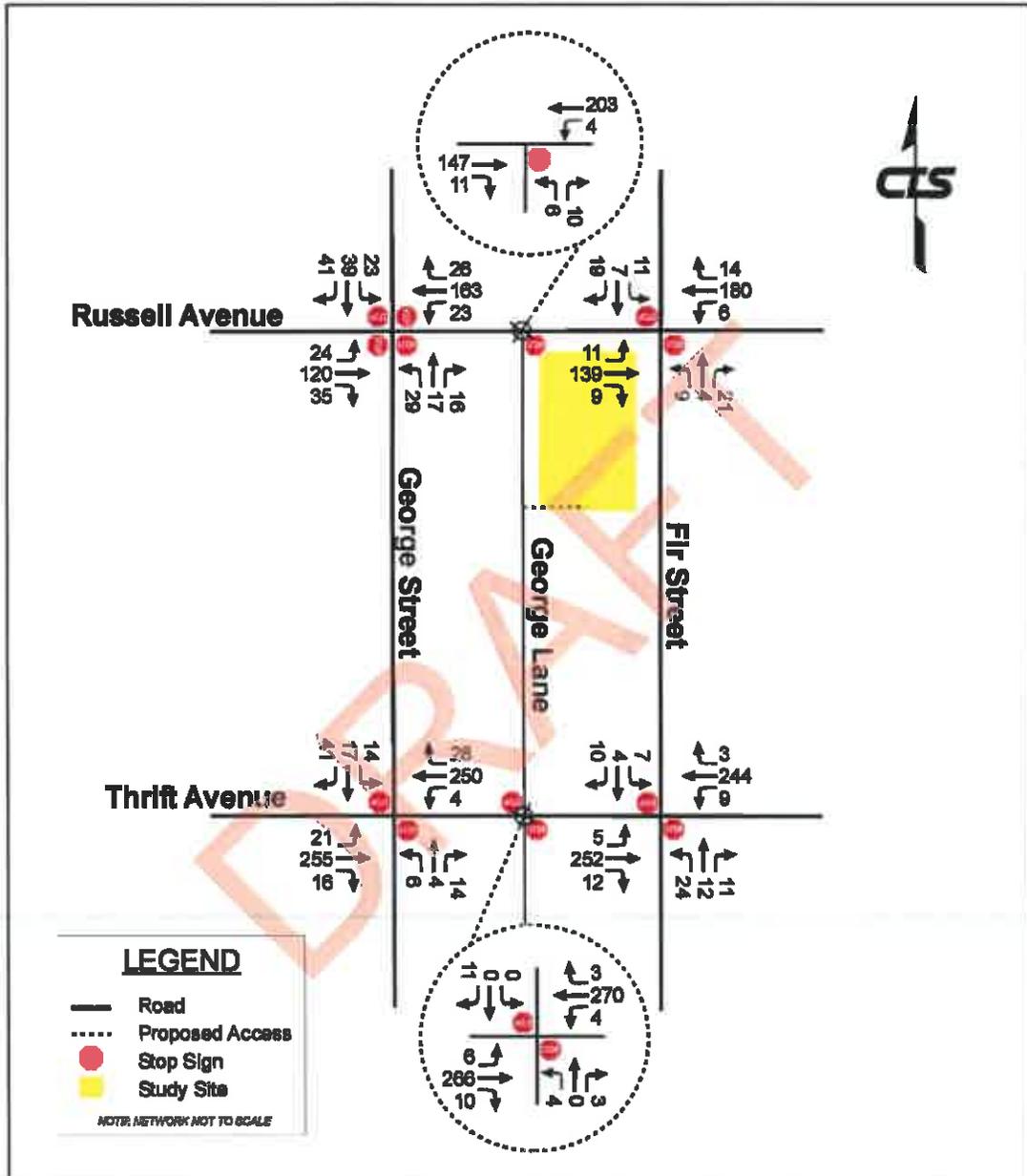


FIGURE 12
2027 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES



3.0 SITE TRAFFIC VOLUMES

3.1 Trip Generation

The published vehicle trip rates from *the Institute of Transportation Engineers (ITE) 10th Edition* were used to forecast the site generated traffic volumes. An apartment building with 21 rental dwelling units currently occupies the property. The proposed apartment development includes 80 rental dwelling units.

TABLE 1 summarizes the estimated site generated traffic for the existing apartment building as well as the forecast site generated traffic from the proposed development.

**TABLE 1
SUMMARY OF SITE GENERATED TRAFFIC**

Land Use	Peak Hour	Trip Generation Variable	Scope of Development	Vehicle Trip Generation Rate	Trip Rate Source	Directional Split		Peak Hour Volumes (vph)		
						% in	% out	in	out	total
Proposed Apartment Building - Multifamily Housing (Mid-Rise)	Weekday Morning	Dwelling Units	80	0.38	ITE 10th Edition - Code 221	26%	74%	8	21	29
	Weekday Afternoon			0.44		61%	39%	22	14	36
<i>Proposed Site Traffic</i>			Weekday Morning Peak Hour			26%	74%	8	21	29
			Weekday Afternoon Peak Hour			61%	39%	22	14	36
Existing Apartment Building - Multifamily Housing (Mid-Rise)	Weekday Morning	Dwelling Units	21	0.38	ITE 10th Edition - Code 221	26%	74%	2	6	8
	Weekday Afternoon			0.44		61%	39%	6	4	10
<i>Existing Site Traffic</i>			Weekday Morning Peak Hour			26%	74%	2	6	8
			Weekday Afternoon Peak Hour			60%	40%	6	4	10
<i>Net Site Traffic</i>			Weekday Morning Peak Hour			29%	71%	6	15	21
			Weekday Afternoon Peak Hour			62%	38%	16	10	26

Mid-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have three or more levels (floors). The Vehicle Trip Generation Rate was selected using the General Urban/Suburban setting.

From **TABLE 1**, the proposed development is forecasted to generate a total of 29 vehicle trips (8 inbound, 21 outbound) during the weekday morning peak hour and 36 vehicle trips (22 inbound, 14 outbound) during the weekday afternoon peak hour.

Subtracting the estimated site traffic generated by the existing apartment building, the net increase in site traffic from the proposed development is forecasted to be 21 vehicle trips (6 inbound, 15 outbound) during the weekday morning peak hour and 26 vehicle trips (16 inbound, 10 outbound) during the weekday afternoon peak hour. This is the equivalent of

one vehicle movement every 2.9 minutes during the weekday morning peak hour and one vehicle movement every 2.3 minutes during the weekday afternoon peak hour.

Note: The traffic analysis for the draft report was conducted under a previous site plan that proposed 84 rental dwelling units. As the number of dwelling units has only gone down by four (4) units, the traffic analysis in Section 3.2 and 5.0 was not redone as the analysis conducted simply represents a more conservative analysis.

3.2 Trip Distribution

The trip distribution parameters for distributing site generated vehicle trips to / from the site were developed from existing traffic patterns entering and exiting the study area. The traffic volume assignment is summarized in TABLE 2.

**TABLE 2
TRIP DISTRIBUTION VEHICLE VOLUMES
FOR SITE GENERATED TRAFFIC**

FROM/TO	WEEKDAY AM PEAK HOUR		WEEKDAY PM PEAK HOUR	
	INBOUND	OUTBOUND	INBOUND	OUTBOUND
George St (North)	0	1	2	1
Fir St (North)	0	1	1	0
Russell Ave (East)	1	2	4	2
Thrift Ave (East)	4	6	5	3
Fir St (South)	0	2	1	0
George Ln (South)	0	0	0	0
George St (South)	0	1	0	0
Thrift Ave (West)	2	6	6	5
Russell Ave (West)	1	4	4	3
TOTAL	8	23	23	14
	31		37	

The weekday morning and afternoon peak hour site generated traffic volumes of the proposed development for the build-out year of 2022 are illustrated in FIGURE 13 and FIGURE 14.

**FIGURE 13
WEEKDAY MORNING PEAK HOUR SITE TRAFFIC VOLUMES**

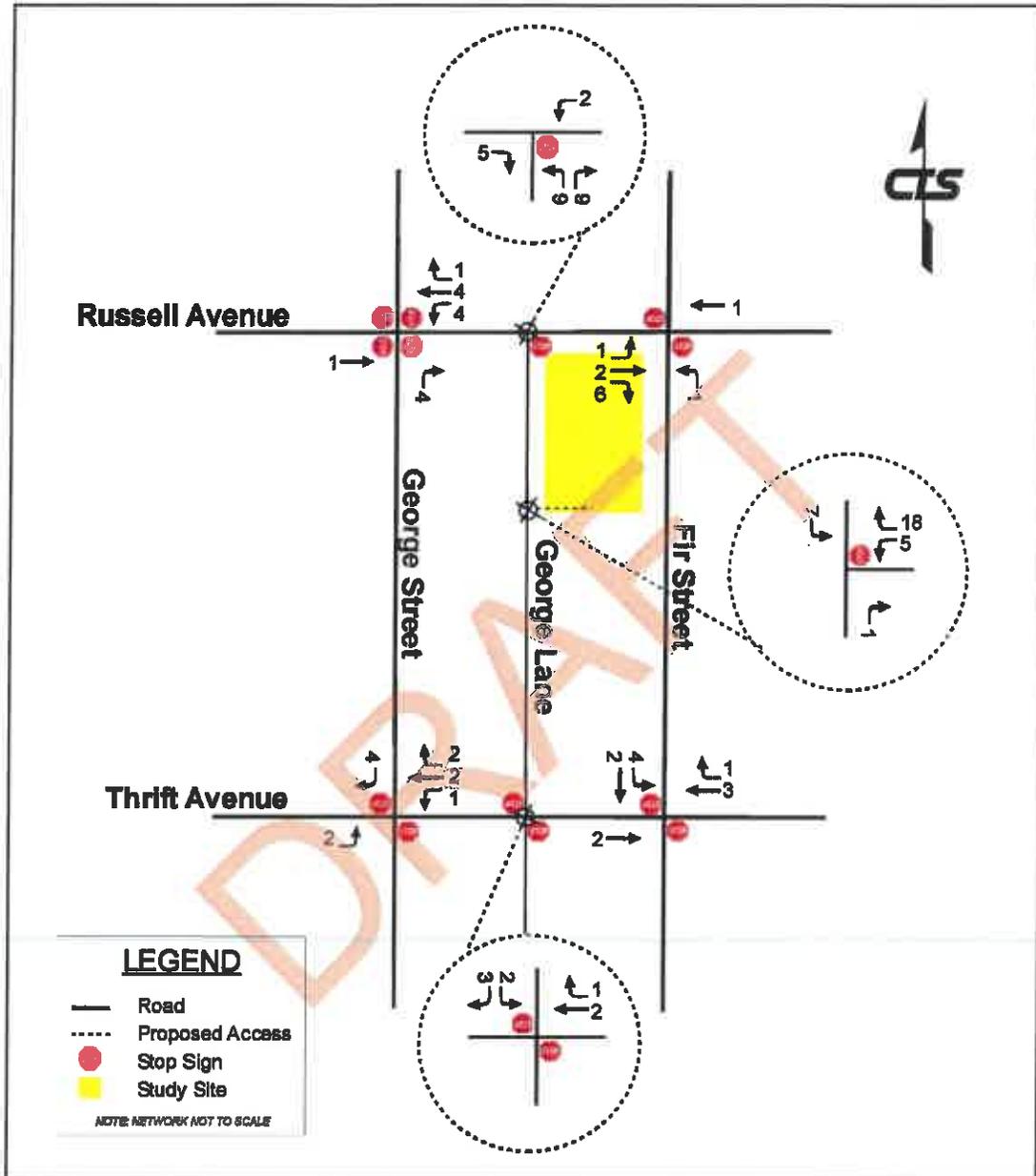
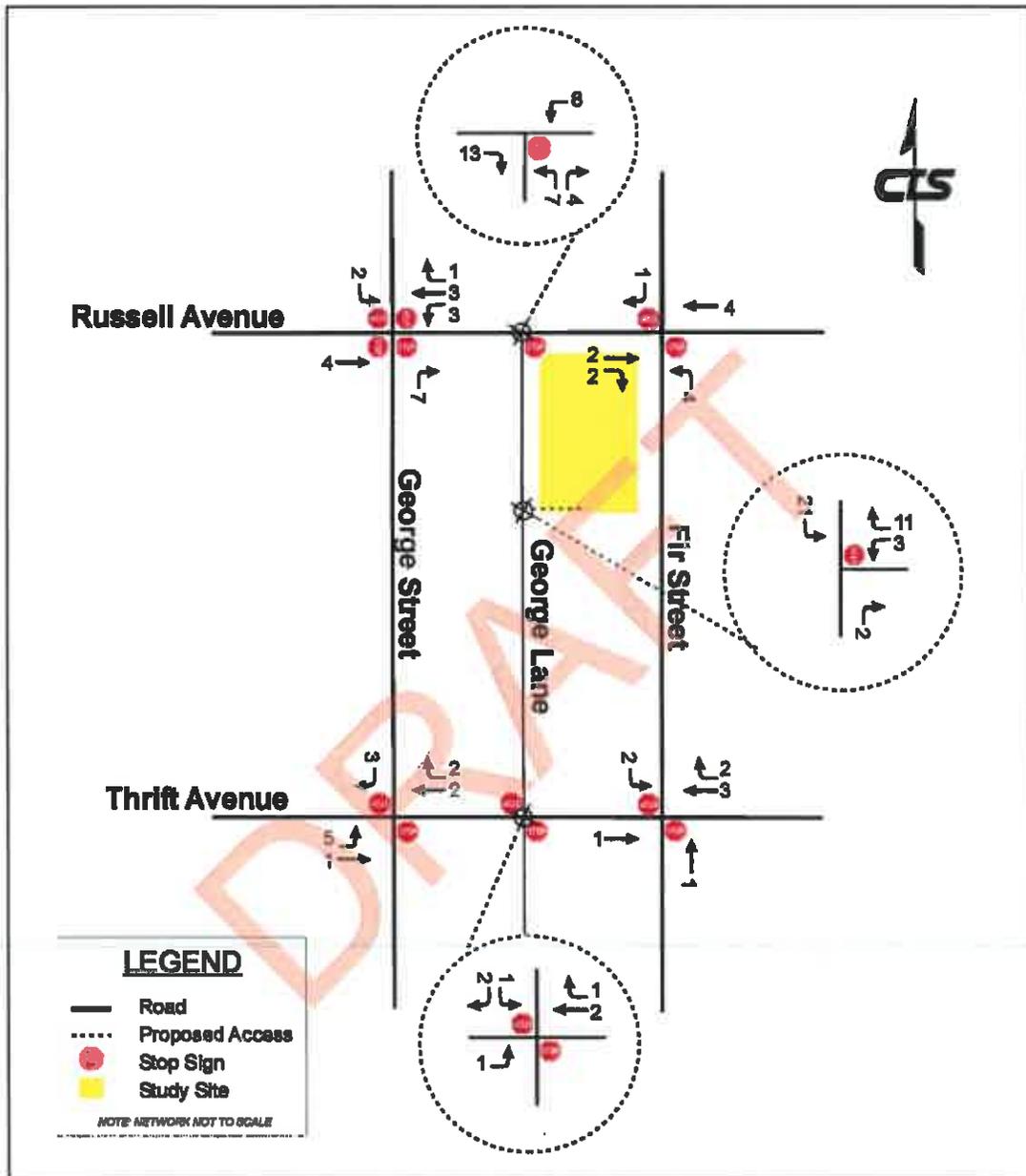


FIGURE 14
WEEKDAY AFTERNOON PEAK HOUR SITE TRAFFIC VOLUMES



4.0 BASE + SITE TRAFFIC VOLUMES

4.1 2022 Future Base + Site Traffic Volumes

The proposed development is anticipated to be fully built-out and occupied by the year 2022. The 2022 future base plus proposed development traffic volumes were calculated by first factoring up the 2019 base traffic volumes up by the approved growth rate of 2.0% per annum (simple-straight line) to the year 2022. The estimated traffic generated by the existing apartment building on the property were then subtracted from the 2022 base. Lastly, the forecast traffic generated by the proposed development were added to the 2020 base traffic volumes.

FIGURE 15 illustrates the total projected traffic for the 2022 weekday morning peak hour consisting of the future base (minus existing apartment building traffic) plus the proposed development site generated traffic.

FIGURE 16 illustrates the total projected traffic for the 2022 weekday afternoon peak hour consisting of the future base (minus existing apartment building traffic) plus the proposed development site generated traffic.

4.2 2027 Future Base + Site Traffic Volumes

The proposed development is anticipated to have been fully built-out and occupied for five years by the year 2027. The 2027 future base plus proposed development traffic volumes were calculated by first factoring up the 2019 base traffic volumes up by the approved growth rate of 2.0% per annum (simple-straight line) to the year 2027. The estimated traffic generated by the existing apartment building on the property were then subtracted from the 2027 base. Lastly, the forecast traffic generated by the proposed development were added to the 2020 base traffic volumes.

FIGURE 17 illustrates the total projected traffic for the 2027 weekday morning peak hour consisting of the future base (minus existing apartment building traffic) plus the proposed development site generated traffic.

FIGURE 18 illustrates the total projected traffic for the 2027 weekday afternoon peak hour consisting of the future base (minus existing apartment building traffic) plus the proposed development site generated traffic.

FIGURE 15
2022 WEEKDAY MORNING PEAK HOUR BASE + SITE TRAFFIC VOLUMES

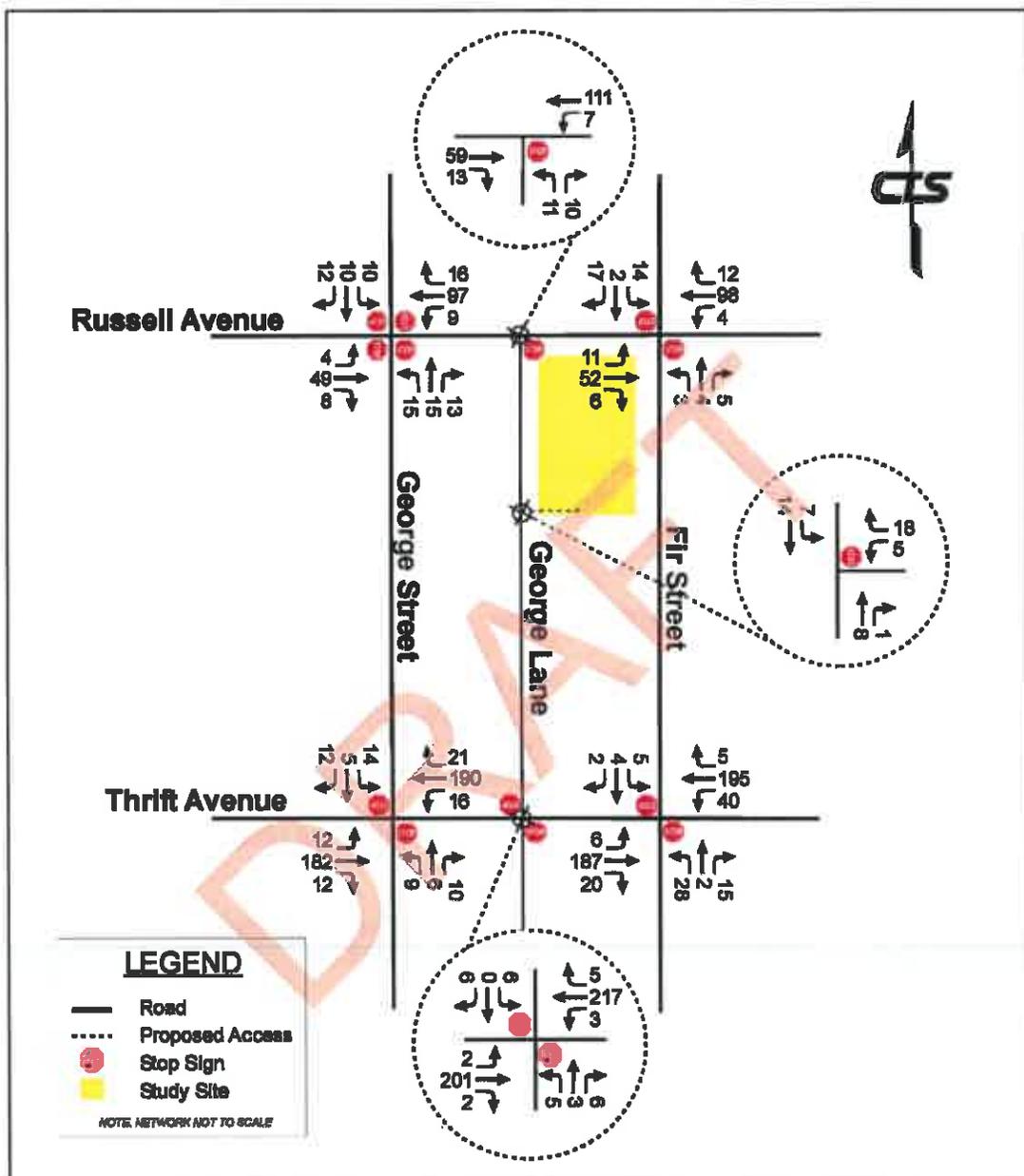


FIGURE 16
2022 WEEKDAY AFTERNOON PEAK HOUR BASE + SITE TRAFFIC VOLUMES

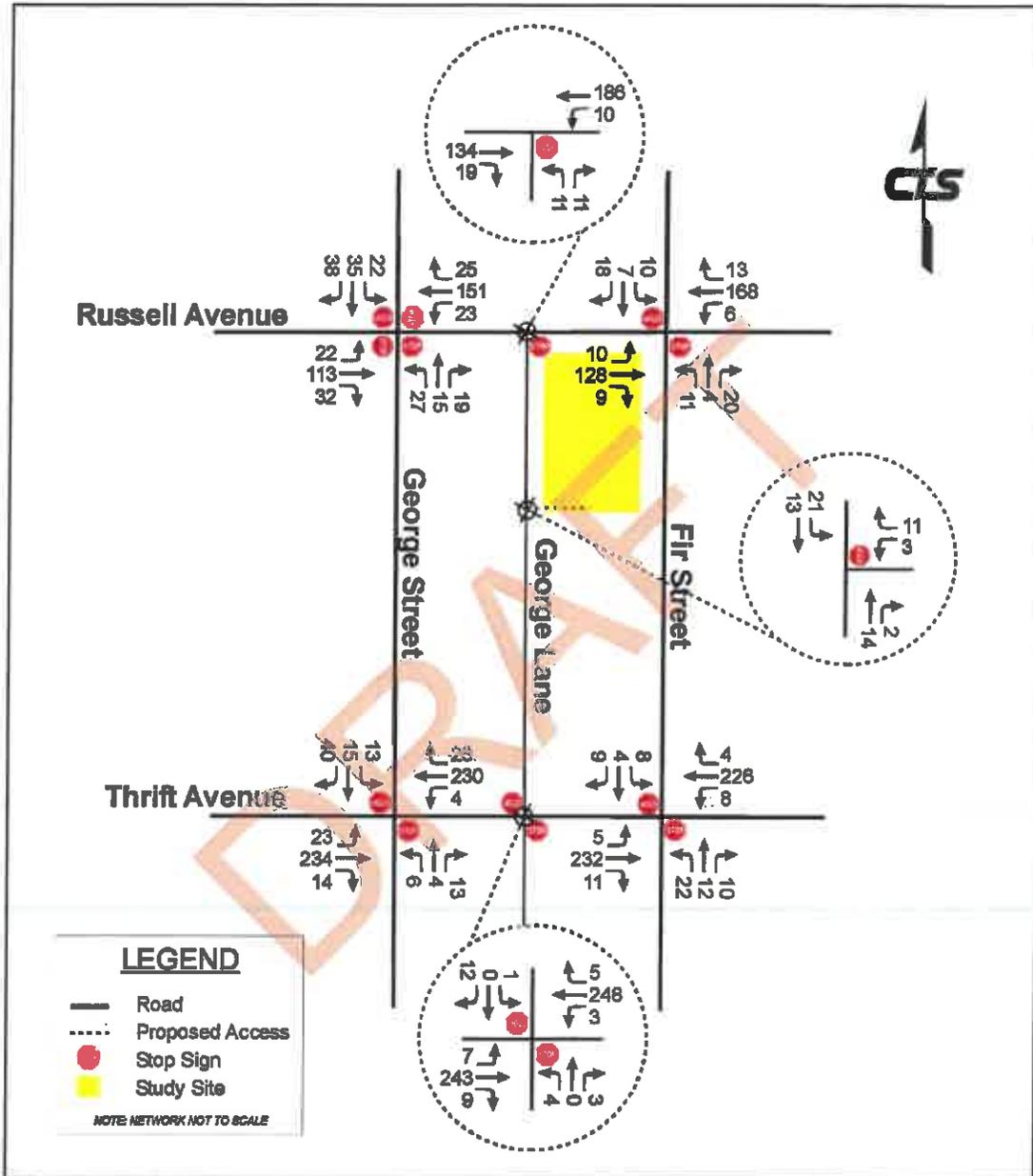


FIGURE 17
2027 WEEKDAY MORNING PEAK HOUR BASE + SITE TRAFFIC VOLUMES

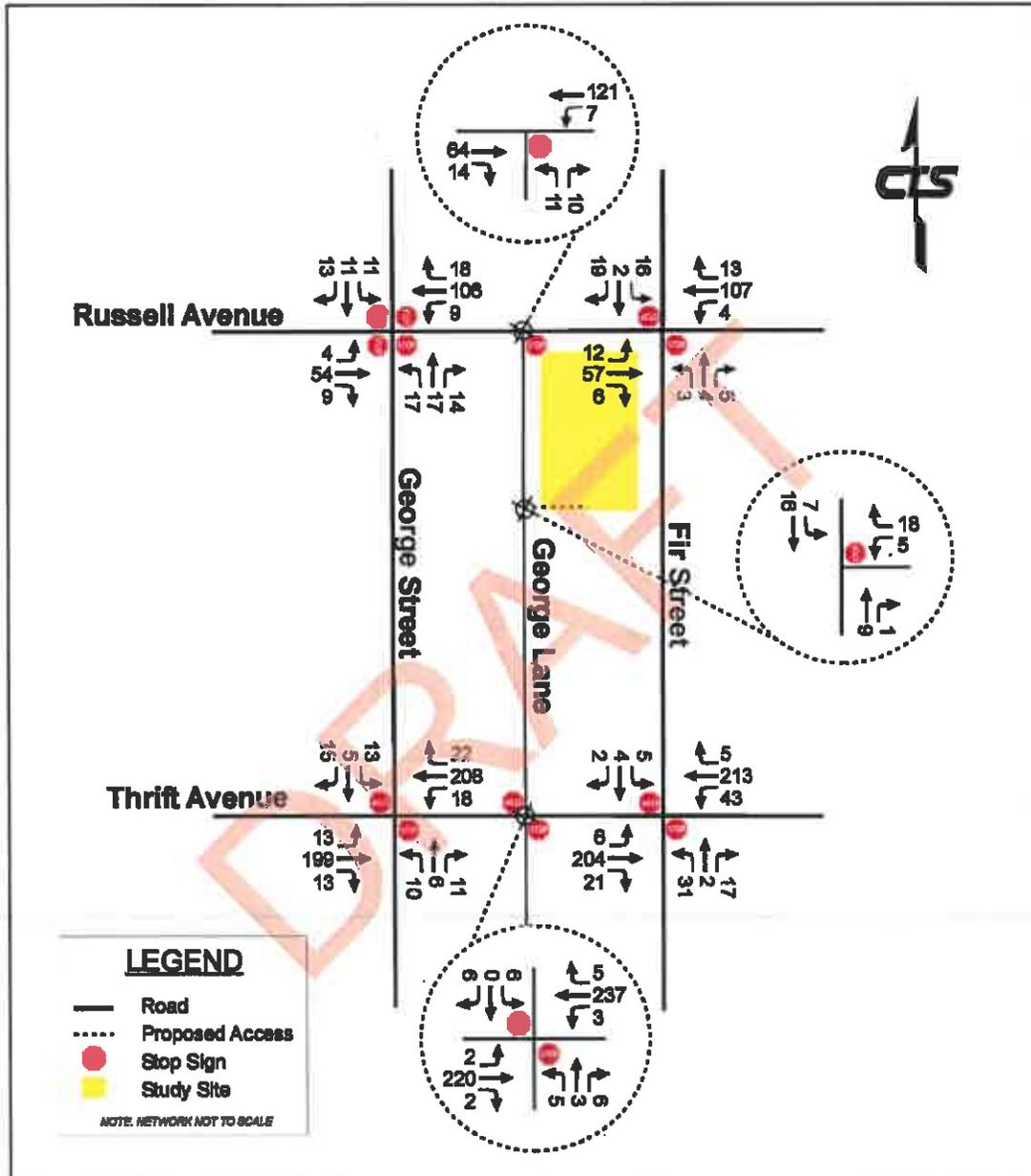
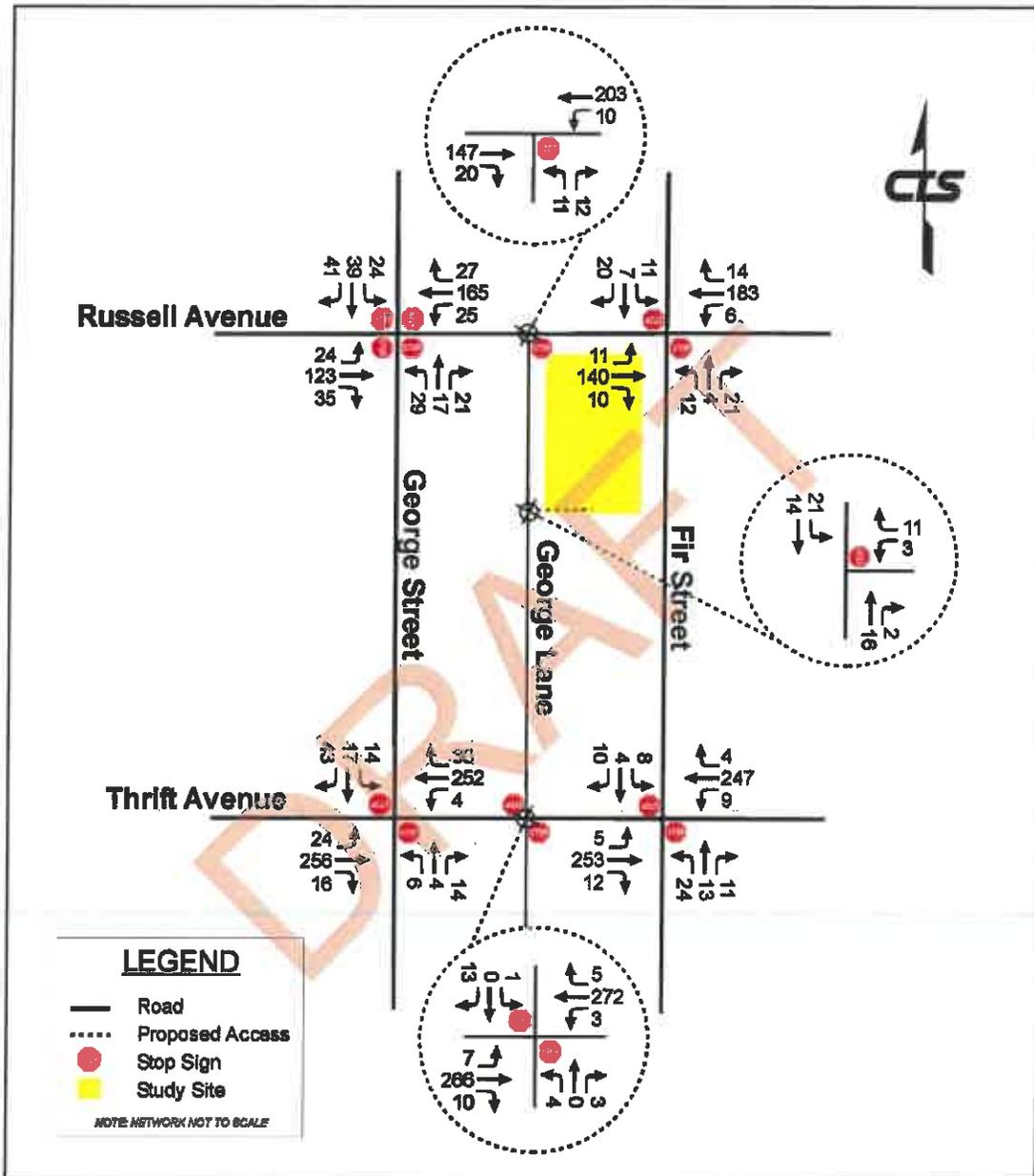


FIGURE 18
2027 WEEKDAY AFTERNOON PEAK HOUR BASE + SITE TRAFFIC VOLUMES



5.0 INTERSECTION CAPACITY ANALYSIS

5.1 Capacity Analysis

Capacity analysis was performed at each of the locations in order to determine the intersection levels of service (LOS) that is provided to motorists. The LOS for intersections and movements is defined in terms of delay (seconds per vehicle), which is a measure of driver discomfort and frustration, fuel consumption and lost travel time.

An intersection or movement LOS can range from "A" (Excellent) to "F" (Fail). See **TABLE 3**. A LOS of "F" (Fail) indicates that an intersection or movement is failing because the intersection or movement is over capacity and delays are considered excessive. A LOS of "D" during the critical peak hours is considered acceptable by many public agencies in large urban areas for overall intersection operation and a LOS of "E" or better is considered acceptable for left turn movements as it recognizes that the intersections normally perform much better the remaining 90% of the day.

**TABLE 3
LEVEL OF SERVICE DESCRIPTIONS**

Level of Service	Description
A	Excellent
B	Good
C	Fair
D	Poor
E	Very Poor
F	Fail

Highway Capacity Software (HCS 7.6) was used for the analysis of the unsignalized intersections.

The following assumptions were made with respect to the intersection capacity analysis:

- *Saturation flow rate* = 1,900 passenger cars/hour of green time/lane (pcphgpl)
- *Peak hour factor* (PHF) = 0.83 (weekday morning peak hour) and 0.87 (weekday afternoon peak hour) were the average factors observed from the surveyed intersections.
- Heavy vehicle percentage for roads = 2%

Saturation flow rate is the equivalent hourly rate at which previously queued vehicles can traverse an intersection approach under prevailing conditions, assuming that the green signal is available at all times and no lost times are experienced. It is a base rate to which adjustment factors are applied.

Peak Hour Factor is a measure of traffic demand fluctuation within the analysis hour. The closer the number is to 1.00, the less fluctuation during the hour.

TABLE 4 to TABLE 10 summarizes and compares the main performance parameters of the intersection capacity analysis for the unsignalized intersections.

For unsignalized intersections, the delay time in seconds for each lane group is summarized. Delay is additional travel time experienced by a driver, passenger, bicyclist, or pedestrian beyond that required to travel at the desired speed.

Wherever necessary, attempts at improvements have been made to maintain intersection and approach movement level of service standards for each of the post-development scenarios. The capacity analysis worksheets with level of services for each individual movement are included in **APPENDIX D**.

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**TABLE 4
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
GEORGE STREET AT RUSSELL AVENUE**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS	NOTES
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
George Street (N/S) at Russell Avenue (EW)	Weekday Morning Peak Hour	2019 Base	Volumes	3	45	7	6	88	14	14	14	9	9	9	11	A	Okay.
			Delay	7.8			7.8			7.8			7.4				
			95% Queue (veh)	0.2			0.5			0.2			0.1				
		2022 Base	Volumes	4	48	8	7	94	15	15	15	10	10	10	12	A	Okay.
			Delay	7.8			7.9			7.8			7.5				
			95% Queue (veh)	0.3			0.8			0.2			0.1				
		2027 Base	Volumes	4	53	9	7	103	17	17	17	11	11	11	13	A	Okay.
			Delay	7.7			8.1			7.7			7.8				
			95% Queue (veh)	0.3			0.8			0.2			0.2				
		2022 Base + Site	Volumes	4	49	8	9	97	16	15	15	13	10	10	12	A	Okay.
			Delay	7.6			8.0			7.6			7.5				
			95% Queue (veh)	0.3			0.8			0.2			0.1				
	2027 Base + Site	Volumes	4	54	9	9	108	18	17	17	14	11	11	13	A	Okay.	
		Delay	7.7			8.1			7.7			7.8					
		95% Queue (veh)	0.3			0.7			0.2			0.2					
	Weekday Afternoon Peak Hour	2019 Base	Volumes	20	108	30	19	140	22	25	14	13	19	33	38	A	Okay.
			Delay	8.7			8.9			8.3			8.4				
			95% Queue (veh)	0.8			1.0			0.3			0.4				
		2022 Base	Volumes	22	110	32	21	149	24	27	15	14	21	35	38	A	Okay.
			Delay	9.0			9.1			8.5			8.8				
			95% Queue (veh)	0.9			1.2			0.3			0.5				
		2027 Base	Volumes	24	120	36	23	163	28	29	17	16	23	39	41	A	Okay.
			Delay	9.3			9.7			8.7			8.8				
			95% Queue (veh)	1.1			1.3			0.3			0.6				
2022 Base + Site		Volumes	22	113	33	23	151	25	27	15	19	22	35	38	A	Okay.	
		Delay	9.0			9.4			8.6			8.7					
		95% Queue (veh)	1.0			1.2			0.3			0.5					
2027 Base + Site	Volumes	24	123	35	25	165	27	29	17	21	24	39	41	A	Okay.		
	Delay	9.4			9.8			8.7			8.9						
	95% Queue (veh)	1.1			1.4			0.4			0.6						

Delay = Average Delay (seconds/vehicle)
 Intersection approaching capacity (LOS 'D' or 'E'); or medium approach delays (25sec to <50sec)
 Intersection equals or exceeds capacity (LOS 'F'); or high approach delays (>= 50sec)

From TABLE 4, the following observations can be made:

George Street at Russell Avenue:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

**TABLE 5
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
GEORGE LANE AT RUSSELL AVENUE**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHEBOUND			SOUTHBOUND			LOS	NOTES
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
George Lane (N/S) at Russell Avenue (EW)	Weekday Morning Peak Hour	2019 Base	Volumes	55	8	5	104		4		3					A	Okay.
			Delay		0.0		7.4				9.3						
			95% Queue (veh)		0.0		0.0				0.0						
		2022 Base	Volumes	59	9	8	111		5		4					A	Okay.
			Delay		0.0		7.4				8.4						
			95% Queue (veh)		0.0		0.0				0.0						
		2027 Base	Volumes	64	10	8	121		5		4					A	Okay.
			Delay		0.0		7.4				8.4						
			95% Queue (veh)		0.0		0.0				0.0						
		2022 Base + Site	Volumes	59	13	7	111		11		10					A	Okay.
			Delay		0.0		7.4				9.4						
			95% Queue (veh)		0.0		0.0				0.1						
	2027 Base + Site	Volumes	64	14	7	121		11		10					A	Okay.	
		Delay		0.0		7.4				9.5							
		95% Queue (veh)		0.0		0.0				0.1							
	Weekday Afternoon Peak Hour	2019 Base	Volumes	128	9	3	176		5		8				A	Okay.	
			Delay		0.0		7.7				10.1						
			95% Queue (veh)		0.0		0.0				0.1						
		2022 Base	Volumes	134	10	4	186		6		9				A	Okay.	
			Delay		0.0		7.7				10.3						
			95% Queue (veh)		0.0		0.0				0.1						
		2027 Base	Volumes	147	11	4	203		6		10				A	Okay.	
			Delay		0.0		7.7				10.4						
			95% Queue (veh)		0.0		0.0				0.1						
2022 Base + Site		Volumes	134	19	10	186		11		11				A	Okay.		
		Delay		0.0		7.7				10.7							
		95% Queue (veh)		0.0		0.0				0.1							
2027 Base + Site	Volumes	147	20	10	203		11		12				A	Okay.			
	Delay		0.0		7.8				10.8								
	95% Queue (veh)		0.0		0.0				0.1								

Delay = Average Delay (seconds/vehicle)
 Intersection approaching capacity (LOS D or E); or medium approach delay (25sec to <50sec)
 Intersection equals or exceeds capacity (LOS F); or high approach delay (>= 50sec)

From TABLE 5, the following observations can be made:

George Lane at Russell Avenue:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

**TABLE 6
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
FIR STREET AT RUSSELL AVENUE**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS	NOTES
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Fir Street (NB) at Russell Avenue (EW)	Weekday Morning Peak Hour	2019 Base	Volumes	9	48	1	3	93	11	2	3	4	13	1	16	A	Okay.
			Delay	7.6			7.4			9.7			9.8				
			95% Queue (veh)	0.0			0.0			0.0			0.1				
		2022 Base	Volumes	10	51	2	4	97	12	3	4	5	14	2	17	A	Okay.
			Delay	7.6			7.4			9.9			10.0				
			95% Queue (veh)	0.0			0.0			0.1			0.2				
		2027 Base	Volumes	11	66	2	4	108	13	3	4	5	16	2	19	A	Okay.
			Delay	7.6			7.4			10.0			10.1				
			95% Queue (veh)	0.0			0.0			0.1			0.2				
		2022 Base + Site	Volumes	11	62	6	4	98	12	3	4	5	14	2	17	A	Okay.
			Delay	7.6			7.4			9.9			10.0				
			95% Queue (veh)	0.0			0.0			0.1			0.2				
	2027 Base + Site	Volumes	12	67	6	4	107	13	3	4	5	16	2	19	A	Okay.	
		Delay	7.6			7.4			10.0			10.2					
		95% Queue (veh)	0.0			0.0			0.1			0.2					
	Weekday Afternoon Peak Hour	2019 Base	Volumes	9	119	7	5	155	12	7	3	18	9	6	16	A	Okay.
			Delay	7.8			7.7			10.7			11.4				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
		2022 Base	Volumes	10	127	8	6	165	13	8	4	20	10	7	17	A	Okay.
			Delay	7.9			7.7			11.0			11.7				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
		2027 Base	Volumes	11	139	9	6	180	14	9	4	21	11	7	19	A	Okay.
			Delay	7.9			7.7			11.3			12.0				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
2022 Base + Site		Volumes	10	128	9	5	168	13	11	4	20	10	7	18	A	Okay.	
		Delay	7.9			7.7			11.3			11.7					
		95% Queue (veh)	0.0			0.0			0.2			0.2					
2027 Base + Site	Volumes	11	140	10	6	189	14	12	4	21	11	7	20	A	Okay.		
	Delay	7.9			7.7			11.8			12.0						
	95% Queue (veh)	0.0			0.0			0.2			0.3						

Delay = Average Delay (seconds/veh)
Intersection approaching capacity (LOS D' or 'E'); or medium approach delays (25sec to <30sec)
Intersection equals or exceeds capacity (LOS F); or high approach delays (>= 30sec)

From **TABLE 6**, the following observations can be made:

Fir Street at Russell Avenue:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

**TABLE 7
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
FIR STREET AT THRIFT AVENUE**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS	NOTES				
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right						
Fir Street (N/S) at Thrift Avenue (E/W)	Weekday Morning Peak Hour	2019 Base	Volumes	5	174	18	37	181	4	26	11	14	2	1	1	A	Okay.				
			Delay	7.8			7.8			13.1			13.2								
			95% Queue (veh)	0.0			0.1			0.3			0.0								
		2022 Base	Volumes	6	185	20	40	182	5	28	2	15	3	2	2			A	Okay.		
			Delay	7.9			7.9			13.8			13.6								
			95% Queue (veh)	0.0			0.1			0.4			0.1								
		2027 Base	Volumes	6	202	21	43	210	5	31	2	17	3	2	2					A	Okay.
			Delay	7.9			8.0			14.6			14.3								
			95% Queue (veh)	0.0			0.1			0.5			0.1								
		2022 Base + Site	Volumes	6	187	20	40	195	5	28	2	15	5	4	2	A	Okay.				
			Delay	7.9			7.9			13.9			14.4								
			95% Queue (veh)	0.0			0.1			0.4			0.1								
	2027 Base + Site	Volumes	6	204	21	43	213	5	31	2	17	5	4	2	A			Okay.			
		Delay	7.9			8.0			14.8			15.1									
		95% Queue (veh)	0.0			0.1			0.5			0.1									
	Weekday Afternoon Peak Hour	2019 Base	Volumes	4	217	10	7	210	2	20	10	9	6	3					8	A	Okay.
			Delay	7.9			7.8			13.6			12.2								
			95% Queue (veh)	0.0			0.0			0.3			0.1								
		2022 Base	Volumes	5	231	11	8	223	3	22	11	10	7	4		9	A		Okay.		
			Delay	7.9			7.9			14.2			12.7								
			95% Queue (veh)	0.0			0.0			0.4			0.1								
		2027 Base	Volumes	5	252	12	8	244	3	24	12	11	7	4	10	A		Okay.			
			Delay	7.9			8.0			15.1			13.1								
			95% Queue (veh)	0.0			0.0			0.5			0.2								
2022 Base + Site		Volumes	5	232	11	8	228	4	22	12	10	8	4	9	A					Okay.	
		Delay	7.9			7.9			14.3			12.9									
		95% Queue (veh)	0.0			0.0			0.4			0.2									
2027 Base + Site	Volumes	5	253	12	9	247	4	24	13	11	8	4	10	A			Okay.				
	Delay	8.0			8.0			16.2			13.4										
	95% Queue (veh)	0.0			0.0			0.5			0.2										

Delay = Average Delay (seconds/vehicle)
 Intersection approaching capacity (LOS D or E); or medium approach delays (25sec to <30sec)
 Intersection equals or exceeds capacity (LOS F); or high approach delays (>= 50sec)

From TABLE 7, the following observations can be made:

Fir Street at Thrift Avenue:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

**TABLE 8
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
GEORGE LANE AT THRIFT AVENUE**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS	NOTES
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
George Lane (NB) at Thrift Avenue (EW)	Weekday Morning Peak Hour	2019 Base	Volumes	1	188	1	2	202	0	4	2	8	3	0	2	A	Okay.
			Delay	7.8			7.7			11.4			11.8				
			95% Queue (veh)	0.0			0.0			0.1			0.0				
		2022 Base	Volumes	2	201	2	3	215	4	5	3	6	4	0	3	A	Okay.
			Delay	7.9			7.8			11.9			12.1				
			95% Queue (veh)	0.0			0.0			0.1			0.0				
		2027 Base	Volumes	2	220	2	3	235	4	5	3	6	4	0	3	A	Okay.
			Delay	8.0			7.8			12.3			12.6				
			95% Queue (veh)	0.0			0.0			0.1			0.1				
		2022 Base + Site	Volumes	2	201	2	3	217	5	5	3	6	4	0	3	A	Okay.
			Delay	7.9			7.8			11.9			11.9				
			95% Queue (veh)	0.0			0.0			0.1			0.1				
	2027 Base + Site	Volumes	2	220	2	3	237	5	5	3	6	4	0	3	A	Okay.	
		Delay	8.0			7.8			12.4			12.3					
		95% Queue (veh)	0.0			0.0			0.1			0.1					
	Weekday Afternoon Peak Hour	2019 Base	Volumes	5	229	8	2	232	3	3	0	2	0	0	8	A	Okay.
			Delay	8.0			7.9			12.5			10.2				
			95% Queue (veh)	0.0			0.0			0.0			0.0				
		2022 Base	Volumes	6	248	8	3	248	4	4	0	3	0	0	10	A	Okay.
			Delay	8.1			8.0			12.9			10.4				
			95% Queue (veh)	0.0			0.0			0.1			0.1				
		2027 Base	Volumes	6	268	10	3	270	4	4	0	3	0	0	11	A	Okay.
			Delay	8.1			8.1			13.5			10.8				
			95% Queue (veh)	0.0			0.0			0.1			0.1				
2022 Base + Site		Volumes	7	243	8	3	248	5	4	0	3	1	0	12	A	Okay.	
		Delay	8.1			8.0			12.9			10.8					
		95% Queue (veh)	0.0			0.0			0.1			0.1					
2027 Base + Site	Volumes	7	268	10	3	272	5	4	0	3	1	0	13	A	Okay.		
	Delay	8.1			8.1			13.5			11.0						
	95% Queue (veh)	0.0			0.0			0.1			0.1						

Delay = Average Delay (seconds/vehicle)
 Intersection approaching capacity (LOS D' or E'); or medium approach delays (25sec to <50sec)
 Intersection equals or exceeds capacity (LOS F); or high approach delays (>= 60sec)

From TABLE 8, the following observations can be made:

George Lane at Thrift Avenue:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

**TABLE 9
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
GEORGE STREET AT THRIFT AVENUE**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS	NOTES
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
George Street (N/S) at Thrift Avenue (EW)	Weekday Morning Peak Hour	2019 Base	Volumes	10	171	11	14	177	17	8	5	9	11	4	11	A	Okay.
			Delay	7.8			7.7			12.1			12.4				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
		2022 Base	Volumes	11	182	12	15	188	19	9	6	10	12	5	12	A	Okay.
			Delay	7.9			7.8			12.5			12.8				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
		2027 Base	Volumes	12	199	13	17	206	20	10	6	11	13	5	13	A	Okay.
			Delay	7.9			7.8			13.1			13.5				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
		2022 Base + Site	Volumes	12	182	12	16	190	21	9	6	10	12	5	14	A	Okay.
			Delay	7.9			7.8			12.6			12.8				
			95% Queue (veh)	0.0			0.0			0.2			0.2				
	2027 Base + Site	Volumes	13	199	13	18	208	22	10	6	11	13	5	15	A	Okay.	
		Delay	7.9			7.8			13.2			13.4					
		95% Queue (veh)	0.0			0.1			0.2			0.3					
	Weekday Afternoon Peak Hour	2019 Base	Volumes	18	219	13	3	215	24	5	3	12	12	14	36	A	Okay.
			Delay	8.0			7.9			12.6			13.5				
			95% Queue (veh)	0.1			0.0			0.1			0.6				
		2022 Base	Volumes	20	233	14	4	226	26	6	4	13	13	15	36	A	Okay.
			Delay	8.1			7.9			13.3			14.0				
			95% Queue (veh)	0.1			0.0			0.2			0.6				
		2027 Base	Volumes	21	256	16	4	250	28	6	4	14	14	17	41	A	Okay.
			Delay	8.2			8.0			13.8			15.0				
			95% Queue (veh)	0.1			0.0			0.2			0.7				
2022 Base + Site		Volumes	23	234	14	4	230	28	6	4	13	13	15	40	A	Okay.	
		Delay	8.1			7.9			13.4			14.1					
		95% Queue (veh)	0.1			0.0			0.2			0.6					
2027 Base + Site	Volumes	24	256	16	4	252	30	6	4	14	14	17	43	A	Okay.		
	Delay	8.2			8.0			14.0			15.1						
	95% Queue (veh)	0.1			0.0			0.2			0.7						

Delay = Average Delay (seconds/veh/htg)
 Intersection approaching capacity (LOS D or E); or medium approach delays (25sec to <50sec)
 Intersection equals or exceeds capacity (LOS F); or high approach delays (>= 50sec)

From **TABLE 9**, the following observations can be made:

George Thrift at Thrift Avenue:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

**TABLE 10
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
GEORGE LANE AT SITE ACCESS**

INTERSECTION	TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS	NOTES			
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right					
George Lane (NS) at Site Access (EW)	2022 Base + Site	Volumes				5		18			0	1	7	14	A	Okay.				
			Delay						8.6					0.0			7.3			
				95% Queue (veh)						0.1				0.0			0.0			
		2027 Base + Site	Volumes				5		18			8	1	7			16	A	Okay.	
				Delay						8.6							0.0			7.3
					95% Queue (veh)						0.1						0.0			0.0
	2022 Base + Site	Volumes				3		11			14	2	21	13	A	Okay.				
			Delay						8.6					0.0			7.3			
				95% Queue (veh)						0.0				0.0			0.0			
		2027 Base + Site	Volumes				3		11			15	2	21			14	A	Okay.	
				Delay						8.6							0.0			7.3
					95% Queue (veh)						0.0						0.0			0.0

Delay = Average Delay (seconds/vehicle)
 Intersection approaching capacity (LOS 'D' or 'E'); or medium approach delays (25sec to <30sec)
 Intersection equals or exceeds capacity (LOS 'F'); or high approach delays (>= 50sec)

From **TABLE 10**, the following observations can be made:

George Lane at Site Access:

- During the weekday morning peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.
- During the weekday afternoon peak hour:
 - The intersection is forecast to continue to operate at LOS A (Excellent) for all horizon years and scenarios.

Capacity Analysis Conclusion:

The capacity analyses showed that all of the study intersections are anticipated to continue to operate at level of service A (Excellent) in all of the analyzed horizon years with the proposed development traffic included. No geometric changes are required in order to accommodate the traffic volume growth anticipated within this study.

6.0 2045 LINK VOLUMES

The City of White Rock requested that estimates for the 2045 traffic volumes within the study network be made in order to provide a point of reference for the City of White Rock 2045 OCP.

As this scenario is 26 years into the future, it is difficult to accurately forecast vehicle volumes in the context of intersection analysis. Therefore, peak hour road link volumes were determined to provide an estimated magnitude of vehicle volumes.

FIGURE 19 and **FIGURE 20** show the estimated 2-way link volumes for the morning and afternoon peak hour based on an approved growth rate of 2.0% per annum (simple-straight line) factored up from the 2019 turning movement counts with the proposed site traffic included.

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FIGURE 19
2045 WEEKDAY MORNING PEAK HOUR LINK VOLUMES

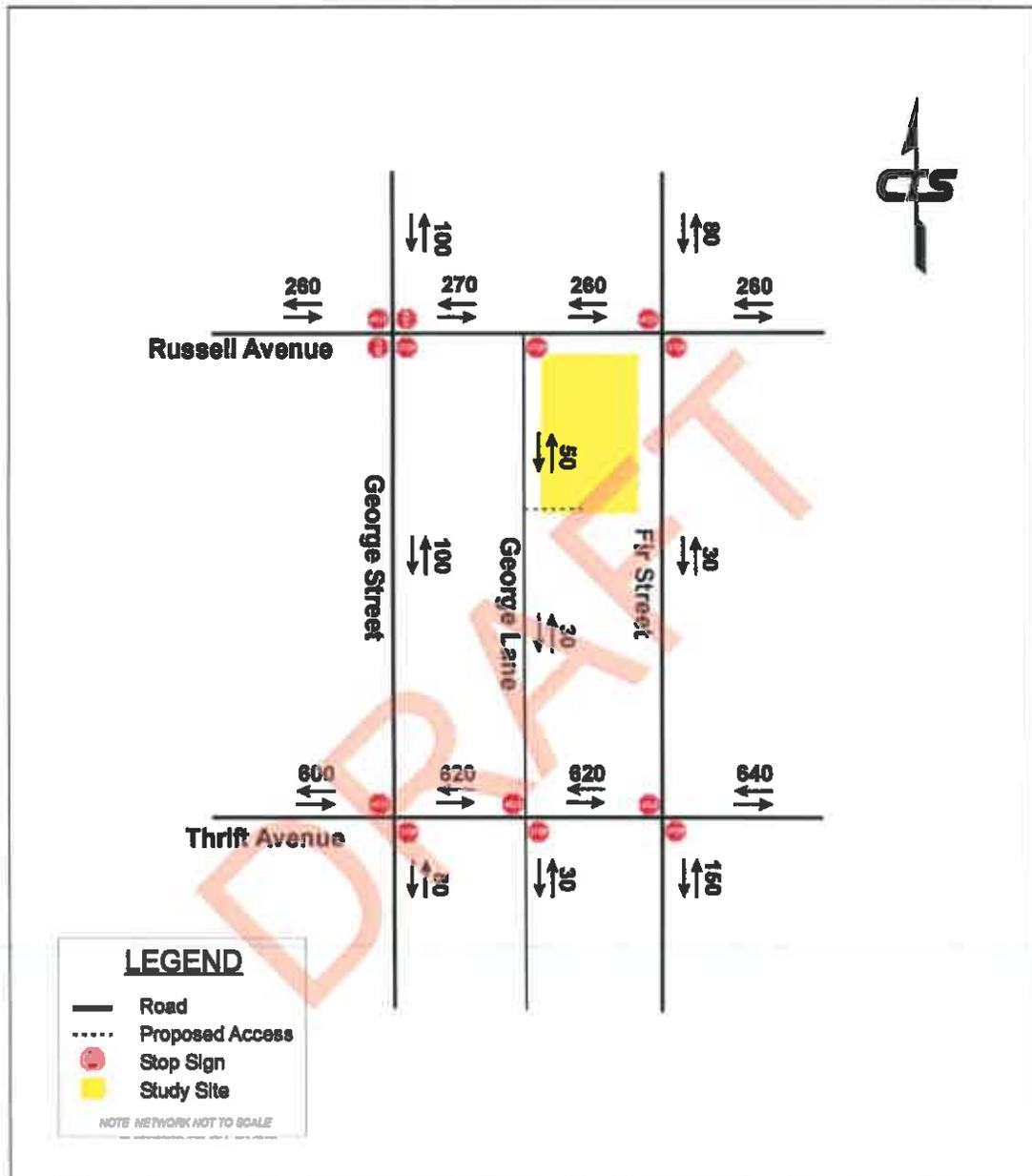
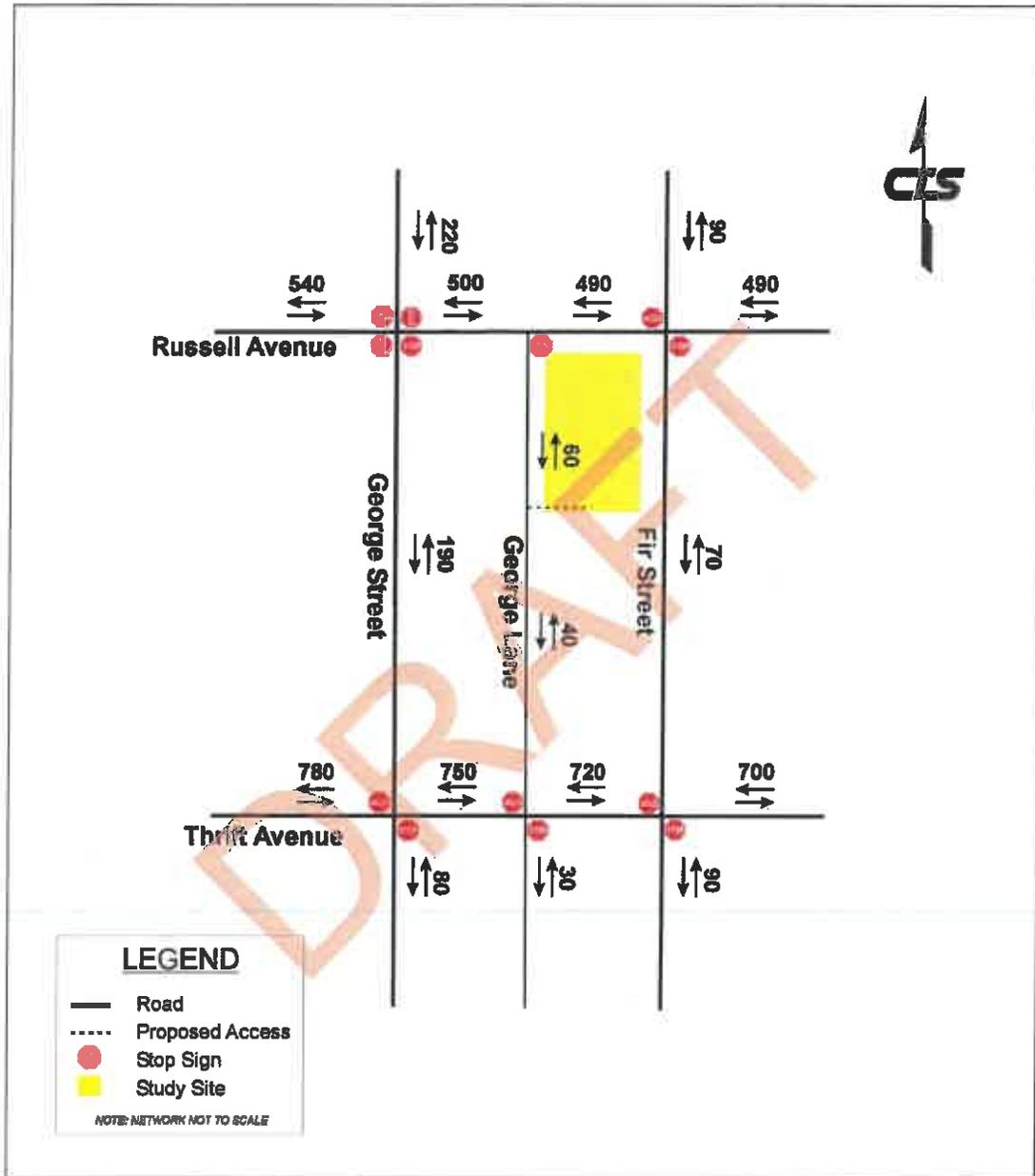


FIGURE 20
2045 WEEKDAY AFTERNOON PEAK HOUR LINK VOLUMES



7.0 PARKING REVIEW

7.1 Parking Requirements

7.1.1 Vehicle Parking Requirements

The required parking spaces for the proposed development are summarized in **TABLE 11** with reference to the *City of White Rock Zoning Bylaw Section 4: General Provisions & Regulations*.

**TABLE 11
BYLAW VEHICLE PARKING SPACE REQUIREMENTS**

Land Use Bylaw Classification	Parking Space Type	Required Parking Rate	# of Units	Parking Stalls Required
Table 4.14.1 - Apartment	Residential Spaces	1.2 per Dwelling Unit	80	96
Table 4.14.1 - Apartment	Visitor Spaces	0.3 per Dwelling Unit	80	24
Total Required Parking Spaces				120

As shown in **TABLE 11** above, the total number of required parking spaces for the proposed development is 120 parking spaces – 96 parking spaces for residents and 24 parking spaces for visitors. The proposed development is providing a total of 108 parking spaces – 84 parking spaces for residents and 24 parking spaces for visitors, resulting in a variance of 12 parking spaces, or 10%.

With reference to the *City of White Rock Zoning Bylaw Section 4.14.9*, 40% of the total parking provided may be small car spaces, resulting in an allowance of 43 small car spaces within the proposed development. The proposed development is providing a total of 33 small car parking spaces.

With reference to the *City of White Rock Zoning Bylaw Section 4.14.6*, two (2) handicapped / accessible parking spaces are required of the proposed development. The proposed development is providing a total of three (3) handicapped / accessible parking spaces – two (2) parking spaces for residents and one (1) parking space for visitors.

With reference to the *City of White Rock Zoning Bylaw Section 4.17.1*, "a minimum of 1 of every 10 off-street parking spaces shall feature an energized outlet capable of providing Level 2 charging...[and] an additional 1 of every 10 off-street parking spaces shall feature roughed-in electric vehicle charging infrastructure". The proposed development will be exceeding the bylaw requirement in its provision of 24 electric vehicle charging stations.

7.1.2 Bicycle Parking Requirements

The required bicycle parking spaces for the proposed development are summarized in **TABLE 12** with reference to the *City of White Rock Zoning Bylaw Section 4: General Provisions & Regulations*.

**TABLE 12
BYLAW BICYCLE PARKING SPACE REQUIREMENTS**

Land Use Bylaw Classification	Bicycle Space Type	Required Bicycle Space Rate	# of Units	Bicycle Space Required
Table 4.16.3 - Apartment	Class I	1 per Dwelling Unit	80	80
Table 4.16.3 - Apartment	Class II	0.2 per Dwelling Unit	80	16
Total Required Parking Spaces				96

As shown in **TABLE 12** above, the total number of required bicycle parking spaces for the proposed development is 96 bicycle parking spaces – 80 Class I parking spaces and 16 Class II parking spaces. The proposed development is exceeding the bylaw requirement in its provision of 90 Class I parking spaces and 16 Class II parking spaces.

7.1.3 Loading Space Requirements

With reference to the *City of White Rock Zoning Bylaw Section 4.15.2 and 4.15.3*, one (1) off-street loading space is required. The propose development meets the bylaw requirement in its provision of one (1) loading space accessed via George Lane as per the architectural drawings attached in **APPENDIX A**.

7.2 Parking Variance

To consider the 10% parking variance, the proposed land uses, existing nearby amenities and infrastructure, and opportunities for alternative modes of travel were considered.

7.2.1 City of White Rock Policy

With reference to the City of White Rock 2045 OCP, Objective 11.2 is “to support rental housing and a range of non-market housing options and needs along the housing spectrum”. This proposed rental apartment development aligns with the City’s OCP objectives and a parking relaxation should be considered given Policy 11.2.1 g) recommends “reviewing parking requirements to determine the extent to which they can be relaxed for non-market and rental housing within walking distance of frequent transit service and / or commercial areas.

The propose rental apartment development is only a six (6) minute walk to White Rock Centre, which connects to Translink’s Frequent Transit Network.

7.2.2 Adjacent Land Uses and Amenities

As previously noted in **Section 1.0**, the site is conveniently located near amenities and public transit. The following attractions and destinations are all approximately a five (5) to fifteen (15) minute walk from the study site:

- Semiahmoo Shopping Centre
- Peace Arch Hospital
- Commercial / retail developments all along Johnston Road
- White Rock Centre transit exchange
- Earl Marriott Secondary School
- Peach Arch Elementary
- Kent Street Activity Centre

7.2.2 Sustainable Transportation

The study area has good connectivity to transit, as well as cycling and pedestrian infrastructure as noted previously in **Section 1.3**. The White Rock Centre transit exchange is only a six (6) minute walk from the site, resulting in a total of nine (9) bus routes servicing the study network. Within the adjacent road network, Thrift Avenue is a shared lane bike route. Martin Street, Best Street, and Finlay Street are also shared lane bike routes. The study area is well connected with sidewalks. All roads within the study area have a sidewalk on at least one side.

7.2.3 ITE Peak Parking Demand

In order to consider the peak parking demand of the proposed development, the Institute of Transportation Engineers (ITE) Parking Generation Manual 5th Edition is referenced.

The parking generation manual contains observed data for common land uses, along with an average peak parking demand based on variables such as gross floor area, number of dwelling units, or number of bedrooms.

Land Use Code 221 – Multi-family Housing (Mid-Rise), provides data that represents multi-family developments, that include apartments, townhouses, and condominiums located within the same building, and are between three and ten levels (floor) of residence. The peak period of parking demand occurs between 22:00 to 05:00.

For the parking demand analysis, CTS only considered data from the general urban/sub-urban scenario. General urban/sub-urban areas are associated with almost homogenous vehicle centred access. Although the proposed development is located in an area with good alternative transportation infrastructure, this setting is applied as it describes the City of White Rock as a whole.

With reference to the ITE Parking Generation Manual 5th Edition, the average parking demand of the proposed development is summarized in **TABLE 13** below.

**TABLE 13
ITE PEAK PARKING DEMAND**

Land Use Description	Land Use Code	Period	Average Rate as per ITE Parking Generation Se	Scope	Unit Of Measurement	Average Parking Demand
Multi Family (Mid-Rise)	222	Weekday	1.31 Per Dwelling Unit	80	Dwelling Units	104.8
Total Required Parking Spaces						104.8

As illustrated in **TABLE 13** above, if the average peak parking demand rate is applied to the proposed development, the average peak parking demand is forecasted to be approximately 105 parked vehicles. The proposed development is providing 108 parking spaces, exceeding the ITE peak parking demand by three (3) parking spaces.

7.2.4 Transportation Demand Management Initiatives

7.2.4.1 Pedestrian Facilities and Initiatives

Walking is the primary mode of transportation for nearly everyone whether linking with cycling, transit or vehicle modes. People will generally walk for up to fifteen minutes or within a distance of 400 to 800 meters (five to ten minute walk) to connect with another mode or access local amenities.

To encourage transportation by walking, the applicant has committed to providing the following initiatives:

- Directional signage within the lobby or at the main entrance for the nearest bus stops and estimated walking times to popular destinations

7.2.4.2 Bicycle Facilities and Initiatives

People will generally travel by bicycle up to five kilometers to their place of work, for recreation, or personal reasons.

To encourage transportation by bicycling, the applicant has committed to providing the following initiatives:

- Residents will receive a welcome package containing transit and cycling information.
- A bicycle repair station with including a tire pump will be provided within the parkade.
- Extra hooks for helmets to be locked to will be included in the bicycle lockers for convenience
- Many of the Class I bicycle parking spaces are located on P1 and P2 with direct access to the elevators. The rest of the Class I bicycle parking spaces on P2 have convenient access to the elevators.
- Residents will receive a \$30 gift card towards a local bicycle shop.
- All of the sixteen (16) Class II bicycle parking spaces are located at street level next to the main entrance.
- Gently sloped ramps leading up to the main entrance for cyclist comfort.

7.2.4.3 Transit Facilities and Initiatives

To encourage the use of public transit, the applicant has committed to providing the following initiatives:

- Directional signage within the lobby or at the main entrance for the nearest bus stops and estimated walking times to popular destinations.
- Residents will receive a pre-loaded compass card (e.g. \$100).
- Residents will receive a welcome package containing transit and cycling information.
- A live screen within the lobby displaying current bus route schedules

7.2.4.4 Vehicle Facilities and Initiatives

To encourage more sustainable transportation, the applicant has committed to providing the following initiatives:

- Twenty-four (24) electric charging stations on P2 of the proposed development.

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8.0 ON-SITE CIRCULATION

Loading Bay:

Swept path analysis was conducted on the medium-size loading bay off George Lane using MSUTAC (medium single-unit truck) as the design vehicle. An MSUTAC is able to parallel park in a single manoeuvre and exit without any conflicts. See **FIGURE 21** for the swept path analysis.

Parkade Access:

FIGURE 22 illustrates the swept path analysis for two PTACs (TAC passenger vehicles) passing each other while entering and exiting the parkade access simultaneously. Please note that the length of a PTAC (TAC passenger vehicle) is 5.6 metres, which is the length of a crew cab short bed pick-up truck. As illustrated in **FIGURE 22**, while the space is tight for two crew cab short bed pick-up trucks passing each other, there are no conflicts.

While the swept path analysis in **FIGURE 22** showed that two crew cab short bed pick-up trucks are able to narrowly pass each other without conflicts, in reality, most passenger vehicles are smaller and will be able to pass each other more easily. Swept path analysis was conducted on the same manoeuvre using two Honda Accords to illustrate typical passenger cars passing each other on the parkade access.

FIGURE 23 illustrates the swept path analysis for two Honda Accords passing each other while entering and exiting the parkade access simultaneously. The length of the Honda Accord used is 4.93 metres, which is more of a typical passenger vehicle. As illustrated in **FIGURE 23**, two small cars are able to pass each other without conflicts.

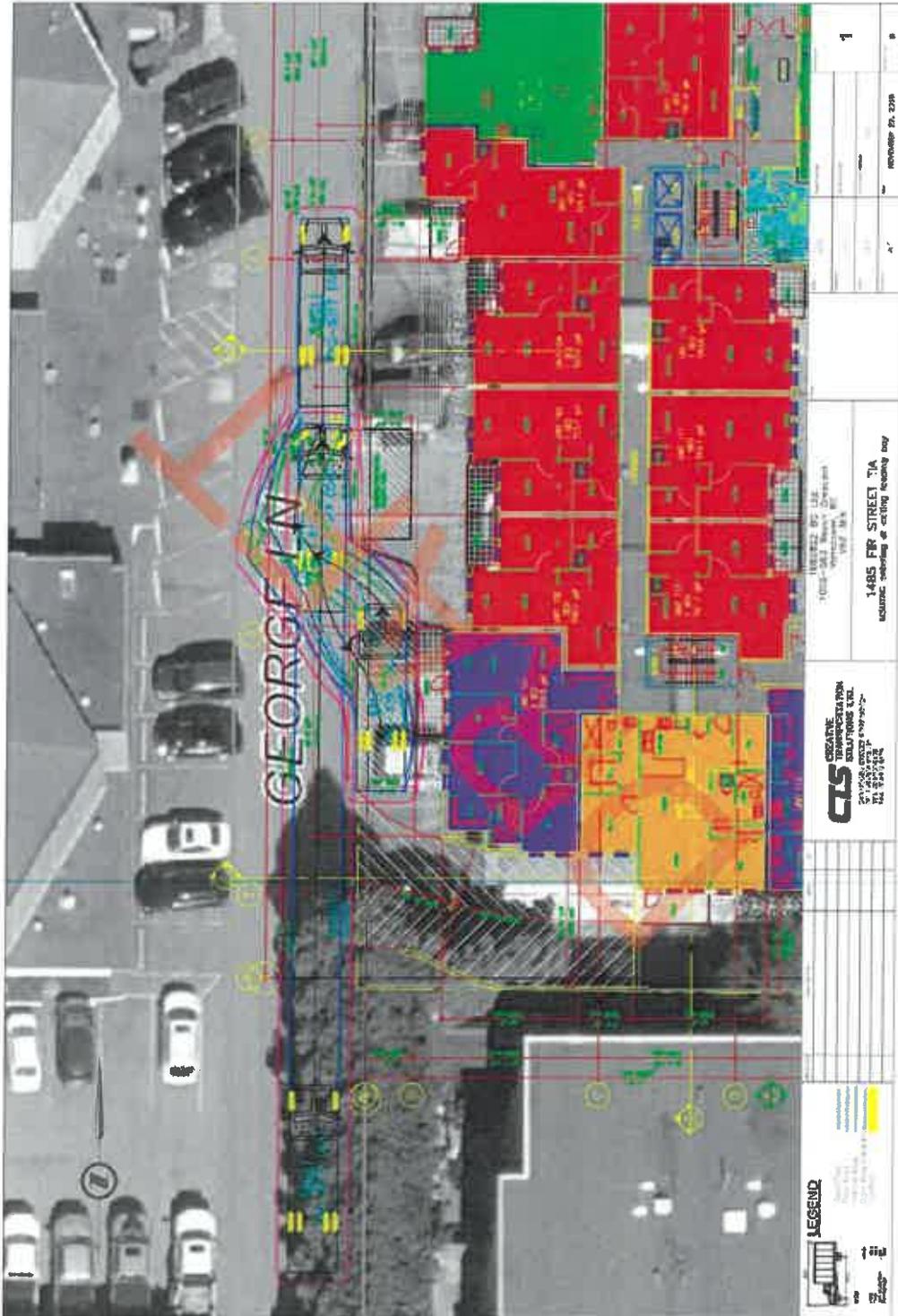
South Drive Aisle Corners:

FIGURE 24 illustrates the swept path analysis for two PTACs (TAC passenger vehicles) passing each other on the southeast corner from which connects the parkade access ramp to P1 and on the southwest corner which connects P1 to P2. Please note that the length of a PTAC (TAC passenger vehicle) is 5.6 metres, which is the length of a crew cab short bed pick-up truck. As illustrated in **FIGURE 24**, while the space is tight for two crew cab short bed pick-up trucks passing each other, there are no conflicts.

While the swept path analysis in **FIGURE 24** showed that two crew cab short bed pick-up trucks are able to narrowly pass each other without conflicts, in reality, most passenger vehicles are smaller and will be able to pass each other more easily. Swept path analysis was conducted on the same manoeuvre using two Honda Accords to illustrate typical passenger cars passing each other on the on the south drive aisle corners.

FIGURE 25 illustrates the swept path analysis for two Honda Accords (small cars) passing each other on the southeast corner from which connects the parkade access ramp to P1 and on the southwest corner which connects P1 to P2. The length of the Honda Accord used is 4.93 metres, which is the length of a typical passenger vehicle. As illustrated in **FIGURE 25**, two small cars are able to pass each other without conflicts.

**FIGURE 21
MSUTAC SWEEP PATH ANALYSIS ON LOADING BAY**



**FIGURE 22
PTAC SWEEP PATH ANALYSIS ON 2-WAY PARKADE ACCESS**

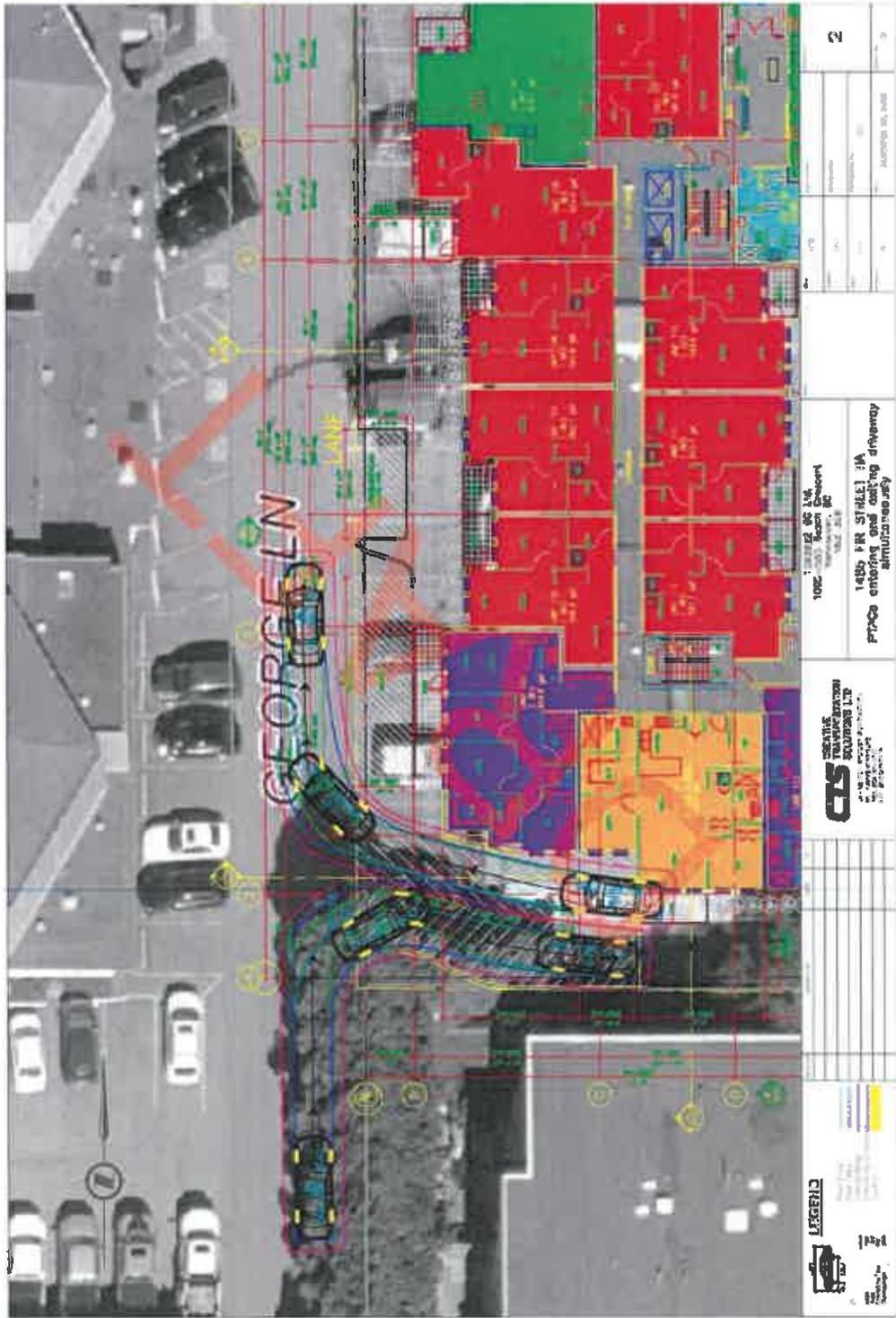
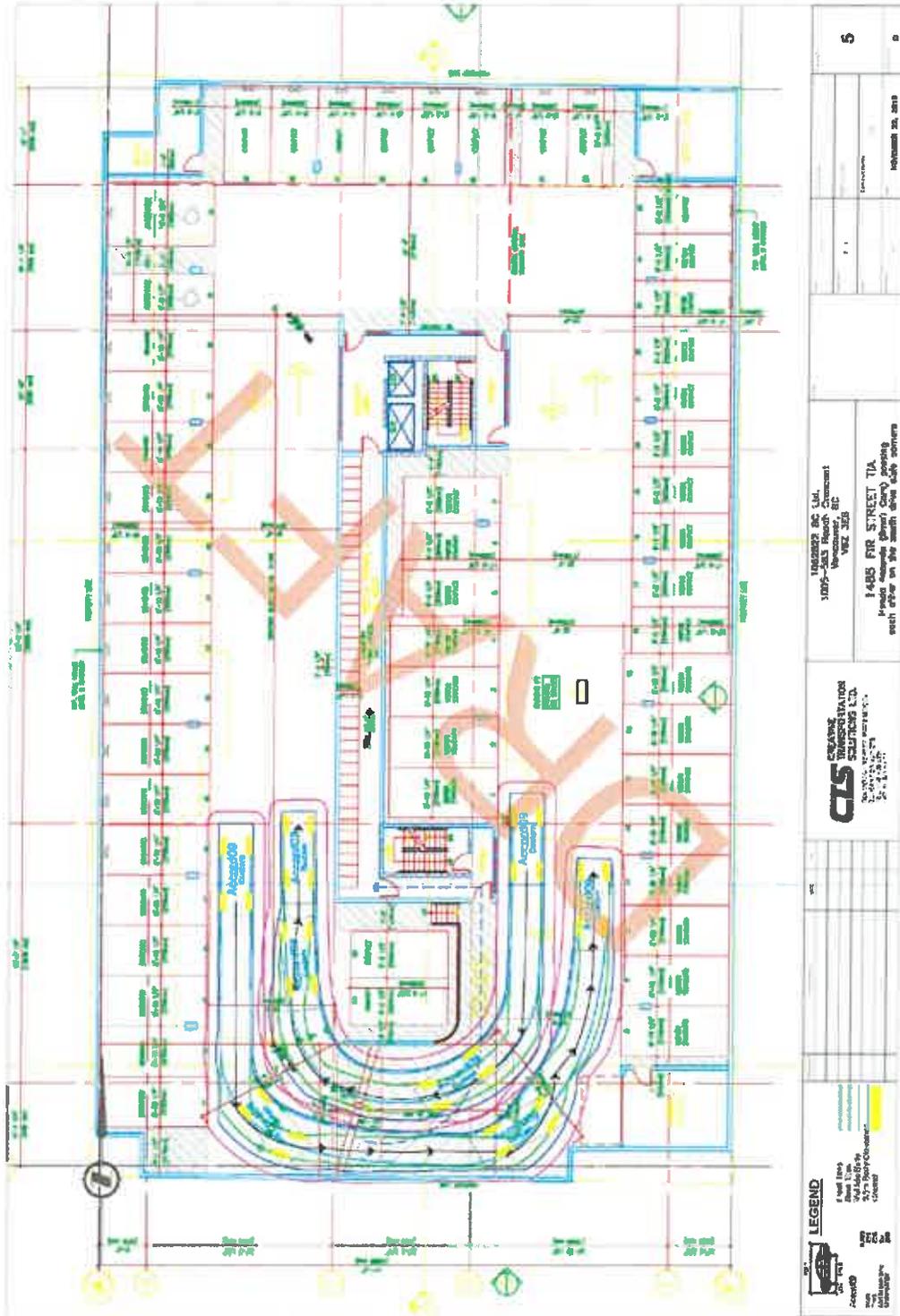


FIGURE 23
HONDA ACCORD SWEEP PATH ANALYSIS ON 2-WAY PARKADE ACCESS



**FIGURE 25
HONDA ACCORD SWEEP PATH ANALYSIS ON 2-WAY SOUTH DRIVE AISLE CORNERS**



9.0 CONCLUSIONS & RECOMMENDATIONS

9.1 Conclusions

- 1) 1062822 BC Ltd is proposing to build a rental apartment development consisting of 80 dwelling units at 1485 Fir Street in the City of White Rock.
- 2) The study site is situated in a transit oriented neighbourhood with convenient access to commercial and retail developments:
 - There are nine (9) bus routes servicing the study area, with the White Rock Centre transit exchange only a six (6) minute walk from the site.
 - Within the adjacent road network, Thrift Avenue is a shared lane bike route. Martin Street, Best Street, and Finlay Street are also shared lane bike routes.
 - All roads within the study area have a sidewalk on at least one side.
- 3) The southwestern sightlines at George Lane at Thrift Avenue for pedestrians crossing from the northwest to northeast corner are deficient. A "Watch for Pedestrians" warning sign and tactile paving on the northwestern and northeastern corners is recommended.
- 4) CTS conducted turning movement counts on Wednesday April 3rd, 2019 from 07:00 to 09:00, 11:00 to 13:00, and 15:00 to 18:00 to document the typical weekday peak hour traffic volumes for the study area.
- 5) The weekday morning and afternoon peak hours were chosen as the dominant design hours and was observed to occur from 08:00 to 09:00 and from 15:00 to 16:00.
- 6) 2022 is anticipated to be the year of full buildout for the proposed development. The 2019 base traffic volumes were factored up by a traffic volume growth rate of 2.0% per annum (simple straight line) to represent the future base 2022, 2027 and estimated 2045 volumes.
- 7) The proposed development is forecasted to generate a total of 29 vehicle trips (8 inbound, 21 outbound) during the weekday morning peak hour and 36 vehicle trips (22 inbound, 14 outbound) during the weekday afternoon peak hour.
- 8) Subtracting the estimated site traffic generated by the existing apartment building, the net increase in site traffic from the propose development is forecasted to be 21 vehicle trips (6 inbound, 15 outbound) during the weekday morning peak hour and 26 vehicle trips (16 inbound, 10 outbound) during the weekday afternoon peak hour.
- 9) The intersection capacity analysis noted that during the weekday morning and afternoon peak hours, all intersections are forecasted to operate at LOS A (Excellent) for all horizon years and scenarios.

- 10) The total number of required parking spaces for the proposed development is 120 parking spaces – 96 parking spaces for residents and 24 parking spaces for visitors. The proposed development is providing a total of 108 parking spaces – 84 parking spaces for residents and 24 parking spaces for visitors, resulting in a variance of 12 parking spaces, or 10%.
- 11) The City of White Rock 2045 OCP objective and policies support rental housing developments and consideration of parking requirement relaxations for such developments within walking distance of frequent transit service and / or commercial areas. The proposed development satisfies these conditions.
- 12) The ITE Parking Generation Manual 5th Edition data yield's a peak parking demand of 105 parking spaces for the proposed development which is 15 parking spaces less than the Bylaw requirement and three (3) parking spaces below what is being provided by the proposed development.
- 13) The applicant is providing the following transportation demand management initiatives:
 - Residents will receive a welcome package containing transit and cycling information.
 - A bicycle repair station with including a tire pump will be provided within the parkade.
 - Extra hooks for helmets to be locked to will be included in the bicycle lockers for convenience
 - Many of the Class I bicycle parking spaces are located on P1 and P2 with direct access to the elevators. The rest of the Class I bicycle parking spaces on P2 have convenient access to the elevators.
 - Residents will receive a \$30 gift card towards a local bicycle shop.
 - All of the seventeen (17) Class II bicycle parking spaces are located at street level next to the main entrance.
 - Gently sloped ramps leading up to the main entrance for cyclist comfort.
 - Directional signage within the lobby or at the main entrance for the nearest bus stops and estimated walking times to popular destinations
 - Residents will receive a pre-loaded compass card (e.g. \$100).
 - A live screen within the lobby displaying current bus route schedules
 - Twenty-four (24) electric charging stations on P2 of the proposed development.

9.2 Recommendations

Based on this transportation impact assessment study, CTS recommends the following:

- 1) The applicant work with the City of White Rock to ensure any improvements to the fronting sidewalks align with the City of White Rock's Strategic Transportation Plan.
- 2) The City of White Rock grant the applicant's 10% or 12 vehicle parking stall variance request for the proposed development based on the supporting information provided in this report.
- 3) The City of White Rock consider installing tactile paving on the northwestern and northeastern corners of George Lane at Thrift Avenue.
- 4) The City of White Rock consider installing a "Watch for Pedestrians" warning sign for southbound traffic at George Lane at Thrift Avenue.

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We would like to take this opportunity to thank you for this unique project and we look forward to working with you again in the future. Please call the undersigned should you have any questions or comments.

Yours truly,

CREATIVE TRANSPORTATION SOLUTIONS LTD.

