

Major Bike Routes Project

Strathcona and Downtown
Route Evaluation Overview
November 2014

Introduction

The City is planning two major bike routes in the central part of Edmonton. The Strathcona Route will connect the communities of Strathcona, Garneau and the University area and the Downtown Route will connect the communities of Downtown, Oliver and Glenora. In addition, the implementation of the bike routes will provide connections to major destinations in these areas.

The initial stage of the project involved evaluating the potential route options within each area to determine which route the major bike facility would be located on. Within each area, multiple options were identified and alternatives were presented to the public as follows:

Strathcona / Garneau / University Route (from Mill Creek to 112 Street)

1. 81 Avenue
2. 82 (Whyte) Avenue
3. 83 Avenue
4. 84 Avenue

Downtown / Oliver / Glenora Route (from 96 Street to 136 Street)

1. 102 Avenue
2. 103 Avenue/102A Avenue

Evaluation Process

The route evaluation process was completed in two phases based on feedback received from stakeholder meetings, public workshops, and online input received in May and June 2014.

Phase 1: Fatal Flaws

Phase 1 identified “fatal flaws” associated with the routes, including major technical issues (such as multiple ravine crossings) and local operational issues that would be difficult or very costly to resolve. The routes identified with “fatal flaws” were eliminated at the Phase 1 analysis and were not included in the Phase 2 evaluation.

Phase 2: Detailed Evaluation

The remaining routes were assessed against 16 Evaluation Criteria. These Criteria were developed based on the public and stakeholder input and industry best practice. The factors include safety, bicycle demand, traffic operations, constructability, risk, and cost. Six of the criteria are related to benefits and 10 criteria were associated with impacts. Calculations were completed to ensure impacts and benefits were equally considered in the overall score. For the assessment, each criteria was evaluated on a scale of 1 (worst) to 5 (best) using an objective evaluation process. The overall score is based on a 100 point scale with the route having the highest overall score being the preferred route.

Evaluation Summary

Strathcona Route Phase 1

For the Strathcona/Garneau/University route options, routes along 81 Avenue and 82 Avenue were eliminated at the Phase 1 evaluation stage.

Public and stakeholder input raised concerns about the 81 Avenue option. Key issues for 81 Avenue included a concern about continuity on this corridor due to barriers imposed by the railway and development in the vicinity of 102 Street as well as connectivity to the University Campus. In addition, concerns were raised about potential impacts to newly implemented angle parking.

Public and stakeholder input acknowledged that 82 Avenue (Whyte Avenue) is a major destination and an important part of the community; however, the input received also acknowledged major conflicts on this corridor including heavy traffic volumes, conflicts at busy transit stops due to the number of both passengers and buses, significant on-street parking, and new boardwalk cafés. While a bike route along 82 Avenue would be highly valuable due to the destinations along Whyte Avenue, the significant challenges are unlikely to be overcome at this time.

