

the City of  
*Rochester's*

**INNER  
LOOP**

**IMPROVEMENT STUDY**

*August 2001*

***Executive Summary***

***Prepared For:***

***City of Rochester  
City Hall  
30 Church St.  
Rochester, NY 14614***

***Prepared By:***

 SEAR·BROWN  
**ICON**  
architecture

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## INTRODUCTION

### Project Description

The Inner Loop Improvement Study is being prepared by the City of Rochester to assess the existing transportation facility located on the east side of the City's Central Business District. The study's primary focus was to develop alternatives for reconstructing the transportation infrastructure in this area, with a facility of appropriate scale, size and configuration that better meets the community's needs for access, neighborhood cohesion and land use.

### Why the Inner Loop

With the vehicle population explosion in and around the City of Rochester in the 1930's and 1940's, the New York State Department of Transportation and the City of Rochester developed plans in the late 1940's of a network of boulevards and expressways designed to reduce traffic congestion on the local city streets and improve access around the city. Initially, the plans called for the Inner Loop to be at-grade around the city, but as the various segments of the Inner Loop were developed and designed, this initial concept changed to a configuration consisting of a combination of grade-separated and at-grade segments.



*Grade Separated Inner Loop  
Looking North from Broad St.*

The construction of the Inner Loop in the 1950's and 1960's required the demolition of various structures and homes within the surrounding communities and severed the local street grid. This facility, being primarily a grade-separated highway, resulted in the separation of the City's Central Business District (C.B.D.) from the surrounding residential communities and therefore impacted the cohesion that existed. In effect, the Inner Loop today is viewed as a barrier that does not allow easy pedestrian and vehicle access between the C.B.D. and the surrounding City communities, thus serves as a blockage to community cohesion.

### The Inner Loop Today

Much of the Inner Loop as it exists today does not match the transportation function as it was originally planned to perform, with the exception of the segment from Monroe Avenue to E. Main Street. The existing facility is typically a four to six lane divided expressway with parallel two to three lane frontage roads on each side. The frontage roads and the Inner Loop are connected with entrance and exit terminals located at service points throughout the system. This results in a facility that in some places has as many as twelve travel lanes and occupies a width of 170 feet. In reviewing recent traffic counts, the traffic demand varies from 6,840 vehicles per day in the vicinity of East Avenue to as high as 46,910 vehicles per day in the vicinity of Clinton Avenue.



**Inner Loop from Monroe Avenue North to East Main Street:**

**Traffic Operations**

The existing average annual daily traffic ranges from 6840 to 14,700 vehicles, which is significantly below the roadway’s capacity. The actual volume of traffic is higher on the frontage roads than on the Inner Loop.

**Condition**

The pavement condition was rated by NYSDOT in 1999 from poor to fair condition.

**Pedestrian Mobility**

Limited pedestrian access points from the City’s Central Business District to the surrounding communities (Monroe Avenue, Broad Street and East Avenue).

**Inner Loop from East Main Street West to North Clinton Avenue:**

**Traffic Operations**

The average annual daily volume of traffic ranges from 21,000 to 47,000 vehicles. The peak hour volumes are three (3) to four (4) times higher than the segment from Monroe Avenue to East Main Street.

**Condition**

The pavement condition was rated by NYSDOT in 1999 to be in poor condition.

**Pedestrian Mobility**

Limited pedestrian access points from the City’s Central Business District to the surrounding communities (North St., Scio St. and E. Main St.).

**Current Momentum**

Over the last 10 years, the City of Rochester has completed various initiatives that focused on revitalization plans for the City and the surrounding communities. These initiatives have included:

- ◆ the Vision 2000 Plan
- ◆ the Neighbors Building Neighborhoods program
- ◆ the Renaissance 2010 Comprehensive Plan

In each of these efforts, there was a reoccurring theme that identified the Inner Loop as one of the focus areas for the City of Rochester. The energy and momentum surrounding the City’s revitalization and enhanced connections to the neighboring communities provided the catalyst for the Inner Loop Study.

**Purpose**

The purpose of this study is to assess the existing configuration of the Inner Loop and identify feasible modifications that meet the established project goals/objectives.

**Project Objectives**

The project objectives focus on reestablishing the link between the City and the neighborhoods and therefore improving the overall connectivity and the economic vitality of the City. The following summarizes the overall objectives:

- ◆ Consistency with the City’s Vision for the 21<sup>st</sup> century,
- ◆ To create a properly scaled transportation facility,
- ◆ Develop alternatives that will enhance neighborhood and downtown development,
- ◆ Improve the aesthetics of the existing transportation corridor, and
- ◆ Improve Mobility to and from the City and the surrounding communities.



**Study Area**

The overall study area is divided into the following three (3) segments:

- ◆ Segment 1 – the Inner Loop from Monroe Avenue north to East Main Street
- ◆ Segment 2 – the Inner Loop from East Main Street west to North Clinton Avenue
- ◆ Segment 3 – the I-490/Inner Loop interchange

**STUDY ALTERNATIVES**

Numerous concept alternatives were developed and presented to the general public in the forum of a project workshop meeting held in June 2000. Following this meeting, the City worked in close cooperation with the Technical Advisory Committee and the Citizens Advisory Committee to incorporate the comments received at the workshop and address any other concerns regarding the project concepts. Through the development process, the initial concepts were refined and combined into 6 overall project alternatives. Alternatives 1 through 4 considered concepts for the improvement to the Inner Loop from Monroe Avenue to Chestnut Street on the east side of the City and Alternatives 5 and 6 considered concepts for the I-490/Inner Loop Interchange. The following tables provide a general overview of the proposed scope of improvements for Alternatives 1-4 and the advantages and disadvantages associated with each.

