
APPENDIX A

LEVEL 1 SCREENING RESULTS



Legend:

- ✓ - Retained for further evaluation
 - X - Eliminated from further consideration
 - +
- Under study by others

Table A-1

Long List of Alternative Elements – Screening Results

1. TDM/TSM Measures

No.	Title	Description	Level 2 Status	Rationale for Screening/Related Criteria ¹
TDM-1: Enhance Existing MetroPool Employee Trip Reduction (ETR) Programs				
TDM-1.1	Develop an I-287 Corridor Education and Promotion Program	Enhance educational efforts	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-1.2	Increase funding for outreach to Corridor employers	Encourage employers to adopt MetroPool programs	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-1.3	Introduce a car-sharing program	Provide rental cars for commuters who only need a car occasionally, on hourly or daily basis	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-1.4	Employers provide showers and lockers for those walking/cycling to work	Provide facilities to encourage workers to walk/cycle to work	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-1.5	Toll-free programs for off-peak users from participating employers	Encourage the use of flex-time in exchange for reduced or no tolls on the TZ Bridge	X	Based on prior similar initiatives in the region and elsewhere, measure would be ineffective due to low level of employer participation and lack of public acceptance. Congestion pricing is a more effective and comprehensive approach to the same end./1,8
TDM-1.6	TDM-1.6.1: Employee Parking Management: Charge employees for parking	Combine incentives for alternative modes with disincentives, such as parking fees	X	Based on prior similar initiatives in the region and elsewhere, measures would be ineffective due to low levels of employer participation and lack of public acceptance./1,8
	TDM 1.6.2: Employee Parking Management: Cash in lieu of Parking	Provide cash rewards for switching from driving to alternate modes of travel		
	TDM 1.6.3: Employee Parking Management: Restrain parking supply	Encourage alternate travel modes by restricting availability of free parking		
TDM-1.7	Mandate Participation in Metro Pool ETR Program	Require employers to encourage alternate travel modes	X	Based on prior similar initiatives in the region and elsewhere, measure would be ineffective due to low level of employer participation and lack of public acceptance./1,8

¹ Primary criteria number (as indicated on Tables 1, 2a, 2b, 3a and 3b in Appendix A of NYSTA/Metro-North, December 2003) for which the alternative element was rated poorly.

No.	Title	Description	Level 2 Status	Rationale for Screening/Related Criteria ¹
TDM-2: Expand Easy Street Vanpool Program				
TDM-2.1	Increase funding for Easy Street Program	Expedite implementation and expansion of vanpool program	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-2.2	Reduce vanpool user costs to encourage greater participation	Provide subsidies, free parking and reduced or no tolls for vanpool users	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-3: Corridor-wide Parking Pricing and Management				
TDM-3.1	Establish Parking Authority	Mandate parking policies, eliminate local restrictions and develop enhancement programs	X	Requires new legislation and presents many implementation and enforcement problems with low public acceptance./8
TDM-4: Carpool and Transit Priority				
TDM-4.1	TDM-4.1.1: Restrict existing TZ Bridge reversible lane to HOV: HOV2+ only	Permit only vehicles with 2 or more occupants to use the existing reversible lane	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion during peak hours./1,2
	TDM-4.1.2: Restrict existing TZ Bridge reversible lane to HOV: HOV3+ only	Permit only vehicles with 3 or more occupants to use the existing reversible lane		
	TDM-4.1.3: Restrict existing TZ Bridge reversible lane to HOV: Transit/vanpools only	Permit only transit vehicles and vanpools to use the existing reversible lane		
	TDM-4.1.4: Restrict existing TZ Bridge reversible lane to HOV: HOV3+ and premium toll for other vehicles	Permit only vehicles with 3 or more occupants to use the existing reversible lane at the current toll; other vehicles will have to pay a premium toll to use reversible lane		

No.	Title	Description	Level 2 Status	Rationale for Screening/Related Criteria ¹
TDM-4.2	TDM-4.2.1: Create new priority lanes on widened crossing: HOV2+ only	Permit only vehicles with 2 or more occupants to use the new priority lanes	X	HOV lane limited to the bridge would be ineffective due to short distance and need to merge with general traffic at shoreline./1 Include priority toll lane with bus rapid transit scenarios.
	TDM-4.2.2: Create new priority lanes on widened crossing: HOV3+ only	Permit only vehicles with 3 or more occupants to use the new priority lanes		
	TDM-4.2.3: Create new priority lanes on widened crossing: Transit/vanpools only	Permit only transit vehicles and vanpools to use the new priority lanes		
	TDM-4.2.4: Create new priority lanes on widened crossing: HOV3+ and premium toll for other vehicles	Permit only vehicles with 3 or more occupants to use the new priority lanes at the current toll; other vehicles will have to pay a premium toll to use priority lanes		
TDM-4.3	Priority lanes for buses/vanpools/carpools at the toll plaza	Use special E-ZPass lanes for HOV only	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-4.4	TDM-4.4.1: Priority lanes on feeder arterials at approaches to I-287	Priority lanes on north-south feeder routes for HOV only	✓	Combine with TSM-3.1/3.2 and TDM – 4.4.3 to create one “ramp metering” option. Include in TDM/TSM scenario and test with others, in particular the bus rapid transit scenarios.
	TDM-4.4.2: Priority lanes on parallel arterials	Priority lanes on arterials parallel to I-287 for HOV only	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion during peak hours./1
	TDM-4.4.3: Priority lanes on entrance ramps	Priority lanes on entrance ramps for HOV only	✓	Combine with TSM-3.1/3.2 and TDM – 4.4.1 to create one “ramp metering” option. Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TDM-5: Tolls and Pricing				
TDM-5.1	TDM-5.1.1: Congestion Pricing - Increase TZ Bridge car tolls during peak periods	Increase peak period tolls to encourage off-peak travel	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
	TDM-5.1.2: Congestion Pricing - Introduce Corridor-wide, distance-based tolls	Introduce variable tolls to influence travel choices and control congestion	X	Based on a qualitative assessment, deteriorated levels of service would result from traffic diversions to parallel arterials as some vehicles try to avert tolls./1
	TDM-5.1.3: Congestion Pricing - Eliminate commuter discount on the TZ Bridge	Eliminate discount for individual car use except during off-peak period; maintain discount for HOV	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.

No.	Title	Description	Level 2 Status	Rationale for Screening/Related Criteria ¹
TSM-1: Real-Time Distribution of User Information				
TSM-1.1	Improve and expand use of electronic signs	Increase number of signs, their sophistication and their ability to divert traffic	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-1.2	Improve and expand the use of highway advisory radio	Provide additional signing and broadcast points to improve ability of drivers to seek alternate routes	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-1.3	Improve and expand the use of the Internet	Increase access to TZ website at park-and-rides and Intermodal Centers	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-1.4	Expand TRANSMIT speed readers	Improve speed data gathering to identify incidents and enhance emergency response	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-1.5	Employ TRIPS Technology	Electronically notify road users of traffic status	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-2: Improve the Integration of Train and Bus Service				
TSM-2.1	Notify bus drivers of train delays	Buses can be held to meet delayed trains	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-2.2	Post real-time arrival information at train stations	Commuters are prepared for train arrivals, facilitating boarding	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-2.3	Provide real-time information for bus riders	Passengers can be informed of bus arrivals times through the use of Global Positioning Systems	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-3: Dynamic Traffic Management System				
TSM-3.1	Ramp access controls	Ramp metering controls entering traffic based on mainline congestion	✓	Combine with TDM 4.4.1 and TDM 4.4.3 to create one “ramp metering” option. Include in a TDM/TSM scenario and test with other scenarios, as appropriate.
TSM-3.2	Ramp terminal real-time signal coordination	Highway traffic exiting /entering local streets can be controlled by adjusting signal cycles to avoid bottlenecks		
TSM-4: Commercial Vehicle Programs				
TSM-4.1	Congestion pricing for commercial vehicles	Congestion pricing for trucks to encourage use of alternative routes	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.

