#### City of Surrey PLANNING & DEVELOPMENT REPORT Application No.: 7923-0268-00

Planning Report Date: June 24, 2024

#### **PROPOSAL:**

## • Development Variance Permit

To permit a 48 metre tall telecommunications antenna system.

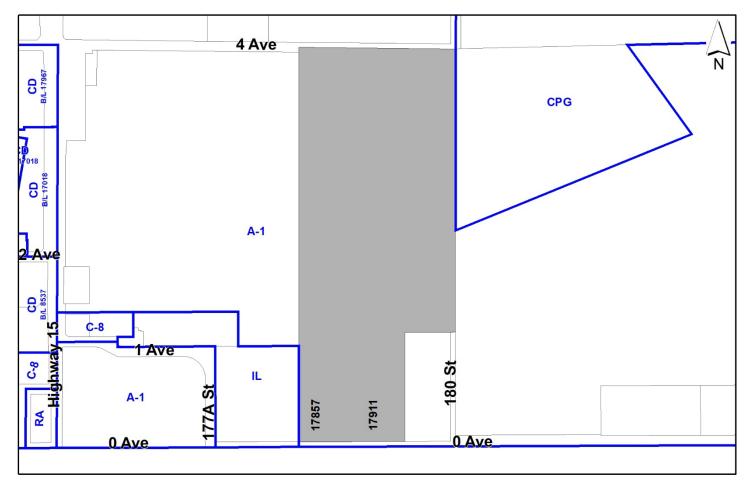
A-1

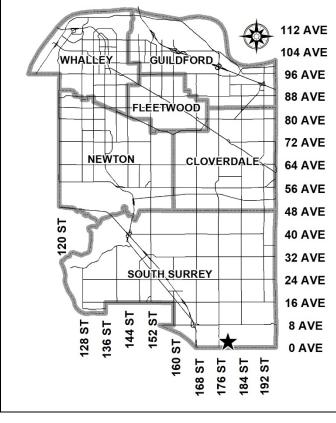
LOCATION:

17911 o Avenue (17857 o Avenue)

ZONING:

**OCP DESIGNATION:** Agricultural





## **RATIONALE OF RECOMMENDATION**

- The proposal complies with the criteria identified in the City's Antenna System Siting Policy (No. O-62).
- The applicant has provided information indicating that there are no existing structures of sufficient height that are suitable to mount an antenna system within a 500-metre (1,640 ft.) radius of the subject site.
- The applicant has provided documentation which indicates that there is a demonstrated coverage gap around the Pacific Highway Port of Entry, which the wireless carriers would like to resolve to provide better service to existing and potentially new customers.
- The antenna system is proposed to be sited approximately 68 metres into an agricultural property on o Avenue. The proposed location is sited within a residential homeplate and will be visually buffered by trees and a residence from o Avenue. The location is relatively low impact with respect to potential obstructions on sightlines and views.
- The Agricultural and Food Policy Committee (AFPC) voted to recommend that the General Manager of Planning and Development support the application at their June 11, 2024, meeting.

#### RECOMMENDATION

The Planning & Development Department recommends that:

- 1. Council approve Development Variance Permit No. 7923-0268-00 (Appendix II) varying the following, to proceed to Public Notification:
  - (a) to vary Part 4 General Provisions of the Zoning By-law to increase the maximum height of a free-standing antenna system tower from 12 metres to 48 metres; and
  - (b) to reduce the minimum (west) side yard setback of the A-1 Zone for a free-standing antenna system tower compound from 13.5 metres to 3.05 metres to the structure face.

#### SITE CONTEXT & BACKGROUND

Direction	Existing Use	OCP Designation	Existing Zone
Subject Site	Agriculture	Agricultural	A-1
North (Abutting):	Agriculture	Agricultural	A-1
East (Abutting):	Agriculture	Agricultural	A-1
South (Across o Avenue):	United States of America	N/A	N/A
West (Abutting):	Transportation Industry; Agriculture	Agricultural; Industrial	A-1; IL

#### **Context & Background**

- The subject property is located at civic addresses 17911 o Avenue and 17857 o Avenue and is 22.81 hectares (56.36 acres) in size. The lot is on the south border of the Agricultural Land Reserve (ALR). The property is located approximately 500m east of the Pacific Highway Port of Entry border crossing.
- The property is designated "Agricultural" in the Official Community Plan (OCP), zoned "General Agricultural Zone (A-1)", and located within the Agricultural Land Reserve (ALR).
- The property has farm status. Two residences are located on the lot.
- The subject property applied for ALR Exclusion for development of a business park under Development Application No. 7903-0155-00. This application was denied at the Regular Council Land Use meeting on September 7, 2004. The property also applied for ALR Exclusion under Development Application No. 7920-0270-00. This file did not proceed beyond initial review and has been closed.

