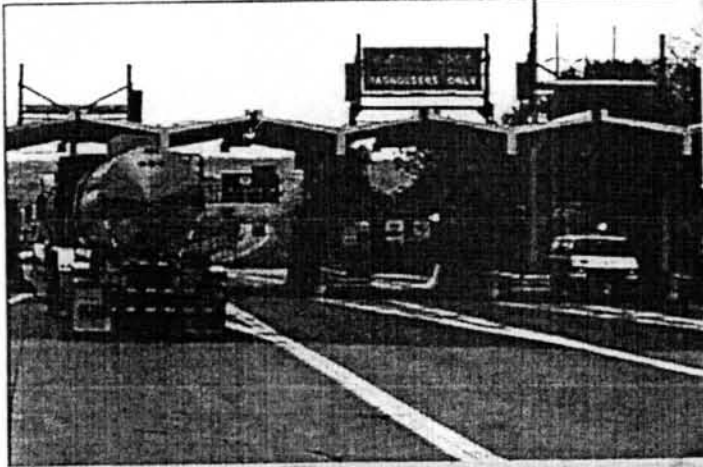


1-6-04

Thruway

Albany Corridor Study



DRAFT

Summary of Access Improvement Concepts



January 6, 2004

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Introduction

The New York State Thruway Authority has initiated a Corridor Needs Assessment in the Albany Area on the New York State Thruway. The study area extends from Interchange 21A (milepost 134) in the Town of Selkirk, Albany County to Interchange 25A (milepost 159) in the Town of Rotterdam, Schenectady County. The purpose of the study is to determine structural, safety, operational, and capacity needs on this segment of the Thruway over a 20-year period. The study will identify projects that can be implemented in the near future to address the highest priority needs within this corridor.

This document provides a brief description of the improvement concepts developed and retained for further consideration to meet the future capacity needs of the toll plazas and ramps at Interchanges 23, 24, and 25. There are currently delays at Interchanges 24 and 25 where the volume exceeds capacity. The projected volume is anticipated to exceed capacity by the year 2024 at Interchanges 23 to 25A. All of the concepts included in this document provide adequate capacity at Interchanges 23 through 25 to meet the projected traffic volumes through the design year of 2024. Concepts for Interchange 25A are not included in this document. Capacity improvements at Interchange 25A consist of providing an additional toll lane in the exiting direction, which can be completed within the existing right-of-way and without major ramp reconstruction. In summary, this document provides an overview of concepts that address capacity needs at Interchanges 23-25, but does not include all of the potential issues with these concepts or all of the needs identified in the overall corridor study.

Two mainline barrier concepts are included in this document. The mainline barrier concepts would eliminate all or part of the toll plazas at the interchanges. The mainline barrier concepts should be compared to making improvements at Interchanges 23, 24, and 25 together. Interchange improvement concepts were developed to address capacity needs at each of the interchanges separately, while mainline barrier concepts were developed to address capacity needs for all of the interchanges within the study area.

The concepts developed for each interchange were evaluated to identify engineering issues, right-of-way acquisition needs, and environmental concerns. A total of twenty-eight (28) concepts were developed for Interchange 23, fifteen (15) concepts for Interchange 24, and sixteen (16) concepts for Interchange 25. Many of the concepts developed were dismissed for the following reasons:

- Requires extensive acquisition of developed properties
- Requires extensive reconstruction of non-Thruway facilities
- Creates traffic operation issues on non-Thruway facilities
- Requires significant acquisition of ROW from the Albany Pine Bush Preserve
- Creates extensive impacts to the Albany Landfill Rapp Road Facility

The remaining concepts were developed in more detail to determine feasibility and identify engineering and environmental issues. These concepts are included in this document.

The major features, concerns and impacts of each concept are identified in this document; however, further investigation of engineering and environmental issues will be required prior to selection of a concept to address the needs of the Thruway and Capital District.

All of the concepts included in this document will be evaluated based on input from the Project Advisory Committee (PAC) members, comments from the public, and the degree to which they meet the project objectives. Concepts that best meet the project objectives will be forwarded into preliminary design and reviewed pursuant to the requirements of the State Environmental Quality Review Act (SEQRA).

Engineering and Environmental Issues

Each concept underwent a preliminary review to identify potential engineering and environmental issues. The purpose of this review was to compare identify areas that could require further investigation in subsequent stages of design.

Engineering Issues

The concepts are designed to meet the design criteria listed in Table 1. The proposed toll plaza and mainline barrier concepts are designed to meet standards developed by the Thruway to accommodate higher-speed E-ZPass lanes and overhead walkways for Thruway staff to access the toll collection booths. All of the concepts presented meet the design criteria unless otherwise stated.

Table 1
Design Criteria

Design Speed (mph)	20	25	30	35	40
Minimum Radius (ft)	115	185	275	380	510
Minimum Ramp Lane Width (ft)	14				
Minimum Shoulder Width (ft)					
Right	9				
Left	4				
Minimum Toll Lane Width (ft)	11				
Oversize Toll Lane Width (ft)	14				
Cash Toll Booth Width (ft)	10.55				
E-ZPass Lane Separation Width (ft)	7.5				
Tangent Length Prior to Taper (ft)	140				
Minimum Control Area Taper Rate	1:8				

All of the concepts presented in this document:

- Reduce delay and congestion by providing additional toll lanes at the toll plazas and longer taper distances approaching the toll plazas to meet future capacity needs.
- Improve safety by eliminating the existing left-in and left-out movements to and from the Interchange 23 and 24 tandem lots.

Costs for the individual interchange concepts and overall Albany corridor vary as follows:

- Interchange 23 concepts cost \$45 to \$55 million for construction.
- Interchange 24 concepts cost \$60 to \$95 million for construction.
- Interchange 25 concepts cost \$25 to \$50 million for construction.
- Total construction cost of improvements at all three interchanges is \$130 to \$200 million.
- Total construction cost for the Mainline Barrier concepts is \$110 to \$120 million.

The engineering issues throughout this document refer to Level of Service (LOS). LOS is a means of describing traffic operating conditions on a roadway. The traffic operations are given letter designations with "A" representing the best operating condition and "F" representing the worst. Generally, LOS "D" represents the threshold for acceptable overall operating conditions for a ramp junction or intersection.

Environmental Issues

Each improvement concept has been reviewed to identify potential, significant, environmental issues that may exist in the vicinity of the concept area. Additional environmental review and analyses will be conducted as concepts are progressed to identify all potential issues.

Based on the preliminary reviews of the corridor study, the following environmental issues may need to be analyzed; air quality, traffic noise, visual impacts, wetlands, endangered species, cultural resources, and hazardous waste. More environmental issues may be identified as concepts are progressed. The projects which may results from this corridor study will comply with appropriate federal and state environmental regulations.

Interchange 23 - Concept J1

General Description and Key Features:

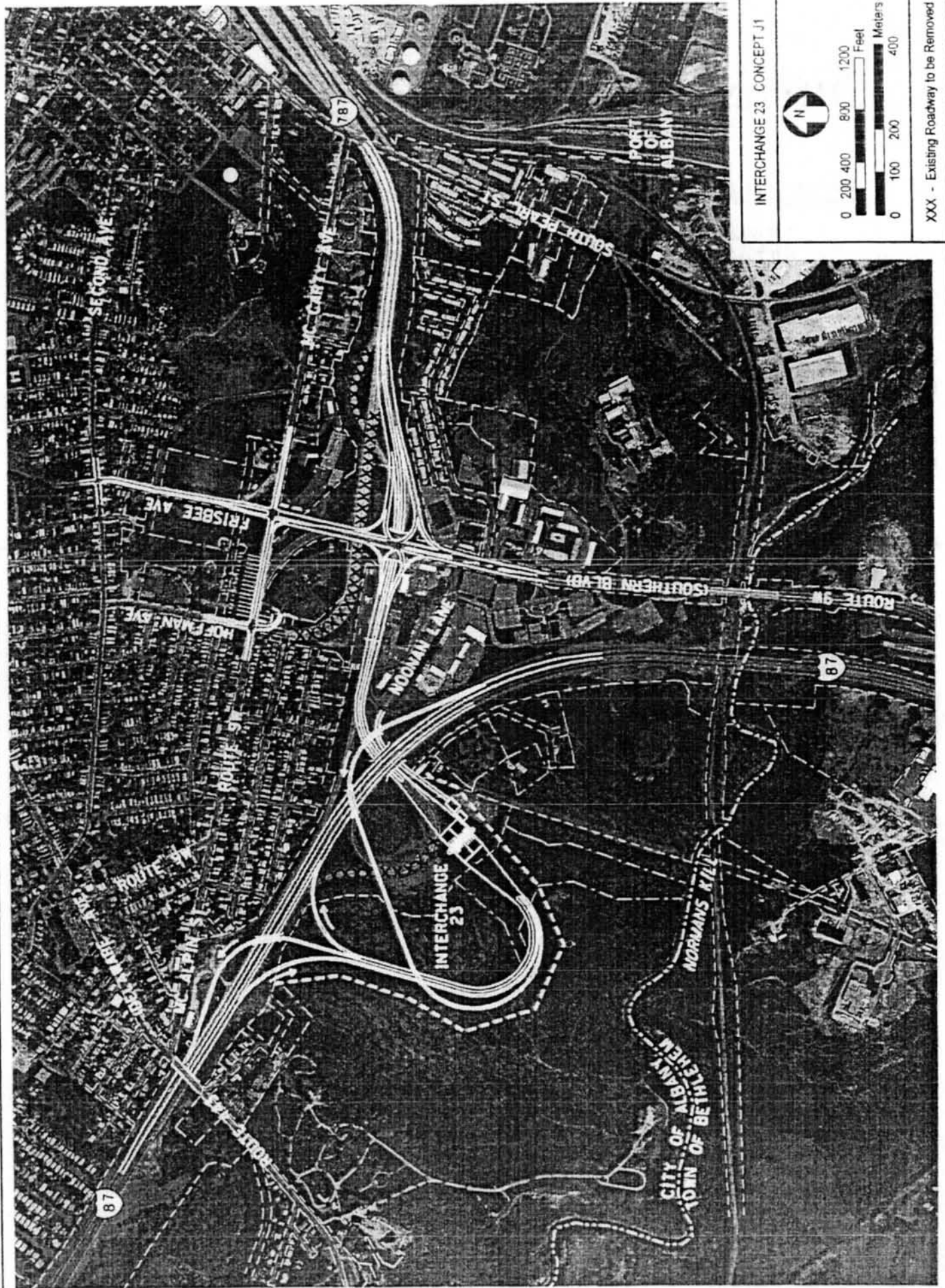
- Toll plaza relocated to southern side of Thruway mainline.
- I-787 re-aligned to provide direct access between I-787 and the Thruway toll plaza.
- Access between I-787 and Route 9W provided by a Single-Point Urban Interchange (SPUI).
- Route 9W re-aligned to form four-way intersection at McCarty Ave./Frisbee Ave.
- New toll plaza provides five (5) exiting lanes and five (5) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. Improves Thruway ramps to LOS C from LOS D and F. Improves four intersections to LOS D or better from LOS E and F.
Partial Property Acquisitions	Undeveloped land in the area of the proposed interchange and Hoffman Ave./Southern Blvd. intersection.
Full Property Acquisitions Residential Commercial Undeveloped	None identified None identified None identified
Noise Concerns	Properties south of McAlpin St., east of Delaware Ave., and on Noonan Ln.
Visual Concerns	Properties south of Southern Blvd. and McAlpin St., and east of Delaware Ave.
Ecological Concerns	Normans Kill and its tributary
Wetland Concerns	In the area of the proposed interchange

Special Considerations:

- 1-year will be required to construct new embankment and 1-year of pre-loading will be required prior to ramp pavement construction due to the existing deep clay soils south of existing Interchange 23..
- Relocation of the Interchange 23 tandem lot is required because access cannot be provided from the re-aligned I-787 mainline.
- Construction of the proposed toll plaza requires relocation of overhead electric lines that cross the existing Interchange 23 southbound ramps.



Interchange 23 - Concept J3

General Description and Key Features:

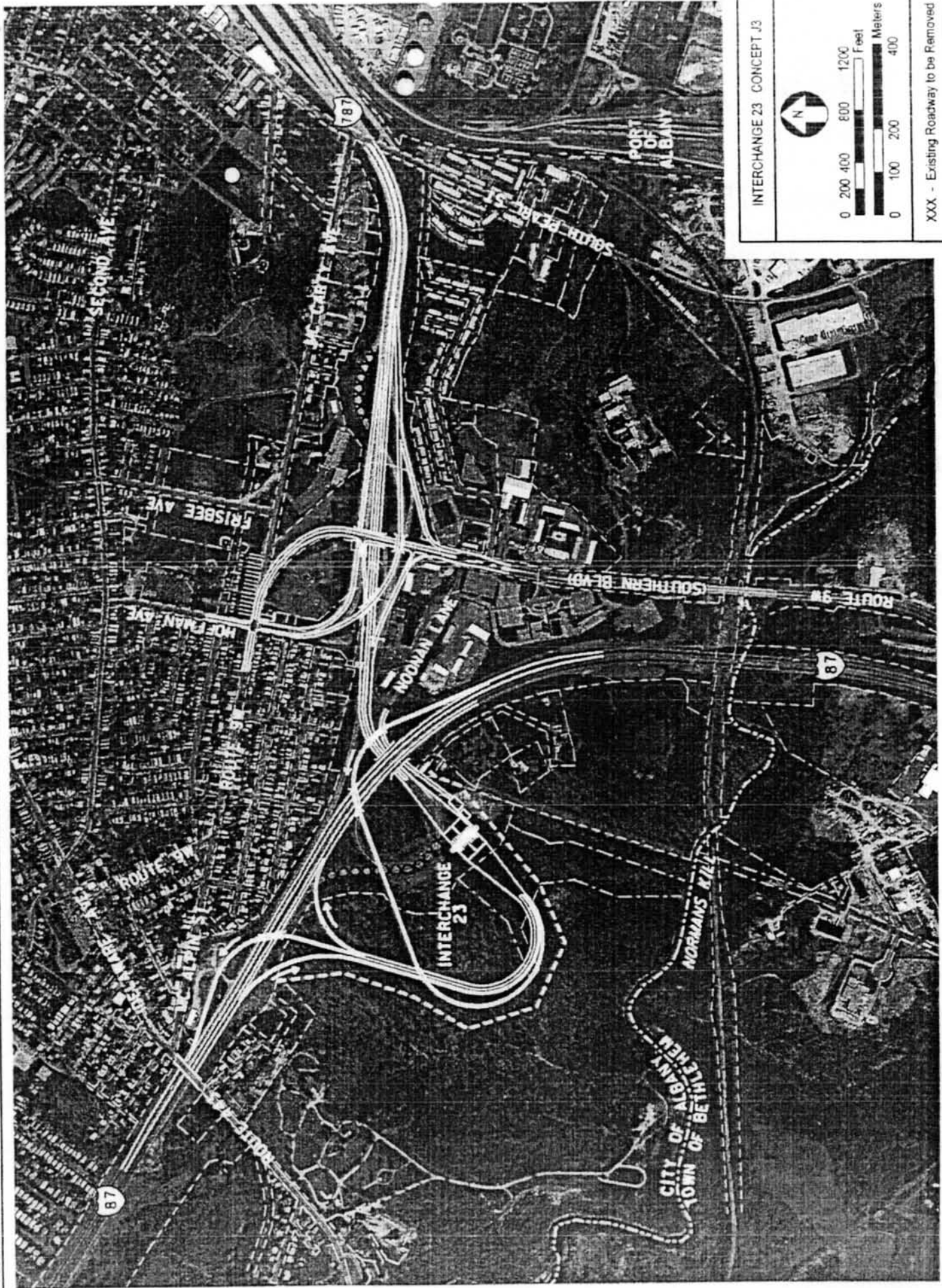
- Toll plaza relocated to southern side of Thruway mainline.
- I-787 re-aligned to provide direct access between I-787 and the Thruway toll plaza.
- Access points between the Thruway, I-787, and Route 9W remain essentially the same.
- New toll plaza provides five (5) exiting lanes and five (5) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. Improves Thruway ramps to LOS C from LOS D and F. Improves four intersections to LOS D or better from LOS E and F.
Partial Property Acquisitions	Undeveloped land in the area of the proposed interchange.
Full Property Acquisitions Residential Commercial Undeveloped	None identified None identified None identified
Noise Concerns	Properties south of McAlpin St., east of Delaware Ave., and on Noonan Ln.
Visual Concerns	Properties south of Southern Blvd. and McAlpin St., and east of Delaware Ave.
Ecological Concerns	Normans Kill and its tributary
Wetland Concerns	In the area of the proposed interchange

Special Considerations:

- 1-year will be required to construct new embankment and 1-year of pre-loading will be required prior to ramp pavement construction due to the existing deep clay soils south of existing Interchange 23.
- Relocation of the Interchange 23 tandem lot is required because access cannot be provided from the re-aligned I-787 mainline.
- Construction of the proposed toll plaza requires relocation of overhead electric lines that cross the existing Interchange 23 southbound ramps.



