

Stantec

**Preliminary Design and Environmental Assessment
Highway 17 Sudbury Southwest Bypass Four-Laning
GWP 5825-05-00**

Evaluation Process

An evaluation process is proposed that provides an objective approach to the analysis and evaluation of alternatives that will form a justifiable tool for the selection of a Preferred Improvement Plan. The goal is to select a cost-effective Improvement Plan for the Sudbury Southwest Bypass (Highway 17) from Sudbury Municipal Road 55 (middle junction) easterly to Highway 69 that provides safe operations and convenient local access to the surrounding area while minimizing the impacts to the natural, social and cultural environments. This is achieved by applying each of the evaluation criteria to each of the alternatives.

Evaluation criteria that address the key issues related to the decision-making process of selecting a suitable improvement plan have been identified. The evaluation criteria are independent variables, each of which may contribute a positive or negative influence on the overall suitability of an alternative. A preliminary determination of the relative importance of the evaluation criteria is listed in the accompanying graphic.

Evaluation Criteria

What Represents the Best Southwest Bypass Improvement Plan???
The Best Improvement Plan.....

TRAFFIC OPERATIONS

- Has the potential to have the largest reduction in the number of collisions
- Provides the highest overall design standard consistent with the Geometric Standards for Ontario Highways

PROPERTY AND LAND USE

- Has the least number of residents displaced or impacted and the least amount of property required

APPLIED ENVIRONMENT

- Does not encroach upon waste disposal sites or potentially contaminated properties

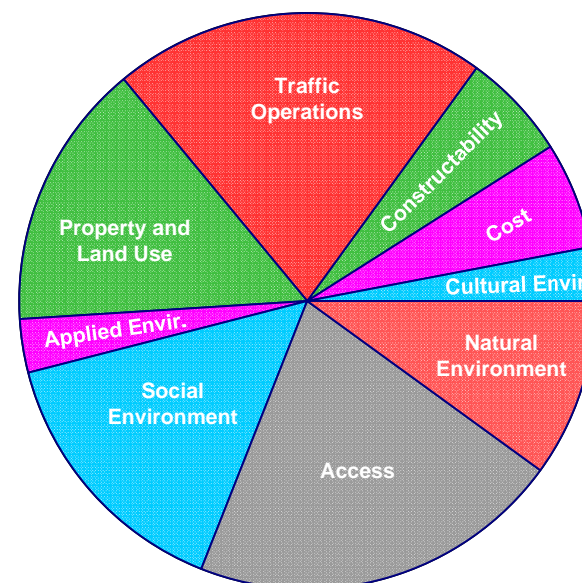
SOCIAL ENVIRONMENT

- Minimizes impacts to adjacent dwellers and views of the highway
- Minimizes impacts to noise sensitive receivers
- Minimizes impacts to private entrances
- Minimizes impacts to emergency response routes
- Has the least impact to the TransCanada Trail (i.e. Kelly Lake Trail)
- Minimizes impacts to TOPS and regional snowmobile trails
- Minimizes impacts to recreational features (i.e. cycling and pedestrian travel routes)
- Minimizes impacts to existing businesses – property and access

ACCESS

- Provides convenient access to the local municipal road system with minimal out-of-way travel
- Does not increase traffic through existing neighbourhoods

Relative Importance of Evaluation Criteria



CONSTRUCTABILITY

- Has favourable geotechnical and foundation conditions
- Uses conventional construction techniques that have long-term stability
- Can be constructed with minimal impact to traffic

COST

- Minimizes the total cost, including construction, utility relocation and property

CULTURAL ENVIRONMENT

- Has the least impact to registered and identified Cultural Heritage Sites

NATURAL ENVIRONMENT

- Has the least impact on wildlife habitat and on wildlife travel corridors
- Reduces the likelihood of wildlife collisions
- Has the least impacts to the Migratory Bird Sanctuary (at Fielding Park)
- Has the least impact on soil quality or quantity
- Has the least impact on the surrounding terrestrial ecosystems
- Has the least impact upon identified aquatic/wetland ecosystems
- Has the least impact on the Kelly Lake Shatter Cones ANSI
- Has the least impact on landscape features and woodland resources
- Has the least impact to land that has been reclaimed as part of Sudbury's Land Reclamation Program
- Has the least impact to greenways or open space linkages
- Has the least impact on fisheries resources
- Has the least impact on wetlands
- Has the least impact on ground water recharge areas and minimizes impacts to wells
- Has the least impact on surface water quality and quantity