



C&O Railroads. Throughout the project area, NS and CSX own two tracks each along with numerous intermodal facilities, including a joint facility at Queensgate and CSX's Proctor & Gamble Ivorydale yard. The Queensgate Rail Yard has the capacity for 4,000 train cars, and is one of the busiest freight rail yards in the Midwest. All SB rail traffic is operated by CSX and all NB traffic is operated by NS under a unique joint operating agreement through this area. NS facilities cross the roadway corridor just south of the Norwood Lateral.

*Transit.* The Southwest Ohio Regional Transit Authority (SORTA) offers bus service throughout Hamilton County and portions of Clermont and Warren Counties. SORTA offers numerous routes within the I-75 Mill Creek Expressway study area which will be explored further in future steps.

*Marine Terminals and Water Ports.* Freight transportation utilizing barges are located south of the project area along the Ohio River. There are no public transportation options along this section of the Ohio River.

*Bicycle and Pedestrian Traffic.* OKI's Regional Bicycle plan, adopted in 1993 and amended in 2003, has encouraged the development of bike paths and bike lanes on roadways. Within the study area, the Mill Creek Bike Path meanders along with the channelized and unchannelized sections of the Mill Creek. The Mill Creek Bike Path crosses directly under the numerous highway and railroad bridges at the interchange of I-75 and I-74 just south the Northside neighborhood. More regional bike traffic has been encouraged through the creation of bike lockers at transit stops and bicycle racks on SORTA's buses.

## **10.0 Review of Related Studies and Projects**

### **NORTH SOUTH TRANSPORTATION INITIATIVE (NSTI)**

In 2000, the NSTI determined ways to improve safety, efficiency and reliability of the transportation networks within Southwest Ohio, Northern Kentucky and Southeast Indiana. One of the most important corridors established by the public and stakeholders was Interstate 75. The I-75 Mill Creek Expressway study is intended carry forward the NSTI and refine the recommendations within this portion of I-75.

The NSTI's original preferred program of projects was divided into three classifications: Corridor Capacity Alternatives, Systems Modification Alternatives and Access Modification Alternatives. Listed below are the projects that are directly related to the I-75 Mill Creek Expressway Project:

Corridor Capacity – 4-lane Continuity with Auxiliary Lanes: The NSTI used information from previous travel demand model runs, including Average Daily Travel (ADT), per-lane capacity and number of lanes, to create a planning level study to determine the approximate number of through lanes needed on the interstate mainline. At minimum, this alternative would provide 4-lane continuity along the I-75 mainline with possible additional lanes should they be warranted. Within the I-75 Mill Creek Expressway study area this applies north of the I-74 interchange to the northern extents of the study area.



The NSTI study determined that the I-75 mainline from I-74 to Ronald Reagan Cross County Highway (located within the HAM-75-10.10 *Thru the Valley* Project) would need at least 6 lanes to receive a level of service (LOS) D. However, feasibility of additional lanes (beyond 4-lanes) includes numerous factors beyond acceptable level of service.

System Modification - I-74/75 Interchange, Hopple Street Interchange, Mitchell Interchange and Local improvements: This alternative recommended improvements to the I-74 and I-75 interchange along with the nearest southern interchange, Hopple Street, and the nearest northern interchange, Mitchell Avenue. The project was adopted as the number one priority system modification in the entire region and appears in OKI's 2030 Transportation Plan (# 636).

Access Modifications: The final element of the NSTI was the evaluation of access points along the interstate mainlines. Based upon identified need and possible funding sources, the modifications were classified into three categories.

- 1) Category I Project: A high priority project to be completed in 0 to 15 years.
- 2) Category II Project: A medium priority project to be completed in 15 to 25 years.
- 3) Category III Project: A low priority project to be completed beyond a 25-year threshold.

The following access modification projects, along with their categorization, are within the I-75 Mill Creek Expressway study area:

Location	Category	Identification Location	Dollars (millions)
Norwood Lateral Interchange	Category I	OKI's 2030 Transportation Plan (#635)	\$18.1
Towne Street Interchange	Category I	OKI's 2030 Transportation Plan (#633)	\$12.6
Paddock Road Interchange	Category I	Not specifically identified, but included with OKI's 2030 Transportation Plan (#639)	Not Listed
Western Hills Viaduct	Category II	OKI's 2030 Transportation Plan (#698)	\$13.3

Source: North South Transportation Initiative (NSTI), 2000.

### RELATED I-75 PROJECTS AND ADJACENT STUDIES

This project serves as the link between two additional I-75 studies within Hamilton County. To the north, the Thru the Valley project involves the evaluation of I-75 from Paddock Road (on the south) to I-275 (on the north). To the south, the Brent Spence Bridge project involves a feasibility and constructability study of the replacement or rehabilitation of the structurally obsolete bridge over the Ohio River connecting Ohio and Kentucky. The study area begins at the Western Hills Viaduct and continues to the Kyle's Lane Interchange in Northern Kentucky.

