

NICTI Alternatives Analysis

EXECUTIVE SUMMARY Development of Detailed Alternatives Report

Prepared for:



*Northern Illinois
Commuter Transportation Initiative*

Northern Illinois Commuter Transportation Initiative
City of Rockford, Illinois

Prepared by:



222 South Riverside Plaza, Suite 2320
Chicago, IL 60606
Phone: (312) 669-9601

In Association with

PB Americas, Inc
Images, Inc
TEMS, Inc
ETC Institute
Vandewalle & Associates
Vlecides-Schroeder Associates, Inc
Fish Transportation Group

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Executive Summary

The first level screening recommendations were to develop detailed alternatives for four of the initial thirteen alternatives. Two commuter rail alternatives and two bus rapid transit alternatives were brought forth and are being detailed in the second level screening process. This Executive Summary provides a brief description of alignments, station locations, and operating plans. The analysis of each will support regional decision making in the selection of a Locally Preferred Alternative.

Commuter Rail Alternatives

There are two commuter rail alternatives being considered in the second level screening analysis: *CR 5 – Commuter Rail on the IC&E/Illinois Railway* and *CR 6- Commuter Rail on the Union Pacific Belvidere Subdivision Line*.

Alternative CR5 – Commuter Rail on the IC&E / Illinois Railway (Exhibit 1)

Alignment

CR5 begins in downtown Rockford, runs south on the IL Railway to serve the Chicago Rockford International Airport, turns east on the IC&E Railway and travels eastward through Ogle, De Kalb, and Kane Counties terminating at the Metra Elgin/Big Timber Road Station. Two “sub-alternatives” have been identified to serve the airport.

Stations

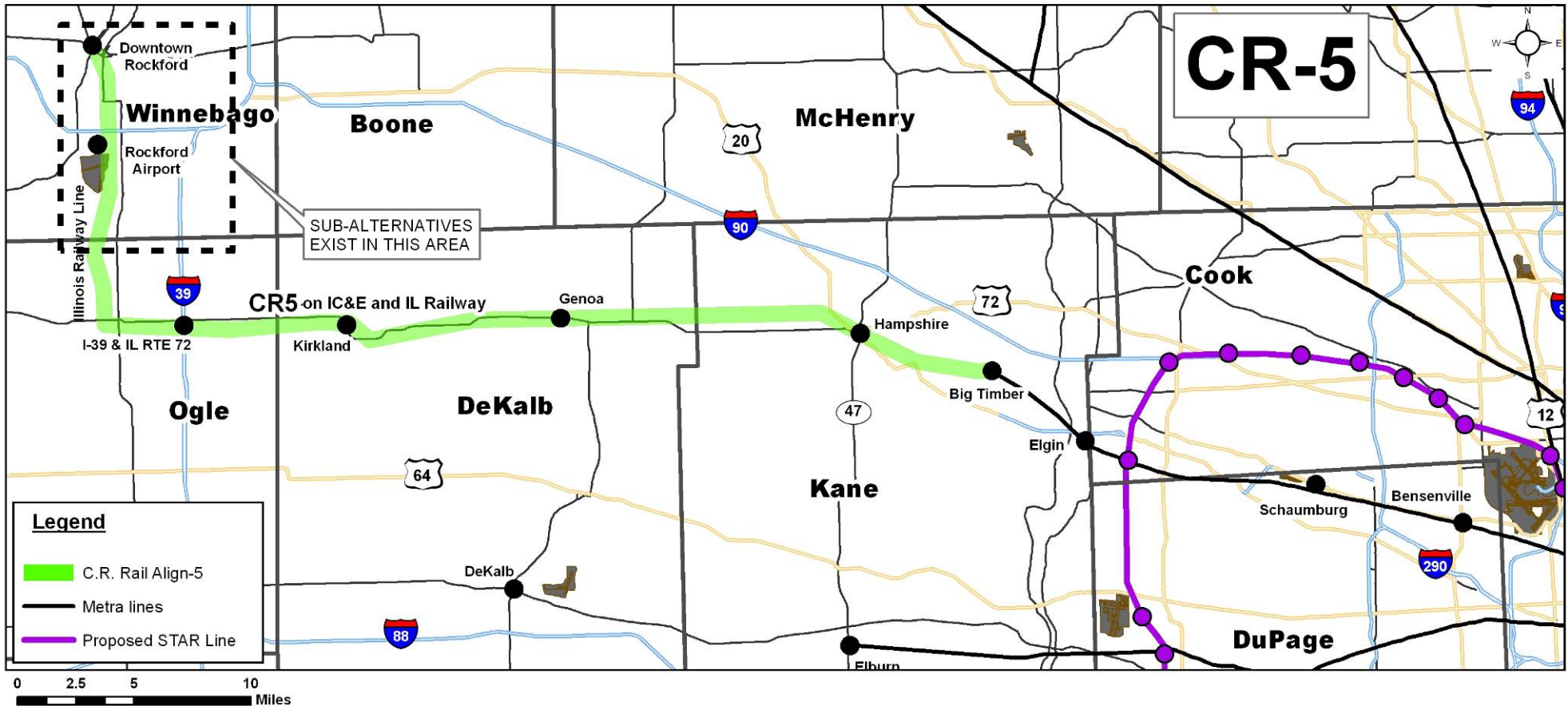
For the CR5 alternative, preliminary station stops are recommended for downtown Rockford, Chicago Rockford International Airport, I-39 at IL 72, Kirkland, Genoa, Hampshire, and Elgin. Detailed analysis and discussions with the communities will need to occur before exact station locations are identified.

