

PROPOSAL:

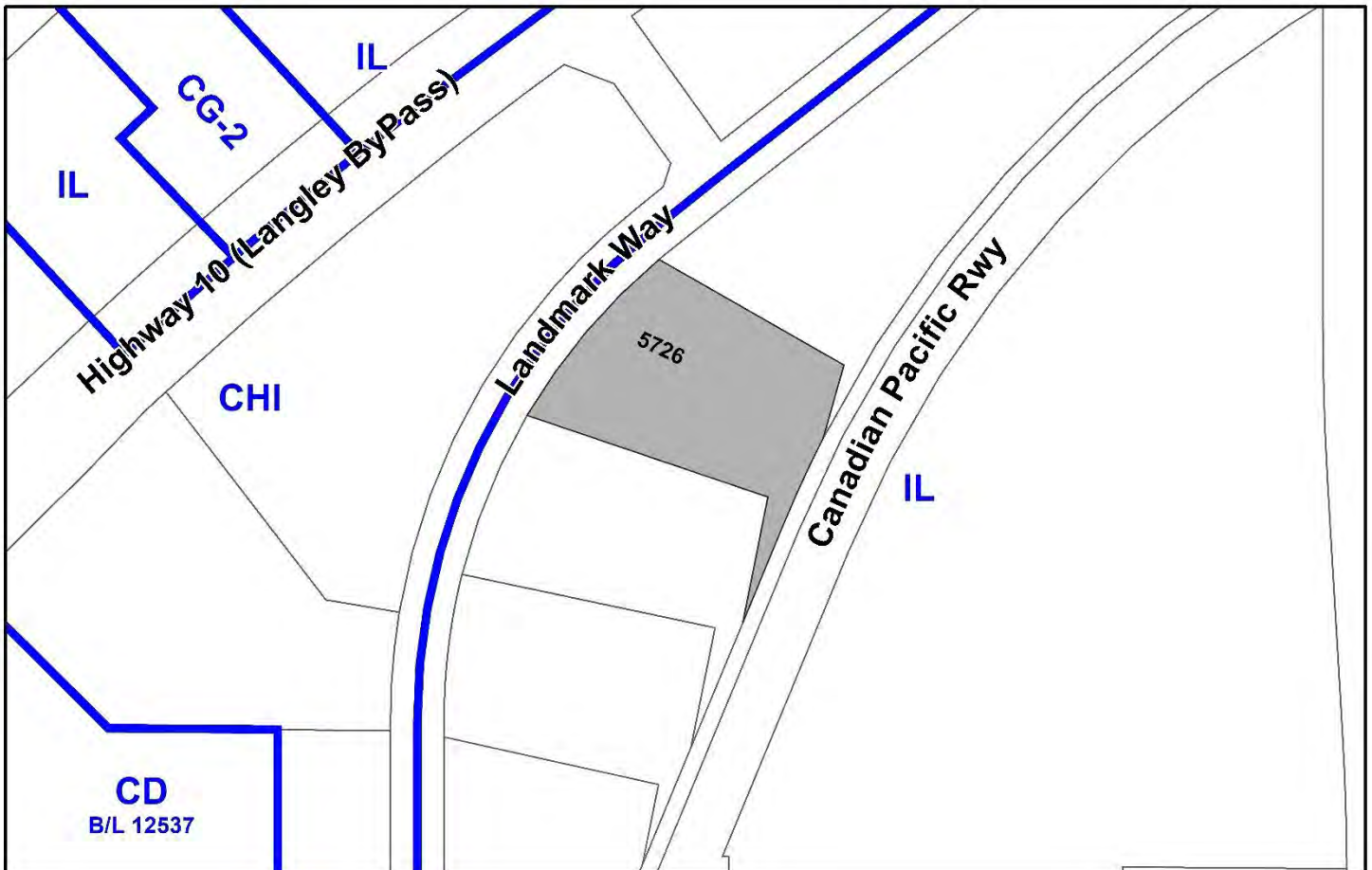
- **Development Variance Permit**

to increase the maximum height of a free-standing telecommunications tower from 12 metres to 31.5 metres and reduce the required side and rear yard setbacks.

LOCATION: 5726 - Landmark Way

ZONING: IL

OCP DESIGNATION: Industrial



RECOMMENDATION SUMMARY

- Approval for Development Variance Permit to proceed to Public Notification.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- Seeking variances to the Zoning By-law to increase the maximum permitted height of a free-standing telecommunications tower from 12 metres to 31.5 metres and to reduce the north side and east rear yard setback for the tower and associated equipment compound.

RATIONALE OF RECOMMENDATION

- The proposal complies with the majority of criteria identified in the City's Policy for Telecommunications Towers.
- The applicant has provided information indicating that there are no existing structures that are suitable to mount telecommunication equipment within a 500-metre (1,640 ft.) radius of the subject site.
- The proposed location of the tower is located at the rear of an industrial lot which will screen the base of the tower from Landmark Way. The site is within the Cloverdale industrial area.
- The applicant has provided documentation which indicates that there is a demonstrated coverage gap in the area, which the wireless carrier would like to resolve to provide better service to existing and potentially new customers.

RECOMMENDATION

The Planning & Development Department recommends that:

1. Council approve Development Variance Permit No. 7920-0124-00 (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 telecommunications tower from 12 metres to 31.5 metres; and
 - (b) to reduce the minimum north side yard setback of the IL Zone from 7.5 metres to 5.0 metres for the telecommunication tower and 1.0 metre for the associated equipment compound and to reduce the minimum east rear yard setback of the IL Zone from 7.5 metres to 6.0 metres for the telecommunication tower and 2.0 metres for the associated equipment compound.

SITE CONTEXT & BACKGROUND

Direction	Existing Use	OCP Designation	Existing Zone
Subject Site	Two industrial buildings for auto repair.	Industrial	IL
North:	Multi-unit industrial building.	Industrial	IL
East (Across CP Railway):	Multi-unit industrial building and McLellan Creek (Class A watercourse).	Industrial	IL
South:	Multi-unit industrial building.	Industrial	IL
West (Across Landmark Way):	Car Dealership	Mixed Employment	CHI

Context & Background

- The subject site is approximately 6,266 square metres in size and is located at 5726 Landmark Way. The site is designated Industrial in the Official Community Plan (OCP) and is zoned "Light Impact Industrial Zone (IL)".
- The subject site is currently occupied by two industrial buildings for an auto repair business.

DEVELOPMENT PROPOSAL

- Cypress Land Services Ltd. on behalf of Telus is proposing to erect a 31.5-metre tall telecommunications tower and equipment compound at the rear of the subject site.

- Staff and the applicant explored whether there were existing structures of sufficient height within a 500-metre radius of the subject site to mount equipment, but no such structures were found.
- The proposal will provide improved telecommunication coverage and capacity for the area generally bound by 60 Avenue to the north, 198 Street in Langley to the east, Nicomekl River to the south, and 191 Street to the west (see Appendix V).
- The applicant is seeking a Development Variance Permit (DVP) to increase the maximum height of a free-standing telecommunications tower from 12 metres to 31.5 metres and to reduce the minimum north side yard setback from 7.5 metres to 5.0 metres for the telecommunication tower and 1.0 metre for the associated equipment compound and reduce the minimum east rear yard setback of the IL Zone from 7.5 metres to 6.0 metres for the telecommunication tower and 2.0 metres for the associated equipment compound.
- The applicant is proposing to install on the proposed monopole, two rows of panel antennas for a total of six panel antennas. The design of the tower allows for the future addition of an additional row of three panel antennas. A 1.5-metre lighting rod is located at the top of the proposed monopole.
- The proposed telecommunication tower and compound are located at the northeast corner of the site adjacent an existing industrial building and are sited such that it will have a minimum impact on the functionality of the site.
- The applicant has provided a rendering of what the proposed be galvanized steel – grey monopole will look like from the east along 196 Street (Appendix III).
- As the proposed location of the tower/compound is at the rear of an existing industrial building, no landscaping or screening is proposed.

Referrals

Engineering: The Engineering Department has no objection to the project.

Canadian Pacific Railway: Canadian Pacific Railway has no objection to the project.

Natural Area Considerations

- The subject site is in proximity to a Class C watercourse, adjacent the subject site, and a Class A watercourse (McLellan Creek), located on the east side of the Canadian Pacific Railway right-of-way.
- The subject site is therefore within a Sensitive Ecosystem Development Permit Area for Streamside Areas.

- The applicant engaged a Qualified Environmental Professional (QEP) to complete a watercourse analysis for the Class C watercourse. The QEP has confirmed that the watercourse is a green-coded ditch. Streamside protection measures are therefore not required.
- The existing Class A watercourse classification for McLellan Creek located on the east side of the Canadian Pacific Railway has been confirmed by the QEP. The proposed tower/compound location is beyond the required 30-metre setback to the top-of-bank (see Appendix I). The proposed telecommunication tower and compound is located within a paved area on an existing industrial property outside of the required setback area. As such, it has been determined that a Sensitive Ecosystem Development Permit is not required.

POLICY & BYLAW CONSIDERATIONS

- Staff have relayed to telecommunication companies the importance of a comprehensive strategy to ensure adequate coverage for all carriers while minimizing the number of singular user installations and keeping the height of installations to a minimum without compromising the existing policy guidelines, especially tower proximity to residential areas and aesthetics being adequately addressed.
- 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 telecommunications tower supports the City of Surrey's vision for building a strong economy.

City's Telecommunications Strategy

- The subject application generally complies with the current Telecommunications Tower Policy No. O-49 and is therefore being presented for Council's consideration.
- The City policy on telecommunication towers was developed in conjunction with wireless providers and approved by Council on June 18, 2001 (Policy No. O-49 Telecommunication Towers). The policy provides parameters on how the towers should be sited and designed.
- The following is an evaluation of the current proposal in relation to Policy No. O-49:

Location and Siting

- When considering the siting of telecommunication tower facilities, every effort should be made to locate new equipment on existing structures such as BC Hydro transmission line towers, utility poles, roof tops, etc.

The applicant has indicated that they require a 31.5-metre height in order to ensure an expanded infill coverage area generally bound by 60 Avenue to the north, 198 Street in Langley to the east, Nicomekl River to the south, and 191 Street to the west (see Appendix V).

The applicant has informed staff that there are no existing structures within a 500-metre radius from the proposed location of the telecommunication tower that have the necessary height to facilitate the increased coverage area. They have provided a map of all existing telecommunication towers in the area (Appendix IV).

- It is preferable that new free-standing telecommunication towers be sited in non-residential locations and preferably in industrial areas.

