Main Line Option 1: Findings

Multimodal investment in the Eisenhower Expressway corridor is the focus of Main Line Option 1. In this option, High Occupancy Vehicle (HOV) lanes - one new lane in each direction for the exclusive use of vehicles with 3 or more passengers - combined with Bus Rapid Transit (BRT) service on the I-290 HOV lanes are the core investments comprising the east-west Main Line.

To provide access to other identified major employment centers for reverse commuters and intersuburban commuters, a connecting, high performance transit service is proposed at each of the two ends of the Main Line. The same connecting investments are considered in all Main Line options: the proposed DuPage J Line BRT service and the Mid-City Transitway (in the Main Line options, also as BRT). By keeping the connecting services constant in all five Main Line options, the benefit of alternative east-west Main Line investments can be more clearly understood.

Hubs (major transfer centers) are proposed where the core Main Line investments intersect with the connecting north-south investments. In Main Line Option 1 (as well as Main Line Options 2 and 4), the hubs are proposed in the vicinity of Oakbrook Center in Oak Brook and the Mid-City Transitway/Eisenhower Expressway in west side of Chicago.

The combination of major transit investments in Main Line Option 1 forms a new Bus Rapid Transit network. All major capital investments comprising Main Line Option 1 are listed below.

<table>
<thead>
<tr>
<th>Proposed Capital Investments</th>
<th>Mode</th>
<th>Miles*</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-290 HOV Lanes</td>
<td>Highway (multimodal)</td>
<td>*</td>
<td>NA</td>
</tr>
<tr>
<td>I-290 BRT (as J Route Connector)</td>
<td>BRT</td>
<td>12.2</td>
<td>8</td>
</tr>
<tr>
<td>DuPage J Line</td>
<td>BRT</td>
<td>40.4</td>
<td>23</td>
</tr>
<tr>
<td>Mid-City Transitway</td>
<td>BRT</td>
<td>25.3</td>
<td>22</td>
</tr>
<tr>
<td>Elgin-O’Hare Expressway east ext.</td>
<td>Highway (multimodal)</td>
<td>*</td>
<td>NA</td>
</tr>
<tr>
<td>TOTAL</td>
<td>77.9*</td>
<td>53</td>
<td></td>
</tr>
</tbody>
</table>

*To avoid double-counting, the mileage of a capital investment that is entirely within the termini of another investment is not included.

Goals and Objectives Assessment

Main Line Option 1 ranks third highest among all eleven options examined in the Goals and Objectives analysis, and highest among the five Main Line options based on criteria used in the preliminary analysis. Main Line Option 1 has an estimated construction cost and annual operating cost comparable to or slightly lower than, the other Main Line system options. Main Line Option 1 is also more effective than the other Main Line Options in addressing the Goals, indicating a higher overall value.

Among all eleven options, Main Line Option 1 is a moderate-to-strong performer in nearly all goals and objectives, while not the highest in any area in particular. Main Line Option 1 is most notable in its ability to provide direct access to multiple employment centers, to improve travel efficiency on the Eisenhower Expressway, and overall system value.
Strengths:
A. The transportation improvements are proximate to all six identified corridor employment centers, [5]
B. BRT network (as is the case for any same mode network) allows a high degree of service interoperability, offering the potential to provide direct, express service between many different end points; [5]
C. Strong interface with the existing bus and rail system - especially in Chicago at the east end of the main line - may increase use of existing transit; [4]
D. Shared use/multi-purpose facility (HOV) in the currently congested I-290 corridor provides travelers with a choice of travel options for both auto and transit users in the I-290 corridor; [5]
E. Flexibility of this BRT mode allows service deviation to avoid incidences that delay traffic (accidents, weather related delays, etc.). It can also allow demand-responsive or temporary increases in capacity, without requiring facility expansion; [4]
F. Hubs located in residentially dense Cicero and the relatively employment dense/mixed activity center in Oak Brook have a strong potential to encourage “smart”, desired development. [2]

Areas of Concern:
A. The I-290 HOV would likely require acquisition of right-of-way in Oak Park, particularly in the vicinity of interchanges; [7]
B. Effectiveness of HOV lanes in our region is uncertain; [3]
C. Requires unprecedented coordination between IDOT, ISTHA, Pace, and RTA in facility design, access, financing and construction schedule; [4]
D. Bus Rapid Transit in the expressway median is not proximate to the neighborhoods/communities it serves; [4]
E. Funding is currently unavailable. [4]
F. Potential of I-290 HOV and BRT facilities to impact historic landmarks in the I-290 Corridor, particularly in Oak Park and Chicago; [4]
G. As is the case for all five Main Line options, the 40.4 mile J-Line project may impact wetlands, open space and supported ecosystems at various locations, if significant new right-of-way is required; [1]
H. Constructability/cost of Mid-City; [1]
I. BRT parallel to existing Blue Line east of DesPlaines Ave., duplicates service; [1]
J. HOV parallel to existing Blue Line east of DesPlaines Ave. potentially diverts riders from transit; [1]
K. No improvements to Blue Line; [1]
L. Effectiveness of Bus Rapid Transit (BRT) in our region is uncertain.

