City of Richmond

Report to Development Permit Panel

Planning and Development Department

To:	Development Permit Panel	**Date:**	December 17, 2012
From:	Wayne Craig Director of Development	**File:**	DV 11-565153
Re:	**Application by Standard Land Company Inc. for a Telecommunication Antenna Tower Installation and Development Variance Permit at 16300 River Road**		

Staff Recommendation

That:

1. Richmond City Council grant concurrence to the proposed telecommunication antenna tower installation at 16300 River Road; and

2. A Development Variance Permit be issued which would vary the provisions of the Richmond Zoning Bylaw 8500 to increase the maximum accessory structure height of "Light Industrial (IL)" zoning from 20 m (66 ft.) to 45 m (148 ft.), in order to permit the construction of a telecommunication antenna tower at 16300 River Road.

Wayne Craig
Director of Development

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Att. 3

Staff Report

Origin

On October 12, 2011, the Development Permit Panel made the following referral to staff:

That the application for a Development Variance Permit by Standard Land Company Inc., in order to permit the construction of a telecommunication antenna tower at 16300 River Road, be referred back to staff for:

a) Future consideration following Council's consideration of a forthcoming staff report on a Telecommunication Antenna Consultation and Siting Policy;
b) View and visibility analysis of the proposed telecommunication antenna tower;
c) A review of the materials, colours and finishing proposed for the telecommunication antenna tower; and
d) Further rationale for the requested 45-metre height of the telecommunication antenna tower.

A copy of the staff report forwarded to the October 12, 2011 Development Permit Panel meeting is contained in **Attachment 1**. This report responds to the Development Permit Panel referral and brings forward a revised telecommunication antenna tower proposal for consideration.

Project Description

The following is a summary of the proposed installation on the subject site, including revisions that have been made since it was originally considered by the Development Permit Panel on October 12, 2011:

- A 45 m (148 ft.) self-support trellis telecommunication tower with a supporting 225 sq. m (2,422 sq.ft.) mechanical enclosure at the base of the tower enclosed and screened by a combination of chain-link and solid panel fencing.
- The tower and surrounding fence have been shifted 35 m (115 ft.) to the north with a 60 m (197 ft.) proposed setback to the south property line. The original submission proposed a 25 m (82 ft.) setback to the south property line.
- The proposed installation is located on the southern half of the subject site, but has been shifted 35 m (115 ft.) to the north compared to the original proposal in response to the City's long-term strategy of implementing a road along the south property line to service future industrial development in the 16,000 block of River Road. The additional setback distance provides separation space between the future road, which would handle all industrial related traffic, and the proposed telecommunication installation.
- Proposed tower location does not preclude the ability to develop the future road planned along the south property line.
- The proposed telecommunication tower is designed to accommodate co-location for up to 3 different telecommunication service providers.
- A private service road through the subject site will provide access to the telecommunication installation from River Road.

Background

Development surrounding the subject site is as follows:

To the north:	River Road and the foreshore of the Fraser River;
To the east:	A property zoned Golf Course (GC) that is currently vacant. Staff are processing a rezoning application on this neighbouring site (16360 River Road; RZ 10-523713) that proposes commercial vehicle parking, outdoor storage and limited light industrial development;
To the south,	A rail line and right-of-way. Further south are lots zoned Agriculture (AG1) contained in the ALR; and
To the west,	A property zoned Light Industrial (IL) with a some light industrial buildings and outdoor storage of equipment, goods and vehicles.

Related City Policies and Regulations

2041 Official Community Plan

The subject site is designated for "Industrial" in the 2041 Official Community Plan (OCP) land use map. Telecommunication antenna and supporting infrastructure complies with the existing OCP land use designation.

Zoning Regulations

The City's Zoning Bylaw 8500 permits telecommunication antenna and supporting infrastructure as an outright use in all zoning districts throughout the City. Zoning regulations also require all components of the tower and supporting infrastructure to comply with the specific zoning regulations for each site. The definition of "accessory structure" in the Zoning Bylaw also specifically permits telecommunication antenna installations.

16300 River Road has Light Industrial (IL) zoning. This zoning district identifies a maximum accessory structure height limitation of 20 m (66 ft.) Therefore, a variance is requested to the accessory structure height to permit the proposed 45 m (148 ft.) telecommunication tower. All other components of the telecommunication tower and supporting infrastructure (i.e., setback, lot coverage) complies with existing zoning provisions.

Telecommunication Antenna Consultation and Siting Protocol (Policy 5045)

Richmond City Council approved the Telecommunication Antenna Consultation and Siting Protocol (Policy 5045) on February 13, 2012, which guides the City's review and consideration of telecommunication antenna proposals in accordance with Federal regulations and consultation and siting criteria contained in the protocol. A copy of Policy 5045 is contained in **Attachment 2.**

City staff were in the process of developing a telecommunication antenna protocol when the initial Development Variance Permit application was considered and referred by the Development Permit Panel on October 12, 2011. Since the approval of Richmond's Policy 5045, the proponent and City staff have reviewed the proposed telecommunication tower installation in compliance with the provisions of the City's Telecommunication Antenna Consultation and

Siting Protocol. The following is a summary of applicable provisions of Policy 5045 that apply to the proposed telecommunication antenna tower on the subject site.

- Protocol Exclusions – The proposed tower does not fall within any of the identified exclusions in the Protocol.
- Required Consultation – The proposed telecommunication tower is located on land designated for "Industrial" in the OCP and is not located on or in close proximity to a designated sensitive land use identified in the Protocol. Therefore, no additional consultation is required based on Policy 5045. As a Development Variance Permit is also being requested to vary the height of the telecommunication tower, the normal process of public notification (i.e., newspaper advertisements; mailed notification) pertaining to the Development Variance Permit process will apply to this application.
- Design Guidelines
  - Co-Location – The proponent has confirmed that the telecommunication tower has capacity for co-location of 3 separate service providers. There are no existing structures or buildings in the surrounding area that can be utilized to locate the proposed telecommunication antenna.

  - Specific Siting Criteria – The proposed telecommunication tower is located approximately 200 m (656 ft.) from River Road and 40 m (131 ft.) from a future planned industrial road that would run along the south edge of the property. These setback distances help to minimize the visibility of the tower. The tower is also sited so that it is located adjacent to the outdoor parking/storage and vacant land areas to the west and east of the subject site.

    The tower is also setback from any existing residential uses in the surrounding area (i.e., approximately 350 m (1,148 ft.) from the nearest single-family dwellings along No. 7 Road; approximately 200 m (656 ft.) from residential caretaker units along River Road).

  - General Location Criteria – The tower is located on OCP "Industrial" designated land, which is supported in the protocol. No existing landscaping/vegetation will be impacted by the proposed telecommunication installation.

  - Screening and Landscaping – A wire-mesh fence is located around the base of the tower for security purposes. In addition to the metal fencing, a panel wooden fence is located around the perimeter to provide a solid visual screen. No landscape buffering around the perimeter of the fencing is proposed as the tower is not adjacent to a residential use, public road or surrounding buildings.

The proposed telecommunication antenna tower and supporting infrastructure has been reviewed in accordance with Policy 5045 and complies with all applicable provisions of the policy. Based on the requested variance for the tower height and Policy 5045, Council concurrence or non-concurrence for the proposed tower will be incorporated into the Development Variance Permit application considered by the Development Permit Panel and Council.

Responses to the Development Permit Panel Referral (October 12, 2011)

This section provides information in response to the October 12, 2011 referral (responses are identified in ***bold italics***).

Future consideration following Council's consideration of a forthcoming staff report on a Telecommunication Antenna Consultation and Siting Policy – ***The proposed telecommunication antenna tower and requested variance to increase the height for the tower on the subject site has been reviewed in accordance with the Council approved Telecommunication Antenna Consultation and Siting Protocol (Policy 5045) to ensure compliance. The proposed installation complies with the protocol.***

View and visibility analysis of the proposed telecommunication antenna tower – ***The proponent generated a series of photo-simulations showing before and after pictures of the proposed lattice type telecommunication tower with all antenna equipment that can be accommodated on the structure. Based on the photo-simulations and placement of the tower on the southern portion of the subject site, tower visibility is minimized from surrounding public roads (i.e., River Road and No. 7 Road) and buildings on neighbouring properties that are generally situated closer to River Road. Please refer to Attachment 3 for a copy of the photo simulations showing before and after pictures of the proposed installation.***

A review of the materials, colours and finishing proposed for the telecommunication antenna tower – ***The proponent has confirmed that the proposed lattice type tower was selected to provide the necessary structural support to facilitate co-location for a total of 3 service providers. A monopole type installation would not be able to support as much equipment to facilitate co-location; therefore, the proponent has confirmed that a monopole would not be appropriate for application at this location.***

The galvanized steel trellis tower will be grey in colour as the proponent indicates that this colour selection best blends in with the surrounding sky. The proponent notes that in cases where a tower is located near landscaped/treed areas, a dark green colour is typically selected to blend in with the surrounding area. There is no existing landscaping on the subject site or nearby on neighbouring properties; therefore, the trellis tower will be galvanized steel and grey in colour. Preliminary comments from Transport Canada on the proposal indicated that no special painting is required for this installation. The proponent is required to obtain confirmation on any specific Federal Navigation Canada requirements prior to installation.

