

### 3.3 Multimodal Alternatives Development, Evaluation, and Screening

The development and evaluation of transit improvements used a three-step process to arrive at a set of improvements to be carried forward in the Draft EIS.

#### 3.3.1 Level One: Development of Transit Corridors and Screening

The transit alternatives development and evaluation process began with the March 2008 Stakeholder's Workshop, where project stakeholders identified potential transit improvements in the study area. Input was sought from transit agencies through Transit Agency Coordination Meetings. The project team then assembled the collective ideas into a workable system of 20 transit-related corridors (see Exhibit 3-7).

The first level of screening of the 20 transit corridors was a joint project team and transit agency exercise. Initial evaluation measures were developed and validated with the transit agencies. In addition to the analysis of compatibility with transportation plans or the ability to build a transit improvement by 2030 (projects that could not be implemented by 2030 were categorized as beyond the planning period, and not considered relevant), an analysis of population and employment factors was conducted. Population and employment data were mapped proximate to each transit corridor, and analyses were performed to determine the density of households, employment, and workers residing in the study area, as well as the origins and destinations of airport travelers. Table 3-8 summarizes the Level One Screening criteria.

TABLE 3-8  
Level One Screening Criteria

Criteria	Measures of Effectiveness	Factor
<b>Travel Performance</b>		
Improve travel/service	Connect concentrations of population to work	Households and employment per route mile Study area workers by residence TAZ
	Serve major employment concentrations	Sites with 75 or more employees
	Connect to O'Hare's air traveler markets	Trips (daily origins and destinations) per route mile
Improve O'Hare West access	Connect to O'Hare's west entrance	Yes or no
<b>Other Criteria</b>		
Compatibility	With adopted transportation plans	Yes or no
Implementation horizon	Can be implemented by 2030	Yes or no

Of the 20 corridors evaluated, five had at least one "fatal flaw" and thus were eliminated from further consideration. For example, the Inner Circumferential corridor was eliminated because of conflicts with freight rail operations and because the likely implementation horizon for this corridor falls beyond the 2030 horizon of this study. Also, the Metra Rail Connector was eliminated because of freight conflicts, a high cost point to low travel benefit,

and because it does not appear in the RTP. Five of the remaining 15 corridors were modified based on the findings of the corridor-level market analysis (see Table 3-9).

### **3.3.2 Level Two: Refinement of Transit Corridors and Screening**

For this step, the remaining 15 transit improvement corridors were validated and further defined. Greater definition was established for each corridor to include potential mode (rail, heavy or commuter rail, bus rapid transit, arterial rapid transit, express bus, local bus, or local circulator) and operational aspects, and transit station locations. Other considerations included station spacing, intermodal transfer opportunities and physical feasibility of transfer connections.

During this refinement and screening step, the study area was expanded (as noted in the introduction to Section 3 and shown in Exhibit 3-2). As a result, additional transit elements were developed for the expanded study area, including (1) an extension of the Thorndale Avenue transit corridor from the O'Hare West Terminal to the Schaumburg Metra Station; (2) local circulator routes; (3) a Roselle Road bus route; (4) a service upgrade to Pace Route 554; and (5) employer shuttles designed to provide frequent, convenient and direct "last mile" connection service between rail and transfer stations and employment or activity centers.

At this stage of evaluation, further analysis was conducted for transportation performance, and environmental and socioeconomic measures. As a result of the screening, three corridors were eliminated from further consideration (see Table 3-10).

### **3.3.3 Level Three: Refinement of Transit Corridors and Screening**

At this step, the remaining transit corridors and elements were refined. For example, to reinforce the IL 83 section of the J-Line as a BRT line, its southern terminus was relocated from the future STAR line station at Naperville Road/95th Street to the I-88/Naperville Road interchange. This section of the route was replaced with a connecting shuttle service to link to the BRT service and coordinate with the BRT schedule. Another J-line refinement occurred in the section linking West O'Hare Airport to the STAR Line's Schaumburg/IKEA station. This section originally was to operate in the I-290 corridor, but it was moved to the Rowling Road/Martingale Road/IL 53 alignment to facilitate station development and access to neighboring employment and activity centers. Other refinements include modifications of station locations to accommodate parking requirements or further input from communities or transit agencies.

Other socioeconomic evaluation factors were introduced to assess the number of transit-dependent populations near proposed facilities. These factors included determining how many zero- or one-car households represent potential transit users near transit facilities; how many people are more than 65 years old; and how many households had incomes of \$50,000 or less.

