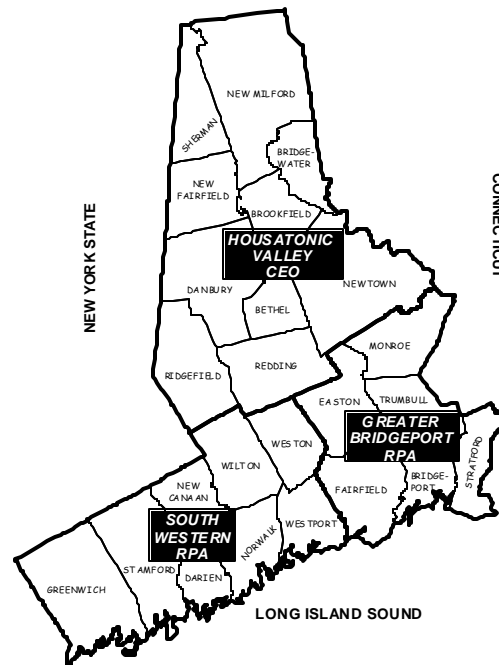


DRAFT SOUTH WESTERN REGION LONG RANGE TRANSPORTATION PLAN 2004-2030



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Metropolitan Planning Organization
September 2004

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SOUTH WESTERN REGION LONG RANGE TRANSPORTATION PLAN 2004-2030

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SOUTH WESTERN LONG RANGE TRANSPORTATION PLAN 2004-2030

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South Western Region Long Range Transportation Plan 2004-2030 Frequently Asked Questions (FAQs)

What is the South Western Region Long Range Transportation Plan 2004-2030 (Plan) and why does the region need one?

What is the South Western Region Metropolitan Planning Organization (SWRMPO) and what is its role in the Plan?

What is the Transportation Technical Advisory Group (TTAG) and what role does it play in Plan development?

How is the Plan developed and what does it include?

How does the Plan relate to the Transportation Improvement Program (TIP)?

Who is responsible for developing the Plan?

Who reviews and approves the Plan?

Once the Plan is adopted can it be amended?

What is in the Plan?

What are the regional transportation goals and objectives?

What are the region's key strategies for meeting the transportation goals and objectives?

What are the region's near term priority projects and programs?

How is the 2004-2030 Plan different from the South Western Region Long Range Transportation Plan 2001-2025?

How much will it cost to maintain and operate the region's transportation system?

What is the South Western Region Long Range Transportation Plan 2004-2030 (Plan) and why does the Region need one?

The South Western Region Long Range Transportation Plan (Plan) is the "blueprint" for transportation in the eight towns of the South Western Region: Darien, Greenwich, New Canaan, Norwalk, Stamford, Stamford, Weston, Westport, and Wilton. It serves as a guide for developing a transportation system that is accessible, safe, and reliable and contributes to a higher quality of life for the region's citizens. The Plan reflects the current state of the region, identifies future transportation needs, and plans responsibly for the entire region. The Plan is also a federal requirement and must be in place before federal transportation dollars can flow to the region. The South Western Region Metropolitan Planning Organization (SWRMPO) is required to review and update the Plan every three years. The *South Western Region Long Range Transportation Plan 2001-2025* is the current plan for the region. The 2004-2030 Plan is being developed and is proposed for adoption by the SWRMPO in October 2004.

What is the South Western Region Metropolitan Planning Organization (SWRMPO) and what is its role in the Plan?

The South Western Region Metropolitan Planning Organization (SWRMPO) is responsible for developing long range regional transportation plans and transportation improvement programs for the eight towns in the South Western Region. The SWRMPO voting membership includes the chief elected official of each of the towns, and representatives from the Norwalk Transit District, the Stamford Transit District and the Westport Transit District. The Transportation Equity Act for the 21st Century (TEA-21) is the current federal legislation that controls transportation programs and requires metropolitan planning organizations to develop regional transportation plans in cooperation with federal, state, and local agencies.

What is the Transportation Technical Advisory Group (TTAG) and what role does it play in Plan development?

The Transportation Technical Advisory Group (TTAG) is the region's technical committee and provides support to the SWRMPO. The TTAG participates in studies, and assists in the development of programs and plans that are prepared for the SWRMPO. The TTAG members are technical representatives from the transit districts, municipal planning, public works or transportation departments, SWRPA, the Connecticut Department of Transportation (ConnDOT), USDOT Federal Highway Administration (FHWA) and USDOT Federal Transit Administration (FTA). The South Western Regional Planning Agency (SWRPA) is the region's designated transportation planning agency, and serves as staff to the SWRMPO and TTAG.

How is the Plan developed and what does it include?

Development of the Plan is a multi-pronged approach. The SWRMPO and the South Western Regional Planning Agency (SWRPA), as the transportation planning agency, work with local elected and technical officials, state and regional transportation agencies and other stakeholders such as the public, special interest groups, business and industry representatives. The SWRMPO and SWRPA staff also participate in local, regional, state and metro-New York transportation studies and committees to ensure that there is up-to-date information and interaction on transportation issues and initiatives of concern to the region. Public input and involvement is encouraged through public information sessions, study and committee advisory groups, and

targeted efforts to engage stakeholders in the development of plans and programs. The technical and quantitative aspects are developed and maintained by SWRPA in cooperation with ConnDOT. SWRPA collects and maintains data and conducts analyses and studies that identify needs, and analyze alternatives and impacts of transportation improvements. The end results are policies, initiatives, and projects that represent the long range transportation vision and investments for the region.

How does the Plan relate to the Transportation Improvement Program (TIP)?

The Transportation Improvement Program (TIP) is the three year financial program for implementation of federally-funded projects. The TIP is developed in cooperation with ConnDOT, and is another responsibility of the SWRMPO. Projects on the TIP must be included in the long range transportation plan.

Who reviews and approves the Plan after it is approved by the region?

Before the Plan can be implemented and federal transportation funds spent, it is subject to a review and approval at the state and federal levels. After the Plan is endorsed by the SWRMPO, the Plan is submitted to ConnDOT, USDOT FHWA and FTA, as well as the CT Department of Environmental Protection, and the US Environmental Protection Agency to review and issue a finding of conformity with federal regulations.

Once the Plan is adopted can it be amended?

To keep the Plan up-to-date and responsive to regional needs it must be flexible. Amendments to the Plan are possible, and the requirements for public involvement, technical and policy endorsements are the same as the usual three year plan update.

What is in the Plan?

What are the regional transportation goals and objectives?

The South Western Region Long Range Transportation Plan 2004-2030 goals are to provide safe, efficient, cost effective and balanced transportation systems that promote mobility, access and choice with minimum adverse impacts and optimal investment of available resources in the transportation systems. The objectives are:

- I **Economic Competitiveness** – to make timely investments in the transportation system to maintain a healthy regional economy and to promote quality of life.
- II **Infrastructure** – to maintain in a state of good repair transportation equipment and facilities, including highways, bridges, and transit systems.
- III **Accessibility and Mobility** – to maintain and increase options for the movement of people and goods.
- IV **Safety and Security** – to promote the safety and security of all modes of transportation for all users and operators.
- V **Environmental and Clean Air Responsibility** – to avoid, minimize, or mitigate negative environmental impacts of transportation projects and systems whenever possible.