¹ Primary criteria number (as indicated on tables 1, 2a, 2b, 3a and 3b in Appendix A) for which the alternative element was rated poorly.

No.	Title	Description	Level 2 Status	Rationale for Screening/Related Criteria ¹
TSM-5: Incident Management				
TSM-5.1	Implement comprehensive Incident Management Program for the I-287/CWE corridor	Monitor, evaluate and decrease response/congestion clearance times for optimum performance and safety	✓	Include in a TDM/TSM scenario and test with other scenarios, as appropriate.

2. Transit Service Improvements (TS)

No.	Title	Description	Level 2 Status	Rationale for Screening
Bus Transit Service (B)				
TS-B1	Expand Tappan Zee Bus Corridor Routes	Provide increased service, including connecting routes and better coordination with train schedules	✓	Include in Level 2 scenarios, as appropriate.
TS-B2	Expand Other Bus Routes	Expand bus service locations and frequency on parallel roads and north-south arterials		
TS-B3	Expand/Create Additional Shuttle Service	Expand shuttle service to land uses with higher densities of population or jobs, or higher levels of activities: office parks, hotel complexes, recreational centers		
Rail Transit Service (R)				
TS-R1	Improve rail service on Hudson Line	Increase peak period express service	✓	Include in Level 2 scenarios, as appropriate.
TS-R2	TS-R2.1: Improve rail service on Harlem Line - Increase Service without a Third Track	Increase mid-day service	X	As stand alone options, would not be effective in reducing peak period congestion levels in the Corridor. Use of Harlem Line is considered below in Corridor-wide improvements./1
	TS-R2.2: Improve rail service on Harlem Line - Increase service with a Third Track	A third track is required to provide the capacity needed to increase peak period express service		
TS-R3	Improve rail service on New Haven Line	Increase peak period express service	X	No measurable improvement of Corridor congestion levels would be expected./1
TS-R4	TS-R4.1: Improve rail service on the Pascack Valley Line once Secaucus Transfer Opens - Improve frequencies and add midday/return service.	Improved service on single track line	+	These improvements are programmed by Metro-North and NJ TRANSIT and will be included in the No Build scenario.

No.	Title	Description	Level 2 Status	Rationale for Screening
	TS-R4.2: Expand rail infrastructure capacity with additional tracks – Expand capacity of the Pascack Valley Line between Spring Valley and Secaucus.	Construct passing sidings		
TS-R5	TS-R5.1: Improve rail service on the Port Jervis Line once Secaucus Transfer Opens - Increase frequencies and midday/return service.	Improved service on single track line	+	These improvements are programmed by Metro-North and NJ TRANSIT and will be included in the No Build scenario.
	TS-R5.2 Expand rail infrastructure capacity with additional tracks. - Expand capacity of the Port Jervis Line between Sloatsburg and Salisbury Mills.	Double-track the line or construct passing sidings.	+	Double tracking the Port Jervis line and/or constructing passing sidings will be studied by MNR and NYSDOT as part of the EIS for the Stewart Airport Extension, scheduled to begin early 2004.
Ferry Service (F)				
TS-F1	Expand Ferry Service between Haverstraw and Ossining	Increase ferry service to connect with more Hudson Line trains to Grand Central Terminal	+	Would not meet the travel needs in the Corridor, given the limited market potential of ferry service. Service expansions programmed by others will be included in the No Build scenario.
TS-F2	Implement New Ferry Route between Nyack and Tarrytown	Provide ferry service to meet Hudson Line trains in both directions	X	Would not meet the travel needs in the Corridor, given the limited market potential of ferry service. Traffic and community impacts would occur at the Nyack and Tarrytown terminals./1,7
TS-F3	TS-F3.1 Implement New High Speed Ferry Route Between Orange/Rockland/Westchester Counties and Manhattan	Provide high speed ferry service directly from Nyack, Haverstraw and Newburgh to Yonkers and existing west side terminals in Manhattan	+	Haverstraw- Yonkers ferry service is being proposed by Rockland County and City of Yonkers. Programmed improvements will be included in the No Build scenario.
	TS-F3.2 Implement New Hovercraft Ferry Service Between Orange/Rockland/Westchester Counties and Manhattan	Provide hovercraft ferry service directly from Nyack, Haverstraw and Newburgh to Yonkers and existing west side terminals in Manhattan	X	Would not meet the travel needs in the Corridor, given the limited market potential of ferry service./1
Parking Improvements to Support Existing/Expanded Transit Services (P)				
TS-P1 to P14	Implement current short-term plans for Parking Improvements	Park-and-ride improvements to be implemented in the next five years	✓	Include in Level 2 scenarios, as appropriate.
S-P15 to P25	Additional Parking Improvements to Support New/Expanded Transit Services	Longer-term park-and-ride improvements, including new and expanded facilities	✓	Include in Level 2 scenarios, as appropriate.

No.	Title	Description	Level 2 Status	Rationale for Screening
S-P26	Implement EZ Pass at Park & Ride Facilities	Provide EZ Pass as a method of paying at Park & Ride Facilities.	✓	Include in Level 2 scenarios, as appropriate.
Pedestrian/Bicycle Pathways (PED)				
TS-PED1	Provide access to river crossing alternatives that include new pedestrian/cyclist pathway	Connections to existing pathway networks on either shore of the Hudson River	✓	Include in Level 2 scenarios, as appropriate.

3. Corridor-Wide Improvements (CI)

No.	Title	Description	Level 2 Status	Rationale for Screening
Roadway Improvements (R)				
CI-R1	CI-R1.1: Improve Mainline - Add a fourth GP lane in each direction from Interchange 15 in Suffern to Interchange 11, Route 9W in Nyack	Provide lane continuity for the entire length of I-87 in the Corridor	✓	Include in Level 2 scenarios.
	CI-R1.2: Improve Mainline - Add a fourth GP lane in each direction from Interchange 14A, Garden State Parkway to Interchange 11, Route 9W in Nyack	Provide additional lane capacity to accommodate the four interchanges west of Interchange 11	✓	Consider in Level 2 analyses. Detailed traffic operations analysis will provide insight into the optimum extent of the fourth lane in Rockland County.
	CI-R1.3: Improve Mainline - Add a fourth GP lane in each direction from Interchange 13, Palisades Parkway to Interchange 11, Route 9W in Nyack	Provide additional lane capacity to accommodate the two interchanges west of Interchange 11		
	CI-R1.4: Improve Mainline - Add a westbound auxiliary climbing lane from the TZ Bridge to Interchange 14A, Garden State Parkway	Provide an auxiliary climbing lane to alleviate bottlenecks and unsafe conditions on steep westbound upgrades		
	CI-R1.5: Improve Mainline - Enhance Programmed Roadway Improvements in Westchester County between the TZ Bridge Toll Plaza and Interchange 10, Route 120, CWE	Enhancements to programmed improvements by NYSDOT	✓	Consider in Level 2 analyses. Detailed traffic operations analysis will determine the scope of the needed improvements.

