

3. Modal Strategies (Module 1)

The alternatives development process began by identifying individual improvement strategies to be considered in developing solutions for the study area. Such strategies include physical improvements to the transportation system aimed at improving capacity and mobility; operational improvements aimed at improving the efficiency of the transportation system; and demand management improvements aimed at reducing travel demand on area roadways. Working with stakeholders, the project team identified a list of improvement strategies to consider, along with locations where the various strategies should be used. Strategies address the various travel modes common to the area, including roadway, transit, bicycle/pedestrian, and freight service.

This section summarizes the improvement strategies proposed during development of multimodal transportation system alternatives, providing the basis for successive steps of the study process described in Chapters 4 and 5.

3.1 Physical Improvement Strategies

As noted, the transportation system in the study area cannot adequately accommodate local and regional mobility needs. Insufficient capacity on area roadways, lack of convenient access to major regional highways, limited transit options, limited accommodations for bicyclists and pedestrians, and modal conflicts associated with at-grade railroad crossings are factors that constrain travel mobility.

A broad range of potential physical improvement strategies for area roadways, transit, bicycle/pedestrian, and freight facilities was identified to address local and regional mobility needs. Strategies include improvements to existing facilities, such as widening roadways, as well as construction of new facilities, such as new multimodal transportation hubs. Tables 3-1 through 3-3 illustrate examples of potential physical improvements to area roadways, transit, bicycle/pedestrian, and freight systems.

3.2 Operating Improvement Strategies

Travel demand in the study area is substantial, and the amount of additional capacity and service that can reasonably be provided through physical improvements to the system is constrained by funding and adjacent land use. Operating improvement strategies focus on improving efficiency and travel flow conditions across the transportation system through low-cost system enhancements. Thus, these strategies optimize travel conditions across the system and complement potential future physical improvements.

Various operating improvement strategies were identified to better manage travel flow within the transportation system. These include expansion of traveler information (intelligent transportation) systems, traffic signal system improvements (signal coordination or progression), and additional express transit services. Examples of identified operating improvement strategies are illustrated in Table 3-4.

TABLE 3-1
Physical Improvements—Roadway

Widen Existing Freeway or Tollway



Reconstruct/Improve Interchange



Construct Grade Separation at RR Crossing



Improve Major Intersections



Construct Truck Only Lanes



Construct New Access-Controlled Roadway



TABLE 3-2
Physical Improvements—Transit

Construct New Rail Transit



Improve Existing Transit Stations



Improve Station Access



Construct New Transit Stations



Provide New Bus Rapid Transit



**Improve Freight Movement within Yards
(Interlockers)**



TABLE 3-3
Physical Improvements—Bicycle/Pedestrian Facilities

<p style="text-align: center;">Construct Park and Ride Lots</p> 	<p style="text-align: center;">Expand "High Priority" Corridors for Shared Use</p> 
<p style="text-align: center;">Complete Linkages in Existing Bicycle/Pedestrian System</p> 	<p style="text-align: center;">Construct Exclusive Bicycle/Pedestrian Trails</p> 

TABLE 3-4
Operating Improvement Strategies

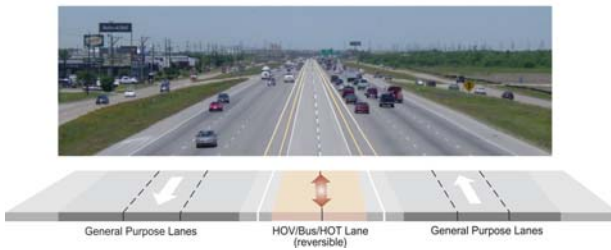
Intelligent Transportation Systems



Ramp Metering



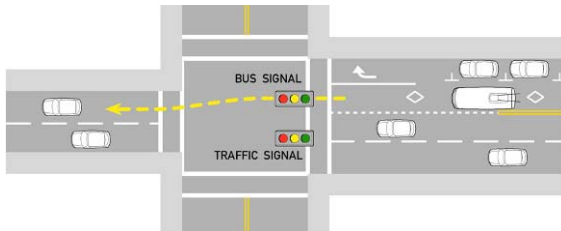
Changeable/Reversible Lanes



Arterial Access Management



Signal Prioritization



Interconnect Signals



Parking Restrictions



Express Trains



3.3 Demand Management Strategies

Demand management strategies influence the intensity, timing, and distribution of travel demand across the system, and can be used to alter travel behavior with the objective of reducing demand during traditional peak travel periods. Various demand management strategies were identified for consideration with this study. They include strategies aimed at reducing single-occupancy vehicles, such as managed traffic lanes (e.g., high-occupancy vehicle lanes), carpool/vanpool/rideshare, and roadway pricing strategies. The ability to implement demand management strategies is driven by regional or local policies, which are beyond the direct purview of this study. However, given the substantial travel demand and constrained travel conditions in the study area and Chicago metropolitan region as a whole, strategies aimed at altering travel behavior and reducing peak-period travel demand must be considered as a component of the overall transportation solution. Examples of demand management strategies are illustrated in Table 3-5.