Interchange 24 - Concept C

General Description and Key Features:

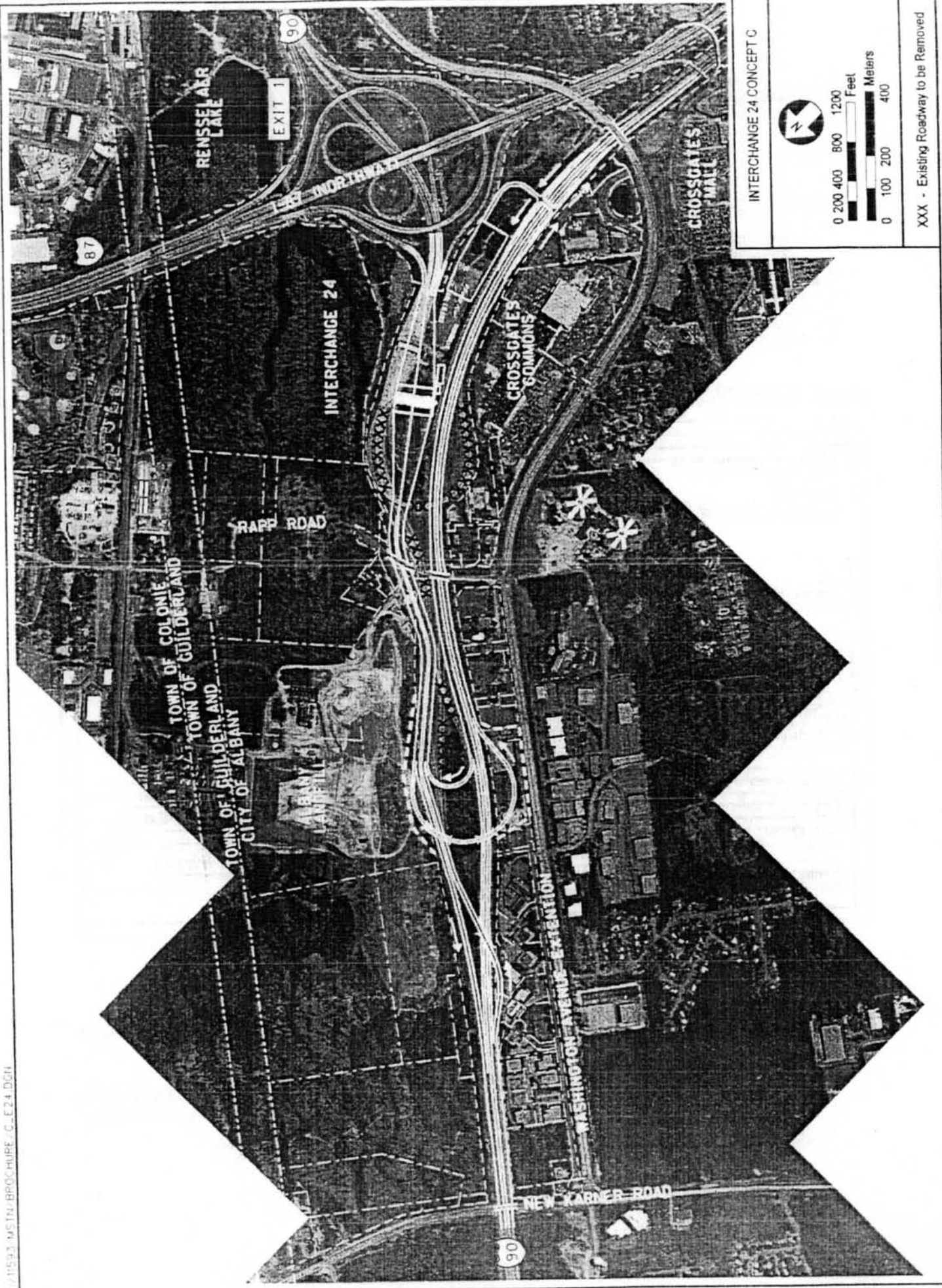
- Expansion of the toll plaza results in relocation of Thruway ramps west of Rapp Rd.
- Access to Interchange 24 tandem lot provided by a diamond interchange north of Washington Ave. Ext.
- No change to the Northway (I-87)/I-90 Exit 1 ramps.
- New toll plaza provides ten (10) exiting lanes and ten (10) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. Improves two Thruway ramps to LOS D from LOS F. Two Thruway ramps continue to operate at LOS C. Maintains LOS on Northway mainline and ramps.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Undeveloped land on both sides of Rapp Rd. • Albany Landfill Rapp Road Facility (2 buildings) • Commercial properties on Washington Ave. Ext.
Full Property Acquisitions Residential Commercial Undeveloped	<p>None identified</p> <p>3 commercial properties on Washington Ave. Ext.</p> <p>None identified</p>
Noise Concerns	Properties on Rapp Rd. and Washington Ave. Ext.
Visual Concerns	Properties on Rapp Rd. and Washington Ave. Ext.
Ecological Concerns	Potential habitat areas within the Albany Pine Bush and surrounding Rensselaer Lake and Nine Mile Waterworks.
Wetland Concerns	Rensselaer Lake and Nine Mile Waterworks. In the area of the proposed ramps and relocated tandem lot.

Special Considerations:

- Requires removal of buried solid waste and relocation of an office/maintenance building and a methane recovery building at the Albany Landfill Rapp Road facility.
- Vehicles traveling between the Thruway south of Interchange 24 and the toll plaza are required to travel an additional 0.6 miles west to the relocated ramps.
- Require closure of approximately 650 feet of the frontage road parallel to Washington Ave. Ext.



INTERCHANGE 24 CONCEPT C

0 200 400 800 1200 Feet

0 100 200 400 Meters

XXX - Existing Roadway to be Removed

Interchange 24 - Concept H

General Description and Key Features:

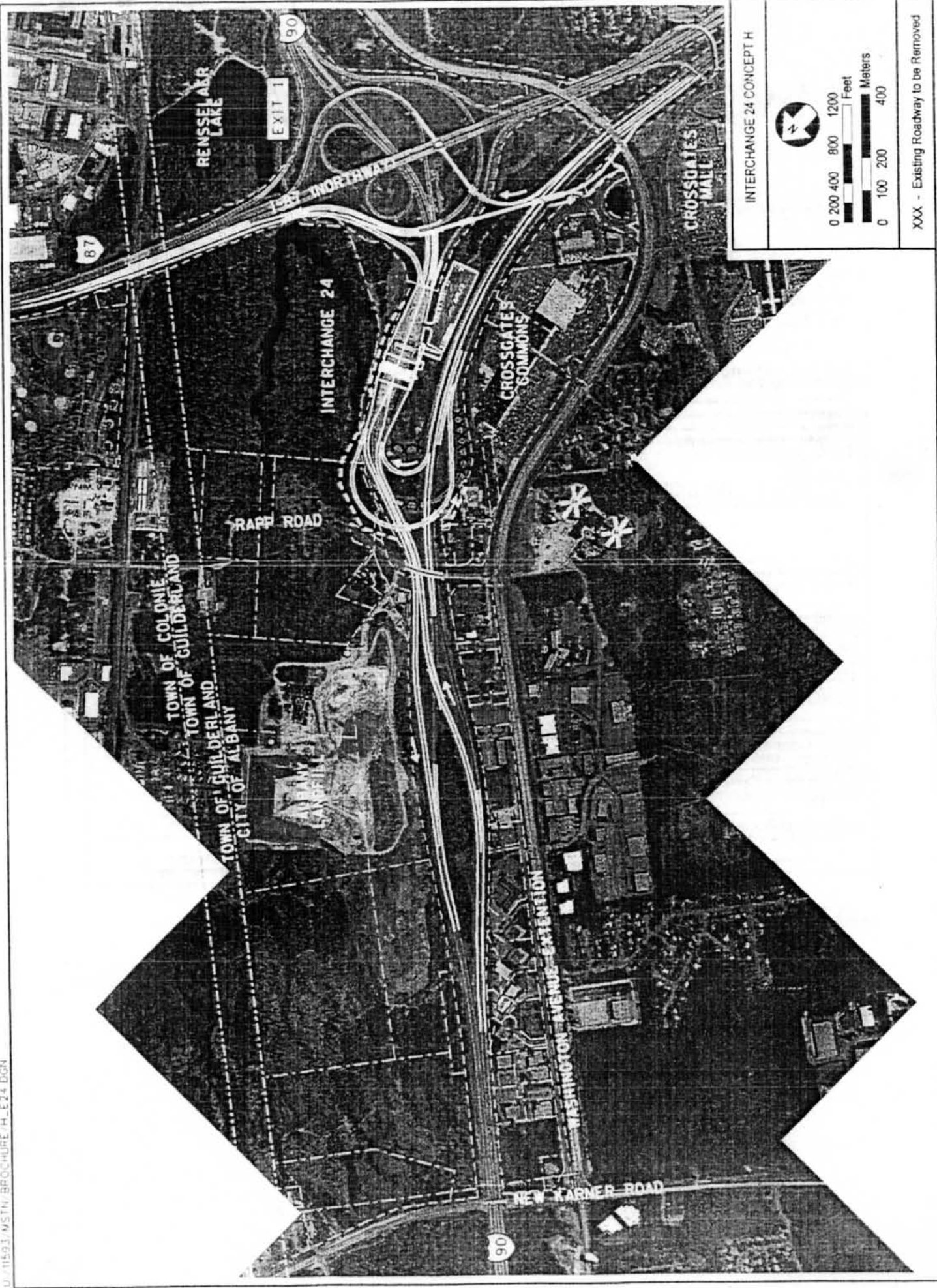
- Expansion of the toll plaza results in relocation of Thruway ramps west of their existing location.
- Access to Interchange 24 tandem lot accommodates right-in, right-out movements only.
- New E-ZPass only ramps connect the Northway southbound to the Thruway southbound and the Thruway northbound to the Northway northbound.
- New toll plaza provides nine (9) exiting lanes and nine (9) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. Improves two Thruway ramps to LOS C from LOS F. Two Thruway ramps continue to operate at LOS C. New E-ZPass ramps operate at LOS C. Maintains LOS on Northway mainline and ramps.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Commercial properties on Washington Ave. Ext. • Undeveloped land north of the existing Interchange 24 toll plaza near Rensselaer Lake and Nine Mile Waterworks.
Full Property Acquisitions Residential Commercial Undeveloped	None identified One occupied office building on Washington Ave. Ext. Undeveloped land west of Crossgates ramp to Washington Ave. Ext.
Noise Concerns	Properties on Rapp Rd. and north of Washington Ave. Ext.
Visual Concerns	Properties on Rapp Rd. and north of Washington Ave. Ext.
Ecological Concerns	Potential habitat areas within the Albany Pine Bush and surrounding Rensselaer Lake and Nine Mile Waterworks.
Wetland Concerns	Rensselaer Lake and Nine Mile Waterworks. In the area of the proposed ramps.

Special Considerations:

- The northbound E-ZPass only ramp grade exceeds 8%. The maximum grade recommended for freeway ramps is 4 to 6%.
- Access to the tandem lot would be limited to right-in and right-out movements only. Relocation of the tandem lot is required because full access cannot be provided at the reconstructed toll plaza.
- Proposed highway ramps are located within the Albany Pine Bush Preserve.



Interchange 24 - Concept J

General Description and Key Features:

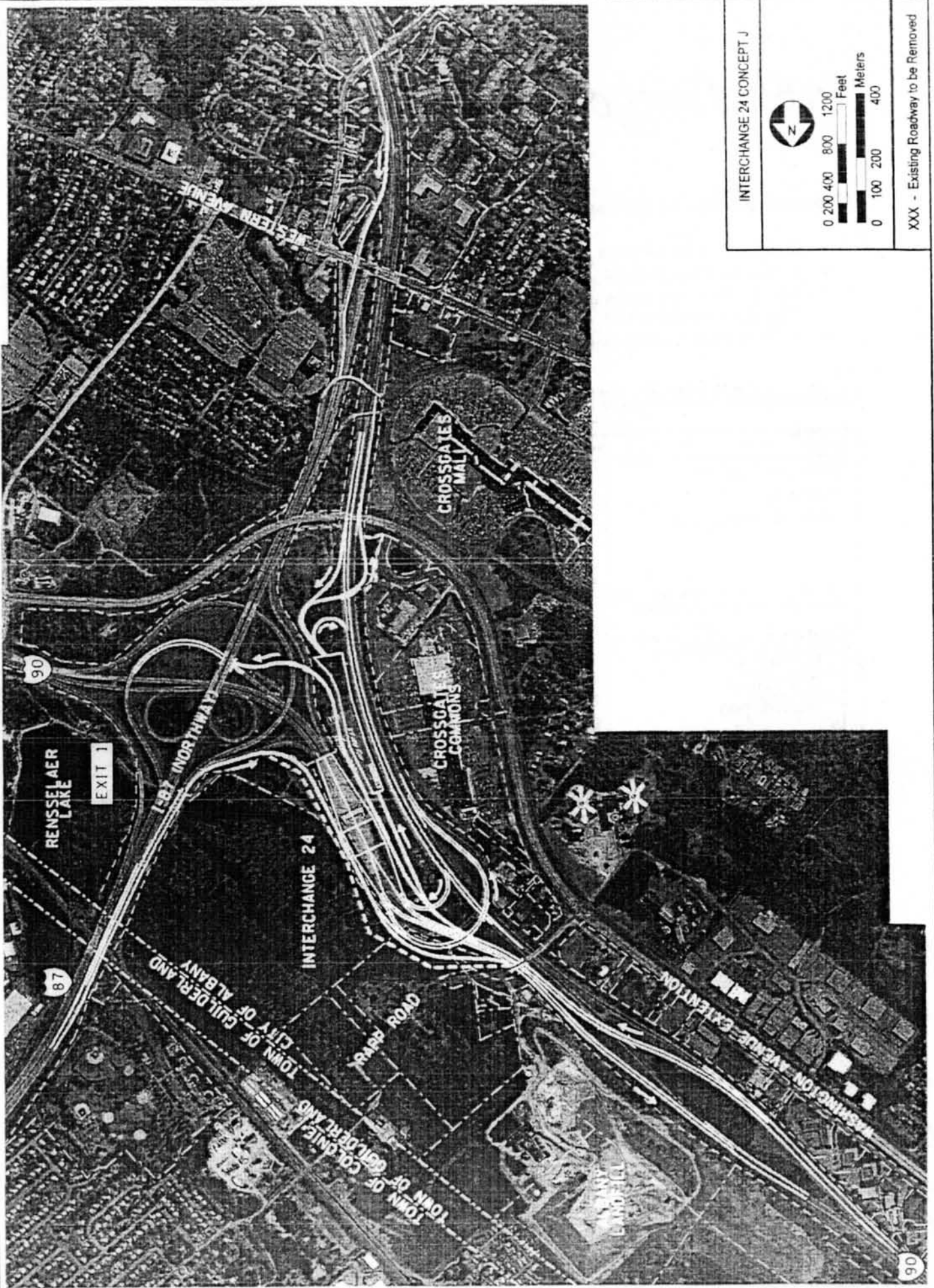
- Expansion of the toll plaza results in relocation of Thruway ramps west of their existing location.
- Access to Interchange 24 tandem lot provided by new ramps north of Washington Ave. Ext.
- New E-ZPass only ramps connect all movements between the Northway and Thruway.
- New toll plaza provides nine (9) exiting lanes and nine (9) entering lanes.

Engineering and Environmental Issues:

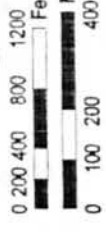
Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. Improves two Thruway ramps to LOS C from LOS F and two Thruway ramps to LOS A and B from LOS C. New E-ZPass ramps operate at LOS C. Maintains LOS on Northway mainline and ramps.
Partial Property Acquisitions	Undeveloped land north of the existing Interchange 24 toll plaza near Rensselaer Lake and Nine Mile Waterworks.
Full Property Acquisitions Residential Commercial Undeveloped	None identified None identified Undeveloped land west of Crossgates ramp to Washington Ave. Ext.
Noise Concerns	Properties on Rapp Rd. and north of Washington Ave. Ext.
Visual Concerns	Properties on Rapp Rd. and north of Washington Ave. Ext.
Ecological Concerns	Potential habitat areas within the Albany Pine Bush and surrounding Rensselaer Lake and Nine Mile Waterworks.
Wetland Concerns	Rensselaer Lake and Nine Mile Waterworks. In the area of the proposed ramps and relocated tandem lot.

Special Considerations:

- The northbound E-ZPass only ramp grade exceeds 10%. The maximum grade recommended for freeway ramps is 4 to 6%.
- Proposed highway ramps are located within the Albany Pine Bush Preserve.



INTERCHANGE 24 CONCEPT J



XXX - Existing Roadway to be Removed

Interchange 24 – Flyover Concept

General Description and Key Features:

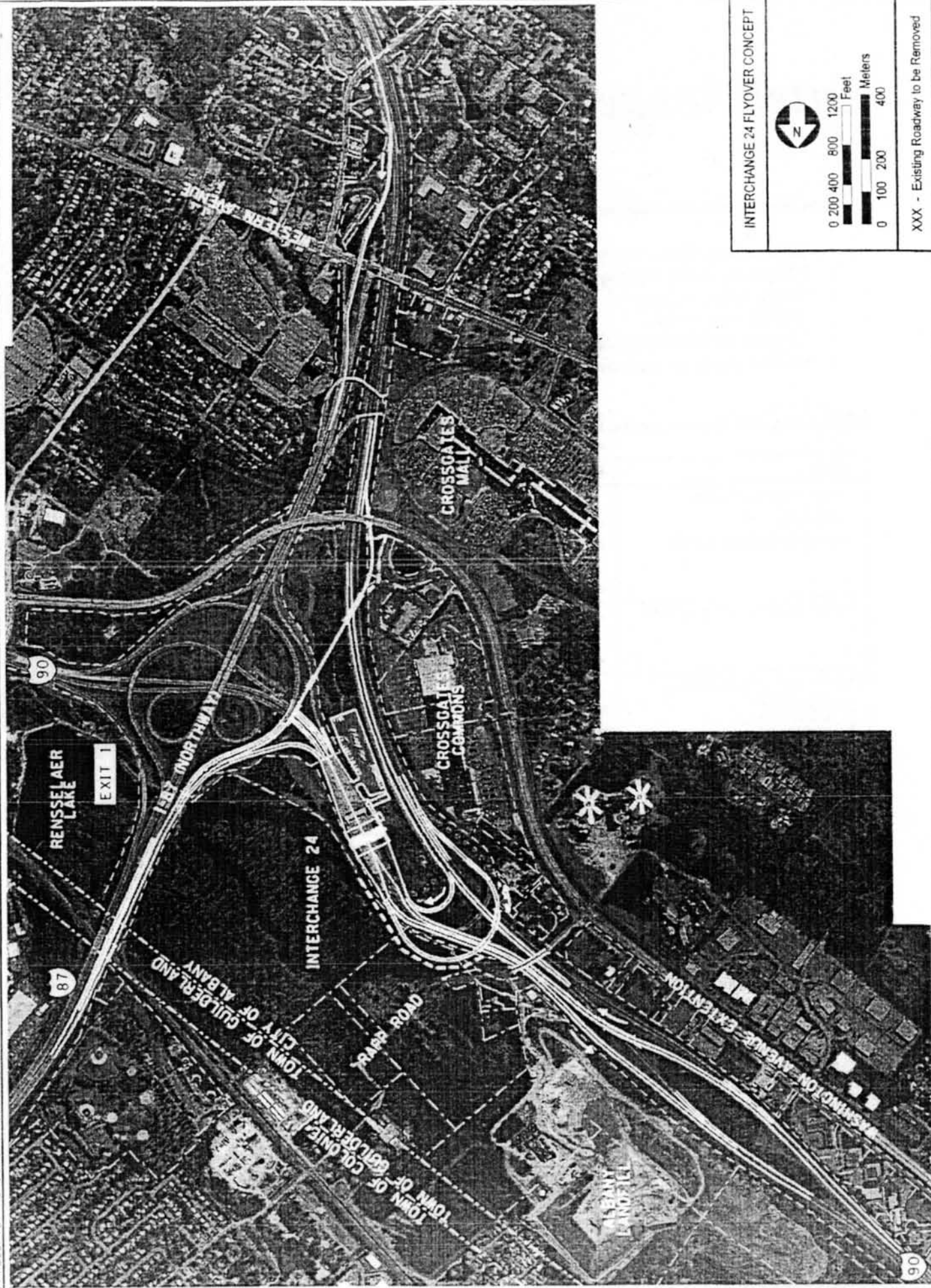
- Expansion of the toll plaza results in relocation of Thruway ramps west of their existing location.
- Access to Interchange 24 tandem lot accommodates right-in, right-out movements only.
- New E-ZPass only ramps connect the Northway southbound to the Thruway southbound and the Thruway northbound to the Northway northbound.
- New toll plaza provides nine (9) exiting lanes and nine (9) entering lanes.

Engineering and Environmental Issues:

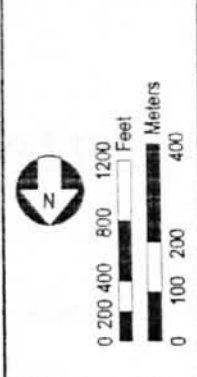
Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. Improves two Thruway ramps to LOS C from LOS F. Two Thruway ramps continue to operate at LOS C. New E-ZPass ramps operate at LOS C. Maintains LOS on Northway mainline and ramps.
Partial Property Acquisitions	Undeveloped land north of the existing Interchange 24 toll plaza near Rensselaer Lake and Nine Mile Waterworks.
Full Property Acquisitions Residential Commercial Undeveloped	None identified One occupied office building on Washington Ave. Ext. Undeveloped land west of Crossgates ramp to Washington Ave. Ext.
Noise Concerns	Properties on Rapp Rd. and north of Washington Ave. Ext.
Visual Concerns	Properties on Rapp Rd. and north of Washington Ave. Ext.
Ecological Concerns	Potential habitat areas within the Albany Pine Bush and surrounding Rensselaer Lake and Nine Mile Waterworks.
Wetland Concerns	Rensselaer Lake and Nine Mile Waterworks. In the area of the proposed ramps.

