



## Table of Contents

1.0	Introduction .....	1
2.0	Community Setting and Characteristics .....	3
3.0	Socioeconomic Characteristics .....	5
4.0	Affected Environment .....	11
5.0	Geotechnical Studies.....	14
6.0	Transportation Network .....	17
7.0	Traffic Volumes and Levels of Service (2004 and 2030).....	23
8.0	Crash Analysis .....	35
9.0	Regional Mobility and Transportation Alternatives .....	39
10.0	Review of Related Studies and Projects .....	40
11.0	Summary.....	42



## **1.0 Introduction**

### **BACKGROUND**

In 2000, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) and the Miami Valley Regional Planning Commission (MVRPC) cooperated on a regional multi-modal transportation plan named the North South Transportation Initiative (NSTI). The primary focus of the NSTI was to determine how to improve the safety, efficiency and reliability of transportation networks within Southwest Ohio, Northern Kentucky and Southeast Indiana. Analysis of the existing and future travel corridors was combined with input obtained from stakeholders and the public. As a result, several projects were established to address the original focus of the NSTI. One of the most important corridors established by the public and stakeholders was Interstate 75. The I-75 Mill Creek Expressway study is intended to build upon this major investment study and refine the recommendations within this portion of the I-75 corridor.

### **STUDY AREA**

The I-75 Mill Creek Expressway study area includes the interchanges with Hopple Street, I-74, Mitchell Avenue, Norwood Lateral (SR 562), and Towne Street. In order to properly evaluate options at I-74/I-75, the study will also include the adjacent Colerain interchange on I-74. When improvements to an interchange are being considered, studies are required to evaluate how the proposed work will affect the next adjacent interchange. Therefore, traffic data will be collected and evaluated on I-75 from the Western Hills Viaduct to Paddock Road, on I-74 from the Montana Avenue interchange to I-75, and on the Norwood Lateral from I-75 to the Paddock Road interchange (Figure 1: Study Area Map). The study area includes portions of the City of Cincinnati, City of St. Bernard, and the Village of Elmwood Place.

The I-75 Mill Creek Expressway project serves as the link between two additional I-75 studies within Hamilton County stemming from the original NSTI recommendations. 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 functionally obsolete bridge over the Ohio River connecting Ohio and Kentucky. The Brent Spence Bridge study area begins just north of the Western Hills Viaduct and continues into Northern Kentucky. Sharing the eastern boundary of the I-75 Mill Creek Expressway Project is the Uptown Transportation Study which is examining the transportation infrastructure on several of Cincinnati's neighborhoods. A major component of the Uptown Transportation Study is the access to interstate highways bordering the Uptown area, including I-75.

### **PROJECT SETTING AND SURROUNDING LAND USE**

Hamilton County is located in the southwest corner of Ohio. The county is bordered by the Ohio River and the State of Kentucky to the south and the State of Indiana to the west. The city of Cincinnati and a large

