

**FORT WASHINGTON WAY
SUBCORRIDOR ANALYSIS**

EVALUATION OF ALTERNATIVES REPORT

Prepared for:

Ohio-Kentucky-Indiana Regional Council of Governments

Prepared by:

Parsons Brinckerhoff Quade & Douglas, Inc.

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SECTION 1 INTRODUCTION

The Fort Washington Subcorridor Analysis is designed to provide the appropriate information needed for conceptual level decision making regarding Fort Washington Way transportation and urban design improvements. The purpose of this Evaluation of Alternatives Report, prepared as part of the Fort Washington Way Subcorridor Analysis for the Ohio-Kentucky-Indiana Regional Council of Governments (OKI), is to summarize the results of the analysis of the transportation and urban design improvements. This Evaluation of Alternatives Report, based on the Problem Statement developed for the Fort Washington Way Subcorridor Analysis, describes the study goals, reconfiguration objectives and the evaluation criteria that were used to measure the success of each alternative in achieving a goal. The results of this evaluation effort also highlight the major findings and the important trade-offs that must be made in choosing an appropriate alternative.

The Fort Washington Way Subcorridor Analysis is a subcorridor within the I-71 Corridor Study. It is being conducted using a separate process from the I-71 Corridor Study, but concurrently with and mindful of the I-71 Corridor Study to allow timely decisions on the larger study. Both studies follow Federal guidelines¹ for evaluating major transportation investments.

Fort Washington Way is located at the southern edge of Cincinnati CBD, just north of the Ohio River, in Hamilton County, Ohio (see Figure 1-1). The Ohio River forms the boundary between the state of Ohio and the commonwealth of Kentucky. Fort Washington Way carries I-71 in a depressed roadway to its juncture with I-71 at the Brent Spence Bridge, thence south across the river and into Kentucky. Fort Washington is constructed at flood level, and is protected from the rest of the floodplain extending south to the river by a floodwall, which also serves as the south wall of the east-west "trench" forming Fort Washington Way.

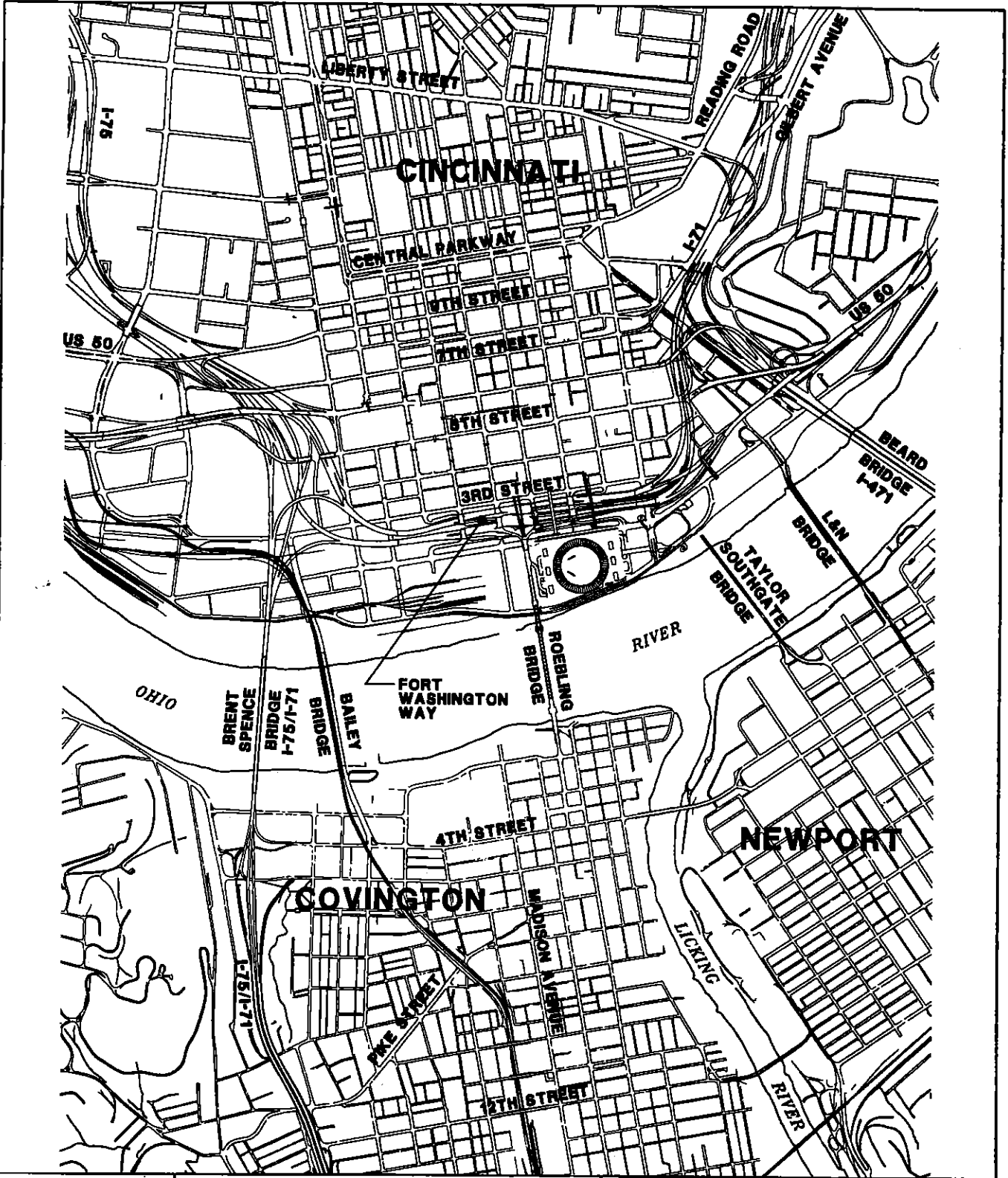
Fort Washington Way is approximately one mile long. However, the direct influence area of Fort Washington Way extends a much greater distance. Fort Washington Way carries Interstate, regional and corridor traffic as well as local traffic. As part of the Interstate freeway system, I-71 carries traffic between Columbus and Cincinnati, Ohio; Cincinnati and Louisville, Kentucky; and between points north and south of these cities.

The cities of Covington and Newport, Kentucky also are affected by Fort Washington Way. Though Covington and Newport lie south of the Ohio River, Fort Washington Way provides their residents with the only high-speed east-west route across their downtowns; therefore, the study area extends into Kentucky, and encompasses much

¹ 23 CFR Part 450, 49 CFR 613: Statewide Planning; Metropolitan Planning: Rule 450.318 Major Metropolitan Transportation Investments.

of the northern portion of the City of Covington, directly across the river from the Cincinnati CBD.

Both the Southwest Ohio Regional Transit Authority (SORTA) and the Transit Authority of Northern Kentucky (TANK) use Fort Washington Way for several express bus routes, and TANK uses its access points to reach the Dixie Terminal and Cincinnati CBD.



**Fort Washington Way
Subcorridor Study**

Figure 1-1

STUDY AREA MAP

Source: BRW, Inc., September 1996.

SECTION 2

NEED TO CONSIDER TRANSPORTATION IMPROVEMENTS

Fort Washington Way, as a result of the historical development/location, increased travel demands and current roadway standards, presents both transportation and community issues, which need to be addressed.

Transportation Issues

Fort Washington Way does not meet current geometric standards. Specific problem areas are:

- Lack of lane continuity,
- Inadequate weaving distances,
- Inadequate access spacing,
- Access design of left entrances and exits do not meet standards, and
- Inadequate driver decision distance.

All of which compromise safety.

Fort Washington Way no longer serves travel demands because:

- The facility is overly complex. Drivers face too many choices.
- It does not provide well-defined access by motor vehicles, bicycles, and pedestrians to and from Cincinnati CBD, the riverfronts, and the bridges into northern Kentucky that relate to Fort Washington Way (i.e., Central and Roebling Suspension bridges).
- The multiple functions coexisting on Fort Washington Way have compromised its ability to serve the through-traffic function of I-71.
- The Brent Spence Bridge is operating over capacity.
- The Central Bridge is underutilized.
- Interchanges are inadequate.

In addition, the design life of the pavement has been exceeded.

These transportation issues and potential improvements need to be considered in relation to the I-71 Corridor Study, as well as coordinated with the Eastern Corridor Study.

Community Issues

The community issues can be summarized as follows:

- Fort Washington Way, as it is currently designed, is a visual and physical barrier between Cincinnati CBD and the riverfront.

- Inadequate motor vehicle, bicycle, and pedestrian access or linkages between Cincinnati CBD and the riverfront are due, in part, to Fort Washington Way.
- Consideration should be given to other transportation modes, particularly mass transit, to serve the full spectrum of community transportation needs.
- Fort Washington Way's location and design constrains the ability to more fully develop the Cincinnati and Kentucky riverfronts.
- Too much land is devoted to transportation in proportion to available land.

Fort Washington Way carries I-71, connecting with the Brent Spence Bridge and I-75, bringing I-71 into northern Kentucky. I-71 is the subject of the current Major Investment Study (MIS) for the Corridor between Paramount Kings Island near Mason, Ohio; and Florence, Kentucky; and the Cincinnati/Northern Kentucky International Airport. The Brent Spence Bridge also is the specific focus of the I-71 Corridor Study, as it carries both I-71 and I-75 traffic over the Ohio River at the western end of Fort Washington Way. Both the Brent Spence Bridge and the northern Kentucky section of I-71/I-75 are congested, fed by traffic coming in from Fort Washington Way.

Project Goals

The twelve key goals established for the Fort Washington Subcorridor Study that meet the Study area's needs for improving transportation characteristics of the Subcorridor are to:

1. Provide comparable overall access to the Cincinnati CBD from I-71, I-471, Covington and Newport riverfronts.
2. Maintain safe, efficient operation and capacity for Interstate trips.
3. Maintain safe, efficient operation and capacity for regional/corridor trips.
4. Maintain safe, efficient operation and capacity for local/short distance trips.
5. Better connect the downtowns and Cincinnati, Covington And Newport riverfronts.
6. Improve linkage to underutilized central riverfront bridges.
7. Facilitate land access to the riverfront.
8. Provide community access from both sides of the river to major riverfront public facilities/stadiums.
9. Provide recreational and pedestrian access to the Cincinnati, Covington and Newport riverfronts.
10. Incorporate intermodal transportation connections proposed in the I-71 Corridor Study.
11. Reclaim land and/or air rights for development.
12. Stage/phase construction to minimize disruption and maximize financial feasibility.

This Evaluation of Alternatives Report discusses how well the alternative improvements under consideration for the subcorridor assist in achieving these goals.