3.4 Stakeholder Input

The input of stakeholders, as users of the transportation system and representatives of communities that would be potentially affected by the transportation improvements is important in developing alternative solutions. Thus, the alternatives development process for the Elgin O'Hare – West Bypass began with a workshop conducted with project stakeholders. The objective of the workshop was for participants to identify potential modal improvement strategies (as described in Section 3.3) that should be considered in this study and where they should be used.

The following sections describe the stakeholder input provided during Module 1 of alternatives development, as well as their recommendations regarding the types and locations of modal improvements that should be considered by the project team.

3.4.1 Stakeholder Input Opportunities for Module 1

Opportunities for stakeholder input included several meetings with project working group representatives, as well as one-on-one meetings with representatives of transportation agencies and core local communities.

A modal strategies workshop was conducted in March 2008. Participants included Corridor Planning Group (CPG) members, Task Force (Transportation, Environmental, and Land Use) members, and the project team. The workshop began with a presentation of transportation system performance analysis findings, problem statements identified through earlier meetings with the project working groups, a review of the 2030 baseline transportation network (with assumed transportation improvements), and an overview of improvement strategies (tools). Participants were tasked to identify which transportation improvements should be considered to address transportation problems, and at which locations they are needed (see Appendix B, Stakeholder Meetings Summary).

Two project working group meetings were held in April 2008: one with the CPG members, the other with the Joint Task Force representatives. An objective of the meetings was to present a summary of the output from the March workshop and to give stakeholders the

TABLE 3-5
Demand Management Strategies

<p>High Occupancy Vehicle/High Occupancy Toll Lanes</p> 	<p>Pricing Strategies</p> <table border="1" data-bbox="959 338 1344 661"> <thead> <tr> <th colspan="2">HOV Lane Status</th> </tr> </thead> <tbody> <tr> <td>HOV 3</td> <td>FREE</td> </tr> <tr> <td>HOV 2</td> <td>CLOSED</td> </tr> <tr> <td>QuickRide 2</td> <td>\$2.00</td> </tr> <tr> <td>QuickRide 1</td> <td>\$4.00</td> </tr> </tbody> </table>	HOV Lane Status		HOV 3	FREE	HOV 2	CLOSED	QuickRide 2	\$2.00	QuickRide 1	\$4.00
HOV Lane Status											
HOV 3	FREE										
HOV 2	CLOSED										
QuickRide 2	\$2.00										
QuickRide 1	\$4.00										
<p>Transit Oriented Design</p> 	<p>Free Transit Shuttle Zones</p> 										
<p>Rideshare/Carpool/Vanpool</p> 	<p>Variable Work Schedules/Telecommuting</p> 										

opportunity to review and refine stakeholder recommended modal strategies and locations, as needed (see Appendix B, Stakeholder Meetings Summary).

3.4.2 Stakeholder Modal Strategies Recommendations

Stakeholders developed a broad range of suggested improvement strategies and locations during the March workshop. Suggestions included improvements to roadways, transit, bicycle/pedestrian, and freight services (existing system strategies); new roadway, transit, or bicycle/pedestrian corridors (system expansion strategies); and various operating and demand management strategies. Stakeholders also provided suggestions regarding location

options for the potential West Bypass. An overview of recommended strategies and improvement locations is presented below.

3.4.2.1 Existing System Strategies

Existing system strategies focus on improving existing transportation facilities and services. Stakeholders suggested numerous improvements to existing facilities, with emphasis on major corridors with poor travel performance characteristics. Suggested improvements are illustrated in Exhibits 3-1 through 3-3 and include the following:

- Widen major area roadways, including major north-south roadways (IL 83, York Road, Medinah Road, and I-290), and east-west roadways (IL 72, IL 19, IL 62, and I-290).
- Add access at partial interchanges to make them full access, and improve truck access from area industrial centers to interstate corridors.
- Construct grade separations at major at-grade railroad crossings.
- Provide increased express bus service, in particular improved bus service along the IL 83 corridor.
- Improve commuter rail service along the Union Pacific (UP) West Line and the Chicago Transit Authority (CTA) Blue Line, including train frequency and capacity.
- Improve transit transfers between rail transit, bus, and the proposed people mover system at O'Hare Airport between the existing east terminal and the proposed west terminal, and address the gaps in the "last mile" connection between transit service and the rider's final destination (e.g. employment center, shopping retail areas, entertainment venues).
- Improve Metra stations, and provide enhanced station access.
- Eliminate gaps in the bicycle route and pedestrian systems, with an emphasis on transit accessibility.
- Expand and improve park and ride facilities.

