

# COTA/MORPC North Corridor Transit Study Executive Summary

*A Study on Bus System Expansion and  
Light Rail Transit Development to meet  
Central Ohio's Transportation Needs  
for Today and Tomorrow*

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## INTRODUCTION

Access to new jobs. Reduced traffic congestion. A better environment. Enhanced economic growth opportunities. An improved quality of life. These are the benefits for Columbus envisioned by the Central Ohio Transit Authority (COTA) — benefits that are supported by the majority of Franklin County residents.

Columbus has experienced tremendous growth in the past 20 years, and its population is expected to increase by more than 300,000 in the next 15 years. Though Columbus is the 16th largest metropolitan area in the United States, COTA ranks 40th in size among all-bus systems. And central Ohio is one of the largest metropolitan areas in the nation that does not have a rail transit system.

Future job growth will be greatest in the suburbs. This is the key reason COTA needs to expand its services. With expansion of suburban service, COTA can provide employers important access to a diverse central Ohio workforce.

The North Corridor Transit Study is a key part of COTA's overall transit planning process. Led by COTA and the Mid-Ohio Regional Planning Commission, the study was conducted over several years by an expert team of local and national consultants in public transit engineering and finance. It is based on a careful analysis of central Ohio traffic and population growth patterns through the year 2010. The study recommends expansion of bus service and future development of a light rail transit system.

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## **NORTH CORRIDOR TRANSIT STUDY Executive Summary**

### **I. The Problem: As Central Ohio Grows, So Does Traffic Congestion**

The Columbus North Corridor is generally defined as the area north of downtown between State Route 315 and Westerville Pike. This region currently experiences the highest levels of traffic congestion in central Ohio. This problem will worsen as the region grows in both population and commercial activity. According to MORPC, long-range forecasts for the year 2010 reflect a 14 percent growth in population and a 23 percent increase in jobs.

The major travel routes serving the North Corridor are I-71 and State Route 315. However, it is highly unlikely that either of these highways can be widened due to funding constraints and right-of-way restrictions. As traffic increases on these major arteries in the years to come, congestion problems will increase and traveling speeds will be reduced. Figure 1 (see page 3) shows projected average traveling speeds during peak hours for I-71 and State Route 315.

These slow travel speeds will impair mobility within the corridor. In particular, the continued growth in automobile traffic will:

- Increase the number of delays and related inconveniences
- Increase noise and air pollution levels
- Impair access to activity centers that lie in or are reached through the North Corridor, such as the downtown central business district, Ohio State University, Ohio Exposition Center and others
- Reduce access to an entry-level labor force for suburban employers, and limit opportunities for employment among low income central city residents
- Hamper the potential for further economic development

The cost of providing transportation service is increasing. Available land for highway expansion is scarce, right-of-way acquisition, construction and maintenance costs are rising, and federal assistance is rapidly dwindling. This is why a major investment in public transit must be part of the transportation solution for this area.

### A FUTURE FULL OF TRAFFIC?

Left unchecked, projected increases in population for northern Franklin County will create a dramatic slowdown in daily average speeds during rush hours on I-71 and State Route 315 that link the area with downtown Columbus. The study recommends expanded bus service and development of light rail transit to help reduce the rate of traffic congestion projected for the area.

