

NO: R085 COUNCIL DATE: **May 25, 2015**

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## REGULAR COUNCIL

TO: **Mayor & Council** DATE: **May 15, 2015**

FROM: **General Manager, Engineering** FILE: **5400-80 (00101)**  
**General Manager, Parks Recreation**  
**and Culture**

SUBJECT: **Fraser Highway Design through Green Timbers Urban Forest**

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## RECOMMENDATIONS

The Engineering Department and the Parks, Recreation and Culture Department recommend that Council:

1. Receive this report as information; and
2. Authorize staff to proceed with detailed design of the section of Fraser Highway through Green Timbers Urban Forest, with boundaries illustrated in Appendix I, to enable the completion of the Fraser Highway widening project.

## BACKGROUND

In 1988, 220.8 acres of City-owned forested land was dedicated through By-law as Urban Forest Park following a public referendum, forming the basis of what we now call the Green Timbers Urban Forest. In 1996, an additional 51 acres of City-owned forest land was put to referendum and subsequently added to the Green Timbers Urban Forest. The referenda established road allowances surrounding and within the Urban Forest based on the future transportation servicing needs anticipated at the time including 92 Avenue, 96 Avenue, 144 Street, 148 Street and Fraser Highway. A decade later, an additional 77.5 acres of forest was given to Surrey by the Province of British Columbia; these lands, which contain the Surrey Nature Centre, were not dedicated through By-law, but serve as parkland adjacent to the dedicated Green Timbers Urban Forest (See Location Map, Appendix I).

Historically, Fraser Highway has provided a direct regional link connecting the Langleys and the Fraser Valley with Surrey City Centre and Vancouver. Formerly known as the Old Yale Wagon Road, it has served the transportation needs of the region since the 1870's and has previously been part of the Pacific Highway, Trans-Canada Highway, and Highway 1A. The Heritage Evaluation Worksheet for Fraser Highway emphasizes the long standing transportation function it has played as being one the main defining heritage characteristics of the corridor.

This corridor continues to perform a very important multi-modal transportation role for Surrey by carrying approximately 28,000 vehicles per day. Its role has been re-affirmed as a result of the Regional Mayors' Council "Regional Transportation Investments Plan, a Vision for Metro Vancouver" which includes the implementation of a system of Light Rail Transit (LRT) between Surrey City Centre and Langley City Centre along Fraser Highway within 12 years. LRT on Fraser Highway has also been "screened in" for funding through the Federal Government P3 Canada Funding Program.

The majority of Fraser Highway between Surrey City Centre and Langley has been widened to an arterial road standard in the last 12 years, as growth of the City has continued. The section of Fraser Highway within the Urban Forest is included in the current 10 Year Servicing Plan. The ultimate design of Fraser Highway through the Urban Forest has been examined previously in consultation with stakeholders but as the routing and technology of the rapid transit network for the City were still under review, discussions were put on hold in 2008.

The 2014 Regional Mayors' Council Transportation Plan includes the LRT project along Fraser Highway which has provided certainty on the routing which has allowed staff to re-initiate discussions with stakeholders regarding the Green Timbers section.

## **DISCUSSION**

### **Planning Process and Consultation**

Over the last fifteen years, the City has intermittently studied future road widening in the area of the Green Timbers Urban Forest, including some discussions with the Urban Forest stakeholders. No conclusions were reached from this previous work. With a pressing need to move ahead with widening Fraser Highway, staff initiated a new design and consultation process early in 2015, structured around the following principles:

- Development of a Fraser Highway road and LRT design that utilizes the 40m road allowance established by the referendum;
- Creation of a custom road alignment and cross section to minimize the impact on trees;
- Detailed design considerations for aspects such as creek treatments and wildlife crossings; and
- Adoption of a holistic approach by assessing opportunities to increase the area of the Forest through adjustments to the other road allowances created through the 1988 referendum.

Over the last few months, staff from both the Engineering and Parks Recreation & Culture Departments have had several meetings with executives of the Green Timbers Heritage Society (the "Society") to work through both the broader principles of the process and to establish a conceptual cross section and preferred alignment to minimize tree impact. This process was undertaken recognizing that there were sometimes competing, but equally legitimate priorities that needed to be examined and that compromises and trade-offs would form part of the process. The support of the Society in providing advice, local knowledge, history and constructive criticism has been central to achieving the recommendations contained in this report.