Special Considerations:

- Proposed highway ramps are located within the Albany Pine Bush Preserve.
- Access to the tandem lot would be limited to right-in and right-out movements only. Relocation of the tandem lot is required because full access cannot be provided at the reconstructed toll plaza.



INTERCHANGE 24 FLYOVER CONCEPT



XXX - Existing Roadway to be Removed

Interchange 25 - Concept F

General Description and Key Features:

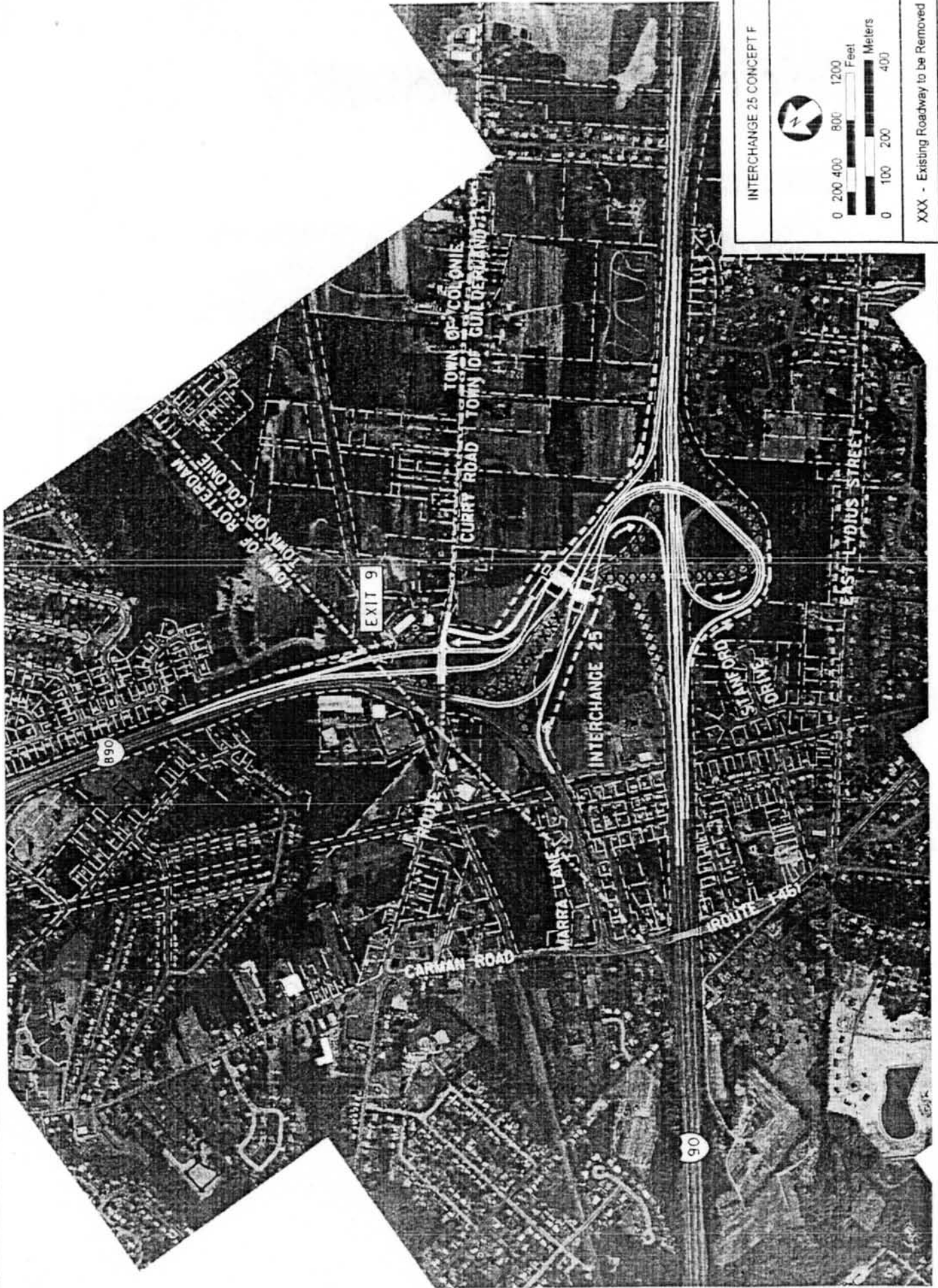
- Separate toll plazas, located side-by-side, handle exiting and entering traffic.
- I-890 re-aligned to improve access and sight distance approaching Thruway toll plaza.
- Access between Curry Rd. and I-890 westbound modified to eliminate weaving section between existing loop ramps.
- Thruway ramps reconstructed to accommodate new toll plazas.
- New toll plazas provide seven (7) exiting lanes and seven (7) entering lanes.

Engineering and Environmental Issues:

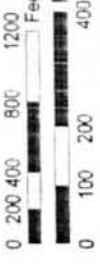
Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. All Thruway ramps continue to operate at LOS D or better. Improves Carman Road/I-890 intersection to LOS C from LOS F. All new intersections operate at LOS C or better.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Undeveloped land south of Curry Rd. in the area of the proposed ramps. • Residential property on Stanford Dr.
Full Property Acquisitions Residential Commercial Undeveloped	None identified None identified None identified
Noise Concerns	Properties on Curry Rd. and Stanford Dr.
Visual Concerns	Properties on Curry Rd. and Stanford Dr.
Ecological Concerns	None identified
Wetland Concerns	Along I-890, between Curry Rd. and Highbridge Rd.

Special Considerations:

- Construction of the proposed I-890 westbound entrance ramps and relocated I-890 mainline requires relocation of overhead electric lines that cross the I-890 mainline at the existing Curry Rd. interchange.



INTERCHANGE 25 CONCEPT F



XXX - Existing Roadway to be Removed

Interchange 25 - Concept G

General Description and Key Features:

- Separate toll plazas, located side-by-side, handle exiting and entering traffic.
- Access between Curry Rd. and I-890 provided by new loop ramps.
- Westbound Thruway ramps reconstructed to accommodate new toll plazas.
- New toll plazas provide seven (7) exiting lanes and seven (7) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. All Thruway ramps continue to operate at LOS D or better. Improves Carman Road/I-890 intersection to LOS C from LOS F. All new intersections operate at LOS B or better.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Undeveloped land on both sides of Curry Rd. in the area of the proposed ramps. • Commercial properties on Curry Rd., west of I-890.
Full Property Acquisitions Residential Commercial Undeveloped	Residential properties on Curry Rd. in the area of the proposed ramps. One commercial property on Curry Rd. None identified
Noise Concerns	Properties on Curry Rd., Marra Ln, and Stanford Dr.
Visual Concerns	Properties on Curry Rd., Marra Ln, and Stanford Dr.
Ecological Concerns	None identified
Wetland Concerns	North of Curry Rd., east of I-890.

Special Considerations:

- Construction of the proposed I-890 westbound entrance ramps and relocated I-890 mainline requires relocation of overhead electric lines that cross the I-890 mainline at the existing Curry Rd. interchange.



Interchange 25 - Concept H

General Description and Key Features:

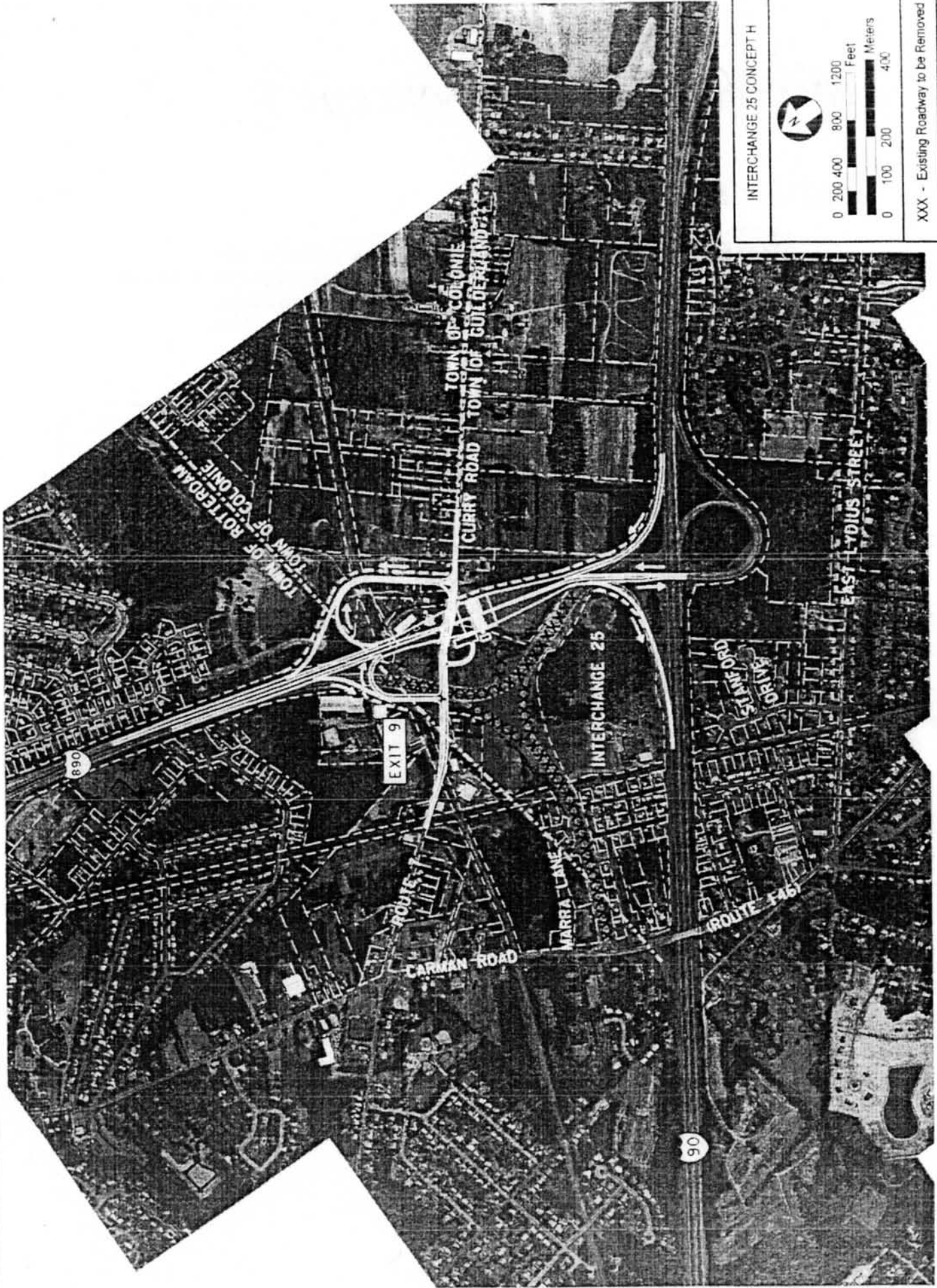
- Expansion of toll plaza results in relocation of ramps between I-890 and Curry Rd.
- Westbound Thruway ramps reconstructed to accommodate new toll plaza.
- New toll plaza provides seven (7) exiting lanes and seven (7) entering lanes.

Engineering and Environmental Issues:

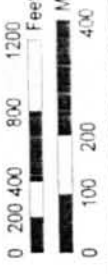
Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. All Thruway ramps continue to operate at LOS D or better. Removes Carman Road/I-890 intersection. All new intersections operate at LOS C or better.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Undeveloped land on both sides of Curry Rd. in the area of the proposed ramps. • Commercial properties on Curry Rd., in the area of the proposed ramps. • Residential properties on Dianne Ct.
Full Property Acquisitions Residential Commercial Undeveloped	Residential properties on Curry Rd. and Dianne Ct. in the area of the proposed ramps. One commercial property on Curry Rd. None identified
Noise Concerns	Properties on Curry Rd. and Dianne Ct.
Visual Concerns	Properties on Curry Rd. and Dianne Ct.
Ecological Concerns	None identified
Wetland Concerns	North of Curry Rd., east of I-890.

Special Considerations:

- Construction of the proposed I-890 westbound entrance ramps and relocated I-890 mainline requires relocation of overhead electric lines that cross the I-890 mainline at the existing Curry Rd. interchange.
- Eliminates existing ramps from I-890 to Carman Rd. and from Carman Rd. to the Thruway toll plaza.



INTERCHANGE 25 CONCEPT H



XXX - Existing Roadway to be Removed

Interchange 25 - Concept J

General Description and Key Features:

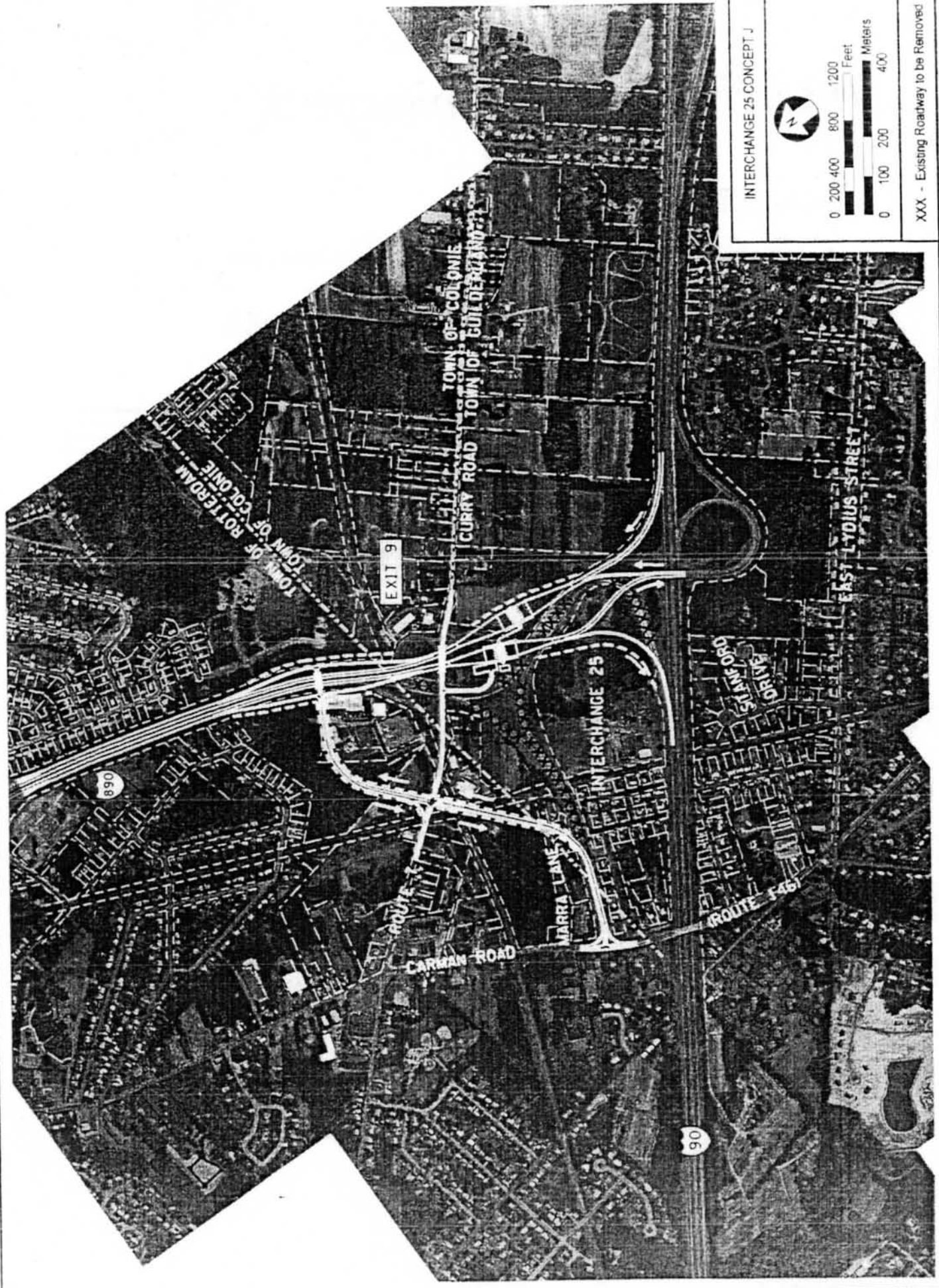
- Separate toll plazas, located side-by-side, handle exiting and entering traffic.
- Access between Curry Rd. and I-890 provided by diamond interchange north of Curry Rd.
- Westbound Thruway ramps reconstructed to accommodate new toll plazas.
- New toll plazas provide seven (7) exiting lanes and seven (7) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. All Thruway ramps continue to operate at LOS D or better. Improves Carman Road/I-890 intersection to LOS B from LOS F. All new intersections operate at LOS D or better.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Undeveloped land on both sides of Curry Rd. in the area of the proposed ramps. • Commercial properties on Curry Rd., in the area of the proposed ramps. • Residential properties on Dianne Ct.
Full Property Acquisitions Residential Commercial Undeveloped	Residential properties on Marra Ln in the area of the proposed ramps. None identified None identified
Noise Concerns	Properties on Curry Rd., Dianne Ct., and Marra Ln.
Visual Concerns	Properties on Curry Rd., Dianne Ct., and Marra Ln.
Ecological Concerns	None identified
Wetland Concerns	Along I-890, between Curry Rd. and Highbridge Rd. North of Curry Rd., east of I-890.

Special Considerations:

- Construction of the proposed I-890 westbound entrance ramps and relocated I-890 mainline requires relocation of overhead electric lines that cross the I-890 mainline at the existing Curry Rd. interchange.