The proposed location is located within an industrial area and is approximately 340 metres from residential properties across 196 Street and 56 Avenue to the southeast in Langley and 600 metres from residential properties across 192 Street to the west.

- Towers on prominent natural and cultural features, environmentally sensitive areas or areas with historically significant buildings are discouraged.

The proposed location of the installation is within an industrial area and is void of any cultural features. The applicant completed a watercourse analysis and determined that the watercourse on the west side of the Canadian Pacific Railway is a green coded ditch and the watercourse on the east side of the Canadian Pacific Railway is a red-coded McLellan Creek. The applicant is proposing a setback of beyond 30 metres from McLellan Creek's top-of-bank.

- New free-standing telecommunication towers should be located at a distance from the edge of an existing or future road allowance no less than the height of the tower.

The 31.5-metre tall wireless installation is located at the rear of an industrial lot approximately 70 metres from Landmark Way.

- Locating of telecommunication towers on sites with mature trees is encouraged.

The subject site currently has a few undersized trees. Across the CP Rail lines to the east there are some mature trees that will partially screen the proposed tower from the east.

- All applicants for free-standing telecommunication structures will be requested to identify any other structure (e.g. hydro transmission tower, existing telecommunication towers, etc.) within a radius of 500 metres from the proposed location and to provide reasons why other existing structures within that radius are not acceptable for use (i.e. structural capabilities, safety, available space or failing to meet service coverage needs).

There are no suitable structures for mounting equipment within a 500-metre radius of the subject site that have the necessary height to facilitate the increased coverage area.

Co-Location

- The carriers and other telecommunication tower owners are encouraged to work co-operatively in reaching agreements which allow for sharing of tower structures so as to minimize the total number of towers in the City. This practice is typically referred to as "co-location".

No other carriers have requested to co-locate on the proposed tower.

If co-location were required, it would require an additional height of approximately 11 metres as well as additional width and massing which would make the proposed tower more visible.

Tower Design and Landscaping Criteria

- Towers and ancillary equipment shelters will be designed to fit their surroundings and to minimize their visual impact on surrounding properties.

The proposed tower is located at the rear of an industrial building and the base and compound will not be visible from any roads.

- The use of the monopole is encouraged. Where a tower is being constructed to accommodate a single user, a monopole design is required.

The proposed tower is a monopole design. Due to the height proposed, the proposed tower is for a single carrier.

- Landscaping shall be appropriately placed around telecommunication towers and ancillary facilities, such as equipment shelters, to minimize their visual impact on the neighbourhood.

No landscaping is proposed as the tower and compound are located at the rear of an existing industrial building.

BY-LAW VARIANCES AND JUSTIFICATION

(a) Requested Variances:

- To vary Part 4 General Provisions of the Zoning-By-law, to increase the maximum height of a free-standing telecommunications tower from 12 metres to 31.5 metres; and
- To reduce the minimum north side yard setback of the IL Zone from 7.5 metres to 5.0 metres for the telecommunication tower and 1.0 metre for the associated equipment compound and reduce the minimum east rear yard setback of the IL Zone from 7.5 metres to 6.0 metres for the telecommunication tower and 2.0 metres for the associated equipment compound.

Applicant's Reasons:

- The applicant has submitted documentation demonstrating that there is a coverage gap in the area, which the proposed telecommunications tower would assist in resolving.
- There are limited options for locating cell towers in the area.
- The proposed location within the site is located at the rear of the existing industrial building in an area that is currently used as a lean-to for storage which will be removed to facilitate the proposed tower.

Staff Comments:

- The proposal complies with the majority of criteria identified in the City's Policy for Telecommunications Towers.
- The proposed setback variances are not anticipated to adversely impact the adjacent industrial properties to the south or north
- Staff support the requested variances.

PUBLIC ENGAGEMENT

In accordance with City policy, the applicant sent out approximately 50 notification packages on August 12, 2020 to property owners within a notification area of 90 metres, which is approximately three times the height of the proposed tower.

As a result of these notifications, one response was received by the agent concerning the proposed tower with the following concerns (staff comments in italics):

- The proposed tower is too close to an existing business that operate heavy equipment and the neighbour is concerned that the tower may interfere with the equipment.

(The proposed tower is required to be designed, constructed, and operated in adherence with the minimum standards set by Health and Industry Canada, including Safety Code 6.)

- Staff of a neighbouring business have concerns on staff's health due to the proposed tower.

(The proposed tower is required to be designed, constructed, and operated in adherence with the minimum standards set by Health and Industry Canada, including Safety Code 6.)

TREES

No by-law sized trees will be removed as part of this telecommunication tower proposal.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

- Appendix I. Proposed, Site Plan, Building Elevations, Landscape Plans and Watercourse Maps
- Appendix II. Development Variance Permit No. 7920-0124-00
- Appendix III. Renderings
- Appendix IV. Existing towers in the area
- Appendix V. Coverage Map

approved by Ron Gill

Jean Lamontagne
General Manager
Planning and Development

JKS/cm



NEW MONOPOLE TOWER SITE

Project Information

Client: TELUS MOBILITY

Site: BC004930 'SURREY – LANDMARK WAY/LANDMARK GATE'

Site Location: 5726 LANDMARK WAY, SURREY, BC

Coordinates: LAT: 49.106556
LONG: -122.682694

Structure: MONOPOLE STRUCTURE

Job No: E3554

Date: 07OCT2020

Revision: 3

Purpose: ISSUED FOR PRELIMINARY REVIEW

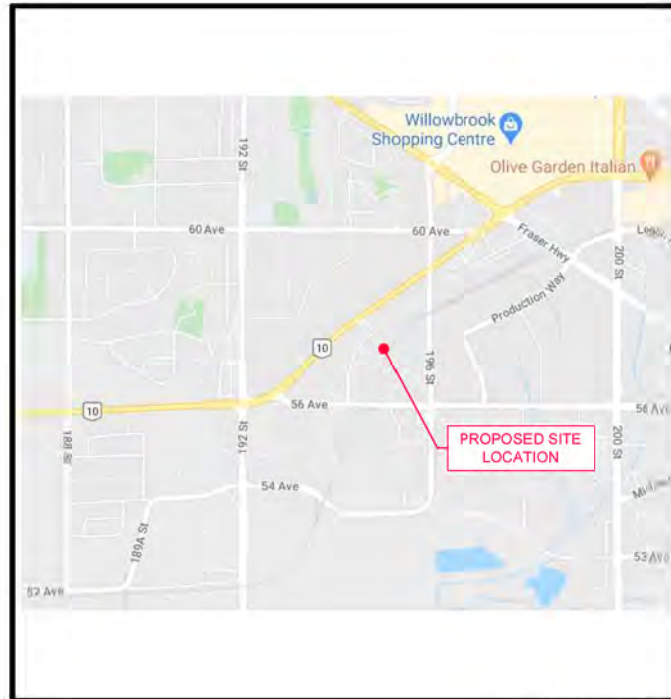


IMAGE SOURCE: GOOGLE MAPS

Sheet List Table

Sheet Number	Sheet Title
General	
P00.0	TITLE PAGE
Architectural	
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P02.0	COMPOUND LAYOUT
P03.0	SITE ELEVATION
P04.0	PROPOSED & FUTURE EQUIPMENT LEVELS

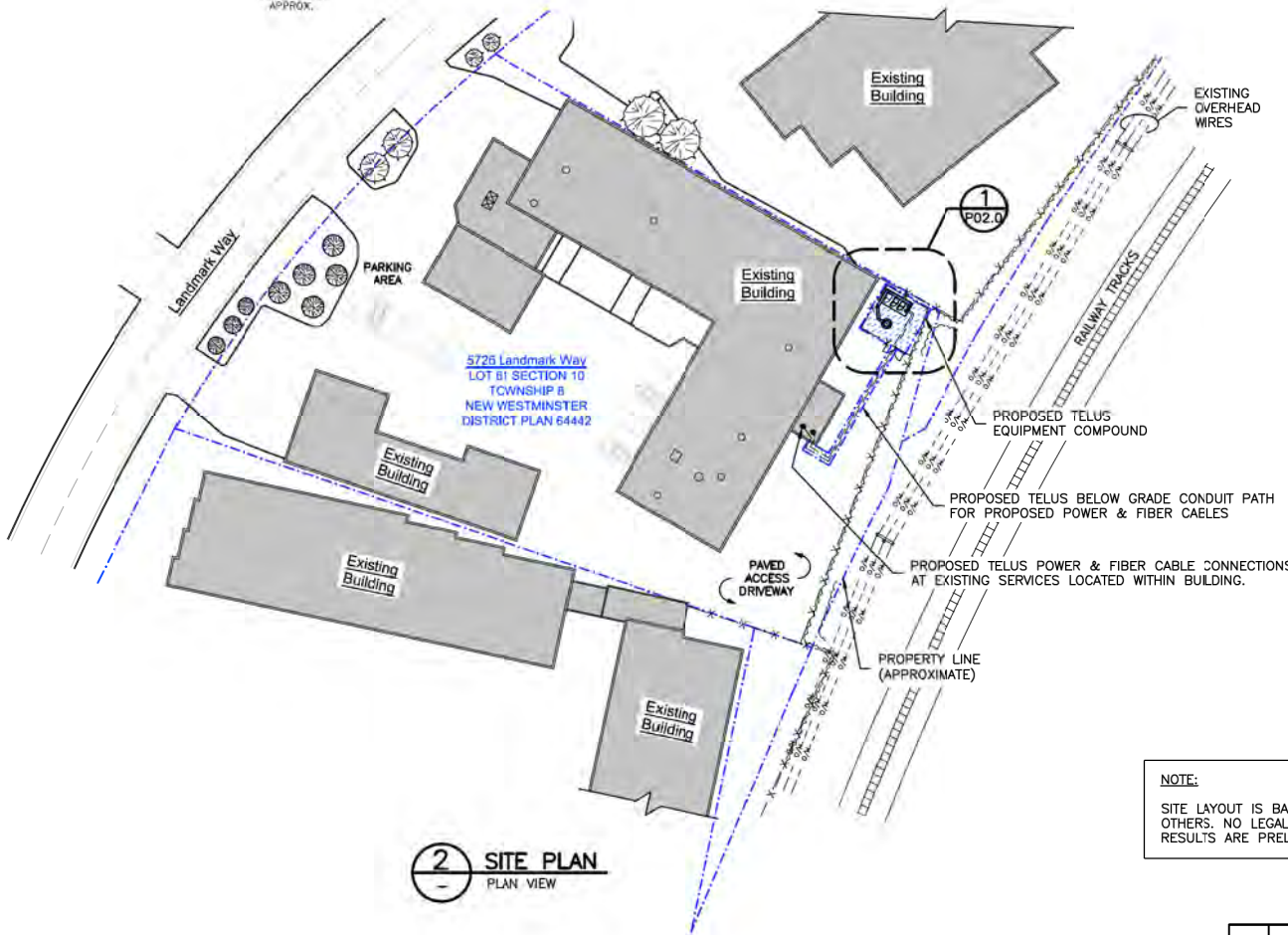
Abbreviations

AGL = ABOVE GROUND LEVEL	F/S = FAR SIDE	O/D = OUTER DIAMETER
ANT. = ANTENNA	HDG = HOT DIP GALVANIZED	OPP. = OPPOSITE
AZ. = AZIMUTH	-HT. = HEIGHT	QTY. = QUANTITY
BCD = BOLT CIRCLE DIAMETER	MECH. = MECHANICAL	SIM. = SIMILAR
C/L = CENTRE LINE	M/W = MICROWAVE	S.S. = STAINLESS STEEL
EQ. = EQUAL or EQUIVALENT	N/S = NEAR SIDE	TYP. = TYPICAL
EX. = EXISTING	O/C = ON CENTRE	UNO = UNLESS NOTED OTHERWISE