Staff also presented the proposals to the Green Timbers Urban Forest Advisory Committee (GTUFAC). Feedback from some of the membership has been provided, raising concerns regarding habitat and tree loss, increased risk of wildlife road-kills, and the road edge effects of chemical and noise pollution to the Forest. Also noted were the Committee's prior (2008) preferences regarding approach to roads surrounding and through the Park. Their preferred approach was closure of Fraser Highway and 144 Street through Green Timbers in order to create a contiguous natural forest area. Their least preferred approach was the widening of Fraser Highway and 144 Street with on-site habitat compensation.

As well as the involvement of the Society and the GTUFAC, staff has presented the planning work to the following City Committees and Commissions:

- Environmental Sustainability Advisory Committee;
- Surrey Heritage Advisory Commission;
- Parks, Recreation & Sport Tourism Committee; and
- Transportation & Infrastructure Committee.

Endorsement of the proposed Fraser Highway cross section and alignment was received, as well as positive feedback on the approach taken for surplus road allowances to be added to the dedicated Urban Forest. Details of these are provided below.

## **Outcomes**

### *Custom Cross Section for Fraser Highway*

As noted previously, the existing road allowance of Fraser Highway, secured through the two Public Referenda, is 40.0m wide between 140 Street and 148 Street. A unique cross section, attached as Appendix II, has been developed within this width consisting of:

- 4 vehicle travel lanes (2 in each direction);
- Combined shoulders/bicycle lanes;
- Centre running LRT (1 track in each direction);
- A combined pedestrian and cycling path on the north side;
- Boulevard to buffer the pathway and to accommodate third party utilities and street lights; and
- Ditches/swales on both sides of the road to convey drainage for the road and the Forest.

At intersections along Fraser Highway, up to an additional 4.0m width will be required to accommodate left turn lanes.

### *Revised Alignment of Fraser Highway*

A detailed tree survey and arborist report has yet to be conducted but opportunities to maximize retention of higher quality trees along the corridor were assessed. Parks, Recreation and Culture staff and Society members are familiar with the Forest identified areas that contain trees of greater significance. This information was used to develop a modified alignment for Fraser Highway.

From 140 Street to 96 Avenue, it is proposed to realign Fraser Highway approximately 4.5 m north of its current alignment. This will allow for the preservation and retention of large, high quality and high value trees along the south side of Fraser Highway. East of 96 Avenue, it is proposed to adjust the alignment approximately 11.0m south to achieve similar tree preservation benefits. Refinements of these proposed adjustments will be undertaken as part of the detailed design.

#### *Other Detailed Design Considerations*

The following aspects will be assessed within the detailed road design:

- Tree survey and arborist report;
- Creek crossings assessments, which includes King Creek (Biodiversity Corridor);
- Road drainage and ditch configurations; and
- Wildlife crossings

#### *Adjacent Road Allowance changes*

In addition to Fraser Highway, road allowances for 92 Avenue, 148 Street and 144 Street were established through the Public Referenda based on the anticipated future transportation needs at the time. As part of the recent review process, staff re-evaluated these roads and concluded that the following changes, as illustrated in Appendix III, could be made:

- 148 Street - re-alignment with a net reduction in road allowance;
- 92 Avenue – reduced road allowance; and
- 144 Street – unchanged.

For both the Society and GTUFAC, the connection of 144 Street within the Forest has been a concern given the fragmentation of the southern portion of the forest. Staff have recommended the retention of this connection, without any widening, as it provides a valuable and well used connection for the neighbourhood's to the south.

Overall, this broader re-assessment of City road allowances has resulted in approximately 6.9 acres (net) being available to be added to the Green Timbers Urban Forest as dedicated Parkland.

#### **Alternative Approval Process**

As Green Timbers Urban Forest was dedicated through a public referendum process, any changes to the boundaries will require assent of the electorate, either through the Alternative Approval Process or by holding another referendum.

Through the detailed design process, road allowance needs will be finalized enabling confirmation of Park and road boundaries through legal survey. The potential boundary changes are illustrated in Appendix III. This information can then be conveyed to the public to confirm their support for this strategy, whereby lands will be added to the Park as part of the Fraser Highway widening project.

As the process is simpler, quicker and more cost effective, the Alternative Approval Process is recommended rather than a referendum.

## **Adjacent City Lot at 14198 92 Avenue**

A City-owned lot located at 14198 92 Avenue (See Location Map, Appendix I), approximately 5 acres in size, is adjacent to the Urban Forest to the south (separated by 92 Avenue). This parcel has some development potential but there are also opportunities for a proportion to be added to the Urban Forest. This would be over and above the 6.9 acres of road allowance discussed earlier in this report. Although not an explicit part of the Fraser Highway planning work being undertaken, staff will be undertaking an assessment of the parcel. The results of the assessment and staff recommendations will be the subject of a future report to Council.