Alternative	Monroe to E. Main	E. Main to Clinton
1	At Grade	At Grade
2	At Grade	Modified Grade Separation
3	At Grade	Grade Separation
4	Grade Separation	At Grade

**Alternative 1**

Major Advantages

- + Elimination of barrier effect from Monroe to N. Clinton
- + Improved neighborhood cohesion/aesthetics
- + Land use opportunities

Major Disadvantages

- Mobility of area from N. Clinton to E. Main

**Alternative 2**

Major Advantages

- + Elimination of barrier effect from Monroe to Charlotte
- + Improved neighborhood cohesion/aesthetics
- + Land use opportunities

Major Disadvantages

- Retains barrier from Charlotte to N. Clinton
- Elimination of Scio St. ramps impacts area wide mobility

**Alternative 3**

Major Advantages

- + Elimination of barrier effect from Monroe to E. Main St.
- + Improved neighborhood cohesion/aesthetics
- + Land use opportunities

Major Disadvantages

- Retains barrier from E. Main to N. Clinton

**Alternative 4**

Major Advantages

- + Elimination of barrier effect from E. Main to North
- + Improved neighborhood cohesion/aesthetics

Major Disadvantages

- Retains barrier from Monroe to E. Main
- Regional mobility – the segment of the Inner Loop with the highest traffic volumes would be converted to an at-grade signalized facility



In order to assess each of these alternatives, a roadway section was established for the new at-grade section. Various roadway sections were considered, but the consensus from the public and the advisory review groups was that a boulevard section would develop the character that is consistent with the proposed Vision for the City of Rochester.



Example of a Typical Boulevard Setting

Two alternatives were developed for the I-490/South Avenue/Clinton Avenue/Inner Loop/Southwedge interchange. These alternatives focused on improving the mobility and access that is currently offered by the interchange. The following identifies the themes that were considered:

- Improve Southwedge access to I-490,
- Consolidate the South Avenue on-ramps to I-490 eastbound,
- Enhance the waterfront land use, and
- Improve pedestrian access from the Southwedge to downtown.

**PUBLIC AND AGENCY INVOLVEMENT**

A public and agency involvement program was developed for this project that included a Technical Advisory Committee (TAC), a Citizens Advisory Committee (CAC), and a series of information meetings. The City realizes

that partnering with the local residents, businesses, and agencies would capitalize on the strengths and assets of each community. The City’s proactive approach to community involvement has received national acclaim.

The attendees that took part in the committees and information meetings for this project provided valuable input into identifying the project needs and developing alternatives that address the needs. Throughout this project’s development, the public has shown great interest, and has requested to be kept informed of the project’s progress.

**ALTERNATIVE EVALUATIONS**

Matrices have been developed to assist in and summarize the evaluation and comparison of alternatives. The following table is an excerpt from the study with the key evaluations.

Alternative	Development Potential	Neighborhood Enhancement	Transportation Service
No Build	Poor	Poor	Acceptable
Alternative 1			
- South Segment	Very Good	Very Good	Acceptable
- North Segment	Very Good	Very Good	Unacceptable <sup>1</sup>
Alternative 2			
- South Segment	Very Good	Very Good	Acceptable
- North Segment	Good	Good	Unacceptable <sup>2</sup>
Alternative 3			
- South Segment	Very Good	Very Good	Acceptable
- North Segment	Good	Good	Acceptable
Alternative 4			
- South Segment	Poor	Poor	Acceptable
- North Segment	Very Good	Very Good	Unacceptable <sup>1</sup>

1. The North Street intersection does not provide acceptable intersection operations.
2. This alternative eliminates the Scio Street ramps, which significantly diverts traffic accessing the neighborhoods to the north.



The major disadvantage to an at-grade facility around the eastern/northern side of the City of Rochester is the impact to the overall traffic patterns and mobility within the area. The traffic assessment completed for this study was based on a “worst case” evaluation. This evaluation identified existing volumes, assumed no traffic diversions, projected future volumes based on the anticipated growth rate, and assessed the at-grade alternative traffic conditions. This evaluation revealed that the at-grade option from Monroe Avenue to E. Main Street would provide acceptable traffic operations with future traffic volumes.

The study also noted that the segment from E. Main Street to North Street would not provide acceptable traffic operations. The intersection of North Street and the boulevard would provide undesirable future traffic conditions. This undesirable condition is due to the high east west volume on the Inner Loop and the high north south volume on North Street. This evaluation did not identify any potential solutions, (Intersection Configurations) to provide desirable operations.

In order to provide acceptable operations at E. Main Street, the configuration that is proposed on Alternative 3 would be required with the addition of various turning lanes on the different legs of the intersection.