XXX - Existing Roadway to be Removed

Interchange 25 - Concept K

General Description and Key Features:

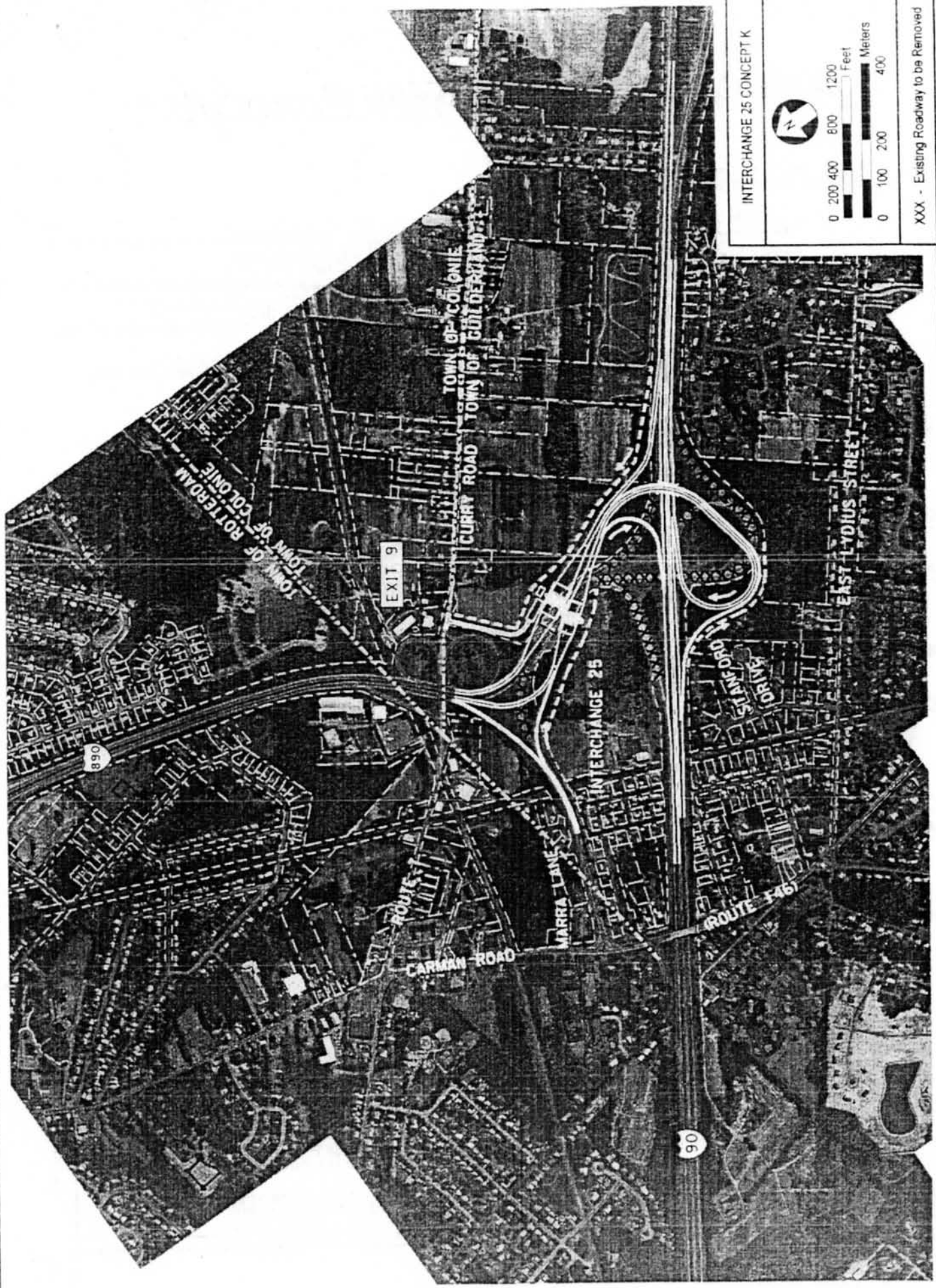
- Separate toll plazas, located side-by-side, handle exiting and entering traffic.
- No change in access between Curry Rd. and I-890.
- Thruway ramps reconstructed to accommodate new toll plazas.
- New toll plazas provide seven (7) exiting lanes and seven (7) entering lanes.

Engineering and Environmental Issues:

Issue	Benefits and Concerns
Traffic Improvements Capacity Level-of-Service (LOS)	Provides adequate capacity at toll plaza. All Thruway ramps continue to operate at LOS D or better. Improves Carman Road/I-890 intersection to LOS C from LOS F. All new intersections operate at LOS B or better.
Partial Property Acquisitions	<ul style="list-style-type: none"> • Undeveloped land south of Curry Rd. in the area of the proposed ramps. • Residential properties on Stanford Dr.
Full Property Acquisitions Residential Commercial Undeveloped	<p>None identified</p> <p>None identified</p> <p>None identified</p>
Noise Concerns	Properties on Curry Rd. and Stanford Dr.
Visual Concerns	Properties on Curry Rd. and Stanford Dr.
Ecological Concerns	None identified
Wetland Concerns	None identified

Special Considerations:

- No special considerations were identified for this concept.



Two Mainline Barrier Concept

General Description and Key Features:

- Two toll collection barriers located on the Thruway mainline. Mainline Barrier 1 is located south of Interchange 23, and Mainline Barrier 2 is located west of Interchange 25A.
- Toll booths located on the Interchange 23 southbound exit ramp and Interchange 25 westbound exit ramp only. The remaining movements between Interchange 23 and 25A are toll free.
- The Mainline Barriers and toll plazas at Interchanges 23 and 25 include highway-speed E-ZPass lanes.
- The existing toll plazas and pavement are removed and reconstructed into mainline and ramp pavement at Interchanges 23 to 25A.

Engineering and Environmental Issues:

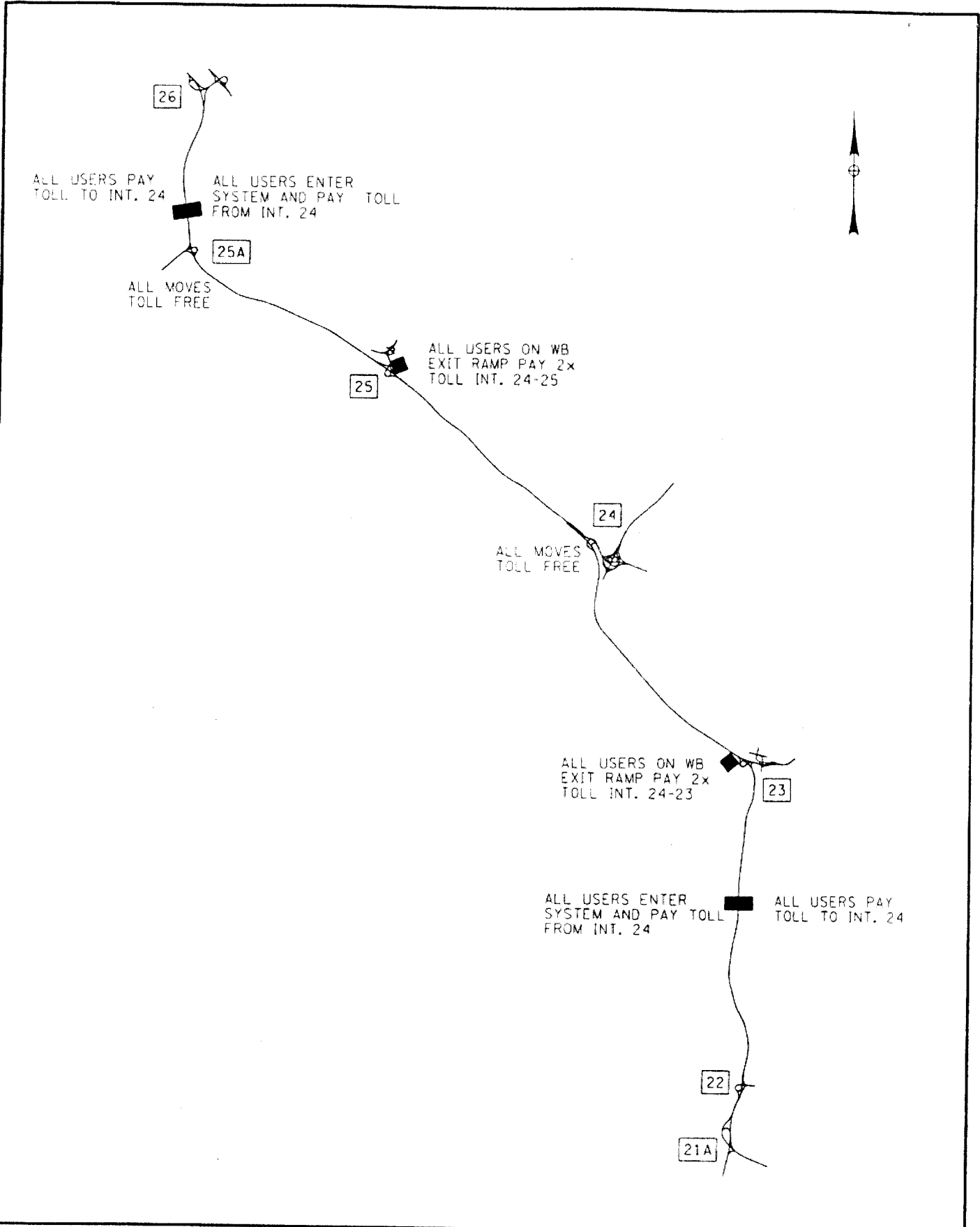
Issue	Benefits and Concerns
<p>Traffic Improvements Capacity</p> <p>Level-of-Service (LOS)</p>	<p>Provides adequate capacity at mainline barriers and toll plazas. The addition of highway-speed E-ZPass lanes through the mainline barriers would improve traffic flow through the area.</p> <p>Toll plaza ramps at mainline barriers operate at LOS C or better. Interchange weaves between Thruway ramps and non-Thruway facilities operate at LOS D or better.</p>
<p>Partial Property Acquisitions</p>	<ul style="list-style-type: none"> • Five residential properties between Glenmont Rd. and Wemple Rd. (Mainline Barrier 1). • Undeveloped land south of the existing Interchange 23 ramps. (Interchange 23 toll plaza) • Four commercial properties on Washington Ave. Ext. (Interchange 24). • Albany Pine Bush, Rensselaer Lake and Nine Mile Waterworks east of Rapp Rd. (Interchange 24). • Three residential properties south of Curry Rd. (Interchange 25 toll plaza). • Two residential properties between Mariaville Rd. and Putnam Rd. (Mainline Barrier 2).
<p>Full Property Acquisitions</p> <p>Residential</p> <p>Commercial</p> <p>Other</p>	<p>None identified</p> <p>One office building on Washington Ave. Ext.</p> <p>None identified</p>
<p>Noise Concerns</p>	<p>Highway-speed E-ZPass would reduce traffic congestion and the overall noise associated with a toll barrier. The following locations have potential noise concerns:</p> <ul style="list-style-type: none"> • Properties on Rapp Rd. and Washington Ave. Ext. (Interchange 24). • Properties west of Schoolhouse Rd. near Western Ave. (Interchange 24). • Properties south of Curry Rd. (Interchange 25). • Properties on Putnam Rd. (Mainline Barrier 2).

Two Mainline Barrier Concept

Issue	Benefits and Concerns
Visual Concerns	<ul style="list-style-type: none"> • Properties on Rapp Rd. and commercial properties on Washington Ave. Ext. (Interchange 24). • Properties west of Schoolhouse Rd. (Interchange 24). • Properties south of Curry Rd. (Interchange 25). • Properties on Putnam Rd. (Mainline Barrier 2).
Ecological Concerns	<ul style="list-style-type: none"> • Normans Kill and its tributary (Interchange 23). • Potential habitat areas within the Albany Pine Bush and surrounding Rensselaer Lake and Nine Mile Waterworks (Interchange 24).
Wetland Concerns	<ul style="list-style-type: none"> • In the area of the proposed ramp at Interchange 23. • Rensselaer Lake and Nine Mile Waterworks (Interchange 24). • In the area of the proposed ramps at Interchange 24.

Special Considerations:

- Proposed Fee Structure (Note: Some tolls in the Albany Corridor may need to be adjusted to compensate for diversions. The Authority's Bond Consultant will investigate this.):
 - Northbound/Westbound
 - All customers leave the ticketed system at Mainline Barrier 1 and pay the toll to Interchange 24.
 - All customers exiting the Thruway westbound at Interchange 25 pay twice the toll between Interchanges 24 and 25.
 - All customers enter the ticketed system at Mainline Barrier 2 and pay a toll as if entering the system at Interchange 24.
 - All other movements at Interchanges 23, 24, 25, and 25A are free.
 - Southbound/Eastbound
 - All customers leave the ticketed system at Mainline Barrier 2 and pay the toll to Interchange 24.
 - All customers exiting the Thruway southbound at Interchange 23 pay twice the toll between Interchanges 23 and 24.
 - All customers enter the ticketed system at Mainline Barrier 1 and pay a toll as if entering the system at Interchange 24.
 - All other movements at Interchanges 23, 24, 25, and 25A are free.
- This concept conflicts with federal law which requires free passage for vehicles traveling between I-890 at Interchange 26 and I-88 at Interchange 25A. Federal legislation would be required to address the toll-free access to I-88 issue.
- This Barrier Concept is not consistent with the Thruway Bond Resolution. The Resolution is a binding contract between the Thruway Authority and the purchasers of its bonds and cannot be amended without the consent of a majority of the bondholders and approval of the Thruway Board.
- Removal of the existing toll plazas at Interchanges 23, 24, 25, and 25A requires reconstruction of the toll plaza area into mainline and ramp pavement. As a result of removing the toll plazas, weaving sections are created between the Thruway ramps and state and local roadways. Additional length is required at Interchange 24 and 25 to provide enough weaving distance for the traffic volumes.



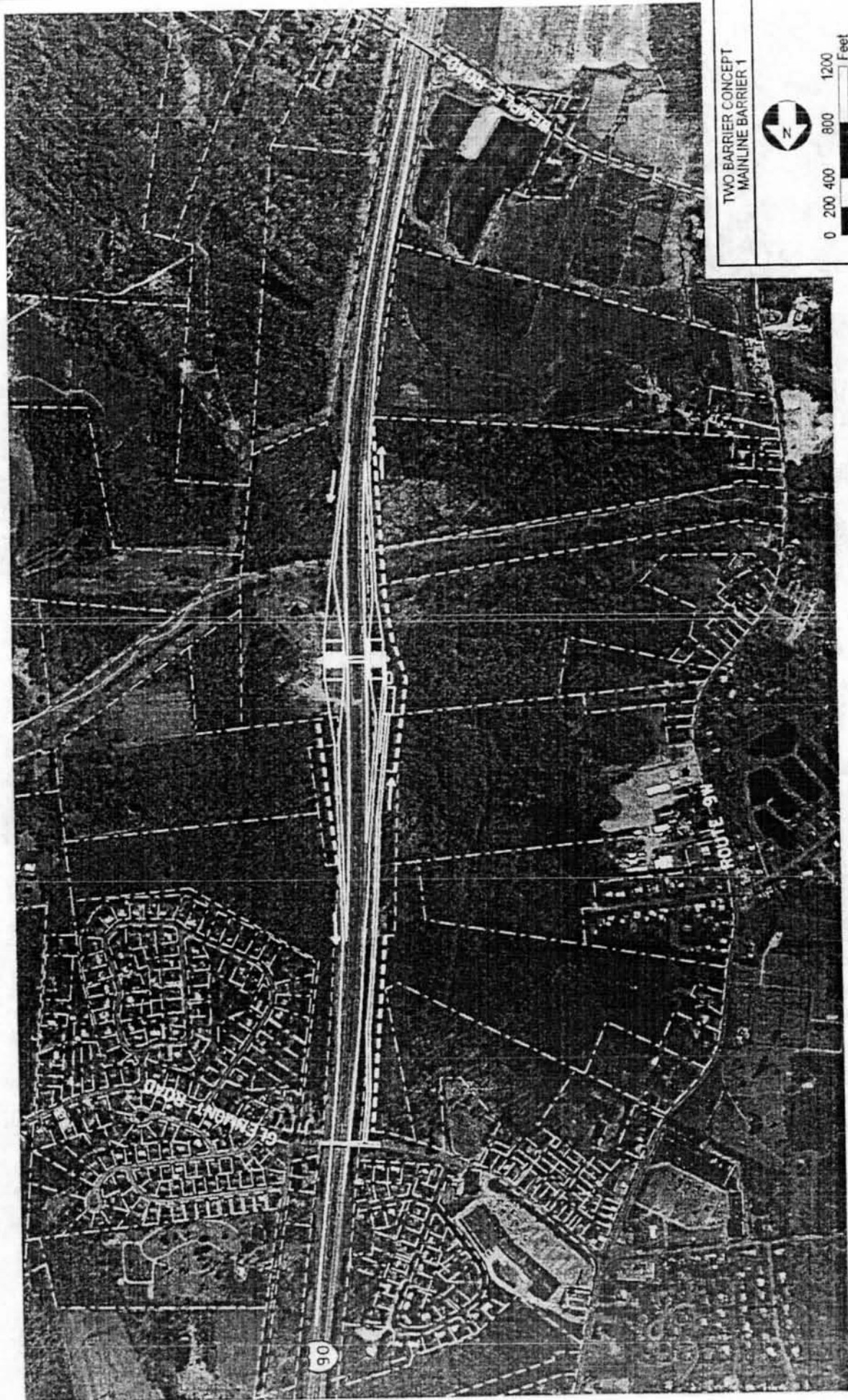
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TWO BARRIER CONCEPT

NYS THRUWAY ALBANY CORRIDOR STUDY
 MAINLINE BARRIER CONCEPTS

PROJECT NO. 11593 FIGURE IV-A



TWO BARRIER CONCEPT
MAINLINE BARRIER 1



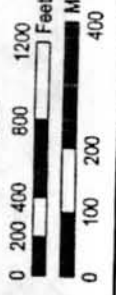
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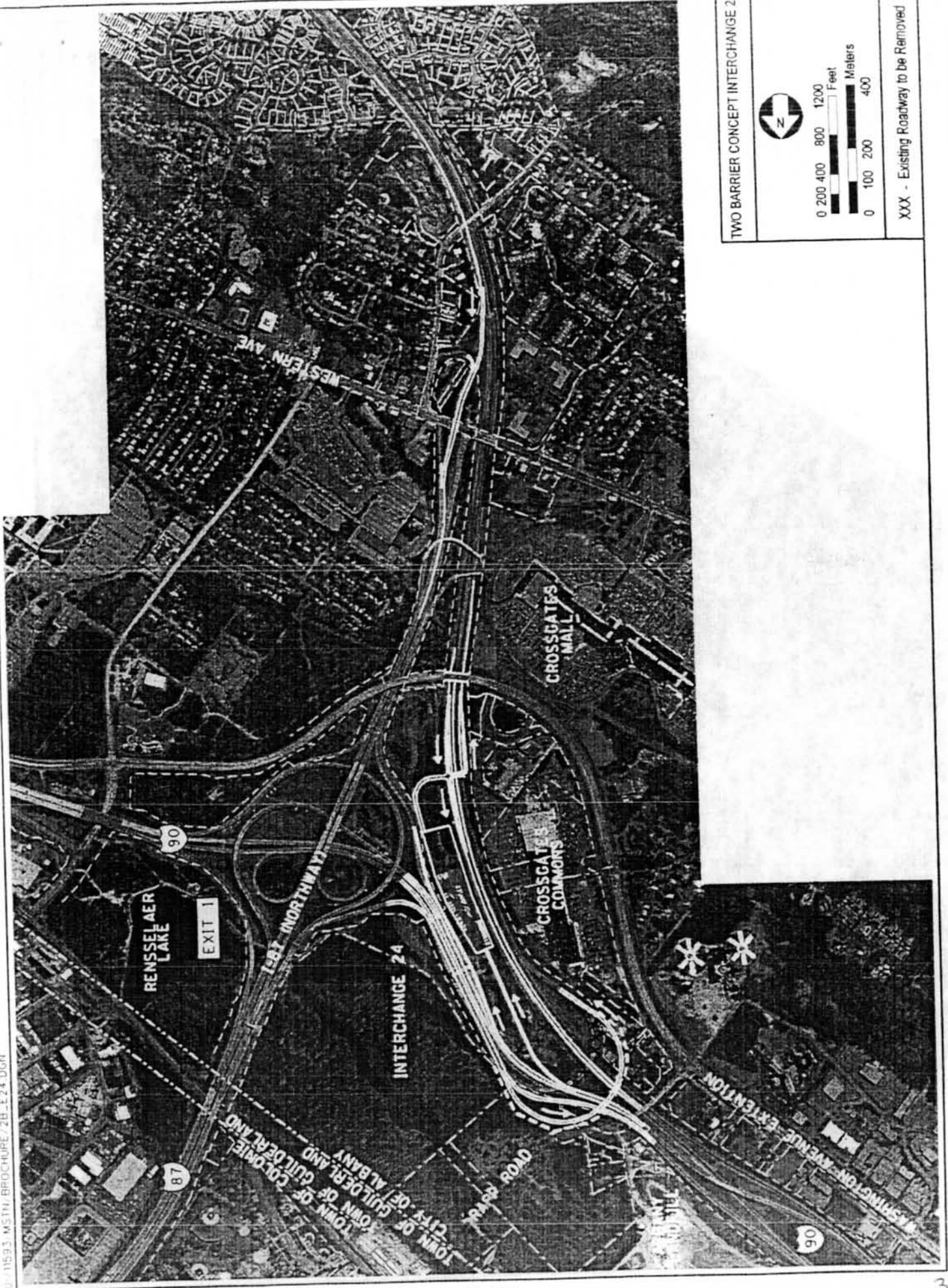
XXX - Existing Roadway to be Removed