Reviewed by:

Prepared by:

Gary Vileg, P.Eng.
Engineering Group Manager

Jacqueline Lee, EIT
Junior Traffic Engineer

Attachment

DRAFT

Appendix A
Architectural Drawing

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1485 FR STREET

AREA	UNIT #	UNIT TYPE	GROUND AREA (SQ FT)	RESIDENTIAL GROUND AREA (SQ FT)	GROUND AREA (SQ FT)	OUTDOOR AMENITY (SQ FT)	RESIDENTIAL BALCONIES (SQ FT)	GROUND AREA (SQ FT)
1	1000	1 BR	1000	1000	1000	1000	1000	1000
2	1001	1 BR	1001	1001	1001	1001	1001	1001
3	1002	1 BR	1002	1002	1002	1002	1002	1002
4	1003	1 BR	1003	1003	1003	1003	1003	1003
5	1004	1 BR	1004	1004	1004	1004	1004	1004
6	1005	1 BR	1005	1005	1005	1005	1005	1005
7	1006	1 BR	1006	1006	1006	1006	1006	1006
8	1007	1 BR	1007	1007	1007	1007	1007	1007
9	1008	1 BR	1008	1008	1008	1008	1008	1008
10	1009	1 BR	1009	1009	1009	1009	1009	1009
11	1010	1 BR	1010	1010	1010	1010	1010	1010
12	1011	1 BR	1011	1011	1011	1011	1011	1011
13	1012	1 BR	1012	1012	1012	1012	1012	1012
14	1013	1 BR	1013	1013	1013	1013	1013	1013
15	1014	1 BR	1014	1014	1014	1014	1014	1014
16	1015	1 BR	1015	1015	1015	1015	1015	1015
17	1016	1 BR	1016	1016	1016	1016	1016	1016
18	1017	1 BR	1017	1017	1017	1017	1017	1017
19	1018	1 BR	1018	1018	1018	1018	1018	1018
20	1019	1 BR	1019	1019	1019	1019	1019	1019
21	1020	1 BR	1020	1020	1020	1020	1020	1020
22	1021	1 BR	1021	1021	1021	1021	1021	1021
23	1022	1 BR	1022	1022	1022	1022	1022	1022
24	1023	1 BR	1023	1023	1023	1023	1023	1023
25	1024	1 BR	1024	1024	1024	1024	1024	1024
26	1025	1 BR	1025	1025	1025	1025	1025	1025
27	1026	1 BR	1026	1026	1026	1026	1026	1026
28	1027	1 BR	1027	1027	1027	1027	1027	1027
29	1028	1 BR	1028	1028	1028	1028	1028	1028
30	1029	1 BR	1029	1029	1029	1029	1029	1029
31	1030	1 BR	1030	1030	1030	1030	1030	1030
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37	1036	1 BR	1036	1036	1036	1036	1036	1036
38	1037	1 BR	1037	1037	1037	1037	1037	1037
39	1038	1 BR	1038	1038	1038	1038	1038	1038
40	1039	1 BR	1039	1039	1039	1039	1039	1039
41	1040	1 BR	1040	1040	1040	1040	1040	1040
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71	1070	1 BR	1070	1070	1070	1070	1070	1070
72	1071	1 BR	1071	1071	1071	1071	1071	1071
73	1072	1 BR	1072	1072	1072	1072	1072	1072
74	1073	1 BR	1073	1073	1073	1073	1073	1073
75	1074	1 BR	1074	1074	1074	1074	1074	1074
76	1075	1 BR	1075	1075	1075	1075	1075	1075
77	1076	1 BR	1076	1076	1076	1076	1076	1076
78	1077	1 BR	1077	1077	1077	1077	1077	1077
79	1078	1 BR	1078	1078	1078	1078	1078	1078
80	1079	1 BR	1079	1079	1079	1079	1079	1079
81	1080	1 BR	1080	1080	1080	1080	1080	1080
82	1081	1 BR	1081	1081	1081	1081	1081	1081
83	1082	1 BR	1082	1082	1082	1082	1082	1082
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100	1099	1 BR	1099	1099	1099	1099	1099	1099
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103	1102	1 BR	1102	1102	1102	1102	1102	1102
104	1103	1 BR	1103	1103	1103	1103	1103	1103
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123	1122	1 BR	1122	1122	1122	1122	1122	1122
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129	1128	1 BR	1128	1128	1128	1128	1128	1128
130	1129	1 BR	1129	1129	1129	1129	1129	1129
131	1130	1 BR	1130	1130	1130	1130		

ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.

NO.	DESCRIPTION
1	EXISTING BUILDING
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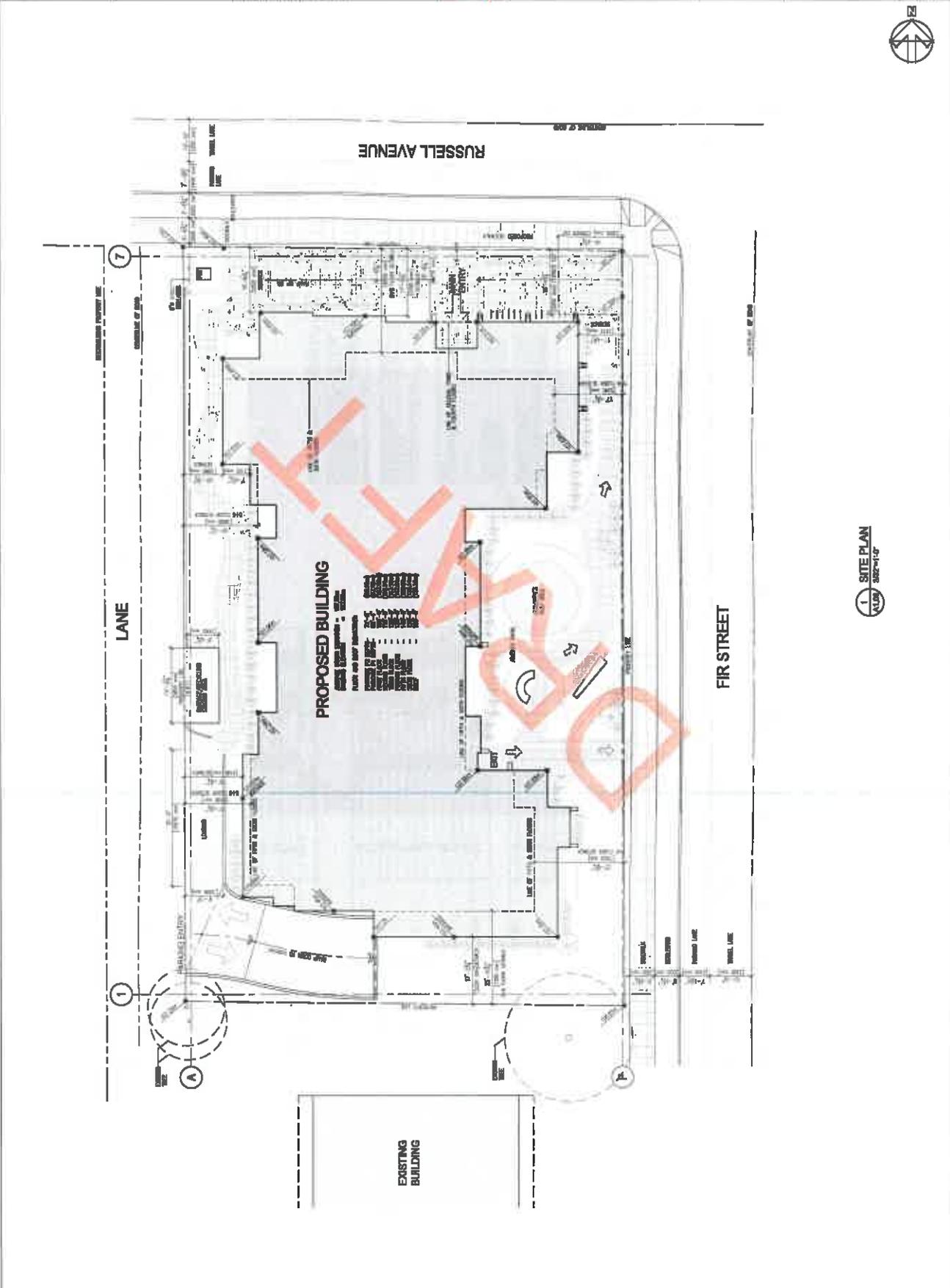
BA
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WHITEBIRCH APARTMENTS
 1465 FUR STREET
 WHITEROCK, BC

SITE PLAN

A1.00



1 SITE PLAN
 A1.00 08/27/10

**Appendix B
Translink Timetables**

DRAFT

321 Surrey Central Station/Newton Exchange/ White Rock Centre/White Rock South



October 2017

For route and schedule information, visit www.translink.ca

CMBC Service Planning



Surrey Central Stn
-see Inset

Newton Exchange
Bay 2: 321 Surrey Central Station
Bay 6: 321 White Rock Centre

South Surrey Park and Ride
Bay 2: 321 White Rock Centre/
White Rock South
Bay 4: 321 Surrey Central Station

White Rock Centre
-see inset

King George Hwy @ 11th Ave (Pacific Inn)
321 Surrey Central Station

Surrey Central Station

North Surrey Recreation Centre

Bay 10: 321 White Rock Centre

Central City Mall

University Drive

Old Yale

King George

King George Blvd

Note: Some early AM trips depart from Bay 9 to Scott Road and to New Westminster Station.

White Rock Centre

Bay 7: 321 Surrey Central Station

152nd St

North Bluff Rd

Thrift Ave

Bay 4: 321 White Rock South

LEGEND

- Regular Routing
- - - Limited Service Routing
- Expo Line
- T Route Terminus/Scheduled Stop
- S SkyTrain / Canada Line / West Coast Express Station

321 Surrey Central Station

From King George Blvd at 1100 Block via King George, 16 Ave, 152 St (White Rock Centre); or from North Bluff at Foster via North Bluff, 152 St (White Rock Centre); then via 152 St, King George, South Surrey Park & Ride, King George, 68 Ave, 138 St, 72 Ave, Newton Exchange, 72 Ave, King George (King George Station), 102 Ave, City Pkwy to Surrey Central Station.

King George at 1100 Block #55375	16th Ave at King George #55378	White Rock Centre Bay 7 (E)	Newton Exchange Bay 2	Surrey Central Station (E)	King George at 1100 Block #55375	16th Ave at King George #55378	White Rock Centre Bay 7 (E)	Newton Exchange Bay 2	Surrey Central Station (E)
MONDAY TO FRIDAY					MONDAY TO FRIDAY				
-	-	-	4.43	4.59	..... CONTINUED				
-	-	-	4.58	5.14	-	-	5.46	6.16	6.34
-	-	-	5.13	5.29	-	-	5.58	6.28	6.46
-	-	-	5.28	5.46	-	-	6.10	6.40	6.58
-	5.14	5.19	5.43	5.59	-	-	6.22	6.52	7.10
-	-	5.28	5.53	6.15	-	-	6.34	7.04	7.22
-	-	5.46	6.11	6.30	-	-	6.53	7.21	7.37
-	-	6.02	6.27	6.46	-	-	7.12	7.40	7.56
6.07	6.09	6.14	6.39	7.01	-	-	7.24	7.52	8.08
6.25	6.27	6.32	6.57	7.19	-	-	7.41	8.08	8.24
6.40	6.42	6.48	7.13	7.35	-	-	7.56	8.23	8.39
6.55	6.57	7.03	7.28	7.50	-	-	8.10	8.37	8.53
-	-	7.20	7.47	8.06	-	-	8.22	8.47	9.05
-	-	7.35	8.02	8.21	-	-	8.39	9.04	9.22
7.44	7.46	7.52	8.18	8.37	-	-	8.56	9.23	9.39
-	-	8.00	8.29	8.48	9.27	9.29	9.33	9.56	10.14
-	-	8.09	8.38	8.59	-	-	9.57	10.24	10.40
-	-	8.30	8.59	9.18	10.31	10.33	10.37	11.01	11.19
-	-	8.45	9.14	9.33	-	-	10.57	11.21	11.39
-	-	9.00	9.29	9.48	11.21	11.22	11.30	11.46	12.01
-	-	9.10	9.39	10.03	-	-	11.56	12.19	12.32
-	-	9.30	9.59	10.18	12.29	12.30	12.34	12.52	1.04
-	-	9.42	10.12	10.33	-	-	-	1.27	1.37
-	-	9.57	10.27	10.48	-	-	-	1.57	2.07
-	-	10.12	10.42	11.03	SATURDAY				
-	-	10.27	10.57	11.18	-	-	-	5.47	6.02
-	-	10.41	11.12	11.33	-	-	5.43	6.06	6.24
-	-	10.56	11.27	11.48	-	-	6.03	6.26	6.44
-	-	11.11	11.42	12.03	-	-	6.23	6.46	7.04
-	-	11.26	11.57	12.18	6.33	6.35	6.47	7.10	7.28
-	-	11.42	12.13	12.34	-	-	7.03	7.28	7.46
-	-	11.58	12.29	12.50	7.08	7.10	7.22	7.45	8.03
-	-	12.14	12.45	1.06	-	-	7.32	8.00	8.18
-	-	12.29	1.00	1.21	7.38	7.40	7.52	8.15	8.33
-	-	12.42	1.15	1.36	-	-	8.02	8.30	8.48
-	-	12.58	1.31	1.52	8.08	8.10	8.21	8.45	9.03
-	-	1.13	1.46	2.07	-	-	8.32	9.00	9.20
-	-	1.28	2.01	2.22	-	-	8.47	9.15	9.35
-	-	1.46	2.19	2.40	-	-	9.00	9.28	9.48
-	-	2.01	2.34	2.55	-	-	9.15	9.45	10.08
-	-	2.14	2.47	3.08	-	-	9.34	10.00	10.23
-	-	2.29	3.02	3.23	-	-	9.40	10.12	10.37
-	-	2.42	3.17	3.38	-	-	9.55	10.27	10.52
-	-	2.57	3.32	3.53	-	-	10.10	10.42	11.07
-	-	3.13	3.48	4.09	-	-	10.28	10.58	11.23
-	-	3.29	4.04	4.25	-	-	10.43	11.15	11.40
-	-	3.40	4.13	4.41	-	-	10.56	11.28	11.53
-	-	3.55	4.28	4.56	-	-	11.13	11.45	12.10
-	-	4.10	4.45	5.03	-	-	11.28	12.00	12.25
-	-	4.22	4.57	5.15	-	-	11.43	12.15	12.40
-	-	4.34	5.09	5.27	-	-	11.58	12.30	12.55
-	-	4.46	5.21	5.39	-	-	12.13	12.45	1.10
-	-	4.58	5.33	5.51	-	-	12.28	1.00	1.25
-	-	5.10	5.45	6.03	-	-	12.43	1.15	1.40
-	-	5.22	5.53	6.11	-	-	12.58	1.30	1.55
-	-	5.34	6.07	6.25	CONTINUED				

321 Surrey Central Station

White Rock South to White Rock Centre, Newton Exchange and Surrey Central Station.

(Refer to Monday to Friday for routing)

King George at 1100 Block #55375	16th Ave at King George #5537	White Rock Centre Bay 7 (E)	Newton Exchange Bay 2	Surrey Central Station (E)	King George at 1100 Block #55375	16th Ave at King George #55378	White Rock Centre Bay 7 (E)	Newton Exchange Bay 2	Surrey Central Station (E)
SATURDAY					SUNDAY & HOLIDAYS				
..... CONTINUED					..... CONTINUED				
-	-	1.13	1.45	2.10	-	-	10.04	10.30	10.49
-	-	1.28	2.00	2.25	-	-	10.16	10.45	11.04
-	-	1.43	2.15	2.40	-	-	10.31	11.00	11.19
-	-	1.58	2.30	2.55	-	-	10.46	11.15	11.34
-	-	2.13	2.45	3.10	-	-	11.01	11.30	11.49
-	-	2.25	2.57	3.22	-	-	11.16	11.45	12.04
-	-	2.41	3.13	3.39	-	-	11.31	12.00	12.19
-	-	2.56	3.28	3.54	-	-	11.44	12.15	12.34
-	-	3.13	3.43	4.05	-	-	11.59	12.30	12.49
-	-	3.28	3.58	4.20	-	-	12.12	12.43	1.04
-	-	3.43	4.13	4.35	-	-	12.27	12.58	1.19
-	-	3.58	4.30	4.52	-	-	12.42	1.13	1.34
-	-	4.13	4.45	5.07	-	-	12.57	1.28	1.49
-	-	4.28	4.59	5.21	-	-	1.12	1.43	2.04
-	-	4.43	5.13	5.35	-	-	1.27	1.58	2.19
-	-	4.59	5.29	5.51	-	-	1.43	2.14	2.35
-	-	5.13	5.43	6.05	-	-	1.58	2.29	2.50
-	-	5.28	5.58	6.20	-	-	2.13	2.44	3.05
-	-	5.43	6.13	6.35	-	-	2.28	2.59	3.20
-	-	5.56	6.25	6.47	-	-	2.43	3.14	3.35
-	-	6.13	6.40	7.02	-	-	2.58	3.29	3.50
-	-	6.31	6.58	7.20	-	-	3.14	3.45	4.05
-	-	6.46	7.19	7.35	-	-	3.29	4.00	4.20
-	-	7.01	7.28	7.50	-	-	3.44	4.15	4.35
-	-	7.16	7.43	8.05	-	-	3.59	4.30	4.50
-	-	7.31	7.58	8.20	-	-	4.14	4.45	5.05
-	-	7.46	8.13	8.35	-	-	4.29	5.00	5.20
-	-	8.01	8.28	8.50	-	-	4.44	5.15	5.35
8.21	8.23	8.28	8.53	9.10	-	-	4.59	5.30	5.50
-	-	8.38	9.03	9.20	-	-	5.14	5.45	6.05
-	-	8.55	9.20	9.37	-	-	5.29	6.00	6.20
9.22	9.24	9.29	9.54	10.11	-	-	5.44	6.15	6.35
-	-	9.55	10.20	10.37	-	-	5.59	6.30	6.50
10.22	10.24	10.29	10.53	11.10	-	-	6.14	6.45	7.05
-	-	10.55	11.18	11.31	-	-	6.32	7.03	7.23
11.20	11.22	11.27	11.47	12.00	-	-	6.46	7.17	7.37
-	-	11.54	12.17	12.30	-	-	7.01	7.32	7.52
12.21	12.23	12.28	12.48	1.01	-	-	7.18	7.47	8.07
-	-	-	1.24	1.37	-	-	7.33	8.02	8.22
-	-	-	1.53	2.06	-	-	7.48	8.17	8.37
SUNDAY & HOLIDAYS					8.21	8.23	8.28	8.50	9.07
-	-	-	6.09	6.23	-	-	8.37	9.05	9.22
-	-	6.12	6.30	6.49*	-	-	8.52	9.20	9.37
-	-	6.21	6.47	7.03	9.21	9.23	9.28	9.50	10.07
-	-	6.41	7.07	7.23	-	-	9.52	10.20	10.37
-	-	7.01	7.27	7.43	10.22	10.24	10.29	10.50	11.07
-	-	7.21	7.47	8.03	-	-	10.57	11.24	11.37
-	-	7.36	8.02	8.18	11.21	11.23	11.28	11.49	12.02
-	-	7.51	8.17	8.33	-	-	11.54	12.19	12.32
-	-	8.06	8.32	8.48	-	-	12.24	12.49	1.02
-	-	8.23	8.49	9.05	-	-	-	1.23	1.35
-	-	8.36	9.02	9.20	-	-	-	-	-
8.50	8.52	8.58	9.20	9.36	-	-	-	-	-
-	-	9.04	9.30	9.48	* Trip leaves from Surrey Central Station - Bay 9 to Scott Road Station. Leaves Scott Road Station - Bay 7 at 6:58am to New Westminster Station, arriving there at 7:07am.				
-	-	9.19	9.45	10.03					
-	-	9.35	10.01	10.19					
-	-	9.49	10.15	10.34					
CONTINUED									

321 Newton Exchange/White Rock Centre/ White Rock South

From Surrey Central Station via City Pkwy, 102 Ave, University Dr, Old Yale Rd, King George Blvd (King George Station), 72 Ave, Newton Exchange, 72 Ave, 138 St, 68 Ave, King George, South Surrey Park & Ride, King George, 152 St (White Rock Centre), Johnston, Thrift, Oxford, North Bluff to 152 St, to White Rock Centre. Some trips from Johnston/North Bluff instead via North Bluff, King George, 8 Ave roundabout, King George to 1100 Block.

Surrey Central Station Bay 10 Newton Exchange Bay 6 White Rock Centre White Rock Centre Bay 4 King George at 1100 Block (E)					Surrey Central Station Bay 10 Newton Exchange Bay 6 White Rock Centre White Rock Centre Bay 4 King George at 1100 Block (E)					Surrey Central Station Bay 10 Newton Exchange Bay 6 White Rock Centre White Rock Centre Bay 4 King George at 1100 Block (E)					
MONDAY TO FRIDAY					MONDAY TO FRIDAY					SATURDAY					
5.08	5.22	-	5.46	5.58 CONTINUED	-	5.23	5.45	-	-	-	5.23	5.45	-	-
5.23	5.37	-	6.02	6.14	4.00	4.25	5.02	-	-	5.58	6.10	6.36	-	6.13	6.20
5.38	5.52	-	-	-	4.12	4.37	5.14	-	-	6.16	6.28	-	6.51	7.00	
5.53	6.07	-	6.35	6.47	4.24	4.49	5.26	-	-	6.38	6.50	7.18	-	-	
6.18	6.33	-	7.01	7.13	4.36	5.01	5.38	-	-	6.58	7.10	-	7.33	7.42	
6.32	6.47	7.19	-	-	4.48	5.13	5.50	-	-	7.13	7.25	7.53	-	-	
6.44	6.59	-	7.27	7.39	5.00	5.25	6.02	-	-	7.28	7.41	-	8.07	8.15	
6.59	7.14	7.44+	-	-	5.12	5.37	6.14	-	-	7.43	7.56	8.24	-	-	
7.15	7.34	8.05+	-	-	5.24	5.49	6.22+	-	-	7.58	8.11	-	8.37	8.45	
7.30	7.49	8.20+	-	-	5.36	5.59	6.33	-	-	8.13	8.26	8.54	-	-	
7.45	8.04	8.35+	-	-	5.48	6.11	6.45	-	-	8.28	8.42	-	9.08	9.16	
8.00	8.20	8.55	-	-	6.00	6.23	6.57	-	-	8.44	8.58	9.28	-	-	
8.15	8.35	9.09+	-	-	6.15	6.38	7.12	-	-	8.59	9.13	9.43	-	-	
8.30	8.50	9.23	-	-	6.32	6.52	7.24	-	-	9.14	9.28	9.58	-	-	
8.45	9.04	9.34+	-	-	6.45	7.07	7.39	-	-	9.29	9.43	10.13	-	-	
9.00	9.19	9.52	-	-	7.00	7.20	7.50	-	-	9.44	9.58	10.28	-	-	
9.15	9.34	10.04+	-	-	7.15	7.35	8.05	-	-	9.59	10.13	10.43	-	-	
9.30	9.49	10.22	-	-	7.30	7.49	8.19	-	-	10.14	10.28	10.58	-	-	
9.45	10.04	10.34+	-	-	7.45	8.04	8.34	-	-	10.29	10.43	11.13	-	-	
10.00	10.20	10.53	-	-	8.00	8.19	8.49	-	-	10.44	10.59	11.31	-	-	
10.15	10.35	11.07+	-	-	8.15	8.34	9.04	-	-	10.59	11.14	11.46	-	-	
10.30	10.49	11.24	-	-	8.30	8.49	-	9.14	9.22	11.14	11.31	12.03	-	-	
10.46	11.05	11.37+	-	-	8.45	9.03	9.32	-	-	11.29	11.46	12.18	-	-	
11.00	11.19	11.55	-	-	9.10	9.26	9.55	-	-	11.44	12.02	12.34	-	-	
11.15	11.34	12.07+	-	-	9.24	9.41	-	-	-	11.59	12.17	12.49	-	-	
11.30	11.52	12.28	-	-	9.38	9.54	-	10.19	10.27	12.14	12.32	1.04	-	-	
11.45	12.07	12.41+	-	-	9.54	10.10	10.39	-	-	12.29	12.47	1.19	-	-	
12.00	12.22	12.58	-	-	10.29	10.45	-	11.10	11.18	12.44	1.02	1.34	-	-	
12.15	12.37	1.11+	-	-	11.00	11.16	11.43	-	-	12.58	1.16	1.48	-	-	
12.30	12.52	1.28	-	-	11.32	11.47	-	12.12	12.20	1.14	1.32	2.06	-	-	
12.45	1.07	1.41+	-	-	12.03	12.19	-	-	-	1.29	1.47	2.21	-	-	
1.00	1.22	1.58	-	-	12.35	12.49	-	1.12	1.20	1.44	2.04	2.37	-	-	
1.15	1.37	2.13	-	-	1.09	1.24	-	-	-	1.59	2.19	2.52	-	-	
1.30	1.52	2.29	-	-	1.39	1.53	2.20	-	-	2.14	2.34	3.08	-	-	
1.45	2.07	2.44	-	-	2.09	2.24	-	-	-	2.29	2.49	3.23	-	-	
2.00	2.23	3.00	-	-						2.44	3.04	3.38	-	-	
2.15	2.38	3.15	-	-						2.59	3.19	3.53	-	-	
2.30	2.54	3.32	-	-						3.14	3.34	4.07	-	-	
2.45	3.09	3.47	-	-						3.29	3.49	4.22	-	-	
3.00	3.24	4.02	-	-						3.44	4.04	4.37	-	-	
3.12	3.36	4.14	-	-						3.59	4.19	4.52	-	-	
3.24	3.48	4.26	-	-						4.14	4.34	5.07	-	-	
3.36	4.00	4.38	-	-						4.29	4.49	5.22	-	-	
3.48	4.12	4.50	-	-						CONTINUED					
CONTINUED															

345 King George Station / White Rock Centre

January 2019



For route and schedule information, visit www.translink.ca



CMBC Service Planning

N



**King George Station
Bay 2: 345 White Rock Centre**

**White Rock Centre
Bay 7: 345 King George Station**

LEGEND

- Regular Routing
- Expo Line
- Route Terminus/Scheduled Stop
- SkyTrain / Canada Line / West Coast Express Station

345 White Rock Centre 345 King George Station

From King George Station via King George Blvd, 100 Ave, Whalley Blvd, Fraser Hwy, 152 St (White Rock Centre), Johnston, Thrift, Oxford, North Bluff to Foster

From North Bluff at Foster via North Bluff, 152 St (White Rock Centre), Fraser Hwy, King George Blvd to King George Station.

King George Station Bay 2 152 St at Hwy 10 #56068 White Rock Centre (E)	King George Station Bay 2 152 St at Hwy 10 #56068 White Rock Centre (E)	White Rock Centre Bay 7 152 st at Hwy 10 #56045 King George Station (E)	White Rock Centre Bay 7 152 st at Hwy 10 #56045 King George Station (E)
MONDAY TO FRIDAY		MONDAY TO FRIDAY	
5.58 6.18 6.36	.... CONTINUED	5.04 5.20 5.44	.... CONTINUED
6.28 6.48 7.06	3.28 3.58 4.19	5.34 5.50 6.14	1.33 1.54 2.19
6.58 7.21 7.44	4.00 4.30 4.51	6.04 6.23 6.49	2.03 2.26 2.50
7.28 7.51 8.14	4.30 5.04 5.23	6.24 6.43 7.09	2.32 2.56 3.23
7.58 8.23 8.42	5.00 5.34 5.53	6.44 7.03 7.32	3.02 3.29 3.58
8.28 8.53 9.10	5.30 5.59 6.19	7.04 7.23 7.54	3.32 3.59 4.28
8.59 9.26 9.41	5.59 6.28 6.48	7.24 7.43 8.14	4.02 4.29 4.58
9.28 9.52 10.09	6.29 6.56 7.15	7.44 8.03 8.34	4.32 4.59 5.28
9.58 10.20 10.38	6.59 7.26 7.45	8.03 8.23 8.54	5.02 5.26 5.52
10.28 10.50 11.08	7.28 7.52 8.07	8.33 8.52 9.16	5.32 5.56 6.22
10.58 11.20 11.38	7.55 8.19 8.34	9.03 9.22 9.46	6.02 6.24 6.50
11.28 11.50 12.08	8.26 8.48 9.02	9.33 9.52 10.16	6.35 6.55 7.16
11.58 12.20 12.38	8.56 9.18 9.32	10.03 10.22 10.46	7.03 7.23 7.44
12.28 12.50 1.08		10.33 10.52 11.16	7.35 7.55 8.15
12.59 1.21 1.39		11.03 11.22 11.48	8.05 8.25 8.45
1.29 1.54 2.12		11.33 11.52 12.18	8.35 8.55 9.15
1.59 2.24 2.42		12.03 12.24 12.49	
2.29 2.56 3.18		12.33 12.54 1.19	
2.59 3.26 3.48		1.03 1.24 1.49	
CONTINUED		CONTINUED	

351 Bridgeport Station/ Crescent Beach



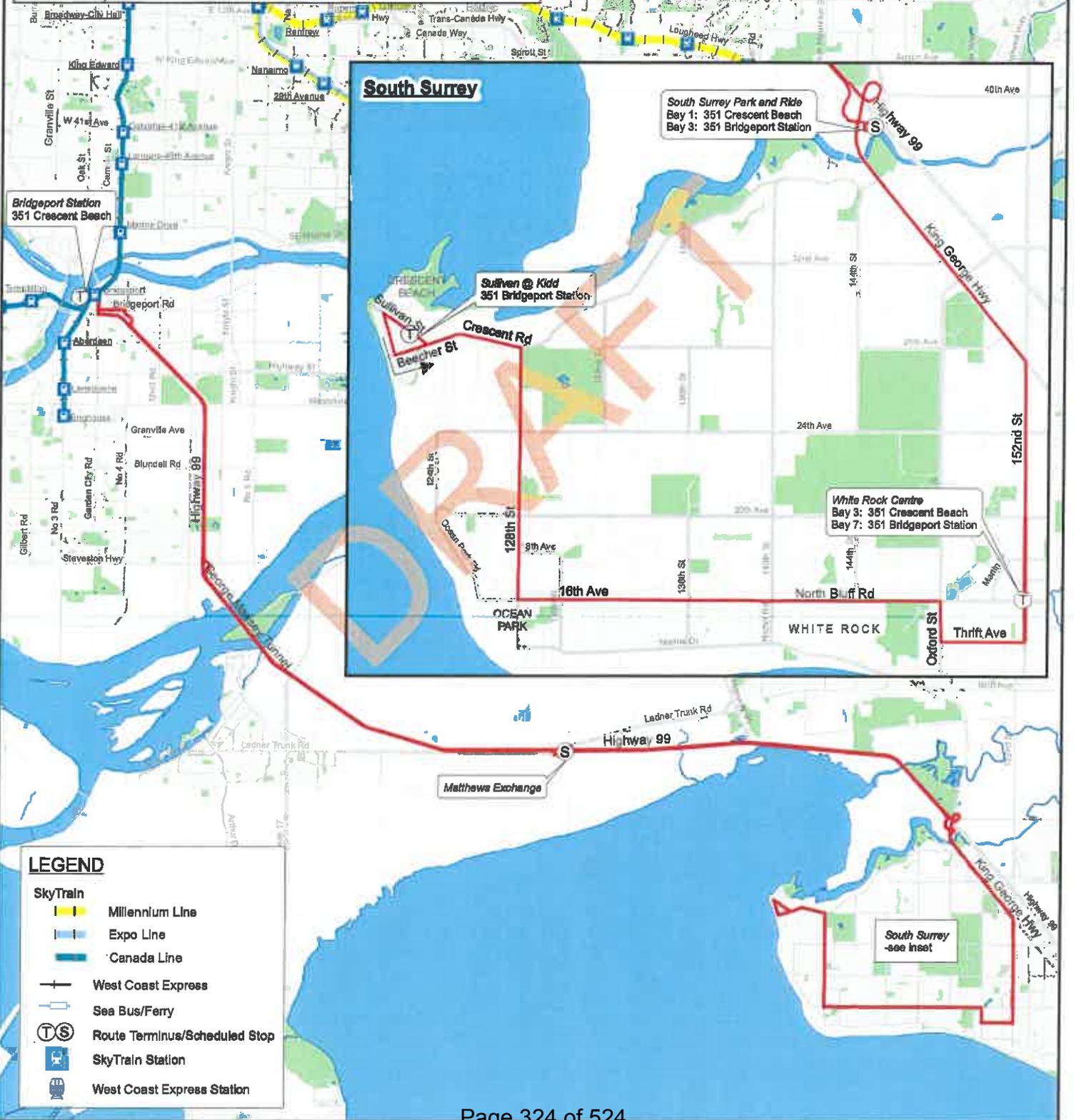
September 2009



For route and schedule information, visit www.translink.ca



CMBC Service Planning



LEGEND

- SkyTrain**
- Millennium Line
 - Expo Line
 - Canada Line
- West Coast Express**
- Sea Bus/Ferry
- Route Terminus/Scheduled Stop**
- SkyTrain Station
 - West Coast Express Station

351 Bridgeport Station

From Sullivan at Kidd via Sullivan, McBride, Beecher, Crescent, 128 St, North Bluff, Oxford, Thrift, Johnston, 152 St, King George Blvd, South Surrey Park & Ride, King George Blvd, Hwy 99, Matthews Exchange (except before 8:30 AM weekdays, when the 351 stops at Matthews only to unload upon request), Hwy 99, Massey Exchange, Hwy 99, Bridgeport Rd, Great Canadian Way to Bridgeport Station.

Sullivan at Kidd #56082	128 St at Crescent Rd (E) #56088	Oxford at Russell (E) #56110	White Rock Centre Bay 5	South Surrey Park & Ride Bay 3	Bridgeport Station (E)	Sullivan at Kidd #56082	128 St at Crescent Rd (E) #56088	Oxford at Russell (E) #56110	White Rock Centre Bay 5	South Surrey Park & Ride Bay 3	Bridgeport Station (E)
MONDAY TO FRIDAY						MONDAY TO FRIDAY					
-	4.17	4.28	4.31	4.40	5.05	CONTINUED					
-	-	4.46	4.50	5.02	5.28	3.34	3.38	3.52	3.56	4.10	4.43
-	4.53	5.05	5.08	5.20	5.46	3.44	3.48	4.02	4.06	4.20	4.53
-	-	5.24	5.28	5.40	6.08	3.55	3.59	4.13	4.17	4.30	5.03
-	5.35	5.47	5.50	6.02	6.30	4.05	4.09	4.23	4.27	4.40	5.13
-	5.55	6.07	6.10	6.22	6.52	4.16	4.19	4.33	4.37	4.50	5.23
-	6.05	6.17	6.20	6.32	7.03	4.26	4.29	4.43	4.47	5.00	5.33
6.12	6.15	6.27	6.30	6.42	7.13	4.38	4.41	4.55	4.59	5.12	5.45
-	6.25	6.37	6.40	6.52	7.23	4.50	4.53	5.07	5.11	5.24	5.57
6.27	6.30	6.42	6.45	6.57	7.29	5.04	5.07	5.20	5.24	5.36	6.08
-	-	6.48	6.52	7.04	7.38	5.15	5.18	5.31	5.35	5.47	6.17
-	6.43	6.55	6.59	7.11	7.45	5.28	5.31	5.44	5.48	6.00	6.30
-	6.50	7.02	7.06	7.18	7.52	5.43	5.46	5.59	6.03	6.15	6.45
-	-	7.09	7.13	7.25	7.59	5.60	5.63	6.15	6.19	6.30	6.59
7.02	7.05	7.17	7.20	7.32	8.06	6.15	6.18	6.30	6.34	6.45	7.14
7.09	7.12	7.24	7.27	7.39	8.13	6.31	6.34	6.46	6.49	7.00	7.28
-	7.19	7.31	7.34	7.46	8.20	6.46	6.49	7.01	7.04	7.15	7.43
7.23	7.26	7.38	7.41	7.53	8.27	7.02	7.05	7.17	7.20	7.30	7.57
-	7.31	7.44	7.48	8.00	8.32	7.17	7.20	7.32	7.35	7.45	8.12
7.38	7.41	7.54	7.58	8.10	8.42	7.32	7.35	7.47	7.50	8.00	8.27
7.48	7.51	8.04	8.08	8.20	8.54	7.52	7.55	8.07	8.10	8.20	8.47
-	-	8.12	8.18	8.30	9.04	8.12	8.15	8.27	8.30	8.40	9.07
8.09	8.12	8.26	8.30	8.42	9.16	8.33	8.36	8.48	8.51	9.00	9.27
8.21	8.24	8.38	8.42	8.54	9.28	9.03	9.06	9.18	9.21	9.30	9.57
8.33	8.36	8.50	8.54	9.06	9.38	9.33	9.36	9.48	9.51	10.00	10.27
8.47	8.50	9.04	9.08	9.20	9.52	10.03	10.06	10.18	10.21	10.30	10.56
9.02	9.05	9.19	9.23	9.35	10.07	10.33	10.36	10.48	10.51	11.00	11.26
9.17	9.20	9.34	9.38	9.50	10.22	11.03	11.06	11.18	11.21	11.30	11.56
9.30	9.34	9.48	9.52	10.05	10.35	12.05	12.07	12.18	12.21	12.30	12.56
9.45	9.49	10.03	10.07	10.20	10.50	SATURDAY					
9.58	10.02	10.17	10.21	10.35	11.04	-	4.17	4.28	4.31	4.39	5.05
10.13	10.17	10.32	10.36	10.50	11.19	-	5.17	5.28	5.31	5.39	6.05
-	-	10.45	10.51	11.05	11.34	5.58	6.01	6.13	6.16	6.25	6.52
10.43	10.47	11.02	11.06	11.20	11.49	-	-	6.28	6.33	6.43	7.10
-	-	11.15	11.21	11.35	12.04	6.30	6.33	6.45	6.48	6.58	7.25
11.13	11.17	11.32	11.36	11.50	12.19	-	-	6.58	7.03	7.13	7.40
-	-	11.45	11.51	12.05	12.34	7.00	7.03	7.15	7.18	7.28	7.55
11.43	11.47	12.02	12.06	12.20	12.49	-	-	7.28	7.33	7.43	8.10
-	-	12.15	12.21	12.35	1.04	7.32	7.35	7.47	7.51	8.01	8.29
12.13	12.17	12.32	12.36	12.50	1.19	-	-	8.01	8.06	8.16	8.44
-	-	12.45	12.51	1.05	1.32	8.02	8.05	8.17	8.21	8.31	8.59
12.43	12.47	1.02	1.06	1.20	1.47	-	-	8.31	8.36	8.46	9.14
-	-	1.15	1.21	1.35	2.02	8.31	8.34	8.46	8.50	9.01	9.29
1.13	1.17	1.32	1.36	1.50	2.17	-	-	9.03	9.08	9.19	9.47
-	-	1.45	1.51	2.05	2.33	9.02	9.05	9.18	9.22	9.34	10.02
1.43	1.47	2.02	2.06	2.20	2.48	-	-	9.32	9.37	9.49	10.17
-	-	2.15	2.21	2.35	3.05	9.31	9.34	9.48	9.52	10.04	10.32
2.13	2.17	2.32	2.36	2.50	3.20	-	-	10.02	10.07	10.19	10.47
-	-	2.45	2.51	3.05	3.38	10.01	10.04	10.18	10.22	10.34	11.04
2.43	2.47	3.02	3.06	3.20	3.54	-	-	10.32	10.37	10.49	11.19
2.53	2.57	3.12	3.16	3.30	4.04	10.30	10.33	10.47	10.51	11.04	11.34
3.03	3.07	3.22	3.26	3.40	4.14	-	-	11.01	11.06	11.19	11.49
3.14	3.18	3.32	3.36	3.50	4.24	11.00	11.03	11.17	11.21	11.34	12.04
3.24	3.28	3.42	3.46	4.00	4.33	CONTINUED					

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Crescent Beach to White Rock Centre and Bridgeport Station.
(Refer to Monday to Friday for routing)

Sullivan at Kidd #56082	128 St at Crescent Rd (E) #56088	Oxford at Russell (E) #56110	White Rock Centre Bay 5	South Surrey Park & Ride Bay 3	Bridgeport Station (E)	Sullivan at Kidd #56082	128 St at Crescent Rd (E) #56088	Oxford at Russell (E) #56110	White Rock Centre Bay 5	South Surrey Park & Ride Bay 3	Bridgeport Station (E)
SATURDAY						SUNDAY & HOLIDAYS					
.... CONTINUED						.... CONTINUED					
-	-	11.31	11.36	11.49	12.19	-	-	8.25	8.30	8.40	9.08
11.30	11.33	11.47	11.51	12.04	12.34	8.26	8.29	8.41	8.45	8.55	9.23
-	-	12.01	12.06	12.19	12.49	-	-	8.54	8.59	9.10	9.38
11.58	12.02	12.17	12.21	12.34	1.04	8.55	8.58	9.10	9.14	9.25	9.53
-	-	12.31	12.36	12.49	1.19	-	-	9.24	9.29	9.41	10.09
12.31	12.35	12.50	12.54	1.07	1.37	9.24	9.27	9.40	9.44	9.56	10.24
-	-	1.04	1.09	1.22	1.52	-	-	9.53	9.58	10.10	10.38
1.01	1.05	1.20	1.24	1.37	2.07	9.52	9.55	10.09	10.13	10.25	10.53
-	-	1.34	1.39	1.52	2.22	-	-	10.23	10.28	10.40	11.08
1.31	1.35	1.50	1.54	2.07	2.37	10.22	10.25	10.39	10.43	10.55	11.23
-	-	2.04	2.09	2.22	2.52	-	-	10.53	10.58	11.11	11.41
2.01	2.05	2.20	2.24	2.37	3.07	10.52	10.55	11.09	11.13	11.26	11.56
-	-	2.34	2.39	2.52	3.22	-	-	11.23	11.28	11.41	12.11
2.33	2.36	2.50	2.54	3.07	3.37	11.25	11.28	11.42	11.46	11.59	12.29
-	-	3.04	3.09	3.22	3.52	-	-	11.59	12.04	12.17	12.47
3.03	3.06	3.20	3.24	3.37	4.07	11.59	12.03	12.18	12.22	12.35	1.05
-	-	3.34	3.39	3.52	4.22	-	-	12.32	12.37	12.50	1.20
3.33	3.36	3.50	3.54	4.07	4.35	12.29	12.33	12.48	12.52	1.05	1.35
-	-	4.04	4.09	4.22	4.50	-	-	1.02	1.07	1.20	1.50
4.04	4.07	4.21	4.25	4.37	5.05	12.59	1.03	1.18	1.22	1.35	2.03
-	-	4.35	4.40	4.52	5.20	-	-	1.32	1.37	1.50	2.18
4.34	4.37	4.51	4.55	5.07	5.35	1.30	1.34	1.49	1.53	2.06	2.34
-	-	5.05	5.10	5.22	5.50	-	-	2.03	2.08	2.21	2.49
5.04	5.07	5.21	5.25	5.37	6.05	2.00	2.04	2.19	2.23	2.36	3.04
-	-	5.35	5.40	5.52	6.20	-	-	2.31	2.38	2.51	3.19
5.35	5.38	5.51	5.55	6.07	6.35	2.30	2.34	2.49	2.53	3.06	3.34
-	-	6.05	6.10	6.22	6.50	-	-	3.01	3.08	3.21	3.49
6.07	6.10	6.22	6.26	6.37	7.05	3.00	3.04	3.19	3.23	3.36	4.04
-	-	6.36	6.41	6.52	7.20	-	-	3.31	3.38	3.51	4.19
6.38	6.41	6.53	6.57	7.07	7.34	3.30	3.34	3.49	3.53	4.06	4.34
-	-	7.07	7.12	7.22	7.49	-	-	4.01	4.08	4.21	4.49
7.08	7.11	7.23	7.27	7.37	8.04	4.01	4.05	4.20	4.24	4.38	5.04
-	-	7.37	7.42	7.52	8.19	-	-	4.32	4.39	4.51	5.19
7.38	7.41	7.53	7.57	8.07	8.34	4.31	4.35	4.50	4.54	5.06	5.34
-	-	8.07	8.12	8.22	8.49	-	-	5.02	5.09	5.21	5.49
8.09	8.12	8.24	8.27	8.37	9.04	5.01	5.05	5.20	5.24	5.36	6.04
-	-	8.37	8.42	8.52	9.19	-	-	5.32	5.39	5.51	6.19
8.40	8.43	8.54	8.57	9.07	9.34	5.32	5.36	5.50	5.54	6.06	6.34
-	-	9.07	9.12	9.22	9.49	-	-	6.02	6.09	6.21	6.49
9.10	9.13	9.24	9.27	9.37	10.04	6.04	6.07	6.21	6.25	6.36	7.04
9.30	9.33	9.44	9.47	9.57	10.24	-	-	6.33	6.40	6.51	7.19
10.00	10.03	10.14	10.17	10.27	10.53	6.35	6.38	6.52	6.56	7.06	7.33
10.30	10.33	10.44	10.47	10.57	11.23	-	-	7.06	7.11	7.21	7.48
11.00	11.03	11.14	11.17	11.27	11.53	7.05	7.08	7.22	7.26	7.36	8.03
11.45	11.48	11.59	12.02	12.11	12.37	-	-	7.36	7.41	7.51	8.18
SUNDAY & HOLIDAYS						7.35	7.38	7.52	7.56	8.06	8.33
-	4.17	4.28	4.31	4.39	5.05	-	-	8.06	8.11	8.21	8.48
-	5.17	5.28	5.31	5.39	6.05	8.06	8.09	8.22	8.26	8.36	9.03
5.58	6.01	6.13	6.16	6.25	6.52	-	-	8.36	8.41	8.51	9.18
-	-	6.25	6.30	6.40	7.07	8.37	8.40	8.52	8.56	9.06	9.33
6.27	6.30	6.42	6.45	6.55	7.22	-	-	9.06	9.11	9.21	9.48
-	-	6.55	7.00	7.10	7.37	9.07	9.10	9.22	9.26	9.36	10.03
6.57	7.00	7.12	7.15	7.25	7.52	9.25	9.28	9.40	9.44	9.54	10.21
-	-	7.25	7.30	7.40	8.07	9.57	10.00	10.11	10.14	10.24	10.50
7.27	7.30	7.42	7.45	7.55	8.22	10.27	10.30	10.41	10.44	10.54	11.20
-	-	7.55	8.00	8.10	8.38	11.00	11.03	11.14	11.17	11.27	11.53
7.56	7.59	8.11	8.15	8.25	8.53	11.45	11.48	11.59	12.02	12.11	12.37
CONTINUED											

351 Crescent Beach

From Bridgeport Station via Great Canadian Way, Sea Island Way, Hwy 99, Massey Exchange, Hwy 99, Matthews Exchange, Hwy 99, offramp, South Surrey Park & Ride, King George Blvd, 152 St; then some trips continue from 152 St via 16 Ave, Oxford to Vine; or most trips continue from 152 St via Johnston, Thrift, Oxford, North Bluff, 128 St, Crescent, Beecher, Sullivan to Kidd.

Bridgeport Station Bay 9	South Surrey Park & Ride (E) Bay 1	White Rock Centre Bay 1 (E)	Johnston at Russell #60246	Sullivan at Kidd (E)	Bridgeport Station Bay 9	South Surrey Park & Ride (E) Bay 1	White Rock Centre Bay 1 (E)	Johnston at Russell #60246	Sullivan at Kidd (E)
MONDAY TO FRIDAY					MONDAY TO FRIDAY				
5.15	5.42	-	5.49	6.06	CONTINUED				
5.30	6.01	-	6.08	6.23	6.00	6.37	-	6.46	7.05
5.45	6.20	6.28	-	-	6.12	6.49	-	6.58	7.17
6.00	6.31	-	6.38	6.53	6.18	6.54	-	-	-
6.15	6.47	-	6.54	7.11	6.24	7.01	-	7.10	7.29
6.30	7.02	-	7.09	7.26	6.36	7.11	-	7.19	7.38
6.45	7.17	-	7.24	7.41	6.42	7.16	-	-	-
7.00	7.38	7.47	-	-	6.48	7.23	-	7.31	7.50
7.15	7.48	-	7.55	8.12	7.00	7.34	-	7.42	8.00
7.30	8.03	-	8.10	8.27	7.15	7.49	-	7.57	8.15
7.45	8.19	-	8.27	8.46	7.30	8.04	-	8.12	8.30
8.00	8.34	-	8.42	9.01	7.45	8.19	-	8.27	8.45
8.15	8.49	-	8.57	9.16	8.00	8.33	-	8.41	8.59
8.30	9.04	-	9.12	9.31	8.15	8.48	-	8.56	9.14
8.45	9.19	-	9.27	9.46	8.30	9.03	-	9.11	9.29
9.00	9.34	-	9.42	10.01	8.45	9.18	-	9.26	9.44
9.15	9.52	10.00	-	-	9.00	9.33	-	9.41	9.59
9.30	10.03	-	10.11	10.30	9.20	9.53	-	10.01	10.19
9.45	10.20	10.27	-	-	9.40	10.13	-	10.21	10.39
10.00	10.34	-	10.42	11.00	10.00	10.33	-	10.41	10.59
10.15	10.51	10.58	-	-	10.30	11.03	-	11.11	11.29
10.30	11.04	-	11.12	11.32	11.02	11.34	-	11.41	11.59
10.45	11.21	11.29	-	-	12.02	12.33	-	12.40	12.57
11.00	11.34	-	11.42	12.02	1.00	1.31	-	1.38	1.55
11.15	11.51	11.59	-	-	1.59	2.30	-	2.37	2.54
11.30	12.03	-	12.11	12.31	SATURDAY				
11.45	12.20	12.28	-	-	5.20	5.48	-	5.54	6.09
12.00	12.34	-	12.42	1.02	5.45	6.13	6.19	-	-
12.15	12.50	12.58	-	-	6.00	6.29	-	6.36	6.51
12.30	1.04	-	1.12	1.32	6.15	6.44	6.50	-	-
12.45	1.22	1.31	-	-	6.30	6.59	-	7.06	7.21
1.00	1.35	-	1.43	2.05	6.45	7.16	7.22	-	-
1.15	1.52	2.01	-	-	7.00	7.29	-	7.36	7.51
1.30	2.05	-	2.13	2.35	7.15	7.46	7.52	-	-
1.45	2.20	2.28	-	-	7.30	7.59	-	8.06	8.21
2.00	2.37	-	2.45	3.07	7.45	8.16	8.22	-	-
2.15	2.52	-	3.00	3.22	8.00	8.29	-	8.36	8.51
2.30	3.07	-	3.15	3.37	8.15	8.46	8.52	-	-
2.45	3.22	-	3.30	3.52	8.30	9.00	-	9.07	9.24
3.00	3.39	-	3.48	4.09	8.42	9.13	9.19	-	-
3.10	3.49	-	3.58	4.19	8.55	9.25	-	9.32	9.49
3.20	3.59	-	4.08	4.29	9.10	9.41	9.48	-	-
3.30	4.09	-	4.18	4.39	9.25	9.56	-	10.03	10.20
3.40	4.19	-	4.28	4.49	9.40	10.12	10.19	-	-
3.50	4.30	-	4.39	5.00	9.55	10.26	-	10.33	10.50
4.00	4.42	-	4.51	5.12	10.10	10.43	10.50	-	-
4.10	4.52	-	5.01	5.22	10.25	10.57	-	11.04	11.21
4.20	5.02	-	5.11	5.32	10.40	11.13	11.20	-	-
4.30	5.12	-	5.21	5.42	10.55	11.27	-	11.35	11.54
4.40	5.22	-	5.31	5.52	11.10	11.44	11.51	-	-
4.50	5.32	-	5.41	6.01	11.25	11.58	-	12.06	12.26
5.00	5.41	-	5.50	6.09	11.40	12.15	12.22	-	-
5.12	5.53	-	6.02	6.21	11.55	12.28	-	12.36	12.56
5.24	6.04	-	6.13	6.32	12.10	12.47	12.54	-	-
5.36	6.15	-	6.24	6.43	12.25	1.00	-	1.08	1.28
5.48	6.27	-	6.36	6.55	CONTINUED ...				

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Bridgeport Station to White Rock Centre and Crescent Beach.
(Refer to Monday to Friday for routing)

Bridgeport Station Bay 9	South Surrey Park & Ride (E) Bay 1	White Rock Centre Bay 1 (E)	Johnston at Russell #60246	Sullivan at Kidd (E)	Bridgeport Station Bay 9	South Surrey Park & Ride (E) Bay 1	White Rock Centre Bay 1 (E)	Johnston at Russell #60246	Sullivan at Kidd (E)
SATURDAY					SUNDAY & HOLIDAYS				
... CONTINUED					... CONTINUED				
12.40	1.17	1.25	-	-	8.51	9.21	-	9.28	9.45
12.55	1.30	-	1.38	1.58	9.06	9.38	9.45	-	-
1.10	1.47	1.55	-	-	9.21	9.52	-	9.59	10.16
1.25	2.01	-	2.09	2.29	9.36	10.08	10.15	-	-
1.40	2.17	2.24	-	-	9.51	10.22	-	10.29	10.46
1.55	2.31	-	2.39	2.59	10.06	10.38	10.45	-	-
2.10	2.47	2.54	-	-	10.21	10.53	-	11.01	11.18
2.25	3.01	-	3.09	3.29	10.36	11.08	11.15	-	-
2.40	3.15	3.22	-	-	10.51	11.24	-	11.32	11.52
2.55	3.29	-	3.37	3.57	11.06	11.42	11.50	-	-
3.10	3.45	3.52	-	-	11.21	11.56	-	12.04	12.24
3.25	3.59	-	4.07	4.27	11.36	12.12	12.20	-	-
3.40	4.15	4.22	-	-	11.51	12.26	-	12.34	12.54
3.55	4.29	-	4.37	4.57	12.06	12.42	12.50	-	-
4.10	4.44	4.51	-	-	12.21	12.56	-	1.04	1.26
4.25	4.58	-	5.06	5.27	12.36	1.14	1.22	-	-
4.40	5.14	5.21	-	-	12.51	1.28	-	1.34	1.56
4.55	5.28	-	5.36	5.57	1.06	1.44	1.52	-	-
5.10	5.44	5.51	-	-	1.21	1.56	-	2.04	2.26
5.25	5.58	-	6.06	6.25	1.36	2.14	2.22	-	-
5.40	6.14	6.21	-	-	1.51	2.26	-	2.34	2.56
5.55	6.28	-	6.36	6.55	2.06	2.44	2.52	-	-
6.12	6.46	6.53	-	-	2.21	2.56	-	3.04	3.26
6.30	7.03	-	7.11	7.30	2.36	3.14	3.22	-	-
6.45	7.18	7.25	-	-	2.51	3.26	-	3.34	3.56
7.00	7.33	-	7.41	7.59	3.06	3.42	3.49	-	-
7.15	7.48	7.55	-	-	3.21	3.57	-	4.06	4.28
7.30	8.03	-	8.10	8.28	3.36	4.12	4.19	-	-
7.45	8.18	8.25	-	-	3.51	4.27	-	4.36	4.58
8.00	8.33	-	8.40	8.58	4.06	4.41	4.48	-	-
8.15	8.48	8.55	-	-	4.21	4.56	-	5.05	5.26
8.30	9.03	-	9.10	9.27	4.36	5.11	5.18	-	-
8.45	9.18	-	9.25	9.42	4.51	5.26	-	5.35	5.56
9.00	9.32	-	9.39	9.56	5.06	5.41	5.48	-	-
9.20	9.52	-	9.59	10.16	5.21	5.56	-	6.05	6.24
9.40	10.12	-	10.19	10.36	5.36	6.12	6.20	-	-
10.00	10.32	-	10.39	10.56	5.51	6.26	-	6.34	6.53
10.30	11.02	-	11.09	11.26	6.07	6.43	6.51	-	-
11.00	11.32	-	11.39	11.56	6.23	6.58	-	7.06	7.25
12.00	12.31	-	12.38	12.55	6.39	7.15	7.22	-	-
12.45	1.16	-	1.23	1.40	6.55	7.29	-	7.37	7.55
1.45	2.16	-	2.23	2.40	7.10	7.46	7.53	-	-
SUNDAY & HOLIDAYS					SUNDAY & HOLIDAYS				
5.20	5.48	-	5.54	6.09	7.25	7.59	-	8.07	8.25
5.36	6.04	6.10	-	-	7.40	8.16	8.23	-	-
5.51	6.20	-	6.27	6.42	7.55	8.29	-	8.37	8.55
6.06	6.35	6.41	-	-	8.10	8.46	8.53	-	-
6.21	6.50	-	6.57	7.12	8.25	8.58	-	9.05	9.22
6.36	7.07	7.13	-	-	8.40	9.13	-	9.20	9.37
6.51	7.20	-	7.27	7.42	8.58	9.31	-	9.38	9.55
7.06	7.38	7.45	-	-	9.18	9.50	-	9.57	10.14
7.21	7.50	-	7.57	8.12	9.38	10.10	-	10.17	10.34
7.36	8.08	8.15	-	-	9.58	10.30	-	10.37	10.54
7.51	8.20	-	8.27	8.42	10.28	11.00	-	11.07	11.24
8.06	8.38	8.45	-	-	11.00	11.32	-	11.39	11.56
8.21	8.51	-	8.58	9.15	12.00	12.31	-	12.38	12.55
8.36	9.08	9.15	-	-	12.45	1.16	-	1.23	1.40
CONTINUED ...					1.45	2.16	-	2.23	2.40

Effective - December 31, 2018

STOPPING PROCEDURES - 351, 352 & 354

- To Bridgeport Station

Stops for pick-up and drop-off are made at all local stops up to and including South Surrey Park & Ride and Massey Exchange (Hwy 99 at Steveston Hwy)(Matthews Exchange for 351 only, after the AM peak). Note - request stop only for 352 & 354 at Massey Exchange.

- To White Rock

Starting at Massey Exchange (Hwy 99 at Steveston Hwy) stops are made for both pick-up and drop-off at all stops to the termini.

Note - Only the 351 stops at Matthews Exchange for pick up and drop-off.

354 Bridgeport Station/ White Rock South

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February 2019

For route and schedule information, visit www.translink.ca
CMBC Service Planning

0 1.25 2.5 5 7.5 10



LEGEND

- Regular Routing
- - - Limited Service Routing
- Millennium Line
- Expo Line
- Canada Line
- West Coast Express
- SeaBus/Ferry
- TS Route Terminus/Scheduled Stop
- E SkyTrain/Canada Line/West Coast Express Station

354 White Rock South/White Rock Centre/ Bridgeport Station

From White Rock Centre via North Bluff, Johnston, Pacific, Centre, Columbia, Maple, Marine, 160 St, 16 Ave, King George Blvd, 24 Ave, 160 St, 32 Ave, 32 Ave Diversion, King George Blvd South Surrey Park & Ride, King George Blvd, Hwy 99, Bridgeport Rd, Great Canadian Way to Bridgeport Station.

From Bridgeport Station via Great Canadian Way, Sea Island Way, Hwy 99, Massey Exchange, Hwy 99, offramp, South Surrey Park & Ride, King George Blvd, 32 Ave Diversion, 32 Ave, 160 St, 24 Ave, King George Blvd, 16 Ave, Stayte, Marine, Maple, Columbia, Centre, Pacific, Johnston, North Bluff to White White Rock Centre.

White Rock Centre Bay 2	160 St at 24 Ave (E) #56073	South Surrey Park & Ride Bay 3	Bridgeport Station (E)	Bridgeport Station Bay 10	South Surrey Park & Ride (E) Bay 1	24 Ave at 160 St (E) #61630	White Rock Centre (E)
MONDAY TO FRIDAY				MONDAY TO FRIDAY			
5.16	5.32	5.45	6.11	4.05	4.54	5.04	5.17
5.46	6.02	6.15	6.41	4.20	5.09	5.19	5.32
6.09	6.26	6.40	7.10	4.35	5.23	5.33	5.46
6.17	6.34	6.48	7.18	4.50	5.38	5.48	6.01
6.24	6.41	6.55	7.25	5.05	5.52	6.02	6.15
6.35	6.52	7.06	7.39	5.20	6.07	6.17	6.30
6.43	7.01	7.15	7.52	5.35	6.18	6.27	6.39
6.57	7.15	7.29	8.06	5.55	6.38	6.47	6.59
7.17	7.35	7.49	8.23				
7.35	7.53	8.07	8.41				

STOPPING PROCEDURES - 351, 352 & 354

- To Bridgeport Station

Stops for **pick-up and drop-off** are made at all local stops up to and including South Surrey Park & Ride and Massey Exchange (Hwy 99 at Steveston Hwy)(Mathews Exchange for 351 only, after the AM peak). **Note** - request stop only for 352 & 354 at Massey Exchange.

- To White Rock

Starting at Massey Exchange (Hwy 99 at Steveston Hwy) stops are made for both **pick-up and drop-off** at all stops to the termini.

Note - Only the 351 stops at Mathews Exchange for pick up and drop-off.

361 Ocean Park / White Rock Centre

September 2017
For route and schedule
information, visit
www.translink.ca
CMBC Service Planning



Legend

- Terminus/Trailing Point
- Point Of Interest

361 White Rock Centre / 361 Ocean Park

From 128 St at 16 Ave via 128 St, Marine, 160 St, Russell, Johnston, 152 St to White Rock Centre.

From White Rock Centre via 152 St, Martin, mall access road, 152 St, Johnston, Russell, Stayte, Marine, 130 St, 16 Ave, 128 St to 17 Ave.

128 St at 16 Ave #56220 Marine at Finlay (E) #56243 White Rock Centre (E)	128 St at 16 Ave #56220 Marine at Finlay (E) #56243 White Rock Centre (E)	White Rock Centre Bay 8 Marine at Maple (E) #56196 128 St at 17 th Ave (E)	White Rock Centre Bay 8 Marine at Maple (E) #56196 128 St at 17 th Ave (E)
MONDAY TO FRIDAY		MONDAY TO FRIDAY	
5.05 5.16 5.25 5.35 5.46 5.55 6.05 6.16 6.25 6.35 6.46 6.55 7.05 7.17 7.26 7.35 7.47 7.56 8.05 8.18 8.27 8.35 8.48 8.57 9.05 9.18 9.27 9.35 9.48 9.57 10.05 10.18 10.27 10.35 10.49 10.59 11.05 11.19 11.29 11.35 11.49 11.59 12.05 12.19 12.29 CONTINUED ....	.... CONTINUED 12.35 12.49 12.59 1.05 1.19 1.29 1.35 1.49 1.59 2.05 2.19 2.29 2.35 2.49 2.59 3.05 3.19 3.29 3.35 3.49 3.59 4.05 4.19 4.29 4.35 4.48 4.57 5.05 5.18 5.27 5.35 5.48 5.57 6.05 6.18 6.27 6.35 6.48 6.57 7.05 7.17 7.26	5.30 5.42 5.56 6.00 6.12 6.26 6.30 6.42 6.56 7.00 7.12 7.26 7.30 7.42 7.56 8.00 8.12 8.26 8.30 8.43 8.59 9.00 9.12 9.27 9.30 9.42 9.57 10.00 10.12 10.27 10.30 10.42 10.57 11.00 11.12 11.27 11.30 11.42 11.57 12.00 12.13 12.29 12.30 12.43 12.59 CONTINUED ....	.... CONTINUED 1.00 1.13 1.29 1.30 1.43 1.59 2.00 2.13 2.29 2.30 2.43 2.59 3.00 3.13 3.29 3.30 3.43 3.59 4.00 4.13 4.29 4.30 4.43 4.59 5.00 5.13 5.29 5.30 5.43 5.59 6.00 6.13 6.29 6.30 6.43 6.58 6.55 7.07 7.22 7.25 7.37 7.52
SATURDAY		SATURDAY	
7.30 7.41 7.49 8.30 8.41 8.49 9.30 9.41 9.49 10.30 10.42 10.51 11.30 11.43 11.53 12.30 12.43 12.53 1.30 1.43 1.53 2.30 2.43 2.53 3.30 3.44 3.54 CONTINUED ....	.... CONTINUED 4.30 4.45 4.56 5.30 5.42 5.51 6.30 6.42 6.51 7.30 7.42 7.51 8.30 8.42 8.51	8.00 8.10 8.25 9.00 9.10 9.25 10.00 10.12 10.27 11.00 11.12 11.27 12.00 12.13 12.28 1.00 1.13 1.28 2.00 2.13 2.28 3.00 3.13 3.28 4.00 4.13 4.28 CONTINUED ....	.... CONTINUED 5.00 5.10 5.25 6.00 6.10 6.25 7.00 7.10 7.25 8.00 8.10 8.25 9.00 9.10 9.25
SUNDAY & HOLIDAYS		SUNDAY & HOLIDAYS	
8.29 8.40 8.49 9.29 9.42 9.51 10.29 10.42 10.51 11.29 11.43 11.54 12.29 12.43 12.54 1.29 1.44 1.55 2.29 2.45 2.56 CONTINUED ....	.... CONTINUED 3.29 3.46 3.58 4.29 4.44 4.55 5.29 5.43 5.54 6.33 6.47 6.58	9.00 9.12 9.27 10.00 10.12 10.27 11.00 11.13 11.29 12.00 12.14 12.31 1.00 1.14 1.32 2.00 2.14 2.32 3.00 3.15 3.33 CONTINUED ....	.... CONTINUED 4.00 4.14 4.31 5.00 5.14 5.30 6.00 6.13 6.29

362 Seaside / White Rock Centre



September 2017
For route and schedule
information, visit
www.translink.ca
CMBC Service Planning



Legend

- Terminus/Timing Point
- Point Of Interests



362 Seaside / 362 White Rock Centre

Loop service from White Rock Centre via 152 St, Martin, mall access road, 152 St, Johnston, Buena Vista, Oxford, Marine to Martin; returning via Marine, Maple, Columbia, Centre, Pacific, Johnston, 152 St to White Rock Centre.

White Rock Centre Bay 8	Marine at Martin (E) #56238	White Rock Centre (E)	White Rock Centre Bay 8	Marine at Martin (E) #56238	White Rock Centre (E)	White Rock Centre Bay 8	Marine at Martin (E) #56238	White Rock Centre (E)
MONDAY TO FRIDAY			SATURDAY			SUNDAY & HOLIDAYS		
9.30	9.42	9.52	7.59	8.10	8.22	8.31	8.41	8.51
10.00	10.12	10.22	8.29	8.40	8.52	9.01	9.11	9.21
10.30	10.42	10.52	8.59	9.10	9.22	9.31	9.41	9.51
11.00	11.12	11.24	9.29	9.40	9.52	10.01	10.11	10.21
11.30	11.42	11.54	9.58	10.10	10.22	10.30	10.41	10.51
12.00	12.12	12.24	10.28	10.40	10.52	11.00	11.11	11.21
12.30	12.42	12.54	10.58	11.10	11.22	11.29	11.41	11.52
1.00	1.12	1.24	11.28	11.40	11.52	11.59	12.11	12.22
1.30	1.42	1.54	11.58	12.10	12.23	12.29	12.41	12.53
2.00	2.12	2.24	12.28	12.40	12.53	12.57	1.11	1.23
2.30	2.42	2.54	12.58	1.10	1.23	1.27	1.41	1.54
3.00	3.12	3.24	1.28	1.40	1.53	1.57	2.11	2.24
3.30	3.42	3.54	1.58	2.10	2.24	2.29	2.41	2.54
4.00	4.12	4.22	2.28	2.40	2.54	2.59	3.11	3.24
4.30	4.42	4.52	2.58	3.10	3.24	3.29	3.41	3.53
5.00	5.12	5.22	3.28	3.40	3.54	3.59	4.11	4.23
5.30	5.42	5.52	3.58	4.10	4.24	4.29	4.41	4.52
6.00	6.12	6.22	4.28	4.40	4.54	4.59	5.11	5.22
6.30	6.42	6.52	4.59	5.10	5.22	5.30	5.41	5.52
7.00	7.12	7.22	5.29	5.40	5.52	6.00	6.11	6.22
7.30	7.42	7.52	5.59	6.10	6.22	6.30	6.41	6.52
8.00	8.12	8.22	6.29	6.40	6.52	7.00	7.11	7.22
8.30	8.42	8.52	7.00	7.10	7.21	7.30	7.41	7.52
9.00	9.12	9.22	7.30	7.40	7.51	8.00	8.11	8.22
9.30	9.42	9.52	8.00	8.10	8.21	8.30	8.41	8.52
10.10*	10.22*	10.32*	8.30	8.40	8.51	9.00	9.11	9.22
10.50*	11.02*	11.12*	9.00	9.10	9.21	9.30	9.41	9.52
11.30*	11.42*	11.52*	9.30	9.40	9.51			
			10.00	10.10	10.21			
			10.30	10.40	10.51			
			11.00	11.10	11.21			
			11.30	11.40	11.51			

363 Southpoint

From Peace Arch Hospital via Russell, Best, 16 Ave, Johnston, Pacific, Fir, Buena Vista, 160 St, 16 Ave, King George Blvd, 160 St, Cranley, 157 St, 24 Ave, 160 St, 32 Ave, 32 Ave Diversion to King George Blvd.

Peace Arch Hospital #56258	160 St at 12 Ave (E) #56250	160 St at 24 Ave (E) #56073	King George Blvd at 32 Ave Div (E)	Peace Arch Hospital #56258	160 St at 12 Ave (E) #56250	160 St at 24 Ave (E) #56073	King George Blvd at 32 Ave Div (E)
MONDAY TO FRIDAY				SATURDAY			
5.30	5.38	5.48	5.59	.... CONTINUED			
6.00	6.08	6.18	6.29	5.00	5.09	5.19	5.31
6.30	6.38	6.48	6.59	5.30	5.38	5.48	6.00
7.00	7.08	7.18	7.29	6.00	6.08	6.18	6.30
7.30	7.38	7.48	7.59	6.30	6.38	6.48	7.00
8.00	8.08	8.18	8.29	7.00	7.08	7.18	7.30
8.30	8.38	8.48	9.00	7.30	7.38	7.48	8.00
9.00	9.08	9.18	9.30	8.00	8.08	8.18	8.30
9.30	9.38	9.48	10.00	8.30	8.38	8.48	8.57
10.00	10.08	10.18	10.30	9.00	9.08	9.16	9.27
10.30	10.38	10.48	11.00	9.30	9.38	9.46	9.57
11.00	11.08	11.18	11.30	10.00	10.08	10.16	10.27
11.30	11.38	11.48	12.00	10.30	10.38	10.46	10.57
12.00	12.08	12.18	12.30	SUNDAY & HOLIDAYS			
12.30	12.38	12.48	1.00	7.00	7.08	7.18	7.29
1.00	1.08	1.18	1.30	7.30	7.38	7.48	7.59
1.30	1.38	1.48	2.00	8.00	8.09	8.19	8.31
2.00	2.09	2.20	2.33	8.30	8.39	8.49	9.01
2.30	2.39	2.50	3.03	9.00	9.09	9.19	9.31
3.00	3.09	3.20	3.33	9.30	9.39	9.49	10.01
3.30	3.39	3.50	4.03	10.00	10.09	10.19	10.31
4.00	4.09	4.20	4.33	10.30	10.39	10.49	11.01
4.30	4.39	4.50	5.03	11.00	11.09	11.19	11.31
5.00	5.09	5.20	5.33	11.30	11.39	11.49	12.01
5.30	5.38	5.48	6.00	12.00	12.09	12.19	12.31
6.00	6.08	6.18	6.30	12.30	12.39	12.49	1.01
6.30	6.38	6.48	6.59	1.00	1.09	1.20	1.32
7.00	7.08	7.18	7.29	1.30	1.39	1.50	2.02
7.30	7.38	7.48	7.59	2.00	2.09	2.19	2.31
8.00	8.08	8.18	8.29	2.30	2.38	2.48	3.00
8.30	8.38	8.48	8.59	3.00	3.08	3.18	3.30
9.00	9.08	9.18	9.29	3.30	3.38	3.48	4.00
9.30	9.38	9.48	9.59	4.00	4.08	4.18	4.30
10.00	10.08	10.18	10.29	4.30	4.38	4.48	5.00
10.30	10.38	10.48	10.59	5.00	5.08	5.18	5.30
SATURDAY				5.30	5.38	5.48	6.00
7.00	7.08	7.18	7.29	6.00	6.08	6.18	6.30
7.30	7.38	7.48	7.59	6.30	6.38	6.48	7.00
8.00	8.09	8.19	8.31	7.00	7.08	7.18	7.30
8.30	8.39	8.49	9.01	7.30	7.38	7.48	8.00
9.00	9.09	9.19	9.31	8.00	8.08	8.18	8.30
9.30	9.39	9.50	10.02	8.30	8.38	8.48	9.00
10.00	10.09	10.20	10.32	9.00	9.08	9.17	9.28
10.30	10.39	10.50	11.02	9.30	9.38	9.47	9.58
11.00	11.09	11.20	11.32				
11.30	11.39	11.50	12.03				
12.00	12.09	12.20	12.33				
12.30	12.40	12.51	1.04				
1.00	1.09	1.20	1.32				
1.30	1.39	1.50	2.02				
2.00	2.09	2.20	2.32				
2.30	2.39	2.50	3.02				
3.00	3.09	3.20	3.32				
3.30	3.39	3.50	4.02				
4.00	4.09	4.19	4.31				
4.30	4.39	4.49	5.01				

363 Peace Arch Hospital

From King George Blvd at 32 Ave Diversion via King George Blvd, 152 St, 32 Ave Diversion, 32 Ave, 160 St, 24 Ave, 157 St, Cranley, 160 St, King George Blvd, 16 Ave, Stayte, Buena Vista, Fir, Pacific, Johnston, North Bluff, Finlay, Russell to Peace Arch Hospital.

King George Blvd at 32 Ave Div #55474	24 Ave at 160 St (E) #61630	Buena Vista at Stayte (E) #56267	Peace Arch Hospital (E)	King George Blvd at 32 Ave Div #55474	24 Ave at 160 St (E) #61630	Buena Vista at Stayte (E) #56267	Peace Arch Hospital (E)
MONDAY TO FRIDAY				SATURDAY			
5.59	6.11	6.19	6.28	.... CONTINUED			
6.29	6.41	6.50	7.00	5.40	5.52	6.01	6.10
6.59	7.11	7.20	7.30	6.10	6.22	6.31	6.40
7.29	7.41	7.50	8.00	6.40	6.52	7.01	7.10
7.59	8.11	8.20	8.30	7.05	7.17	7.26	7.35
8.29	8.41	8.49	8.58	7.30	7.40	7.48	7.56
9.00	9.12	9.20	9.29	8.00	8.10	8.18	8.26
9.30	9.42	9.50	9.59	8.30	8.40	8.48	8.56
10.00	10.12	10.21	10.30	8.57	9.07	9.15	9.23
10.30	10.42	10.51	11.00	9.27	9.37	9.45	9.53
11.00	11.12	11.21	11.30	9.57	10.07	10.15	10.23
11.30	11.42	11.51	12.00	10.27	10.37	10.45	10.53
12.00	12.12	12.21	12.30	10.57	11.07	11.15	11.23
12.30	12.42	12.51	1.00	SUNDAY & HOLIDAYS			
1.00	1.12	1.21	1.30	7.40	7.51	7.59	8.08
1.30	1.42	1.51	2.00	8.10	8.21	8.29	8.38
2.00	2.13	2.23	2.33	8.40	8.51	8.59	9.08
2.33	2.46	2.56	3.06	9.10	9.21	9.29	9.38
3.03	3.16	3.26	3.36	9.40	9.51	9.59	10.08
3.33	3.46	3.56	4.06	10.10	10.21	10.29	10.38
4.03	4.16	4.26	4.36	10.40	10.52	11.01	11.10
4.33	4.46	4.55	5.05	11.10	11.22	11.31	11.40
5.03	5.16	5.25	5.35	11.40	11.52	12.01	12.10
5.33	5.44	5.52	6.01	12.10	12.22	12.31	12.40
6.00	6.11	6.19	6.28	12.40	12.52	1.01	1.10
6.30	6.41	6.49	6.58	1.10	1.22	1.31	1.40
6.59	7.10	7.18	7.27	1.40	1.52	2.01	2.11
7.29	7.40	7.48	7.57	2.10	2.22	2.31	2.41
7.59	8.10	8.18	8.27	2.40	2.52	3.01	3.10
8.29	8.39	8.46	8.54	3.10	3.22	3.31	3.40
8.59	9.09	9.16	9.24	3.40	3.52	4.00	4.09
9.29	9.39	9.46	9.54	4.10	4.22	4.30	4.39
9.59	10.09	10.16	10.24	4.40	4.51	4.59	5.08
10.29	10.39	10.46	10.54	5.10	5.21	5.29	5.38
10.59	11.09	11.16	11.24	5.40	5.51	5.58	6.07
SATURDAY				6.10	6.21	6.28	6.37
7.40	7.53	8.02	8.12	6.40	6.50	6.58	7.06
8.10	8.22	8.31	8.40	7.05	7.15	7.23	7.31
8.40	8.52	9.01	9.10	7.30	7.40	7.47	7.55
9.10	9.22	9.31	9.40	8.00	8.10	8.17	8.25
9.40	9.52	10.01	10.11	8.30	8.40	8.47	8.55
10.10	10.22	10.31	10.41	9.00	9.10	9.17	9.25
10.40	10.52	11.01	11.11	9.28	9.38	9.45	9.53
11.10	11.22	11.31	11.41	9.58	10.08	10.15	10.23
11.40	11.52	12.01	12.11				
12.10	12.22	12.31	12.41				
12.40	12.52	1.01	1.11				
1.10	1.22	1.31	1.41				
1.40	1.52	2.01	2.11				
2.10	2.22	2.31	2.41				
2.40	2.52	3.01	3.11				
3.10	3.22	3.31	3.40				
3.40	3.52	4.01	4.10				
4.10	4.22	4.31	4.40				
4.40	4.52	5.01	5.10				
5.10	5.22	5.31	5.40				
CONTINUED							

375 King George Station / White Rock South



January 2019

For route and schedule
information, visit
www.translink.ca



CMBC Service Planning



Guildford Exchange
Bay 1: 375 White Rock South

White Rock Centre
Bay 5: 375 Guildford

King George Highway @ 8th Ave
375 Guildford

LEGEND

- Regular Routing
- Expo Line
- Route Terminus/Scheduled Stop
- SkyTrain / Canada Line / West Coast Express Station

375 White Rock South / 375 Guildford

From Guildford Exchange via 104 Ave, 152 St, North Bluff (White Rock Centre), North Bluff, King George, 8 Ave roundabout, King George to 1100 Block.

From King George Blvd at 1100 Block via King George, 16 Ave, 152 St (White Rock Centre), 152 St, 100 Ave, 150 St, 104 Ave to Guildford Exchange.

Guildford Exchange Bay 1 White Rock Centre Bay 4 King George at 1100 Block (E)			Guildford Exchange Bay 1 White Rock Centre Bay 4 King George at 1100 Block (E)			King George at 1100 Block #55375 White Rock Centre Bay 5 Guildford Exchange Hudson's Bay entrance (E) Guildford Exchange Bay 3 (E)				King George at 1100 Block #55375 White Rock Centre Bay 5 Guildford Exchange Hudson's Bay entrance (E) Guildford Exchange Bay 3 (E)			
MON TO FRI			SATURDAY			MON TO FRI				SATURDAY			
6.18	6.53	7.03	.... CONTINUED			6.13	6.19	-	6.57	.... CONTINUED			
6.48	7.25	7.38	3.20	4.02	4.11	6.43	6.49	7.25	-	3.49	3.56	-	4.41
7.18	7.58	8.11	3.50	4.32	4.41	7.18	7.24	-	8.02	4.19	4.26	-	5.11
7.45	8.29	8.44	4.20	5.02	5.11	7.47	7.54	8.33	-	4.49	4.56	-	5.41
8.15	8.59	9.14	4.50	5.32	5.41	8.17	8.24	-	9.07	5.19	5.26	-	6.07
8.45	9.23	9.36	5.20	6.02	6.11	8.49	8.56	-	9.37	5.49	5.56	-	6.37
9.18	9.58	10.11	5.50	6.32	6.41	9.19	9.26	10.05	-	6.19	6.26	-	7.04
9.48	10.28	10.41	6.20	6.58	7.07	9.47	9.54	-	10.35	6.49	6.56	-	7.34
10.18	10.59	11.12	6.50	7.28	7.37	10.17	10.24	11.03	-	7.49	7.56	-	8.34
10.48	11.29	11.42	7.50	8.28	8.37	10.47	10.54	11.33	-	8.49	8.56	-	9.31
11.18	11.59	12.12	8.50	9.28	9.37	11.17	11.24	12.03	-	SUN & HOL			
11.48	12.29	12.42	9.50	10.25	10.34	11.47	11.54	-	12.36	6.49	6.56	7.32	-
12.17	12.58	1.11	10.50	11.25	11.34	12.17	12.25	1.04	-	7.19	7.26	-	8.01
12.47	1.28	1.41	SUN & HOL			12.47	12.55	1.34	-	7.49	7.56	8.32	-
1.17	1.58	2.11	8.50	7.22	7.32	1.17	1.25	2.04	-	8.19	8.26	9.02	-
1.47	2.29	2.42	7.20	7.52	8.05	1.48	1.56	2.39	-	8.49	8.56	9.32	-
2.17	3.02	3.15	7.50	8.22	8.35	2.19	2.27	-	3.14	9.19	9.26	10.02	-
2.47	3.34	3.47	8.20	8.55	9.08	2.49	2.57	-	3.50	9.49	9.56	10.32	-
3.17	4.06	4.18	8.50	9.25	9.38	3.20	3.28	-	4.22	10.19	10.26	-	11.07
3.47	4.36	4.48	9.20	9.55	10.05	3.52	4.00	-	4.54	10.49	10.56	-	11.37
4.17	5.06	5.18	9.50	10.25	10.35	4.23	4.31	-	5.27	11.19	11.26	-	12.07
4.48	5.33	5.45	10.20	10.57	11.07	4.53	5.01	-	5.56	11.49	11.56	-	12.37
5.17	6.02	6.14	10.50	11.26	11.36	5.23	5.31	6.16	-	12.19	12.26	-	1.07
5.48	6.29	6.41	11.20	11.56	12.06	5.50	5.58	6.40	-	12.49	12.56	-	1.37
6.18	6.57	7.09	11.50	12.26	12.36	6.19	6.27	-	7.08	1.19	1.26	-	2.07
6.48	7.26	7.38	12.20	12.57	1.07	6.48	6.56	7.34	-	1.49	1.56	-	2.37
7.48	8.23	8.35	12.50	1.27	1.37	7.48	7.56	8.30	-	2.19	2.26	-	3.05
8.48	9.23	9.35	1.20	1.59	2.09	8.48	8.56	-	9.31	2.49	2.56	-	3.35
9.48	10.23	10.33	1.50	2.29	2.39	SATURDAY				3.19	3.26	-	4.07
10.48	11.23	11.33	2.20	2.59	3.09	6.19	6.26	-	7.02	3.49	3.56	-	4.37
SATURDAY			2.50	3.29	3.39	6.49	6.56	-	7.32	4.19	4.26	-	5.07
6.20	6.53	7.04	3.20	4.01	4.11	7.19	7.26	-	8.03	4.49	4.56	-	5.37
6.50	7.23	7.34	3.50	4.30	4.40	7.49	7.56	-	8.33	5.19	5.26	-	6.07
7.20	7.53	8.04	4.20	5.00	5.10	8.19	8.26	-	9.04	5.49	5.56	-	6.37
7.50	8.26	8.37	4.50	5.27	5.37	8.49	8.56	-	9.34	6.19	6.26	-	7.04
8.20	8.59	9.10	5.20	5.57	6.07	9.19	9.26	-	10.06	6.49	6.56	-	7.34
8.50	9.29	9.40	5.50	6.27	6.37	9.49	9.56	-	10.36	7.49	7.56	-	8.32
9.20	9.59	10.10	6.20	6.57	7.07	10.19	10.26	-	11.09	8.49	8.56	-	9.32
9.50	10.29	10.40	6.50	7.27	7.37	10.49	10.56	-	11.39				
10.20	10.59	11.10	7.50	8.27	8.37	11.19	11.26	-	12.09				
10.50	11.29	11.40	8.50	9.27	9.37	11.49	11.56	-	12.39				
11.20	12.01	12.12				12.19	12.26	-	1.10				
11.50	12.32	12.41				12.49	12.56	-	1.40				
12.20	1.02	1.11				1.19	1.26	-	2.11				
12.50	1.32	1.41				1.49	1.56	-	2.41				
1.20	2.02	2.11				2.19	2.26	-	3.11				
1.50	2.32	2.41				2.49	2.56	-	3.41				
2.20	3.02	3.11				3.19	3.26	-	4.11				
2.50	3.32	3.41											
CONTINUED													

531 White Rock Centre/ Willowbrook



September 2016

For route and schedule information, visit www.translink.ca

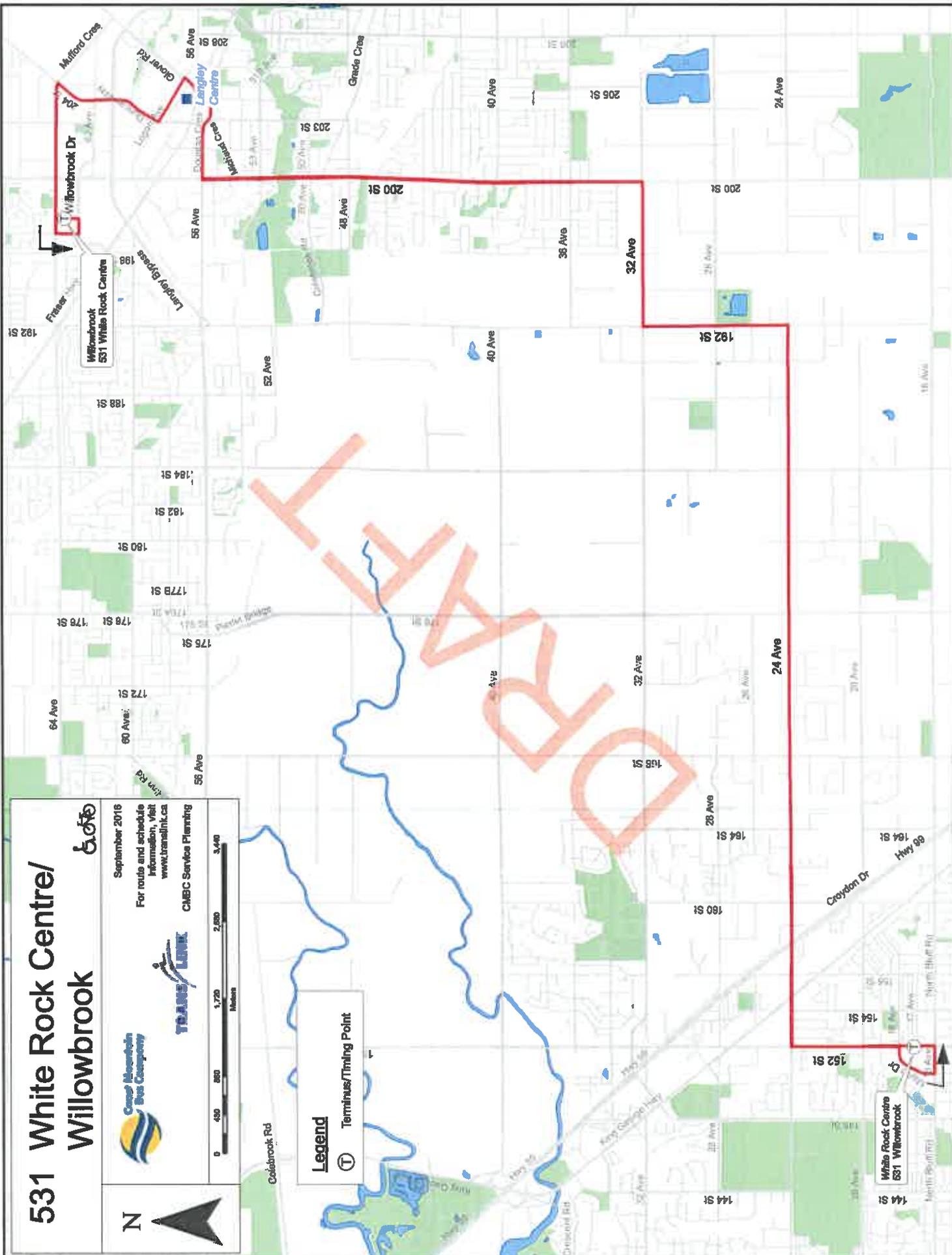
CMBC Service Planning



Legend



Terminus/Timing Point



531 White Rock Centre / 531 Willowbrook

From 198 St at 64 Ave via 198 St, 64 Ave, 204 St, 204 St overpass, Logan (Langley Centre), Glover, 204 St, Douglas, 56 Ave, 200 St, 32 Ave, 192 St, 24 Ave, 152 St, Martin, North Bluff, 152 St to White Rock Centre.

From White Rock Centre via 152 St, 24 Ave, 192 St, 32 Ave, 200 St, 56 Ave, Douglas, 204 St, Glover, Logan (Langley Centre), 204 St overpass, 204 St, 64 Ave, 197 St Willowbrook Dr, to 198 St.

