

City of Surrey
ADDITIONAL PLANNING COMMENTS

Application No.: 7922-0089-00

Planning Report Date: November 14, 2022

PROPOSAL:

- **Temporary Use Permit**

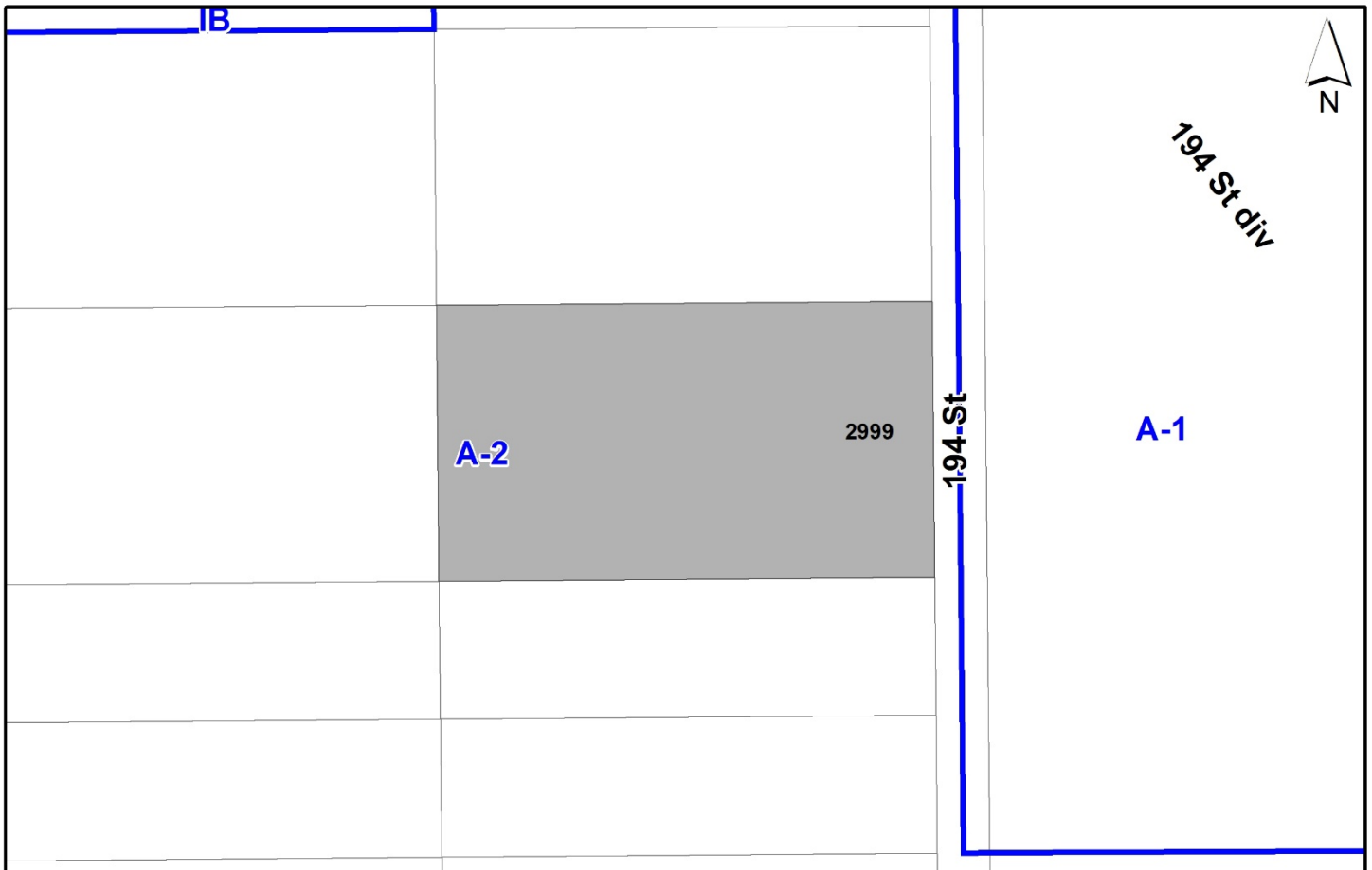
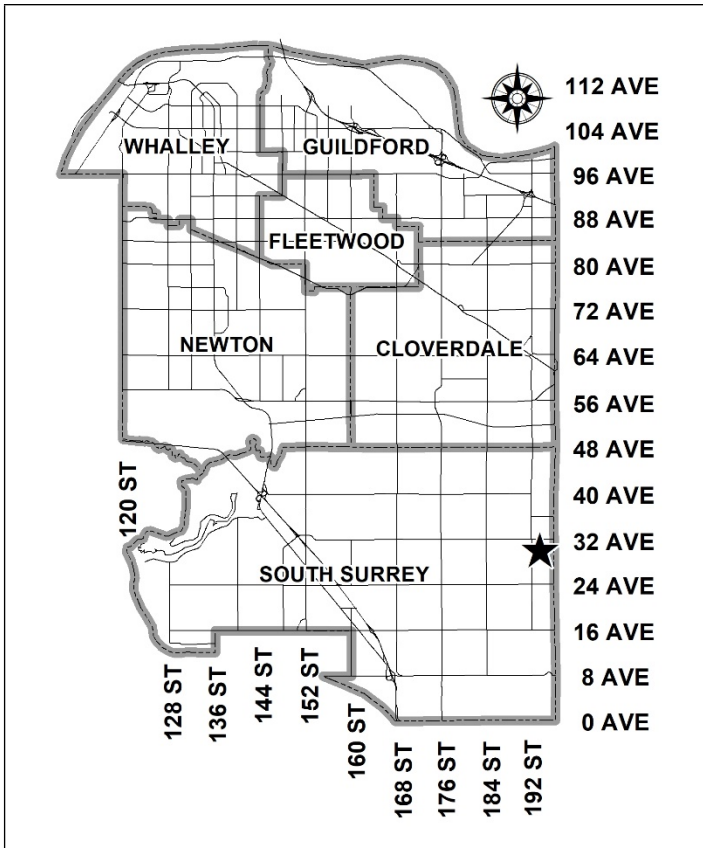
to permit a temporary outdoor storage facility for cargo equipment and truck parking for a period not to exceed 3 years.

LOCATION: 2999 - 194 Street

ZONING: A-2

OCP DESIGNATION: Mixed Employment

LAP DESIGNATION: Business Park



RECOMMENDATION SUMMARY

- Approval of Temporary Use Permit No. 7922-089-00 for a period not to exceed three years to proceed to Public Notification.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The proposed outdoor storage facility for cargo equipment and truck parking does not comply with the "Intensive Agriculture Zone (A-2)" or the Business Park land use designation in the Campbell Heights Local Area Plan (LAP).

RATIONALE OF RECOMMENDATION

- Staff brought forward a Planning Report to Council at the October 3, 2022, Regular Council – Land Use Meeting which recommended denial of the proposed Temporary Use Permit for several reasons including that the proposal did not comply with the Business Park land use designation in the Campbell Heights LAP and that the applicant is currently operating unauthorized on the site (Appendix V).
- Council subsequently referred Development Application No. 7922-0089-00 (the subject application) back to staff to work with the applicant on the requirements to be met in order to support a Temporary Use Permit for a period not to exceed 3 years in duration.
- This report outlines the requirements to be met to support a Temporary Use Permit for a period not to exceed three years from the date of issuance.

RECOMMENDATION

The Planning & Development Department recommends that:

1. Council approve Temporary Use Permit No. 7922-0089-00 (Appendix III) to proceed to Public Notification.
2. Council instruct staff and the applicant to resolve the following issues to facilitate issuance of the Temporary Use Permit:
 - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
 - (b) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (c) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department;
 - (d) the applicant satisfy any tree penalties for the unauthorized removal of trees;
 - (e) demolition of existing buildings and structures, other than those identified in the Temporary Use Permit, to the satisfaction of the Planning and Development Department;
 - (f) registration of reciprocal access easements with 2974 – 192 Street and 3038 - 194 Street;
 - (g) completion of the requirements under Development Application Nos. 7921-0345-00 and 7921-0346-00; and
 - (h) completion of Development Application No. 7922-0279-00.

SITE CONTEXT & BACKGROUND

Direction	Existing Use	NCP Designation	Existing Zone
Subject Site	Unauthorized Outdoor Storage and Truck Parking	Business Park	A-2

Direction	Existing Use	NCP Designation	Existing Zone
North:	Outdoor Storage and Truck Parking This property is under Development Application No. 7921-0346-00 for a temporary use permit to allow the existing use for a period not to exceed 2 years	Business Park	A-2
East (Across 194 Street):	Woodlot/Vacant City-owned land	Business Park	A-1
South:	Unauthorized Truck Parking This property is under Development Application No. 7922-0259-00 for a temporary use permit to authorize the existing use.	Business Park	A-2
West:	Outdoor Storage and Truck Parking This property is under Development Application No. 7921-0345-00 for a temporary use permit to allow the existing use for a period not to exceed 2 years	Business Park & Landscaping Strips	A-2

Context & Background

- The subject site is approximately 2 hectares in area and located on the west side of 194 Street between 28 Avenue and 32 Avenue. The property is designated "Mixed Employment" in the Official Community Plan (OCP), "Business Park" in the Campbell Heights Local Area Plan (LAP), and zoned "Intensive Agriculture Zone (A-2)".
- Staff brought forward a Planning Report at the October 3, 2022, Regular Council – Land Use Meeting which recommended denial of the proposed Temporary Use Permit for several reasons including the following:
 - the proposal does not comply with the Business Park land use designation in the Campbell Heights LAP;
 - the applicant conducted unauthorized and unpermitted tree removal on the site;
 - the applicant has been operating unauthorized on the site since January 2022;
 - approval of a TUP may lead to requests for similar temporary use proposals in Campbell Heights that are inconsistent with the adopted LAP; and
 - the applicant has a demonstrated consistent track record of contravening City by-laws on several properties in Campbell Heights.

- Council subsequently referred Development Application No. 7922-0089-00 (the subject application) back to staff to work with the applicant on the requirements to be met in order to support a Temporary Use Permit for a period not to exceed 3 years in duration.
- This report outlines the requirements to be met in order to support a Temporary Use Permit.
- At the time the subject application was considered by Council at the October 3, 2022, Regular Council – Land Use Meeting, the applicant proposed a TUP to permit the storage of cargo equipment, without truck parking. Subsequent to Council’s direction to bring forward a report to outline the requirements needing to be met to support the TUP, the applicant has revised the proposal to include truck parking on the subject site.

DEVELOPMENT PROPOSAL

Planning Considerations

- The applicant proposes a Temporary Use Permit (TUP) to permit a temporary outdoor storage facility for cargo equipment and truck parking for a period not to exceed three years.
- This proposal is being considered in conjunction with abutting properties: Development Application No. 7921-0345-00 located at 2974 – 192 Street and Development Application No. 7921-0346-00 located at 3037 – 194 Street, each of which propose a two-year extension to an existing TUP to permit storage of cargo equipment and truck parking. Currently, these two properties, together with the subject site are operating an outdoor cargo storage and truck parking facility.
- Development Application Nos. 7921-0345-00 and 7921-0346-00 were proposals to extend two TUPs that were supported by Council in 2020 but which had since lapsed. Both TUPs were considered appropriate to facilitate the interim use of these properties while the proponent develops another nearby property at 19590 – 32 Avenue under Development Application No. 7921-0247-00. The TUPs were also being considered in conjunction with a subdivision application (Development Application No. 7922-0279-00), which is intended to facilitate development of the property to the north.
- Development Application Nos. 7921-0345-00 and 7921-0346-00 were considered at the October 3, 2022, Regular Council – Land Use Meeting and supported by Council to proceed to Public Notification. These TUPs will be brought forward to Council for issuance upon completion of the associated application requirements and in conjunction with the subject application.
- The proposal includes the storage of cargo equipment and truck parking with no more than 10 trucks and trailers parked across the three properties contemplated for a TUP (2974 – 192 Street, 3038 – 194 Street and the subject site at 2999 – 194 Street). As the operations are fluid between the three properties, the applicant wishes to permit truck and trailer parking across the three properties.

PUBLIC ENGAGEMENT

- Pre-notification letters were sent on October 6, 2022, and the Development Proposal Signs were installed on September 1, 2022. Staff received no responses from neighbouring residents or businesses.
- The subject development application was reviewed by the Little Campbell Watershed Society (LCWS). The LCWS provided the following comments (*staff comments in italics*):

- Concerns with stormwater and polluted fluids leaving the site.

(The applicant has advised that proposal will accommodate appropriate Best Management Practices and Low Impact Development solutions such as a water quality and treatment manholes. All stormwater leaving the site will pass through this prior to discharge. The applicant is required to submit detailed engineering design drawings for all on-site works, to be reviewed and approved by City Engineering staff.)

- Concerns with the removal of trees.

(The applicant has undertaken unauthorized clearing of the site, including the removal of numerous trees. Staff are reviewing the number of trees removed without permit and the applicant will be required to pay all tree penalties prior to issuance of the Temporary Use Permit. Additional permitted tree removal may be considered to support the temporary use.)

DISCUSSION

Temporary Use Permits for Truck Parking and Outdoor Storage in Campbell Heights

- The subject site is located within an area of Campbell Heights that is known to have vulnerable aquifers resulting from unconsolidated material, as per the Vulnerable Aquifers Map (Schedule I)" in the Zoning By-law.
- The subject site is also within the catchment area identified to be serviced by the Latimer Lake Storm Water Detention Facility. Completion of a Storm Water Management Plan and modifications to the Latimer Lake facility are required before any development within this catchment can proceed.
- The applicant is advised that the Campbell Heights Local Area Plan (LAP) has requirements for stormwater management and onsite infiltration depending on the location within the LAP. The drainage design for the temporary truck parking must continue to meet the requirements of the Kerr Wood Leidal (KWL) report dated November 20, 2019, and confirmed by KWL that the design meets the objectives. The KWL drainage report dated November 20, 2019, was prepared to determine the ultimate drainage improvements required to service this catchment area.
- While staff have generally not been supportive of Temporary Use Permits in Campbell Heights, Council did support and issue TUPs for Seven Horses on two adjacent sites at 2974 - 192 Street and 3037 - 194 Street in November 2020 (Temporary Use Permits Nos. 7920-0106-00 and 7921-0107-00).