- VI **Land Use and Transportation** – to support strategies that promote transit oriented development, context sensitive design solutions and quality of life in the region.
- VII **Intermodal Connectivity** – to enhance the integration and connectivity of transportation systems and modes for people and freight.
- VIII **Systems Efficiency and Productivity** – to optimize current systems and resources through ‘transportation systems management’ and the use of new technology to increase system productivity.
- IX **System Performance** – to develop measurement and monitoring tools and strategies to better assess transportation systems performance, and revise programs to improve systems operations and performance.
- X **Financing** – to provide resources to maintain existing transportation systems and services in a state of good repair, and to support improvements and services that meet the needs of system users and operators. The Transportation Plan describes the financial framework for system operation, maintenance and improvement.

What are the Region’s key strategies for meeting the transportation goals and objectives?

The Plan identifies strategies and projects for highways, safety and security, traffic signals, bridges, congestion management, incident management, bus and rail transit, elderly and disabled transportation, freight/goods movement, transportation demand management and commuter choice, bicycling and walking, waterborne transportation, intelligent transportation systems (ITS), and land use. The strategies focus on new planning and engineering studies that will define future investments, and also call for development of operational programs to increase safety, mobility or commuter choice.

Strategies to increase mobility and commuter choice include:

- Regional Transit Strategies Plan will develop the vision and an implementation plan for transit within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry and air.
- Stamford Transportation Investment Strategies Study will develop a comprehensive plan for highway and all modes of transit in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor.
- Stamford Transportation Center Master Plan will define near term and long term capital projects, maintenance and operating requirements and financing.
- Stamford Transportation Center commuter connections operations assessment will rationalize taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Stamford Transportation Center operations plan will integrate Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.
- A South Norwalk Intermodal Facility Concept Plan will develop the scope, cost and timetable for intermodal facilities at the South Norwalk rail station.

- The Merritt 7 Area Transportation Study will develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- The Danbury Rail Line Electrification Study Phase 2 scope should develop a rail service enhancement program and commuter connections to provide additional train service to the Wilton/Merritt 7/South Norwalk corridor.
- A New Canaan Branch implementation program will identify rail service, parking needs and intermodal connections to enhance enhance transit options and support transit oriented development.

Operations and safety strategies include:

- A Route 7 corridor needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach, in cooperation with ConnDOT, the Housatonic Valley Council of Elected Officials (HVCEO), the SWRMPO and SWRPA.
- A Darien Route 1 study will develop a congestion, circulation and access management improve ments program.
- A comprehensive truck safety and enforcement program is needed to:
 - Establish truck safety and enforcement as high priorities for the State with funding to (1) operate weigh stations at current or increased levels (2) increase truck safety inspections at I-95 and I-84 inspection/weigh station areas, and (3) implement effective use of the I-95 Weigh-in-Motion project (#56-290) scheduled for design completion in 2005.
 - Set up a “truck information” webpage on the ConnDOT website to provide truckers with information on state truck regulations and programs, state rest areas and private truck stops, vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes, information about the Merritt Parkway and commercial vehicle restrictions, links to the ConnDOT Incident Management webpage where information is provided on various state programs of interest to truckers, ConnDOT traffic cams and information on incidents in progress. Future capabilities relate to real time traveler information on truck stop and rest area parking availability and 511 information programs.
 - Encourage NYSDOT and ConnDOT development of an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills, and to develop protocols for NYSDOT and ConnDOT variable message signs that reinforce Merritt Parkway and Hutchinson River Parkway use restrictions.

Preservation or enhancement strategies include:

- A comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program is development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the interchange.

Participate in key project and program planning initiatives:

- The ConnDOT Southwest Corridor Safety and Operations Engineering Study funded by the CT Legislature and included in the TSB budget for \$1.5 million.
- The ConnDOT rest area lease renewal program to reconfigure rest areas and their services - the Darien I-95 rest areas and the Route 15 New Canaan and Greenwich rest areas are part of this ConnDOT effort.
- Governor's Commuter Shoulders Project environmental assessment as a designated participating agency.
- Continue cooperation, collaboration and projects undertaken by the state, partners within the Bridgeport-Stamford Urbanized Area, other Connecticut regions, the Transportation Strategy Board (TSB), and New York metro area organizations to address transportation issues, and to develop cohesive investment strategies that result in funding and tangible projects.

What are the Region's near term priority projects and programs?

Implementation of projects included in the FFY2005-2009 TIP and special projects is a priority.

Route 7 Corridor Highway and Transit Projects

- Complete the Route 7 and Route 15 Interchange (Norwalk)
- Widen Route 7 between Wolf Pit Road and Olmstead Hill Road (Wilton)
- Design Route 7 improvements between the Route 7 expressway terminus at Grist Mill (Norwalk) and Route 33 (Wilton)
- Implement the Danbury Rail Line signal and communications project (#302-0007)

I-95 Projects

- I-95 – develop and implement operational and safety improvements in the South Western Region.
- Construct and operate the I-95 Greenwich Weigh In Motion Project.
- Construct I-95 Exit 16 improvements

Special and Priority Projects

- Stamford Urban Transitway Phase 1 (Stamford Transportation Center to Elm Street)
- Stamford Urban Transitway Phase 2 (Myrtle Avenue)
- Stamford Ferryboat Facilities
- Norwalk Pulse Point Security and Safety Project
- Norwalk Route 1 Cross Street improvements and design

Rail Transportation Infrastructure and Operations

- Complete rehabilitation of existing rail fleet (M-2s)
- Purchase additional locomotives and coaches for the MetroNorth New Haven Line and Branches
- Continue catenary replacement and upgrade
- Continue rail tie, culvert and bridge rehabilitation, replacement and renewal program
- Improve and expand rail parking
- Complete design and construct the Wilton tiered parking facility
- Complete design and rehabilitate the Walk and Sauga Bridges

- Continue to fund and to develop services to support the use of rail, including bus and shuttle commuter connections, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections.

Bus Transit Infrastructure and Operations

- Complete rehabilitation of the CT Transit Stamford maintenance facility
- Continue funding for Stamford, Norwalk, and Greenwich commuter connections, Route 1 Coastal Link, Route 7 Link, and I-Bus.

Bicycling and Walking

- Complete the Norwalk River Multiuse Trail Phase 2.
- Complete the Stamford Mill River Multiuse Trail Phase 1.
- Implement bicycle storage and bike racks on buses projects.

Municipal and Transit District Projects funded under the Surface Transportation Program – Bridgeport Stamford Program or CMAQ program

Approved projects in design, rights of way or construction

- Greenwich – Comly Avenue Bridge, King Street, Glenville & Weaver signal
- Norwalk – East Avenue, Rowayton Avenue
- Stamford – Stamford Urban Transitway, Grenhart Road, North Street, Signal System Phase F

Projects in concept review or proposed, as noted in Draft Plan Table 26.

Other needed near term projects

The Plan recommends immediate implementation of certain new near-term projects and programs, including:

- A Route 7 corridor communications plan to provide for ongoing coordination and communication regarding the construction projects, service changes and restrictions, incident management in the Norwalk – Danbury corridor encompassing all modes of transportation. Recommended participants in a “steering committee” include: SWRPA, HVCEO, ridesharing brokerage, strategic business partners and chambers of commerce, legislators.
- Enhanced rail and bus services in the Route 7 corridor between Norwalk and Danbury to mitigate construction disruptions for the duration of major Route 7 interchange and widening projects that will occur between 2005 and 2011. This recommendation follows the precedent set by enhanced transit services for the New Haven Harbor Crossing Program also known as Q Bridge. Transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor, express bus from the Danbury area to Stamford via I-684, continued support for 7Link bus service and enhanced service, as well as incentive-based ridesharing programs similar to NuRides.
- Continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).

