

TO: CITY MANAGER

1999 November 17

FROM: DIRECTOR PLANNING AND BUILDING

SUBJECT: **RELOCATION OF HILL AVENUE CABLE TERMINAL STATION
AND CABLE REPLACEMENT BY B.C. HYDRO
BURNABY LAKE REGIONAL NATURE PARK AND
ROBERT BURNABY PARK**

PURPOSE: To provide information on the status of a B.C. Hydro cable replacement project related to Burnaby Lake Regional Nature Park and Robert Burnaby Park.

RECOMMENDATIONS:

1. **THAT** a copy of this report be sent to B.C. Hydro, 6911 Southpoint Drive, Podium B, Burnaby, B.C. V3N 4X8, to the attention of Mr. V. Masek and Ms. J. Newlands, and that B.C. Hydro be requested to respond to the concerns expressed by City staff.
2. **THAT** a copy of this report be sent to GVRD Parks, 9146 Avalon Avenue, Burnaby, B.C. V3N 4G8, to the attention of Ms. F. Schade.

REPORT

1.0 BACKGROUND

Staff have been requested to respond to an item of correspondence from B.C. Hydro regarding a cable replacement project which was received by Council at its meeting of 1999 November 08. Since the fall of 1997, B.C. Hydro has been in contact with City staff regarding a proposal to replace two underground 230 KV cable circuits between Newell Substation at Kingsway/Griffiths and the Hill Avenue Cable Terminal Station located within the Burnaby Lake Regional Nature Park on the south side of the Trans-Canada Highway and in the vicinity of Robert Burnaby Park (see *attached* Sketch and B.C. Hydro information sheets). The major construction works are the upgrade and relocation of the Hill Avenue cable terminal and the drilling of new ductbanks under the Trans-Canada Highway.

B.C. Hydro's upgrading proposal in the vicinity of Hill Avenue in line with current understandings calls for the new works to be relocated in the vicinity of the existing works, minimizes the length of overhead lines and the number of supporting poles, and minimizes the removal of existing trees. Care is required to minimize disruption to GVRD watermain and sewer facilities in the area, to protect a number of watercourses as well as Burnaby Lake from disturbance or the introduction of sediment, and to appropriately handle disruptions during construction to existing public park use and pedestrian and equestrian trails. While the locational and end product aspects of B.C. Hydro's proposal appear to be sound, staff have not yet received sufficient information to determine that the detailed access, environmental and park use concerns, particularly during the construction stage, have been appropriately resolved.

2.0 B.C. HYDRO CABLE REPLACEMENT PROJECT

The main elements of B.C. Hydro's cable replacement project are outlined as follows. The current understanding and concerns expressed by staff regarding these elements are also indicated.

2.1 Existing Ductbank Corridor

New cables are to be installed in the existing underground ductbanks and portions of the existing access are to be upgraded along the B.C. Hydro right-of-way between the Trans-Canada Highway (Robert Burnaby Park) and Newell Substation.

Comment:

While there may be localized access upgrading works at a few points along the corridor, to date, these proposals do not raise any particular concerns.

2.2 Relocated Cable Terminal Station

The existing cable terminal stations at Hill Avenue are to be removed and replaced with a new compact station immediately east of the existing ones.

Comment:

The cable terminal station relocation proposal is, in principle, considered appropriate in that disruption is minimized at this location including minimized length of overhead lines and number of supporting poles. B.C. Hydro has a right-of-way adjacent the north side of the Trans-Canada Highway with the majority of properties abutting the highway being provincially owned. There are also GVRD owned properties and City-owned properties which are leased to the GVRD for the regional park in the vicinity. The GVRD is responsible for the management of the regional park. However, any extension of rights-of-way over City-owned lots would also require the approval of the City.

2.3 Upgrading Access to Cable Terminal Site

The existing access along the B.C. Hydro right-of-way from Glencarin Drive to the Hill Avenue Cable terminal site is to be upgraded.

Comment:

As this Glencarin Drive access route to the terminal site currently exists partly in the form of a hog fuel path, it is our understanding that the required access upgrading is required to support heavy and frequent construction vehicles. City staff have indicated to B.C. Hydro that a construction access directly off the Trans-Canada Highway is preferable. Such a construction access off the highway would cause some disruption to highway traffic, although it is likely that its main use would be at off-peak hours, particularly at night, and would require streaming lane provisions including the need for preloading. Similar highway disruptions appear to have been accommodated during the recent lengthy upgrading construction on the highway. The Ministry of Transportation and Highways (MOTH) is opposed to a construction access off the Trans-Canada Highway but indicates that access for some of the heaviest equipment could be accommodated on a special basis in the early morning hours.