- Subsequent to the TUPs lapsing under Development Applications Nos. 7920-0106-00 and 7920-0107-00, the applicant submitted new TUP applications to extend the TUPs a further two years at 2974 – 192 Street and 3037 – 194 Street. At the October 3, 2022, Regular Council – Land Use Meeting, Council supported those applications to proceed to Public Notification and those will be brought forward for issuance upon completion of all Council requirements.
- Staff are currently in discussions with the owners of 2974 – 192 Street abutting to the west and the owners of the site to the northwest (3048 – 192 Street) about future development and the delivery of a new east-west public road (30 Avenue). The ongoing discussions have delayed opportunities to advance a formal development application for the site to the west and the site to the northwest.
- 30 Avenue is intended to be delivered through the ultimate development of the subject site and the property abutting to the north (3037 – 194 Street), with ultimate access to the future developments from 30 Avenue rather than 194 Street.
- Since the proposed two-year extension to the Temporary Use Permit No. 7921-0345-00 on the site to the west hinders the development timing for the property to the northwest (3048 - 192 Street), Seven Horses will be required to complete a subdivision of 2974 - 192 Street and 3048 – 192 Street, proposed under Development Application No. 7922-0279-00. This subdivision application will provide the road dedication for 30 Avenue in advance of redevelopment and ensure that 3048 – 192 Street can pursue appropriate redevelopment of their lands independently of the Temporary Use Permits for Seven Horses.
- The applicant is required to finalize Development Application No. 7922-0279-00, which was considered at the October 3, 2022, Regular Council - Land Use Meeting, and register the subdivision plans at the Land Title and Survey Authority of BC prior to final issuance of Temporary Use Permits: Nos. 7921-0345-00, 7921-0346-00, and 7922-0089-00.

Temporary Use Permit Requirements

- The following items are required to be resolved prior to the issuance of a Temporary Use Permit:
 - Completion of Development Application No. 7922-0279-00 and registration of subdivision plans at the Land Title and Survey Authority of BC.
 - Discharge of the existing access easements CA8628547 and CA8628551.
 - Registration of a new access easement granting 2999 – 194 Street access to 192 Street via 2974 – 192 Street.
 - Removal and restoration of the existing driveway and improvements located in the future 30 Avenue road alignment.
 - Construction of a new driveway through all necessary permits, including approval of an arborist report to determine requirements for tree removal.
 - Submission of a finalized site plan.
 - Submission of a finalized Arborist Report and payment of all tree related fees and penalties.
 - Demolition of existing buildings and structures, other than those identified in the Temporary Use Permit.

- It is anticipated that Temporary Use Permits Nos. 7921-0345-00 and 7921-0346-00 will be issued in conjunction with the subject application.
- Once all of the above conditions are complete, staff will bring forward Temporary Use Permits Nos. 7921-0345-00, 7921-0346-00, and 7922-0089-00 for issuance.
- Following the expiration of Temporary Use Permit No. 7922-0089-00, the applicant would be required to restore the site back to its original condition as an "Intensive Agriculture Zone (A-2)" property (following the three-year term for the TUP).

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Site Plan
Appendix II.	Engineering Summary
Appendix III.	Temporary Use Permit No. 7922-0089-00
Appendix IV.	Aerial Photos
Appendix V.	Initial Planning Report No. 7922-0089-00 dated October 3, 2022

approved by Shawn Low

Jeff Arason
Acting General Manager
Planning and Development

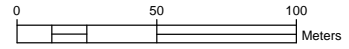
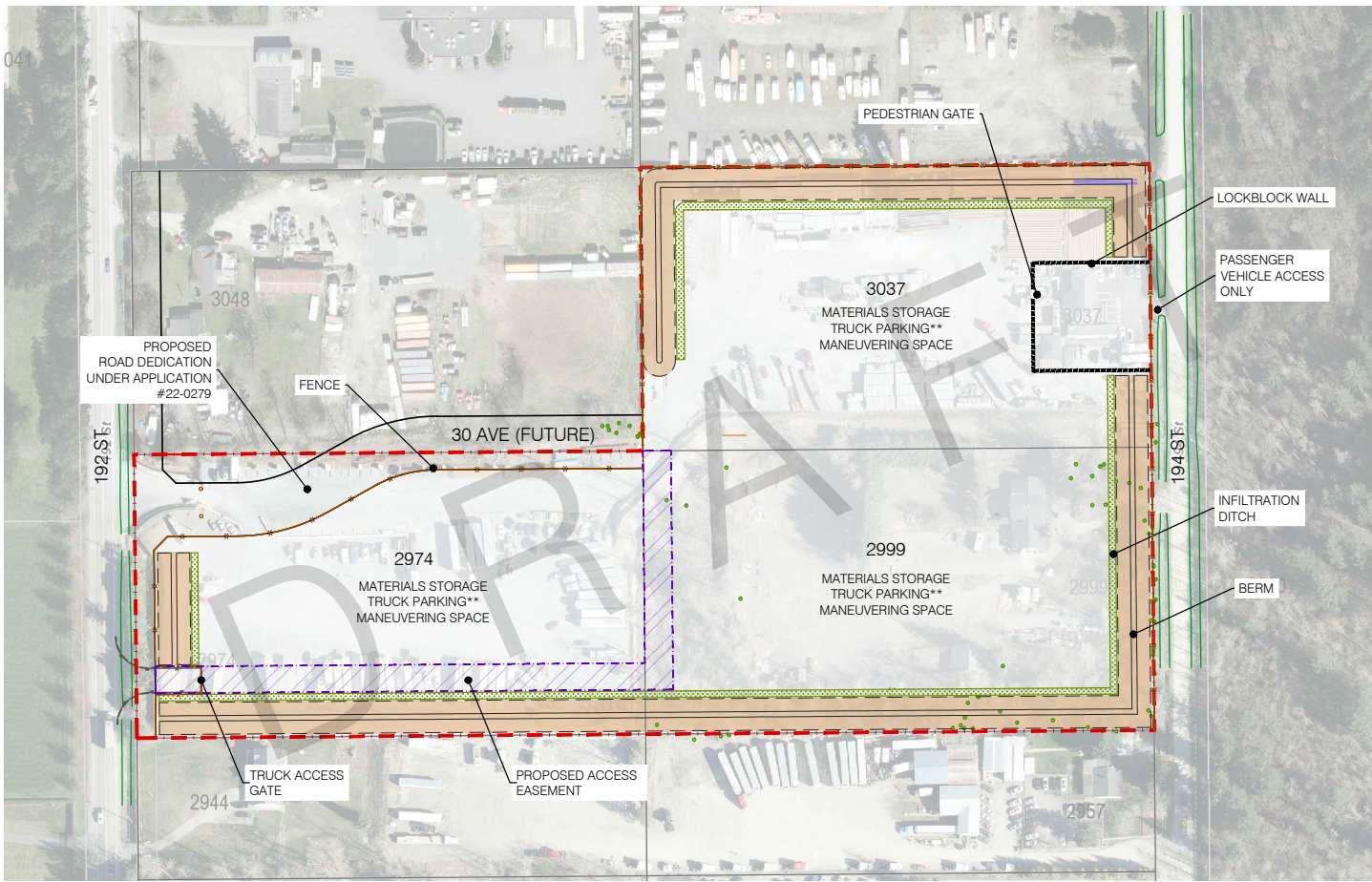
KS/cm

Seven Horses Transport
 Temporary Use Permit
 2974 192 St, 3037 & 2999 194 St
 Surrey, BC

**CONCEPTUAL
 TUP SITE PLAN***

*Site Plan subject to further design review
 prior to final approval

**Total truck parking estimated to be 10 trucks
 across combined 3 lots



LEGAL DESCRIPTION
 PID 012-217-158
 PID 012-217-204
 PID 012-217-191

GROSS SITE AREA
 6.1 hectares / 15.0 acres

NET SITE AREA
 5.7 hectares / 14.1 acres

EXISTING DESIGNATIONS
 OCP: Mixed Employment
 LAP: Business Park
 Zoning: A-2

PROPOSED DESIGNATIONS
 OCP: Mixed Employment
 LAP: Business Park
 Zoning: A-2



Scale: 1:1750



Project 22-1046/1048/1049
 07 / 11 / 2022

Drawing
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NOTE: Conceptual layout only, subject to change without notice. Property of Aplin & Martin Consultants Ltd. and not to be reproduced or used without written permission by the Company.

TO: **Manager, Area Planning & Development
- South Surrey Division
Planning and Development Department**

FROM: **Development Services Manager, Engineering Department**

DATE: **October 31, 2022** PROJECT FILE: **7822-0089-00**

RE: **Engineering Requirements (Commercial/Industrial)
Location: 2999 194 St**

TEMPORARY USE PERMIT

The following issues are to be addressed as a condition of issuance of the Temporary Use Permit (TUP):

- Provide on-site features to prohibit commercial/industrial access onto 194 Street.
- Construct, maintain and keep functional, the on-site drainage systems to retain all on-site runoff up to and including the 100-year storm event.
- Secure access easement from 2974 192 St and 3037 194 St for access onto 192 Street.
- Register a restrictive covenant on title to commercial/industrial access onto 194 Street.
- Register a restrictive covenant on title for drainage system maintenance.

A Servicing Agreement is required.



Jeff Pang, P.Eng.
Development Services Manager

DJS

CITY OF SURREY

(the "City")

TEMPORARY USE PERMIT

NO.: 7922-0089-00

Issued To:

(the "Owner")

Address of Owner:

1. This temporary use permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this temporary use permit.
2. This temporary use permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 012-217-191
Lot 13 Section 22 Township 7 New Westminster District Plan 1467
2999 - 194 Street

(the "Land")

3. The authority to issue Temporary Use Permits is granted to municipalities under Sections 492 and 493 of the *Local Government Act* R.S.B.C. 2015, c.1. Pursuant to Implementation, II(c) Implementation Instruments, Temporary Use Permits of Surrey Official Community Plan, 2013, No. 18020, as amended, the entire City of Surrey is designated a Temporary Use Permit area.
4. The temporary use permitted on the Land shall be for storage of cargo equipment and truck parking facility.
5. The temporary use permitted on the Land shall be in accordance with:
 - (a) The appearance and location of the storage area as shown on Schedule A (the "Drawings") which is attached hereto and forms part of this permit.
 - (b) The Kerr Wood Leidal Report, dated September 10, 2020, which is shown on Schedule B (the "Report") which is attached hereto and forms part of this permit.

6. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
 - (a) Section A.4 of Part 5 Off-Street Parking and Loading/Unloading, the requirement to pave the parking area with asphalt, concrete or other similar pavement, is modified to allow the use of other surfacing materials suitable for truck traffic as approved by the General Manager, Engineering.

7. The Owner covenants and agrees that the pre-servicing requirements attached as Schedule C (the "Engineering Requirements) which is attached hereto and forms part of this permit, have been completed and will be maintained for the duration of the Temporary Use Permit.

8. The temporary use shall be carried out according to the following conditions:
 - (a) the Temporary Use Permit shall be for the storage of cargo equipment and a truck parking facility for ten vehicles exceeding 5,000 kilograms G.V.W. across the entirety of the lands outlined in Schedule A;
 - (b) the following activities are prohibited on the land:
 - i. vehicle washing;
 - ii. vehicle maintenance except if it is on an asphalt or concrete pad and excludes all oil, coolant, or chemical use as per the Environmental Management Act, S.B.C. 2002 Chapter 43;
 - iii. truck fuel storage or refuelling;
 - iv. storage of waste petroleum fluids; and
 - v. parking or storage of vehicles containing Dangerous Goods as defined by the Transport of Dangerous Goods Act R.S.B.C. 1996, Chapter 458.

9. The Owner covenants and agrees as a condition of the issuance of this Temporary Use Permit to restore the Land to the condition it was prior to the storage of equipment and parking of vehicles all of which shall be done not later than the termination date set out on this Temporary Use Permit.

10. The Owner agrees that should the Owner not comply with the Temporary Use Permit, the City or its agents may enter upon the Land and perform such work as is necessary to eliminate the temporary use and bring the use and occupancy of the Land in compliance with Surrey Zoning By-law, 1993, No. 12000, as amended. These costs and expenses are recoverable by the City as a debt and may be collected in the same manner and with the same remedies as ordinary taxes on land and improvements under Section 258.1(c) of the Community Charter, S.B.C. 2003, c. 26, as amended and if it is due and payable by December 31 and unpaid on that date, the debt is deemed to be taxes in arrears.

11. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this temporary use permit. This temporary use permit is not a building permit.
12. An undertaking submitted by the Owner is attached hereto as Appendix I and forms part of this temporary use permit.
13. This temporary use permit is not transferable.
14. This temporary use permit shall lapse on or before three years from date of issuance.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 .

ISSUED THIS DAY OF , 20 .

Mayor – Brenda Locke

City Clerk – Jennifer Ficocelli

IN CONSIDERATION OF COUNCIL'S APPROVAL OF THIS TEMPORARY USE PERMIT AND OTHER GOOD AND VALUABLE CONSIDERATION, I/WE THE UNDERSIGNED AGREED TO THE TERMS AND CONDITIONS OF THIS TEMPORARY USE PERMIT AND ACKNOWLEDGE THAT WE HAVE READ AND UNDERSTOOD IT.