### **Land Use Evaluations**

The six alternatives presented focus on developing properly scaled transportation facilities that are

consistent with the overall vision of Rochester. These alternatives propose alignment, cross-section and grade modifications that allow for the recovery



of land in the existing Inner Loop corridor. This land recovery allows for future land use opportunities and the potential to physically and visually connect the Central Business District to the adjacent neighborhoods. The following summarizes land use opportunities:

- Inner Loop – Segment 1: Development opportunities for increased open space, expansion of commercial city centered areas, residential infilling, buffering and parcel consolidation and redevelopment.
- Inner Loop – Segment 2: Development opportunities for residential neighborhood extensions, commercial development and open space.
- I-490 Interchange Area: Development opportunities for Genesee Riverfront redevelopment, open space/buffering, city centers commercial and improved pedestrian access.



**Costs/Cost-Benefit**

The following table summarizes the estimated costs for the project alternatives and includes a cost-benefit comparison for Alternatives 1-4. The cost benefit compares the projected cost for the modified Inner Loop versus the cost of a major reconstruction (as is) which is needed due to its age and condition. The cost benefit includes construction cost, value of increased land use and tax/indirect benefits. Construction costs do not include engineering or ROW.

<b>Cost and Cost-Benefit Summary</b>		
	<b>Cost</b>	<b>Cost-Benefit</b>
Alt. 1	(Mil.)	
- South	\$7.6	1.8
- North	\$7.3	1.6
Alt. 2		
- South	\$7.1	1.8
- North	\$16.2	0.6
Alt. 3		
- South	\$7.7	1.8
- North	\$14.0	0.7
Alt. 4		
- South	\$5.9	1.4
- North	\$6.8	1.8
Alt. 5	\$7.2	
Alt. 6	\$2.5	

**RECOMMENDATIONS**

In general, this study did identify various alternatives that are feasible and meet the overall goals and objectives established by the City of Rochester. These alternatives have focused on eliminating the grade-separated Inner Loop and providing an at-grade boulevard around the eastern portion of the City where feasible. This would eliminate the existing barrier that separates the City

Center from adjacent neighborhoods and business areas. Although Segment 2 (E. Main Street to N. Clinton) did not provide acceptable traffic operations with an at-grade boulevard type facility, more detailed traffic analysis and modeling is recommended for this segment to further review the feasibility of an at-grade facility.

Based on the analysis completed for this study, Alternatives 1, 3, 5 and 6 best satisfy the majority of the project objectives established for this project and should be considered for further evaluation. Alternatives 1 and 3 both recommend an at-grade facility for the Inner Loop from Monroe Avenue to E. Main Street (Segment 1). Alternative 1 also recommends an at-grade facility for Segment 2 (E. Main Street to North Street) but this is contingent on further traffic analysis and modeling. Alternative 3 recommends a modified (narrowed) Inner Loop for Segment 2 with retention of the same basic grade separated transportation facility.

Subalternatives for Alternatives 1 and 2 recommended for further consideration are: use of a boulevard type facility for any new at-grade facilities; conversion on Broadway to a 2-way facility from the Inner Loop to Goodman Street. The Broadway conversion is contingent on possible ramp modifications under consideration with Alternatives 5 and 6 and traffic impacts.

Alternatives 5 and 6 are recommended for further consideration for the I-490/Inner Loop interchange area. Alternative 5 provides the following improvements:



1. Consolidation of the South Avenue entrance ramps to I-490 eastbound and increased land use area.
2. Land use opportunities along the Genesee River waterfront between I-490 and the Court Street Dam.
3. Improved access from the southwedge area to I-490 eastbound.
4. Improved sidewalk connections between the southwedge and downtown (along South Avenue).
5. Improved access from I-490 westbound to the remodeled Inner Loop.

from Monroe Avenue to E. Main Street as an at-grade facility.

This program has been developed such that the traffic analysis and planning effort (EPP's) would take place over the next two years (2002-2003) and that the three projects would be developed under a staged program between 2004 and 2012 for the engineering and construction phase effort.

Alternative 6 provides the following improvements:

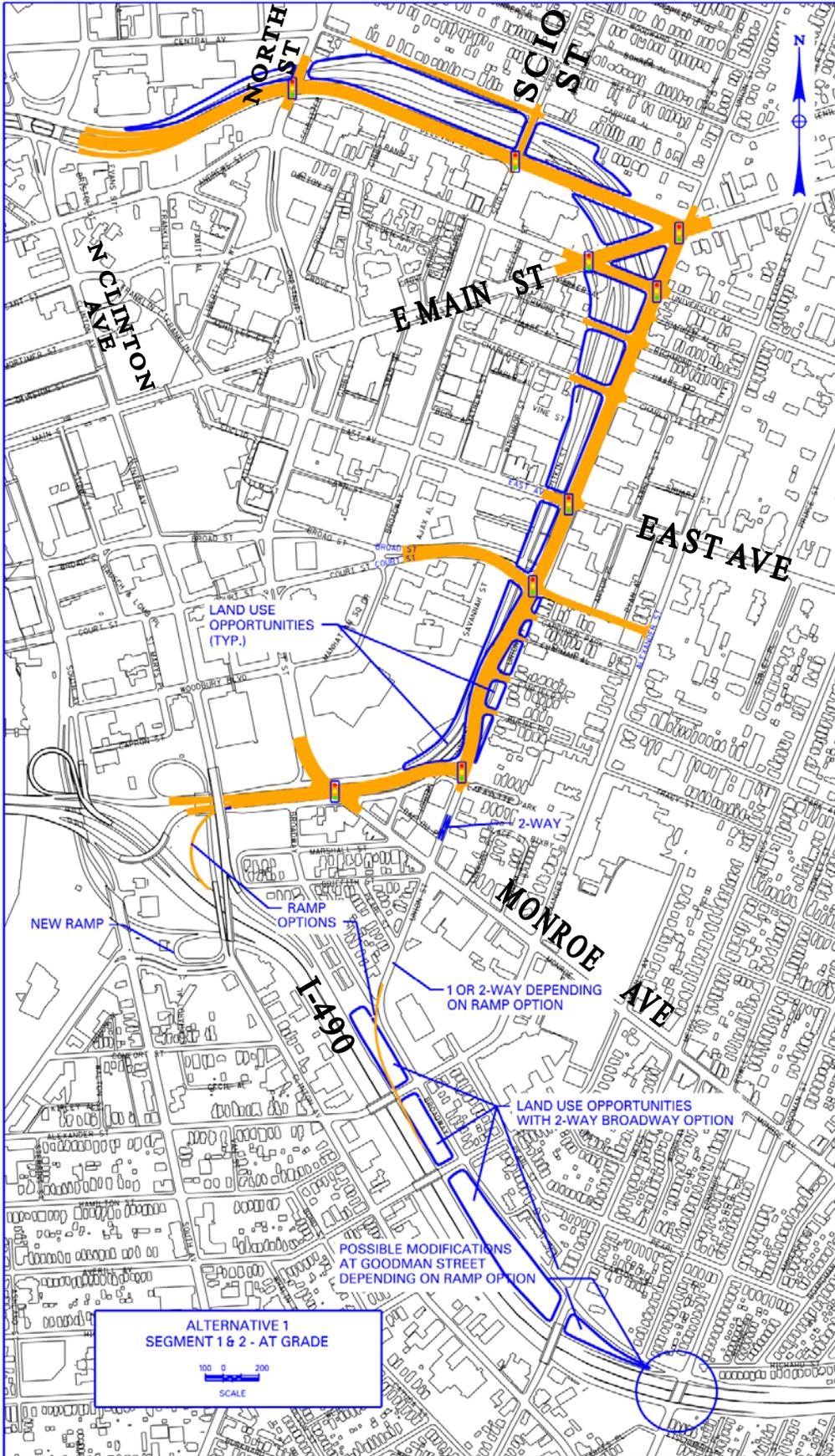
1. Consolidation of the South Avenue entrance ramps to I-490 eastbound and increased land use area.
2. Improved access from the southwedge area to I-490 eastbound.
3. Improved sidewalk connections between the southwedge and downtown (along South Avenue).
4. Improved access from I-490 westbound to the remodeled Inner Loop.

### **IMPLEMENTATION PROGRAM**

An implementation schedule for the project has been identified and includes:

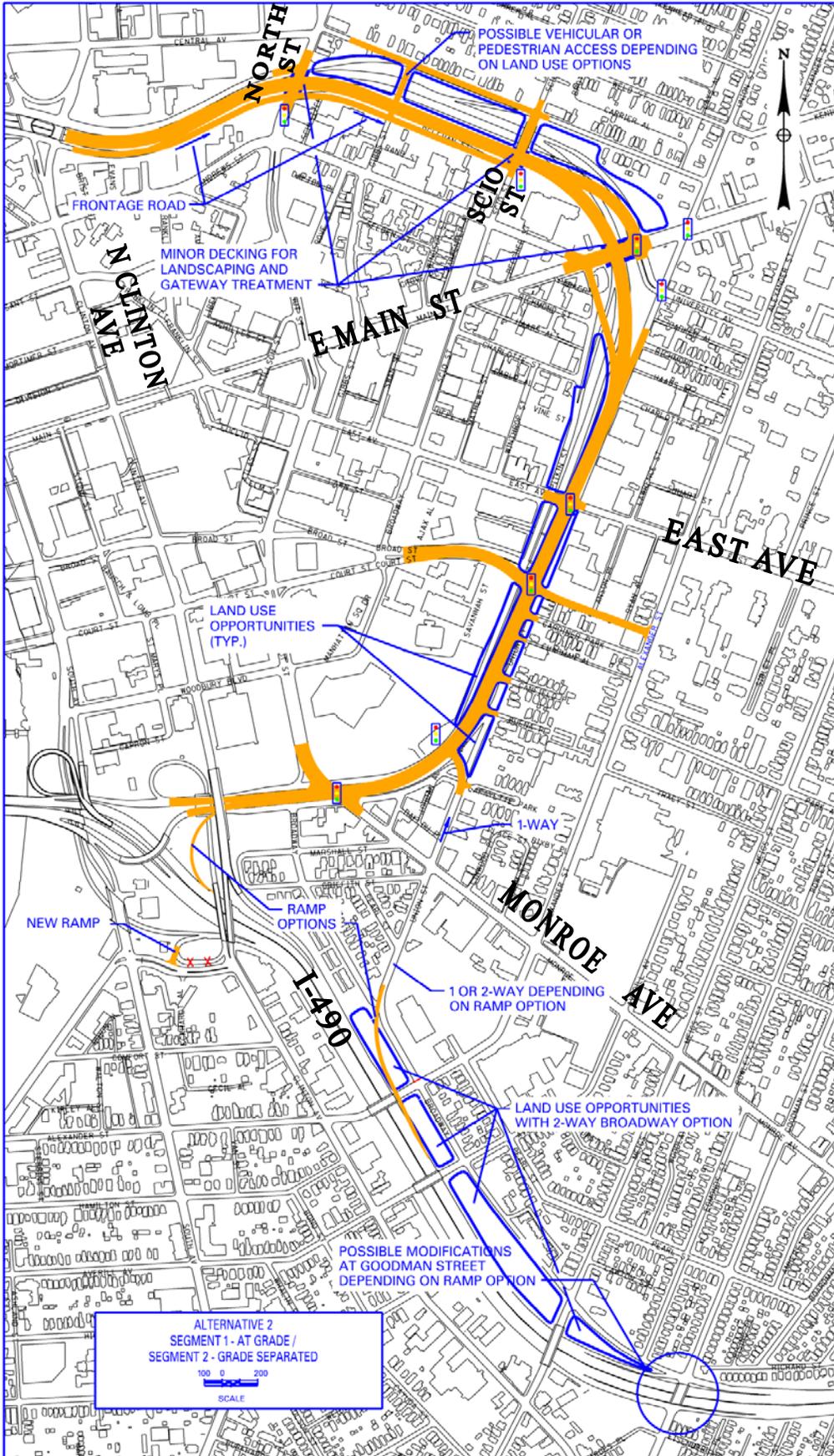
1. Initial more detailed traffic analysis and review of alternatives.
2. Preparation of an estimated three Expanded Project Proposals (EPP's) to progress three distinct projects through the Federal Aid process over the timeframe of 2002-2012.
3. First phase implementation of reconstruction of the Inner Loop





