



170th Street Concept Planning

Public Information Session (Ellerslie Rd to 41 Street SW)

Responses to Stakeholder Comments

www.edmonton.ca/roadplans

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Public Involvement

Introduction

The following is a summary of the written questions and comments received after the June 22, 2010 Public Open House covering Ellerslie Road to 41 Avenue SW. Where possible, the project team has included a response for clarification.

Philosophy

Why does this proposal create a free flow facility through the Windermere community to serve what we must assume are non-residents of the community?

170 Street has been identified by the City of Edmonton and Alberta Transportation as a “Highway Penetrator” since the 1990’s. Both parties have since prepared plans for the 170 Street corridor based on that understanding.

Although 170 Street will provide regional connections to the south, the infrastructure proposed for this corridor serves mostly City residents. Immediately north of Ellerslie Road, approximately 85% of the northbound traffic in the AM Peak hour and 60% of the southbound traffic in the PM Peak hour is development traffic accessing one of the three crossing arterials (Ellerslie Road, 25 Avenue SW, or 41 Avenue SW). The remainder of the traffic is regional traffic.

Will land access to the Windermere ASP area be sacrificed for free flow movements in and out of Edmonton?

Land access is not being sacrificed. Within the south study area, no accesses proposed by the Windermere Area Structure Plan Traffic Impact Assessment have been removed. The only change in access occurs at the four collector accesses that have become right-in/right-out intersections onto the one-way frontage roads.

Isn't the concept of a free flow arterial essentially bisecting a neighbourhood contradictory to the goals of the Edmonton Regional Plan?

The City of Edmonton and Alberta Transportation have designated 170 Street/Terwillegar Drive as a Highway Penetrator since the 1990's. In addition, the City of Edmonton has identified Terwillegar Drive/170 Street as highway connectors in its 1999 and 2009 Transportation Master plans. These highway connectors are to have a more free flowing standard and limited access. The 170 Street plan sits along boundaries of neighbourhoods within the Windermere ASP as opposed to bisecting a neighbourhood. Edmonton's Transportation Master Plan was founded upon the Municipal Development Plan which has been supported by the Capital Region Board.

Shouldn't the functionality and connectivity of the overall roadway network be more important than maintaining a 100 km/hr posted speed limit along Anthony Henday Drive and 170 Street?

Anthony Henday Drive and 170 Street will be freeways, which mean that their function is to accommodate a high volume of traffic while providing minimal access. The frontage road system that is proposed along 170 Street within the south study area is intended to provide local connectivity and access. These frontage roads will be posted at 70km/h. The proposed 100km/h posted speed along the mainline is a function of the 170 Street freeway status.

How does the proposed design conform to the Transportation Master Plan's Strategic Goal on Sustainability?

170 Street is a designated goods movement corridor and these corridors are necessary to sustainable and thriving modern cities. The proposed plan conforms to the goal of sustainability by providing the infrastructure needed to minimize delay and reduce carbon emissions. 170 Street also accommodates social demands for adequate access to and from the Windermere area, as well as providing regional connections to the south.

Design Questions

Can the philosophy of 4 metres up and 4 metres down be revisited? I am concerned about how it will work with staging and the minimizing of interim construction.

The semi-depressed profile proposed assists with noise mitigation, and reduces the overall right-of-way that is required by the freeway. Staging will be completed in a similar manner to Terwillegar Drive, with the frontage roads constructed first, then the mainline constructed at a later date. The cross-street arterials will likely be offset from the bridge structures to allow for construction at a future date with minimal detours required.

Why are road/bridge crossings being built in the final alignment? Instead, is there a way the road can remain open while the future bridge is under construction?

The intent of the staging plan shown at the Open House was to identify that the frontage roads would be constructed prior to the freeway. The exact configuration and locations of the arterial at-grade crossing will be determined during future studies and design.

Why can't the interchange cross-section at 25 Avenue and 170 Street mirror that at Ellerslie Road?

