

8. Transportation Alternatives

8.1 Overview

A universal set of alternatives was drafted based on the results of the following:

- Public Involvement Process
- Public Meetings
- Stakeholder interviews
- Special Meetings
- Review of existing and future transportation and land use conditions throughout Erie County and Vermillion.
- Ability to meet Goals and Objectives of the plan
- Ability of the county, state and federal governments to fund the transportation improvement projects.

The universe of alternatives is shown in **Figures 8-1, 8-2, 8-3 and 8-4**. In order to measure the effectiveness of any alternative drafted for the LRTP, it is important to evaluate each alternative against a set of criteria to ensure it meets the goals and objectives of the study. As shown in **Table 8-1** performance measures were established reflecting the overall Goals and Objectives of the LRTP.

The evaluation table has nine category headings based on the goals and objectives developed for the Long Range Transportation Plan. The transportation options were evaluated based on a five point system as follows:

Very Good = 5 points
Good = 4 points
Fair = 3 points
Poor = 2 points
Very Poor = 1 point

Each category has five potential weights- representing how well the alternative meets that goal/objective- ranging from 'very good', 'good', 'fair', 'poor', and 'very poor'. To get a weighted sum, each ranking was given a numerical value ranging from one through five. The difficulty in using a weighted system of alternatives is that the connectivity between different projects is not highlighted. Each project is ranked based on its own merits. These rankings were used to help with the decision making process of where to place projects into the timeline for implementation, along with other factors including project dependencies and costs. The costs of the various transportation improvement projects were assessed relative to the ability to fund them within the 25-year planning horizon and the level of relief of an identified transportation issue. This methodology balances the potential for improvement of the transportation system. The system plan included as the Recommended Plan was the concept that established the most reasonable balance between cost and system effectiveness.

Table 8-1: Criteria and Performance Measures

Goal	Goal Statement	Objectives	Performance Measures
Freight Movement & Economic Vitality	Improve the local freight network & support the economic vitality of the MPO area.	<ul style="list-style-type: none"> • Develop a transportation network that supports movement of worldwide freight markets • Increase access to employment areas & sites, especially those that utilize or are related to freight • Use transportation project selection criteria to accentuate projects that give priority to transportation projects that support freight movement & support economic vitality • Encourage public/private partnerships to leverage funding from federal, state, & other sources • Give priority to transportation projects that improve and provide access to area tourist destinations & amenities 	<ul style="list-style-type: none"> • Minimize congestion on major corridors when feasible • Support projects that increase levels of private sector investment in transportation improvements • Aid mobility by showing an increase in freight traffic volumes • Encourage partnerships with the freight community stakeholders • Increased availability & use of intermodal facilities including maritime, rail & air facilities • Support more efficient movement of freight based on time & costs • Strive for project selection that measures freight traffic volume
Safety	In the ERPC’s transportation network achieve a reduction in fatalities & serous roadway injuries	<ul style="list-style-type: none"> • Encourage clear signage on roadways throughout the MPO area • Improve hazardous intersections • Support projects that increase safety • Use transportation project selection criteria to accentuate projects that encourage safety 	<ul style="list-style-type: none"> • Reduce the number of fatalities & serious injuries in the ERPC area • Reduce the number of fatalities & serious injury per VMT in the ERPC area • Expand availability & participation of community members in the citizen/safety committee meetings

Goal	Goal Statement	Objectives	Performance Measures
Reduced Project Delivery Times	Reduce project costs, promote jobs & the economy & expedite the movement of people & goods by accelerating local project completion through the elimination of delays in the process	<ul style="list-style-type: none"> • Support efforts that coordinate local policies & projects with those at regional & state levels • Encourage expedited project delivery • Use transportation project selection criteria to promote reduced project delivery times that expedite the movement of people & goods 	<ul style="list-style-type: none"> • Increase interagency communication • Create list of reservoir (“shovel ready”) projects that can begin or advance if extra funding becomes available • Improve project benefits relative to the costs
System Reliability	Improve the efficiency and reliability of the local surface transportation system	<ul style="list-style-type: none"> • Use transportation project selection criteria to accentuate projects that improve the efficiency and reliability of the local transportation system • Reduce travel time & delays when feasible • Support improved east-west travel through the MPO region • Identify developing & expanding corridors and implement appropriate regulations prior to development occurring 	<ul style="list-style-type: none"> • Sponsor MPO projects that have ITS components or other innovative techniques that improve the operating efficiency of existing infrastructure • Aid projects that work towards improving east-west corridors through the area • Show a reduction in identified deficiencies (rated poor or below) in current system for pavement, intersections, and bridge conditions • Support implementing appropriate regulations prior to development when warranted • Illustrate the availability of non-motorized routes in appropriate locations • Encourage projects that apply access management guidelines • Reduce travel times when feasible • Strive to support projects that reduce congestion on major corridors