Strathcona Route Phase 2

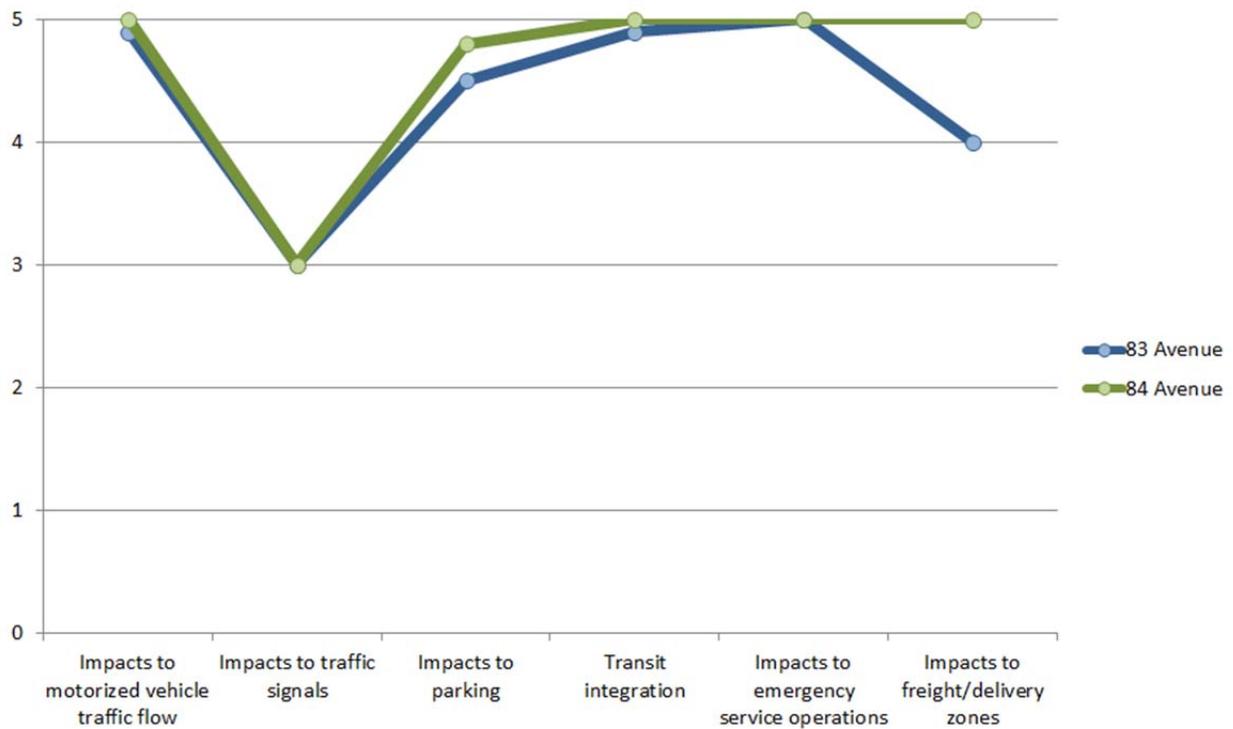
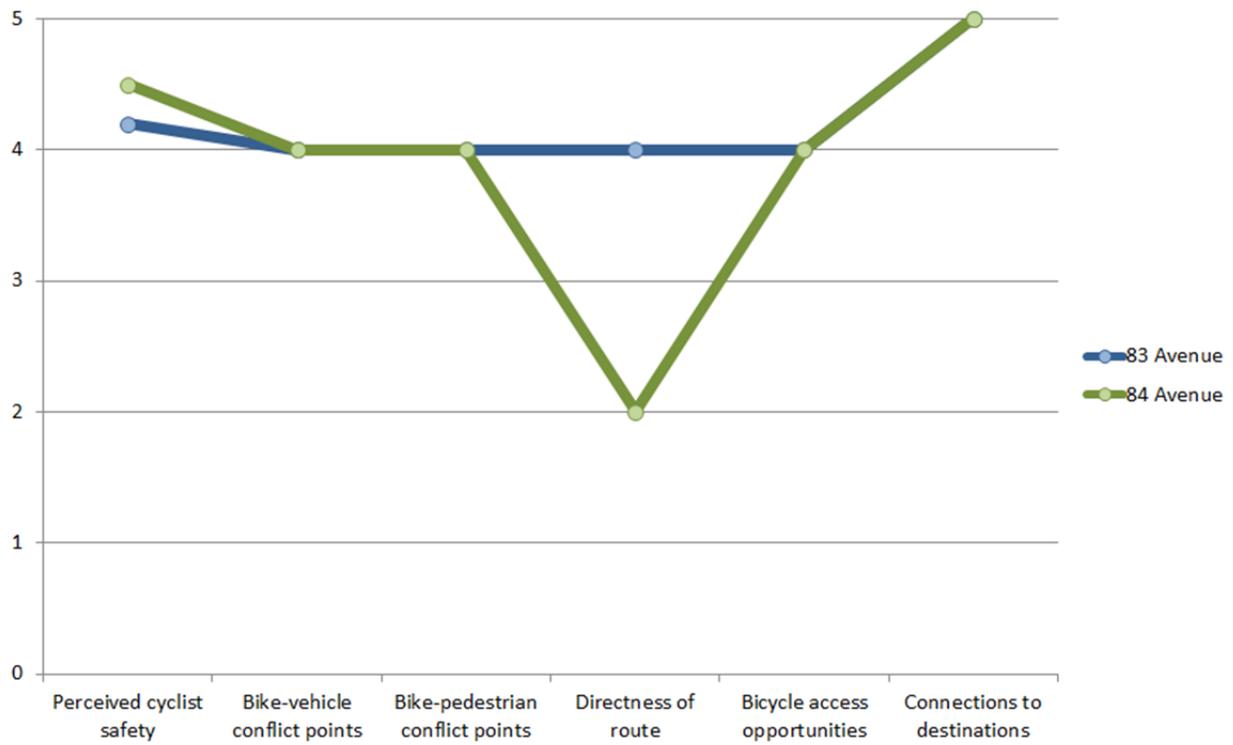
The Phase 2 assessment for the Strathcona/Garneau/University Routes included 83 Avenue and 84 Avenue.