198 St at 64 Ave #61668	Langley Centre Bay 4 (E)	White Rock Centre (E)	White Rock Centre Bay 9	Langley Centre Bay 7 (E)	198 St at 64 Ave (E)
MONDAY TO FRIDAY			MONDAY TO FRIDAY		
5.40	5.45	6.23	-	5.19*	-
6.10	6.15	6.58	-	5.49*	-
6.40	6.46	7.30	5.47	6.21	6.29
7.10	7.16	8.01	6.17	6.52	7.00
7.40	7.46	8.33	6.47	7.23	7.31
8.10	8.16	9.01	7.17	7.54	8.02
8.40	8.46	9.29	7.47	8.22	8.30
9.10	9.16	9.59	8.16	8.55	9.04
9.40	9.46	10.31	8.45	9.22	9.30
10.10	10.16	11.01	9.15	9.52	10.01
10.40	10.46	11.31	9.45	10.23	10.32
11.10	11.16	12.03	10.15	10.52	11.01
11.40	11.46	12.33	10.45	11.22	11.31
12.10	12.16	1.03	11.15	11.55	12.04
12.40	12.46	1.33	11.45	12.24	12.33
1.10	1.16	2.04	12.15	12.54	1.03
1.40	1.47	2.34	12.45	1.24	1.33
2.10	2.17	3.07	1.15	1.54	2.03
2.40	2.48	3.40	1.45	2.24	2.33
3.10	3.17	4.09	2.12	2.51	3.00
3.40	3.47	4.39	2.42	3.24	3.33
4.10	4.17	5.09	3.12	3.57	4.07
4.40	4.47	5.39	3.42	4.25	4.35
5.40	5.46	6.33	4.12	4.55	5.05
5.10	5.17	6.04	4.42	5.24	5.33
6.10	6.16	6.58	5.12	5.51	6.00
6.40	6.45	7.24	5.45	6.22	6.31
7.10	7.15	7.54	6.15	6.52	7.00
7.40	7.45	8.25	6.45	7.22	7.30
8.10	8.15	8.53	7.20	7.55	8.03
8.40	8.45	9.22	7.50	8.23	8.31
			8.15	8.47	8.55
			8.45	9.17	9.24
SATURDAY			SATURDAY		
5.50	5.55	6.34	5.50	6.26	6.34
6.20	6.25	7.05	6.20	6.56	7.04
6.50	6.55	7.35	6.50	7.26	7.34
7.20	7.25	8.05	7.20	7.56	8.04
7.50	7.55	8.35	7.50	8.26	8.34
8.20	8.26	9.09	8.20	8.57	9.06
8.50	8.56	9.39	8.50	9.27	9.36
9.20	9.26	10.12	9.20	10.00	10.09
9.50	9.56	10.42	9.50	10.30	10.39
10.20	10.26	11.12	10.20	11.00	11.09
10.50	10.56	11.42	10.50	11.30	11.39
11.20	11.26	12.12	11.20	12.01	12.10
11.50	11.56	12.42	11.50	12.31	12.40
12.20	12.27	1.15	12.20	1.01	1.10
12.50	12.57	1.45	12.50	1.31	1.40
1.20	1.27	2.15	1.20	2.01	2.10
1.50	1.57	2.45	1.50	2.31	2.40
2.20	2.27	3.15	2.20	3.01	3.10
2.50	2.57	3.45	2.50	3.31	3.40
3.20	3.27	4.15	3.20	4.01	4.10
3.50	3.57	4.45	3.50	4.31	4.40
4.20	4.27	5.15	4.20	5.01	5.10
CONTINUED			CONTINUED		

* This trip starts 15 minutes earlier from 204 St at 40 Ave, routing via 204 St, 42 Ave, 208 St, 40 Ave, 200 St then regular route to Langley Centre only.

531 White Rock Centre / 531 Willowbrook

198 St at 64 Ave to White Rock Centre.

White Rock Centre to 198 St at 64 Ave.

(Refer to Monday to Friday for routing)

198 St at 64 Ave #61668	Langley Centre Bay 4 (E)	White Rock Centre (E)	White Rock Centre Bay 9	Langley Centre Bay 7 (E)	198 St at 64 Ave (E)
SATURDAY			SATURDAY		
.... CONTINUED			.... CONTINUED		
4.50	4.56	5.41	4.50	5.29	5.38
5.20	5.26	6.11	5.20	5.57	6.05
5.50	5.56	6.41	5.50	6.27	6.35
6.20	6.26	7.11	6.20	6.57	7.05
6.50	6.56	7.41	6.50	7.27	7.35
7.20	7.26	8.08	7.20	7.57	8.05
7.50	7.56	8.38	7.50	8.24	8.32
8.20	8.26	9.08	8.20	8.54	9.02
8.50	8.56	9.36	8.50	9.24	9.32
SUNDAY & HOLIDAYS			SUNDAY & HOLIDAYS		
5.50	5.55	6.32	5.50	6.27	6.36
6.20	6.25	7.03	6.20	6.57	7.06
6.50	6.55	7.33	6.50	7.27	7.36
7.20	7.25	8.04	7.20	7.57	8.06
7.50	7.55	8.34	7.50	8.27	8.36
8.20	8.25	9.05	8.20	8.57	9.06
8.50	8.55	9.35	8.50	9.27	9.36
9.20	9.26	10.08	9.20	9.57	10.06
9.50	9.56	10.38	9.50	10.27	10.36
10.20	10.26	11.08	10.20	10.57	11.06
10.50	10.56	11.38	10.50	11.27	11.36
11.20	11.26	12.08	11.20	11.57	12.06
11.50	11.56	12.38	11.50	12.27	12.36
12.20	12.26	1.08	12.20	12.57	1.06
12.50	12.56	1.38	12.50	1.29	1.38
1.20	1.26	2.08	1.20	1.59	2.08
1.50	1.56	2.38	1.50	2.29	2.38
2.20	2.26	3.08	2.20	2.59	3.08
2.50	2.56	3.38	2.50	3.29	3.38
3.20	3.26	4.08	3.20	3.59	4.08
3.50	3.56	4.38	3.50	4.29	4.38
4.20	4.26	5.08	4.20	4.59	5.08
4.50	4.56	5.38	4.50	5.29	5.38
5.20	5.26	6.08	5.20	5.57	6.05
5.50	5.56	6.38	5.50	6.27	6.35
6.20	6.26	7.08	6.20	6.57	7.05
6.50	6.56	7.38	6.50	7.27	7.35
7.20	7.26	8.06	7.20	7.57	8.05
7.50	7.56	8.36	7.50	8.27	8.35
8.20	8.26	9.06	8.20	8.57	9.05
8.50	8.55	9.36	8.50	9.27	9.35

Appendix C
Traffic Count Data

DRAFT



Fir St & Russell Ave

Wednesday, April 03, 2019

Vehicle Classification Summary

Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain

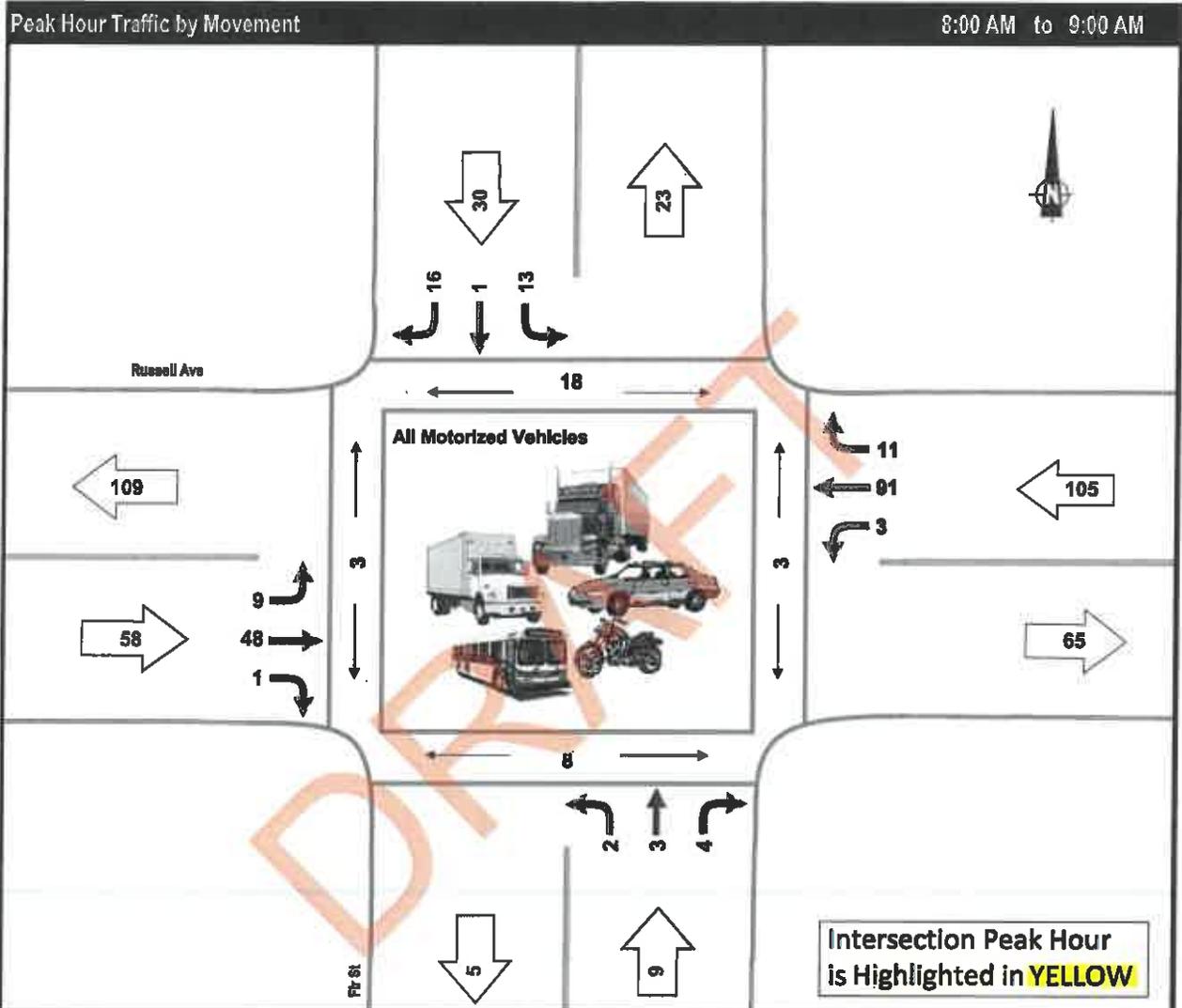
Time Period	Entering Intersection	Vehicle Classification				Total
		Passenger Cars	Heavy Vehicles (3 or more axles)			
Morning (07:00 - 09:00)	Volume	335	1			336
	%	99.7%	0.3%			100.0%
Midday (11:00 - 13:00)	Volume	666	3			671
	%	99.6%	0.4%			100.0%
Afternoon (15:00 - 18:00)	Volume	963	1			964
	%	99.9%	0.1%			100.0%
Total (7 Hours)	Volume	1,966	5			1,971
	%	99.7%	0.3%			100.0%

DRAFT



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

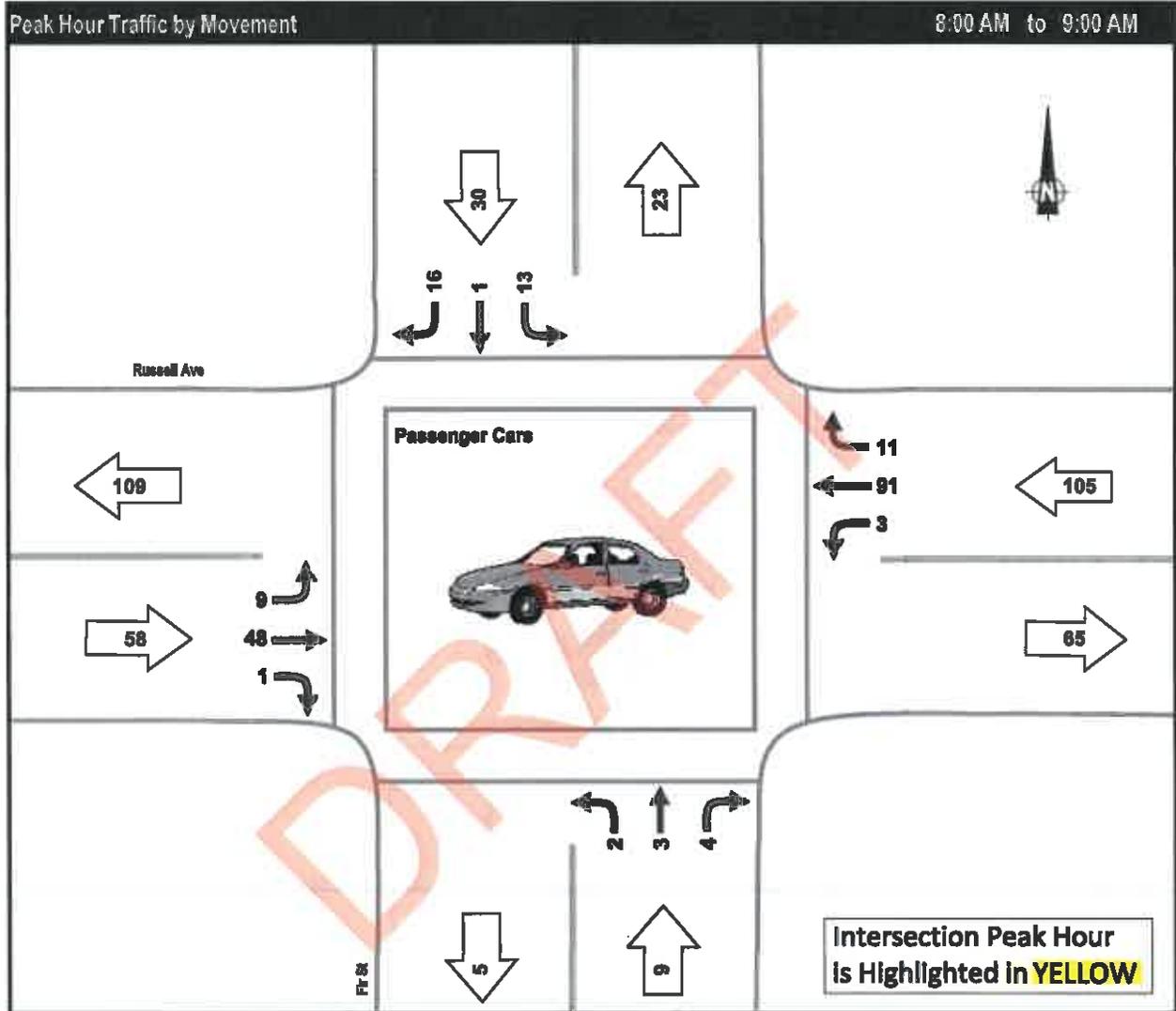
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	13	1	16	2	3	4	9	48	1	3	97	11	16	8	3	3	202
PHF	0.81	0.25	1.00	0.50	0.75	1.00	0.38	0.75	0.25	0.75	0.78	0.69	0.56	0.60	0.38	0.38	0.89
Peak 15 X 4	15	4	16	4	4	4	24	64	4	4	116	16	32	16	8	8	226
Average Hour	13	1	13	4	2	5	7	42	8	6	62	9	20	10	11	3	172
Survey Total	26	1	25	7	4	10	13	83	15	11	123	18	39	19	21	5	336
7:00	3	0	2	3	1	2	0	6	4	6	7	1	6	3	12	0	35
7:15	4	0	3	0	0	2	2	11	6	2	7	2	9	4	6	2	39
7:30	3	0	2	0	0	1	0	11	2	0	5	2	6	3	0	0	26
7:45	3	0	2	2	0	1	2	7	2	0	13	2	0	1	0	0	34
8:00	4	0	4	0	0	1	0	13	0	0	17	3	6	2	2	1	42
8:15	3	0	4	0	1	1	1	16	1	1	21	1	2	0	0	0	50
8:30	3	1	4	1	1	1	2	12	0	1	24	3	2	2	0	0	53
8:45	3	0	4	1	1	1	6	7	0	1	29	4	8	4	1	2	57

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

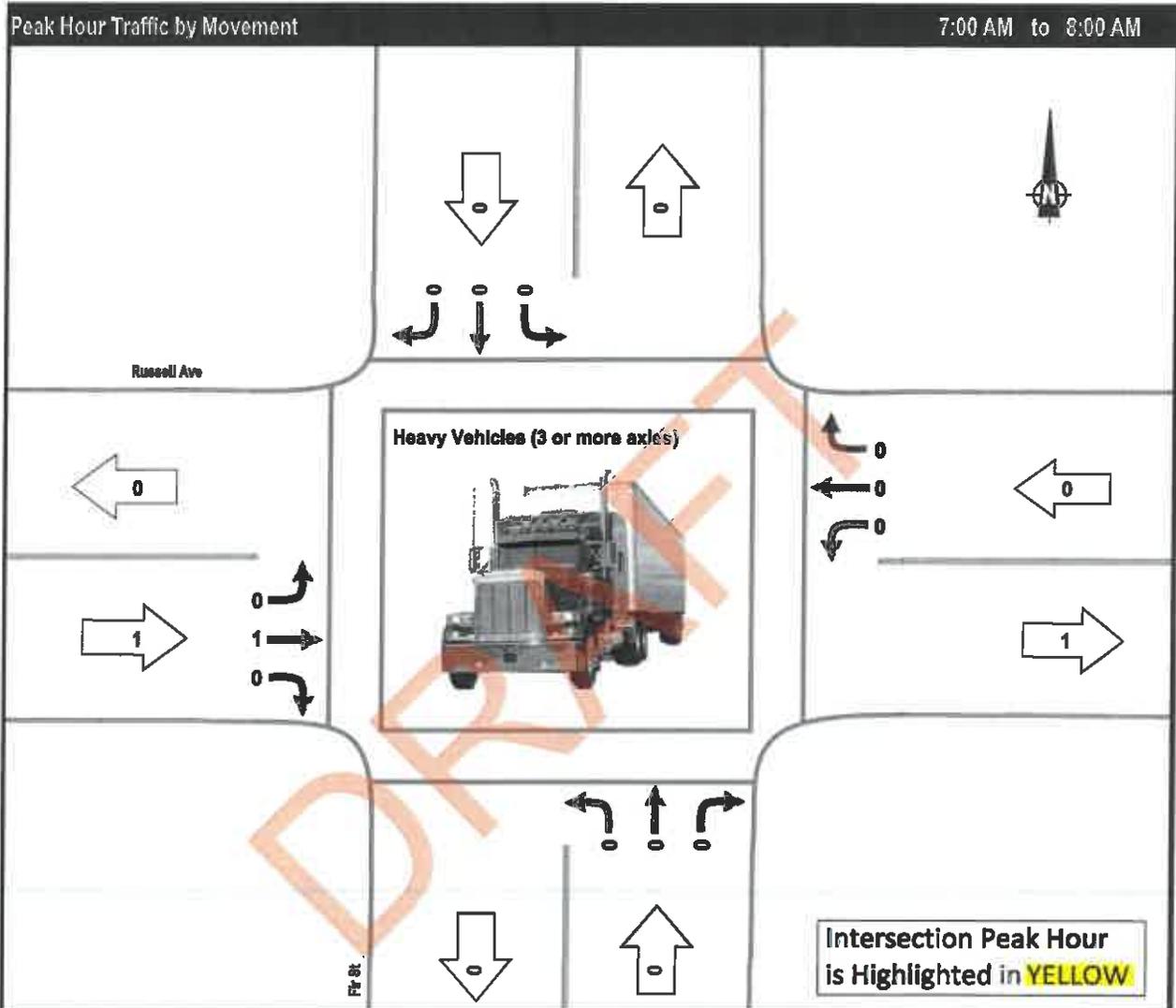
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	13	1	16	2	3	4	9	48	1	3	91	11					202
PHF	0.81	0.25	1.00	0.50	0.75	1.00	0.38	0.75	0.25	0.75	0.78	0.59					0.89
Peak 15 X 4	16	4	16	4	4	4	24	64	4	4	116	16					228
Average Hour	13	1	13	4	2	5	7	41	8	6	62	9					171
Survey Total	26	1	25	7	4	10	13	82	15	11	123	18					336
7:00	3	0	2	3	1	2	0	5	4	6	7	1					34
7:15	4	0	3	0	0	2	2	11	6	2	7	2					39
7:30	3	0	2	0	0	1	0	11	2	0	5	2					26
7:45	3	0	2	2	0	1	2	7	2	0	13	2					34
8:00	4	0	4	0	0	1	0	13	0	0	17	3					42
8:15	3	0	4	0	1	1	1	16	1	1	21	1					50
8:30	3	1	4	1	1	1	2	12	0	1	24	3					53
8:45	3	0	4	1	1	1	6	7	0	1	29	4					57

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axes)

Morning Peak Period

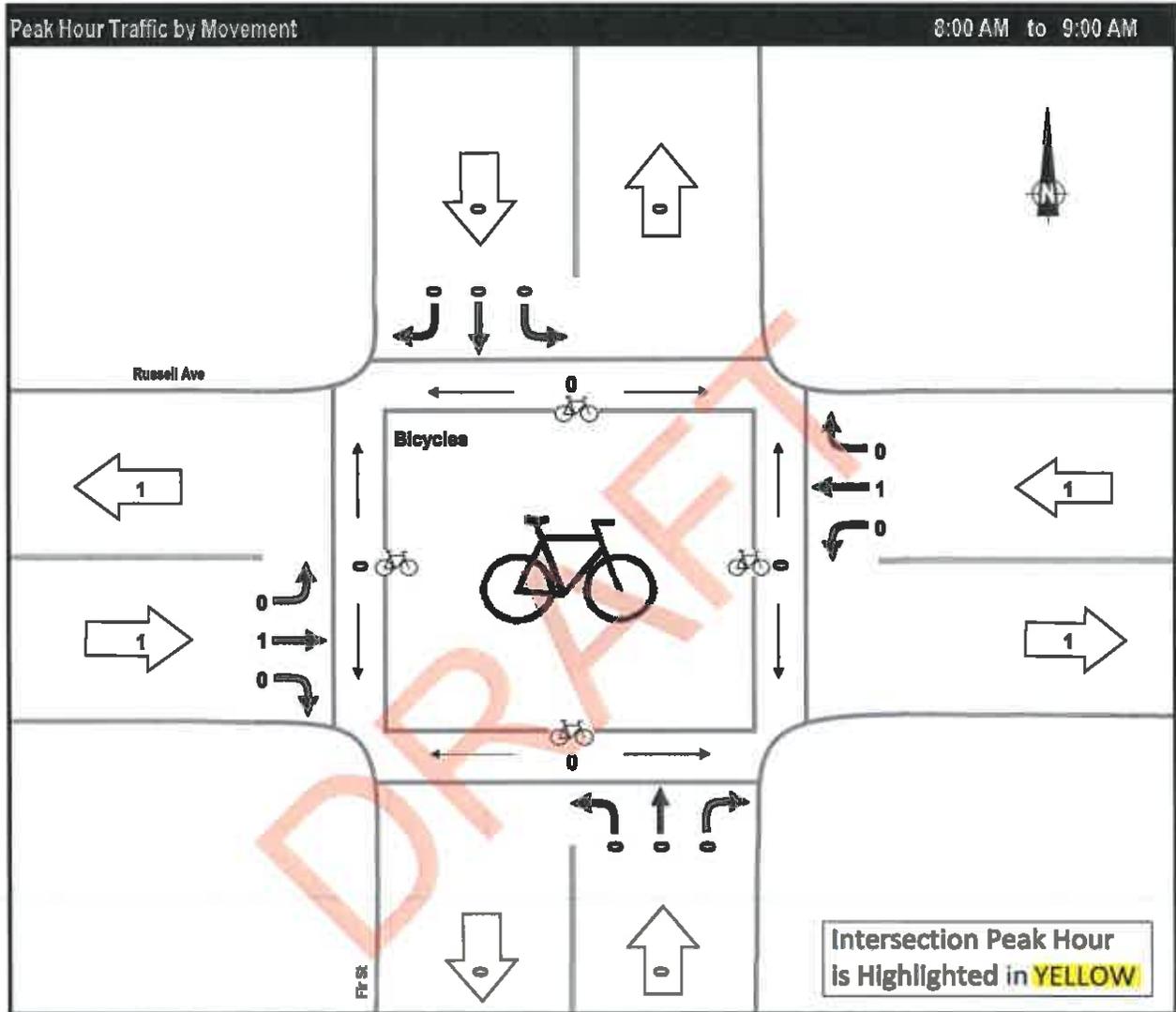


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0					1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00					0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	0	0					4
Average Hour	0	0	0	0	0	0	0	1	0	0	0	0					1
Survey Total	0	0	0	0	0	0	0	1	0	0	0	0					1
7:00	0	0	0	0	0	0	0	1	0	0	0	0					1
7:15	0	0	0	0	0	0	0	0	0	0	0	0					0
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	0	0	0	0					0
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	0	0					0
8:30	0	0	0	0	0	0	0	0	0	0	0	0					0
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Morning Peak Period

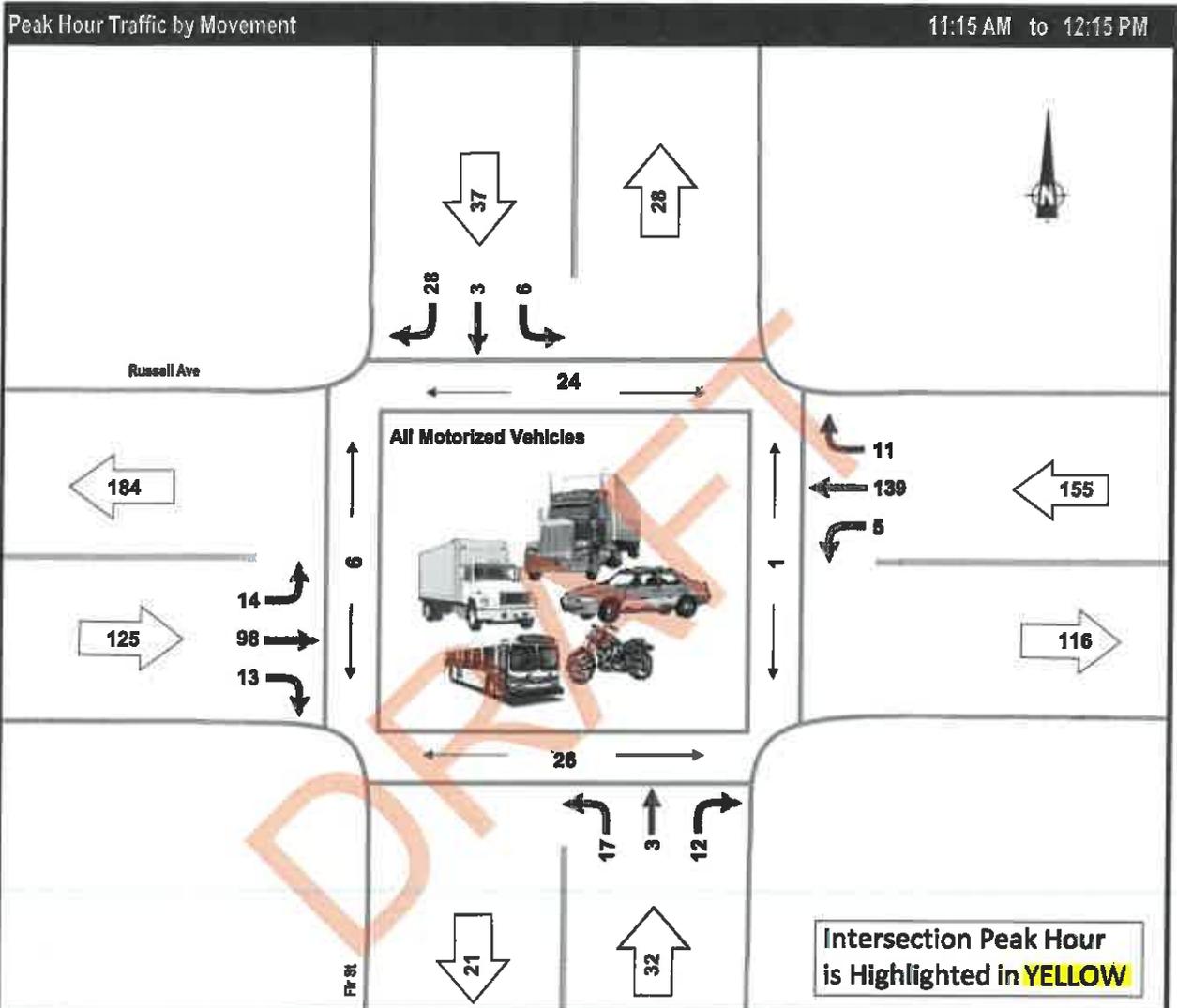
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.50
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Survey Total	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

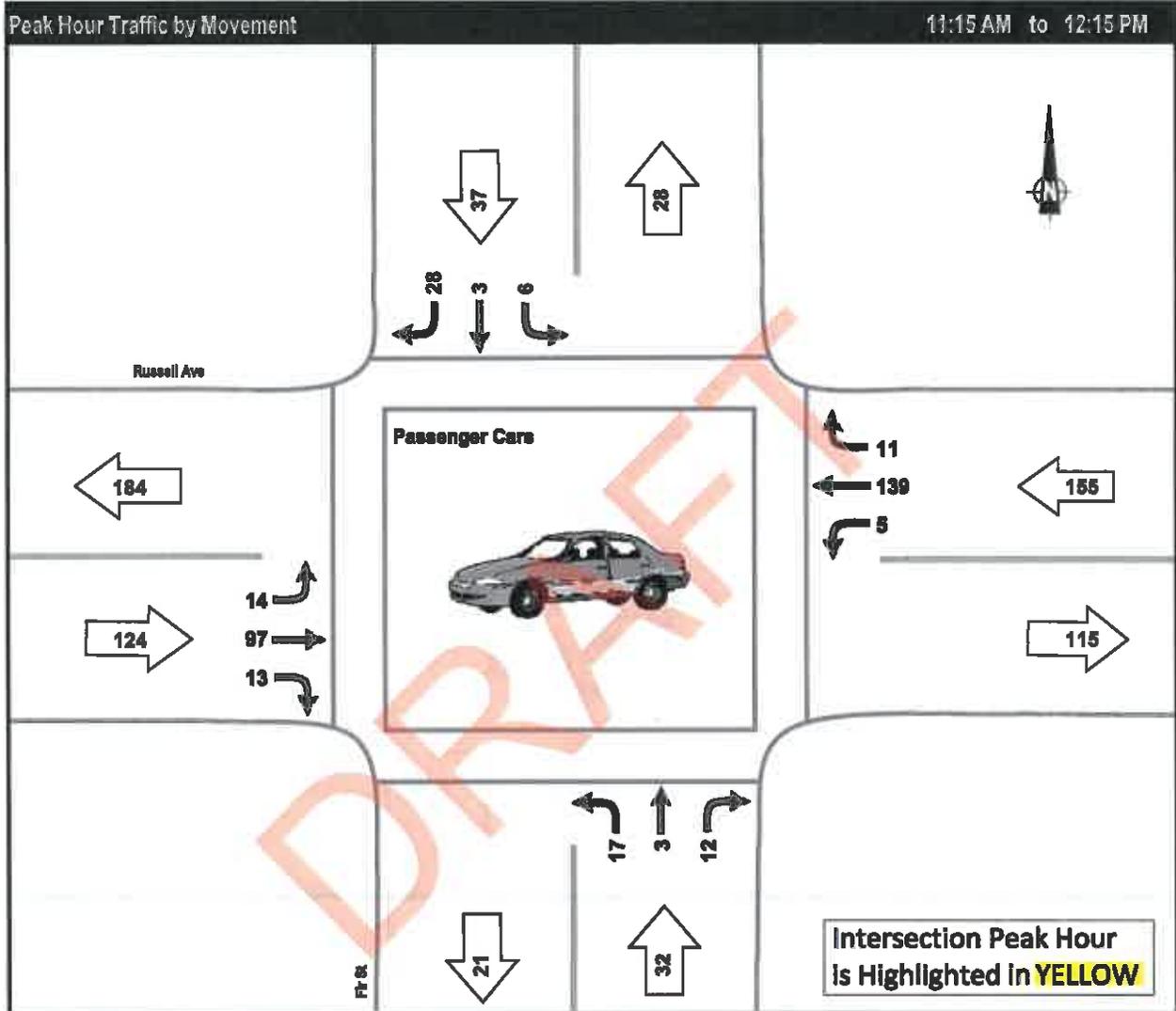
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	6	3	28	17	3	12	14	98	13	5	139	11	24	26	6	1	349
PH Factor	0.50	0.75	0.54	0.61	0.75	0.50	0.50	0.77	0.65	0.42	0.89	0.55	0.75	0.72	0.30	0.25	0.84
PHF	12	4	52	28	4	24	28	125	20	12	156	20	32	36	20	4	416
Average Hour	8	3	25	14	3	12	14	91	9	6	139	13	24	20	4	2	337
Survey Total	16	6	49	28	6	24	28	182	17	11	278	26	48	40	7	4	671
11:00	2	1	5	3	1	2	3	17	1	2	43	2	6	3	0	1	82
11:15	2	1	2	1	1	4	2	19	4	1	39	2	6	7	1	0	78
11:30	3	1	7	3	1	1	4	22	2	0	30	5	7	6	0	1	79
11:45	1	1	13	7	0	1	7	25	5	3	39	2	4	9	5	0	104
12:00	0	0	6	5	1	6	1	32	2	1	31	2	5	4	0	0	88
12:15	2	1	2	1	2	2	2	20	1	1	26	1	3	3	1	1	61
12:30	2	0	10	4	0	1	4	27	0	3	37	7	9	7	0	1	95
12:45	4	1	4	3	0	7	5	20	2	0	33	5	6	1	0	0	84

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

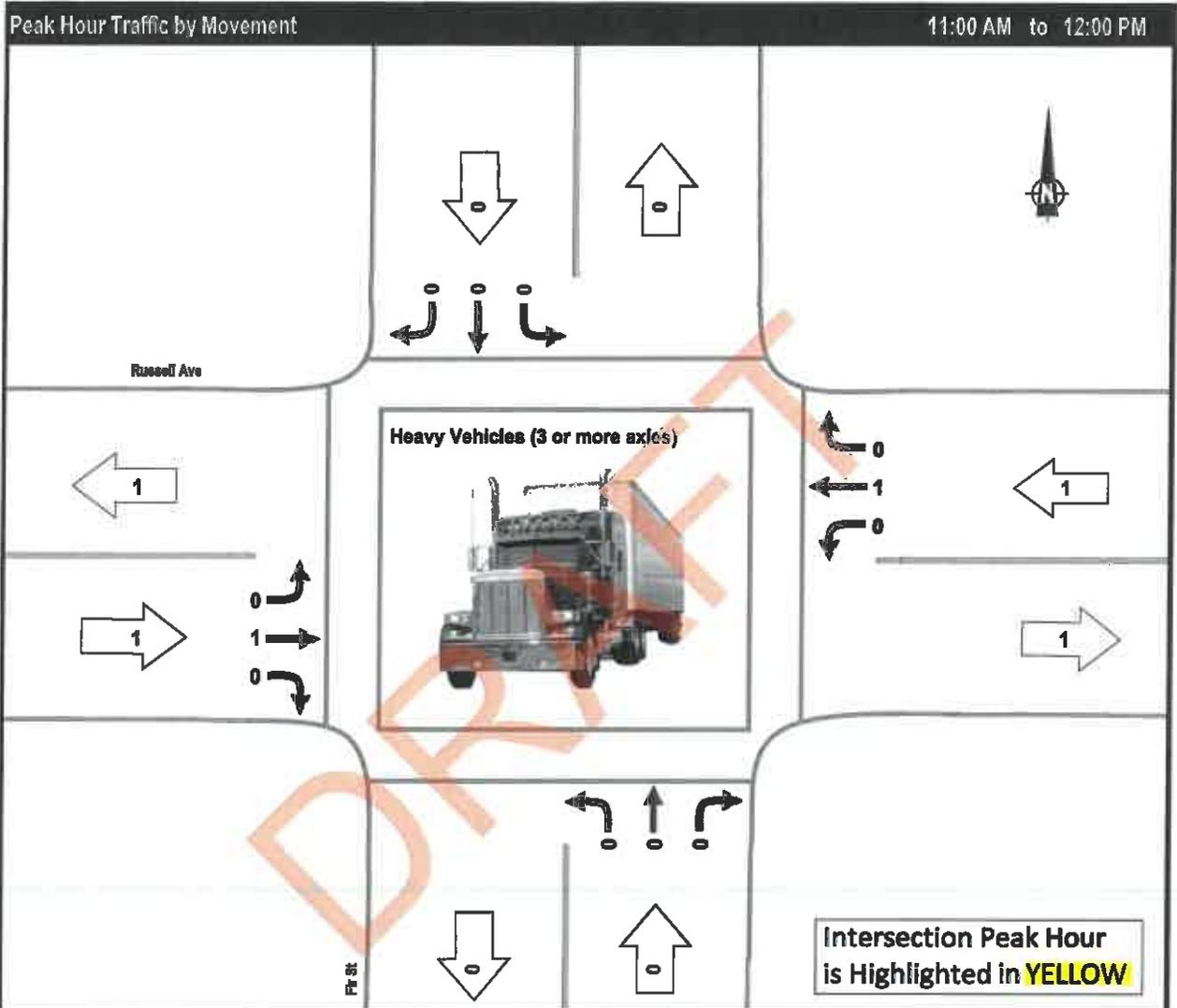
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	6	3	28	17	3	12	14	97	13	5	109	11					348
PHF	0.50	0.75	0.54	0.61	0.75	0.50	0.50	0.76	0.65	0.42	0.89	0.55					0.84
Peak 15 X 4	12	4	52	28	4	24	28	128	20	12	156	20					412
Average Hour	8	3	24	14	3	12	14	91	9	6	139	13					336
Survey Total	16	6	48	28	6	24	28	161	17	11	277	26					668
11:00	2	1	5	3	1	2	3	17	1	2	42	2					81
11:15	2	1	2	1	1	4	2	19	4	1	39	2					78
11:30	3	1	7	3	1	1	4	22	2	0	30	5					79
11:45	1	1	13	7	0	1	7	24	5	3	39	2					103
12:00	0	0	6	6	1	6	1	32	2	1	31	2					88
12:15	2	1	1	1	2	2	2	20	1	1	26	1					60
12:30	2	0	10	4	0	1	4	27	0	3	37	7					85
12:45	4	1	4	3	0	7	5	20	2	0	33	5					84

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

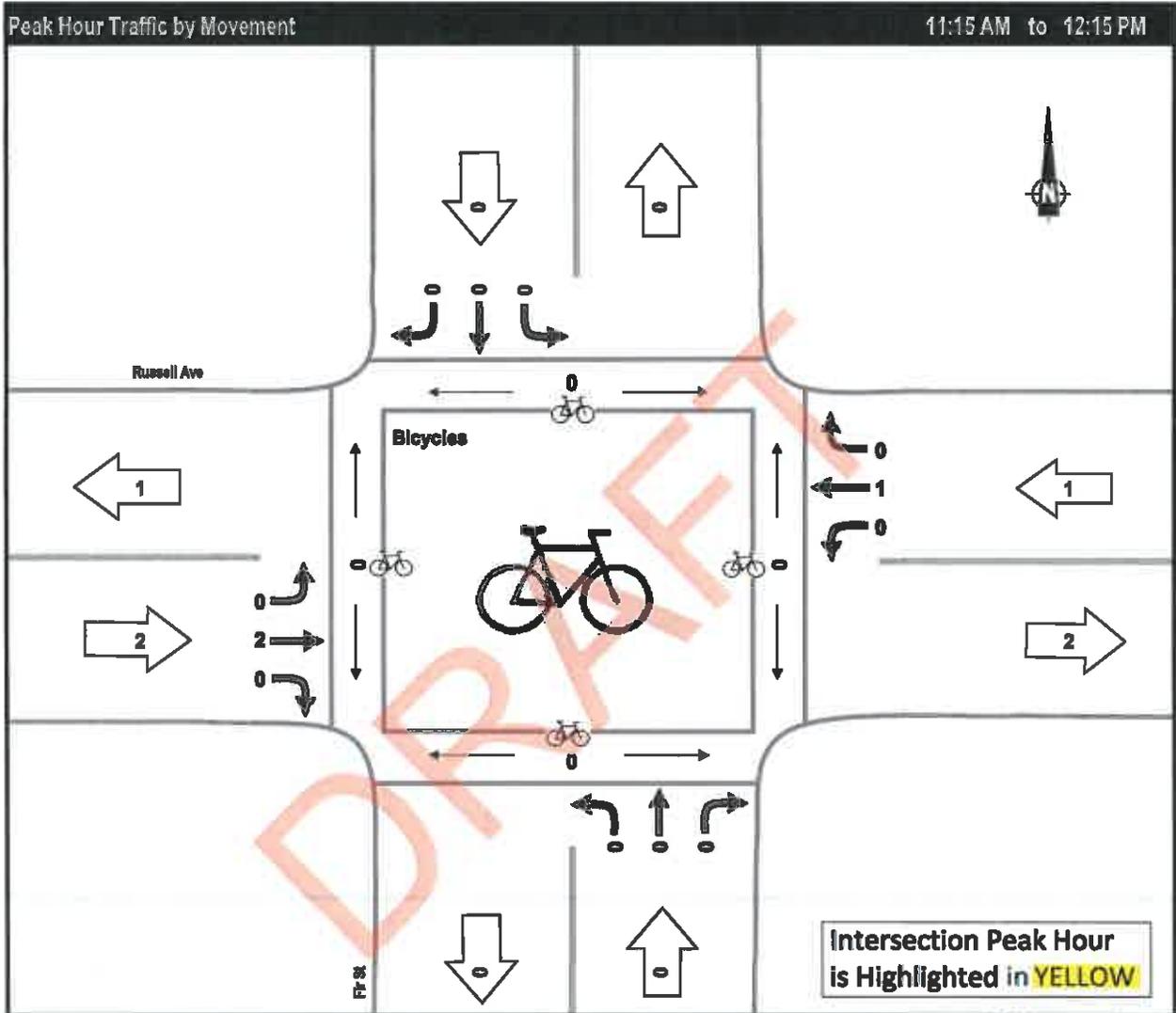
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
PHP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.50
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0					4
Average Hour	0	0	1	0	0	0	0	1	0	0	1	0					3
Survey Total	0	0	1	0	0	0	0	1	0	0	1	0					3
11:00	0	0	0	0	0	0	0	0	0	0	1	0					1
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0
11:30	0	0	0	0	0	0	0	0	0	0	0	0					0
11:45	0	0	0	0	0	0	0	1	0	0	0	0					1
12:00	0	0	0	0	0	0	0	0	0	0	0	0					0
12:15	0	0	1	0	0	0	0	0	0	0	0	0					1
12:30	0	0	0	0	0	0	0	0	0	0	0	0					0
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7026: 1486 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles
 Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals.

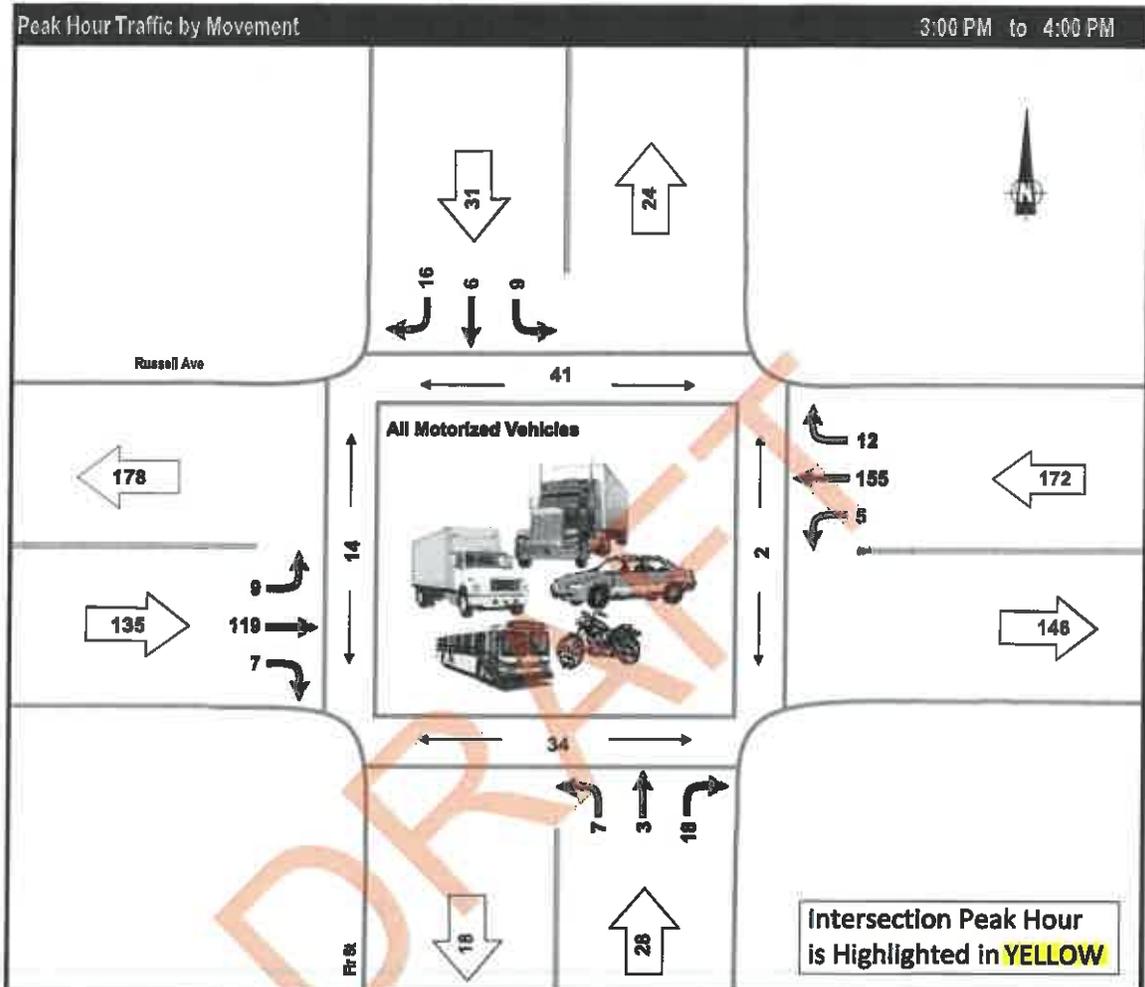
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	3
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.38
Peak 15 X 4	0	0	0	0	0	0	0	8	0	0	4	0	0	0	0	0	8
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Survey Total	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	3
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025; 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

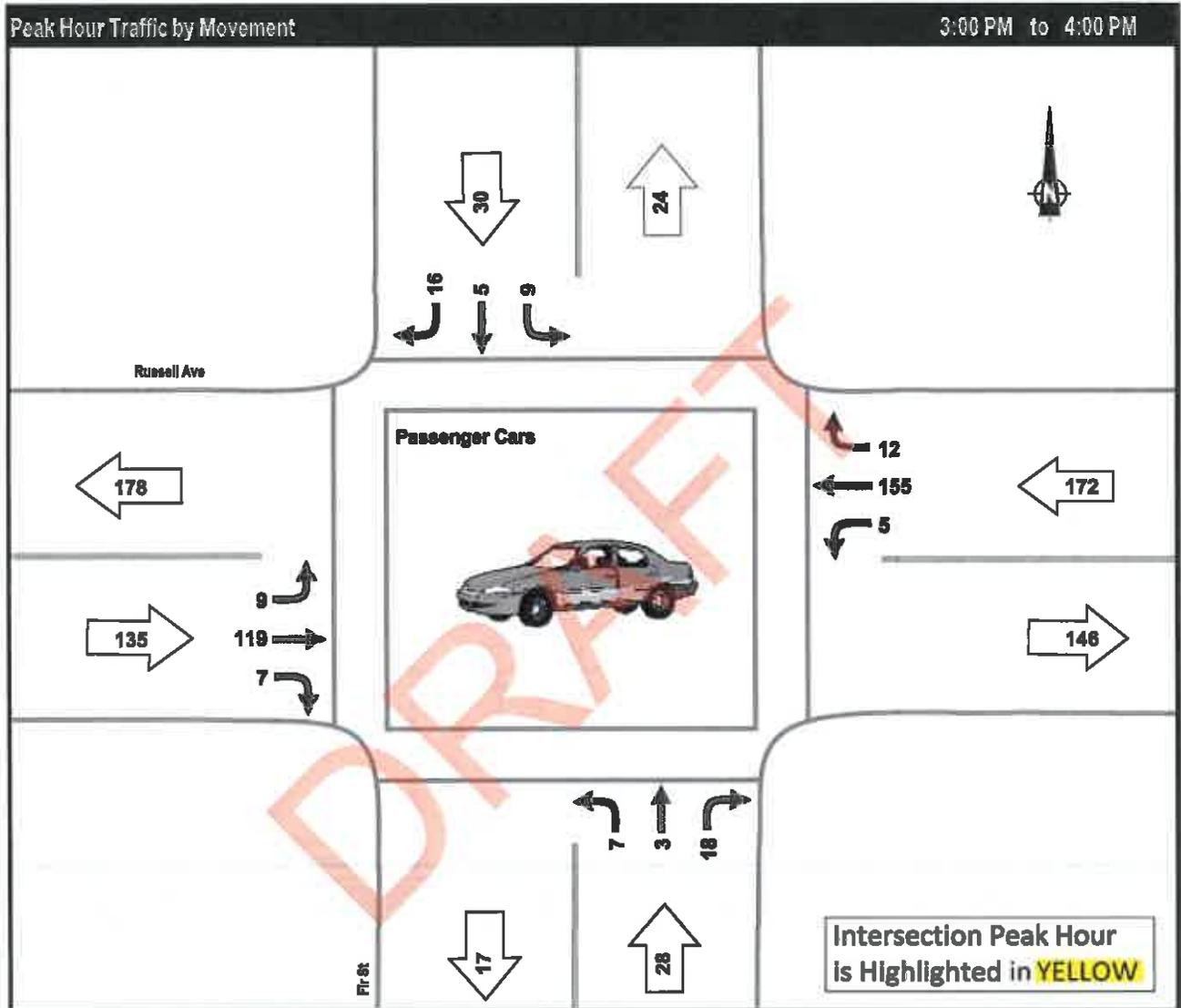
Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	9	6	16	7	3	18	9	119	7	5	155	12	41	34	14	2	366
PHF	0.56	0.75	0.67	0.44	0.75	0.50	0.58	0.78	0.58	0.63	0.82	0.50	0.64	0.71	0.70	0.50	0.91
Peak 15 X 4	16	8	24	16	4	36	16	152	12	8	188	24	64	48	20	4	404
Average Hour	12	5	16	8	3	11	7	106	8	4	130	12	29	26	8	5	323
Survey Total	37	14	47	26	8	33	22	317	23	11	391	35	88	78	25	16	964
16:00	2	2	6	1	1	3	2	31	2	5	47	4	7	12	4	1	101
15:15	2	1	3	4	1	3	0	21	3	1	47	1	18	6	5	1	87
15:30	1	1	4	2	0	9	3	38	1	2	24	1	8	7	4	0	66
15:45	4	2	3	0	1	3	4	29	1	2	37	6	10	9	1	0	92
16:00	5	1	4	5	2	5	1	29	2	0	37	3	5	7	8	3	94
16:15	4	1	4	1	1	2	2	22	0	0	21	4	6	9	0	2	62
16:30	1	1	2	4	1	0	1	27	1	3	32	4	8	3	0	0	77
16:45	2	1	2	1	0	4	1	24	3	2	41	1	9	4	2	0	82
17:00	5	1	6	2	0	3	2	23	2	1	25	2	1	1	0	1	72
17:15	7	0	3	1	0	0	2	22	2	0	28	3	6	8	0	3	68
17:30	2	3	2	1	0	0	1	26	2	0	27	4	6	8	1	1	68
17:45	2	0	8	4	1	1	3	25	4	0	25	2	7	4	0	4	75

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	9	5	16	7	3	18	9	119	7	5	155	12					365
PHF	0.56	0.63	0.67	0.44	0.75	0.50	0.56	0.78	0.58	0.63	0.82	0.50					0.91
Peak 15 X 4	16	8	24	16	4	36	16	152	12	8	188	24					400
Average Hour	12	4	16	9	3	11	7	106	8	4	130	12					322
Survey Total	37	13	47	26	8	33	22	317	23	11	391	35					963
15:00	2	1	6	1	1	3	2	31	2	0	47	4					100
16:15	2	1	3	4	1	3	0	21	3	1	47	1					87
15:30	1	1	4	2	0	9	3	38	1	2	24	1					86
15:45	4	2	3	0	1	3	4	29	1	2	37	6					92
16:00	5	1	4	5	2	6	1	29	2	0	37	3					94
16:15	4	1	4	1	1	2	2	22	0	0	21	4					62
16:30	1	1	2	4	1	0	1	27	1	3	32	4					77
16:45	2	1	2	1	0	4	1	24	3	2	41	1					82
17:00	5	1	6	2	0	3	2	23	2	1	25	2					72
17:15	7	0	3	1	0	0	2	22	2	0	28	3					68
17:30	2	3	2	1	0	0	1	26	2	0	27	4					68
17:45	2	0	8	4	1	1	3	25	4	0	25	2					75

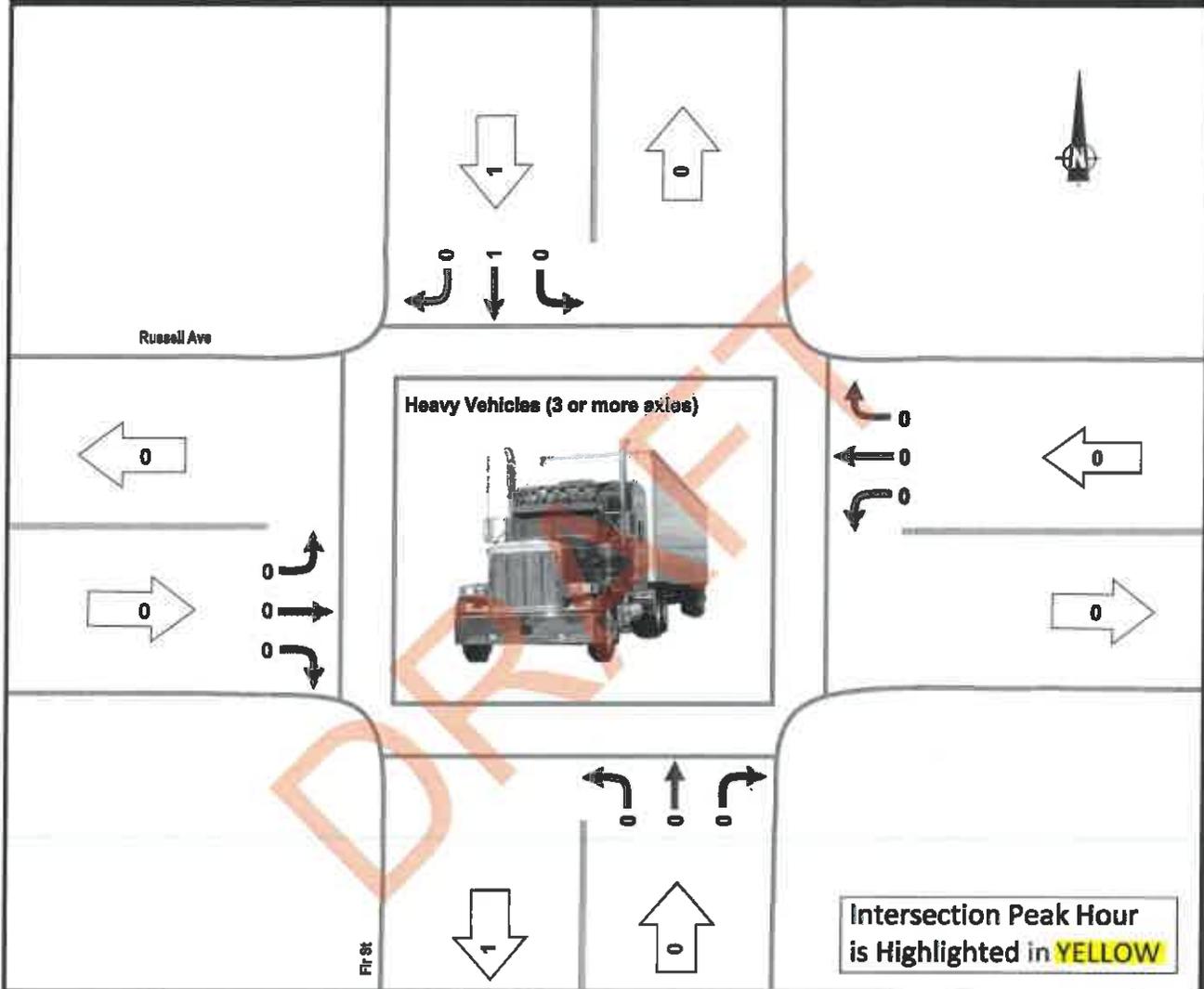


Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axes)

Afternoon Peak Period

Peak Hour Traffic by Movement

3:00 PM to 4:00 PM

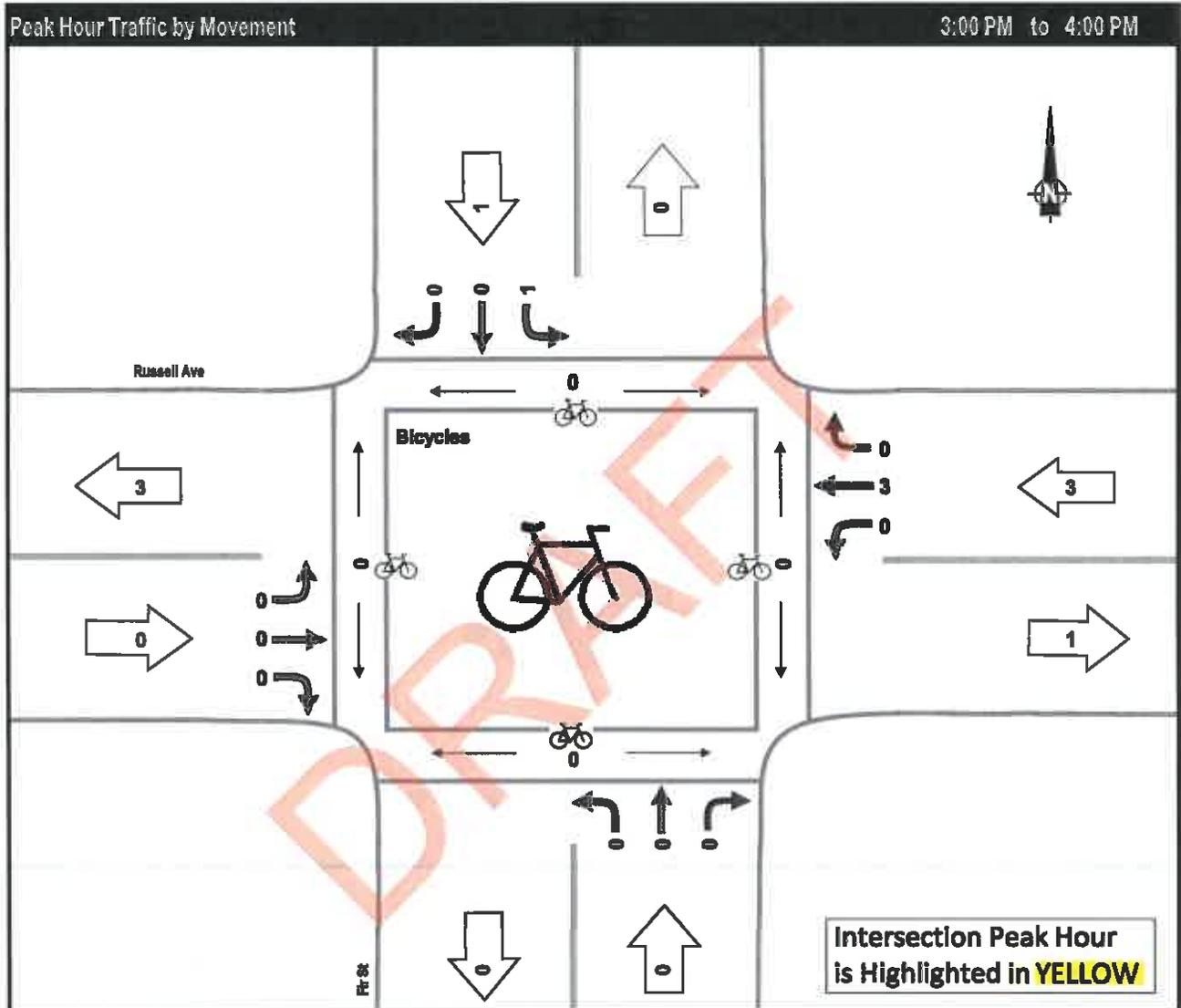


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0					1
PHF	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.25
Peak 15 X 4	0	4	0	0	0	0	0	0	0	0	0	0					4
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	1	0	0	0	0	0	0	0	0	0	0					1
15:00	0	1	0	0	0	0	0	0	0	0	0	0					1
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	0	0					0
16:00	0	0	0	0	0	0	0	0	0	0	0	0					0
16:15	0	0	0	0	0	0	0	0	0	0	0	0					0
16:30	0	0	0	0	0	0	0	0	0	0	0	0					0
16:45	0	0	0	0	0	0	0	0	0	0	0	0					0
17:00	0	0	0	0	0	0	0	0	0	0	0	0					0
17:15	0	0	0	0	0	0	0	0	0	0	0	0					0
17:30	0	0	0	0	0	0	0	0	0	0	0	0					0
17:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals.



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	4
PHF	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.33
Peak 15 X 4	4	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	12
Average Hour	1	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	4
Survey Total	2	0	0	0	0	1	1	2	0	0	5	0	0	0	0	0	11
15:00	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
16:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2

**Fir St & Thrift Ave**

Wednesday, April 03, 2019

Vehicle Classification Summary

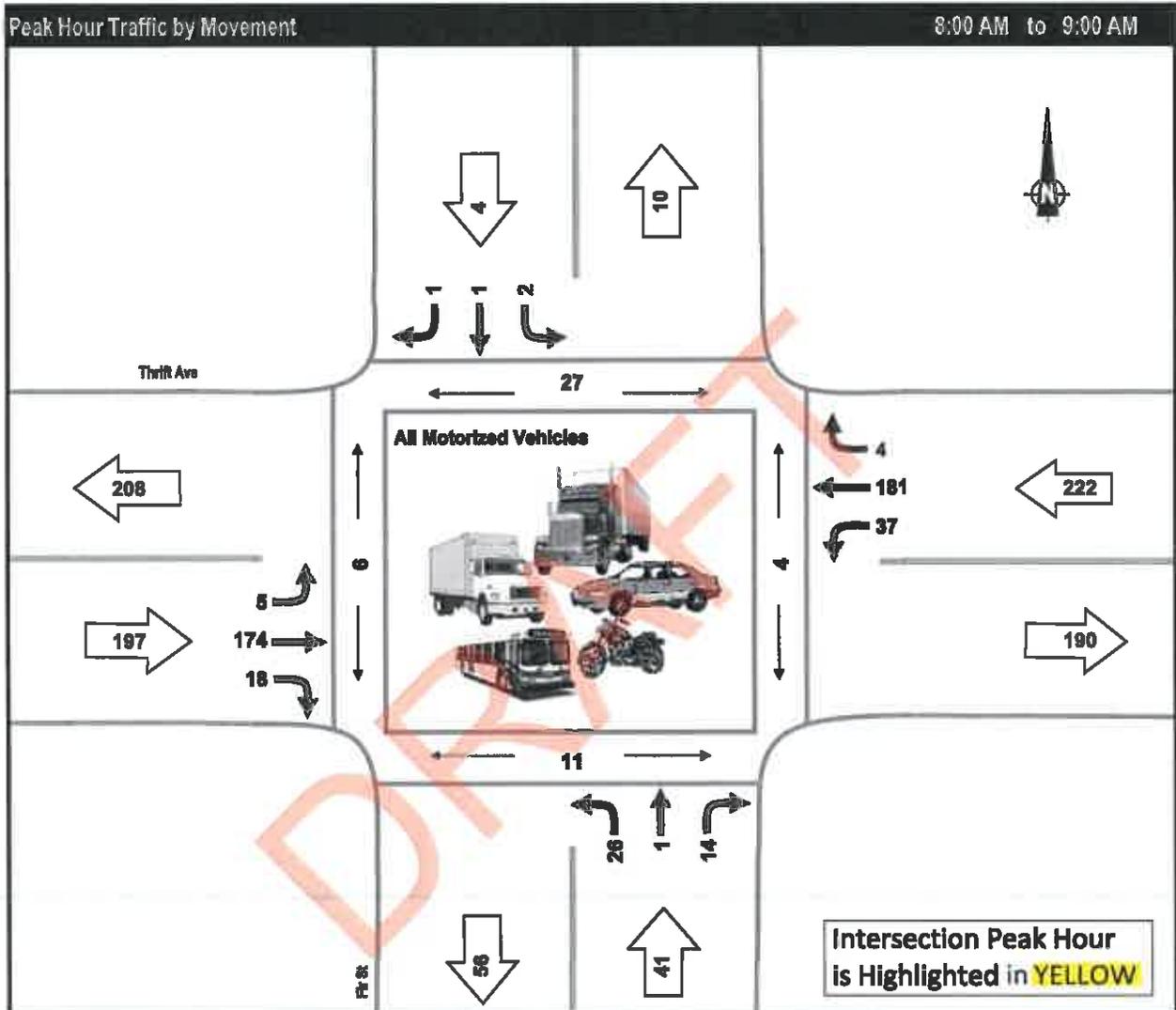
Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain

Time Period	Entering Intersection	Vehicle Classification				Total
		Passenger Cars	Heavy Vehicles (3 or more axles)			
Morning (07:00 - 09:00)	Volume	667	3			670
	%	99.6%	0.4%			100.0%
Midday (11:00 - 13:00)	Volume	874	2			876
	%	99.8%	0.2%			100.0%
Afternoon (15:00 - 18:00)	Volume	1,493	5			1,498
	%	99.7%	0.3%			100.0%
Total (7 Hours)	Volume	3,034	10			3,044
	%	99.7%	0.3%			100.0%

DRAFT

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

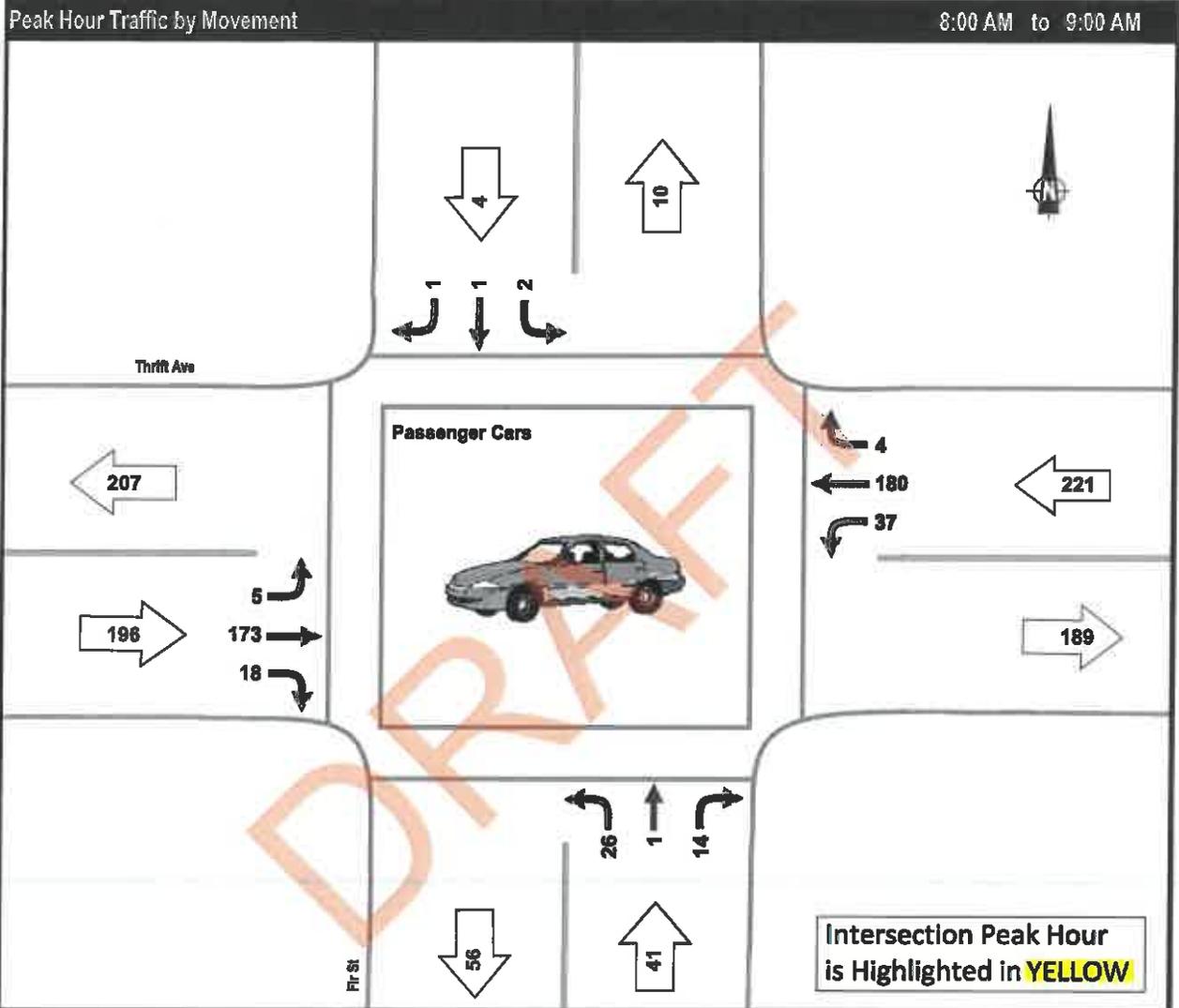
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	2	1	1	20	1	14	5	174	18	37	181	4	27	11	5	4	484
PHF	0.50	0.25	0.25	0.60	0.25	0.58	0.63	0.84	0.64	0.49	0.81	0.50	0.52	0.55	0.75	0.50	0.81
Peak 15 X 4	4	4	4	52	4	24	8	208	28	76	224	8	52	20	8	8	572
Average Hour	3	7	4	15	4	9	8	124	12	21	131	3	22	7	9	4	339
Survey Total	6	14	7	29	7	18	11	247	23	42	281	6	44	14	18	7	670
7:00	2	5	2	0	3	1	3	15	1	2	17	2	4	0	1	2	53
7:15	1	5	2	2	0	1	2	15	2	1	19	0	7	1	7	1	50
7:30	0	2	1	1	1	2	0	22	1	1	14	0	5	0	4	0	45
7:45	0	1	1	0	2	0	1	21	1	1	30	0	1	2	0	0	58
8:00	0	0	0	3	0	3	0	39	2	5	39	1	3	1	2	0	92
8:15	1	1	0	5	0	3	1	48	7	19	56	2	13	2	2	1	143
8:30	1	0	1	13	0	8	2	52	5	12	38	1	6	5	2	2	131
8:45	0	0	0	5	1	2	2	35	4	1	48	0	5	3	0	1	98

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

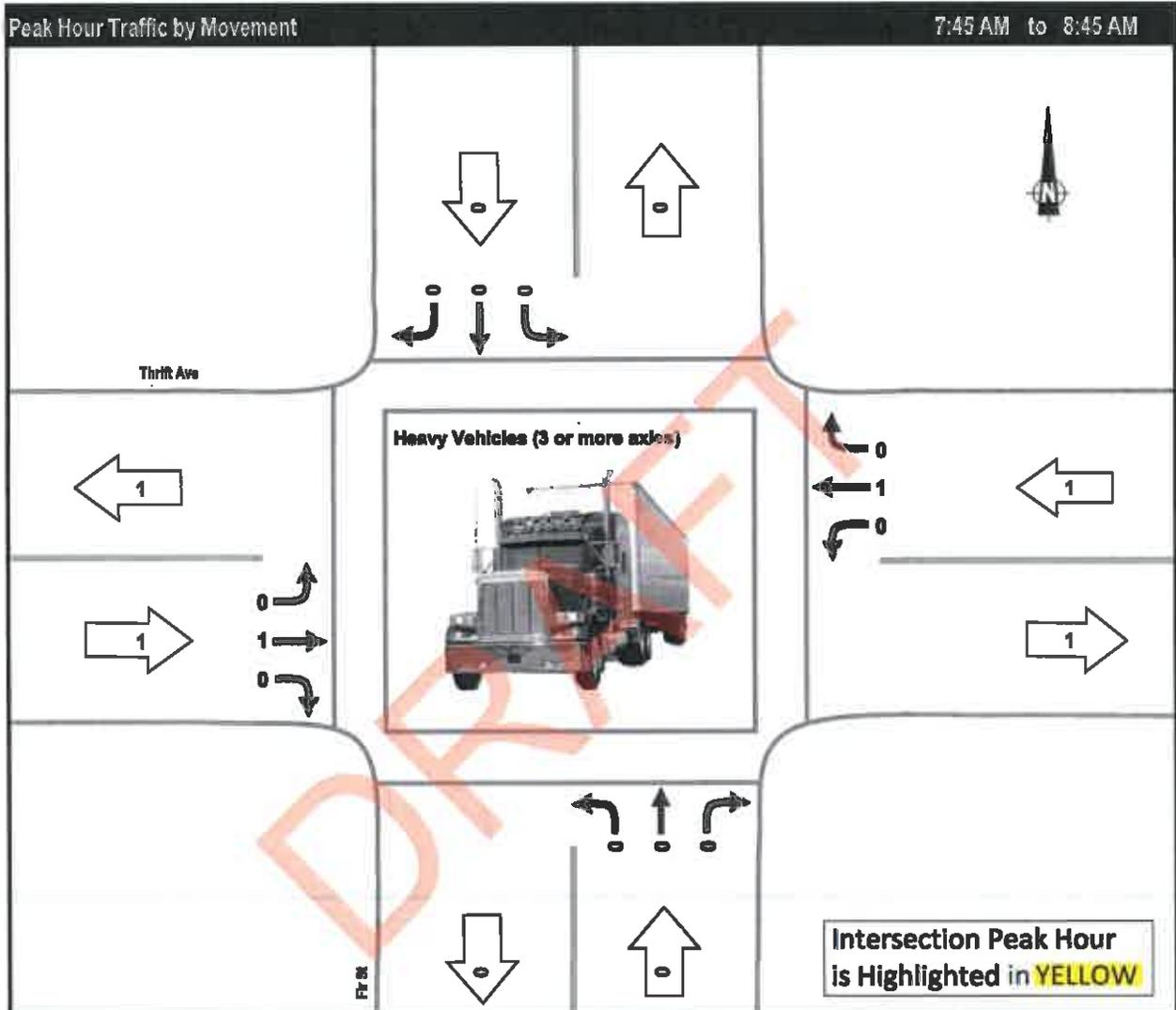
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	2	1	1	26	1	14	5	173	15	37	180	4					462
PHF	0.50	0.25	0.25	0.50	0.25	0.58	0.63	0.85	0.64	0.49	0.82	0.50					0.81
Peak 15 X 4	4	4	4	52	4	24	8	204	28	76	220	8					568
Average Hour	3	7	4	15	4	9	6	123	12	21	130	3					337
Survey Total	5	14	7	29	7	18	11	246	23	42	259	6					667
7:00	2	5	2	0	3	1	3	15	1	2	17	2					53
7:15	1	5	2	2	0	1	2	15	2	1	18	0					49
7:30	0	2	1	1	1	2	0	22	1	1	14	0					45
7:45	0	1	1	0	2	0	1	21	1	1	30	0					58
8:00	0	0	0	3	0	3	0	39	2	5	39	1					92
8:15	1	1	0	5	0	3	1	48	7	19	55	2					142
8:30	1	0	1	13	0	6	2	51	5	12	38	1					130
8:45	0	0	0	5	1	2	2	35	4	1	48	0					98

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period

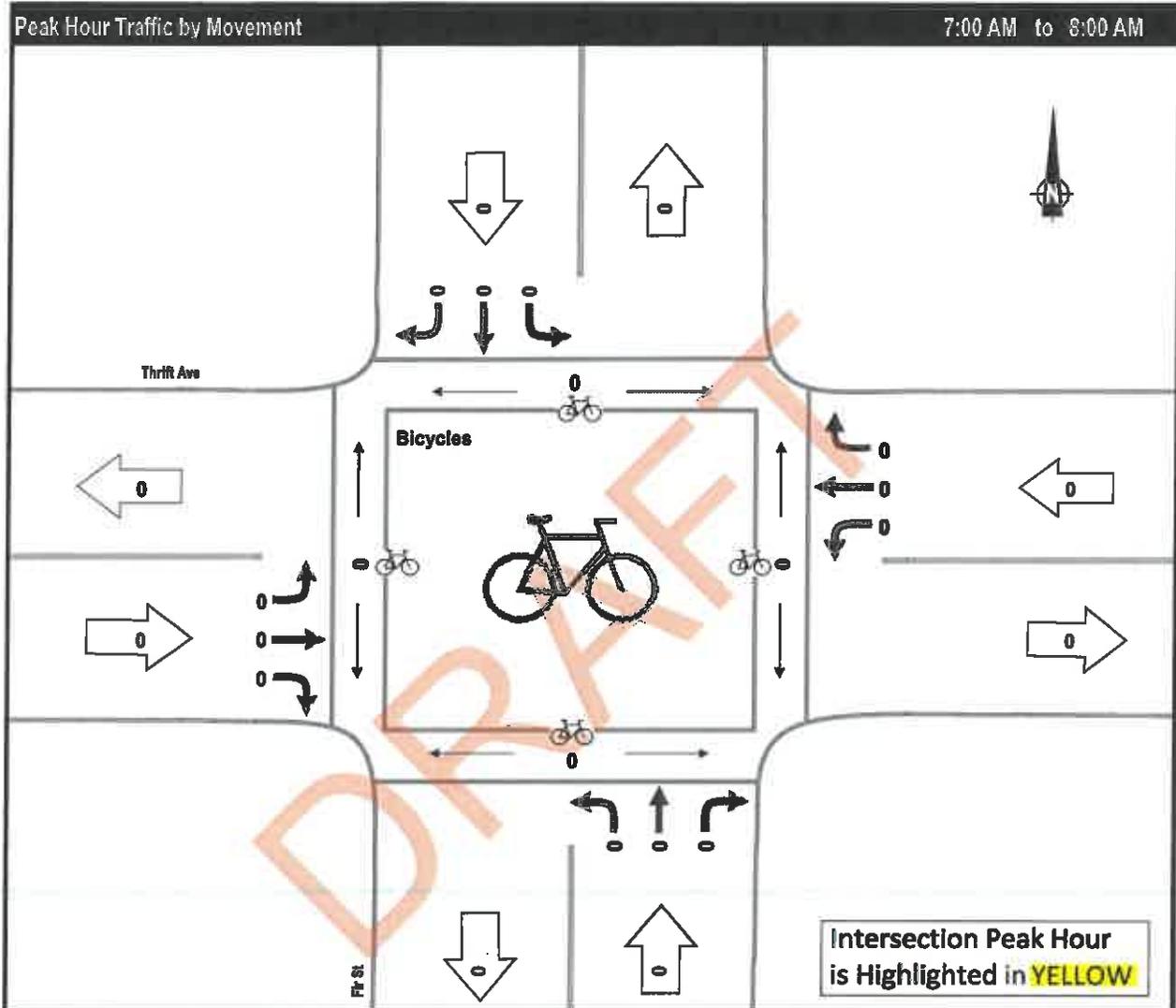


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.55
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0					4
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
Survey Total	0	0	0	0	0	0	0	1	0	0	2	0					3
7:00	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	0	0	0	0	1	0					1
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	0	0	0	0					0
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	1	0					1
8:30	0	0	0	0	0	0	0	1	0	0	0	0					1
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Morning Peak Period

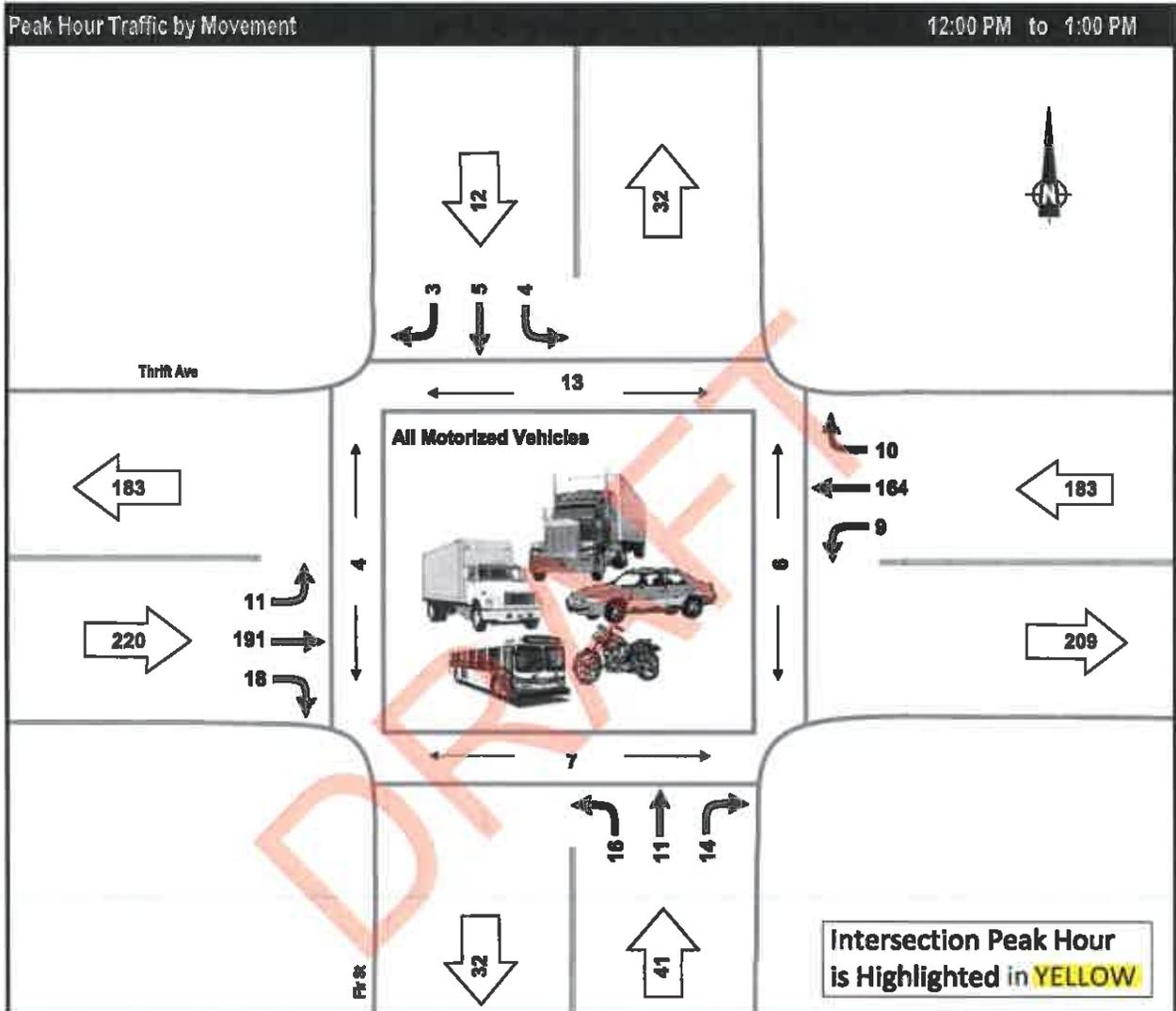
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

Midday Peak Period

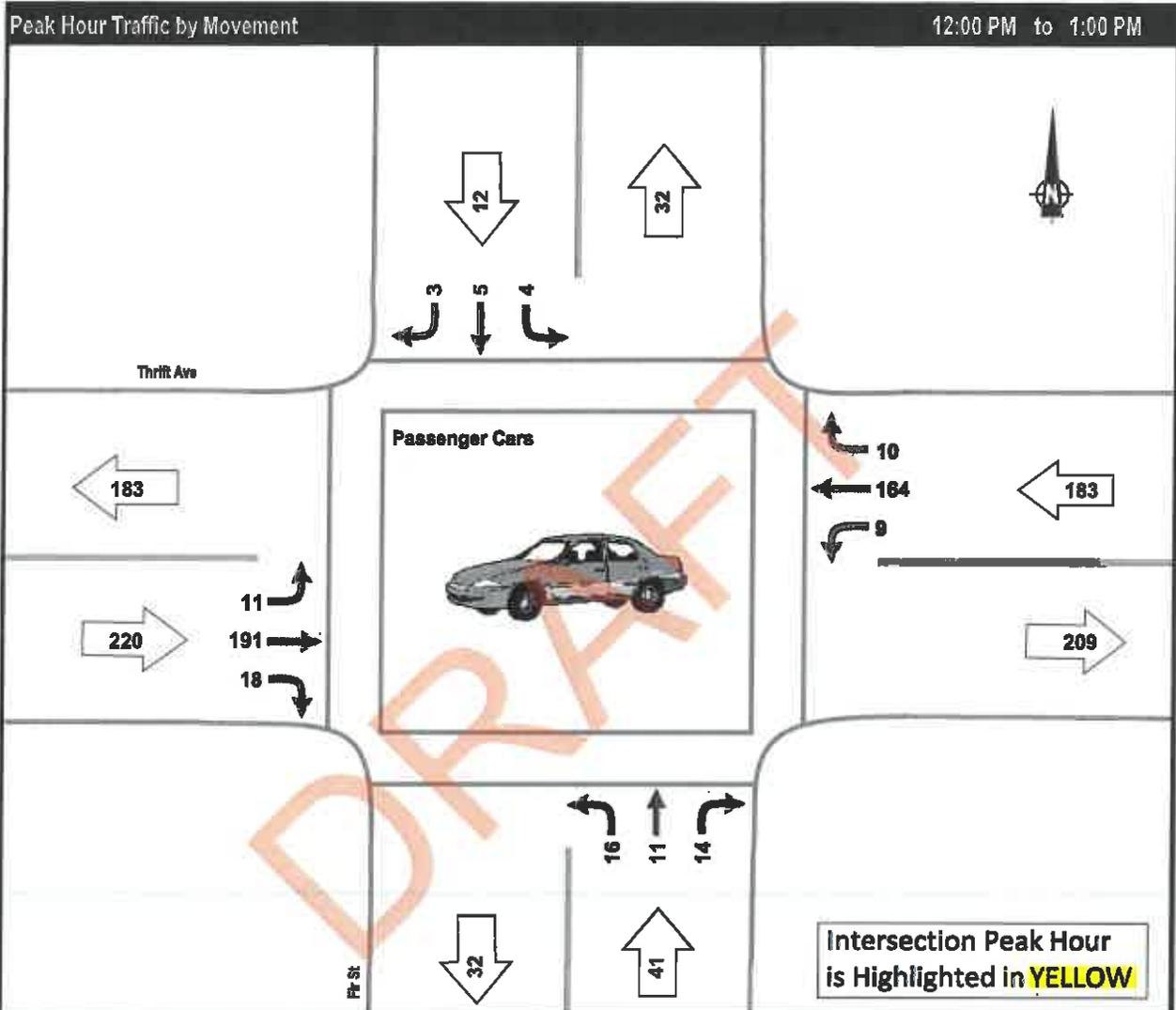


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	4	5	3	16	11	14	11	191	18	9	164	10	15	7	4	6	488
PH Factor	1.00	0.53	0.38	0.67	0.69	0.68	0.46	0.96	0.75	0.75	0.89	0.50	0.65	0.58	0.50	0.50	0.93
PHF	4	8	8	24	16	16	24	200	24	12	184	20	20	12	8	12	488
Average Hour	3	4	8	22	11	13	9	170	17	10	166	8	13	12	5	5	441
Survey Total	6	8	15	43	22	25	17	339	34	19	332	16	26	23	9	10	876
11:00	1	0	4	10	3	2	1	26	4	5	40	1	8	0	2	2	97
11:15	0	1	2	8	1	2	1	43	6	1	52	2	2	3	2	2	117
11:30	0	1	3	6	3	3	2	41	2	2	41	2	1	8	1	0	108
11:45	1	1	3	5	4	4	2	38	4	2	36	1	2	7	0	0	100
12:00	1	0	2	2	4	3	2	48	4	1	45	5	1	2	2	0	115
12:15	1	2	0	4	3	4	1	50	6	3	31	1	3	1	0	0	108
12:30	1	1	0	6	2	4	2	48	2	2	42	3	5	1	0	3	113
12:45	1	2	1	4	2	3	6	47	6	3	46	1	4	3	2	3	122