TWO BARRIER CONCEPT INTERCHANGE 23



XXX - Existing Roadway to be Removed



TWO BARRIER CONCEPT INTERCHANGE 24



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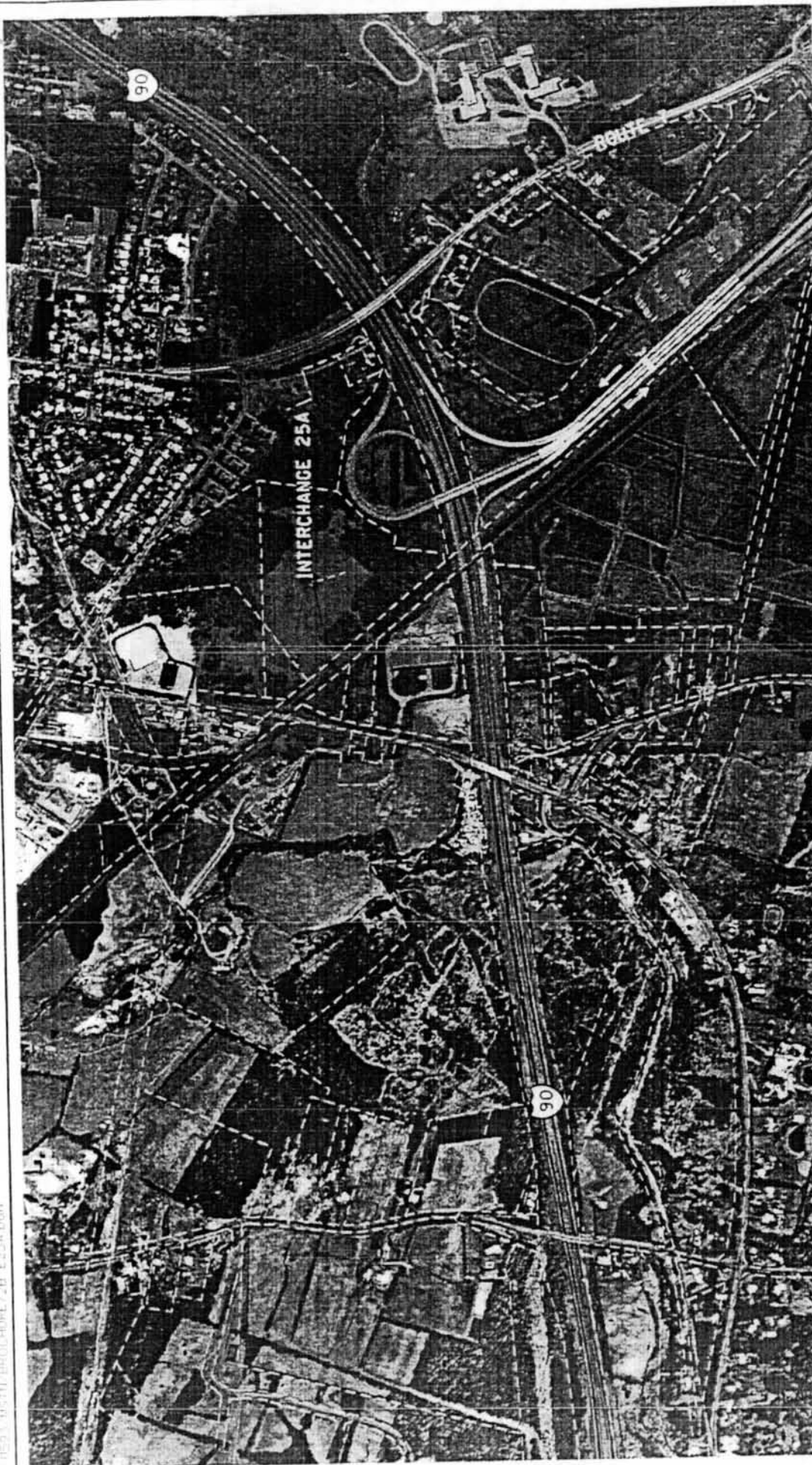
XXX - Existing Roadway to be Removed



TWO BARRIER CONCEPT INTERCHANGE 25



XXX - Existing Roadway to be Removed



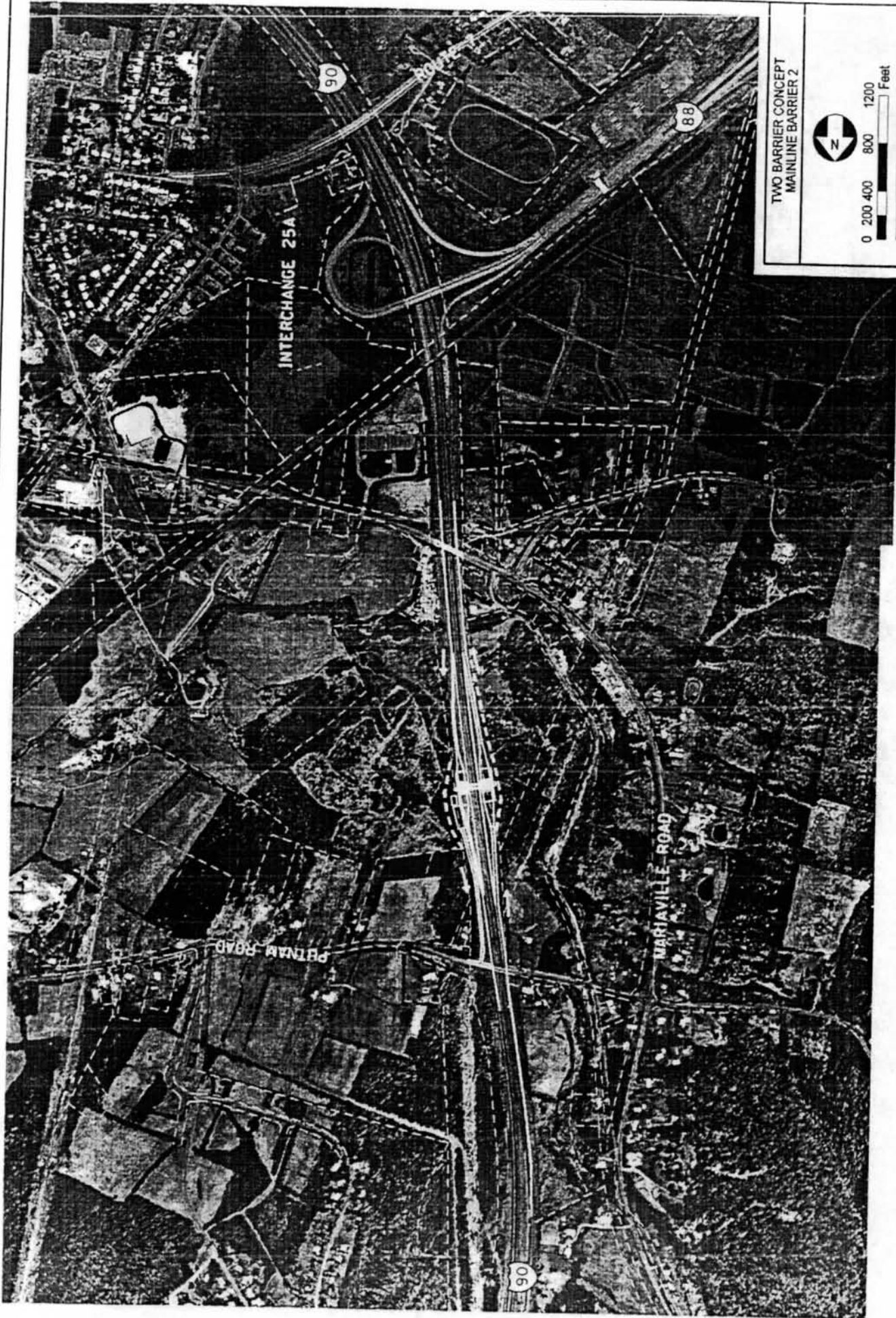
TWO BARRIER CONCEPT
INTERCHANGE 25A



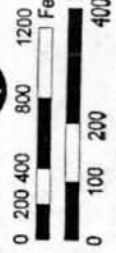
0 200 400 800 1200 Feet

0 100 200 400 Meters

XXX - Existing Roadway to be Removed



TWO BARRIER CONCEPT
MAINLINE BARRIER 2



XXX - Existing Roadway to be Removed

Four Mainline Barrier Concept

General Description and Key Features:

- Four toll collection barriers located on the Thruway mainline. Mainline Barrier 1 is located south of Interchange 23, Mainline Barrier 2 is located between Interchanges 23 and 24 in the southbound direction only, Mainline Barrier 3 is located between Interchanges 24 and 25 in the westbound direction only, and Mainline Barrier 4 is located west of Interchange 25A.
- No tolls booths are located at Interchanges 23, 24, 25, or 25A.
- Highway-speed E-ZPass lanes located at the Mainline Barriers.
- The existing toll plazas and pavement are removed and reconstructed into mainline and ramp pavement at Interchanges 23 to 25A.

Engineering and Environmental Issues:

Description	Benefits and Concerns
<p>Traffic Improvements</p> <p>Capacity</p> <p>Level-of-Service (LOS)</p>	<p>Provides adequate capacity at mainline barriers.</p> <p>The addition of highway-speed E-ZPass lanes through the mainline barriers would improve traffic flow through the area.</p> <p>Toll plaza ramps at mainline barriers operate at LOS C or better. Interchange weaves between Thruway ramps and non-Thruway facilities operate at LOS D or better.</p>
<p>Partial Property Acquisitions</p>	<ul style="list-style-type: none"> • Five residential properties between Glenmont Rd. and Wemple Rd. (Mainline Barrier 1). • Undeveloped land, south of the Thruway mainline, between Russell Rd. and Schoolhouse Rd. (Mainline Barrier 2). • Four commercial properties on Washington Ave. Ext. (Interchange 24). • Albany Pine Bush, Rensselaer Lake and Nine Mile Waterworks east of Rapp Rd. (Interchange 24). • Undeveloped land north of the Thruway mainline, west of Old State Rd. (Mainline Barrier 3). • Two residential properties between Mariaville Rd. and Putnam Rd. (Mainline Barrier 4).
<p>Full Property Acquisitions</p> <p>Residential</p> <p>Commercial</p> <p>Other</p>	<p>None identified</p> <p>One office building on Washington Ave. Ext.</p> <p>None identified</p>
<p>Noise Concerns</p>	<p>Highway-speed E-ZPass would reduce traffic congestion and the overall noise associated with a toll barrier. The following locations have potential noise concerns:</p> <ul style="list-style-type: none"> • Properties on Russell Rd. (Mainline Barrier 2). • Properties on Rapp Rd. and Washington Ave. Ext. (Interchange 24). • Properties west of Schoolhouse Rd. near Western Ave. (Interchange 24). • Properties south of Curry Rd. (Interchange 25). • Properties on Putnam Rd. (Mainline Barrier 4).

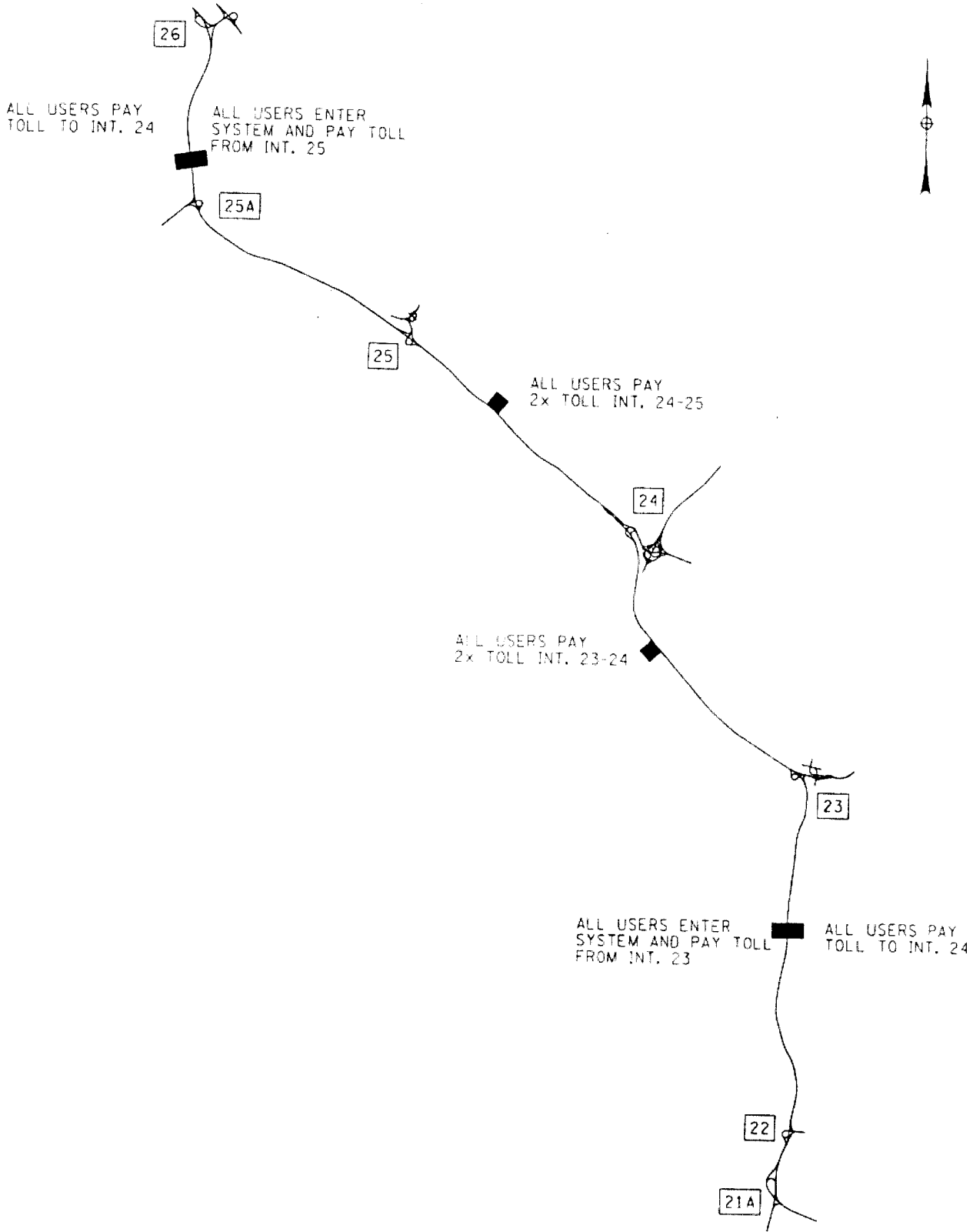
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Four Mainline Barrier Concept

Description	Benefits and Concerns
Visual Concerns	<ul style="list-style-type: none"> • Properties on Rapp Rd. and Washington Ave. Ext. (Interchange 24). • Properties west of Schoolhouse Rd. (Interchange 24). • Properties south of Curry Rd. (Interchange 25). • Properties on Putnam Rd. (Mainline Barrier 4).
Ecological Concerns	<ul style="list-style-type: none"> • Normans Kill and its tributary (Interchange 23). • Potential habitat areas within the Albany Pine Bush and surrounding Rensselaer Lake and Nine Mile Waterworks (Interchange 24).
Wetland Concerns	<ul style="list-style-type: none"> • In the area of the proposed ramps at Mainline Barrier 1. • Rensselaer Lake and Nine Mile Waterworks near Interchange 24. • In the area of the proposed ramps and tandem lot at Interchange 24. • In the area of the proposed ramps at Mainline Barrier 4.

Special Considerations:

- Proposed Fee Structure (Note: Some tolls in the Albany Corridor may need to be adjusted to compensate for diversions. The Authority's Bond Consultant will investigate this.):
 - Northbound/Westbound
 - All customers leave the ticketed system at Mainline Barrier 1 and pay the toll to Interchange 24.
 - All customers travel through Mainline Barrier 3 and pay twice the toll between Interchanges 24 and 25.
 - All customers enter the ticketed system at Mainline Barrier 4 and pay a toll as if entering the system at Interchange 25.
 - All other movements at Interchanges 23, 24, 25, and 25A are free.
 - Southbound/Eastbound
 - All customers leave the ticketed system at Mainline Barrier 4 and pay the toll to Interchange 24.
 - All customers travel through Mainline Barrier 2 and pay twice the toll between Interchanges 23 and 24.
 - All customers enter the ticketed system at Mainline Barrier 1 and pay a toll as if entering the system at Interchange 23.
 - All other movements at Interchanges 23, 24, 25, and 25A are free.
- This concept conflicts with federal law which requires free passage for vehicles traveling between I-90 at Interchange 24 and I-88 at Interchange 25A and also between I-890 at Interchange 26 and I-88 at Interchange 25A. Federal legislation would be required to address the toll-free access to I-88 issue.
- This Barrier Concept is not consistent with the Thruway Bond Resolution. The Resolution is a binding contract between the Thruway Authority and the purchasers of its bonds and cannot be amended without the consent of a majority of the bondholders and approval of the Thruway Board.
- Removal of the existing toll plazas at Interchanges 23, 24, 25, and 25A requires reconstruction of the toll plaza area into mainline and ramp pavement. As a result of removing the toll plazas, weaving sections are created between the Thruway ramps and state and local roadways. Additional length is required at Interchange 24 and 25 to provide enough weaving distance for the traffic volumes.