Further rationale for the requested 45-metre height of the telecommunication antenna tower – ***The rationale provided by the proponent for a 45 m (148 ft.) tower is that the requested structure height enables enough spacing to accommodate equipment for 3 service providers, located between 28 m (92 ft.) to 45 m (148 ft.) on the tower. The service area that this installation intends to capture are the surrounding industrial and agricultural areas in Richmond, Fraser River and portion of south Vancouver. A tower proposed at 45 m (148 ft.) is able to provide significant increased coverage in the targeted areas as opposed to a smaller tower that would not have co-location potential for other service providers. Limiting the height of the proposed telecommunication tower, in conjunction with reduced ability for additional equipment for co-location would reduce the service coverage in the intended target areas and may result in a demand for additional towers to be installed near to the subject site to provide the same level of coverage that one 45 m (148 ft.) tower could provide.***

Based on an analysis of service coverage undertaken by the proponent's consultant for the proposed 45 m (148 ft.) tower, a tower installation complying with zoning at a height of 20 m (66 ft.) will provide significantly decreased amounts of coverage than the tower proposed at 45 m (148 ft.). It is estimated that as many as 12 total individual 20 m (66 ft.) towers in the surrounding areas will need to be installed to provide similar service coverage that one 45 m (148 ft.) tower is able to accommodate.

Staff Comments

Flood Plain Designation and Protection Bylaw 8204

The City's Flood Plain Designation and Protection Bylaw 8204 requires a minimum Flood Construction Level (FCL) of 3.1 m. As a result, all equipment and installations associated with the proposed tower that are susceptible to damage by flood waters are required to comply with the minimum FCL established for this area. The proponent has confirmed that the tower and all related installations will comply with Bylaw 8204 provisions.

Upcoming Process and Building Permit Requirements

If Council grants concurrence to the proposed telecommunication antenna tower and issues the requested variance, the proponent will be required to submit a building permit application for review and approval by the City.

Conclusions

The proposed 45 m telecommunication antenna tower installation has addressed the items identified at the October 12, 2011 Development Permit Panel meeting. The tower has also been reviewed in accordance with Richmond's Telecommunication Antenna Consultation and Siting Protocol, which satisfies all aspects of this Policy.

The location of the tower is on land designated for "Industrial" in the 2041 OCP and is sufficiently separated from surrounding buildings and any surrounding residential uses. Additional justification has been provided by the proponent to indicate the need for the 45 m (148 ft.) tower height and how visibility of the structure will be mitigated by setback distances from the public roads.

As a result, staff recommend that:

- Concurrence for the telecommunication antenna tower and supporting infrastructure, be granted; and
- The requested variance to increase the accessory structure height from 20 m (66 ft.) to 45 m (148 ft.) for the telecommunication antenna tower, be granted.

Kevin Eng
Planner 1

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ATTACHMENT 1

City of Richmond
Planning and Development Department

Report to Development Permit Panel

To:	Development Permit Panel	Date:	September 19, 2011
From:	Brian J. Jackson, MCIP Director of Development	File:	DV 11-565153
Re:	**Application by Standard Land Company Inc. for a Development Variance Permit at 16300 River Road**		

Staff Recommendation

That a Development Variance Permit be issued which would vary the provisions of Richmond Zoning Bylaw 8500 to increase the maximum accessory structure height of "Light Industrial (IL)" from 20 m (66 ft.) to 45 m (148 ft.), in order to permit the construction of a telecommunication antenna tower at 16300 River Road.

Brian J. Jackson, MCIP
Director of Development

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Staff Report

Origin

Standard Land Company Inc. (on behalf of Telus Corp.) has applied to the City of Richmond for permission to vary the maximum accessory structure height from 20 m (66 ft.) to 45 m (148 ft.) to develop a new telecommunication antenna tower with related accessory uses at 16300 River Road (refer to Schedule A for a location map).

The site is currently zoned "Light Industrial (IL)" and is vacant of buildings with the exception of a small residential dwelling at the north edge of the site. Outside storage of commercial vehicles is also occurring on remaining portions of the site. The proposed variance will apply to a new telecommunication antenna tower only located at the rear of the site.

Project Description

The telecommunication antenna tower and all related equipment enclosures are contained within a fenced compound with a total footprint area of 225 sq. m (2,422 sq. ft.) The fenced compound area is located at the southwest corner of the site and is setback 25 m (82 ft.) from the rear (south) property line and 5 m (16.5 ft.) from the side (west) property line. The tower holding the telecommunication antenna is a 45 m lattice self-support structure. Access to the telecommunication area compound will be through a private access road secured through the property and arranged between the service provider and property owner.

Background

Development surrounding the subject site is as follows:

To the north:	River Road and the foreshore of the Fraser River;
To the east:	A property zoned Golf Course (GC) that is currently vacant with no development;
To the south:	A rail line and right-of-way. Further south are lots zoned Agriculture (AG1); and
To the west:	A property zoned Light Industrial (IL).

Staff Comments

Official Community Plan Land Use and Zoning Designation

The subject site is designated for "Business and Industry" in the General and Specific Land Use Map of the Official Community Plan. The subject site is zoned Light Industrial (IL). Telecommunication antenna and related infrastructure is considered an accessory use on "Business and Industry" designated land so long as the installation is sensitive to any site-specific features on the property and surrounding adjacencies.

Telecommunication antenna are a permitted use in all zoning districts throughout the City and are subject to the appropriate accessory structure height limitations applicable to each zone. The definition of accessory structure in the Zoning Bylaw also specifically permits telecommunication antenna installations. The subject site's Light Industrial (IL) zoning identifies a maximum accessory structure height limitation of 20 m (66 ft.), therefore requiring a variance to permit the proposed 45 m (148 ft.) structure.

Flood Plain Designation and Protection Bylaw 8204

The City's Flood Plain Designation and Protection Bylaw 8204 requires a minimum Flood Construction Level (FCL) of 3.1 m. As a result, all equipment and installations associated with the tower proposal that are susceptible to damage by flood waters is required to comply with the minimum Flood Construction Level established for this area. The proponent has confirmed that the tower and all related installations will comply with the Bylaw provisions.

Status of City of Richmond Draft Telecommunication Antenna Consultation and Protocol

Richmond staff are working on revising and redrafting a Telecommunication Antenna Consultation and Siting Policy. Work on this initiative began in 2009 with revised regulations being included in the City's new Zoning Bylaw (8500). Additional work is being undertaken to develop a Policy for Richmond that includes:

- Specific consultation requirements based on surrounding land uses.
- Develop site-specific siting criteria and design guidelines.
- Provisions to support locating on existing building/structures and co-location of antenna equipment.
- Takes into account Federal jurisdiction over telecommunication antenna and installations, which includes exemptions granted by the Federal agency (Industry Canada).
- Outlines a specific review process for telecommunication antenna installations within the City.

As a result of preliminary consultation with telecommunication service providers (wireless/cellular) and Federal (Industry Canada) representatives, a number of revisions and comments were made that require additional work and review by City staff. Follow-up work on the policy and additional consultation with industry stakeholders is planned for the fall, 2011. Depending on the outcome of the consultation and any additional feedback, the earliest anticipated date that a revised policy on telecommunication towers and related installations will be brought forward to Council is in the spring, 2012.

In the absence a specific telecommunication installation policy for Richmond, Industry Canada has a default public consultation process to be followed by all telecommunication installations. The proponent has adhered to all the public consultation requirements and related guidelines identified in the Federal Industry Canada policy. Additional information on consultation and adherence to other Federal guidelines is contained in the upcoming section of the report.

Federal Requirements Addressed by Telecommunication Antenna Tower Proposal

Federal Public Consultation Requirements

Public consultation as per Industry Canada policy require a notification area of 3 times the proposed height of the tower measured as a radius from the base of the tower. Based on this, a total of 6 property owners were notified with an information package about the proposal. The proponent received one comment from the neighbouring property owner to the east (16360 River Road), who voiced concerns about the operation of such an installation and any related impacts on local health and safety.

The proponent responded to the neighbouring property owner that the installation will comply with Health Canada's regulations pertaining to the operation of antenna installations. No additional public comments were received. In addition to notification of surrounding property owners, the proponent posted an advertisement in the local paper requesting comments on the proposal. The public consultation period was from March 18, 2011 to April 18, 2011.

Public notification and consultation is also included as part of the statutory process for the Development Variance Permit application. This includes posting of necessary signage on the property, mailed notification and advertisements in a local paper of the Development Variance Permit application proceeding to the Development Permit Panel.