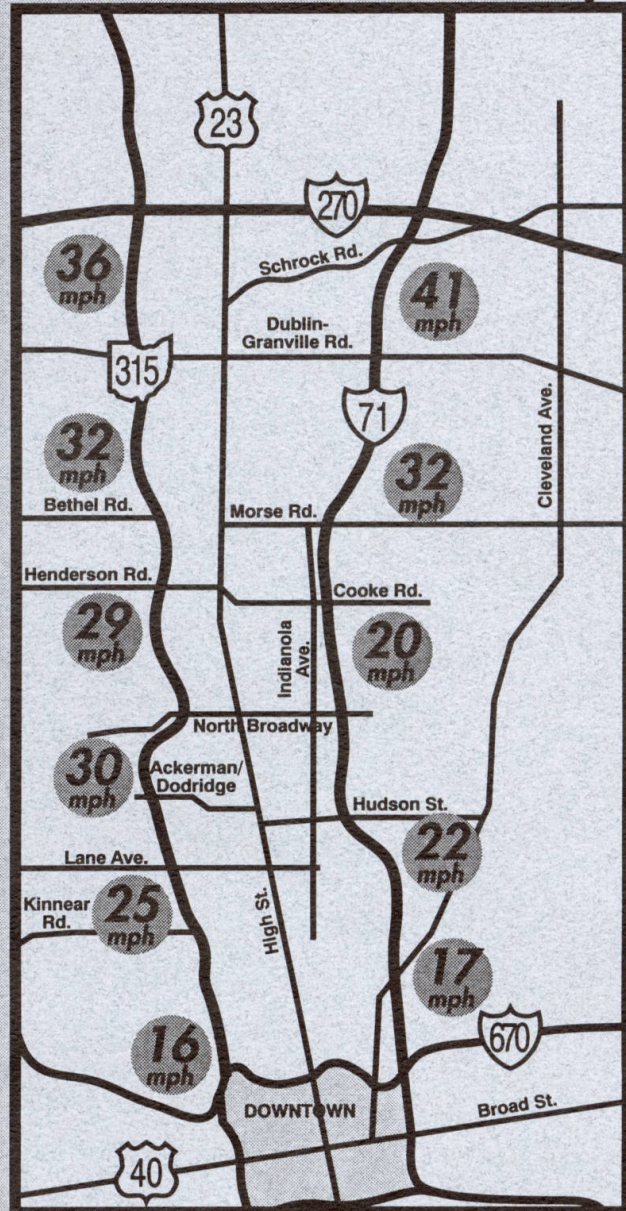


Figure 1.  
AVERAGE TRAVEL SPEEDS  
ON I-71 AND STATE  
ROUTE 315 BY THE YEAR  
2010 DURING PEAK  
RUSH HOURS

Source:  
Mid-Ohio Regional  
Planning Commission

## **II. Recommended Transit Plan: An Important Part of the Solution**

### Transit Goals

A set of goals was developed by COTA and MORPC to guide development of transit solutions for the North Corridor. These goals include:

- Support access to urban and suburban employment and stimulate economic growth
- Improve mobility and access to and within the corridor
- Reduce negative, transportation-related environmental impacts
- Enhance economic development opportunities
- Optimize transportation investments in the corridor to provide a long-term, cost-effective public infrastructure.

### The "No Build" Question

What if COTA maintained its present funding, fleet and service level? This question was studied carefully by the consultant team. It concluded that this option will simply not work, as COTA would soon experience budget short-falls. More significant is the conclusion that COTA's competitiveness as a viable transportation option would gradually diminish. For example, there would be insufficient funds for proper fleet maintenance, and market share would fall due to COTA's inability to serve routes in neighborhoods where increased populations are expected. In summary, if not properly funded to expand in order to serve future need, COTA bus service will eventually fail.

### Transit Options

Given the compelling need to expand the present bus system, two viable alternatives were developed to enable COTA to meet central Ohio's long-term transit needs. Both require local financial support, and both represent needed increases in transit service:

- Option 1: Expanded Bus System Only — This "All Bus" option expands bus service to new areas, and increases the frequency and hours of service for areas currently served by COTA.
- Option 2: Expanded Bus System and Light Rail Transit — This option expands bus service and plans for the construction of an 11.2 - mile light rail transit system from Crosswoods (U.S. 23 and I-270) to downtown Columbus.

### Expanded Bus Service and Light Rail Transit: The Favored Option

While either option is recommended by the consultant team, only the expanded bus system/light rail transit option provides the opportunity to reduce the rate of traffic congestion in the areas where it will be needed most. The characteristics of light rail transit technology and service operations offer distinct system advantages over the "All Bus" alternative. Comparable cities that have invested in light rail, such as St. Louis, have experienced far higher ridership than original projections indicated. Effective light rail systems such as these:

- Provide improved service frequency and hours of service for reverse commute travel to suburban locations — important for both employers and workers.
- Reduce the rate of highway traffic congestion, especially during peak rush hours.
- Attract new transit customers. For example, 80% of St. Louis' light rail riders were new — they had not previously been bus riders.
- Promote business development and reduce pollution levels to contribute to a better overall quality of life for the area.
- Provide high travel speeds by traveling along an exclusive right-of-way.