No.	Title	Description	Level 2 Status	Rationale for Screening
	CI-R1.6: Improve Mainline - Improvements to CWE between Interchange 10 (Route 120) and Interchange 11 (I-95)	Potential improvements to be identified/developed based on traffic simulation modeling		
CI-R2	Improve Various Interchanges and Transition areas	Potential improvements to be identified/developed based on traffic simulation modeling	✓	Consider in Level 2 analyses. Detailed traffic operations analysis will determine the scope of the needed improvements.
Bus Rapid Transit (BR)				
CI-BR1	CI-BR1.1: New BRT transitway on I-287 with service between Suffern and Port Chester – Access controlled and barrier-separated busway	Dedicated busway for most of the length of the I-287 Corridor	✓	Include in Level 2 scenarios.
	CI-BR1.2: New BRT transitway on I-287 with service between Suffern and Port Chester - Buffer-separated transit only lanes in Rockland County	Left-lane bus lanes constructed for BRT operation, entering/exiting the roadway in mixed traffic in Rockland. Buses run in mixed traffic in Westchester	✓	Include in Level 2 scenarios.
CI-BR2	Bus Rapid Transit on Parallel Arterials through conversion of existing traffic or parking lanes	Existing traffic or parking lanes converted to "basically exclusive" bus lanes coupled with priority at traffic signals and other ITS measures	X	Would not perform as well as bus rapid transit scenarios on I-287 mainline (less travel time savings and lower service dependability)./10,14
New Commuter Rail Lines (CR)				
CI-CR1	New Commuter Rail Line from Port Jervis Line to Hudson Line within I-287 corridor	New rail line mostly within I-287 right-of-way, including new stations and intermodal facilities.	✓	Include in Level 2 scenarios.
CI-CR2	New Commuter Rail Line from Port Jervis Line to Hudson Line within I-287 Corridor between Suffern and West Nyack in Rockland County then via Remote Southern River Crossing. (Includes double-tracking of West Shore Line)	Departs from I-287 Corridor at Interchange 12 to West Shore Line, then along Palisades Interstate Parkway to a remote tunnel river crossing and connection to Hudson Line.	X	Would not perform as well as those commuter rail alternatives retained for further consideration. Would not make good use of existing rail infrastructure, would require new property acquisition/displacements and direct impacts to Section 4(f) resources./14, 20, 22

No.	Title	Description	Level 2 Status	Rationale for Screening
CI-CR3	New Commuter Rail line from Port Jervis Line to Harlem Line, within I-287 corridor, including 3 rd tracking of Harlem Line	New rail line mostly within I-287 right-of-way, including new stations and Intermodal facilities. Design speed varies from 50 to 100 mph. Harlem Line would require third track south of White Plains to provide additional capacity	X	Would not perform as well as those commuter rail alternatives retained for further consideration. Travel time to Manhattan would be longer and direct impacts to Section 4(f) property would be required./10, 22 Include transfer to Harlem Line Service (instead of direct connection) in Level 2 scenarios (see CI-CR4, below).
CI-CR4	New Commuter Rail line from Port Jervis Line to New Haven Line, within I-287 corridor	New rail line mostly within I-287 right-of-way, including new stations and intermodal facilities. Design speed varies from 50 to 100 mph. Underground Transfer station in White Plains to the Harlem Line along a new tunnel alignment below the existing White Plains station	✓	Include in Level 2 scenarios.
CI-CR5	Institute commuter service on West Shore Line between Newburgh in Orange County and Hoboken in New Jersey	Expand West Shore Line to provide commuter rail service along entire line	+	The implementation of commuter rail service on the West Shore Line is currently being studied by NJT (between W. Nyack and Hoboken) and Rockland County/NYS DOT (between W. Haverstraw and W. Nyack).
CI-CR6	CI-CR6.1: Commuter and Freight Rail Service from the Port Jervis Line to the Hudson Line	Add shared freight service with new commuter rail line (C-CR1).	+	The feasibility of a shared commuter rail/freight facility is being studied further.
	CI-CR6.2: Rail Freight Connections from the West Shore Line to the Hudson Line within I-287 Corridor	Provide freight access from the West Shore Line across the Hudson River on a new River Crossing facility connecting to the Hudson Line.		
CI-CR7	Reinstate the Putnam Commuter Rail Line	Acquire rail right-of-way and provide commuter service to points south. Connect proposed corridor commuter rail lines to the reinstated Putnam Line.	X	Would not perform as well as those commuter rail options retained for further analysis. Would require direct acquisition of a number of properties, including Section 4(f) resources and would not make good use of existing rail infrastructure./20, 22
CI-CR8	Rockland-Westchester Commuter Rail Subway	Construct subway tunnel in Rockland under Route 59 and in Westchester under Route 119. Provide underground stations within local business districts.	X	Would not perform as well as those commuter rail options retained for further analysis. Would be significantly less cost-effective and would not provide good transit system integration. Significant environmental impacts would be expected. /14, 24

No.	Title	Description	Level 2 Status	Rationale for Screening
CI-CR9	New Tarrytown Transfer Facility	New Intermodal Center at the River Crossing in Tarrytown to enable transfers between transit modes in the I-287 corridor and the Hudson Line.	✓	Include in Level 2 scenarios for LRT/AGT and BRT.
New LRT/AGT or Monorail Lines (LR)				
CI-LR1	New LRT/AGT connecting Tarrytown to White Plains	LRT alignment within I-287 corridor or along Route 119 and Hamilton Ave., with grade separations at major road crossings. (AGT/Monorail would be fully grade separated.) Intermodal facilities would be developed at major stations.	✓	Consider in Level 2 analyses. Ridership and other screening data provided for a full length LRT/AGT alignment will be used to determine the optimum length for the system.
CI-LR2	New LRT/AGT connecting West Nyack to White Plains	Extends C-LR1 alignment across the Hudson river, along the I-287 Corridor to Interchange 11 where it could shift to Route 59 or continue along I-287 to the Palisades Mall.	✓	Consider in Level 2 analyses. Ridership and other screening data provided for a full length LRT/AGT alignment will be used to determine the optimum length for the system.
CI-LR3	New LRT/AGT connecting Nanuet to White Plains	Extends C-LR2 alignment west along I-287 Corridor or along Route 59 to the Pascack Valley Line.	✓	Consider in Level 2 analyses. Ridership and other screening data provided for a full length LRT/AGT alignment will be used to determine the optimum length for the system.
CI-LR4	New LRT/AGT connecting Suffern to White Plains	Extends C-LR3 alignment west to Suffern along the Piermont Branch right-of-way or along I-287 Corridor	✓	Consider in Level 2 analyses. Ridership and other screening data provided for a full length LRT/AGT alignment will be used to determine the optimum length for the system.
CI-LR5	New LRT/AGT connecting Suffern to Port Chester/Rye	Extends C-LR4 alignment east along Route 119, I-287 right-of-way to Port Chester or Rye.	✓	Include in Level 2 scenario.

No.	Title	Description	Level 2 Status	Rationale for Screening
New Cross Westchester Tunnel (Multi-modal) (CWT)				
CI-CWT 1	Intermittent Shallow Tunnel Sections between the Hudson River and I-95 with above ground interchanges and Commuter Rail	Highway alignment along I-287 with intermittent tunnel sections that eliminate interchanges. Above ground alignment provided to maintain major interchanges. Commuter rail in tunnel throughout.	X	Would not perform as well as those above-ground alternatives that are retained for further analysis -- would be less cost-effective, create more traffic impacts related to eliminated interchanges, and require greater right-of-way acquisition and associated environmental and construction impacts./14, 20, 24
CI-CWT 2	Shallow Tunnel from Hudson River to I-95 with below ground interchanges and Commuter Rail	Highway alignment and Commuter rail along I-287 in shallow tunnel throughout.		
CI-CWT 3	Deep Tunnel from Hudson River to I-95 with below ground interchanges and Commuter Rail	Highway alignment and Commuter rail along I-287, in bored tunnel throughout.		