Compliance with Federal Health and Safety Provisions
The telecommunication installation is required to adhere to all Federal standards and guidelines involving radio frequency exposure. Health Canada establishes these guidelines, with the service provider required to comply with all provisions. Telecommunication towers also are required to comply with all Transport Canada/NAV Canada aeronautical safety requirements, depending on the height and design of the installation.

Analysis

Summary of Co-Location of Service Providers
This telecommunication tower will accommodate antenna installations for 3 different service providers located on the higher elevations of the tower. Based on the lattice structure of the tower and engineered capacity, the proponent has identified that this structure can accommodate additional telecommunication antenna to enable the 3 service providers to expand installations on lower elevations of the tower. The equipment compound surrounding the base of the tower is also sized to accommodate the equipment enclosures required by each service provider.

If all related telecommunication equipment is located on the tower structure (proposed and future installations), the proponent has indicated that the structure would be at capacity. Without the proposed height of 45 m (148 ft.), it is unlikely that a smaller tower would be able to facilitate opportunities for co-location or provide the necessary coverage that a taller structure is able to provide. The potential outcome of which may involve the unnecessary proliferation of a number of smaller telecommunication towers throughout the area to provide the same service coverage that one larger structure can provide.

Location of Telecommunication Tower
The subject tower site is located in an area in Richmond where the land use is designated and/or zoned for industrial uses. Active industrial sites are located to the west of the subject site with farming (predominantly cranberry bogs) located to the south across from the rail line. The service provider has also identified this site as a critical component of their overall strategy to improve telecommunication service in the area.

Residential development is limited to single-family dwellings situated along properties that front River Road to the east and No. 7 Road to the west. An approximate measured distance from the base of the tower to the nearest single-family dwelling is 350 m to a single-family dwelling on No. 7 Road and 225 m to a single-family dwelling on the subject site directly to the north (fronting River Road). Therefore, the proposed installation of a 45 m (148 ft.) tower will have minimal impacts on surrounding industrial, agricultural and residential land uses.

Compliance with Richmond Draft Policy on Telecommunication Installations

Upon review of the proposed 45 m (148 ft.) tower and related structures, general compliance with the provisions of Richmond's Draft Policy related to Telecommunication Installations is achieved on the following basis:

- The tower is not located on or adjacent to residential areas.
- Location of telecommunication in industrial areas is supported, so long as site specific design and siting issues are addressed.
- No existing structures or buildings in the surrounding area can accommodate the proposed telecommunication equipment.
- The proposal maximizes opportunities for the co-location of antenna equipment (including future expansion) for up to 3 service providers on the same tower.
- The tower and related installations do not involve the removal of any existing trees, landscaping or disturbance of natural habitat areas.
- A metal chain link fence around the perimeter secures the enclosure containing the tower and related equipment. In addition to the chain link fence, a 1.8 m (6 ft.) high cedar fence is located around the west, south and east sides of the compound for additional screening. The wooden fence does not extend along the north side to allow for access to the equipment.

Siting of Tower in Relation to Future Industrial Road

A long-term transportation objective for this portion of River Road is to facilitate improved vehicle access to industrial zoned and designated lands, while also enhancing pedestrian/cyclist use of River Road and other City infrastructure objectives (i.e., dyke and/or drainage upgrades). As a result, a parallel running road south of River Road and located along the south edge of properties in the 16,000 block of River Road has been identified as one item that would be required upon redevelopment of industrial properties in this area. To take this future road alignment into consideration, the tower and related installations are setback 25 m (82 ft.) from the rear property line. The proposed location of the tower and fenced compound will allow for development of a new industrial service road along the subject site's south property line upon industrial redevelopment of the site and surrounding properties in this area.

Conclusion

Standard Land Company Inc. has applied to vary the maximum height limitation of an accessory structure to allow for a 45 m (148 ft.) tall telecommunication antenna tower to be constructed on a Light Industrial (IL) zoned property at 16300 River Road. All technical issues, siting and adjacency concerns have been resolved as part of this proposal. Staff recommend support of the Development Variance Permit application.

Kevin Eng
Planner 1

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Prior to future Building Permit issuance, the developer is required to complete the following:

- The applicant is required to obtain a Building Permit for any construction hoarding associated with the proposed development. If construction hoarding is required to temporarily occupy a street, or any part thereof, or occupy the air space above a street or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. *For further information on the Building Permit, please contact Building Approvals Division at 604-276-4285.*
- Submission of a construction traffic and parking management plan to the satisfaction of the City's Transportation Division (http://www.richmond.ca/services/ttp/special.htm).

City of Richmond

Policy Manual

Page 1 of 8	Adopted by Council: February 13, 2012	Policy 5045
File Ref: 08-4040-01-2012	Telecommunication Antenna Consultation and Siting Protocol	

POLICY 5045

The Federal *Radiocommunications Act* regulates the telecommunications network (e.g. antennas) and supersedes local zoning powers. Nevertheless, the *Telecommunication Antenna Consultation and Siting Protocol* (**Protocol**) identifies the City's interests in managing network elements, in order for network providers to know and follow them, as long as they do not impair the performance of the telecommunications network.

The Protocol addresses:

A. **City zoning**, acknowledging the authority of the *Radiocommunication Act* (**Act**), Industry Canada's role, policy and regulations under this Act, and that local zoning is not applied so as to impair the performance of the telecommunications network.

B. **Public consultation** requirements associated with the placement of certain telecommunication antenna installations within the City of Richmond (**City**), including completing the consultation process within **120 days** of a Protocol application being received by the City.

C. **Siting design guidelines** applicable to all telecommunication antenna installation proposals described under this **Protocol**.

D. The City's process for Council and staff for providing recommendations of concurrence or non-concurrence under the authority of the **Act** as well as exemptions to this process.

1. Federal Authority and City Regulations

A. **Zoning** - Federal authority over telecommunication antenna **installations** provides that the **City** is not able to prohibit these uses under its zoning, and thus:

   a. **Telecommunication antenna installations (Installations)** are a permitted use in all zones.
   b. **Zoning regulations** apply to the zone in which the **Installation** is located (i.e. siting, height, landscaping, etc.).
   c. **Development Variance Permit** applications to vary height or siting provisions under the zoning may be considered if necessary to the extent that they would not reasonably prohibit an Installation.

B. **Siting Design Guidelines** are included in this **Protocol** with a preference for new tower **Installations** to be located outside of the **Residential, Agriculture, Agriculture & Open Space and Public & Open Space** OCP land-use designations or associated zones.

C. **Building permits** are required to be issued by the **City** for foundations for antennas and associated construction of new buildings and building additions to accommodate **Installations**.

D. **Municipal Access Agreements** apply to any **Installations** within the City's roads, rights of way and other public places as defined and permitted in such Municipal Access Agreements.

Notes:

a. For the purposes of this **Protocol**, **"telecommunication antenna Installations"** (**Installations**) can take the form of either antennas mounted on stand-alone towers or building-mounted antennas along with any supporting mechanical rooms, buildings and infrastructure of telephone and data networks that serve public subscribers.

b. "Residential" includes all Residential, Neighbourhood Residential, Mixed Use, High-Density Mixed-Use, and Neighbourhood Service Centre land use designations in the OCP and includes all zones consistent with these OCP designations.
c. Subsequent OCP land use designations with similar uses to those described in this Protocol may be used in place of the current OCP land use designations.

d. "Tower" includes monopoles, stand-alone towers, masts and similar structures to which antennas are attached, but does not include building-mounted antennas under 6.0m in height.

2. Antennas Requiring Protocol Processing

A. Situations Where Protocol Consultation Provisions Do not Apply

Sections 3 (Consultation), 4A(Co-Location) of this Protocol do not apply to:

Industry Canada Exclusions

a. Maintenance of existing radio apparatus including the antenna system, transmission line, mast, tower or other antenna-supporting structure.

b. Addition or modification of an antenna system (including improving the structural integrity of its integral mast to facilitate sharing), the transmission line, antenna-supporting structure or other radio apparatus to existing infrastructure, a building, water tower, etc. provided the addition or modification does not result in an overall height increase above the existing structure of 25% of the original structure's height.

c. Maintenance of an antenna system's painting or lighting in order to comply with Transport Canada's requirements;

d. Installation, for a limited duration (typically not more than 3 months), of an antenna system that is used for a special event, or one that is used to support local, provincial, territorial or national emergency operations during the emergency, and is removed within 3 months after the emergency or special event; and

e. New antenna systems, including masts, towers or other antenna-supporting structure, with a height of less than 15 metres above ground level.