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

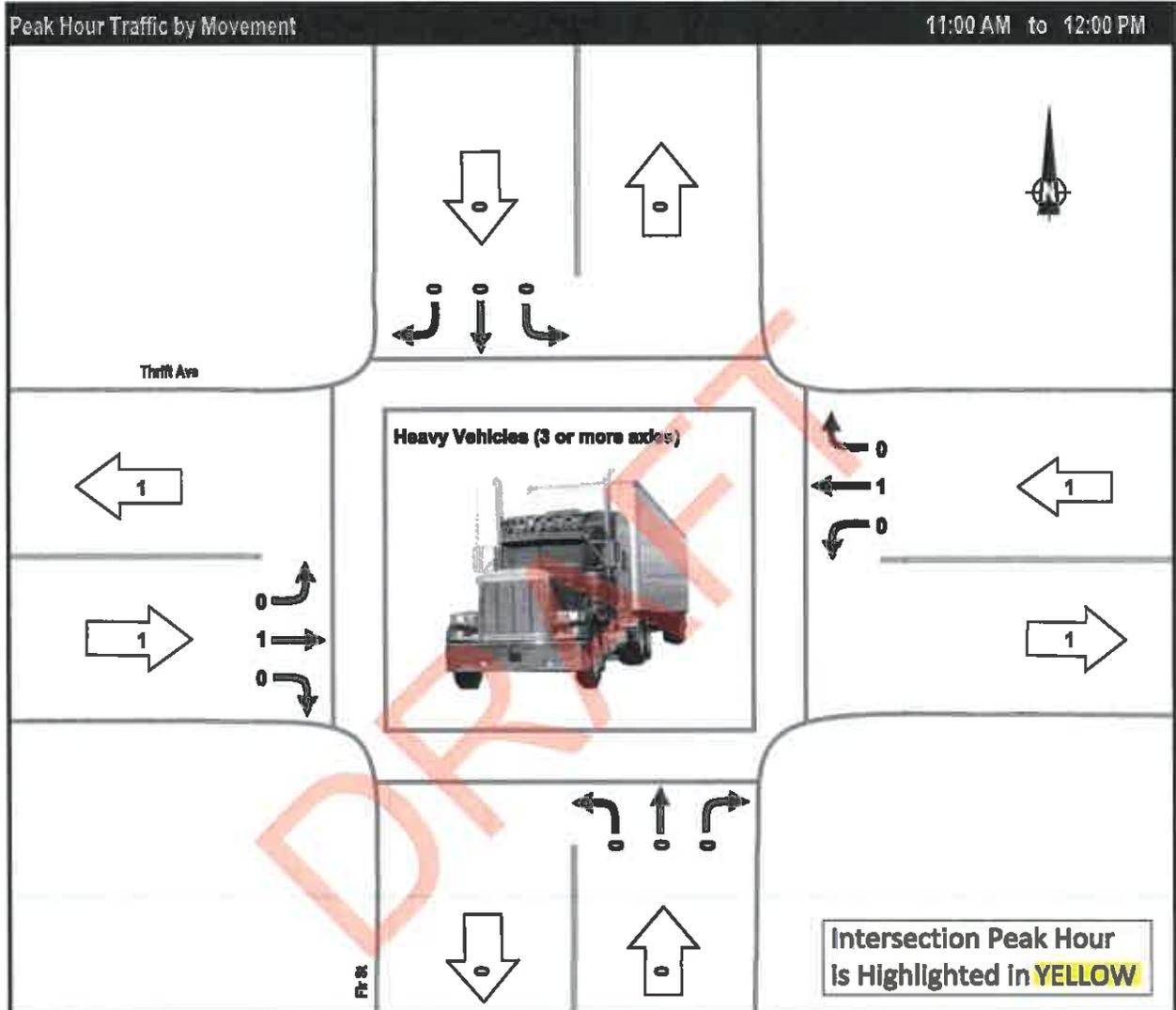
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	4	5	3	16	11	14	11	191	19	9	164	10					456
PHF	1.00	0.63	0.36	0.67	0.69	0.88	0.46	0.96	0.75	0.75	0.89	0.50					0.93
Peak 15 X 4	4	8	8	24	16	16	24	200	24	12	184	20					488
Average Hour	3	4	8	22	11	13	9	169	17	10	166	8					440
Survey Total	6	8	15	43	22	25	17	338	34	19	331	16					874
11:00	1	0	4	10	3	2	1	25	4	5	40	1					96
11:15	0	1	2	6	1	2	1	43	6	1	52	2					117
11:30	0	1	3	6	3	3	2	41	2	2	40	2					105
11:45	1	1	3	5	4	4	2	38	4	2	35	1					100
12:00	1	0	2	2	4	3	2	48	4	1	45	5					116
12:15	1	2	0	4	3	4	1	50	6	3	31	1					108
12:30	1	1	0	6	2	4	2	48	2	2	42	3					113
12:45	1	2	1	4	2	3	6	47	6	3	46	1					122

Project: #7026: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Midday Peak Period

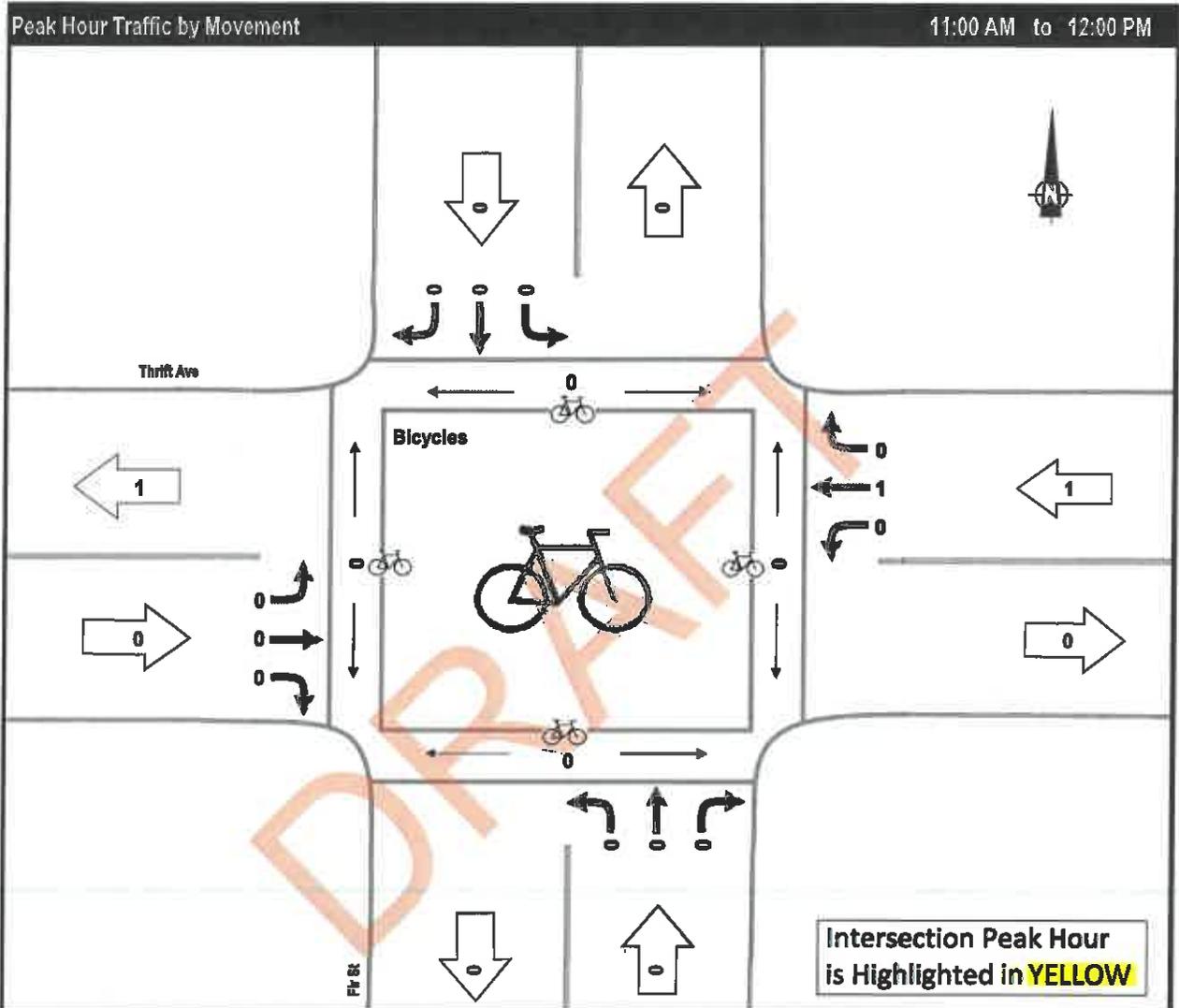


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS					Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E		
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0					2	
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.50	
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0					4	
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0					2	
Survey Total	0	0	0	0	0	0	0	1	0	0	1	0					2	
11:00	0	0	0	0	0	0	0	1	0	0	0	0					1	
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0	
11:30	0	0	0	0	0	0	0	0	0	0	1	0					1	
11:45	0	0	0	0	0	0	0	0	0	0	0	0					0	
12:00	0	0	0	0	0	0	0	0	0	0	0	0					0	
12:15	0	0	0	0	0	0	0	0	0	0	0	0					0	
12:30	0	0	0	0	0	0	0	0	0	0	0	0					0	
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0	

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

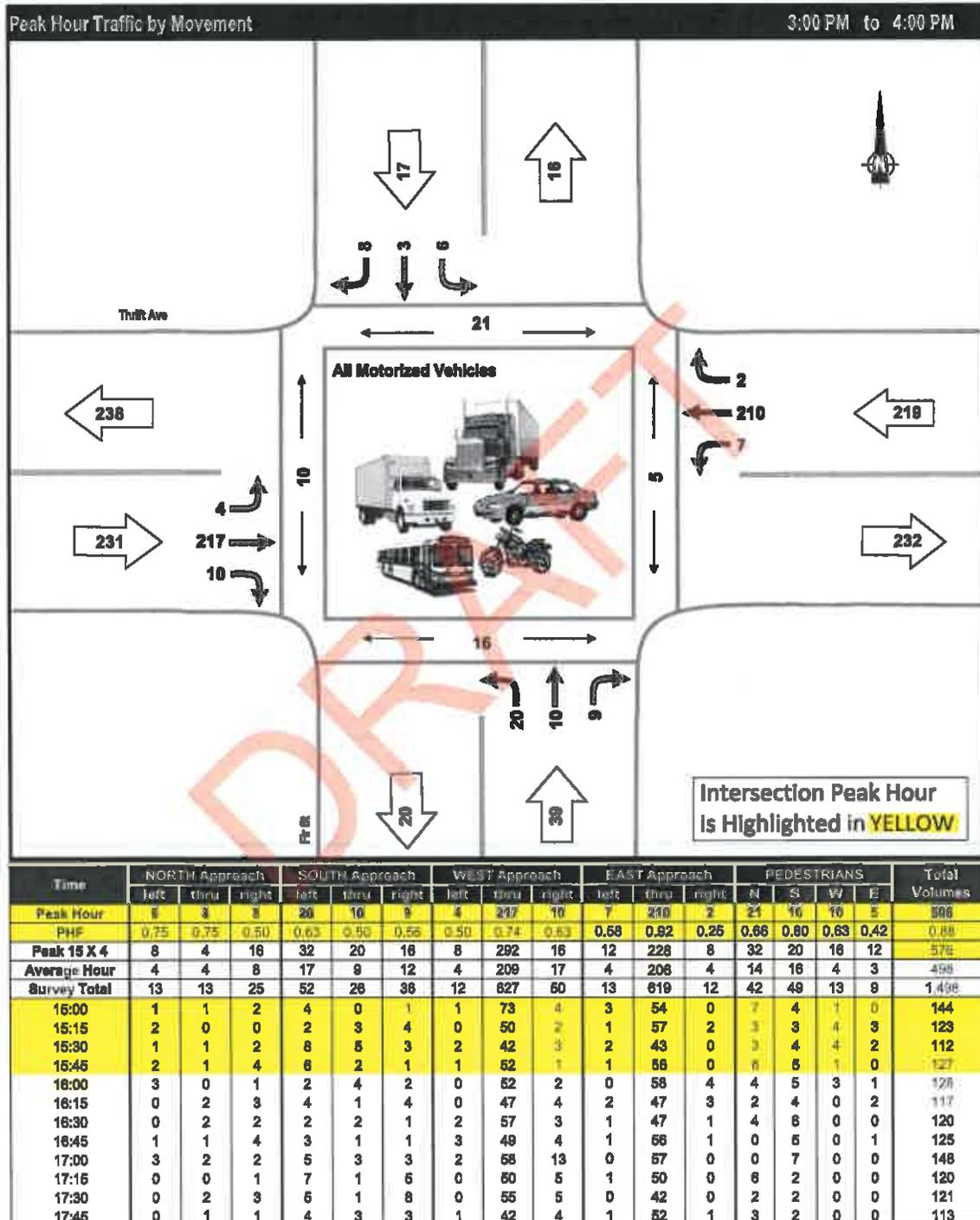
Midday Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Survey Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles



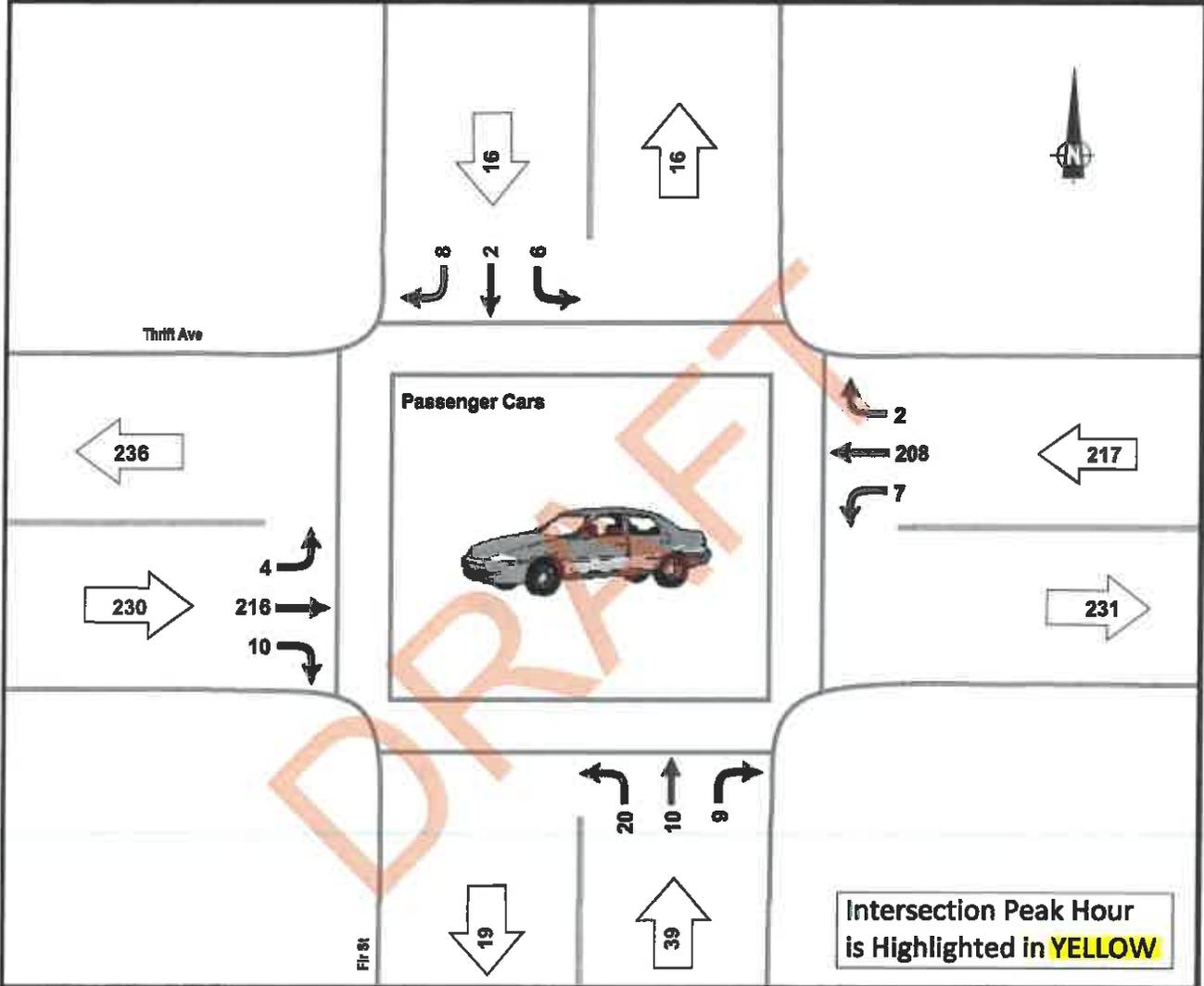


Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

Afternoon Peak Period

Peak Hour Traffic by Movement

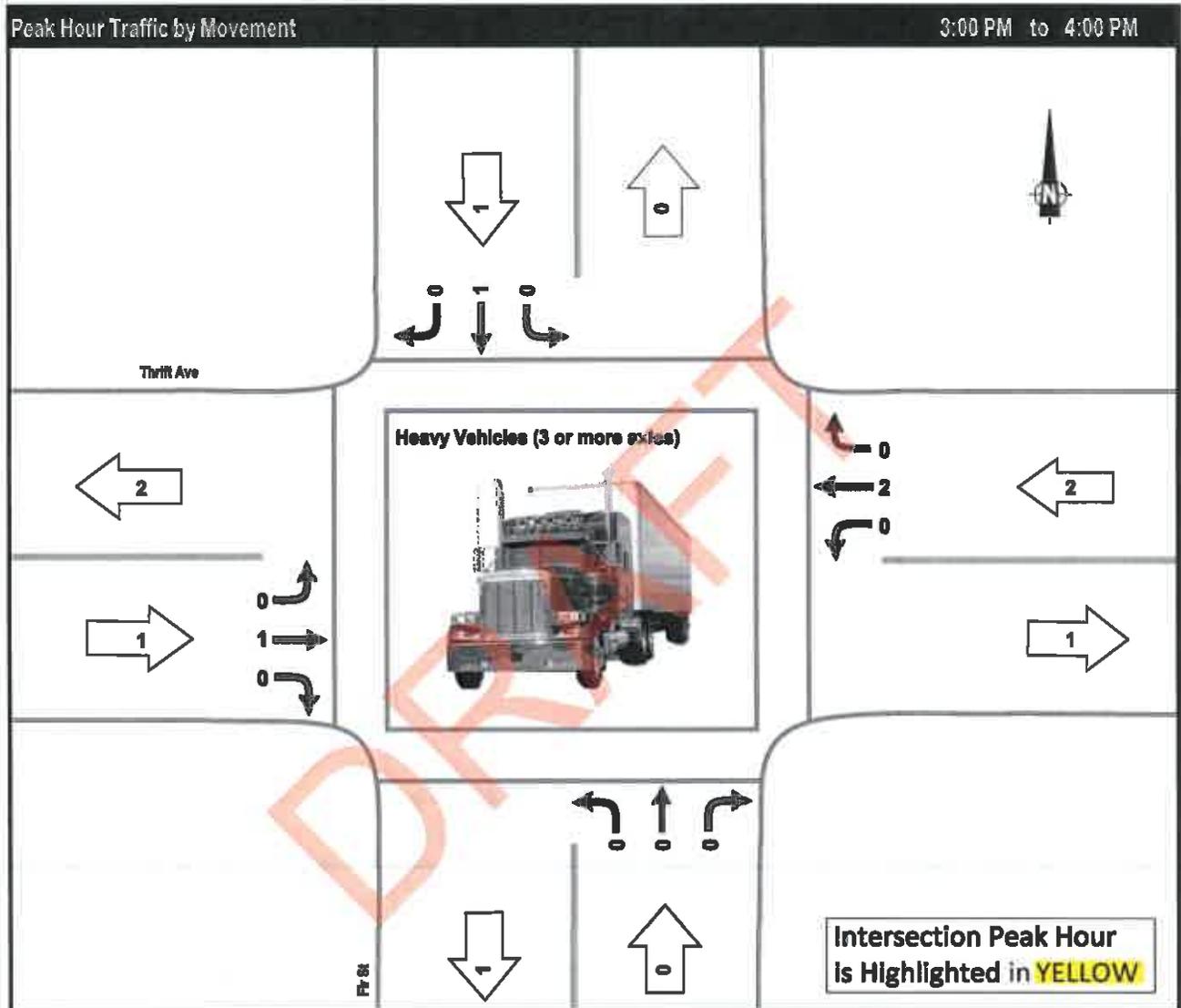
3:00 PM to 4:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	6	2	8	20	10	9	4	216	10	7	206	2					502
PHF	0.75	0.50	0.50	0.83	0.50	0.56	0.50	0.75	0.63	0.58	0.91	0.25					0.89
Peak 15 X 4	8	4	16	32	20	16	8	288	16	12	228	8					564
Average Hour	4	4	8	17	8	12	4	209	17	4	206	4					497
Survey Total	13	12	25	52	25	36	12	626	50	13	617	12					1,493
15:00	1	0	2	4	0	1	1	72	4	3	53	0					141
15:15	2	0	0	2	3	4	0	50	2	1	57	2					123
15:30	1	1	2	8	5	3	2	42	3	2	43	0					112
15:45	2	1	4	6	2	1	1	52	1	1	55	0					126
16:00	3	0	1	2	3	2	0	52	2	0	58	4					127
16:15	0	2	3	4	1	4	0	47	4	2	47	3					117
16:30	0	2	2	2	2	1	2	57	3	1	47	1					120
16:45	1	1	4	3	1	1	3	49	4	1	56	1					125
17:00	3	2	2	5	3	3	2	58	13	0	57	0					148
17:15	0	0	1	7	1	5	0	50	5	1	50	0					120
17:30	0	2	3	5	1	8	0	55	5	0	42	0					121
17:45	0	1	1	4	3	3	1	42	4	1	52	1					113

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	1	0	0	0	0	0	1	0	0	2	0					4
PHF	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.50	0.00					0.33
Peak 15 X 4	0	4	0	0	0	0	0	4	0	0	4	0					12
Average Hour	0	0	0	0	0	0	0	0	0	0	1	0					1
Survey Total	0	1	0	0	1	0	0	1	0	0	2	0					5
15:00	0	1	0	0	0	0	0	1	0	0	1	0					3
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	1	0					1
18:00	0	0	0	0	1	0	0	0	0	0	0	0					1
18:15	0	0	0	0	0	0	0	0	0	0	0	0					0
18:30	0	0	0	0	0	0	0	0	0	0	0	0					0
18:45	0	0	0	0	0	0	0	0	0	0	0	0					0
17:00	0	0	0	0	0	0	0	0	0	0	0	0					0
17:15	0	0	0	0	0	0	0	0	0	0	0	0					0
17:30	0	0	0	0	0	0	0	0	0	0	0	0					0
17:45	0	0	0	0	0	0	0	0	0	0	0	0					0

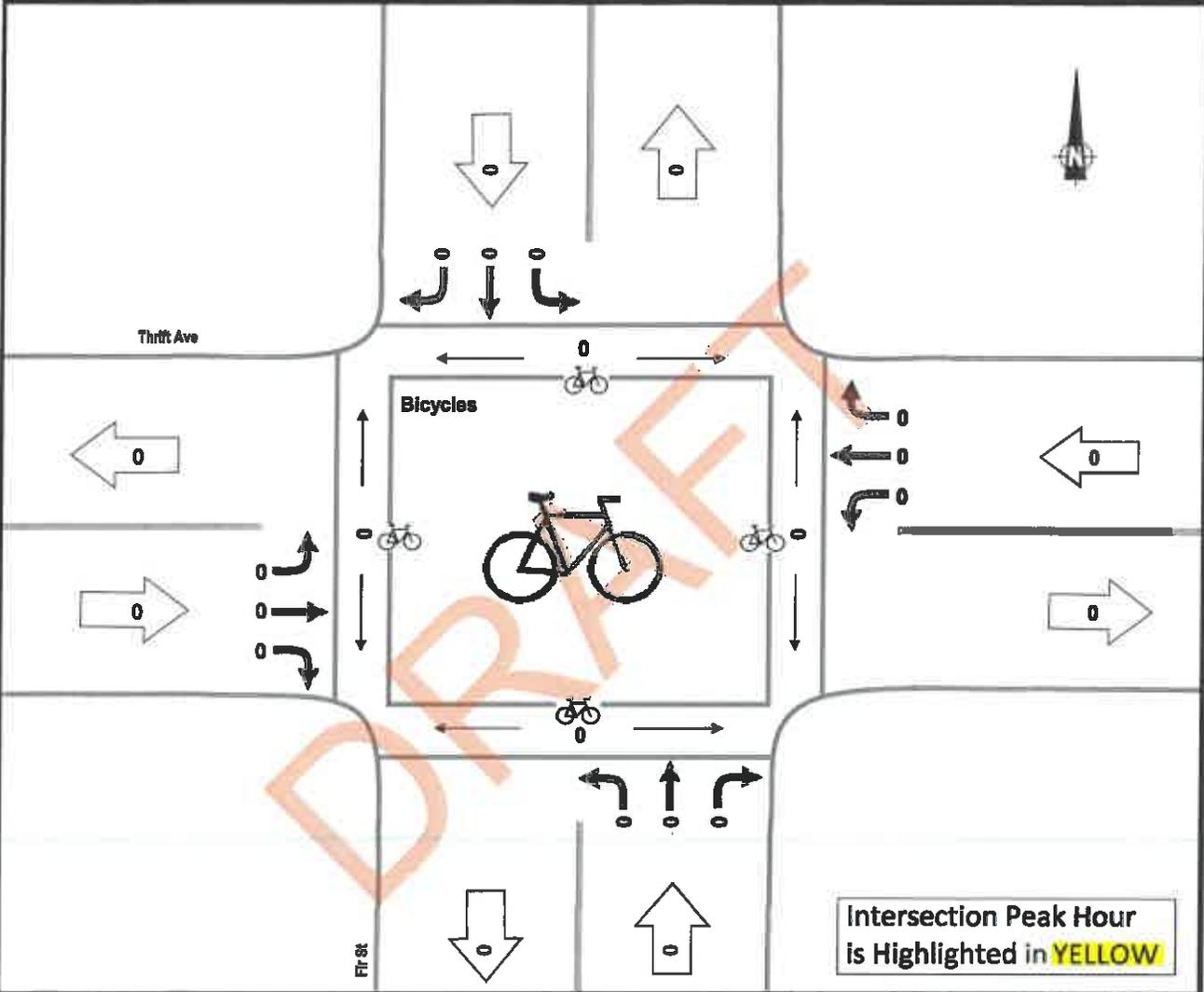
Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals

Peak Hour Traffic by Movement

3:00 PM to 4:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Total	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1



George Lane & Russell Ave

Wednesday, April 03, 2019

Vehicle Classification Summary

Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain

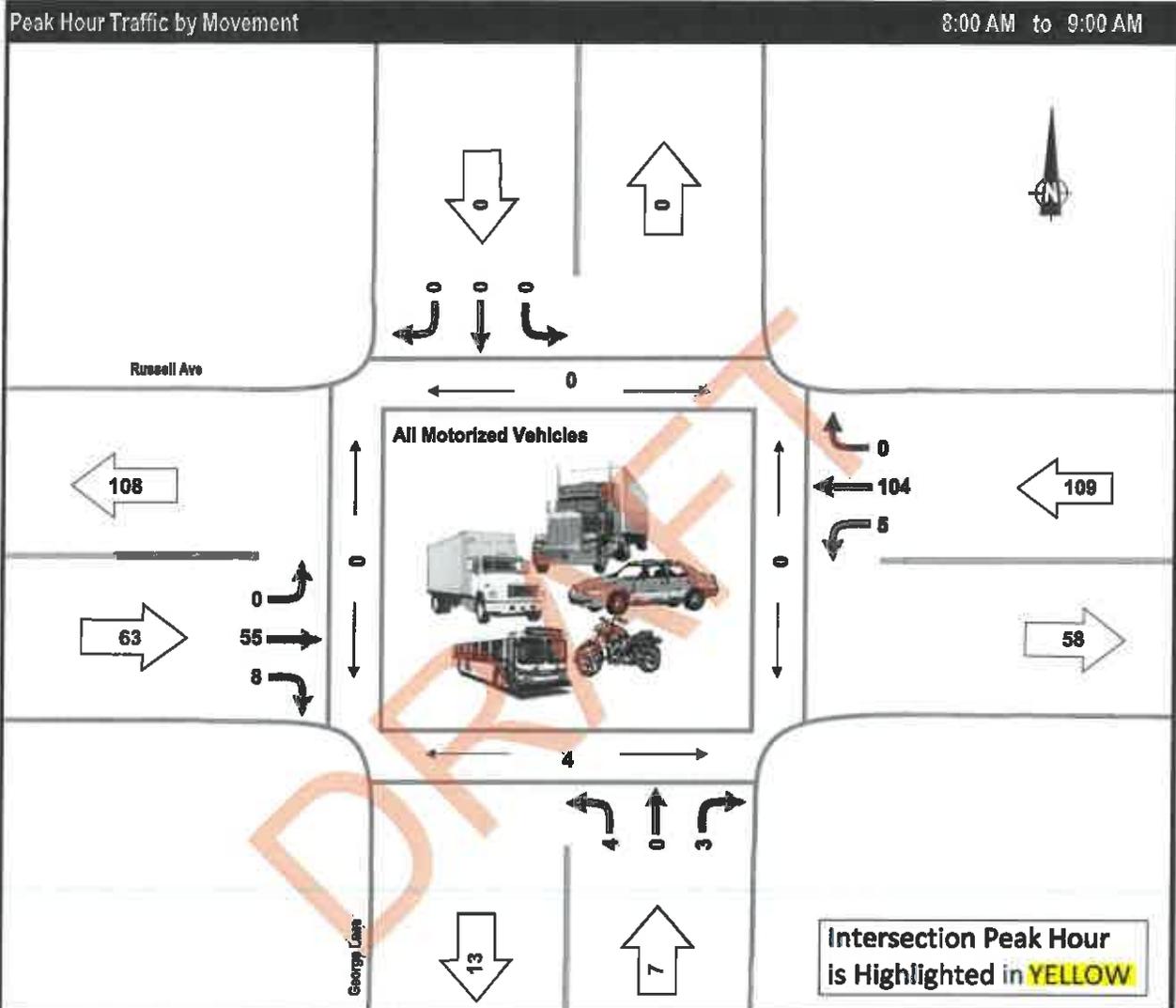
Z:\7

Time Period	Entering Intersection	Vehicle Classification				Total
		Passenger Cars	Heavy Vehicles (3 or more axles)			
Morning (07:00 - 09:00)	Volume	284	0			284
	%	100.0%	0.0%			100.0%
Midday (11:00 - 13:00)	Volume	596	3			599
	%	99.5%	0.5%			100.0%
Afternoon (15:00 - 18:00)	Volume	854	0			854
	%	100.0%	0.0%			100.0%
Total (7 Hours)	Volume	1,734	3			1,737
	%	99.8%	0.2%			100.0%

DRAFT

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

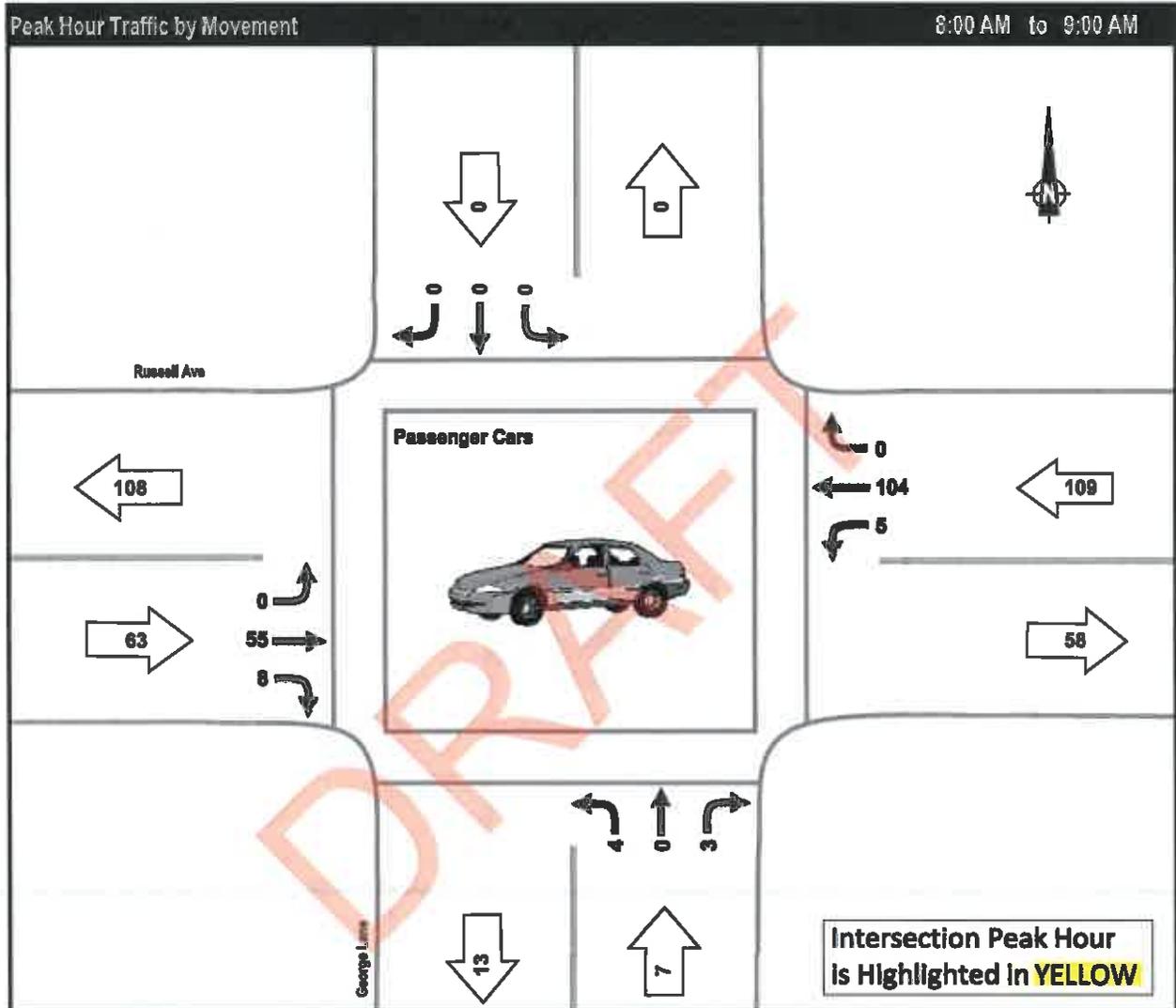
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	4	0	3	0	55	8	5	104	0	0	4	0	0	179
PHF	0.00	0.00	0.00	0.50	0.00	0.38	0.00	0.92	0.67	0.63	0.81	0.00	0.00	0.50	0.00	0.00	0.81
Peak 15 X 4	0	0	0	8	0	8	0	60	12	8	128	0	0	8	0	0	220
Average Hour	0	0	0	3	0	2	0	55	5	4	74	0	0	5	0	0	143
Survey Total	0	0	0	6	0	4	0	110	9	8	147	0	0	9	0	0	284
7:00	0	0	0	2	0	0	0	10	0	0	12	0	0	1	0	0	24
7:15	0	0	0	0	0	1	0	21	1	1	9	0	0	2	0	0	33
7:30	0	0	0	0	0	0	0	12	0	0	7	0	0	1	0	0	19
7:45	0	0	0	0	0	0	0	12	0	2	15	0	0	1	0	0	29
8:00	0	0	0	0	0	0	0	12	2	1	20	0	0	2	0	0	35
8:15	0	0	0	1	0	0	0	15	0	0	25	0	0	0	0	0	41
8:30	0	0	0	1	0	2	0	13	3	2	27	0	0	0	0	0	48
8:45	0	0	0	2	0	1	0	15	3	2	32	0	0	2	0	0	55

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

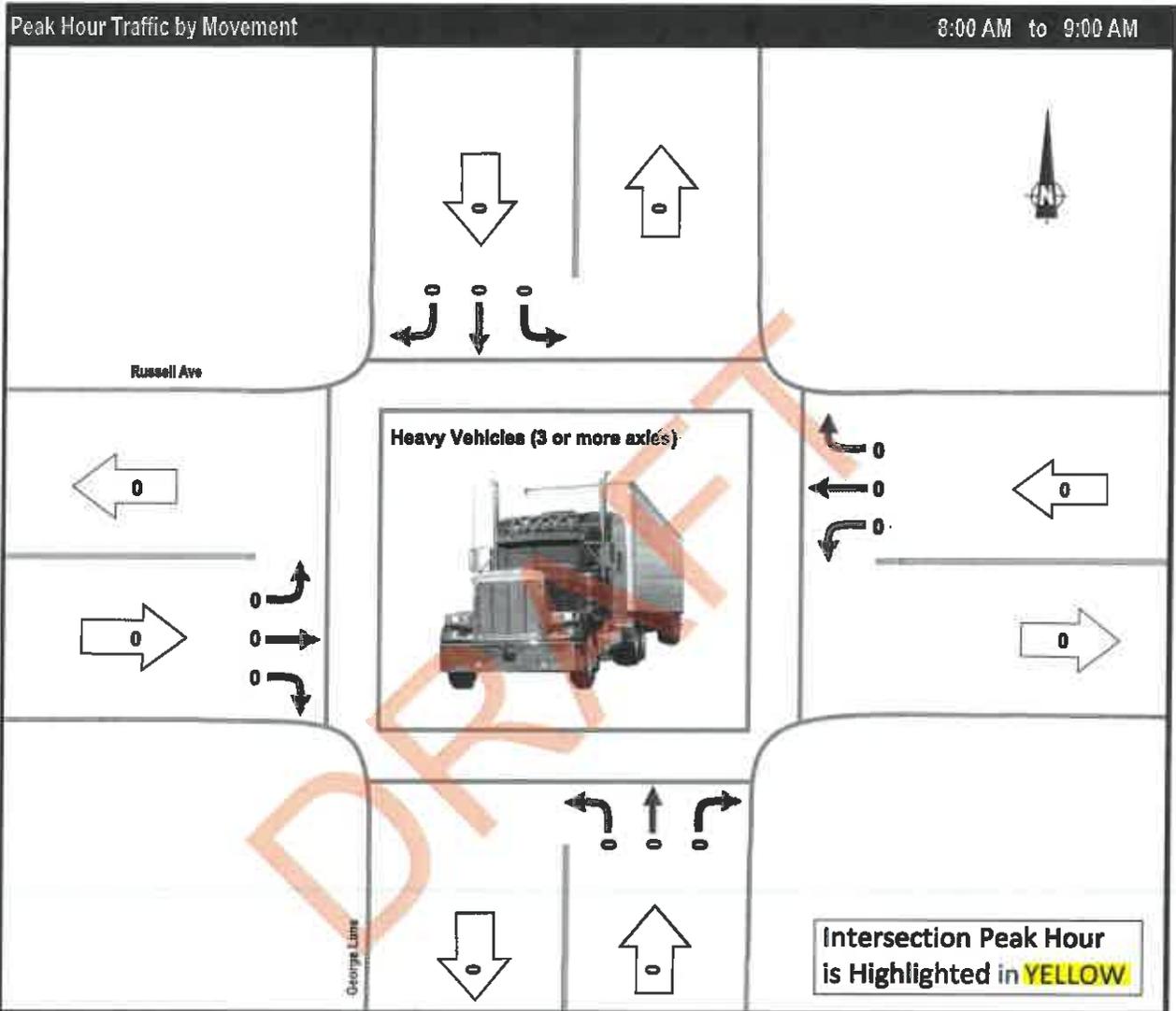
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	4	0	3	0	55	8	5	104	0					179
PHF	0.00	0.00	0.00	0.50	0.00	0.38	0.00	0.92	0.67	0.63	0.61	0.00					0.61
Peak 15 X 4	0	0	0	8	0	8	0	60	12	8	128	0					220
Average Hour	0	0	0	3	0	2	0	55	5	4	74	0					143
Survey Total	0	0	0	8	0	4	0	110	9	8	147	0					284
7:00	0	0	0	2	0	0	0	10	0	0	12	0					24
7:15	0	0	0	0	0	1	0	21	1	1	9	0					33
7:30	0	0	0	0	0	0	0	12	0	0	7	0					19
7:45	0	0	0	0	0	0	0	12	0	2	15	0					29
8:00	0	0	0	0	0	0	0	12	2	1	20	0					35
8:15	0	0	0	1	0	0	0	15	0	0	25	0					41
8:30	0	0	0	1	0	2	0	13	3	2	27	0					48
8:45	0	0	0	2	0	1	0	15	3	2	32	0					55

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period

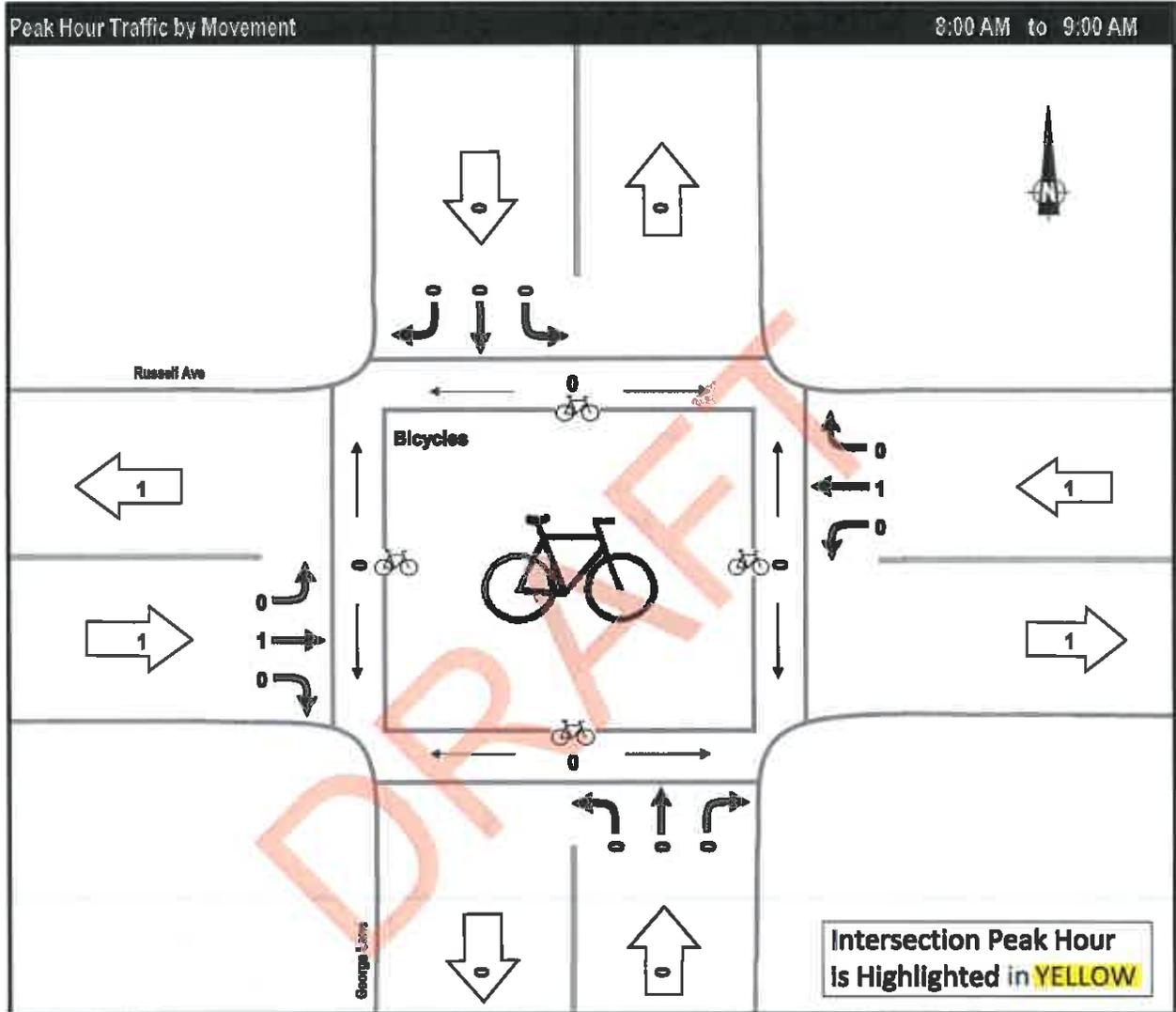


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0					0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0					0
7:00	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	0	0	0	0	0	0					0
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	0	0	0	0					0
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	0	0					0
8:30	0	0	0	0	0	0	0	0	0	0	0	0					0
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Morning Peak Period

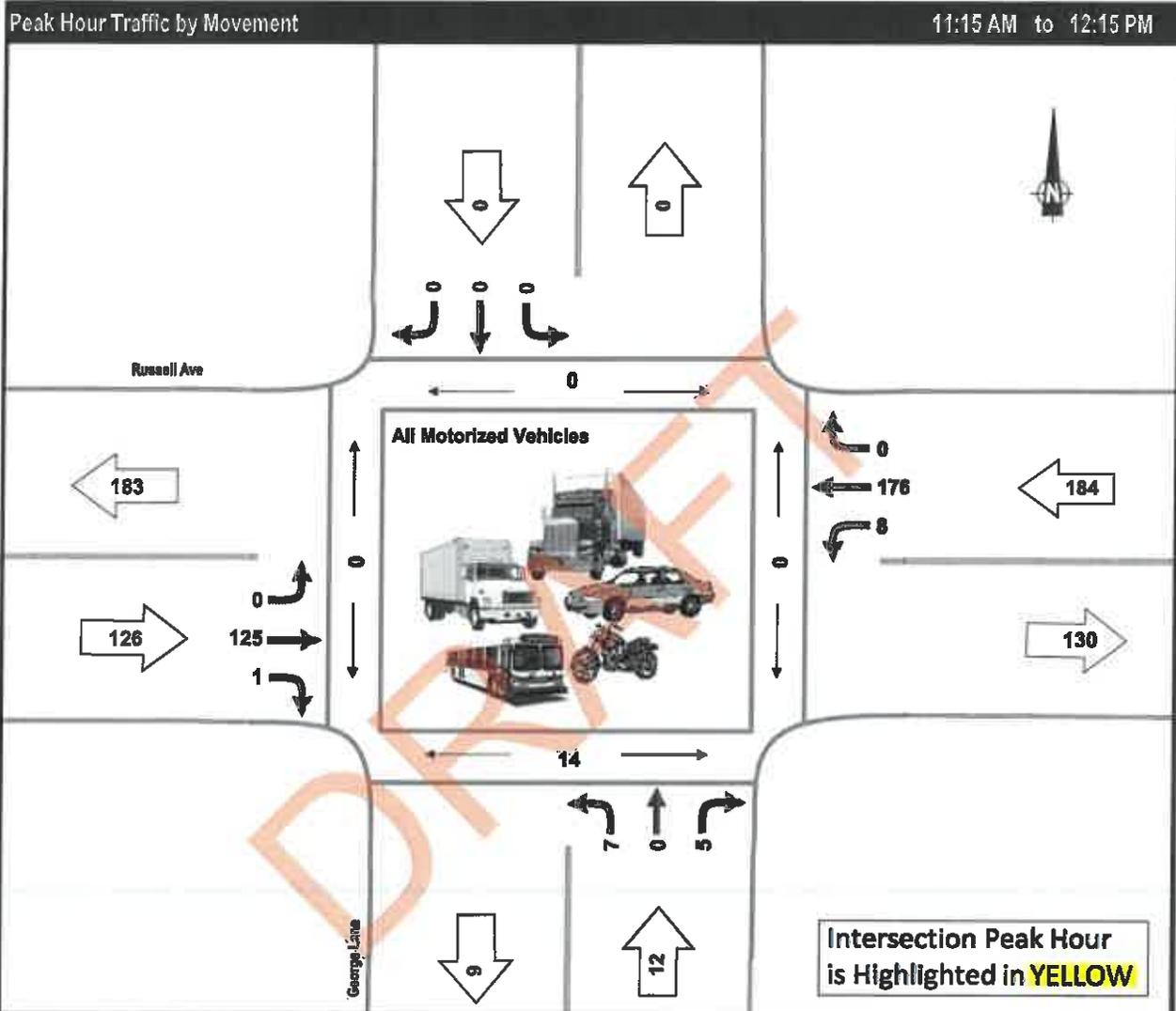
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.50
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Survey Total	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

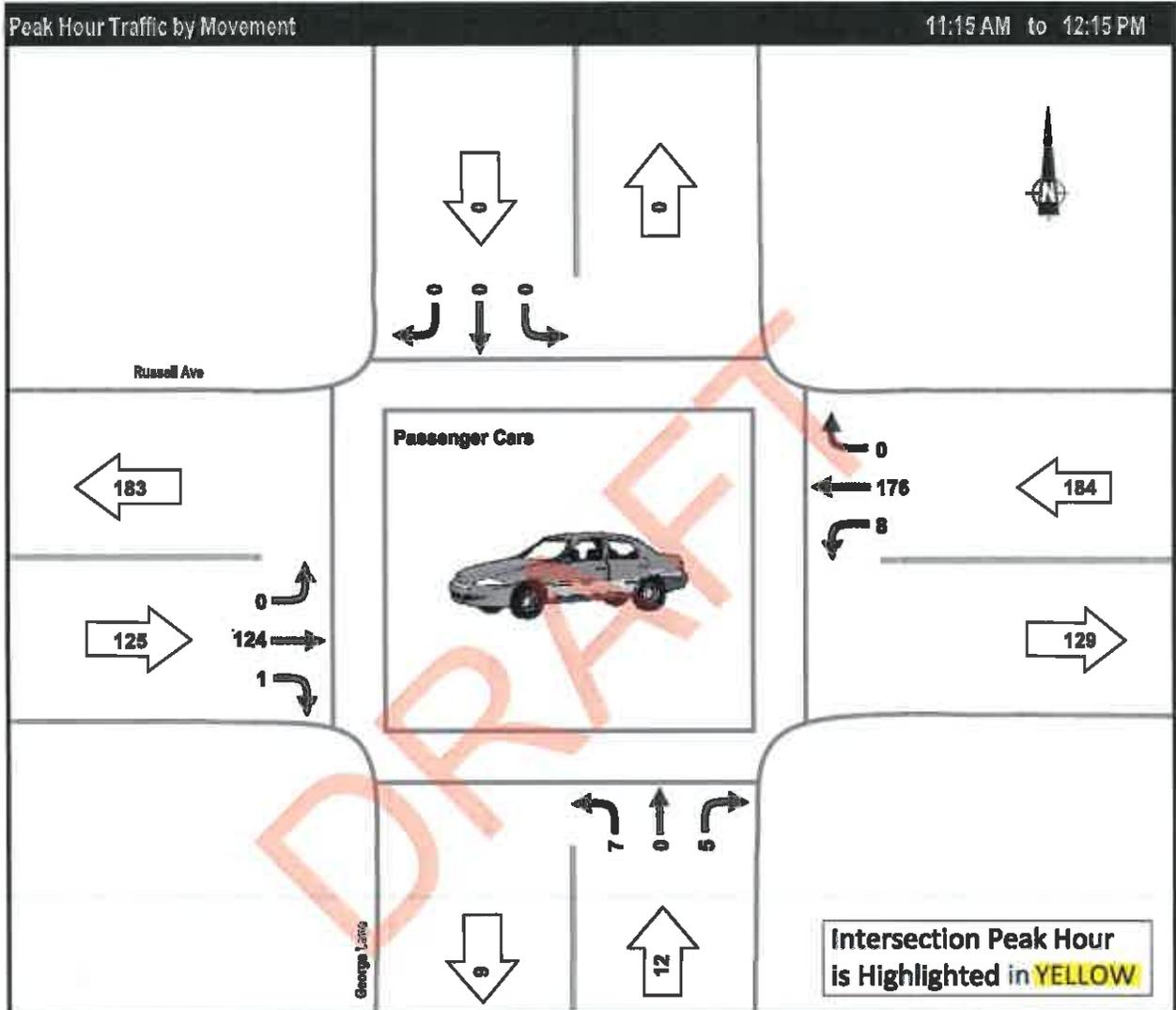
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	7	0	5	0	125	1	0	176	0	0	14	0	0	322
PH Factor	0.00	0.00	0.00	0.44	0.00	0.42	0.00	0.89	0.25	1.00	0.77	0.00	0.00	0.58	0.00	0.00	0.85
PHF	0	0	0	16	0	12	0	140	4	8	228	0	0	24	0	0	380
Average Hour	0	0	0	5	0	4	0	112	2	5	173	0	0	9	0	0	301
Survey Total	0	0	0	9	0	8	0	224	3	9	346	0	0	18	0	0	599
11:00	0	0	0	1	0	0	0	18	0	0	51	0	0	0	0	0	70
11:15	0	0	0	3	0	0	0	26	0	2	40	0	0	3	0	0	71
11:30	0	0	0	4	0	1	0	31	0	2	38	0	0	2	0	0	76
11:45	0	0	0	0	0	1	0	35	0	2	57	0	0	6	0	0	85
12:00	0	0	0	0	0	3	0	33	1	2	41	0	0	3	0	0	80
12:15	0	0	0	0	0	1	0	18	0	1	28	0	0	1	0	0	48
12:30	0	0	0	0	0	1	0	33	1	0	51	0	0	3	0	0	86
12:45	0	0	0	1	0	1	0	29	1	0	40	0	0	0	0	0	72

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

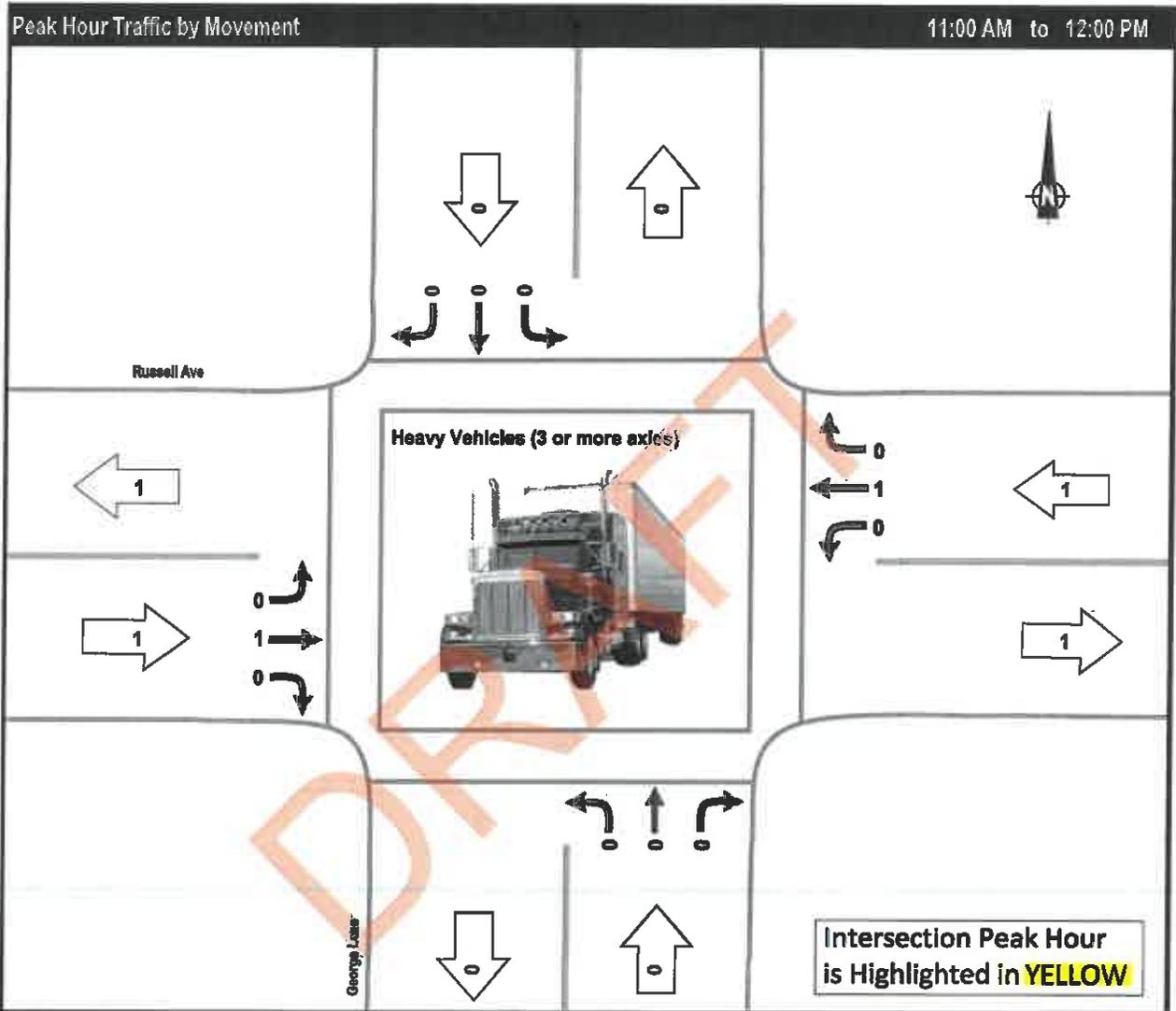
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	7	0	5	0	124	1	8	176	0					321
PHF	0.00	0.00	0.00	0.44	0.00	0.42	0.00	0.91	0.25	1.00	0.77	0.00					0.85
Peak 15 X 4	0	0	0	16	0	12	0	136	4	8	228	0					376
Average Hour	0	0	0	5	0	4	0	112	2	4	173	0					300
Survey Total	0	0	0	9	0	8	0	223	3	8	345	0					596
11:00	0	0	0	1	0	0	0	18	0	0	50	0					69
11:15	0	0	0	3	0	0	0	26	0	2	40	0					71
11:30	0	0	0	4	0	1	0	31	0	2	38	0					76
11:45	0	0	0	0	0	1	0	34	0	2	57	0					94
12:00	0	0	0	0	0	3	0	33	1	2	41	0					80
12:15	0	0	0	0	0	1	0	19	0	0	28	0					48
12:30	0	0	0	0	0	1	0	33	1	0	51	0					86
12:45	0	0	0	1	0	1	0	29	1	0	40	0					72

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

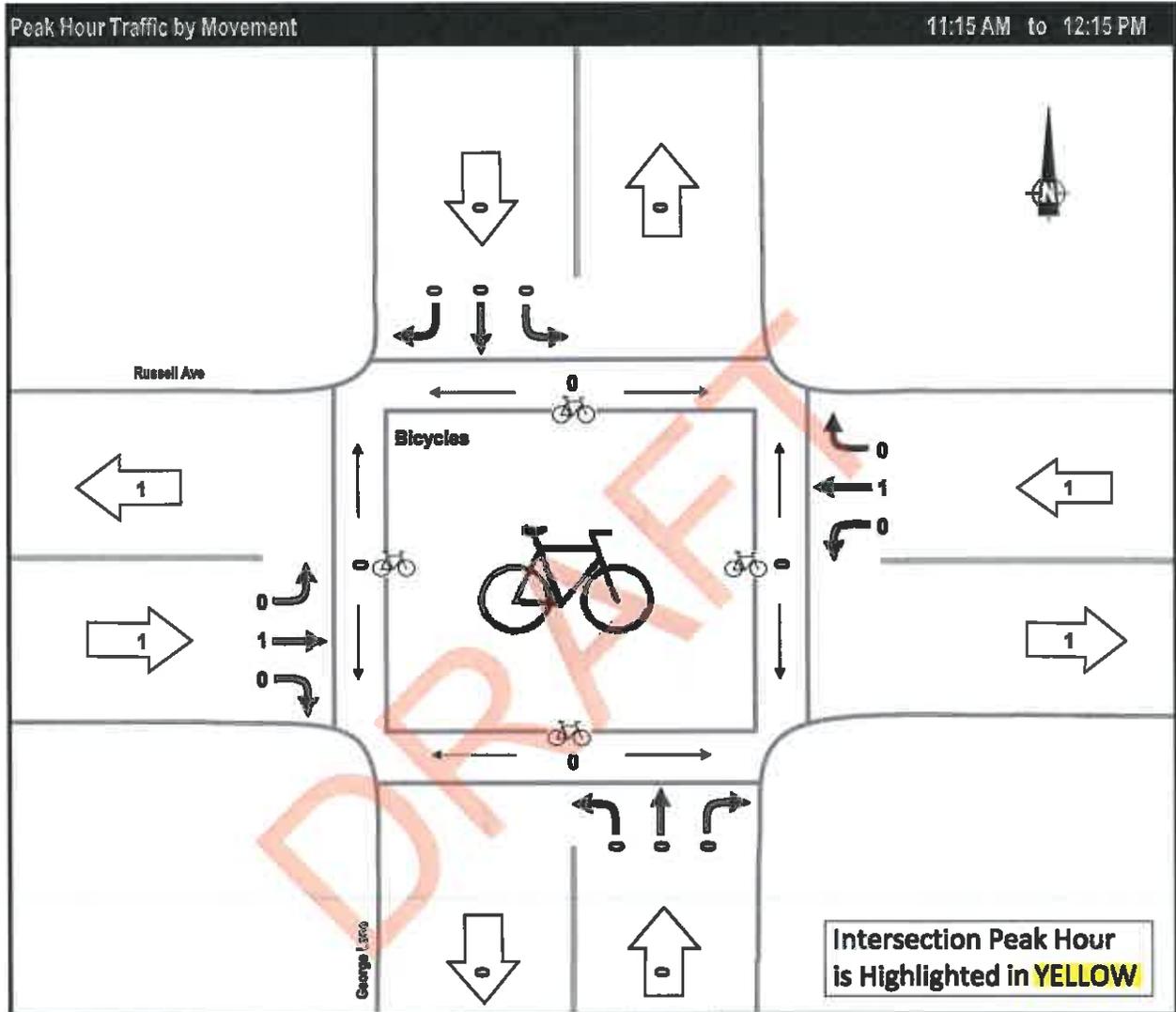
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.50
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0					4
Average Hour	0	0	0	0	0	0	0	1	0	1	1	0					3
Survey Total	0	0	0	0	0	0	0	1	0	1	1	0					3
11:00	0	0	0	0	0	0	0	0	0	0	1	0					1
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0
11:30	0	0	0	0	0	0	0	0	0	0	0	0					0
11:45	0	0	0	0	0	0	0	1	0	0	0	0					1
12:00	0	0	0	0	0	0	0	0	0	0	0	0					0
12:15	0	0	0	0	0	0	0	0	0	1	0	0					1
12:30	0	0	0	0	0	0	0	0	0	0	0	0					0
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

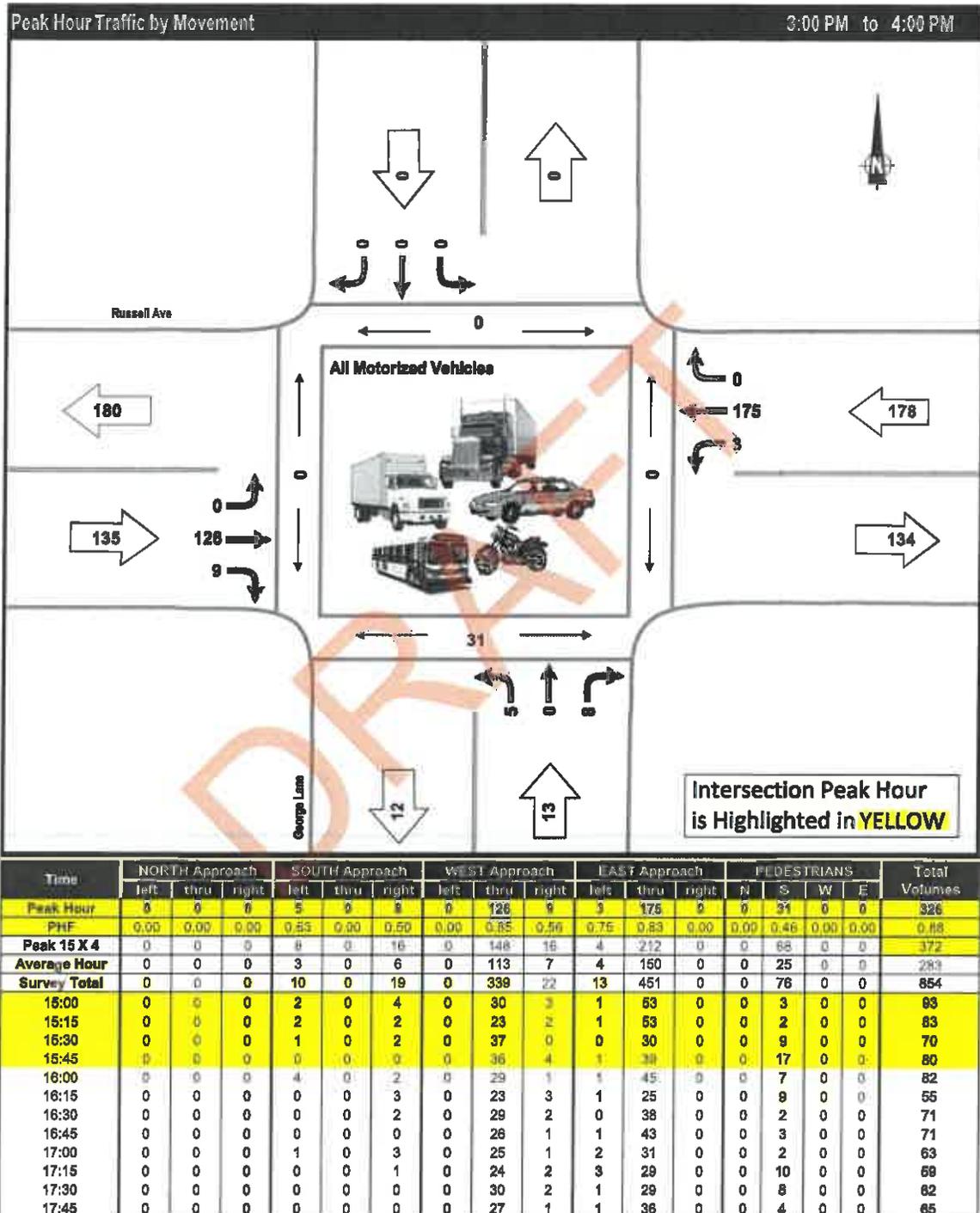
Note: Crosswalk bike volume shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes	
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E		
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.50
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Survey Total	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

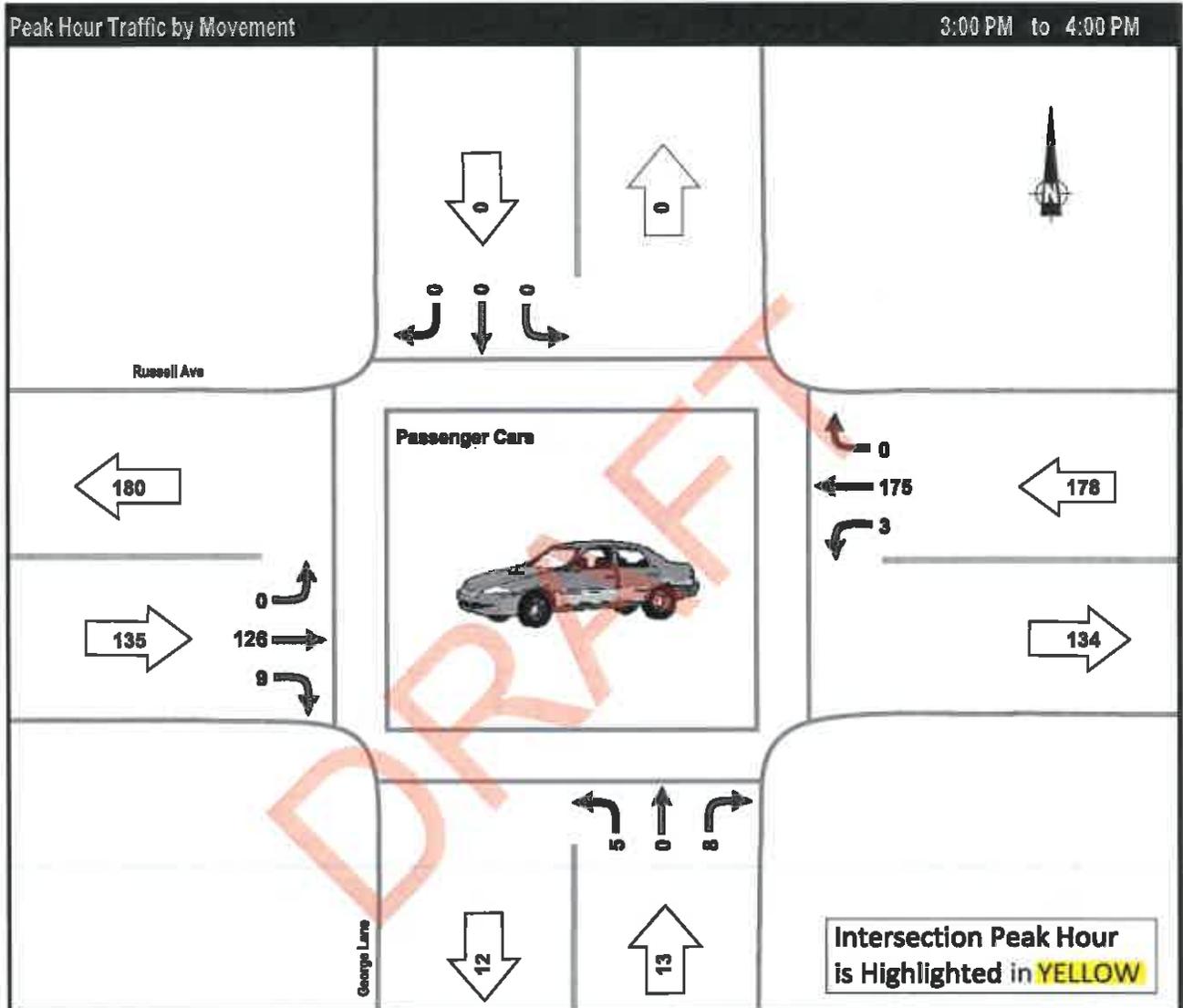
Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

Afternoon Peak Period



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	5	0	8	0	126	0	3	175	0					326
PHF	0.00	0.00	0.00	0.63	0.00	0.50	0.00	0.85	0.56	0.75	0.83	0.00					0.88
Peak 15 X 4	0	0	0	8	0	16	0	148	16	4	212	0					372
Average Hour	0	0	0	3	0	6	0	113	7	4	150	0					283
Survey Total	0	0	0	10	0	19	0	339	22	13	451	0					854
15:00	0	0	0	2	0	4	0	30	3	1	53	0					93
15:15	0	0	0	2	0	2	0	23	2	1	53	0					83
15:30	0	0	0	1	0	2	0	37	0	0	30	0					70
15:45	0	0	0	0	0	0	0	36	4	1	39	0					80
16:00	0	0	0	4	0	2	0	29	1	1	45	0					82
16:15	0	0	0	0	0	3	0	23	3	1	25	0					55
16:30	0	0	0	0	0	2	0	29	2	0	38	0					71
16:45	0	0	0	0	0	0	0	26	1	1	43	0					71
17:00	0	0	0	1	0	3	0	25	1	2	31	0					63
17:15	0	0	0	0	0	1	0	24	2	3	29	0					59
17:30	0	0	0	0	0	0	0	30	2	1	29	0					62
17:45	0	0	0	0	0	0	0	27	1	1	36	0					65

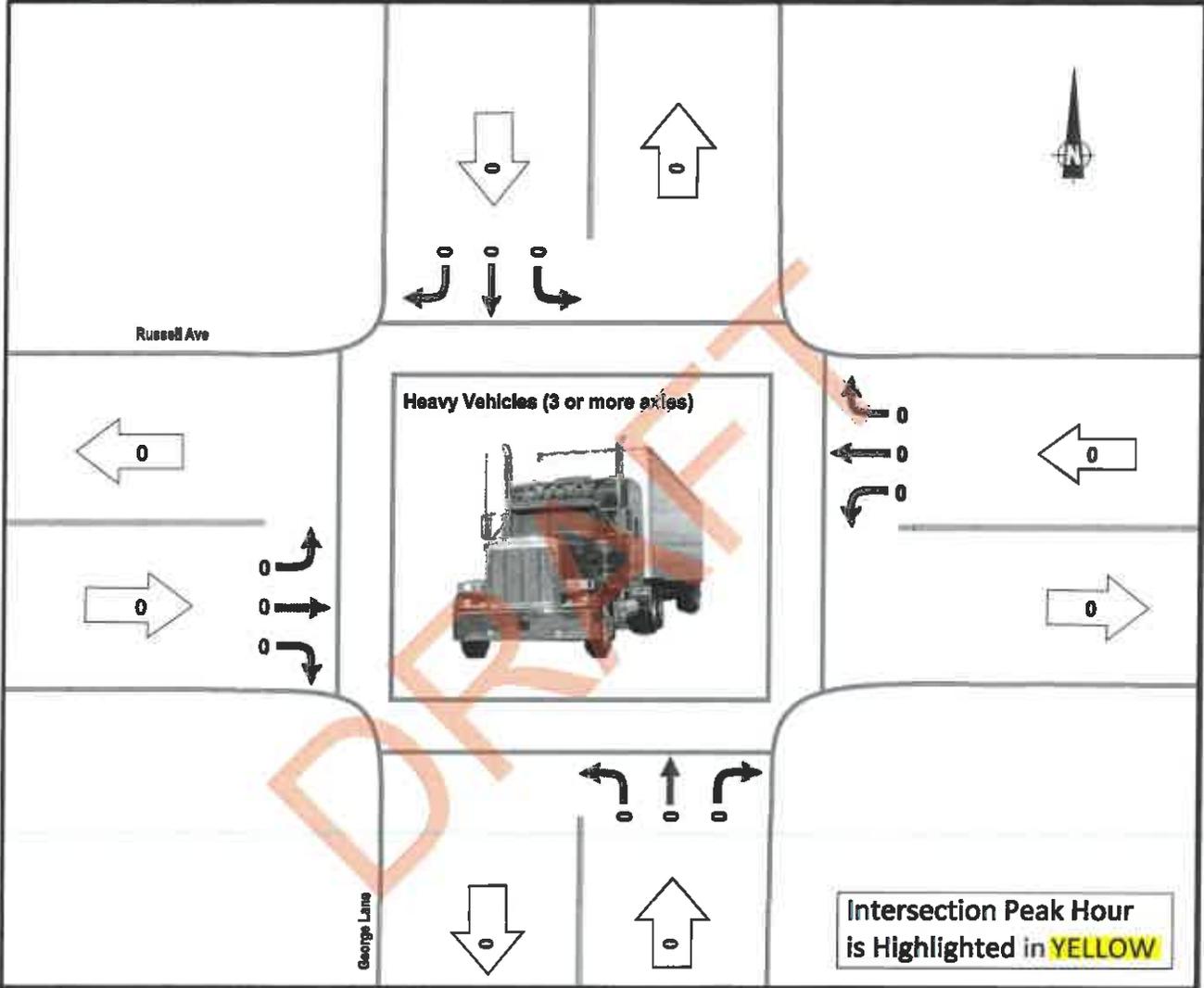


Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axes)

Afternoon Peak Period

Peak Hour Traffic by Movement

3:00 PM to 4:00 PM

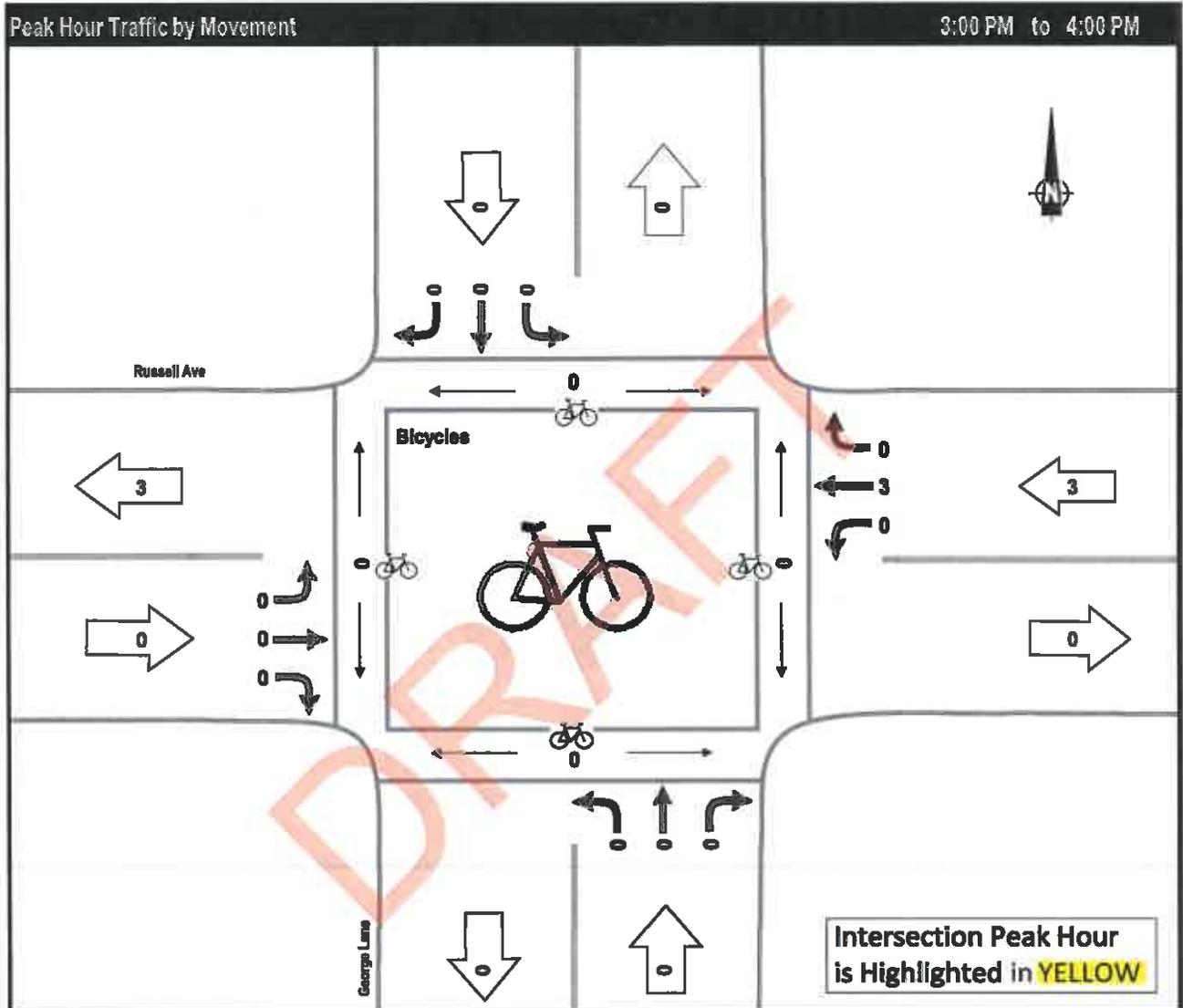


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0					0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0					0
15:00	0	0	0	0	0	0	0	0	0	0	0	0					0
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	0	0					0
16:00	0	0	0	0	0	0	0	0	0	0	0	0					0
16:15	0	0	0	0	0	0	0	0	0	0	0	0					0
16:30	0	0	0	0	0	0	0	0	0	0	0	0					0
16:45	0	0	0	0	0	0	0	0	0	0	0	0					0
17:00	0	0	0	0	0	0	0	0	0	0	0	0					0
17:15	0	0	0	0	0	0	0	0	0	0	0	0					0
17:30	0	0	0	0	0	0	0	0	0	0	0	0					0
17:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals.



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.38
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Average Hour	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3
Survey Total	0	0	0	0	0	0	0	3	0	0	5	0	0	0	0	0	8
15:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
15:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



George Lane & Thrift Ave

Wednesday, April 03, 2019

Vehicle Classification Summary

Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain

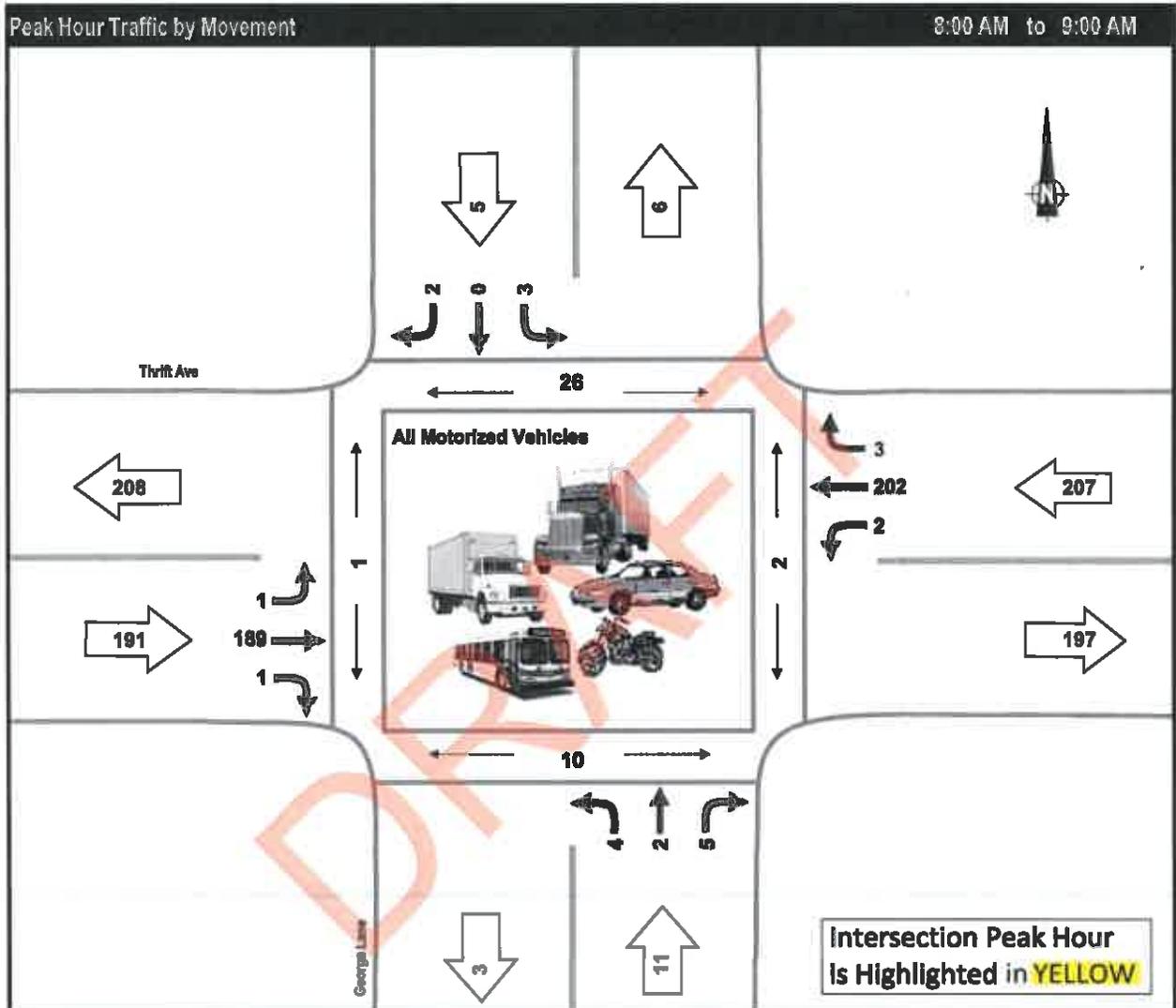
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Time Period	Entering Intersection	Vehicle Classification				Total
		Passenger Cars	Heavy Vehicles (3 or more axes)			
Morning (07:00 - 09:00)	Volume	597	3			600
	%	99.5%	0.5%			100.0%
Midday (11:00 - 13:00)	Volume	787	2			789
	%	99.7%	0.3%			100.0%
Afternoon (15:00 - 18:00)	Volume	1,424	2			1,426
	%	99.9%	0.1%			100.0%
Total (7 Hours)	Volume	2,808	7			2,815
	%	99.8%	0.2%			100.0%

DRAFT

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

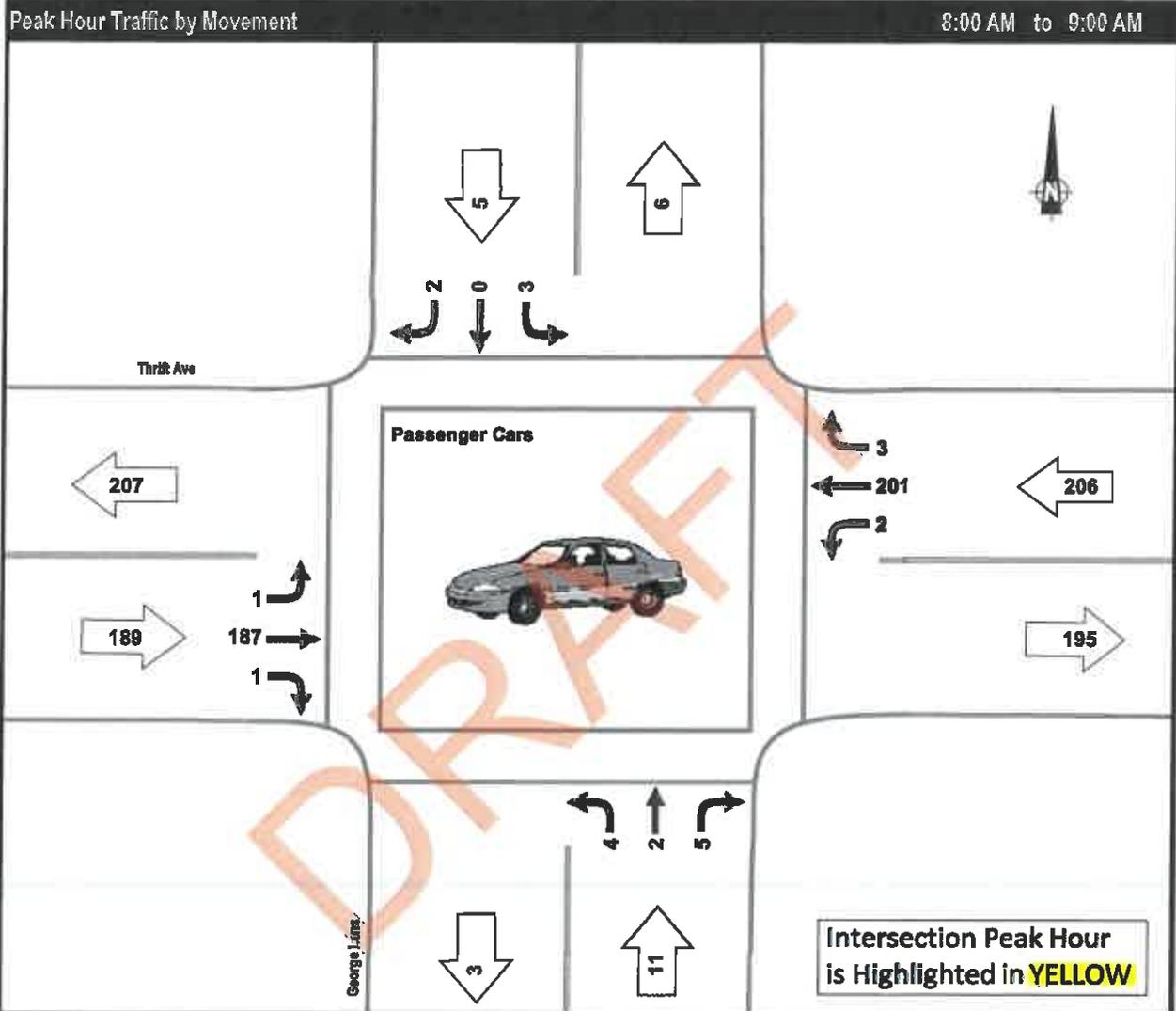
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	3	0	2	4	2	5	1	189	1	2	202	3	26	16	1	2	494
PHF	0.38	0.00	0.50	1.00	0.50	0.63	0.25	0.84	0.25	0.50	0.79	0.38	0.50	0.83	0.25	0.50	0.83
Peak 15 X 4	8	0	4	4	4	8	4	224	4	4	258	8	52	12	4	4	496
Average Hour	3	0	3	4	1	5	1	135	2	2	143	3	25	13	2	1	302
Survey Total	6	0	6	8	2	10	2	289	3	4	285	6	50	26	3	2	600
7:00	0	0	0	1	0	1	0	20	0	2	15	3	5	7	0	0	42
7:15	0	0	1	2	0	1	0	18	2	0	19	0	11	2	2	0	41
7:30	0	0	1	1	0	2	0	22	0	0	20	0	8	3	0	0	46
7:45	2	0	2	0	0	1	1	22	0	0	29	0	2	4	0	0	57
8:00	0	0	0	1	0	1	0	41	0	1	40	0	4	2	0	1	84
8:15	1	0	1	1	1	2	0	64	0	0	84	0	13	3	1	0	124
8:30	0	0	1	1	0	1	1	56	1	1	47	2	4	3	0	1	111
8:45	2	0	0	1	1	1	0	38	0	0	51	1	5	2	0	0	95

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars.