25-1610 Derwent Way
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info@alsettech.com

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2 SITE PLAN
PLAN VIEW



1 KEY MAP

SOURCE: CITY OF SURREY GIS 'COSMOS'

NOTE:
SITE LAYOUT IS BASED ON INFORMATION PROVIDED BY OTHERS. NO LEGAL SURVEY HAS BEEN COMPLETED. RESULTS ARE PRELIMINARY ONLY.

REV	DATE	DESCRIPTION
3	07OCT2020	ISSUED FOR PRELIMINARY REVIEW
2	28SEP2020	ISSUED FOR PRELIMINARY REVIEW
1	29MAY2020	ISSUED FOR PRELIMINARY REVIEW
0	25MAR2020	ISSUED FOR PRELIMINARY REVIEW

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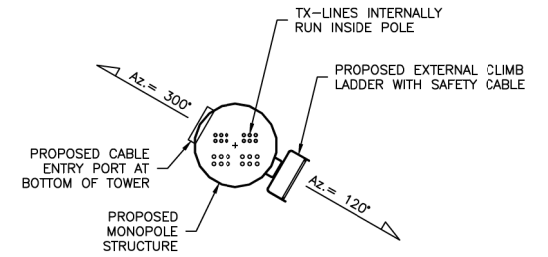
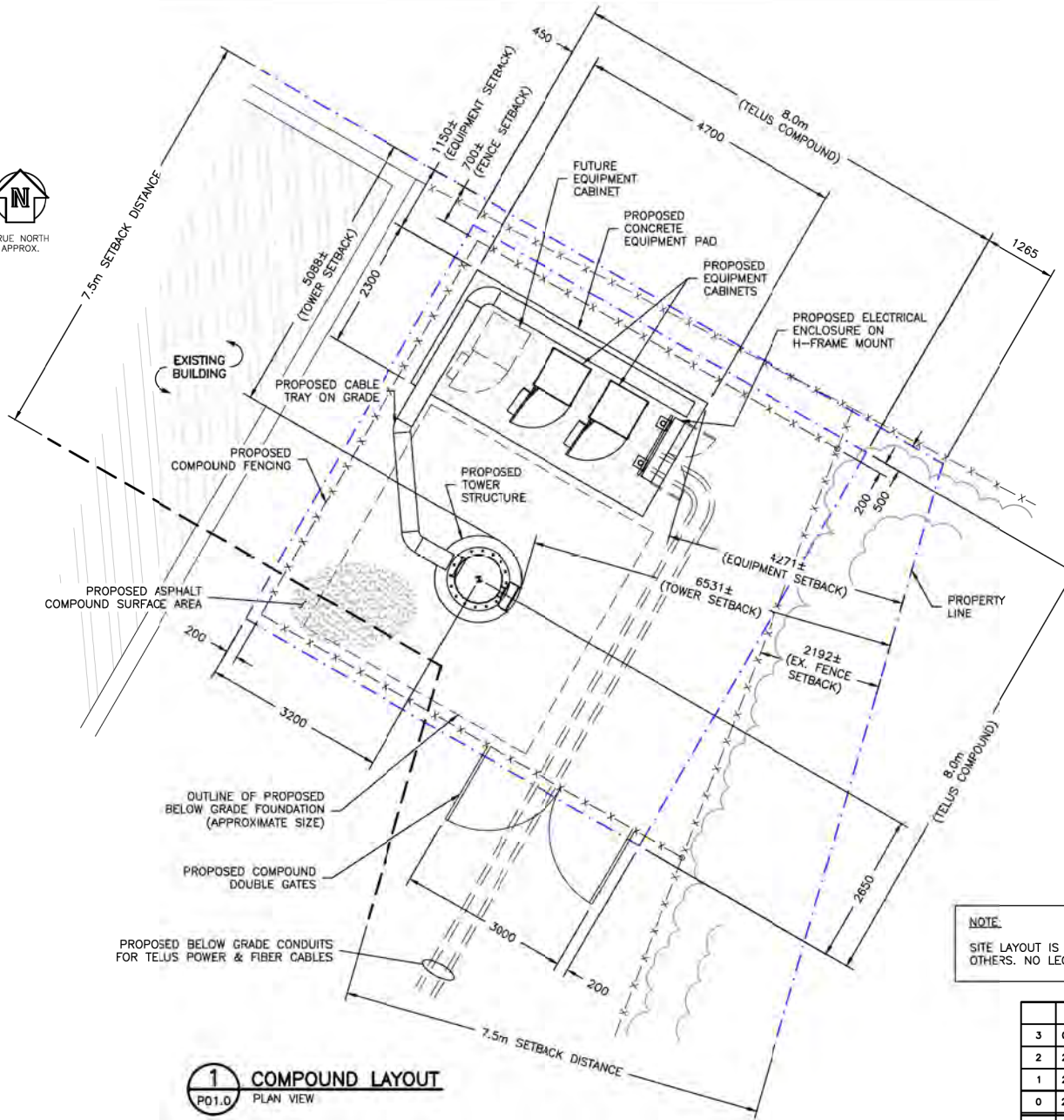
CLIENT: TELUS MOBILITY	
SITE: BC004930 SURREY - LANDMARK WAY/LANDMARK GATE	
PROJECT: NEW MONOPOLE TOWER SITE	
JOB No: E3554	LOCATION: 5726 LANDMARK WAY, SURREY, BC
DRWG TITLE: SITE LAYOUT	DRWG: P01.0



TRUE NORTH APPROX.



TRUE NORTH APPROX.



2 TOWER SECTION
PLAN VIEW

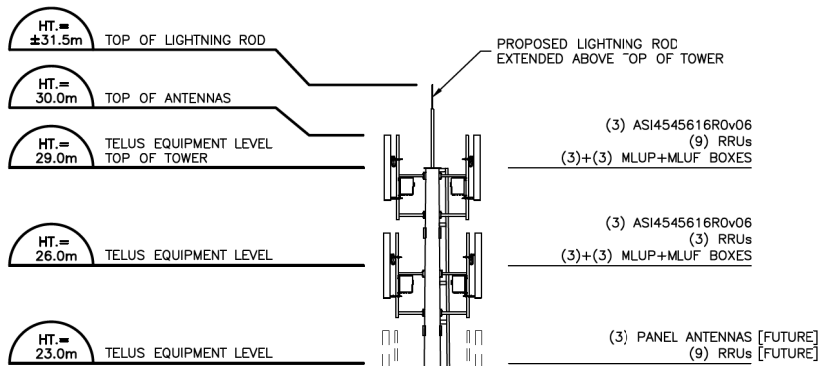
1 COMPOUND LAYOUT
P01.0 PLAN VIEW

NOTE:
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PROJECT: NEW MONOPOLE TOWER SITE	
JOB No: E3554	LOCATION: 5726 LANDMARK WAY, SURREY, BC
DRWG TITLE: COMPOUND LAYOUT	DRWG: P02.0



PROPOSED LIGHTNING ROD EXTENDED ABOVE TOP OF TOWER

(3) ASI4545616R0v06 (9) RRUs (3)+(3) MLUP+MLUF BOXES

(3) ASI4545616R0v06 (3) RRUs (3)+(3) MLUP+MLUF BOXES

(3) PANEL ANTENNAS [FUTURE] (9) RRUs [FUTURE]

TOWER NOTES:

TOWER SHOWN FOR CONCEPTUAL DESIGN PURPOSES ONLY. DETAILED TOWER DESIGN TO BE COMPLETED BY TOWER SUPPLIER, BASED ON FINAL ANTENNA LOADING SPECIFIED BY CLIENT.

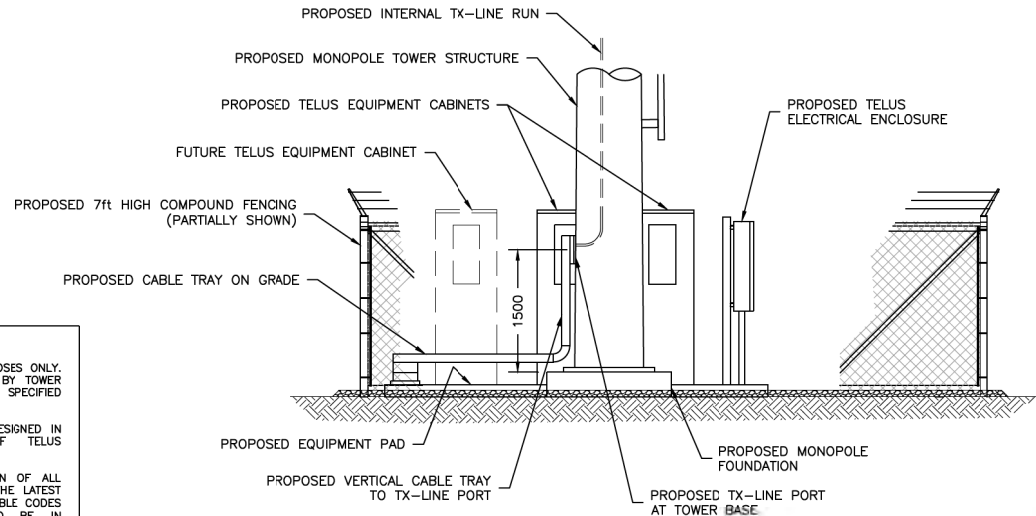
TOWER & ASSOCIATED COMPONENTS TO BE DESIGNED IN ACCORDANCE WITH LATEST EDITION OF TELUS CONSTRUCTION SPECIFICATIONS.