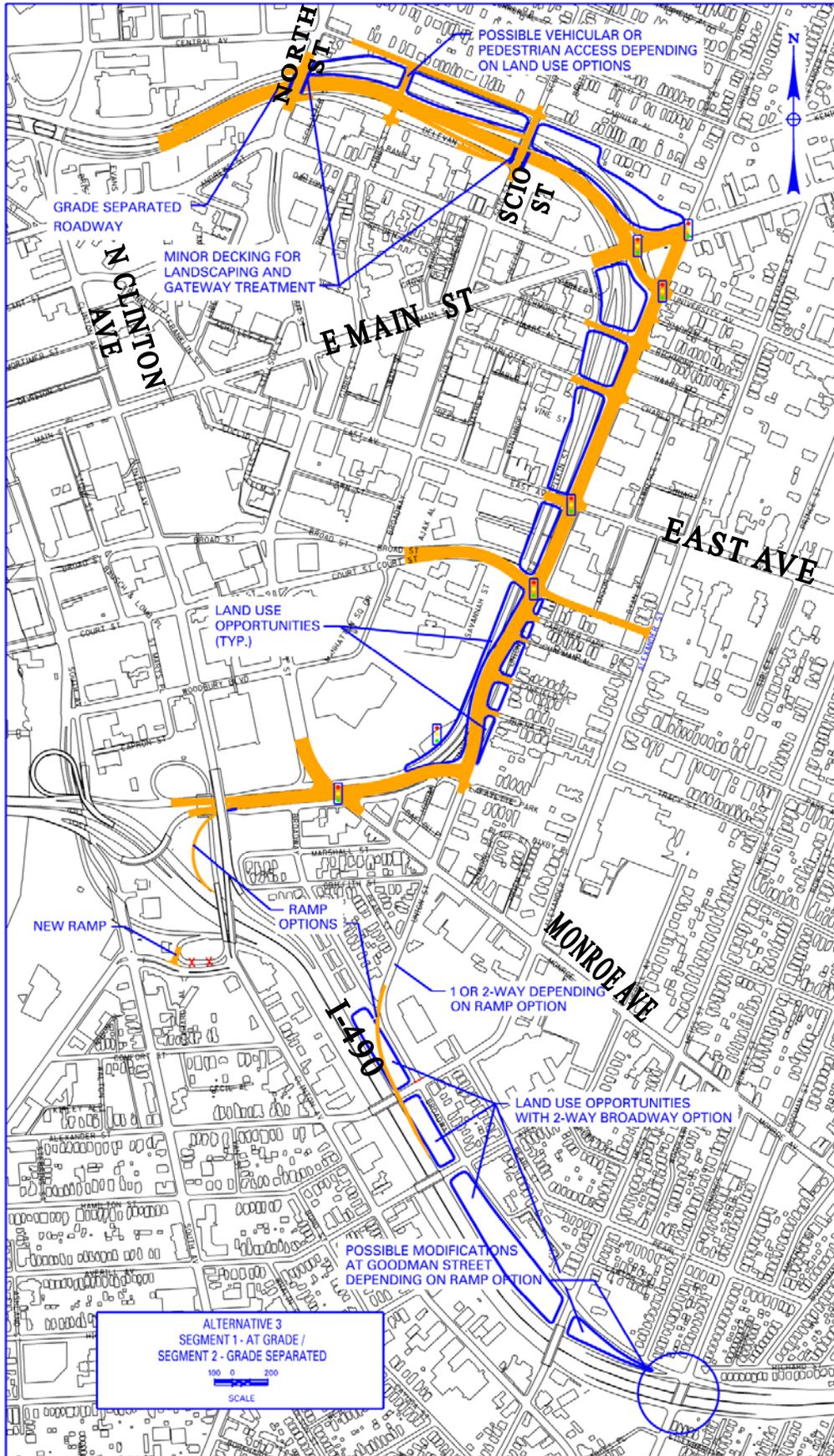
# ALTERNATIVE 1





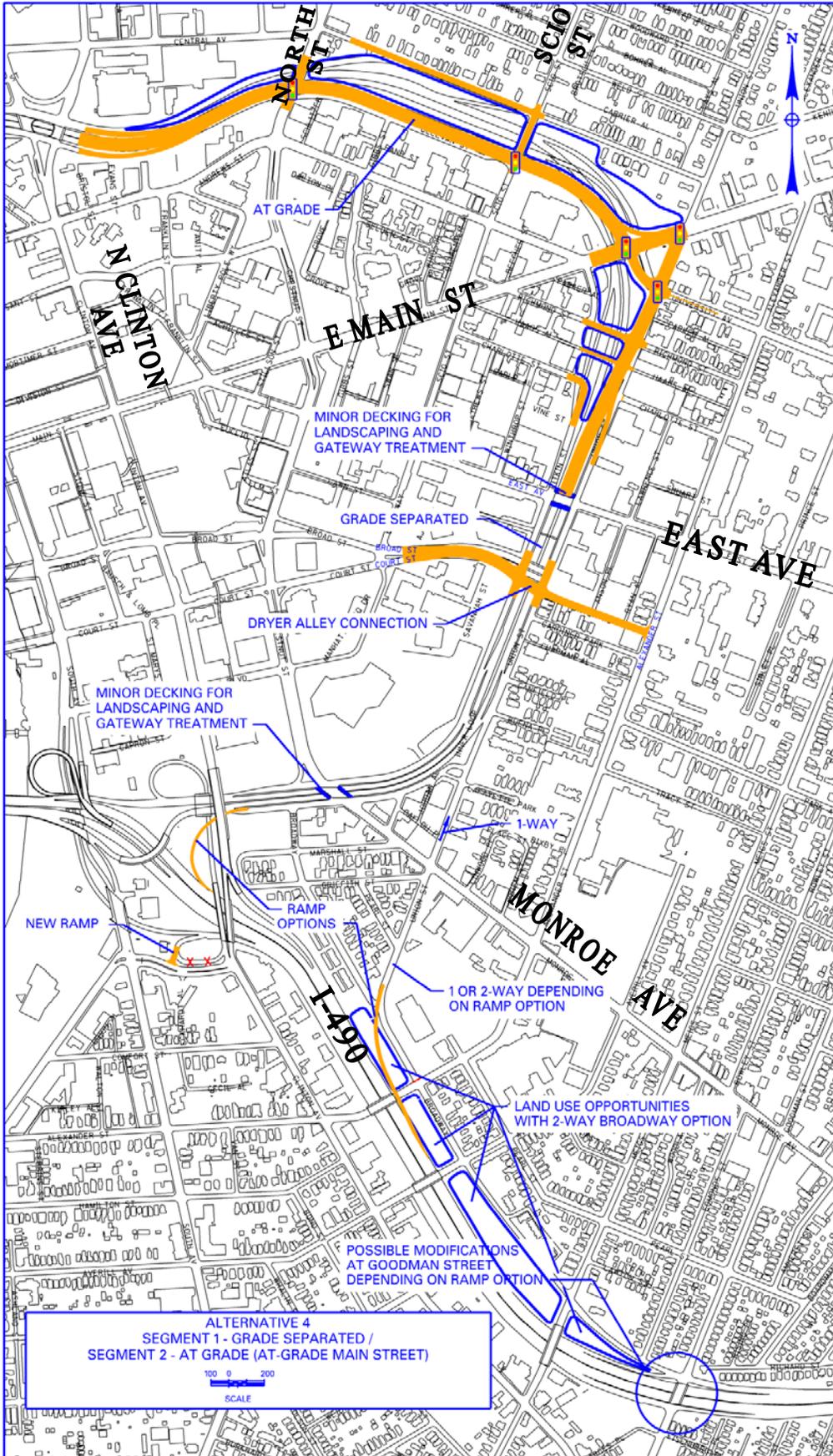