4. RIVER CROSSINGS (RX)

No.	Title	Description	Level 2 Status	Rationale for Screening
Retain the Existing Tappan Zee Bridge				
Preservation Alternatives (P)				
Continue maintenance program to extend service life 50 years. Seismic deficiencies, traffic capacity limitations, operational deficiencies not addressed. No Build Alternative.				
RX-P1	Preserve TZB with 4/3 Operation	Retains current reversible lane operation	✓	Include in Level 2 screening as part of No Build scenario.
RX-P2	Preserve TZB with 6 GP lanes and a reversible priority lane	Reversible lane is restricted to bus only, or bus and HOV use	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion and increased travel times during peak hours./25, 26
Rehabilitation Alternatives without Widening (R)				
Upgrades TZB to meet current structural and safety codes, including seismic criteria, extending service life for 50 years.				
RX-R1	Rehabilitate with 4/3 operation	Similar to RX-P1. Pedestrian/bicycle use not accommodated, highway geometrics limited by existing structure	✓	Include in Level 2 scenarios.
RX-R2	Rehabilitate with 6 GP lanes and a Reversible Priority Lane	Similar to RX-P2. Pedestrian/bicycle use not accommodated, highway geometrics limited by existing structure	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion and increased travel times during peak hours./25, 26
Rehabilitation Alternatives with Widening (RW)				
Upgrades TZB to meet current structural and safety codes, including seismic criteria, extending service life for 50 years.				

No.	Title	Description	Level 2 Status	Rationale for Screening
RX-RW1	Widen to 8 GP lanes	Widening at truss results in split roadway	X	Would not be cost-effective since cost would be similar to a new bridge, traffic operations would worsen and safety concerns would arise./26
RX-RW2	RX-RW2.1: Widen to 6 GP lanes plus 2 priority lanes	Pedestrian/bicycle path accommodated	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion and increased travel times during peak hours./25, 28
	RX-RW2.2: Widen to 8 GP lanes plus 2 priority lanes	Widening at truss results in split roadway	X	The split roadway would result in unsafe conditions related to the separation of traffic at the main spans and the additional driver decisions at unexpected locations./26
RX-RW3	RX-RW3.1: Widen to 6 GP lanes plus Commuter Rail	Pedestrian/bicycle path accommodated	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion and increased travel times during peak hours./25, 28
	RX-RW3.2: Widen to 8 GP lanes plus Commuter Rail	Widening at truss results in split roadway	X	Would not be cost-effective given difficult design challenges related to meeting commuter rail load and operational requirements on a rehabilitated bridge./30
RX-RW4	RX-RW4.1: Widen to 6 GP lanes plus LRT/AGT or Monorail	Pedestrian/bicycle path accommodated	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion and increased travel times during peak hours./25, 28
	RX-RW4.2: Widen to 8 GP lanes plus LRT/AGT or Monorail	Widening at truss results in split roadway	✓	Include in Level 2 scenarios in modified form -- rehabilitated bridge with LRT/AGT and 4/3-lane operation.

Replace the Existing Tappan Zee Bridge

Replaces the bridge with a new bridge, or tunnel, or combinations of bridge and tunnel.

Replacement Bridge (B)

Replacement Bridges have potential alignments parallel to and immediately south of the existing Tappan Zee Bridge. Bridges could include a pedestrian/bicycle pathway; tunnels and serial bridge/tunnels would not.

RX-B1	Replacement Bridge with 8 GP lanes	New 8 lane bridge	✓	Include in Level 2 scenarios.
RX-B2	Replacement Bridge with 8 GP lanes and 2 lane Busway	New 8 lane bridge with 2 lane Busway (equivalent to 10 lanes)	✓	Include in Level 2 scenarios.
RX-B3	RX-B3.1: Replacement Bridge with 8 GP lanes and Commuter Rail	Can include rail freight with additional grade restrictions	✓	Include in Level 2 scenarios.
	RX-B3.2: Replacement Bridge with 6 GP lanes, 2 Busway lanes and Commuter Rail	Can include rail freight with additional grade restrictions	X	Reduction in capacity for general use traffic would result in unacceptable levels of congestion and increased travel times during peak hours./25, 28
RX-B4	Replacement Bridge with 8 GP lanes and LRT/AGT or Monorail	New 8 lane bridge with 2 light rail tracks, following highway profile	✓	Include in Level 2 scenarios.
RX-B5	Replacement Bridge with 8 GP lanes, Commuter Rail and LRT/AGT or Monorail	Can include rail freight with additional grade restrictions	✓	Include in Level 2 scenarios.

Replacement Bored Tunnel (BT)

Each Bored Tunnel replacement alternative has potential alignments in three generalized locations: parallel to, immediately north of, and immediately south of the existing Tappan Zee Bridge

No.	Title	Description	Level 2 Status	Rationale for Screening
RX-BT1	Replacement Bored Tunnel with 8 GP lanes	New 8 lane tunnel	✓	Include in Level 2 scenarios. Evaluate full replacement bored tunnel with 8 GP lanes, commuter rail and 2-lane busway and refine concept based on screening results.
RX-BT2	Replacement Bored Tunnel with 8 GP lanes and 2 lane Busway	New 8 lane tunnel with 2 lane Busway (equivalent to 10 lanes)		
RX-BT3	Replacement Bored Tunnel with 8 GP lanes and Commuter Rail	Can include rail freight with additional grade restrictions		
RX-BT8	Replacement Bored Tunnel with 8 GP lanes, Commuter Rail and 2-lane Busway	New 8-lane tunnel with 2-lane Busway, (equivalent to 10 lanes) and Commuter Rail.		
RX-BT4	Replacement Bored Tunnel with 8 GP lanes and LRT/AGT	New 8 lane tunnel with 2 light rail tracks	X	Would not allow for effective transit system integration since intermodal tunnel connections in Nyack andTarrytown would be required and successful LRT/AGT systems rely heavily on good accessibility to stations./28
Replacement Immersed Tunnel (IT) Each Immersed Tunnel replacement alternative has potential alignments in three generalized locations: parallel to, immediately north of, and immediately south of the existing Tappan Zee Bridge				
RX-IT1	Replacement Immersed Tunnel with 8 GP lanes	New 8 lane tunnel	X	Would adversely impact Hudson River ecology with negligible difference in cost and transportation performance as compared to the bored tunnel option./41
RX-IT2	Replacement Immersed Tunnel with 8 GP lanes and 2 lane Busway	New 8 lane tunnel with 2 lane Busway (equivalent to 10 lanes)		
RX-IT3	Replacement Immersed Tunnel with 8 GP lanes and Commuter Rail	Can include rail freight with additional grade restrictions		
RX-IT4	Replacement Immersed Tunnel with 8 GP lanes and LRT/AGT or Monorail	New 8 lane tunnel with 2 light rail tracks		
RX-IT8	Replacement Immersed Tunnel with 8 GP lanes, Commuter Rail and 2 lane Busway	New 8-lane tunnel with 2-lane Busway, and Commuter Rail.		
Replacement Serial Bridge and Tunnel (B/T) Each Serial replacement alternative has potential alignments in two generalized locations: immediately north of, and immediately south of the existing Tappan Zee Bridge				
RX-B/T1	Replacement Serial Bridge / Tunnel with 8 GP lanes	New 8 lane bridge/tunnel	X	Would not provide significant transportation benefits over the bridge and bored tunnel options retained for further analysis and would adversely impact Hudson River ecology./41
RX-B/T2	Replacement Serial Bridge / Tunnel with 8 GP lanes and Busway	New 8 lane bridge/tunnel with 2 lane Busway (equivalent to 10 lanes)		
RX-B/T3	Replacement Serial Bridge / Tunnel with 8 GP lanes and Commuter Rail	Can include rail freight with additional grade restrictions.		
RX-B/T4	Replacement Serial Bridge / Tunnel with 8 GP lanes and LRT/AGT or Monorail	New 8 lane bridge/tunnel with 2 light rail tracks		