Evaluation Criteria

To evaluate the alternatives in terms of the specific project goals listed above, a number of evaluation criteria were selected and approved by the Fort Washington Way Subcorridor Study Committee:

- I-71 Lane Continuity
- I-71 Mainline Capacity
- I-71 Standard Design Features
- Traffic Safety Considerations:
- Decision Sight Distance
- Adequate Weave, Merge, Diverge Distances
- Adequate CBD Access: Connections to Arterial Streets
- Traffic Impacts on:
 - I-71
 - US 50
 - Fort Washington Way Ramps
 - Cincinnati CBD Arterial Street Network
 - Other I-71 and I-75 Interchanges
 - Existing/Proposed Stadium Parking Access Roads
 - I-471 Bridge
 - Brent Spence Bridge
- Adequate Riverfront Access
- Adequate Stadium Access
 - Existing
 - Proposed
- Linkage to Underused Bridges
- Diversion from Overused Bridges
- Visual Linkage between Cincinnati CBD and Riverfronts
- Pedestrian Linkage between both CBDs and Riverfronts
- Opportunity to Reclaim Land/Air Rights
- Compatibility with I-71 Transit Options and Alignments
- Cost
- Opportunity to Phase Construction/Meet Year 2000 New Stadium Opening Access Requirements

Sections 4, 5 and 6 of this report describe how well the alternatives address these criteria.

SECTION 3 ALTERNATIVES CONSIDERED

After developing the conceptual alternatives, and revising those alternatives through a series of discussions involving public input and preliminary screening, five alternatives were selected for detailed review. Details of these alternatives and screening process are in the Definition of Alternatives Technical Memorandum (December 1996). These alternatives have been developed at the conceptual level. Should a Build Alternative be selected for further study after this major investment study (MIS) is completed, additional design refinements such as the potential closure of Elm Street or Plum Street and/or modification of bridge connections would be further developed. It also should be noted that all the alternatives provide an opportunity to cover all or part of Fort Washington Way with a "deck". In the case of Alternatives 3C and % this deck can cover a greater space as the traffic patterns in Fort Washington Way decrease the signage required. The "deck" would provide an urban design opportunity to extend the development patterns of downtown Cincinnati toward the waterfront as the space is developed with commercial uses and/or parks.

The five alternatives that have been carried forward for more detailed study and evaluation are:

Alternative 1: No Build

This alternative assumes only the planned rehabilitation of existing Fort Washington Way (see Figure 3-1).

Alternative 1A: Transportation System Management (TSM)

This alternative assumes the enhanced bus system and other low-capital cost components of the I-71 Corridor TSM Alternative (see Figure 3-2). Features include:

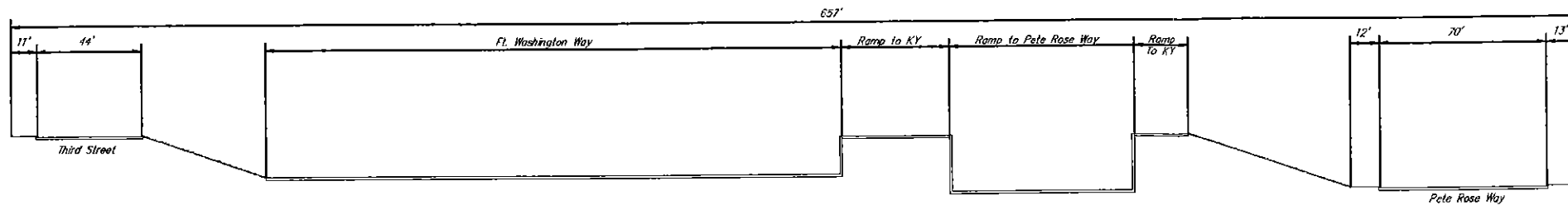
Removal of the exclusive bus ramps to the Dixie Terminal for TANK buses
Upgraded east/west urban boulevard at Central Parkway by removing on-street parking and creating one additional through lane in each direction. Current left turn bays are maintained.

Alternative 2: Minimum Build

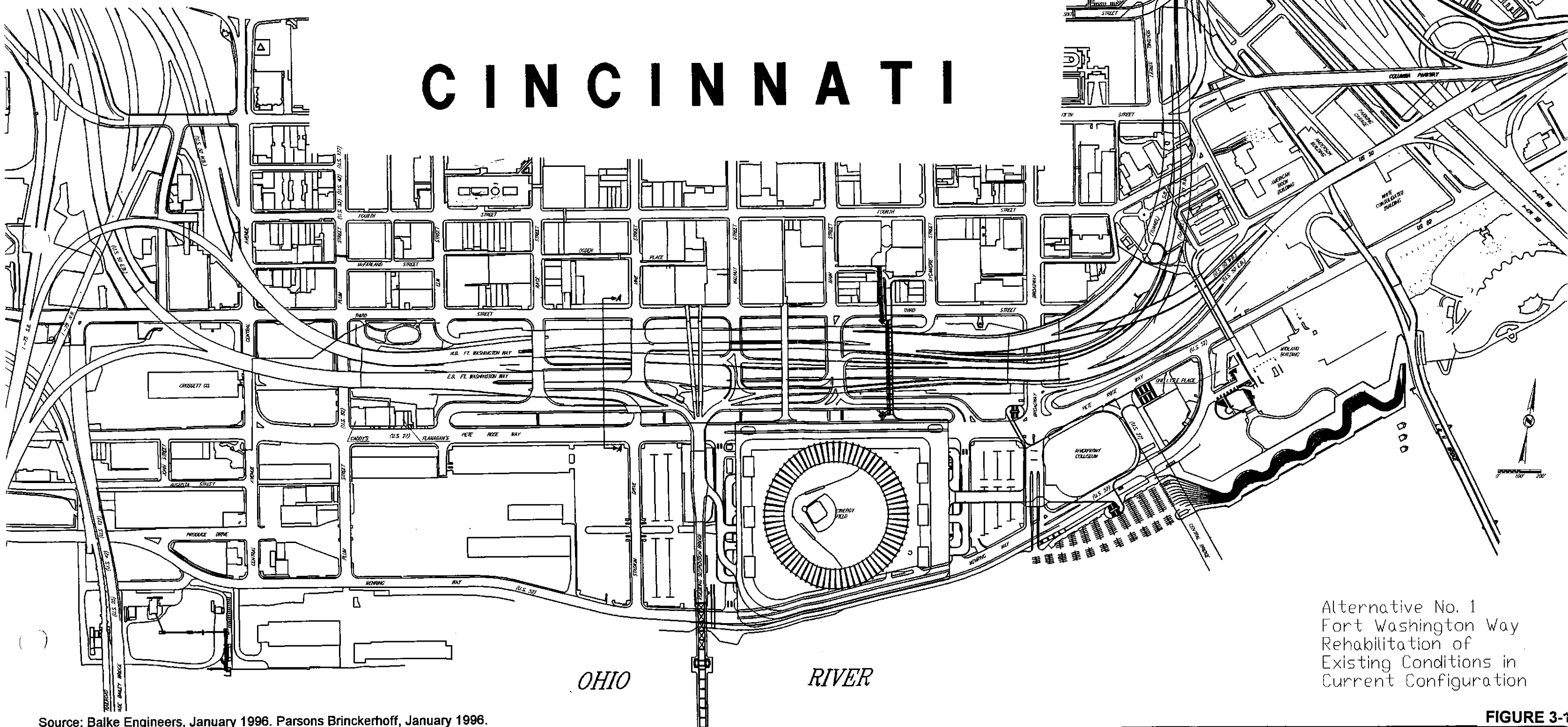
This alternative includes the TSM improvements of 1A, and the minimal relocation of existing streets and freeway access points (see Figure 3-3). Features include:

- Reconfiguration of Pete Rose Way, shifting it approximately 150 feet north and widening it between Race and Main Streets.
- Existing Pete Rose Way is maintained as a two-lane service road.

- Fort Washington Way is maintained as U.S. 50.
- Downtown street grid is extended as illustrated in City's plan.
- Two connections are closed or eliminated: Race Street on-ramp to I-71 northbound; and eastbound and westbound exit ramps from I-71 to Roebling Suspension Bridge.



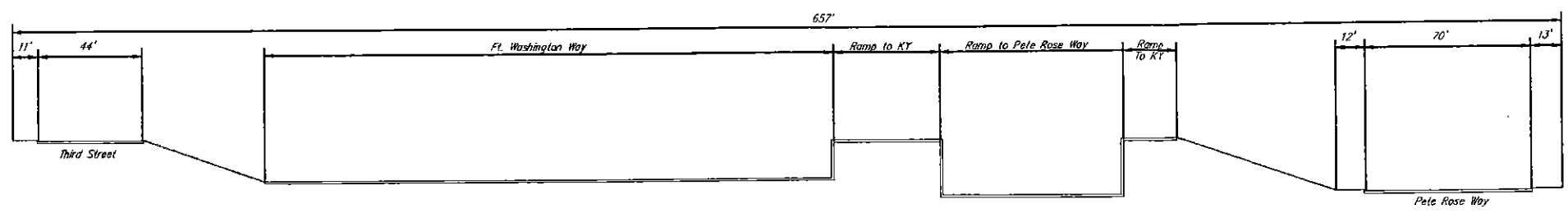
CINCINNATI



Alternative No. 1
Fort Washington Way
Rehabilitation of
Existing Conditions in
Current Configuration

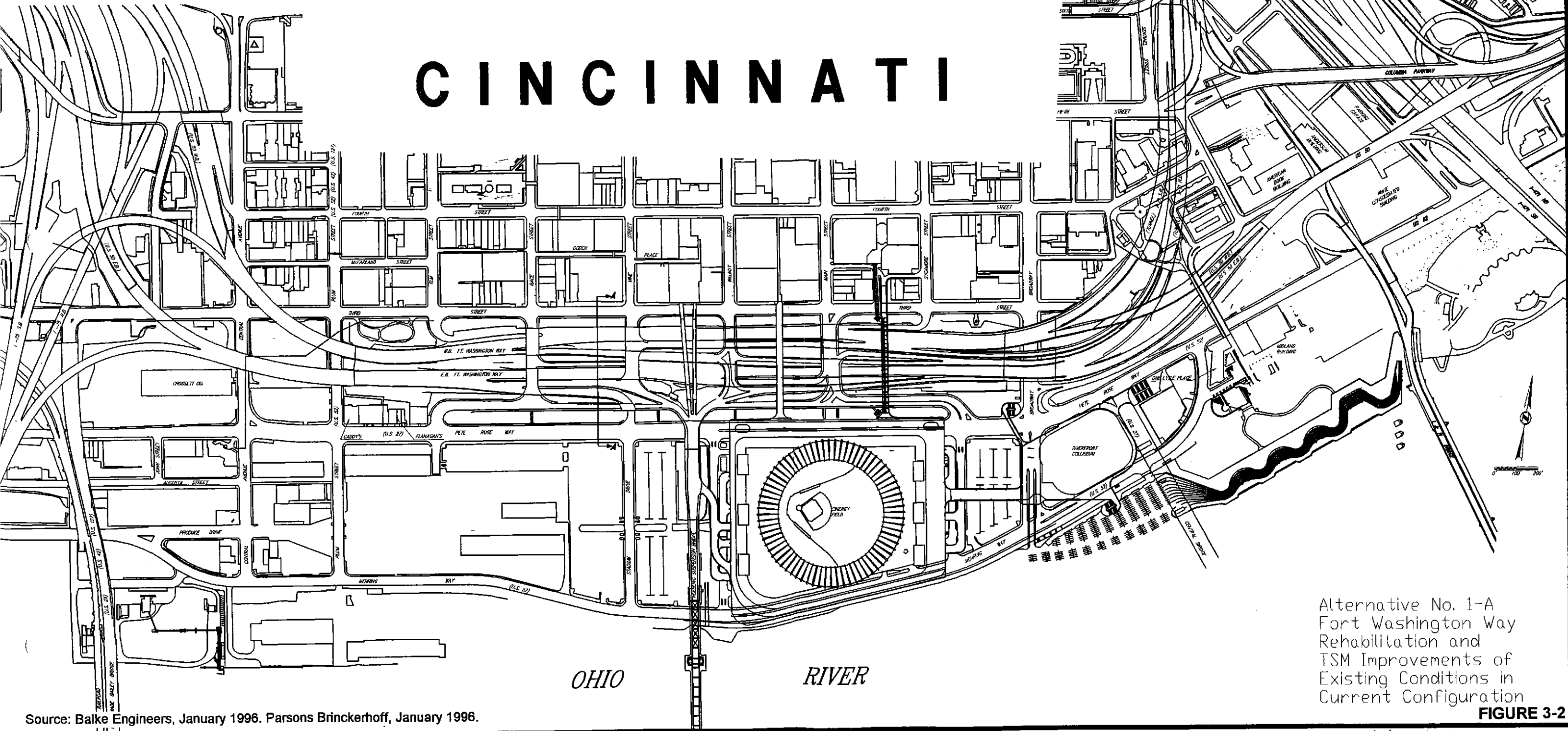
Source: Balke Engineers, January 1996. Parsons Brinckerhoff, January 1996.