The proposed frontage road option does not allow traffic to enter and exit the freeway near every crossing arterial, resulting in traffic coming from or headed to the freeway to travel through additional intersections on the frontage road. Based on the locations of the transfer lanes, the 25 Avenue SW signals will also serve all of the northbound traffic from 41 Avenue SW and all of the southbound traffic from Ellerslie Road. This additional traffic requires a more complex interchange than a simple diamond interchange. The combination of area available for this interchange and amount of traffic that is expected to be using the interchange is what led to the selection of the split diamond configuration. This is the smallest effective interchange type in this specific context.

What Level of Service Criteria was used in the assessment of interchange options?

This project was assessed using the City of Edmonton Roadway Planning and Design Objectives, which state that the volume to capacity ratio must not exceed 1 and operations must be LOS E or better in the long term.

What more will you do to include alternate modes of transportation including transit, bicycles, and pedestrians?

As 170 Street is proposed as a freeway, there will be no accommodation for alternate modes of transportation within this corridor. North-South movements of this nature should occur within the neighbourhoods. At the cross-street arterials, the interchanges will include walkways and wider lanes for cyclists. All arterials will be able to accommodate transit; however, the exact routing will be determined by Edmonton Transit.

Right-of-Way Questions

The entire 170 Street corridor width, for much of its length, is a minimum 140m to 150m and expands to 200m with flares for the 25 Avenue interchange. Is this really appropriate for the anticipated volume of traffic?

The right-of-way proposed is needed to accommodate the 6-lane freeway and frontage roads that are required to accommodate the 100,000 vehicles that are projected to use this freeway each day.

How much land will be purchased for this project, by whom, when would it be purchased, and how would that land be valued?

This scope of the Concept Planning study includes the identification of the amount of road right-of-way required to construct the proposed design. Discussions regarding how and when this land will be obtained will be initiated, once the study is complete, with the appropriate land owners.

The size and area required for the split diamond interchange seem excessive and unsustainable. Have other options—including an at-grade interchange at 25 Avenue—been explored?

170 Street will be a freeway, and by that very definition, should not have at-grade intersections. Aside from this, at-grade intersections will not sufficiently accommodate the traffic projected for this area. A simple diamond interchange (similar to Ellerslie Road and 41 Avenue) was considered, and there was not enough capacity to accommodate the traffic in this area. The smallest interchange type that worked acceptably was the split diamond.

The City of Edmonton's terms of reference for the 170 Street Study outlines minimization of the corridor right of way as a key objective of the study. How do the proposed corridor design and right of way requirements presented on June 22 meet this objective? What specific measures have been identified/incorporated into the plan to minimize right-of-way requirements?

To minimize the right-of-way impacts along the 170 Street, the freeway-frontage road option was selected. This option reduced the cross-section by approximately 100m along the corridor, compared to the freeway with basket weave option that was rejected early on in this study. Another feature is the semi-depressed profile of the freeway, which significantly reduces the sideslopes near the interchanges.

Other Questions

What is the timing of road development from Ellerslie Road to 41 Avenue SW?

The timing of the freeway on 170 Street is unknown and will be driven by development in the region and in the City. It is anticipated that the frontage roads will be constructed as development occurs within Windermere, with the mainline freeway added as traffic demand warrants are met.

Can you provide more information about Ellerslie Road re-alignment?

Ellerslie Road is being realigned to accommodate the future interchange at 170 Street. Construction for this project will take place with development of the surrounding lands, with an at-grade intersection at 170 Street for the foreseeable future.

Can you provide more information about the potential extension of 170th Street as part of regional road network?

Alberta Transportation is planning to extend 170 Street beyond Edmonton's south city boundary to south of Leduc, along the west side of the Edmonton International Airport, to relieve some of the pressure on the Queen Elizabeth 2 highway. 170 Street is anticipated to cross the Regional Ring Road south of 41 Avenue SW; however, the location of the Regional Ring Road has not been finalized. Once the Regional Ring Road alignment is finalized, modifications to 170 Street and the 41 Avenue SW interchange may be required.

Can the interchange at Anthony Henday Drive and 170 Street be reduced in size by using an alternative interchange design?

Alberta Transportation has indicated that the Anthony Henday Drive/170 Street Interchange must be a Systems Interchange (freeflow for all movements and no traffic signals) since this is a freeway to freeway connection. The final design of the interchange is not complete but the final interchange will be large to meet the objective for a systems interchange.