ALTERNATIVE 2





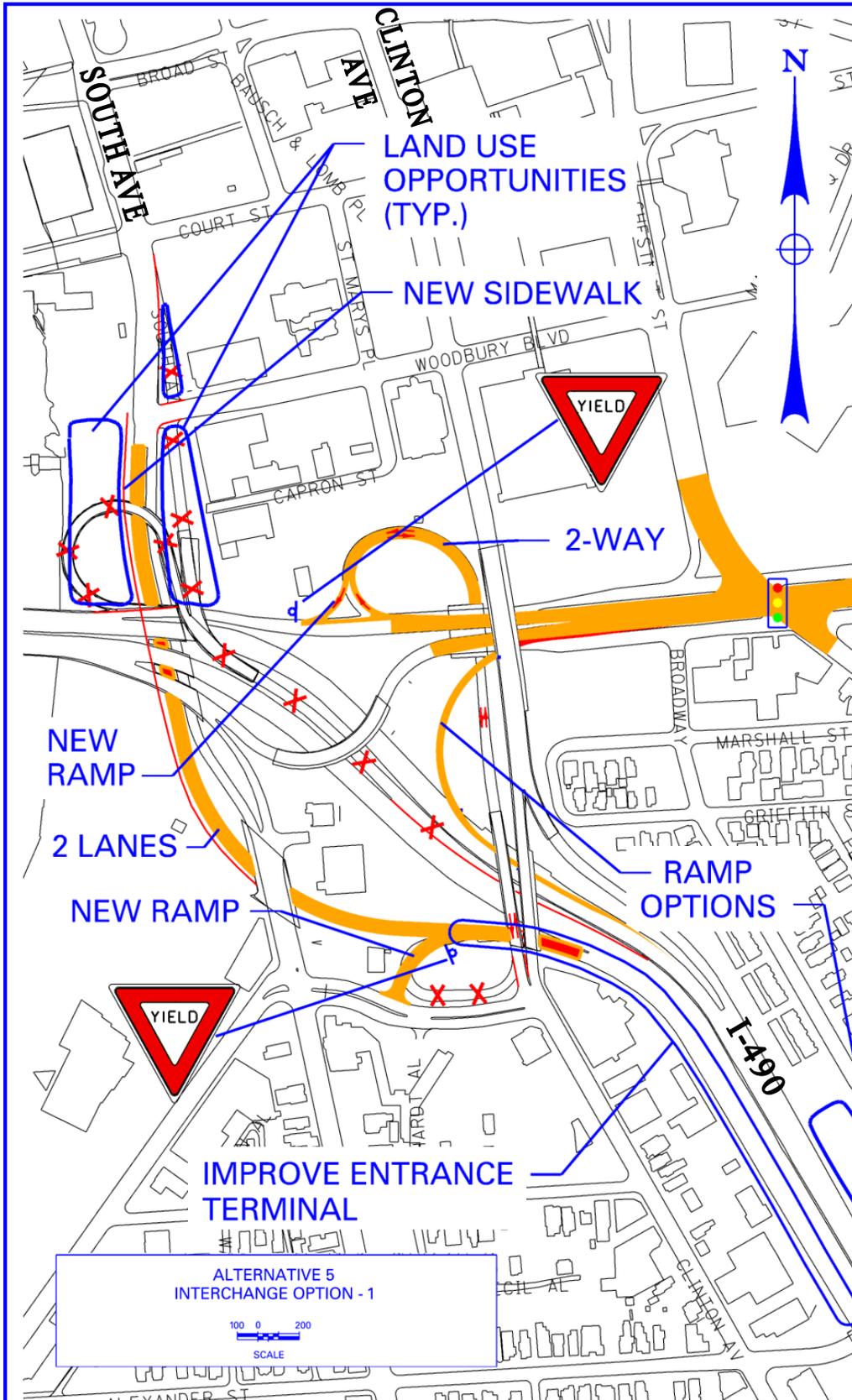
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