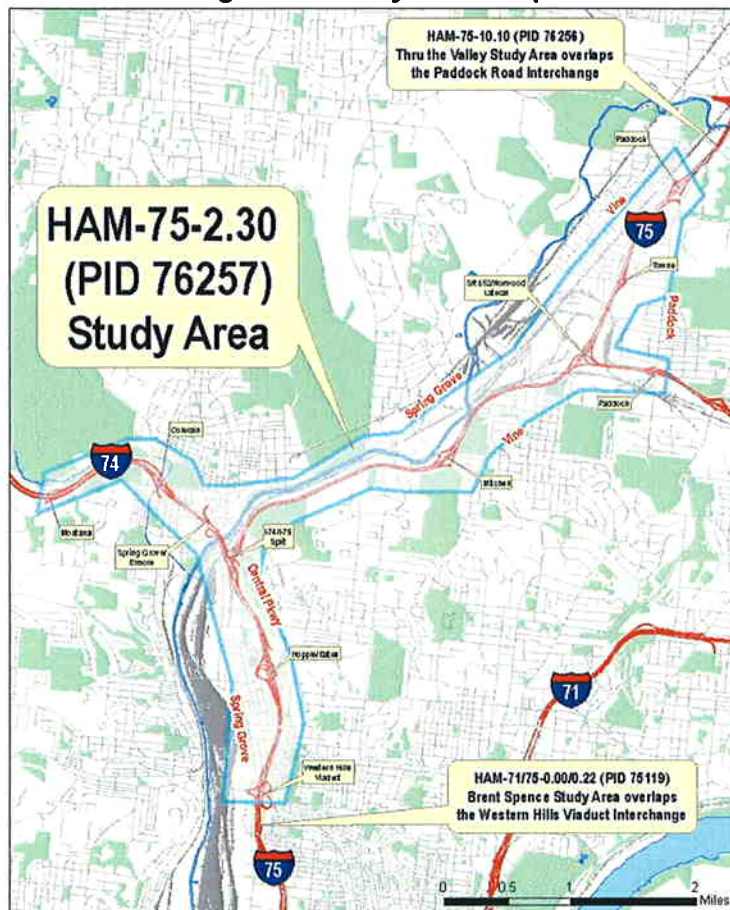


majority of its metro-area are located within Hamilton County. The predominant land cover is the Mill Creek Valley bordered on either side by hills all within an urban setting. The I-75 corridor passes north-south through Hamilton County and the City of Cincinnati, and provides a connection between the states of Kentucky and Ohio.

The I-75 Mill Creek Expressway study area includes mostly commercial and industrial uses within the Mill Creek Valley and residential uses on the surrounding hillsides. The smaller communities of Elmwood Place and St. Bernard are located within the project area between Paddock Road and Mitchell Avenue, and include a mix of older residential homes combined with larger industrial plants. In addition, considerable portions of the study area are characterized by parkland (local and state) and railroad right-of-way.

Two noteworthy industrial centers are located on the northern and southern termini of the study area. On the north, stretching from the Norwood Lateral (SR 562) to south of Mitchell Avenue, within the communities of Elmwood Place, St. Bernard and Cincinnati, are several large industrial plants surrounding the existing Norfolk Southern and CSX rail lines. On the south, stretching from I-74 to the Ohio River, is the CSX Queensgate Yard and the Norfolk Southern Gest Street Yard. Both of these massive rail facilities are surrounded by small and large scale industrial uses within the Mill Creek Valley.

Figure 1: Study Area Map



### PROJECT PURPOSE

The I-75 Mill Creek Expressway study was initiated by the Ohio Department of Transportation to evaluate alternatives that will improve traffic flow, enhance safety and minimize impacts to adjacent properties along



I-75 from the Western Hills Viaduct interchange on the south to the Paddock Road interchange on the north. A Draft Purpose and Need document has been prepared and is currently in review.

### STAKEHOLDER STATEMENT OF GOALS AND OBJECTIVES

At the second Implementation Committee Meeting, the stakeholders of the I-75 Mill Creek Expressway Study discussed and identified goals and objectives that would classify the project. At the conclusion of that meeting, an approved set of goals and objectives were established, they are as follows:

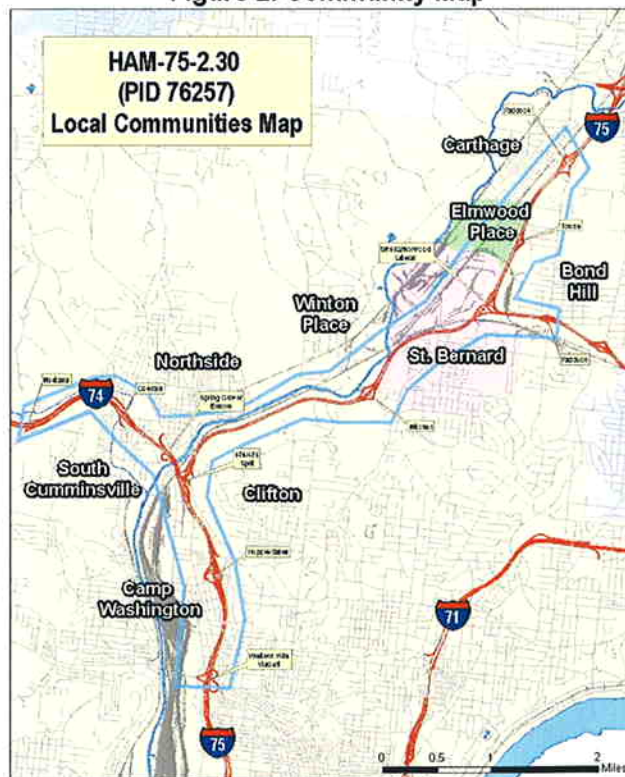
- Reduce the frequency and severity of collisions within the Study Area
- Reduce congestion on I-75 to an acceptable level balanced with community impacts
- Minimize design deficiencies while considering context sensitive design solutions
- Improve the safety and efficiency of local access
- Coordinate with local plans regarding rail, light rail, bus transit, environmental restoration, and community development