Potential Approaches to Address Concerns:
- HOV could be tested first in a demonstration corridor or further studied;
- BRT could be tested first in a demonstration corridor;
- Intrusion on wetlands and open space could potentially be avoided, minimized or mitigated;
- ROW acquisition along I-290 could be minimized or mitigated, and other positive potential opportunities may exist for Oak Park;
- Road pricing and other innovative demand management strategies could be applied to the HOV lane to ensure its performance and potentially offset the operating/maintenance costs.
Main Line Option 2: Findings

A new major transit investment in the Eisenhower Expressway corridor is the focus of Main Line Option 2. This option considers the extension of the CTA Blue Line to Oak Brook from its current terminus at Des Plaines Avenue in Forest Park as the east-west main line. In this option, the Blue Line extension to Oak Brook replaces the combination of I-290 High Occupancy Vehicle (HOV) lanes and Bus Rapid Transit (BRT) considered in Main Line Option 1.

To provide access to other identified major employment centers for reverse commuters and intersuburban commuters, a connecting, high performance transit service is proposed at each of the two ends of the Main Line. The same connecting investments are considered in all Main Line options: the proposed DuPage J Line BRT service and the Mid-City Transitway (in the Main Line options, also as BRT). By keeping the connecting services constant in all five Main Line options, the benefit of alternative east-west Main Line investments can be more clearly understood.

Hubs (major transfer centers) are proposed where the east-west main line would intersect with the connecting north-south investments. In Main Line Option 2 (as well as Main Line Options 1 and 4), the hubs are proposed in the vicinity of Oakbrook Center in Oak Brook and the Mid-City Transitway/Eisenhower Expressway in the west side of Chicago.

The major transit investments of Main Line Option 2 work together as a system of Bus Rapid Transit (BRT) and heavy rail (locally referred to as rapid transit). All major capital investments comprising Main Line Option 2 are listed below.

<table>
<thead>
<tr>
<th>Proposed Capital Investments</th>
<th>Mode</th>
<th>Miles*</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Line extension to Oak Brook</td>
<td>Heavy Rail</td>
<td>7.4</td>
<td>6</td>
</tr>
<tr>
<td>DuPage J Line</td>
<td>BRT</td>
<td>40.4</td>
<td>23</td>
</tr>
<tr>
<td>Mid-City Transitway</td>
<td>BRT</td>
<td>25.3</td>
<td>22</td>
</tr>
<tr>
<td>Elgin-O’Hare Expressway east ext.</td>
<td>Highway (multimodal)</td>
<td>*</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>73.1</strong></td>
<td><strong>51</strong></td>
<td></td>
</tr>
</tbody>
</table>

*To avoid double-counting, the mileage of a capital investment that is entirely within the termini of another investment is not included.

Goals and Objectives Assessment

In the Goal and Objectives analysis, Main Line Option 2 ranks sixth among all eleven options examined based on criteria used in the preliminary analysis. The benefits of Main Line Option 2 are generally similar to, but slightly lower than, Main Line Option 1. However, Main Line Option 2 has an estimated construction cost approximately $1 billion higher than all four of the other Main Line system options; the result is that it offers the lowest value among the five Main line options when comparing this system’s cost versus its achievement of other goals.

Main Line Option 2 is most notable in its ability to provide reverse commuters direct access to the Loyola and Oak Brook employment centers, travel efficiency for transit users in the Eisenhower Expressway Corridor, and notably fewer instances of potential conflict with environmental, natural and historic resources.