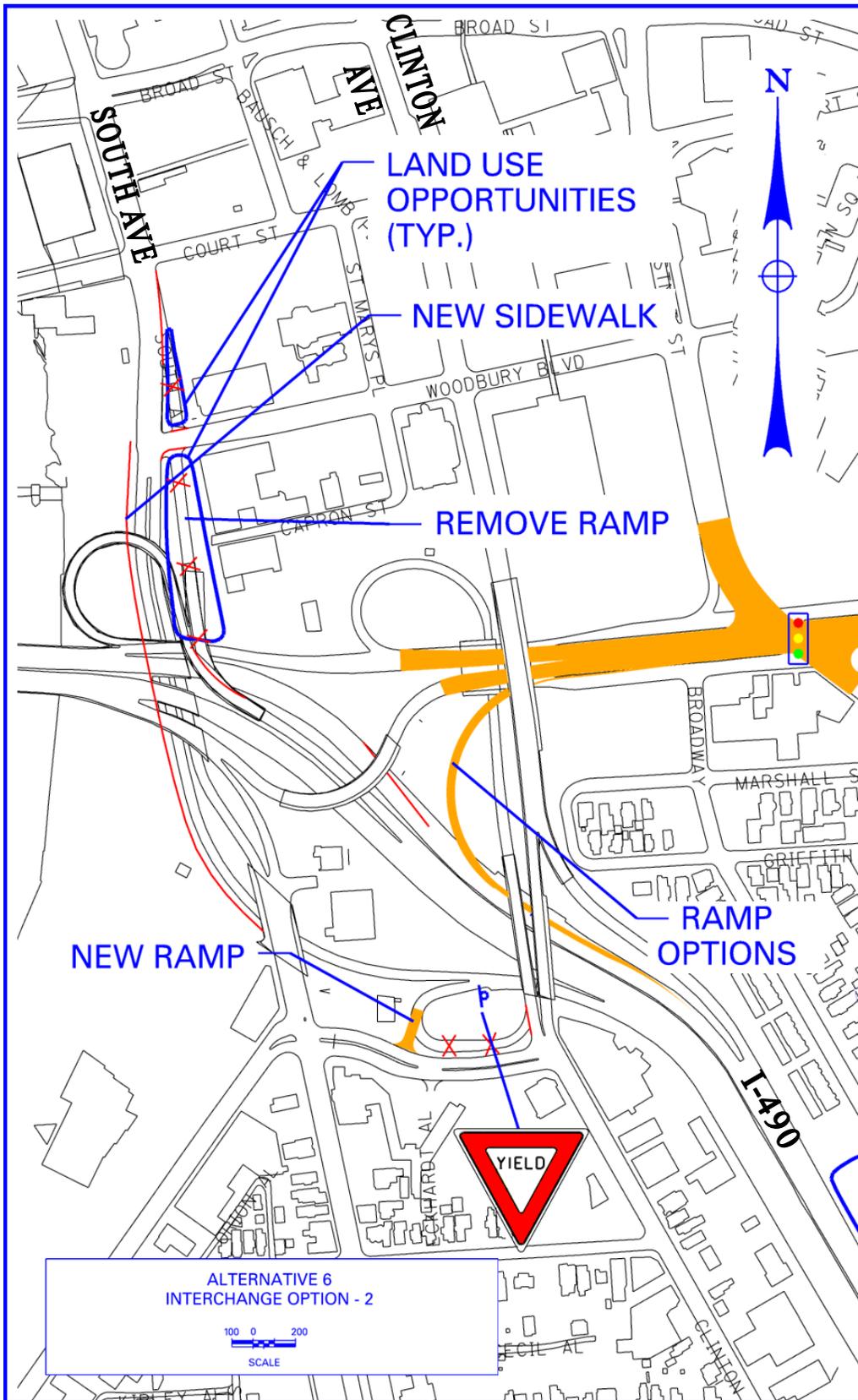
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# ALTERNATIVE 5