The Glencarin Drive access corridor is considered the only workable alternative. City staff have expressed implementation concerns regarding the Glencarin Drive construction access and relayed these concerns on to B.C. Hydro. Environmental concerns related to road construction have been raised such as preloading over peaty soil and its structural stability and the impact of the access on hydrologic patterns on both surface (including a number of culverted watercourses) and subsurface ground water movements and consequent vegetation impacts. Trails along the Glencarin Drive alignment in the area of the construction site and construction access route are also part of the pedestrian and equestrian trail system of the Burnaby Lake Regional Nature Park and appropriate provisions will need to be provided to maintain pedestrian and equestrian trail linkages and to protect such park users during construction. Impacts on any existing watermain and sewer facilities will also need to be resolved.

Public events at Burnaby Sports Complex area could also be impacted by increased traffic resulting from the use of Sprott Street and Sperling Avenue to access Glencarin Drive itself. The structural ability of the existing paved portions of Sperling Avenue and Glencarin Drive to withstand heavy construction vehicle loadings needs to be examined.

A program of public notification regarding the proposed works and minimization of conflicts with public use are required and have been acknowledged by B.C. Hydro.

2.4 New Ductbanks Related to Robert Burnaby Park

New ducts crossing the north-west corner of Robert Burnaby Park and under the Trans-Canada Highway are to be installed using directional drilling to the terminal site on the north side of the highway.

Comment:

B.C. Hydro will require an addition to its existing statutory right-of-way through Robert Burnaby Park for the two new underground cable ducts, primarily due to the directional angle of the new ducts. Given the depth of the proposed works, the park surface and existing vegetation should not be adversely affected. Construction in the vicinity of a manhole within the existing right-of-way may result in some park disruption. City staff are awaiting further detailed information from B.C. Hydro on the location of the works, the construction schedule, and the period of disruption to determine the necessary notification required. An additional right-of-way to B.C. Hydro would require the approval of both the Parks and Recreation Commission and Council.

3.0 CONCLUSION

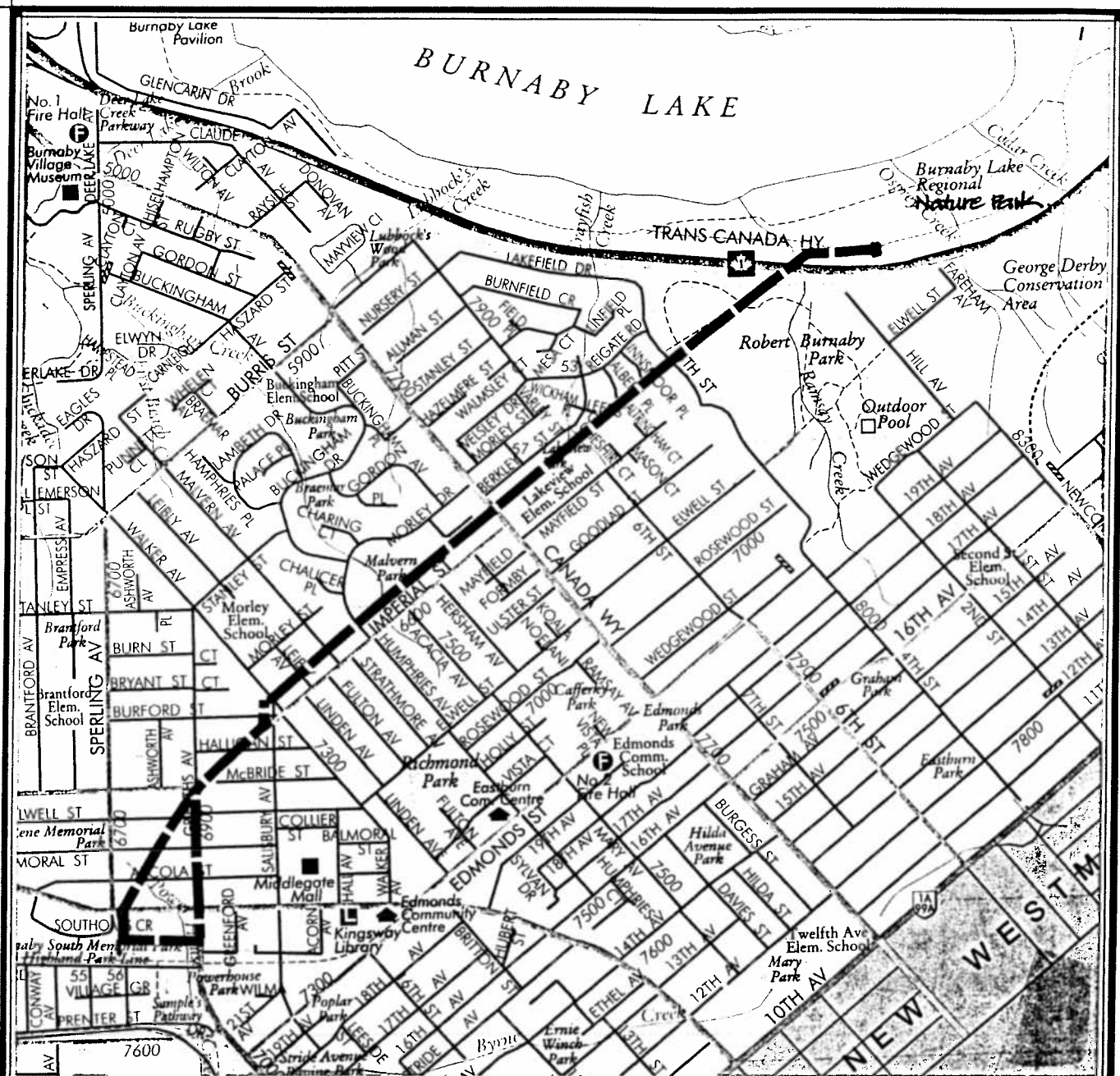
B.C. Hydro is pursuing a major cable replacement project between the Hill Avenue terminal and Newell Substation. The major construction work is related to a relocated terminal just east of the existing terminal including the need for an upgraded construction access to this site via Sperling Avenue and Glencarin Drive. While City staff consider a construction access off the Trans-Canada Highway to be preferable, B.C. Hydro, as discussed in this report, is pursuing Glencarin Drive as the primary construction access. A number of environmental, park use and engineering concerns need to be addressed for the Glencarin Drive construction access to be implemented. Further details on the drilling of new ductbanks under a portion of Robert Burnaby Park are required. Any additional right-of-way in favour of B.C. Hydro will require the approval of the Parks and Recreation Commission and Council.