- State funding for FY2005 Norwalk Transit District companion ADA service to replace federal funding for transit operations if needed. Carryover provisions have made it possible to continue to access federal funds - \$480,000 per year.
- Institute a program for recovery of municipal costs associated with emergency response to long-duration incidents on limited access highways (I-95, Route 15, and Route 7 expressway)

How is the 2004-2030 Plan different from the South Western Region Long Range Transportation Plan 2001-2025?

The Draft Plan extends the planning and programming timeframe to 2030. Unlike the last Plan, federal funding has not been authorized which makes funding uncertain, and has led to very conservative approach. Funded projects are ones that are contained in the FFY2005-2009 Transportation Improvement Program, the ConnDOT 2003 Transportation Master Plan, and the ConnDOT Bureau of Public Transportation Capital Plan 2003-2013.

How much will it cost to maintain and operate the Region's transportation system?

The draft South Western Region Long Range Transportation Plan 2004-2030 is financially constrained. The cost to implement the Plan is estimated at \$3.9 billion, while the anticipated financial resources are \$4.7 billion. The net reserve balance is \$787 million, as shown in Table 18a.

**Table 18a. Summary of Financial Resources and Needs
South Western Region Long Range Transportation Plan
2005-2030**

Anticipated Financial Resources 2004-2030		Estimated Project Costs 2004-2030	
Funding Category	Estimated Funds (\$000s)	System Category	Estimated Cost (\$000s)
Highway System Improvements	\$ 1,300,615,538	Highway System Projects	\$ 617,873,600
Highway System Preservation	\$ 707,236,065	Highway System Preservation	\$ 707,236,065
Major State Projects	\$ 203,600,000	Major State Projects	\$ 203,600,000
		Region's STP-BS Projects	\$ 34,431,000
Subtotal	\$ 2,211,451,603	Subtotal	\$ 1,563,140,665
Transit Capital Program	\$ 1,260,799,000	Transit Capital Program	\$ 1,260,799,000
Operating Subsidies	\$ 1,055,489,499	Operating Subsidies	\$ 1,055,489,499
Subtotal	\$ 2,316,288,499	Subtotal	\$ 2,316,288,499
Discretionary Funding	\$ 169,000,000	Special Projects	\$ 30,003,528
Subtotal	\$ 169,000,000	Subtotal	\$ 30,003,528
Total Anticipated Funds	\$ 4,696,740,102	Total Estimated Project Costs	\$ 3,909,432,692
Net Reserve (Under Budget Limit)	\$ 787,307,410		

Note:

Improvements are projects and enhancements to promote safety, improve mobility, increase system productivity or support economic growth.

Preservation and maintenance projects include paving, bridge repair or replacement.

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Freight; Land Use and Economic Development: Evaluation; and, Funding and Finance.

There were 5 strategic goals identified along with objectives, challenges, and active initiatives and programs:

- Improve personal mobility within and through Connecticut
- Improve the movement of goods and freight within and through Connecticut
- Integrate transportation with economic, land use, environmental and quality of life issues
- Develop policies and procedures that will integrate the state economy with regional, national and global economies
- Identify policies and sources that provide an adequate and reliable flow of funding necessary for a quality multi-modal transportation system

The principles underlying development of the strategies were:

- Connecticut's transportation system must have a "**customer**" orientation.
- Connecticut's transportation systems must always operate at its most **efficient** level.
- Connecticut's transportation system must be **multi-modal and inter-modal**.
- Connecticut's transportation system must provide a **safe, secure, and well-maintained** means of moving people and goods within and through the State, including during times of threatened homeland security.

The TSB action plan, Transportation: A Strategic Investment (January 2003) laid out the TSB's 2003-2013 vision for a robust state economy supported by an improved and expanded transportation system. This vision hoped for "a pristine set of shoreline and rural areas; stimulating urban centers; valued educational institutions; a hot bed for technology, bioscience and other critical industry clusters; and employment opportunities to enable all of its residents to pursue their dreams." The transportation system would support the vision by:

- employing modern land use planning tools and techniques in conjunction with transportation planning to achieve a smarter approach to the State's economic growth and quality of life;
- mitigating congestion on our highways, especially in the Coastal Corridor, by increasing the quality and quantity of transit options and by improving the safety and traffic flows of the State's highways;
- providing easier access for tourists to reach the expanding attractions of the Southeastern Corridor;
- having transit centers throughout the State serve as magnets for the development of business and housing complexes thereby providing Connecticut residents with more options to link their employment, residences, and leisure activities;
- developing our water ports as sites for increased freight related employment, appropriate business and residential complexes, and for moving both people and goods across Long Island Sound;
- strengthening the airport system, especially at Bradley International Airport (hereinafter "Bradley"), to provide travel and cargo services that are highly valued by businesses, municipalities, residents, and visitors; and
- using the State's fiscal and other incentive programs to link an enhanced transportation system with economic development initiatives to leverage urban-based infrastructure and to preserve targeted open space in a manner that benefits the entire State for generations to come.

The TSB set forth a proposed strategy consisting of 5 elements that:

- leverage existing transportation and other infrastructure assets, especially in urban centers;
- expand and market the quality and quantity of options to single occupancy automobile trips to mitigate road and transit congestion throughout the State with an initial focus on the Coastal Corridor;

- expand and coordinate the State's air, rail, road, and water infrastructure to expand the quality and quantity of options for the movement of freight;
- implement a 10 year financing plan with the revenue dedicated to funding the capital component of the Strategy's strategic actions and tactics; and
- ensure adequate and reliable financing of the State's ongoing capital and operating costs of the transportation system.

The financial estimate for proposed actions were estimated to require incremental capital investments of approximately \$4.8 billion, increase average annual operating costs for ConnDOT by \$60 to \$70 million, and to fund \$17 million of studies and other items during the 10 year period of FY2004-FY2013. This is in addition to the current average annual investment of \$1.4 billion per year on the transportation system, \$900 million of which is paid by State revenues and \$500 million of which comes from Federal sources. The \$900 million represents approximately 6.5% of the current State budget of \$14 billion.

In 2003 the TSB focused on:

- public education and involvement to secure the enthusiastic support required for your adoption of the Strategy;
- refining the role of the TSB and the TIAs in the federal and state transportation planning process;
- preparing quantitative and qualitative evaluation of the projects funded by the FY2002 surplus for projects identified in Public Act 01-5 Section 16 and for not yet funded Section 16 projects;
- establishing Task Forces on the topics of Maritime Policy, Feeder Barge Facilities, and Incident Management to develop recommendations for TSB consideration; and,
- developing evaluation tools and metrics.

The TSB Task Forces developed papers, policy recommendations and projects that were later adopted by the TSB in 2003 or 2004, leading to the creation of an Office of Maritime Policy within ConnDOT, creation of a Statewide Incident Management Task Force, FY2005 funding for additional CHAMP vehicles, operational support for CHAMP, diversion route plans (\$60,000), support for Bridgeport feeder barge (\$1.5 million), and support for implementation of operational and safety improvements for I-95 and the Merritt Parkway (\$1.5 million).

The TSB Status Report: July 2004 to the Legislature and Governor, summarized Public Act 01-5 Section 16 services funded including several additional commuter connection bus services, express and extended service for Shoreline East customers, and the Jobs Access and Dial-a-Ride program for Southeastern Connecticut. The report noted other projects that were started or implemented since January 2003 including funding for feeder barge service in Bridgeport, expansion of New Haven Line rail station parking, planning of Coastal Corridor highway operational improvements, marketing of Bradley International Airport, and review of the rail branch line efficiencies. The report also noted the FY2005 funding approved by the CT Legislature for TSB projects. (Refer to previous and following paragraphs.)