Sharing the eastern boundary of the Mill Creek Expressway Project is the Uptown Transportation Study which is examining the transportation infrastructure on the Cincinnati neighborhoods of Avondale, Clifton, Clifton Heights, Corryville, East Walnut Hills, Evanston, Fairview/University Heights, Mt. Auburn, North



Avondale, and Walnut Hills. The Uptown area is home to institutions such as the University of Cincinnati, Cincinnati Zoo and Botanical Garden, U.S. Environmental Protection Agency, Children's Hospital, VA Hospital and the Tri-Health and Health Alliance hospitals. A major component of the Uptown Transportation Study is the access to interstate highways bordering the Uptown area, including I-75.

### **OKI's 2030 TRANSPORTATION PLAN**

The OKI 2030 Regional Transportation Plan, originally composed in 2001 and updated in 2004, serves as a blueprint for transportation projects in Southwest Ohio, Northern Kentucky and Southeast Indiana through the year 2030. The plan addresses current and future needs created by growth and development. At the same time, it responds to Federal Highway Administration and Clean Air Act requirements to mitigate congestion, and to address air quality and other environmental, social and financial issues. The following plans and projects are listed in OKI's 2030 Transportation Plan 2004 Update as either having committed funding (2004-2007 TIP) or as future projects.

*OKI's Western Hamilton County Corridor Study.* The Western Hamilton County Corridor Study was originally recommended in OKI's 2030 Regional Transportation Plan. This major investment study will incorporate functionally-classified roadways of the western portion of Hamilton County stretching from approximately Colerain Avenue and the Mill Creek on the east, to the Indiana state line on the west; Butler County, Ohio on the north, to the Ohio River on the south. The study will focus on improving mobility and safety for residents, commuters, and freight. The study area is very large and comprised of numerous individual transportation corridors and therefore will take into consideration recommendations from several recent and on-going studies and projects including the I-75 Mill Creek Expressway Project.

*Regional Light Rail Plan.* The Regional Light Rail Plan includes several proposed corridors with Southwest Ohio and Northern Kentucky. Several proposed corridors are located within the existing I-75 Mill Creek Expressway Study Area. Installation of a starter line is estimated to cost about \$800 million. Preliminary Engineering and Draft Environmental Impact Statements are estimated to cost \$20 million.

*Spring Grove/Central Parkway Modifications.* Access management and signal priority system modifications are expected to be done along both roadways within the next ten years. It is estimated to cost \$800,000.

## **11.0 Summary**

The I-75 corridor within the Mill Creek Expressway study area is part of the overall I-75 corridor that stretches from Canada to Southern Florida, which makes it a vital transportation corridor for nationwide and regional commercial and passenger traffic. Locally, I-75 within the study area serves the Cincinnati Metropolitan Area for local residents and businesses.



### **Project Purpose**

This report summarizes the project setting and the existing and projected future conditions of the transportation system within the study area. The needs identified through this process are examined in a Purpose and Need document summarized as follows:

The purpose of the I-75 Mill Creek Expressway study is to efficiently serve existing and future traffic volumes, reduce the number and severity of collisions, and correct substandard physical conditions that contribute to these problems.

#### **Efficiently Serve Existing and Future Traffic Volumes**

- By 2030, nearly all of I-75 through the study area will fail, functioning at Level of Service F in the a.m. or p.m. design hour, or both.
- By 2030, I-74 in the study area will function at LOS E or F in a.m. or p.m. design hour.

#### **Reduce the Number and Severity of Collisions**

- I-74, I-75 and SR 562 in the I-75 Mill Creek Expressway study area appear on ODOT's Safety Hot Spot list. Additionally, many segments on these routes appear on the HCLIS list. The segment on I-74 from SLM 18.49 to 18.99 ranks first on that list and the segment on SR 562 from SLM 0.56 to 1.06 ranks second.
- I-75 within the study area experiences a crash rate of 3.697 accidents per million vehicles miles traveled. On I-74, the crash rate is 3.022 acc/mvmt. For SR 562, the crash rate is 2.951 acc/mvmt. These rates are more than twice the statewide average rate for facilities of their type.
- The high crash rates contribute to congestion levels even higher than those expected based upon traffic volumes alone.

#### **Correct Substandard Physical Conditions**

- Since the I-75 Mill Creek Expressway construction dates from the 1950's and 1960's, lower speed curves, left-hand exit ramps, poor lane continuity, and undesirable service ramp locations are prevalent throughout the corridor. These substandard physical conditions contribute to accidents and to congestion problems.

### **Challenges**

In future steps of the Project Development Process, the Project Team and Implementation Committee will be developing alternatives to address the identified needs. In addition to tight physical constraints, such as the existing railroad facilities and the channelized Mill Creek, the I-75 Mill Creek Expressway study area includes numerous community issues. The area contains several community parks and recreational facilities, state parks, churches, schools and several noteworthy cemeteries. In addition, several emergency service locations are sited within the study area. Currently, thirteen of the fifteen census tracts within the study area have a higher unemployment rate than the Cincinnati Metropolitan Area (Cincinnati/Hamilton CMSA). In addition, the study area contains a higher numbers of minority persons,



persons living below the poverty level and those with disabilities compared to the region as a whole. The needs of the community and the potential impacts to important social, economic and environmental resources will be considered in evaluation of alternatives to address the transportation needs.