

TO: CITY MANAGER 1995 NOVEMBER 02

FROM: DIRECTOR PLANNING & BUILDING OUR FILE: 08.640"B"

SUBJECT: BURNABY MOUNTAIN PARKWAY: DALLA TINA AVENUE EXTENSION

PURPOSE: To advise Council of the results of a review of a 'best' alternative option for extending Dalla Tina Avenue to the Burnaby Mountain Parkway.

RECOMMENDATION:

1. **THAT** a copy of this report be forwarded to Mr. A. Dalla Tina, 7321 Hastings Street, Burnaby, and Mr. T. Tasaka and Mr. T. Walton of the Barnet/Hastings People Moving Project.

REPORT

1.0 INTRODUCTION

At its regular meeting of 1995 October 16 Council received a delegation from a Mr. A. Dalla Tina of 7321 Hastings Street, Burnaby with regard to his proposal for an extension of Dalla Tina Avenue to connect with the Burnaby Mountain Parkway (formerly the Hastings/Gaglardi Connector). In response to Mr. Dalla Tina's original proposal staff had previously outlined a number of road options for the extension. Upon consideration of these options and the points raised by Mr. Dalla Tina, Council requested that staff review the road options with a view to developing a 'best' alternative possible option for the consideration of Council.

This report identifies an alternative option for an extension of Dalla Tina Avenue which best responds to the design and implementation considerations raised in previous reports.

2.0 DESIGN CONSIDERATIONS

Previous reviews of the Dalla Tina extension proposal had raised a number of design issues with regard to the various road options. Development of the best compromise design will need to respond to the following issues:

i) *Road Gradient*

An extension of Dalla Tina to the Burnaby Mountain Parkway would involve developing a road on the side of a relatively steep slope. Previous alignments for the extension yielded road grades of between 6% and 20% depending on the alignment. An acceptable maximum gradient as identified in the Burnaby Transportation Plan for a local street is 12%. To achieve this road grade will require an alignment which traverses the natural contours of the slope in a north/south direction rather than crossing these contours in an east/west direction.

ii) *Right-of-Way Requirements*

The right-of-way required for the extension is not dependent on whether the road accommodates one way traffic only or two way traffic. A one way road with a sidewalk and streetlights on one side would require a 7.3m (24 ft.) pavement surface to accommodate fire trucks, while a two way road would require an 8.5m (28 ft.) pavement. While the pavement widths are different however, both a one way and a two way road would require a minimum 15m (50 ft.) right-of-way.

iii) *Clearing of Forested Area*

All alignments for the Dalla Tina extension involve the clearing of right-of-way through City-owned forested land. City field observations have noted the presence of a number of mature deciduous trees within the 15m of right of way required for the extension.

iv) *Impact on Dedicated Parkland*

Currently the boundary between the City-owned property which is not park and the City-owned property which is dedicated parkland is slightly offset to the east of the current centreline of Dalla Tina Avenue as shown in Figure 1 **attached**. Extending Dalla Tina Avenue directly on centreline to the Burnaby Mountain Parkway would intrude the road into the dedicated parkland. To avoid the dedicated parkland the Dalla Tina extension must immediately swing towards the west from Hastings to the Burnaby Mountain Parkway.

3.0 Implementation Considerations

i) *Construction Cost*

The cost of the access road planned by the Ministry of Transportation and Highways for the project is approximately \$63,000. Relocating this access road to align with Dalla Tina Avenue requires a longer roadway involving clearing of right-of-way, sub-grade construction, streetlighting, sidewalks and paving at an additional cost above and beyond that of the currently designed access road. This premium cost increases substantially if regrading of Dalla Tina Avenue or Hastings St. is required to reduce the grade of the extension.

ii) Property Requirements

An extension of Dalla Tina Avenue to the Burnaby Mountain Parkway would be developed entirely through City land. The right-of-way would have to be acquired by the Ministry of Transportation and Highways from the City of Burnaby at fair market value based on its highest and best use for single family residential development.

4.0 DALLA TINA EXTENSION: 'BEST' ALTERNATIVE OPTION

4.1 Major Features

In response to Council's request an extension of Dalla Tina Avenue as shown in Figure 1 has been developed which best responds to the design issues outlined in the previous section.