FIGURE 3-1



EXISTING CONDITION SECTION A-A
Not To Scale

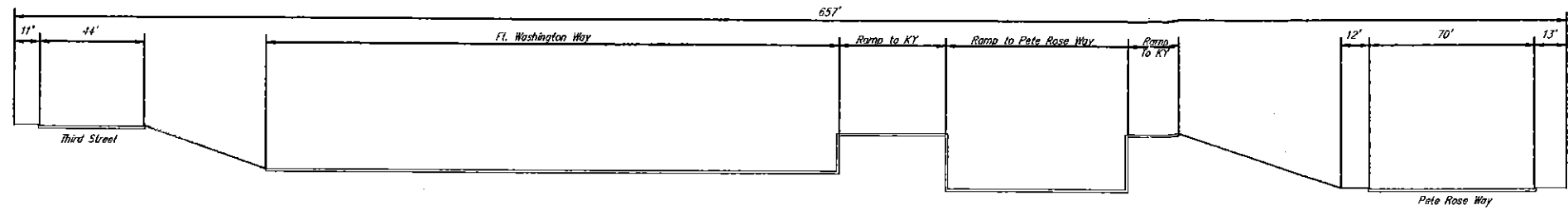
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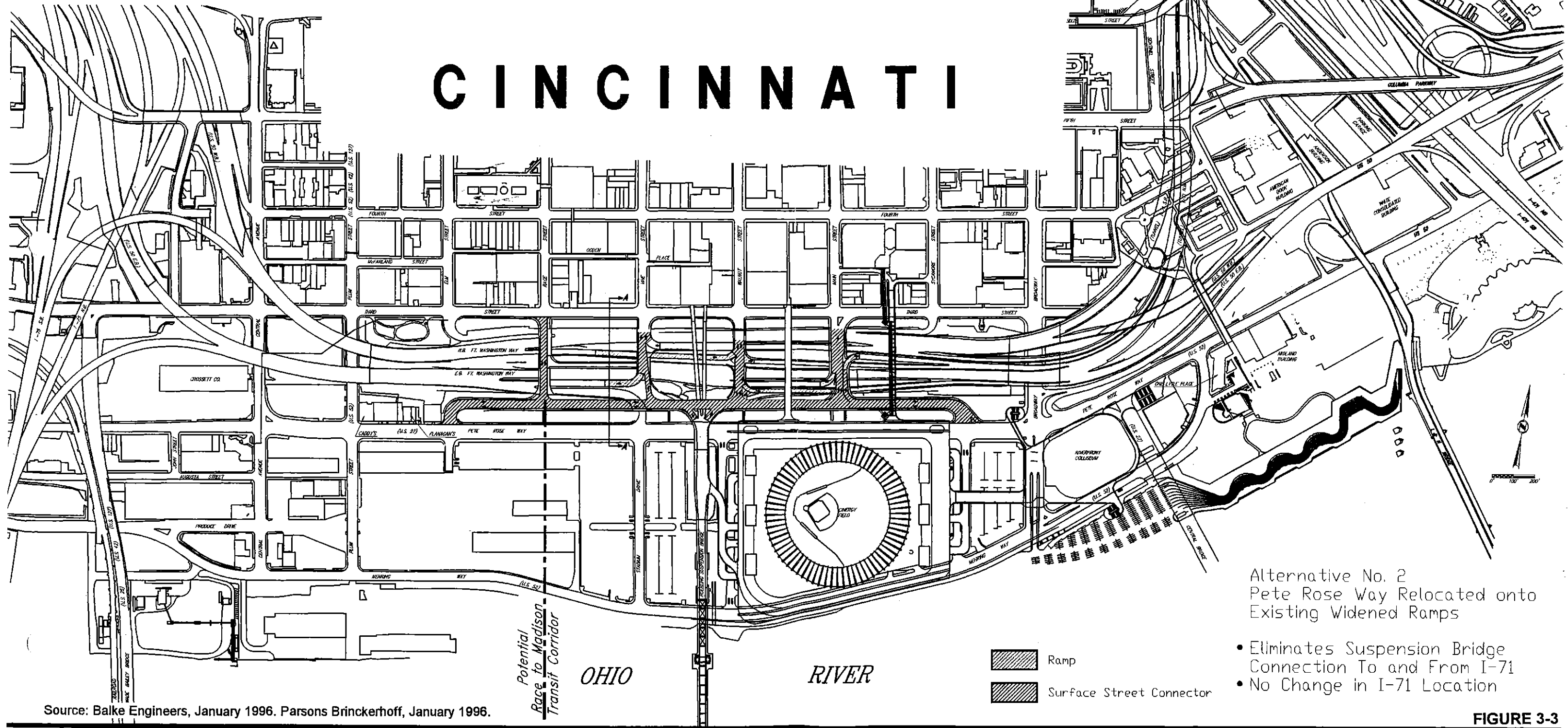
Alternative No. 1-A
Fort Washington Way
Rehabilitation and
TSM Improvements of
Existing Conditions in
Current Configuration

FIGURE 3-2

Source: Balke Engineers, January 1996. Parsons Brinckerhoff, January 1996.



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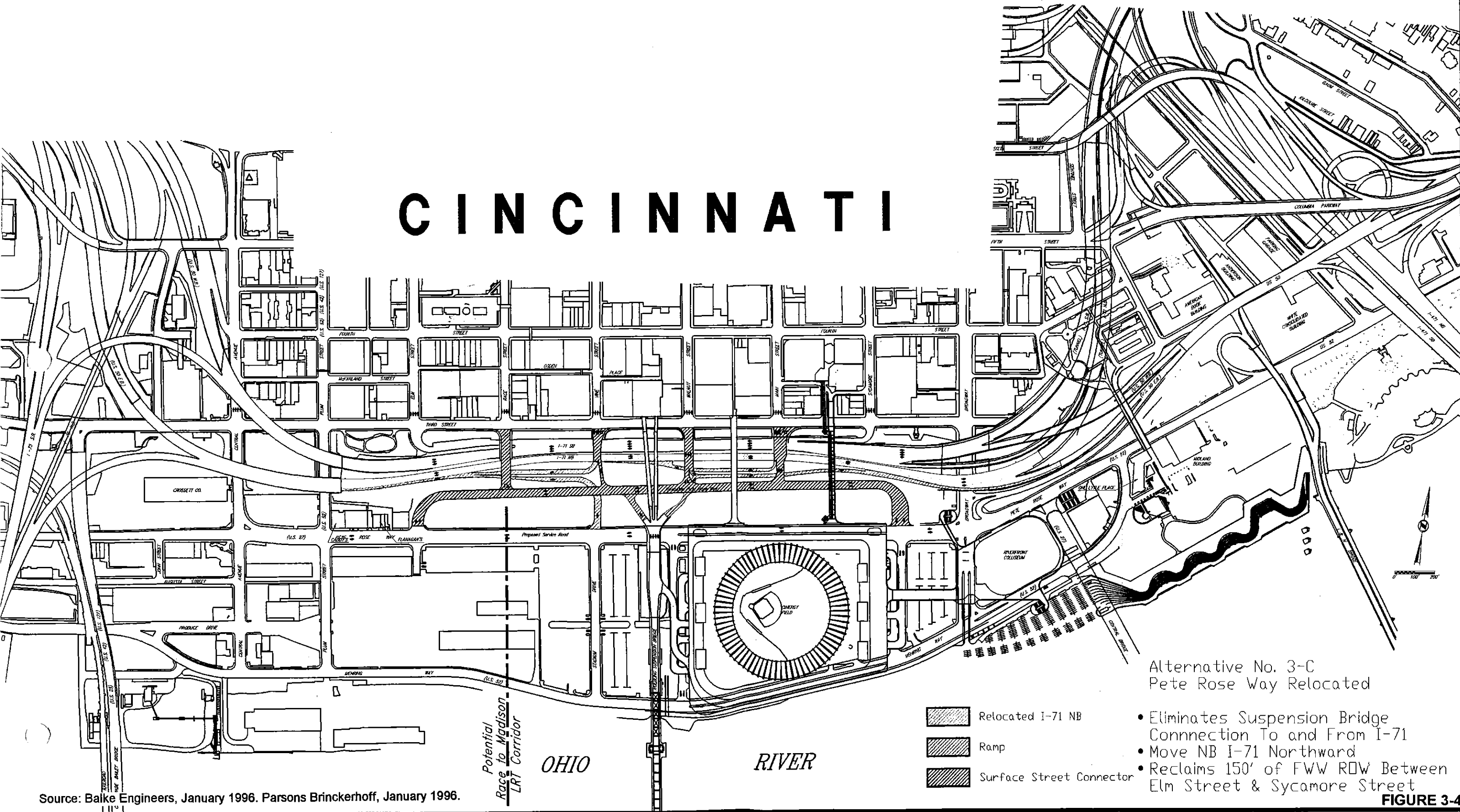
Alternative No. 2
 Pete Rose Way Relocated onto
 Existing Widened Ramps

- Eliminates Suspension Bridge Connection To and From I-71
- No Change in I-71 Location

Source: Balke Engineers, January 1996. Parsons Brinckerhoff, January 1996.