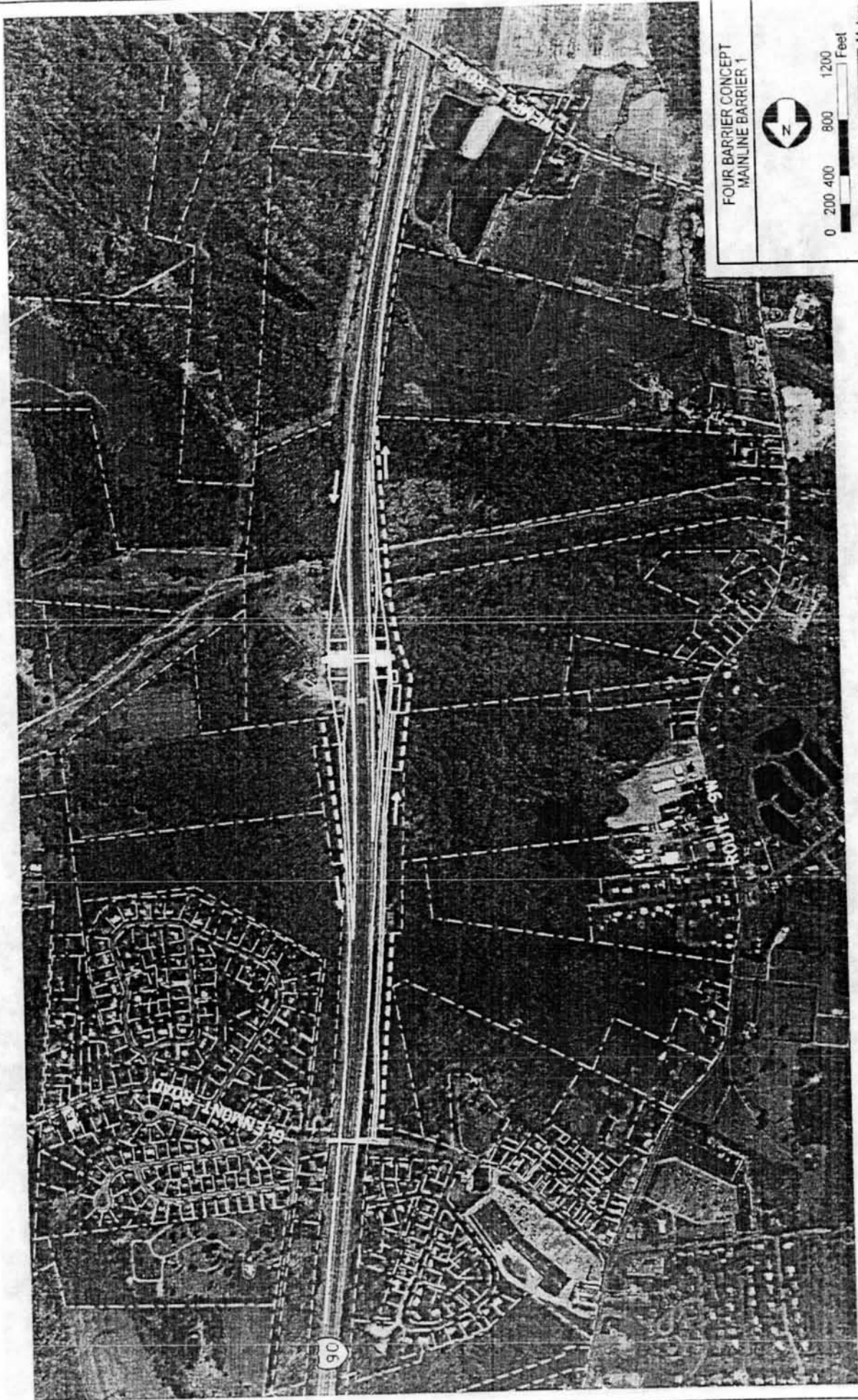
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FOUR BARRIER CONCEPT

NYS THRUWAY ALBANY CORRIDOR STUDY
MAINLINE BARRIER CONCEPTS

PROJECT NO. 11593 FIGURE IV-B



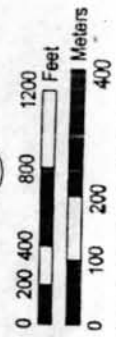
FOUR BARRIER CONCEPT
MAINLINE BARRIER 1



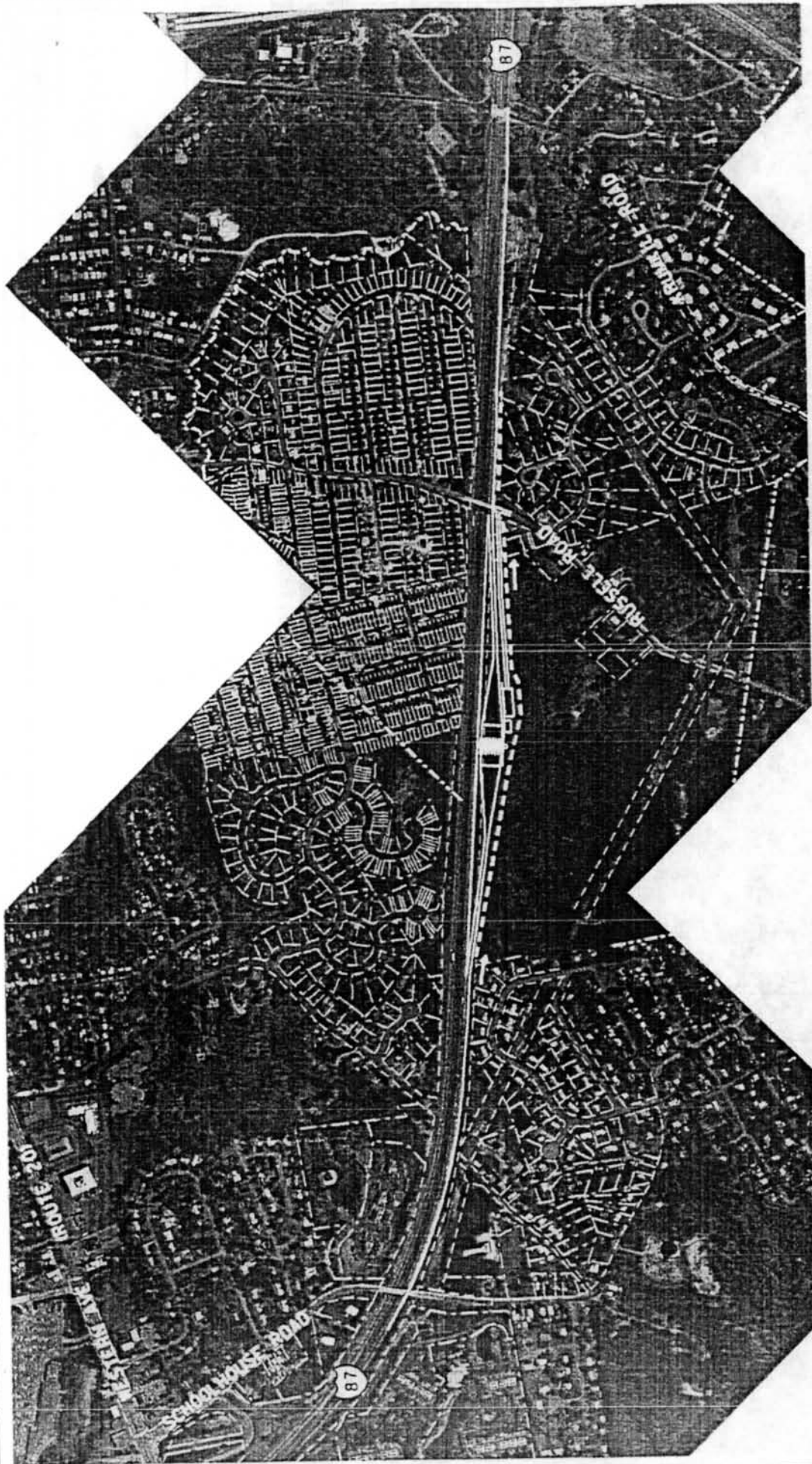
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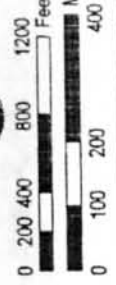
FOUR BARRIER CONCEPT
INTERCHANGE 23



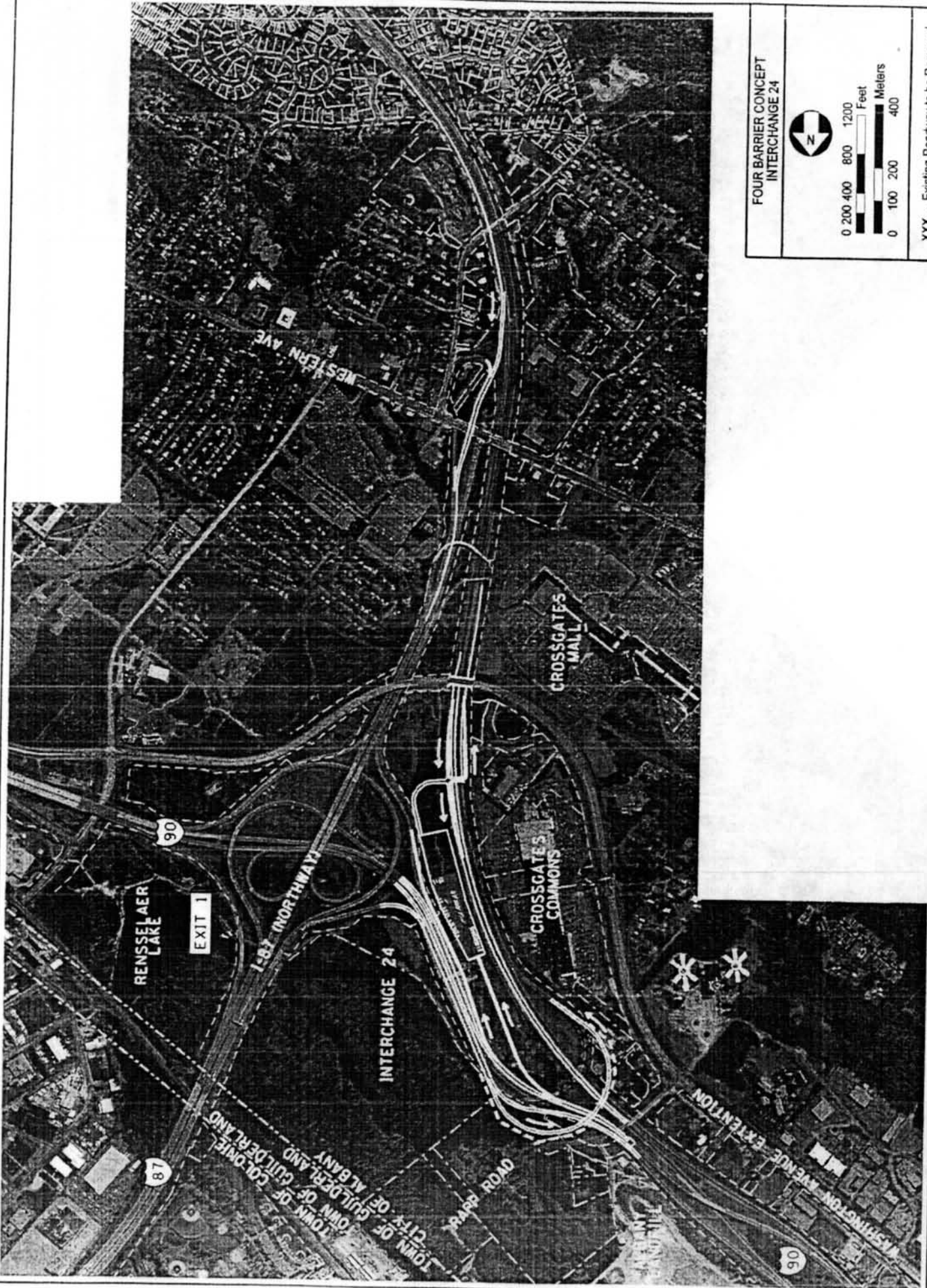
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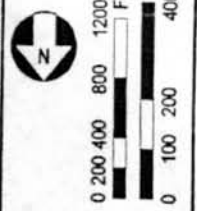
FOUR BARRIER CONCEPT
MAINLINE BARRIER 2