In 2004, the CT Legislature approved \$4.7 million in the State FY2005 for Section 16 projects, including the following projects that benefit the South Western Region:

- New Haven Line Commuter Connection Service (Project 170-2306) - \$223,029, which continues funding for Norwalk Commuter Connections, and Stamford/High Ridge Commuter Connection.
- Fairfield County Interregional Service (Project 170-2307)-\$786,737 which funds increased Coastal Link

service between Milford and Norwalk, the 7Link between Norwalk and Danbury, Stamford Commuter Connection East, and increase service on Stamford Commuter Connection Central.

- Danbury Feeder Service (Project 170-2308)-\$201,158 funds bus service between Ridgefield and the Harlem Line Katonah station.
- Shore Line East Extended Service (Project 310-0031)-\$2,153,557 provides direct Shore Line East commuter service beyond New Haven to Bridgeport and Stamford.

The TSB projects included in Section 16 of Public Act 01-05 were originally estimated to cost \$39 million, but cost estimates were revised to \$60 million. Through FY2004, \$21.4 was expended on 27 projects, that include:

- Commuter Parking Lot Expansion including I-95 Exit 16, Norwalk (*to be built under the I-95 Exit 16 project #102-295.*)
- West Haven/Orange Station Design Study – *in progress, June 2005 completion scheduled.*
- Study - I-95 Widening in the Southeast Corridor between Branford and Rhode Island – *report issued July 200, study to be completed December 2004.*
- Rail Study – New Haven/Hartford/Springfield – *report issued June 2004, study to be completed December 2004.*
- Feeder Barge Service Capital Investment for Bridgeport or New Haven – *funding authorized.*
- Bus Demonstration – Purchase of 10 Buses for Fairfield County Inter-regional Service – *purchase completed, buses in service in 2004.*
- Bus Demonstration - Purchase 7 Commuter Buses to Expand Hartford Area Express Bus Service – *purchase completed and buses in service in 2003.*
- Expand Commuter Parking Lots – at I-95 Exit 59 Guilford and Route 9 Exit 3 Essex - *in design, additional funding to construct is needed.*
- New Haven Line Maintenance Facility -Purchase Site (ROW) – *2 parcels were acquired in 2002 to enable expansion of New Haven Rail Maintenance facilities.*
- Develop Coastal Road Improvements – \$1 million.
- Expand New Haven Line Railway Station Parking - \$9 million – *Bridgeport and Stratford rail parking expansions planned.*
- Expand New Haven Line - Bridgeport Garage Railway Station Parking - \$4 million – *Bridgeport rail parking expansion planned.*
- Purchase Mafersa Rail Cars - \$17 million.
- Develop Intermodal Tourism Service Plan - Southeastern Connecticut –
- Jobs Access and Reverse Commute Supplemental Funding – \$1.2 million expended *funded 2002-2003, now federally funded.*
- Bus Demonstration - Additional New Haven Line Commuter Connection Service – *began in 2002, is funded in 2005.*
- Bus Demonstration - Additional Fairfield County Interregional Service – *began in 2002, is funded in 2005.*
- Bus Demonstration - Danbury Area Bus Feeder Service to Harlem Line Rail Stations – *began in 2002, is funded in 2005.*
- Bus Demonstration - Bus Demo - Expand Hartford Area Express Bus Service – *began in 2002, is funded in 2005.*
- Study Transit Oriented Development Opportunities - New Britain - Hartford Busway – *2002-2004, study to be completed in 2004.*
- Jobs Access for Southeast Connecticut and Dial-a-Ride - *began in 2002, is funded in 2005.*
- "Deduct-A-Ride" Commuter Benefit Program – *FY2003 and is now federally funding.*
- Rail Demonstration - Extend Shore Line East Service through New Haven to Bridgeport and Stamford - *2 year demonstration project began in December 2001; an additional through train was added in June 2002 when the State Street Station opened (FY2004 - \$1.5 million, FY2005 - \$2.2 million).*
- Parkville Hartford Project - \$25,000

- East Haven Road and Sidewalk Improvement - \$150,000
- Operating Subsidy for Tweed-New Haven Airport - \$600,000
- RPA Grant / Support – for FY2003 and FY2004 - \$2.3 million
- Administration/TSB Support – for FY2002-FY2004. - \$1.2 million

Coastal Corridor Transportation Investment Area (Coastal Corridor TIA)

To assist the TSB, Public Act 01-5 also created Transportation Investment Areas (TIAs) for 5 major corridors to provide local and regional input to the TSB. The South Western Region is part of the Coastal Corridor TIA which encompasses the I-95 corridor from Greenwich to Branford, Route 7 corridor, Route 8 and Route 25 corridors. Both SWRPA and the SWMPO have representation on the Coastal Corridor TIA.

In 2002, the TIAs provided the TSB with “top 5 priorities” and also Initial Corridor Plans. The Coastal Corridor TIA’s top 2002 priorities were:

1. To relieve congestion on major arterials in the CCTIA, increase the number of trips using alternative modes of transportation (including rail, bus, ferry, telecommuting, bicycle, and pedestrian modes) and provide incentives for employers and users by, among other things: ordering new rail cars immediately, developing additional storage and maintenance facilities, as needed for a larger fleet, and improving rail station access; providing more frequent commuter rail service to more destinations; and, evaluating institution of value pricing on limited access highways.
2. Develop cost-effective, efficient alternatives to trucks for the movement of goods by, among other things: supporting a new rail freight connection across the Hudson River at New York City; creating container barge feeder port and service in Bridgeport and New Haven; and, supporting rail freight operations through Penn Station during off-peak hours and additional track and tunnel capacity at Penn Station.
3. Identify new, stable sources of funding, beyond federal and state sources, to support a multi-modal transportation system, including: seeking renewal of TEA-21 with funding of special regional projects; and, developing state and local revenue sources including user fees, fuel taxes, and market pricing programs.
4. Study the best practices in managing public transportation to determine how best to enhance focus on, accountability for, marketing of, and commitment to, public transportation in Connecticut. Specifically, consider: establishment of a separate and independent transit authority for bus, rail, and ferry services; establishment of a separate funding source for public transportation; and cooperate regionally to improve public transportation in Connecticut.
5. Integrate land use and transportation planning by, among other things: encouraging “Smart Growth” and “Transit-Oriented” development; encouraging development of affordable housing stock in proximity to places of employment and transit services; and, re-establishment of a Statewide Planning Division within the Office of Policy and Management.

The Coastal Corridor TIA initial corridor plan, Twenty-Year Strategic Plan for Transportation in the Coastal Corridor Transportation Investment Area (November 15, 2002) set forth a vision to “a transportation system that offers people and goods a choice of safe, convenient and integrated modes of transportation including (a) roads, (b) waterborne, (c) airborne, (d) rail and other modes of public transit

and (e) facilities that make walking and bicycling viable transportation options so as:

- to stimulate sustainable economic growth by ensuring mobility of people and goods within the CCTIA and connectivity of the CCTIA's economy to the state, regional, national and global economies; and
- to enhance quality of life by ensuring mobility of all residents of the CCTIA, including those unable to drive, while protecting the CCTIA's environmental, cultural and community resources.”

The Coastal Corridor TIA's recommended core strategies were to:

1. Increase number of trips using alternative modes of transportation
2. Study the best practices in managing public transportation to determine how best to enhance focus on, accountability for, marketing of, and commitment to, public transportation in Connecticut.
3. Develop cost-effective, efficient alternatives to trucks for the movement of goods.
4. Integrate land use and transportation planning.
5. Identify new, stable sources of funding to support a multi-modal transportation system.