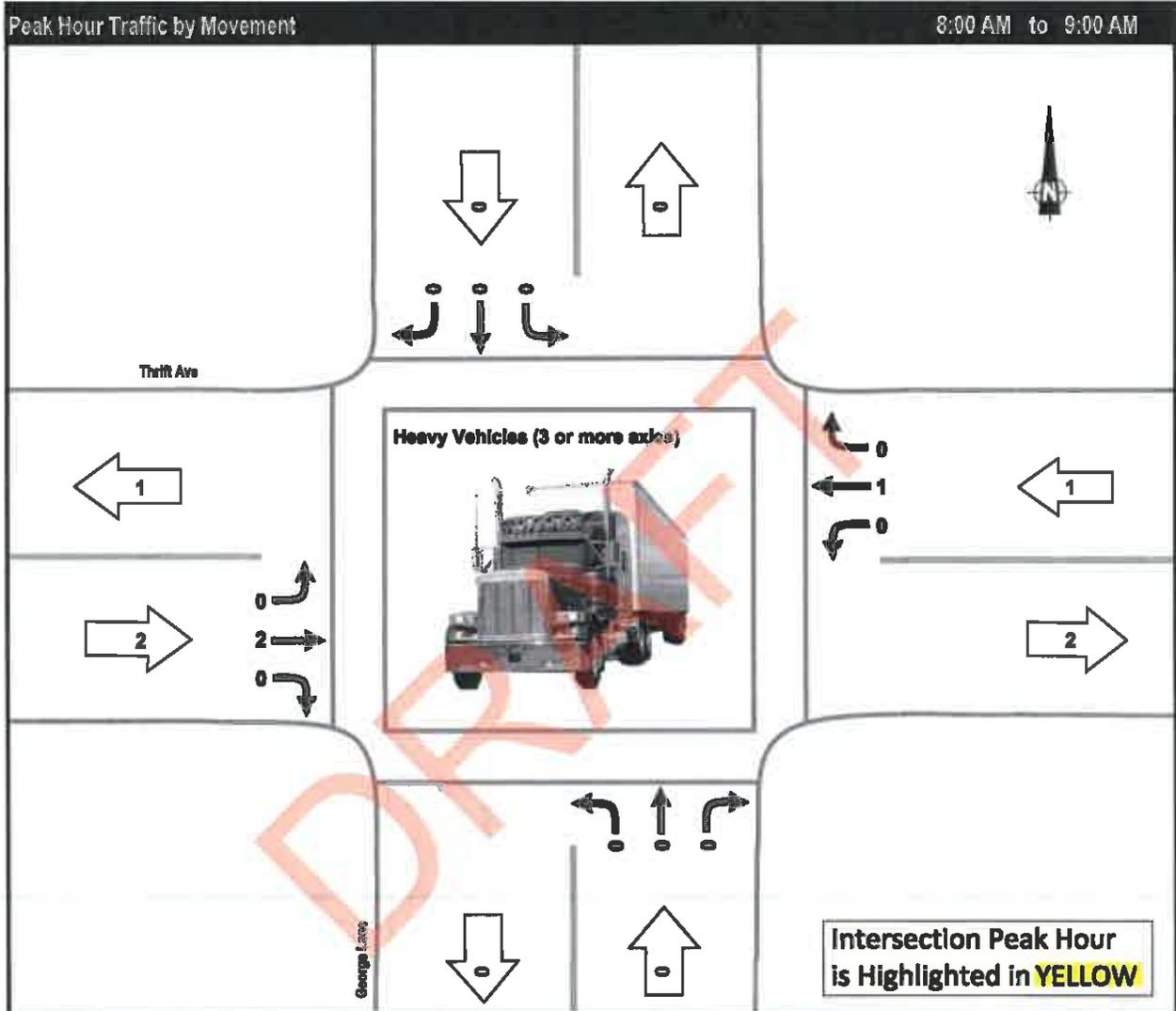
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	3	0	2	4	2	5	1	187	1	2	201	3					411
PHF	0.38	0.00	0.50	1.00	0.50	0.63	0.25	0.87	0.25	0.50	0.60	0.38					0.84
Peak 15 X 4	5	0	4	4	4	5	4	216	4	4	252	6					492
Average Hour	3	0	3	4	1	5	1	134	2	2	142	3					300
Survey Total	5	0	6	8	2	10	2	267	3	4	284	6					597
7:00	0	0	0	1	0	1	0	20	0	2	15	3					42
7:15	0	0	1	2	0	1	0	16	2	0	19	0					41
7:30	0	0	1	1	0	2	0	22	0	0	20	0					46
7:45	2	0	2	0	0	1	1	22	0	0	29	0					57
8:00	0	0	0	1	0	1	0	41	0	1	40	0					84
8:15	1	0	1	1	1	2	0	54	0	0	63	0					123
8:30	0	0	1	1	0	1	1	54	1	1	47	2					109
8:45	2	0	0	1	1	1	0	38	0	0	51	1					95

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	2	0	0	1	0					3
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.38
Peak 15 X 4	0	0	0	0	0	0	0	5	0	0	4	0					8
Average Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
Survey Total	0	0	0	0	0	0	0	2	0	0	1	0					3
7:00	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	0	0	0	0	0	0					0
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	0	0	0	0					0
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	1	0					1
8:30	0	0	0	0	0	0	0	2	0	0	0	0					2
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0



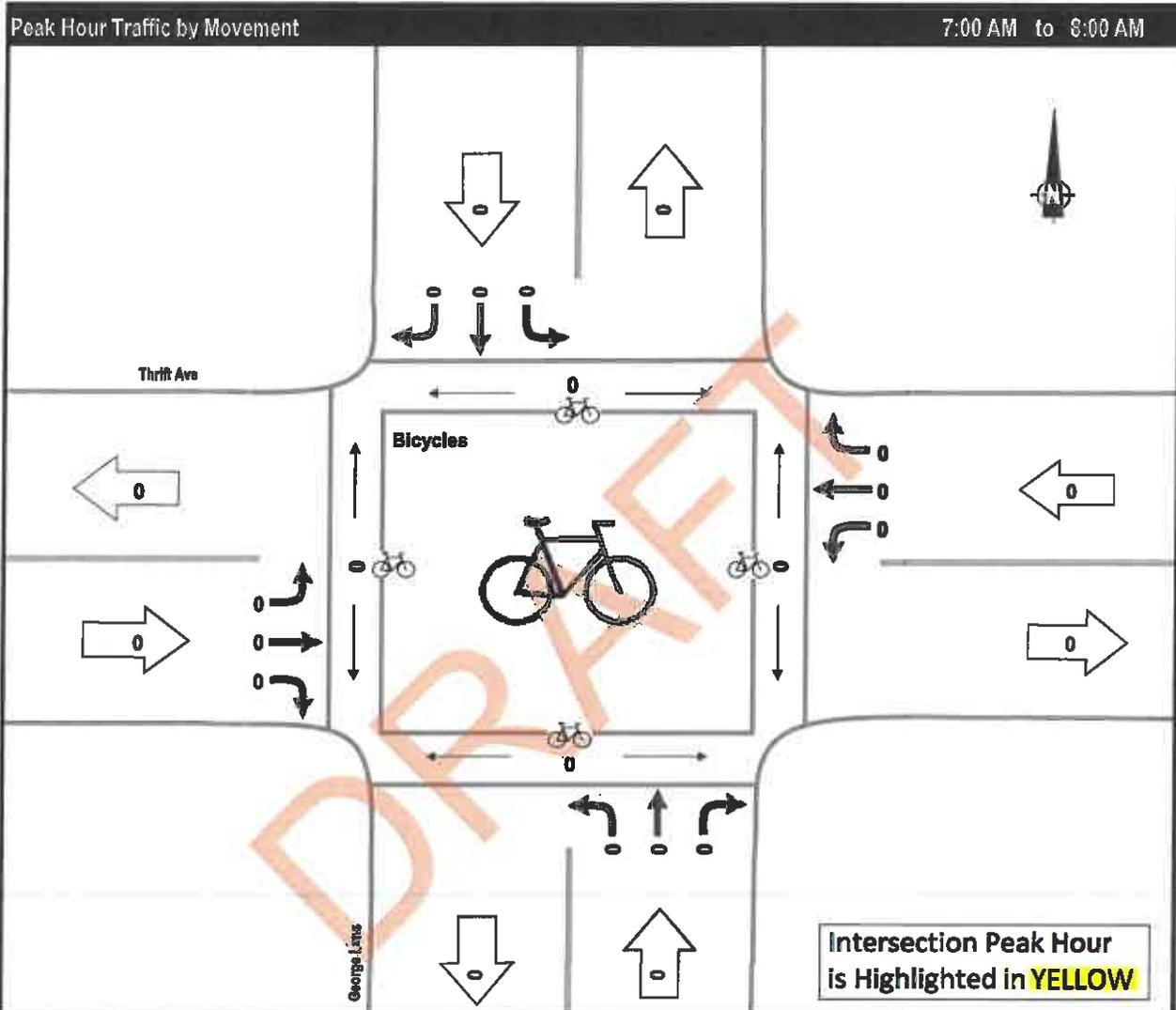
George Lane & Thrift Ave

Wednesday, April 03, 2019

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Morning Peak Period

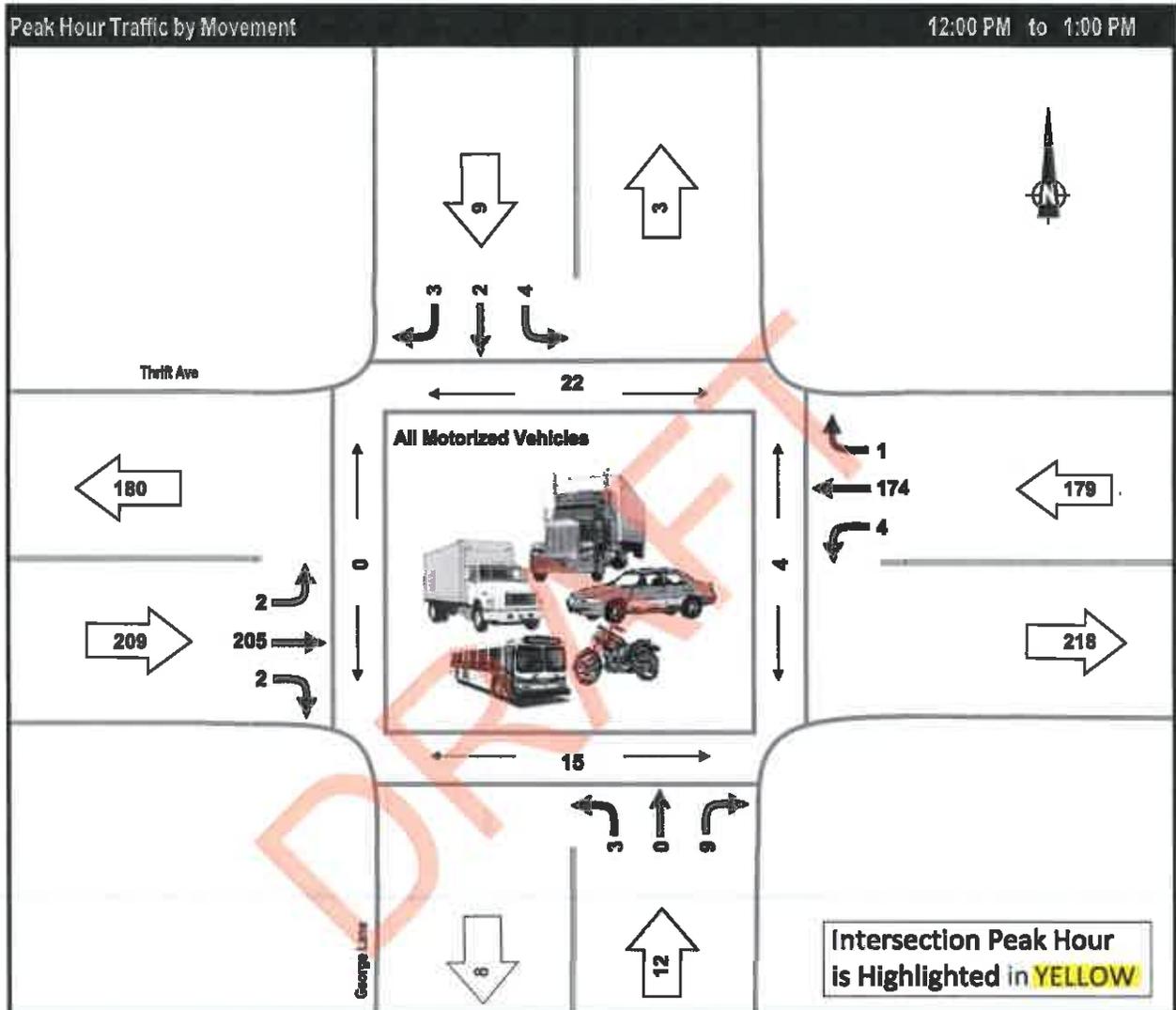
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7026: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

Midday Peak Period

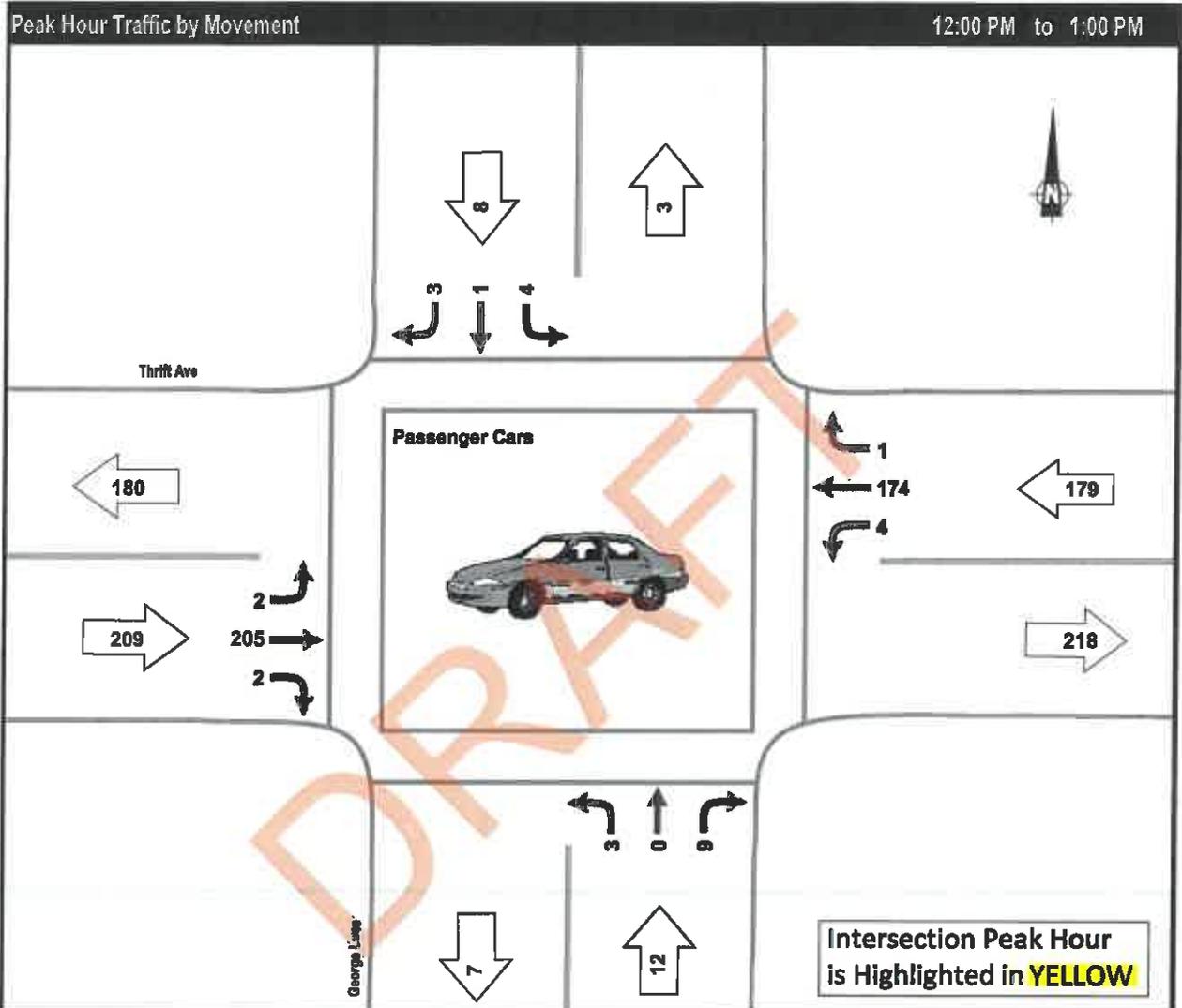


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	4	2	3	3	0	9	2	209	2	4	174	1	22	15	0	4	409
PH Factor	0.50	0.50	0.75	0.38	0.00	0.75	0.50	0.95	0.25	0.50	0.89	0.25	0.81	0.83	0.00	0.50	0.92
PHF	8	4	4	8	0	12	4	218	8	8	198	4	38	24	0	8	444
Average Hour	3	1	4	3	0	5	4	184	3	3	185	2	22	30	1	4	397
Survey Total	5	2	8	5	0	10	8	387	6	6	369	3	43	59	2	7	789
11:00	0	0	1	0	0	1	1	32	1	0	51	2	10	10	0	0	89
11:15	0	0	0	1	0	0	3	47	2	0	59	0	7	7	0	2	112
11:30	1	0	2	0	0	0	1	43	1	1	45	0	2	21	1	0	94
11:45	0	0	2	1	0	0	1	40	0	1	40	0	2	6	1	1	95
12:00	0	1	0	1	0	1	1	52	0	1	48	0	2	2	0	1	105
12:15	0	1	1	0	0	3	1	51	2	2	29	0	5	3	0	1	90
12:30	2	0	1	0	0	3	0	48	0	1	48	0	6	4	0	0	103
12:45	2	0	1	2	0	2	0	54	0	0	48	1	9	6	0	2	111



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

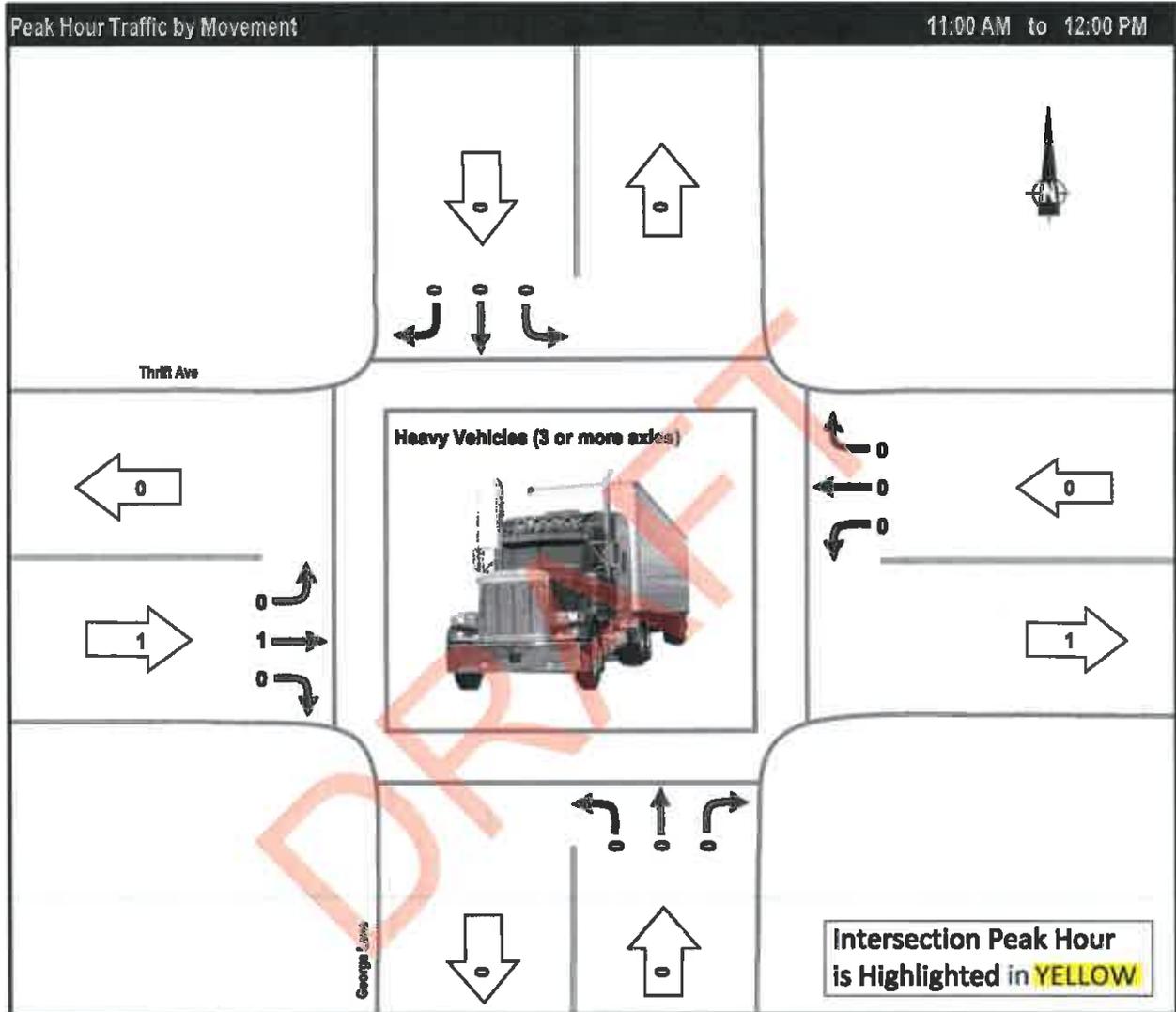
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	4	1	3	3	0	9	2	209	2	4	174	1					408
PHF	0.50	0.25	0.75	0.38	0.00	0.75	0.60	0.95	0.35	0.50	0.89	0.25					0.92
Peak 15 X 4	8	4	4	8	0	12	4	216	8	8	196	4					444
Average Hour	3	1	4	3	0	5	4	183	3	3	185	2					396
Survey Total	5	1	8	5	0	10	8	366	6	6	369	3					787
11:00	0	0	1	0	0	1	1	31	1	0	51	2					88
11:15	0	0	0	1	0	0	3	47	2	0	59	0					112
11:30	1	0	2	0	0	0	1	43	1	1	45	0					94
11:45	0	0	2	1	0	0	1	40	0	1	40	0					85
12:00	0	1	0	1	0	1	1	52	0	1	48	0					105
12:15	0	0	1	0	0	3	1	51	2	2	29	0					89
12:30	2	0	1	0	0	3	0	48	0	1	48	0					103
12:45	2	0	1	2	0	2	0	54	0	0	49	1					111

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axes)

Midday Peak Period



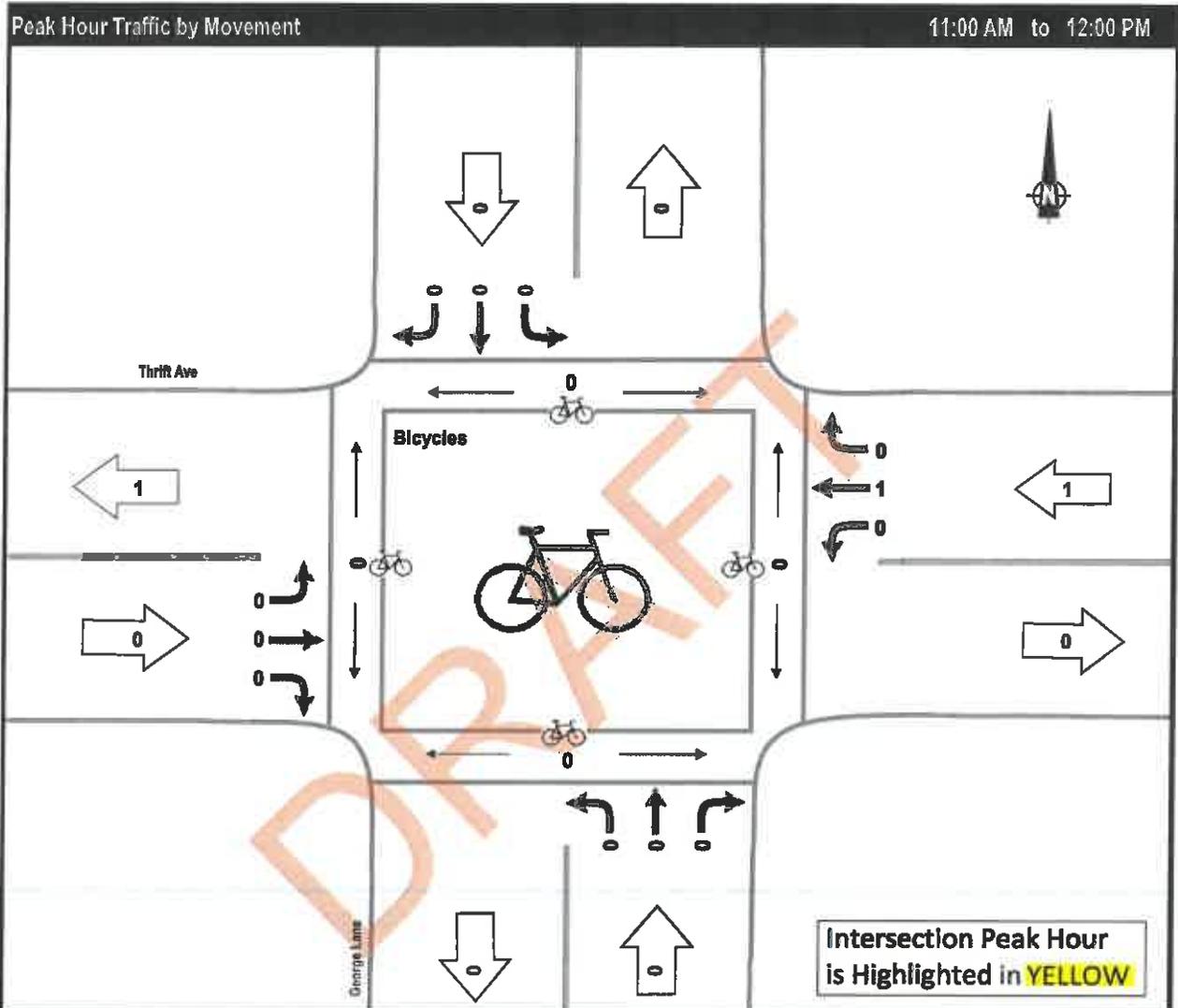
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0					1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00					0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	0	0					4
Average Hour	0	1	0	0	0	0	0	1	0	0	0	0					2
Survey Total	0	1	0	0	0	0	0	1	0	0	0	0					2
11:00	0	0	0	0	0	0	0	1	0	0	0	0					1
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0
11:30	0	0	0	0	0	0	0	0	0	0	0	0					0
11:45	0	0	0	0	0	0	0	0	0	0	0	0					0
12:00	0	0	0	0	0	0	0	0	0	0	0	0					0
12:15	0	1	0	0	0	0	0	0	0	0	0	0					1
12:30	0	0	0	0	0	0	0	0	0	0	0	0					0
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Midday Peak Period

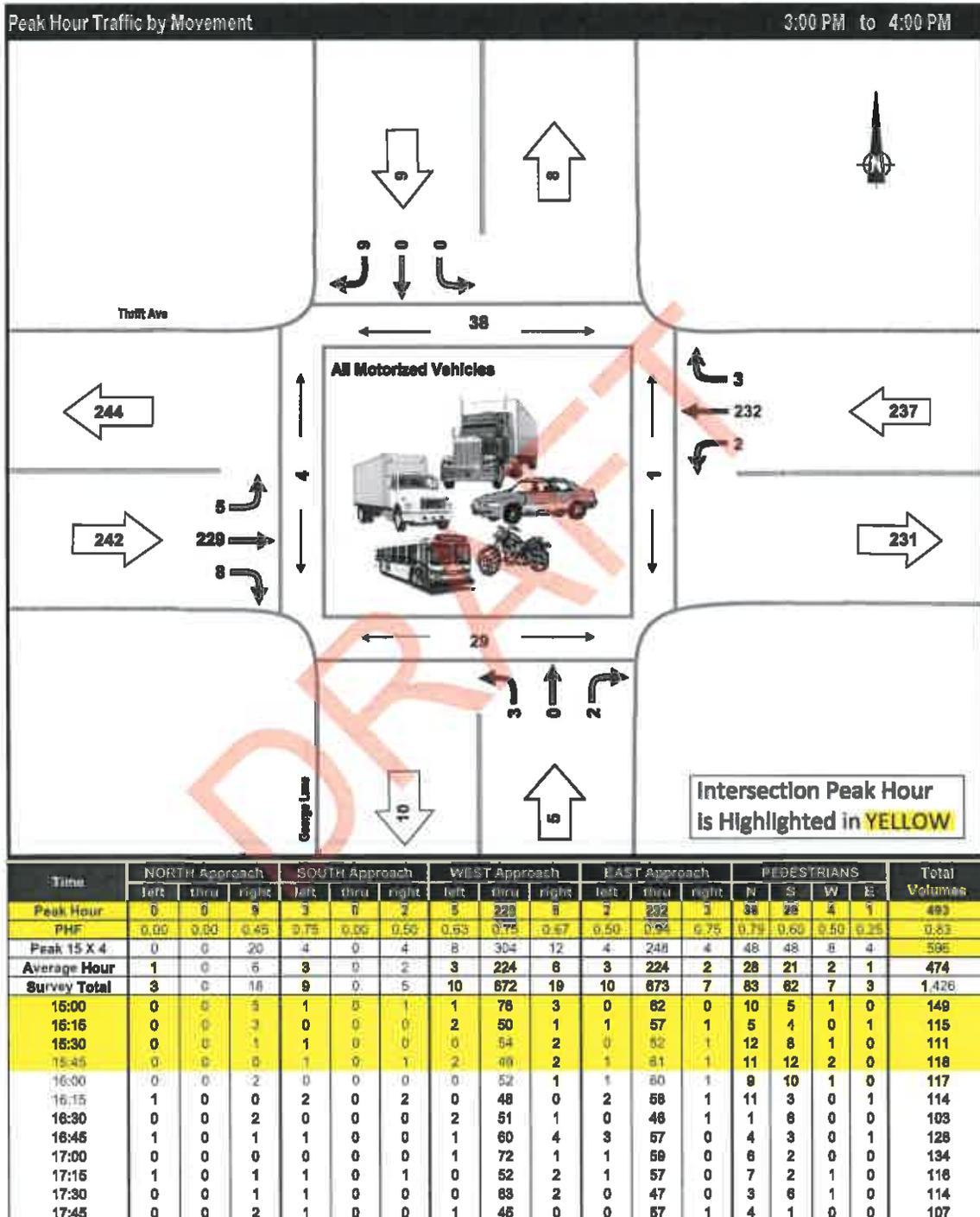
Note: Crosswalk bike volumes shown are cyclists who rode their bikes across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Survey Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

Afternoon Peak Period

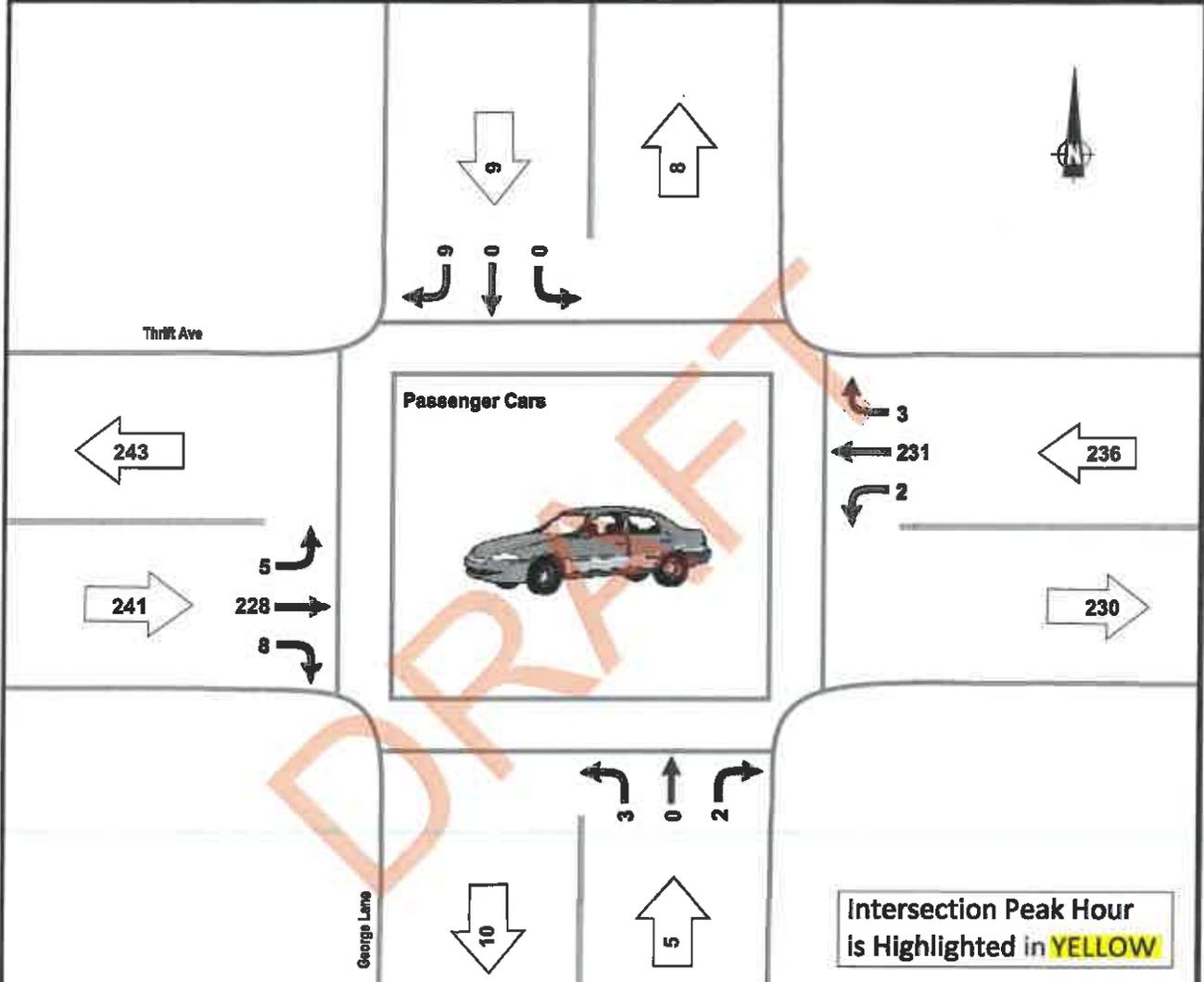


Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

Afternoon Peak Period

Peak Hour Traffic by Movement

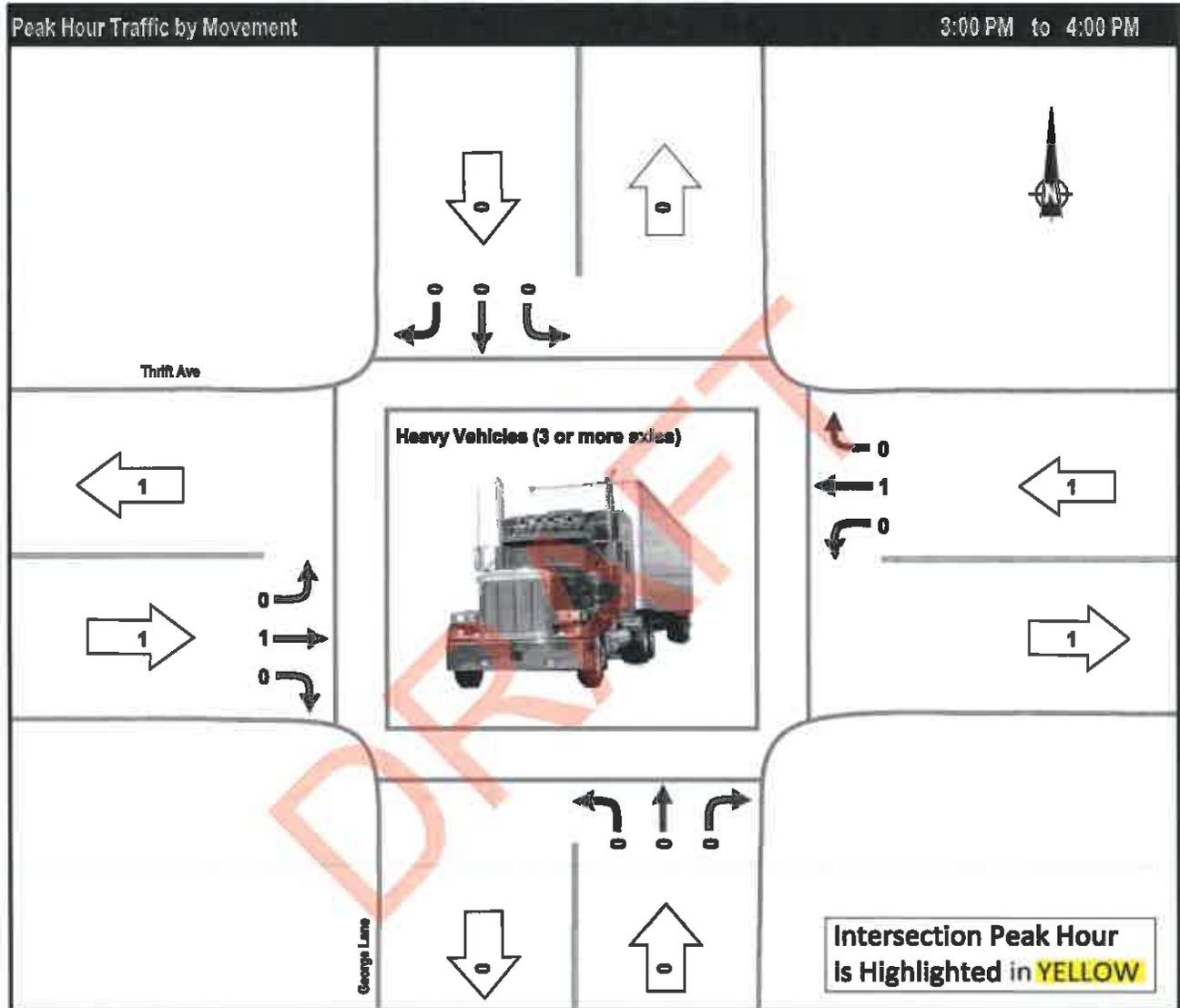
3:00 PM to 4:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	9	3	0	2	5	228	8	2	231	3					491
PHF	0.00	0.00	0.45	0.75	0.00	0.50	0.63	0.76	0.67	0.50	0.95	0.75					0.84
Peak 15 X 4	0	0	20	4	0	4	8	300	12	4	244	4					588
Average Hour	1	0	6	3	0	2	3	224	6	3	224	2					474
Survey Total	3	0	18	9	0	5	10	671	19	10	672	7					1,424
15:00	0	0	5	1	0	1	1	75	3	0	61	0					147
15:15	0	0	3	0	0	0	2	50	1	1	57	1					116
15:30	0	0	1	1	0	0	0	54	2	0	52	1					111
15:45	0	0	0	1	0	1	2	49	2	1	61	1					118
16:00	0	0	2	0	0	0	0	52	1	1	60	1					117
16:15	1	0	0	2	0	2	0	48	0	2	58	1					114
16:30	0	0	2	0	0	0	2	51	1	0	46	1					103
16:45	1	0	1	1	0	0	1	60	4	3	57	0					128
17:00	0	0	0	0	0	0	1	72	1	1	59	0					134
17:15	1	0	1	1	0	1	0	52	2	1	57	0					116
17:30	0	0	1	1	0	0	0	63	2	0	47	0					114
17:45	0	0	2	1	0	0	1	45	0	0	57	1					107

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0					8
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	1	0	0	1	0					2
15:00	0	0	0	0	0	0	0	1	0	0	1	0					2
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	0	0					0
16:00	0	0	0	0	0	0	0	0	0	0	0	0					0
16:15	0	0	0	0	0	0	0	0	0	0	0	0					0
16:30	0	0	0	0	0	0	0	0	0	0	0	0					0
16:45	0	0	0	0	0	0	0	0	0	0	0	0					0
17:00	0	0	0	0	0	0	0	0	0	0	0	0					0
17:15	0	0	0	0	0	0	0	0	0	0	0	0					0
17:30	0	0	0	0	0	0	0	0	0	0	0	0					0
17:45	0	0	0	0	0	0	0	0	0	0	0	0					0

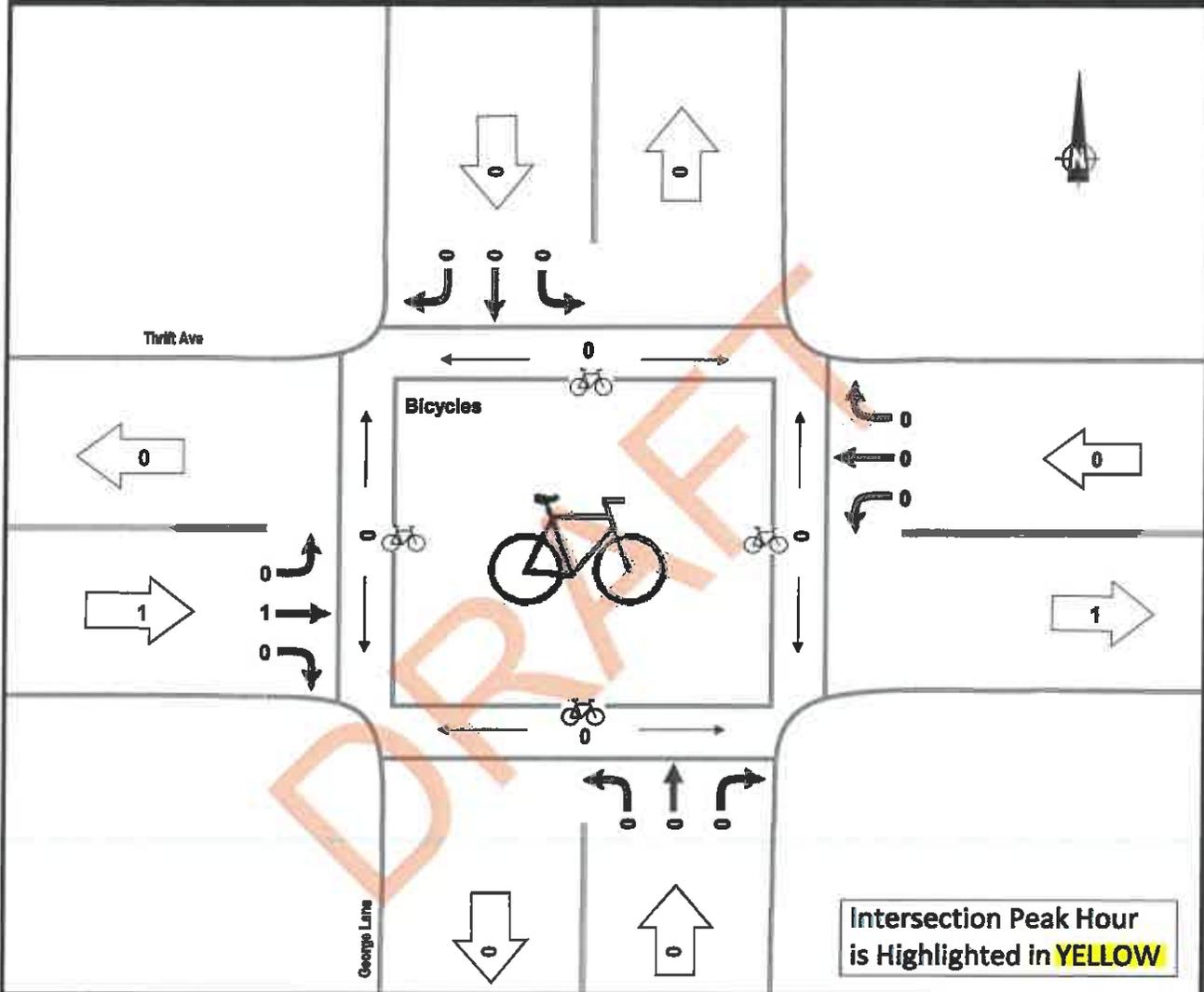
Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals

Peak Hour Traffic by Movement

3:00 PM to 4:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes	
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E		
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



George St & Russell Ave

Wednesday, April 03, 2019

Vehicle Classification Summary

Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain

Z-1

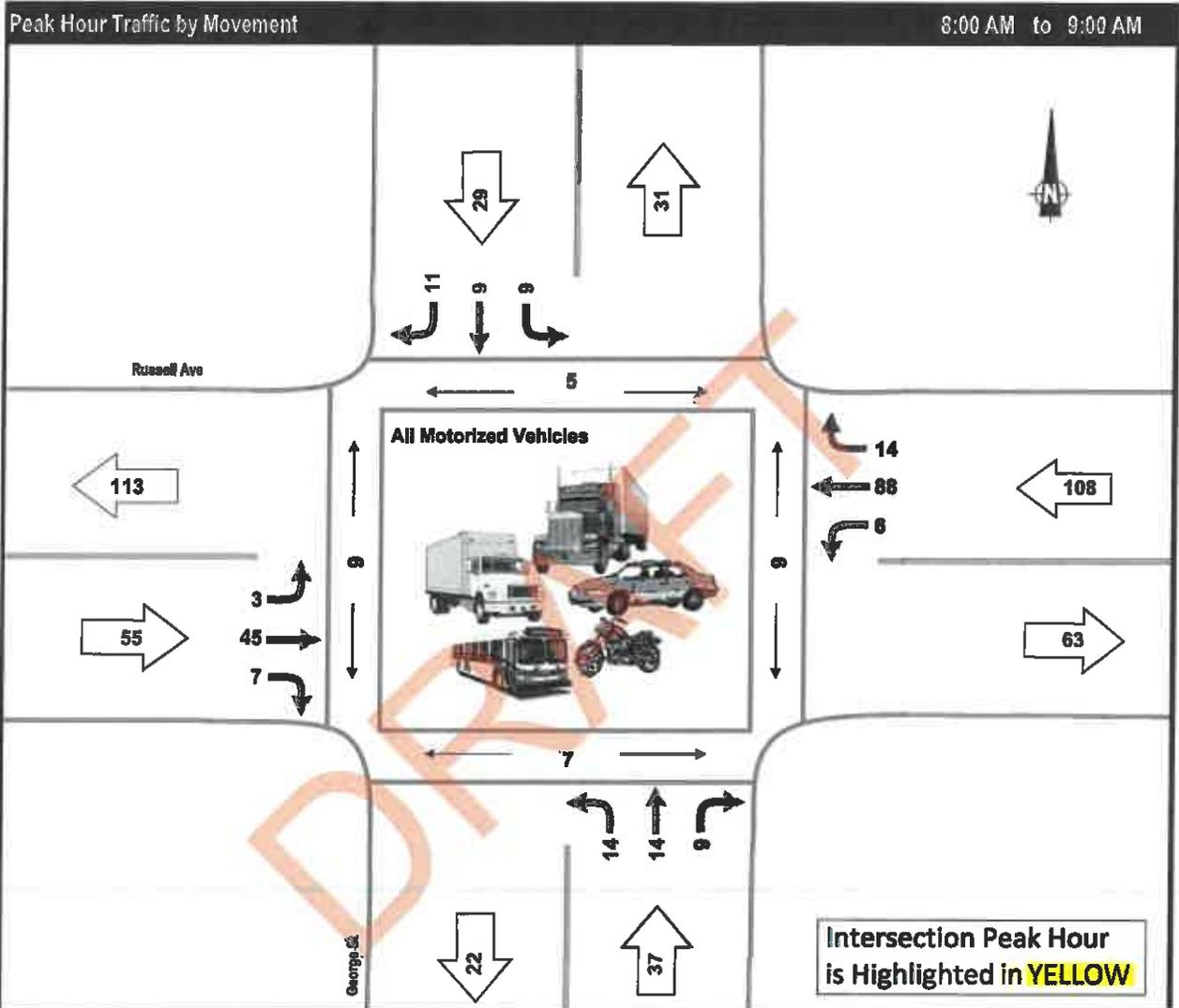
Time Period	Entering Intersection	Vehicle Classification				Total
		Passenger Cars	Heavy Vehicles (3 or more axles)			
Morning (07:00 - 08:00)	Volume	377	0			377
	%	100.0%	0.0%			100.0%
Midday (11:00 - 13:00)	Volume	981	1			982
	%	99.8%	0.1%			100.0%
Afternoon (15:00 - 18:00)	Volume	1,248	0			1,248
	%	100.0%	0.0%			100.0%
Total (7 Hours)	Volume	2,606	1			2,607
	%	100.0%	0.0%			100.0%

DRAFT



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

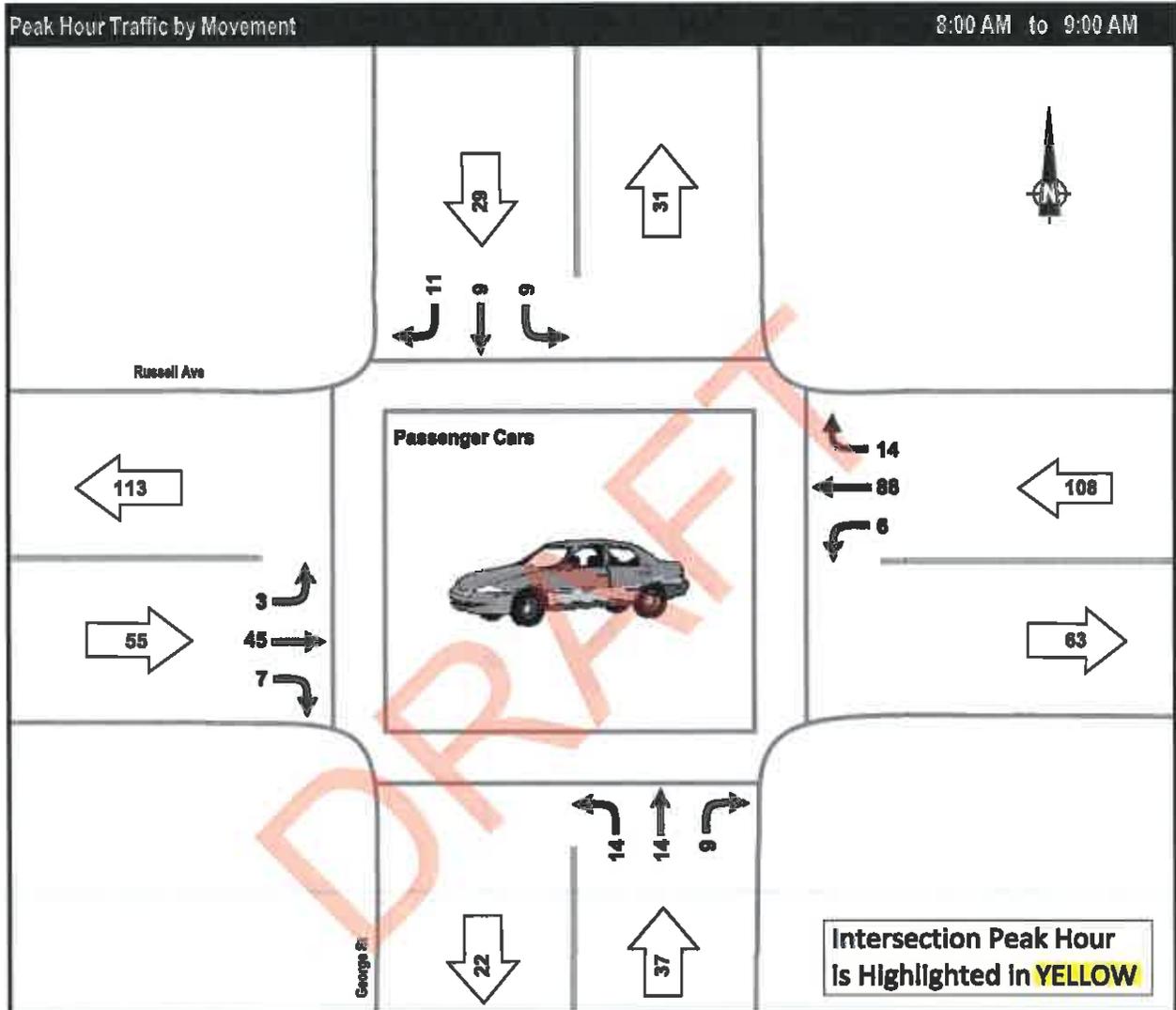
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	9	9	11	14	14	9	3	45	7	6	88	14	5	7	9	9	229
PHF	0.55	0.45	0.69	0.88	0.70	0.75	0.25	0.94	0.58	0.75	0.81	0.58	0.63	0.44	0.56	0.45	0.84
Peak 15 X 4	16	20	16	16	20	12	12	48	12	8	108	24	6	16	16	20	272
Average Hour	11	9	13	11	11	9	5	40	7	4	63	9	10	7	9	11	192
Survey Total	22	17	25	22	21	18	10	70	13	8	125	17	19	14	17	21	377
7:00	3	0	8	1	0	0	0	7	3	1	9	0	10	2	1	4	30
7:15	8	5	3	3	1	3	4	11	1	0	9	0	4	2	5	6	48
7:30	1	1	4	1	5	4	2	7	2	1	7	0	0	2	1	1	35
7:45	1	2	1	3	1	2	1	9	0	0	12	3	0	1	1	1	35
8:00	1	1	0	3	2	3	0	10	0	2	14	6	1	2	2	1	42
8:15	0	0	3	3	4	3	0	12	1	1	22	2	0	1	1	2	51
8:30	4	3	4	4	5	1	3	11	3	1	27	2	2	0	4	5	68
8:45	4	5	4	4	3	2	0	12	3	2	25	4	2	4	2	1	68

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

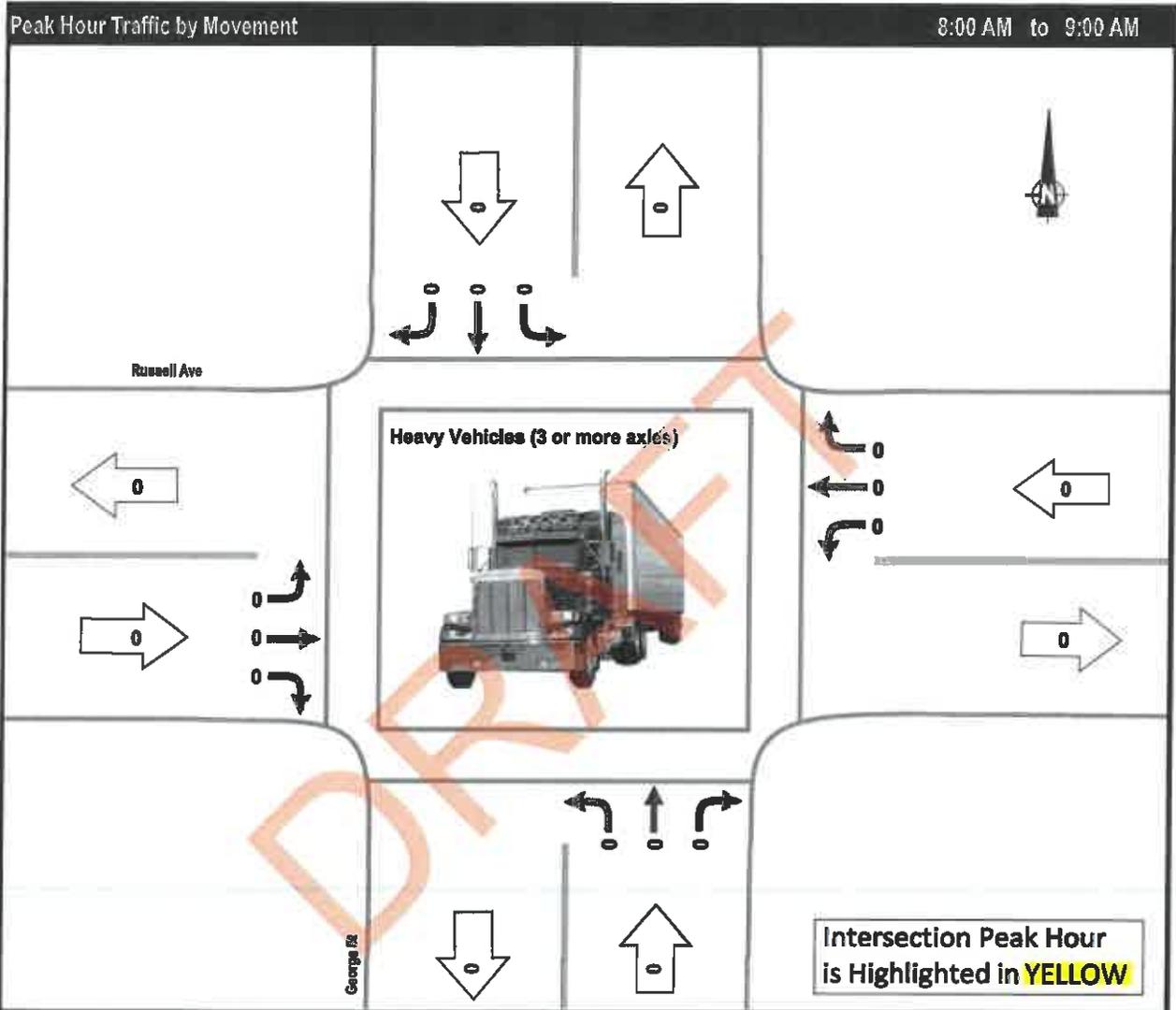
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	9	9	11	14	14	9	5	45	7	8	88	14					220
PHF	0.56	0.45	0.69	0.88	0.70	0.75	0.25	0.94	0.58	0.75	0.81	0.58					0.84
Peak 15 X 4	16	20	16	16	20	12	12	48	12	8	108	24					272
Average Hour	11	9	13	11	11	9	5	40	7	4	63	9					192
Survey Total	22	17	25	22	21	18	10	79	13	8	125	17					377
7:00	3	0	6	1	0	0	0	7	3	1	9	0					30
7:15	8	5	3	3	1	3	4	11	1	0	9	0					48
7:30	1	1	4	1	5	4	2	7	2	1	7	0					35
7:45	1	2	1	3	1	2	1	9	0	0	12	3					35
8:00	1	1	0	3	2	3	0	10	0	2	14	6					42
8:15	0	0	3	3	4	3	0	12	1	1	22	2					51
8:30	4	3	4	4	5	1	3	11	3	1	27	2					68
8:45	4	5	4	4	3	2	0	12	3	2	25	4					68

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

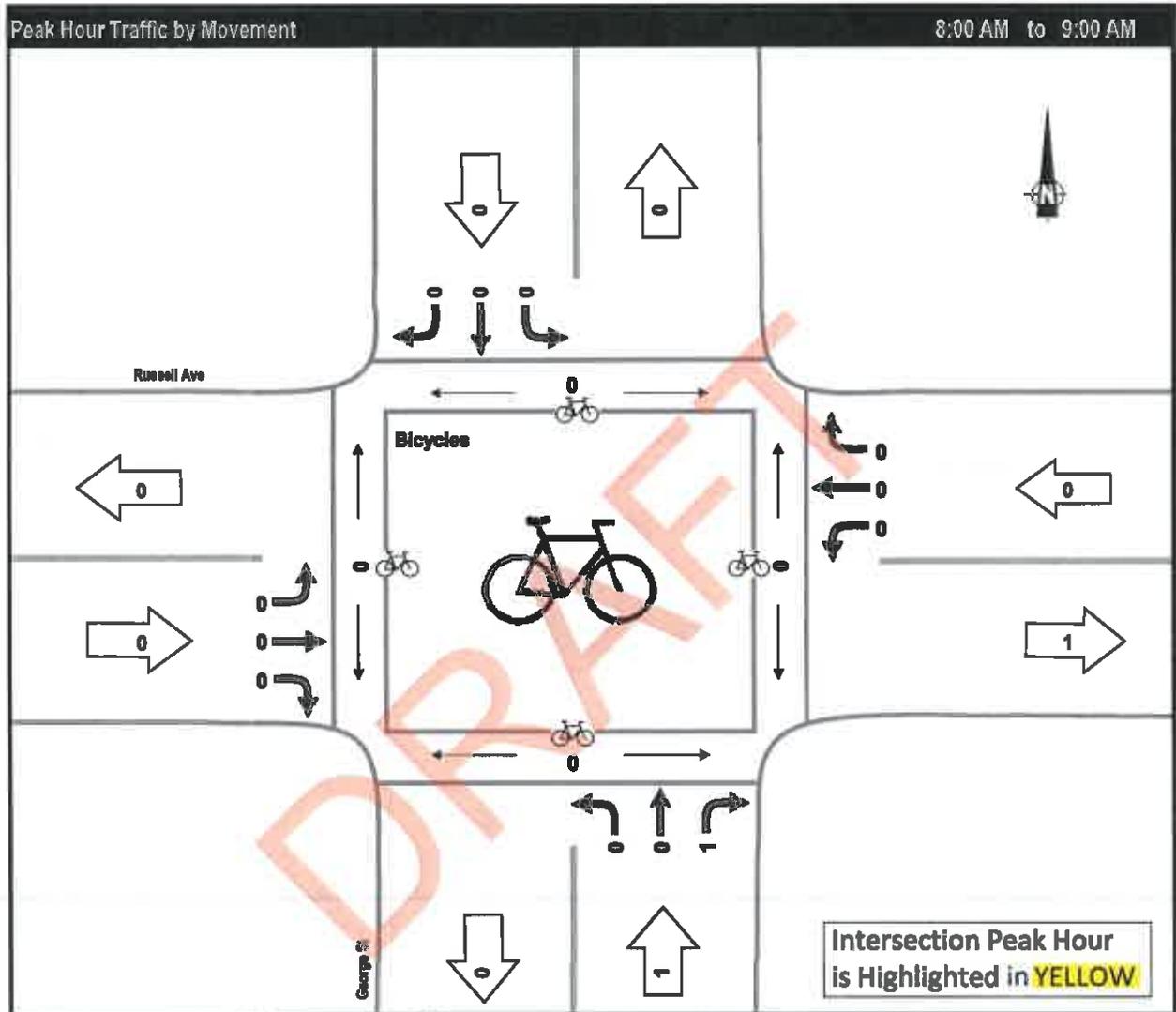
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0					0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0					0
7:00	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	0	0	0	0	0	0					0
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	0	0	0	0					0
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	0	0					0
8:30	0	0	0	0	0	0	0	0	0	0	0	0					0
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

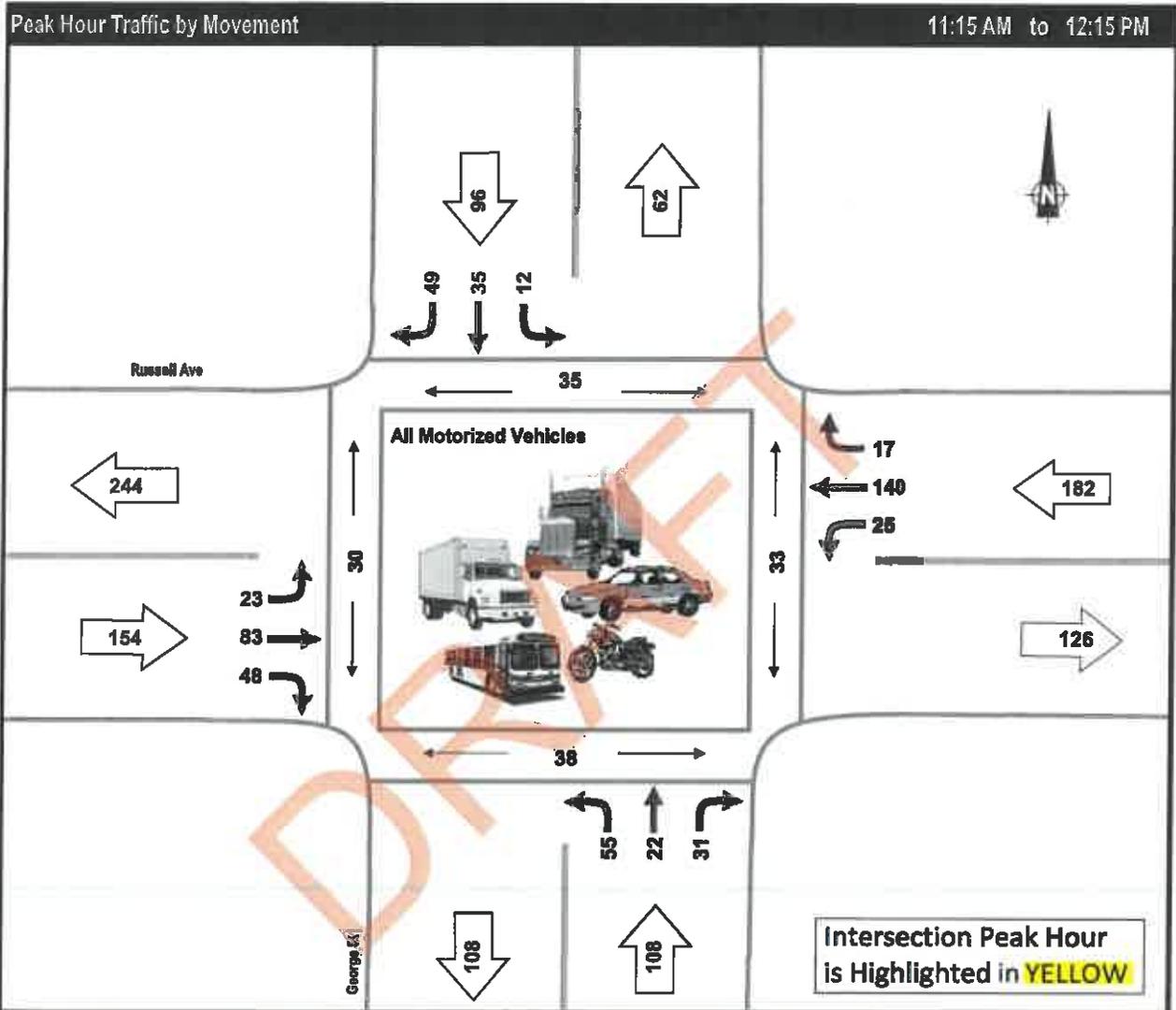
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Average Hour	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Survey Total	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

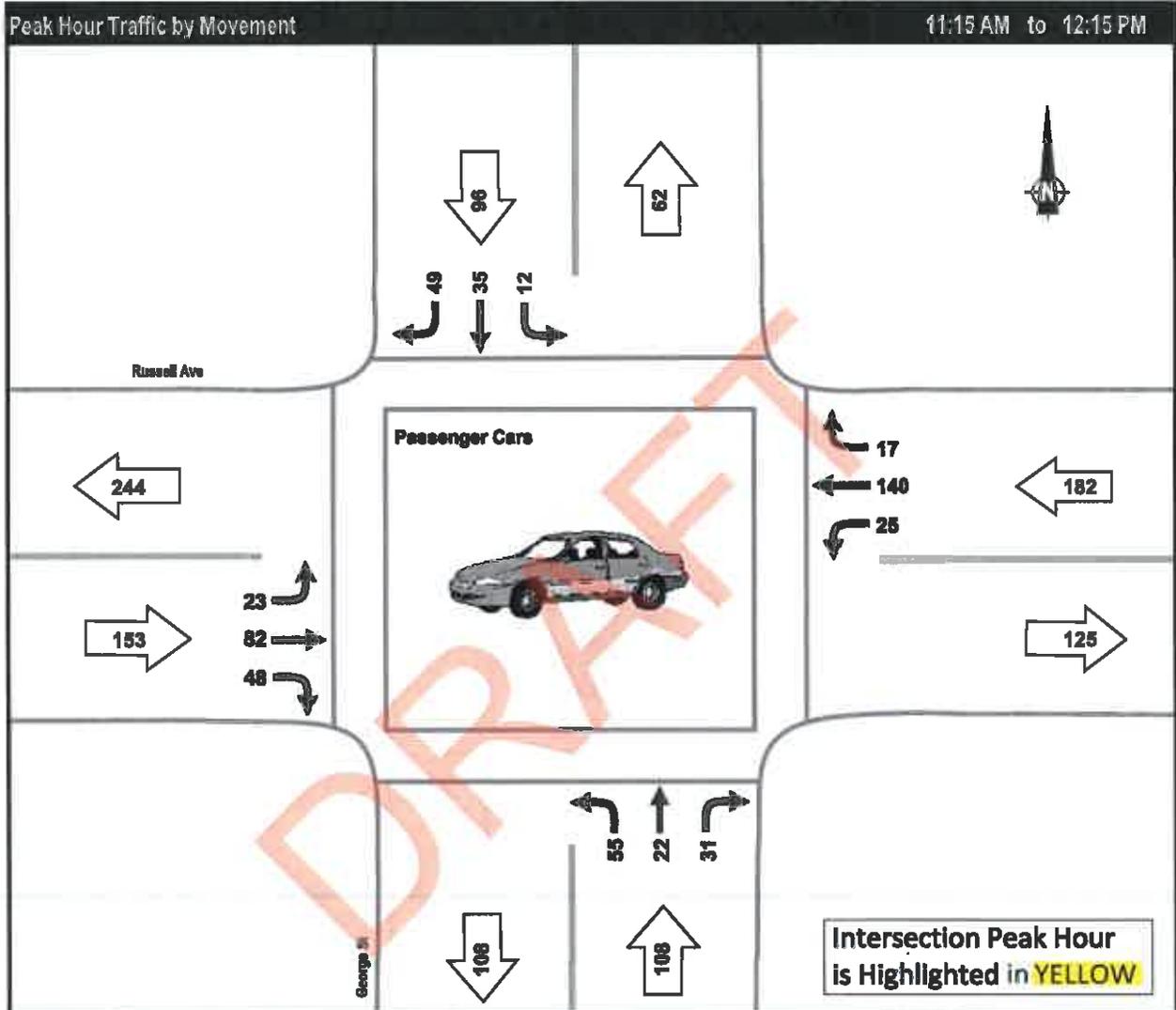
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	12	35	49	55	22	31	23	83	48	25	140	17	35	38	30	33	540
PH Factor	0.60	0.80	0.68	0.72	0.69	0.97	0.64	0.83	0.80	0.69	0.85	0.53	0.67	0.63	0.63	0.43	0.93
PHF	20	44	72	76	32	32	38	100	60	36	164	32	52	60	48	76	580
Average Hour	11	28	38	46	22	26	20	77	47	24	134	19	31	31	27	28	492
Survey Total	21	56	76	92	44	52	40	154	94	47	268	38	61	61	54	51	982
11:00	1	5	6	9	8	5	5	12	11	8	39	7	5	9	10	1	114
11:15	2	7	12	11	4	7	6	17	11	8	33	3	13	6	10	3	121
11:30	4	8	9	13	8	8	4	19	14	9	32	3	11	10	12	19	131
11:45	5	9	10	12	5	8	4	22	15	6	41	8	8	15	4	6	145
12:00	1	11	18	19	5	8	9	25	8	2	34	3	6	7	4	5	143
12:15	1	3	7	9	7	4	4	14	10	5	27	1	3	3	2	5	92
12:30	2	2	9	9	5	6	2	26	14	4	32	8	9	7	5	4	119
12:45	5	11	5	10	4	6	6	19	11	5	30	5	9	4	7	8	117

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

Midday Peak Period



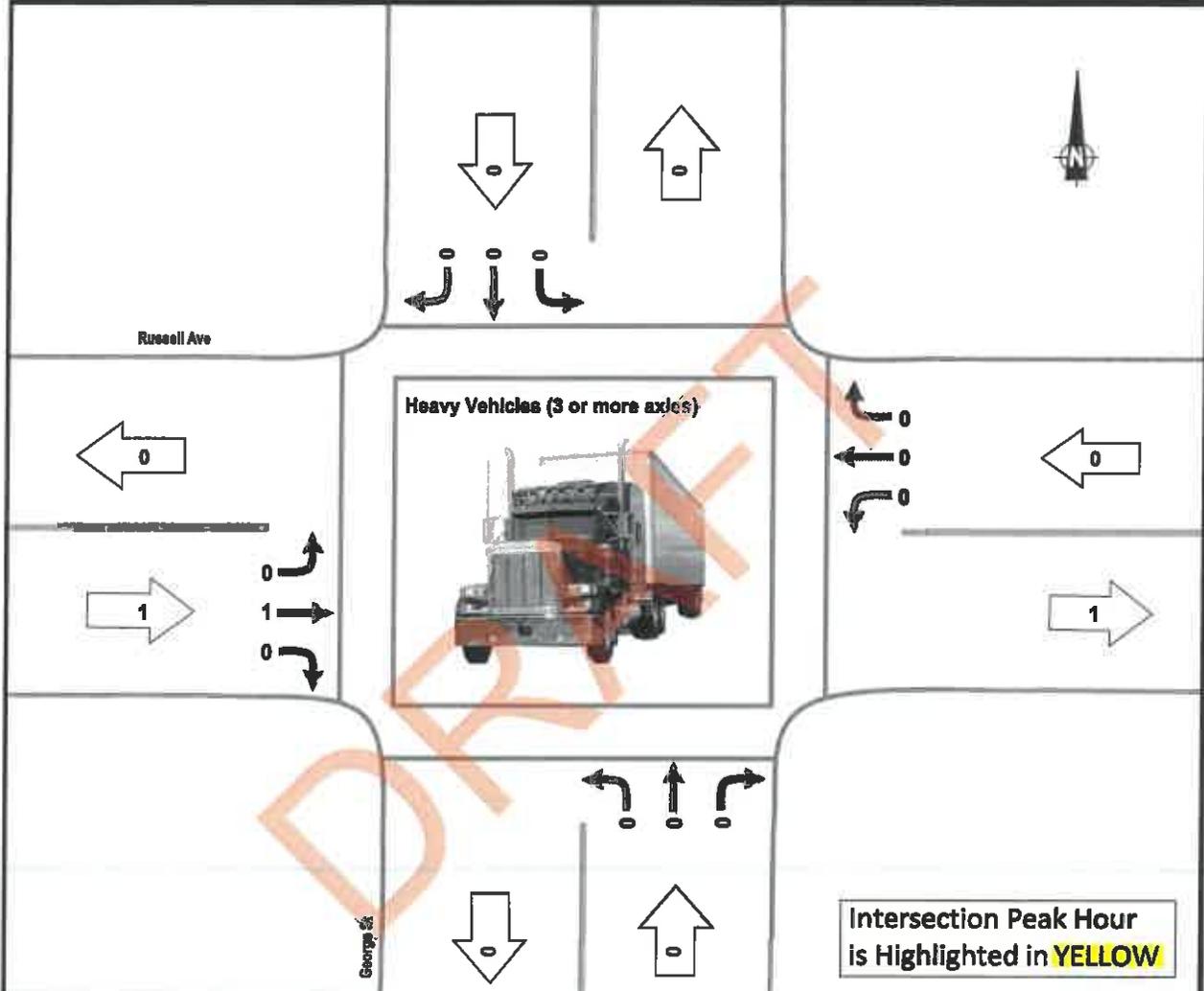
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	12	36	46	36	22	31	23	82	40	25	140	17					539
PHF	0.60	0.80	0.66	0.72	0.69	0.97	0.64	0.82	0.80	0.69	0.85	0.53					0.94
Peak 15 X 4	20	44	72	76	32	32	36	100	60	36	164	32					576
Average Hour	11	28	38	48	22	28	20	77	47	24	134	19					492
Survey Total	21	56	76	92	44	52	40	153	94	47	268	38					981
11:00	1	5	5	9	6	5	5	12	11	8	39	7					114
11:15	2	7	12	11	4	7	6	17	11	8	33	3					121
11:30	4	8	9	13	8	8	4	19	14	9	32	3					131
11:45	5	9	10	12	5	8	4	21	16	6	41	8					144
12:00	1	11	18	19	5	8	9	26	8	2	34	3					143
12:15	1	3	7	9	7	4	4	14	10	5	27	1					92
12:30	2	2	9	9	5	6	2	26	14	4	32	8					119
12:45	5	11	5	10	4	6	6	19	11	5	30	5					117

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axes)

Midday Peak Period

Peak Hour Traffic by Movement

11:00 AM to 12:00 PM

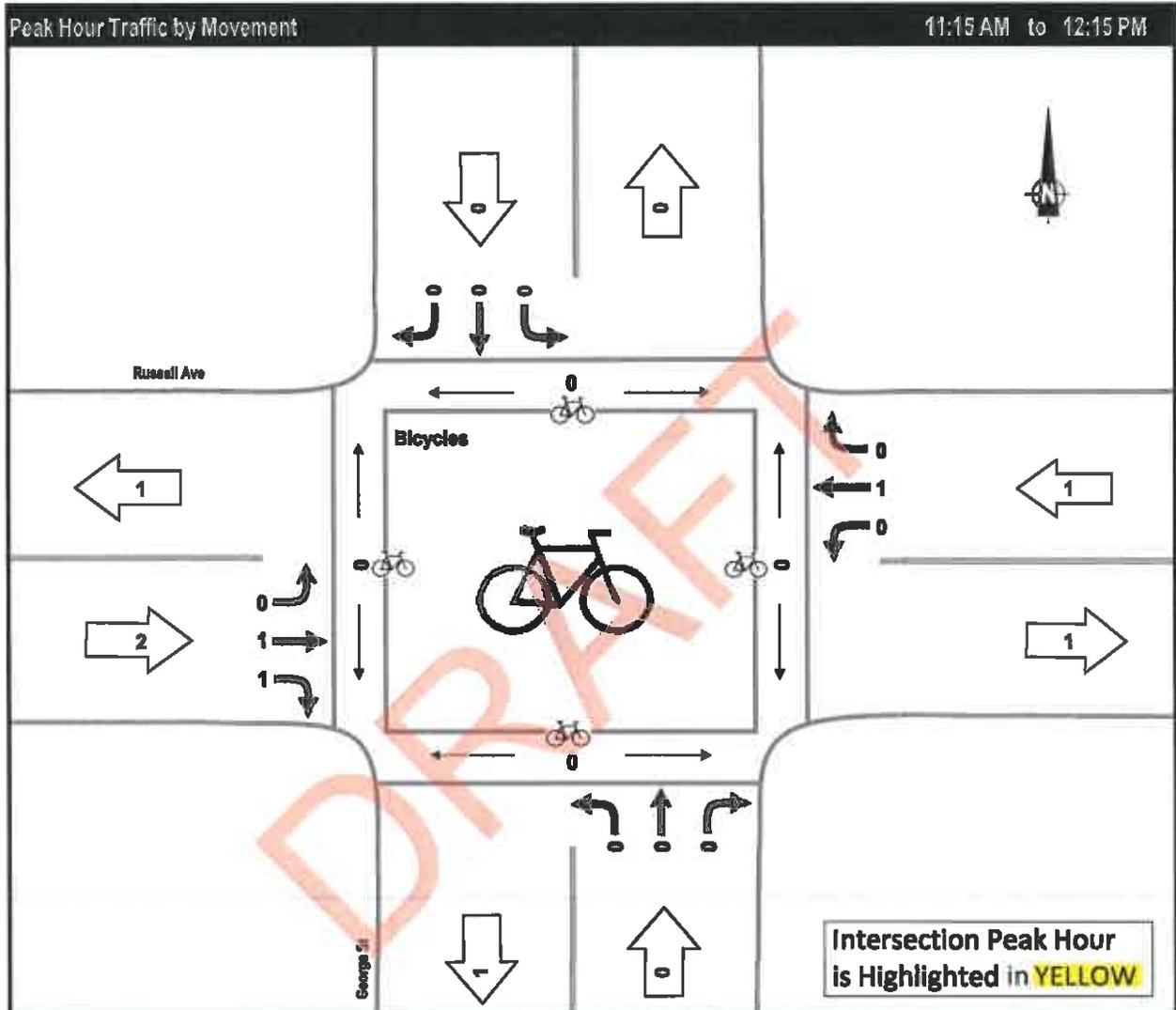


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0					1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00					0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	0	0					4
Average Hour	0	0	0	0	0	0	0	1	0	0	0	0					1
Survey Total	0	0	0	0	0	0	0	1	0	0	0	0					1
11:00	0	0	0	0	0	0	0	0	0	0	0	0					0
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0
11:30	0	0	0	0	0	0	0	0	0	0	0	0					0
11:45	0	0	0	0	0	0	0	1	0	0	0	0					1
12:00	0	0	0	0	0	0	0	0	0	0	0	0					0
12:15	0	0	0	0	0	0	0	0	0	0	0	0					0
12:30	0	0	0	0	0	0	0	0	0	0	0	0					0
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Midday Peak Period

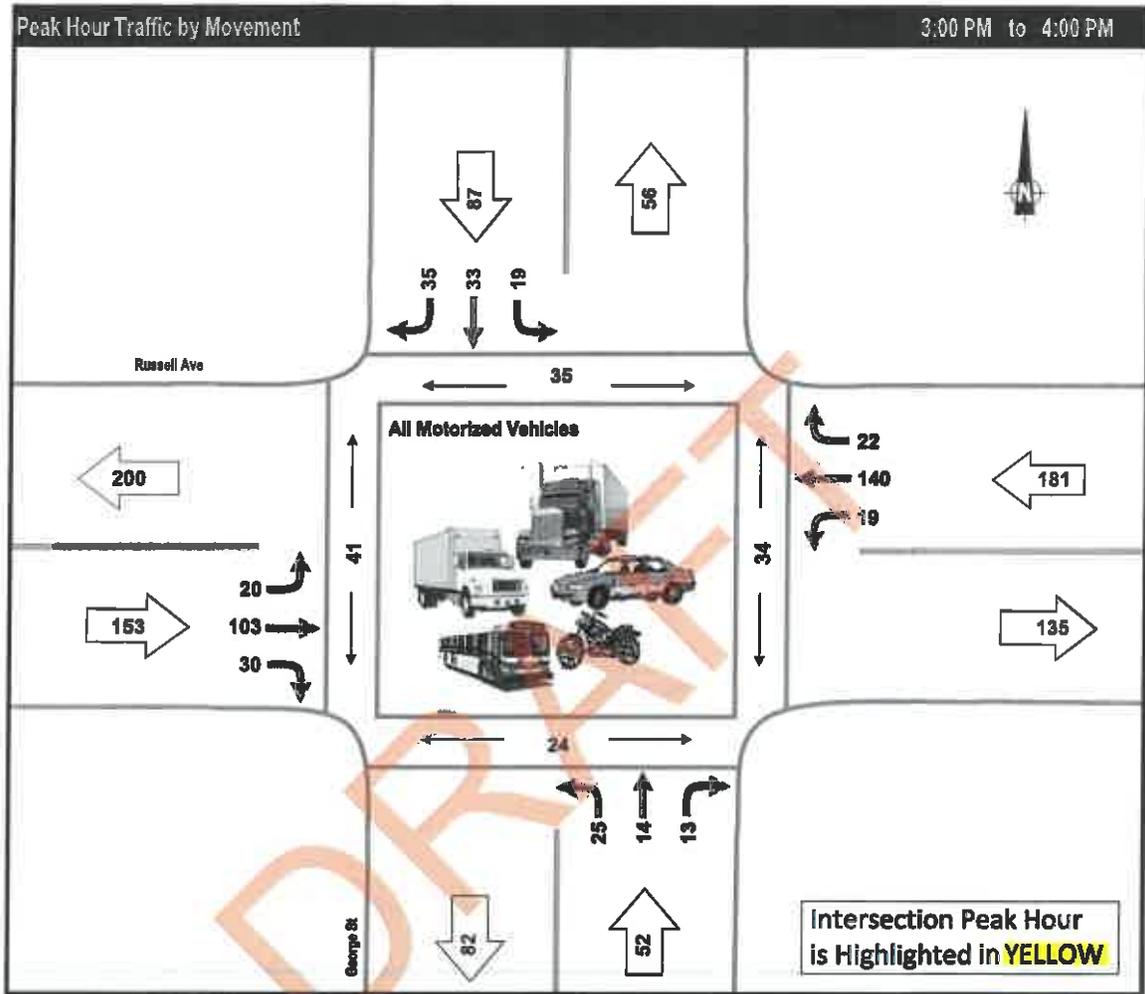
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes	
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E		
Peak Hour	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	3
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.75
Peak 15 X 4	0	0	0	0	0	0	0	4	4	0	4	0	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	3
Survey Total	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	3
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
12:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

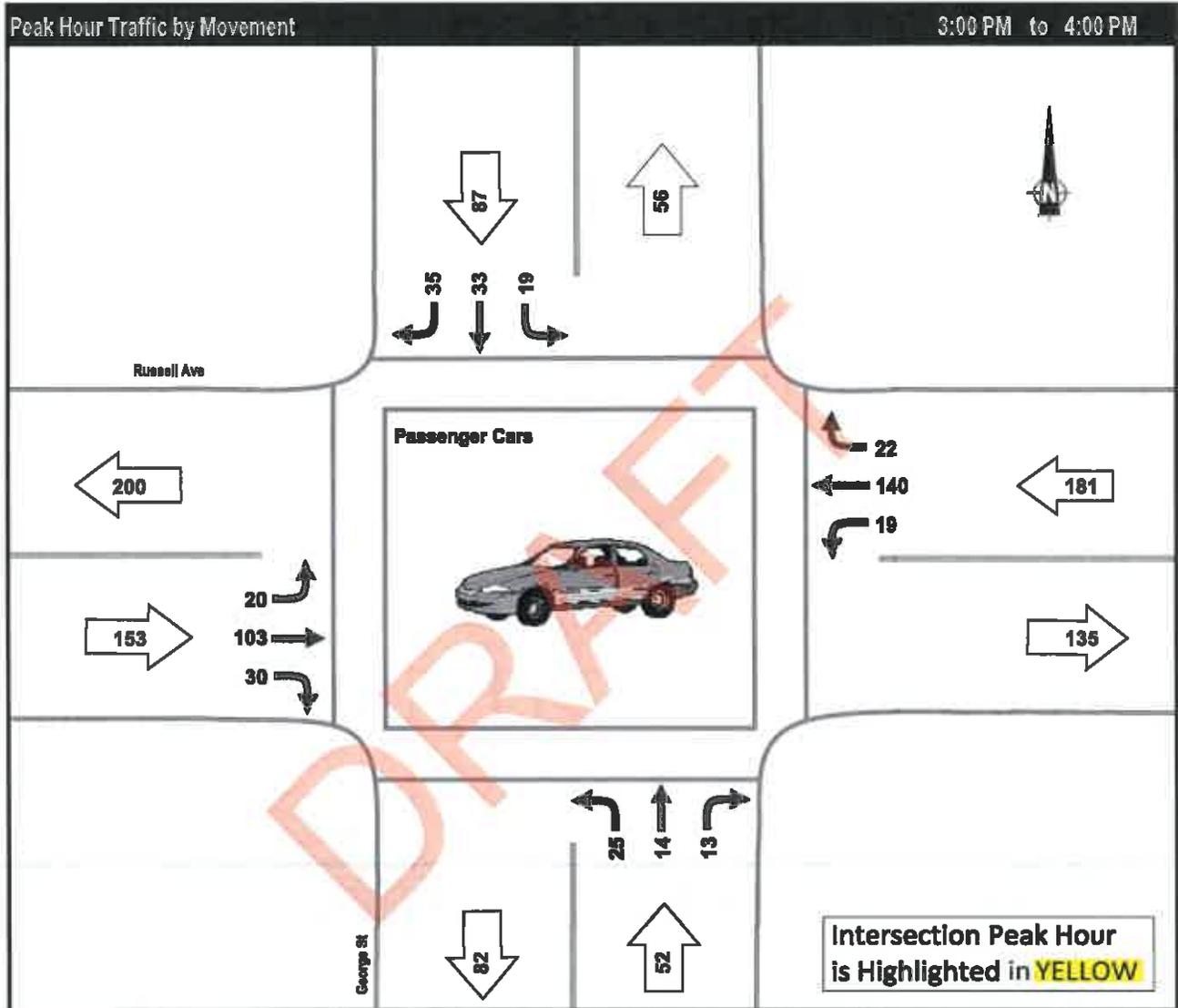
Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	19	33	35	25	14	13	20	103	30	19	140	22	36	24	41	34	473
PHF	0.79	0.82	0.73	0.69	0.70	0.46	0.71	0.83	0.68	0.60	0.60	0.60	0.67	0.75	0.85	0.85	0.94
Peak 15 X 4	24	36	48	36	20	28	28	124	44	32	176	32	52	32	48	40	504
Average Hour	16	23	34	22	15	13	19	92	30	16	119	18	29	21	27	25	417
Survey Total	48	70	101	65	46	38	58	275	89	49	356	53	86	62	80	75	1 248
15:00	3	8	5	8	4	7	6	23	11	8	40	3	8	8	11	9	128
15:15	4	9	7	3	3	0	7	21	5	8	44	7	8	3	9	10	118
15:30	6	7	11	6	6	3	5	28	6	2	21	4	6	6	8	7	103
15:45	6	9	12	8	2	3	3	31	8	1	35	8	13	8	12	8	126
16:00	3	6	7	6	3	3	6	24	11	4	36	7	8	1	4	11	118
16:15	4	3	7	3	1	0	4	22	5	3	23	3	11	4	8	7	78
16:30	3	4	9	2	3	1	4	27	11	6	28	3	12	2	6	5	101
16:45	1	7	7	7	2	5	4	21	7	6	35	5	7	6	6	4	107
17:00	2	5	7	2	1	1	5	23	2	6	21	4	1	3	7	1	79
17:15	6	3	7	6	10	2	2	18	13	3	22	1	8	11	6	3	93
17:30	7	4	10	6	7	8	7	17	4	1	23	5	3	9	2	7	99
17:45	3	5	12	6	5	6	6	20	6	1	28	3	1	2	1	3	100

Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain
Vehicle Class: Passenger Cars

Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	18	33	95	25	14	19	20	103	30	19	140	22					473
PHF	0.79	0.92	0.73	0.58	0.70	0.46	0.71	0.83	0.68	0.59	0.80	0.89					0.94
Peak 15 X 4	24	36	48	36	20	28	28	124	44	32	176	32					504
Average Hour	16	23	34	22	15	13	19	92	30	16	119	18					417
Survey Total	48	70	101	65	46	38	58	275	89	49	356	53					1,248
15:00	3	8	5	9	4	7	5	23	11	8	40	3					126
15:15	4	9	7	3	3	0	7	21	5	8	44	7					118
15:30	6	7	11	5	5	3	5	28	6	2	21	4					103
15:45	6	9	12	8	2	3	3	31	8	1	35	8					126
16:00	3	6	7	8	3	3	8	24	11	4	36	7					118
16:15	4	3	7	3	1	0	4	22	5	3	23	3					78
16:30	3	4	9	2	3	1	4	27	11	6	28	3					101
16:45	1	7	7	7	2	5	4	21	7	6	35	5					107
17:00	2	5	7	2	1	1	5	23	2	6	21	4					79
17:15	6	3	7	6	10	2	2	18	13	3	22	1					93
17:30	7	4	10	6	7	8	7	17	4	1	23	5					89
17:45	3	5	12	6	5	5	6	20	6	1	28	3					100

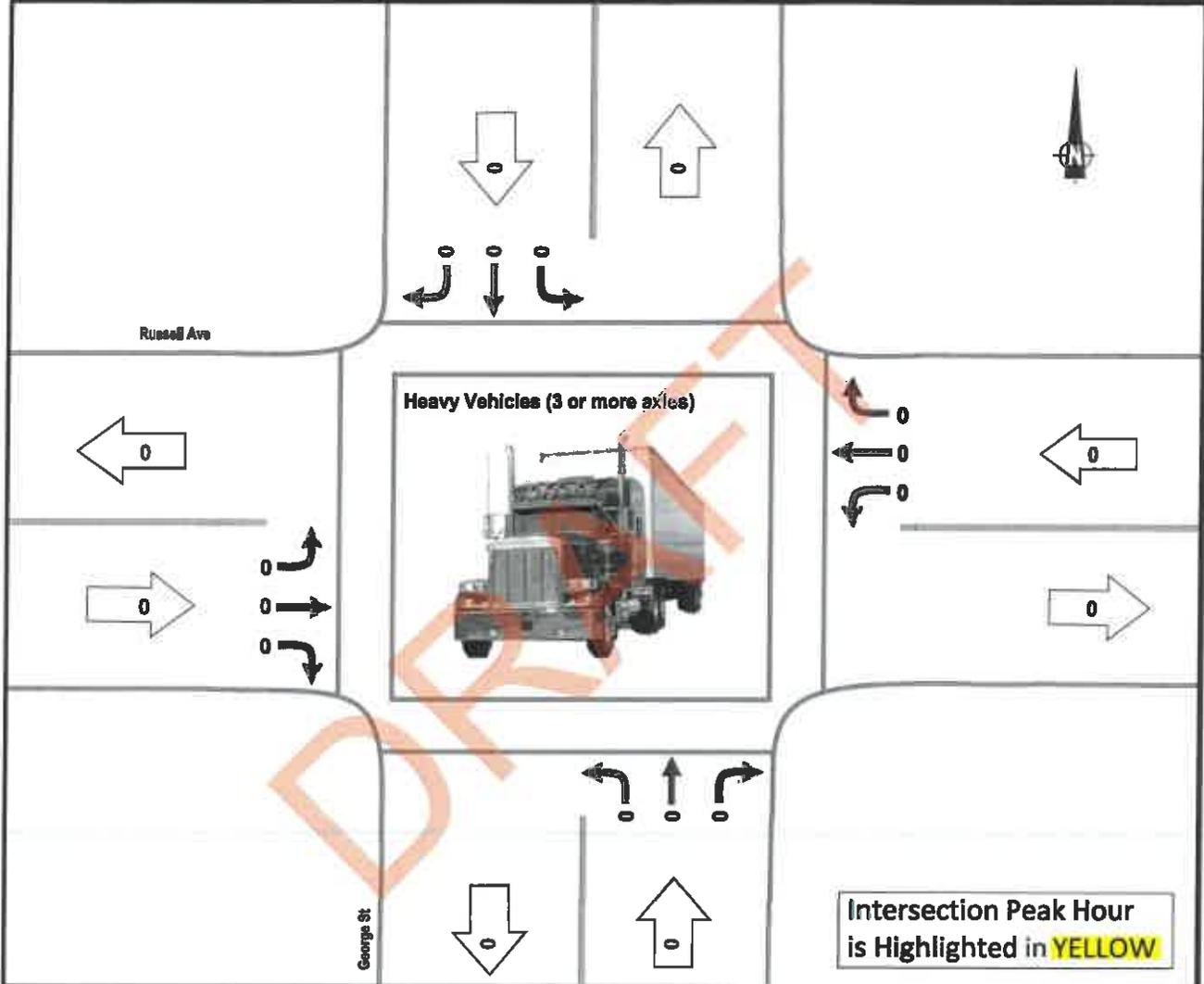


Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Afternoon Peak Period

Peak Hour Traffic by Movement

3:00 PM to 4:00 PM

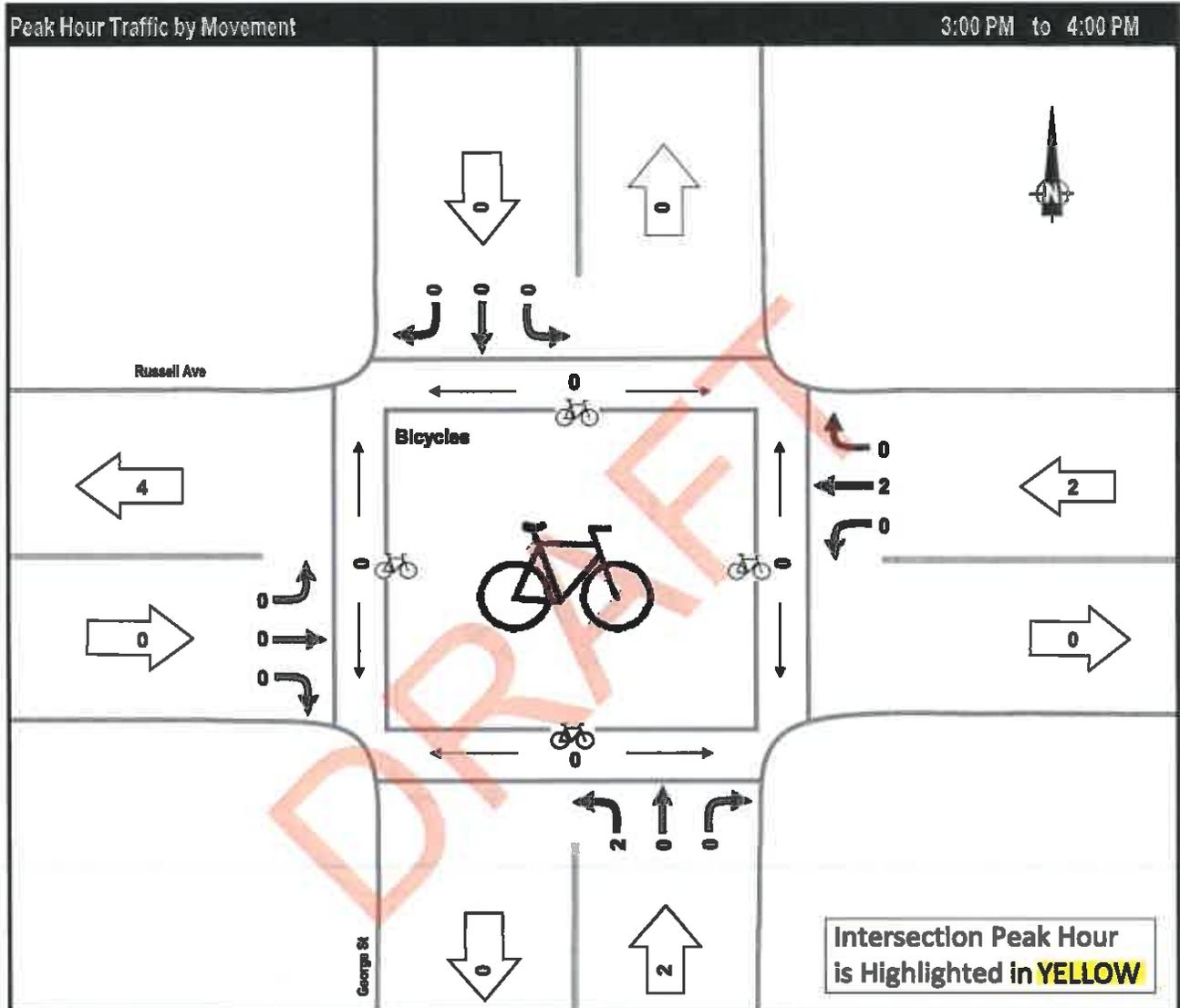


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0					0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0					0
15:00	0	0	0	0	0	0	0	0	0	0	0	0					0
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	0	0					0
16:00	0	0	0	0	0	0	0	0	0	0	0	0					0
16:15	0	0	0	0	0	0	0	0	0	0	0	0					0
16:30	0	0	0	0	0	0	0	0	0	0	0	0					0
16:45	0	0	0	0	0	0	0	0	0	0	0	0					0
17:00	0	0	0	0	0	0	0	0	0	0	0	0					0
17:15	0	0	0	0	0	0	0	0	0	0	0	0					0
17:30	0	0	0	0	0	0	0	0	0	0	0	0					0
17:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	4
PHF	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50
Peak 15 X 4	0	0	0	5	0	0	0	0	0	0	4	0	0	0	0	0	8
Average Hour	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	3
Survey Total	2	0	1	2	0	0	0	0	1	0	3	1	0	0	0	0	10
15:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
16:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Vehicle Classification Summary

Project: #7025: 1485 Fir Street Traffic Impact Study
Municipality: White Rock
Weather: Rain

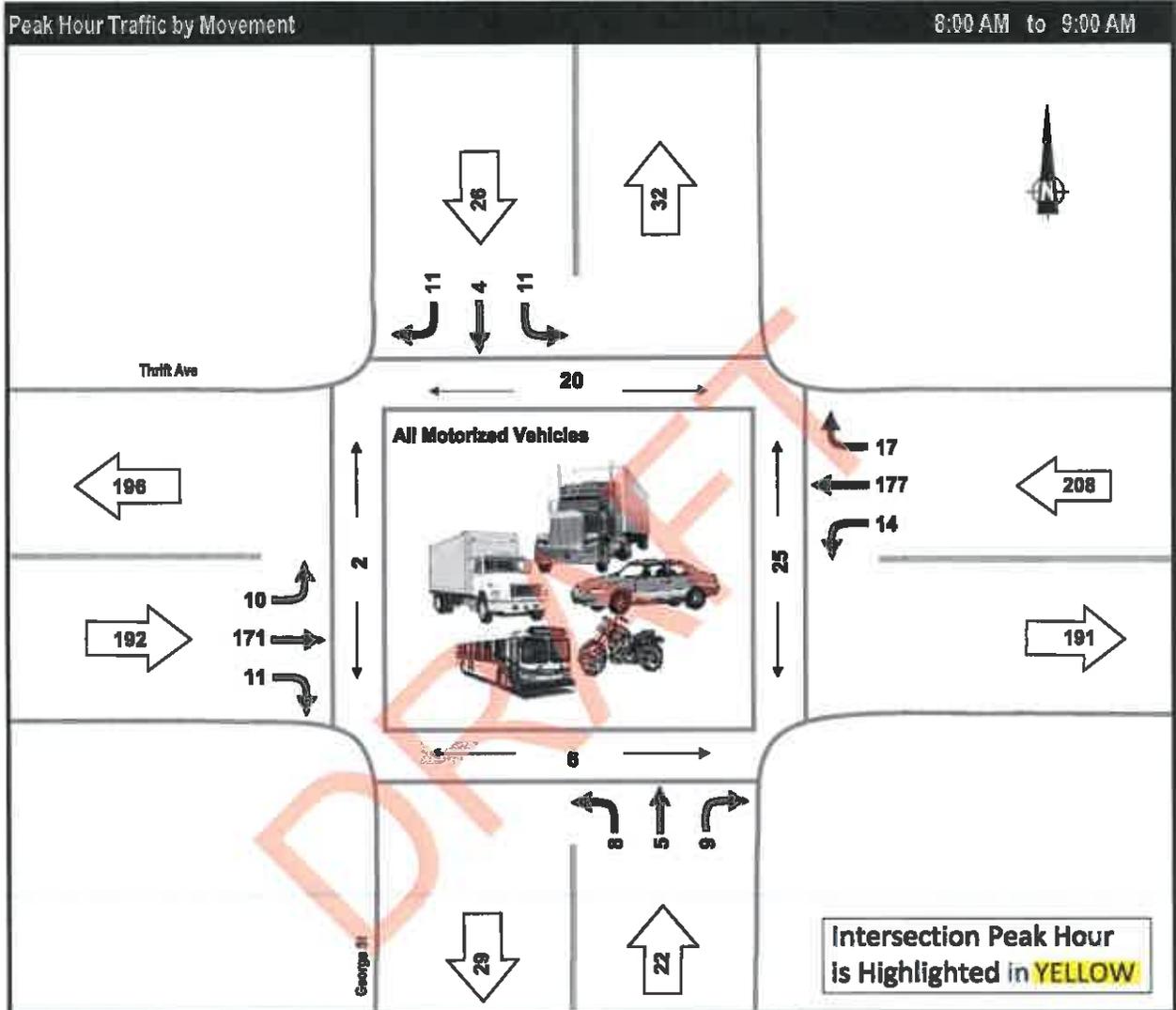
Z

Time Period	Entering Intersection	Vehicle Classification				Total
		Passenger Cars	Heavy Vehicles (3 or more axles)			
Morning (07:00 - 09:00)	Volume	635	2			637
	%	99.7%	0.3%			100.0%
Midday (11:00 - 13:00)	Volume	963	4			967
	%	99.6%	0.4%			100.0%
Afternoon (15:00 - 18:00)	Volume	1,629	2			1,631
	%	99.9%	0.1%			100.0%
Total (7 Hours)	Volume	3,227	8			3,235
	%	99.8%	0.2%			100.0%

DRAFT

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

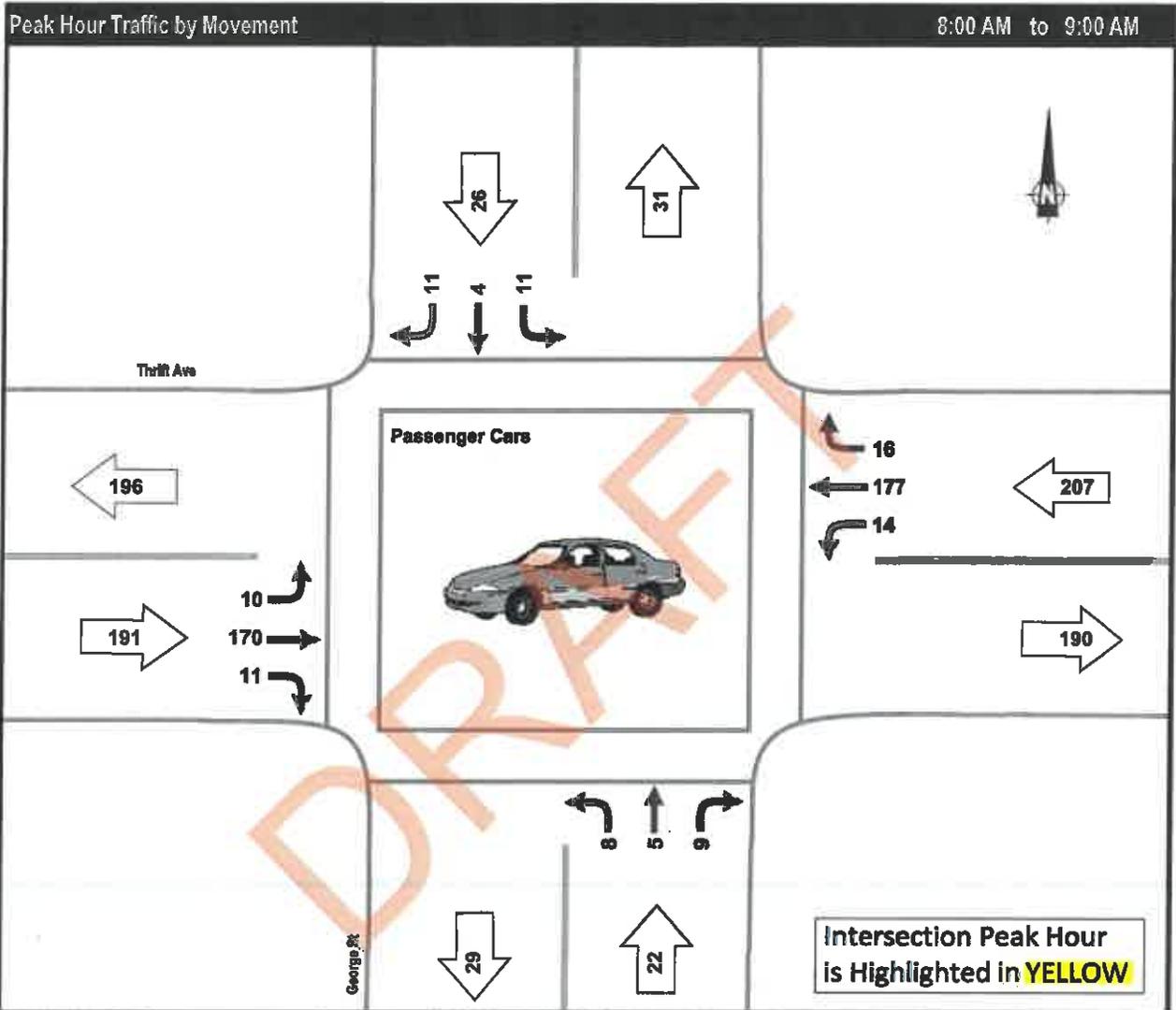
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	11	4	11	8	5	9	16	171	11	14	177	17	26	6	2	25	448
PHF	0.46	0.33	0.46	0.50	0.63	0.56	0.63	0.79	0.69	0.50	0.79	0.71	0.71	0.50	0.50	0.48	0.81
Peak 15 X 4	24	12	24	16	8	16	16	216	16	28	224	24	28	12	4	62	552
Average Hour	7	4	8	4	4	8	7	122	8	13	124	13	22	8	8	20	322
Survey Total	14	7	15	8	8	15	13	244	15	25	248	25	43	15	15	38	637
7:00	0	0	3	0	0	3	1	14	1	6	11	1	6	0	2	4	40
7:15	2	1	0	0	0	2	1	16	1	3	16	2	4	1	6	5	44
7:30	1	1	0	0	2	1	1	20	1	0	16	1	12	0	1	2	44
7:45	0	1	1	0	1	0	0	23	1	2	28	4	1	8	4	3	61
8:00	6	3	2	1	1	2	1	31	1	2	36	3	4	0	0	1	89
8:15	0	1	3	2	1	4	2	54	3	7	58	5	7	3	0	6	138
8:30	3	0	0	4	2	3	4	60	4	4	43	3	4	1	1	13	120
8:45	2	0	6	1	1	0	3	36	3	1	42	6	5	2	1	5	101

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

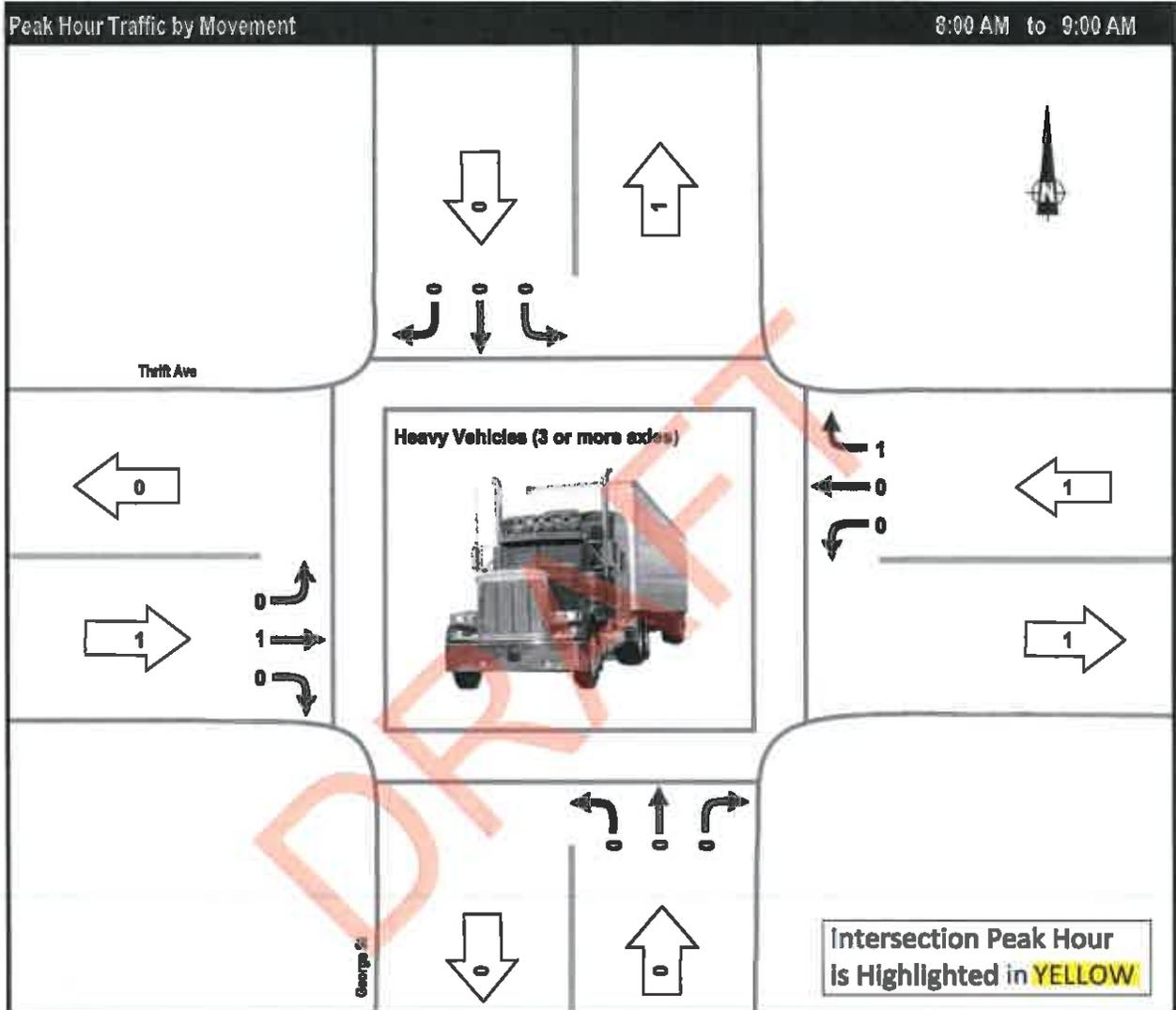
Morning Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	11	4	11	8	5	9	10	170	11	14	177	16					446
PHF	0.48	0.33	0.48	0.50	0.63	0.56	0.63	0.79	0.69	0.50	0.79	0.67					0.81
Peak 15 X 4	24	12	24	16	8	16	16	216	18	28	224	24					646
Average Hour	7	4	8	4	4	8	7	122	8	13	124	12					321
Survey Total	14	7	15	8	8	15	13	243	15	25	248	24					635
7:00	0	0	3	0	0	3	1	14	1	6	11	1					40
7:15	2	1	0	0	0	2	1	16	1	3	16	2					44
7:30	1	1	0	0	2	1	1	20	1	0	16	1					44
7:45	0	1	1	0	1	0	0	23	1	2	28	4					61
8:00	6	3	2	1	1	2	1	31	1	2	36	3					89
8:15	0	1	3	2	1	4	2	54	3	7	56	4					137
8:30	3	0	0	4	2	3	4	49	4	4	43	3					119
8:45	2	0	6	1	1	0	3	36	3	1	42	6					101

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axes)

Morning Peak Period

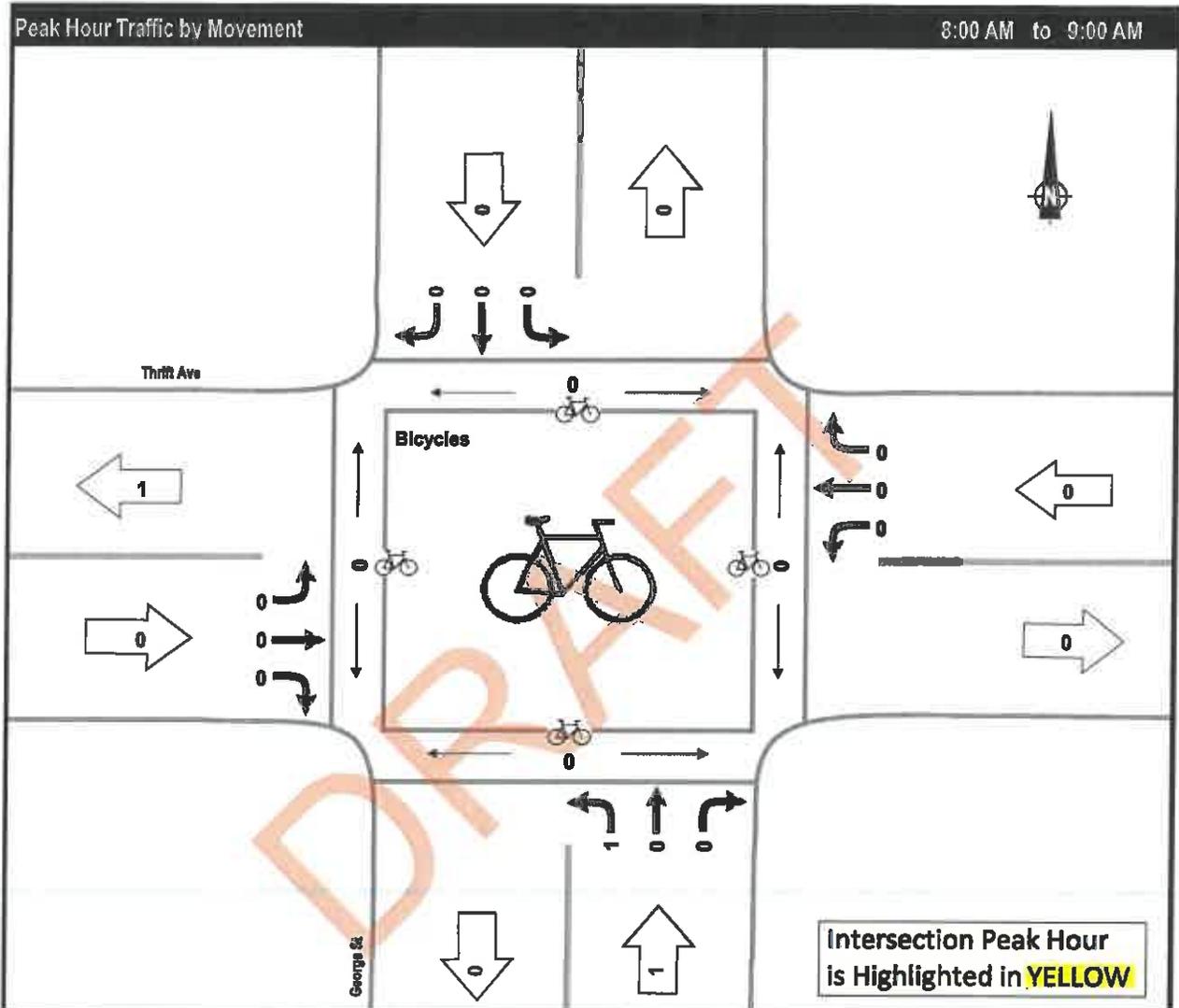


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	1					2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25					0.50
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	0	4					4
Average Hour	0	0	0	0	0	0	0	1	0	0	0	1					2
Survey Total	0	0	0	0	0	0	0	1	0	0	0	1					2
7:00	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	0	0	0	0	0	0					0
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	0	0	0	0					0
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	0	1					1
8:30	0	0	0	0	0	0	0	1	0	0	0	0					1
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Morning Peak Period

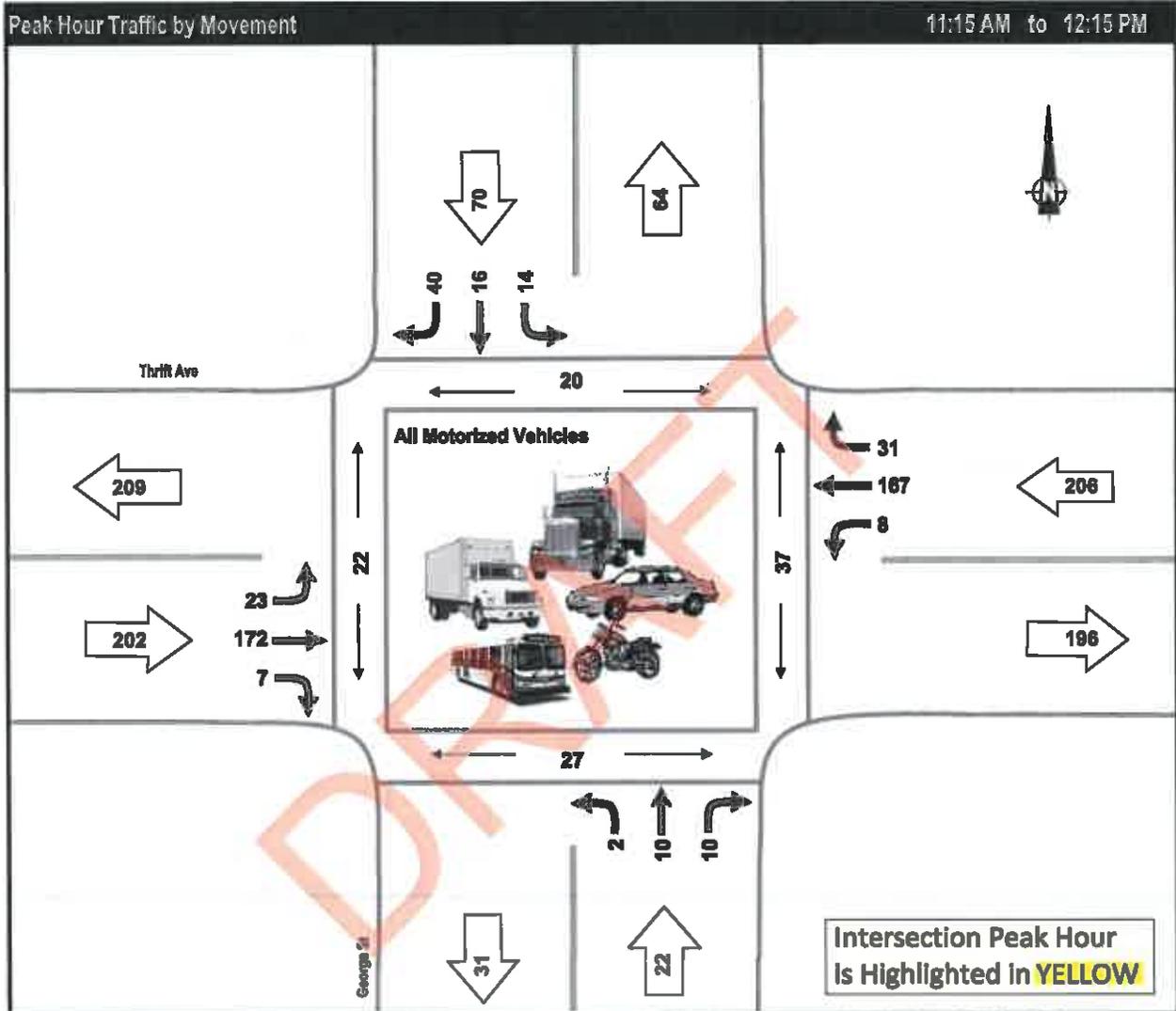
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Average Hour	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
Survey Total	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	3
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7026: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

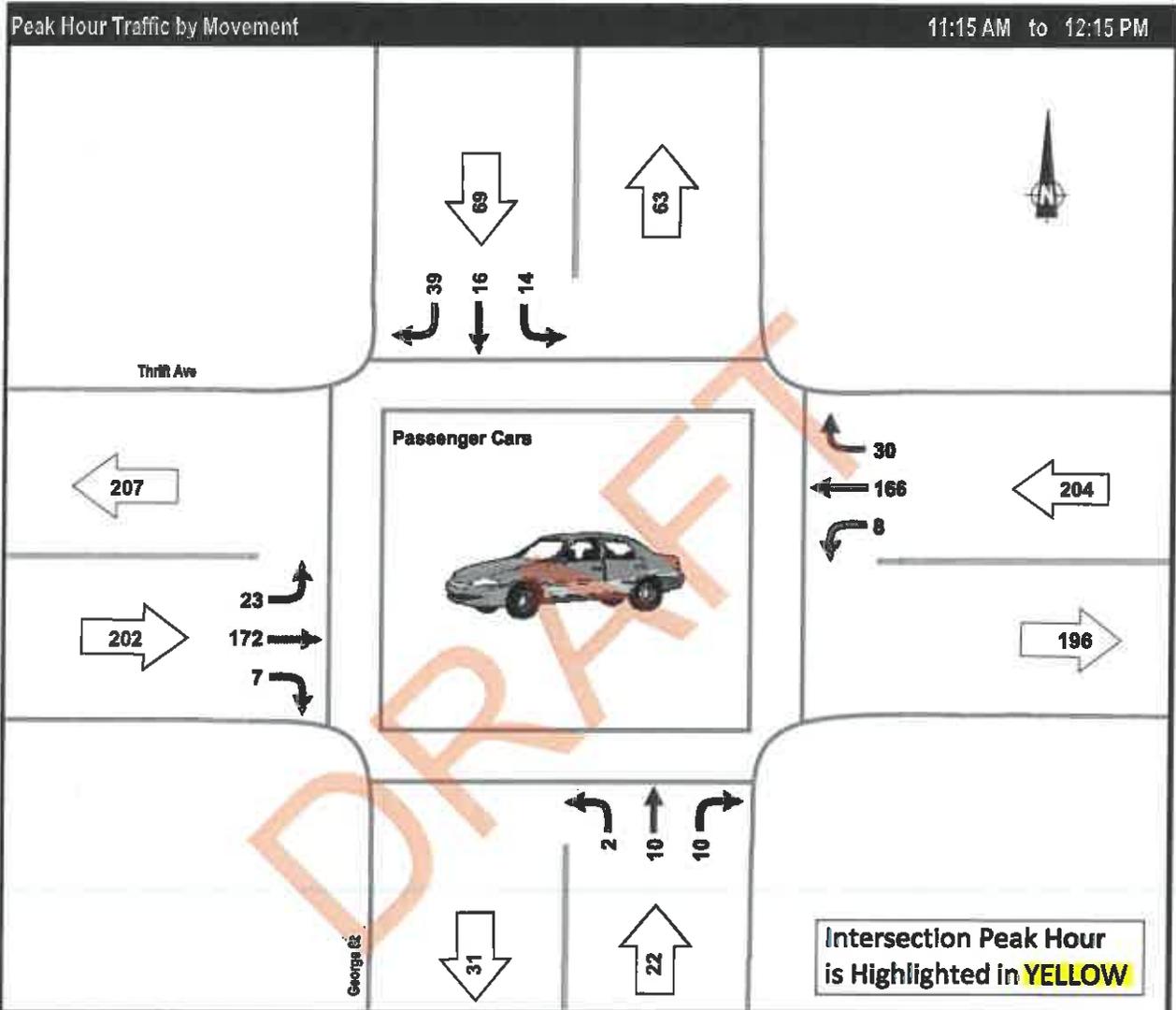
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	14	16	40	2	10	10	23	172	7	8	167	31	20	27	22	37	500
PH Factor	0.70	0.67	0.77	0.25	0.63	0.50	0.72	0.93	0.88	0.50	0.80	0.65	0.56	0.75	0.50	0.58	0.91
PHF	20	24	52	8	18	20	32	184	8	18	208	48	36	36	44	64	548
Average Hour	16	12	37	4	8	8	25	173	8	7	165	24	24	22	18	35	487
Survey Total	31	24	74	7	15	15	49	345	15	14	330	48	48	43	31	69	967
11:00	3	3	10	0	3	1	5	33	1	2	45	5	12	1	2	9	111
11:15	4	4	7	0	2	3	8	48	2	4	52	5	4	9	5	9	137
11:30	5	3	8	0	4	2	7	43	2	1	38	12	2	9	1	18	125
11:45	2	6	13	0	0	0	5	38	2	2	32	11	9	4	11	10	111
12:00	3	3	12	2	4	5	3	45	1	1	45	3	5	5	5	2	127
12:15	4	1	7	3	1	2	8	51	3	0	27	4	4	4	1	4	111
12:30	4	1	8	0	0	0	5	43	0	2	45	4	5	4	4	9	112
12:45	6	3	9	2	1	2	8	48	4	2	48	4	7	7	2	10	133

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

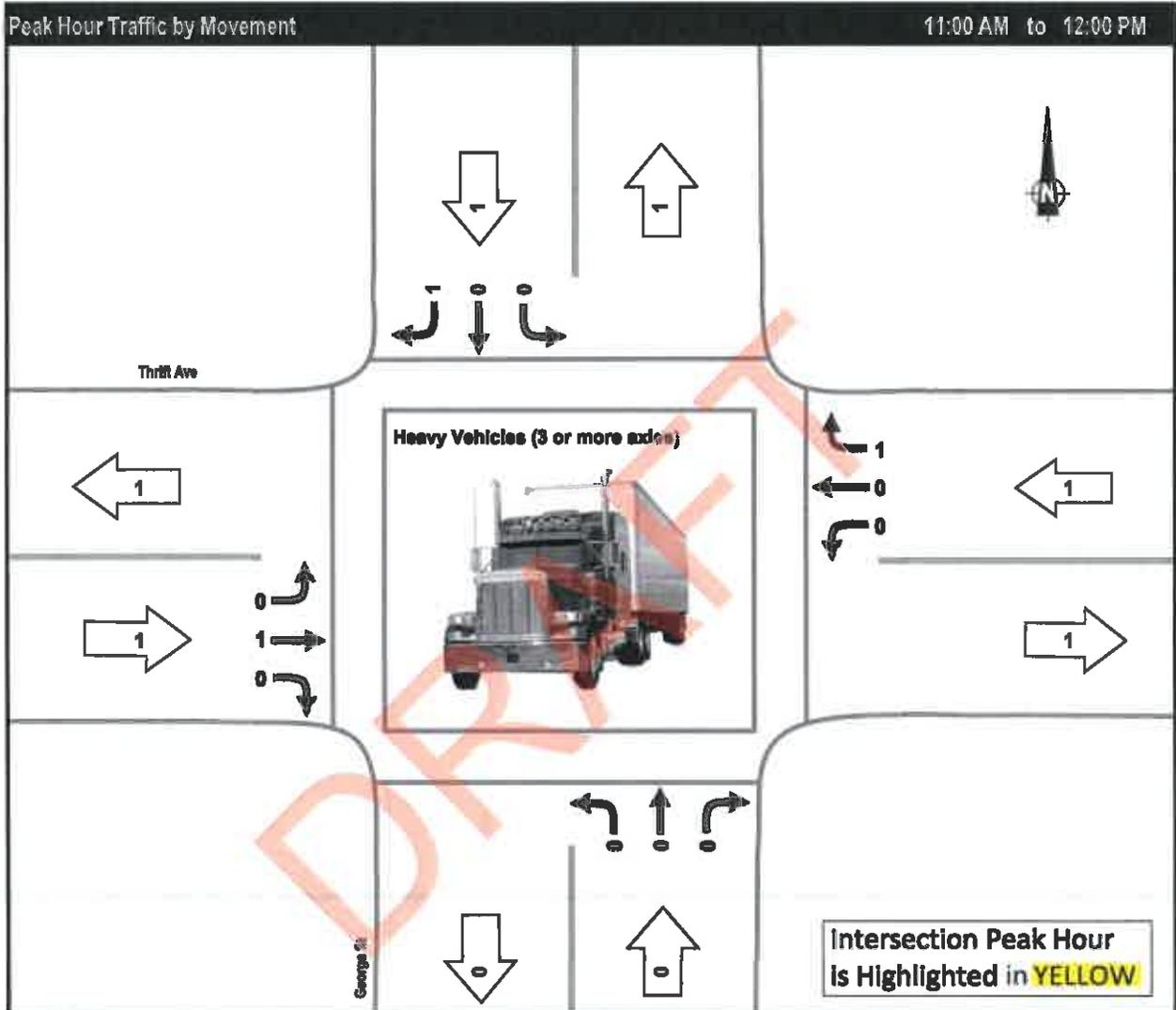
Midday Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	14	16	39	2	10	10	23	172	7	8	166	30					497
PHF	0.70	0.67	0.81	0.25	0.63	0.50	0.72	0.93	0.88	0.50	0.80	0.68					0.91
Peak 15 X 4	20	24	48	8	16	20	32	184	8	16	208	44					545
Average Hour	16	12	37	4	8	8	25	172	8	7	165	24					486
Survey Total	31	24	73	7	15	15	49	344	15	14	329	47					963
11:00	3	3	10	0	3	1	5	32	1	2	45	5					110
11:15	4	4	7	0	2	3	8	46	2	4	52	5					137
11:30	5	3	8	0	4	2	7	43	2	1	38	11					124
11:45	2	6	12	0	0	0	5	38	2	2	32	11					110
12:00	3	3	12	2	4	5	8	45	1	1	44	3					126
12:15	4	1	7	3	1	2	8	51	3	0	27	4					111
12:30	4	1	8	0	0	0	5	43	0	2	45	4					112
12:45	6	3	9	2	1	2	8	46	4	2	46	4					133

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Middy Peak Period



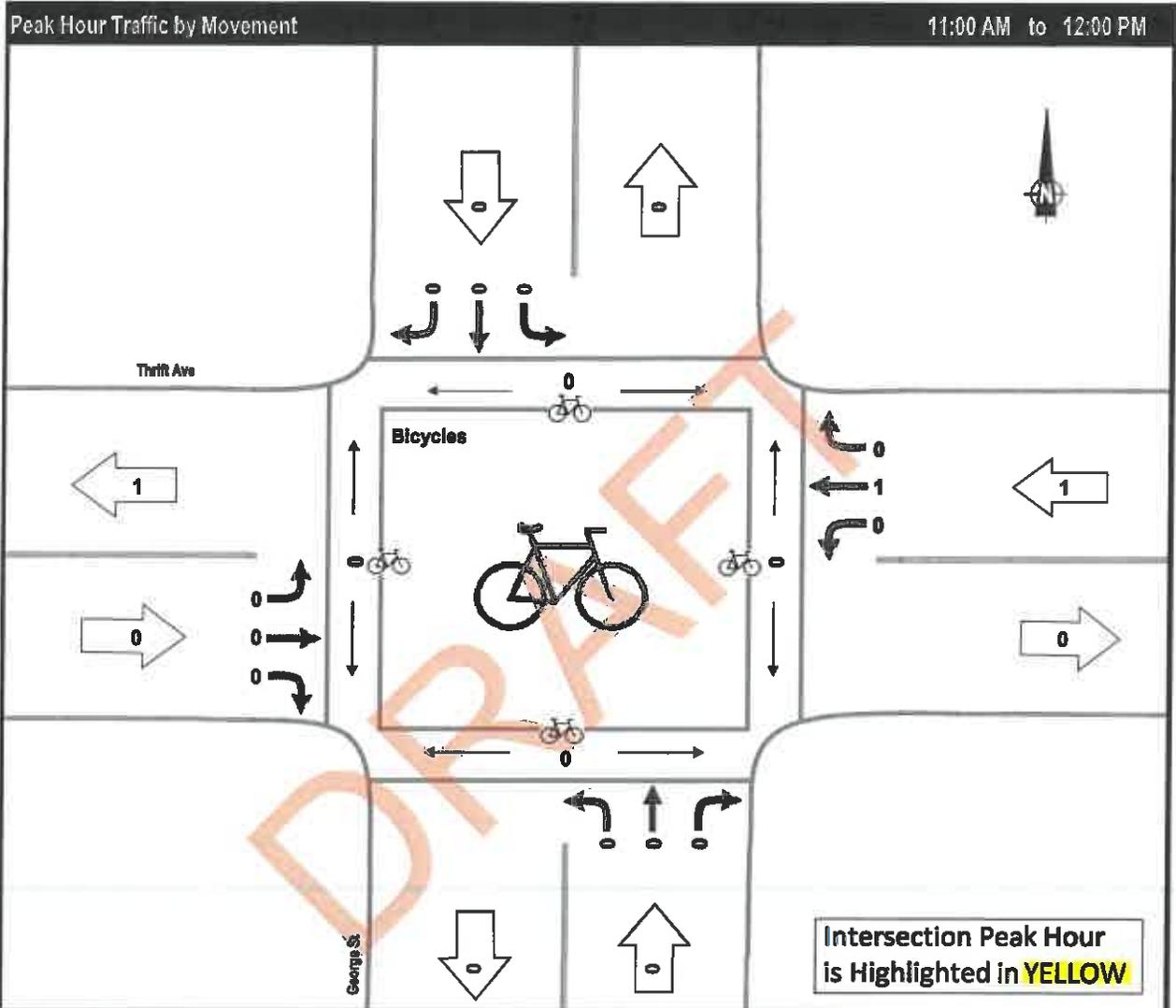
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	1	0	0	0	0	1	0	0	0	1					3
PHF	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25					0.75
Peak 15 X 4	0	0	4	0	0	0	0	4	0	0	0	4					4
Average Hour	0	0	1	0	0	0	0	1	0	0	0	1					4
Survey Total	0	0	1	0	0	0	0	1	0	0	0	1					4
11:00	0	0	0	0	0	0	0	1	0	0	0	0					1
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0
11:30	0	0	0	0	0	0	0	0	0	0	0	1					1
11:45	0	0	1	0	0	0	0	0	0	0	0	0					1
12:00	0	0	0	0	0	0	0	0	0	0	1	0					1
12:15	0	0	0	0	0	0	0	0	0	0	0	0					0
12:30	0	0	0	0	0	0	0	0	0	0	0	0					0
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0



Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Midday Peak Period

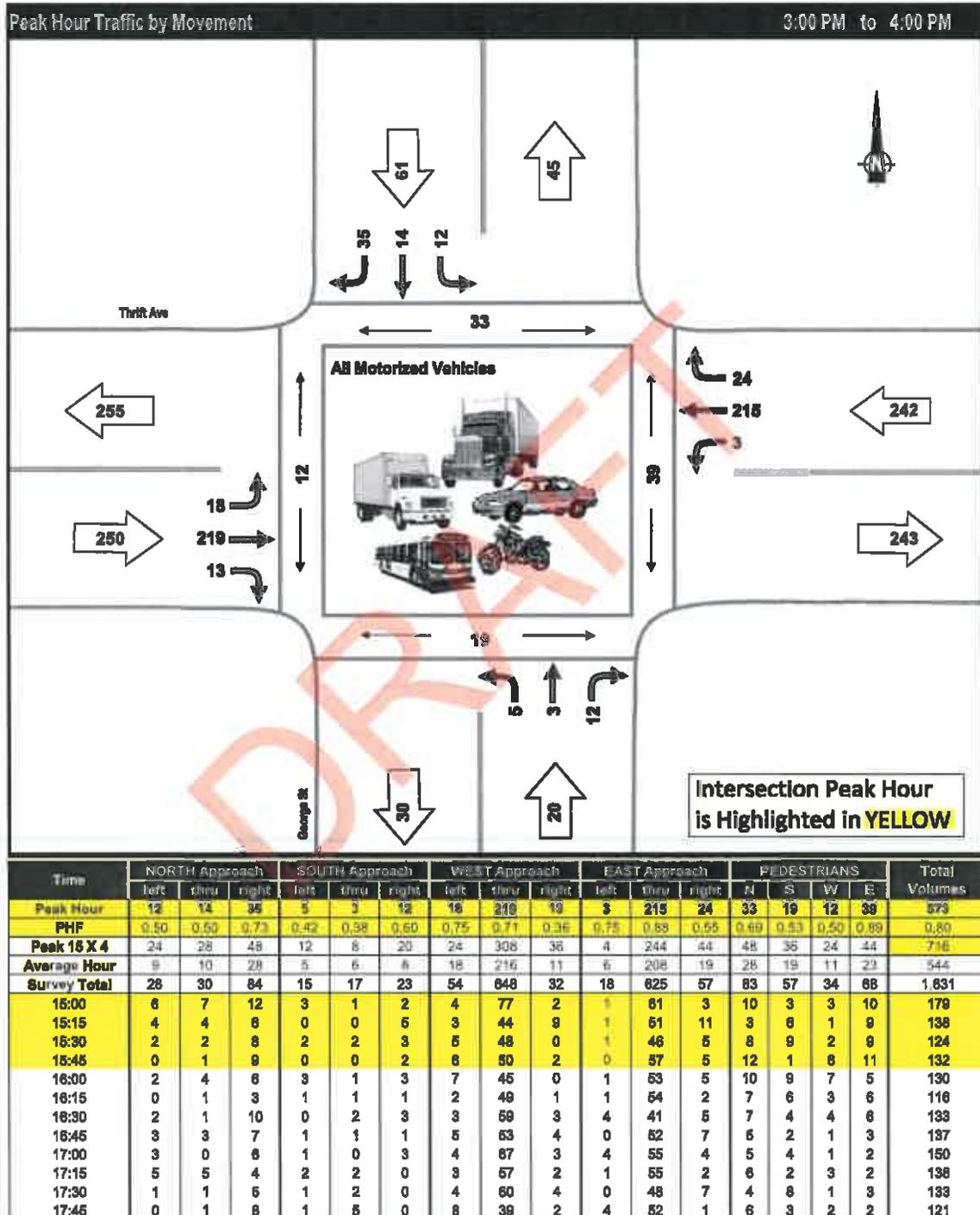
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Survey Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: All Motorized Vehicles

Afternoon Peak Period

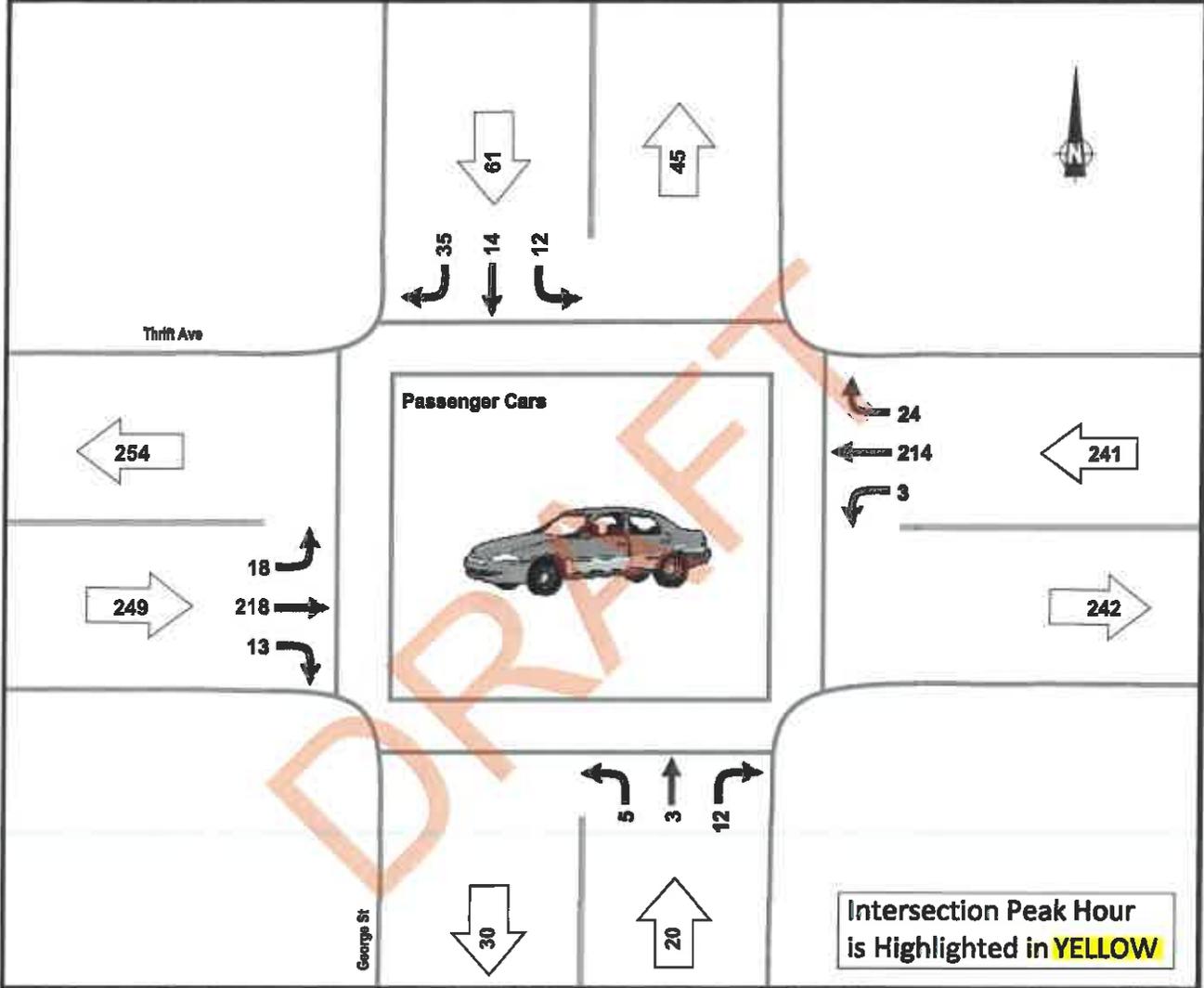


Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Passenger Cars

Afternoon Peak Period

Peak Hour Traffic by Movement

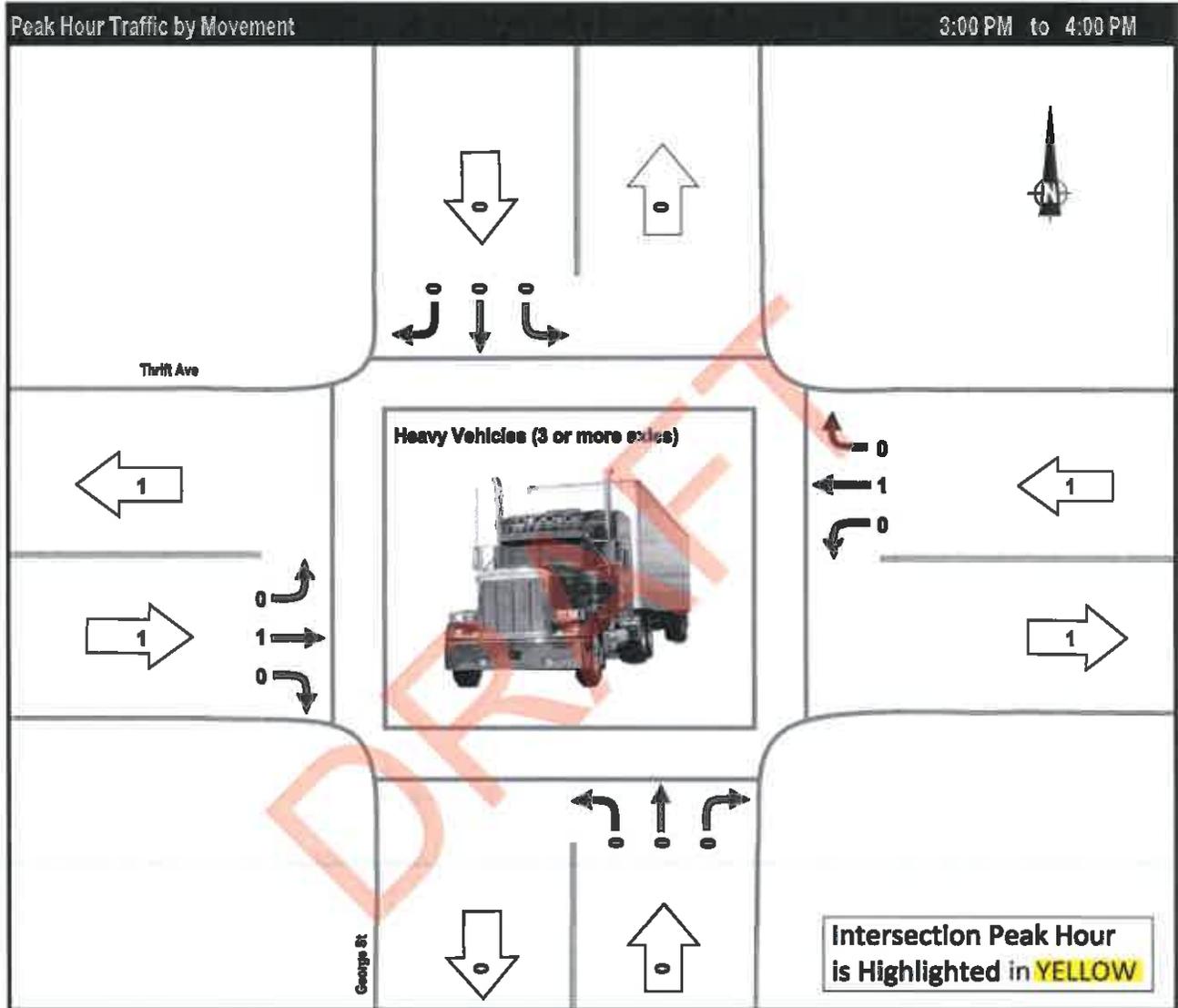
3:00 PM to 4:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	12	14	35	5	3	12	18	218	13	3	214	24					571
PHF	0.50	0.50	0.73	0.42	0.38	0.80	0.75	0.72	0.36	0.75	0.89	0.55					0.81
Peak 15 X 4	24	28	48	12	8	20	24	304	36	4	240	44					708
Average Hour	9	10	28	5	6	8	18	216	11	6	208	19					544
Survey Total	28	30	84	15	17	23	54	647	32	18	624	57					1,629
15:00	6	7	12	3	1	2	4	76	2	1	60	3					177
15:16	4	4	6	0	0	5	3	44	9	1	51	11					138
15:30	2	2	8	2	2	3	5	48	0	1	46	5					124
15:45	0	1	9	0	0	2	6	50	2	0	57	6					132
16:00	2	4	6	3	1	3	7	45	0	1	53	5					130
16:15	0	1	3	1	1	1	2	49	1	1	54	2					116
16:30	2	1	10	0	2	3	3	59	3	4	41	5					133
16:45	3	3	7	1	1	1	5	53	4	0	52	7					137
17:00	3	0	6	1	0	3	4	67	3	4	55	4					150
17:15	5	5	4	2	2	0	3	57	2	1	55	2					138
17:30	1	1	5	1	2	0	4	60	4	0	48	7					133
17:45	0	1	8	1	5	0	8	39	2	4	52	1					121

Project: #7025: 1486 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Heavy Vehicles (3 or more axles)

Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0					2
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.00					0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	4	0					8
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	1	0	0	1	0					2
15:00	0	0	0	0	0	0	0	1	0	0	1	0					2
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	0	0					0
16:00	0	0	0	0	0	0	0	0	0	0	0	0					0
16:15	0	0	0	0	0	0	0	0	0	0	0	0					0
16:30	0	0	0	0	0	0	0	0	0	0	0	0					0
16:45	0	0	0	0	0	0	0	0	0	0	0	0					0
17:00	0	0	0	0	0	0	0	0	0	0	0	0					0
17:15	0	0	0	0	0	0	0	0	0	0	0	0					0
17:30	0	0	0	0	0	0	0	0	0	0	0	0					0
17:45	0	0	0	0	0	0	0	0	0	0	0	0					0

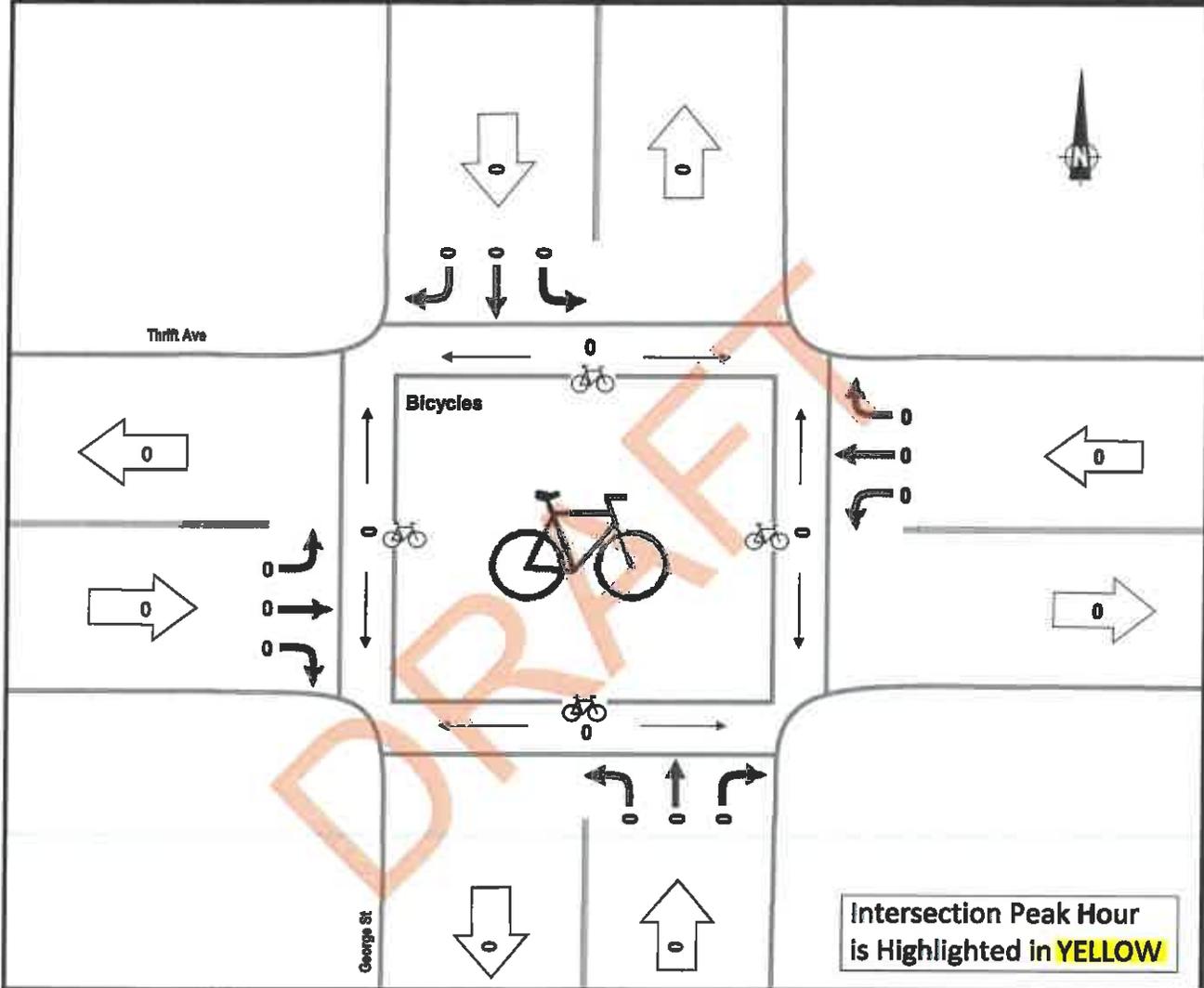
Project: #7025: 1485 Fir Street Traffic Impact Study
 Municipality: White Rock
 Weather: Rain
 Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals.

Peak Hour Traffic by Movement

3:00 PM to 4:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix D
Intersection Capacity Analysis

DRAFT

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	JLL	Intersection	George St at Russell Ave
Agency/Co.	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analyst Year	2019	North/South Street	George Street
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.83
Time Analyzed	AM Base		
Project Description	702S: 148S Fr Street TIA		



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	3	45	7	6	88	14	14	14	14	9	9	11
% Thru in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR
Flow Rate, v (veh/h)	68	130	45	45	130	45	45	45	45	45	45	45
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.059	0.116	0.040	0.040	0.116	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Final Departure Headway, hf (s)	4.17	4.11	4.32	4.32	4.11	4.32	4.32	4.32	4.32	4.32	4.32	4.32
Final Degree of Utilization, x	0.077	0.149	0.054	0.054	0.149	0.054	0.054	0.054	0.054	0.054	0.054	0.054
Move-Up Time, m (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Service Time, ts (s)	2.17	2.11	2.32	2.32	2.11	2.32	2.32	2.32	2.32	2.32	2.32	2.32

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	68	130	45	45	130	45	45	45	45	45	45	45
Capacity	863	863	863	863	863	863	863	863	863	863	863	863
95% Queue Length, Q ₉₅ (veh)	0.2	0.5	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Control Delay (s/veh)	7.5	7.8	7.5	7.5	7.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Level of Service, LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	7.5	7.8	7.5	7.5	7.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Approach LOS	A	A	A	A	A	A	A	A	A	A	A	A
Intersection Delay, s/veh LOS	7.7 A											
Intersection Delay, s/veh LOS	8.3 A											

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HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	JLL	Intersection	George St at Russell Ave
Agency/Co.	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analyst Year	2019	North/South Street	George Street
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.87
Time Analyzed	PM Base		
Project Description	702S: 148S Fr Street TIA		



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	20	103	30	19	140	22	25	14	13	19	33	35
% Thru in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR	UTR
Flow Rate, v (veh/h)	176	208	208	208	208	208	208	208	208	208	208	208
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.155	0.185	0.053	0.053	0.185	0.053	0.053	0.053	0.053	0.053	0.053	0.053
Final Departure Headway, hf (s)	4.48	4.48	4.59	4.59	4.48	4.59	4.59	4.59	4.59	4.59	4.59	4.59
Final Degree of Utilization, x	0.239	0.239	0.081	0.081	0.239	0.081	0.081	0.081	0.081	0.081	0.081	0.081
Move-Up Time, m (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Service Time, ts (s)	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	176	208	208	208	208	208	208	208	208	208	208	208
Capacity	863	863	863	863	863	863	863	863	863	863	863	863
95% Queue Length, Q ₉₅ (veh)	0.8	1.0	0.3	0.3	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Control Delay (s/veh)	8.7	9.0	8.4	8.4	9.0	8.4	8.4	8.4	8.4	8.4	8.4	8.4
Level of Service, LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	8.3	9.0	8.4	8.4	9.0	8.4	8.4	8.4	8.4	8.4	8.4	8.4
Approach LOS	A	A	A	A	A	A	A	A	A	A	A	A
Intersection Delay, s/veh LOS	8.8 A											
Intersection Delay, s/veh LOS	8.8 A											

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HCS7 All-Way Stop Control Report												
General Information						Site Information						
Analyst	JLL	Interaction	George St at Russell Ave			Group 1 of Russell Ave						
Agency/Co.	URS	Jurisdiction	White Rock			White Rock						
Date Performed	4/10/2019	East/West Street	Russell Avenue			Russell Avenue						
Analysis Year	2012	North/South Street	George Street			George Street						
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.81			0.87						
Time Analyzed	3:14 PM											
Project Description	7025 1485 Ft Street TIA											
Notes:												
Vehicle Volume and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Approach	L	T	R	L	T	R	L	T	R	L	T	R
Volume	4	48	8	7	91	15	11	35	10	10	10	12
% Thru in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Flow Rate, v (veh/h)	72	148	148	48	48	48	48	48	48	48	48	48
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.064			0.064			0.064			0.064		
Final Departure Headway, hd (s)	4.21			4.21			4.21			4.21		
Final Degree of Utilization, x	0.084			0.084			0.084			0.084		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	2.21			2.21			2.21			2.21		
Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	72			140			48			38		
Capacity	816			888			816			816		
95% Queue Length, Q ₉₅ (veh)	0.3			0.6			0.2			0.1		
Control Delay (s/veh)	7.6			7.9			7.6			7.5		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh)	7.6			7.8			7.6			7.5		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	7.7			7.7			7.7			7.7		
Approach LOS	A			A			A			A		

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HCS7 All-Way Stop Control Report												
General Information						Site Information						
Analyst	JLL	Interaction	George St at Russell Ave			Group 1 of Russell Ave						
Agency/Co.	URS	Jurisdiction	White Rock			White Rock						
Date Performed	4/10/2019	East/West Street	Russell Avenue			Russell Avenue						
Analysis Year	2012	North/South Street	George Street			George Street						
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.81			0.87						
Time Analyzed	3:14 PM											
Project Description	7025 1485 Ft Street TIA											
Notes:												
Vehicle Volume and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Approach	L	T	R	L	T	R	L	T	R	L	T	R
Volume	22	130	32	21	149	24	27	113	14	21	35	38
% Thru in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Flow Rate, v (veh/h)	189	189	189	223	223	223	223	223	223	223	223	223
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.168			0.168			0.168			0.168		
Final Departure Headway, hd (s)	4.54			4.54			4.54			4.54		
Final Degree of Utilization, x	0.218			0.218			0.218			0.218		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	2.36			2.36			2.36			2.36		
Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	189			223			64			108		
Capacity	730			793			730			730		
95% Queue Length, Q ₉₅ (veh)	0.9			1.2			0.3			0.5		
Control Delay (s/veh)	9.0			9.3			8.5			8.2		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh)	9.0			9.3			8.5			8.2		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	9.1			9.1			9.1			9.1		
Approach LOS	A			A			A			A		

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HCS7 All-Way Stop Control Report												
General Information						Site Information						
Analyst	JLL	Intersection	George St at Russell Ave									
Agency/Co	CTS	Jurisdiction	White Rock									
Date Performed	4/17/2019	East/West Street	Russell Avenue									
Analysis Year	2022	North/South Street	George Street									
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.83									
Time Analyzed	AM Base + Site											
Project Description	702S, 148S Ft Street TIA											
Lanes												
Vehicle Volume and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	4	49	9	97	16	15	15	15	13	10	20	22
% Thru in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Flow Rate, v (veh/h)	73	147	147	147	147	147	147	147	147	147	147	147
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.065			0.133			0.133			0.133		
Final Departure Headway, hd (s)	4.22			4.35			4.31			4.31		
Final Degree of Utilization, x	0.086			0.176			0.161			0.161		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	2.22			2.15			2.14			2.14		
Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	73			147			147			147		
Capacity	833			467			467			467		
95% Queue Length, Q ₉₅ (veh)	0.3			0.6			0.2			0.1		
Control Delay (s/veh)	7.6			8.0			7.6			7.5		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh)	7.6			8.0			7.6			7.5		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	7.8			8.1			7.8			7.8		

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HCS7 All-Way Stop Control Report												
General Information						Site Information						
Analyst	JLL	Intersection	George St at Russell Ave									
Agency/Co	CTS	Jurisdiction	White Rock									
Date Performed	4/17/2019	East/West Street	Russell Avenue									
Analysis Year	2022	North/South Street	George Street									
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.83									
Time Analyzed	AM Base + Site											
Project Description	702S, 148S Ft Street TIA											
Lanes												
Vehicle Volume and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	4	49	9	97	16	15	15	15	13	10	20	22
% Thru in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Flow Rate, v (veh/h)	73	147	147	147	147	147	147	147	147	147	147	147
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.065			0.133			0.133			0.133		
Final Departure Headway, hd (s)	4.22			4.35			4.31			4.31		
Final Degree of Utilization, x	0.086			0.176			0.161			0.161		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	2.22			2.15			2.14			2.14		
Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	73			147			147			147		
Capacity	833			467			467			467		
95% Queue Length, Q ₉₅ (veh)	0.3			0.6			0.2			0.1		
Control Delay (s/veh)	7.6			8.0			7.6			7.5		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh)	7.6			8.0			7.6			7.5		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	7.8			8.1			7.8			7.8		

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HCS7 All-Way Stop Control Report											
General Information						Site Information					
Analyst	JL	Intersection	George St at Russell Ave			White Rock					
Agency/Co.	CTE	Location	Russell Avenue			Russell Avenue					
Date Performed	4/10/2019	East/West Street	North/South Street			Spring Street					
Analysis Year	2027	Peak Hour Factor	0.83								
Analysis Time Period (hr)	0.25										
Time Analyzed	AM Rows										
Project Description	7025-1485 PE Street TIA										
Lanes											

Vehicle Volume and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	4	59	9	7	105	17	17	17	11	11	11	13
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Flow Rate, v (veh/h)	80	153	54	54	54	54	54	54	54	54	54	54
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2

Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.071	0.138	0.042	0.138	0.138	0.138	0.138	0.138	0.138	0.138	0.138	0.138
Final Departure Headway, fd (s)	4.28	4.17	4.42	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
Final Degree of Utilization, x	0.094	0.066	0.051	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066	0.066
Move-Up Time, m (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Service Time, ts (s)	2.24	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23

Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	80	153	54	54	54	54	54	54	54	54	54	54
Capacity	148	148	148	148	148	148	148	148	148	148	148	148
95% Queue Length, Q ₉₅ (veh)	0.3	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Control Delay (s/veh)	7.7	8.1	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Level of Service, LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)												
Approach LOS	A	A	A	A	A	A	A	A	A	A	A	A

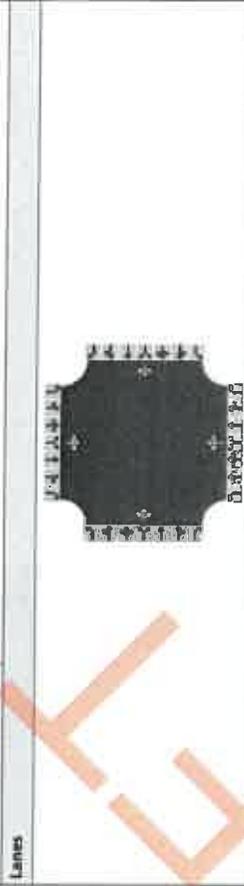
HCS7 All-Way Stop Control Report											
General Information						Site Information					
Analyst	JL	Intersection	George St at Russell Ave			White Rock					
Agency/Co.	CTE	Location	Russell Avenue			Russell Avenue					
Date Performed	4/10/2019	East/West Street	North/South Street			Spring Street					
Analysis Year	2027	Peak Hour Factor	0.83								
Analysis Time Period (hr)	0.25										
Time Analyzed	PM Rows										
Project Description	7025-1485 PE Street TIA										
Lanes											

Vehicle Volume and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	24	120	35	23	163	26	29	17	16	17	39	41
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Flow Rate, v (veh/h)	205	244	244	244	244	244	244	244	244	244	244	244
Percent Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2

Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.183	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177
Final Departure Headway, fd (s)	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
Final Degree of Utilization, x	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255
Move-Up Time, m (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Service Time, ts (s)	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63

Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	205	244	244	244	244	244	244	244	244	244	244	244
Capacity	777	777	777	777	777	777	777	777	777	777	777	777
95% Queue Length, Q ₉₅ (veh)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Control Delay (s/veh)	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
Level of Service, LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)												
Approach LOS	A	A	A	A	A	A	A	A	A	A	A	A

General Information		Site Information	
Analyst	JLL	Intersection	George St at Russell Ave
Agency/Co.	URS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2027	North/South Street	George Street
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.83
Time Analyzed	AM Base + Site		
Project Description	7025, 7485 Fir Street TIA		



Vehicle Volume and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	Movement	L	T	R	L	T	R	L	T
Volume		24	13	35	25	163	27	29	17
% Thrus in Shared Lane									
Lane		L1	L2	L3	L1	L2	L3	L1	L2
Configuration		1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Flow Rate, v (veh/h)		28	15	41	29	188	31	33	20
Percent Heavy Vehicles		0	0	0	0	0	0	0	0

Departure Headway and Service Time	
Initial Departure Headway, hd (s)	3.20
Initial Degree of Utilization, x	0.186
Final Departure Headway, hd (s)	4.68
Final Degree of Utilization, x	0.271
Move-Up Time, m (s)	2.0
Service Time, Ts (s)	2.66

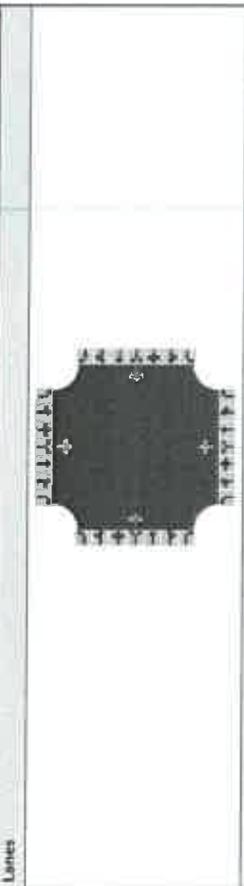
Capacity, Delay and Level of Service	
Flow Rate, v (veh/h)	209
Capacity	774
95% Queue Length, Q ₉₅ (veh)	1.1
Control Delay (s/veh)	9.4
Level of Service, LOS	A
Approach Delay (s/veh)	9.4
Approach LOS	A

Intersection Delay, s/veh | LOS | A | 9.4 | A

Information Delay, s/veh | LOS | A | 9.4 | A

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General Information		Site Information	
Analyst	JLL	Intersection	George St at Russell Ave
Agency/Co.	URS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2027	North/South Street	George Street
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.83
Time Analyzed	AM Base + Site		
Project Description	7025, 7485 Fir Street TIA		



Vehicle Volume and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	Movement	L	T	R	L	T	R	L	T
Volume		4	54	306	18	17	34	11	13
% Thrus in Shared Lane									
Lane		L1	L2	L3	L1	L2	L3	L1	L2
Configuration		1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Flow Rate, v (veh/h)		4	65	364	21	20	41	13	16
Percent Heavy Vehicles		0	0	0	0	0	0	0	0

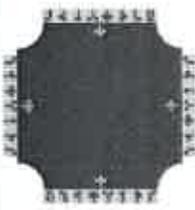
Departure Headway and Service Time	
Initial Departure Headway, hd (s)	3.20
Initial Degree of Utilization, x	0.051
Final Departure Headway, hd (s)	4.40
Final Degree of Utilization, x	0.071
Move-Up Time, m (s)	2.0
Service Time, Ts (s)	2.66

Capacity, Delay and Level of Service	
Flow Rate, v (veh/h)	160
Capacity	816
95% Queue Length, Q ₉₅ (veh)	0.2
Control Delay (s/veh)	7.7
Level of Service, LOS	A
Approach Delay (s/veh)	7.7
Approach LOS	A

Intersection Delay, s/veh | LOS | A | 7.7 | A

Information Delay, s/veh | LOS | A | 7.7 | A

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HCS7 Two-Way Stop-Control Report																
General Information							Site Information									
Analyst	JLL	Intersection	George St at Thrift Ave													
Agency/Co	CS	Jurisdiction	White Road													
Date Performed	4/12/2019	East/West Street	Thrift Avenue													
Analysis Year	2019	North/South Street	George Street													
Time Analyzed	AM Base	Peak Hour Factor	0.83													
Intersection Orientation	East-West	Analysis Time Period (Day)	0.25													
Project Description	7007-1485 Fr Street TIA															
																
Vehicle Volumes and Adjustments																
Approach	Eastbound			Westbound			Northbound			Southbound						
Measurement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	3	0	1	2	3	4	4	5	6	7	8	9	10	11	12	0
Number of Lanes	LTR			LTR			LTR			LTR			LTR			
Volume (veh/h)	18	17	11	18	17	17	17	9	9	11	4	11	11	4	11	0
Percent Heavy Vehicles (%)	2			2			2			2			2			
Proportion Time Blocked	0															
Right Turn Channelized	Unchannelized															
Median Type | Storage	Unchannelized															
Critical and Follow-up Headways																
Base Critical Headway (sec)	4.1			4.1			4.1			4.1			4.1			
Critical Headway (sec)	4.12			4.12			4.12			4.12			4.12			
Base Follow-Up Headway (sec)	2.2			2.2			2.2			2.2			2.2			
Follow-Up Headway (sec)	2.22			2.22			2.22			2.22			2.22			
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)	12			17			27			31			31			
Capacity, c (veh/h)	1285			1125			1111			1117			1117			
v/c Ratio	0.01			0.02			0.05			0.06			0.06			
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.0			0.0			0.0			
Control Delay (s/veh)	7.8			7.7			12.1			12.1			12.1			
Level of Service (LOS)	A			A			B			B			B			
Approach Delay (s/veh)	0.5			0.6			1.1			1.2			1.2			
Approach LOS	B			B			B			B			B			

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HCS7 Two-Way Stop-Control Report																
General Information							Site Information									
Analyst	JLL	Intersection	George St at Thrift Ave													
Agency/Co	CS	Jurisdiction	White Road													
Date Performed	4/12/2019	East/West Street	Thrift Avenue													
Analysis Year	2019	North/South Street	George Street													
Time Analyzed	PM Base	Peak Hour Factor	0.87													
Intersection Orientation	East-West	Analysis Time Period (Day)	0.25													
Project Description	7007-1485 Fr Street TIA															
																
Vehicle Volumes and Adjustments																
Approach	Eastbound			Westbound			Northbound			Southbound						
Measurement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	3	0	1	2	3	4	4	5	6	7	8	9	10	11	12	0
Number of Lanes	LTR			LTR			LTR			LTR			LTR			
Volume (veh/h)	18	17	11	18	17	17	17	9	9	11	4	11	11	4	11	0
Percent Heavy Vehicles (%)	2			2			2			2			2			
Proportion Time Blocked	0															
Right Turn Channelized	Unchannelized															
Median Type | Storage	Unchannelized															
Critical and Follow-up Headways																
Base Critical Headway (sec)	4.1			4.1			4.1			4.1			4.1			
Critical Headway (sec)	4.12			4.12			4.12			4.12			4.12			
Base Follow-Up Headway (sec)	2.2			2.2			2.2			2.2			2.2			
Follow-Up Headway (sec)	2.22			2.22			2.22			2.22			2.22			
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)	21			1			1			29			70			
Capacity, c (veh/h)	1271			1142			1142			1142			1142			
v/c Ratio	0.02			0.02			0.02			0.02			0.02			
95% Queue Length, Q ₉₅ (veh)	0.1			0.0			0.0			0.1			0.5			
Control Delay (s/veh)	8.0			8.0			13.6			13.6			13.5			
Level of Service (LOS)	A			A			B			B			B			
Approach Delay (s/veh)	0.7			0.1			12.6			13.5			13.5			
Approach LOS	B			B			B			B			B			

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HCS7 Two-Way Stop-Control Report												
General Information						Site Information						
Analyst	JLL	Intersection	George St at Thrift Ave	Agency/Co	White Rock							
Date Performed	4/12/2019	Jurisdiction	Thrift Avenue	Analysis Year	2002							
Analysis Year	2002	North/South Street	George Street	Time Analyzed	AM Base + Site							
Time Analyzed	0.83	Peak Hour Factor	0.83	Intersection Orientation	East-West							
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25	Project Description	7007: 1465 Fr Street TIA							
Project Description	7007: 1465 Fr Street TIA	Analysis Time Period (hrs)	0.25	Lanes								
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Volume (veh/h)	17	187	17	16	180	23	9	6	10	119	34	
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Unbid			Unbid			Unbid			Unbid		
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	14	159	14	15	159	14	15	159	14	159	14	
Capacity, c (veh/h)	1751	1751	1751	1751	1751	1751	1751	1751	1751	1751	1751	
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
95% Queue Length, Q ₉₅ (veh)	0	0	0	0	0	0	0	0	0	0	0	
Control Delay (s/veh)	7.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	
Approach Delay (s/veh)	0.6			0.7			12.6			12.8		
Approach LOS	B			B			B			B		

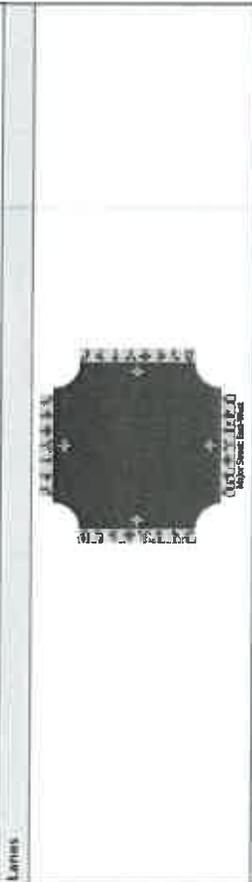
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HCS7 Two-Way Stop-Control Report												
General Information						Site Information						
Analyst	JLL	Intersection	George St at Thrift Ave	Agency/Co	White Rock							
Date Performed	4/12/2019	Jurisdiction	Thrift Avenue	Analysis Year	2002							
Analysis Year	2002	North/South Street	George Street	Time Analyzed	PM Base + Site							
Time Analyzed	0.87	Peak Hour Factor	0.87	Intersection Orientation	East-West							
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25	Project Description	7025: 1465 Fr Street TIA							
Project Description	7025: 1465 Fr Street TIA	Analysis Time Period (hrs)	0.25	Lanes								
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Volume (veh/h)	21	214	21	4	230	28	2	2	2	2	2	
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Unbid			Unbid			Unbid			Unbid		
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	14	159	14	15	159	14	15	159	14	159	14	
Capacity, c (veh/h)	1751	1751	1751	1751	1751	1751	1751	1751	1751	1751	1751	
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
95% Queue Length, Q ₉₅ (veh)	0	0	0	0	0	0	0	0	0	0	0	
Control Delay (s/veh)	7.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	
Approach Delay (s/veh)	0.6			0.7			12.6			12.8		
Approach LOS	B			B			B			B		

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General Information

Analyst	JLL	Intersection	George St at Thrift Ave
Agency/Co.	CTE	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Thrift Avenue
Analysis Year	2027	North/South Street	George Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025c, 1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound				
	U	L	T	U	L	T	U	L	T	U	L	T		
Movement	1U	1	2	3	4U	4	5	6	7	8	9	10	11	12
Priority	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR				
Configuration	LTR			LTR			LTR			LTR				
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent Heavy Vehicles (%)	0			0			0			0				
Proportion Time Blocked	0			0			0			0				
Percent Grade (%)	0			0			0			0				
Right Turn Channelized	0			0			0			0				
Median Type | Storage	Unchannelized			Unchannelized			Unchannelized			Unchannelized				

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

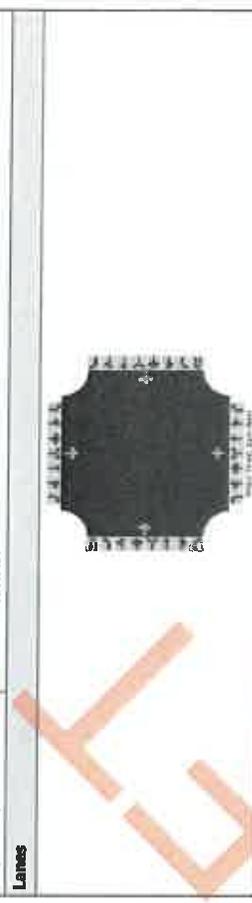
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	14	20	39	37
Capacity, c (veh/h)	1285	1285	479	481
v/c Ratio	0.01	0.02	0.07	0.08
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.7	0.3
Control Delay (s/veh)	7.9	7.6	13.1	13.5
Level of Service (LOS)	B	B	B	B
Approach Delay (s/veh)	0.5	0.7	13.1	13.5
Approach LOS	B	B	B	B

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General Information

Analyst	JLL	Intersection	George St at Thrift Ave
Agency/Co.	CTE	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Thrift Avenue
Analysis Year	2027	North/South Street	George Street
Time Analyzed	PM Base	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025c, 1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound				
	U	L	T	U	L	T	U	L	T	U	L	T		
Movement	1U	1	2	3	4U	4	5	6	7	8	9	10	11	12
Priority	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR				
Configuration	LTR			LTR			LTR			LTR				
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent Heavy Vehicles (%)	0			0			0			0				
Proportion Time Blocked	0			0			0			0				
Percent Grade (%)	0			0			0			0				
Right Turn Channelized	0			0			0			0				
Median Type | Storage	Unchannelized			Unchannelized			Unchannelized			Unchannelized				

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

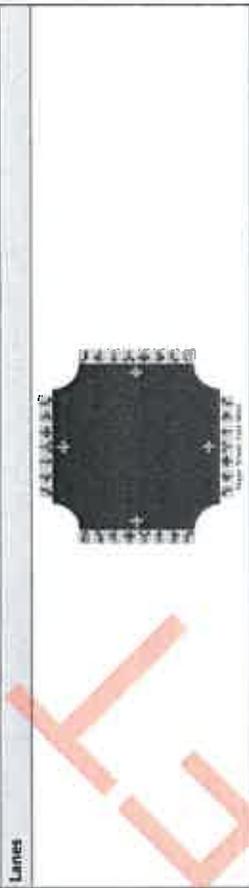
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	24	5	28	83
Capacity, c (veh/h)	1185	1205	434	442
v/c Ratio	0.02	0.00	0.05	0.19
95% Queue Length, Q ₉₅ (veh)	0.1	0.0	0.2	0.7
Control Delay (s/veh)	6.2	0.0	13.8	15.0
Level of Service (LOS)	A	A	B	C
Approach Delay (s/veh)	0.8	0.1	13.8	15.0
Approach LOS	B	B	B	C