City Exclusions

f. New building-mounted installations provided they do not extend more than 3.0m above highest point of the building and meet section 4B of the Design Guidelines.

g. A new stand-alone tower that replaces an existing tower provided it does not exceed the height of the existing tower and that the new tower is located not more than 15m from the existing tower; the Proponent is required to remove the existing tower along with any unused associated foundations, buildings, fencing and other structures to the extent agreed by the landowner and the City.

h. Land that is designated in the OCP as Airport, Business and Industry and that is more than 300m (for new towers over 30m in height) or more than 150m (for new towers between 15m and 30m in height) from land with Residential OCP land-use designations.

i. Local government Installations that are solely dedicated to operation of local government utilities and infrastructure.

j. Private receiving antennas and closed telecommunication networks, neither of which serve public subscribers.

B. Situations Where Both Protocol Consultation and Detailed Design Provisions Apply

Sections 3 (Consultation) and Section 4 (Design Guidelines) of this Protocol apply to all new stand-alone installations on sites that are:

a. Within the Agriculture and Agriculture & Open Space OCP land-use designations/associated zones[1];

b. Residential or Public & Open Space OCP land use designations /associated zones or are within 300m for (new towers over 30m in height) or more than 150m (for new towers between 15m and 30m in height) of such lands.

Notes:

a. Broadcasters require licensing approval from the Canadian Radio-Television and Telecommunications (CRTC). Where a broadcaster constructs an installation, the broadcaster is required to provide documentation to the City confirming the initiation of the applicable (CRTC) licensing process and it's decision when made.

b. Where an installation is located on a City property the proponent may be required to enter into a specific agreement related to that property, or in the case of a road or SROW the proponent may be required to enter into a Municipal Access Agreement with the City.

c. Transport Canada and other federal transportation regulations and policies, including the current YVR maximum height zoning, is to be followed by the Proponent.

3. Stepped Consultation Process

A. For those new installations to which this Protocol applies, the process will generally involve the following steps:

a. Proponent should undertake initial pre-application consultation with the City to ascertain policy and technical issues as well as alternatives to locations that require consultation.

b. Proponent submits the Protocol application along with a siting plan that addresses this Protocol's Design Guidelines (Section 4) and provides written confirmation of compliance with Industry Canada, Nav Canada and other federal regulations. The City confirms whether the consultation process under this Protocol applies and whether a Development Variance Permit (DVP) to relax zoning regulations is required. If neither of these are required for more minor applications, an application for Design Review: Staff Concurrence is made under Process Stream No. 1 under Section 3B below.

[1] See Notes A and B on page 1.

c. City reviews the application based on the parameters established in this Protocol and provides initial comments

d. Proponent undertakes initial public consultation, at his/her cost, that includes:

   i. Advertising in at least two consecutive weekly issues of a local newspaper and City Hall Bulletin Board to inform the public of a proposed installation over 30m in height; and
   ii. Written notification, via direct-addressed mail, to all property owners within a radius from the base of the proposed tower equal to 6 times the tower height or adjacent property owners if no other property is located within 6 times tower height (mailing address list is provided by the City).

e. Proponent receives any public comments, within a 10-day public comment period commencing on the notice mailing date or second advertisement date (whichever is later), and addresses them with the public via correspondence through explanation or proposed changes to the proposal within a 10-day Proponent reply period commencing immediately after the public comment period.

f. Proponent documents all aspects of the public consultation process and provides a summary report to the City not more than 10 days after the end of the Proponent reply period . In addition to highlighting the details of the consultation process, the report must contain all public correspondence received and responses by the proponent to address public concerns and comments. Examples of concerns that proponents are to address, as identified by Industry Canada, include, but are not limited, to issues similar to the following:

   - Why is the use of an existing antenna system or structure not possible?
   - Why is an alternate site not possible?
   - What is the proponent doing to ensure that the antenna system is not accessible to the general public?
   - How is the proponent trying to integrate the antenna into the local surroundings?
   - What options are available to satisfy aeronautical obstruction marking requirements at this site?
   - What are the steps the proponent took to ensure compliance with the general federal requirements including the *Canadian Environmental Assessment Act* (CEAA), Safety Code 6, etc.?

g. Proponent may be required to hold a first public meeting if there are any outstanding public concerns after responding to any public comments from the initial consultation and reporting them back to the City. This meeting may take the form of a general public open house or invitee meeting if there are relatively few people expressing issues of concern. The notification process will be the same of that of initial notification if there is to be a public meeting or notification of only interested parties to an invitee meeting.(As necessary - determined at the discretion of the City's Director of Development, based on public comments from initial mail-out consultation).

h. Proponent addresses public comments from the first public or invitee meeting on issues and repeats documentation process as outlined in (e) above.

i. Proponent may need to make a DVP application if the proposal does not meet the applicable zoning setbacks, heights or landscaping/screening provisions. The DVP process is coordinated with the Protocol consultation process. If the Installation does not require public consultation as outlined above, but requires a DVP to relax zoning provisions, the Proponent will need to submit a standard DVP application following Process Stream 3 below, but with the regular 50m DVP consultation radius.

j. If the proposed Installation is located within the ALR, the proposal will also be referred to the City's Agricultural Advisory Committee (AAC) concurrently with the above Proponent consultation process.

B. The application takes one of Three Process Streams depending on whether the above public consultation and a DVP are required.

PROCESS STREAMS

1. Staff Concurrence: Design Guidelines Only	2. Council Concurrence: Regular Consultation Process	3. Council Concurrence: Consultation Process With a DVP
a. If there is no public consultation required as set out above nor a DVP required to relax zoning requirements, City staff will view an application for siting and design.	a. City undertakes public notification for formal consideration of application using the consultation area as set out in this Protocol.	a. City undertakes public notification for formal consideration of a DVP following the City DVP process, but using the consultation area as set out in this Protocol.
b. Staff prepares a memo reviewing how the proposed Installation meets the Design Guidelines under Section 4	b. City staff prepares a report to Planning Committee that reviews how the proposal meets the Protocol Design Guidelines, addresses public comments and provides a recommendation (i.e. endorse; not endorse).	b. City staff prepares a report to DP Panel that reviews how the proposal requires a variance to zoning, meets the Protocol Design Guidelines, addresses public comments and provides a recommendation (i.e. endorse; not endorse).
c. The Director of Development considers the above memo and either issues a letter with a recommendation of concurrence or requests changes to design and/or siting.	c. City Planning Committee reviews the application and staff report. This will be the first meeting if no previous proponent-held meeting was required by the City or a second meeting if there was an initial public meeting.	c. City Development Permit (DP) Panel reviews the application and staff report. This will be the first meeting if no previous proponent-held meeting was required by the City or a second meeting if there was an initial public meeting.
	d. City Planning Committee makes a recommendation of concurrence or non-concurrence.	d. City DP Panel makes a recommendation of concurrence or non-concurrence.
d. Proponent may undertake possible design or siting modifications and/or provides additional documentation on design rationale if required.	e. Proponent undertakes possible proposal modifications and commitments, if any, requested by Planning Committee.	e. Proponent undertakes possible proposal modifications and commitments, if any, requested by DP Panel.
e. The Director of Planning and Development issues a letter with a recommendation of concurrence or non-concurrence for design and siting.	f. Council considers Planning Committee's Recommendation of concurrence or non-concurrence that is then forwarded to the proponent and Industry Canada to conclude processing.	f. Council considers DP Panel Recommendation of concurrence or non-concurrence that is then forwarded to the proponent and Industry Canada to conclude processing.

Note: The City's DVP notification area is expanded, at City cost, beyond the standard 50m-radius area to a radius of equal to 6 times the proposed tower/antenna height measured from the tower/antenna or includes adjacent properties (whichever is greater) to be consistent with the proponent notification area in this Protocol.

4. Design Guidelines

These design guidelines apply to all installations - whether they involve new towers or are co-located on existing towers or erected on existing buildings. Proponents must also comply with Industry Canada design requirements, some of which are included in these guidelines (Please refer to CPC-2-0-03 – Issue 4 or subsequent Industry Canada Policies and Regulations).

A. Co-Location: The First Choice for All New Installations

a. Co-Locate on Existing Towers - Each proponent proposing a new tower installation will need to explore opportunities for co-location on existing towers as required by Industry Canada, particularly to the extent that it does not significantly increase the visible bulk of antennas of the tower. Proponents should contact all other relevant telecommunication service providers to confirm opportunities for or agreements to co-locate on an existing tower installation.

b. Planning for Co-Location - All new installations should be designed and engineered to accommodate additional antennas and related supporting infrastructure (e.g., mechanical buildings) as required by Industry Canada, particularly to the extent that it does not significantly increase the visible bulk of antennas for stand-alone towers or that accommodates multiple antennas on a building consistent with these guidelines.

c. Confirming Support for Co-Location - The proponent is to document whether they will be co-locating on existing towers installations or providing offers to share for future co-location opportunities if there are no current opportunities for co-location. Appropriate information from the Proponent's professional consultants, may be required to confirm the extent to which co-location is possible under the above sections.