While some marginal mode shift from auto to transit in the I-290 corridor could be reasonably anticipated, Main Line Option 2 is unlikely to significantly improve travel efficiency for automobile or other users of I-290.
**Strengths:**

A. Exclusive guideway for transit offers the greatest service reliability; [6]
B. The transportation improvements are proximate to all six identified corridor employment centers, [5]
C. The strong interface with the existing bus and rail system - especially in Chicago at the east end of the main line - may increase use of existing transit; [7]
D. Offers a one seat ride to two employment centers for westbound Blue Line riders living east of the Corridor; [6]
E. Hubs located in residentially dense Cicero and the relatively employment dense/mixed activity center of Oak Brook have a strong potential to encourage “smart”, desired development; [2]
F. Reliance on currently operated mode and interchangeability of vehicles with other elements of the CTA system; [2]
G. Low potential conflict with environmental, natural and historic resources. [1]

**Areas of Concern:**

A. The existing Blue Line may also need to be expanded and/or significantly upgraded between Chicago and Forest Park (adding significantly more cost) to provide express or zoned service to Oak Brook that would make this an attractive travel option from a travel time standpoint; [5]
B. Relatively high cost; [5]
C. A Blue Line alignment in the expressway median is not proximate to the neighborhoods/communities it serves; and alignment to Oak Brook may require considerable purchase of new right-of-way; [4]
D. Funding is currently unavailable. [3]
E. The Blue Line extension to Oak Brook extends beyond CTA’s statutory service area; [3]
F. The lack of modal interoperability with the other two transit components of this system limits the potential for one-seat rides; [1]
G. As is the case for all five Main Line options, the 40.4 mile J-Line project may impact wetlands, open space and supported ecosystems at various locations, if significant new right-of-way is required; [1]
H. Replacing the HOV lane with CTA rail service is unlikely to provide congestion relief on I-290 caused by lane imbalances and would preclude additional expressway capacity in the future; [1]
I. This option will likely only occur after the Circle, Red, and Yellow Lines are implemented; [1]
J. Constructability/cost of Mid-City; [1]
K. Effectiveness of Bus Rapid Transit (BRT) in our region is uncertain.

**Potential Approaches to Address Concerns:**

- The Mid-City Transitway could be heavy (rapid) rail service (rather than BRT) for much greater interoperability with the Blue Line extension, although likely at a higher cost;
- Implementation could be timed with the currently unscheduled reconstruction of the Blue Line Forest Park branch to maximize cost efficiency and design considerations;
- Elevate extension to minimize land intrusion, although at a higher cost;
- ROW acquisition could be minimized;
- BRT could be tested first in a demonstration corridor;
- Cost/benefit analysis.
- Intrusion on wetlands and open space could potentially be avoided, minimized or mitigated.
Main Line Option 4: Findings

As was the case with Mainline Options 1 and 2, the Eisenhower Expressway Corridor is also the focus of Main Line Option 4. This option considers a westward extension of the CTA Blue Line from Des Plaines Avenue in Forest Park to 1st Avenue at the Loyola/Maywood employment center; the main line then continues west of the Loyola/Maywood employment center as a multimodal corridor – a combination of I-290 Bus Rapid Transit (BRT) and High Occupancy Vehicle (HOV) lanes, adding one HOV lane in each direction from 1st Avenue to Hillside.

The same connecting investments assumed in all other Main Line options are assumed in Main Line Option 4, as well: the proposed DuPage J Line Bus Rapid Transit (BRT) service and the Mid-City Transitway (also as BRT). By keeping these connecting services constant in all five Main Line options, the benefit of alternative east-west Main Line investments can be more clearly understood.

Hubs (major transfer centers) are proposed where the core Main Line investment intersects with the connecting north-south investments. In Main Line Option 4, the hubs are assumed in the vicinity of Oakbrook Center and where the Blue Line would intersect the Mid-City transitway in the west side of Chicago. A key intermodal transfer point would also at occur 1st Avenue/I-290 (Loyola/Maywood).

The combination of major transit investments in Main Line Option 4 form an intermodal network of Bus Rapid Transit and rapid rail. Major capital investments of Main Line Option 4 are detailed below.

### Proposed Capital Investments

<table>
<thead>
<tr>
<th>Proposed Capital Investments</th>
<th>Mode</th>
<th>Miles*</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Line extension to 1st Avenue</td>
<td>Heavy Rail</td>
<td>0.6</td>
<td>1</td>
</tr>
<tr>
<td>I-290 HOV Lanes</td>
<td>Highway (multimodal)</td>
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<td>0</td>
</tr>
<tr>
<td>I-290 BRT as J Route Connector</td>
<td>BRT</td>
<td>7.3</td>
<td>6</td>
</tr>
<tr>
<td>DuPage J Line</td>
<td>BRT</td>
<td>40.4</td>
<td>23</td>
</tr>
<tr>
<td>Mid-City Transitway</td>
<td>BRT</td>
<td>25.3</td>
<td>22</td>
</tr>
<tr>
<td>Elgin-O’Hare Expressway east ext.</td>
<td>Highway (multimodal)</td>
<td>*</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>**</td>
<td><strong>77.9</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>

*To avoid double-counting, the mileage of a capital investment that is entirely within the termini of another investment is not included.