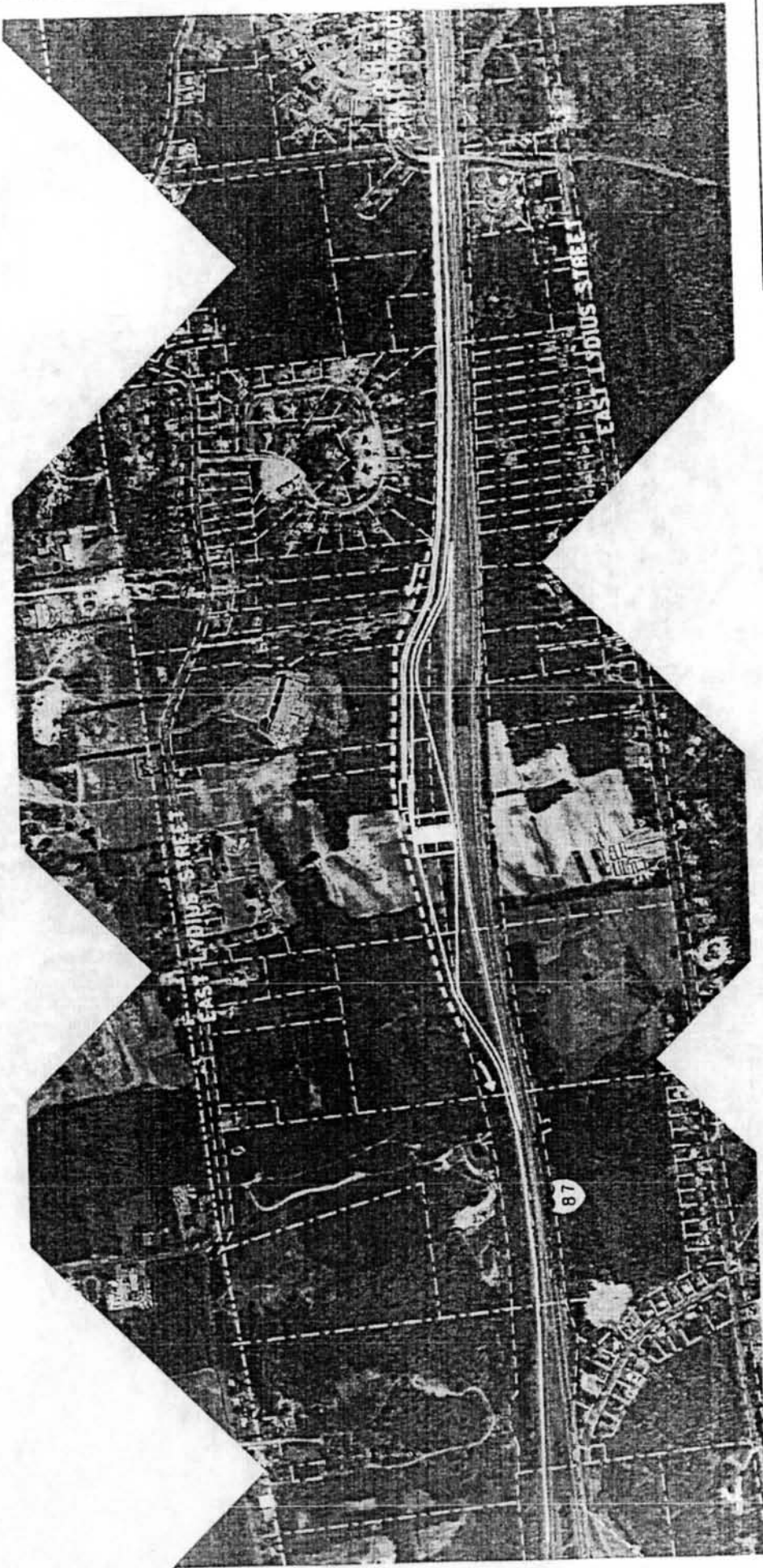
XXX - Existing Roadway to be Removed



FOUR BARRIER CONCEPT
INTERCHANGE 24



XXX - Existing Roadway to be Removed



FOUR BARRIER CONCEPT
MAINLINE BARRIER 3



0 200 400 800 1200

Feet

0 100 200 400

Meters

XXX - Existing Roadway to be Removed



FOUR BARRIER CONCEPT INTERCHANGE 25

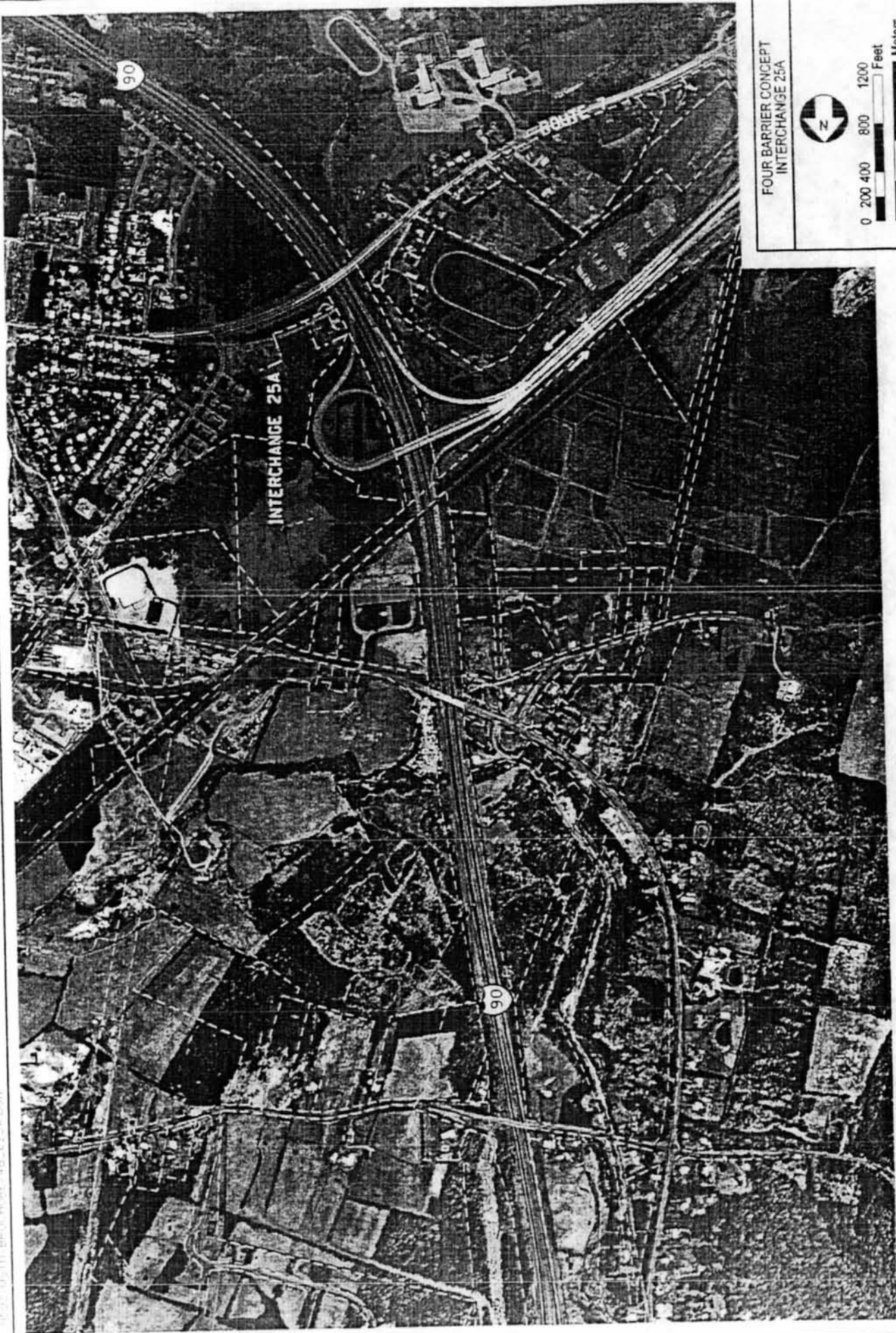


0 200 400 800 1200 Feet

0 100 200 400 Meters

XXX - Existing Roadway to be Removed

PROJECT: 48-E25A-D01



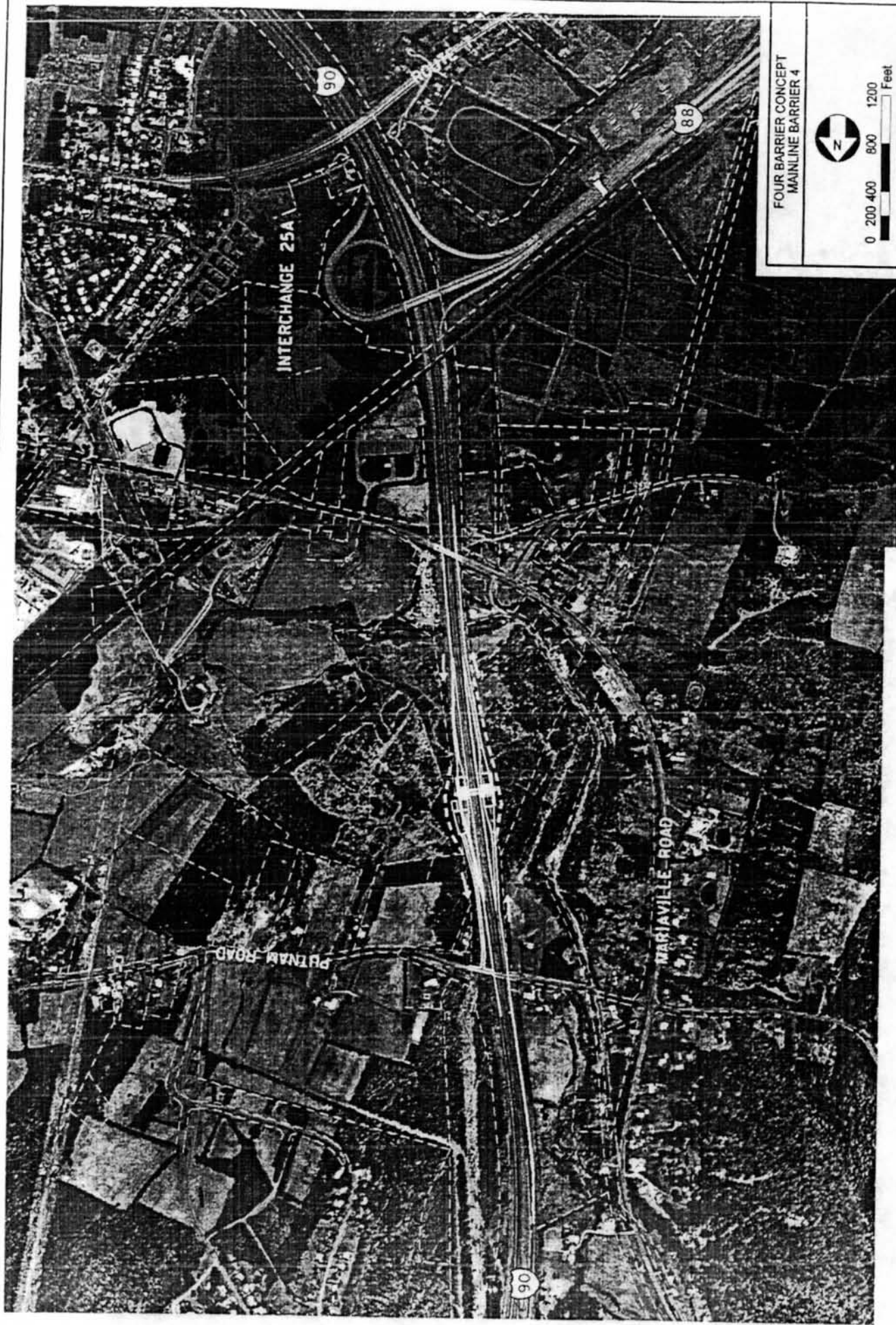
FOUR BARRIER CONCEPT
INTERCHANGE 25A



0 200 400 800 1200 Feet

0 100 200 400 Meters

XXX - Existing Roadway to be Removed



FOUR BARRIER CONCEPT
MAINLINE BARRIER 4



XXX - Existing Roadway to be Removed

Comparative Evaluation of Design Concepts

**COMPARATIVE EVALUATION OF DESIGN CONCEPTS
NEW YORK STATE THRUWAY - INTERCHANGE 23**

Evaluation Criterion	Concept J1	Interchange 23	Concept J3
PROPOSED ACTION			
Description	The Thruway ramps would be relocated to the southern side of the Thruway mainline. A <i>Single-Point Urban Interchange (SPUI)</i> would connect I-787 to Route 9W. Route 9W would be re-aligned to form a signalized four-way intersection with McCarty Avenue and Frisbee Avenue.	This concept would be similar to Concept J1 except that the connection to Route 9W is provided by ramps similar to the existing connections.	
PROJECT GOALS & OBJECTIVES			
Meet the Traffic Capacity and Safety Needs of the Thruway system			
Provides Capacity to Meet Design Year Traffic Volumes	Yes	Yes	
Freeway Merge/Diverge Level-of-Service Safety	All operate at LOS C or better. These comments apply to Concepts J1 and J3: Increases weaving distance between the Route 9W ramps and the Interchange 23 toll plaza. Concrete barriers at toll plaza separate opposing traffic movements. Improves safety by eliminating left-turns in and out of tandem lot.	All operate at LOS C or better.	
Improve Regional Mobility			
Thruway Facilities			
Improvements	Increased capacity at toll plaza would reduce congestion and delay.		Increased capacity at toll plaza would reduce congestion and delay.
Concerns	No concerns identified.		No concerns identified.
Non-Thruway Facilities			
Improvements	This comment applies to Concepts J1 and J3: This concept would provide a direct connection between I-787 and the Thruway toll plaza.		
Concerns	No concerns identified.		No concerns identified.
No. of Intersections Operating at LOS E or worse			
2024 No-Build Conditions	4		4
2024 Build Conditions	0		0
Minimize Acquisition of Developed Properties			
Right-of-Way Required	45 ± Acres		40 ± Acres
No. of Full Acquisitions Req'd (approx.)			
Residential	0		0
Commercial	0		0
Undeveloped	1		1
Minimize Negative Socio-Economic and Environmental Impacts			
Potential Wetland Impacts	2 ± Acres		2 ± Acres
Potential Noise Impacts			
Potential Ecological Concerns	This comment applies to Concepts J1 and J3: Constructs new ramps closer to properties south of McAlpin Street and on Noonan Lane.		
Potential Aesthetic & Visual Concerns	This comment applies to Concepts J1 and J3: Potential concerns with the Normans Kill and its tributary. This comment applies to Concepts J1 and J3: Constructs new ramp and bridge near properties south of McAlpin Street adjacent to the Thruway mainline.		

Interchange 23	
Concept J1	Concept J3
Evaluation Criterion	
Impacts to Businesses, Recreation Areas And Churches	This comment applies to Concepts J1 and J3: No negative impacts identified.
Impacts on Interchange 23 Tandem Lot	This comment applies to Concepts J1 and J3: Relocation of the tandem lot is required because access cannot be provided from the realigned I-787 mainline.
Impacts to Utilities	This comment applies to Concepts J1 and J3: Construction of the proposed toll plaza would require relocation of overhead electric lines located on private property that cross the existing Interchange 23 SB ramps.
Maximize Use of Existing Infrastructure	
Thruway Facilities	Replaces Thruway ramps.
Non-Thruway Facilities	<ul style="list-style-type: none"> Eliminates I-787 mainline south of exit ramp to Thruway toll plaza. Eliminates all Route 9W ramps. Eliminates section of Route 9W near Frisbee Avenue.
Minimize Project Costs	
Construction Cost	\$63 M - \$66 M (\$55 M - \$58 M) ³
OTHER CONSIDERATIONS	
Maintenance and Operations	Three (3) additional toll lanes required compared to existing.
Special Construction Considerations	This comment applies to Concepts J1 and J3: Construction of the proposed Thruway ramps on steep slopes composed of a deep clay layer would require 1-year to construct new embankment and 1-year of pre-loading prior to ramp pavement construction.
Environmental Review Process	This comment applies to Concepts J1 and J3: Interchange 23 could be reviewed as an independent project from other project under the State Environmental Quality Review Act (SEQRA). Construction of the Thruway ramps could be constructed independently of the reconstruction work on Route 9W and I-787 shown on the figures for Concept J1 and J3.

The work shown in italics in the description is not required to meet capacity needs of the New York State Thruway. The Route 9W/I-787 work is included to address intersection capacity needs and provide a direct connection between the Thruway and I-787.

The intersections are improved as a result of the Route 9W work, not the work required to meet Thruway capacity needs.

The cost shown in parentheses is for the Thruway work only. The total cost includes the Route 9W/I-787 work.

**COMPARATIVE EVALUATION OF DESIGN CONCEPTS
NEW YORK STATE THRUWAY - INTERCHANGE 24**

		Interchange 24			
Evaluation Criterion		Concept C	Concept H	Concept J	Flyover Concept
PROPOSED ACTION					
Description	The toll plaza and ramps would be reconstructed west of their existing location. A new diamond interchange would provide access to the tandem lot.	The toll plaza would be split into two plazas located side by side. The Thruway ramps would be reconstructed west of their existing location. E-ZPass only ramps would be constructed north of Washington Avenue Extension from the Thruway NB to the Northway NB and from the Northway SB to the Thruway SB.	The toll plaza would be split into two plazas located side by side. The Thruway ramps would be reconstructed west of their existing location. E-ZPass only ramps would be constructed from the Thruway NB to the Northway NB, from the Thruway EB to the Northway NB, and from the Northway SB to the Thruway WB and SB.	The toll plaza would be split into two plazas located side by side. The Thruway ramps would be reconstructed west of their existing location. E-ZPass only ramps would be constructed between Schoolhouse Road and Washington Avenue Extension from the Thruway NB to the Northway NB and from the Northway SB to the Thruway SB.	
PROJECT GOALS & OBJECTIVES					
Meet the Traffic Capacity and Safety Needs of the Thruway system					
Provides Capacity to Meet Design Year Traffic Volumes	Yes	Yes	Yes	Yes	Yes
Freeway Merge/Diverge Level-of-Service Safety	All operate at LOS D or better. Increases weaving distance at toll plaza. Concrete barrier at toll plaza separates opposing traffic movements. New toll plaza provides overhead walkway for Thruway employees to access toll booths. Removes left-turning trucks at toll plaza by providing separate tandem lot access.	All operate at LOS C or better. Increases weaving distance at toll plaza. Concrete barrier at toll plaza separates opposing traffic movements. New toll plazas provide overhead walkway for Thruway employees to access toll booths. Removes left-turning trucks at toll plaza by allowing right-in, right-out movements only.	All operate at LOS C or better. Increases weaving distance at toll plaza. Concrete barrier at toll plaza separates opposing traffic movements. New toll plazas provide overhead walkway for Thruway employees to access toll booths. Removes left-turning trucks at toll plaza by providing separate tandem lot access.	All operate at LOS C or better. Increases weaving distance at toll plaza. Concrete barrier at toll plaza separates opposing traffic movements. New toll plazas provide overhead walkway for Thruway employees to access toll booths. Removes left-turning trucks at toll plaza by allowing right-in/out movements only.	All operate at LOS C or better. Increases weaving distance at toll plaza. Concrete barrier at toll plaza separates opposing traffic movements. New toll plazas provide overhead walkway for Thruway employees to access toll booths. Removes left-turning trucks at toll plaza by allowing right-in/out movements only.
Improve Regional Mobility					
Thruway Facilities Improvements	This comment applies to Concepts C, H, J, and the Flyover Concept: Increased capacity at toll plaza would reduce congestion and delay. Vehicles traveling between the Thruway south of Interchange 24 and the toll plaza would be required to travel an additional 0.6 miles west to the relocated Interchange 24 ramps.				
Concerns	No concerns identified.	No concerns identified.	No concerns identified.	No concerns identified.	No concerns identified.

Interchange 24

Evaluation Criterion	Concept C	Concept H	Concept J	Flyover Concept
Non-Thruway Facilities Improvements	No additional direct connection would be provided compared to existing conditions.	E-ZPass only ramps would provide a direct connection from the Thruway NB to the Northway NB and from the Northway SB to the Thruway SB.	E-ZPass only ramps would provide a direct connection from the Thruway EB to the Northway NB and from the Northway WB to the Thruway WB and SB.	E-ZPass only ramps would provide a direct connection from the Thruway NB to the Northway NB and from the Northway SB to the Thruway SB.
Concerns	No concerns identified.	No concerns identified.	No concerns identified.	No concerns identified.
No. of Intersections Operating at LOS E or worse	LOS does not change at any intersections included in the study area.			
2024 No-Build Conditions				
2024 Build Conditions				
Minimize Acquisition of Developed Properties				
Right-of-Way Required	15 ± Acres	10 ± Acres	15 ± Acres	10 ± Acres
No. of Full Acquisitions Required (approx.)	0	0	0	0
Residential	3	1	0	1
Commercial	0	1	1	1
Undeveloped				
Minimize Negative Socio-Economic and Environmental Impacts				
Potential Wetland Impacts	4 ± Acres			
Potential Noise Benefits	This comment applies to Concepts C, H, J, and the Flyover Concept: Reduces noise by decreasing congestion at toll plaza.			
Potential Noise Impacts	This comment applies to Concepts C and H: Constructs new ramps closer to developed properties on Rapp Road and Washington Avenue Extension.			
Potential Ecological Concerns	Up to 1.5 acres of construction within Albany Pine Bush Preserve.	Up to 2.5 acres of construction within Albany Pine Bush Preserve.	Up to 6 acres of construction within Albany Pine Bush Preserve.	Up to 1.5 acres of construction within Albany Pine Bush Preserve.
Potential Aesthetic & Visual Concerns	This comment applies to Concepts C and H: Constructs new ramps closer to developed properties on Rapp Road and Washington Avenue Extension.			
Impacts to Businesses, Recreation Areas And Churches	Reconstructed ramps require acquisition of 3 commercial buildings on Washington Avenue Extension and two buildings at the Albany Landfill Rapp Road facility.	Reconstructed ramps require acquisition of 1 commercial building on Washington Avenue Extension.	Reconstructed ramps require relocation of recreation trail located adjacent to Rensselaer Lake and Nine Mile Waterworks.	Reconstructed ramps require relocation of recreation trail located adjacent to Rensselaer Lake and Nine Mile Waterworks.

Interchange 24

Evaluation Criterion	Concept C	Concept H	Concept J	Flyover Concept
Impacts to Interchange 24 Tandem Lot	Access to tandem lot is provided by a new diamond interchange on the Thruway mainline.	Access to the tandem lot would be limited to right-in and right-out movements only. Relocation of the tandem lot required because full access cannot be provided at the reconstructed toll plaza.	Access to tandem lot is provided by new ramps at Interchange 24.	Access to the tandem lot would be limited to right-in and right-out movements only. Relocation of the tandem lot required because full access cannot be provided at the reconstructed toll plaza.
Impacts to Utilities	No major impacts identified.			
Maximize Use of Existing Infrastructure	No major impacts identified.			
Thruway Facilities	Replaces Thruway ramps.			
Non-Thruway Facilities	<ul style="list-style-type: none"> Replaces 1000 ft of the ramp from the Northway SB to the Interchange 24 toll plaza. Requires reconstruction of 2500 ft of Washington Avenue Extension. Requires closure of 650 ft of frontage road parallel to Washington Avenue Extension. 	<ul style="list-style-type: none"> Replaces Thruway NB exit and SB entrance ramps. Replaces 1000 ft of the ramp from the Northway SB to the Interchange 24 toll plaza. Requires reconstruction of 2500 ft of Washington Avenue Extension. 	<ul style="list-style-type: none"> Replaces Thruway NB exit and SB entrance ramps. Requires reconstruction of 2500 ft of Washington Avenue Extension. 	<ul style="list-style-type: none"> Replaces Thruway NB exit and SB entrance ramps. Replaces 1000 ft of the ramp from the Northway SB to the Interchange 24 toll plaza. Requires reconstruction of 2500 ft of Washington Avenue Extension.
Minimize Project Costs	No major impacts identified.			
Construction Cost	\$92 M - \$97 M	\$79 M - \$83 M	\$64 M - \$67 M	\$72 M - \$76 M

OTHER CONSIDERATIONS

Maintenance and Operations	Six (6) additional lanes required at the toll plaza compared to existing.			
Engineering Concerns	No concerns identified.			
Special Construction Considerations	Construction of the proposed Thruway ramps requires removal of buried solid waste and relocation of two buildings at the Albany Landfill Rapp Road facility.	Four (4) additional lanes required at the toll plaza compared to existing. Grade on the E-ZPass ramp from the Thruway to the Northway NB exceeds 8%.	Four (4) additional lanes required at the toll plaza compared to existing. Grade on the E-ZPass ramp from the Thruway to the Northway NB exceeds 10%.	Four (4) additional lanes required at the toll plaza compared to existing. No concerns identified.
Environmental Review Process	<p>This comment applies to Concepts C, H, J, and Flyover Concept: Interchange 24 could be reviewed as an independent project from other projects under the State Environmental Quality Review Act (SEQRA).</p>			

**COMPARATIVE EVALUATION OF INTERCHANGE DESIGN CONCEPTS
NEW YORK STATE THRUWAY – INTERCHANGE 25**

		Interchange 25	
Evaluation Criterion	Concept F	Concept G	Concept H
PROPOSED ACTION			
Description	The toll plaza would be split into two plazas located side by side. The Thruway ramps would be reconstructed south of the Thruway mainline and the I-890 ramps reconstructed to form a diamond interchange at Curry Road.	The toll plaza would be split into two plazas located side by side. The Thruway WB entrance ramp would be reconstructed and the I-890 ramps reconstructed north of Curry Road to eliminate the existing weave on I-890.	The toll plaza would be realigned to remove the existing curve at the eastern end of I-890. The Thruway WB entrance ramp would be reconstructed and the I-890 ramps reconstructed north of Curry Road to eliminate the existing weave on I-890.
PROJECT GOALS & OBJECTIVES			
Meet the Traffic Capacity and Safety Needs of the Thruway System			
Provides Capacity to Meet Design Year Traffic Volumes	Yes	Yes	Yes
Freeway Merge/Diverge Level-of-Service	This comment applies to Concepts F, G and H: All operate at LOS D or better.	This comment applies to Concepts F, G and H: Increases weaving distance at toll plaza. Eliminates weave on I-890 between Curry Road ramps. Two toll plazas separate opposing traffic movements	This comment applies to Concepts F, G and H: Increases weaving distance at toll plaza. Eliminates weave on I-890 between Curry Road ramps. Concrete barrier at toll plaza separates opposing traffic movements.
Safety			
Improve Regional Mobility			
Thruway Facilities			
Improvements	Increased capacity at toll plaza would reduce congestion and delay.	Increased capacity at toll plaza would reduce congestion and delay.	Increased capacity at toll plaza would reduce congestion and delay.
Concerns	This comment applies to Concepts F, G and H: No improvement to design speed on Thruway ramps.		
Non-Thruway Facilities			
Improvements	This comment applies to Concepts F, G and H: Maintains direct connection between I-890 and the Interchange 25 toll plaza.		
Concerns	No concerns identified.	No concerns identified.	Eliminates ramps between I-890, Carman Road, and the Interchange 25 toll plaza.
Number of Intersections Operating at LOS E or worse			
2024 No-Build Conditions	1	1	1
2024 Build Conditions	0	0	0
Minimize Acquisition of Developed Properties			
Right-of-Way Required	28 ± Acres	23 ± Acres	28 ± Acres
No. of Full Acquisitions Req'd (approx.)			
Residential	0	3	3
Commercial	0	1	1
Undeveloped	0	2	3
Minimize Negative Socio-Economic and Environmental Impacts			
Potential Wetland Impacts	< 0.5 Acres	< 0.5 Acres	< 0.5 Acres