TOWER STRUCTURAL DESIGN, AND THE DESIGN OF ALL ASSOCIATED COMPONENTS, TO CONFORM TO THE LATEST EDITION OF CSA/CAN-S37, AND OTHER APPLICABLE CODES & STANDARDS. SPECIFIED WIND LOAD TO BE IN ACCORDANCE WITH ENVIRONMENT CANADA SITE SPECIFIC WIND REPORT.

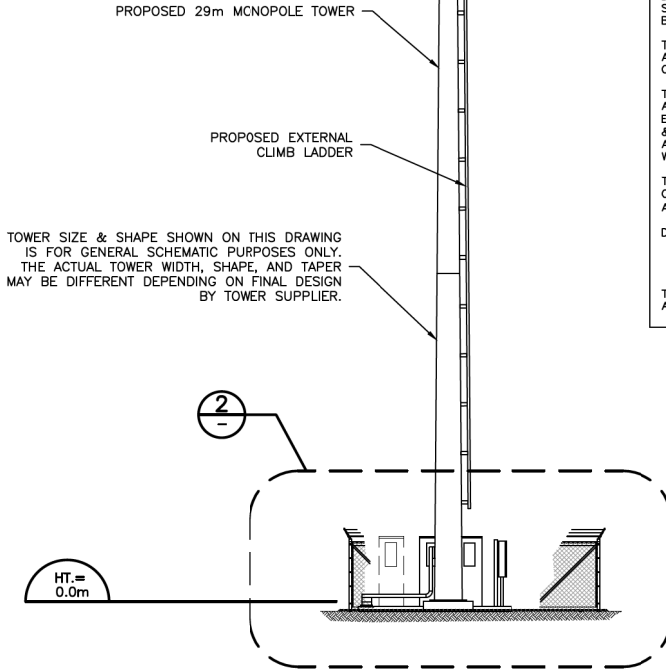
TOWER MUST CONFORM TO THE REQUIREMENTS OF CSA/CAN-S37-18 ANNEX N 'TOWER DYNAMIC EFFECTS AND FATIGUE'.

DESIGN PARAMETERS:
 RELIABILITY CLASS: I
 IMPORTANCE FACTOR: 1.0
 SERVICEABILITY FACTOR: 1.0

TOWER MARKING & LIGHTING REQUIREMENTS TO BE IN ACCORDANCE WITH TRANSPORT CANADA REQUIREMENTS.



2 COMPOUND ELEVATION
ELEVATION VIEW



1 TOWER PROFILE & SITE ELEVATION
ELEVATION VIEW

ANTENNA LOADING CHART

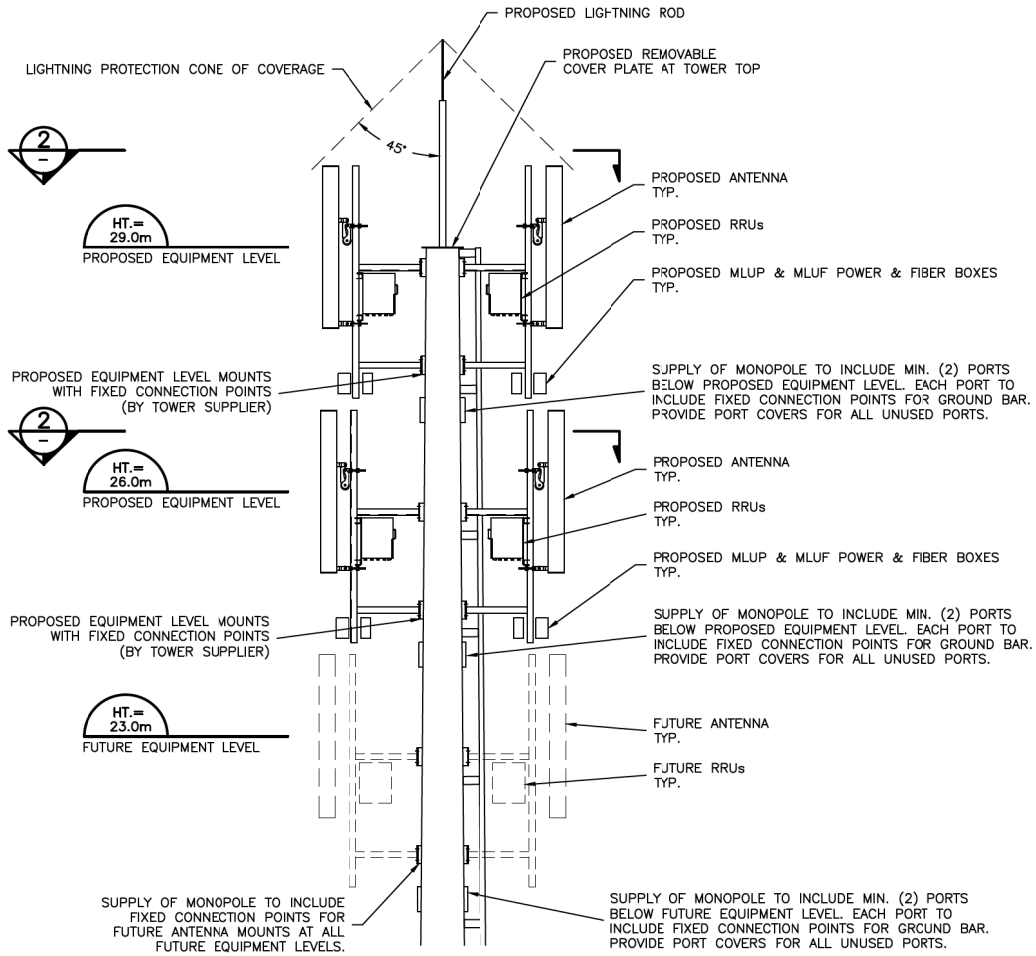
HEIGHT		ANTENNA			TX-LINE		STATUS	OWNER
(ft)	(m)	QTY	DESCRIPTION	AZIMUTH	QTY	TYPE		
95.1	29.0	3	ASI4516R0v06	30/150/270	--	JUMPERS	PROPOSED	TELUS
		9	RRUs	--	--	JUMPERS		
		3+3	MLUP & MLUF DISTRIBUTION BOXES	--	3+3	POWER + FIBER		
85.3	26.0	3	ASI4516R0v06	30/150/270	--	JUMPERS	PROPOSED	TELUS
		3	RRUs	--	--	JUMPERS		
		3+3	MLUP & MLUF DISTRIBUTION BOXES	--	3+3	POWER + FIBER		
75.5	23.0	3	N78 GENERIC ANTENNA	30/150/270	--	JUMPERS	FUTURE	TELUS
		9	RRUs [TO BE CONFIRMED]	--	TBD	POWER + FIBER		

NOTE: SPECIFIED LOADING IS PRELIMINARY ONLY AND IS SUBJECT TO REVISION PER FINAL RF DESIGN.

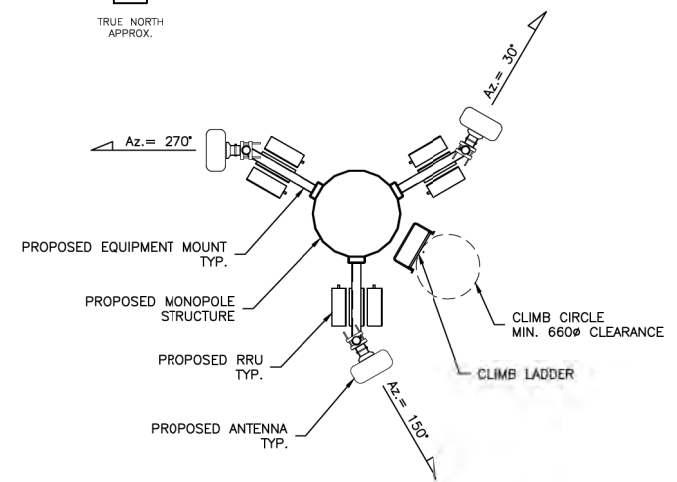
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CLIENT:	TELUS MOBILITY	
SITE:	B0004930 SURREY - LANDMARK WAY/LANDMARK GATE	
PROJECT:	NEW MONOPOLE TOWER SITE	
JOB No:	E3554	LOCATION: 5726 LANDMARK WAY, SURREY, BC
DRWG TITLE:	SITE ELEVATION	
DRWG:	P03.0	

NOTE:
EQUIPMENT MOUNTING SHOWN IS PRELIMINARY AND SUBJECT TO REVISION ACCORDING TO THE DETAILED DESIGN BY THE TOWER SUPPLIER & CLIENT ANTENNA LOADING.