No.	Title	Description	Level 2 Status	Rationale for Screening
RX-B/T8	Replacement Serial Bridge / Tunnel with 8 GP lanes, Commuter Rail and Busway	New 8 lane bridge/tunnel with Commuter and 2 lane Busway		
Replacement Bridge and Transit Tunnel (B+BT or B+IT) Each Replacement Bridge and Transit Tunnel alternative has potential alignments in three generalized locations: parallel to, immediately north of, and immediately south of the existing Tappan Zee Bridge				
RX-B+BT 2	Replacement Bridge with 8 GP Lanes and Bored Tunnel with 2 lane Busway	New bridge with total of 8 lanes and bored tunnel with 2 lane Busway	X	Would not allow for effective transit system integration since interchanges (markets) on east and west shore would be missed (including a Tarrytown Transfer Station)./28
RX-B+BT 3	Replacement Bridge with 8 GP Lanes and Bored Tunnel with Commuter Rail line	Can include rail freight with additional grade restrictions.	✓	Include in Level 2 scenarios.
RX-B+BT 4	Replacement Bridge with 8 GP Lanes and Bored Tunnel with LRT/AGT	New bridge with total of 8 lanes and bored tunnel with 2 light rail tracks	X	Would not allow for effective transit system integration since intermodal tunnel connections in Nyack and Tarrytown would be required./28
RX-B+BT 5	Replacement Bridge with 8 GP Lanes and LRT/AGT or Monorail and Bored Tunnel with Commuter Rail	Can include rail freight with additional grade restrictions	✓	Include in Level 2 scenarios.
RX-B+IT2	Replacement Bridge with 8 GP Lanes and Immersed Tunnel with 2 lane Busway	New bridge with total of 8 lanes and immersed tunnel with 2 lane Busway	X	Would not provide significant transportation benefits over the replacement bridge and bored tunnel and would adversely impact Hudson River ecology./41
RX-B+IT3	Replacement Bridge with 8 GP Lanes and Immersed Tunnel with Commuter Rail line	Can include rail freight with additional grade restrictions.		
RX-B+IT4	Replacement Bridge with 8 GP Lanes and Immersed Tunnel LRT /AGT or Monorail	New bridge with total of 8 lanes and immersed tunnel with 2 light rail tracks		
RX-B+IT5	Replacement Bridge with 8 GP Lanes and LRT/AGT or Monorail and Immersed Tunnel with Commuter Rail	Build a new bridge with total of 8 lanes and 2 light rail tracks and tunnel with commuter rail		
Supplement the Tappan Zee Crossing with Additional Crossing (SB, ST or SB/T) Any supplemental crossing can be combined with any of the alternatives that retain the existing Tappan Zee Bridge. New bridges could accommodate a pedestrian/cyclist pathway; new tunnels and serial bridge/tunnels would not.				
RX-SB1	RX-SB1.1: Supplemental Bridge with 4 or 6 GP lanes - Remote North Location	New highway bridge at remote location north of Nyack	X	Would require significant new roadway corridors to connect river crossing to existing highways, acquisitions, displacements, relocations and impacts to Section 4(f) resources./28, 38, 40
	RX-SB1.2: Supplemental Bridge with 4 or 6 lanes - Remote South 1 Location	New highway bridge at remote location south of Piermont		

No.	Title	Description	Level 2 Status	Rationale for Screening
	RX-SB1.3: Supplemental Bridge with 4 or 6 lanes - Remote South 2 Location	New highway bridge at remote location near New Jersey border		
RX-ST1	Supplemental Bored Tunnel with 4 or 6 GP lanes – Remote South Location	New bored highway tunnel at a remote location south of Piermont	X	Would require significant new roadway corridors, acquisitions, displacements, relocations and impacts to Section 4(f) resources./28, 38, 40
RX-SB6	Supplemental Bridge with Commuter Rail only – Remote South Location	New Commuter Rail bridge at a remote location south of Piermont	X	Would require significant new rail corridor, acquisitions, displacements, relocations and impacts to Section 4(f) resources./28, 38, 40
RX-ST6	RX-ST6.1: Supplemental Bored Tunnel with Commuter Rail only - in existing Tappan Zee Corridor	New bored tunnel with Commuter Rail located immediately north of, parallel to, or immediately south of the existing Tappan Zee Bridge	✓	Include in Level 2 scenarios.
	RX-ST6.2: Supplemental Bored Tunnel with Commuter Rail only – Remote South Location	New bored tunnel with Commuter Rail at a remote location south of Piermont	X	Would require significant new rail corridor, acquisitions, displacements, relocations and impacts to Section 4(f) resources./38, 40
RX-SB/T6	Supplemental Serial Bridge and Immersed Tunnel with Commuter Rail only – in existing Tappan Zee Corridor	New Commuter Rail bridge/tunnel located immediately north of, parallel to, or immediately south of the existing Tappan Zee Bridge	X	Would not provide significant transportation benefits over the bridge and bored tunnel options retained for further analysis and would adversely impact Hudson River ecology./41
RX-ST7	Supplemental Immersed Tunnel with LRT/AGT only - in existing Tappan Zee Corridor	New LRT/AGT immersed tunnel located immediately north of, parallel to, or immediately south of the existing Tappan Zee Bridge	X	Would not provide significant transportation benefits over aboveground options retained for further analysis and would adversely impact Hudson River ecology./41

No.	Title	Description	Level 2 Status	Rationale for Screening
Hybrid River Crossings (HB) A combination of a new replacement bridge with the partial use of the existing Tappan Zee Bridge				
RX-HB1	Hybrid Replacement Bridge with Commuter Rail connecting to the Putnam Line	New highway bridge that crosses the existing alignment, and a new rail crossing that passes under Blauvelt Park in a tunnel, over the western part of the river on a separate bridge, to join the new highway bridge to pass over the channel. (Consideration will be given to incorporating segments of the existing trestle). Commuter rail tunnel would continue in Westchester and connect to the Putnam Line.	X	Would not provide significant transportation benefits over other bridge and tunnel options retained for further analysis and would require a significant number of property acquisitions, displacements, relocations and impacts to Section 4(f) resources./38, 40

Legend:

- ✓ - Retained for further evaluation
- X - Eliminated from further consideration
- +
- Under study by others

APPENDIX B

NO BUILD PROJECTS



No Build Projects

This appendix provides a list of projects that were considered in the analysis of the No Build scenario that was conducted for the AA process as of 2003. They include direct physical improvements in the TZB/I-287 Corridor, projects that would affect travel patterns in the Corridor, or regionally significant projects worthy of note. This list will be updated during preparation of the DEIS. No projects have been identified since that time that would materially affect the conclusions of this report. The list was compiled based on a review of:

- The Mid-Hudson South Transportation Coordinating Committee Draft Transportation Improvement Program, October 1-2001 - September 30, 2004.
- The New York City Transportation Coordinating Committee portion of the NYMTC FFY 2002-04 Transportation Improvement Program, July 11, 2001.
- Draft Transportation Improvement Program FFY 2004-2006.
- Project lists included in recently prepared EISs.
- Projects described on agency websites.

The list of projects is divided into two groups:

- Committed projects that include improvements on the TIP or in capital programs and will be implemented in the near future (Table B-1). These improvements will be considered part of the No Build since they are likely to be constructed by the future analysis years.
- Studies that are being sponsored by regional transportation providers (Table B-2). These studies, in most cases, are in the early stage of project definition (where a preferred alternative has not yet been identified) or the public review for the environmental process (NEPA or equivalent) is not yet complete. These projects are not on the TIP and were monitored during the course of the TZB/I-287 AA process.