B. Specific Siting Criteria for All New Installations

The following guidelines apply to all new installations (whether completely new towers or co-located on existing towers or erected on existing structures/buildings):

a. Comply with Existing Zoning - All applicable zoning regulations (height, setback, lot coverage and landscaping) apply to both stand-alone and building mounted installations and supporting utility structures unless a DVP is obtained, while acknowledging the *Radiocommunication Act*.

b. Integrate With Existing Adjacent Buildings and Landscape – Stand-alone installations should be properly integrated with existing buildings/structures and landscape in a manner that does not unduly affect their technical performance and be located to minimize the visual impact of the installation on surrounding land uses.

c. Integrate Into Building Design - Building-mounted installations should be architecturally integrated into the design of the building with appropriate screening (that does not unduly add the appearance of building mass) in a manner that does not unduly decrease their technical performance and colour

applied to minimize and integrate their appearance to the building. The preference is to have antennas screened only when screening will:

i. Not to increase mass unless appropriately integrated into the building mass; and
ii. Reduce visibility from street level and other major nearby buildings.

d. **Coordinate With Current Building Rooflines** – Building-mounted antennas should not extend beyond 3 m above the highest point of a building nor 3 m above a parapet wall surrounding the main part of a flat-roofed building to which the antenna is affixed. In addition to this guideline, the installation must comply with the maximum permitted building height under the applicable zoning, unless a DVP to relax the height provision is issued by the City.

e. **Conform with Any Applicable Existing Development Permit (DP) and Development Permit Area (DPA) Design Guidelines** – Installations affixed to existing buildings and structures should be consistent with or not defeat the intent of the applicable DP conditions or DPA design guidelines to the extent that conformity does not hamper the functionality of the Installation.

C. General Location for <u>New Stand-Alone Installations</u>

The following guidelines <u>apply to new stand-alone Installations</u> (where they can not be co-located on existing towers or erected on existing buildings/structures).

a. **Preference to Locate in OCP Industry and Business and Airport Designations** – A new stand-alone Installation should be located in the designated or zoned areas provided it is greater than 300m (for new towers over 30m in height), or more than 150m (for new towers between 15m and 30m in height), from lands with Residential or Public & Open Space land-use designations or associated zones.
b. **Minimize Environmental Impact** – Do not locate Installations in a manner that would negatively impact designated OCP Conservation Areas, Riparian Management Areas, and other areas with ecological habitat.
c. **Minimize Impact to Public & Open Space lands** – Do not locate Installations in a manner that would negatively impact existing parkland and other public open spaces which include playgrounds, sports fields, trails and other similar recreational features.
d. **Protect and Utilize Existing Vegetation** – Installations should be located to minimize disturbance of and maximize screening from existing trees and landscaping with the objective of minimizing the visual impact of the Installations.
e. **Minimize Agricultural Impact** – Proponents should avoid locating Installations on land within the Agricultural Land Reserve (ALR) or in the OCP Agriculture and Agriculture & Open Space designations or associated zones. If it is deemed necessary for a proposed installation to be located in these areas, the following requirements apply:

i. Comply with ALR regulations, including requiring that all tower and related equipment/buildings not exceed a maximum footprint area of 100 sq. m.
ii. If this maximum footprint area is exceeded, a "non-farm use" application to the City and Agricultural Land Commission will be required prior to going through the Protocol consultation and any applicable DVP application processes.
iii. Installations should be located in a manner that maximizes land available for farming and minimize negative impacts to existing and future potential agricultural operations.

D. Screening and Landscaping For New Tower Installations

Proponents are encouraged to construct any new tower installations meeting the following screening guidelines:

a. **Fencing** - Appropriate fencing is to be implemented to properly secure installations.
b. **Screening Buffers**- A contiguous, solid decorative fence or planted landscape buffer, consisting of a combination of hedging, trees and shrubs, is to be implemented to screen stand-alone tower installations from residential areas, adjacent buildings and public roads. A minimum height of 2.0 m, and sufficient thickness for vegetation screening to obscure view of the installation, constitutes a landscape buffer.
c. **Maintenance** - Proponents should provide for long-term maintenance and upkeep of appropriate landscaping for its stand-alone telecommunication installations.

Existing River Road

Photo Simulation

Existing No. 7 Road

Photo Simulation

Existing No. 7 Road

Photo Simulation

City of Richmond

Development Variance Permit

No. DV 11-565153

To the Holder:	Standard Land Company Inc.
Property Address:	16300 River Road
Address:	C/O Chad Marlatt 610 – 688 West Hastings Street Vancouver, BC V6B 1P1

1. This Development Variance Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied by this Permit.
2. This Development Variance Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. The "Richmond Zoning Bylaw 8500" is hereby varied to increase the maximum accessory structure height of "Light Industrial (IL)" from 20 m (66 ft.) to 45 m (148 ft.) in order to permit the construction of a telecommunication antenna tower as shown on Plan #1 to #4 attached hereto.
4. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.
5. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse.

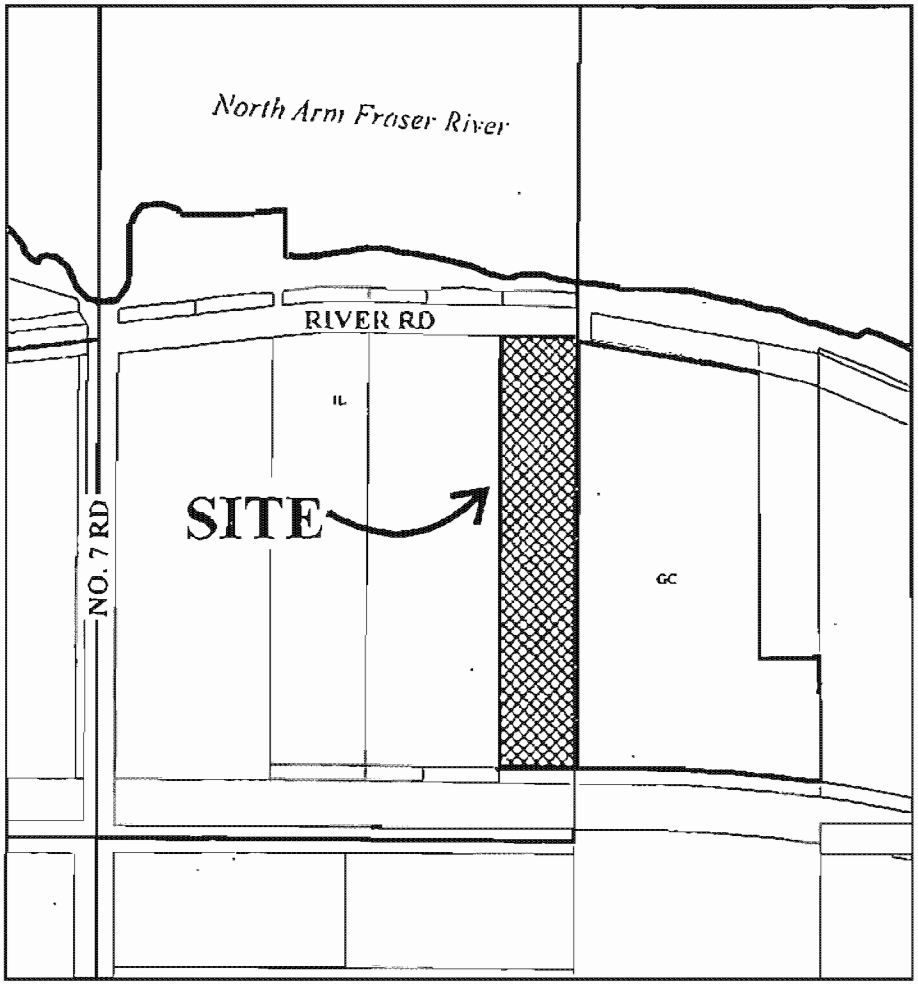
This Permit is not a Building Permit.