Owner: Signature

Harjinder Purewal

Name: (Please Print)

TO THE CITY OF SURREY:

I, Harjinder Purewal (Name of Owner)

being the owner of _____
(Legal Description)

known as 2999 194th Street
(Civic Address)

hereby undertake as a condition of issuance of my temporary use permit to:

- (a) demolish or remove all buildings and/or structures that are permitted to be constructed pursuant to the temporary use permit issued to me; and
- (b) restore the land described on the temporary use permit to a condition specified in that permit;

all of which shall be done not later than the termination date set out on the temporary use permit.

I further understand that should I not fulfill the undertaking described herein, the City or its agents may enter upon the land described on the temporary use permit and perform such work as is necessary to eliminate the temporary use and bring the use and occupancy of the land in compliance with Surrey Zoning By-law, 1993, No. 12000, as amended, and that any securities submitted by me to the City pursuant to the temporary use permit shall be forfeited and applied to the cost of restoration of my land as herein set out.

This undertaking is attached hereto and forms part of the temporary use permit.



(Owner)



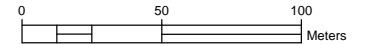
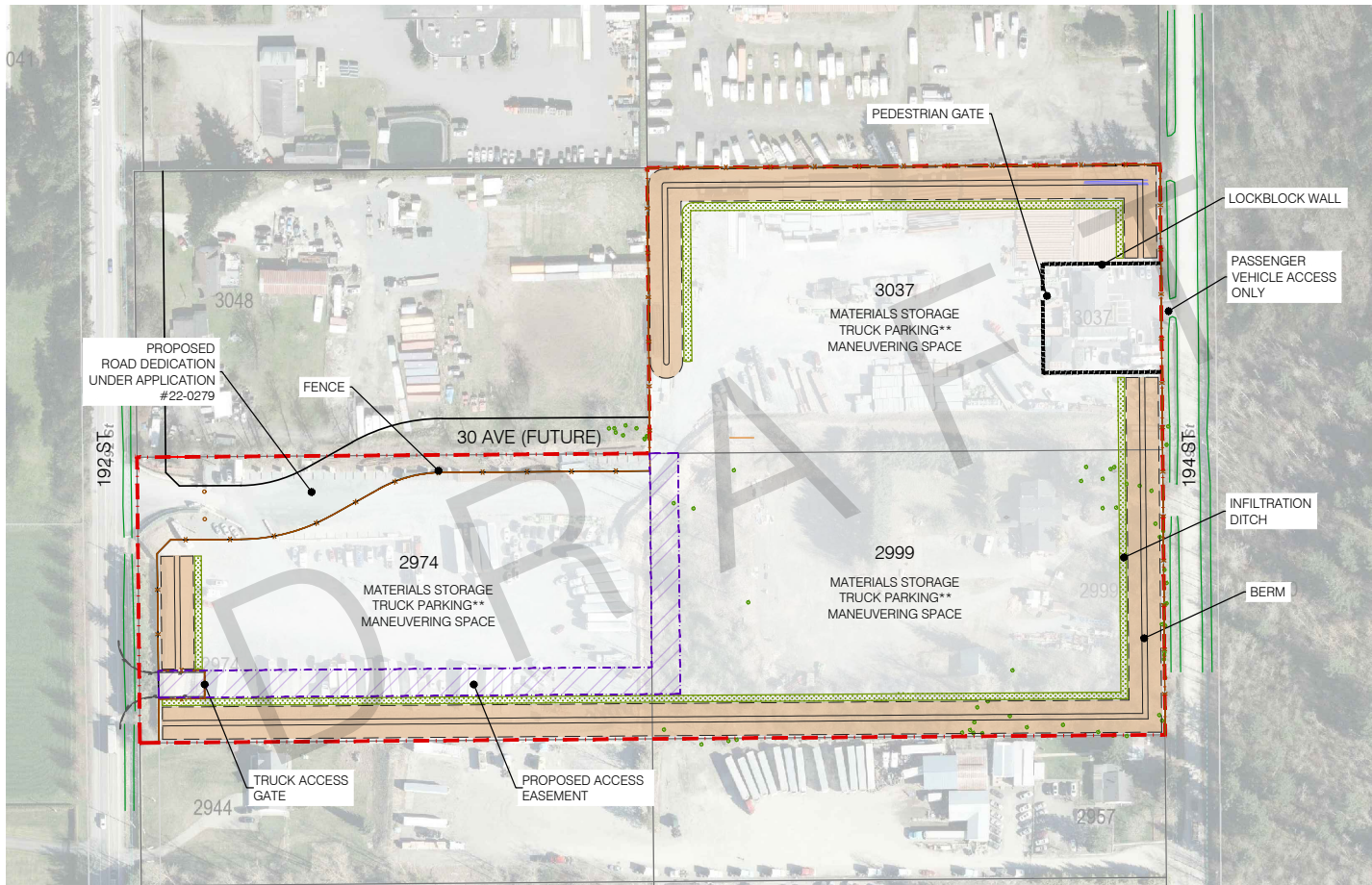
(Witness)

Seven Horses Transport
 Temporary Use Permit
 2974 192 St, 3037 & 2999 194 St
 Surrey, BC

**CONCEPTUAL
 TUP SITE PLAN***

*Site Plan subject to further design review
 prior to final approval

**Total truck parking estimated to be 10 trucks
 across combined 3 lots



LEGAL DESCRIPTION

PID 012-217-158
 PID 012-217-204
 PID 012-217-191

GROSS SITE AREA

6.1 hectares / 15.0 acres

NET SITE AREA

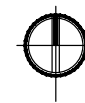
5.7 hectares / 14.1 acres

EXISTING DESIGNATIONS

OCP: Mixed Employment
 LAP: Business Park
 Zoning: A-2

PROPOSED DESIGNATIONS

OCP: Mixed Employment
 LAP: Business Park
 Zoning: A-2



Scale: 1:1750



Project 22-1046/1048/1049
 07 / 11 / 2022

Drawing

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Greater Vancouver
200 - 4185A Still Creek Drive
Burnaby, BC V5C 6G9
T 604 294 2088
F 604 294 2090

Technical Memorandum

DATE: September 10, 2020

TO: Anya Paskovic, MCIP, RPP
Aplin & Martin Consulting Ltd.

FROM: Jeff Marvin, P.Eng.
Laurel Morgan, P. Eng.

RE: **Surface Hydrology Assessment for Temporary Use Permit
at 2974-192 St. and 3037-194 St., Surrey, BC
Our File 2191.031-300**

1. Introduction

This memorandum provides a surface hydrology assessment for 2974-192 Street and 3037-194 Street in Surrey, BC, including recommendations for site stormwater management measures to be implemented on the two properties while they are being used for interim truck parking and material storage activities prior to their proposed future development.

The assessment and recommendations presented herein addresses the following Temporary Use Permit (TUP) requirements for the two properties issued by the City of Surrey on July 21, 2020¹:

“Provide on-site infiltration and water quality treatment for any stormwater. The plan should overlay a proposed truck park design. A grading plan needs to be established in conjunction with the stormwater management plan to ensure there is proper grading to infiltration galleries. This TUP truck park must manage 100% stormwater onsite.”

The purpose of this assessment is to review the existing surface flow conditions of the two properties and to provide recommendations for design of stormwater management measures to maintain pre-disturbance hydrological conditions during the interim use of the site by the current tenant, Seven Horses Transport Ltd. (Seven Horses).

It is KWL’s understanding, based on discussions with Aplin & Martin, that the planned usage of the site under the TUP is expected to be in place for approximately 1 year. The recommendations in this memorandum are based on the usage under the TUP not exceeding 2 years duration.

¹ City of Surrey. “Engineering Requirements (Commercial/Industrial). Location: 2974-192 Street. TEMPORARY USE PERMIT.” July 21, 2020.



2. Site Background and Supporting Information

Site information discussed throughout this memorandum is based on the following reports and information:

- Geotechnical investigations of the site issued by GeoPacific Consulting Ltd. (GeoPacific) on June 29, 2020 in relation to the proposed future development^{2,3};
- A geotechnical investigation of the area issued by Tetra Tech Canada Inc. (Tetra Tech) on June 18, 2018 in relation to the rezoning of 3037 194 St.⁴;
- A hydrogeological investigation of the site issued by Piteau Associates Engineering Ltd. (Piteau) on July 22, 2020 in relation to the proposed interim site activities⁵;
- A hydrogeological investigation of nearby properties 19437 32 Ave. and 3338 194 St. issued by Piteau on June 15, 2018⁶;
- A surface hydrologic assessment of nearby properties 19363/19437 32 Ave. and 3338 194 St. issued by Kerr Wood Leidal Associates Ltd. (KWL) on November 20, 2019 for similar interim site usage by Seven Horses⁷; and
- A site visit by KWL carried out on August 12, 2020.

3. Description of Site Hydrology

The study area consists of two neighbouring properties, 2974-192 St. and 3037-194 St., and is currently zoned as intensive agricultural (A-2). While the two properties do not share a common boundary, the northeast corner of 2974-192 St. is shared with the southwest corner of 3037-194 St, and a temporary unpaved roadway currently connects the two properties at this corner. Based on historical aerial imagery and a recent site visit, approximately 25% of the 3037-194 St. property was stripped in 2016 and 2017 to create a truck parking area and access road, and perimeter berms were installed along the parking area using the stripped topsoil. The remainder of the site is generally vegetated with fields and treed areas. A single-family dwelling on 2974-192 St. was demolished in 2018, and the asphalt driveway access to this dwelling remains. A single-family dwelling, garage and shed remain on 3037-194 St., and foundation remnants of a former structure remain in the northeast region of the property.

² GeoPacific Consulting Ltd. "Geotechnical Investigation Report – Proposed Commercial Building, 2974 192 Street, Surrey, BC". June 29, 2020.

³ GeoPacific Consulting Ltd. "Geotechnical Investigation Report – Proposed Commercial Building, 3037 194 Street, Surrey, BC". June 29, 2020.

⁴ Tetra Tech Canada Inc. "Geotechnical Engineer Report for 3037 194th Street, Surrey, BC." June 18, 2018.

⁵ Piteau Associates Engineering Ltd. "Hydrogeology Assessment for Aquifer Protection, 2974 – 192 Street and 3037 – 194 Street, Surrey, B.C." July 22, 2020.

⁶ Piteau Associates Engineering Ltd. "Groundwater Level Assessment, 3333 – 194th Street and 19437 – 32nd Avenue, Surrey, BC". June 15, 2018.

⁷ Kerr Wood Leidal Associates Ltd. "Seven Horses Transport Site Stormwater and Surface Hydrology Technical Assistance for Bylaw Compliance (Draft)". November 20, 2019.



3.1 Existing Surface Drainage

The two properties are located near the top of the Little Campbell River catchment area upstream of Latimer Pond, which is a groundwater fed pond. Based on the 2018 lidar, both properties are relatively flat with an overall slope from east to west of less than 0.1%. No watercourses or notable drainage routes exist at or near the properties. Adjacent roadside ditches that receive roadway runoff are highly vegetated and show no signs of previously conveyed flow. Most precipitation that lands on the two properties is therefore expected to infiltrate onsite, although some runoff may be generated during extreme rainfall events. Runoff collected by the roadside ditches during larger rainfall events may pond within the ditches and then infiltrate into the ground.

3.2 Surficial Geology

The two properties reside on raised pro-glacial deltaic sediments from the Sumas Drift⁵, and the soil profile generally consists of a 0.3 m topsoil layer overlaid on a deep layer of compact to dense gravelly sand to sand with gravel^{2,3,4}. The topsoil was observed during the KWL site visit to be a sandy silt material with low cohesion. Where this topsoil was stripped, the exposed sands and gravels were observed to be dense and compacted.

Measured infiltration rates of the subsurface soils range from 550 mm/hr to 580 mm/hr at 2974-192 St.², and from 440 mm/hr to 675 mm/hr at 3037-194 St.³. Other infiltration rates measured on 3037-194 St. and within the region vary from 900 mm/hr to 1580 mm/hr, which are characteristic of free-draining sand⁴. The high infiltration rates of the native soil support the claim that the properties generate little to no runoff in the pre-development condition.

3.3 Groundwater

The two properties are located above a shallow and unconfirmed aquifer (Brookwood Aquifer) close to its groundwater divide⁵. The water table was measured by Tetra Tech on April 11, 2018 at 3037-194 St. to be 1.5 m below ground elevation⁴. Nearby monitoring wells at 19437 32 Ave. and 3338 194 St. indicate that the 2018 peak winter water level could have been approximately 0.6 m higher, or at 0.9 m (1.5 m - 0.6 m) below ground elevation. The 2018 peak water level from the monitoring wells was approximately 0.6 m below the historical maximum water level based on provincial monitoring well OBS 353⁶. Therefore, an extreme groundwater level at the site could potentially reach 0.3 m (1.5 m - 0.6 m - 0.6 m) below the existing ground elevation (including the 0.3 m of topsoil).

The risk of extreme rainfall events occurring at the same time as an extreme winter groundwater level is relatively low, particularly over the short timeframe of the interim conditions of the proposed TUP. For the purpose of designing interim infiltration systems at the site with a short lifespan, depths for infiltration facilities should be limited to 0.5 m below the existing ground elevation. Additional investigation of groundwater levels should be carried out to determine the design high groundwater level for any future permanent infiltration systems.

Groundwater levels are expected to be at much greater depths throughout the remainder of the year. Groundwater levels were measured at the site on June 5, 2020 to be between 2.4 m and 2.5 m below ground elevation in locations where the topsoil remained in place^{2,3}, and regional groundwater trends indicate that these levels will continue to drop until approximately November.



Since the site resides on an aquifer that is shallow, unconfined and below fast draining soils, the groundwater below the site is highly vulnerable to contamination from surface sources⁵. Proper management of site activities and treatment of runoff will be needed to prevent groundwater contamination (further discussed below).