## 2.0 Community Setting and Characteristics

The I-75 Mill Creek Expressway study area encompasses several communities, including the City of St. Bernard, the Village of Elmwood Place and a portion of the City of Cincinnati. Within the latter, the neighborhoods of Carthage, Bond Hill, Winton Place, Clifton, Northside, South Cumminsville and Camp Washington (from north to south) are within the study area (Figure 2: Community Map). A concise narrative of each city, village and neighborhood is listed below:

*Elmwood Place:* The relatively small Village of Elmwood Place (0.3 square miles) was incorporated in 1889 and is bound by Cincinnati's Carthage Neighborhood on the north, I-75 on the east, the City of St. Bernard on the south and the Mill Creek on the west. The village is mostly residential, with fewer than 3,000

Figure 2: Community Map





residents, but includes a commercial district along Vine Street and light industrial facilities along the Norfolk Southern Rail line.

*St. Bernard:* Incorporated in 1878, St. Bernard is located directly south of Elmwood Place and is bisected by I-75. The City of St. Bernard has a population of roughly 5,000 persons within 2.5 square miles. The northern half of the city is predominantly industrial and includes the Norfolk Southern and CSX railroads. The southern half of the city includes the commercial and institutional center of St. Bernard, which is surrounded by mostly residential areas.

*Carthage:* The City of Cincinnati neighborhood of Carthage is home to roughly 2,500 people in 0.8 square miles located just west of the Paddock Road Interchange. Carthage was the farming center for Cincinnati and Hamilton County into the mid 20<sup>th</sup> Century and still hosts the Hamilton County Fair every year. The Carthage neighborhood includes the Caldwell Playground, Caldwell Triangle Park and Caldwell Nature Preserve, which is over 160 acres.

*Bond Hill:* The Village of Bond Hill was originally established in 1886 and then annexed into the City of Cincinnati in 1903. The Bond Hill neighborhood is a predominantly older residential community that was mostly built following World War I in the 1920s. The neighborhood covers roughly 2 square miles and is home to over 10,000 people. Bond Hill playground and pool are part of a recreational centerpiece on 5 acres in the center of the neighborhood.

*Winton Place:* The Winton Place neighborhood has a population of approximately 2,600 people and includes a mix of residential, commercial and industrial land use within its 1.9 square miles. The neighborhood's centerpiece is the 733 acre Spring Grove Cemetery and Arboretum.

*Clifton:* The Clifton neighborhood, which was once the home to the social elite of Cincinnati, now includes a dynamic business area adjacent to the University of Cincinnati. The neighborhood includes approximately 9,000 people in the densely developed 2.25 square miles. A gaslight district and Mt. Storm Park add a historic and recreational character to this diverse community. The Clifton neighborhood includes over 130 acres of parkland between Burnet Woods, Bowdle Park, Dunore Park, Edgewood Grove, Mt. Storm Park and Rawson Woods. In addition, the Good Samaritan Hospital is located on Dixmyth Avenue and the Deaconess Hospital is located on Straight Street.

*Northside:* The Northside neighborhood is home to 10,500 people in approximately 1.8 square miles. The neighborhood is bounded by I-74 and I-75 on the south, Mt. Airy Forest on the west, the Spring Grove Cemetery and Winton Place on the east and the College Hill neighborhood on the north. The community is predominantly residential, but includes an aging industrial base in its most southern reaches. The Northside neighborhood includes over 300 acres of parkland within Bradford-Felter-Tanglewood Park, Buttercup Valley, Jacob Hoffner Park, LaBoiteaux Woods and Parker Woods.