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• The subject site is encumbered by an unmarked Class B ditch along the frontage of the property. The property is bisected by a north-south Class B creek that flows northwards, which begins approximately 150 metres into the property from o Avenue. The property also has a north-south green-coded ditch approximately 56 metres from the subject site.

## DEVELOPMENT PROPOSAL

## Planning Considerations

- Cypress Land Services Ltd. on behalf of TELUS Telecommunications Inc is proposing to erect a 48 metre (150.9 ft) tall telecommunications tower.
- Under Policy O-62, the height of an antenna system is measured from the lowest ground level at the base, including the foundation, to the tallest point of the antenna system. The tallest point, or peak, may be an antenna, lightning rod, aviation obstruction lighting, or some other appurtenance.
- The antenna system monopole is 45 metres high. The peak antenna is 46 metres high. and the peak of the topmost antenna is 46 metres high. The height under the subject variance is 48 metres as measured to the peak of the lightning rod. Referrals to the Agriculture and Food Policy Committee (AFPC) and Engineering were conducted with the 46 metre figure, before the drawings were updated to include a lightning rod.
- The monopole design and flush mounted panel antennas are intended to minimize visual impact. Co-location of service providers is proposed to reduce the overall need for towers in this area, with Freedom Mobile providing an expression of interest for mounting antenna on the monopole.
- The subject property also has BC Hydro transmission towers and lines running diagonally through the centre of the lot. The City has historically requested that antennas be sited on top of BC Hydro transmission towers to make use of existing infrastructure. Under current BC Hydro policy, this is no longer supported.
- After it was determined that mounting of antennas on nearby BC Hydro transmission towers would not be feasible, the subject site was chosen to enhance cell coverage in the area while limiting visual impact on nearby residents.
- The tower and compound are proposed to be sited on the southwest corner of the lot, approximately 68 metres into the lot from the frontage, 3 metres behind an existing residential building. An access path of approximately 145 metres is proposed from the established driveway and to wind around the right side of the residence.
- The antenna compound is proposed to be sited 3 metres from the west lot line. The TELUS right-of-way around the compound is 9 metres wide, 10.5 metres deep, and 94.5 square metres in area.
- The proposed compound location abuts a row of trees separating the lot from 17779 o Avenue, which is zoned "Light Impact Industrial Zone (IL) and used for parking and storage of truck trailers.

## Referrals

Engineering:	The Engineering Department has no objection to the project.
Agricultural and Food Policy Committee (AFPC)	The proposal was referred to the AFPC at the June 11, 2024, meeting. AFPC members provided some comments and concerns on the height and location of the tower on farmland, in-particular due to the presence of paved land adjacent to the subject site. Some committee members supported the layout, as it effectively delineated the farm and non-farm uses on the southwest corner of the lot. Some committee members noted that other municipalities have telecommunication towers with designs reflecting the local environment.
	AFPC voted to recommend that the General Manager of Planning & Development support the application, with two members voting in opposition.
advocate BC Hydro to engage the te	AFPC voted to support a motion to recommend that Council advocate BC Hydro to engage the telecommunication sector to share transmission tower infrastructure for co-location to reduce impacts on farmland.
	AFPC voted to support a motion to recommend that the General Manager of Planning & Development ask the telecommunications sector to propose tower designs that are more reflective of the surrounding landscape.

## Natural Area Considerations

- The subject site fronts an unmarked riparian ditch on o Avenue. It was noted that the west lot line may have had unmarked water features that may be subject to Provincial jurisdiction.
- The applicant retained Libor Michalak, R.P. Bio of Keystone Environmental Ltd. as the qualified environmental professional (QEP) to prepare a watercourse assessment. The assessment demonstrated that there are no wetlands or watercourses adjacent to the proposed development site. Due to the significant distance between the site and riparian features on the property, a Sensitive Ecosystem Development Permit (SEDP) is not required for the tower and compound.
- The applicant is required to provide a QEP construction environmental management plan (CEMP) to ensure no impacts on the fronting ditch or City trees through installation of the drop and span poles connecting the compound to services on the front of the lot.