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HCS 7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JLL	Intersection	George St at Thrift Ave
Agency/Co.	CTA	Jurisdiction	White Rock
Date Performed	4/12/2019	Northbound	Thrift Avenue
Analysis Year	2019	East/West Street	George Street
Time Analyzed	AM Peak + Sth	North/South Street	George Street
Intersection Orientation	East-West	Peak Hour Factor	0.83
Project Description	7025 1485 Ft Street TIA	Analysis Time Period (hrs)	0.25



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	M	T	T	R	U	T	R	U	T	R	U	T
Approach	10	1	2	4	4	5	6	7	8	9	10	11
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR		
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	13	10	33	18	20	22	18	6	31	13	5	15
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	No			No			No			No		
Median Type | Storage	Unobstructed			Unobstructed			Unobstructed			Unobstructed		

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

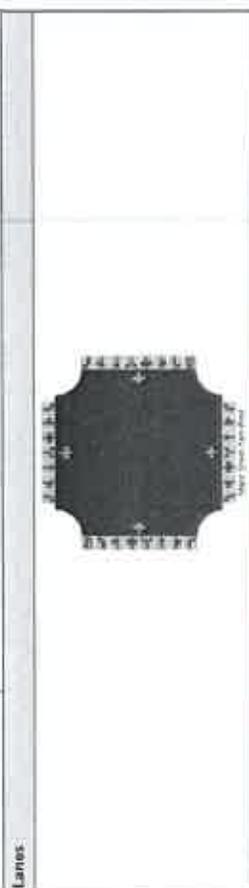
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	16	22	22	22	22	22	22	22	22	22	22	22
Capacity, c (veh/h)	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
v/c Ratio	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
95% Queue Length, Q ₉₅ (veh)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	7.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

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 George St at Thrift Ave 2027/04/12/2019 11:53:19 PM

HCS 7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JLL	Intersection	George St at Thrift Ave
Agency/Co.	CTA	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Thrift Avenue
Analysis Year	2019	North/South Street	George Street
Time Analyzed	AM Peak + Sth	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7007 1485 Ft Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	M	T	T	R	U	T	R	U	T	R	U	T
Approach	10	1	2	4	4	5	6	7	8	9	10	11
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR		
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	13	10	33	18	20	22	18	6	31	13	5	15
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	No			No			No			No		
Median Type | Storage	Unobstructed			Unobstructed			Unobstructed			Unobstructed		

Critical and Follow-up Headways

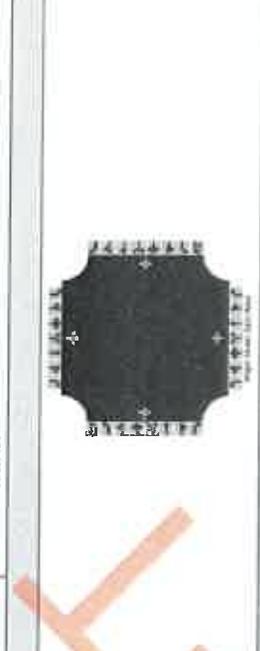
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	16	22	22	22	22	22	22	22	22	22	22	22
Capacity, c (veh/h)	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
v/c Ratio	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
95% Queue Length, Q ₉₅ (veh)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	7.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

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General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co.	CH	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2019	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025; 1485 Fr Street TIA		



Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	Volume (veh/h)	U	T	U	T	U	T	U	T
Minor Street	10	0	0	4U	5	0	0	10	11
Priority	0	0	0	0	1	0	0	0	1
Number of Lanes		LTR		LTR		LTR		LTR	
Configuration		L		L		L		L	
Volume (veh/h)	8	10	0	5	15	0	0	0	16
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2
Proportion Time Blocked		0		0		0		0	
Percent Grade (%)		0		0		0		0	
Right Turn Channelized		Unbid		Unbid		Unbid		Unbid	
Median Type | Storage		Unbid		Unbid		Unbid		Unbid	

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)	Critical Headway (sec)	U	T	U	T	U	T	U	T
4.1	4.12	4.1	4.12	4.1	4.12	4.1	4.12	4.1	4.12
2.2	2.22	2.2	2.22	2.2	2.22	2.2	2.22	2.2	2.22
3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)	Capacity, c (veh/h)	U	T	U	T	U	T	U	T
11	0.01	11	11	11	11	11	11	11	11
7.6	0.01	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
1.2	0.01	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
0.2	0.01	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)	Critical Headway (sec)	U	T	U	T	U	T	U	T
4.1	4.12	4.1	4.12	4.1	4.12	4.1	4.12	4.1	4.12
2.2	2.22	2.2	2.22	2.2	2.22	2.2	2.22	2.2	2.22
3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)	Capacity, c (veh/h)	U	T	U	T	U	T	U	T
11	0.01	11	11	11	11	11	11	11	11
7.6	0.01	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
1.2	0.01	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
0.2	0.01	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co.	CTS	Approach	Wide Rect
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Movement	3.0	1	2	3	4	5	6	7	8	9	10	11
Priority	0	0	1	0	0	1	0	0	1	0	0	1
Number of Lanes	0	0	1	0	0	1	0	0	1	0	0	1
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	10	127	8	6	165	13	8	4	20	2	2	2
Percent Heavy Vehicles (%)	2			2			2			2		
Proportion Time Restricted	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Unchannelized			Unchannelized			Unchannelized			Unchannelized		
Median Type | Storage	Unchannelized			Unchannelized			Unchannelized			Unchannelized		

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
Critical Headway (sec)	4.1	4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
Base Follow-Up Headway (sec)	2.2	2.2	2.2	3.5	4.0	3.3	3.5	4.0	3.3
Follow-Up Headway (sec)	2.2	2.2	2.2	3.5	4.0	3.3	3.5	4.0	3.3

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	11	7	7	37	38
Capacity, c (veh/h)	1,166	1,166	1,166	1,166	1,166
v/c Ratio	0.01	0.01	0.01	0.03	0.03
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.0	0.2	0.2
Control Delay (s/veh)	7.9	1.7	1.7	11.9	11.7
Level of Service (LOS)	A	A	A	B	B
Approach Delay (s/veh)	0.6	0.3	0.3	11.0	11.7
Approach LOS	A	A	A	B	B

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HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co.	CTS	Approach	Wide Rect
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Movement	3.0	1	2	3	4	5	6	7	8	9	10	11
Priority	0	0	1	0	0	1	0	0	1	0	0	1
Number of Lanes	0	0	1	0	0	1	0	0	1	0	0	1
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	10	127	8	6	165	13	8	4	20	2	2	2
Percent Heavy Vehicles (%)	2			2			2			2		
Proportion Time Restricted	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Unchannelized			Unchannelized			Unchannelized			Unchannelized		
Median Type | Storage	Unchannelized			Unchannelized			Unchannelized			Unchannelized		

Critical and Follow-up Headways

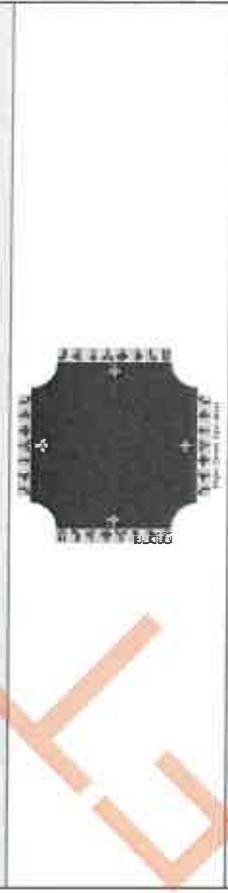
Base Critical Headway (sec)	4.1	4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
Critical Headway (sec)	4.1	4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
Base Follow-Up Headway (sec)	2.2	2.2	2.2	3.5	4.0	3.3	3.5	4.0	3.3
Follow-Up Headway (sec)	2.2	2.2	2.2	3.5	4.0	3.3	3.5	4.0	3.3

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	12	5	5	14	40
Capacity, c (veh/h)	1,166	1,166	1,166	1,166	1,166
v/c Ratio	0.01	0.01	0.01	0.02	0.05
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.0	0.1	0.2
Control Delay (s/veh)	7.6	1.4	1.4	8.8	10.0
Level of Service (LOS)	A	A	A	A	A
Approach Delay (s/veh)	1.3	0.3	0.3	9.9	10.0
Approach LOS	A	A	A	A	A

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General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2027	North/South Street	Fr Street
Time Analyzed	PM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	L	T	R	L	T	R
Movement	10	1	2	40	4	5	7	8	9	10	11	12
Priority	0	0	0	0	0	1	0	1	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR		
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	11	139	9	6	180	14	9	4	21	1	7	19
Percent Heavy Vehicles (%)	2			2			2			2		
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Undivided			Undivided			Undivided			Undivided		
Median Type | Storage	Undivided			Undivided			Undivided			Undivided		

Critical and Follow-up Headways

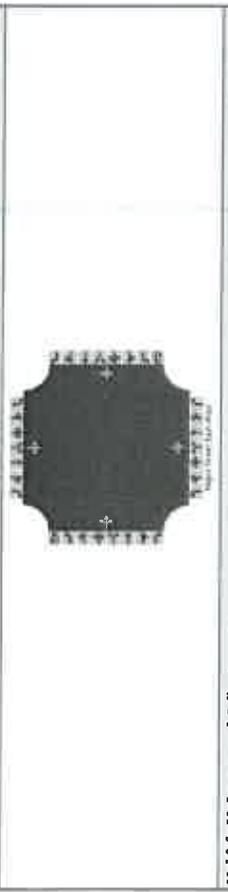
	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

Delay, Queue Length, and Level of Service

	13	13	13	13	13	13	13	13	13	13	13	13
Flow Rate, v (veh/h)	13	13	13	13	13	13	13	13	13	13	13	13
Capacity, c (veh/h)	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

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General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2027	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	L	T	R	L	T	R
Movement	10	1	2	40	4	5	7	8	9	10	11	12
Priority	0	0	0	0	0	1	0	1	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR		
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	11	139	9	6	180	14	9	4	21	1	7	19
Percent Heavy Vehicles (%)	2			2			2			2		
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Undivided			Undivided			Undivided			Undivided		
Median Type | Storage	Undivided			Undivided			Undivided			Undivided		

Critical and Follow-up Headways

	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

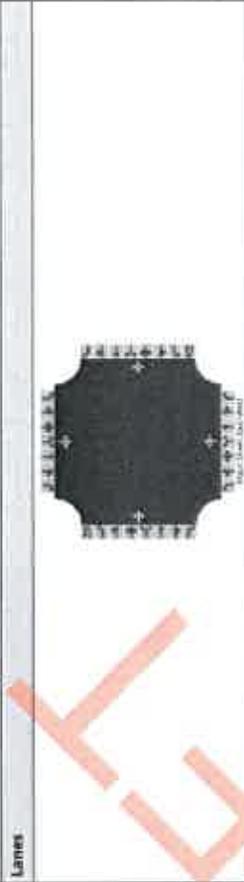
Delay, Queue Length, and Level of Service

	13	13	13	13	13	13	13	13	13	13	13	13
Flow Rate, v (veh/h)	13	13	13	13	13	13	13	13	13	13	13	13
Capacity, c (veh/h)	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

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HCS7 Two-Way Stop Control Report

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co.	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	PM Peak + Site	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.75
Project Description	7025-1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Priority	3U	1	2	3	4U	4	5	6	7	8	9	10
Number of Lanes	0	0	0	0	0	0	1	0	0	1	0	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	10	10	8	6	368	13	11	4	10	7	10	7
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Unobstructed											

Critical and Follow-up Headways

Base Critical Headway (sec)	Critical Headway (sec)	Base Follow-Up Headway (sec)	Follow-Up Headway (sec)
4.1	4.12	2.2	2.22

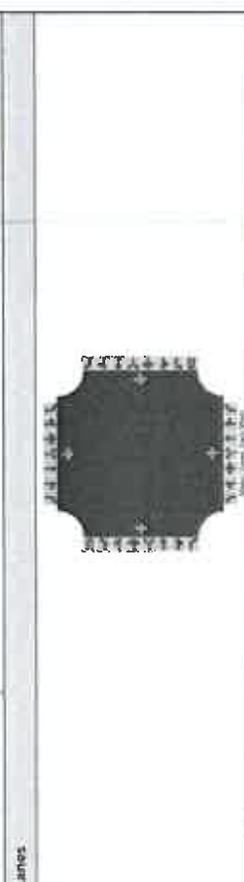
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	Capacity, c (veh/h)	v/c Ratio	95% Queue Length, Q ₉₅ (veh)	Control Delay (s/veh)	Level of Service (LOS)
11	1588	0.007	0.0	7.9	A
40	1588	0.025	0.1	11.3	B
11.3	1588	0.007	0.0	7.9	A
11.7	1588	0.007	0.0	7.9	A

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HCS7 Two-Way Stop Control Report

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Russell Ave
Agency/Co.	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Peak + Site	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Priority	3U	1	2	3	4U	4	5	6	7	8	9	10
Number of Lanes	0	0	0	0	0	0	1	0	0	1	0	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	11	12	8	4	48	12	3	3	14	7	17	17
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Unobstructed											

Critical and Follow-up Headways

Base Critical Headway (sec)	Critical Headway (sec)	Base Follow-Up Headway (sec)	Follow-Up Headway (sec)
4.1	4.12	2.2	2.22

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	Capacity, c (veh/h)	v/c Ratio	95% Queue Length, Q ₉₅ (veh)	Control Delay (s/veh)	Level of Service (LOS)
13	1588	0.008	0.0	7.4	A
40	1588	0.025	0.1	10.0	A
13	1588	0.008	0.0	7.4	A
10.0	1588	0.006	0.0	7.4	A

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HCS7 Two-Way Stop-Control Right											
General Information						Site Information					
Analyst	JLL	Intersection	Fr St at Russell Ave			Fr St at Russell Ave					
Agency/Co.	CH	Accession	White Rock			White Rock					
Date Performed	4/10/2019	East/West Street	Russell Avenue			Russell Avenue					
Analysis Year	2027	North/South Street	Fr Street			Fr Street					
Time Analyzed	AM Base + SIB	Peak Hour Factor	0.83			0.87					
Intersection Orientation	East-West	Analysis Time Period (Hrs)	0.25			0.21					
Project Description	7025; 1485 Fr Street TIA					7025; 1485 Fr Street TIA					
Lanes						Lanes					

Vehicle Volumes and Adjustments												
Approach	Southbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Movement	10	1	2	3	4	5	6	7	8	9	10	11
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR		
Volume (veh/h)	12	57	8	107	13	3	107	13	3	107	13	3
Percent Heavy Vehicles (%)	2			2			2			2		
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Unidirectional			Unidirectional			Unidirectional			Unidirectional		
Median Type / Storage	Unidirectional			Unidirectional			Unidirectional			Unidirectional		

Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	6.5	6.2	7.1	6.5	6.2	7.1	6.5	6.2	7.1	6.5
Critical Headway (sec)	4.12	4.12	6.52	6.22	7.12	6.52	6.22	7.12	6.52	6.22	7.12	6.52
Base Follow-Up Headway (sec)	2.2	2.2	4.0	3.1	4.0	3.1	4.0	3.1	4.0	3.1	4.0	3.1
Follow-Up Headway (sec)	2.22	2.22	4.02	3.12	4.02	3.12	4.02	3.12	4.02	3.12	4.02	3.12

Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	14	5	10	11	11	11	11	11	11	11	11	11
Capacity, c (veh/h)	1350	1500	710	710	710	710	710	710	710	710	710	710
v/c Ratio	0.01	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	7.6	7.4	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Level of Service (LOS)	A	A	B	B	B	B	B	B	B	B	B	B
Approach Delay (s/veh)	1.3	0.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

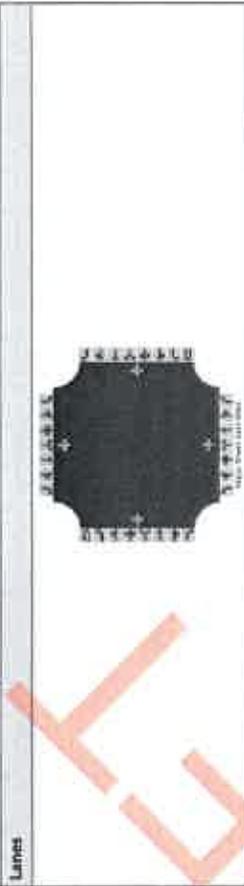
HCS7 Two-Way Stop-Control Right											
General Information						Site Information					
Analyst	JLL	Intersection	Fr St at Russell Ave			Fr St at Russell Ave					
Agency/Co.	CH	Accession	White Rock			White Rock					
Date Performed	4/10/2019	East/West Street	Russell Avenue			Russell Avenue					
Analysis Year	2027	North/South Street	Fr Street			Fr Street					
Time Analyzed	PM Base + SIB	Peak Hour Factor	0.83			0.87					
Intersection Orientation	East-West	Analysis Time Period (Hrs)	0.25			0.21					
Project Description	7025; 1485 Fr Street TIA					7025; 1485 Fr Street TIA					
Lanes						Lanes					

Vehicle Volumes and Adjustments												
Approach	Southbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Movement	10	1	2	3	4	5	6	7	8	9	10	11
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	LTR			LTR			LTR			LTR		
Volume (veh/h)	12	57	8	107	13	3	107	13	3	107	13	3
Percent Heavy Vehicles (%)	2			2			2			2		
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Unidirectional			Unidirectional			Unidirectional			Unidirectional		
Median Type / Storage	Unidirectional			Unidirectional			Unidirectional			Unidirectional		

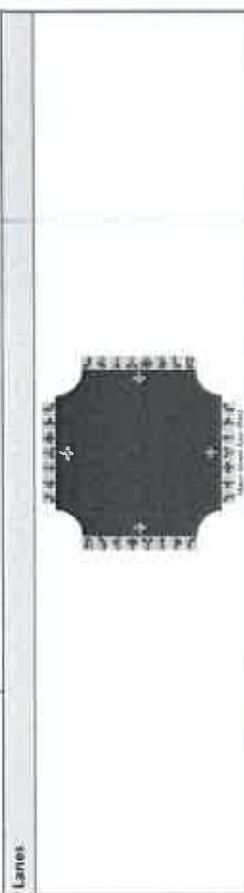
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	6.5	6.2	7.1	6.5	6.2	7.1	6.5	6.2	7.1	6.5
Critical Headway (sec)	4.12	4.12	6.52	6.22	7.12	6.52	6.22	7.12	6.52	6.22	7.12	6.52
Base Follow-Up Headway (sec)	2.2	2.2	4.0	3.1	4.0	3.1	4.0	3.1	4.0	3.1	4.0	3.1
Follow-Up Headway (sec)	2.22	2.22	4.02	3.12	4.02	3.12	4.02	3.12	4.02	3.12	4.02	3.12

Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	14	5	10	11	11	11	11	11	11	11	11	11
Capacity, c (veh/h)	1350	1500	710	710	710	710	710	710	710	710	710	710
v/c Ratio	0.01	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	7.6	7.4	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Level of Service (LOS)	A	A	B	B	B	B	B	B	B	B	B	B
Approach Delay (s/veh)	1.3	0.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Co.	ETS	Approach	White Road
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2019	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1495 Fr Street TIA		



General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Co.	ETS	Approach	White Road
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2019	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1495 Fr Street TIA		



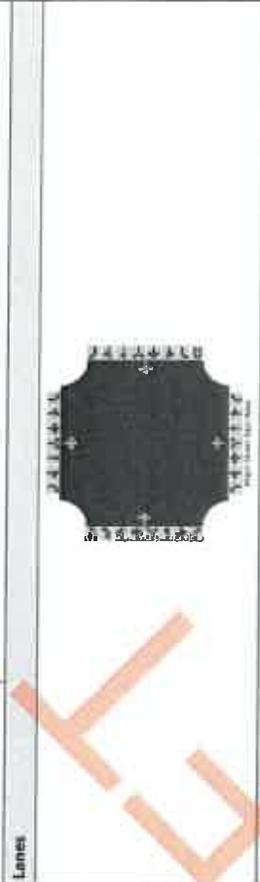
Vehicle Volumes and Adjustments		Eastbound				Westbound				Northbound				Southbound			
Approach		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Volume	311	1	2	3	40	4	5	6	7	8	9	10	11	12	13	14	15
Priority	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
Number of Lanes	LTR	LTR				LTR				LTR				LTR			
Configuration																	
Volume (veh/h)	37	38	10	4	26	1	34	2	2	2	2	2	2	2	2	2	2
Percent Heavy Vehicles (%)	2																
Proportion Time Blocked																	
Percent Grade (%)																	
Right Turn Channelized																	
Median Type | Storage	Unshaded																

Vehicle Volumes and Adjustments		Eastbound				Westbound				Northbound				Southbound			
Approach		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Volume	311	1	2	3	40	4	5	6	7	8	9	10	11	12	13	14	15
Priority	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
Number of Lanes	LTR	LTR				LTR				LTR				LTR			
Configuration																	
Volume (veh/h)	37	38	10	4	26	1	34	2	2	2	2	2	2	2	2	2	2
Percent Heavy Vehicles (%)	2																
Proportion Time Blocked																	
Percent Grade (%)																	
Right Turn Channelized																	
Median Type | Storage	Unshaded																

Critical and Follow-up Headways		Eastbound				Westbound				Northbound				Southbound			
Approach		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Delay, Queue Length, and Level of Service																	
Flow Rate, v (veh/h)	45																
Capacity, c (veh/h)	465																
v/c Ratio	0.09																
95% Queue Length, Q ₉₅ (veh)	0.0																
Control Delay (s/veh)	7.8																
Level of Service (LOS)	A																
Approach Delay (s/veh)	0.2																
Approach LOS	B																

Critical and Follow-up Headways		Eastbound				Westbound				Northbound				Southbound			
Approach		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Delay, Queue Length, and Level of Service																	
Flow Rate, v (veh/h)	45																
Capacity, c (veh/h)	465																
v/c Ratio	0.09																
95% Queue Length, Q ₉₅ (veh)	0.0																
Control Delay (s/veh)	7.8																
Level of Service (LOS)	A																
Approach Delay (s/veh)	0.2																
Approach LOS	B																

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/13/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025; 1485 Fr Street TIA		



Approach	Eastbound			Westbound			Northbound			Southbound				
	L	T	R	L	T	R	L	T	R	L	T	R		
Movement	11	1	2	3	4U	4	5	6	7	8	9	10	11	12
Priority	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Volume (veh/h)	9	183	89	48	183	5	28	2	15	2	2	2	2	2
Percent Heavy Vehicles (%)														
Proportion Time Blocked														
Percent Grade (%)														
Right Turn Channelized														
Median Type | Storage	Undivided													

Vehicle Volumes and Adjustments

Base Critical Headway (sec): 4.1

Critical Headway (sec): 4.1

Base Follow-Up Headway (sec): 2.2

Follow-Up Headway (sec): 2.2

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h): 7

Capacity, c (veh/h): 1264

v/c Ratio: 0.01

95% Queue Length, Q₉₅ (veh): 0.0

Control Delay (s/veh): 7.9

Level of Service (LOS): A

Approach Delay (s/veh): 0.3

Approach LOS: B

Critical and Follow-up Headways

Base Critical Headway (sec): 4.1

Critical Headway (sec): 4.1

Base Follow-Up Headway (sec): 2.2

Follow-Up Headway (sec): 2.2

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h): 41

Capacity, c (veh/h): 408

v/c Ratio: 0.09

95% Queue Length, Q₉₅ (veh): 0.0

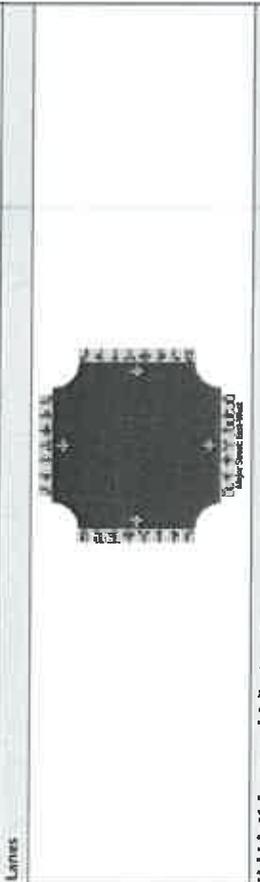
Control Delay (s/veh): 7.9

Level of Service (LOS): A

Approach Delay (s/veh): 0.2

Approach LOS: B

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/13/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025; 1485 Fr Street TIA		



Approach	Eastbound			Westbound			Northbound			Southbound				
	L	T	R	L	T	R	L	T	R	L	T	R		
Movement	11	1	2	3	4U	4	5	6	7	8	9	10	11	12
Priority	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Volume (veh/h)	9	183	89	48	183	5	28	2	15	2	2	2	2	2
Percent Heavy Vehicles (%)														
Proportion Time Blocked														
Percent Grade (%)														
Right Turn Channelized														
Median Type | Storage	Undivided													

Vehicle Volumes and Adjustments

Base Critical Headway (sec): 4.1

Critical Headway (sec): 4.1

Base Follow-Up Headway (sec): 2.2

Follow-Up Headway (sec): 2.2

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h): 41

Capacity, c (veh/h): 408

v/c Ratio: 0.09

95% Queue Length, Q₉₅ (veh): 0.0

Control Delay (s/veh): 7.9

Level of Service (LOS): A

Approach Delay (s/veh): 0.3

Approach LOS: B

Critical and Follow-up Headways

Base Critical Headway (sec): 4.1

Critical Headway (sec): 4.1

Base Follow-Up Headway (sec): 2.2

Follow-Up Headway (sec): 2.2

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h): 7

Capacity, c (veh/h): 1264

v/c Ratio: 0.01

95% Queue Length, Q₉₅ (veh): 0.0

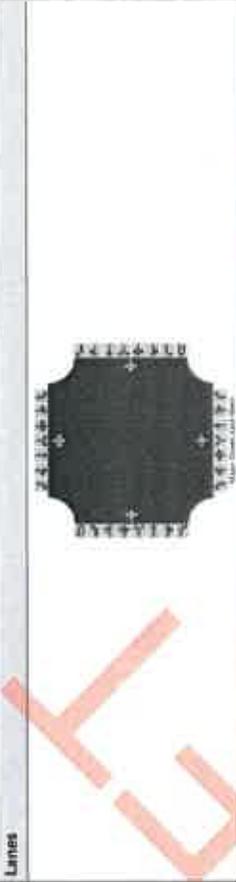
Control Delay (s/veh): 7.9

Level of Service (LOS): A

Approach Delay (s/veh): 0.3

Approach LOS: B

General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Cz	CTK	Jurisdiction	White Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Base + Site	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



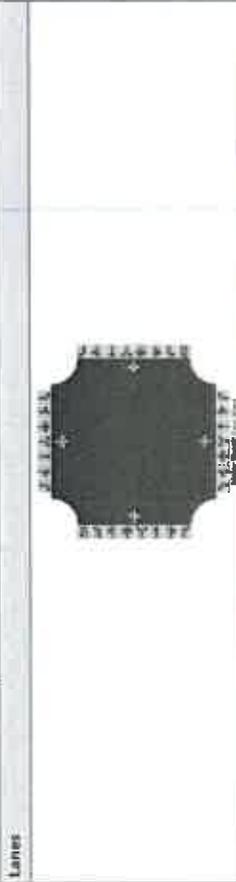
Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	U	L	T	R	L	T	R	L	T
Priority	3.0	1	2	3	4.0	4	5	6	7
Number of Lanes	0	0	0	0	0	1	0	0	1
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Volume (veh/h)	6	187	29	40	195	5	38	15	1
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2
Proportion Time Blocked									
Percent Grade (%)									
Right Turn Channelized									
Median Type | Storage	Unsignalized								

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)	7	46	54	54	54	54	54	54	
Capacity, c (veh/h)	1250	1250	486	486	486	486	486	486	
v/c Ratio	0.01	0.04	0.12	0.12	0.12	0.12	0.12	0.12	
95% Queue Length, Q ₉₅ (veh)	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	
Control Delay (s/veh)	7.9	7.9	13.9	13.9	13.9	13.9	13.9	13.9	
Level of Service (LOS)	A	A	B	B	B	B	B	B	
Approach Delay (s/veh)	0.3	1.8	1.9	1.9	1.9	1.9	1.9	1.9	
Approach LOS		B	B	B	B	B	B	B	

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 Fr St at Thrift Ave 20220309m.jbr
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General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Cz	CTK	Jurisdiction	White Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	Fr Street
Time Analyzed	AM Base + Site	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Fr Street TIA		



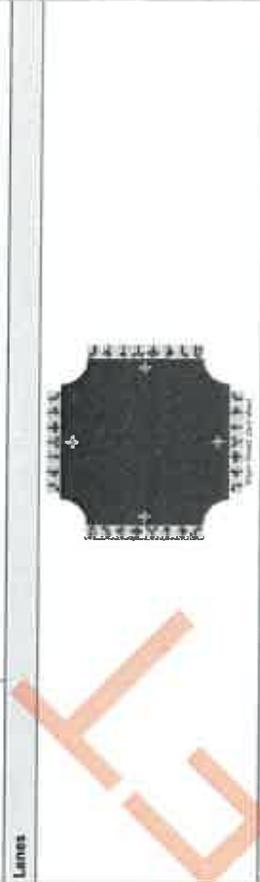
Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	U	L	T	R	L	T	R	L	T
Priority	3.0	1	2	3	4.0	4	5	6	7
Number of Lanes	0	0	0	0	0	1	0	0	1
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Volume (veh/h)	6	187	29	40	195	5	38	15	1
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2
Proportion Time Blocked									
Percent Grade (%)									
Right Turn Channelized									
Median Type | Storage	Unsignalized								

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)	7	46	54	54	54	54	54	54	
Capacity, c (veh/h)	1250	1250	486	486	486	486	486	486	
v/c Ratio	0.01	0.04	0.12	0.12	0.12	0.12	0.12	0.12	
95% Queue Length, Q ₉₅ (veh)	0.0	0.1	0.4	0.4	0.4	0.4	0.4	0.4	
Control Delay (s/veh)	7.9	7.9	13.9	13.9	13.9	13.9	13.9	13.9	
Level of Service (LOS)	A	A	B	B	B	B	B	B	
Approach Delay (s/veh)	0.3	1.8	1.9	1.9	1.9	1.9	1.9	1.9	
Approach LOS		B	B	B	B	B	B	B	

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 Fr St at Thrift Ave 20220309m.jbr
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General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Co.	CH	Jurisdiction	White Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2027	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025, 1485 Fr Street TIA		



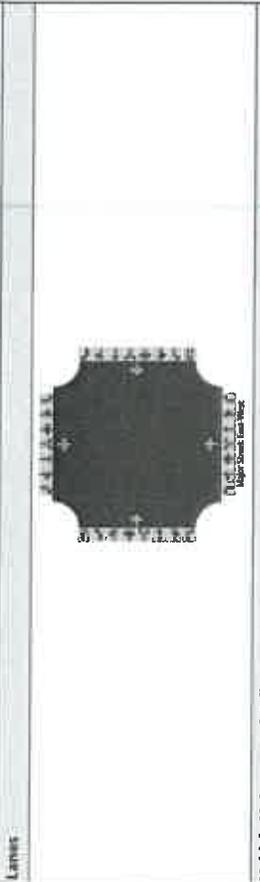
Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	Measurement	U	T	U	T	U	T	U	T
Priority		1	2	4	5	6	7	8	9
Number of Lanes		0	0	0	1	0	0	1	0
Configuration	LTR	LTR		LTR		LTR		LTR	
Volume (veh/h)		6	202	43	210	31	2	17	1
Percent Heavy Vehicles (%)		2		2		2		2	
Proportion Time Blocked									
Percent Grade (%)									
Right Turn Channelized									
Median Type | Storage		Undivided		Undivided		Undivided		Undivided	

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)		4.1		4.1		4.1		4.1	
Critical Headway (sec)		4.12		4.12		4.12		4.12	
Base Follow-Up Headway (sec)		2.2		2.2		2.2		2.2	
Follow-Up Headway (sec)		2.22		2.22		2.22		2.22	

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)		7		52		60		8	
Capacity, c (veh/h)		1241		1269		435		396	
v/c Ratio		0.01		0.04		0.14		0.02	
95% Queue Length, Q ₉₅ (veh)		0.0		0.1		0.1		0.1	
Control Delay (s/veh)		7.9		8.0		14.6		14.3	
Level of Service (LOS)		A		A		B		B	
Approach Delay (s/veh)		0.3		1.6		14.6		14.3	
Approach LOS									

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General Information		Site Information	
Analyst	JLL	Intersection	Fr St at Thrift Ave
Agency/Co.	CH	Jurisdiction	White Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2027	North/South Street	Fr Street
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025, 1485 Fr Street TIA		



Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	Measurement	U	T	U	T	U	T	U	T
Priority		1	2	4	5	6	7	8	9
Number of Lanes		0	0	0	1	0	0	1	0
Configuration	LTR	LTR		LTR		LTR		LTR	
Volume (veh/h)		6	202	43	210	31	2	17	1
Percent Heavy Vehicles (%)		2		2		2		2	
Proportion Time Blocked									
Percent Grade (%)									
Right Turn Channelized									
Median Type Storage		Undivided		Undivided		Undivided		Undivided	

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)		4.1		4.1		4.1		4.1	
Critical Headway (sec)		4.12		4.12		4.12		4.12	
Base Follow-Up Headway (sec)		2.2		2.2		2.2		2.2	
Follow-Up Headway (sec)		2.22		2.22		2.22		2.22	

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)		7		52		60		8	
Capacity, c (veh/h)		1241		1269		435		396	
v/c Ratio		0.01		0.04		0.14		0.02	
95% Queue Length, Q ₉₅ (veh)		0.0		0.1		0.1		0.1	
Control Delay (s/veh)		7.9		8.0		14.6		14.3	
Level of Service (LOS)		A		A		B		B	
Approach Delay (s/veh)		0.3		1.6		14.6		14.3	
Approach LOS									

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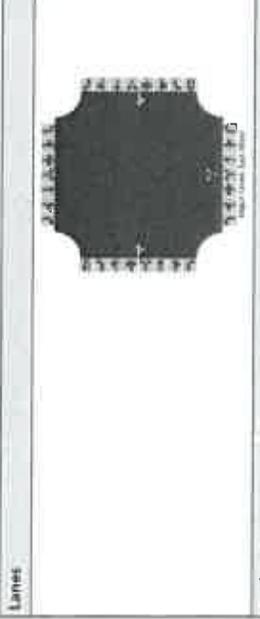
HCS7 Two-Way Stop-Control Report												
General Information						Site Information						
Analyst	JLL	Intersection	Fr St at Thrift Ave			Fr St at Thrift Ave	Analyst	JLL	Intersection	Fr St at Thrift Ave		
Agency/Co.	CTS	Jurisdiction	White Rock			White Rock	Date Performed	4/11/2019	Jurisdiction	White Rock		
Date Performed	4/11/2019	North/South Street	Thrift Avenue			Thrift Avenue	Analyst Year	2027	North/South Street	Thrift Avenue		
Analyst Year	2027	Peak Hour Factor	0.87			0.87	Time Analyzed	AM Base + Site	Peak Hour Factor	0.87		
Time Analyzed	AM Base + Site	Analysis Time Period (hrs)	0.25			0.25	Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25		
Intersection Orientation	East-West	Project Description	7025 1465 Fr Street TIA									
Project Description	7025 1465 Fr Street TIA											
Notes:												

HCS7 Two-Way Stop-Control Report												
General Information						Site Information						
Analyst	JLL	Intersection	Fr St at Thrift Ave			Fr St at Thrift Ave	Analyst	JLL	Intersection	Fr St at Thrift Ave		
Agency/Co.	CTS	Jurisdiction	White Rock			White Rock	Date Performed	4/11/2019	Jurisdiction	White Rock		
Date Performed	4/11/2019	North/South Street	Thrift Avenue			Thrift Avenue	Analyst Year	2027	North/South Street	Thrift Avenue		
Analyst Year	2027	Peak Hour Factor	0.87			0.87	Time Analyzed	AM Base + Site	Peak Hour Factor	0.87		
Time Analyzed	AM Base + Site	Analysis Time Period (hrs)	0.25			0.25	Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25		
Intersection Orientation	East-West	Project Description	7025 1465 Fr Street TIA									
Project Description	7025 1465 Fr Street TIA											
Notes:												

Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Priority	3	0	0	4	0	0	7	0	0	10	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	8	101	21	63	213	5	31	2	17	1	4	7
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unfielded											
Median Type | Storage	Unfielded											

Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Flow Rate, v (veh/h)	7	52	13	60	13	60	13	60	13	60	13	13
Capacity, c (veh/h)	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377	1377
v/c Ratio	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
Control Delay (s/veh)	7.9	8.9	7.9	14.8	7.9	14.8	7.9	14.8	7.9	14.8	7.9	14.8
Level of Service (LOS)	A	A	A	B	A	B	A	B	A	B	A	C
Approach Delay (s/veh)	0.3	1.6	0.3	14.8	0.3	14.8	0.3	14.8	0.3	14.8	0.3	14.8
Approach LOS	B	B	B	C	B	C	B	C	B	C	B	C

General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2019	North/South Street	George Lane
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025; 1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound				
	U	T	R	L	T	R	L	T	R	L	T	R		
Movement	1U	1	2	3	4U	4	5	6	7	8	9	10	11	12
Priority	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	TR			LT			UR			LR				
Volume (veh/h)	10	8	3	104	2	2	2	2	2	2	2	2	2	2
Percent Heavy Vehicles (%)	0													
Proportion Time Blocked	0													
Percent Grade (%)	0													
Right Turn Channelized	0													
Median Type | Storage	Unfringed													

Critical and Follow-up Headways

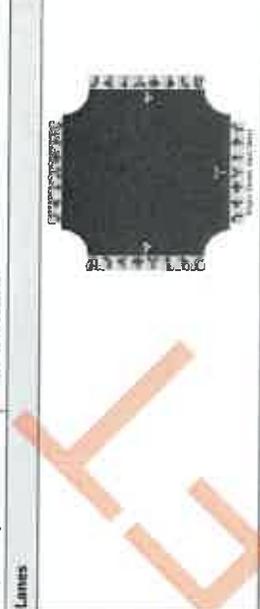
Base Critical Headway (sec)	4.1	6.1	6.2
Critical Headway (sec)	4.12	6.42	6.72
Base Follow-Up Headway (sec)	2.2	3.5	3.3
Follow-Up Headway (sec)	2.22	3.52	3.32

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	6	8	8
Capacity, c (veh/h)	112	848	848
v/c Ratio	0.06	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0	0	0
Control Delay (s/veh)	7.4	0.3	0.3
Level of Service (LOS)	F	A	A
Approach Delay (s/veh)	6.4	0.3	0.3
Approach LOS	F	A	A

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General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTS	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2019	North/South Street	George Lane
Time Analyzed	PM Base	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025; 1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound				
	U	T	R	L	T	R	L	T	R	L	T	R		
Movement	1U	1	2	3	4U	4	5	6	7	8	9	10	11	12
Priority	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	TR			LT			UR			LR				
Volume (veh/h)	10	8	3	104	2	2	2	2	2	2	2	2	2	2
Percent Heavy Vehicles (%)	0													
Proportion Time Blocked	0													
Percent Grade (%)	0													
Right Turn Channelized	0													
Median Type | Storage	Unfringed													

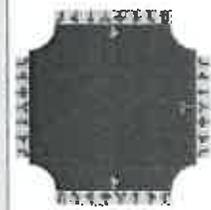
Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	7.1	6.2
Critical Headway (sec)	4.12	8.42	6.22
Base Follow-Up Headway (sec)	2.2	3.5	3.3
Follow-Up Headway (sec)	2.22	3.52	3.32

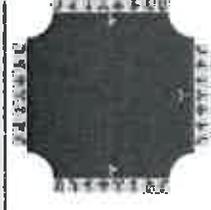
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	3	15	15
Capacity, c (veh/h)	112	722	722
v/c Ratio	0.03	0.02	0.02
95% Queue Length, Q ₉₅ (veh)	0	0	0
Control Delay (s/veh)	7.7	0.1	0.1
Level of Service (LOS)	F	A	A
Approach Delay (s/veh)	6.2	0.1	0.1
Approach LOS	F	A	A

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 George Ln at Russell Ave 201904mxdw
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HCS? Two-Way Stop Control Report												
General Information						Site Information						
Analyst	ALL	Intersection	George Ln at Russell Ave									
Agency/Co	CTL	Jurisdiction	White Oak									
Date Performed	4/10/2019	East/West Street	Russell Avenue									
Analysis Year	2022	North/South Street	George Lane									
Time Analyzed	AM Base	Peak Hour Factor	0.83									
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25									
Project Description	7025 1485 Rt Street TIA											
												
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Measurements	U	L	T	U	L	T	U	L	T	U	L	T
Priority	1	2	3	4	5	6	7	8	9	10	11	12
Number of Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Configuration	LR			LR			LR			LR		
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Percent Heavy Vehicles (%)	0											
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unbid											
Median Type | Storage	Unbid											
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1			4.1			4.1			4.1		
Critical Headway (sec)	4.12			4.12			4.12			4.12		
Base Follow-Up Headway (sec)	2.2			2.2			2.2			2.2		
Follow-Up Headway (sec)	2.22			2.22			2.22			2.22		
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	7			7			7			7		
Capacity, c (veh/h)	1336			1336			1336			1336		
v/c Ratio	0.00			0.00			0.00			0.00		
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.0			0.0		
Control Delay (s/veh)	7.4			7.4			7.4			7.4		
Level of Service (LOS)	A			A			A			A		
Approach Delay (s/veh)	6.4			6.4			6.4			6.4		
Approach LOS	A			A			A			A		

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HCS? Two-Way Stop Control Report												
General Information						Site Information						
Analyst	ALL	Intersection	George Ln at Russell Ave									
Agency/Co	CTL	Jurisdiction	White Oak									
Date Performed	4/10/2019	East/West Street	Russell Avenue									
Analysis Year	2022	North/South Street	George Lane									
Time Analyzed	PM Base	Peak Hour Factor	0.87									
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25									
Project Description	7025 1485 Rt Street TIA											
												
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Measurements	U	L	T	U	L	T	U	L	T	U	L	T
Priority	1	2	3	4	5	6	7	8	9	10	11	12
Number of Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Configuration	LR			LR			LR			LR		
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Percent Heavy Vehicles (%)	0											
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unbid											
Median Type | Storage	Unbid											
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1			4.1			4.1			4.1		
Critical Headway (sec)	4.12			4.12			4.12			4.12		
Base Follow-Up Headway (sec)	2.2			2.2			2.2			2.2		
Follow-Up Headway (sec)	2.22			2.22			2.22			2.22		
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	5			5			5			5		
Capacity, c (veh/h)	1336			1336			1336			1336		
v/c Ratio	0.00			0.00			0.00			0.00		
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.0			0.0		
Control Delay (s/veh)	7.7			7.7			7.7			7.7		
Level of Service (LOS)	A			A			A			A		
Approach Delay (s/veh)	6.2			6.2			6.2			6.2		
Approach LOS	A			A			A			A		

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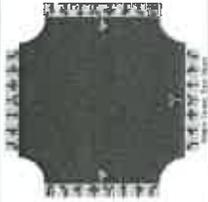
HCS7 Two-Way Stop-Control Report

General Information

Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTL	Jurisdiction	White Rock
Date Performed	4/19/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025 1465 Ft Street TIA		

Site Information

Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTL	Jurisdiction	White Rock
Date Performed	4/19/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025 1465 Ft Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Priority	1	2	3	4U	4	5	6	7	8	9	10	11
Number of Lanes	1	1	1	0	0	0	0	1	0	0	0	0
Configuration	UR											
Volume (veh/h)	56	13	1	11	11	11	11	11	11	11	11	11
Percent Heavy Vehicles (%)	0											
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unchannelized											
Median Type | Storage	Unchannelized											

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	8	8	8	8	8	8	8	8	8	8	8	8
Capacity, c (veh/h)	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Approach LOS	A	A	A	A	A	A	A	A	A	A	A	A

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 George Ln at Russell Ave 2022bprmsrwb
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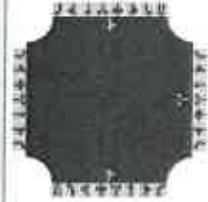
HCS7 Two-Way Stop-Control Report

General Information

Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTL	Jurisdiction	White Rock
Date Performed	4/19/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	PM Base + Site	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025 1465 Ft Street TIA		

Site Information

Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTL	Jurisdiction	White Rock
Date Performed	4/19/2019	East/West Street	Russell Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	PM Base + Site	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025 1465 Ft Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Priority	1	2	3	4U	4	5	6	7	8	9	10	11
Number of Lanes	0	0	0	0	0	0	0	1	0	0	0	0
Configuration	TR											
Volume (veh/h)	11	11	11	11	11	11	11	11	11	11	11	11
Percent Heavy Vehicles (%)	0											
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unchannelized											
Median Type | Storage	Unchannelized											

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	11	11	11	11	11	11	11	11	11	11	11	11
Capacity, c (veh/h)	1321	1321	1321	1321	1321	1321	1321	1321	1321	1321	1321	1321
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Level of Service (LOS)	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay (s/veh)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Approach LOS	A	A	A	A	A	A	A	A	A	A	A	A

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 George Ln at Russell Ave 2022bprmsrwb
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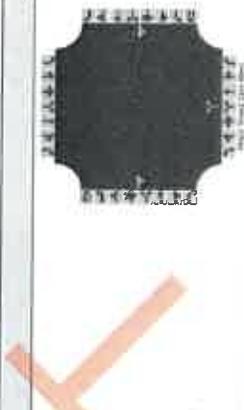
HCS7 Two-Way Stop-Control Report													
General Information						Site Information							
Analyst	ALL	Intersection	George Ln at Russell Ave			Agency/Co	White Rock			Agency/Co	White Rock		
Date Performed	4/10/2019	Jurisdiction	Russell Avenue			Date Performed	4/10/2019			Jurisdiction	East/West Street		
Analysis Year	2019	North/South Street	George Lane			Analysis Year	2019			North/South Street	George Lane		
Time Analyzed	AM Peak	Peak Hour Factor	0.83			Time Analyzed	PM Peak			Peak Hour Factor	0.87		
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25			Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	7025-1485 Fr Street TIA												
Vehicle Volumes and Adjustments													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Priority	1	2	3	4	5	6	7	8	9	10	11	12	
Number of Lanes	1	1	1	0	1	0	0	1	0	0	1	0	
Configuration	TR			LT			LR			LR			
Volume (veh/h)	10			121			5			5			
Percent Heavy Vehicles (%)	0			2			2			2			
Proportion Time Blocked	0			0			0			0			
Percent Grade (%)	0												
Right Turn Channelized	Unbid												
Median Type | Storage	Unbid												
Critical and Follow-up Headways													
Base Critical Headway (sec)	4.1			4.1			4.1			4.1			
Critical Headway (sec)	4.12			4.12			4.12			4.12			
Base Follow-Up Headway (sec)	2.2			2.2			2.2			2.2			
Follow-Up Headway (sec)	2.21			2.21			2.21			2.21			
Delay, Queue Length, and Level of Service													
Flow Rate, v (veh/h)	7			7			7			7			
Capacity, c (veh/h)	1000			1000			1000			1000			
v/c Ratio	0.00			0.00			0.00			0.00			
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.0			0.0			
Control Delay (s/veh)	7.4			7.4			7.4			7.4			
Level of Service (LOS)	A			A			A			A			
Approach Delay (s/veh)	0.4			0.4			0.4			0.4			
Approach LOS	A			A			A			A			

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 George Ln at Russell Ave 2027/turntab
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HCS7 Two-Way Stop-Control Report													
General Information						Site Information							
Analyst	ALL	Intersection	George Ln at Russell Ave			Agency/Co	White Rock			Agency/Co	White Rock		
Date Performed	4/10/2019	Jurisdiction	Russell Avenue			Date Performed	4/10/2019			Jurisdiction	East/West Street		
Analysis Year	2019	North/South Street	George Lane			Analysis Year	2019			North/South Street	George Lane		
Time Analyzed	PM Peak	Peak Hour Factor	0.87			Time Analyzed	PM Peak			Peak Hour Factor	0.87		
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25			Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	7025-1485 Fr Street TIA												
Vehicle Volumes and Adjustments													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Priority	1	2	3	4	5	6	7	8	9	10	11	12	
Number of Lanes	1	1	1	0	1	0	0	1	0	0	1	0	
Configuration	TR			LT			LR			LR			
Volume (veh/h)	10			121			5			5			
Percent Heavy Vehicles (%)	0			2			2			2			
Proportion Time Blocked	0			0			0			0			
Percent Grade (%)	0												
Right Turn Channelized	Unbid												
Median Type | Storage	Unbid												
Critical and Follow-up Headways													
Base Critical Headway (sec)	4.1			4.1			4.1			4.1			
Critical Headway (sec)	4.12			4.12			4.12			4.12			
Base Follow-Up Headway (sec)	2.2			2.2			2.2			2.2			
Follow-Up Headway (sec)	2.21			2.21			2.21			2.21			
Delay, Queue Length, and Level of Service													
Flow Rate, v (veh/h)	7			7			7			7			
Capacity, c (veh/h)	1000			1000			1000			1000			
v/c Ratio	0.00			0.00			0.00			0.00			
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.0			0.0			
Control Delay (s/veh)	7.4			7.4			7.4			7.4			
Level of Service (LOS)	A			A			A			A			
Approach Delay (s/veh)	0.4			0.4			0.4			0.4			
Approach LOS	A			A			A			A			

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 George Ln at Russell Ave 2027/turntab
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General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTE	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2027	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	702S 148S Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Volume (veh/h)	44	18	7	121	11	10	2	2	2	2	2	2
Percent Heavy Vehicles (%)												
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	7.1	6.2
Critical Headway (sec)	4.1	6.4	6.2
Base Follow-Up Headway (sec)	2.2	1.5	1.1
Follow-Up Headway (sec)	2.2	1.3	1.1

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	8	25
Capacity, c (veh/h)	1469	1025
v/c Ratio	0.01	0.03
95% Queue Length, Q ₉₅ (veh)	0.0	0.1
Control Delay (s/veh)	7.4	9.1
Level of Service (LOS)	A	A
Approach Delay (s/veh)		
Approach LOS		

General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Russell Ave
Agency/Co.	CTE	Jurisdiction	White Rock
Date Performed	4/10/2019	East/West Street	Russell Avenue
Analysis Year	2027	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	702S 148S Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Volume (veh/h)	44	18	7	121	11	10	2	2	2	2	2	2
Percent Heavy Vehicles (%)												
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	7.1	6.2
Critical Headway (sec)	4.1	6.4	6.2
Base Follow-Up Headway (sec)	2.2	1.5	1.1
Follow-Up Headway (sec)	2.2	1.3	1.1

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	8	25
Capacity, c (veh/h)	1469	1025
v/c Ratio	0.01	0.03
95% Queue Length, Q ₉₅ (veh)	0.0	0.1
Control Delay (s/veh)	7.4	9.1
Level of Service (LOS)	A	A
Approach Delay (s/veh)		
Approach LOS		

HCS/Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JL	Intersection	George Ln at Site Access
Agency/Co.	CH	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Site Access
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.87
Intersection Orientation	North-South	Analysis Time Period (hr)	0.25
Project Description	7025-1485 Fr Street TIA		

HCS/Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JL	Intersection	George Ln at Site Access
Agency/Co.	CH	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Site Access
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.87
Intersection Orientation	North-South	Analysis Time Period (hr)	0.25
Project Description	7025-1485 Fr Street TIA		

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	R	T	U	L	R	T	U	L	T	R	U	L	T	R
Movement	10	31	12	0	7	8	9	30	1	2	3	40	5	6	7	8
Priority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	1				1				1				1			
Configuration	LR				LR				TR				LR			
Volume (veh/h)	18				11				34				21			
Percent Heavy Vehicles (%)	2				2				2				2			
Proportion Time Blocked	0				0				0				0			
Percent Grade (%)	0															
Right Turn Channelized	Unfield															
Median Type | Storage	Unfield															

Critical and Follow-up Headways

Base Critical Headway (sec)	Critical Headway (sec)	Base Follow-Up Headway (sec)	Follow-Up Headway (sec)
7.1	6.2	7.1	6.2
4.42	0.22	0.42	0.22
3.5	3.3	3.5	3.3
1.2	1.1	1.2	1.1

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	Capacity, c (veh/h)	v/c Ratio	95% Queue Length, Q ₉₅ (veh)	Control Delay (s/veh)	Level of Service (LOS)	Approach Delay (s/veh)
28	1015	0.03	0	0	A	0
1015	1606	0.63	1606	1606	B	1606
0.03	0.01	0.01	0.01	0.01	A	0.01
0.1	0.1	0.1	0.1	0.1	A	0.1
0.1	0.1	0.1	0.1	0.1	A	0.1
0.1	0.1	0.1	0.1	0.1	A	0.1
0.1	0.1	0.1	0.1	0.1	A	0.1

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	R	T	U	L	R	T	U	L	T	R	U	L	T	R
Movement	10	31	12	0	7	8	9	30	1	2	3	40	5	6	7	8
Priority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	1				1				1				1			
Configuration	LR				LR				TR				LR			
Volume (veh/h)	18				11				34				21			
Percent Heavy Vehicles (%)	2				2				2				2			
Proportion Time Blocked	0				0				0				0			
Percent Grade (%)	0															
Right Turn Channelized	Unfield															
Median Type | Storage	Unfield															

Critical and Follow-up Headways

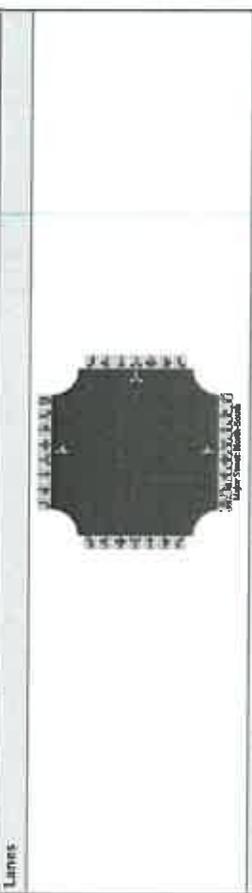
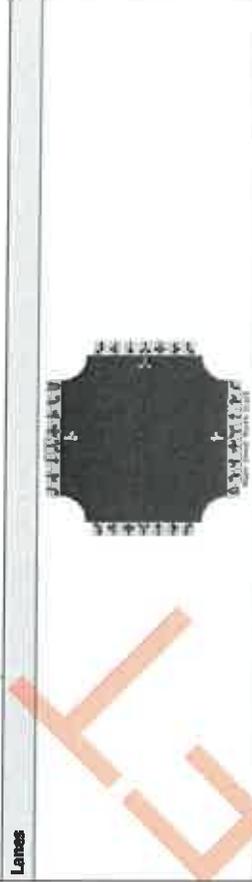
Base Critical Headway (sec)	Critical Headway (sec)	Base Follow-Up Headway (sec)	Follow-Up Headway (sec)
7.1	6.2	7.1	6.2
4.42	0.22	0.42	0.22
3.5	3.3	3.5	3.3
1.2	1.1	1.2	1.1

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	Capacity, c (veh/h)	v/c Ratio	95% Queue Length, Q ₉₅ (veh)	Control Delay (s/veh)	Level of Service (LOS)	Approach Delay (s/veh)
28	1015	0.03	0	0	A	0
1015	1606	0.63	1606	1606	B	1606
0.03	0.01	0.01	0.01	0.01	A	0.01
0.1	0.1	0.1	0.1	0.1	A	0.1
0.1	0.1	0.1	0.1	0.1	A	0.1
0.1	0.1	0.1	0.1	0.1	A	0.1
0.1	0.1	0.1	0.1	0.1	A	0.1

General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Site Access
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Site Access
Analysis Year	2027	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.83
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	702E: 1485 Fir Street TIA		

General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Site Access
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/12/2019	East/West Street	Site Access
Analysis Year	2027	North/South Street	George Lane
Time Analyzed	AM Base + Site	Peak Hour Factor	0.83
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	702E: 1485 Fir Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement	10	11	12	7	8	9	10	11	12	13	14	15
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Configuration	LR			LR			LR			LR		
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Percent Heavy Vehicles (%)	0			0			0			0		
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Unbid			Unbid			Unbid			Unbid		
Median Type | Storage	Unbid			Unbid			Unbid			Unbid		

Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement	10	11	12	7	8	9	10	11	12	13	14	15
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Configuration	LR			LR			LR			LR		
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Percent Heavy Vehicles (%)	0			0			0			0		
Proportion Time Blocked	0			0			0			0		
Percent Grade (%)	0			0			0			0		
Right Turn Channelized	Unbid			Unbid			Unbid			Unbid		
Median Type | Storage	Unbid			Unbid			Unbid			Unbid		

Critical and Follow-up Headways

Base Critical Headway (sec)	7.1	6.2	6.2	6.2
Critical Headway (sec)	8.42	6.22	6.22	6.22
Base Follow-Up Headway (sec)	1.1	3.3	3.3	3.3
Follow-Up Headway (sec)	2.52	3.32	3.32	3.32

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	26	16	16	16
Capacity, c (veh/h) <td>1048</td> <td>1048</td> <td>1048</td> <td>1048</td>	1048	1048	1048	1048
v/c Ratio	0.025	0.015	0.015	0.015
95% Queue Length, Q ₉₅ (veh)	0.1	0.1	0.1	0.1
Control Delay (s/veh)	4.3	4.3	4.3	4.3
Level of Service (LOS)	A	A	A	A
Approach Delay (s/veh)	8.5	8.6	8.6	8.6
Approach LOS	A	A	A	A

Critical and Follow-up Headways

Base Critical Headway (sec)	7.1	6.2	6.2	6.2
Critical Headway (sec)	8.42	6.22	6.22	6.22
Base Follow-Up Headway (sec)	1.1	3.3	3.3	3.3
Follow-Up Headway (sec)	2.52	3.32	3.32	3.32

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	26	16	16	16
Capacity, c (veh/h)	1048	1048	1048	1048
v/c Ratio	0.025	0.015	0.015	0.015
95% Queue Length, Q ₉₅ (veh)	0.1	0.1	0.1	0.1
Control Delay (s/veh)	4.3	4.3	4.3	4.3
Level of Service (LOS)	A	A	A	A
Approach Delay (s/veh)	8.5	8.6	8.6	8.6
Approach LOS	A	A	A	A

HCS Two-Way Stop Control Report												
General Information						Site Information						
Analyst	JL	Intersection	George Ln at Thrift Ave									
Agency/Co.	CH	Jurisdiction	White Rock									
Date Performed	4/11/2019	East/West Street	Thrift Avenue									
Analysis Year	2019	North/South Street	George Lane									
Time Analyzed	AM Base	Peak Hour Factor	0.83									
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25									
Project Description	7025; 1485 Fr Street TA											
LANES												
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Measurements	U	L	T	U	L	T	U	L	T	U	L	T
Priority	1	2	3	4	5	6	7	8	9	10	11	12
Number of Lanes	0	0	1	0	0	1	0	1	0	0	0	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	1	189	1	2	262	3	4	2	5	3	0	3
Percent Heavy Vehicles (%)	2		2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked												
Percent Grade (%)	0											
Right Turn Channelized	Undeclared											
Median Type | Storage	Undeclared											
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1			4.1			7.1	6.3	6.2	7.1	6.5	6.2
Critical Headway (sec)	4.12			4.12			7.12	6.32	6.22	7.12	6.52	6.22
Base Follow-Up Headway (sec)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
Follow-Up Headway (sec)	2.22			2.22			3.52	4.02	3.32	3.52	4.02	3.32
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	1			2			19			6		
Capacity, c (veh/h)	1256			1294			1204			689		
v/c Ratio	0.00			0.00			0.02			0.01		
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.1			0.0		
Control Delay (s/veh)	7.9			7.7			11.8			10.2		
Level of Service (LOS)	A			A			B			B		
Approach Delay (s/veh)	0.0			0.1			11.4			10.2		
Approach LOS				B			B			B		

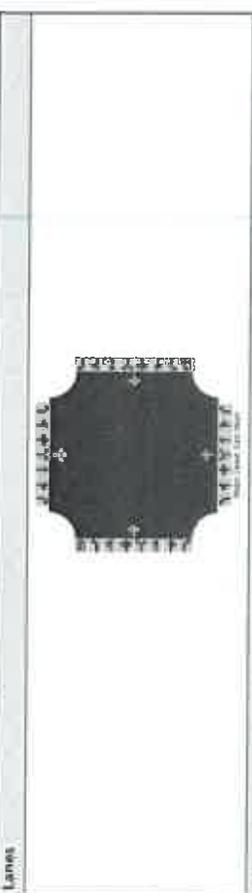
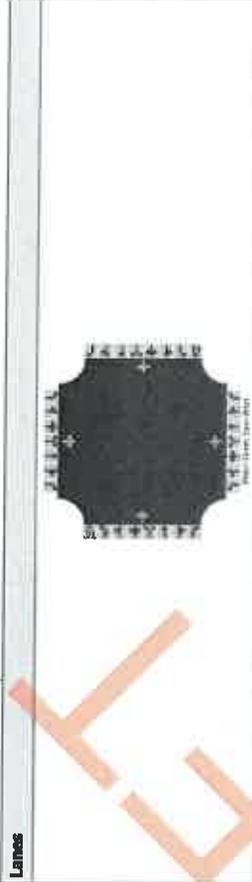
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HCS Two-Way Stop Control Report												
General Information						Site Information						
Analyst	JL	Intersection	George Ln at Thrift Ave									
Agency/Co.	CH	Jurisdiction	White Rock									
Date Performed	4/11/2019	East/West Street	Thrift Avenue									
Analysis Year	2019	North/South Street	George Lane									
Time Analyzed	PM Base	Peak Hour Factor	0.87									
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25									
Project Description	7025; 1485 Fr Street TA											
LANES												
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Measurements	U	L	T	U	L	T	U	L	T	U	L	T
Priority	1	2	3	4	5	6	7	8	9	10	11	12
Number of Lanes	0	0	1	0	0	1	0	1	0	0	0	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	1	229	1	2	292	3	4	2	5	3	0	3
Percent Heavy Vehicles (%)	2		2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked												
Percent Grade (%)	0											
Right Turn Channelized	Undeclared											
Median Type | Storage	Undeclared											
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
Critical Headway (sec)	4.12			4.12			7.12	6.52	6.22	7.12	6.52	6.22
Base Follow-Up Headway (sec)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
Follow-Up Headway (sec)	2.22			2.22			3.52	4.02	3.32	3.52	4.02	3.32
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	6			2			6			6		
Capacity, c (veh/h)	1294			1204			1204			689		
v/c Ratio	0.00			0.00			0.01			0.01		
95% Queue Length, Q ₉₅ (veh)	0.0			0.0			0.0			0.0		
Control Delay (s/veh)	8.0			7.9			11.8			10.2		
Level of Service (LOS)	A			A			B			B		
Approach Delay (s/veh)	0.2			0.1			11.5			10.2		
Approach LOS				B			B			B		

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General Information		Site Information	
Analyst	ILL	Intersection	George Ln at Thrift Ave
Agency/Co.	CFE	Jurisdiction	White Rock
Date Performed	4/17/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025, 1485 Fr Street TIA		

General Information		Site Information	
Analyst	ILL	Intersection	George Ln at Thrift Ave
Agency/Co.	CFE	Jurisdiction	White Rock
Date Performed	4/17/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Base	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025, 1485 Fr Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Movement	10	1	2	40	4	5	6	7	8	9	10	11
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	2	201	2	2	215	2	3	6	3	6	2	2
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Undivided											

Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	U	L	T	U	L	T	U	L	T	U	L	T
Movement	10	1	2	40	4	5	6	7	8	9	10	11
Priority	0	0	0	0	0	0	0	0	0	0	0	0
Number of Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	2	201	2	2	215	2	3	6	3	6	2	2
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked												
Percent Grade (%)												
Right Turn Channelized												
Median Type | Storage	Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1
Critical Headway (sec)	4.12
Base Follow-Up Headway (sec)	2.2
Follow-Up Headway (sec)	2.22

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1
Critical Headway (sec)	4.12
Base Follow-Up Headway (sec)	2.2
Follow-Up Headway (sec)	2.22

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	1187
Capacity, c (veh/h) <td>0.01</td>	0.01
v/c Ratio <td>0.6</td>	0.6
95% Queue Length, Q ₉₅ (veh) <td>0.1</td>	0.1
Control Delay (s/veh) <td>0.1</td>	0.1
Level of Service (LOS) <td>A</td>	A
Approach Delay (s/veh) <td>0.2</td>	0.2
Approach LOS <td>B</td>	B

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	17
Capacity, c (veh/h) <td>539</td>	539
v/c Ratio <td>0.03</td>	0.03
95% Queue Length, Q ₉₅ (veh) <td>0.1</td>	0.1
Control Delay (s/veh) <td>11.9</td>	11.9
Level of Service (LOS) <td>A</td>	A
Approach Delay (s/veh) <td>0.1</td>	0.1
Approach LOS <td>B</td>	B

General Information		Site Information	
Analyst	JL	Intersection	George Ln at Thrift Ave
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	AM Peak + Site	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (Inp)	0.25
Project Description	7025; 1485 Ft Street TIA		

Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	U L T R	U L T R	L T R	U L T R	L T R	U L T R	L T R	U L T R	L T R
Priority	1 2 3 4	1 2 3 4	5 6	7 8 9	10 11 12	1 2 3 4	5 6	7 8 9	10 11 12
Number of Lanes	0 1 0 0	0 1 0 0	1 0	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Volume (veh/h)	7 201 2	1 217 5	5 3 6	5 3 6	5 3 6	5 3 6	5 3 6	5 3 6	5 3 6
Percent Heavy Vehicles (H)	2	2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2
Proportion Time Blocked									
Percent Grade (%)			0						
Right Turn Channelized									
Median Type | Storage			Unbid						

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)	2	4	17	17	14	17	14	17	14
Capacity, c (veh/h)	225	177	177	177	177	177	177	177	177
v/c Ratio	0.009	0.009	0.09	0.09	0.08	0.09	0.08	0.09	0.08
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	7.9	7.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
Level of Service (LOS)	A	A	B	B	B	B	B	B	B
Approach Delay (s/veh)	0.1	0.1	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Approach LOS			B	B	B	B	B	B	B

General Information		Site Information	
Analyst	JL	Intersection	George Ln at Thrift Ave
Agency/Co	CTS	Jurisdiction	White Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2022	North/South Street	George Lane
Time Analyzed	PM Peak + Site	Peak Hour Factor	0.87
Intersection Orientation	East-West	Analysis Time Period (Inp)	0.25
Project Description	7025; 1485 Ft Street TIA		

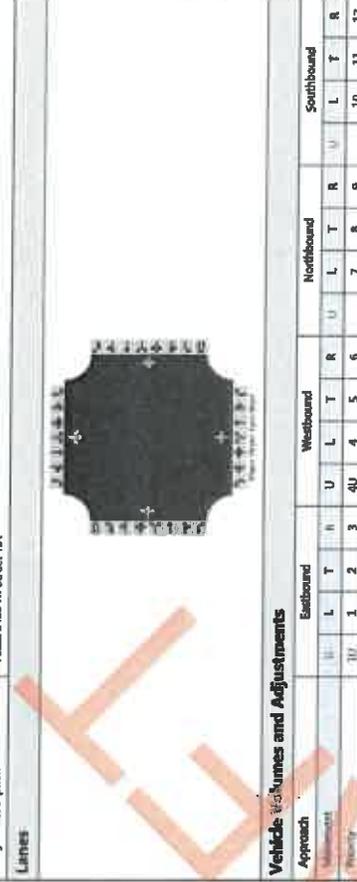
Vehicle Volumes and Adjustments		Eastbound		Westbound		Northbound		Southbound	
Approach	U L T R	U L T R	L T R	U L T R	L T R	U L T R	L T R	U L T R	L T R
Priority	1 2 3 4	1 2 3 4	5 6	7 8 9	10 11 12	1 2 3 4	5 6	7 8 9	10 11 12
Number of Lanes	0 1 0 0	0 1 0 0	1 0	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Volume (veh/h)	7 201 2	1 217 5	5 3 6	5 3 6	5 3 6	5 3 6	5 3 6	5 3 6	5 3 6
Percent Heavy Vehicles (H)	2	2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2
Proportion Time Blocked									
Percent Grade (%)			0						
Right Turn Channelized									
Median Type | Storage			Unbid						

Critical and Follow-up Headways		Eastbound		Westbound		Northbound		Southbound	
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

Delay, Queue Length, and Level of Service		Eastbound		Westbound		Northbound		Southbound	
Flow Rate, v (veh/h)	2	4	17	17	14	17	14	17	14
Capacity, c (veh/h)	225	177	177	177	177	177	177	177	177
v/c Ratio	0.009	0.009	0.09	0.09	0.08	0.09	0.08	0.09	0.08
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	7.9	7.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
Level of Service (LOS)	A	A	B	B	B	B	B	B	B
Approach Delay (s/veh)	0.1	0.1	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Approach LOS			B	B	B	B	B	B	B

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Thrift Ave
Agency	CTS	Jurisdiction	Wilab Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2027	North/South Street	George Lane
Time Analyzed	AM ESH	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Ft Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound					
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	1	2	3	4U	4	5	6	7	8	9	10	11	12	
Number of Lanes	1	1	1	1	1	1	1	1	0	1	0	0	1	0	
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	
Volume (veh/h)	2	210	2	3	216	4	2	2	2	2	2	2	2	2	
Percent Heavy Vehicles (%)															
Proportion Time Blocked															
Percent Grade (%)															
Right Turn Channelized															
Median Type | Storage	Unbid														

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

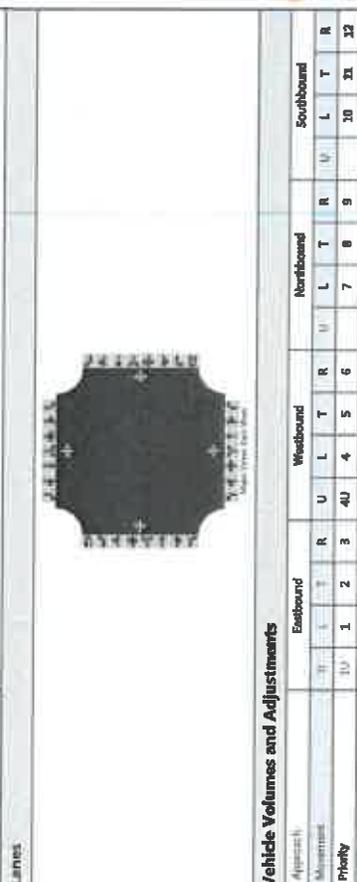
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	2	4	17	4	17	4	17	4	17	4	17	4	17	4	17
Capacity, c (veh/h)	1214	1272	509	1272	509	1272	509	1272	509	1272	509	1272	509	1272	509
v/c Ratio	0.00	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
Control Delay (s/veh)	8.0	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3
Level of Service (LOS)	A	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Approach Delay (s/veh)	0.1	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

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HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	JLL	Intersection	George Ln at Thrift Ave
Agency	CTS	Jurisdiction	Wilab Rock
Date Performed	4/11/2019	East/West Street	Thrift Avenue
Analysis Year	2027	North/South Street	George Lane
Time Analyzed	AM ESH	Peak Hour Factor	0.83
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	7025-1485 Ft Street TIA		



Vehicle Volumes and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound					
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	1	2	3	4U	4	5	6	7	8	9	10	11	12	
Number of Lanes	1	1	1	1	1	1	1	1	0	1	0	0	1	0	
Configuration	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	
Volume (veh/h)	2	210	2	3	216	4	2	2	2	2	2	2	2	2	
Percent Heavy Vehicles (%)															
Proportion Time Blocked															
Percent Grade (%)															
Right Turn Channelized															
Median Type | Storage	Unbid														

Critical and Follow-up Headways

Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-Up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-Up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)	2	4	17	4	17	4	17	4	17	4	17	4	17	4	17
Capacity, c (veh/h)	1214	1272	509	1272	509	1272	509	1272	509	1272	509	1272	509	1272	509
v/c Ratio	0.00	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.03
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
Control Delay (s/veh)	8.0	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3	7.8	12.3
Level of Service (LOS)	A	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Approach Delay (s/veh)	0.1	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3	0.1	12.3
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

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HCS/Two-Way-Stop-Control-Report												
General Information			Site Information									
Analyst	JL	Intersection	George Ln at Thrift Ave									
Agency/Co.	CTS	Jurisdiction	White Rock									
Date Performed	4/11/2019	East/West Street	Thrift Avenue									
Analysis Year	2027	North/South Street	George Lane									
Time Analyzed	AM Run + Site	Peak Hour Factor	0.83									
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25									
Project Description	7025 1485 Fr Street TA											
Lanes												
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Volume	U	L	T	U	L	T	U	L	T	U	L	T
Priority	10	1	2	1	4	5	6	7	8	9	10	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	7	265	18	3	272	5	4	0	1	0	13	0
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unchannelized											
Median Type | Storage	Unchannelized											
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	2	1777	17	17	17	17	17	17	17	17	17	17
Capacity, c (veh/h)	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777
v/c Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	0.0	0.0	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Level of Service (LOS)	A	A	B	B	B	B	B	B	B	B	B	B
Approach Delay (s/veh)	0.1	0.1	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
Approach LOS	A	A	B	B	B	B	B	B	B	B	B	B

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HCS/Two-Way-Stop-Control-Report												
General Information			Site Information									
Analyst	JL	Intersection	George Ln at Thrift Ave									
Agency/Co.	CTS	Jurisdiction	White Rock									
Date Performed	4/11/2019	East/West Street	Thrift Avenue									
Analysis Year	2027	North/South Street	George Lane									
Time Analyzed	PM Run + Site	Peak Hour Factor	0.87									
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25									
Project Description	7025 1485 Fr Street TA											
Lanes												
Vehicle Volumes and Adjustments												
Approach	Eastbound			Westbound			Northbound			Southbound		
Volume	U	L	T	U	L	T	U	L	T	U	L	T
Priority	10	1	2	1	4	5	6	7	8	9	10	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Configuration	LTR			LTR			LTR			LTR		
Volume (veh/h)	7	265	18	3	272	5	4	0	1	0	13	0
Percent Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Proportion Time Blocked	0											
Percent Grade (%)	0											
Right Turn Channelized	Unchannelized											
Median Type | Storage	Unchannelized											
Critical and Follow-up Headways												
Base Critical Headway (sec)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Critical Headway (sec)	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11
Base Follow-up Headway (sec)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Follow-up Headway (sec)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Delay, Queue Length, and Level of Service												
Flow Rate, v (veh/h)	2	1777	17	17	17	17	17	17	17	17	17	17
Capacity, c (veh/h)	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777
v/c Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95% Queue Length, Q ₉₅ (veh)	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Control Delay (s/veh)	0.0	0.0	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Level of Service (LOS)	A	A	B	B	B	B	B	B	B	B	B	B
Approach Delay (s/veh)	0.1	0.1	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Approach LOS	A	A	B	B	B	B	B	B	B	B	B	B

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THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: May 10, 2021

TO: Land Use Planning Committee

FROM: Carl Isaak, Director, Planning and Development Services

SUBJECT: Revised Zoning Amendment Bylaw No. 2363 for 1485 Fir Street

RECOMMENDATION

THAT the Land Use and Planning Committee receive the May 10, 2021, corporate report from the Director, Planning and Development Services, titled “Revised Zoning Amendment Bylaw No 2363 for 1485 Fir Street.”

EXECUTIVE SUMMARY

The Applicant for a zoning amendment for a six-storey rental apartment proposal at 1485 Fir Street, for which third reading of the bylaw was defeated on January 25, 2021, has modified their proposal, and requested that Council reconsider an amended proposal. On April 26, 2021, Council approved reconsidering this proposal, and rescinded second reading of the bylaw.

The Applicant’s initial modification to their proposal was to offer an additional 10% of the units in the 80 unit rental building as secured for a period of ten (10) years with rents controlled to 10% less than the market rent for an equivalent unit in the new building. As a new building, these rents will likely be higher than the average rents across all purpose-built rental units in White Rock, which are currently \$1,091 per month for a one bedroom and \$1,422 for a two bedroom.

Following consideration of the Housing Advisory Committee’s recommended approach to defining affordable rental housing in White Rock, which references the average rent for purpose-built rental units in White Rock (consisting primarily of apartments constructed in the 1960s and 1970s being less than market rent for a newly constructed unit), the Applicant offered to restrict the rents for the additional units to the average market rent in White Rock, and reducing the offered number of additional rent controlled units from ten (10%) to five (5%).

The Applicant has also provided clarification for the returning tenant households that the maximum initial rent for a two-bedroom unit would be \$2,000 and for a one-bedroom home it would be \$1,500. This would exclude utilities, insurance, and parking. These rents (at 20% below anticipated market rent for a similar unit) would be further reduced for returning tenants depending on the length of their tenancy (up to 30% below market rent), in accordance with Tenant Relocation Policy 514. If current tenants decide not to return to the new building, the rent for these replacement units would be capped at 10% below the market rent for a similar unit.

Bylaw No. 2363 is included, as amended, in the Bylaws section of the Regular Council agenda for May 10, 2021. Council may consider given the bylaw second reading and directing staff to hold a new Public Hearing.

PREVIOUS COUNCIL DIRECTION

Motion # & Meeting Date	Motion Details
LUPC July 8, 2019 2019-LU/P-022	<p>THAT the Land Use and Planning Committee:</p> <ol style="list-style-type: none"> 1. Receives for information the corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled “Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP);” and 2. Recommends that Council refuse the OCP amendment application, and direct staff to work with the applicant on a revised rezoning and Major Development Permit application, for a secured rental housing development that includes a reduced FAR (2. 8 gross floor area ratio consistent with the OCP) and amended building and site design.
LUPC September 30, 2019 2019-LU/P-025 2019-LU/P-026	<p>THAT the Land Use and Planning Committee refers the report back to staff for a revision that permits existing tenants to return to the building after construction at the same rent they are currently paying, subject to the per annum increases permitted by the province; and</p> <p>THAT the proposed Community Amenity Contributions (CACs) be reduced further in recognition for current tenants being able to keep their current rent amounts.</p> <p>THAT the Land Use and Planning Committee receives for information the corporate report dated September 30, 2019 from the Director of Planning and Development Services, titled “Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009)”.</p>
October 19, 2020 2020-527	<p>THAT Council give first and second readings to “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 -1485 Fir Street) Bylaw, 2020, No. 2363 as presented, and direct staff to schedule the required Public Hearing;</p> <p>THAT Council direct staff to resolve the following issues prior to final adoption, if Bylaw No. 2363 is given third reading after the Public Hearing;</p> <ol style="list-style-type: none"> a. Ensure that all engineering requirements and issues, including dedication of a 5.0 metre by 5.0 metre corner cut on the corner of the site at Fir Street and Russell Avenue, intersection improvements including ‘watch for pedestrian’ signage as well as tactile paving on the northwest and northeast corners of George Lane and Thrift Avenue, and completion of a servicing

	<p>agreement, are addressed to the satisfaction of the Director of Engineering and Municipal Operations;</p> <p>b. Finalization of the Tenant Relocation Plan and adoption of a Housing Agreement Bylaw; and</p> <p>c. Consolidation of the existing three lots and demolition of the existing residential building; and</p> <p>THAT, pending adoption of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363,” Council consider issuance of Development Permit No. 432 for 1485 Fir Street.</p>
January 11, 2021 2021-011	THAT Council direct staff to define affordable housing.
January 25, 2021 2021-42	<p>THAT Council give third reading to “White Rock Zoning Bylaw 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363”.</p> <p><i>[DEFEATED – Councillors Johanson, Kristjanson, Manning and Trevelyan voted in the negative].</i></p>
LUPC March 29, 2021 2021-LU/P-038	<p>THAT the Land Use and Planning Committee endorse in relation to Town Centre Transition area Option C as noted in the March 8, 2021 corporate report, with an amendment noting four (4) to six (6) stories where it is defined that along North Bluff on the east or west side permit six (6) stories; and</p> <p>For the remaining sites it be noted as four (4) stories to six (6) stories with a notation that proposals over four (4) stores would be considered when there is an affordable housing component.</p>
April 26, 2021 <i>[draft resolution]</i>	<p>THAT Council endorses reconsideration of the item "White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 - 1485 Fir Street)" that was defeated at third reading at the January 25, 2021 Regular Council meeting.</p> <p>THAT Council rescinds second reading for Bylaw 2363 "White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 - 1485 Fir Street)."</p>

INTRODUCTION/BACKGROUND

The purpose of this report is to provide context for the reconsideration of a zoning amendment bylaw proposed for 1485 Fir Street.

The previous proposal denied at third reading would have required that of the 80 new rental homes building, 25 of the units would be reserved for existing tenants at rates between 21-30% below what the market rent would be for an equivalent unit. If an existing tenant household did not return to the building, that unit would be offered at 10% below the market rent. Tenants would also be given compensation in accordance with the City’s Tenant Relocation Policy 514.

Reconsideration of Motion

This Application and zoning amendment bylaw were requested to be placed on the April 26, 2021 Council Agenda by Councillors Anthony Manning and Christopher Trevelyan and reconsidered. As noted in the “Previous Council Direction” section above, the motions to reconsider the project and rescind second reading of the bylaw were carried, with Councillors Scott Kristjanson and Erika Johanson voting in the negative.

OCP Review and Building Height / Affordable Housing

On March 29, 2021, the Land Use and Planning Committee, after considering the results of the Official Community Plan (OCP) Review Survey for Building Heights outside the Town Centre, directed that staff prepare an amendment to the OCP that would limit the building heights in the Town Centre Transition land use designation/area, where 1485 Fir Street is located, to four storeys, with up to six storeys only being considered where the proposal includes an affordable housing component.

On April 28, 2021, the Housing Advisory Committee reviewed a report from staff on potential affordable housing definitions for White Rock. The approach proposed by staff for “affordable rental housing” was to target maximum rent levels that would not exceed 30% of the gross income for households in the low income bracket (e.g. household with gross household income of 50 to 80 percent of the median household income of the municipality; in 2016, gross income of between \$31,173 and \$49,875). Households in this income bracket and below comprise approximately 40% of all White Rock households, and 57% of renter households, and it is unlikely that the private market would be able to expand the supply of new homes, rental or ownership, that are affordable to this income bracket without some form of incentives. These maximum rents allowed to be considered “affordable rental housing” would be benchmarked against the average rents for purpose-built rental buildings in White Rock (reported on an annual basis by CMHC) and set at 20% below the average rent. The Housing Advisory Committee recommendations on affordable housing definitions have not yet been considered by Council.

With incorporating the proposed definitions for affordable housing into the OCP, as it relates to the bonus height/density (up to six storeys) in the Town Centre Transition area for projects that include an affordable housing component, staff anticipate proposing multiple options for a project to demonstrate affordability and qualification for additional density, such as:

- A strata building must secure 20% of the units as “affordable rental housing” (as defined in White Rock);
- A rental project must secure 10% of units as “affordable rental housing” (as defined in White Rock), where they do not have to also provide units at below market rates for returning tenants, per the Tenant Relocation Policy;
- A rental project with existing tenants returning (e.g. 1485 Fir Street), that 5% of the units would be rented for 10 years at the current average rent in the community; or
- A project owned and operated by BC Housing or Metro Vancouver Housing Corporation that has its own definitions/proportions of affordability (as these change based on senior government priorities) may also be considered for the additional height and density without requiring an OCP amendment (noting it would still go through a rezoning process).

In addition to the references in the OCP to “affordable housing,” staff intend to bring forward updates to Density Bonus / Community Amenity Contribution Policy 511 to incorporate the new definitions for affordable housing as they relate to reductions in amenity contribution expectations for projects that include affordable housing.

Applicant's Revised Proposal – Additional Units

The Applicant's initial modification to their proposal was to offer an additional 10% of the units in the 80 unit rental building as being secured for a period of 10 years with rents controlled to being 10% less than the rent for an equivalent unit in the new building.

Following consideration of the Housing Advisory Committee's recommended approach to defining affordable rental housing in White Rock, which references the average rent for purpose-built rental units in White Rock (which consists primarily of apartments constructed in the 1960s and 1970s, and would be less than market rent for a newly constructed unit), the Applicant has since offered to restrict the rents for the additional units to the average rents in White Rock, and reduce the number of additional rent controlled units from ten (10%) to Five (5%), given the lower rents that would be applied for these units.

Current (2020) average rent in purpose built rental buildings in White Rock for a one bedroom apartment is \$1,091 per month, and average rent for a two bedroom unit is \$1,422.

While providing units at the average rent is not as deep a discount to market rents as 20% below the average rent recommended by the Housing Advisory Committee as the definition of "affordable rental housing," it is notable that the Application was originally submitted two years ago when these recommended policies did not yet exist.

Clarification of Rents for Returning Tenants

The Applicant has provided clarification for the returning tenant households that the maximum initial rent for a two-bedroom unit would be \$2,000 and for a one-bedroom home it would be \$1,500. This would exclude utilities, insurance, and parking. These rents (at 20% below anticipated market rent) would be further reduced for returning tenants depending on the length of their tenancy (up to 30% below market rent for tenancies 10 years and longer), in accordance with Tenant Relocation Policy 514.

Revised Bylaw No. 2363

Based on the Applicant's revised proposal, the Bylaw No. 2363 is included on the Regular Council agenda with the following change to the density section (changes in bold for additional emphasis):

4. Maximum Increased Density:

Despite section 7.64.3, the reference to the maximum gross floor area of "1.5 times the lot area" is increased to a higher density of a maximum of 5,700 m² (61,356.85 ft²) of gross floor area (2.8 FAR; or gross floor area ratio) and 80 apartment dwelling units where a housing agreement has been entered into and filed with the Land Title Office to secure eighty (80) dwelling units as rental tenure for the life of the building, **with four (4) of these dwelling units being secured for a period of 10 years as having maximum rents set at the average rent for a private apartment in White Rock as indicated by the most current rental market report from Canada Mortgage and Housing Corporation.**

There are no proposed changes to the form of the building, which remains a six storey building with underground parkade access off the lane and a main pedestrian entrance off Russell Avenue. The building drawings are included in the corporate report attached as Appendix A.

FINANCIAL IMPLICATIONS

The previous corporate report dated October 19, 2020 includes discussion of financial implications. Development cost charges will apply to the redevelopment.

In accordance with current Council Policy 511: ‘Density Bonus / Amenity Contribution’, up to 50% of an applicable amenity contribution may be waived when housing is provided to displaced tenants in accordance with the Tenant Relocation Policy (i.e. compensation being provided to tenants and reduced rents are available), and where the initial rents for rental replacement units where the tenants are not returning are 10% below market and available for the general public. The remaining 50% of an applicable amenity contribution can be waived where the building includes secured market rental floor space, which would total 100%.

LEGAL IMPLICATIONS

If the bylaw receives third reading after a new public hearing, a Housing Agreement Bylaw would be prepared for Council’s consideration, based on the applicable provisions in Council Policy 511: Density Bonus / Amenity Contribution and Council Policy 514: Tenant Relocation, as directed by Council. A draft of this Housing Agreement Bylaw would be made available as part of the materials available prior to the Public Hearing.

COMMUNICATION AND COMMUNITY ENGAGEMENT IMPLICATIONS

This Application has previously received a Public Information Meeting, and a Public Hearing for the earlier version of the Application. If Council provides a new second reading to the revised zoning amendment bylaw, the public will have an opportunity to comment again on this Application via a Public Hearing.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS

The Rezoning and Major Development Permit Applications were circulated to internal City departments and comments requiring a response / resolution by the proponent have been addressed.

CLIMATE CHANGE IMPLICATIONS

The Application will enable the intensification of the ‘Town Centre Transition’ designation, thereby lessening the demand for outward sprawl otherwise necessary to accommodate growth. The Applicant has also proposed several initiatives to address climate change, which include the following:

- Water, electric and gas will be individually metered to increase self-imposed conservation.
- Landscaping includes a variety of permeable surface areas and decreases consumption of irrigation water through use of native, drought resistant planting.
- Lighting and plumbing fixtures to be energy/water efficient as well as the provision of Energy Star® rated appliances.
- High efficiency windows and doors with effective blinds will be preinstalled.
- Materials used in construction or finishing such as cabinets and floors will be made from renewable resources and sourced locally where possible.
- Flooring, paint, and other finishes will be non-toxic with low volatile organic compounds (VOCs).

ALIGNMENT WITH STRATEGIC PRIORITIES

The “Our Community” theme in Council’s Strategic Priorities includes the objective to “Guide land use decisions of Council to reflect the vision of the community” and projects under this objective include both the OCP Review (with Building Heights outside the Town Centre), and work on Affordable Housing / Housing Needs Report.

The proposed six storey rental project with some below market units, including the Applicant’s revised proposal of an additional four units capped at average rents for 10 years, offers an opportunity to hear from the public through a Public Hearing and evaluate how the building’s design and affordability reflect the vision of the community.