TABLE 3-9  
 Alternatives Subject to Fatal Flaw and Level One Screening

Alignment or Facility	Result
<b>Rail or BRT Alternatives</b>	
STAR Line connection to West Terminal	Retained.
CTA Blue Line Extension to West Terminal	Retained.
CTA Blue Line Express Track from Chicago Loop	Retained.
J-Line: West O'Hare to IKEA and STAR Line	Retained.
J-Line: IL-83 to Aurora and Naperville	Retained.
Inner Circumferential	Eliminated: cannot implement by 2030 and freight conflicts.
Rail Connector: Metra UP-NW Line to UP-W Line	Eliminated: not in 2030 RTP; freight conflicts; high cost-low benefit.
Mid-City Connector	Modified: retained for screening as express bus or BRT; rail eliminated.
CTA Yellow Line Extension to Old Orchard Shopping Center, Skokie	Eliminated: too far from study area.
<b>Arterial Rapid Transit or Express Bus</b>	
Golf Road: Evanston to Woodfield	Retained.
Dempster Street: East O'Hare to Yellow Line, Skokie	Retained.
I-94 Yellow Line Transfer: Jefferson Park to Yellow Line Dempster Street terminal	Retained.
I-294 North to Lake County: East O'Hare to Gurnee	Modified: route shortened to terminate at Lake-Cook Road because of low densities farther north.
I-294 South to Homewood: East O'Hare to Homewood	Modified: route shortened to terminate at Ogden Avenue because of low densities farther south.
Mannheim Road: East O'Hare to Orland Park	Modified: route shortened to terminate at I-55 because of low densities farther south.
I-355: Thorndale Avenue to Shorewood	Modified: route shortened to terminate at I-55 because of low densities farther south, and at Higgins Road to conform to Pace plans.
<b>Local Limited Stop Bus Service</b>	
East Airport to West Airport via Irving Park Road	Retained.
West Airport Metra Connector via York Road, UP-NW to UP-W	Retained.
<b>Other Facilities</b>	
Metra Transfer Station: NCS to UP-NW at Des Plaines	Eliminated: physically infeasible.
Metra Transfer Station: STAR Line and proposed North-South rail connector	Eliminated: North-South rail connector is eliminated.

TABLE 3-10  
 Alternatives Subject to Level Two Screening

Alignment or Facility	Result
<b>Rail or BRT Alternatives</b>	
STAR Line connection to West Terminal	Retained.
CTA Blue Line Extension to West Terminal	Retained.
CTA Blue Line Express Track from Chicago Loop	Retained as a “regional supporting project.”
J-Line: West O’Hare to IKEA and STAR Line	Retained.
J-Line: IL-83 to Aurora and Naperville	Retained.
J-Line: West O’Hare to Schaumburg Metra MDW station	Retained for screening. Alignment added to address markets in expanded study area.
Mid-City Connector	Retained as a “regional supporting project.”
<b>Arterial Rapid Transit or Express Bus</b>	
Golf Road: Evanston to Woodfield	Retained.
Dempster Street: East O’Hare to Yellow Line, Skokie	Retained. Corridor to be extended to Evanston, consistent with Pace plans.
I-94 Yellow Line Transfer: Jefferson Park to Yellow Line Dempster Street terminal	Eliminated: low market potential for express service.
I-294 North to Lake County: East O’Hare to Gurnee	Eliminated: low market potential.
I-294 South to Homewood: East O’Hare to Homewood	Eliminated: low market potential
Mannheim Road: East O’Hare to I-55	Retained.
I-355: Higgins Road to I-55	Retained.
<b>Local Limited Stop Bus Service</b>	
Irving Park Road, East Airport to West Airport	Retained.
York Road Shuttle, UP-NW to UP-W	Retained.
<b>Local Services</b>	
Golf Road West (Pace Route 554), Northwest Transportation Center to Elgin	Retained.
Roselle Road, Palatine to Glen Ellyn	Retained.
Circulators	Not evaluated at this stage; to be assessed in later analysis.
Employer Shuttles	Not evaluated at this stage; to be assessed in later analysis.

Level Three screening supported the conclusions of Level Two, confirmed ridership demand and benefit based on population and employment, and confirmed the presence of a potential transit-dependent population within the area. This final analysis confirmed that all 15 remaining transit elements should be retained and combined with other multimodal elements and roadway improvements to form complete transportation system alternatives for the Tier One Draft EIS evaluation.