## POLICY & BY-LAW CONSIDERATIONS

## Agricultural Land Commission Act and Regulations

• Previously, under the ALC Act, telecommunication equipment, buildings and installations were a permitted use within the ALR, as long as they did not exceed 100 square metres (1,076. ft.) boundary area. However, changes to the ALC Act have removed references to telecommunication towers as they are federally mandated.

#### **Telecommunication Antenna Systems**

- Staff have conveyed to telecommunication companies the importance of a comprehensive strategy to ensure adequate coverage for all carriers while minimizing the number of singular user antenna installations. Staff have also emphasized the importance of keeping the height of installations to a minimum without compromising the existing policy guidelines, especially antenna systems proximity to residential areas and to ensure that an appropriate design is being considered.
- Improving high speed wireless service supports the growing high technology sector, high tech education, emergency services and broadens community consultation opportunities through social media.
- The proposed free-standing antenna system is required for current and future network capacity upgrades. This proposal will provide increased service to the surrounding area. Many residents and businesses use wireless service as their primary means of communication and have come to expect it as an essential utility.
- The proposed location for the free-standing antenna system is approximately 68 metres into the agricultural lot from the frontage. The lot is approximately 500 metres away from the Pacific Highway Port of Entry. The compound site is directly adjacent to a truck parking and storage use on 17779 o Avenue.
- The compound is proposed to be 3 metres away from the existing residence on the southwest corner of the lot. This location and access pathway should have minimal impact on agricultural land and current operations occurring on site. The tower will be visually buffered from the public street (o Avenue) by trees and the existing residence.
- The proposed free-standing antenna system supports the City of Surrey's vision for building a strong economy.

## City's Antenna System Siting Policy

• On February 22, 2021, Council approved the City's Antenna System Siting Policy (No. O-62), which replaced Policy No. O-49 Telecommunication Towers. Policy No. O-62 was developed by City staff in coordination with industry representatives to ensure that development of antenna systems throughout Surrey meet the needs of residents and conform to telecommunication industry best practices. The policy provides parameters on how free-standing antenna systems should be sited and designed.

#### Application No.: 7923-0268-00

- The subject application generally complies with the current Antenna System Siting Policy No. O-62 and is therefore being presented for Council's consideration.
- The following is an evaluation of the current proposal in relation to applicable components of Policy No. O-62:

## **Co-Location**

• Co-location will generally result in taller and wider Towers, more antennas on each structure and physical limitations on how many antennas a single Antenna Supporting Structure can structurally support. The City recognizes that the objective of promoting Co-location and the objective of making Antenna Systems less noticeable may sometimes come into conflict.

The applicant has provided an expression of interest from Freedom Mobile in locating antenna on the proposed free-standing tower.

## **Location Preferences**

• It is preferable that new free-standing antenna systems be sited in non-residential locations and preferably outside of agricultural areas unless other options are exhausted. If free-standing antenna systems are proposed on agricultural land, the proposal should ensure siting avoids farmland, and ensures maximum potential for farming on remainder of site.

The applicant was asked to explore locating antennas on the existing BC Hydro transmission towers in the interior of the subject site. Currently, BC Hydro policy does not support co-location on these transmission towers.

The proposed location is within an agricultural area and 715 metres away from the nearest residential neighbourhood to the northwest (townhomes at 2 Avenue and 175A Street). The compound would be directly adjacent to a light industrial truck industry site to the west.

The compound is proposed to be three (3) metres away from the existing residence on the southwest corner of the subject property. The access pathway is proposed to wind around the house and this area is intended to demarcate the existing residential and farm uses on the lot.

## **Design Preferences**

• The appropriate type of telecommunication Antenna Supporting Structure for each situation should be selected with the goal of making best efforts to blend with the nearby surroundings and minimizing the visual aesthetic impacts of the Antenna System on the community. The use of monopoles is strongly encouraged as they have a slimmer and less cluttered profile than lattice and guyed towers.