The Coastal Corridor TIA plan's top five initiatives were to:

1. Mitigate congestion on I-95 by increasing the number of trips by rail by ordering new rail cars immediately, developing additional storage and maintenance facilities as needed for a larger commuter rail fleet and improving rail station access.
2. Mitigate congestion on I-95 by providing alternatives to trucks for the movement of goods by creating a container barge feeder port(s) and service.
3. Mitigate congestion on I-95 by providing alternatives to trucks for the movement of goods by supporting and participating in activities advocating a new rail freight connection across the Hudson River at New York City.
4. Mitigate congestion on Route 7 by implementing the recommendations of the route 7 Travel Options Study.
5. Mitigate congestion on major arterial highways by increasing use of TDM strategies through the marketing of the benefits of alternative modes of transportation and offering employee and employer incentives.

To facilitate the movement of people, an increased commitment to transit was recommended. Initiatives and recommendations included:

- Roadway improvements (7) – evaluations of operation improvement to I-95 and Route 15 to relieve congestion and improve access in the corridor; and, improve capacity and safety of existing Routes 7 and 25 between I-95 and I-84.
- Transportation Systems Management (TSM) (9)
- Transportation Demand Management (TDM) (10)
- Commuter and Intercity Rail: Infrastructure (5); Stations (1); Expanded Service (7); and, MetroNorth Operating Agreement (1).
- Bus Transit: Consolidation of bus services (1); Expanded services (6); Job Access (1); Marketing (2); Miscellaneous (1).
- Waterborne (1)
- Airborne (4)
- Pedestrian and bicycle facilities (5)
- Recommendations that apply to both the movement of people and goods: Travel Forecasting (1); Enhance North-South Connectivity (3).

To facilitate the movement of goods, the recommendations included:

- Rail (11)

- Trucks – 5 strategies and policies
- Waterborne – (6)

To integrate transportation with economic, land use, environmental and quality of life issues 15 initiatives and recommendations were outlined. Integration of the Coastal Corridor economy with the state, regional, national and global economies, generated 8 recommendations.

Under funding, the goal was to identify policies and sources that provide an adequate and reliable flow of funding necessary for a quality multi-modal transportation system, covering recommendations for federal funding (3), new financing sources (6), public transportation (6), and other financial strategies (4).

South Western Region Metropolitan Planning Organization (SWRMPO) Interactions with the TSB and Coastal Corridor TIA

The South Western Region MPO has participated in the TSB and TIA process in a number of ways, including: MPO-designated representatives to the Coastal Corridor TIA; MPO members and SWRPA staff participation in TSB working groups; and, ongoing review and communication of SWRMPO recommendations, policies, and priorities and recommendations to both the TSB and TIA.

To guide the Coastal Corridor's development of the TIA plan, the SWRMPO developed the South Western Region Metropolitan Planning Organization Transportation Investment Area Plan for the Coastal Corridor (October 2001). The SWRMPO supported many of the preliminary draft Coastal Corridor TIA plan recommendations, policies and projects. The SWRMPO's October 30, 2001 letter to the Coastal Corridor TIA made the following points.

The SWRMPO supported **policy recommendations** that appeared in the draft CCTIA Plan and urged the State of Connecticut and the Transportation Strategy Board to do the following:

1. Establish a Statewide Planning Division within the Connecticut Office of Policy Management for the comprehensive coordination and monitoring of various short and long-range plans, including but not limited to regional plans of conservation and development, long-range transportation plans, the Statewide Transportation Improvement Program, regional transportation plans, and town/city plans of development.
2. Advocate for the creation of a seat for the State of Connecticut on the Metropolitan Transportation Authority board.
3. Evaluate policies regarding overhead and side clearances on rail lines to identify changes necessary to increase opportunities for use of the state's rail infrastructure for interstate freight movement.
4. Streamline existing environmental review and approvals process to eliminate duplication of efforts and enhance coordination among local, state and federal agencies.
5. Create incentives to encourage transit-oriented development.
6. Expand the use of federal provisions shielding state agencies, municipalities and political subdivisions from liability associated with the clean-up, redevelopment or reuse of brownfields and other contaminated sites.
7. Institute a program through which the Connecticut Department of Transportation and other state agencies will acquire the skills and capacity to consider and model the impact of various transportation policies on the natural environment, land use, community character and quality of life.
8. ConnDOT should take full advantage of the flexible nature of many federal funding streams and allow municipalities and others to fund the construction of sidewalks and bicycle and pedestrian facilities where eligible.

9. Explore public/private partnerships that may lead to the private financing and operation of facilities in the public interest, such as truck stops and highway rest areas.

The SWRMPO recommended additional **policy recommendations** for the final Coastal Corridor TIA Plan, including:

1. Consistent with the principles of the Gallis report and Sections 4(b)(5) and 4(b)(13) of the Act, Connecticut state agencies need to reinforce collaboration both within the state and with appropriate agencies in neighboring states to ensure coordinated and compatible development of transportation and other infrastructure.
2. Examine procurement policies and practices to ensure that competitive bidding is used as a tool for containing costs and maximizing level and quality of service, particularly with long-term service contracts.

The SWRMPO supported a many of the **funding recommendations** in the draft Coastal Corridor TIA Plan, including:

1. Implement ConnDOT's intelligent transportation systems initiatives for highway and transit including, but not limited to, adequate diversion route signage and advisories, functional highway advisory radio broadcasts, route markers and other real time traffic information.
2. Purchase commuter rail equipment identified by ConnDOT and MTA as necessary to maintain existing and enhanced levels of service and reliability for interstate and intrastate commuters.
3. Conduct a corridor freight planning study to identify origin and destination movements; current and programmed freight delivery systems; recommended capital projects, policies and programs; additional freight planning initiatives to augment initiatives currently underway in the tri-state area; and opportunities for public outreach and education about freight movement in the corridor.
4. Evaluate *value pricing* opportunities for highway and public transportation in the state.
5. Implement the recommendations of the *Statewide Bus Study*.
6. Conduct a site selection study for the expansion of the New Haven Line rail maintenance facilities and purchase land for a new rail service maintenance facility, as proposed in Section 16(a)(5).
7. Work in partnership with Amtrak, MTA Metro-North and rail labor unions to allow Shore Line East trains to run through New Haven to Bridgeport, Stamford and Greenwich for a two-year trial period, as proposed in Section 16(a)(9).
8. Expand bus services connecting with rail services in the Coastal Corridor TIA, as proposed in Section 16(a)(6).
9. Provide operating funding to expand bus services for existing and new western Connecticut commuters to utilize Metro-North's Upper Harlem Line for commuting to New York City and White Plains, as proposed in Section 16(a)(12).
10. Where the demand exists, provide for more inter-district, inter-town, inter-regional and interstate bus service like the Coastal Link, including routes linking rural communities.
11. Implementation of a demonstration project for a freight feeder barge service on Long Island Sound between the port facilities of New York and New Jersey and those in Bridgeport and New Haven, as proposed in Section 16(a)(21).
12. Fund a high-speed ferry from Bridgeport to Stamford to New York, as proposed in Section 16(a)(20).
13. Market the *Deduct-A-Ride* program and expand support for existing commuter incentive programs, including but not limited to *Deduct-A-Ride* and *TransitChek*, as proposed in Section 16(a)(3).*
14. Provide annual operating support to replace expiring *Access to Jobs* grants for the Coastal Link, later evening bus service route extensions and customized paratransit services for residents in the cities of Bridgeport, New Haven, Norwalk, Stamford and Waterbury, as proposed in Section 16(a)(1).*