3.4.2.2 System Expansion Strategies

System expansion strategies focus on providing new transportation facilities and services. Stakeholders proposed various new roadway corridors, with a focus on completing freeway/expressway linkages in the study area and providing a high-type westerly access to O'Hare Airport. New transit corridors were recommended to provide a link to transit rail corridors and to expand the transit market service area. Suggested system expansion strategies are illustrated in Exhibits 3-4 through 3-6 and include the following:

- Construct a new freeway/expressway along Thorndale Avenue (Elgin O'Hare Extension east of I-290), with new service interchanges to enhance access to adjacent communities.
- Construct a new freeway/expressway along the west side of O'Hare Airport (West Bypass) between I-90 and I-294, with a new system interchange to the planned O'Hare West Terminal at O'Hare Airport and new service interchanges to enhance access to adjacent communities.

- As an option to the West Bypass, construct a new freeway/expressway along the IL 83 corridor.
- Provide dedicated transit service along the Thorndale Avenue (Elgin O'Hare) corridor extending northerly along I-290, either in the form of new rail transit or bus rapid transit.
- Extend CTA Blue Line service to the planned O'Hare West Terminal, and provide improved connections from the CTA Blue Line O'Hare Station to Metra rail and proposed people mover systems.
- Construct a multimodal transportation center on the west side of O'Hare Airport.
- Incorporate bicycle/pedestrian features into new transportation corridors and planned system improvements.

During the modal strategies workshop, stakeholders were asked to suggest location options for the potential West Bypass. Stakeholders consistently recommended that the West Bypass be sited on a dedicated 300-foot wide transportation corridor within O'Hare Airport property (at the west edge of the airport). Stakeholders then provided a broad range of possible location options for the north connection to I-90 and the south connection to I-294. Three general location options were suggested for the north connection with I-90: near IL 83, near Elmhurst Road, or near the Des Plaines Oasis along I-90. Three general location options were suggested for the south connection with I-294: along County Line Road, along the Union Pacific Railroad (UPRR) corridor between County Line Road and Wolf Road, or parallel to the rail marshalling yard south of O'Hare Airport. Stakeholder suggested location options for the West Bypass north and south connections are shown in Exhibit 3-7.

3.4.2.3 Operating and Demand Management Strategies

Stakeholders suggested that various operating strategies be investigated to optimize the overall performance of the transportation system, provided that the strategies would complement existing and planned land uses. Stakeholders also noted the need to explore various methods for reducing travel demand in the study area and throughout the Chicago metropolitan region as a whole. Suggested operating and demand management strategies are shown in Exhibit 3-8 includes the following:

- Provide improved access control along IL 83 north and south of Thorndale Avenue to improve travel conditions.
- Evaluate the feasibility and potential benefits of managed traffic lanes (high-occupancy vehicle or high-occupancy toll) along I-290 to reduce single-occupant vehicles.
- Expand the use of coordinated traffic signal systems along major arterial corridors in the study area, including along IL 58, IL 19, and IL 64.
- Provide express train service, in particular along the CTA Blue Line.
- Increase vanpool and shuttle service, particularly near I-290 and along the Metra Milwaukee District West Line.

- Evaluate congestion pricing on transportation facilities as a means to reduce peak period travel demand on area roadways and to promote expanded transit use.

3.4.2.4 Systemwide Improvement Strategies

Various transportation improvement strategies not associated with specific geographic locations were proposed for consideration. These include strategies for design and operational improvements to the area roadway, transit, freight, and nonmotorized transportation system (see Exhibit 3-9).

3.5 Next Steps

A broad suite of improvement strategies and locations was proposed by stakeholders in Module 1. The strategies include three elements to address the complex transportation issues in the original study area: improve capacity and travel service along major transportation corridors; construct new regional roadway and transit corridors to complete linkages in the areas major roadway and transit systems; and implement operating and demand management strategies to optimize performance of the transportation system and to reduce overall travel demand on area roadways. Following expansion of the study area boundaries, additional improvement strategies were identified in the new study area with stakeholder input (see Section 5.4.2). Together, these recommended modal strategies and improvement locations serve as a foundation for advancing the development of alternatives.

The project team used stakeholder recommendations from Module 1 to guide the development of comprehensive multimodal transportation system alternatives in subsequent modules of the alternatives development process. In Module 2, the project team focused on assembling and evaluating comprehensive initial roadway system strategies and complementary initial transit system strategies. Combination (systems) of various roadway improvements and complementary transit improvements were then defined to collectively address the project's Purpose and Need. Feasible system strategies that address purpose and need were then carried forward for more detailed evaluation in Module 3 as finalist system alternatives. Working with stakeholders, the project team identified the optimal alternatives to carry as finalist system build alternatives, including roadway improvements, transit improvements, and complementary bicycle/pedestrian facility improvements. Transportation system management and demand management strategies will be considered with future Tier Two studies. Stakeholder recommended modal strategies described in this chapter helped guide the development and refinement of system alternatives throughout the process.