3.4 Pre-Disturbance Conditions

For design of stormwater management features, pre-disturbance conditions have been defined as the original intensive agricultural (A-2) site usage prior to any stripping for truck access or building demolition. While the site would likely have been fully treed under natural pre-development conditions, the agricultural site conditions can be used as the basis for stormwater design, as these agricultural conditions have been present over the past several decades.

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It is understood that the TUP for the site will allow for temporary modifications to be made that accommodate truck parking and material storage while the site undergoes planning for future development. These interim conditions will generally consist of clearing trees and vegetation, topsoil stripping, placing road base materials throughout most of the site, new driveway access for trucks, and constructing perimeter berms along the property boundaries from the stripped topsoil. The existing house at 3037-194 St. will remain and will be converted into a temporary office.

While the level of compaction of the planned road base layer will vary due to differences in traffic and site activities, it is likely that the road surface will become essentially impervious over time, due to compaction and clogging. Native soils below the fill layers are not prone to compaction due to the lack of fines in their mixtures. Infiltration rates within the native subgrade soils are therefore expected to remain unchanged by current site activities, provided they are not contaminated with significant amounts of fines. Precipitation is also expected to infiltrate through the berms provided they are constructed with topsoil from the site and installed on native soil.

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A PCSWMM hydrologic model of the two properties was developed to estimate peak flows and runoff volumes during pre-disturbance and post-disturbance conditions, and to provide conceptual sizing for runoff control measures on the site such as infiltration systems. A summary of the hydrological parameters used in the model and a description of their assumptions and sources are provided in Table 1. The variation in hydrological parameters between the two properties is minor under both pre-disturbance and post-disturbance conditions, and both properties have a similar area of 2 ha. Thus, model calculations were carried out for one property and the results were applied to both properties.

According to the City of Surrey's 2016 Design Criteria Manual, pre-disturbance peak flows must be maintained under post-disturbance conditions for the 5-year storm event. In addition, site runoff during 100-year flow conditions should also be safely conveyed to the downstream drainage system. As there is no known drainage outlet for the two properties and the City has indicated that the properties must manage all stormwater onsite, all runoff must be contained within the site up to the 100-year return period.



Design storms for the 5-year and 100-year rainfall events were developed for the model by prorating the Kwantlen Park rain gauge design storms provided by the City of Surrey’s 2016 Design Criteria Manual to the Old Municipal Hall rain gauge based on rainfall amount. Storm durations of 24-hours were selected in lieu of shorter duration storms, as the purpose of the design storms for this assessment are to evaluate storage volumes for runoff.

A summary of the peak flows and runoff volumes estimated using the model during the 5-year and 100-year storms for pre-disturbance and post-disturbance conditions is presented in Table 2. As shown in the table, no runoff was predicted by the simulation during pre-disturbance conditions as a result of the flat grades and high infiltration properties of the soils. A total runoff volume of 3,500 m³ generated per property during the 5-year storm must, therefore, be controlled and infiltrated on site.

Table 1: Summary of PCSWMM Model Parameters (Per Property)

Parameter	Pre-Disturbance Conditions	Post-Disturbance Conditions	Assumptions and Sources
Surface area (ha)	2.02	2.02	Total lot area for three properties based on City of Surrey lot boundaries.
Impervious Percentage (%)	5	75	Pre-disturbance impervious areas measured using aerial photography from 2001 to 2015. Post-disturbance impervious areas estimated based on site plans by Seven Horses where road mulch areas are assumed to ultimately become impervious and berms are assumed to be pervious.
Maximum Overland Flow Length (m)	220	220	Length measured from the northeast corner to the southwest corner of each site.
Average Slope (%)	0.1	0.1	Slope measured along maximum overland flow path.
Impervious Roughness (Manning’s n)	0.02	0.02	Typical value for gravels and rougher paved surfaces.
Pervious Roughness (Manning’s n)	0.25	0.25	Typical value for dense grasses.
Impervious Depression Storage (mm)	1.5	1.5	Typical value for paved gravel surfaces.
Pervious Depression Storage (mm)	5	1	Typical value for dense grasses (pre-disturbance). Reduced for post-disturbance conditions due to lack of storage on berms.
Saturated Hydraulic Conductivity (mm/hr)	30	30	Typical value for sandy silt (topsoil).



Parameter	Pre-Disturbance Conditions	Post-Disturbance Conditions	Assumptions and Sources
Capillary Suction Head (mm)	60	60	Typical value for sandy silt (topsoil).
Initial Moisture Deficit (fraction)	0.01	0.01	Assumed soil conditions are initially wet.
Subarea Routing	100% impervious to pervious	100% surfaces flow to infiltration facility	All runoff from impervious areas during pre-disturbance conditions (roadways and structures) flows onto the pervious areas (grass). All runoff from pervious and impervious areas during post-disturbance conditions flow to infiltration facilities.

Table 2: Hydrologic Model Results (Per Property)

Design Storm	Parameter	Pre-Disturbance Conditions	Post-Disturbance Conditions		
			No Infiltration System	Rock Infiltration Trenches	Bioswales
5-Year, 24-Hour	Peak Flow Rate (m ³ /s)	0	0.10	0	0
	Total Runoff Volume (m ³)	0	3,500	0	0
	Runoff Coefficient (fraction)	0	0.75	0	0
100-Year, 24-Hour	Peak Flow Rate (m ³ /s)	0	0.17	0.07	0.13
	Total Runoff Volume (m ³)	0	5,600	400	1,600
	Runoff Coefficient (fraction)	0	0.75	0.05	0.21

5. Conceptual Sizing of Infiltration Systems

5.1 Infiltration Facility Concept

All runoff generated from the site during post-disturbance conditions up to the 5-year storm will need to be infiltrated into the native soils such that pre-disturbance conditions are maintained. This would be best achieved by installing linear infiltration systems along the inside of the proposed perimeter berms and ensuring all areas are graded towards these locations. This configuration will result in runoff being directed into the infiltration systems as sheet flow. The linear infiltration systems should have a zero or minimal (< 0.1%) slope to maximize runoff storage and infiltration.

Two types of linear infiltration systems are recommended for interim stormwater management at the site: (1) rock infiltration trenches, and (2) bioswales. A combination of both types of infiltration systems is also acceptable.



Maximum Depth

The depth of an infiltration system should be limited to approximately 0.5 m below the pre-disturbance surface grade to avoid interaction with groundwater for an interim installation. Assuming topsoil will be stripped to a depth of 0.3 m and a 0.15 m thick road base is installed, the remaining depth available for the infiltration system would be approximately 0.35 m. Note that this depth is not intended to be used for design of permanent infiltration facilities.

Base Layer

A typical infiltration system should consist of an area excavated to the desired depth with a flat bottom or 'base' area of the required size. The excavated area may be whatever length or width is suitable for receiving the desired overland flow. The bottom and sides of the excavation must be protected with non-woven geotextile fabric, and a 0.05 m minimum depth of clean washed sand must be placed on top of the fabric in the base of the facility. No underdrain should be installed within the infiltration system, as all runoff must be infiltrated on site.

1) Rock Infiltration Trench

For rock infiltration trenches, a 0.25 m layer of clean washed stone should be placed on top of the sand 0.05 m base layer, which shall consist of 20 mm clear drain rock. As the shallow unconfined aquifer below is vulnerable to surface contaminants, any rock infiltration trench will require additional pre-treatment measures intended to minimize groundwater contamination from soluble pollutants. For interim conditions, one pre-treatment option would be to install compost filter socks along the upstream edges of the infiltration trenches to collect fine sediments and provide some level of pollutant removal. However, these are acceptable on a temporary basis only and additional pre-treatment measures would be needed for any permanent installation of a rock infiltration trench to minimize groundwater contamination.

2) Bioswale

For bioswales, a growing media layer with a minimum infiltration rate of 100 mm/hr and a minimum depth of 0.15 m should be installed on top of the base layer. The native topsoil onsite is likely not suitable for the bioswale media due to its concentration of fine sediment, although mixing of this topsoil with clean sand or a coarser topsoil mixture may be possible provided that the infiltration rate remains above 100 mm/hr. A soil physicist should be consulted to recommend soil mixing fractions if the existing native topsoil is to be used. For interim conditions, vegetation for the bioswale can consist of sodded grass provided that the infiltration rate of the sod is above 100 mm/hr. The bioswales should allow for surface ponding using a minimum 0.15 m depression with maximum 2H:1V side slopes. Note: grass is highly efficient at filtering sediments. After two years, the sediment will begin to aggrade (build up) in the grass preventing runoff from entering; therefore, this is an interim strategy.

Sediment Pre-Treatment and Lifespan

Pre-treatment devices such as forebays or traps are typically installed at inlets of infiltration facilities to capture sediments and prevent the facilities from clogging. However, the intent of the proposed infiltration facilities is to support the temporary use of the site for approximately one year, and some degree of clogging will be expected and is acceptable. If ponding is observed above the infiltration facilities 24 hours following a rainfall event, the clogged areas should be investigated and remedied by replacing with new materials. The interim infiltration systems are not intended to remain as permanent features on the site and should be removed when the site is developed for other uses.



Site Activity Management

Groundwater contamination is best mitigated by proper management of site activities, as the temporary infiltration facilities will provide limited treatment of soluble contaminants that can enter into the aquifer. According to Piteau⁵, trucks and other vehicles should not be fueled or serviced onsite, and onsite equipment should be fuelled only in designated areas that are equipped with spill response materials. Bulk liquids, leachable materials and waste materials should not be stored onsite unless their risks to the groundwater are assessed.

5.2 Infiltration Facility Sizing

Conceptual sizing for the rock infiltration trenches and bioswales was carried out using the hydrologic model by routing the post-disturbance 5-year hydrograph through the proposed infiltration systems. Infiltration systems were assumed to be installed to a depth of 0.35 m and have a porosity of 0.4. Native soil infiltration rates below the infiltration systems were assumed to be 440 mm/hr, corresponding to the lowest infiltration rate recorded by the GeoPacific infiltration tests^{2,3}. Rock infiltration trenches are not expected to limit the infiltration rate unless they become severely clogged. For bioswales, an infiltration rate of 50 mm/hr was assumed for the media, representing partially clogged conditions. Additional infiltration tests should be carried out at the location of any future infiltration system prior to construction to establish design infiltration rates.

Based on the model calculations, the total area needed to fully infiltrate the 5-year storm using a 0.35 m deep rock infiltration trench was estimated to be 800 m² per property, which corresponds to 4% of the total property area. Expressed differently, there needs to be 1 square metre of infiltration trench for every 25 square metres of total property area. For bioswales, the total area needed to fully infiltrate the 5-year storm was estimated to be 3,200 m² per property, which corresponds to 16% of the total property area, or 1 square metre of infiltration trench for every 6.25 square metres of total property area.

The large difference in area needed for the two types of infiltration facilities relates to the lower infiltration rate of the surface of the bioswales. However, bioswales will provide additional treatment of potential groundwater contaminants compared to rock infiltration trenches.

5.3 On-Site Management for 100-year Storm

Flows and runoff volumes exceeding the capacity of the infiltration systems during the 100-year storm were estimated using the model and are presented in Table 2. Since no runoff occurs during the 100-year storm under pre-disturbance conditions, the remaining runoff volume of 400 m³ for rock infiltration trenches and 1,600 m³ for bioswales will need to be stored on site for eventual infiltration. This can be accomplished by constructing a perimeter berm around the site.

Perimeter Berm Concept

Perimeter berms are already planned for the site to stockpile stripped topsoil, and these berms can be used in combination with smaller berms and high points along the roads to contain the 100-year storm. Topsoil would be adequate for berm material, whereas sand or gravel would be too permeable and should not be used. All berms, whether used for storage or for stockpiling stripped materials, should be hydroseeded or an erosion control mat should be installed, as the onsite topsoil was found to contain fine silts and can be very dusty during dry periods. If not properly managed, these fine particles can clog the infiltration facilities.



Perimeter Berm Sizing

A storage volume of 1,600 m³ would result in a ponding depth of 0.16 m, assuming that 50% of the site is available for ponding. Regardless of the infiltration facility selected, the berm should provide a continuous barrier such that a minimum depth of 0.3 m (including freeboard above the ponding depth) is available across the entire site for each property. As the site is not perfectly flat, some portions of the berm must be higher than 0.3 m to achieve this. A lower berm or edge height around the site is needed for the infiltration trench option as only 400 m³ storage volume must be provided.

Roadway Crests

Particular consideration should be given to the southwest corner of 3037-194 St. where a new roadway is proposed to connect the two properties. A high point in the roadway will be needed here to prevent runoff generated on 3037-194 St. from being discharged to the adjacent properties. Similarly, a high point in the new driveway of 2974-192 St. near its entrance at 192 St. will be needed to prevent runoff from being discharged to the roadway ditches. The grading plan for the site should be revised to incorporate the recommended high points.

Driveway Culverts

While the above measures will result in all runoff being contained within the site, as it had been under pre-disturbance conditions, any new driveway access to the properties from 192 St. and 194 St. will require a culvert crossing in accordance with the City's requirements to ensure that off-site drainage in the ditches is not impeded.

6. Conclusions

This work has assessed the pre-disturbance and post-disturbance site conditions at 2974-192 St. and 3037-194 St. and provides recommendations and conceptual sizing for infiltration systems that maintain pre-disturbance hydrological conditions to the 5-year return period level of service. It was estimated that 0.35 m deep infiltration systems would require 4% of the total site area if rock infiltration trenches are selected, or 16% of the total site area if bioswales are selected. A combination of the rock infiltration trenches and bioswales would also be acceptable. The excess runoff volume during the 100-year storm of up to 1,600 m³ would then need to be safely stored on the site for eventual infiltration.



KERR WOOD LEIDAL ASSOCIATES LTD.