The major features of this 'best' option for the extension of Dalla Tina Avenue include the following:

- i) Road grade* - the proposed local road would achieve a maximum grade of 8.8% which is within the 12% standard defined by the Burnaby Transportation Plan for local streets.
- ii) Right-of-way requirements* - the minimum right-of-way width required for the road, which would extend from Dalla Tina Avenue to Burnaby Mountain Parkway, is 15 metres (50 ft.) wide compared to the 20m required on a major road. This right-of-way requirement would accommodate either a single lane one way or a two lane road. The entire right-of-way would need to be cleared and regraded amounting to a total area of 630 square metres (6780 sq. ft.).
- iii) Impact on dedicated parkland* - to minimize the impact of the road extension on the dedicated parkland the proposed roadway was aligned to the centreline of the existing Dalla Tina Avenue, but oriented as far to the west as possible while still maintaining an acceptable vertical profile including gradient. Due to the steep slopes in the east-west direction it has not been possible to shift the road in a westerly direction far enough to avoid impact on the dedicated parkland. As a result, the road right-of-way continues to intrude into the dedicated parkland by a width of 6.5m, (21.3 ft.) affecting a total area of 270 sq. metre of dedicated parkland.
- iv) Clearing of forest* - the clearing of forest on City-owned land and dedicated parkland required to accommodate a 15m right-of-way would be 630 sq. metres. Clearing would require the removal of 12 major trees over 25 metres in height including 11 deciduous and 1 conifer.
- iv) Construction costs* - the construction cost of the proposed Dalla Tina extension is estimated at \$117,000 including clearing, subgrade, streetlighting, sidewalk (one side only) and paving. This cost is approximately \$54,000 higher than the cost of the currently designed access road due to its increased length and higher design standard. The Ministry however has indicated a willingness to absorb the additional construction costs of the Dalla Tina extension.

- v) *Property acquisition* - the estimated value of the City-owned land required for the Dalla Tina extension is approximately \$280,000. The Ministry has not budgeted for this acquisition and is not receptive to incurring additional property costs above and beyond the \$5,095,000 already budgeted by the Project for acquisition of the Burnaby Mountain Parkway right of way through the "value for value" exchange. The possibility of a land exchange involving the Ministry-owned property formerly addressed at 7320 Hastings St. and the aforementioned City-owned lot required for right-of-way has been raised, but staff of the Barnet Hastings People Moving Project have not responded favourably to this proposal.

4.2 Summary

The design for the Dalla Tina Extension advanced for Council consideration in this report is considered by staff to be the 'best' alternative option for extending Dalla Tina Avenue to the Burnaby Mountain Parkway. At a grade of 8.8%, this option would maintain minimum standards of design required for safe operation. As a new local street it would require clearing of forested area on City-owned property for right-of-way. The extent of clearing required, however, is not dependent on whether it is a one lane or a two lane roadway, but on the extent of the fill slopes. Of the total 630 sq. metres (6780 sq. ft.) cleared, 270 sq. metres (2906 sq. ft.) would be in the dedicated parkland.

With regard to implementation the best option attempts to minimize construction costs by avoiding regrading of existing roads including Dalla Tina Avenue and Hastings Street. Development of this extension of Dalla Tina Avenue, however, would involve additional costs to the Barnet Hastings People Moving Project for construction and right of way acquisition. At this point the Project has accepted the additional construction costs but is not agreeable to purchase City-owned property for right-of-way or to consider a land exchange involving Ministry owned lands.

In summary, while the impact on dedicated parkland has been reduced over previous design options, its construction to acceptable design standards continues to require substantial clearing of forested area and use of dedicated parkland for right-of-way.

Although the additional construction costs do not appear to pose an obstacle to implementation by the Barnet Hastings People Moving Project at this point, the acquisition of City-owned property for right-of-way through either purchase or exchange has not been agreed to by the Project.

5.0 CONCLUSION

In response to the concerns expressed by Mr. Dalla Tina staff have developed a 'best' compromise option for extending Dalla Tina Avenue to the Burnaby Mountain Parkway. While this is a significant advance over previous proposals, staff have concluded that the extension cannot be constructed to an acceptable safety standard without intruding into dedicated parkland and involving substantial clearing of forest for right-of-way. Moreover, development of this road would incur substantially higher costs to the Barnet Hastings People Moving Project for construction and property acquisition.

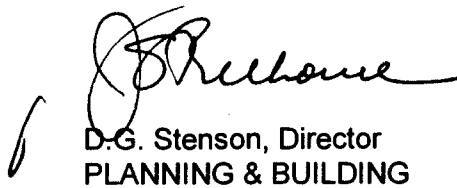
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In view of its higher financial and environmental costs and unsubstantiated overall benefits to the community, the extension of Dalla Tina Avenue must be evaluated critically relative to the option of altering the currently designed access road to address Mr. Dalla Tina's concern regarding the orientation of this road towards his residence. Staff would therefore recommend that Council consider the modified original design (see **attached** Figure 2) option as proposed in the previous report to Council at its meeting of 1995 September 11.