This is for the information of Council.



D. G. Stenson
Director Planning and Building

KI:hr
Attachments
cc: Director Engineering
Director Parks, Recreation & Cultural Services
City Solicitor
a:\cableterminalstn.rpt



Date:
99 Nov.

Scale:
N.T.S.

Drawn By:



City of
Burnaby
Planning & Building Dept.
BC Hydro Cable Preplacement Project.
Location Sketch
General cable alignment. ———

Sketch # 1.

Information sheets.

Cable Replacement

BC Hydro is proceeding with the replacement of two 230 kilovolts (kV) underground cable circuits between Newell Substation at Kingsway and Griffiths and the Hill Avenue Cable Terminal Stations located east of Hill Avenue between Highway No. 1 and Burnaby Lake.

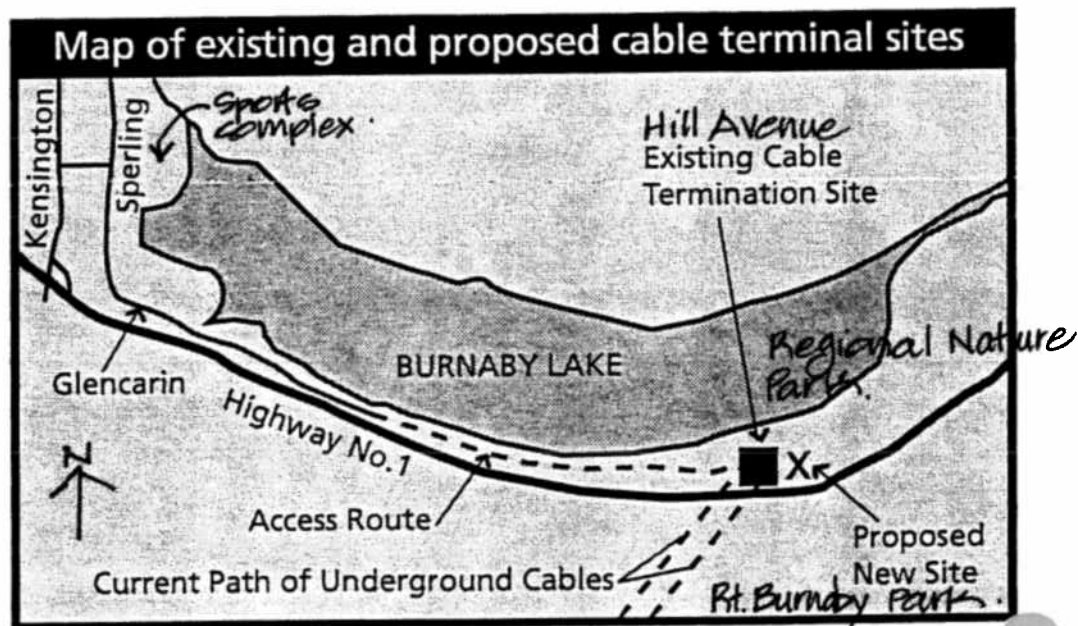
This cable system was installed in 1957 and needs to be upgraded to maintain service reliability for our customers in central Burnaby.