* *Underlined text represents SWRMPO modification to projects as stated in the Act.*

Additional **funding recommendations** were recommended by the SWRMPO, including:

1. Evaluate operational and construction improvements to I-95 to relieve congestion and improve access in the corridor. Improvements to consider may include operational lanes between critical interchanges, “zipper lanes” to increase capacity in peak directions and strategic exit closures to discourage “local” traffic on I-95.
2. Develop and implement a universal fare card and collection system for all transit services statewide.
3. Partner with Amtrak to provide an additional peak period train from Connecticut to Penn Station for a two year trial period and promote monthly tickets from Connecticut to Penn Station, as proposed in Section 16(a)(10).
4. Study, and where appropriate, fund parking improvements at MTA Metro-North and Shore Line East stations in the Coastal Corridor TIA.
5. Develop “commuter connections” between transportation hubs, residential areas and employment centers.
6. Implement the recommendations from the *Route 7 Travel Options Implementation Plan*, prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials. (Note: Although the draft CCTIA Plan supports the Danbury Branch Line improvements proposed in the *Route 7 Travel Options Implementation Plan*, the SWRMPO would like all elements of that plan to be funded.)
7. Enhance public transportation access to metropolitan area airports including Bradley, Kennedy, LaGuardia, Newark and Westchester County airports.

In December 2001, the SWRMPO recommended that the TSB use Section 16 funding for 3 eligible Section 16 projects that contribute to reducing congestion and/or improving mobility along the I-95 and Merritt Parkway corridors and that were in the Region’s long range transportation plan. The projects were:

- Incident Management Clearance Pilot.
- Commuter train service to New York’s Penn Station via Amtrak.
- Passenger ferry service between Bridgeport, Stamford and New York City.

In response to the TSB’s 2002 request for five priorities for the TSB plan, the SWRMPO¹ identified the top 5 priorities as:

- 1. Order new rail cars.** Increased commuter rail capacity is needed in order to attract and retain new riders, particularly to intrastate services. One hundred (100) new rail cars should be ordered by 2006, as recommended in the Connecticut Department of Transportation’s fleet configuration study. Adequate maintenance and repair facilities also must be developed to ensure that Connecticut’s commuter rail fleet remains safe and reliable.
- 2. Increase rail parking at New Haven Line stations.** Additional parking capacity is needed within the South Western Region to meet existing demand. Additional parking capacity is also needed east of Westport in order to encourage drivers to commute to intrastate locations by rail, thereby reducing congestion on the Region’s highways and arterials.
- 3. Expand intrastate commuter rail service.** Access to “subway-style” service along the New Haven, Danbury and New Canaan branch lines will facilitate intrastate commuting and reduce traffic congestion on the Region’s roadways.
- 4. Fund the Stamford Urban Transitway project.** The Urban Transitway will provide a single point of access to local and regional bus service, commuter rail, Amtrak and ferry services

¹ SWRMPO letter dated April 26, 2002 to TSB.

within downtown Stamford. Easy access to a variety of transportation services will promote use of mass transit and decrease reliance on personal vehicles.

- 5. Improve transportation connections serving the South Western Region.** Rail service, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections should be used in combination to link housing, employment, retail and transportation centers to encourage use of mass transit.

Connecticut Funding for Transportation

The CT Legislature established the TSB with Public Act 01-5 that included funding for identified projects, in Section 16 of the Act. The funding, originally drawn from a projected budget surplus of \$50 million, was reduced to \$36 million. Between 2002 and 2004, investments totaled \$27 million. In 2004, the CT Legislature approved \$60 million for TSB-supported projects for purchase rail rolling stock and rail maintenance facilities, and \$4.5 million for Section 16 projects.

Progress Was Made in the Last Three Years

There was measurable progress some areas. Major highway and transit construction projects were completed, design on priority projects continued, bus and rail services were enhanced, and important planning studies were completed, while others were initiated. ConnDOT reports that more than \$600 million in federal and state funds were obligated for projects that benefit the South Western Region². Some of the key successes include:

- Completion of rail improvements – including ADA compliance improvements at Darien and Stamford rail stations, catenary Phase A replacement between Greenwich and Stamford, rail bridge repair, rehabilitation or replacement, additional rail parking at Stamford Transportation Center, reconstruction of Washington Boulevard and the rail bridge and Station Place along with other rail infrastructure improvements for maintenance, power, communications described in the Rail System: Passenger Service section of the Plan.
- Completion of the new CT Transit Stamford maintenance and administrative facility in 2004, which followed a new maintenance and administrative facility for the Norwalk Transit District in 2000.
- Replacement buses for Norwalk Transit District and CT Transit Stamford.
- Continued financial support for increased intrastate rail service that extends Shore Line East rail service beyond New Haven to Stamford in express and semi-express trains in the a.m. peak and from Stamford to New Haven in the p.m. peak.
- Financial support for continued, enhanced or new inter-regional bus service (Coastal Link between Milford and Norwalk, IBus between Stamford and White Plains, 7Link between Norwalk and Danbury Bus) as well as additional commuter connections in Stamford and Norwalk.
- The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Final Report (2003) concluded there was no single solution for mitigating congestion in the region, or study area. A comprehensive menu of immediate, short term and long term transportation projects, planning, and land use initiatives was presented as ways to improve mobility, choice and better manage congestion.
- The ConnDOT Rail Governance Study was initiated to develop a governance policy and financial plan

² Refer to Table 9. FFY2001-2003 Obligated Project Benefiting the South Western Region.

to improve current conditions and quality of service.

- The ConnDOT Danbury Branch Electrification Feasibility Study Phase 1 was initiated to evaluate the feasibility of electrifying the Danbury Branch Rail Line with the objective of reducing travel times on the Danbury Branch.

Setbacks Occurred in the Last Three Years

There have also been setbacks in implementing needed transportation projects. The setbacks are attributable to design delays, permitting complications, financial constraints, and other factors, and include:

- Delayed implementation of Route 7 and Route 15 interchange improvements. The original project is now to be constructed in two phases, beginning in 2005 (Phase 1 – Project #102-312 \$28 million) and concluding in 2011 or later (Phase 2 – Project 102-269 - \$ 56.6 million).
- Delayed completion of Route 7 widening in Wilton from Wolfpit Road to Olmstead Hill Road (Projects #161-118, 124 - \$28.5 million) due to design, permitting, financial constraint, and most recently complications posed by the CT Siting Council approved 345kV transmission lines which will use the Route 7 right-of-way in Wilton and Norwalk. The best possible schedule for this project would lead to the start of construction in 2006, with completion in 2008.
- Delayed completion of design, rights of way, and construction of the Route 7 widening in Norwalk and Wilton for the section between the Route 7 expressway terminus at Grist Mill Road in Norwalk north to Route 33 in Wilton because of financial constraints, design, utilities and right-of-way issues. (Project #102-305, ROW and construction - \$18.6 million).
- The Danbury Branch signal and communications system did not proceed as programmed. According to ConnDOT this project to replace manual block control on the Danbury Branch is a necessary precursor to improved rail service is still stalled. Originally designed and advertised for underground construction in 2002, the concept was deemed infeasible and ConnDOT initiated design of an overhead wire system. Design alternatives for wood v. metal poles are still being explored. The ConnDOT schedule for this project (#302-0007) calls for construction to start in 2005 and to conclude in 2007.
- The Danbury Branch Electrification Feasibility Study, scheduled to start in 2001, was delayed, and evolved into a two phase study. The first phase that evaluates engineering issues, is still underway.
- There has been no proactive congestion management or construction mitigation planning for the Route 7 corridor from Norwalk to Danbury and beyond to Brookfield and New Milford unlike the I-95 Pearl Harbor Bridge/New Haven corridor where a comprehensive mitigation program increased rail service on Shore Line East. Disruptions caused by the confluence of construction activities on the highways, rail line, power transmission lines, and continued growth of commuter traffic will be significant for the decade beginning in 2005.
- Development of a plan for I-95 operational and safety improvements was deterred by the Governor's Commuter Shoulders proposal. This proposal called for the use of shoulders during peak hours, and lead to public information sessions, 2001 initiation of an environmental assessment study and ramp metering evaluations. A technical memo issued in September 2004³ determined that auxiliary lanes (operational lanes) and interchange speed change lanes (acceleration and deceleration lanes) are preferable to commuter shoulders and provide operational and safety improvements that should be

³ Technical Memorandum State Project No. 56-245 I-95 Commuter shoulders Operational Analysis (Exits 8 to 18),
September 2004

studied further.