Prepared by:

Reviewed by:

Jeffrey Marvin, M.A.Sc., P.Eng.
 Project Engineer

Chris Johnston, P.Eng.,
 Technical Reviewer

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Revision History

Revision #	Date	Status	Revision Description	Author
0	September 10, 2020	Final		JTM





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Technical Memorandum

DATE: September 10, 2020

TO: Anya Paskovic, MCIP, RPP
Aplin & Martin Consulting Ltd.

FROM: Jeff Marvin, P.Eng.
Laurel Morgan, P. Eng.

RE: **Surface Hydrology Assessment for Temporary Use Permit
at 2974-192 St. and 3037-194 St., Surrey, BC
Our File 2191.031-300**

1. Introduction

This memorandum provides a surface hydrology assessment for 2974-192 Street and 3037-194 Street in Surrey, BC, including recommendations for site stormwater management measures to be implemented on the two properties while they are being used for interim truck parking and material storage activities prior to their proposed future development.

The assessment and recommendations presented herein addresses the following Temporary Use Permit (TUP) requirements for the two properties issued by the City of Surrey on July 21, 2020¹:

“Provide on-site infiltration and water quality treatment for any stormwater. The plan should overlay a proposed truck park design. A grading plan needs to be established in conjunction with the stormwater management plan to ensure there is proper grading to infiltration galleries. This TUP truck park must manage 100% stormwater onsite.”

The purpose of this assessment is to review the existing surface flow conditions of the two properties and to provide recommendations for design of stormwater management measures to maintain pre-disturbance hydrological conditions during the interim use of the site by the current tenant, Seven Horses Transport Ltd. (Seven Horses).

It is KWL’s understanding, based on discussions with Aplin & Martin, that the planned usage of the site under the TUP is expected to be in place for approximately 1 year. The recommendations in this memorandum are based on the usage under the TUP not exceeding 2 years duration.

¹ City of Surrey. “Engineering Requirements (Commercial/Industrial). Location: 2974-192 Street. TEMPORARY USE PERMIT.” July 21, 2020.



2. Site Background and Supporting Information

Site information discussed throughout this memorandum is based on the following reports and information:

- Geotechnical investigations of the site issued by GeoPacific Consulting Ltd. (GeoPacific) on June 29, 2020 in relation to the proposed future development^{2,3};
- A geotechnical investigation of the area issued by Tetra Tech Canada Inc. (Tetra Tech) on June 18, 2018 in relation to the rezoning of 3037 194 St.⁴;
- A hydrogeological investigation of the site issued by Piteau Associates Engineering Ltd. (Piteau) on July 22, 2020 in relation to the proposed interim site activities⁵;
- A hydrogeological investigation of nearby properties 19437 32 Ave. and 3338 194 St. issued by Piteau on June 15, 2018⁶;
- A surface hydrologic assessment of nearby properties 19363/19437 32 Ave. and 3338 194 St. issued by Kerr Wood Leidal Associates Ltd. (KWL) on November 20, 2019 for similar interim site usage by Seven Horses⁷; and
- A site visit by KWL carried out on August 12, 2020.

3. Description of Site Hydrology

The study area consists of two neighbouring properties, 2974-192 St. and 3037-194 St., and is currently zoned as intensive agricultural (A-2). While the two properties do not share a common boundary, the northeast corner of 2974-192 St. is shared with the southwest corner of 3037-194 St, and a temporary unpaved roadway currently connects the two properties at this corner. Based on historical aerial imagery and a recent site visit, approximately 25% of the 3037-194 St. property was stripped in 2016 and 2017 to create a truck parking area and access road, and perimeter berms were installed along the parking area using the stripped topsoil. The remainder of the site is generally vegetated with fields and treed areas. A single-family dwelling on 2974-192 St. was demolished in 2018, and the asphalt driveway access to this dwelling remains. A single-family dwelling, garage and shed remain on 3037-194 St., and foundation remnants of a former structure remain in the northeast region of the property.

² GeoPacific Consulting Ltd. "Geotechnical Investigation Report – Proposed Commercial Building, 2974 192 Street, Surrey, BC". June 29, 2020.

³ GeoPacific Consulting Ltd. "Geotechnical Investigation Report – Proposed Commercial Building, 3037 194 Street, Surrey, BC". June 29, 2020.

⁴ Tetra Tech Canada Inc. "Geotechnical Engineer Report for 3037 194th Street, Surrey, BC." June 18, 2018.

⁵ Piteau Associates Engineering Ltd. "Hydrogeology Assessment for Aquifer Protection, 2974 – 192 Street and 3037 – 194 Street, Surrey, B.C." July 22, 2020.

⁶ Piteau Associates Engineering Ltd. "Groundwater Level Assessment, 3333 – 194th Street and 19437 – 32nd Avenue, Surrey, BC". June 15, 2018.

⁷ Kerr Wood Leidal Associates Ltd. "Seven Horses Transport Site Stormwater and Surface Hydrology Technical Assistance for Bylaw Compliance (Draft)". November 20, 2019.



3.1 Existing Surface Drainage

The two properties are located near the top of the Little Campbell River catchment area upstream of Latimer Pond, which is a groundwater fed pond. Based on the 2018 lidar, both properties are relatively flat with an overall slope from east to west of less than 0.1%. No watercourses or notable drainage routes exist at or near the properties. Adjacent roadside ditches that receive roadway runoff are highly vegetated and show no signs of previously conveyed flow. Most precipitation that lands on the two properties is therefore expected to infiltrate onsite, although some runoff may be generated during extreme rainfall events. Runoff collected by the roadside ditches during larger rainfall events may pond within the ditches and then infiltrate into the ground.

3.2 Surficial Geology

The two properties reside on raised pro-glacial deltaic sediments from the Sumas Drift⁵, and the soil profile generally consists of a 0.3 m topsoil layer overlaid on a deep layer of compact to dense gravelly sand to sand with gravel^{2,3,4}. The topsoil was observed during the KWL site visit to be a sandy silt material with low cohesion. Where this topsoil was stripped, the exposed sands and gravels were observed to be dense and compacted.

Measured infiltration rates of the subsurface soils range from 550 mm/hr to 580 mm/hr at 2974-192 St.², and from 440 mm/hr to 675 mm/hr at 3037-194 St.³. Other infiltration rates measured on 3037-194 St. and within the region vary from 900 mm/hr to 1580 mm/hr, which are characteristic of free-draining sand⁴. The high infiltration rates of the native soil support the claim that the properties generate little to no runoff in the pre-development condition.

3.3 Groundwater

The two properties are located above a shallow and unconfirmed aquifer (Brookwood Aquifer) close to its groundwater divide⁵. The water table was measured by Tetra Tech on April 11, 2018 at 3037-194 St. to be 1.5 m below ground elevation⁴. Nearby monitoring wells at 19437 32 Ave. and 3338 194 St. indicate that the 2018 peak winter water level could have been approximately 0.6 m higher, or at 0.9 m (1.5 m - 0.6 m) below ground elevation. The 2018 peak water level from the monitoring wells was approximately 0.6 m below the historical maximum water level based on provincial monitoring well OBS 353⁶. Therefore, an extreme groundwater level at the site could potentially reach 0.3 m (1.5 m - 0.6 m - 0.6 m) below the existing ground elevation (including the 0.3 m of topsoil).

The risk of extreme rainfall events occurring at the same time as an extreme winter groundwater level is relatively low, particularly over the short timeframe of the interim conditions of the proposed TUP. For the purpose of designing interim infiltration systems at the site with a short lifespan, depths for infiltration facilities should be limited to 0.5 m below the existing ground elevation. Additional investigation of groundwater levels should be carried out to determine the design high groundwater level for any future permanent infiltration systems.

Groundwater levels are expected to be at much greater depths throughout the remainder of the year. Groundwater levels were measured at the site on June 5, 2020 to be between 2.4 m and 2.5 m below ground elevation in locations where the topsoil remained in place^{2,3}, and regional groundwater trends indicate that these levels will continue to drop until approximately November.



Since the site resides on an aquifer that is shallow, unconfined and below fast draining soils, the groundwater below the site is highly vulnerable to contamination from surface sources⁵. Proper management of site activities and treatment of runoff will be needed to prevent groundwater contamination (further discussed below).

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Two types of linear infiltration systems are recommended for interim stormwater management at the site: (1) rock infiltration trenches, and (2) bioswales. A combination of both types of infiltration systems is also acceptable.



Maximum Depth

The depth of an infiltration system should be limited to approximately 0.5 m below the pre-disturbance surface grade to avoid interaction with groundwater for an interim installation. Assuming topsoil will be stripped to a depth of 0.3 m and a 0.15 m thick road base is installed, the remaining depth available for the infiltration system would be approximately 0.35 m. Note that this depth is not intended to be used for design of permanent infiltration facilities.

Base Layer

A typical infiltration system should consist of an area excavated to the desired depth with a flat bottom or 'base' area of the required size. The excavated area may be whatever length or width is suitable for receiving the desired overland flow. The bottom and sides of the excavation must be protected with non-woven geotextile fabric, and a 0.05 m minimum depth of clean washed sand must be placed on top of the fabric in the base of the facility. No underdrain should be installed within the infiltration system, as all runoff must be infiltrated on site.

1) Rock Infiltration Trench

For rock infiltration trenches, a 0.25 m layer of clean washed stone should be placed on top of the sand 0.05 m base layer, which shall consist of 20 mm clear drain rock. As the shallow unconfined aquifer below is vulnerable to surface contaminants, any rock infiltration trench will require additional pre-treatment measures intended to minimize groundwater contamination from soluble pollutants. For interim conditions, one pre-treatment option would be to install compost filter socks along the upstream edges of the infiltration trenches to collect fine sediments and provide some level of pollutant removal. However, these are acceptable on a temporary basis only and additional pre-treatment measures would be needed for any permanent installation of a rock infiltration trench to minimize groundwater contamination.

2) Bioswale

For bioswales, a growing media layer with a minimum infiltration rate of 100 mm/hr and a minimum depth of 0.15 m should be installed on top of the base layer. The native topsoil onsite is likely not suitable for the bioswale media due to its concentration of fine sediment, although mixing of this topsoil with clean sand or a coarser topsoil mixture may be possible provided that the infiltration rate remains above 100 mm/hr. A soil physicist should be consulted to recommend soil mixing fractions if the existing native topsoil is to be used. For interim conditions, vegetation for the bioswale can consist of sodded grass provided that the infiltration rate of the sod is above 100 mm/hr. The bioswales should allow for surface ponding using a minimum 0.15 m depression with maximum 2H:1V side slopes. Note: grass is highly efficient at filtering sediments. After two years, the sediment will begin to aggrade (build up) in the grass preventing runoff from entering; therefore, this is an interim strategy.

Sediment Pre-Treatment and Lifespan

Pre-treatment devices such as forebays or traps are typically installed at inlets of infiltration facilities to capture sediments and prevent the facilities from clogging. However, the intent of the proposed infiltration facilities is to support the temporary use of the site for approximately one year, and some degree of clogging will be expected and is acceptable. If ponding is observed above the infiltration facilities 24 hours following a rainfall event, the clogged areas should be investigated and remedied by replacing with new materials. The interim infiltration systems are not intended to remain as permanent features on the site and should be removed when the site is developed for other uses.



Site Activity Management

Groundwater contamination is best mitigated by proper management of site activities, as the temporary infiltration facilities will provide limited treatment of soluble contaminants that can enter into the aquifer. According to Piteau⁵, trucks and other vehicles should not be fueled or serviced onsite, and onsite equipment should be fuelled only in designated areas that are equipped with spill response materials. Bulk liquids, leachable materials and waste materials should not be stored onsite unless their risks to the groundwater are assessed.

5.2 Infiltration Facility Sizing

Conceptual sizing for the rock infiltration trenches and bioswales was carried out using the hydrologic model by routing the post-disturbance 5-year hydrograph through the proposed infiltration systems. Infiltration systems were assumed to be installed to a depth of 0.35 m and have a porosity of 0.4. Native soil infiltration rates below the infiltration systems were assumed to be 440 mm/hr, corresponding to the lowest infiltration rate recorded by the GeoPacific infiltration tests^{2,3}. Rock infiltration trenches are not expected to limit the infiltration rate unless they become severely clogged. For bioswales, an infiltration rate of 50 mm/hr was assumed for the media, representing partially clogged conditions. Additional infiltration tests should be carried out at the location of any future infiltration system prior to construction to establish design infiltration rates.

Based on the model calculations, the total area needed to fully infiltrate the 5-year storm using a 0.35 m deep rock infiltration trench was estimated to be 800 m² per property, which corresponds to 4% of the total property area. Expressed differently, there needs to be 1 square metre of infiltration trench for every 25 square metres of total property area. For bioswales, the total area needed to fully infiltrate the 5-year storm was estimated to be 3,200 m² per property, which corresponds to 16% of the total property area, or 1 square metre of infiltration trench for every 6.25 square metres of total property area.

The large difference in area needed for the two types of infiltration facilities relates to the lower infiltration rate of the surface of the bioswales. However, bioswales will provide additional treatment of potential groundwater contaminants compared to rock infiltration trenches.

5.3 On-Site Management for 100-year Storm

Flows and runoff volumes exceeding the capacity of the infiltration systems during the 100-year storm were estimated using the model and are presented in Table 2. Since no runoff occurs during the 100-year storm under pre-disturbance conditions, the remaining runoff volume of 400 m³ for rock infiltration trenches and 1,600 m³ for bioswales will need to be stored on site for eventual infiltration. This can be accomplished by constructing a perimeter berm around the site.

Perimeter Berm Concept

Perimeter berms are already planned for the site to stockpile stripped topsoil, and these berms can be used in combination with smaller berms and high points along the roads to contain the 100-year storm. Topsoil would be adequate for berm material, whereas sand or gravel would be too permeable and should not be used. All berms, whether used for storage or for stockpiling stripped materials, should be hydroseeded or an erosion control mat should be installed, as the onsite topsoil was found to contain fine silts and can be very dusty during dry periods. If not properly managed, these fine particles can clog the infiltration facilities.