1 TOWER EQUIPMENT
ELEVATION VIEW

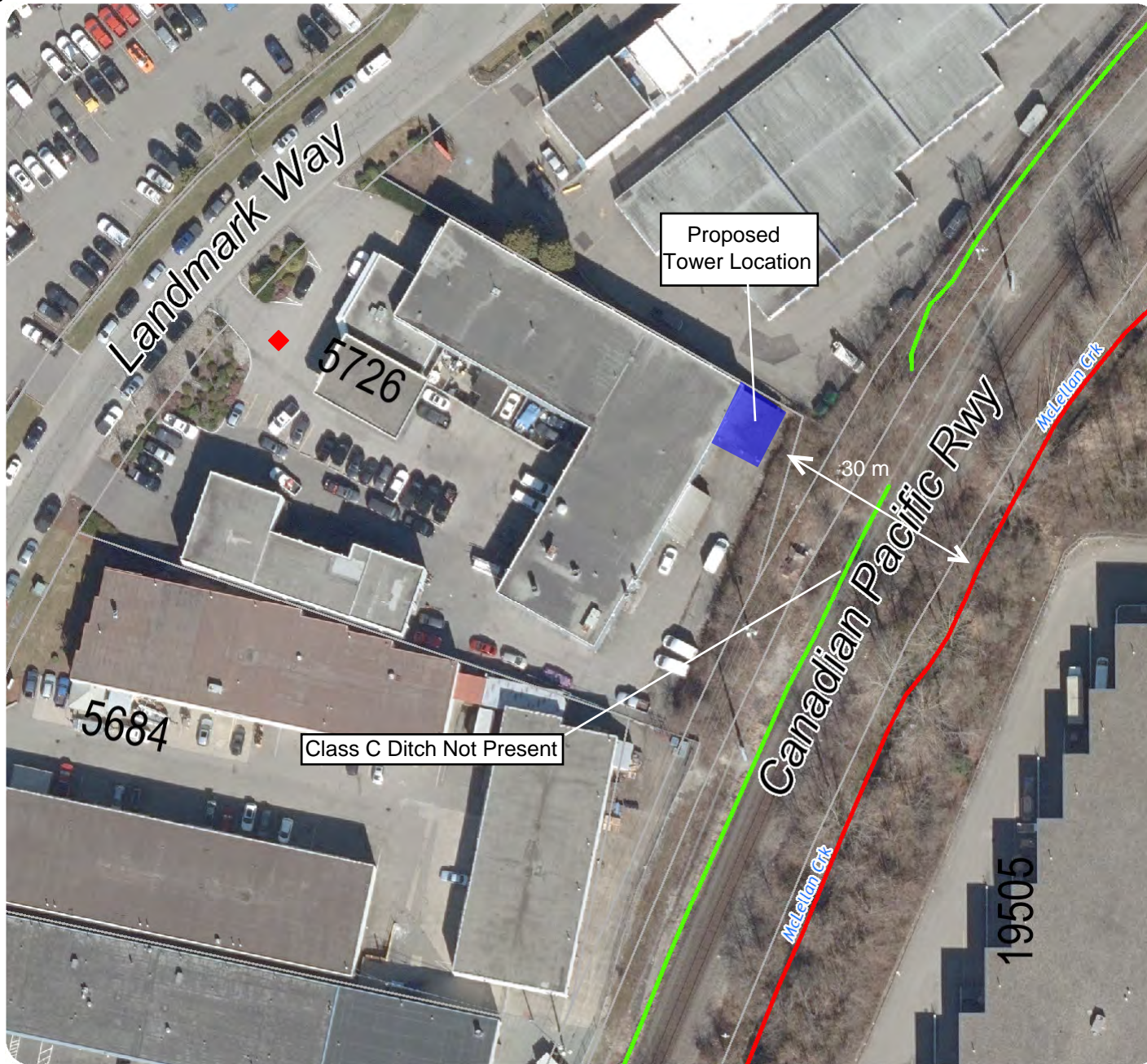


2 PROPOSED EQUIPMENT LAYOUT
PLAN VIEW

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DRWG TITLE: PROPOSED & FUTURE EQUIPMENT LEVELS	DRWG: P04.0



Legend

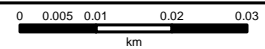
Fish Class (Open Channels)

- A
- - - AO
- B
- C

Enter Map Description

Scale: 1:1,000

The data provided is compiled from various sources and is NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office. Use and distribution of this map is subject to all copyright and disclaimer notices at cosmos.surrey.ca

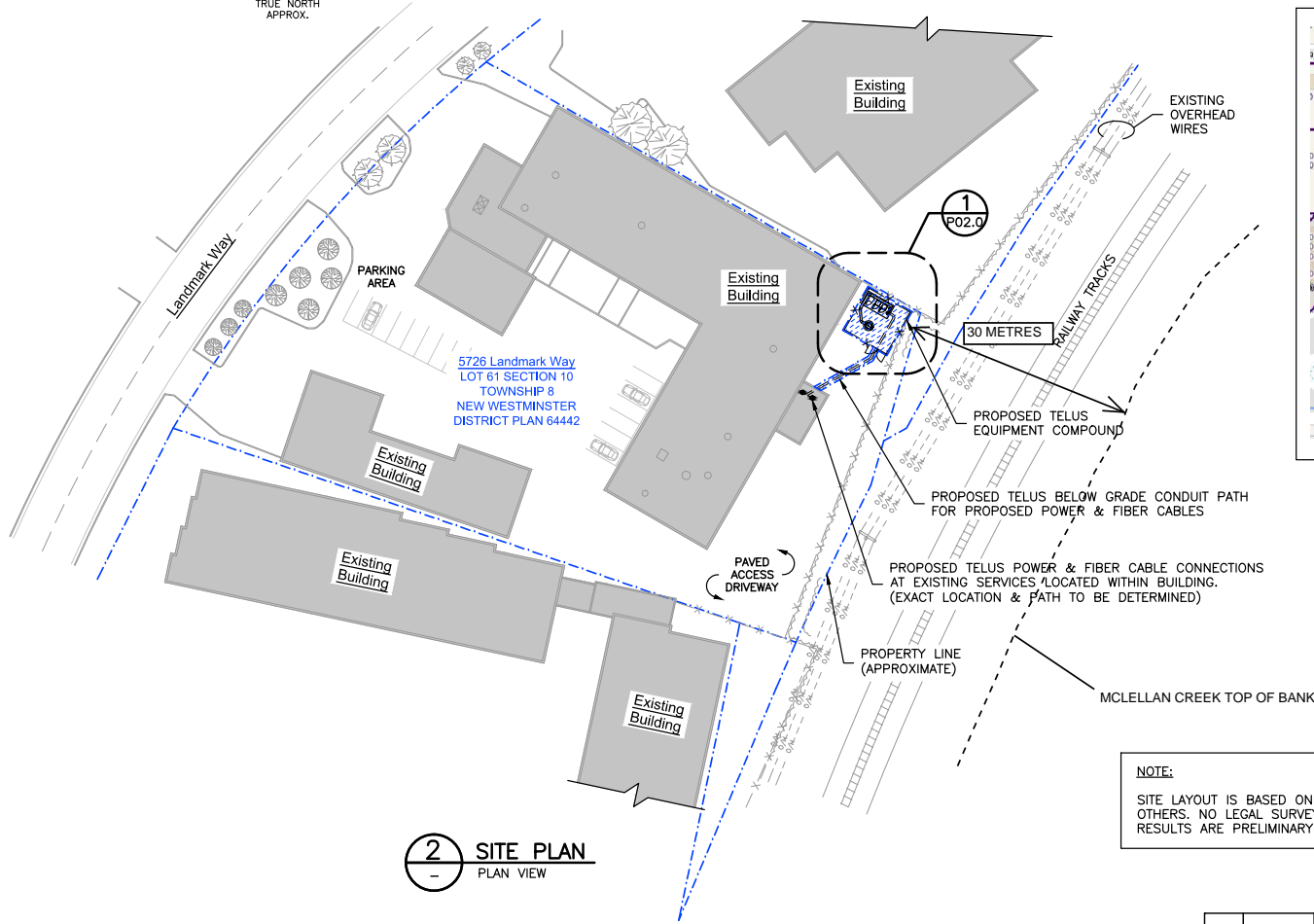


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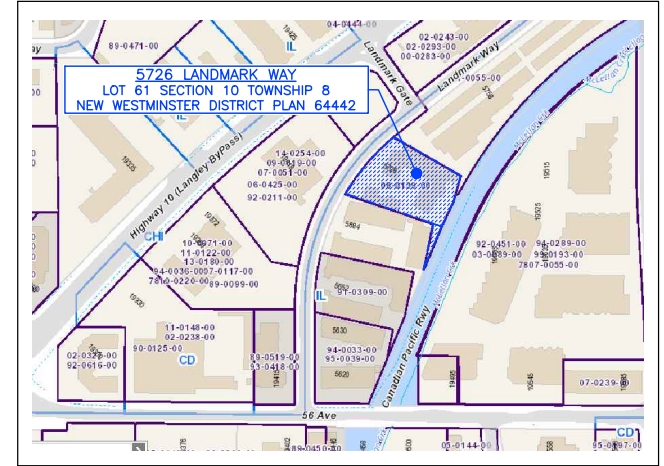
COSMOS Figure



TRUE NORTH
APPROX.



2 SITE PLAN
PLAN VIEW



SOURCE: CITY OF SURREY GIS 'COSMOS'

1 KEY MAP

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CLIENT: TELUS MOBILITY
SITE: BC004930 'SURREY - LANDMARK WAY/LANDMARK GATE'
PROJECT: NEW MONOPOLE TOWER SITE
JOB No: E3554 LOCATION: 5726 LANDMARK WAY, SURREY, BC

REV	DATE	DESCRIPTION
0	25MAR2020	ISSUED FOR PRELIMINARY REVIEW

DRWG TITLE: **SITE LAYOUT** DRWG: **P01.0**

CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7920-0124-00

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: 003-469-743
Lot 61 Section 10 Township 8 New Westminster District Plan 64442
2576 - Landmark Way

(the "Land")

3. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
 - (a) In Sub-section A.1(a)ii.b. of Part 4 General Provisions, the height of a telecommunication tower is increased from 12 metres to 31.5 metres; and
 - (b) In Section F. Yards and Setbacks of Part 48 Light Impact Industrial Zone (IL) the north side yard setback is reduced from 7.5 metres to 5.0 metres for the telecommunication tower and 1.0 metre for the associated equipment compound and reduce the minimum east rear yard setback of the IL Zone from 7.5 metres to 6.0 metres for the telecommunication tower and 2.0 metres for the associated equipment compound.
4. The siting of buildings and structures shall be in accordance with the drawings numbered 7920-0124-00(A) through to and including 7920-0124-00(E) (the "Drawings") which are attached hereto and form part of this development variance permit.

5. This development variance permit applies to only that portion of the buildings and structures on the Land shown on Schedule A which is attached hereto and forms part of this development variance permit. This development variance permit does not apply to additions to, or replacement of, any of the existing buildings shown on attached Schedule A, which is attached hereto and forms part of this development variance permit.
6. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
7. 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.
8. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
9. 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 – Doug McCallum

City Clerk – Jennifer Ficocelli



NEW MONOPOLE TOWER SITE

Project Information

Client: TELUS MOBILITY

Site: BC004930 'SURREY – LANDMARK WAY/LANDMARK GATE'