FIGURE 3-3

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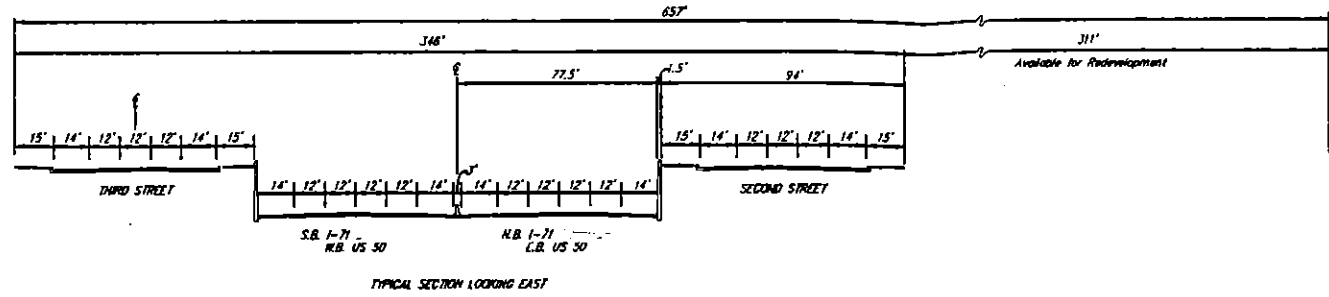


Alternative No. 3-C
Pete Rose Way Relocated

- Eliminates Suspension Bridge Connection To and From I-71
- Move NB I-71 Northward
- Reclaims 150' of FWW ROW Between Elm Street & Sycamore Street

FIGURE 3-4

Source: Balke Engineers, January 1996. Parsons Brinckerhoff, January 1996.



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Alternative No. 5-EO,BTS,NF
 Narrow Fort Washington Way
 Elm Street Reopen to River Front
 Improve Connection From Taylor Southgate Bridge to Broadway
 Northeast Frame Access @ NE CBD

- US-50/I-71 Business Through Existing Ft. Washington Way Trench
- US-50, I-75 and I-71 Connection Maintained
- Improved Connections From:
 - Ft. Washington Way to I-471 SB (New Lane)
 - NB Bailey Bridge to EB 2nd Street (New Ramp)
 - Plum Street Route to SB Bailey Bridge (New Ramp)
 - I-71 SB to Northeast Frame (New Ramp)
 - I-471 NB to 9th Street (New Ramp)
 - US 50 WB to Sixth Street (New Lane)
 - I-471 NB to Sixth Street (New Lane)

- 2nd & 3rd St. Gateway
- ▨ US-50/I-71
- ▩ Intersection Modifications

Potential
Ice to Madison
Insit Corridor

Source: Balke Engineers, January 1997. Parsons Brinckerhoff, January 1997.

FIGURE 3-5

10/25/96 - Selected
 11/15/96 - Revised
 11/19/96 - Revised
 12/04/96 - Revised
 12/13/96 - Revised Per City of Cincinnati, ODOT, KTC, FHWA, OKI Workshop
 01/15/97 - Revised

Alternative 3C: Retain I-71 and US 50 in Narrowed Fort Washington Way

This alternative includes the TSM improvements and makes significant changes to reduce the width of the depressed area of Fort Washington Way and the number of freeway access points (see Figure 3-4). Features include:

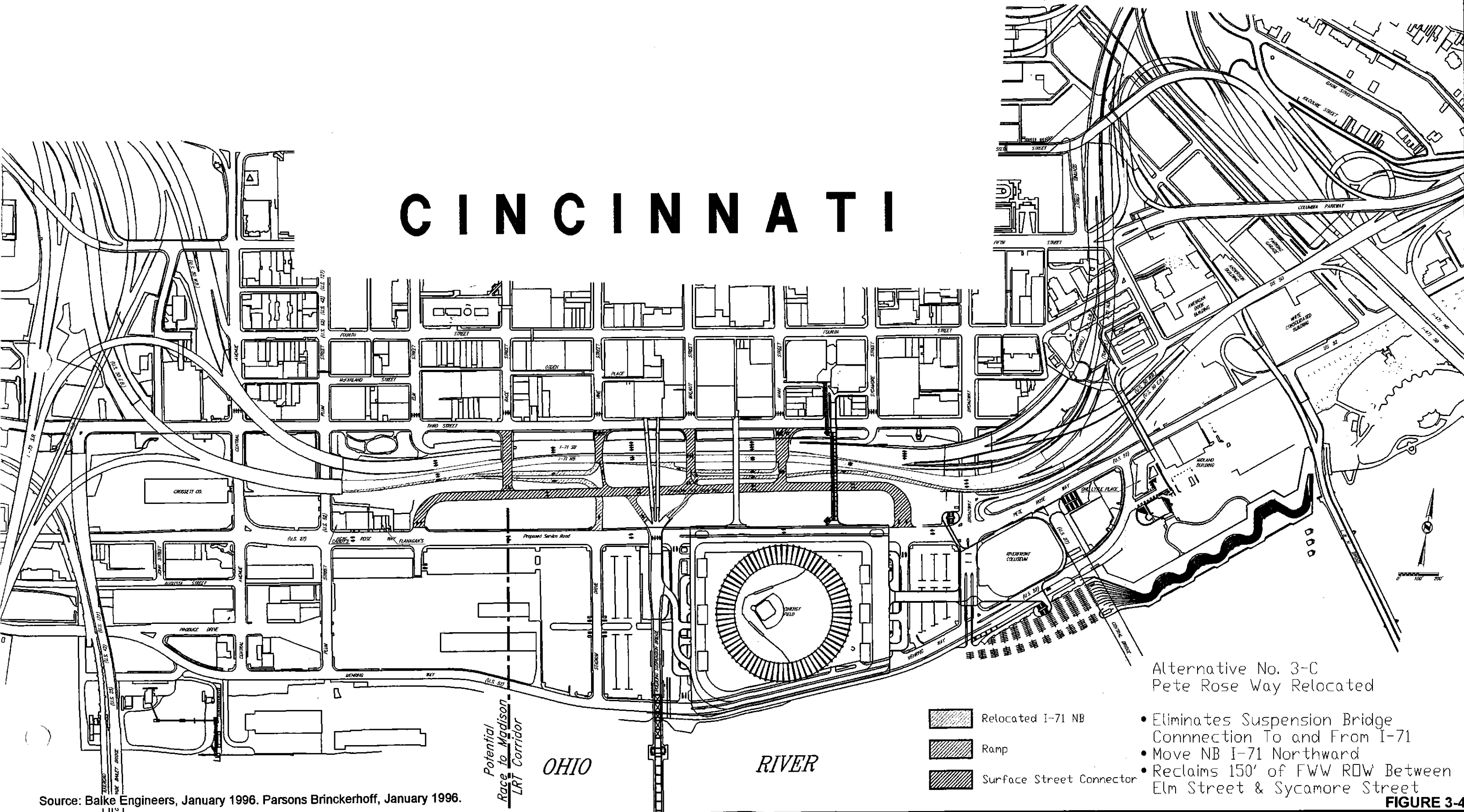
- Both I-71 and U.S. 50 are maintained in Fort Washington Way trench.
- Relocation of northbound (eastbound) I-71 lanes to the north
- Reclamation of approximately 100 feet of former Fort Washington Way right-of-way.
- Third Street retains its existing width and direction (one-way eastbound).
- Pete Rose Way is reconfigured, shifting it approximately 250 feet north and widening it between Race and Main Streets. Pete Rose Way is maintained as a two-way street.
- Four connections are closed or eliminated: Race Street on-ramp to I-71 northbound; eastbound and westbound exit ramps from I-71 to Roebling Suspension Bridge; Walnut Street on-ramp to southbound I-71, northbound I-71, and eastbound U.S. 50; and Main Street on-ramp to northbound I-71.

Alternative 5: Retain I-71 and US 50 in a Narrowed Fort Washington Way with Expanded Access

This alternative includes the TSM improvements and makes significant changes to reduce the width of the depressed area of Fort Washington Way. This alternative also adds a number of freeway and Cincinnati CBD access points (see Figure 3-5). Features include:

- Expansion of Third Street and creation of a new Second Street parallel to Pete Rose Way, resulting in a one-way pair of 3 to -lane arterials with Third Street westbound and Second Street eastbound.
- Redesign of the remaining through movements in Fort Washington Way with three lanes in each direction, reducing the required right-of-way width.
- Reclamation of approximately 200 to 300 feet of former Fort Washington Way right-of-way.
- Extension of downtown north-south streets across Fort Washington Way.
- Signalization of every intersection of the new arterials with extended City streets, and synchronize the signals.
- Improved truck access to Fort Washington Way.
- Addition of two new ramps: I-471 north to Ninth Street; and I-71 southbound to Sixth Street.
- Widening of two ramps: Adding one lane to the ramp from U.S. 50 westbound to Sixth Street; and adding one lane to the ramp from I-471 northbound to Sixth Street.
- Signage directing former Fort Washington Way/I-71 traffic to other routes.

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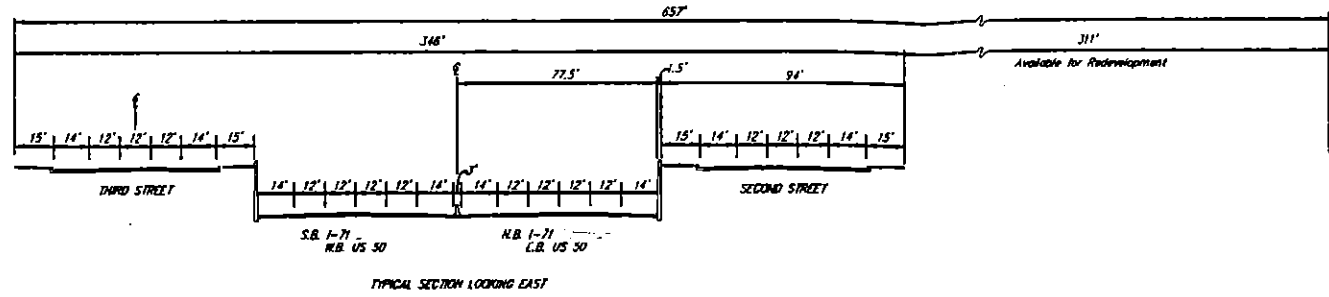