### Goals and Objectives Assessment

Main Line Option 4 ranks fifth among all eleven options and is the second strongest of the five Main Line systems examined in the Goals and Objectives analysis, based on criteria used in the preliminary analysis. While the performance of Option 4 in achieving mobility goals is similar to that of Option 2 (Blue Line extension to Oak Brook), the considerably lower cost of Option 4 results in a significantly higher value.

Main Line Option 4 is most notable in its ability to provide reverse commuters direct access (one seat ride) to the Loyola/Maywood employment center, direct intersuburban access to all six employment centers, travel efficiency for both transit and auto users in the Eisenhower Expressway corridor, and notably few instances of potential conflict with environmental, natural and historic resources. With its extensive reliance on BRT, Main Line Option 4 has the potential to provide a one-seat ride to multiple employment centers for intersuburban travel markets that originate in both Cook (west of 1st Avenue) and DuPage.
Nevertheless, Main Line Option 4 is not designed to provide direct service (one-seat ride) to multiple corridor employment centers for the reverse commute travel market. A combination of rapid transit and BRT in the east-west main line, and BRT in the Mid-City Transitway require multiple transfers for most reverse commute travel.

**Strengths:**

A. Offers greater potential for a one seat ride to one corridor employment center for westbound Blue Line riders living east of the Corridor; [5]

B. Reliance on currently operated mode and interchangeability of vehicles with other elements of the CTA system; [5]

C. The strong interface with the existing bus and rail system - especially in Chicago at the east end of the main line - may increase use of existing transit lines; [5]

D. The transportation improvements are proximate to all six identified corridor employment centers, [4]

E. Interoperability of BRT system west of Loyola/Maywood; [3]

F. Does not require I-290 expansion east of 1st Ave., resulting in a lower potential for conflict with environmental, natural and historic resources in Oak Park and Chicago; [3]

G. Strong potential to enhance economic and redevelopment opportunities, particularly at the two hubs and the Maywood/Loyola transfer center. [2]

**Areas of Concern:**

A. The lack of modal/service interoperability between the two segments of the Main Line and the eastern connecting investment imposes multiple transfers; [6]

B. Bus Rapid Transit in the expressway median is not proximate to the neighborhoods/communities it serves; [4]

C. High cost; [3]

D. Funding is currently unavailable. [3]

E. Effectiveness of HOV and HOT managed lanes in our region is uncertain; [1]

F. Effectiveness of Bus Rapid Transit (BRT) in our region is uncertain;

G. As is the case for all five Main line options, the 40.4 mile J-Line project may impact wetlands, open space and supported ecosystems at various locations, if significant new right-of-way is required;

H. Relocates the point of lane imbalance on I-290 but leaves the corridor with the same problem; [1]

I. Constructability/cost of Mid-City. [1]

**Potential Approaches to Address Concerns:**

- The Mid City Transitway could be heavy (rapid) rail service (rather than BRT) for greater interoperability with the Blue Line extension, although likely at a higher cost;

- BRT could be tested first in a demonstration corridor;

- Intrusion on wetlands and open space could potentially be avoided, minimized or mitigated.

- Road pricing and other Innovative demand management strategies could be applied to the HOV lane to ensure its performance and potentially offset the operating/maintenance costs.
Concentric System Option 1: Findings

IL 59, I-355, the Kingery Highway (IL 83), Cumberland/1st Avenue (IL 171), and the Cicero Avenue/Mid-City Corridor are the focus of Concentric Option 1. These concentric north-south bands (corridors) include new Bus Rapid Transit, alone or in combination with managed lanes. Managed lanes are presumed to be either High Occupancy Vehicle (HOV) lanes or High Occupancy Toll (HOT) lanes, depending on whether the roadway is currently a tolled facility. In addition, an I-290/I-88 BRT is included in this option as part of a new, multi-modal east-west investment that connects the concentric bands.

In this Concentric System option, the IL 59 BRT functions as a collector of intersuburban and traditional commuters from southeast Aurora and southwest Naperville. Similarly, the Mid-City Transitway in the Cicero Avenue corridor acts as a collector of reverse commuters from Chicago; from the CTA rapid transit and bus network, and Metra commuter rail lines. Hubs – or major transfer centers - are located at Yorktown Center in Lombard, IL 83 and I-88 in Oak Brook, 1st Avenue and I-290 in Maywood, the Mid-City Transitway and I-290 in the west side of Chicago.