D.G. Stenson, Director
PLANNING & BUILDING

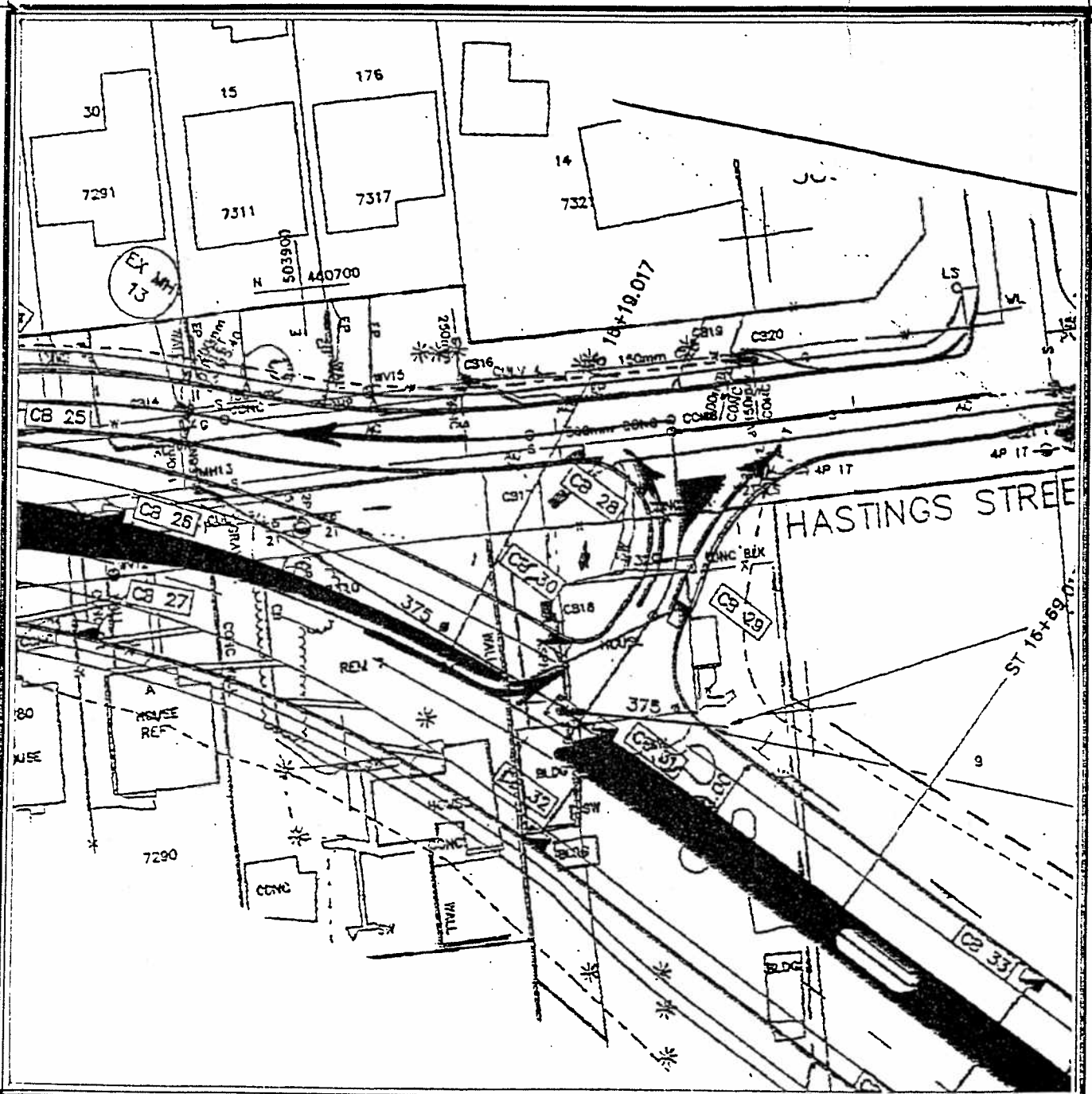


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Attachments

cc: Deputy City Manager, Corporate Services
Director Engineering
Director Finance
Director Recreation & Cultural Services

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Date:
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Scale:
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Drawn By:



 City of
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 MODIFIED ORIGINAL DESIGN

FIGURE 2