Alternative No. 3-C
Pete Rose Way Relocated

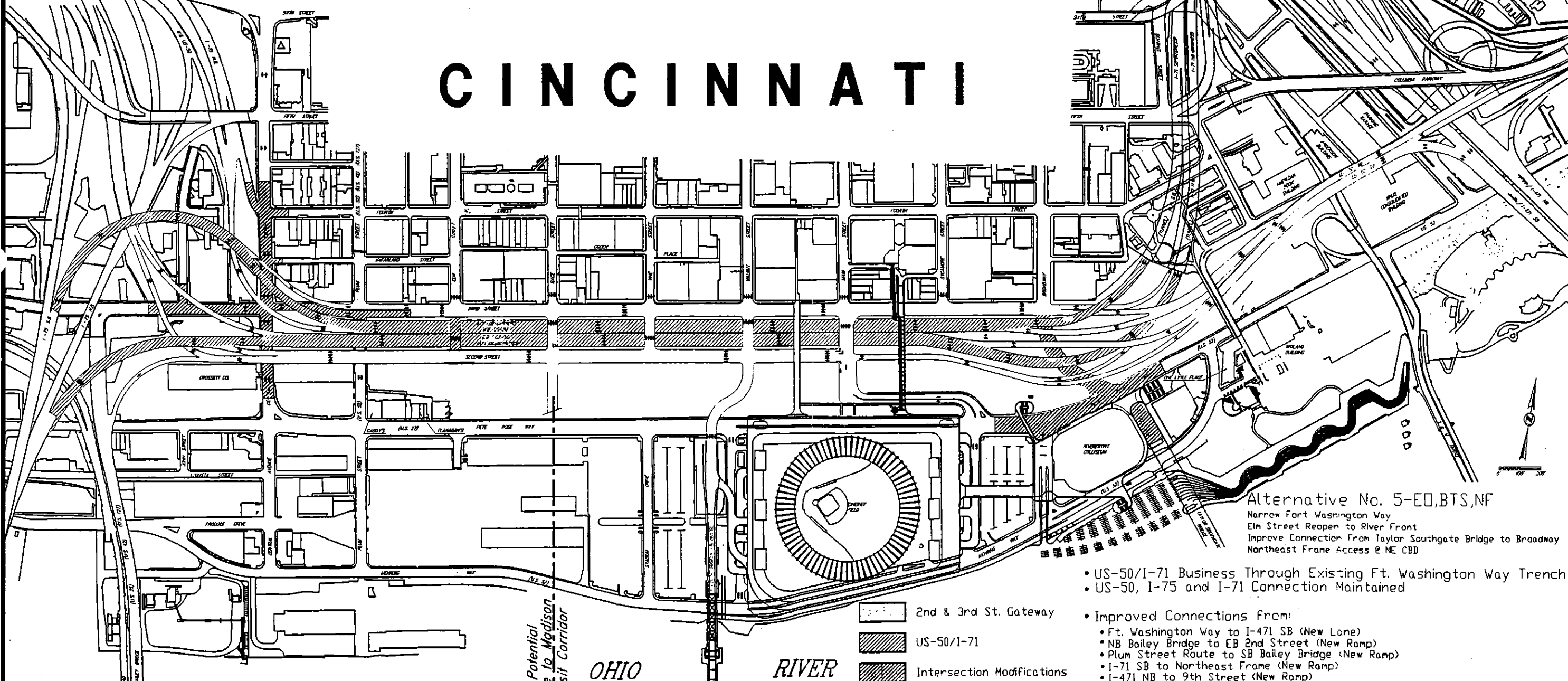
- Eliminates Suspension Bridge Connection To and From I-71
- Move NB I-71 Northward
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FIGURE 3-4

Source: Balke Engineers, January 1996. Parsons Brinckerhoff, January 1996.



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- 2nd & 3rd St. Gateway
- ▨ US-50/I-71
- ▩ Intersection Modifications

Potential
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Source: Balke Engineers, January 1997. Parsons Brinckerhoff, January 1997.

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10/25/96 - Selected
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 01/15/97 - Revised

SECTION 4 IMPACTS ON TRANSPORTATION, COMMUNITY, AND THE ENVIRONMENT

TRANSPORTATION IMPACTS

The following discussion of the transportation impacts is based from two reports: "Travel Demand Forecasting Draft Final Report" (KPMG Peat Marwick LLP, January 1997) and "Traffic Impact Study Results Memo" (BRW, Inc., January 1997). The traffic analysis consists of segment capacity analysis at seventeen freeway segment locations, intersection capacity analysis at eleven key locations, and weaving analysis for selected sections and alternatives.

Regional Impacts

Major changes on downtown access and through traffic, such as those proposed as part of the Fort Washington way Subcorridor Study build alternatives, could cause changes to occur in regional traffic. Therefore, it was important to examine the entire study region to gauge whether the current transportation infrastructure can handle any secondary impacts.

For the Fort Washington Subcorridor Study analysis, six major freeways and highways were examined along various points: I-71, I-75, I-471, I-275, Cross County Highway (CCH), and the Norwood Lateral (NL). Both the AM and PM peak hour volumes were studied ("Travel Demand Forecasting Draft Final Report"). Table 4-1 shows the PM peak hour volumes.

The alternatives evaluated for the Fort Washington Way Subcorridor Study do not have a significant impact on any of the estimated regional traffic volumes. Alternative 5 has the greatest deviation from the other alternatives, however, it is still relatively modest. Therefore, the major impacts of the Fort Washington Way Subcorridor Alternatives are limited to downtown Cincinnati and the surrounding areas (see Figure 1-1).

Local Area Impacts

The results of the more detailed traffic analysis at seventeen regional freeway segment locations directly related to the study corridor are documented in Tables 4-2 and 4-3, and Figure 4-1. The following summarizes the results of the analysis ("Traffic Impact Study Results Memo"):

- During the AM or PM peak hour, fourteen of the seventeen regional freeway segments currently operate at unacceptable levels of congestion (LOS E or LOS F),

in at least one direction. Within Fort Washington Way, the existing level of congestion is LOS E in the peak direction and LOS D in the off-peak direction.

- Under Alternatives 1, 1A, 2 and 3C, fifteen of the seventeen regional freeway segments are expected to operate at unacceptable levels of congestion, including most of Fort Washington Way.

Table 4-1

Regional Traffic Impacts for the PM Peak Period - 2020

Location	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
I-71 NB at I-71/275	19,000	19,100	19,200	19,200	18,900
I-71 NB at I-71/CCH	17,800	17,600	17,700	17,700	17,100
I-71 NB at I-71/NL	19,000	18,900	19,000	18,900	17,700
I-75 NB at I-75/275	21,200	21,000	21,000	21,100	20,800
I-75 NB at I-75/CCH	21,300	21,200	21,200	21,200	21,000
I-75 NB at I-75/NL	19,200	19,300	19,200	19,200	18,900
I-75 NB at I-75/74	26,700	26,600	26,600	26,700	26,600
I-275 EB b/w I-71&75	19,800	19,900	19,700	19,900	19,700
Cross County b/w I-71/75	5,700	5,700	5,600	5,600	5,500
Norwood Lateral b/w I-71/75	10,000	10,100	10,000	10,000	9,900
I-71/75 SB at I-71/75/275	20,600	20,600	20,600	20,500	20,700
I-275 EB b/w I-71/75&471	15,000	14,900	14,900	14,900	14,700
I-275 EB at Combs-Hehl Bridge	15,300	15,200	15,100	15,100	15,100
I-471 SB at I-471/275	18,700	18,500	18,500	18,500	18,600

Source: KPMG Peat Marwick LLP, February 1997.

Notes: NB = northbound
 SB = southbound
 EB = east bound
 WB = westbound
 NL = Norwood Lateral
 CCH = Cross County Highway

Downtown Traffic Impacts

The intersection analysis was conducted for eleven key intersections in downtown Cincinnati ("Travel Demand Forecasting Draft Final Report"). The results of the intersection capacity analysis is shown in Tables 4-3 and 4-4 and summarized by the following points.

**Table 4-2
AM Peak Hour Freeway Level of Service - 2020**

Freeway Segment	Traffic Direction	Number of Lanes	Volume/LOS					
			Existing	Alt. 1	Alt. 1A	Alt. 2	Alt. 3C	Alt. 5
I-71 at Plum Street	EB	4	7,720/E	6,189/E	6,125/E	7,959/E	7,738/E	5,572/D
	WB	4	6,316/D	6,707/D	6,648/D	6,504/D	6,331/D	4,559/C
I-71 at Race Street	EB	3	5,129/E	6,310/E	6,628/E	6,425/E	6,716/F	5,572/D ¹
	WB	3	5,014/D	5,163/D	5,128/D	5,257/E	5,494/E	4,559/C ²
I-71 at Vine Street	EB	3	5,238/E	5,474/F	5,407/F	6,716/F	7,115/F	5,572/D ¹
	WB	3	5,103/D	5,295/E	5,242/F	5,494/E	5,821/E	4,559/C ²
I-71 at Sycamore Street	EB	3	5,602/E	6,032/E	5,977/E	5,993/E	6,306/F	5,572/D ¹
	WB	3	4,910/D	4,935/D	4,891/D	4,821/D	4,980/D	4,559/C ²
I-71 at Lytle Park Tunnel	NB	2	2,757/D	3,114/D	3,094/D	3,178/D	3,307/D	2,638/D
	SB	2	3,370/D	3,895/E	3,781/E	3,884/E	4,041/E	3,225/D
I-71 south of Taft	NB	5	4,248/B	4,758/C	4,721/C	4,725/C	4,677/C	4,595/C
	SB	4	5,897/D	6,718/D	6,637/D	6,651/D	6,623/D	6,452/D
I-75 south of Hopple Street	NB	4	6,942/E	7,556/E	7,556/E	7,663/E	7,544/E	7,444/E
	SB	4	5,817/F	6,459/F	6,349/F	6,259/F	6,211/F	5,239/F
I-71 at Ohio River	NB	3	5,155/F	5,967/F	6,000/F	6,783/F	6,916/F	6,946/F
	SB	3	5,859/E	6,135/F	6,130/F	6,175/F	6,140/F	6,235/F
I-471 at Ohio River	NB	3	5,394/F	6,455/F	6,491/F	6,465/F	6,428/F	6,465/F
	SB	3	4,157/D	4,516/D	4,533/D	4,526/D	4,550/D	4,737/D
I-275 west of I-471	EB	3	2,585/C	3,462/C	3,369/C	3,514/C	3,456/C	3,448/C
	WB	3	2,522/C	3,849/D	3,873/D	3,841/D	3,909/D	3,803/D
I-71/I-75 north of I-275	NB	3	5,743/F	7,435/F	7,429/F	7,417/F	7,422/F	7,434/F
	SB	4	6,479/E	6,250/F	6,246/F	6,257/F	6,422/F	6,289/F
I-71 south of I-275	NB	3	4,066/D	5,924/E	6,559/E	5,513/E	5,526/E	6,965/E
	SB	3	7,289/F	7,977/F	7,946/F	7,619/F	7,559/F	7,514/F
I-71 south of Cross County Hwy.	NB	3	4,694/E	5,250/E	5,269/E	5,244/E	5,240/E	5,075/E
	SB	3	5,465/F	6,385/F	7,025/F	6,945/F	6,911/F	6,836/F
I-71 south of Norwood Lateral	NB	4	4,984/D	5,328/D	5,322/D	5,289/D	5,272/D	5,103/D
	SB	4	7,982/E	8,172/F	8,111/F	8,081/F	8,128/F	7,963/F
I-71 south of I-275	NB	3	2,922/C	5,663/F	5,044/F	5,074/F	5,052/F	5,923/F
	SB	3	7,307/F	7,691/F	7,911/F	7,903/F	7,859/F	7,940/F
I-75 south of Norwood Lateral	NB	3	6,946/F	6,926/F	6,921/F	6,965/E	6,926/F	6,976/F
	SB	3	6,712/F	6,939/F	6,916/F	6,706/F	6,652/F	6,724/F
I-75 south of Cross County Hwy.	NB	3	7,036/F	7,146/F	7,142/F	7,159/F	7,161/F	7,080/F
	SB	3	7,724/F	8,344/F	8,376/F	8,262/F	8,411/F	8,243/F