Description of Proposed Work

The project is planned in stages between 2000 and 2002.

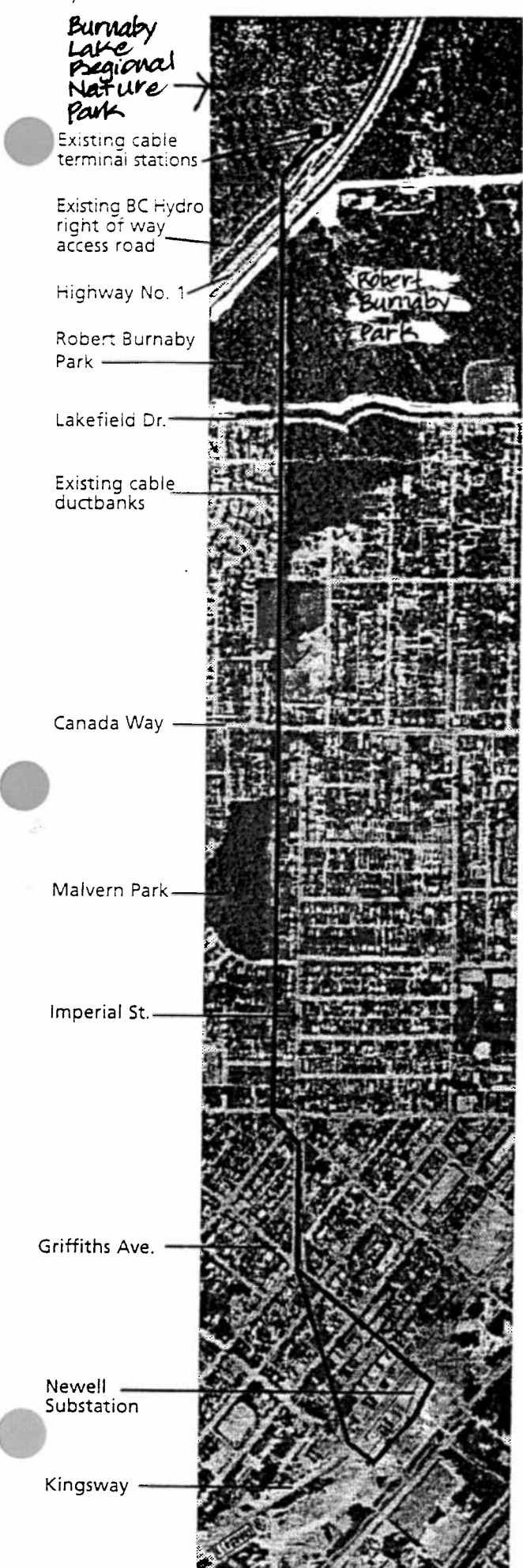
It will involve:

- Upgrading existing access along the BC Hydro right of way from Glencarin Drive to the Hill Avenue Cable terminal site.
- Upgrading portions of the existing access along the BC Hydro right of way between Highway No.1 and Newell Substation.
- Removing existing cable terminal stations at Hill Avenue and replacing them with a new compact station immediately east of the existing ones.
- Installing new cables in the existing underground ductbanks from Newell Substation, to the south of Highway No.1. New ducts under Highway No.1 will be installed using directional drilling to the terminal site on the north side.



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BC Hydro 



Work to upgrade the access road is tentatively scheduled for the summer of 2000. The first circuit is scheduled for replacement in summer 2001, and the second to follow in 2002. The new cable terminal station will be constructed with improved earthquake resilience and environmental protection facilities. Once construction is complete, BC Hydro will restore the site and provide some vegetation screening of the station.

We are currently working with the City of Burnaby, Ministry of the Environment, Lands and Parks, Ministry of Transportation and Highways, and the Greater Vancouver Regional District to address the project issues, and will be seeking public input, particularly on the social and environmental aspects of the project.

Prior to the commencement of the work, BC Hydro will complete environmental and construction management plans to ensure that all environmental concerns have been addressed. Local residents and users of Burnaby Lake Park will be invited to consultation sessions to review the project plans. This input and feedback will help us to minimize the disruption to the community and recreational users of Burnaby Lake Park during the construction phase.

For more information, please contact
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 BC Hydro Community Relations Manager
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www.bchydro.com



