Welcome

Highway 37: Functional Planning Study

From Highway 43 to Highway 44

Open House

4:00 pm to 8:00 pm

June 29, 2011
Purpose of this Open House

Present the Highway 37 upgrading plan, which will provide improved traffic flow and roadway safety and obtain your feedback.

What is Being Studied?

Highway 37 is a primary highway connecting Edmonton to the Onoway and Calahoo regions. The section being studied extends from the junction of Highway 43 west of Onoway to the Junction of Highway 44.

Who is Involved?

AECOM Canada Ltd. has been retained by Alberta Transportation to update the functional planning study for Highway 37, which runs between Highway 43 and Highway 44. The study examined upgrades to the existing alignment and potential new alternate corridors.
Project Background

Upgrading Highway 37 is part of the provincial government’s continued commitment to improve traffic and safety for highway travelers.

Highway 37 is a two-lane undivided “Class 2” (arterial) highway that runs from Highway 43 to Fort Saskatchewan. It is an important industrial, recreational, agricultural, and business road. Portions of the roadway through the study area do not meet modern engineering standards for provincial highways.

The proposed upgrading will provide a 12-metre wide paved surface with improved geometry to enable a 100 km/h posted speed limit throughout. These changes will improve traffic flow and roadway safety for all road users.

The study to upgrade Highway 37 began in October 1996. Open houses were held in January and April 1997 to introduce corridor alternatives and gather public feedback. Two options were presented in these two open houses. The first option (Option 1 – 1997) involved widening along the existing highway. The second option (Option 2 – 1997) included a section of new roadway south of the existing Highway 37. These two options were presented and due to improved grade-lines and shorter travel time, Option 2 was considered as the preferred alignment.

Based on public feedback, AECOM developed a third option (Option 3 – 2005), which was a variation of the second option. This was presented as a preferred option in the third open house, held in December 2005.

Following the third open house, a revised Option 1 was prepared in order to improve the vertical grade line of the existing highway. A comparison between Option 3 and the revised Option 1 has been completed in order to recommend the preferred alignment.
The Existing Highway

Existing Traffic Conditions

- Traffic Volumes along Highway 37 within the study area are in the order of 1,540 vehicles per day at the west and 2,540 vehicles per day at the east.
- This includes 80% of passenger vehicles and 13% of truck traffic.
- With increased projected traffic volume, the narrow roadway and tight horizontal curves may become a safety issue.

Safety Issues

Some of the safety issues are:

- Numerous sharp curves and steep grades.
- Narrow roadway width lacking adequate shoulder.
- In locations, inadequate stopping sight distances over the hill crests.
- Highway 37 lacks shoulders for emergency maneuvers.
- Numerous hidden driveways difficult for motorist to see traffic entering onto the highway.
- Skewed intersection of Highway 37 and Highway 779 resulting in driver perception of oncoming vehicles.
## Options Comparison

**Option 1:** Improvement of existing alignment route (Widening/Reconstruction)  
**Option 3:** Construction of New Alignment

**Weighting:** 100% divided among Various Factors based on their importance

### Comparison Matrix

<table>
<thead>
<tr>
<th>Item</th>
<th>Max Score %</th>
<th>Option 1</th>
<th>Option 3</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operations</strong></td>
<td>(20)</td>
<td>6.7</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>• Travel Time</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Shorter route (Opt. 3)</td>
</tr>
<tr>
<td>• Grades</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Better Grades (Opt. 3)</td>
</tr>
<tr>
<td>• Fog</td>
<td></td>
<td></td>
<td></td>
<td>Less Fog (Opt. 1)</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>(25)</td>
<td>12.5</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>• Property Impact</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Fewer properties along Opt. 3 (82 vs. 103)</td>
</tr>
<tr>
<td>• Land Severance</td>
<td></td>
<td></td>
<td>x</td>
<td>Less land severance on Opt. 1 (5 vs. 11)</td>
</tr>
<tr>
<td>• Access Impact</td>
<td>x</td>
<td></td>
<td></td>
<td>Less access impact on Opt. 3</td>
</tr>
<tr>
<td>• Historical Route</td>
<td></td>
<td></td>
<td>x</td>
<td>Opt. 1 is an established road corridor</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>(25)</td>
<td>25.0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>• Mitigation level</td>
<td>x</td>
<td></td>
<td></td>
<td>Higher mitigation required on Opt. 3</td>
</tr>
<tr>
<td>• Wildlife impact</td>
<td>x</td>
<td></td>
<td></td>
<td>Higher density of wildlife along Opt. 3</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>(15)</td>
<td>7.5</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>• Construction cost</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Construction cost is lower on Opt. 3</td>
</tr>
<tr>
<td>• Maintenance cost</td>
<td></td>
<td></td>
<td></td>
<td>Less total length of road to maintain (Opt. 1)</td>
</tr>
<tr>
<td><strong>Feasibility</strong></td>
<td>(15)</td>
<td>5.0</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>• Constructability/Staging</td>
<td>x</td>
<td></td>
<td>x</td>
<td>Opt. 3 construction will not interrupt traffic</td>
</tr>
<tr>
<td>• Geotechnical suitability</td>
<td></td>
<td></td>
<td></td>
<td>Higher ground, better soil conditions (Opt. 1)</td>
</tr>
<tr>
<td>• Utility impact</td>
<td>x</td>
<td></td>
<td></td>
<td>Less utilities impacted on Option 3 (8 vs. 13)</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td>(100)</td>
<td>57%</td>
<td>43%</td>
<td>Higher score indicates better option</td>
</tr>
</tbody>
</table>
Some of the improved features are:

- Wider Roadway top width of 12.0 meters average with adequate shoulder for emergency maneuvers.
- Improved horizontal and vertical geometry, providing better sight distance.
- Improved intersections.
- Reduced number of accesses, which reduces traffic conflict.
HIGHWAY 37
FUNCTIONAL PLANNING STUDY
Anticipated 40-year daily traffic

Government of Alberta

JUNE 2011
HIGHWAY 37
FUNCTIONAL PLANNING STUDY
Anticipated daily traffic with completion of Highway 633

N.T.S.

Government of Alberta

AECOM

JUNE 2011