Source: BRW, Inc. and KPMG Peat Marwick LLP, January 1997

¹Only 2 lanes in the eastbound direction

²Four basic freeway lanes in each direction

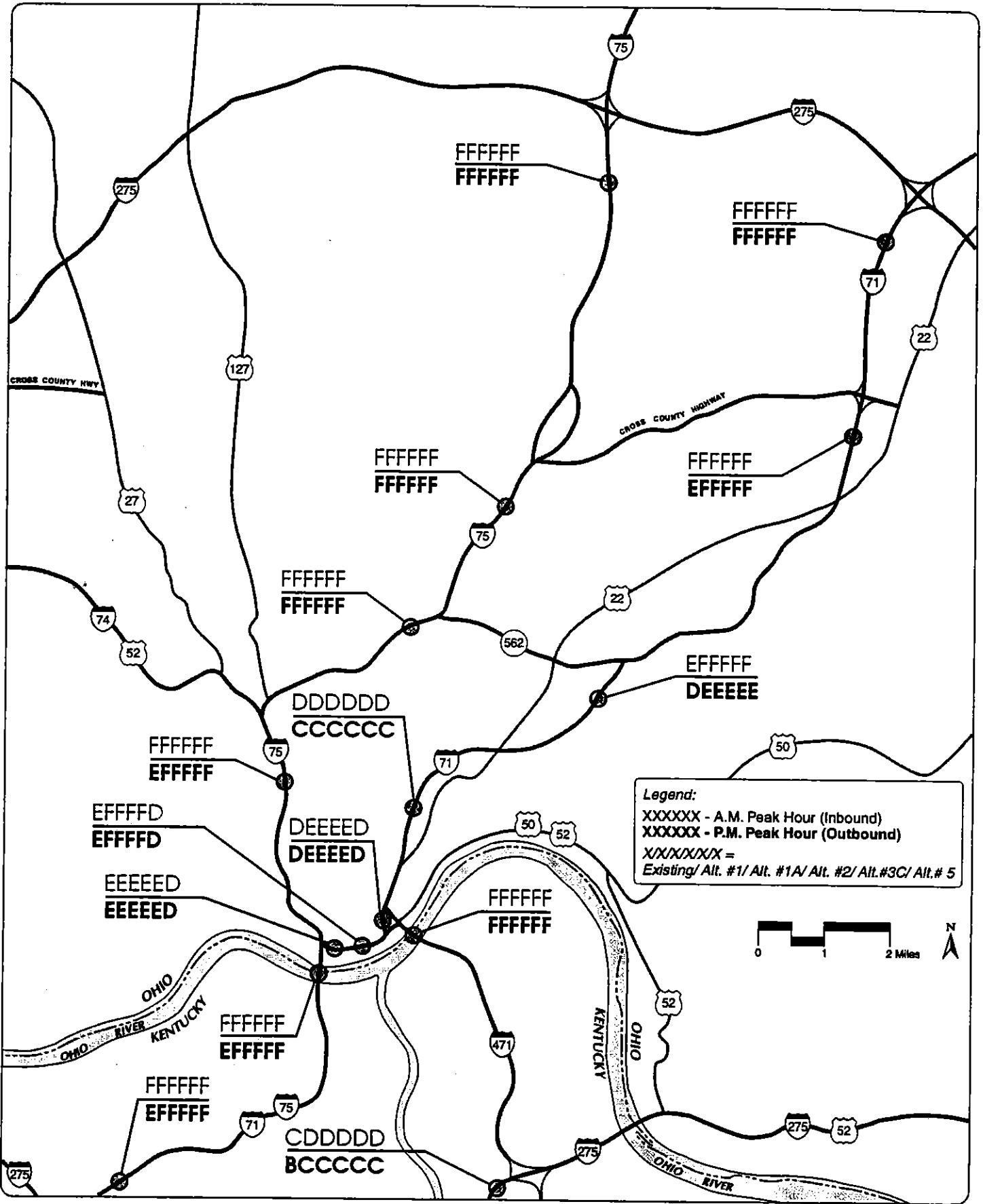
■ = Congested Segment (LOS E & F)

**TABLE 4-3
AM PEAK HOURS FREEWAY LEVEL OF SERVICE - 2020**

Freeway Segment	Traffic Direction	Number of Lanes	Volume/LOS					
			Existing	Alt. 1	Alt. 1A	Alt. 2	Alt. 3C	Alt. 5
I-71 at Plum Street	EB	4	6,316 / D	6,707 / D	6,648 / D	6,504 / D	6,331 / D	4,559 / C
	WB	4	7,200 / E	5,189 / E	6,125 / E	7,930 / E	7,706 / E	5,572 / D
I-71 at Race Street	EB	3	5,014 / D	5,163 / D	5,128 / D	5,257 / E	5,484 / E	4,559 / C ²
	WB	3	5,129 / E	5,310 / E	5,328 / E	5,425 / E	5,218 / E	5,572 / D ²
I-71 at Vine Street	EB	3	5,103 / D	5,296 / E	5,242 / E	5,484 / E	5,121 / F	4,559 / C ²
	WB	3	5,238 / E	5,474 / F	5,467 / F	5,716 / F	7,115 / F	5,572 / D ²
I-71 at Sycamore Street	EB	3	4,910 / D	4,935 / D	4,891 / D	4,821 / D	4,980 / D ¹	4,559 / C ²
	WB	3	5,932 / E	5,937 / E	5,977 / E	5,993 / E	5,959 / E	5,572 / D ²
I-71 at Lytle Park Tunnel	NB	2	3,370 / D	3,905 / E	3,761 / E	3,984 / E	4,041 / E	3,225 / D
	SB	2	2,757 / D	3,114 / D	3,094 / D	3,178 / D	3,307 / D	2,638 / D
I-71 south of Taft	NB	5	4,828 / C	5,570 / C	5,543 / C	5,522 / C	5,522 / C	5,309 / C
	SB	4	4,033 / C	4,425 / C	4,451 / C	4,454 / C	4,441 / C	4,225 / C
I-75 south of Hopple Street	NB	4	5,254 / E	5,977 / F	5,917 / F	5,813 / F	5,843 / F	5,703 / F
	SB	4	7,000 / E	7,626 / E	7,603 / E	7,587 / E	7,609 / E	7,565 / E
I-71 at Ohio River	NB	3	5,301 / E	7,253 / E	7,290 / E	7,349 / E	7,368 / E	7,387 / E
	SB	3	7,158 / E	7,599 / F	7,533 / E	7,870 / E	7,854 / E	7,897 / E
I-471 at Ohio River	NB	3	4,036 / D	4,351 / D	4,335 / D	4,341 / D	4,386 / D	4,475 / D
	SB	3	7,085 / F	7,050 / F	7,044 / F	7,033 / F	7,012 / F	7,141 / F
I-275 west of I-471	EB	3	1,803 / B	2,952 / C	2,948 / C	2,939 / C	2,923 / C	2,903 / C
	WB	3	1,847 / B	2,578 / C	2,569 / C	2,582 / C	2,589 / C	2,627 / C
I-71/I-75 north of I-275	NB	3	5,961 / E	5,916 / F	5,955 / F	5,934 / F	5,929 / F	5,933 / F
	SB	4	5,953 / D	7,217 / E	7,218 / E	7,214 / E	7,195 / E	7,259 / E
I-71 south of I-275	NB	3	5,843 / F	5,965 / F	5,783 / F	5,745 / F	5,713 / F	5,900 / F
	SB	3	5,077 / E	5,974 / F	5,962 / F	5,951 / F	5,959 / F	5,975 / F
I-71 south of Cross County Hwy.	NB	3	5,988 / E	6,228 / F	6,169 / F	6,200 / F	6,197 / F	5,964 / F
	SB	3	4,740 / E	5,330 / E	5,290 / E	5,302 / E	5,319 / E	5,134 / E
I-71 south of Norwood Lateral	NB	4	5,931 / D	6,534 / E	6,501 / E	6,535 / E	6,630 / E	6,205 / D
	SB	4	5,290 / D	5,742 / D	5,764 / D	5,761 / D	5,774 / D	5,438 / D
I-71 south of I-275	NB	3	4,129 / D	7,412 / F	7,351 / F	7,395 / F	7,394 / F	7,290 / F
	SB	3	5,338 / F	5,284 / F	5,270 / F	5,277 / F	5,276 / F	6,133 / F
I-75 south of Norwood Lateral	NB	3	6,530 / F	6,735 / F	6,744 / F	6,715 / F	6,737 / F	6,626 / F
	SB	3	6,540 / F	6,550 / F	6,545 / F	6,537 / F	6,537 / F	6,537 / F
I-75 south of Cross County Hwy.	NB	3	6,936 / F	7,450 / F	7,422 / F	7,419 / F	7,404 / F	7,362 / F
	SB	3	6,681 / F	6,958 / F	6,966 / F	6,973 / F	6,984 / F	6,294 / F

■ = Congested Segment (LOS E & F)

Source: BRW, Inc. and KPMG Peat Marwick LLP, January 1997.
¹Only 2 lanes in the eastbound direction
²Four basic freeway lanes in each direction.



CINCINNATI / FORT WASHINGTON WAY

Rev. January 29, 1997
 Rev. January 10, 1997
 December 18, 1996



FIGURE 4-1
Year 2020 Peak Hour LOS
at Key Freeway Locations

For the AM Peak Hour (see Table 4-4):

- Each of the eleven intersections currently operates at acceptable levels of service.
- Under Alternatives 1, 1A, 2 and 3C, each of the eleven intersections is expected to operate at acceptable levels of service.
- Under Alternative 5, nine of the eleven intersections are expected to operate at acceptable levels of service. However, the Central Avenue/5th Street and Main Street/3rd Street intersections would operate over-capacity (LOS F).

During the preliminary engineering phase of project development possible mitigation would be explored. Possible mitigation at the Central Avenue/5th Street location would include adding additional lanes on 5th Street and Central Avenue. Another possible scenario would be to allow oncoming traffic to the downtown area from eastbound US 50 and southbound I-75 to divert to alternate access locations, such as the proposed 3rd Street ramp to Vine and Main Streets ("Travel Demand Forecasting Draft Final Report").

Similar options exist for the Main Street/3rd Street intersection. Additional lanes could be provided, or excess traffic could be handled by alternate routes, such as Vine Street.

For the PM Peak Hour (see Table 4-5):

Each of the eleven intersection locations currently operates at acceptable levels of service during the PM peak hour, and each of the alternatives is projected to continue to operate acceptably in 2020.