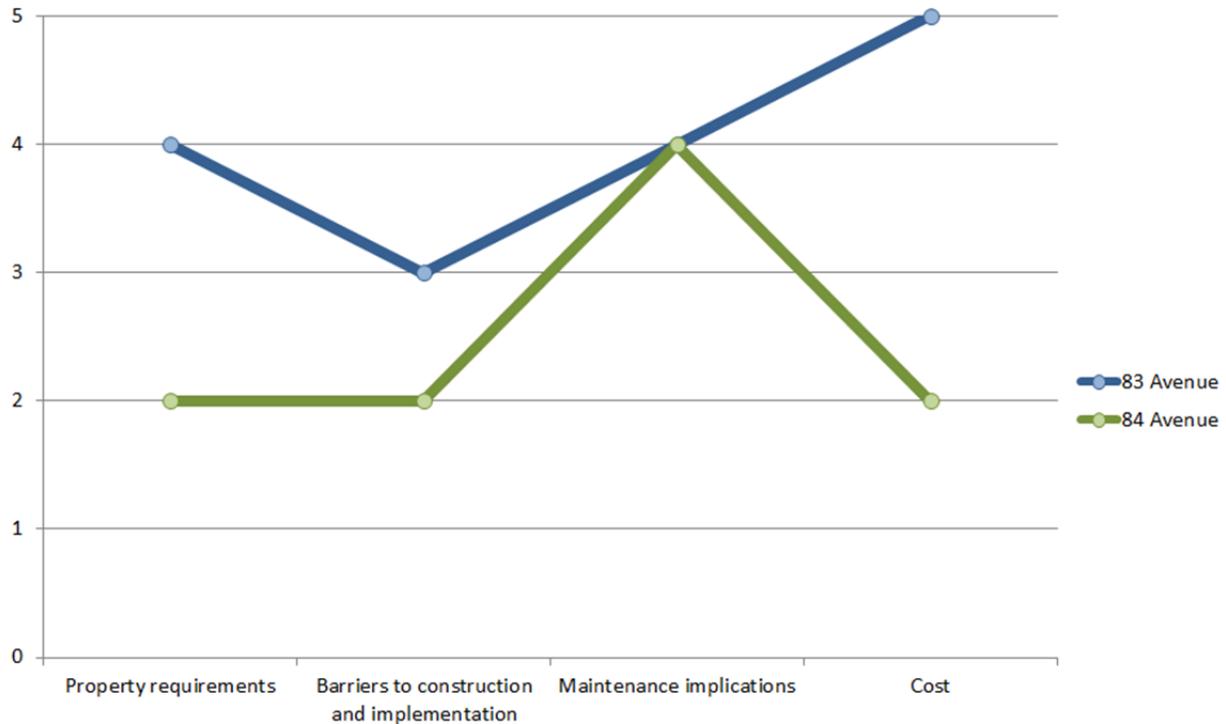
The following bar chart illustrates the scores by criteria as well as the overall score for the two routes.

83 Avenue had an overall score of 84.3 and 84 Avenue had an overall score of 79.0.

The scoring illustrates that either corridor is appropriate for a major bicycle facility however, 83 Avenue has some significant advantages over the 84 Avenue route. These advantages were primarily associated with the directness of the 83 Avenue route and the impacts of the discontinuity of 84 Avenue between 102 Street and 104 Street. This discontinuity is considered a significant barrier and has potential property and cost impacts which resulted in 84 Avenue having a lower score.

Evaluation Results - Strathcona





Downtown Route Phase 1

For the Downtown/Oliver/Glenora Route, the western section of 103 Avenue from the Groat Ravine to 136 Street was eliminated at the Phase 1 evaluation stage. This section of 103 Avenue was eliminated because of the numerous barriers imposed by the Groat Ravine, the Ramsey Ravine, and the Glenora School/Park site.

Downtown Route Phase 2

The Phase 2 assessment for the Downtown/Oliver/Glenora Route was completed for 102 Avenue and 103 Avenue. Both routes were considered to include 102 Avenue west of the Groat Bridge stemming from the results of the Phase 1 evaluation. In addition, both route options tied into the bicycle facility that was approved by City Council as part of the Valley Line LRT along 102 Avenue east of 107 Street. Therefore, the Phase 2 evaluation of the 102 Avenue and 103 Avenue route options was only completed for the section between the Groat Bridge and 107 Street since the other segments were common to both options.

102 Avenue had an overall score of 76.1 and 103 Avenue had an overall score of 70.0. As illustrated on the following graphs, 102 Avenue corridor scored higher because it scored better on 4 of the 16 criteria used in the detailed route evaluation. Specifically the 102 Avenue route is a more direct route that provides better connections to key destinations in the area. As well, it has fewer conflicts with freight and delivery zones and it impacts slightly fewer parking stalls than the 103 Avenue route.

Evaluation Results - Downtown