OPTIONS / RISKS / ALTERNATIVES

This corporate report is provided for the Land Use and Planning Committee’s information. In the Bylaws section of the Regular Council agenda, Council may consider the following options:

1. Give second reading to “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363”, as amended, and direct staff to schedule a Public Hearing;
2. Reject “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363” and Development Permit No. 432; or
3. Defer consideration of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363” and Development Permit No. 432, pending completion of the Official Community Plan amendments to the Town Centre Transition area height and density, including policies defining the affordable housing components required to obtain additional height and density in this land use designation.

CONCLUSION

On April 26, 2021, Council reconsidered a proposal for a zoning amendment for a six-storey rental apartment building at 1485 Fir Street and rescinded the second reading previously given to the zoning amendment bylaw.

The Applicant has now offered to cap the rent for four units (5% of the 80 units in the building) at the average rent in White Rock, as determined by the latest rental market report from Canada Mortgage and Housing Corporation, which would be below the rent that could be charged for a new unit. The rents for these four units would be restricted for a minimum period of 10 years. These four units are in addition to the entire 80 units being secured as rental for its lifetime, and 25 of the units being made available for returning tenants with rents at a below market rate in accordance with Tenant Relocation Policy No. 514.

The revised Zoning Amendment Bylaw has been placed on the Regular Council agenda and this report is provided for the Land Use and Planning Committee’s agenda for information and an opportunity to discuss.

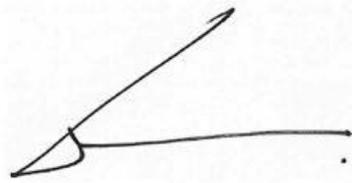
Respectfully submitted,



Carl Isaak
Director, Planning and Development Services

Comments from the Chief Administrative Officer

This corporate report is provided for information purposes.

A handwritten signature in black ink, consisting of a large, sweeping 'G' followed by a horizontal line that ends in a small dot.

Guillermo Ferrero
Chief Administrative Officer

Appendix A: Corporate report dated October 19, 2020 titled “Rezoning and Major Development Permit Application – 1485 Fir Street”

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: **October 19, 2020**

TO: **Land Use and Planning Committee**

FROM: **Carl Isaak, Director, Planning and Development Services**

SUBJECT: **Rezoning and Major Development Permit Application – 1485 Fir Street
(ZON/MJP 19-009)**

RECOMMENDATIONS

THAT the Land Use and Planning Committee recommends:

1. That Council give first and second readings to “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 -1485 Fir Street) Bylaw, 2020, No. 2363 as presented, and direct staff to schedule the required Public Hearing;
 2. That Council direct staff to resolve the following issues prior to final adoption, if Bylaw No. 2363 is given Third Reading after the Public Hearing:
 - a) Ensure that all engineering requirements and issues, including dedication of a 5.0 metre by 5.0 metre corner cut on the corner of the site at Fir Street and Russell Avenue, intersection improvements including ‘watch for pedestrian’ signage as well as tactile paving on the northwest and northeast corners of George Lane and Thrift Avenue, and completion of a servicing agreement, are addressed to the satisfaction of the Director of Engineering and Municipal Operations;
 - b) A Tenant Relocation Plan and adoption of a Housing Agreement Bylaw are finalized; and
 - c) The consolidation of existing three lots and the demolition of the existing residential building occurs; and
 3. That, pending adoption of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363,” Council consider issuance of Development Permit No. 432 for 1485 Fir Street.
-

EXECUTIVE SUMMARY

The Land Use and Planning Committee (LUPC) received a corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled “Initial OCP Amendment Application Report – 1485 Fir Street (19-009 OCP/ZON/MJP).” The application at the time required an increase in gross floor area ratio (or ‘FAR’) density above what was permitted in the Official Community Plan (OCP) which would have required an OCP amendment and did not provide the number of three-bedroom units (10%) required in the OCP.

Council subsequently directed staff to work with the applicant on a revised application that did not require an OCP amendment. There was also discussion at the LUPC meeting regarding the adequacy of the applicant’s Tenant Relocation Plan. A subsequent report dated September 30,

2019 from the Director of Planning and Development Services, titled “Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009)” was prepared and provided a brief update including the applicant’s enhanced Tenant Relocation Plan and an overview of the changes to the form of the development which was revised to not require an OCP amendment and proceeded as a rezoning and major development permit application.

A separate corporate report on proposed revisions to Council Policy 511: Density Bonus / Amenity Contribution and Council Policy 514: Tenant Relocation Policy, is included earlier in the Land Use and Planning Committee agenda and would have an impact on this development application.

The application has been further revised to incorporate changes that follow the endorsement from the Governance and Legislation Committee to the Tenant Relocation Plan, discussed in the sections below. The proposal for 1485 Fir Street now presents a six-storey, 80-unit building, for which all units would be rental units. The rezoning, if approved, would create a Comprehensive Development (CD) zone largely designed to implement the height and density allowed within the Official Community Plan. A major development permit for form and character, energy and water conservation and the reduction of greenhouse gases is also required. Location and ortho photo maps of the subject property are attached as Appendix C.

PREVIOUS COUNCIL DIRECTION

Resolution # and Date	Resolution Details
LUPC July 8, 2019 2019-LU/P-022	THAT the Land Use and Planning Committee: 1. Receives for information the corporate report dated July 8, 2019 from the Director of Planning and Development Services, titled "Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP);" and 2. Recommends that Council refuse the OCP amendment application, and direct staff to work with the applicant on a revised rezoning and Major Development Permit application, for a secured rental housing development that includes a reduced FAR (2. 8 gross floor area ratio consistent with the OCP), and amended building and site design.
LUPC September 30, 2019 2019-LU/P-025 2019-LU/P-026	THAT the Land Use and Planning Committee refers the report back to staff for a revision that permits existing tenants to return to the building after construction at the same rent they are currently paying, subject to the per annum increases permitted by the province; and THAT the proposed Community Amenity Contributions (CACs) be reduced further in recognition for current tenants being able to keep their current rent amounts. THAT the Land Use and Planning Committee receives for information the corporate report dated September 30, 2019 from the Director of Planning and Development Services, titled “Information Report Update and Revised Tenant Relocation Plan – 1485 Fir Street (ZON/MJP 19-009).”

INTRODUCTION/BACKGROUND

White Rock Official Community Plan 2017, No. 2220 (OCP) designates the subject property as ‘Town Centre Transition’, characterized by residential uses that provide a gradual height transition between the Town Centre area and surrounding lower density single-family neighbourhoods. Building heights in the Town Centre Transition area are encouraged to develop within the range presented in Figure 10 of the OCP. For the subject site, this is shown as a continuum between 18 storeys at North Bluff Road and 6 storeys at Thrift Avenue, suggesting that between ~6-10 storeys would be a supportable transitional height at this location.

Under OCP Policy 8.2.3, properties in the Town Centre Transition area including 1485 Fir Street, are identified as being eligible for additional density (up to 40% above the base density) where at least half this additional floor area is dedicated to and secured as residential rental units. The base density for this property is 2.0 FAR, therefore the total maximum density permitted, including the rental bonus density, is 2.8 FAR, of which 0.4 FAR would need to be comprised of rental units. There is no additional bonus available for projects that consist entirely of rental units. Policy 11.2.1(f) requires that a minimum one-to-one replacement of existing rental units be provided when an existing rental building is proposed for redevelopment, with an average unit size of the replacement units at least 80% of the units being replaced. The proposal for 1485 Fir Street would consist of a six-storey, 80-unit building, for which all units would be rental units; the size and number of units is sufficient to satisfy the replacement requirements of the OCP.

The development is subject to a Major Development Permit being within the ‘Multi-Family’ Development Permit Area (DPA). The DPA Guidelines, outlined in Section 22.6 of the OCP have been applied to the proposal to ensure the form and character of the development fits within the established character of the neighbourhood. The project has been reviewed by City staff and the City’s Advisory Design Panel. Staff believe the rezoning to be consistent with the applicable policies of the OCP and the City’s Multi-Family DPA Guidelines. The following sections give greater merit to the factors considered in evaluating this proposal.

ANALYSIS

Current Zoning and Land Use Context

The subject property is located at 1485 Fir Street, on the corner of Fir Street and Russell Avenue (see Appendix C for Location Map and Ortho Photo). The property is occupied by a 25-unit rental apartment building (“The Firs;” building address of 1475 Fir Street) which was constructed in 1965. The existing building is located on three separate parcels and straddles the shared property lines. The subject properties are currently zoned ‘RM-2 Medium Density Multi-Unit Residential Zone’, which permits townhouse or apartment complexes with a 10.7 metre (35.1 feet) maximum height.

The subject site is surrounded by a mix of commercial, institutional and residential uses. To the west across a lane is St. John’s Presbyterian Church and Daycare Centre, to the north across Russell Avenue is a three storey office building (Russell Professional Building), and to the south and east are existing multi-unit residential buildings (one storey building on the east side of Fir Street, and three storey buildings to the south).

Previous Design Proposals

The initial report titled "Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP);" on July 8, 2019 to the Land Use and Planning Committee (see Appendix D) included an overview of a new development application submitted on May 9, 2019, for a proposed development with a total of 84 rental residential units in a six (6) storey building. The proposed density for the apartment site exceeded the OCP maximum density by 0.53 FAR (3.23

FAR proposed; 2.8 FAR allowed). Council subsequently directed staff to work with the applicant on a revised application that did not require an OCP amendment (i.e. that did not exceed the maximum density in the OCP).

Following Council’s direction, the applicant submitted drawings for the rezoning and development permit application on August 15, 2019. An additional report on September 30, 2019 confirmed that the new proposal did not exceed the maximum density allowed in the OCP and therefore did not require an OCP amendment. The major changes that were proposed included:

- Reducing the amount of floor area density and increasing the number of three-bedroom units so that an OCP amendment is no longer necessary;
- Building massing was addressed by recessing the fifth and sixth storeys of the building to reduce the total floor area and the visual impact of the building height;
- Lot coverage was decreased to below 50%;
- Balconies were added to the homes along Fir Street; and
- The outdoor play area was relocated to the front of the building along Fir Street instead of in the rear along George Lane.

Table 1 below provides a summary of changes to the site statistics from the two previous proposals, in comparison to the current proposal. Design changes that have occurred following receipt of the last information report will be discussed in the sections that follow. Of note, there have been no changes to the number of units or building height and only minor reductions to lot coverage and floor area. Parking has been further reduced to 108 spaces, representing a 10% reduction to the required 120 spaces.

Table 1: Comparison of Original Development Proposal Statistics, Second Revised Proposal, and Current Proposal

	Original Proposal (May 9, 2019)	Revised Proposal (August 15, 2019)	Current Proposal (October 19, 2020)
Number of Units	84 (all secured rental)	80 (all secured rental)	80 (all secured rental)
Gross Floor Area	6,586.9 m ² (70,900.4 ft ²)	5,706.7 m ² (61,426.8 ft ²)	5,700 m ² (61,356.85 ft ²)
Floor Area Ratio (Gross)	3.23	2.8	2.8
Lot Coverage	56%	49.9%	48.7%
Height (to top of roof)	Six storeys (18.9 metres)	Six storeys (18.9 metres)	Six storeys (18.9 metres)
Parking Spaces	115 (1.37 per unit)	112 (1.4 per unit)	108 (1.35 per unit)

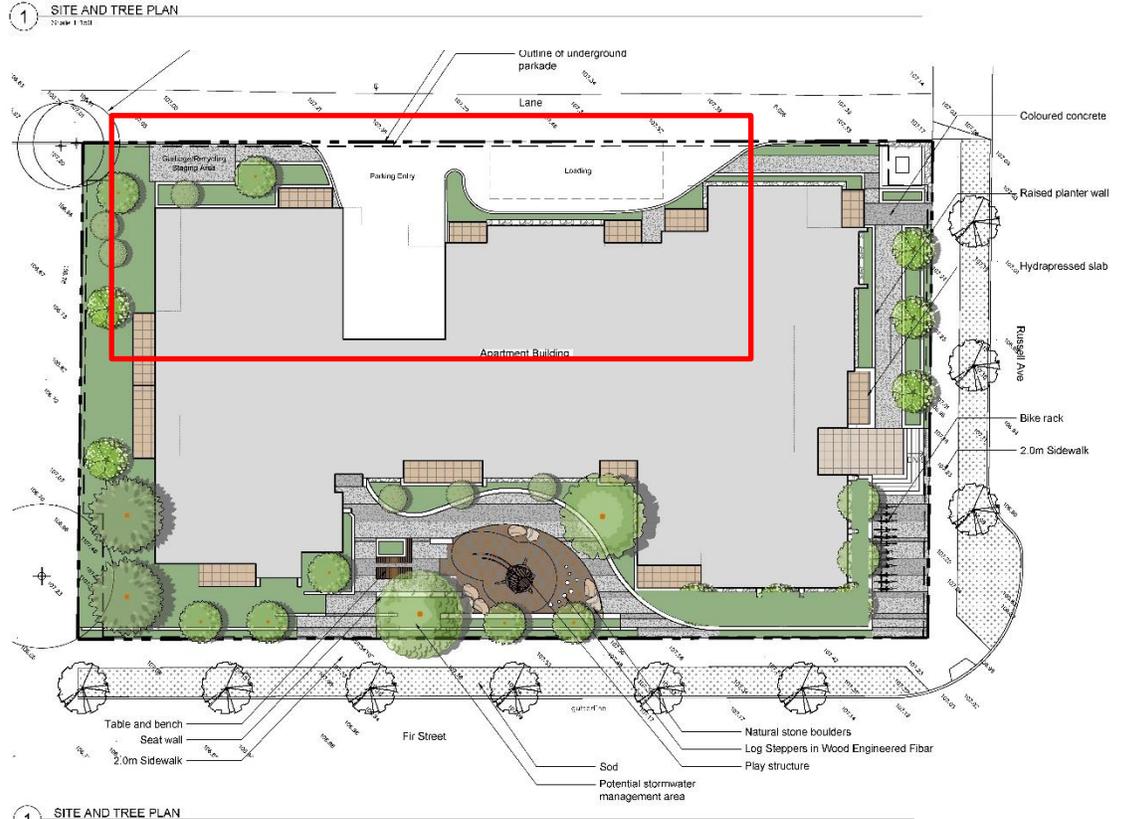
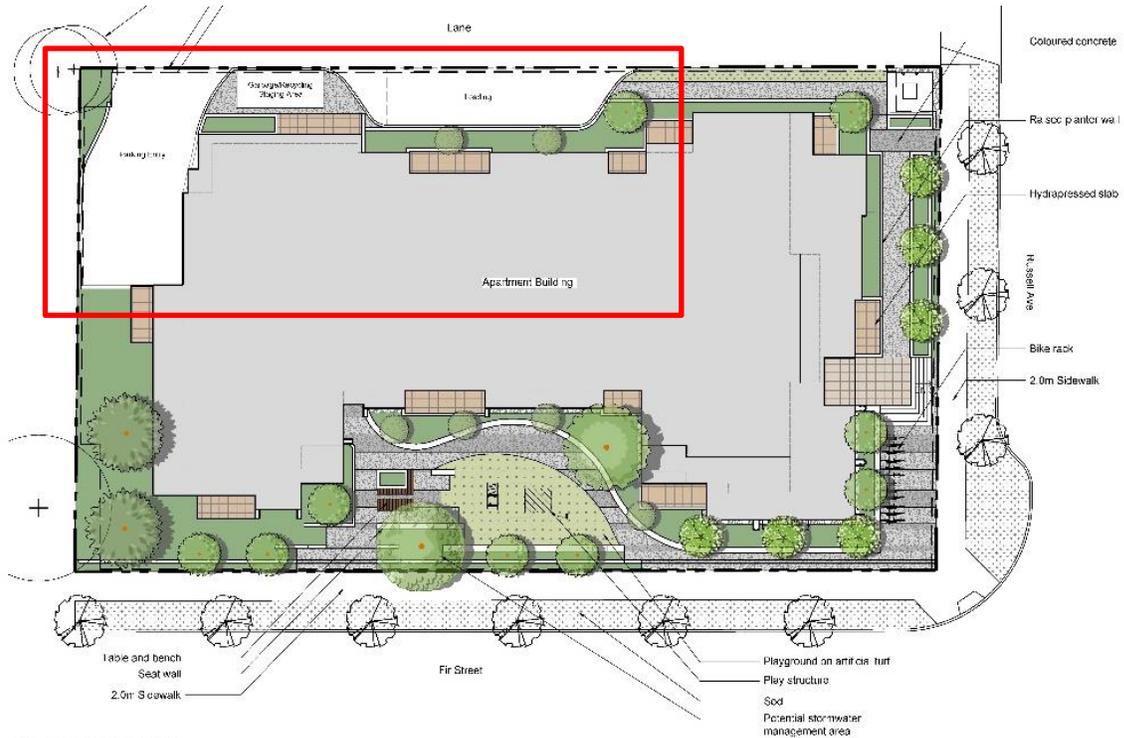
Current Proposal

The current development proposal would include a total of 80 units within a six-storey residential rental building. Unit sizes proposed range between 420 ft² – 520 ft² for a studio, 540 ft² – 625 ft² for a one-bedroom, 680 ft² – 990 ft² for a two-bedroom, and 980 ft² – 1010 ft² for a three-bedroom unit. It is important to note that the proposal now conforms to various elements of the OCP’s “Family-Friendly” housing policies, with 40 percent of the units containing either two or three bedrooms (32 units) and 12.5 percent of the units having three bedrooms (10 units).

Much of the design reflects the proposal in the information report presented to the LUPC from September 30, 2019 included as Appendix E. The major changes reflected in the current proposal pertain to the location of the parkade access which has been relocated to the middle of the site along George Lane, and a slight change in the configuration of the loading bay (see Figure 1). Access through an internal corridor has also been provided from the loading bay to the main elevator, so residents who are moving can easily access the building. A revision in the type of

play structure proposed in the communal courtyard area has also been accommodated in order to provide a more naturalized feel to the space with a ‘tree house’ structure instead of a more traditional playset; this latter revision stems from the feedback of the Advisory Design Panel. The revised parkade access location accommodates more green space on the south end of the site to provide a buffer between the proposed development and the existing property to the south.

Figure 1: Site Plan Comparison between September 30, 2019 version and Current Proposal



Public Information Meeting and Public Feedback

The applicant (Billard Architecture) held a public information meeting (PIM) on December 12, 2019, at ThirdSpace Community Café, Unit 1 - 1381 George Street) from 5:30 p.m. - 7:00 p.m. Approximately five-hundred and fifty (550) letters were circulated notifying owners within 100 metres of the subject property of the proposal. The meeting was also advertised in consecutive publications of the Peace Arch News in advance of the PIM. Appendix F to this report includes the PIM sign-in sheet, completed comment forms, and PIM summary submitted by the applicant. There was a total of 25 paper feedback forms submitted and 11 emails written to staff pertaining to the proposal. A total of 19 of the respondents were in favor of the application, 12 were in opposition of the proposal, and 2 were undecided about the proposal.

Support for the proposal was outlined through comments relating to:

- The rental aspect of the project;
- Elevators in the proposed building helping tenants/visitors to overcome mobility issues;
- Financial issues with maintaining the existing building and requirement for higher density on the site in order to meet the costs of owning the building; and
- The benefit that a new building and amenity space would provide to existing and new tenants as well as the surrounding neighbourhood considering the existing building is 60 years old.

Major concerns that were brought up during the meeting included the following:

- Compromised views for existing residents with the increase in building height;
- Several comments related to the increase in traffic congestion related to the proposed development and how City infrastructure will handle this;
- Not enough greenspace proposed on the site;
- Concerns with the proposed architectural style of the building;
- Concern expressed by existing building residents about the loss of their homes;
- Rental rates being too high to afford; and
- Many of the existing tenants being elderly and it being difficult for them to find alternative housing at an affordable rate.

Planning Review

As noted, the original proposal has undergone a series of revisions to address early concerns expressed by Council as well as feedback received through the PIM. The design has also been modified in response to technical issues identified by City staff and feedback received from the City's Advisory Design Panel (ADP). The project is now consistent with the OCP's Town Centre Transition policies. These policies contemplate development in the form of multi-unit residential buildings transitioning in height from 18 storeys at North Bluff Road down to six (6) storeys at Thrift Avenue. The following sections describe details of the proposal and key land use planning considerations made in preparing the staff recommendation outlined in this report.

The proposed multifamily building is rectangular in shape and is situated in the middle of the subject site. Building setbacks are greatest along Russell Avenue (north) and the residential lands to the south, being approximately 5 metres (16 feet) in width. Setbacks along Fir Street (east) and George Lane (west) are slightly less at approximately 3 metres (10 feet) in width. The lands within the yard setbacks are to be programmed with a mixture of trees and shrubs to ensure

adequate privacy and screening for neighbouring residents, and to help create a pleasant interface between the building and pedestrian realm / streetscape.

Since the original submission, the massing of the building has been stepped back on the fifth and sixth levels to reduce the impact of the structure as experienced at the ground level (i.e., opening up pedestrian views to the sky) while also reducing the impact of shadows on abutting properties. Further, the project has been enhanced with the creation of an outdoor amenity space on the east portion of the site, formerly situated off the laneway along the western side of the property. This amenity space offers an open, publicly-visible, play area for young children and a space for residents to enjoy the outdoors; this design enhancement is becoming increasingly important in light of the on-going COVID-19 pandemic and efforts to support social distancing while enabling access to private open-air green spaces. Finally, access to the parkade, space for loading, and a space for garbage and recycling pick-up, has been situated off of George Lane, being the western limit of the property. This design helps lessen breaks in the pedestrian realm (sidewalk) while helping to “hide” the operational needs of the project.

Table 2 below provides a comparison of the existing and proposed zoning standards tied to the property and project. As noted, the CD Zone is largely intended to implement the height and density permissions contemplated in the OCP.

Table 2: Existing Zoning Provisions versus Proposed Zoning

Existing Zoning Provisions: RM-2 Medium Density Multi-Unit Residential	Proposed Zoning Provisions: CD 64 - Comprehensive Development Zone
Permitted Uses	Permitted Uses
Townhouse or apartment complexes with densities not exceeding 50 units per acre	Multi-unit residential use with accessory home occupation use
Number of Dwelling Units	Number of Dwelling Units
25 units (50 units / 0.4 hectares) Existing Lot Area: 2,036 m ²	80 dwelling units (10 three-bedroom units, 22 two-bedroom units, 41 one-bedroom units, and 7 studio units)
Minimum Lot Requirements	Lot Dimensions
Lot Width: 18.0 m (59.04 ft) Lot Depth: 30.5 m (100.4 ft) Lot Area: 742.0 m ² (7,986.82 ft ²)	Lot Width: 34.48 m (113.12 ft) Lot Depth (averaged): 59.04 m (193.69 ft) Lot Area: 2,036 m ² (21,917 ft ²)
Lot Coverage	Lot Coverage
45% 916 m ² (9,962.9 ft ²)	48.7% 991 m ² (10,667 ft ²)
Gross Floor Area	Gross Floor Area
1.1 times the lot area 2,240 m ² (24,109 ft ²)	2.8 times the lot area 5,700 m ² (61,357 ft ²)
Building Height	Building Height
10.7 m (35.1 ft) for principal buildings	Six Storeys – 18.9 metres to top of parapet measured from average natural grade (62 feet) Geodetic height: 126.49 metres top of parapet and 129.2 metres top of elevator shaft

Minimum Setback	Setback
Front Lot Line: 6 m (19.68 ft)	Front Lot Line: 3.47 m (11.38 ft)
Rear Lot Line: 6 m (19.68 ft)	Rear Lot Line: 3.08m (10.1 ft)
Interior Side Lot Line: 5.0 m (16.4 ft)	Interior Side Lot Line: 5.25 m (17.22 ft)
Exterior Side Lot Line: 3.8 m (12.47 ft)	Exterior Side Lot Line: 5.05 m (16.57 ft)

Public Realm and Streetscape Improvements

The project includes short-term bicycle parking at the pedestrian entrance and an extended sidewalk / queuing space at the corner of Russell Avenue and Fir Street. These measures lessen the need for private automobile use while supporting improved overall pedestrian safety, respectively. Further, plantings are proposed along the sidewalk to, over time, support the growth of a tree canopy along streets. These measures support the objectives and policies of Section 13.1 of the OCP as they relate to “Transportation + Mobility”.

The dedication of land has been sought by the City’s Engineering and Operations Department to enable the creation of improvements to the City’s boulevard (e.g., additional on-street parking, sidewalks, street tree planting, etc.) thereby contributing to a more “complete” street. Efforts to design streets for all users can reduce collision rates (particularly for vulnerable road users, such as pedestrians and cyclists), better support adjacent land uses, support shifts to sustainable transportation methods of travel (walking, cycling, and transit), and improve the quality of the street as a positive space that is a destination and thoroughfare where residents, visitors, and passersby can feel safe.

Multi-Family DPA Guidelines

The applicant has submitted a response to the Multi-Family Development Permit Area Guidelines, which are applicable to the proposal pursuant to OCP Policy 22.1. The response to the guidelines is attached as Appendix G. Staff consider the submitted response to be in conformance with the Development Permit Guidelines. Figure 2 below provides a rendering of the current proposal, the form and character of which remains largely the same as the previous proposal considered in the report dated September 30, 2019.



Figure 2: Rendering of the Proposal from the corner of Russell Avenue and Fir Street Looking Southwest

The applicant has adequately identified how the proposed development meets the development permit guidelines by providing the following key aspects:

- a) A transition from high-rise buildings in the Town Center neighbourhood with much of the density located on the first to fourth level. The upper levels are then recessed back on all four sides of the building to reduce shadow and view impacts on neighbouring sites.
- b) Repetitive architectural details continue around all elevations of the building to create visual interest at all angles. The front entrance is clearly indicated with linear framework to create a vibrant space for residents and pedestrians to gather and connect in a safe, comfortable environment that is fully accessible with an integrated gradual access from the sidewalk.
- c) Natural materials will be used on the building's exterior including brick, exposed red cedar, fiber cement and natural metals such as aluminum. Natural tones are incorporated into the project to reflect the natural landscape with one dominate accent colour.
- d) The public realm will be improved by providing sidewalks and a boulevard that is 2m wide. An extra wide front entrance pathway is provided for bicycles, wheelchairs and scooters as well as a curb let-down at the intersection. Planting along the street fronting property lines will be provided to deter pedestrians from accessing the property on the grass and provide privacy from private patios that face the street.
- e) A light-coloured roof that is low in albedo will be used to reduce heat and energy efficient light fixtures will be used to conserve energy. Water efficient plumbing fixtures along with an abundance of zero-irrigation landscaping will be used to conserve water. A stormwater management plan will be set in place to alleviate heavy flooding from rainfall due to climate change.

Advisory Design Panel Review

During the Advisory Design Panel (ADP) meeting on July 21, 2020, the panel recommended that the application for the development proposal at 1485 Fir Street be referred to Council once the applicant had the opportunity to consider comments pertaining to the following items (see Appendix H for related ADP meeting minutes):

- a) Stormwater management plan must go to the Engineering Department – efforts to minimize the amount of stormwater going to the storm system;
Design Response: The stormwater is managed in a combined strategy between the civil and landscape designs. Raised planter beds are provided with soil to absorb water for uptake by the plant material. The excess water is collected in drains that connect to a storage tank located inside the parkade. The stormwater tank is sized so as to retain water and slowly release this water into the municipal storm sewer.
- b) Rooftop to be designed to reduce solar gain;
Design Response: It was confirmed that the roof would be light coloured and low albedo to reduce heat.
- c) Efforts to increase the number of electrical charging stations
Design Response: The addition of 12 electrical charging stations was incorporated into the design of the parkade.

- d) Efforts to increase the number of accessible parking spaces
Design Response: One more accessible parking space was incorporated into the design of the parkade for a total of three parking spaces
- e) Design of the children’s play space – naturalization of the space
Design Response: The playground was naturalized by using a form inspired by a tree house with earth toned materials and wood grain panels. Feature boulders were also introduced to blend the playground to the surrounding landscape treatment.

Staff believe the applicant has provided a satisfactory response to the comments noted above.

Tree Management

The Arborist Report prepared by Woodridge Tree Consulting Arborists Ltd. identifies that a total of three (3) “protected trees”, being those subject to City of White Rock Tree Management Bylaw, 2008, No. 1831, within the site area. One of the trees is a City tree and the other two are off-site trees. The Report recommends that all trees be retained as they are in good condition.

City staff have reviewed the recommendations of the Project Arborist and are comfortable with their retention subject to the posting of securities (i.e., \$9,500) for the three (3) offsite trees as required by the Tree Management Bylaw. Twenty-seven (27) trees are proposed as part of the development. Appendix B includes the proposed landscape plan which will be further reviewed upon receipt of an application for a Tree Management Permit (TMP), likely to accompany a future request for demolition of the existing building.

Traffic Study Review

The applicant has submitted a Traffic Study that analyses existing traffic volumes at the intersection of Fir Street and Russell Avenue. The peak traffic conditions (weekday morning and afternoon hours) for four different time frames – 2019 (existing), 2022 (full build-out), 2027 (5 years after build-out), and 2045 (the end of future timeframe for the White Rock OCP). A summary of the expected trip generation is shown in Table 3: Daily Trip Generation Statistics below:

Table 4: Daily Trip Generation Statistics

Peak Periods	Inbound Traffic	Outbound Traffic
Morning Hours: 8:00 a.m. to 9:00 a.m.	8 (28%)	21 (72%)
Afternoon Hours: 3:00 p.m. to 4:00 p.m.	22 (61%)	14 (39%)

The proposed development is estimated to add a total of 21 additional trips in the morning and 26 additional trips in the evening, which takes the total number from each category above (29 and 36 inbound and outbound trips respectively) and subtracts the number of existing trips made by residents in the current building. No major traffic issues are expected along this length of Russell Avenue and Fir Street. No major intersection improvements are proposed as a result of the study, however, additional ‘watch for pedestrian’ signage is suggested at the corner of George Lane and Thrift Avenue as well as tactile paving on the northwest and northeast corners of this intersection. The traffic study is attached as Appendix I.

Parking Standards and Requested Variance

The total number of required parking spaces for the proposed development equates to 120 spaces. A total of 96 spaces would be provided for residents and 24 parking spaces for visitors, totalling 108 spaces. This would be a 10% total reduction to the requirements of the Zoning Bylaw. CTS Traffic Consultants analyzed the peak parking demand using the Institute of

Transportation Engineers (ITE) Parking Generation Manual 5th Edition. Using representational data in the mid-rise multi-family category, the consultants estimated that 80 dwelling units would require 1.31 spaces per dwelling unit, or a total of 105 spaces to meet the peak average demand. The 108 spaces proposed for the development exceeds the estimated peak travel demand by three spaces. To supplement the request for a 10% parking variance, residents would be provided with a \$100.00 compass card to encourage the use of public transportation, with several routes located in close proximity to the development; the nine (9) routes include the 321, 345, 351, 354, 361, 362, 363, 375, and 531.

Further to the information provided above, under Zoning Bylaw No. 2000, a maximum of 40% of the stalls can be provided as small car spaces. The development is proposing a total of 33 small car spaces, equivalent to 30% of the total spaces. A total of two handicapped spaces are required as part of the proposed development. A total of three handicapped spaces will be provided, all located near the elevator. Electric vehicle (EV) charging is required as per Zoning Bylaw No. 2000, with a requirement of one charging station per every 10 parking spaces. The development proposes a total of 36 EV stations, significantly over the 18-space requirement. In consideration of the recommendations of the parking analysis prepared by CTS Traffic Consultants and the information noted above, City staff are supportive of the requested variance to parking.

Tenant Relocation Plan

In the original Tenant Relocation Plan, the applicant proposed to give the option to existing tenants to return to the new building at rents that would be 10% below the market rent that was being charged at that time for other similar units, which is consistent with the City's Tenant Relocation Policy No: 514. Due to concerns that were raised during the discussion at LUPC regarding the large increase that even 10% below market rent would be for existing tenants, the applicant then offered to reduce the rents charged to returning tenants to 20% below projected market rent for the building, which was estimated at \$2.80 per square foot. The rents at this rate for returning residents would have been \$2.24 per square foot, equating to:

- \$1,232 for an average size (550 square foot) one-bedroom unit
- \$1,859 for an average size (830 square foot) two-bedroom unit

Since this approach was discussed the City's Governance and Legislation Committee has advanced further discussions regarding potential amendments to Policy No. 514. These amendments were presented in a report to the Committee on January 27, 2020 titled "Options for Tenant Assistance During Redevelopment and Renovation". Stemming from this meeting, the developer has agreed to revise the Tenant Relocation Plan further to align with the draft amendments as presented in the noted report.

Per the draft policy amendments, for existing tenants compensation would be provided on a sliding scale dependent on the length of tenancy (number of years) of the resident. For example, someone who has lived in the building for 10 years and is currently paying \$1,540 for a one-bedroom unit would receive \$36,960 to be used towards alternative housing costs (i.e., 24 months times the monthly rent rate). Note that at the time of preparing this report alternative mechanisms to control the disposition of monies to tenants (i.e. via an annuity or Guaranteed Investment Fund or alternative) are under review and not yet solidified by way of amendments to the policy, and are discussed further in a previous corporate report on this LUPC agenda. That said, there exist opportunities to implement such controls by way of a Housing Agreement Bylaw if Council directs staff to further advance the review of this proposal.

For those who choose to move back into the building, the developer has also agreed to follow the recommendations of the January 27, 2020 report by significantly reducing the rate of the initial rent for returning tenants. The rental rates in the new building would be in accordance with the table below, outlining a rate between 21-30% below market depending on the length of tenancy.

Table 3: Length of Tenancy and Application Rent Reduction

Length of Tenancy (Years)	% Below Market Rent
1	21%
2	22%
3	23%
4	24%
5	25%
6	26%
7	27%
8	28%
9	29%
10 or more	30%

Based on a market rental rate of \$2.80 per square foot, the rents for returning residents at the rates identified above would equate to:

- Between \$1,078 (30%) and 1,216 (21%) for a one-bedroom unit (550 square foot); and
- Between \$1,627 (30%) and \$1,835 (21%) for two-bedroom unit (830 square foot)

These rents would be inclusive of a parking space and hot water, and following occupancy the owner would be permitted to increase rents in accordance with the annual increases regulated by the Residential Tenancy Branch. Finally, if a tenant did not opt to move back into the building, this unit would be available to a new tenant at a 10% reduced rental rate which would be formalized in the Housing Agreement Bylaw. Please see the financial section below for a discussion of how the Community Amenity Contribution could be reduced or waived to support the rental compensation, rent reduction, and reduced 10% rental rate if a tenant does not opt to move back into the building.

Amenity Contribution

Policy 511 provides Council with the opportunity to consider waiving all or a portion of the applicable amenity contribution for developments that provide either affordable (non-market) or market rental developments, recognizing that these developments offer a needed form of housing which is in itself a form of amenity to the community. The target contribution rate for properties in the ‘Town Centre Transition’ land use designation is a rate of \$430 per square metre over 1.5 FAR/gross floor area ratio as per the recommendations in the Governance and Legislation Committee Report dated January 27, 2020 (and discussed in the separate corporate report on this Land Use and Planning Committee agenda). The expectation would be that the full contribution could be reduced through the provision of housing for displaced tenants as well as the whole development being offered as purpose-built rental housing. Staff are supportive of this approach based on the additional compensation and rate of below market rent proposed for returning tenants as identified above.

Housing Agreement

The Housing Agreement Bylaw is the formal binding agreement between the Developer and the City that regulates and secures the rental rates based on the recommendations and discussion provided above. The Housing Agreement will be finalized pending the completion of of third

reading of the associated bylaw. All 80 residential units would be secured as rental in perpetuity through the Housing Agreement Bylaw. Additional controls tied to the disposition of monies to support tenant relocation may also be incorporated into the terms of a future agreement.

FINANCIAL IMPLICATIONS

The Rezoning and Major Development Permit, if approved, will not result in any additional costs to the City. Development cost charges will apply to the redevelopment.

Previously and in accordance with existing Council Policy 511: ‘Density Bonus / Amenity Contribution’, a community amenity contribution of \$922,000 would have been anticipated based on the target rates for the Town Centre (this site is in close proximity to the Town Centre and a similar target rate was considered appropriate). This rate would be increased under the proposed changes considered by the Governance and Legislation Committee report submitted on January 27, 2020 titled “Options for Tenant Assistance During Redevelopment and Renovation”, to a rate of \$430 square foot over 1.5 FAR.

As the project proposed a FAR of 2.8, the total contribution would equate to \$1,137,780 (i.e., Additional floor area from 1.5 to 2.8 {[lot area x 2.8] – [lot area x 1.5]} = 2,646 m² x \$430). The proposed changes to Policy 511 would establish a further reduction (up to 50%) of an applicable amenity contribution as the housing would be provided to displaced tenants in accordance with the Tenant Relocation Policy (i.e. compensation being provided to tenants and reduced rents are available), and where the initial rents for rental replacement units where the tenants are not returning are 10% below market and available for the general public. Council Policy 511 currently allows a reduction of up to 50% of an applicable amenity contribution for secured market rental floor space, which would amount to \$568,873 and could be further waived up to 100%.

LEGAL IMPLICATIONS

A Housing Agreement Bylaw would be prepared for Council’s consideration, based on the applicable provisions in Council Policy 511: Density Bonus / Amenity Contribution and Council Policy 514: Tenant Relocation, as directed by Council. A draft of this Housing Agreement Bylaw would be made available as part of the materials available prior to the Public Hearing.

COMMUNICATION AND COMMUNITY ENGAGEMENT IMPLICATIONS

This application has received a Public Information Meeting, and if Council provides 1st and 2nd reading to the draft zoning amendment bylaw, the public would have an opportunity to comment on this application via a Public Hearing.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS

The Rezoning and Major Development Permit applications were circulated to internal City departments and comments requiring a response / resolution by the proponent have been addressed.

CLIMATE CHANGE IMPLICATIONS

The application will enable the intensification of the ‘Town Centre Transition’ designation, thereby lessening the demand for outward sprawl otherwise necessary to accommodate growth. The applicant has also proposed several initiatives to address climate change, which include the following:

- Water, electric and gas will be individually metered to increase self-imposed conservation.
- Landscaping includes a variety of permeable surface areas and decreases consumption of irrigation water by the use of native, drought resistant planting.
- Lighting and plumbing fixtures to be energy/water efficient as well as the provision of Energy Star® rated appliances.
- High efficiency windows and doors with effective blinds will be preinstalled.
- Materials used in construction or finishing such as cabinets and floors will be made from renewable resources and sourced locally where possible
- Flooring, paint and other finishes will be non-toxic with low volatile organic compounds (VOCs)

ALIGNMENT WITH STRATEGIC PRIORITIES

The proposal is generally aligned with the Corporate Vision established as part of Council’s Strategic Priorities, particularly with respect to supporting a community where people can live, work and play in an enjoyable atmosphere.

OPTIONS / RISKS / ALTERNATIVES

As an alternative to the staff recommendation provided at the outset of this corporate report (to move the application forward to Public Hearing), Council may alternately:

1. Reject “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363” and Development Permit No. 432; or
2. Defer consideration of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363” and Development Permit No. 432 pending further information to be identified.

Staff recommend proceeding with the application to Public Hearing, which is incorporated into the recommendations of this corporate report.

CONCLUSION

The proposal for an 80-unit rental building at 1485 Fir Street is consistent with the objectives and policies of the ‘Town Centre Transition’ OCP land use designation and Development Permit Area Guidelines. Staff consider the proposed changes to the six-storey multi-unit residential building as improvements to the design and its impact on the surrounding neighbourhood from the original OCP amendment proposal, and have brought forward a draft Zoning Amendment Bylaw and draft Development Permit to move the application forward to a Public Hearing. The Tenant Relocation Plan requirements of the proposal would provide additional compensation and reduced rental rates outlining an additional benefit to those residents impacted by the redevelopment proposal. The proposed variance to parking is minor and supported by a rigorous analysis by the consultant. Staff recommend that the Zoning Amendment Bylaw be given first

and second reading, and that a Public Hearing be scheduled to receive additional input from the community on the proposal.

Respectfully submitted,



Carl Isaak, MCIP, RPP.
Director of Planning and Development Services

Comments from the Chief Administrative Officer

I concur with the recommendations of this corporate report.



Guillermo Ferrero
Chief Administrative Officer

- Appendix A: Draft Zoning Amendment Bylaw No. 2363
- Appendix B: Draft Development Permit No. 432
- Appendix C: Location and Ortho Photo Maps
- Appendix D: LUPC Report "Initial OCP Amendment Application Report- 1485 Fir Street (19-009 OCP/ZON/MJP)" dated July 8, 2019
- Appendix E: LUPC Report "Information Report Update and Revised Tenant Relocation Plan 1485 Fir Street (ZON/MJP 19-009)" dated September 30, 2019
- Appendix F: Public Information Meeting Sign-in Sheet, Comment Forms, and Summary
- Appendix G: DPA Guidelines Response Table
- Appendix H: ADP Minutes dated July 21, 2020
- Appendix I: CTS Traffic Study dated November 25, 2019

**The Corporation of the
CITY OF WHITE ROCK
BYLAW No. 2363**



A Bylaw to amend the
"White Rock Zoning Bylaw, 2012, No. 2000" as amended

The CITY COUNCIL of the Corporation of the City of White Rock in open meeting assembled ENACTS as follows:

1. THAT Schedule C of the *White Rock Zoning Bylaw, 2012, No. 2000* as amended is further amended by rezoning the following lands:

Lot 16 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-931
(1485 Fir Street)

Lot 17 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-965
(1485 Fir Street)

Lot 18 Section 11 Township 1 New Westminster District Plan 15362
PID: 001-331-981
(1485 Fir Street)

as shown on Schedule "1" attached hereto, from the 'RM-2 Medium Density Multi-Unit Residential Zone' to 'CD-64 Comprehensive Development Zone (1485 Fir Street).'

2. THAT *White Rock Zoning Bylaw, 2012, No. 2000* as amended is further amended:
 - (1) by adding to the Table of Contents for 'Schedule B (Comprehensive Development Zones)', Section 7.64 CD-64 Comprehensive Development Zone';
 - (2) by adding the attached Schedule "2" to 'Schedule B (Comprehensive Development Zones)' Section 7.64 CD-64 Comprehensive Development Zone'.
3. This bylaw may be cited for all purposes as "*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363*".

PUBLIC INFORMATION MEETING on the

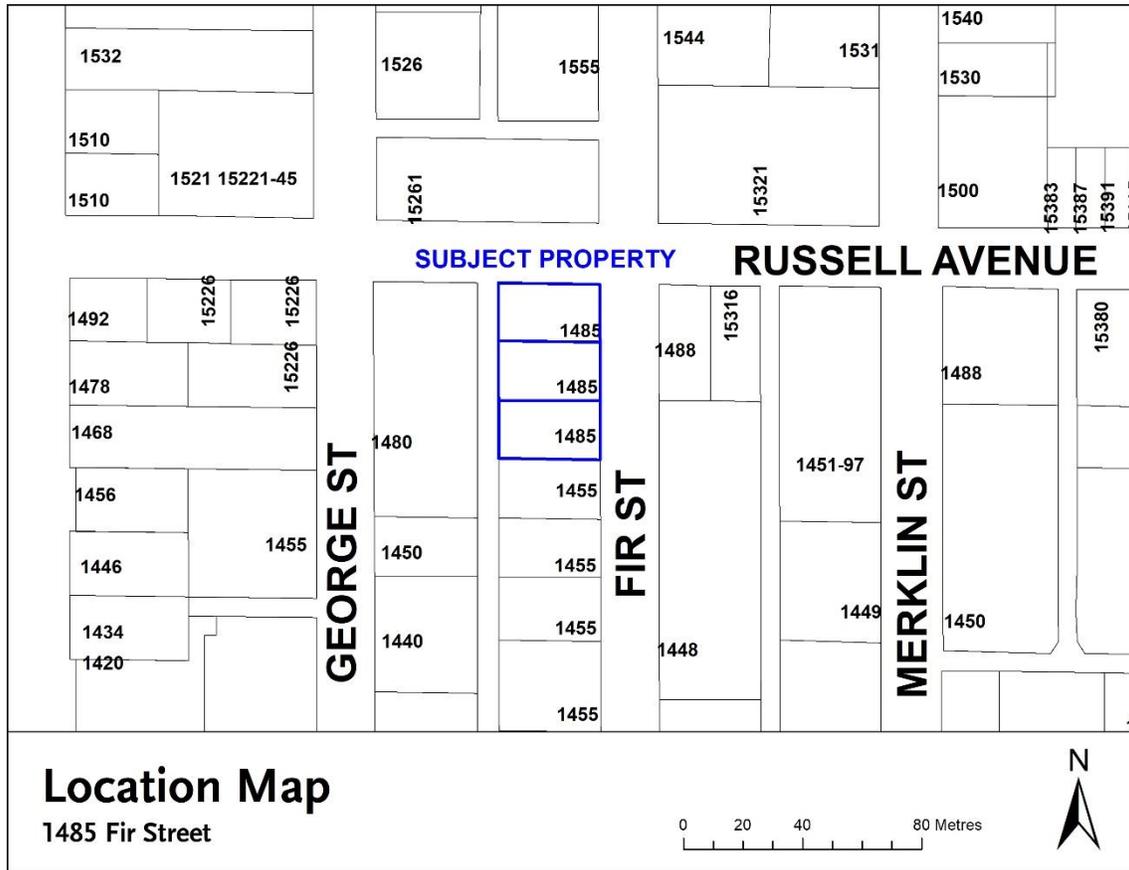
12th day of December, 2019

RECEIVED FIRST READING on the 19th day of October, 2020
RECEIVED SECOND READING on the 19th day of October, 2020
PUBLIC HEARING held on the 18th day of January, 2021
SECOND READING RESCINDED on the 26th day of April, 2021
PUBLIC HEARING held on the day of
RECEIVED THIRD READING on the day of
RECONSIDERED AND FINALLY ADOPTED on the day of

Mayor

Director of Corporate Administration

Schedule "1"



7.64 CD-64 COMPREHENSIVE DEVELOPMENT ZONE

INTENT

The intent of this zone is to accommodate the development of a multi-unit residential building on a site of approximately 2,036 square metres, with the provision of affordable housing and a housing agreement bylaw in accordance with section 482 of the *Local Government Act*.

1. Permitted Uses:

- (1) *multi-unit residential use; and*
- (2) *accessory home occupation use in accordance with the provisions of section 5.3 and that does not involve clients directly accessing the principal building*

2. Lot Coverage:

- (a) For *multi-unit residential uses*, lot coverage shall not exceed 49%

3. Maximum Base Density:

The following base density regulation applies generally for the zone:

Maximum *residential floor area* shall not exceed 1.1 times the lot area, and maximum *gross floor area* shall not exceed 1.5 times the lot area.

4. Maximum Increased Density:

Despite section 7.64.3, the reference to the maximum *gross floor area* of “1.5 times the lot area” is increased to a higher density of a maximum of 5,700 m² (61,356.85 ft²) of *gross floor area* (2.8 FAR; or gross floor area ratio) and 80 apartment dwelling units where a housing agreement has been entered into and filed with the Land Title Office to secure eighty (80) dwelling units as rental tenure for the life of the building, with four (4) of these dwelling units being secured for a period of 10 years as having maximum rents set at the average rent for a private apartment in White Rock as indicated by the most current rental market report from Canada Mortgage and Housing Corporation.

5. Building Height:

- (a) The *principal buildings* for *multi-unit residential uses*, inclusive of elevator shafts, stair housing, and all mechanical equipment, shall not exceed a *height* of 129.2 metres geodetic; and
- (b) *Ancillary buildings and structures* for *multi-unit residential uses* shall not exceed a height of 5.0 metres from *finished grade*.

6. Siting Requirements:

- (a) Minimum setbacks for *multi-unit residential uses* are as follows:
 - (i) Setback from north lot line = 5.05 metres

- (ii) Setback from south lot line = 5.25 metres
- (iii) Setback from west lot line = 3.08 metres
- (iv) Setback from east lot line = 3.47 metres

(b) *Ancillary structures* may be located on the subject property in accordance with the Plans prepared by Billard Architecture dated August 11, 2020 that are attached hereto and on file at the City of White Rock, with the exception that no *ancillary buildings* or *structures* are permitted within a 1.0 metre distance from a lot line.

7. Parking:

Parking for *multi-unit residential uses* shall be provided in accordance with Sections 4.14 and 4.17, with the minimum number of spaces required as follows:

- (a) A minimum of ninety-six (96) spaces shall be provided for residents of the *multi-unit residential use*;
- (b) A minimum of twenty-four (24) spaces shall be provided for visitors and marked as “visitor”;
- (c) A minimum of three (3) of the required one hundred and eight (108) spaces shall be provided as accessible parking spaces, shall be clearly marked, and shall have a minimum length of 5.5 metres. Of the three accessible parking spaces, one space shall be provided as a van-accessible loading space with a minimum width of 2.8 metres, and the other two spaces shall have a minimum width of 2.5 metres, provided that the three parking spaces have a shared or non-shared access aisle with a minimum width of 1.5 metres; and
- (d) The minimum height clearance at the accessible parking spaces and along the vehicle access and egress routes from the accessible parking spaces must be at least 2.3 metres to accommodate over-height vehicles equipped with a wheelchair lift or ramp.

8. Bicycle Parking:

Bicycle parking shall be provided in accordance with Section 4.16, with the minimum number of spaces required as follows:

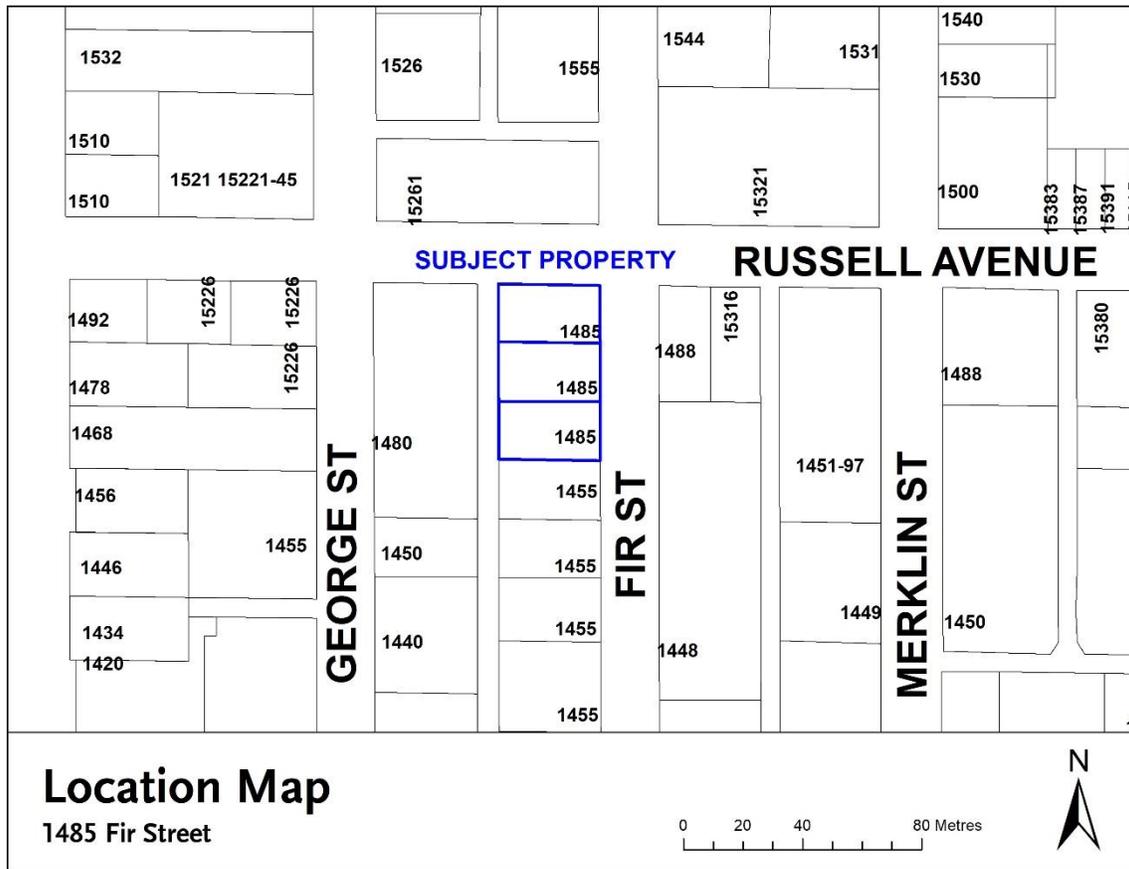
- (a) A minimum of 94 Class I spaces shall be provided; and
- (b) A minimum of 16 Class II spaces shall be provided

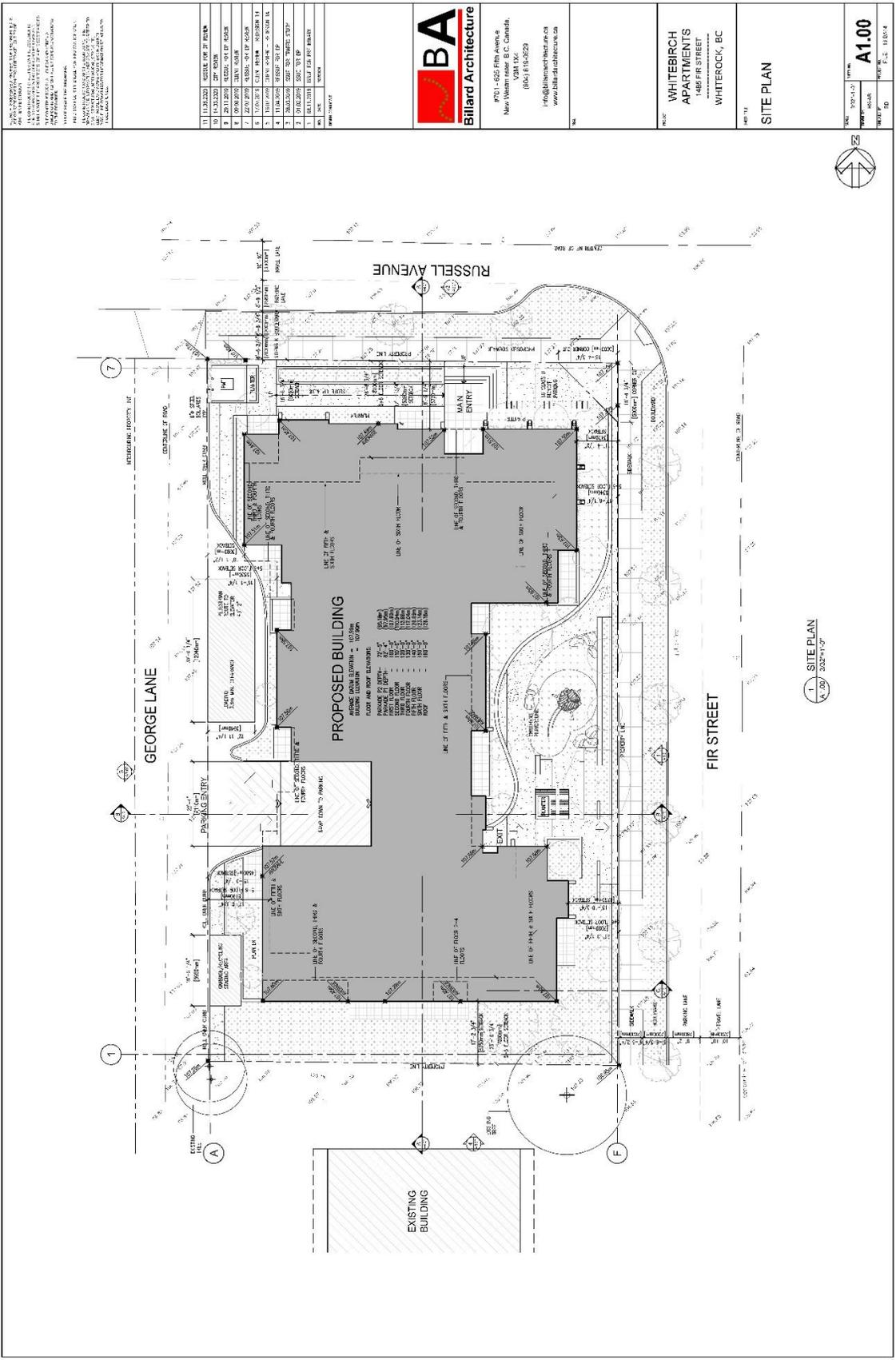
9. Loading:

- (a) One loading space shall be provided for a *multi-unit residential use* in accordance with Section 4.15

10. General:

Development in this zone that includes the additional (bonus) density referred to in Section 4 shall substantially conform to the Plans prepared by Billard Architecture dated August 11, 2020 that are attached hereto and on file at the City of White Rock



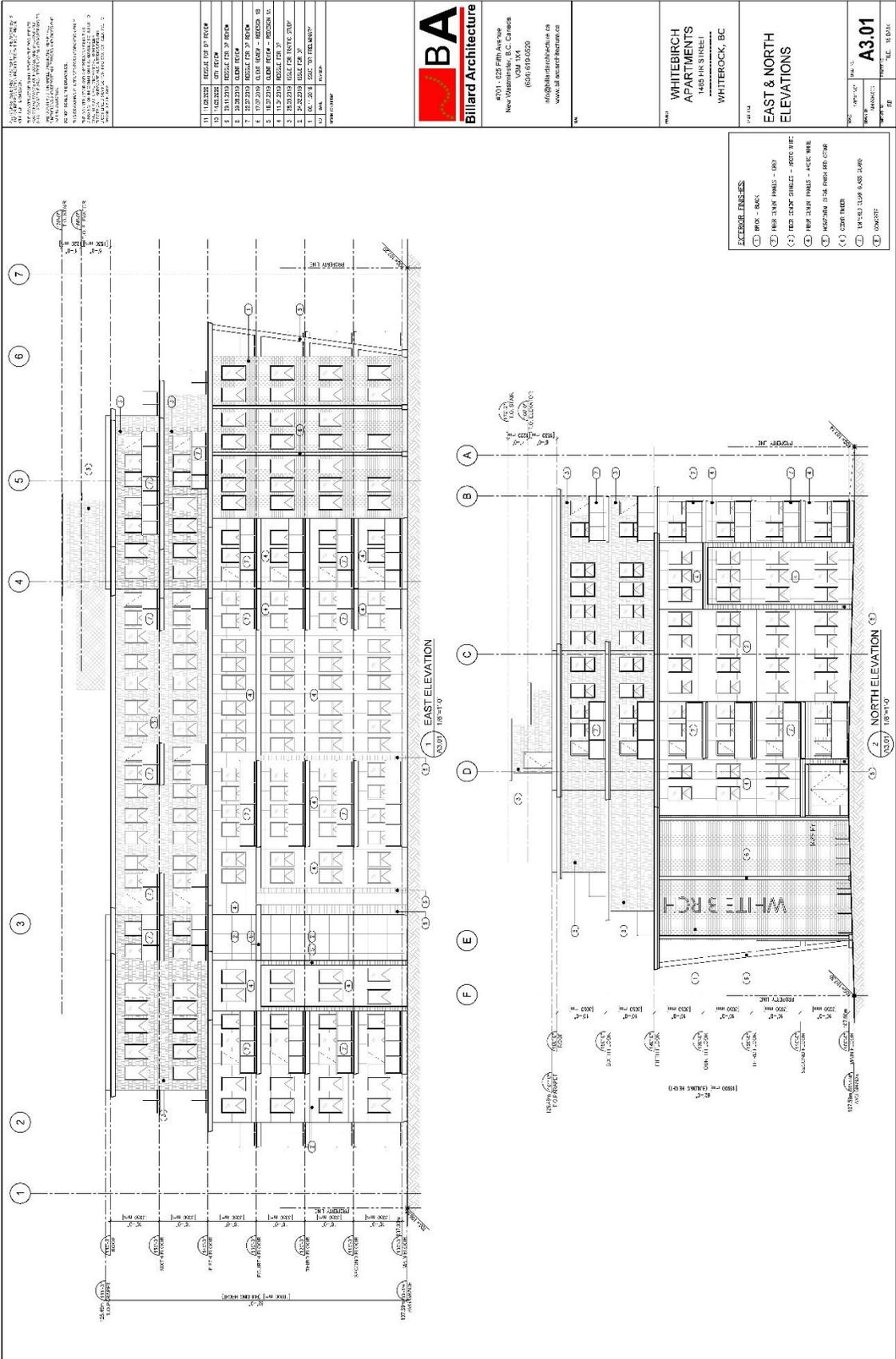


11	13.06.2023	REVISED FOR PERMITS
10	12.25.2023	2P PERMITS
9	10.11.2023	REVISED FOR PERMITS
8	09.09.2023	REVISED FOR PERMITS
7	22.07.2023	REVISED FOR PERMITS
6	14.06.2023	REVISED FOR PERMITS
5	11.04.2023	REVISED FOR PERMITS
4	10.03.2023	REVISED FOR PERMITS
3	09.02.2023	REVISED FOR PERMITS
2	08.01.2023	REVISED FOR PERMITS
1	07.01.2023	REVISED FOR PERMITS
DATE: 13.06.2023		
DRAWN: [Name]		
CHECKED: [Name]		
SCALE: 1:100		

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 1701-625 Fifth Avenue
 New Westminster, B.C. Canada,
 V3M 1X6
 (604) 616-0229
 info@billardarchitect.com
 www.billardarchitecture.ca

WHITEBIRCH APARTMENTS
 1485 FIR STREET
 WHITEROCK, BC

SITE PLAN
 SCALE: 1:100
A1.00
 DATE: 13.06.2023



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11	11.02.2022	ISSUE FOR PERM
10	11.02.2022	01 PERM
9	10.11.2021	ISSUE FOR PERM
8	10.11.2021	01 PERM
7	10.11.2021	ISSUE FOR PERM
6	10.11.2021	01 PERM
5	10.11.2021	ISSUE FOR PERM - REDRAWN
4	10.11.2021	ISSUE FOR PERM
3	10.11.2021	ISSUE FOR PERM
2	10.11.2021	ISSUE FOR PERM
1	10.11.2021	ISSUE FOR PERM

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WHITE BIRCH APARTMENTS
1405 14th Street
WHITEROCK, BC

EAST & NORTH ELEVATIONS

A3.01

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13	15.11.2024	REDLINE FOR IF 2025
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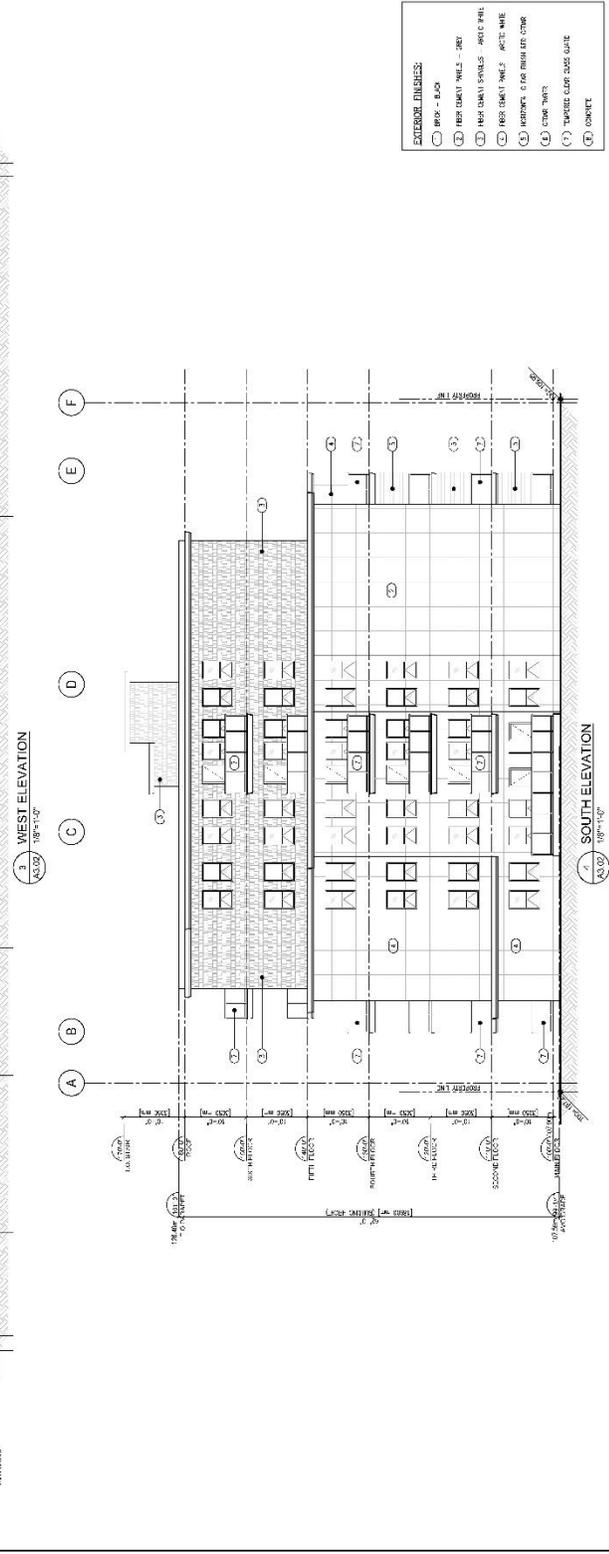
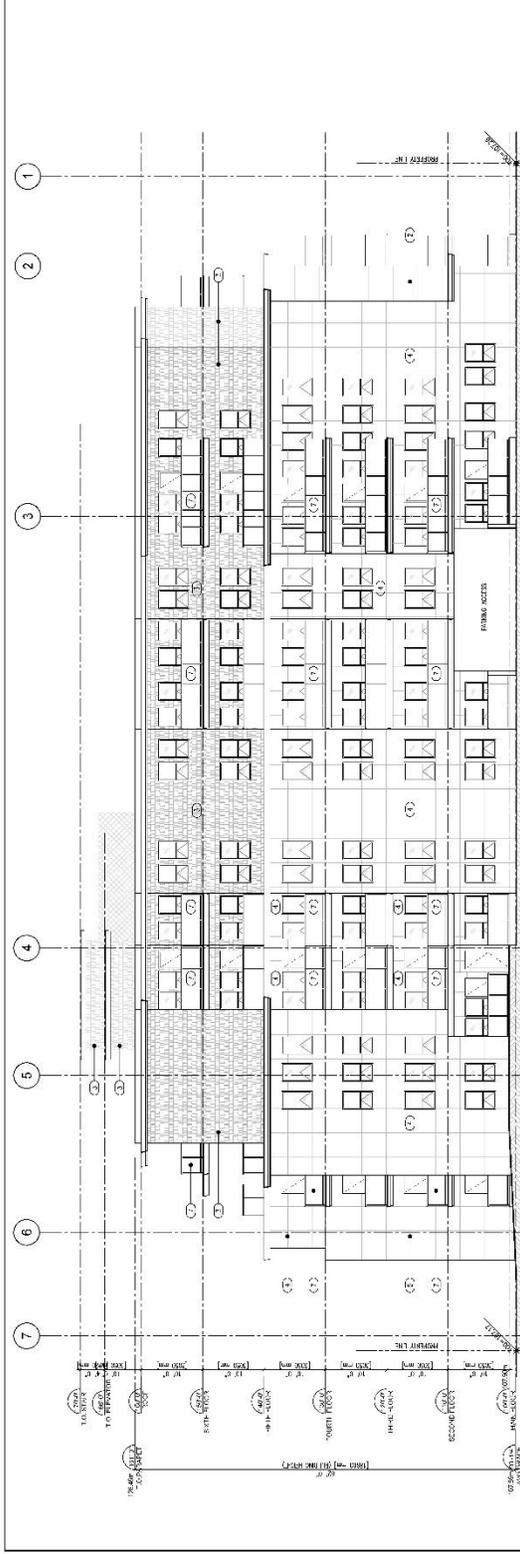
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WHITEBIRCH APARTMENTS
1405 BIRCH STREET
WHITEROCK, BC

WEST & SOUTH ELEVATIONS

A3.02



- EXTERIOR FINISHES:**
- (1) BRICK - BROWN
 - (2) BRICK - LIGHT TONES - 2807
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KEY	REF.	DESCRIPTION
	1 (LD-02)	GRAVEL (60% S&S)
	2 (LD-03)	GRAVEL (60% S&S)
	3 (LD-04)	GRAVEL (60% S&S)
	4 (LD-05)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

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	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

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	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)



TREES	BOTANICAL COMMON NAME	COHT	SIZE	QTY	REMARKS
	Acacia saligna / Black Wattle	300	4.5m	9	Uniform banking, sunny flow, concrete base
	Acacia saligna / Black Wattle	300	4.5m	1	Uniform banking, sunny flow, concrete base, 1.0m (0.7)
	Acacia saligna / Black Wattle	300	4.5m	8	Uniform banking, sunny flow, concrete base, 1.0m (0.7)
	Acacia saligna / Black Wattle	300	4.5m	1	Uniform banking, sunny flow, concrete base, 1.0m (0.7)
	Acacia saligna / Black Wattle	300	4.5m	6	Uniform banking, sunny flow, concrete base, 1.0m (0.7)
	Acacia saligna / Black Wattle	300	4.5m	7	Uniform banking, sunny flow, concrete base, 1.0m (0.7)

Notes:
 1. Subsoils are to be investigated from utility property line (top) at the contractor's expense.
 2. All trees to be removed are to be removed prior to construction.



KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

KEY	REF.	DESCRIPTION
	1 (LD-01)	GRAVEL (60% S&S)
	2 (LD-02)	GRAVEL (60% S&S)
	3 (LD-03)	GRAVEL (60% S&S)
	4 (LD-04)	GRAVEL (60% S&S)

MINUTE EXTRACTS REGARDING BYLAW 2363: WHITE ROCK ZONING BYLAW, 2012, NO. 2000, AMENDMENT (CD-64 – 1485 FIR STREET) BYLAW, 2020, NO. 2363

Land Use and Planning Committee
October 19, 2020

**4.3 REZONING AND MAJOR DEVELOPMENT PERMIT APPLICATION –
1485 FIR STREET (ZON/MJP 19-009)**

The following discussion points were noted:

- The City has not yet defined Affordable Housing
- Affordable Housing is important to Council
- Low Rise (3-4 stories) has been noted what the public would like to see for the area
- The applicant has made changes in order to help long term tenants

Motion Number: 2020-LU/P-29 /It was MOVED and SECONDED

THAT the Land Use and Planning Committee recommends:

1. That Council give first and second readings to “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 -1485 Fir Street) Bylaw, 2020, No. 2363 as presented, and direct staff to schedule the required Public Hearing;
2. That Council direct staff to resolve the following issues prior to final adoption, if Bylaw No. 2363 is given Third Reading after the Public Hearing:
 - a) Ensure that all engineering requirements and issues, including dedication of a 5.0 metre by 5.0 metre corner cut on the corner of the site at Fir Street and Russell Avenue, intersection improvements including ‘watch for pedestrian’ signage as well as tactile paving on the northwest and northeast corners of George Lane and Thrift Avenue, and completion of a servicing agreement, are addressed to the satisfaction of the Director of Engineering and Municipal Operations;
 - b) A Tenant Relocation Plan and adoption of a Housing Agreement Bylaw are finalized; and
 - c) The consolidation of existing three lots and the demolition of the existing residential building occurs; and
3. That, pending adoption of “White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363,” Council consider issuance of Development Permit No. 432 for 1485 Fir Street.

Motion CARRIED

Councillors Johanson and Kristjanson voted in the negative

Public Hearing
January 18, 2021

6. PUBLIC HEARING #2 - 1485 FIR STREET

Bylaw No. 2363: White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street) Bylaw, 2020, No. 2363

CIVIC ADDRESS: 1485 Fir Street

PURPOSE: Bylaw 2363 proposes to rezone the subject property from ‘RM-2 Medium Density Multi-Unit Residential Zone’ to ‘CD-Comprehensive Development Zone’ to allow for the construction of a six-storey 80-unit rental residential building over two (2) levels of underground parking. The property is an existing rental building and the development would be subject to Council’s Tenant Relocation Policy. The proposed use, height, and density is consistent with the Town Centre Transition Land Use Designation in the Official Community Plan.

6.1 DIRECTOR OF CORPORATE ADMINISTRATION ADVISES HOW THE PUBLIC HEARING HAS BEEN PUBLICIZED

- Notice was published in the January 7 and 14 editions of the Peace Arch news
- 670 notices were mailed to owners and occupants within 100 metres of the subject property
- A copy of the notice was placed on the public notice posting board on January 5, 2021.

6.2 THE CHAIRPERSON INVITES THE DIRECTOR OF PLANNING AND DEVELOPMENT SERVICES TO PRESENT THE PROPOSED BYLAW/ APPLICATION

The Manager of Planning and Development Services gave a brief overview of the application.

6.3 THE CHAIRPERSON WILL REQUEST THE DIRECTOR OF CORPORATE ADMINISTRATION TO ADVISE OF ANY CORRESPONDENCE OR SUBMISSIONS RECEIVED

As of 8:30 a.m. on Wednesday, January 13, 2021 there have been **sixteen (16)** total submissions (12 in support / 3 opposed / 1 comments), which were printed directly into the agenda package for this evening.

Author	Date Received	Resident?	Status	Item #
S. Christie	January 8, 2021	Yes	Support	C-1
D. and A. McPhail	January 8, 2021	Yes	Opposed	C-2
Laurel	January 8, 2021	Undisclosed	Support	C-3
C. Weeks	January 8, 2021	Undisclosed	Support	C-4
L. King	January 8, 2021	Yes	Opposed	C-5
A. Dhand	January 9, 2021	Undisclosed	Support	C-6
S. Dhand	January 9, 2021	Yes	Support	C-7
E. Warrtig	January 10, 2021	Yes	Opposed	C-8
P. Best	January 11, 2021	Yes	Comments	C-9
N. Salamat	January 11, 2021	Undisclosed	Support	C-10
K. Ajiri	January 11, 2021	No	Support	C-11
T Wainwright	January 11, 2021	Undisclosed	Support	C-12
M. Middleton	January 11, 2021	No	Support	C-13
K. Ghaffari	January 12, 2021	Undisclosed	Support	C-14

S. Dalirifar	January 12, 2021	Undisclosed	Support	C-15
A. Chagani	January 12, 2021	Undisclosed	Support	C-16

Note: Submissions received between 8:30 a.m., January 13, 2021 and 4:30 p.m., January 18, 2021 will be presented “On Table” at the Public Hearing.

Summary of Submissions for Bylaw No. 2363 (Not Including the Phone-In from the Evening):

- **Sixteen (16)** submissions (12 in support / 3 opposed / 1 comments) were submitted and published in the Public Hearing Agenda package on Wednesday, January 13, 2021.
- On table Submissions were received up until 12:00 p.m. noon today (Monday, January 18, 2021). There have been **eighteen (18) on-table submissions** (8 in support/ 7 opposed/ 3 comments).
- For those who phoned in today not wanting to speak to the item but wanting to register their vote there have been **eleven (11)** votes registered (5 in support/ 6 opposed), this is a new component we have added to the phone-in process.

6.4 THE CHAIRPERSON INVITES THOSE IN ATTENDANCE TO PRESENT THEIR COMMENTS VIA TELEPHONE-IN PROCESS

- S. Wallace, White Rock, spoke in support of the application stating she as a tenant was given adequate time to move and that the compensation offered by the applicant is generous. It is appreciated how this has been handled.
- B. and B. Holm, White Rock, spoke in support of the application (previous owners of the building), stating there is a need for this type of development and the amenities it offers. The site has easy access and is walkable to many services. As the previous owners they noted they took the time to speak with each tenant that the building was being sold and why. The building requires upgrades, some are required to obtain insurance. Stated they are pleased the proposal is for a rental building which is needed in the area / this location.
- G. Wolgemuth, White Rock, not in support of the application, stating the building is a good design but stated the density is too high and concern that it requires an amendment to the zoning. Would like to see less height for the area, concern with additional traffic, changes the land use for the area and stated it offers no additional space for those that are not residents. Further concern noted for the current owners, would like to see affordable housing.

- A. Kyle, not a White Rock resident (Surrey business owner), spoke in support of the application, stating the development offers rental housing which is needed in the area (believes members of his staff would use it) to be close to his business location.
- P. Peaton, White Rock, spoke in support of the application, stated that the developer has gone over the detailed plans with the tenants and as to how the tenants will be financially compensated and moving arrangements, the compensation being offered is fair, and once the property development is finished plans to move back. Looks forward to the improvements being proposed (wants to age in place) and this development offers this for her. Rentals like this are needed the current situation needs improvement.
- S. Dhand, White Rock, spoke in support of the application noting it offers an affordable housing option for residents (rentals), the current building needs updating and the proposal will achieve this.
- S. Crozier, White Rock, not in support of the application, noted concerns with the application in regard to height, the OCP review is not complete - the review will likely note a maximum building height of four (4) stories, concerned with the precedent this sets for the area and that rents will go up - stated the proposed does not lend itself to affordable housing considering the living wage and minimum wage. Further noted he was pleased with the developer and how they have worked with the current tenants.
- D. Stonoga, White Rock, not in support of the application, concern noted that the OCP review is not complete, does not think building or making additions during COVID should be taking place (concern with the tenants having to move out during the pandemic), rents appear to be high, compensation package was increased but Community Amenity Contributions appear to be reduced.
- P. Petrala, White Rock, spoke in support of the application stating the use, height and density all work for the area, appreciate it is an age friendly project, the proposed height and design suits the community. Appreciates the proposed amenities and how the current tenants have been addressed with compensation and being worked with as well as their opportunity to return to the building once it is completed.
- M. Heidari, Applicant, noted that many White Rock buildings are expensive to run / upkeep, this offers a cost effective option with up-to-date amenities, underground secure parking and storage. The Applicant stated the rent charged at this building won't be as much as would be for new condo units going up in White Rock. It was noted that four (4) stories is not feasible (there is no financial help being offered for this project) the extra two (2) stories will not have a view impact.
- I. Middleton, not a White Rock resident, spoke in support of the application, stated he has been looking for rental building for his parents to move to the

area. They want to move to White Rock as they retire. This project would work for them. Making it four (4) stories would mean the Applicant would need to increase the rental fees.

At 7:16 p.m. a call for additional phone-in speakers was made where the phone number and meeting ID number were provided for anyone wanting to speak again or who had not registered could call in:

- G. Wolgemuth, White Rock, speaking for a second time, not in support of the application, noting concern with the density (would like to see it lowered), infrastructure and rental rates. Further noted that for purpose built rentals there is financing that should be available to the developer for a project like this.
- T. McNally, White Rock, spoke in support of the project.
- P. Best, White Rock, not in support of the application, stated on her wage that most of her income now goes to rent, not sure how she will find a place / find something in White Rock, feels stressed about the potential move, not sure what will happen (been in the building for 3.5 years = 10 months compensation plus moving expenses) future below market rent will be 23% below market when it re-opens, does not want to move..
- R. Billard, Architect for the project, spoke about the project and how it has changed as it worked through the process.
It was noted that with landscape design, conditions can be made, benches within the green area can be requested for public use.

At 7:42 p.m. it was determined that there were no further speakers on the line.

6.5 IF REQUIRED, THE CHAIRPERSON INVITES THE DIRECTOR OF PLANNING AND DEVELOPMENT SERVICES TO SUMMARIZE THE PROPOSED BYLAW/ APPLICATION

None

Regular Council
January 25, 2021

8.1.e BYLAW 2363 - WHITE ROCK ZONING BYLAW, 2012, NO. 2000, AMENDMENT (CD-64 - 1485 FIR STREET) BYLAW, 2020, NO. 2363

Bylaw 2363 - A bylaw to amend the "White Rock Zoning Bylaw, 2012, No. 2000" as amended to permit the construction of a six-storey 80-unit rental residential building over two (2) levels of underground parking. The project / bylaw was given first and second reading at the October 19, 2020 Regular Council meeting. The public hearing was held January 18, 2021. The bylaw is now presented for consideration of third reading.

Councillor Johanson noted the following concerns in regard to the application:

- Owner stated development is geared toward the average income in White Rock, however anyone with a living wage as heard at the public hearing will be paying 48% of their income toward rent in this development. For those earning minimum wage then it will be over 60% of their income will go towards rent (not an affordable rental building)
- Concern with compromised views for the existing residents due to increase in building height, increase of traffic, not enough green space purposed on the site, architectural style of the building, the existing building residents and the loss of their homes, rental rates being too high to afford and many of the existing tenants being elderly and it being difficult to find alternative housing and with evicting residents during COVID-19,
- Close to completing the Official Community Plan (OCP) review do not agree with approving any development before this signed off on

Councillor Manning noted the following concerns in regard to the application:

- Appreciate the proponent working with staff to incorporate feedback received from Council and the Advisory Design Panel as well as working with staff at Council's direction to improve the City's Tenant Relocation Policy (offers some of the best protection across the Lower Mainland)
- Concern area area already plagued with congestion and lack of parking, this is not what our residents want (residents are asking for a pause in the pace of the development multi family units)
- Project better suited for North Bluff (wide Atrial Road) better suited to traffic and that it be targeted below market rentals for vulnerable population (seniors)

Councillor Kristjanson noted the following concerns in regard to the application:

- Concern with lack of vacancies during COVID, it is important that people have housing
- Strategic Priorities include the need for infrastructure and Affordable Housing and it is noted by the comments by those living in the building that the rents will go up significantly
- Appreciate the developer has worked with staff but not the right transition of height for the City

- Don't think we should be doing this until the OCP review is complete

Councillor Chesney noted the following support in regard to the application:

- We need rentals in our community, like the looks of the project, it will fit into a transition zone / proposed area
- OCP is a guideline, dropping from 25 stories to four (4) is not a transition
- Developer has tried to work with Council's requests

Councillor Fathers noted the following support in regard to the application:

- The public information meeting/public hearing I felt a lot of support for the project
- No issue with six (6) stories, also six (6) stories on Johnston Road (the Verve 1.5 blocks away)
- The developer along with staff have worked to find a workable solution

Councillor Trevelyan noted the following concerns in regard to the application:

- It is a nice building, rentals are needed, location is workable for a larger building
- OCP review currently underway, I find it difficult to vote for a building without knowing the results of the OCP review - this is important to complete first
- Concerned evicting people during COVID
- Concerned with the speed of development in White Rock

Mayor Walker noted the following support in regard to the application:

- We need rental housing (not 12, 15 and 23 storey cement building) in a six (6) storey wooden building is where people can afford to live and for a long period of time, we need affordable housing - some kind of housing to address this
- The project makes sense in the community

Motion Number: 2021-042 It was MOVED and SECONDED

THAT Council give third reading to "*White Rock Zoning Bylaw 2012, No. 2000, Amendment (CD-64 - 1485 Fiir Street) Bylaw, 2020, No. 2363*".

Motion DEFEATED

**Councillors Johanson, Kristjanson, Manning and Trevelyan voted in
the negative**

April 26, 2021
Regular Council Meeting

**8.1.a BYLAW 2363 - WHITE ROCK ZONING BYLAW, 2012, NO. 2000,
AMENDMENT (CD-64 - 1485 FIR STREET)**

REQUEST FOR RECONSIDERATION:

Bylaw 2363 - A bylaw to amend the "White Rock Zoning Bylaw, 2012, No. 2000" as amended to permit the construction of a six-storey 80-unit rental residential building over two (2) levels of underground parking. The project / bylaw was given first and second reading at the October 19, 2020 Regular Council meeting. The public hearing was held January 18, 2021. The bylaw was defeated at third reading and has now been asked to be placed on the agenda for reconsideration by Councillors Manning and Trevelyan.

The Director of Planning and Development Services will review the proposed amendment by the applicant as follows:

Maximum Increased Density:

*Despite section 7.64.3, the reference to the maximum gross floor area of "1.5 times the lot area" is increased to a higher density of a maximum of 5,700 m² (61,356.85 ft²) of gross floor area (2.8 FAR; or gross floor area ratio) and 80 apartment dwelling units where a housing agreement has been entered into and filed with the Land Title Office to secure eighty (80) dwelling units as rental tenure for the life of the building, **with eight (8) of these dwelling units being secured for a period of 10 years as having rents 10 percent below the market rent for a similar unit.***

Note: Corporate report dated October 19, 2020 provided for information purposes.

*If the reconsideration is adopted, Council will consider rescinding second reading at this time. If this is Council direction an amended bylaw will be brought forward by the Planning and Development Services department to the next scheduled Council meeting for consideration of second reading, as amended, and direction will be given to staff regarding the scheduling of a public hearing.

The Director of Planning and Development Services reviewed the proposed amendment by the applicant in regard to the application and the

affordable housing component (Noted on the agenda)

Councillor Trevelyan noted the purpose to request the bylaw be brought back: Official Community Plan is noting six (6) storeys and the affordable housing aspects.

Councillor Manning noted the purpose to requests the bylaw be brought back: 10% below what could charged for new units (33 out of 80 will be offered below market).

Motion Number: 2021-241

THAT Council endorses reconsideration of the item "*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 - 1485 Fir Street)*" that was defeated at third reading at the January 25, 2021 Regular Council meeting.

Voted in the negative (2): Councillor Johanson, and Councillor Kristjanson

Motion CARRIED (5 to 2)

Motion Number: 2021-242

THAT Council rescinds second reading for Bylaw 2363 "*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 - 1485 Fir Street)*".

Voted in the negative (2): Councillor Johanson, and Councillor Kristjanson

Motion CARRIED (5 to 2)

May 10, 2021

Land Use and Planning Committee

7. REVISED ZONING AMENDMENT BYLAW NO. 2363 FOR 1485 FIR STREET

Corporate report dated May 10, 2021 from the Director of Planning and Development Services titled "Revised Zoning Amendment Bylaw No. 2363 for 1485 Fir Street".

The Director of Planning and Development Services provided an overview of the application and the process it had followed to date.

The applicant has submitted a revision to the application for an additional 5% of the units (4) in the building would be provided for 10 years at the average rent for purpose built rentals in the White Rock area (determined by latest CMHC report). There is no change to the form of the building (six(6) storeys / 80 units total).

80 units total:

- 4 units at “average rents” (CMHC derived)
- 51 units at "market rents" (no max)
- 25 replacement units – 21-30% below “market rent” for returning tenants / 10% below if tenant does not return (*max. \$1,500 1 bed / \$2,000 2 bed*)

Staff confirmed the Town Centre Official Community Plan public hearing is anticipated to be held June 21, 2020.

Motion Number: 2021-LU/P-059 It was MOVED and SECONDED

THAT the Land Use and Planning Committee receive the May 10, 2021, corporate report from the Director, Planning and Development Services titled “Revised Zoning Amendment Bylaw No 2363 for 1485 Fir Street.”

Voted in the Negative (1): Councillor Kristjanson

Motion CARRIED (5 to 1)

Motion Number: 2021-LU/P-60 It was MOVED and SECONDED

THAT The Land Use and Planning Committee defer consideration in regard to the recommendation to Council until after Council have considered the Housing Advisory Committee definition regarding affordable housing that is scheduled on the Regular Council meeting agenda for later this evening.

Voted in the Negative (2): Councillor Johanson, and Councillor Kristjanson

Motion CARRIED (4 to 2)

Note: Staff confirmed the order for the Regular Council agenda for later this evening did have the Housing Advisory Committee recommendation in regard to the definition for affordable housing placed on the agenda prior to consideration of bylaw for this project.

Regular Council meeting

May 10, 2021

8.1.b BYLAW 2363 - WHITE ROCK ZONING BYLAW, 2012, NO. 2000, AMENDMENT (CD-64 - 1485 FIR STREET)

Bylaw 2363 - A bylaw to amend the "White Rock Zoning Bylaw, 2012, No. 2000" as amended to permit the construction of a six-storey 80-unit rental residential building over two (2) levels of underground parking. The project / bylaw was given first and second reading at the October 19, 2020 Regular Council meeting. The public hearing was held January 18,

2021. The bylaw was defeated at third reading and was brought forward for reconsideration as part of the April 26, 2021 meeting agenda by Councillors Manning and Trevelyan. Council rescinded second reading at that time. The bylaw was presented on the agenda for consideration of a new second reading, as amended.

Note: A report on Bylaw 2363 has been provided for consideration at the May 10, 2021 Land Use and Planning Committee meeting.

Note: Staff clarified that the Town Centre Transitional Area / Official Community Plan Amendment public hearing is tentatively scheduled for June 21, 2021, next scheduled public hearing following that will be in July.

Motion Number: 2021-268 It was MOVED and SECONDED

THAT Council gives second reading to “*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363*”, as amended.

Voted in the negative (2): Councillor Johanson, and Councillor Kristjanson

Motion CARRIED (5 to 2)

Motion Number: 2021-269 It was MOVED and SECONDED

THAT Council directs staff to schedule a new public hearing for “*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 – 1485 Fir Street), 2020, No. 2363*”.

Voted in the negative (2): Councillor Johanson, and Councillor Kristjanson

Motion CARRIED (5 to 2)

Motion Number: 2021-270 It was MOVED and SECONDED

THAT Council direct staff to schedule the public hearing for “*White Rock Zoning Bylaw, 2012, No. 2000, Amendment (CD-64 - 1485 Fir Street). 2020, No. 2363*” as soon as possible following the completion of the Town Centre Transitional Area / Official Community Plan amendment public hearing.

Voted in the negative (1): Councillor Fathers

Motion CARRIED (6 to 1)