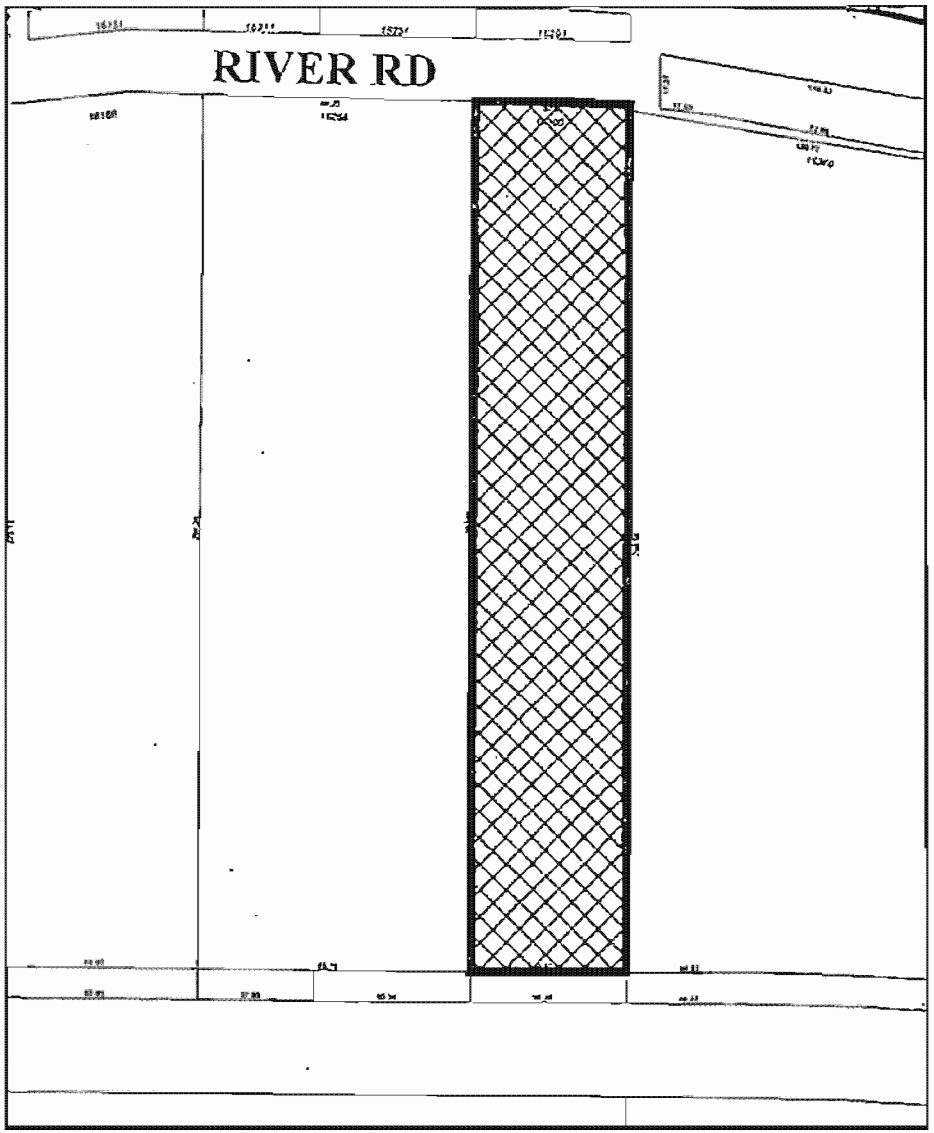
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

MAYOR

City of Richmond





DV 11-565153
SCHEDULE "A"

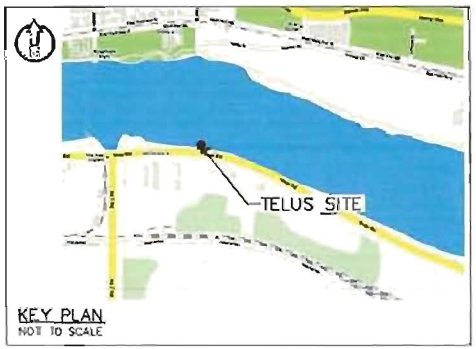
Original Date: 02/28/11

Revision Date:

Note: Dimensions are in METRES

DRAWING INDEX		REV
A-1	COVER SHEET	L
A-2	SITE PLAN	I
A-3	COMPOUND LAYOUT	L
A-4	NORTH ELEVATION AND ANTENNA LAYOUTS	L
A-5	CEDAR FENCE ELEVATION	L

TELUS



SITE NAME:	FRASERVIEW
SITE ADDRESS:	16300 RIVER ROAD RICHMOND, BRITISH COLUMBIA
CONFIGURATION:	WIC AND ANTENNAS ON 45.0m SELF SUPPORT TOWER
SITE TYPE:	WCDMA
SITE CODE:	BC1204
PROJECT NUMBER:	1010-068
LATITUDE (NAD 83):	49° 11' 58.59"N
LONGTITUDE (NAD 83):	123° 02' 34.58"W

REV.	DESCRIPTION	BY	DATE
L	GENERAL REVISIONS	RM	NOV 29/12
K	GENERAL REVISIONS	RM	NOV 19/12
J	GENERAL REVISIONS	RM	NOV 15/12
I	REVISED PER TELUS	RM	MAR 27/12
H	GENERAL REVISIONS	RM	JAN 24/12
G	GENERAL REVISIONS	RM	AUG 31/11
F	SURVEY UPDATED	RM	JUN 20/11
E	SURVEY ADDED	RM	JAN 11/11
D	REVISED PER TELUS	RM	JAN 4/11
C	GENERAL REVISIONS	RM	DEC 20/10
B	ISSUED FOR REVIEW	RM	DEC 07/10
A	ISSUED FOR REVIEW	RM	NOV 26/10

CLIENT:

TELUS

TRK ENGINEERING
#201-17688 65TH AVE
SURREY, BC V3S 7X1
TEL: (604) 574-6433
FAX: (604) 574-6431
EMAIL: mail@trkeng.com
WEB: www.trkeng.com

PROJECT:

FRASERVIEW
16300 RIVER ROAD
BC1204

RICHMOND BRITISH COLUMBIA

DRAWING TITLE:

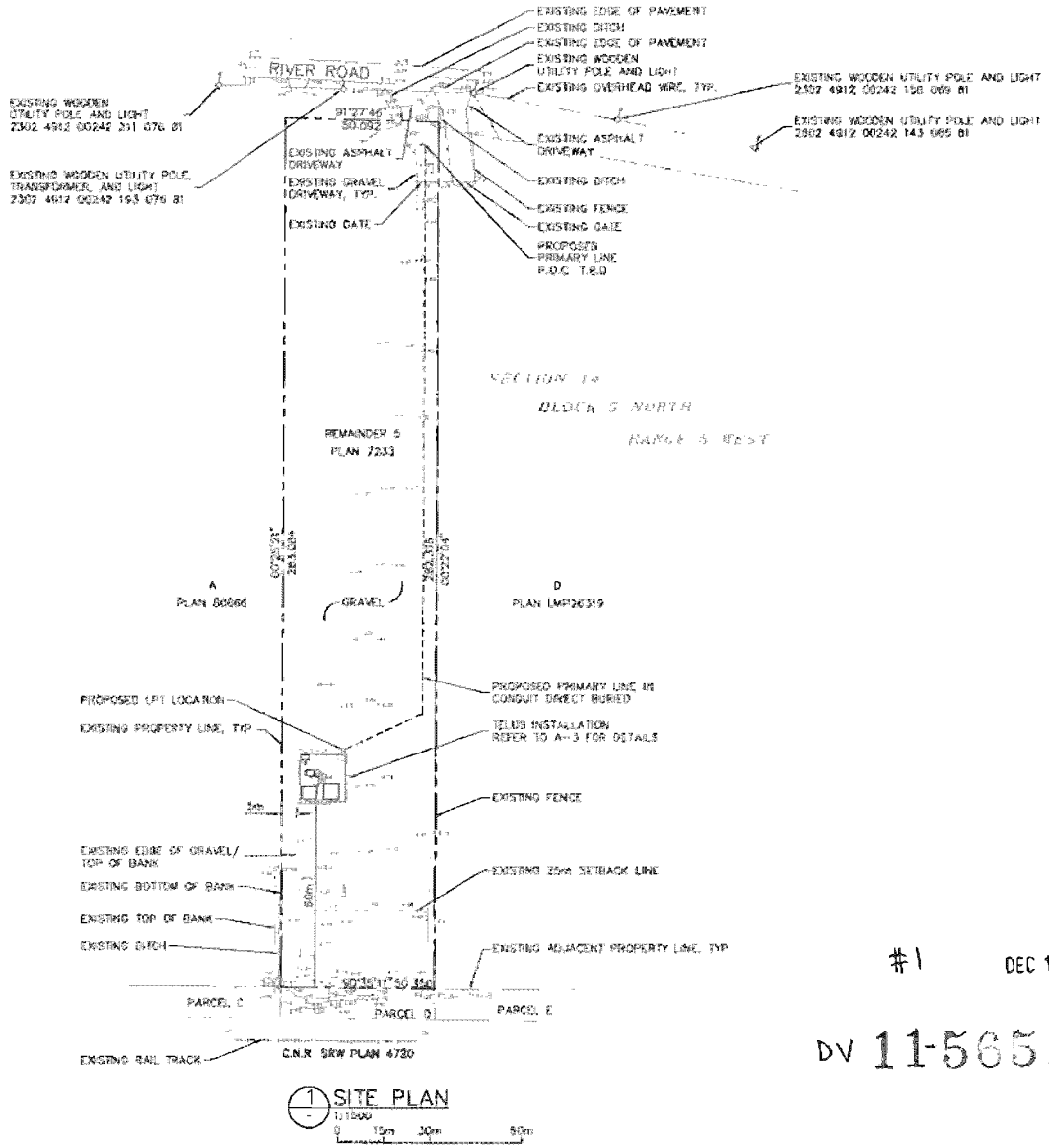
COVER SHEET

SCALE:	AS NOTED
CHECK BY:	R.M.
DRAWN BY:	J.J.
DATE:	NOV 26/10
CAD FILE:	1010-068A1
PROJECT NUMBER:	1010-068

DRAWING NO.