Perimeter Berm Sizing

A storage volume of 1,600 m³ would result in a ponding depth of 0.16 m, assuming that 50% of the site is available for ponding. Regardless of the infiltration facility selected, the berm should provide a continuous barrier such that a minimum depth of 0.3 m (including freeboard above the ponding depth) is available across the entire site for each property. As the site is not perfectly flat, some portions of the berm must be higher than 0.3 m to achieve this. A lower berm or edge height around the site is needed for the infiltration trench option as only 400 m³ storage volume must be provided.

Roadway Crests

Particular consideration should be given to the southwest corner of 3037-194 St. where a new roadway is proposed to connect the two properties. A high point in the roadway will be needed here to prevent runoff generated on 3037-194 St. from being discharged to the adjacent properties. Similarly, a high point in the new driveway of 2974-192 St. near its entrance at 192 St. will be needed to prevent runoff from being discharged to the roadway ditches. The grading plan for the site should be revised to incorporate the recommended high points.

Driveway Culverts

While the above measures will result in all runoff being contained within the site, as it had been under pre-disturbance conditions, any new driveway access to the properties from 192 St. and 194 St. will require a culvert crossing in accordance with the City's requirements to ensure that off-site drainage in the ditches is not impeded.

6. Conclusions

This work has assessed the pre-disturbance and post-disturbance site conditions at 2974-192 St. and 3037-194 St. and provides recommendations and conceptual sizing for infiltration systems that maintain pre-disturbance hydrological conditions to the 5-year return period level of service. It was estimated that 0.35 m deep infiltration systems would require 4% of the total site area if rock infiltration trenches are selected, or 16% of the total site area if bioswales are selected. A combination of the rock infiltration trenches and bioswales would also be acceptable. The excess runoff volume during the 100-year storm of up to 1,600 m³ would then need to be safely stored on the site for eventual infiltration.



KERR WOOD LEIDAL ASSOCIATES LTD.

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Revision History

Revision #	Date	Status	Revision Description	Author
0	September 10, 2020	Final		JTM





192 Street

194 Street

**City of Surrey
PLANNING & DEVELOPMENT REPORT**

Application No.: 7922-0089-00

Planning Report Date: October 3, 2022

PROPOSAL:

- **Temporary Use Permit**

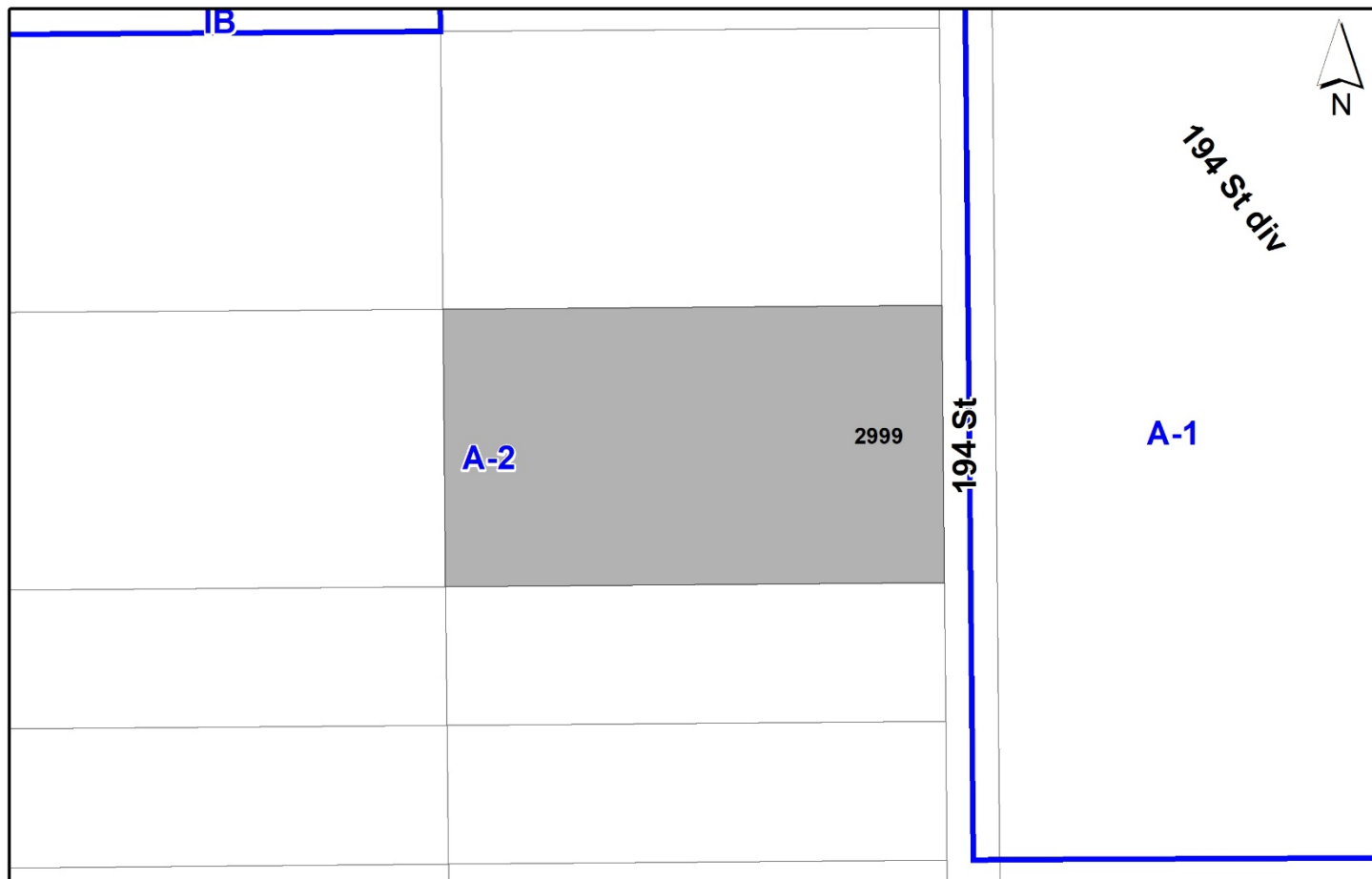
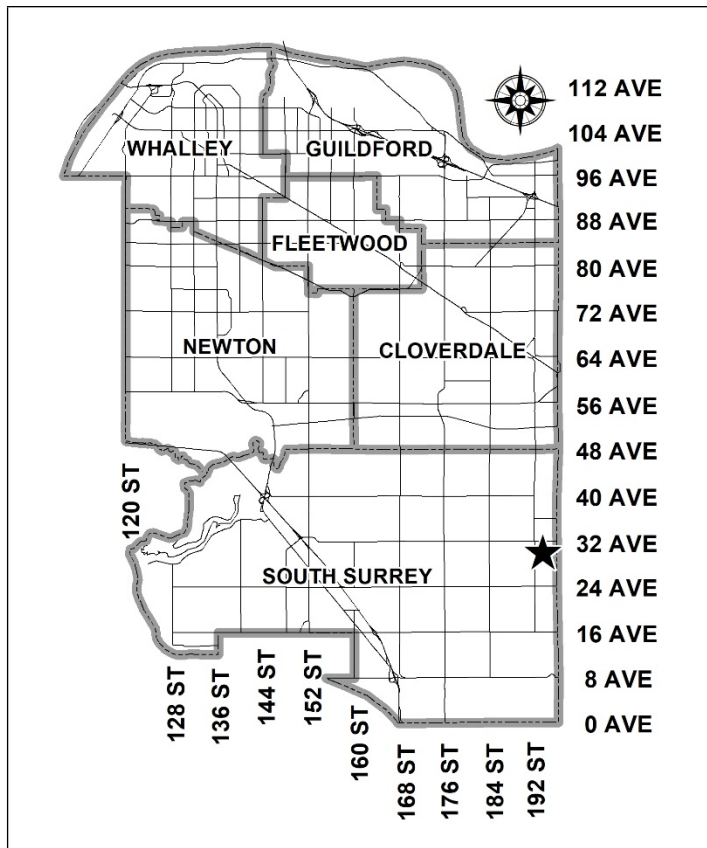
to permit a temporary outdoor storage facility for cargo equipment for a period not to exceed 3 years.

LOCATION: 2999 - 194 Street

ZONING: A-2

OCP DESIGNATION: Mixed Employment

LAP DESIGNATION: Business Park



RECOMMENDATION SUMMARY

- The Planning & Development Department recommends that this application be denied.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The proposal does not comply with the Mixed Employment land use designation in the Official Community Plan (OCP) or the Business Park land use designation in the Campbell Heights Local Area Plan (LAP).

RATIONALE OF RECOMMENDATION

- An unauthorized cargo storage and truck parking facility is currently operating on the subject property at 2999 – 194 Street. A Temporary Use Permit (TUP) application was submitted on March 24, 2022.
- The unauthorized cargo storage and truck parking facility being operated on the site is an extension of an existing operation located on the lands abutting the site to the north, 3037 -194 Street, and west, 2974 – 192 Street, which are being operated by Seven Horses Transport Ltd. These adjacent operations were authorized under Temporary Use Permit Nos. 7920-0106-00 and 7920-0107-00, respectively. These TUPs expire on November 9, 2021, and the sites are currently under Development Application Nos. 7921-0345-00 and 7921-0346-00 to allow a two year extension of the proposed use.
- Approval of this application may lead to more requests for similar temporary use proposals in Campbell Heights that are inconsistent with the adopted Local Area Plan and the pattern of development, which may further stall ultimate re-development of the area. This site is within the Latimer Lake Detention Pond drainage catchment area, and significant off-site drainage servicing requirements are required for any ultimate development in the catchment to occur. The granting of a temporary use permit within this catchment may hinder ultimate development as envisioned in the Campbell Heights Local Area Plan as TUP's are not required to contribute to the substantial funding required to service the catchment.
- In the recent past, Council has denied a number of similar applications for temporary truck and outdoor storage in Campbell Heights.
- At the Regular Council – Land Use Meeting on April 18, 2016, Council endorsed the recommendations in Corporate Report R085 which included amending the Zoning By-law in order to support the development of permanent truck park facilities and authorizing staff to proceed with by-law enforcement action against unauthorized truck park facilities and in-process TUP applications. As noted in the Corporate Report, the fundamental objective of the by-law enforcement action is to improve efforts to legitimize the use on suitable sites for truck parking while closing problematic unauthorized truck park facilities (Resolution No. R16-757).

-
- The subject property is also located within an area of Campbell Heights that is known to have vulnerable aquifers resulting from unconsolidated material, as per the "Vulnerable Aquifers Map (Schedule I)" in the Zoning By-law. Generally, this area contains an unconfined aquifer that is recharged by direct infiltration of surface water and precipitation. The aquifer also provides base flow for many streams that emanate from the flanks of the plateau including the Little Campbell River and Nicomekl lowland watercourse and is a source of potable water for local residents.
 - Every effort should be made to manage the flow and quality of water within this aquifer whereby the concern is heightened for cargo storage and its non-conforming land use. Additional on-site improvements would likely be required that would be similar to those required as part of a rezoning application to "Business Park 1 Zone (IB-1)" and, therefore, may negate the purpose of granting the application a Temporary Use Permit (TUP).

RECOMMENDATION

The Planning & Development Department recommends that this application be denied.

SITE CONTEXT & BACKGROUND

Direction	Existing Use	LAP Designation	Existing Zone
Subject Site	Unauthorized Outdoor Storage and Truck Parking	Business Park	A-2
North:	Outdoor Storage and Truck Parking This property is under Development Application No. 7921-0346-00 for a temporary use permit to allow the existing use for a period not to exceed 2 years	Business Park	A-2
East (Across 194 Street):	Woodlot/Vacant City-owned land	Business Park	A-1
South:	Unauthorized Truck Parking This property is under Development Application No. 7922-0259-00 for a temporary use permit to authorize the existing use.	Business Park	A-2
West:	Outdoor Storage and Truck Parking This property is under Development Application No. 7921-0345-00 for a temporary use permit to allow the existing use for a period not to exceed 2 years	Business Park & Landscaping Strips	A-2

Context & Background

- The subject site is approximately 2 hectares in area and located on the west side of 194 Street between 28 Avenue and 32 Avenue. The property is designated "Mixed Employment" in the Official Community Plan (OCP), "Business Park" in the Campbell Heights Local Area Plan (LAP), and zoned "Intensive Agriculture Zone (A-2)".