The major investments comprise a major new, multi-modal Bus Rapid Transit and HOV/HOT network. Major capital investments comprising Concentric Option 1 are detailed below.

<table>
<thead>
<tr>
<th>Proposed Capital Investments</th>
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<th>Miles*</th>
<th>Stations</th>
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<tr>
<td>I-355 HOT</td>
<td>Highway (multimodal)</td>
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<tr>
<td>IL 83 BRT</td>
<td>BRT</td>
<td>16.7</td>
<td>16</td>
</tr>
<tr>
<td>1st Avenue BRT</td>
<td>BRT</td>
<td>19.3</td>
<td>16</td>
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<tr>
<td>Mid-City Transitway</td>
<td>BRT</td>
<td>25.3</td>
<td>22</td>
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<tr>
<td>I-290/I-88 BRT</td>
<td>BRT</td>
<td>26.1</td>
<td>19</td>
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<tr>
<td>I-88 HOT</td>
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<td>0</td>
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<tr>
<td>I-290+Extension BRT</td>
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<tr>
<td>Elgin-O’Hare Expressway east ext.</td>
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</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>130.4</td>
<td>110</td>
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</table>

*To avoid double-counting, the mileage of a capital investment that is entirely within the termini of another investment is not included.

Goals and Objectives Assessment
Concentric Option 1 ranked highest, and far outperforms the other options, in addressing the collective goals and objectives based on criteria used in the preliminary analysis. This option has the third highest total construction cost, and a middle range annual operating cost. Concentric Option 1 also has the best overall system value out of the eleven options, when comparing its cost to its achievement of the goal and objectives.

Concentric Option 1 performs well in achieving these goals because it is a relatively large system (though not the largest), serves many travel patterns in the corridor and it is proximate to all six identified corridor employment centers. Concentric Option 1 has a high potential for interoperability of services to provide a one-seat ride, is well integrated with the existing Interstate and commuter rail service network and is expected to improve service quality for both transit and auto users of the Eisenhower Expressway.
Overall Strengths of Option:

A. Provides a very high level of connectivity to a rich mix of work places, commercial centers, recreational activities and both of the region’s International airports; [8]

B. BRT network (as is the case for any same mode network) allows a high degree of service interoperability, offering the potential to provide direct, express service between many different end points; [5]

C. The four hubs (Yorktown Center in Lombard, Oakbrook center in Oak Brook, 1st Avenue and I-290 in Maywood, the Mid-City Transitway and I-290 in Chicago) offer a strong potential to strengthen and encourage economic development and are proximate to a wide range of both work and non-work activities; [3]

D. IL 59, IL 83, 1st Ave. and Mid-City BRT facilities are shared only with emergency vehicles, offering the potential for high reliability; [4]

E. The transportation improvements are proximate to all six major employment centers, [5]

F. Shared use/multi-purpose facility (BRT with HOV or HOT) in the I-290, I-88 and I-355 corridors provide travelers with a choice of travel options and are anticipated to improve mobility for both auto and transit users in these corridors; [3]

G. Strong interface with the existing bus and rail system may increase use of existing bus, commuter rail and rapid transit lines; [2]

H. Can be phased or upgraded over time; [1]

I. The southern endpoints of I-355 and IL 83 improvements at park and rides in the I-55 corridor provide benefits to others outside of the Corridor; [1]

J. Major capital investments have independent utility; [1]

K. BRT mode allows service deviation to avoid incidences that cause delay (accidents, weather related delays, etc.). It can also allow demand-responsive or temporary increases in capacity, without requiring facility expansion;

L. I-355 BRT provides a more direct path for people traveling from Lisle/Naperville to Schaumburg than the J Route considered in the Main Line options.

Areas of Concern:

A. BRT in expressway median is not proximate to the neighborhoods/towns it serves; [5]

B. Feasibility of acquiring Cook County Forest Preserve property along much of 1st Avenue; [4]

C. Potential wetland and floodplain concerns along I-355. [2]

D. High cost of system; [4]

E. Integration of BRT service on arterial roadways; [4]

F. Requires unprecedented coordination between IDOT, ISTHA, Pace, and RTA in design and operating stages; [4]

G. The I-290 HOV may require acquisition of additional right-of-way with potential stated negative consequences for Oak Park; [2]

H. Effectiveness of Bus Rapid Transit (BRT) in our region is uncertain; [2]

I. Effectiveness of HOV and HOT managed lanes in our region is uncertain; [1]

J. Constructability/cost of Midcity; [1]

K. BRT parallel to existing Blue Line east of DesPlaines Ave. duplicates service; [1]

L. HOV parallel to existing Blue Line east of DesPlaines Ave. potentially diverts riders from transit. [1]

Potential Approaches to Address Concerns:

- Phase implementation;
- Explore less capital-intensive and/or less land-intensive alternatives to individual components to lower system cost;
- Test BRT first in a demonstration corridor;
- Intrusion on wetlands and open space could potentially be avoided, minimized or mitigated;
- ROW acquisition along I-290 could be minimized or mitigated, and other positive potential opportunities may exist for Oak Park;
- Road pricing and other innovative demand management strategies could be applied to HOV lane to ensure its performance and potentially offset operating/maintenance costs.
Concentric System Option 2: Findings

Three concentric north-south bands (corridors) of major capital investments are the focus of Concentric Option 2: I-355 multimodal High Occupancy Toll (HOT)/Bus Rapid Transit (BRT) investment, a diesel multiple unit (DMU) passenger rail investment in the Indiana Harbor Belt / Belt Railway of Chicago freight corridor, and the Mid-City Transitway BRT in the Cicero Avenue corridor. A BRT service in the I-290/I-88 corridor provides a new east-west connection between the concentric bands, without High Occupancy Vehicles lanes.

In Option 2, the proposed Inner Circumferential DMU replaces both the IL 83 and 1st Avenue BRT investments that were considered as part of Option 1, concentrating north–south travel in the central part of the Cook DuPage Corridor, while still providing access to both major international airports. Option 2 eliminates the HOV investment in the I-88 and I-290 corridors considered in Option 1 and substitutes bus lanes on I-88 and I-290.

The Mid-City Transitway in the Cicero Avenue corridor acts as a collector of reverse commuters from Chicago; from the CTA rapid transit and bus network, and Metra commuter rail lines. Hubs – or major transfer centers – are located at Yorktown Center in Lombard, 25th Avenue/Inner Circumferential at I-290 and the Mid-City Transitway at I-290. A major transfer point is also assumed at 1st Avenue at the new terminal of the Blue Line extension.

The major transit investments form a new multimodal, Bus Rapid Transit network in DuPage, and a combined BRT/rapid transit and DMU commuter rail system in west Cook. Major capital investments comprising Concentric Option 2 are detailed below.

<table>
<thead>
<tr>
<th>Proposed Capital Investments</th>
<th>Mode</th>
<th>Miles*</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Circumferential</td>
<td>DMU</td>
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<td>16</td>
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<tr>
<td>I-355 HOT</td>
<td>Highway (multimodal)</td>
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<td>0</td>
</tr>
<tr>
<td>I-355 BRT</td>
<td>BRT</td>
<td>*</td>
<td>18</td>
</tr>
<tr>
<td>Mid-City Transitway</td>
<td>BRT</td>
<td>25.3</td>
<td>22</td>
</tr>
<tr>
<td>Blue Line extension – 1st Ave.</td>
<td>Heavy Rail</td>
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<td>0</td>
</tr>
<tr>
<td>I-290/I-88 BRT</td>
<td>BRT</td>
<td>21.2</td>
<td>17</td>
</tr>
<tr>
<td>Elgin-O’Hare Expressway east ext.</td>
<td>Highway (multimodal)</td>
<td>4.4</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>98.4</strong></td>
<td><strong>73</strong></td>
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</table>

*To avoid double-counting, the mileage of a capital investment that is entirely within the termini of another investment is not included.

Goals and Objectives Assessment
Concentric Option 2 ranks fourth highest among all eleven options examined in the Goals and Objectives analysis, based on criteria used in the preliminary analysis. Concentric Option 2 has an estimated total construction cost comparable to Concentric Option 1, but reveals significantly lower benefits.

Among all eleven options, Concentric Option 2 is a moderate-to-strong performer in nearly all of the goals and objectives. Concentric Option 2 performs well in its potential to provide access to a very high number of jobs that are located outside the six identified corridor employment centers; this is largely due to the proximity of the Inner Circumferential to the job/industry rich 25th Avenue corridor in west suburban Cook County.

Concentric Option 2 has very low potential for interoperability of services due to the mix of modes, and offers a one seat ride only to the Loyola/Maywood employment center for reverse
commuters whose trips originate along the existing Blue Line east of Cicero Avenue. Also, this option is not expected to significantly improve mobility for auto users in the I-290 corridor.