- A Stamford Taxi Starter System was implemented at the Stamford Transportation Center to fund the on-going operations of a taxi starter, an off-site taxi waiting area, and police enforcement of taxis and Station Place through a fee of \$2 for each taxi taken. The token system was suspended then terminated by Governor Jodi Rell in month six of operation (August 2004), due to the negative impacts on taxi users, taxi drivers and operators. A system for operations of taxis and Station Place will be developed by ConnDOT in cooperation with stakeholders.
- The Transportation Enhancement Act for the 21st Century (TEA-21, 1997-2003) lapsed on September 30, 2003. Throughout FFY2004, Congress extended transportation funding in one to three month increments, which made it impossible for state DOTs to effectively program funds, and advance new projects.

This update of the region's long range transportation plan to 2030 occurs at a time when the mainstay of regional and state transportation planning and programming, authorized federal transportation funding, has not been approved for the usual six year period. Rather, Congress has extended funding in one or three month increments at a time since October of 2003. The unpredictable funding situation has forced state departments of transportation to use available funds to cover active project cost increases, and limit initiation of new or major projects. In concert with the requirement that long range transportation plans be financially constrained and must program projects only within available funds, the plan restates and emphasizes the region's long term priorities and projects. New projects, plans and programs are generally classified as future un-funded needs. Beginning with a description of the region and its characteristics, the Transportation Plan and the transportation planning process will be described, followed by goals and objectives, and then specific plan elements.

THE SOUTH WESTERN REGION

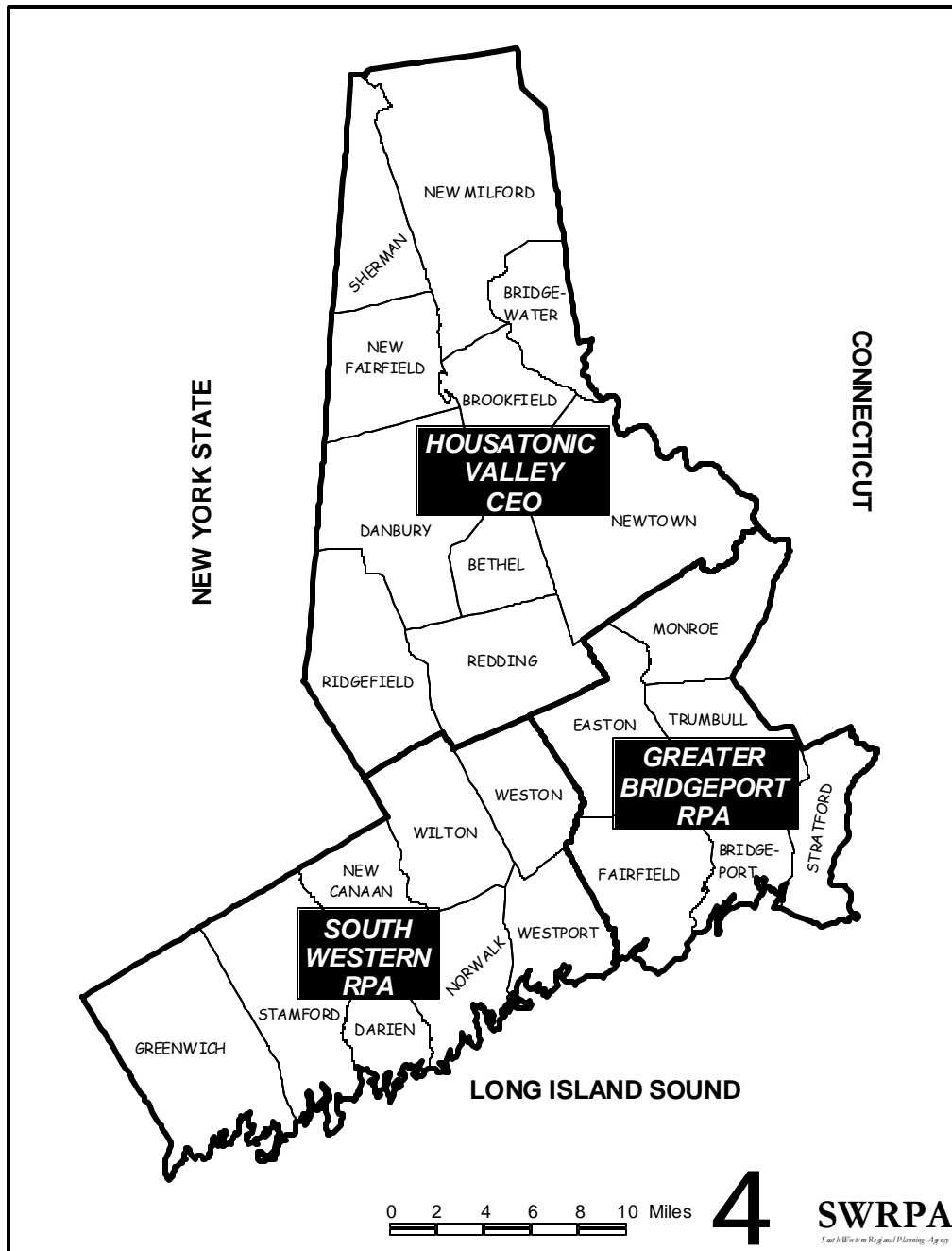


Figure 1 South Western Region Location

The South Western Region is comprised of eight municipalities: Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston, Westport, and Wilton. The South Western Planning Region is bordered by New York State on the west and northwest, the Greater Bridgeport Planning Region on the east, the Housatonic Valley Planning Region on the north, and Long Island Sound on the south.

REGIONAL CHARACTERISTICS

The South Western Region of Connecticut is located in Fairfield County and included in the metropolitan area of New York City. The region and the New York metropolitan area are linked because of a shared workforce and their investment in the financial sector. The region is also on the primary route for traffic flowing between New York and Boston. Therefore, trends in the region's socio-economic characteristics have an impact not only on transportation networks within the region, but also on the flow of commerce from New York to Boston.

Population

Changes in population trends have varying impacts on a region's transportation system. Between 1990 and 2000, the population of the South Western Region increased by 7.2% to 353,556. This increase occurred after two decades of a declining or stagnant population for most towns in the region. Prior to 1970, however, the region experienced an overwhelming increase in local population for all towns.