Sub-Alternatives

Two sub-alternatives have been identified with the CR5 Alternative in order to identify how best to serve the airport and the downtown. Both sub-alternatives will be evaluated as part of the ridership modeling process.

- One sub-alternative (CR5 A) provides a rail connection to downtown Rockford and the terminal at the Chicago Rockford International Airport. It requires a new track to be built around the north and west sides of the airport.
- The other sub-alternative (CR5 B) provides a rail connection to downtown Rockford and a short shuttle bus connection to the terminal at the airport. At a point where Airport Drive and the Illinois Railway intersect, a rail-bus transfer station would be provided. Passengers would transfer to a shuttle bus to take them one-half mile to the airport terminal.

EXHIBIT 1



Alignment: CR-5 (52 miles)

Preliminary Stations:
 Downtown Rockford
 Chicago Rockford International Airport
 I-39 and IL 72
 Kirkland
 Genoa
 Hampshire
 Big Timber Road

Two sub-alternatives at West End:
 Sub-Alternative A - Rail to airport terminal and downtown
 Sub-Alternative B - Rail to downtown / shuttle bus to airport terminal

Alternative CR6 – Commuter Rail on the Union Pacific (UP) Belvidere Subdivision (Exhibit 2)

Alignment

CR6 begins in Rockford. Service then runs on the Union Pacific Railroad eastward through Winnebago, Boone, McHenry and Kane Counties to the Metra Elgin/Big Timber Road Station. Three sub-alternatives for serving downtown Rockford and the airport have been developed.

Stations

For the CR6 alternative, preliminary station stops are envisioned for downtown Rockford, Chicago Rockford International Airport, one or more of the following on the east side of Rockford: Mulford Road/ Alpine Road/Perryville Road, Tollway Station Point, downtown Belvidere, Marengo, Huntley, and Elgin. Detailed analysis and discussions with the communities will need to occur before exact station locations are identified.

Sub-Alternatives

The following sub-alternatives have been identified with the CR6 Alternative. Each sub-alternative will be evaluated as part of the ridership modeling process.

- One sub-alternative (CR6 A) provides a rail connection to downtown Rockford with a shuttle bus connection from the downtown station to the airport, approximately five miles.
- Another (CR6 B) provides a direct rail connection to downtown and to the airport. Service would begin at the airport on a new spur track constructed specifically to serve the airport terminal. The spur track would provide a connection between the north side of the airport terminal and the Illinois Railway tracks. Service would continue into the downtown via the Illinois Railway to the CN tracks.
- The third sub-alternative (CR6 C) provides a direct rail connection to the airport with a bus connection to downtown Rockford. Service would begin at the airport on a new spur track as described with CR6 B. Immediately east of where Kishwaukee Street and the CN tracks intersect, a rail-bus transfer station would be located. Passengers would transfer from the train to a shuttle bus to serve downtown Rockford, approximately two and a half miles..