Site Location: 5726 LANDMARK WAY, SURREY, BC

Coordinates: LAT: 49.106556
LONG: -122.682694

Structure: MONOPOLE STRUCTURE

Job No: E3554

Date: 07OCT2020

Revision: 3

Purpose: ISSUED FOR PRELIMINARY REVIEW

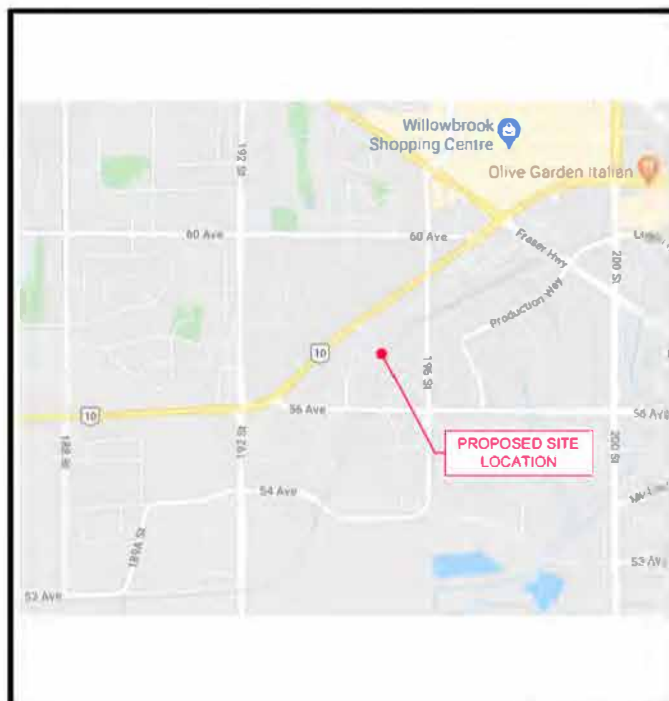


IMAGE SOURCE: GOOGLE MAPS

Sheet List Table

Sheet Number	Sheet Title
	General
	TITLE PAGE
	Architectural
P01.0	SITE LAYOUT
P02.0	COMPOUND LAYOUT
P03.0	SITE ELEVATION
P04.0	PROPOSED & FUTURE EQUIPMENT LEVELS

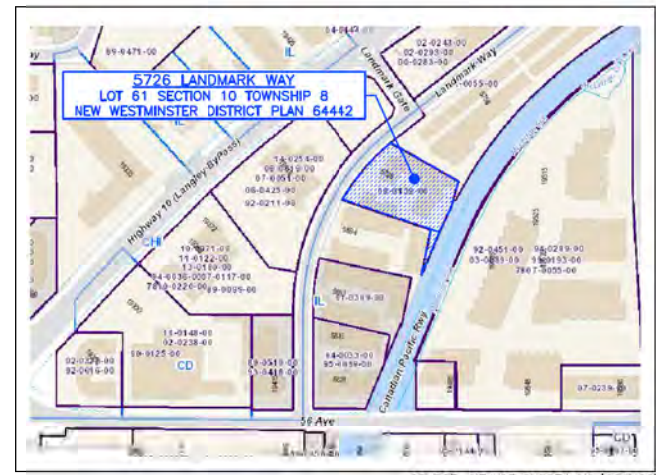
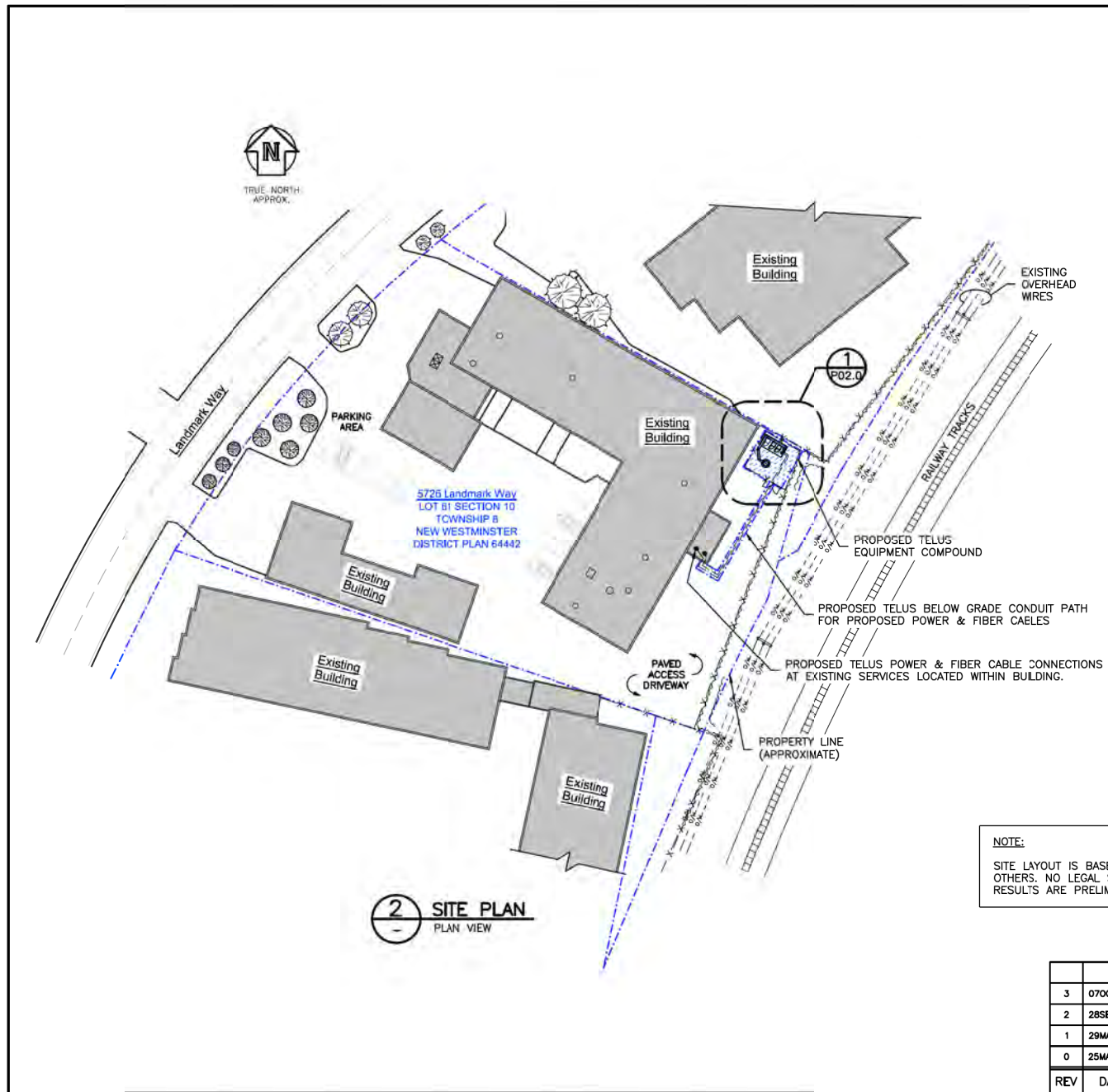
Abbreviations

AGL = ABOVE GROUND LEVEL	F/S = FAR SIDE	O/D = OUTER DIAMETER
ANT. = ANTENNA	HDG = HOT DIP GALVANIZED	OPP. = OPPOSITE
AZ. = AZIMUTH	HT. = HEIGHT	QTY. = QUANTITY
BCD = BOLT CIRCLE DIAMETER	MECH. = MECHANICAL	SIM. = SIMILAR
C/L = CENTRE LINE	M/W = MICROWAVE	S.S. = STAINLESS STEEL
EQ. = EQUAL or EQUIVALENT	N/S = NEAR SIDE	TYP. = TYPICAL
EX. = EXISTING	O/C = ON CENTRE	UNO = UNLESS NOTED OTHERWISE



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1 KEY MAP

NOTE:
SITE LAYOUT IS BASED ON INFORMATION PROVIDED BY OTHERS. NO LEGAL SURVEY HAS BEEN COMPLETED. RESULTS ARE PRELIMINARY ONLY.

REV	DATE	DESCRIPTION
3	07OCT2020	ISSUED FOR PRELIMINARY REVIEW
2	28SEP2020	ISSUED FOR PRELIMINARY REVIEW
1	29MAY2020	ISSUED FOR PRELIMINARY REVIEW
0	25MAR2020	ISSUED FOR PRELIMINARY REVIEW

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CLIENT: TELUS MOBILITY

SITE: BC004930 SURREY - LANDMARK WAY/LANGLEY GATE

PROJECT: NEW MONOPOLE TOWER SITE

JOB No: E3554 LOCATION: 5726 LANDMARK WAY, S BC

DRWG TITLE: SITE LAYOUT

DRW: P

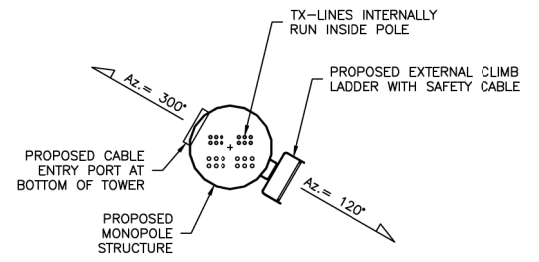
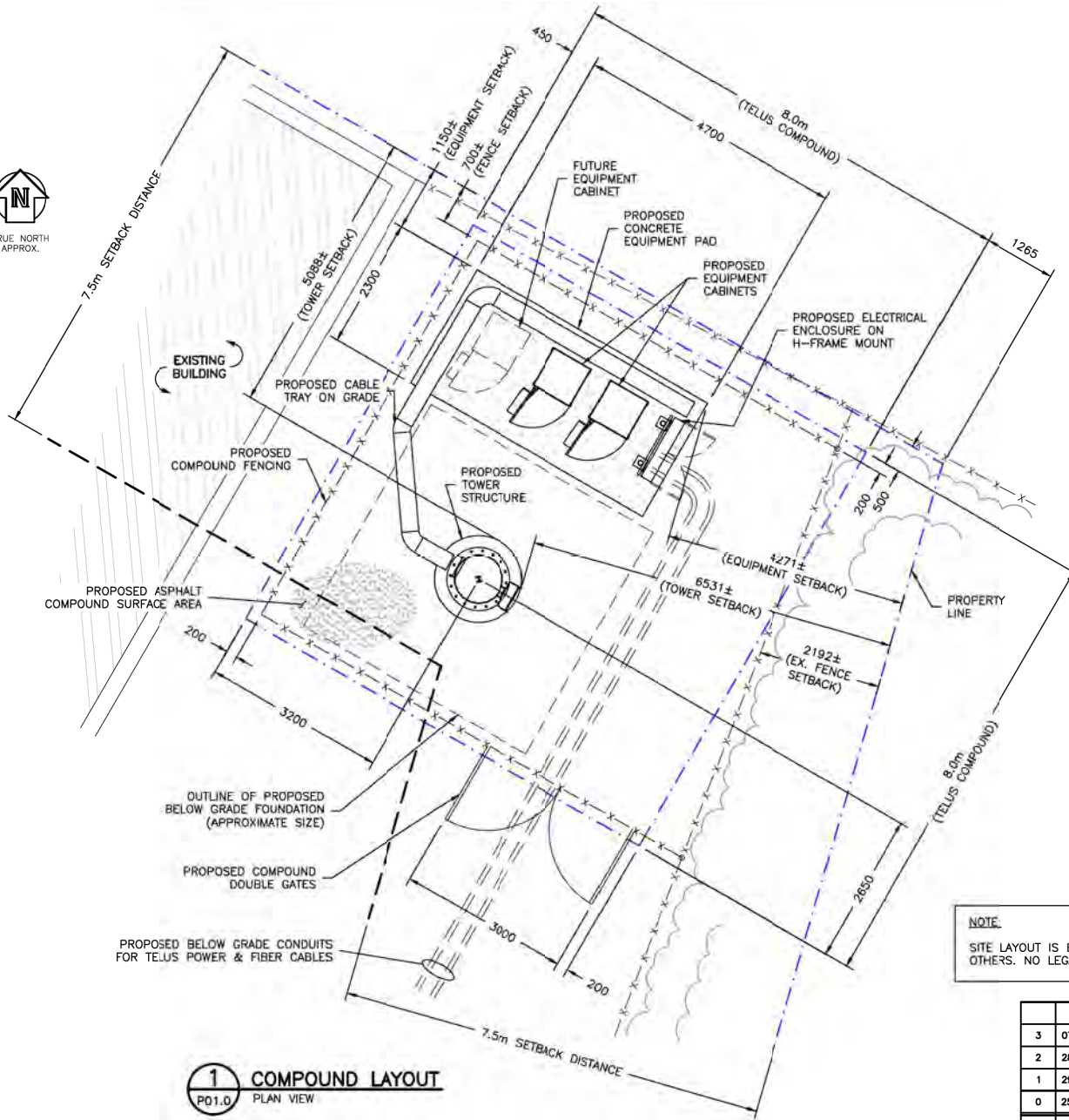
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TRUE NORTH APPROX.