- Over the course of the past year, the subject site has been cleared without permits and integrated into the outdoor cargo storage and truck parking operation that is taking place on the two properties abutting the site to the west (2974 – 192 Street) and north (3037 – 194 Street). The use is currently operating on the subject site without the proper authorizations. Staff are currently investigating the unpermitted clearing activity, including the determination of any applicable.
- Like the operation on the subject property, the applicant ("Seven Horses") conducted site clearing including tree removal and other site preparation works and began operating the outdoor cargo storage and truck parking operation at 2974 – 192 Street and 3037 – 194 Street without necessary municipal approvals. On November 9, 2020, Council issued Temporary Use Permit Nos. 7920-0106-00 and 7920-0107-00 to allow Seven Horses to operate their operation on the property for a period not to exceed one year.
- Temporary Use Permit Nos. 7920-106-00 and 7920-0107-00 expired on November 9, 2021. The applicant is applying to renew these temporary use permits ("TUP") for a two year period through Development Application Nos. 7921-0345-00 and 7921-0346-00. These applications will be considered at the October 3, 2022 Regular Council – Land Use meeting.
- Seven Horses has an extensive history of operating within the City of Surrey, particularly in the Campbell Heights area. Before applying for the TUP applications on the adjacent properties at 2974 – 192 Street and 3037 – 194 Street (No. 7920-0106-00 and 7920-0107-00), Seven Horses applied for a TUP in October 2016 to operate a truck parking and cargo equipment storage facility on a different site in Campbell Heights, located at 19283 – 28 Avenue (Development Application No. 7916-0531-00).
- A concurrent Development Application for Rezoning and Development Permit on the same property at 19283 – 28 Avenue was submitted on January 4, 2017 (7917-0002-00). The proposal was to rezone the property to an appropriate industrial zone to allow construction of a permanent industrial warehouse facility to house Seven Horses equipment and operations.
- In July of 2017, Seven Horses secured a contract in Alberta's oil and gas sector, which required an expansion of their trucking fleet and operations. As a result, 19283 – 28 Avenue was no longer deemed of sufficient size to meet the demands of their operations. Subsequently, Seven Horses decided to sell 19283 – 28 Avenue and find another location for their planned warehouse building.
- In the meantime, Council issued Temporary Use Permit No. 7916-0531-00 on September 11, 2017 to permit a truck parking and industrial laydown facility at 19283 – 28 Avenue, for a period not to exceed one year. The TUP was to be an interim measure to allow Seven Horses to operate their transportation business from the site while undertaking development of a new industrial warehouse facility to accommodate their operations on the subject sites they purchased at 3338 – 194 Street and 19437 – 32 Avenue.
- In November 2017 Development Application No. 7917-0529-00 (located at 3338 – 194 Street and 19437 – 32 Avenue) was submitted to rezone the property to "Business Park 1 Zone (IB-1)", to consolidate the properties, and a Development Permit for a 19,661 square metre multi-tenant industrial building, of which Seven Horses would lease a portion.

- Seven Horses was actively working on resolving the servicing issues associated with Development Application No. 7917-0529-00 at 3338 – 194 Street and 19437 – 32 Avenue, including completion of a Storm Water Management Plan and modifications to the Latimer Lake Storm Water Detention Facility. As these requirements were taking some time to address, Seven Horses applied for a new TUP application (7917-0002-00) to allow the continued operation of Seven Horses' industrial laydown facility at 19283 – 28 Avenue for a period of six months to coincide with the expiry of the lease that Seven Horses had with the owner of 19283 – 28 Avenue.
- In April of 2019, staff forwarded Planning Report No. 7917-0002-00 to Council for the TUP to permit an industrial laydown facility for a period not to exceed six months, together with the Rezoning and Development Permit to permit a multi-tenant industrial building.
- At the April 1, 2019, Regular Council – Land Use Meeting, Council denied the TUP application for the industrial laydown facility but did support the Rezoning and Development Permit for the multi-tenant industrial building. Consequently, Seven Horses were no longer permitted to operate the temporary industrial laydown facility at 19283 – 28 Avenue.
- In the intervening months of Council's denial of TUP application No. 7917-0002-00, and following the City's investigation by By-law Enforcement staff, a new unpermitted truck parking and outdoor cargo storage facility was found to be operating at 3338 – 194 Street and 19437 – 32 Avenue, the site of Development Application No. 7917-0529-00.
- Seven Horses subsequently submitted a Temporary Use Permit (TUP) application (Development Application No. 7919-0309-00) on November 4, 2019, following an investigation by By-law Enforcement staff of the unauthorized truck parking and outdoor storage of cargo equipment.
- At the December 2, 2019, Regular Council – Land Use Meeting, staff forwarded Planning Report No. 7919-0309-00 to Council for the TUP proposing a truck parking facility and outdoor storage of cargo equipment with a recommendation that the application be denied.
- At the December 2, 2019, meeting, Council referred the TUP application No. 7919-0309-00 back to staff to work with the applicant on the requirements to be resolved to support a Temporary Use Permit.
- At the February 10, 2020, Regular Council – Land Use Meeting, staff forwarded Additional Planning Comments Report No. 7919-0309-00 to Council that outlined the requirements needing to be met by the applicant in order to support a TUP not to exceed one year, from the date of that report. The applicant completed all requirements and Temporary Use Permit was issued on February 10, 2020, for a period not to exceed one year.
- The applicant has ceased operations on the site under Temporary Use Permit No. 7919-0309-00 as redevelopment of this site under Mixed Employment LAP designation has commenced.
- In May 2020, staff were notified by By-law & Enforcement staff that a new unauthorized outdoor cargo storage facility had begun operations at 19518 and 19590 – 32 Avenue. The applicant has since removed the unpermitted materials from these properties and are no longer operating on these sites.

- The applicant has submitted another proposal for a permanent warehouse facility located at 19590 – 32 Avenue, which is under Development Application No. 7921-0247-00. There are ongoing discussions between the applicant and staff about road network requirements to service the proposed development.

DEVELOPMENT PROPOSAL

Planning Considerations

- The applicant proposes a Temporary Use Permit (TUP) to permit a temporary outdoor storage facility for cargo equipment for a period not to exceed three years.
- This proposal is being considered in conjunction with Development Application No. 7921-0345-00 located at 2974 – 192 Street and Development Application No. 7921-0346-00 located at 3037 – 194 Street, each of which propose a two year extension to an existing TUP to permit storage of cargo equipment. Currently, these two properties, together with the subject site are operating an outdoor cargo storage and truck parking facility.
- Staff are recommending denial of the subject application, Development Application No. 7922-0089-00, but will be recommending support for Development Application Nos. 7921-0345-00 and 7921-0346-00 given the previous approvals from Council and that the storage and truck parking operations have been on-going on those two properties.
- The applicant proposes to store the following materials onsite:
 - rebar;
 - steel beams;
 - steel pipes;
 - lumber;
 - galvanized posts; and
 - machines and equipment.

	Proposed
Lot Area	
Gross Site Area:	2 hectares
Road Dedication:	n/a
Undevelopable Area:	n/a
Net Site Area:	n/a

Referrals

Engineering: The Engineering Department will provide Engineering servicing requirements if this application proceeds further for consideration.

Transportation Considerations

- In conjunction with TUP Development Application Nos. 7921-0345-00 and 7921-0346-00, the applicant proposes one-way truck movement from 194 Street, with the site ingress from 3037 – 194 Street and site egress from 2999 – 194 Street.
- 194 Street has insufficient pavement width to support truck movements to and from the site. Should Council be supportive of the proposed use, the applicant's proposal to access 194 Street would need to be revised. Access would be limited to 192 Street, which would be restricted to right-in/right-out vehicle movement.
- A working easement would need to be secured to facilitate circulation between the three properties.

Parkland and/or Natural Area Considerations

- Parks and Environmental staff will provide requirements if this application proceeds further for consideration.

POLICY & BY-LAW CONSIDERATIONS

Regional Growth Strategy

- The subject site is designated "Mixed Employment" in the Regional Growth Strategy (RGS).
- The proposed TUP does not comply with the RGS land use designation for the site.

Official Community Plan

Land Use Designation

- The subject site is designated "Mixed Employment" in the Official Community Plan.
- The proposed TUP does not comply with the OCP land use designation for the site.

Themes/Policies

- E1.20 – Encourage the continued expansion of high-tech, research and development and light manufacturing to locate within Mixed Employment areas that are accessible to major transportation corridors and/or frequent transit services.

(The proposed development is not compatible with the Mixed Employment designation and does not reflect the intended development vision for the employment lands in Campbell Heights).

- E1.31 – Support and encourage the high quality, environmentally responsible, sustainable development of employment lands.

(The property is located in an area with vulnerable aquifers resulting from unconsolidated material, as per the "Vulnerable Aquifers Map (Schedule 1)" in the Zoning By-law. The proposed development may negatively impact groundwater, soils, and trees in the area).

Secondary Plans

Land Use Designation

- The subject site is designated "Business Park" in the Campbell Heights Local Area Plan (LAP). The proposed TUP does not comply with the land use designation for the site.

Zoning By-law

- The applicant proposes a Temporary Use Permit under the existing "Intensive Agriculture Zone (A-2)". The proposal would permit the temporary use to operate on the property, as the proposed uses are not permitted under the A-2 Zone.

DISCUSSION

Temporary Use Permit Applications in Campbell Heights

- Recently, staff have taken by-law enforcement action within the Campbell Heights area against numerous other properties with non-conforming and unauthorized businesses, many of which are operating without business licenses. The enforcement will ultimately result in the owners submitting TUP applications.
- The unauthorized and non-conforming uses occurring throughout Campbell Heights include outdoor storage, outdoor recreational vehicle storage, outdoor passenger vehicle storage, outdoor truck parking as well as outdoor container storage, some of which are associated with unauthorized businesses operating from these locations.
- A total of thirteen TUP applications for these unauthorized and non-conforming uses within the Campbell Heights area have been received in the recent past, with the majority being denied by Council, as summarized in the table below:

Project No.	Address	Council Decision
7913-0108-00	3086 190 Street	<u>Denied</u> at the April 14, 2014 Land Use meeting.

Project No.	Address	Council Decision
7913-0135-00	3093 194 Street	<u>Denied</u> at the February 24, 2014, Land Use meeting.
7913-0293-00	3338 194 Street	<u>Denied</u> at the February 24, 2014, Land Use meeting.
7914-0093-00	19370 32 Avenue	<u>Denied</u> at the October 2, 2017, Land Use meeting.
7916-0078-00	2957 194 Street	<u>Denied</u> at the May 8, 2017, Land Use meeting.
7916-0531-00	19283 28 Avenue	Council <u>supported</u> a 1-year TUP at the April 3, 2017, Land Use meeting. This TUP was issued at the September 11, 2017, Land Use meeting.
7917-0124-00	2820 192 Street	<u>Denied</u> at the May 8, 2017, Land Use meeting.
7917-0002-00	19283 28 Avenue	<u>Denied</u> at the April 1, 2019, Land Use meeting.
7919-0309-00	3338 194 Street/19437 32 Avenue	Supported by Council at the February 10, 2020, Land Use meeting. This TUP was issued at the June 15, 2020, Land Use meeting.
7920-0106-00	2974 – 192 Street	Council <u>supported</u> a 1-year TUP at the July 27, 2020, Land Use meeting. This TUP was issued at the November 9, 2020, Land Use meeting.
7920-0107-00	3037 – 194 St	Council <u>supported</u> a 1-year TUP at the July 27, 2020, Land Use meeting. This TUP was issued at the November 9, 2020, Land Use meeting.
7921-0345-00	2974 – 192 Street	The applicant has submitted a proposal for a 2-year TUP. This application will be considered by Council at the October 3, 2022, Land Use meeting.
7921-0346-00	3037 – 194 Street	The applicant has submitted a proposal for a 2-year TUP. This application will be considered by Council at the October 3, 2022, Land Use meeting.
7922-0259-00	2924/2944 – 192 Street and 2957 – 194 Street	The applicant has submitted a proposal for a 3-year TUP. This application is pre-Council and will be considered by Council at a future Regular Council – Land Use meeting.

- The subject proposed outdoor cargo equipment storage facility is not consistent with the "Business Park" land use designation in the Campbell Heights Local Area Plan (LAP).
- The outdoor storage of cargo equipment is not a permitted use in the A-1 Zone and is only permitted under the "Light Impact Industrial Zone (IL)" or as part of a permitted business operation in the "Business Park 2 (IB-2 Zone)", which permits limited outside storage of materials in conjunction with the business operations associated with a business park building.

- In Campbell Heights, outdoor storage of cargo equipment is not considered an appropriate stand-alone use. Rather, the storage of cargo materials is generally associated with large-scale warehouse facilities and distribution centres which include appropriate buildings as well as suitable landscape buffers, proper screening, storm water control and drainage facilities.
- Approval of this application may lead to other similar temporary use proposals in Campbell Heights that are inconsistent with the adopted Local Area Plan and the pattern of development, which may hinder desired Business Park development of the area.

Applicant's Rationale

- The applicant indicates that there has been a significant slow-down in economic activity and as a result, many of their clients require increased storage area for their equipment while demand for materials remains low.
- Campbell Heights is a strategic location for their business to operate given connection to important infrastructure routes and the ongoing development of Campbell Heights.
- The applicant indicates that the items stored on 2974 – 192 Street, which abuts the subject site to the west, will need to be relocated to the subject site once 2974 – 192 Street redevelops.
- The applicant indicates that their operation provides economic benefits and employment opportunities in the City of Surrey.

PUBLIC ENGAGEMENT

- The Development Proposal Signs were installed on September 1, 2022. Staff received no responses from neighbouring residents.
- Pre-notification postcards were not sent given staff's recommendation to deny the application. Should Council decide to refer the application back to staff for further review, pre-notification postcards will be sent to surrounding property owners.

CONCLUSION

- The proposed outdoor cargo storage facility is not consistent with the OCP and LAP land use designations for the property and the proposal does not reflect the intended development vision for the employment lands in Campbell Heights. The applicant (Seven Horses) has demonstrated a consistent track record of contravening City by-laws on a number of properties (3338 – 194 Street, 19363/19437/19518 and 19590 - 32 Avenue) and is actively operating unauthorized outdoor cargo material storage on the subject property.
- Furthermore, approval of this application may lead to requests for similar temporary use proposals in Campbell Heights that are inconsistent with the adopted Local Area Plan and the pattern of development, which may further delay ultimate re-development of the area.
- For these reasons and given that Council has generally denied TUP applications in Campbell Heights, staff recommend this application be denied.
- If, however, Council finds merit in the proposal, it should be referred back to staff to undertake the necessary referrals and review and to draft the Temporary Use Permit.