Table B-1
Committed Projects (on TIP and/or programmed)

Organization	Project	Description
NYSTA	Cross Westchester Expressway (I-287/I-87 Interchange and I-287 Corridor)	Programmed improvements include rehabilitation and bridge replacements with operational and safety improvements. a continuation and expansion of the current TDM/ITS Program (including installation of CCTV, VMS and transmit on I-87, I-95 and I-84), and noise barrier installation. Reconfigured Interchange 8 plus auxiliary lanes on I-287 from TZB to the CWE are scheduled to be completed by January 2004. Additional safety and operational improvements on the CWE are being completed in stages with programmed lettings expected every other year, which started in 1999.
	I-95/New England Thruway	This project includes improvements to the I-287/I-95 interchange, reconstruction of last mile of the New England Thruway, and bridge rehabilitation over the Hutchinson River Parkway.
	TZB repairs	Ongoing maintenance of the TZB includes bridge steel, causeway spans, fender piles and Phase II substructure repair.
NYSTA/NYSOT	I-84/I-87 Interchange	A direct interstate-to-interstate connection between I-84 and I-87 will be constructed to facilitate travel and reduce traffic on Route 300 in the vicinity of SWF. Route 54 (Drury Lane) will be expanded and connect to I-84 to provide a direct access route to SWF, alleviating traffic on Route 207 and Route 300.
NYSOT	Taconic State Parkway Widening: Route 35/202-Route 6	The Taconic State Parkway will be widened from its present 4-lane configuration to a six-lane configuration in the Town of Yorktown, beginning at the Route 202/35 interchange and ending north of Route 6.
	Newburgh-Beacon Shuttle	NYSOT has committed funding for the continuation of the Newburgh-Beacon Shuttle bus, which includes service to Stewart Airport.
	Bikeways/pedestrian facilities and Recreational Trails Program	Includes a variety of programs such as construction of Putnam Division Bikeway, Palisades Interstate Parkway corridor Class I bikeway, Bronx River Parkway Reservation Pathway extension, County Rte 33 bike/ped improvements, and future scenic bikeway projects.
NYSOT/Counties	Various TDM/TSM Initiatives	Includes Regional Action Plan Development, Commute Alternatives Program, promotional campaign to support MNR connecting services, Job Access and Reverse Commute Program (extended hours on Bee Line routes), multi-county ATMS/ATIS, construction of New Rochelle intermodal facility, development of one or more park-and-ride lots for Bee Line, park-and-ride development in Yorktown, Suffern, New City, along I-84 and Rte 6, and in Putnam County, purchase of buses and funding for transit studies.
NYSOT/Counties/MNR	Newburgh-Beacon Ferry	More than 1.5 million in federal monies has been earmarked to revive ferry service between Newburgh and the MNR Beacon Station. A new parking facility and ferry dock will soon be constructed in Newburgh and service is expected to begin in 2004.
NYSOT/Counties/MNR	Haverstraw-Ossining Ferry Service	The Haverstraw-Ossining Ferry service was significantly improved with the use of faster ferry boats and an increase in the number of MNR trains met by the ferry. The program will continue this level of service using the Ferry Boat Discretionary funding \$3.2 million obtained by the Hudson Valley Congressional delegation. Landside improvements in Haverstraw and Ossining will be made and the boats will continue to be leased. Ferry operating costs will continue to be offset by use of federal highway funds.

Organization	Project	Description
Rockland County	Bus Purchase	Rockland County is currently in the process of purchasing a total of 46 buses. The purchase of buses will include 17 TOR buses for \$5 million, 19 TZX coach buses for \$8 million, and 10 new T.R.I.P.S buses for \$0.6 million. Replacement and expansion of paratransit vehicles, shuttle buses and commuter coaches will continue, along with development of a vehicle locator system and other ITS components.
Westchester County	Bus Service Maintenance	20 projects totaling approximately \$92 million over the next 3 years are planned, primarily focusing on maintenance of bus service and capital rolling stock. Vehicles will continue to be replaced as they become eligible; all new buses include diesel engine retrofit technology to reduce emissions. Support equipment including the bus radio system and electronic fareboxes will be replaced. Funding is also available to continue Westchester County's Commute Alternatives program, designed to encourage people to break out of their single-occupant vehicle and use transit or ride share.
Inter-County	Inter-County Bus Services	The operation and improvement of inter-county bus services will continue. Services such as the Poughkeepsie-White Plains bus, the Orange Westchester Link, TZX, the Stamford-White Plains bus, the Croton Falls Shuttle, the Ridgefield-Katonah Shuttle, the Brewster-Danbury Shuttle, and West Shore bus will continue to provide needed regional transit service and critical connections to the commuter rail system, supported by features such as Uni-Ticket and guaranteed ride home programs.
NJ TRANSIT	Secaucus Transfer	The Secaucus Transfer Station allows passengers to transfer between trains on the Main, Bergen and Pascack Valley lines, and trains on the North East Corridor, North Jersey Coast, and Morris & Essex lines. It provides better access to midtown Manhattan by avoiding a transfer to PATH at Hoboken, and makes intrastate rail travel more convenient in New Jersey. This project includes track improvements to the Main and Bergen lines including the Main-Bergen Connector.
	Hudson-Bergen LRT	The Hudson-Bergen LRT is a planned 20.5 mile light rail transit system extending from Bayonne in Hudson County to a northern (yet to be determined) terminal in Bergen County. Approximately 10 miles of the system -- between East 34th Street Station in Bayonne and Hoboken Terminal (with a spur to Jersey City) -- is currently in service. Another 6.2 miles is under construction: a southern extension in Bayonne from East 34th Street and East 22nd Street (scheduled to be operational in 2004); a northern extension from Hoboken Terminal to the Port Imperial Ferry Terminal in Weehawken (scheduled to be operational in 2004); and a further northern extension from Port Imperial to Tonelle Avenue (scheduled to be operational in 2005). Additional extensions are discussed below under Planning Context.
	Miscellaneous Improvements to the Main/Bergen Lines and the Pascack Valley Line	The opening of the Secaucus Transfer station will increase the attractiveness of the Main/Bergen and Pascack Valley lines, resulting in increased ridership. In order to meet this demand a program of miscellaneous improvements are currently in progress on the lines. The work consists of 1 freight siding (2+ miles long at East Rutherford/Carlstadt) and 3 passing sidings ("Golf" at Oradell, "Pond" at Nanuet, and "Coal" near the Hackensack Station) on the Pascack Valley Line to allow trains in opposing directions to pass each other in single track sections, signal system improvements to increase capacity, additional yard trackage to accommodate increased rolling stock requirements, and miscellaneous station improvements, including increased parking accommodations. These improvements are expected to be in service by the Spring of 2005.
	High Density Signaling System	To cope with the increased demand that will arise when Secaucus Transfer Station opens, NJ Transit and Amtrak are currently installing a High Density Signaling system on the Northeast Corridor High Line and through the Hudson River Tunnels into Penn Station New York. This will allow an increase in the throughput of the river tunnels from