### System Costs

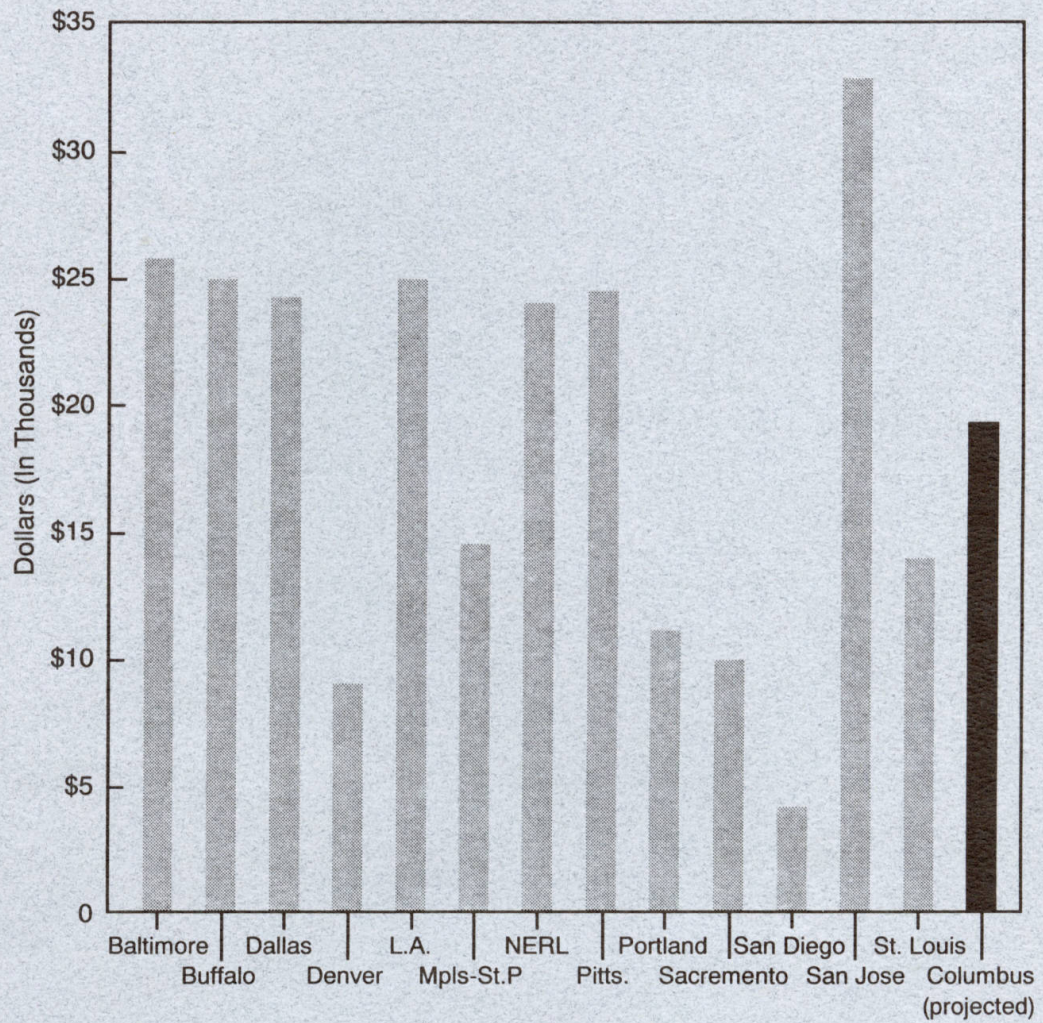
Figure 2 (page 6) provides a comparison of annual operating and total costs for the two options studied. Figure 3 (page 7) provides light rail system cost comparisons per daily passenger for Columbus and selected light rail systems in other cities throughout the nation.

**Figure 2.**  
**Cost Characteristics in the Year 2010 For Recommended Transit Options**  
*Source: Mid-Ohio Regional Planning Commission*

<b>Cost<sup>1</sup></b>	<b>Expanded Bus Only</b>	<b>Expanded Bus/Light Rail Transit<sup>3</sup></b>
Annual Operating	\$86,359,600	\$93,965,200
Total Capital <sup>2</sup>		
• Bus	103,675,000	96,206,000
• LRT	-----	<u>276,130,000</u>
Total	103,675,000	<u>372,336,000</u>
Annualized Capital	\$11,363,800	\$32,932,000

1. 1994 Dollars
2. Total capital cost for system—does not include vehicle purchases (buses) over the life of the system.
3. Bus costs are less for this option due to the need for fewer buses.

**Figure 3.**  
**Light Rail Transit: City by City Comparison of Capital Cost Per Daily Passenger**  
*Source: Mid-Ohio Regional Planning Commission*





### III. Proposed Actions and Next Steps

The MORPC consultant team\* has recommended to COTA that it adopt a conservative approach toward implementation of the expanded bus system/light rail transit alternative. This approach responds immediately to area business requests for COTA to expand bus service. It also provides the opportunity for COTA to add light rail service following successful expansion of the bus system and procurement of federal financial support.

The actions recommended by the consultant team include:

- Build local support for public transit to meet current and projected needs
- Proceed with a local referendum to increase transit funding
- Expand bus service in increments
- Establish a light rail transit system reserve fund
- Develop further partnerships with employers to expand transit service and use
- Work with communities to incorporate consideration of transit in land use planning
- Protect right-of-way for development of the proposed light rail transit system.

\*The MORPC consultant team included:

- BRW, Inc., Minneapolis (engineering)
- Burgess & Niple, Ltd., Columbus (engineering)
- KPMG Peat Marwick, Vienna, VA (financial analysis)
- Moody Nolan Ltd., Inc., Columbus (engineering/architectural)
- LTK, Inc., Philadelphia (engineering)
- Manuel Padron & Associates, Atlanta (engineering)
- ASC, Inc., Columbus (environmental services)