In the Highway Capacity Manual weaving is defined as "the crossing of two or more traffic streams traveling in the same general direction along the length of highway without the aid of traffic control devices. Weaving areas are formed when a merge area is closely followed by a diverge area, or when an on-ramp is closely followed by an off-ramp and two are joined by an auxiliary lane."

A weaving analysis was conducted for three of the Fort Washington Way Subcorridor Study Alternatives 1A, 3C and 5 ("Traffic Impact Study Results Memo"). The results of the weaving analysis are shown in Table 4-5 and summarized below.

- The four weaving areas analyzed under Alternative 1A included the eastbound and westbound Fort Washington way segments. Each of these areas is expected to operate unacceptable (LOS E and LOS F) for both the AM and PM peak hours in 2020. The US 50 segment also is expected to operate poorly (LOS E/F) for both the AM and PM peak hours under Alternative 1A.

Table 4-3

AM Peak Hour Intersection Levels of Service - 2020

Intersection	Traffic Control	AM Peak Hour Levels of Service					
		Existing	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
7th Street at Central Avenue	Signal	A	B	A	A	A	C
5th Street at Central Avenue	Signal	C	B	C	C	C	F
3rd Street At Broadway	Signal	A	A	A	A	A	B
3rd Street at Main Street	Signal	A	A	A	A	A	F
3rd Street at Vine Street	Signal	A	A	A	B	A	B
Clay Wade Bailey Bridge at 3rd St.	Signal	C	C	C	B	B	A
Central/Taylor Bridge at Pete Rose Way	Signal	--	C	C	C	C	B
6th Street at Broadway	Signal	B	C	C	C	C	D
3rd Street at Walnut Street	Signal	--	A	A	A	A	D
4th Street at Broadway	Signal	--	A	A	A	A	A
4th Street at Central Avenue	Signal	--	A	A	A	A	D

Source: BRW, Inc., January 1997.

Congested Intersection = 

- The weaving areas analyzed under Alternative 3C indicate that both the eastbound and westbound Fort Washington Way segments would operate unacceptably (LOS E and LOS F) during both the AM and PM peak hours in 2020. Operations of US 50 would be similar to Alternative 1A.
- The weaving areas analyzed under Alternative 5 indicates that both the eastbound and westbound Fort Washington Way segments would operate well (LOS B) during both the AM and PM peak hours in 2020. The US 50 segment (Broadway to I-471) would operate slightly better than either Alternative 1A and 3C.

**Table 4-4
Pm Peak Hour Intersection Levels of Service - 2020**

Intersection	Traffic Control	PM Peak Hour Levels of Service					
		Existing	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
7th Street at Central Avenue	Signal	A	A	A	A	A	A
5th Street at Central Avenue	Signal	A	A	A	A	A	C
3rd Street At Broadway	Signal	A	A	A	A	A	A
3rd Street at Main Street	Signal	A	A	A	A	A	A
3rd Street at Vine Street	Signal	A	A	A	A	A	A
Clay Wade Bailey Bridge at 3rd St.	Signal	A	A	A	A	A	A
Central/Taylor Bridge at Pete Rose Way	Signal	-	B	B	B	B	B
6th Street at Broadway	Signal	A	A	A	A	A	A
3rd Street at Walnut Street	Signal	-	A	A	A	A	D
4th Street at Broadway	Signal	-	A	A	A	A	A
4th Street at Central Avenue	Signal	-	A	A	A	A	D

Source: BRW, Inc., January 1997.

**Table 4-5
Weaving Analysis - 2020**

Alternative	Section Description	Levels of Service			
		AM Peak Hour		PM Peak Hour	
		Weaving	Non-Weaving	Weaving	Non-Weaving
1A	I-71 SB (Walnut Street to US 50)	E	D	E	D
1A	I-71 SB (US 50 to Elm Street)	E	E	E	E
1A	EB US 50 (Broadway to I-471)	F	ED	F	E
1A	I-71 NB (US 50 to Vine Street)	F	ED	E	D
1A	I-71 NB (Race Street to US 50)	F	E	E	D
3C	I-71 NB (US 50 to Vine Street)	F	E	F	E
3C	I-71 NB (Walnut Street to US 50)	F	E	F	F
3C	I-71 SB Mainline (Common Section)	F	E	F	E
5	I-71 SB Mainline (Common Section)	A	A	A	B
5	I-71 NB Mainline (Common Mainline)	B	B	B	B
5	EB US 50 (Broadway to I-471)	E	D	E	E

Source: BRW, Inc., January 1997.

Note: Congested Segment = 

COMMUNITY AND ENVIRONMENTAL IMPACTS

The community and environmental impacts discussion is based on the "Social, Economic and Environmental Screening Technical Memorandum", Balke Engineers, December 1996.

The purpose of the environmental screening is three-fold: 1) to identify potential significant adverse social, economic or environmental impacts for each alternative; 2) to determine whether mitigation measures are possible to reduce or to avoid any identified impacts; and 3) to determine whether all environmental regulations and requirements can be satisfied during subsequent environmental impact assessment studies upon completion of the MIS effort.

The environmental screening for the Fort Washington Way Subcorridor Study was based on the review of secondary source data (baseline information as obtained by the I-71 MIS Corridor Study), identifying features, resources and issues. Alternative development at this stage consists of conceptual representations of design layout or basic configuration "footprint," (although actual right-of-way estimates have not been determined at this stage).

Based on this environmental screening, none of the alternatives under consideration are expected to result in significant adverse social, economic or environmental impact. No "fatal flaws" in terms of environmental impact have been identified for any of the alternatives considered. Alternative 5 would displace two small parks located within the existing Fort Washington Way footprint (adjacent to the south side of Third Street). Although federal law precludes the use of parkland unless there is no feasible and prudent alternative, replacement of these parks may satisfy federal requirements for the protection of parkland.

Also of note is the potential impact of Alternatives 2, 3C and 5 on historic resources, including historic sites located north of Fort Washington Way and the Roebling Suspension Bridge to the south. None of the alternatives would physically impact any of these historic resources. Nevertheless, more detailed study and coordination with the Ohio Historic Preservation Office may reveal adverse impacts that could require avoidance or mitigation.

There are no significant differences among the build alternatives for the environmental impact categories evaluated with the exception of the potential taking of parklands under Alternative 5. Additional environmental studies would be required if one of the build alternatives were selected.

Mitigation measures that could be considered in the later phases include:

- replacement for the taking of parkland (Alternative 5);
- potential mitigation of adverse impact to Section 4(f)/106 historic resources such as visual mitigation;
- consideration of noise barriers; and

- construction procedures and maintenance of traffic plans.

The Table 4-6 highlights the results of this environmental screening study through a comparison of the alternatives and the potential impacts identified for each.

Table 4-6

Comparison of Alternatives for Environmental Screening

Alternative	No Build		Build		
	1 Rehabilitation	1A TSM	2	3C	5
Right-of-Way Required (preliminary estimates)	None	None	None	None	4 warehouses/office buildings; 2 small parks, parts of 5 off-street parking lots
Displacement/Relocation of Residences	None	None	None	None	None
Neighborhood and Community Characteristics	None	None	None	None	None
Potential 4(f) Parks	None	None	None	None	2 parks
Cultural Historic	None	None	Possible due to proximity	Possible due to proximity	Possible due to proximity
Archaeological	None	None	None	None	None
Ecological Resources	None	None	None	None	None
Endangered Species	None	None	None	None	None
Floodplain	Project area is in 100-year floodplain - design of all Build alternatives will need to accommodate flood protection				
Other	None	None	None	None	None
Other Land Use Impacts	None	None	None	None	None
Noise	Not determined at this time, although few sensitive receptors in project proximity; full analysis will need to be conducted during environmental phase				
Hazardous Materials	None	None	None	None	None

Table 4-6 (continued)

Alternative	No Build		Build		
	1 Rehabilitation	1A TSM	2	3C	5
Air Quality	Based on regional traffic data, insignificant differences among alternatives and between Build and No Build; full air quality assessment will need to be conducted during environmental phase				
Economic Development	Potentially negative, since No Build does not change existing, perceived barrier between CBD and riverfront area	Positive	Positive	Positive	Positive
Visual and Aesthetics	None	None	Positive	Positive	Positive
Transportation Patterns	None	Minimal	Minimal	Minimal	Requires closure of John Street between Third and Fifth, which is important link between CBD and Covington (via Bailey Bridge) and part of Cincinnati metro CBD loop system
Pedestrian Patterns	None	None	None	None	None
Construction Impacts	Maintenance of traffic plans will need to be developed for all alternatives (including No Build - rehabilitation of existing facilities)				
Mitigation	None	Replacement of parking	Replacement of parking	Replacement of parking	Replacement of parking; Section 4(f) park impact mitigation to be determined
		Noise abatement may need to be considered for all Build alternatives			

Source: Balke Engineers, January 1997.

Notes: (1) Some of the components of Alternative 5, specifically ramp connections on both the east and west sides of the CBD, to I-75 and to the Clay Wade Bailey Bridge on the west end, and to the I-471 Bridge, Sixth Street and Ninth Street on the east end, could be incorporated into Build Alternatives 2 and 3C. Many of the impacts identified for Alternative 5 are due to these east and west connection components.
 (2) No physical impact to any site or districts listed on, or determined eligible for the National Register of Historic Places.

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SECTION 5 COSTS AND FINANCIAL IMPLICATIONS

CAPITAL COSTS

Capital cost estimates have been developed for all the alternatives under consideration as described in greater detail in the "Scope and Cost Estimate Assumption for Ft. Washington Way, and Related Improvements", January 17, 1997. Capital costs are defined as all costs including the costs for the No Build Alternative which includes the rehabilitation of Fort Washington Way. The costs include all engineering, administration, construction and equipment purchase for all aspects of the alternatives plus appropriate contingency allowance. Table 5-1 shows the capital cost differences among the alternatives.

Table 5-1

Summary of the Estimated Capital Costs (1996 Dollars)

Alternative	Assumptions	Base Costs	Optional Ramp Costs	Total Estimated Cost
1. No Build	Full depth pavement rehabilitation, safety upgrades	\$26,000,000	0	\$26,000,000
1A. TSM	No Build plus TSM Alternative from I-71 Corridor Study	\$26,000,000	0	\$26,000,000
2. Minimum Build	No Build plus relocate Pete Rose Way to the north between Race and Main Streets	\$34,000,000	\$14,416,000	\$48,416,000
3C. Relocate Pete Rose Way	No Build plus relocate Pete Rose Way to the north of the floodwall, move I-71 further north in the Fort Washington Way right-of-way	\$48,000,000	\$14,416,000	\$62,416,000
5. Narrowed Fort Washington Way	I-71 Business and US 50 in narrowed Fort Washington Way trench, new 2nd and 3rd Streets create a one-way pair boulevard	\$74,400,000	\$21,528,000	\$95,928,000

Source: Balke Engineers, January 1997. Parsons Brinckerhoff, January 1997.