Goal	Goal Statement	Objectives	Performance Measures
Congestion Reduction	Reduce congestion in the MPO area	<ul style="list-style-type: none"> • Use transportation project selection criteria to promote alternative transportation & other congestion relief methods • Enhance transit services to promote service to major employment centers, educational facilities, medical offices, commercial developments & tourist destinations • Maximize bicycle & pedestrian connections to roadways, transit services & area amenities such as the waterfront & regional parks • Encourage communities to incorporate bicycle & pedestrian facilities within major new residential & commercial developments 	<ul style="list-style-type: none"> • Demonstrate an increase in transit ridership • Increase the percentage of persons using alternate modes, especially during peak hours • Support projects that show a decrease in travel time between regional/major activity centers • Incorporate multi-modal components in project planning when feasible • Encourage an increase in miles for bicycle & pedestrian facilities • Reduce travel time on major corridors • Decrease congestion on major corridors • Support access management techniques

Goal	Goal Statement	Objectives	Performance Measures
Environmental Sustainability	Protect the environment in the MPO system & enhance the transportation system's performance simultaneously	<ul style="list-style-type: none"> • Use transportation project selection criteria to promote alternative transportation methods &/or projects that protect & enhance the environment • Maintain a planning process that integrates & coordinates transportation planning with land use, water & natural resource conservation • Minimize, avoid &/or mitigate environmental impacts of transportation improvements • Provide equitable & environmentally friendly just transportation facilities & services • Promote consistency between transportation improvements, local planned growth & economic development patterns • Support energy conservation initiatives with special emphasis on those being undertaken in the MPO region related to wind energy, biofuels, & other alternative fuels 	<ul style="list-style-type: none"> • Show the preservation of neighborhoods and cultural/historic resources & or sites • Document mitigation steps when (if) adversely impacting the environment • Improve interagency communication • Maintain a relative distribution of positive & negative impacts by socio-economic groups with consideration of existing communities • Improve efforts supporting energy conservation initiatives • Minimize impacts to established neighborhoods

Goal	Goal Statement	Objectives	Performance Measures
Infrastructure Condition (Preservation)	Maintain the existing transportation infrastructure assets in a state of good repair	<ul style="list-style-type: none"> • Use transportation project selection criteria to accentuate system preservation projects • Support efforts for the proper maintenance of the existing transportation system & the use of the non-motorized methods of transportation to reduce stress on the current system 	<ul style="list-style-type: none"> • Improve the conditions of roads/bridges by functional classification • Support MPO sponsored projects that encourage maintenance or preservation aspects • Promote efficient land use patterns when feasible
Modal Connectivity	Enhance the integration and connectivity of the transportation system across and between modes, people, and freight.	<ul style="list-style-type: none"> • Promote the efficient movement of people and goods by linking the various modes of transportation. • Provide multi-modal options (bicycle, pedestrian, transit) consistent with local government comprehensive plan. • Facilitate connections between transportation modes. • Encourage alternative modes for transport for persons and goods. 	<ul style="list-style-type: none"> • Greater choice in modes for system users. • More efficient movement of freight, based on time and cost. • Quality of Life Improvement • Greater access to transportation system by traditionally underserved or disadvantaged populations.
Funding	Develop efficient funding strategies for implementing transportation improvements and manage resources to ensure the maintenance of the transportation system	<ul style="list-style-type: none"> • Give priority to funding those transportation needs identified in state, regional, and local transportation system plans. • Maintain a financial plan to meet long-term maintenance and operational needs. 	<ul style="list-style-type: none"> • Cost savings relative to: congestion relief, reduction in crashes, travel time, vehicle miles of travel and vehicle trips. • Identify local, state and federal funding programs available for alternative transportation programs.