The applicant proposes a monopole design with flush mounted antennas which is considered appropriate for this situation.

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• The City prefers that Towers be a maximum of 15 metres in height, except in industrial, mixed employment, commercial and agricultural areas. The City will consider increased height for a Tower when located in an Industrial or Mixed Employment Area, and preferably at a distance at least six times the height of the Antenna Supporting Structure away from Residential Areas.

The applicant has advised the increased height of the proposed tower is necessary to fill coverage gaps in the area. The proposed free-standing antenna system does include one carrier willing to co-locate. Co-location may result in the need for a higher tower but will reduce the overall quantity of towers in an area.

The most proximate residential area is approximately 715 metres from the subject site, which is a distance greater than 15 times the height of the free-standing antenna system.

• Landscaping shall be appropriately placed around telecommunication towers and ancillary facilities, such as equipment shelters, to minimize their visual impact on the neighbourhood. In all instances, the Proponent should mitigate negative visual impacts through the use of appropriate landscaping, screening, stealth design techniques. The design of Antenna Systems should generally be unobtrusive and consistent with area guidelines. Towers and communication equipment should have a non-glare surface.

The compound is proposed to be 3 metres away from the existing residence on the southwest corner of the lot. This location and access pathway should have minimal impact on agricultural land and current farming operations occurring on site. The tower will be buffered from the public street (o Avenue) by trees and the existing residence.

## **Public Consultation Process**

- In accordance with policy No. O-62, the applicant sent out 25 notification packages on February 5, 2024, and a newspaper advertisement on February 7, 2024. The notification area was 138 metres around the property (or three times the height of the antenna peak, 46 metres).
- One (1) response was received by the applicant regarding the proposed tower. The respondent requested more information and ultimately indicated opposition to the proposal based on the height and location of the tower.

## Zoning By-law

## Height/Setback Variances

- The applicant is requesting the following variance:
  - to vary Part 4 General Provisions of the Zoning By-law to increase the maximum height of a free-standing antenna system from 12 metres to 48 metres; and
  - to reduce the minimum (west) side yard setback of the A-1 Zone for a free-standing antenna system tower compound from 13.5 metres to 3.05 metres to the structure face.

- The proposed variances meets the City's Antenna System Siting Policy (O-62) guidelines including, co-location and siting.
- The proposed location of the free-standing antenna system will not negatively impact the site farming operations and should have minimal impact on agricultural land.
- The proposed location of the free-standing antenna system is approximately 715 metres away from the nearest residential neighbourhood. The Pacific Highway Port of Entry is approximately 500 metres away from the subject site, and renderings indicate that there will be minimal visibility from the border crossing. The structure will be visually buffered from o Avenue by existing trees and a residence.
- The proposed setback reduction will bring the structure closer to an industrial use and permit more retention of land for farming.
- Staff support the requested variance to proceed for consideration.

## TREES

• Max Rathburn, ISA Certified Arborist of Diamond Head Consulting prepared an Arborist Assessment for the subject property. The table below provides a summary of the proposed tree retention and removal by tree species:

## Table 1: Summary of Proposed Tree Preservation by Tree Species:

Tree Species	Existing		Remove	Retain
Deciduous Trees				
(excluding	(excluding Alder and Cottonwood Trees)			
Red Oak	1		1	0
Coniferous Trees				
Eastern white cedar	3		0	3
Colorado Blue Spruce	1		0	1
<b>Total</b> (excluding Alder and Cottonwood Trees)	5		1	4
Total Replacement Trees Proposed (excluding Boulevard Street Trees)			0	
Total Retained and Replacement Trees Proposed		4		
Estimated Contribution to the Green City Program		\$1,100.00		

• The Arborist Assessment states that there are a total of 5 mature on-site trees on the site and no Alder and Cottonwood trees.

- The applicant proposes to retain four (4) trees as part of this development proposal. A Red Oak is proposed for removal as it falls within the proposed access path to the antenna compound, which is intended to be close to the existing residence to minimize impacts on farmland.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for Alder and Cottonwood trees and a 2 to 1 replacement ratio for all other trees. This will require a proposed total of two (2) replacement trees on the site.
- Staff are working with the applicants to determine if two replacement trees can be located on the site. If not, the proposed deficit of 2 replacement trees will require an estimated cash-in-lieu payment of \$1,100.00 to the Green City Program, in accordance with the City's Tree Protection By-law.
- In summary, staff are working with the applicant to try and satisfy tree replacement requirements on the site. Under the current arborist report, a total of 4 trees are proposed to be retained or replaced on the site with an estimated contribution of \$1,100.00 to the Green City Program.

## INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Site Plan and Elevations
Appendix II.	Development Variance Permit No. 7923-0268-00
Appendix III.	Photo Renderings
Appendix IV.	Tree Preservation Summary
Appendix V.	DRAFT Agriculture and Food Policy Committee – Minutes (Extract – June 11,
	2024)

approved by Shawn Low

Don Luymes General Manager Planning and Development

JK/ar



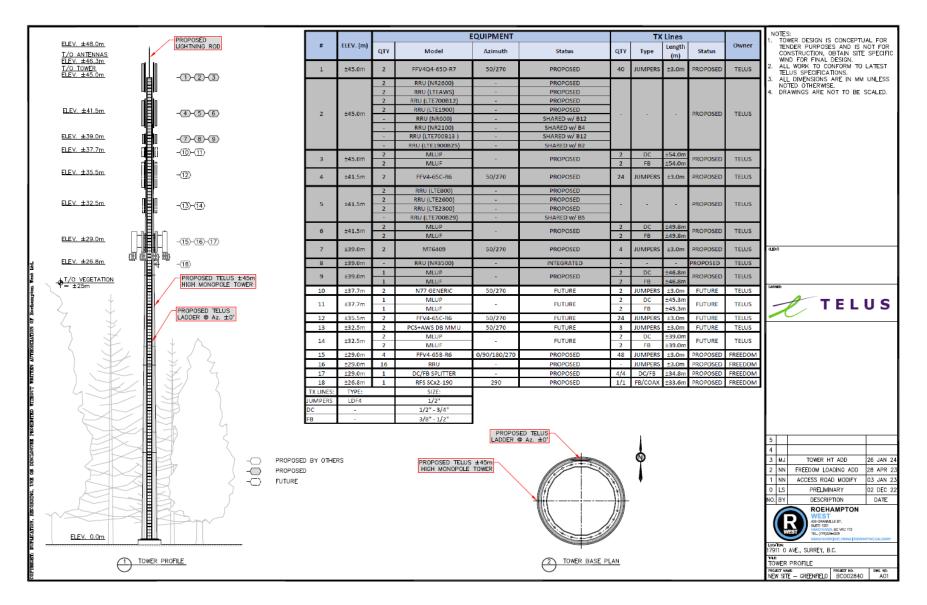
AERIAL MAP OF TELUS SITE LOCATION / CARTE AÉRIENNE DE L'EMPLACEMENT DU SITE DE TELUS