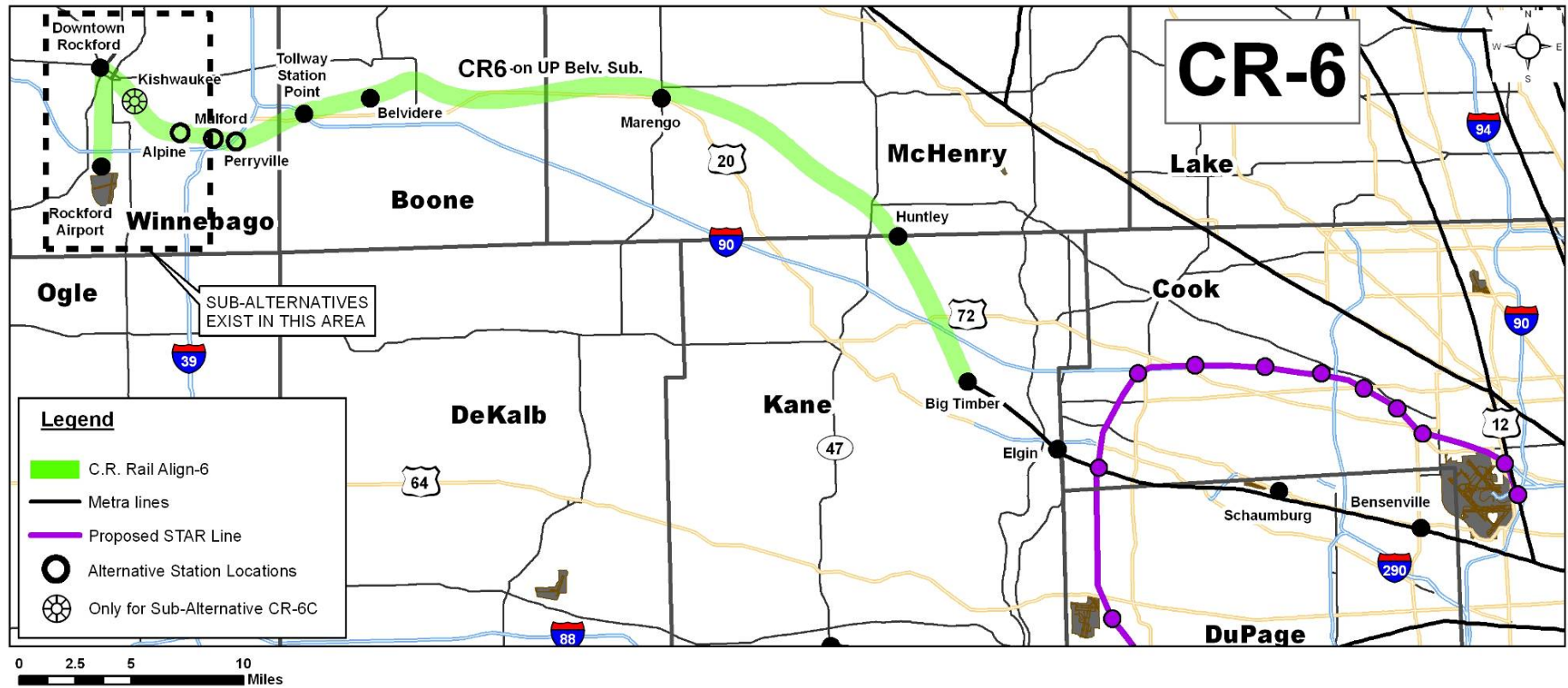
Rail Operations

For any alternatives that are considered, there are two general options to operate the service. One is to operate the extension as a separate line, or “shuttle” operation, with a scheduled cross-platform at the Metra/Elgin Big Timber Station to interface with the existing Metra/Milwaukee District service. The other option is to operate the extension through to the terminus of the existing line (in this case Chicago Union Station), i.e. “through-route” service. Each service scenario is being considered, but it is recommended that there be a blend of both service options, allowing for some trains to operate as through-route service and others to operate as “shuttles”. Recommended operational scenarios would be the result of travel flow analysis and discussions with other rail operators along the shared tracks.

Rail Service Frequency

Initial commuter rail service could operate with the following proposed frequencies: seven inbound and seven outbound weekday trains distributed between the AM peak, PM peak, and midday time periods. Three inbound trains and three outbound trains would operate on the weekends. Ultimately, service frequencies will be determined by a technical analysis of ridership demand, travel patterns and capacity.