FUNDING CONCEPTS

Regulatory Framework

While The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) expands financing options, it also restricts what projects can be included in Transportation Improvement Program (TIP) of a Metropolitan Planning Organization. The TIP must include, a financial plan that demonstrates how the TIP can be implemented, indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan, and recommends any innovative financing techniques to finance needed projects and programs, including value capture, tolls and congestion pricing. The TIP shall include a project only if full funding can reasonable be anticipated to be available for the project within the time period contemplated for completion of the project. In other words, reasonable, realistic financial planning is necessary to obtain Federal funds. Upon entering a project in the TIP the package of financially constrained projects are forwarded to the State for consideration of inclusion into the State Transportation Improvement Program (STIP).

The requirement regarding financially constrained project planning has a direct affect on the Fort Washington Way build alternatives. Public funds have not been committed for this highway. If a build alternative is selected for further study, a financial plan would be developed in close coordination with the Ohio Department of Transportation (ODOT) and Federal, state, and local agencies. This is directed toward developing a financially feasible plan for project implementation.

Funding Approaches

There are a number of funding options in addition to conventional funding that are potentially available to finance highway projects including user fees, toll revenues, benefit capture methods, and leasing.

Conventional Funding. Conventional funding, as used here, refers to financing the project from existing transportation grant programs. Because the Intermodal Surface Transportation Efficiency Act (ISTEA) is currently up for reauthorization, it is not yet clear what the funding programs will look like or how they will be structured in the future. For purposes of this discussion, it is assumed that the same program structure will be continued into the future. For most highway improvement projects, this means that the Federal Highway Administration (FHWA) funding would be matched by state and local sources. Eligible funding programs would include National Highway System (NHS), Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ, not available for construction of new highway lanes except for High Occupancy Vehicle (HOV) lanes), and the various equity provisions of ISTEA (Donor State Bonus, Minimum Allocation).

User Fees. User fees offer the greatest revenues on which to base financing of the corridor improvements. By definition, user fees are measured on consumption or use of the facility tolls have been dropped from further consideration.

Toll Revenues. Tolls, the purest form of user financing for roads, are used in many places. However, due to the nature of this particular project

Benefit Capture Methods. Benefit capture methods identify and target the beneficiaries of transportation improvements, generally the property owners in the surrounding area. They usually involve assessing taxes or fees on the increased property value resulting from the public access improvements. Principal benefit capture methods include: benefit assessment districts; tax increment districts; and impact fees.

Benefit Assessment District. Under a benefit assessment district, a limited purpose public authority is established with the power to levy additional fees on property within the area. Fees may be assessed one time only or on a recurring basis upon owners of property specifically benefited by the creation of the transportation project. The levy is in an amount commensurate with the benefits realized.

Tax Increment District. Tax increment districts obtain funds from increases in regular ad valorem tax revenues that arise from the new infrastructure project. Locally governments divert the incremental increase in property tax revenues to a special fund for the transportation project. The fund can be used for debt service or for reimbursing the local government or financial institutions that have invested in the infrastructure.

Impact Fees. Impact fees are usually one time fees charged to a segment of the population which is causing a significant impact on the transportation infrastructure or is specifically benefiting from its use. For example, impact fees may be assessed on new property developers based on the impact of their development. Fee rates might be calculated based on number of trips generated, square feet of new development, number of units being constructed, or street frontage.

Leasing. Increasingly, many transportation projects depend on revenue from leasing of right-of-way or air rights. Parallel uses of right-of-way and concessions may provide much needed income. Should all or a portion of Fort Washington Way be "decked", the use of air rights for development could be a funding option.

Another form of leasing is project-related leasing. This is similar to vendor financing in which actual projects are structured as a sale-leaseback transaction to generate tax benefits and also transfer some of the risks associated with public and private ownership. In this case the lease payment if it reflected land costs would allow the private sector lessee to expense the land as a defacto depreciation deduction.

Evaluation of Funding Options. Once potential sources of revenue are identified, an examination of how each might be implemented would be performed. Implementation would be assessed in terms of the mechanics of the revenue instrument, affected parties, administrative needs, geographic scope, favorable attributes and unfavorable attributes requiring attention or mitigation. The following evaluation criteria for funding options could be considered.

ISSUE**CRITERIA**

Financial

Revenue Yield
Stability of Revenue Flow
Marketability of Securities

Political

Public Acceptance
Equity
Incentive Effects

Legal/Regulatory

Legality
Regulatory Authorization

Administrative/Institutional

Revenue Collection Mechanisms
Monitoring Mechanisms

The feasibility analysis would involve an overview of the ability of each funding source to meet all or part of the revenue needs of the road construction capital program and an evaluation of the political, legal/regulatory, and administrative/institutional issues. It would focus on characterizing the revenue yield for each funding source in terms of dollar magnitude and timing of the receipt of funds.

Financial evaluation is the initial input into the selection of an appropriate package of funding sources. While revenue yield is ultimately the most important factor, legal and regulatory issues must be accorded considerable weight. In some cases, legal barriers, may prove to be insurmountable and thus grounds for eliminating a funding source from further consideration. Administrative barriers should be identified and treated as a negative factor, but generally do not represent an insurmountable obstacle. Political issues are addressed by evaluating the events that must occur to make a funding source politically acceptable.

SECTION 6 EVALUATION

EFFECTIVENESS

As discussed in Section 1, Introduction, several transportation and community issues were identified. Specific goals and objectives for the Fort Washington Way Subcorridor Study, described in Section 2, were used to evaluate the alternatives presented in Section 3, Alternatives Considered.

Specific means of assessing the performance of each alternative in regard to how well it performs (or does not) perform with respect to the identified problems and objectives must include a mix of both quantitative measures of effectiveness and Qualitative assessments of environmental impacts. These have all been assessed and are contained in this document or supporting technical reports.

Effectiveness measures the degree to which an alternative helps to solve the identified problems and achieves the goals discussed Section 1. The effectiveness analysis also gauges the relative transportation and community benefits regardless of costs. Section 4 of this report, Impacts on Transportation, Community, and the Environment, summarizes the measures of effectiveness as they relate to the alternatives.

COST-EFFECTIVENESS

Cost-effectiveness analysis provides a means of comparing the benefits of each alternative with its costs. Section (Table 5-1) of this document, Costs and Financial Implications, compares the capital cost estimates of the alternatives.

Section 5 of this report discusses the general funding options that could be available. After a preferred alternative is selected, additional details of a funding program would be developed.

SIGNIFICANT TRADE-OFFS BETWEEN ALTERNATIVES

The selection of an alternative by local decision makers involves the balancing of the advantages associated with each of the alternatives under consideration. Based on information in this Evaluation Report and presented in detail in the formal technical analysis, certain observations can be made to distinguish between the merits of the alternatives being considered as they relate to the goals established for the Study. The following summarizes the responsiveness of the alternatives.

Maintain safe, efficient operation and capacity for Interstate trips.

- Freeway segment capacity analysis indicates that the traffic impact differences between alternatives on the adjacent regional freeway system is minor ("Traffic Impact Study Results Memo").

Maintain safe, efficient operation and capacity for regional/corridor trips.

- Existing Fort Washington Way includes left-side on and off ramps and a major weaving movement caused by US 50 joining I-71 on the left and departing on the right in both directions. The weaving does not change under Alternatives 1, 1A and 2 ("Traffic Impact Study Results Memo").
- The weaving analysis for Fort Washington Way corridor shows that Alternatives 1A and 3C would result in unacceptable operations along both directions of Fort Washington Way (I-71/US 50) during both the AM and PM peak hours in 2020. The same levels of operation would occur under Alternative 1 or 2 ("Traffic Impact Study Results Memo").
- The weaving analysis of the Fort Washington Way corridor indicates that under Alternative 5 both the eastbound and the westbound segments would operate well (LOS B) for both the AM and PM peak hours in 2020 ("Traffic Impact Study Results Memo").
- Freeway segment capacity analysis indicates that Alternative 5 would result in the least congestion within Fort Washington Way. Alternative 3C would result in the highest level of congestion within Fort Washington Way ("Traffic Impact Study Results Memo").

Maintain safe, efficient operation and capacity for local/short distance trips.

- The intersection capacity analysis of the key access locations into downtown Cincinnati shows that the demand volume during the 2020 AM (inbound) peak hour is expected to be significantly higher than the PM (outbound) peak hour ("Traffic Impact Study Results Memo").
- The intersection analysis of the 2020 AM peak hour indicates that the Central Avenue/5th Street intersection is expected to operate over-capacity under Alternative 5. However, ample reserve capacity should be available for incoming eastbound US 50 and southbound I-75 vehicles via the proposed ramp to 2nd Street ("Traffic Impact Study Results Memo").
- Under Alternative 5, the intersection analysis of the 2020 AM peak hour indicates that the Main Street/3rd Street intersection would operate over-capacity. However, there would be numerous options for diverting excess traffic away from this intersection ("Traffic Impact Study Results Memo").

Provide comparable overall access to the Cincinnati CBD from I-71, I-471, Covington and Newport riverfronts, better connect the downtowns and Cincinnati, Covington and Newport riverfronts, improve linkage to underutilized central riverfront bridges and facilitate land access to the riverfront, provide community access from both sides of the river to major riverfront public facilities/stadiums, and provide recreational and pedestrian access to the Cincinnati, Covington and Newport riverfronts.

Alternatives 1 and 1A do not improve connections between the downtown and the riverfront, and do not facilitate riverfront development opportunities.

There are no direct connections between I-71 and the Roebling Bridge under Alternatives 2, 3C, and 5.

Under Alternative 5, improved connections would be possible from northbound Clay Wade Bailey Bridge to eastbound 2nd Street with a new ramp and from Plum Street to southbound Clay Wade Bailey Bridge also with a new ramp.

At this stage of development, it is anticipated that all the build alternatives are capable of providing for both existing pedestrian needs and for improving pedestrian access between the CBD area and the riverfront. The existing pedestrian skywalks, sidewalks along surface streets, and staircases over Fort Washington Way have been incorporated into all of the build alternatives.

Incorporate intermodal transportation connections proposed in the I-71 Corridor Study.

None of the alternatives studied for Fort Washington Way would preclude any of the intermodal connections under consideration as part of the I-71 Corridor Study. Figures 3-3, 3-4, and 3-5 show the inclusion of the Race to Madison Transit Corridor.

Reclaim land and/or air rights for development.

Alternatives 3C and 5 would reclaim land south of Fort Washington Way that could be used for redevelopment. Alternative 3C would reclaim a strip of land approximately 100 feet in width. With Alternative 5, the reclaimed strip of land would be 200 to 300 feet wide.

All alternatives, but to a greater extent Alternatives 3C and 5, provide an opportunity to "deck" all or a portion of Fort Washington Way. The air rights could be used for additional development and/or parkland, allowing the visual connectivity of the downtown to the riverfront to be more apparent.

Stage/phase construction to minimize disruption and maximize financial feasibility.

Once the determination is made regarding the riverfront and stadium development plans, there may be opportunities to coordinate the construction schedule of Fort Washington Way and the riverfront and stadium development to take full advantage of the timing for efficiency and cost savings. During preliminary engineering, a construction staging plan would be developed.

REFERENCES

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