**Strengths:**
- A. Extensive BRT network in DuPage offers a high degree of interoperability and flexibility of alternative alignments; [6]
- B. Good connections to both Chicago airports; [5]
- C. Can be phased or upgraded over time; [4]
- D. Major capital investments have independent utility; [4]
- E. There is a strong reliance on the existing system especially in Chicago to feed the Mid-City transitway. [3]

**Areas of Concern:**
- A. The IHB portion of the Inner Circumferential is a key part of the CREATE Beltway Corridor and may not have the capacity to add commuter service; [7]
- B. A mix of commuter rail/DMU, rapid transit and BRT in the Cook portion of the corridor limits interoperability; [6]
- C. Requires unprecedented coordination between ISTHA, Pace, and RTA in design and operating stages; [4]
- D. Bus Rapid Transit in expressway median is not proximate to the neighborhoods/communities it serves; [2]
- E. Effectiveness of Bus Rapid Transit (BRT) and Diesel Multiple Units (DMU) in our region is uncertain; [1]
- F. Constructability/cost of Midcity; [1]
- G. Effectiveness of HOV and HOT managed lanes in our region is uncertain.

**Potential Approaches to Address Concerns:**
- Test BRT first in a demonstration corridor
- Road pricing and other innovative demand management strategies could be applied to the HOV lane to ensure its performance and potentially offset the operating/maintenance costs
Radial Reliant System Option 1: Findings

The three existing commuter rail lines and additional new radial transit investments are the focus of Radial Reliant Option 1. This option involves a major upgrade of the Metra Milwaukee District West, Union Pacific West and Burlington Northern Santa Fe radial commuter rail lines. It also includes an extension of the Blue Line to the Loyola Maywood employment Center at 1st Ave., a multimodal investment in the I-290/I-88 corridor from Cicero Ave. to I-355/Yorktown (BRT and one additional lane in each direction for HOV/HOT), and one reversible HOV lane along the I-290 extension.

The intent of all three Radial Reliant options is to direct investment in existing transportation facilities that “radiate” outward from the city of Chicago. However, the Radial Reliant system requires significant supplementation to provide connectivity to the Cook-DuPage Corridor’s six major employment centers, which are located in the major expressway corridors. To address this needed connectivity, Radial Reliant Option 1 also includes a north-south BRT/HOT investment in the I-355 corridor.

Existing Metra stations and the addition of generally low capital/small scale new stations – rather than hubs - address the dispersed usage of the Radial Reliant options. In Radial Reliant option 1, however, a multi-modal transit center (with park and ride) is proposed in the Yorktown/I-355 area.

The major investments in Radial Reliant Option 1 present a new use for existing radial commuter rail lines and a major new multi-modal Bus Rapid Transit (BRT) and High Occupancy Vehicle / High Occupancy Toll (HOV/HOT) network. Major capital investments comprising Radial Reliant Option 1 are detailed below.

<table>
<thead>
<tr>
<th>Proposed Capital Investments</th>
<th>Mode</th>
<th>Miles*</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milwaukee District West Line upgrade</td>
<td>Commuter Rail</td>
<td>32.9</td>
<td>22</td>
</tr>
<tr>
<td>Union Pacific West Line upgrade</td>
<td>Commuter Rail</td>
<td>30.3</td>
<td>17</td>
</tr>
<tr>
<td>Burlington Northern Santa Fe upgrade</td>
<td>Commuter Rail</td>
<td>31.7</td>
<td>28</td>
</tr>
<tr>
<td>I-290 Eisenhower Expressway HOV</td>
<td>Highway (multimodal)</td>
<td>9.4</td>
<td>0</td>
</tr>
<tr>
<td>I-88 HOT</td>
<td>Highway (multimodal)</td>
<td>7.3</td>
<td>0</td>
</tr>
<tr>
<td>I-290/88 BRT</td>
<td>BRT</td>
<td>*</td>
<td>12</td>
</tr>
<tr>
<td>I-290 Extension Reversible HOV</td>
<td>Highway (multimodal)</td>
<td>5.4</td>
<td>0</td>
</tr>
<tr>
<td>IL 83 BRT</td>
<td>BRT</td>
<td>16.9</td>
<td>16</td>
</tr>
<tr>
<td>I-355 HOT</td>
<td>Highway (multimodal)</td>
<td>25.9</td>
<td>0</td>
</tr>
<tr>
<td>I-355 BRT</td>
<td>BRT</td>
<td>*</td>
<td>18</td>
</tr>
<tr>
<td>Blue Line extension – 1st Ave.</td>
<td>Heavy Rail</td>
<td>*</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>159.8</strong></td>
<td><strong>114</strong></td>
</tr>
</tbody>
</table>

*To avoid double-counting, the mileage of a capital investment that is entirely within the termini of another investment is not included.