EXHIBIT 2



Preliminary Stations:

- Downtown Rockford
- Chicago Rockford International Airport
- Kishwaukee (alternative CR6 C only)
- Alpine Road*
- Mulford Road*
- Perryville Road*
- Tollway Station Point
- Belvidere
- Marengo
- Huntley
- Big Timber Road

*One of three stations for selection

Bus Rapid Transit Alternatives

From the initial screening, two bus rapid transit (BRT) alternatives have been advanced for further evaluation: BRT1 and BRT2. Both alternatives operate from Rockford to Schaumburg. *BRT1: Via U.S Highway 20* is designed to operate with transit priority treatments, including authority to operate on the shoulders of the Tollway through congested areas along I-90. This alternative may become the TSM alternative. *BRT2: Via U.S Business Highway 20/East State Street* includes the construction of a dedicated busway (i.e. a separate lane) along I-90, through the congested sections of the corridor.

The routings west of Belvidere provide different travel options for BRT 1 and 2. Sub-alternative A emphasizes travel speed, while Sub-alternative B focuses on connectivity and ease of access. East of Belvidere, operation would be the same. Both sub-alternatives will be evaluated in the ridership modeling process to determine which performs best.

Sub-Alternative A: Via US Highway 20 (Exhibit 3)

Alignment

The starting location for each trip would alternate between downtown Rockford and the new IL 173 interchange. Trips starting in downtown Rockford would travel via South Main, US Highway 20 and I-90, while trips starting at the IL 173 interchange would operate via I-39 to I-90. Branch service from Belvidere and Marengo/Huntley would join with the core service.

Stations

For Sub-Alternative A, fourteen preliminary station stops are recommended: downtown Rockford, Rockford Airport, 11th Street, Alpine Road, Harrison Avenue, IL 173, Riverside, Lyford Road, Tollway Station Point (Irene Road), Belvidere / Genoa Road Interchange, Marengo Interchange, Elgin/Big Timber Road, Prairie Stone, and Schaumburg Transportation Center.

Branches

Branches take advantage of the flexible nature of buses since they allow the bus to operate along main arterials in a community to pick up passengers before entering the busway along the Tollway. This service configuration provides more customers a "one-seat ride".