Appendix I



#### PRELIMINARY DESIGN PLANS - TOWER PROFILE / PLANS D'AVANT-PROJET - PROFIL DE LA TOUR



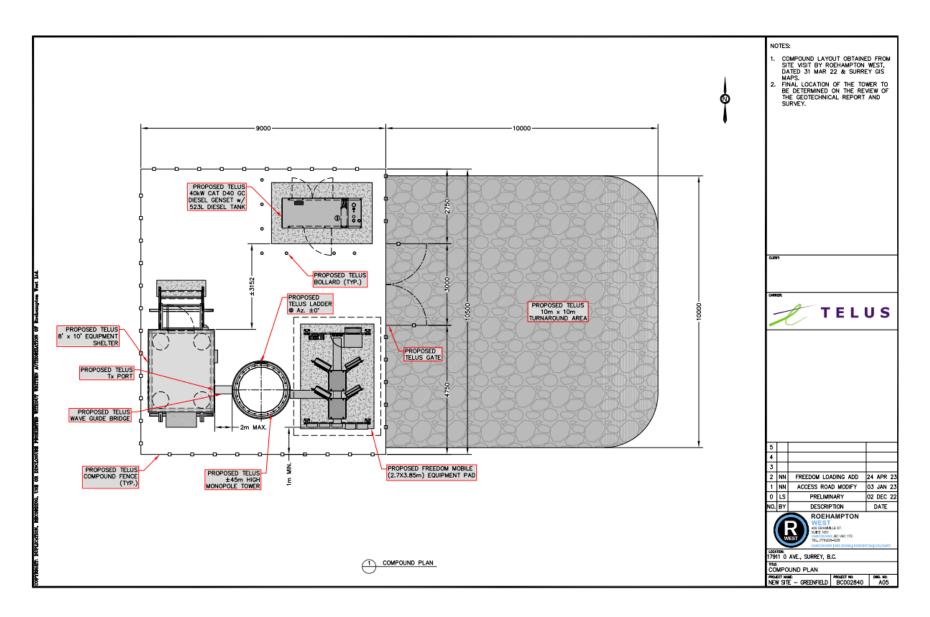


#### PRELIMINARY DESIGN PLANS - SITE PLAN / PLANS D'AVANT-PROJET - PLAN DE SITUATION





#### PRELIMINARY DESIGN PLANS - COMPOUND PLAN / PLANS D'AVANT-PROJET - PLAN D'ENSEMBLE



## CITY OF SURREY

## (the "City")

## **DEVELOPMENT VARIANCE PERMIT**

NO.: 7923-0268-00

Issued To:

(the Owner)

Address of Owner:

- 1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.
- 2. This development variance 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: 011-578-670 BLOCK "D" EXCEPT: PARCEL "ONE" (REFERENCE PLAN 10007), SECTION 33 BLOCK 1 NORTH RANGE 1 EAST NEW WESTMINSTER DISTRICT PLAN 475 17911 0 Avenue

## (the "Land")

- 3. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
  - to vary Part 4 General Provisions of the Zoning By-law to increase the maximum height of a free-standing antenna system from 12 metres to 48 metres; and
  - to reduce the minimum (west) side yard setback of the A-1 Zone for a free-standing antenna system tower compound from 13.5 metres to 3.05 metres to the structure face.
- 4. This development variance permit applies to only the <u>portion of the Land</u> shown on Schedule A which is attached hereto and forms part of this development variance permit
- 5. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.

- 6. This development variance permit shall lapse if the Owner does not substantially start any construction with respect to which this development variance permit is issued, within two
  (2) years after the date this development variance permit is issued.
- 7. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
- 8. This development variance permit is not a building permit.

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

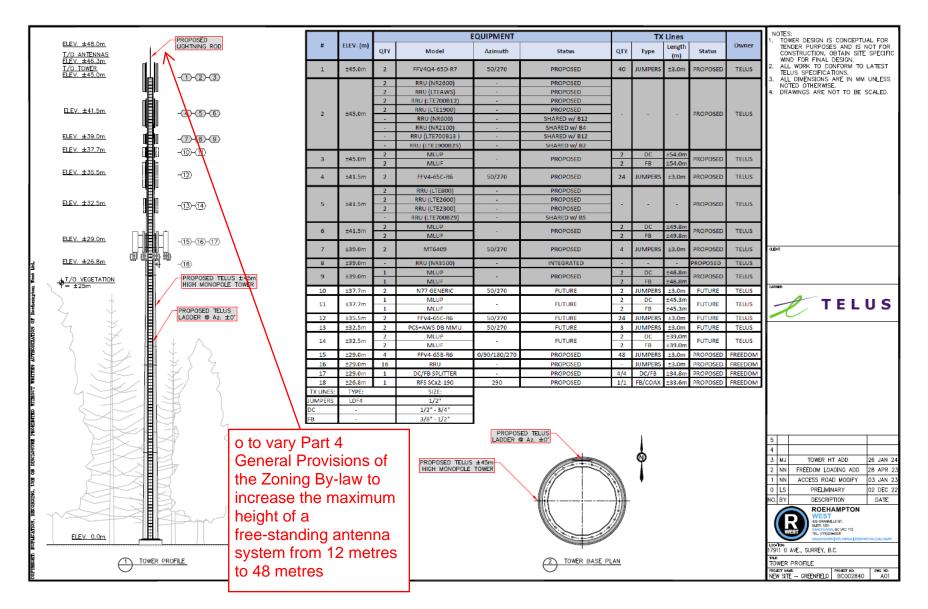
ISSUED THIS DAY OF , 20 .

