Chapter 1: Bus Rapid Transit in Northwest Arkansas

Northwest Arkansas is one of the fastest growing urban areas in the country and is clearly ready to take the next step in transit service: regional connectivity in Ozark Regional Transit (ORT) service.

To make another point: The area attracts people from all around the world and is a dynamic community driven by major corporations and the university. This is exactly the type of community and type of people that are attracted to transit.

This opportunity, combined with legendary traffic in the region region indicates that the time to expand to meet this growing need is now. The Smart Bus Rapid Transit (BRT) with virtual dedicated lanes will put the region on the path to meeting the transportation needs of its citizens and visitors.

**WHAT IS BUS RAPID TRANSIT?**

Bus Rapid Transit (BRT) can connect the region with fast, frequent and dependable transit service in safety and comfort. There are a number of forms a BRT system can take and at the high end, the buses travel in dedicated lanes or right of way.
Smart BRT: A Truly Innovative Approach

Smart BRT with virtual dedicated lanes is an innovative new approach designed to combine detailed planning, highly trained staff and appropriate vehicles with an infusion of technologies and proper signage to ensure that buses can offer equivalent door-to-door travel time to a personal auto (or close to it) in comfort and convenience.

Northwest Arkansas is ready for expanded transit and can be in position for success. This plan proposes to use most elements of the BRT to enhance service and will be done without the massive costs associated with dedicated lanes, which are not feasible at this time.

Smart BRT can serve as a precursor to full dedicated lanes when demand warrants and funding is available as all other elements will already be in place.

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The Need for Speed

The BRT is dependent to some degree on the all-important travel time. Survey respondents indicated that rapid service is a priority. The Smart BRT is designed to take advantage of every opportunity to move through the service area in a rapid manner. Signal prioritization can shave 5 – 10 minutes off travel time. Little things like a bus with large doors and rapid acceleration can reduce station time by 10 to 15 seconds for example. While that may not sound like much, when multiplied by 20 stops in an hour, travel time can be reduced by 3 to 5 minutes per hour. When combined these activities can make Smart BRT travel times competitive with the private auto on a door-to-door basis. An added benefit: Instead of driving, a rider can be reading a book, preparing for work or just closing their eyes.

A virtual Dedicated Lane

Most realistic for an area such as Northwest Arkansas is a Smart BRT where the vehicle operates in traffic, but has most of the BRT features to ensure rapid service with higher frequency (a virtual dedicated lane):

a. Frequency: Typically in BRT service during peak hours a bus arrives every 7.5 to 10 minutes, off peak hours will see a bus every 15 to 30 minutes.
b. Vehicles: All systems use large capacity vehicles with large doors for ease of access.

c. Stations: Limited stops with permanent shelters, raised platforms, using electronic signage and fare payment systems for the most patronized stations.

d. Signal Prioritization: The ability to sustain a green light when the bus is behind schedule.

e. Technologies: Full use of a variety of other technologies designed to minimize bus dwell time (when the bus is sitting at a station).

f. Well-trained and skilled bus operators and supervisors.

g. Branding: Service is typically branded separately and distinctly.
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h. Connecting routes with timed meets.

i. Strategically located park and ride lots.

PROJECT GOALS

This study was conducted to determine the feasibility of a BRT type service along U.S. 71B in Northwest Arkansas. The project goals are as follows:

I. Determine Feasibility of BRT on US 71B
   a. Identify the needs in the entire corridor

II. Identify Potential Strategies
   a. Realistic based on current and near term future needs
   b. Cost – benefit

III. Develop Implementation Plan

THE STUDY PROCESS

The study process included a variety of tasks leading up to the Implementation Plan. Each of these tasks resulted in a technical memorandum that detailed the documentation to support the need and service design. This plan now includes the following chapters:

- Chapter 2: Outreach and Stakeholder Input – A robust approach was used to ensure all voices were heard. This consisted of public meetings, stakeholder meetings, business surveys, general public surveys and targeted surveys.

- Chapter 3: Review of Existing Services – The focus is on routes that as currently configured operate on part of US 71B.

- Chapter 4: Demographics, Land Use and Travel Patterns Review – An analysis of the region’s population and travel patterns.

- Chapter 5: Assessment of Needs – Needs were identified based on the extent of existing services and comparing them to the demographics and travel patterns.

- Chapter 6: Selection of Alternatives and Draft Plan

Those persons interested in understanding the detailed analysis are referred to the four technical memoranda in Attachment I.