Organization	Project	Description
		the current 24 trains an hour to 28 trains per hour.
	Newark-Elizabeth Rail Link MOS I	Funding for construction of the initial operating segment (MOS I) consisting of a one mile LRT extension of the Newark City Subway connecting Broad Street Station and Penn Station in Newark in accordance with FTA's Full Funding Grand Agreement. The entire project is a proposed LRT line approximately 9 miles long linking Newark and Elizabeth as referenced in Section 3030 3e of TEA-21.
MTA	East Side Access	East Side Access will improve access to Manhattan's East Side for commuters in Long Island and Queens. New tunnels will be constructed in Queens and beneath Park Avenue in Manhattan connecting to the lower level of the existing 63rd Street tunnel. A new terminal will be constructed beneath, and connecting to, Grand Central Terminal. The project is expected to be constructed by 2012.
	Second Avenue Subway	MTA and NYCT have begun the final planning and environmental analysis for a full-length Second Avenue Subway from 125 th Street to the Financial district in Lower Manhattan. The MTA capital program has funds committed to this project and construction is to commence by the end of 2004, with start-up expected in 2016.
MNR	Mid-Harlem Line Third Track Project	An upgrade of an existing third track between Mount Vernon West and Fleetwood stations on the Harlem Line, and a new third track between Fleetwood and Crestwood stations, will accommodate expansion of peak service into GCT, facilitate Upper Harlem/Dover Plains express service, and accommodate the growing intra-suburban/reverse commute markets. Construction will be complete by 2005.
	Rolling Stock	180 M-7 electric cars for use on the Hudson and Harlem lines will be purchased in order to complete the retirement of the 1100-series and begin the retirement of the fleet of 176 M-1 cars. Additionally, MNR plans to include the overhaul of 24 coaches for service on the Hudson, Harlem, and New Haven Lines. The West of Hudson diesel coach fleet will be expanded as part of a joint order with New Jersey Transit to purchase 65 Comet V coaches, 2 diesel locomotives, and refurbish 2 Comet III coaches.
	Passenger Stations and Parking Projects	Rehabilitation of stations includes improvements to station buildings, platforms, overpasses and waiting areas. Grand Central Terminal will continue to be restored. In addition, expansion of parking facilities will continue to be pursued to meet increasing demand throughout the system. Station projects in the amount of \$272 million are planned over the next three years. They include the rehabilitation of approximately 17 stations on the Hudson Line. Several stations on the Harlem line will undergo normal replacement work. West of Hudson stations will receive canopy extensions and heated shelters where needed.
	Port Jervis/Pascack Valley lines Improvements	Concurrent with the opening of the Secaucus Transfer, MNR will be increasing train service on the Port Jervis and Pascack Valley lines. The MNR 2000-2004 Capital Program includes: \$90 million for 65 new coaches and 11 locomotives; \$6 million contribution to NJT for improvements in NJ; \$5 million in station improvements in Orange and Rockland counties; \$2 million for parking expansion at Port Jervis and Pascack Valley line stations in New York including 225 new spaces (a 50 % increase) at Salisbury Mills; \$7 million for expanded/upgraded storage and service yard at Port Jervis; and \$2 million for ticket vending machines at all west of Hudson stations.
LIRR	Main Line Third Track	A third track will be constructed on the Main Line between Bellerose and Hicksville, providing capacity for increased reverse peak service and greater operating flexibility.

Organization	Project	Description
PANYNJ/MTA	Lower Manhattan Redevelopment	Downtown transit plans include reconstruction of the PATH, Fulton Street Transit Center, South Ferry Station relocation and other miscellaneous improvements. PATH service is expected to be restored to the WTC Station in November 2003.
PANYNJ	JFK Airtrain	PANYNJ is currently constructing "Airtrain", a \$1.5 billion light rail link to JFK Airport. The line will have connections to the NYCT Howard Beach subway station and to the LIRR Jamaica Station, which is currently being reconstructed to accommodate the new airport service. The Airtrain is expected to be in operation by fall of 2003.
	Freight Barge	PANYNJ will install a more efficient barge system to move marine containers between Red Hook Marine Terminal and Port Newark thus alleviating truck trips through the boroughs of NY.
CONNDOT	I-84 Waterbury-Cheshire-Southington	The project involves widening 10 miles of I-84 to add one lane in each direction. The project is scheduled to begin construction by 2004.
CONNDOT-RAILS	New Haven Mainline Catenary Replacement	The existing catenary system from the New York State line to New Haven is being replaced. The project will be completed in four phases ending in 2010.

Table B-2
Planning Context (EIS or similar review underway or completed,
but without funding commitment)

Organization	Project	Description
NYSTA	I-87 – Woodbury to Albany	The NYSTA is studying structural, safety and operational conditions on the Thruway between Woodbury and Albany and considering high speed tolling at Woodbury.
	Sterling Forest Interchange	A proposal for a new Thruway exit (15B) to connect the Thruway to Route 17A has been considered.
Rockland County	Countywide Truck Movement Study	The Countywide Truck Movement Study will look at ways to mitigate the negative impacts of trucks on the Rockland County highway and road system and within the county's residential communities and to better coordinate the movement of goods and services throughout the county. The ultimate goal of the study is to develop the most efficient highway system to accommodate the movement of trucks both for local deliveries and other services. An important product will be a formal county truck route system that will be responsive to needs while sensitive to stakeholder issues.
	Route 59 Transit Operations Analysis	In an effort to improve existing transit service in the Route 59 corridor, this study will investigate alternatives that would increase the efficiency and effectiveness of transit services currently serving the corridor and its vicinity. Gaps and barriers in the existing systems will be identified and solutions recommended.
	Countywide Bus Stop Study	This study will determine the need for and locations of bus stops. Rockland County currently utilizes a "flag down" system where buses will stop anywhere they are flagged down. This tends to create congestion and compounds delays during rush hour.
PANYNJ/LM DC	Haverstraw/Yonkers-Lower Manhattan Ferry	This project has received funding in the Omnibus Appropriations Bill that passed in January 2004. Rockland and Yonkers were jointly awarded \$1.2 million for capital improvements. Currently, LMDC is preparing an Environmental Assessment for the project. The PANYNJ is preparing an RFP for selection of an operator as early as the fall of 2004. The anticipated route includes Battery Park City, NY to the City of Yonkers with a possible extended service to the Village of Haverstraw.
NJ TRANSIT	West Shore	NJ TRANSIT is exploring the possibility of instituting passenger service on an improved West Shore line. Connections to a northern extension of the HBLRT are being explored. A DEIS is expected mid-2003.
	Access to the Region's Core	NJ TRANSIT is exploring both near- and long-term options to expand capacity to PSNY. The near-term improvements include yard development in the PSNY area to permit a 30-train per hour throughput. Long-term improvements would include a trans-Hudson tunnel and a new terminal in the PSNY area. The environmental assessment for both the near- and long-term improvements will begin shortly. Near-term improvements are expected to be constructed within an eight-year timeframe.
	Pascack Valley Passing Sidings	Two additional passing sidings may be constructed on the Pascack Valley line- the "Sack" siding at Teteboro and the "Vale" siding between Park Ridge and Montvale.
	Other Transit Rail Initiatives	The "Transportation Vision for the 21st Century Plan" indicates that New Jersey will commence construction on two additional rail projects from an already developed list of ten. The projects include (in no rank order): HBLRT MOS-3 potentially to the Vince Lombardi Park-and-Ride; restoration of commuter rail service on the NYS&W west of Hawthorne; restoration of commuter rail service to Lackawanna Cutoff; Union County rail project (Cross County) from Plainfield to Elizabeth port; restoration of commuter rail service on the West Trenton line; commuter rail spur to the Meadowlands Sports Complex; second phase of SNJLRT (Glassboro to Camden); second phase of NERL (Newark Penn Station to the southernmost end of Newark CBD); third phase of NERL (second phase terminus to Elizabeth TBD - Union County Rail); MOM commuter rail extension; extension of Cape May Seashore Line north to Hammonton (to Atlantic City Rail Line); extensions of Raritan Valley Line to Washington Township or Phillipsburg.
MTA	No. 7 Extension	The MTA and the City of New York Department of City Planning propose to promote the transit-oriented development of the Hudson Yards area with the extension of the No. 7 subway line from its current terminus at West 42nd Street and Seventh Avenue to the West 34th Street/Eleventh Avenue area. The EIS is expected to be complete by mid-2004.