### **Next Steps**

1. Detailed design:  
Subject to Council's authorization, staff will proceed to detailed design. The involvement of the Society and GTUFAC is expected to continue through the design phase, particularly with respect to assessments of tree retention, wildlife crossings and impact on the forest.
2. Corporate Report to Council:  
This report will seek Council approval to initiate the Alternative Approval Process to adjust the road allowance requirements through and around Green Timbers Urban Forest and add land to the Forest.
3. Alternate Approval Process for changes/additions to the dedicated portions of the Green Timbers Urban Forest.

### **SUSTAINABILITY CONSIDERATIONS**

The project, including the LRT along Fraser Highway, will assist in achieving the vision of the City's Sustainability Charter by enhancing the movement of people and goods. In alignment with the goals of the Sustainability Charter, the future enhancement of the King Creek culvert crossing at Fraser Highway will assist in achieving the vision of the City's Biodiversity Conservation Strategy. In particular, the project will assist in achieving the following Surrey Sustainability Charter Scope action items:

- SC 13: Creating a Fully Accessible City;
- EC16: Increased Transit and Transportation to Support a Sustainable Economy; and
- EN12: Enhancement and Protection of Natural Areas, Fish Habitat and Wildlife Habitat.

### **CONCLUSION**

The Engineering and Parks, Recreation and Culture Departments have completed an evaluation of Fraser Highway through Green Timbers and completed consultation with stakeholders. A recommended solution has been found that balances transportation needs and preservation of forest land.

Based on the information described in this report, it is recommended that Council:

- Receive this report as information; and
- Authorize staff to proceed with detailed design of the section of Fraser Highway through Green Timbers Urban Forest to enable the completion of the widening project.

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JB/OC/PB/JP/clr

Appendix I – Location Map

Appendix II – Typical Cross Section: Fraser Highway

Appendix III – Potential Road Allowance/Park Boundary Changes

# APPENDIX I



## Location Map

ENGINEERING  
DEPARTMENT

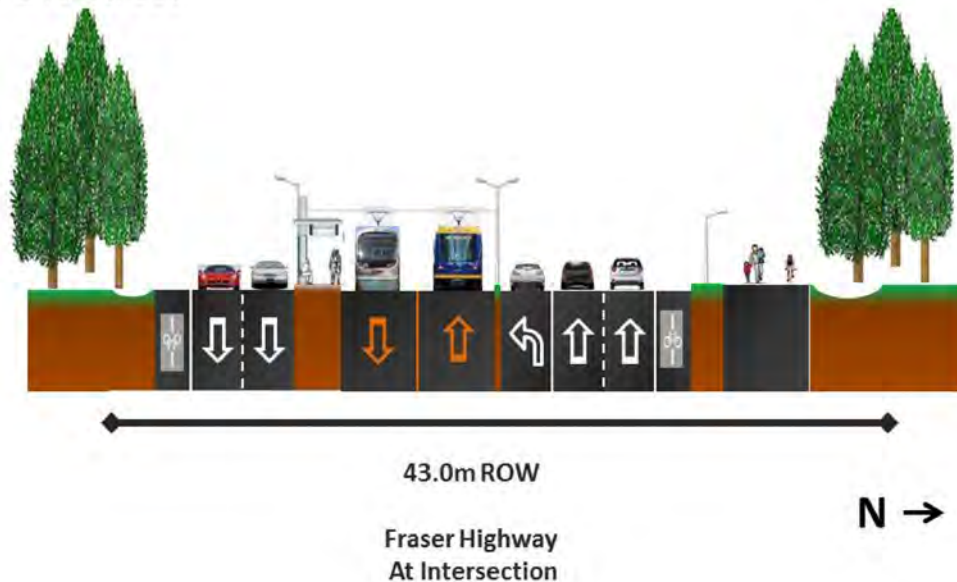
# APPENDIX II

## Fraser Highway Cross Section



## Station Cross Section

e.g. 140 Street



Produced by GIS Section: 12-May-2015, JJR



Typical Cross Section  
Fraser Highway

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# APPENDIX III



Produced by GIS Section: 12-May-2015, EM9



## Potential Road Allowance / Park Boundary Changes

## ENGINEERING DEPARTMENT