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	<b>Alt #1</b>	<b>Alt #2</b>	<b>Alt #3</b>
<b>Area of New Land</b>	<b>886,119 Sq Ft</b>	<b>671,759 Sq Ft</b>	<b>716,143 Sq Ft</b>
Commercial	132,704 Sq Ft	92,580 Sq Ft	140,206 Sq Ft
Commercial and/or Residential	360,444 Sq Ft	172,189 Sq Ft	187,156 Sq Ft
Residential	157,366 Sq Ft	203,790 Sq Ft	198,849 Sq Ft
Open Space	235,605 Sq Ft	203,200 Sq Ft	189,932 Sq Ft
<b>Neighborhood and Environment</b>			
East of Main Street	<p><b>+++</b></p> <p>Improves link between residential area and area within Loop</p> <p>Conventional street frontage on Lyndhurst St on new Boulevard</p> <p>Potential commercial at key intersections</p>	<p><b>++</b></p> <p>Improves Lyndhurst St. Neighborhood</p> <p>Buffer near Highway</p> <p>Potential Commercial at Key intersections</p>	<p><b>+</b></p> <p>Improves Lyndhurst St. Neighborhood</p> <p>Buffer near Highway</p> <p>Potential Commercial at Key intersections</p>
South of Main Street	<p><b>+++</b></p> <p>Continuous frontage on new Boulevard</p> <p>Adds Buffer to adjacent Neighborhood</p> <p>Reinforces reinvestment in East Ave. area</p>	<p><b>++</b></p> <p>Continuous frontage on new Boulevard</p> <p>Adds Buffer to adjacent Neighborhood</p> <p>Some Parcels still face on/off ramps</p>	<p><b>+++</b></p> <p>Continuous frontage on new Boulevard</p> <p>Adds Buffer to adjacent Neighborhood</p> <p>Reinforces reinvestment in East Ave. area</p>
<b>EVALUATION CRITERIA</b>	<b>ROCHESTER INNER LOOP IMPROVEMENT STUDY</b>		
	November 2000		
<small>Base Map Source: GIS File From TNW City Of Rochester, New York - Bureau Of Planning</small>			



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<b>Alt #4</b>		<b>Alt #5</b>	<b>Alt #6</b>
<p><b>634,246 Sq Ft</b> 104,495 Sq Ft</p> <p>310,801 Sq Ft</p> <p>148,869 Sq Ft</p> <p>70,081 Sq Ft</p>	<p><b>Area of New Land</b></p> <p>Commercial</p> <p>Commercial and/or Residential</p> <p>Residential</p> <p>Open Space</p>	<p><b>363,383 Sq Ft</b> 96,905 Sq Ft</p> <p>230,328 Sq Ft</p> <p>0 Sq Ft</p> <p>36,150 Sq Ft</p>	<p><b>333,815 Sq Ft</b> 58,266 Sq Ft</p> <p>183,990 Sq Ft</p> <p>0 Sq Ft</p> <p>91,559 Sq Ft</p>
<p><b>+++</b></p> <p>Improves link between residential area and area within Loop</p> <p>Conventional street frontage on Lyndhurst St on new Boulevard</p> <p>Potential commercial at key intersections</p> <p><b>+</b></p> <p>Continuous frontage on new Boulevard</p> <p>Adds Buffer to adjacent Neighborhood</p> <p>Reinforces reinvestment in East Ave. area</p>	<p><b>Neighborhood and Environment</b></p> <p>East of Main Street</p> <p>South of Main Street</p>	<p><b>N/A</b></p> <p><b>+++</b></p> <p>Potential expansion of development along Broadway</p> <p>Open space and potential development along waterfront</p>	<p><b>N/A</b></p> <p><b>++</b></p> <p>Potential expansion of development along Broadway</p> <p>Open space along waterfront</p>
<p><b>EVALUATION CRITERIA</b></p>	<p><b>ROCHESTER INNER LOOP IMPROVEMENT STUDY</b></p> <p>November 2000</p> <p><small>File Name: 000 File from The City of Rochester, New York - Bureau of Planning</small></p> <p></p>		