Goals and Objectives Assessment
Radial Reliant Option 1 is **second highest** among all eleven options examined in the Goal and Objectives analysis, and is significantly stronger than the other two Radial Reliant options, based on criteria used in the preliminary analysis. Radial Reliant Option 1 has an estimated construction cost that is higher than all but one Main Line system option but lower than all three concentric options.

Among all eleven options, Radial Reliant Option 1 is a moderate-to-strong performer in many goals and objectives, and is the highest in a few. Radial Reliant Option 1 performs well in its
potential to serve other work related and non-work trips, to serve multiple travel markets and to reduce travel time on I-290 for both auto and transit users.

Radial Reliant options 1, 2 and 3 are all poor performers in their interoperability and potential to provide a one-seat ride for intersuburban commuters to multiple employment centers. This is due to the reliance on different transit modes for east-west and north-south travel, and the need to transfer between the radial commuter rail lines and bus rapid transit for many intersuburban commute trips to identified corridor employment centers.

**Overall Strengths of Option:**
- A. Extensive reliance on existing radial system – principally Metra commuter rail lines can leverage existing investment in these facilities; [6]
- B. New use of Metra Lines can potentially enhance vitality of suburban downtowns; [6]
- C. Strong reliance on the existing system especially in Chicago may increase ridership on existing bus and rapid transit lines; [4]
- D. Investment in existing Metra lines may also benefit traditional commute; [5]
- E. Some elements can be phased-in or upgraded over time; [2]
- F. High Occupancy Vehicle (HOV) network would benefit regional travel, as well as Cook DuPage Corridor travel; [2]
- G. BRT network offers a high degree of interoperability and flexibility of alternative alignments. [2]

**Areas of Concern:**
- A. UP-W and BNSF are owned and operated by private railroad companies who must approve expansion of service. CP Rail, which has trackage rights on some portions of the Milwaukee District West Line may need to approve expansion of commuter service; [6]
- B. Metra rail lines are not proximate to the Cook-DuPage Corridor’s six employment centers. Connecting lines of service and at least one transfer are required; [3]
- C. Practicality and feasibility of single lane reversible HOV on Eisenhower Extension; [4]
- D. Cost and feasibility of proposed Metra line improvements are very uncertain – requires extensive further operational and physical analysis; [4]
- E. Lack of available parking at most Metra stations could limit access by intersuburban commuters; [3]
- F. Likely requires some service reduction and/or modification for Metra traditional commuters; [3]
- G. The I-290 HOV may require acquisition of right-of-way with potentially negative consequences for Oak Park; [3]
- H. Bus Rapid Transit in expressway median is not proximate to the neighborhoods/communities it serves; [2]
- I. Potential of I-290 HOV lanes to impact historic landmarks in the I-290 Corridor, particularly in Oak Park and Chicago; [2]
- J. Requires unprecedented coordination between IDOT, ISTHA, Pace, and RTA in design and operating stages; [2]
- K. Effectiveness of HOV and HOT managed lanes in our region is uncertain; [1]
- L. Proposed new service assumptions may conflict with facility and/or service plans that result from Metra’s on-going New Starts Alternatives Analysis for the UP-W Line Premium Service Upgrade; [1]
- M. Many major capital investments do not have independent utility; [1]
- N. May require additional track space/time in downtown terminals, especially Union Station for the MD-W and BNSF; [1]
- O. HOV parallel to existing Blue Line east of DesPlaines Ave. potentially diverts riders from transit; [1]
P. Two proposed new stations on commuter rail lines may not meet Metra’s ¼ mile minimum station spacing standards;
Q. Effectiveness of Bus Rapid Transit (BRT) in our region is uncertain;
R. Potential to impact wetlands and floodplains in the I-290/I-355 HOT/BRT corridor;
S. Potential of commuter rail line upgrades to impact wetlands, floodplains, open space and supported ecosystems; and parklands and national historic landmarks;
T. Current lack of funding.

Potential Approaches to Address Concerns:
- Line capacity analysis could be undertaken for three Metra lines, in addition to operating and physical feasibility studies of proposed new services;
- Connector bus network could be used as primary means of access to and from Metra lines;
- Modify proposed north-south services to access existing Metra stations where spacing standards conflict, with potential decrease in efficiency of connecting service;
- Intersuburban commute service could be operated as a line within a line to reduce need for downtown terminal track space/time;
- BRT could be tested first in a demonstration corridor;
- Monitoring and enforcement programs could be implemented for HOV and HOT;
- Intrusion on wetlands, floodplains, open space, parklands and national historic landmarks could potentially be avoided, minimized or mitigated;
- ROW acquisition along I-290 could be minimized or mitigated, and other positive potential opportunities may exist for Oak Park.