Interchange 25	
Evaluation Criterion	Concept H
Potential Noise Impacts	Constructs new ramps closer to developed properties on Curry Road and Dianne Court.
Potential Ecological Concerns	Constructs new ramps closer to developed properties on Curry Road and Dianne Court.
Potential Aesthetic & Visual Concerns	Constructs new ramps closer to developed properties on Curry Road and Dianne Court.
Impacts to Businesses, Recreation Areas, and Churches	Reconstructed ramps require acquisition of one commercial building on Curry Road.
Impacts to Tandem Lot	Reconstructed ramps require acquisition of one commercial building on Curry Road.
Impacts to Utilities	Reconstructed ramps require acquisition of one commercial building on Curry Road.
Maximize Use of Existing Infrastructure	
Thruway Facilities	Reconstruction of the Curry Road ramps would require relocation of overhead electric lines located on private property that cross the existing Curry Road ramps and I-890 mainline.
Non-Thruway Facilities	Replaces Thruway WB ramps. <ul style="list-style-type: none"> Replaces I-890 mainline south of Curry Road. Replaces ramps between I-890 and Curry Road. Replaces 1000 ft of ramp from Carman Road to the Interchange 25 toll plaza.
Minimize Project Costs	
Construction Cost	Thruway ramps remain in use. <ul style="list-style-type: none"> Replaces I-890 mainline south of Curry Road. Replaces ramps between I-890 and Curry Road. Replaces ramps between I-890, Carman Road, and the Interchange 25 toll plaza.
OTHER CONSIDERATIONS	
Maintenance and Operations	Replaces Thruway WB ramps. <ul style="list-style-type: none"> Replaces I-890 mainline south of Curry Road. Replaces ramps between I-890 and Curry Road. Replaces ramps between I-890, Carman Road, and the Interchange 25 toll plaza.
Special Construction Considerations	Replaces Thruway WB ramps. <ul style="list-style-type: none"> Replaces I-890 mainline south of Curry Road. Replaces ramps between I-890 and Curry Road. Replaces ramps between I-890, Carman Road, and the Interchange 25 toll plaza.
Environmental Review Process	Replaces Thruway WB ramps. <ul style="list-style-type: none"> Replaces I-890 mainline south of Curry Road. Replaces ramps between I-890 and Curry Road. Replaces ramps between I-890, Carman Road, and the Interchange 25 toll plaza.
Unknown number of residential properties are under construction on Marra Lane west of Interchange 25.	

Interchange 25		Concept J	Concept K
Evaluation Criterion			
PROPOSED ACTION			
Description	The toll plaza would be split into two plazas located side by side and realigned to remove the existing curve at the eastern end of I-890. The Thruway WB entrance ramp would be reconstructed. A diamond interchange, on I-890 north of Curry Road, would replace the ramps at Curry Road.	The toll plaza would be split into two plazas located side by side. The Thruway ramps would be reconstructed south of the Thruway mainline.	
PROJECT GOALS & OBJECTIVES			
Meet the Traffic Capacity and Safety Needs of the Thruway System			
Provides Capacity to Meet Design Year Traffic Volumes	Yes	Yes	
Freeway Merge/Diverge Level-of-Service	This comment applies to Concepts J and K: All operate at LOS D or better.		
Safety	Increases weaving distance at toll plaza. Eliminates weave on I-890 between Curry Road ramps. Two toll plazas separate opposing traffic movements.	Increases weaving distance at toll plaza. Two toll plazas separate opposing traffic movements.	
Improve Regional Mobility			
Thruway Facilities Improvements	Increased capacity at toll plaza would reduce congestion and delay.	Increased capacity at toll plaza would reduce congestion and delay.	
Concerns	This comment applies to Concepts J and K: No improvement to design speed on Thruway ramps.		
Non-Thruway Facilities Improvements	This comment applies to Concepts J and K: Maintains direct connection between I-890 and the Interchange 25 toll plaza.		
Concerns	No concerns identified.	No concerns identified.	
No. of Intersections Operating at LOS E or worse	1	1	
2024 No-Build Conditions	0	0	
2024 Build Conditions			
Minimize Acquisition of Developed Properties			
Right-of-Way Required	21 ± Acres	25 ± Acres	
No. of Full Acquisitions Req'd (approx.)	3+1	0	
Residential	1	0	
Commercial	0	0	
Undeveloped			
Minimize Negative Socio-Economic and Environmental Impacts			
Potential Wetland Impacts	< 0.5 Acres	< 0.5 Acres	
Potential Noise Impacts	Constructs new ramps closer to developed properties on Curry Road, Dianne Court, and Marra Lane.	Constructs new ramps closer to developed properties on Curry Road and Stanford Drive.	
Potential Ecological Concerns	This comment applies to Concepts J and K: No ecological concerns identified.		
Potential Aesthetic & Visual Concerns	Constructs new ramps closer to developed properties on Curry Road, Dianne Court, and Marra Lane.	Constructs new ramps closer to developed properties on Curry Road and Stanford Drive.	
Impacts to Businesses, Recreation Areas, and Churches	New access road requires acquisition of two commercial buildings on Curry Road.	No negative impacts identified.	

Interchange 25	
Evaluation Criterion	Concept J Concept K
Impacts to Tandem Lot	This comment applies to Concepts J and K: Not applicable to Interchange 25.
Impacts to Utilities	Reconstruction of the Curry Road ramps would require relocation of overhead electric lines located on private property that cross the existing Curry Road ramps and I-890 mainline. No major impacts identified.
Maximize Use of Existing Infrastructure	
Thruway Facilities	Replaces Thruway WB entrance ramp.
Non-Thruway Facilities	<ul style="list-style-type: none"> Replaces I-890 mainline south of Curry Road. Replaces ramps between I-890 and Curry Road. Replaces ramps between I-890, Carman Road, and the Interchange 25 toll plaza.
Minimize Project Costs	Replaces Thruway ramps. <ul style="list-style-type: none"> Replaces 1600 ft of ramp from Carman Road to Interchange 25 toll plaza.
Construction Cost	\$34 M - \$36 M \$23 M - \$25 M
OTHER CONSIDERATIONS	
Maintenance and Operations	This comment applies to Concepts J and K: Seven (7) additional toll lanes required compared to existing.
Special Construction Considerations	This comment applies to Concepts J and K: No special considerations identified at this time.
Environmental Review Process	This comment applies to Concepts J and K: Interchange 25 could be reviewed as an independent project from other projects under the State Environmental Quality Review Act (SEQRA).
Unknown number of residential properties are under construction on Marra Lane west of Interchange 25.	

**COMPARATIVE EVALUATION OF DESIGN CONCEPTS
NEW YORK STATE THRUWAY**

Evaluation Criterion	Proposed Concepts		
	Interchanges Concepts	Two Mainline Barriers Concept	Four Mainline Barriers Concept
PROPOSED ACTION			
Description	Interchanges 23, 24 and 25 would be reconstructed to accommodate future traffic volumes. See "Comparative Evaluation of Interchange Design Concepts" for comparison of concepts at each interchange.	Mainline barriers would be constructed at two locations: south of Interchange 23 at milepost (MP) 139 and west of Interchange 25A at MP 159. The existing toll plazas would be removed at Interchanges 23 to 25A. New toll plazas would be constructed on the Interchange 23 SB exit ramp and Interchange 25 WB exit ramp.	Mainline barriers would be constructed at four locations: south of Interchange 23 at MP 139, between Interchanges 23 and 24 at MP 146 (SB only), between Interchanges 24 and 25 at MP 151 (WB only), and west of Interchange 25A at MP 159. The existing toll plazas would be removed at Interchanges 23 to 25A.
Legal Issues	No issues identified.	This comment applies to the Two and Four Mainline Barriers Concepts: Federal legislation would be required to address the toll-free access to I-88 issue.	
Financial/Bonding Issues	No issues identified.	This comment applies to the Two and Four Mainline Barriers Concepts: Some tolls in the Albany Corridor may need to be adjusted to compensate for diversions. The Authority's Bond Consultant will investigate this. This Barrier Concepts is not consistent with the Thruway Bond Resolution. The Resolution is a binding contract between the Thruway Authority and the purchasers of its bonds and cannot be amended without the consent of a majority of the bondholders and approval of the Thruway Board.	
PROJECT GOALS & OBJECTIVES			
Meet the Traffic Capacity and Safety Needs of the Thruway system			
Provides Capacity to Meet Design Year Traffic Volumes	Yes	Yes	Yes
Freeway Merge/Diverge Level-of-Service	All interchange ramps operate at LOS D or better.	All mainline barrier ramps operate at LOS C or better. All interchange ramps operate at LOS D or better.	All mainline barrier ramps operate at LOS D or better. All interchange ramps operate at LOS D or better.
Safety Improvements	Improves weaving distance between Thruway and non-Thruway ramps at the interchanges. Concrete barrier at toll plazas separates opposing traffic movements. Eliminates left-turns in and out of tandem lot. New toll barriers provide overhead walkway for Thruway employees to access toll booths.	Improves weaving distance between Thruway and non-Thruway ramps at the interchanges. Concrete barrier at toll plazas separates opposing traffic movements. Eliminates left-turns in and out of tandem lot. New toll barriers provide overhead walkway for Thruway employees to access toll booths.	Improves weaving distance between Thruway and non-Thruway ramps at the interchanges. Concrete barrier at toll plazas separates opposing traffic movements. Eliminates left-turns in and out of tandem lot. New toll barriers provide overhead walkway for Thruway employees to access toll booths.

Evaluation Criterion	Proposed Concepts	
	Interchanges Concepts	Two Mainline Barriers Concept
Improve Regional Mobility Thruway Facilities		Four Mainline Barriers Concept
	Improvement	Removal of interchange toll plazas and installation of highway-speed E-ZPass at mainline barriers would reduce congestion and delay. E-ZPass users would travel at highway speed through entire system.
Concern	Increased capacity at toll plazas would reduce congestion and delay.	Removal of interchange toll plazas and installation of highway-speed E-ZPass at mainline barriers would reduce congestion and delay. E-ZPass users would travel at highway speed through entire system.
Non-Thruway Facilities	No concerns identified.	Cash users traveling through capital region required to stop at 3 mainline barriers.
Improvements	The interchange concepts may provide direct connections between I-787 and the Thruway toll plaza, from the Thruway NB to the Northway NB, and from the Northway SB to the Thruway SB. May require relocation of access between Route 9W and the Thruway which could reduce the accessibility of the McCarty Avenue Park-N-Ride lot. May eliminate ramps between I-890, Carman Road, and the Interchange 25 toll plaza.	This comment applies to the Two and Four Mainline Barriers Concepts: Access between Thruway and non-Thruway facilities would remain the same except at Interchange 24. A direct connection may be provided at Interchange 24 between the Thruway NB and Northway NB.
Concerns	No concerns identified.	Cash users traveling through capital region required to stop at 3 mainline barriers.
No. of Intersections Operating at LOS E or worse		
2024 No-Build Conditions	6	6
2024 Build Conditions	0	6
Minimize Acquisition of Developed Properties		
Right-of-Way Required	60 - 100 Acres	50 ± Acres
No. of Full Acquisitions Required (approximate)		
Residential	0 to 3+	0
Commercial	0 to 6	3
Undeveloped	1 to 8	3
Minimize Negative Socio-Economic and Environmental Impacts		
Potential Wetland Impacts	2 - 8 Acres	3 ± Acres
Potential Noise Benefits	Reduces noise by reducing congestion at Interchange toll plazas.	Reduces noise due to vehicles slowing and stopping at interchanges by removing the toll plazas at Interchanges 22, 24, and 25A. Highway-speed E-ZPass at mainline barriers would reduce number of vehicles slowing and/or stopping at barrier resulting in a reduction in noise compared to existing E-ZPass lanes at toll plazas.

Proposed Concepts			
Evaluation Criterion	Interchanges Concepts	Two Mainline Barriers Concept	Four Mainline Barriers Concept
Potential Noise Impacts	Constructs new ramps closer to properties adjacent to each interchange. See "Comparative Evaluation of Interchange Design Concepts" for concerns at each interchange.	Constructs new ramps closer to properties at the following locations: <ul style="list-style-type: none"> • Curry Road (Int 25) • Putnam Road (Mainline Barrier 2) May construct new ramps closer to properties on Schoolhouse Road, Western Avenue, Rapp Road, and Washington Avenue Extension at Interchange 24.	Constructs new ramps closer to properties at the following locations: <ul style="list-style-type: none"> • Russell Road (Mainline Barrier 2) • Curry Road (Int 25) • Putnam Road (Mainline Barrier 4) May construct new ramps closer to properties on Schoolhouse Road, Western Avenue, Rapp Road, and Washington Avenue Extension at Interchange 24.
Potential Ecological Concerns	<ul style="list-style-type: none"> • Potential concerns with the Normans Kill and its tributary. • Up to 6 acres of construction within Albany Pine Bush Preserve. 	<ul style="list-style-type: none"> • Potential concerns with the Normans Kill and its tributary. • Up to 2 acres of construction within Albany Pine Bush Preserve. 	<ul style="list-style-type: none"> • Up to 2 acres of construction within Albany Pine Bush Preserve.
Potential Aesthetic & Visual Concerns	May construct new ramps closer to developed properties near Interchanges 23, 24, and 25. See "Comparative Evaluation of Interchange Design Concepts" for concerns at each interchange.	This comment applies to the Two and Four Mainline Barriers Concepts: May construct new ramps closer to developed properties on Schoolhouse Road, Rapp Road, and Washington Avenue Extension at Interchange 24.	This comment applies to the Two and Four Mainline Barriers Concepts: May construct new ramps closer to developed properties south of Curry Road at Interchange 25 and south of Putnam Road at Mainline Barrier 2.
Impacts to Businesses, Recreation Areas And Churches	May require acquisition of commercial properties on Washington Avenue Extension and Curry Road. See "Comparative Evaluation of Interchange Design Concepts" for impacts at each interchange.	This comment applies to the Two and Four Mainline Barriers Concepts: May require acquisition of two commercial properties on Washington Avenue Extension.	This comment applies to the Two and Four Mainline Barriers Concepts: May require acquisition of two commercial properties on Washington Avenue Extension.
Impacts on Tandem Lots	Relocation of the tandem lot at Interchange 23 is required because access cannot be provided. Relocation of the tandem lot at Interchange 24 may be required as a result of toll plaza and ramp reconstruction.	This comment applies to the Two and Four Mainline Barriers Concepts: Relocation of the tandem lot at Interchange 23 is required because access cannot be provided. Direct access to the Interchange 24 tandem lot is provided by a new diamond interchange.	This comment applies to the Two and Four Mainline Barriers Concepts: Relocation of the tandem lot at Interchange 25A is required because access cannot be provided.
Impacts to Utilities	May require relocation of overhead electric lines located near Interchange 23 and Interchange 25. See "Comparative Evaluation of Interchange Design Concepts" for impacts at each interchange.	This comment applies to the Two and Four Mainline Barriers Concepts: No major impacts to utilities have been identified for these concepts.	This comment applies to the Two and Four Mainline Barriers Concepts: No major impacts to utilities have been identified for these concepts.
Maximize Use of Existing Infrastructure			
Thruway Facilities	Ramps at each interchange may require replacement. Replacement of Interchange 24 NB exit and SB entrance ramps would be required for all concepts. See "Comparative Evaluation of Interchange Design Concepts" for specific replacement locations at each interchange.	Replaces the following ramps: <ul style="list-style-type: none"> • Thruway SB exit ramp at Interchange 23 • All Thruway ramps at Interchange 24 • Thruway WB exit ramp at Interchange 25 	Replaces the following ramps: <ul style="list-style-type: none"> • All Thruway ramps at Interchange 24

Evaluation Criterion		Proposed Concepts	
Non-Thruway Facilities	Interchanges Concepts ¹	Two Mainline Barriers Concept	Four Mainline Barriers Concept
	Ramps and roadways may be eliminated or replaced around each interchange. Northway Exit 1 ramps are maintained for all concepts. See "Comparative Evaluation of Interchange Design Concepts" for specific replacement locations at each interchange.	This comment applies to the Two and Four Mainline Barriers Concepts: Replaces 1600 ft of the ramp from Carman Road to the Interchange 25 toll plaza.	
Minimize Project Costs			
Construction Cost	\$139 M - \$208 M	\$120 M - \$126 M	\$129 M - \$136 M
OTHER CONSIDERATIONS			
Maintenance and Operations (between MP 135 and MP 160, four toll plazas contain 34 existing toll lanes)	Four toll plazas contain 48 toll lanes: <ul style="list-style-type: none"> • 10 lanes at Interchange 23 • 18 lanes at Interchange 24 • 14 lanes at Interchange 25 • 6 lanes at Interchange 25A May require embankment on steep slopes at Interchange 23 resulting in 2-years of slope construction and pre-loading prior to ramp construction. May require removal of solid waste at the Albany Landfill near Interchange 24. See "Comparative Evaluation of Interchange Design Concepts" for additional considerations at each interchange.	Four toll plazas contain 30 toll lanes: <ul style="list-style-type: none"> • 12 lanes at Mainline Barrier 1 • 4 lanes at Interchange 23 SB exit ramp • 7 lanes at Interchange 25 WB exit ramp • 7 lanes at Mainline Barrier 2 No special considerations identified at this time.	Four toll plazas contain 39 toll lanes: <ul style="list-style-type: none"> • 12 lanes at Mainline Barrier 1 • 7 lanes at Mainline Barrier 2 • 13 lanes at Mainline Barrier 3 • 7 lanes at Mainline Barrier 4 No special considerations identified at this time.
Special Construction Considerations			
Environmental Review Process	Each interchange could be reviewed separately under the State Environmental Quality Review Act (SEQRA). Interchange improvements could be completed separately from each other and other Thruway improvement projects.	This comment applies to the Two and Four Barrier Concepts: One SEQRA review required for the entire study corridor. All improvements included in the Mainline Barrier Concepts must be completed simultaneously as one project to maintain toll collection.	

¹ See "Comparative Evaluation of Interchange Design Concepts" for comparison of concept features at each interchange.

² Some intersections included are improved as a result of work to address intersection capacity needs not related to Thruway improvement, not work required to meet Thruway capacity needs. The Mainline Barrier Concepts do not include improvements to non-Thruway facilities at interchanges.

³ Unknown number of residential properties are under construction on Marra Lane west of Interchange 25.

Beltway for Albany with Bethlehem and Vermont Spurs