Organization	Project	Description
MNR	Penn Station Access	MNR is considering options for bringing commuter trains into Penn Station via tracks currently used by Amtrak trains for long-distance travel. In addition to provision of MNR service to Penn Station, the MIS/DEIS study is examining the need for additional stations on the West Side of Manhattan and at Co-op City in the Bronx. The DEIS is expected to be complete in the summer of 2003.
MNR	Transit Access to Stewart International Airport	MNR is considering extending commuter rail service to Stewart International Airport. The EIS process has not yet begun.
AMTRAK	Empire Corridor Improvements to Albany	Amtrak and the NYSDOT have a Memorandum of Understanding that outlines a program of improvements that will increase running speeds along the Empire Corridor, resulting in shorter intercity travel times. Metro-North Railroad's Hudson Line between Spuyten Duyvil and Poughkeepsie makes up a portion of the Empire Corridor. In addition, there will be a refurbishing of existing rolling stock, which will allow an increase in the number of scheduled trains between NYC and Albany. Some elements of this program have already been carried out while others are currently on hold pending the resolution of federal funding issues for Amtrak and New York.
NYCEDC	Cross Harbor Freight Movement Project	NYCEDC's Cross Harbor Freight Movement Project EIS is evaluating alternatives to develop a more efficient freight network that enhances the region's ability to move goods. The two-year project will refine and select preferred alternatives that enhance the region's competitive position by improving mobility of goods traffic while improving environmental quality. The DEIS is expected to be published in the Spring of 2003. The preferred alternative is either a one- or two-track rail tunnel between Sunset Park (Brooklyn) and either Greenville (New Jersey) or northern Staten Island.
NJTPA/NJ DOT	Portway Extensions Study	The NJTPA is assisting NJDOT in conducting outreach for a one-year study to identify container/goods movement issues in the New York/New Jersey port district and to determine the most efficient way of transporting goods within and around the region. A specific goal of the study is to identify options for extending Portway, a 17-mile semi-dedicated truck corridor linking key port, and airport and intermodal rail terminals. Initial segments of Portway are now being built. A Task Force has been formed to serve as a conduit for information between NJDOT/NJTPA and key stakeholders.
PANYNJ	CPIP	The PANYNJ is currently developing the Comprehensive Port Improvement Plan for the Port of NY & NJ (CPIP) to identify port improvements necessary to maintain the status of the port as the preeminent port on the US Atlantic Coast.
NYSDOT	Bruckner-Sheriden	NYSDOT is developing alternatives to improve the Bruckner-Sheriden Interchange. Another objective of the project is to improve freight access to Hunt's Point Market. Truck routes, rail and waterborne options are being explored. The EIS is expected to be complete in 2005.
	Bronx Arterial Needs Major Investment Study	The NYSDOT has begun the Bronx and Northern Manhattan Arterial Needs Major Investment Study to identify and develop transportation solutions from a multi-modal travel perspective that focus on the Arterial System in the Bronx, and in particular, the Cross Bronx and Major Deegan Expressways. A series of projects will be developed to address multi-modal capacity and operations (autos, transit, commercial vehicles), safety, infrastructure deficiencies and goods movement enhancement.
	I-87 Multi-Modal Corridor Study	NYSDOT is studying I-87 from the Tappan Zee Bridge to Montreal. The first phase of the study involves preparing an inventory of existing transportation system conditions, integrating findings with the "New York and the New World Economy" report, and identifying key corridor issues and emerging opportunities. The second phase will prioritize initiatives based on global economic potential, feasibility, and other project goals and objectives.
	Hutchinson River Parkway, New England Thruway and Henry Hudson Parkway Improvements Study	This study will evaluate the feasibility of additional lanes within the existing ROW between Country Club Road and Pelham Pkwy to relieve severe chronic congestion along the Bruckner Expressway.

Organization	Project	Description
	Rtes 9A, 119, 100c Traffic Operations/Capacity Improvement Study	This study will include evaluation of a bypass roadway widening along 9A in the Village of Elmsford, Town of Greenburgh,
	I-84 MIS	This study will examine the I-84 corridor between Route 9W and the Conn. Line.
	Areawide Traffic Analysis and Forecasting Study for the Ardsly, Yonkers, and Greenburgh	Traffic information from this study will be reviewed for consistency with traffic projections in the TZB/I-287 study area.
	Route 32 Study	NYSDOT and Orange County are studying how to relieve congestion on Route 32, which includes a proposal to connect Woodbury Commons with the southbound Thruway.
NYSBA	Traffic Demands and Need Study	This study will evaluate conditions on the Hudson River bridges.
CONNDOT	I-84 New York State Line to Newtown	Needs and deficiencies improvements are being studied for existing I-84 between interchanges 1 and 11, a length of 18.4 miles.
	I-84 Southbury to Waterbury	A GP lane on I-84 in each direction from Interchange 13 to 18 is being considered.
CONNDOT and RPA	Intrastate Ferry and Barge Transportation	The study analyzed the potential for intrastate commuter ferry in the Long Island Sound between Branford and Stamford and investigated the transportation of commercial products by barge in the Long Island Sound between the port facilities of NY and NJ, and Bridgeport Harbor and New Haven harbors.
CONNDOT - Rails	West Haven/Orange Railroad Station	An environmental review of the proposed site for a new rail station on the New Haven Line is being conducted. The new station would include parking for at least 1000 cars.
NYMTC and OTHERS	Long Island Sound Waterborne Transportation Plan	Launched in February 2002, the Long Island Sound Waterborne Transportation Plan project (Waterborne Plan) is exploring the potential for expanding the use of the Long Island Sound and its tributaries for waterborne passenger and freight transportation. Jointly sponsored by three Metropolitan Planning Organizations (MPOs), the New York Metropolitan Transportation Council (NYMTC), the Greater Bridgeport Regional Planning Agency (GBRPA) and the Southwestern Regional Planning Agency (SWRPA), the 13-month project will develop a plan for waterborne transportation for Long Island Sound for the 2002-2025 time period.

Organization	Project	Description
	Bicycle/Pedestrian Master Plan Study	Westchester, Rockland and Putnam Counties of New York have completed a bicycle and pedestrian master plan for the three county regions. The objective of this study was to identify locations to develop bicycle and pedestrian facilities as viable alternatives modes of transportation. Specific projects may emerge based on the study's recommendations.
	Traffic Operations Center (North)	This program will provide for the development and implementation of state of the art traffic management techniques in the North Jersey area, including establishment and operation of a traffic operations center; incident management and construction traffic mitigation; highway courtesy patrols; highway advisory radio; operation and maintenance of computerized traffic signals, traffic surveillance and motorist information systems; and other techniques
	Route 303 Sustainable Development Study	Route 303, a major north-south arterial connecting New York and New Jersey, is located in the Town of Orangetown, Rockland County, NY, approximately 25 miles from mid-town Manhattan. Because of major population and employment increases in recent years, Route 303 has become not only a major route for commuter travel and commercial traffic, but also a focus of commercial and residential development in the town. The Study was undertaken to link transportation and safety improvements with recommendations for land use changes in the same study. The five-mile Route 303 corridor was chosen because of its high rate of accidents and its mix of land use and zoning districts, which make it aesthetically unappealing despite its impressive natural environment. The ultimate objective of the study was to chart a path for future improvements that balanced the need for safety, accessibility, mobility and sustainable development and land use goals. Specific projects that will address these conditions may emerge.
	ITS Integration Strategy	The ITS integration strategy is being developed through a cooperative effort by the region's transportation agencies, covering all modes and all roads in the region. When completed, the strategy will represent a shared vision of how each agencies' system will work together in the future, sharing information and resources to provide a safer, more efficient, and more effective transportation system.
	Putnam Transit	Working with NYMTC, Putnam County initiated a Strategic Regional Transit Study in December 2002. A key objective will be to identify cost-effective strategies to improve coordination among the regional transit services – including bus, rail, paratransit, ridesharing, bicycling, and pedestrian connections – in and around Putnam County.
	Congestion Mitigation Systems Vision 2020 Plan	In February 2003, the South Western Regional Planning Agency (SWRPA) in Connecticut released the Plan which confirmed that traffic congestion is a growing problem, and acknowledged the need to strengthen travel connections between southwestern Connecticut and the New York metropolitan area, including improved access to metropolitan area airports, creation of a lower Hudson River rail crossing, expanded interstate commuter rail service and interstate ferry service as options that warrant further study.