A-1

TRUE NORTH ARROW SHOWN ON THIS DRAWING IS APPROXIMATE ONLY AND MUST BE VERIFIED



1 SITE PLAN
1:1500
0 15m 30m 50m

#1 DEC 17 2012

DV 11-565153

NOTES:

1. SITE PLAN INFORMATION WAS OBTAINED FROM A DRAWING PREPARED BY MCELHANNEY ASSOCIATES DATED JANUARY 9, 2011. THIS DRAWING DOES NOT REPRESENT A SURVEY. ALL DIMENSIONS TO PROPERTY LINES ARE APPROXIMATE ONLY.

REV.	DESCRIPTION	BY	DATE
A	REVISED PER TELUS	RM	MAR 23/12
H	GENERAL REVISIONS	RM	JAN 24/12
G	GENERAL REVISIONS	RM	AUG 31/11
F	SURVEY UPDATED	RM	JUN 20/11
E	SURVEY ADDED	RM	JAN 11/11
D	REVISED PER TELUS	RM	JAN 4/11
C	GENERAL REVISIONS	RM	DEC 20/10
B	ISSUED FOR REVIEW	RM	DEC 07/10
A	ISSUED FOR REVIEW	RM	NOV 26/10

CLIENT:

TELUS

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PROJECT:

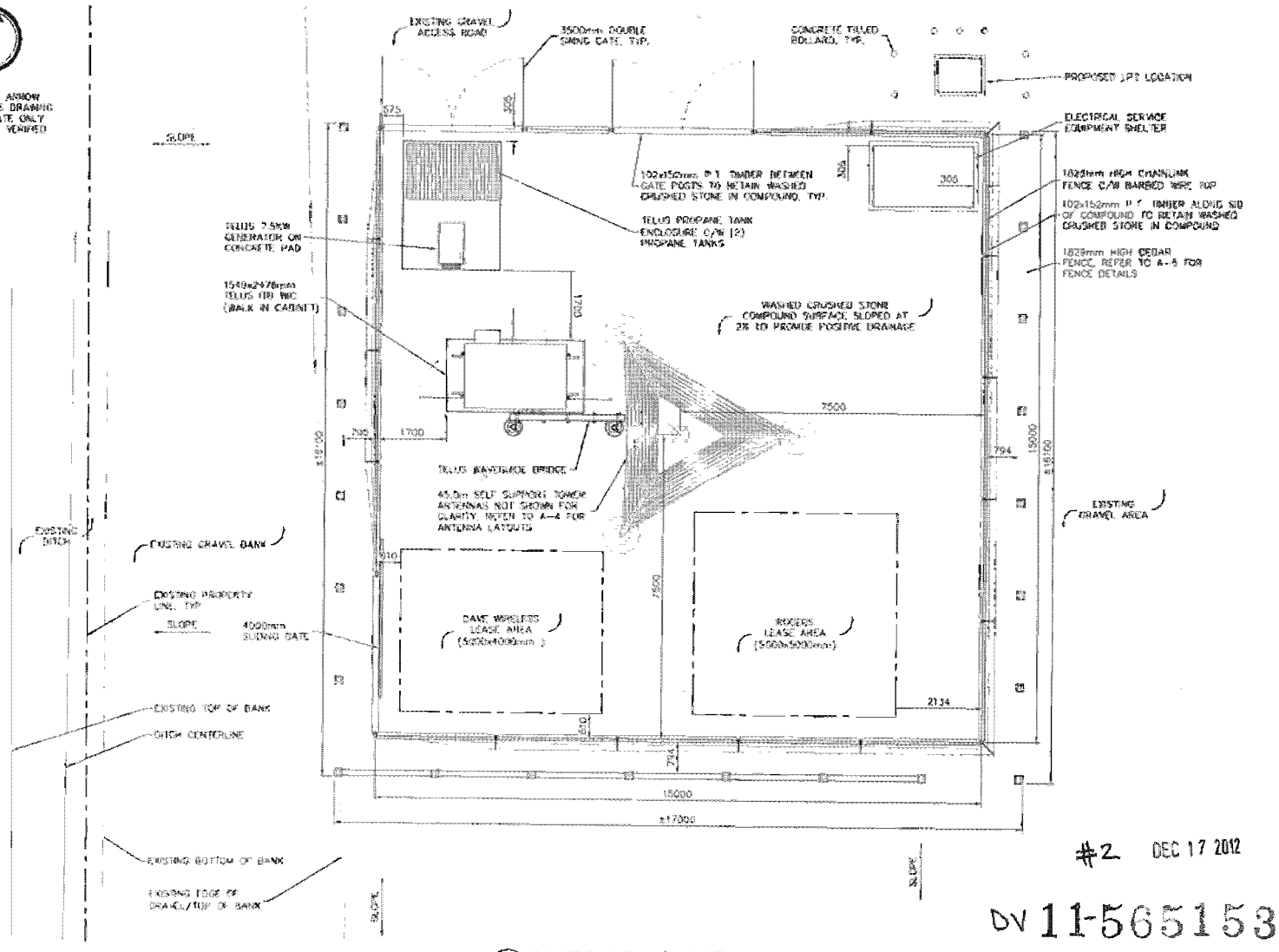
FRASERVIEW
16300 RIVER ROAD
BC1204

RICHMOND BRITISH COLUMBIA

DRAWING TITLE:

SITE PLAN

SCALE: AS NOTED	DRAWING NO.
CHECK BY: R.M	
DRAWN BY: J.J.	
DATE: NOV 26/10	A-2
CAD FILE: 1010-068A2	
PROJECT NUMBER: 1010-068	



1 COMPOUND LAYOUT
1:100

#2 DEC 17 2012

DV 11-565153

REV	DESCRIPTION	BY	DATE
L	GENERAL REVISIONS	RM	NOV 29/12
K	GENERAL REVISIONS	RM	JAN 24/12
G	GENERAL REVISIONS	RM	AUG 31/11
F	SURVEY UPDATED	RM	JUN 20/11
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D	REVISED PER TELUS	RM	JAN 4/11
C	GENERAL REVISIONS	RM	DEC 20/10
B	ISSUED FOR REVIEW	RM	DEC 07/10
A	ISSUED FOR REVIEW	RM	NOV 26/10

CLIENT

TELUS

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WEB: www.trkeng.com

PROJECT:

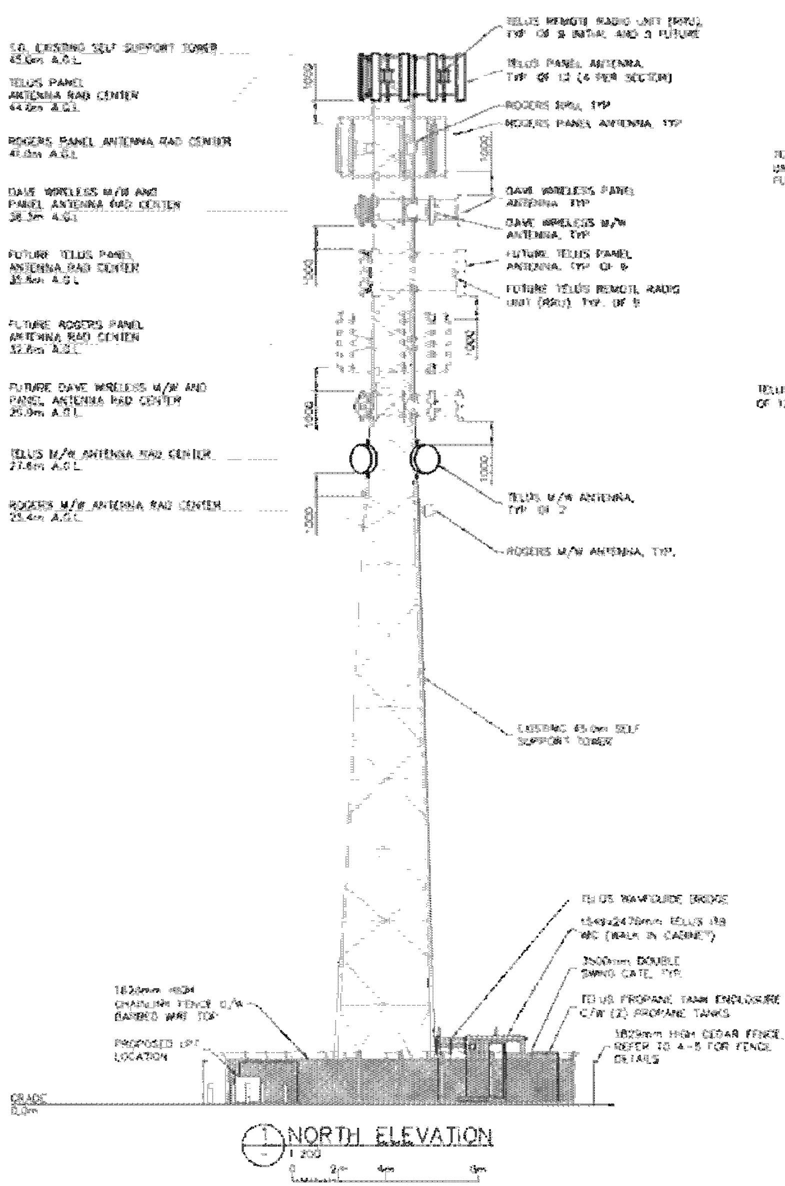
FRASERVIEW
16300 RIVER ROAD
5C1204

RICHMOND BRITISH COLUMBIA

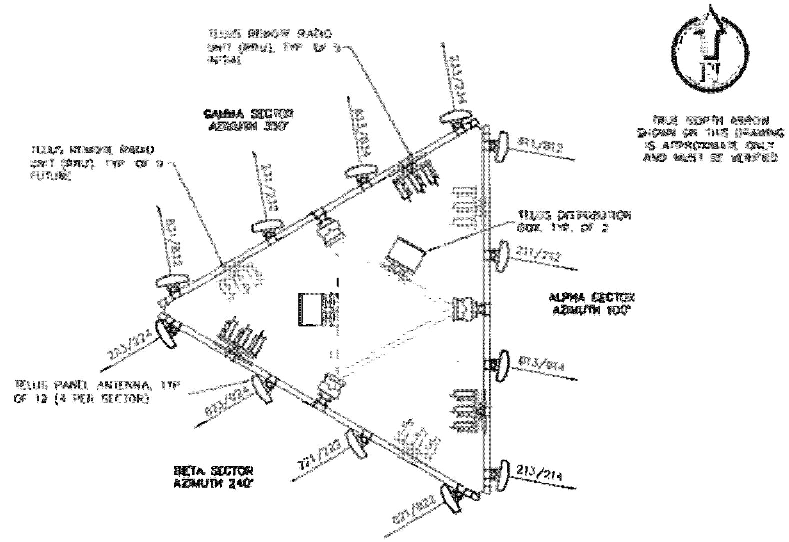
DRAWING TITLE:

COMPOUND LAYOUT

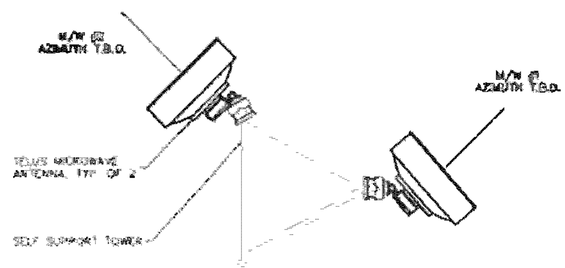
SCALE: AS NOTED	DRAWING NO
CHECK BY: R.M.	
DRAWN BY: J.J.	
DATE: NOV 26/10	A-3
CAD FILE: 1010-068A3	
PROJECT NUMBER: 1010-068	



1 NORTH ELEVATION
1:200



2 ANTENNA LAYOUT @ 44.0m
1:60



3 ANTENNA LAYOUT @ 27.6m #3 DEC 17 2012
1:60

DV 11-565153

NOTES:

1. ELEVATION IS DIAGRAMMATIC ONLY
2. IF REQUIRED, PROVIDE OBSTRUCTION LIGHTING IN ACCORDANCE WITH TRANSPORT CANADA REQUIREMENTS

REV	DESCRIPTION	BY	DATE
L	GENERAL REVISIONS	RM	NOV 29/12
K	GENERAL REVISIONS	RM	NOV 19/12
J	GENERAL REVISIONS	RM	NOV 15/12
H	GENERAL REVISIONS	RM	JAN 24/12
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F	SURVEY UPDATED	RM	JUN 20/11
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D	REVISED PER TELUS	RM	JAN 4/11
C	GENERAL REVISIONS	RM	DEC 20/10
B	ISSUED FOR REVIEW	RM	DEC 07/10
A	ISSUED FOR REVIEW	RM	NOV 26/10

CLIENT:

TELUS

TRK ENGINEERING

PROJECT:

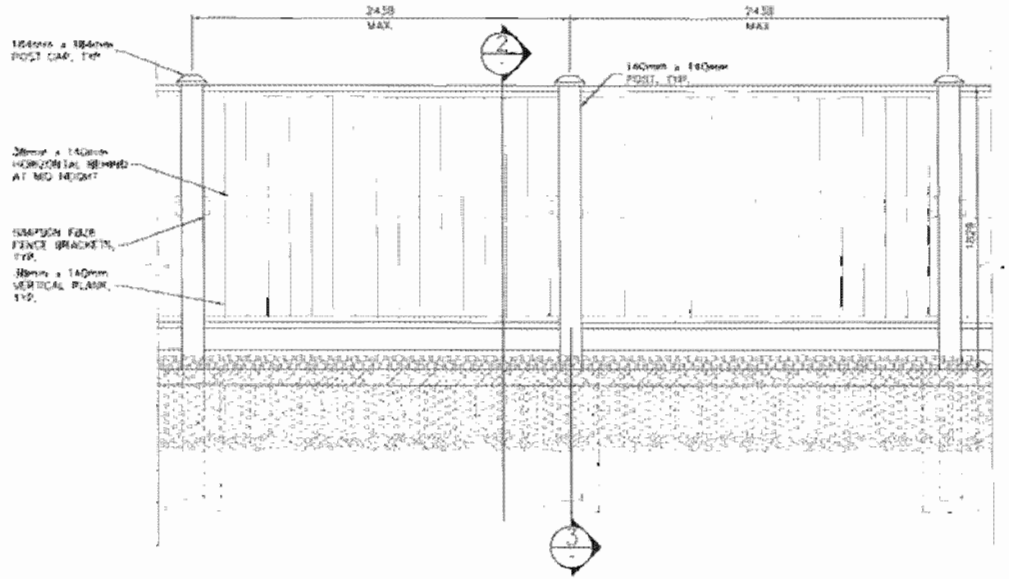
FRASERVIEW
16300 RIVER ROAD
BC1204

RICHMOND BRITISH COLUMBIA

DRAWING TITLE:

NORTH ELEVATION AND ANTENNA LAYOUTS

SCALE:	AS NOTED	DRAWING NO.
CHECK BY:	R.M.	A-4
DRAWN BY:	J.J.	
DATE:	NOV 26/10	
CAD FILE:	1010-088A4	
PROJECT NUMBER:	1010-088	



1 FENCE DETAILS
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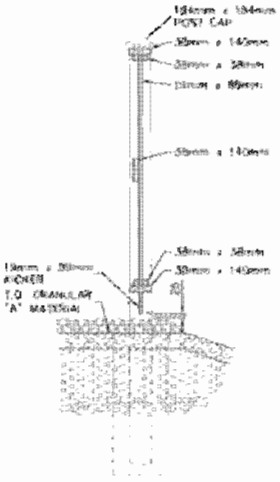

2 SECTION
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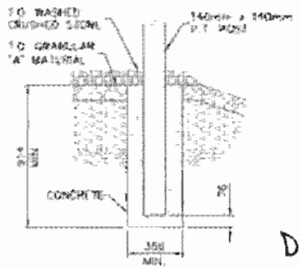
0 300 600 1.2m



3 SECTION
1:30
0 300 600 1.2m

#4 DEC 17 2012

DV 11-565153

FENCING NOTES:

1. REMOVE UNSUITABLE OR DELETERIOUS MATERIAL AS REQUIRED. CONTRACTOR TO CONTACT ALL UTILITIES FOR LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO CONSTRUCTION.
2. ALL FENCING MATERIAL SHALL BE AS FOLLOWS:
3. NO. 1 CEDAR FOR 19mm x 89mm, 38mm x 89mm
4. NO. 1 HEM-FIR P.T. FOR 38mm x 89mm POST AND 140mm x 140mm POST
5. ALL NAILS AND HARDWARE TO BE GALVANIZED OR ALUMINUM.
6. COLOR OF STAIN FOR FENCING MUST BE APPROVED BY THE CONSTRUCTION MANAGER AND OWNER AND BLEND WITH EXISTING LANDSCAPE OR ADJACENT BUILDINGS.

1	GENERAL REVISIONS	RM	NOV 29/12
REV	DESCRIPTION	BY	DATE

CLIENT

TELUS

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PROJECT:

FRASERVIEW
16300 RIVER ROAD
BC I 204

RICHMOND BRITISH COLUMBIA

DRAWING TITLE:

CEDAR FENCE ELEVATION

SCALE: AS NOTED	DRAWING NO.
CHECK BY: RJM	
DRAWN BY: RLS	
DATE: NOV 29/12	A-5
CAD FILE: 1010-06SAS	
PROJECT NUMBER: 1010-068	