

170 Street South of Anthony Henday Drive Concept Plan

Recommendation:

That Transportation and Public Works Committee recommend to City Council;

1. That the 170 Street South of Anthony Henday Drive Concept Plan, as outlined in Attachments 1 and 2 of the April 12, 2011, Transportation Department report 2011TD1979, be approved.
2. That Administration bring forward an updated Windermere Area Structure Plan and Ambleside Neighbourhood Structure Plan to ensure consistency with current roadway designs.
3. That Administration bring forward an amendment to the Arterial Roads for Development Bylaw 14380 to include the full future freeway right-of-way for 170 Street as an assessable developer obligation.

Report Summary

This report details the proposed concept plan for the arterial road connecting 170 Street from Anthony Henday Drive to the south city limits (41 Avenue southwest).

Report

Background:

The 170 Street South of Anthony Henday Concept Planning Study was undertaken to address changes in the transportation network and traffic demand projections in the southwest

part of the city that differ from those anticipated when the Windermere Area Structure Plan was approved in 2005.

As a result of work completed in 2009 by the Province on the Queen Elizabeth II Provincial Highway, the Port Alberta initiatives at the International Airport were updated and ongoing development patterns in south Edmonton efforts were required to review and update the plans for 170 Street south of Anthony Henday Drive. This includes protecting road right of way to accommodate an ultimate freeway facility.

Alignment:

Several factors were considered when selecting the design parameters for the corridor. Key considerations included:

- Balance the road right-of-way requirements with the status of this roadway as a key regional facility.
- Minimize the impacts to recently approved and subdivided properties.
- Maintain existing east/west connectivity between neighbourhoods.
- Develop as a free flow, high capacity facility with an urban context.
- Ensure transit bus routing was not impacted and all areas within Windermere could continue to be appropriately serviced.
- Ensure consistency with the planned function of Terwillegar Drive from Whitemud Drive to Anthony Henday Drive.
- Accommodate opportunities to extend south of the city as a highway right of way through Leduc County.

This route will help to relieve future traffic demand on the Queen Elizabeth II Provincial Highway.

Traffic Forecasts and Roadway Features:

Long-term traffic projections were used to identify ultimate lane requirements, interchange locations, fly-over requirements and intersection configurations. The analysis indicated a need for a six-lane main line facility with an additional two-lane frontage road system. The main line will carry regional traffic volumes through the area while the frontage road system will serve as a distribution network from the freeway into or out of the neighbourhoods. Interchanges will be located at Windermere Drive, Ellerslie Road, 25 Avenue southwest and 41 Avenue southwest. Fly-over locations are planned between all the interchanges at the approximate mid-points.

Along the corridor, in the long-term (3.2 million regional population) the estimated traffic volumes along the freeway portion will be approximately 114,000 vehicles/day, which is similar to what Whitemud Drive between 119 Street and 53 Avenue carries today. The volume along frontage road network will range from 6,000 to 23,000 vehicles per day.

Environmental Considerations:

Environmental issues are minimal along this corridor. The interchange at 41 Avenue southwest and 170 Street may pose some challenges with the Whitemud Creek Ravine; however, this level of detail does not indicate that

impacts are any greater than the previously planned roadways. A crossing at 41 Avenue southwest exists today and this will be widened to accommodate the roadways as development requires. The interchange has been located west of the ravine which should be sufficient to avoid greater impacts.

Pedestrian Circulation and Shared Use Path Connectivity:

Active modes will not be accommodated along the freeway component as this is a high speed free flow facility that will predominantly serve regional traffic and goods movements. Alternate options are available on parallel routes and all crossing routes at interchanges and fly-overs will include appropriate accommodations for all modes.

Land Use Integration:

Throughout this process, close connections were maintained with area land developers to ensure their development plans are in line with the proposed plan. The Windermere Area Structure Plan has already been amended to reflect a change in alignment for Ellerslie Road and the recently approved Keswick Neighbourhood Plan also reflect this deflection. Following approval of this report, Administration will continue to work with area land developers to amend all remaining Neighbourhood Structure Plans, such that they all identify the currently planned road alignment for Ellerslie Road.

Planning Level Cost Estimate:

The concept level estimate for the construction of this corridor is \$415 million in 2011 dollars. This estimate includes the cost of:

- road construction and paving
- concrete work (i.e. curb and gutter, sidewalk, islands, etc.)
- structures
- landscaping
- drainage (urban, rural, and stormwater management facilities)
- signage and pavement markings
- streetlighting and traffic signals
- land value
- engineering and contingencies

The cost estimate includes road work required for the construction of the 170 Street alignment, as well as improvements/upgrades to the crossing streets. The land will be obtained by the City through the subdivision process.

The roadway is included in the Arterial Roads for Development Bylaw 14380; however, only two of the lanes are cost recoverable for construction costs and six of the lanes are recoverable for land dedication costs. Due to the regional nature of this facility, it would be appropriate to approach the Province for potential dedicated funding towards its ultimate construction.

Timing:

The need for construction of this facility is dependent on the rate of land development in southwest Edmonton and in the Region. The first phase which includes upgrading to a four lane

roadway south of Ellerslie Road and a second bridge structure crossing Anthony Henday Drive may be required within ten years. The ultimate facility including all interchanges is not anticipated to be needed within the next 30 years.

Public Consultation

Public Consultation for this study included both individual meetings and two public open houses. Individual meetings were held with land developers with substantial land holdings adjacent to 170 Street, south of Ellerslie Road (9 Avenue southwest).

Public open houses were held on June 22 and November 30, 2010, to provide information to area land owners or their representatives, as well as the general public. The primary goal of the open house was to provide a general overview of the plan and to discuss the difference between the proposed plan and the roadway classification shown in the Area Structure Plan and Neighbourhood Structure Plan, as well as to allow attendees to provide comments and suggestions.

Legal Implications

Both the Windermere Area Structure Plan and the Ambleside Neighbourhood Structure Plan should be amended to acknowledge 170 Street as a freeway facility. In addition, an amendment to the Arterial Roads for Development Bylaw 14380 is recommended to ensure the full right-of-way for this facility be assessable.

Justification of Recommendation

1. The 170 Street South of Anthony Henday Drive Concept Planning Study represents a design of an urban freeway that will continue to provide access to adjacent neighbourhoods while providing a significant level of service for regional trips in southwest Edmonton.
2. City Council will need to consider an amendment to the Windermere Area Structure Plan and the Ambleside Neighbourhood Structure Plan in order to ensure that the plans are consistent with the 170 Street South of Anthony Henday Drive Concept Plan.
3. An amendment to the Arterial Roads for Development Bylaw 14380 is required to allow for the full right of way dedication along 170 Street to be an assessable item.

Attachments

1. Executive Summary: 170 Street South of Anthony Henday Drive Concept Planning Study
2. Recommended Concept Plan for 170 Street South of Anthony Henday Drive

Others Reviewing this Report

- R. G. Klassen, General Manager, Planning and Development Department
- M. Koziol, General Manager, Capital Construction Department, and Acting General Manager, Asset Management and Public Works Department
- D. H. Edey, General Manager, Corporate Services Department