Mayor – Brenda Locke

City Clerk and Director Legislative Services Jennifer Ficocelli



#### PRELIMINARY DESIGN PLANS - TOWER PROFILE / PLANS D'AVANT-PROJET - PROFIL DE LA TOUR





#### PRELIMINARY DESIGN PLANS - SITE PLAN / PLANS D'AVANT-PROJET - PLAN DE SITUATION





#### **PHOTO SIMULATION / SIMULATION PHOTOGRAPHIQUE**





#### PHOTO SIMULATION / SIMULATION PHOTOGRAPHIQUE



## 4.0 Tree Preservation Summary

Table 2: City of Surrey tree preservation summary table for on-site and off-site trees,including the number of replacement trees proposed.

Surrey Project Number	BC002840
Site Address	17911 0 Ave., Surrey, BC
Registered Arborist	Riley Spear

On-Site Trees	Number of Trees
Protected Trees Identified	5
(On-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	
Protected Trees to be Removed	1
Protected Trees to be Retained	4
(Excluding trees within proposed open space or riparian areas)	
Total Replacement Trees Required:	
- Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio	
X one (1) = 0	2
- All other Trees Requiring 2 to 1 Replacement Ratio	
X two (2) = 0	
Replacement Trees Proposed	0
Replacement Trees in Deficit	2
Protected Trees to be Retained in Proposed Open Space / Riparian Areas	N/A

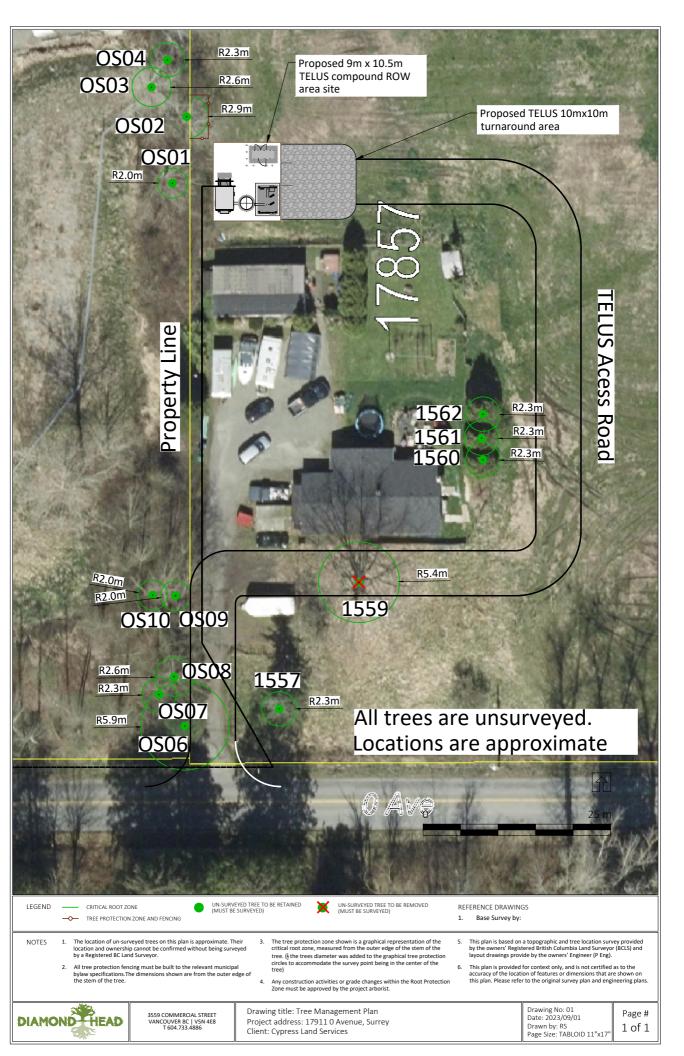
Off-Site Trees	Number of Trees
Protected Off-Site Trees to be Removed	0
Total Replacement Trees Required:	
- Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio	
X one (1) = 0	0
- All other Trees Requiring 2 to 1 Replacement Ratio	
X two (2) = 0	
Replacement Trees Proposed	0
Replacement Trees in Deficit	0

Summary, report, and plan prepared and submitted by

RAley Spear

Signature of Arborist

Date: September 12, 2023





# **DRAFT** Agricultural and Food Policy Committee Minutes

Meeting Room 125A and 125B Surrey Operations Centre (Works Yard) 6651 - 148 Street Surrey, B.C. **TUESDAY, JUNE 11, 2024** Time: 6:05 p.m.