TRUE NORTH APPROX.



2 TOWER SECTION
PLAN VIEW

1 COMPOUND LAYOUT
P01.0 PLAN VIEW

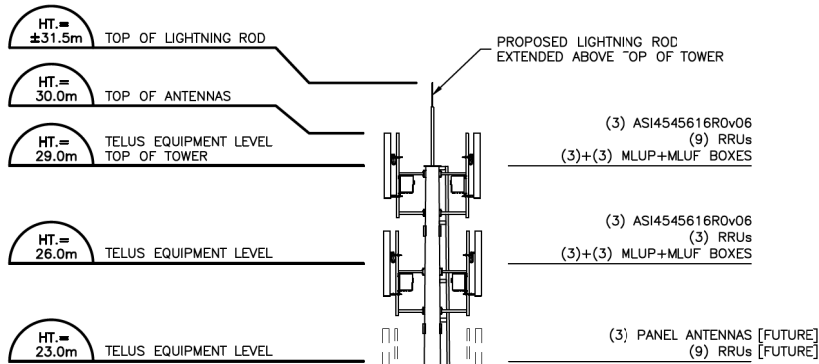
NOTE:
SITE LAYOUT IS BASED ON INFORMATION PROVIDED BY OTHERS. NO LEGAL SURVEY HAS BEEN COMPLETED.

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0	25MAR2020	ISSUED FOR PRELIMINARY REVIEW

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CLIENT:	TELUS MOBILITY		
SITE:	BC004930 SURREY - LANDMARK WAY/LANDMARK GATE		
PROJECT:	NEW MONOPOLE TOWER SITE		
JOB No:	E3554	LOCATION:	5726 LANDMARK WAY, SU BC
DRWG TITLE:	COMPOUND LAYOUT		DRWG:
			PC

7920-0124-00(C)



PROPOSED LIGHTNING ROD
EXTENDED ABOVE TOP OF TOWER

(3) ASI4545616R0v06
(9) RRUs
(3)+(3) MLUP+MLUF BOXES

(3) ASI4545616R0v06
(3) RRUs
(3)+(3) MLUP+MLUF BOXES

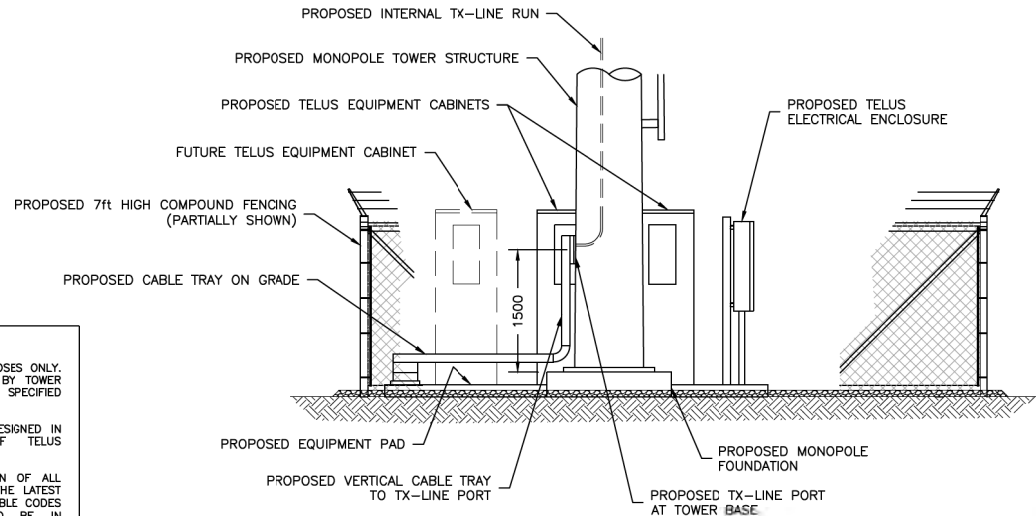
(3) PANEL ANTENNAS [FUTURE]
(9) RRUs [FUTURE]

PROPOSED 29m MONOPOLE TOWER

PROPOSED EXTERNAL CLIMB LADDER

TOWER SIZE & SHAPE SHOWN ON THIS DRAWING IS FOR GENERAL SCHEMATIC PURPOSES ONLY. THE ACTUAL TOWER WIDTH, SHAPE, AND TAPER MAY BE DIFFERENT DEPENDING ON FINAL DESIGN BY TOWER SUPPLIER.

TOWER NOTES:
 TOWER SHOWN FOR CONCEPTUAL DESIGN PURPOSES ONLY. DETAILED TOWER DESIGN TO BE COMPLETED BY TOWER SUPPLIER, BASED ON FINAL ANTENNA LOADING SPECIFIED BY CLIENT.
 TOWER & ASSOCIATED COMPONENTS TO BE DESIGNED IN ACCORDANCE WITH LATEST EDITION OF TELUS CONSTRUCTION SPECIFICATIONS.
 TOWER STRUCTURAL DESIGN, AND THE DESIGN OF ALL ASSOCIATED COMPONENTS, TO CONFORM TO THE LATEST EDITION OF CSA/CAN-S37, AND OTHER APPLICABLE CODES & STANDARDS. SPECIFIED WIND LOAD TO BE IN ACCORDANCE WITH ENVIRONMENT CANADA SITE SPECIFIC WIND REPORT.
 TOWER MUST CONFORM TO THE REQUIREMENTS OF CSA/CAN-S37-18 ANNEX N 'TOWER DYNAMIC EFFECTS AND FATIGUE'.
 DESIGN PARAMETERS:
 RELIABILITY CLASS: I
 IMPORTANCE FACTOR: 1.0
 SERVICEABILITY FACTOR: 1.0
 TOWER MARKING & LIGHTING REQUIREMENTS TO BE IN ACCORDANCE WITH TRANSPORT CANADA REQUIREMENTS.



2 COMPOUND ELEVATION
ELEVATION VIEW

ANTENNA LOADING CHART

HEIGHT		ANTENNA			TX-LINE		STATUS	OWNER
(ft)	(m)	QTY	DESCRIPTION	AZIMUTH	QTY	TYPE		
95.1	29.0	3	ASI4516R0v06	30/150/270	--	JUMPERS	PROPOSED	TELUS
		9	RRUs	--	--	JUMPERS		
		3+3	MLUP & MLUF DISTRIBUTION BOXES	--	3+3	POWER + FIBER		
85.3	26.0	3	ASI4516R0v06	30/150/270	--	JUMPERS	PROPOSED	TELUS
		3	RRUs	--	--	JUMPERS		
		3+3	MLUP & MLUF DISTRIBUTION BOXES	--	3+3	POWER + FIBER		
75.5	23.0	3	N78 GENERIC ANTENNA	30/150/270	--	JUMPERS	FUTURE	TELUS
		9	RRUs [TO BE CONFIRMED]	--	TBD	POWER + FIBER		

NOTE: SPECIFIED LOADING IS PRELIMINARY ONLY AND IS SUBJECT TO REVISION PER FINAL RF DESIGN.

1 TOWER PROFILE & SITE ELEVATION
ELEVATION VIEW

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1	29MAY2020	ISSUED FOR PRELIMINARY REVIEW
0	25MAR2020	ISSUED FOR PRELIMINARY REVIEW

REV	DATE	DESCRIPTION
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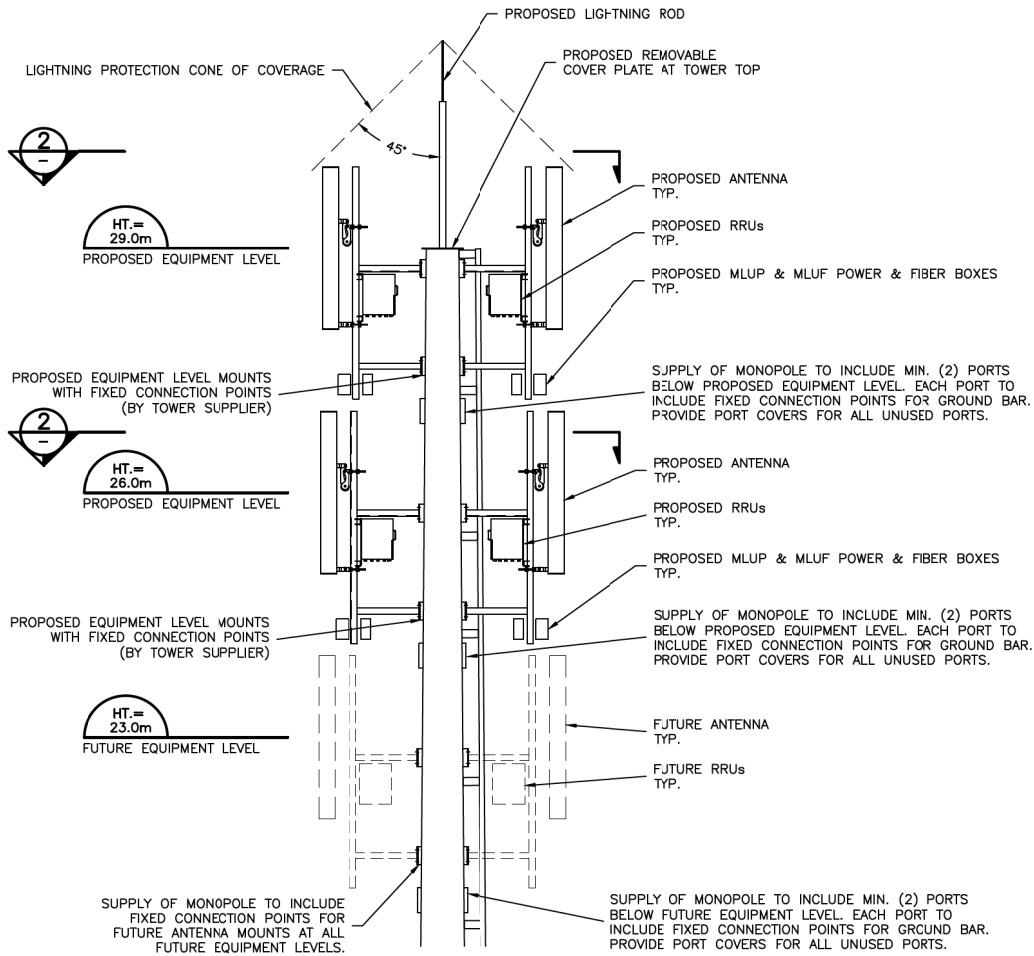
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CLIENT: TELUS MOBILITY
 SITE: B0004930 SURREY - LANDMARK WAY/LAN
GATE
 PROJECT: NEW MONOPOLE TOWER SITE
 JOB No: E3554 LOCATION: 5726 LANDMARK WAY, S
BC
 DRWG TITLE: SITE ELEVATION