INFORMATION ATTACHED TO THIS REPORT

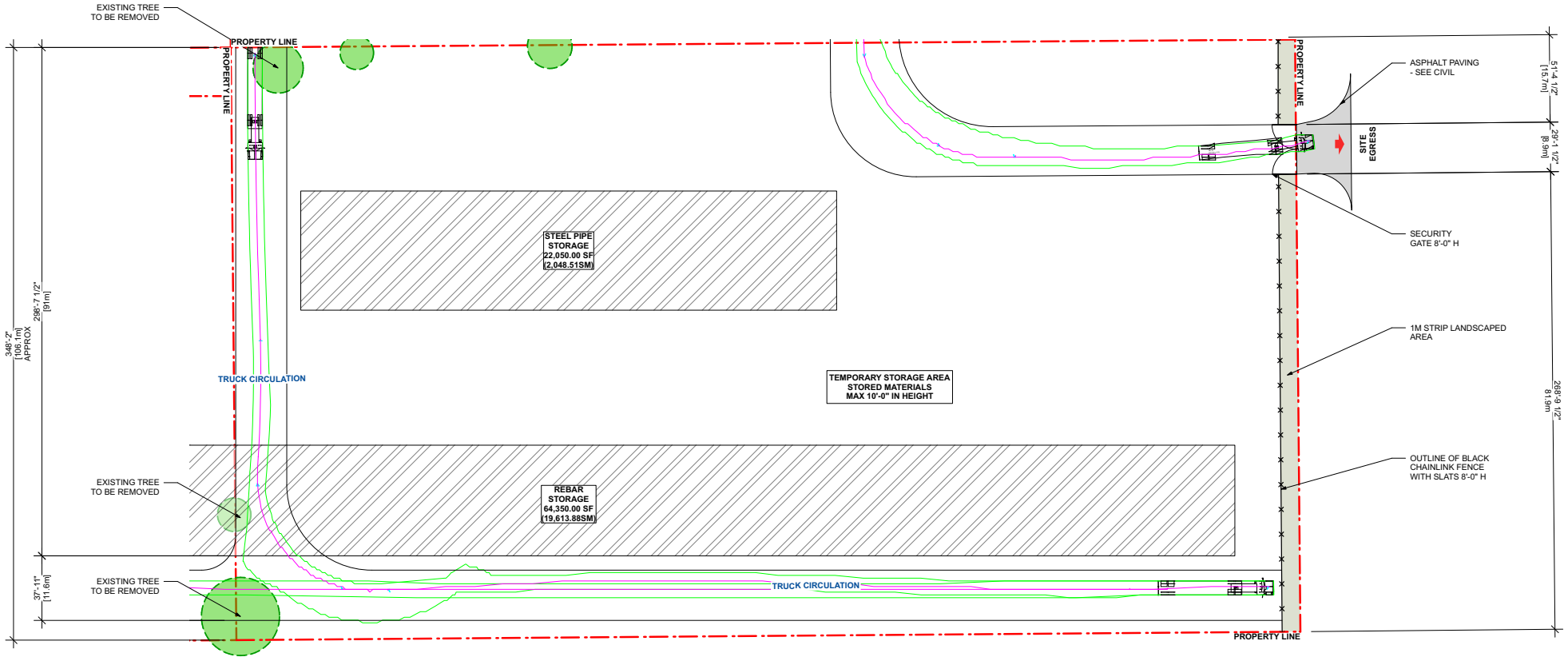
The following information is attached to this Report:

- Appendix I. Proposed Layout
- Appendix II. Aerial Photo
- Appendix III. Map of TUP Applications in Campbell Heights

approved by Shawn Low

Jeff Arason
Acting General Manager
Planning and Development

KS/cm



NOTES

- SURVEY PLAN PROVIDED BY AFLIN & MARTIN FILE 19-2022-01 TOPO DATED 25.05.2020
- FOR SITE GRADING INFORMATION REFER TO CIVIL GRADING PLAN 19-2022-02 DATED 21.07.2020
- REFER TO CIVIL KEY PLAN 19-2022-01 FOR EXISTING FENCE
- REFER TO ARBORIST REPORT FOR TREE PROTECTION FENCE

HATCH LEGEND

HATCH DENOTES DESIGNATED AREAS

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NO.	DATE	ISSUANCE
1	2020 07 21	ISSUED FOR TUP



TEMPORARY STORAGE USE
2974 192 Street & 3037 194 Street
SURREY, BC

ENLARGED SITE PLAN

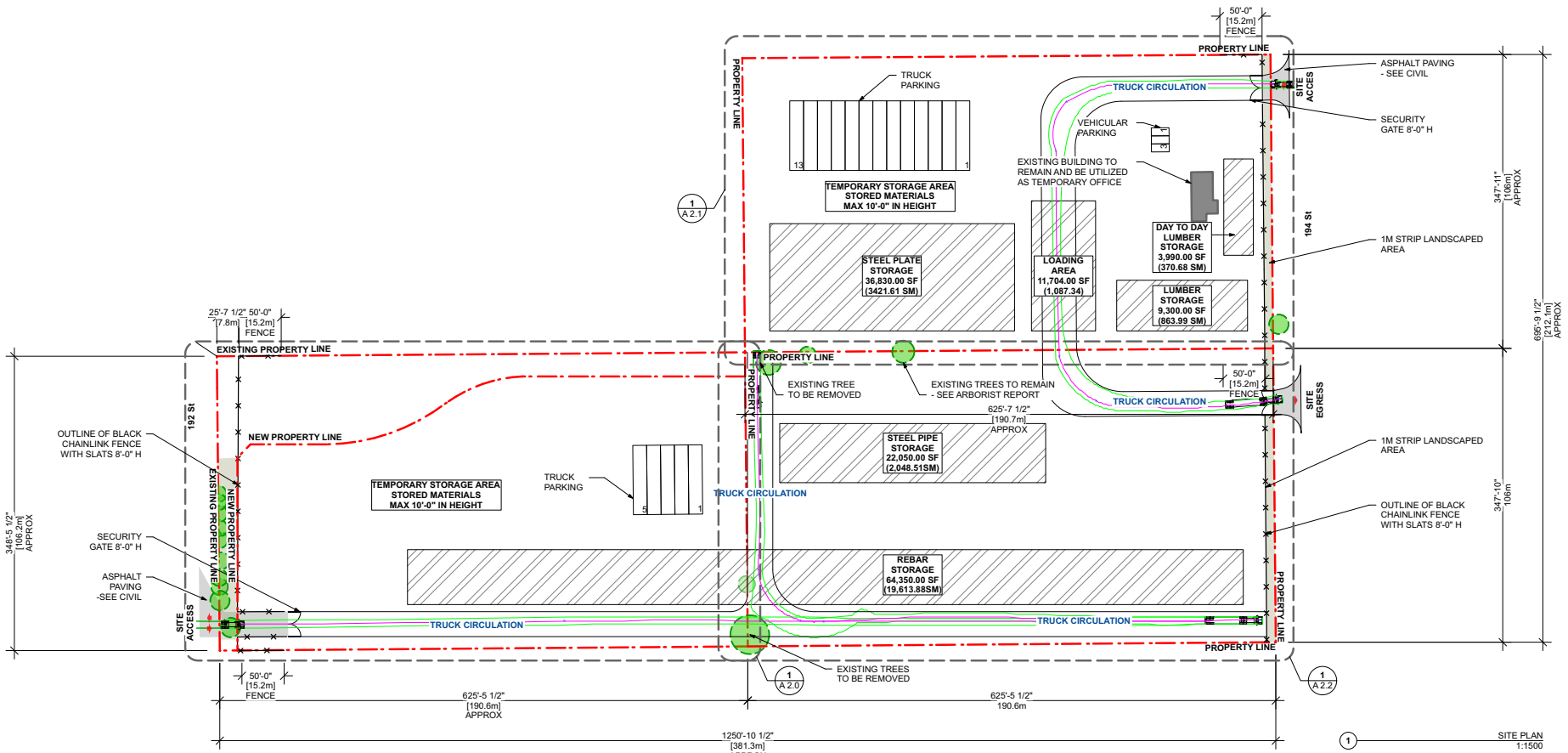
A 2.0



DRAWN: GG
CHECKED: KC
SCALE: 1:700
FILE: 2006

KCC Architecture & Design Ltd. kccarchitecture.com
Unit 600 1285 W. Broadway Vancouver BC V6H 3G8 Tel 604 909 1267

1 ENLARGED PLAN 2999 194 ST 1:700



NOTES

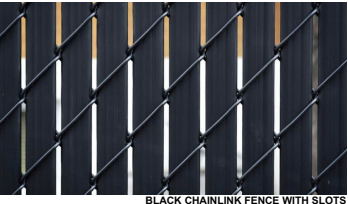
- SURVEY PLAN PROVIDED BY APLIN & MARTIN FILE 19-2022-01 TOPO DATED 25.05.2020
- FOR SITE GRADING INFORMATION REFER TO CIVIL GRADING PLAN 19-2022-02 DATED 21.07.2020
- REFER TO CIVIL KEY PLAN 19-2022-01 FOR EXISTING FENCE
- REFER TO ARBORIST REPORT FOR TREE PROTECTION FENCE

HATCH LEGEND

HATCH DENOTES DESIGNATED AREAS

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NO.	DATE	ISSUANCE
1	2020 06 30	ISSUED FOR COORDINATION
2	2020 07 13	ISSUED FOR COORDINATION
3	2020 07 15	ISSUED FOR TUP
4	2020 07 22	ISSUED FOR TUP
5	2022 07 18	ISSUED FOR TUP
6	2022 07 21	ISSUED FOR TUP



TEMPORARY STORAGE USE
2974 192 Street & 3037 194 Street
SURREY, BC

SITE PLAN + GRAPHICS A 1.0



DRAWN: GG
CHECKED: KC
SCALE: 1:1500
FILE: 2006

KCC Architecture & Design Ltd.
Unit 600 1285 W. Broadway Vancouver BC V6H 3V8
kccarchitecture.com
Tel: 604 909 1287

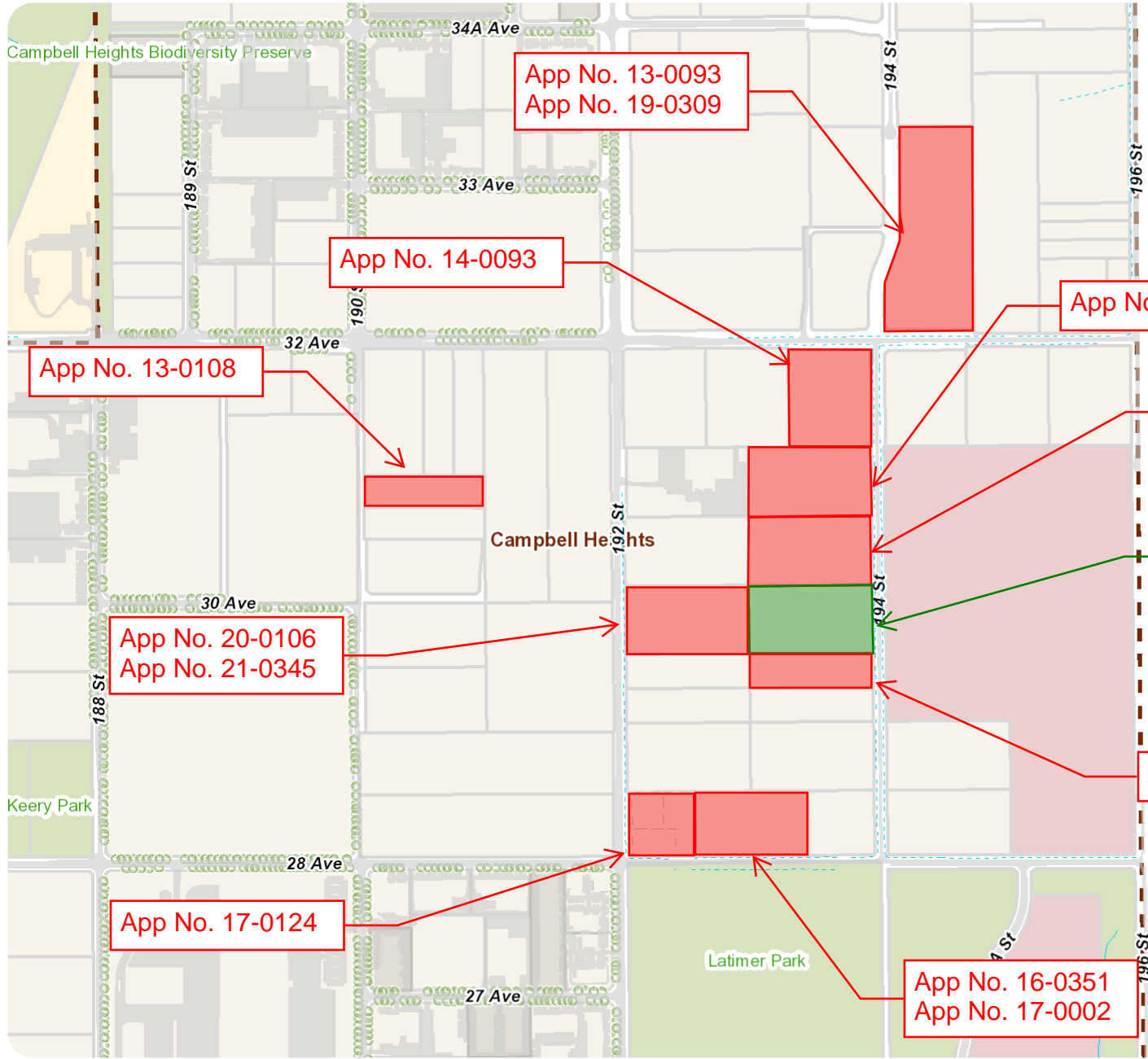


192 Street

194 Street



Development Application No. 7922-0089-00



App No. 13-0093
App No. 19-0309

App No. 14-0093

App No. 13-0135

App No. 13-0108

App No. 20-0107
App No. 21-0346

App No. 22-0089

App No. 20-0106
App No. 21-0345

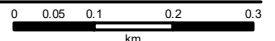
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App No. 17-0124

App No. 16-0351
App No. 17-0002

Scale: 1:9,500

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Map created on: 2022-09-14