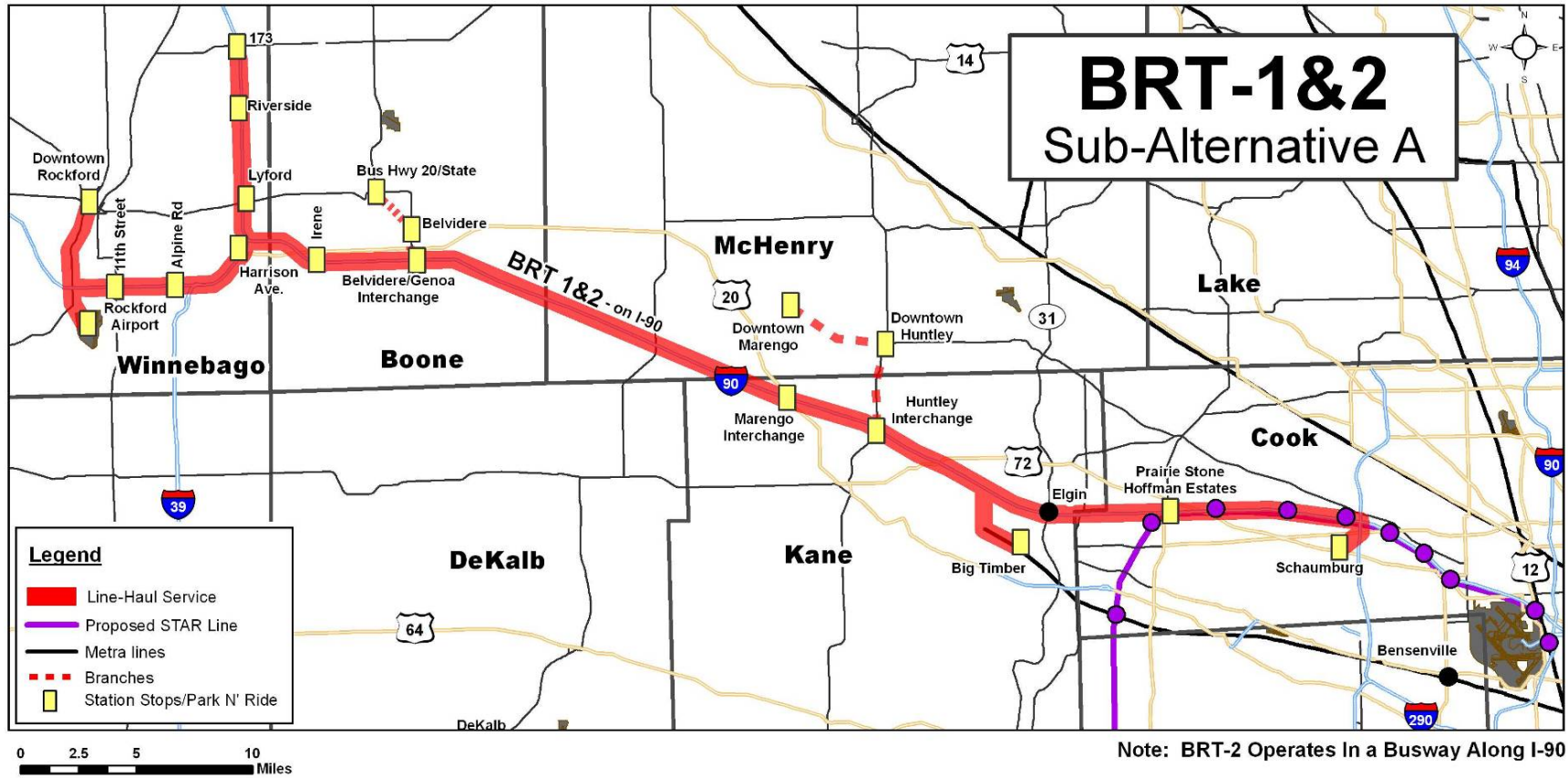
Belvidere Branch

To provide service to the Belvidere area, some branch trips would originate in Belvidere. Service would begin at the intersection of US Business Highway 20/East State Street on the northwest side of Belvidere and operate on State Street – US Highway 20 – I-90. Preliminary stations are at US Business Highway 20 / East State Street and downtown Belvidere. After serving the Belvidere Road/Genoa Road park-n-ride lot, the route would make the same stops as the other options as it travels to Schaumburg.

Marengo / Huntley Branch

To provide access to/from Marengo/Huntley branch service would begin in downtown Marengo and operate via US Highway 20 – Marengo/Huntley Road – Main Street to downtown Huntley. It would serve a station in downtown Huntley and follow IL 47 to I-90. The route then would make the same stops as the other options as it travels to Schaumburg.

EXHIBIT 3



Alignment: BRT1 & 2- Sub Alternative A: Via US Highway 20 (73 miles)

<p>Preliminary Stations:</p> <ul style="list-style-type: none"> Downtown Rockford Chicago Rockford International Airport 11th Street Alpine Road 	<ul style="list-style-type: none"> Harrison Avenue I-73 Riverside Lyford 	<ul style="list-style-type: none"> Tollway Station Point (Irene Road) Belvidere/Genoa Road Interchange Marengo Interchange Big Timber Road 	<ul style="list-style-type: none"> Prairie Stone Schaumburg Transportation Center Belvidere Branch: US Business Highway 20 and Downtown Belvidere Marengo/Huntley Branch: Downtown Marengo, Downtown Huntley and Huntley Interchange
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Sub-Alternative B: Via US Business Highway 20 / East State Street (Exhibit 4)

Alignment

The starting location for each trip would alternate between downtown Rockford and the new IL173 interchange. Trips starting in downtown Rockford would travel via US Business Highway 20/East State Street – State Street through downtown Belvidere – US Highway 20 – Genoa Road and I-90. Trips starting at the IL173 interchange would operate via I-39 to I-90. Branch service from Marengo/Huntley (described in Sub-Alternative A) would join with the core service.