<u>Present:</u>	<u>Absent:</u>	<u>Staff Present:</u>
Councillor Bose, Chair	B. Favaro	M. Kischnick, Senior Planner
Councillor Bains, Vice Chair	W. Kim	J. Kew, Planner
D. Bondar	R. Tamis	S. Meng, Legislative Services Coordinator
R. Brar		
H. Dhillon		
P. Harrison		
S. Keulen		
S. Rai		
M. Schutzbank		
R. Sihota		
R. Vanderende		

## C. STAFF PRESENTATIONS

#### 1. Development Application 7923-0268-00 Jonathan Kew, Planner Address: 17857 and 17911 - 0 Avenue

The Planner summarized the report dated June 3, 2024, regarding Development Application No. 7923-0268-00 which proposes Development Variance Permit (DVP) to increase the height of a free-standing telecommunications tower from 12 metres (40 ft.) to 46 metres (150.9 ft.) and to reduce the side yard setback for a tower compound from 13.5 metres to 3.05 metres. The following information was highlighted:

- The subject property is located at civic addresses 17911 o Avenue and 17857 - o Avenue. The lot is on the south border of the Agricultural Land Reserve (ALR) and located approximately 500m east of the Pacific Highway Port of Entry.
- The property has farm status. Two residences are located on the lot.
- The subject property applied for ALR Exclusion for development of a business park under File No. 7903-0155-00. This application was denied at the Regular Council Land Use meeting on September 7, 2004. The property also applied for ALR Exclusion under File No. 7920-0270-00. This application did not proceed beyond initial review and has been closed.
- The tower and compound are proposed to be sited on the southwest corner of the lot, approximately 68 metres into the lot, 3 metres behind the single-family dwelling. An access path of approximately 145 metres is proposed from the established driveway and to wind around the right side of the residence.

- The antenna compound is proposed to be sited 3 metres from the west lot line. The TELUS right-of-way around the compound is 9 metres wide, 10.5 metres deep, and 94.5 square metres in area.
- The proposed compound location abuts a row of trees separating the lot from 17779 o Avenue, which is used for parking and storage of truck trailers.
- In accordance with policy No. O-62, the applicant sent out notifications to the neighbouring property owners within a distance of 138 metres (approximately three times the height of the proposed tower). One response was received, requesting more information and ultimately providing opposition based on the tower's height and location.
- The applicant supplied the applications submitted to Nav Canada and Transport Canada confirming that lighting and markings on the tower would not be required.

In response to questions from the Committee, the Planner and Cypress Land Services Ltd. representative provided the following information:

- The application has 2 municipal addresses: 17857 and 17911 0 Avenue.
- The proposed access pathway would not be paved and would be gravel.
- If included in the residential homeplate, the new telecommunications compound and pathway would be approximately 2,200 square metres in area. Under ALC Regulations, the area of an antenna compound is not considered as telecommunications falls under Federal jurisdiction.
- The antenna compound is proposed to be 94.5 square metres in area.
- The proposed tower is not located on the south east corner of the property to reduce visibility impacts on neighbouring properties. The south west corner location is proposed to be closer to commercial/industrial uses and to be buffered from o Avenue by existing vegetation and a residence.
- Historically, antennas have been co-located on BC Hydro transmission towers. The industry does not consider this feasible currently due to the difficulties of accessing and maintaining equipment on BC Hydro towers.
- Adjacent industrial/commercial properties were considered for the proposed tower. Of the appropriate lots, only the subject site expressed interest.

The Committee provided the following comments:

- A committee member expressed concerns on the height of the proposed tower.
- A committee member expressed support for the proposed layout and access pathway as it created a clear boundary between the farm and nonofarm (home plate) areas on the southwest corner of the lot.
- A committee member mentioned the subject site including the access road is approximately less than 2000 square metres of a typical farm home plate and stated if the area is enclosed, the farmland would be preserved.
- Chair and committee members stated that telecommunication towers in other municipalities have designs reflecting the local environment (i.e. towers in Sedona, Arizona, designed to look like palm trees).
- Chair stated the telecommunication towers are federally regulated and the City is limited in the comments it can provide.