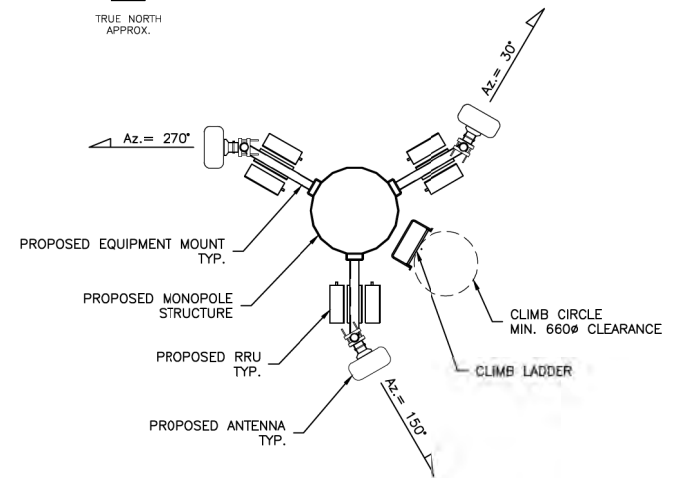
7920-0124-00(D)

NOTE:

EQUIPMENT MOUNTING SHOWN IS PRELIMINARY AND SUBJECT TO REVISION ACCORDING TO THE DETAILED DESIGN BY THE TOWER SUPPLIER & CLIENT ANTENNA LOADING.



1 TOWER EQUIPMENT
ELEVATION VIEW



2 PROPOSED EQUIPMENT LAYOUT
PLAN VIEW

REV	DATE	DESCRIPTION
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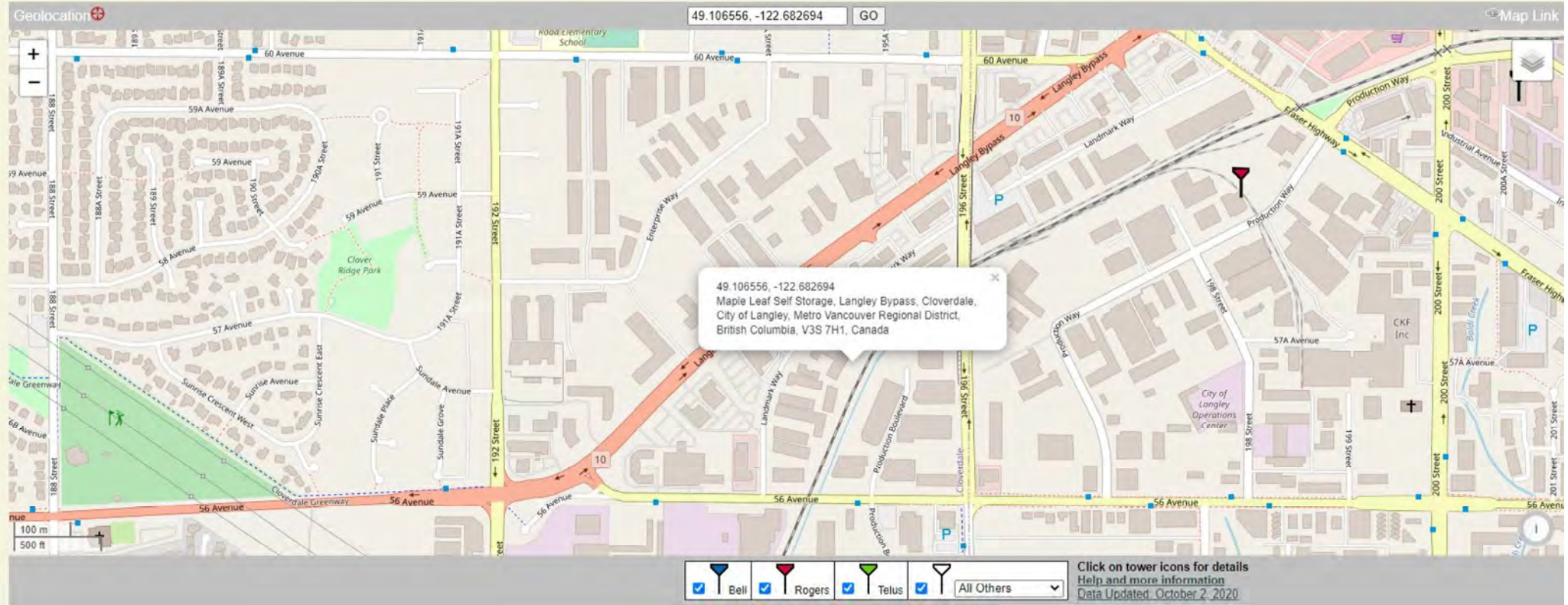
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CLIENT: TELUS MOBILITY
SITE: BC004930 SURREY - LANDMARK WAY/LANDMARK GATE
PROJECT: NEW MONOPOLE TOWER SITE
JOB No: E3554 LOCATION: 5726 LANDMARK WAY, SURREY BC
DRWG TITLE: PROPOSED & FUTURE EQUIPMENT LEVELS
DRWG: PK

7920-0124-00(E)

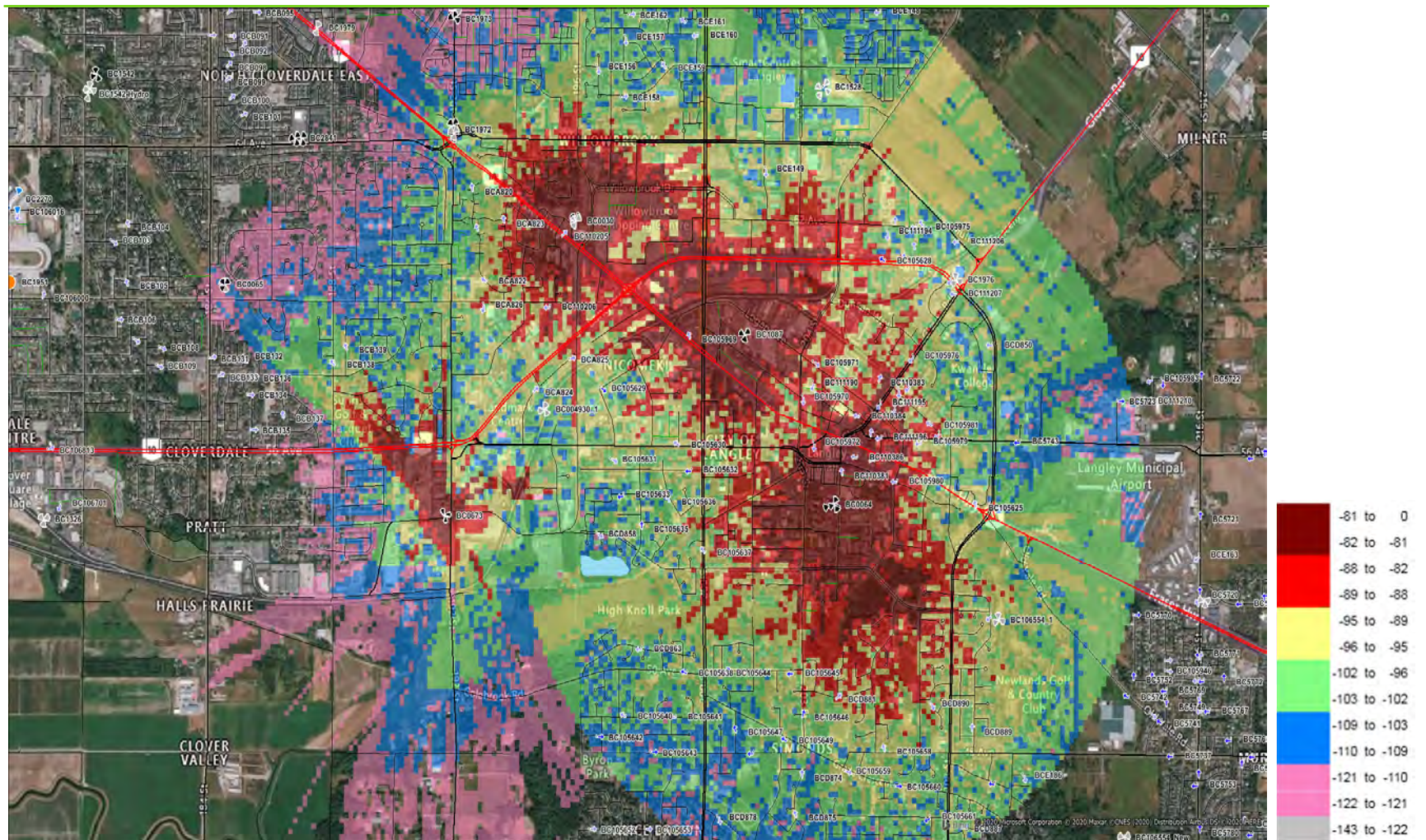


Canadian Cellular Towers Map





LTE 800 RSRP BEFORE



LTE 800 RSRP AFTER