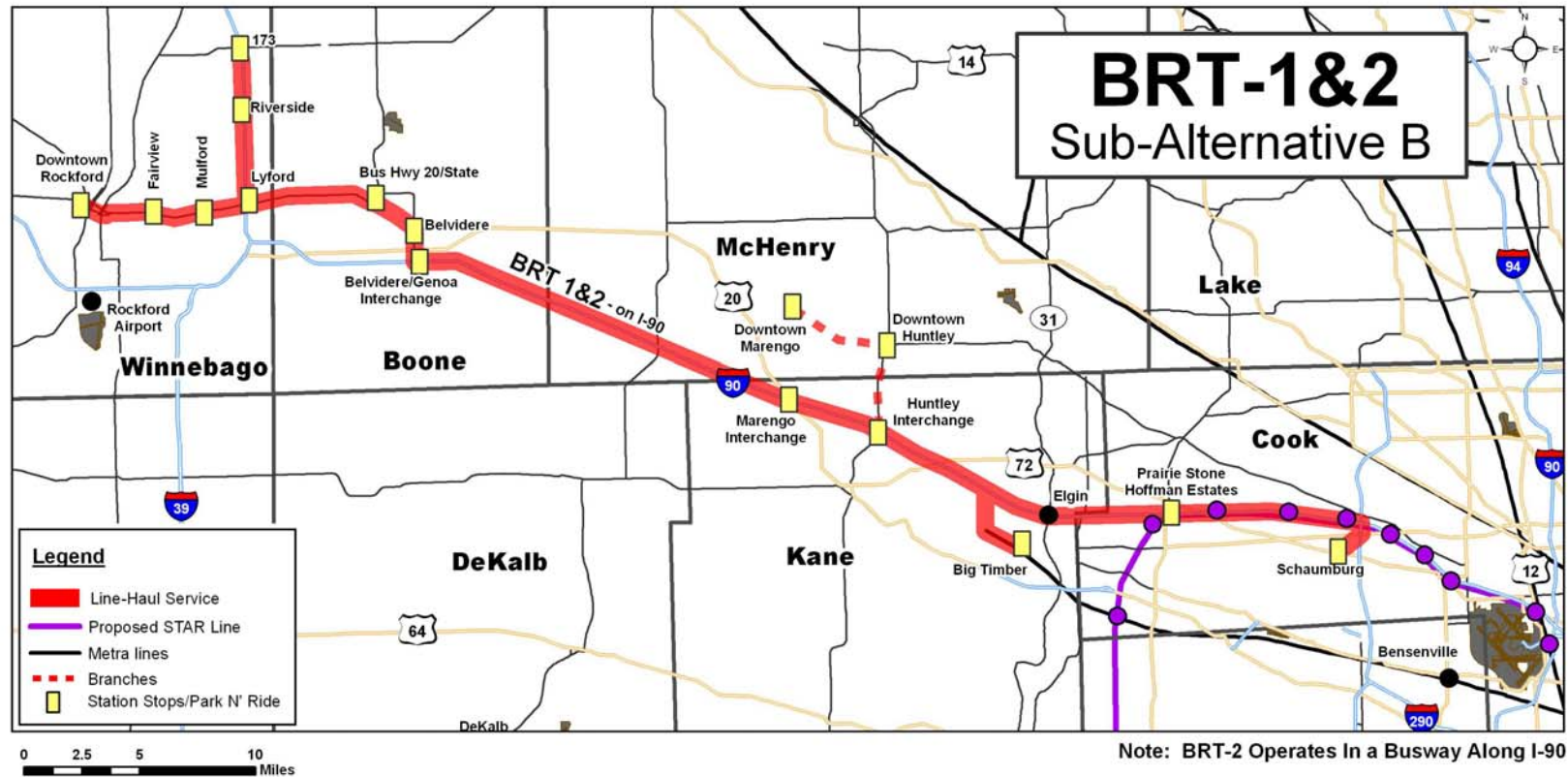
Stations

For Sub-Alternative B, thirteen preliminary station stops are recommended: downtown Rockford, Fairview Avenue, Mulford Road, IL 173, Riverside Drive, Lyford Road, US Business Hwy 20/East State Street (Belvidere), downtown Belvidere, Belvidere / Genoa Road Interchange, Marengo Interchange, Elgin/ Big Timber Road, Prairie Stone, and Schaumburg Transportation Center.

Service Frequency

Initial bus rapid transit service could operate from Rockford to Schaumburg with 15 minute headways to up to 60 minute headways for the branch services. Midday service would be every 2 hours. Weekend service would range from hourly service to service every two hours. Ultimately, service frequencies will be determined by a technical analysis of ridership demand, travel patterns and capacity.

EXHIBIT 4



Alignment: BRT1 & 2-Sub Alternative B: Via US Business Highway 20 / East State Street (66 miles)

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|-----------------------|---|----------------------------------|---|
| Preliminary Stations: | Downtown Rockford | Downtown Belvidere | Marengo/Huntley Branch: Downtown Marengo, Downtown Huntley, Huntley Interchange |
| | Fairview Avenue | Belvidere/Genoa Road Interchange | |
| | Mulford Road | Marengo Interchange | |
| | IL 173 | Big Timber Road | |
| | Riverside Drive | Prairie Stone | |
| | Lyford Road | Schaumburg Transportation Center | |
| | US Business Hwy 20/State Street (Belvidere) | | |