Table 1. Population: South Western Region, 1990-2000

Area Name	Population		Percent Change 1990-2000	State Rank 2000 Population
	1990	2000		
Darien	18,196	19,607	7.8%	51
Greenwich	58,441	61,101	4.6%	10
New Canaan	17,864	19,395	8.6%	53
Norwalk	78,331	82,951	5.9%	6
Stamford	108,056	117,083	8.4%	4
Weston	8,648	10,037	16.1%	94
Westport	24,410	25,749	5.5%	39
Wilton	15,989	17,633	10.3%	65
South Western Region	329,935	353,556	7.2%	3¹
Connecticut	3,287,116	3,405,565	3.6%	--

¹ The South Western Region is third in population as compared with the other regions of the state.

Source: Connecticut Department of Economic and Community Development, Connecticut Population Information, Population of Connecticut Towns, 1970-2000

Weston exceeded a population of 10,000 in 2000, and while it is the fastest growing town in the region, it still remains the smallest in population. All towns in the region surpass the state population growth rate of 3.6%. In 2000, Stamford, Norwalk and Greenwich ranked in the top ten municipalities in the state in terms of total population. The South Western Region ranked third in population among the state's regional entities behind the Capital Region, which contains Hartford, and the South Central Region, which includes New Haven.

Roughly 80% of the region's population identify themselves as white, while 9% stated that they are Black or of African origin. Of the total population, almost 40,000 residents classify themselves as of Hispanic Origin, a separate identification polled by the Census. This group comprises roughly 11% of the population and is now the largest minority group in the region.

Table 2. Population by Race: South Western Region, 2000

Area Name	Total Population	White		Black or African American		Asian		Other race(s)		Population of Hispanic Origin*	
		Number	%	Number	%	Number	%	Number	%	Number	%
Darien	19,607	18,816	96%	89	0%	474	2%	228	1%	429	2%
Greenwich	61,101	55,001	90%	1,017	2%	3,165	5%	1,918	3%	3846	6%
New Canaan	19,395	18,477	95%	201	1%	445	2%	272	1%	338	2%
Norwalk	82,951	61,339	74%	12,663	15%	2,699	3%	6,250	8%	12966	16%
Stamford	117,083	81,718	70%	18,019	15%	5,856	5%	11,490	10%	19635	17%
Weston	10,037	9,610	96%	88	1%	195	2%	144	1%	206	2%
Westport	25,749	24,503	95%	292	1%	625	2%	329	1%	602	2%
Wilton	17,633	16,848	96%	106	1%	474	3%	205	1%	269	2%
South Western Region	353,556	286,312	81%	32,475	9%	13,933	4%	20,836	6%	38,291	11%

* Persons of Hispanic Origin identify themselves as one or more race(s) and separately list their Hispanic Origin.
 Source: US Census Bureau, Census 2000 Data Summary File

According to the data gathered by the US Census, there is a correlation between the amount of money a person earns and their ethnic origin in the region. Householders of Asian origin currently rank highest in terms of median household income, earning \$87,673 per year. Very close behind this group are White, non-Hispanic householders, who earn an average income of \$87,654 per year. Households lead by a person of Black or African-American origin take home the smallest amount, earning an average income of \$39,166 per year.

Table 3. Median Household Income by Race of Householder: South Western Region, 2000

Race and Ethnicity of Householder	South Western Region		Connecticut	
	Median Income	Rank	Median Income	Rank
White alone, non-Hispanic	\$ 87,654	2	\$ 58,564	3
Black or African American alone	\$ 39,166	8	\$ 35,104	6
American Indian or Alaskan Native alone	\$ 67,917	4	\$ 37,078	4
Asian alone	\$ 87,673	1	\$ 61,587	1
Pacific Islander alone	\$ 79,499	3	\$ 60,536	2
Some other race alone	\$ 42,768	7	\$ 28,631	8
Two or more races	\$ 45,758	6	\$ 36,186	5
Hispanic of any race	\$ 46,117	5	\$ 32,075	7
All Households	\$ 76,554	--	\$ 53,935	--

Source: US Census Bureau, Census 2000 Data Summary File

Income and Housing

Median household income is not only distinctive in terms of race, but also to towns within the region. The median household income for the region is \$76,554, significantly higher than the state average of \$53,935. Darien has the highest median household income at \$146,755, followed closely by Weston. Norwalk and Stamford have the lowest median household incomes, with \$59,839 and \$60,556 respectively.

**Table 4. Educational Attainment, Median Household Income and Housing Unit Value:
South Western Region, 2000**

Area Name	Total Population	Percent high school graduate or higher	Percent bachelor's degree or higher	Households	Median household income	Median home value ¹
Darien	19,607	95.7%	70.4%	6,624	\$ 146,755	\$ 711,000
Greenwich	61,101	92.1%	58.8%	23,259	\$ 99,086	\$ 781,500
New Canaan	19,395	96.7%	71.6%	6,803	\$ 141,788	\$ 831,000
Norwalk	82,951	82.8%	34.2%	32,703	\$ 59,839	\$ 270,100
Stamford	117,083	82.2%	39.6%	45,454	\$ 60,556	\$ 362,300
Weston	10,037	98.1%	74.4%	3,327	\$ 146,697	\$ 633,900
Westport	25,749	96.4%	69.4%	9,565	\$ 119,872	\$ 625,800
Wilton	17,633	95.0%	70.7%	5,898	\$ 141,428	\$ 561,100
South Western Region	353,556	87.6%	49.4%	133,633	\$ 76,554	x²
Fairfield County	882,567	84.4%	39.9%	324,403	\$ 65,249	\$ 288,900
Connecticut	3,405,565	84.0%	31.4%	1,301,670	\$ 53,935	\$ 166,900

¹ Median value is for specified owner-occupied units.

² Median housing value not available for the South Western Region.

Source: US Census Bureau, Census 2000 Data Summary File

The region's household income is somewhat higher than both that of Fairfield County and the state. An explanation for this occurrence could be the higher levels of educational attainment for the population of the region. While the regional population achieving high school diplomas is comparable to the county and state, it exceeds them in persons having a bachelor's degree or higher. There are a number of other factors that could explain a higher regional median income, including the region's proximity to New York City. The cost of living in the South Western Region is elevated, as can be observed through high home values.

Another measure of wealth and cost of living in an area is the percentage of the population who own a home. Homeownership rates in the South Western region are comparable to that of the state and country, with approximately two-thirds of the population owning their home. At the town level, homeownership rates are lower for Stamford (57%) and Norwalk (62%), but much higher for the towns of Darien (88%) and Weston (93%)⁴. This high homeownership rate can be attributed to historic land use patterns that result in most of the town's land being zoned for single family homes. Single-family homes are more likely to be owner-occupied. Conversely, in Stamford, Norwalk and Greenwich, there is more land zoned for multi-family dwellings. This land use pattern yields a larger percentage of rental apartment units.

⁴ US Census Bureau, Census 2000 Data Summary File.

Employment

According to Connecticut Department of Labor Data from 2003, the South Western Region historically has a lower unemployment rate than the rest of the state. A possible reason for this trend is the convenience to many, varied labor markets. As previously mentioned, the region is part of the New York Metropolitan Region and is close to other New York and Connecticut labor markets. Within the region, New Canaan had the lowest unemployment rate, at 2.1%, while Norwalk had a 4.4% rate of unemployment.

Table 5. Labor Force Data: South Western Region, 1995, 2000, 2003

	1995	2000	2003		1995	2000	2003
Darien				Weston			
Labor Force	9,652	10,016	9,764	Labor Force	4,840	5,022	5,147
Employed	9,409	9,919	9,500	Employed	4,723	4,985	5,019
Unemployed	243	97	264	Unemployed	117	37	128
Percent	2.5%	1.0%	2.7%	Percent	2.4%	0.7%	2.5%
Greenwich				Westport			
Labor Force	30,207	32,857	30,971	Labor Force	14,192	14,936	14,236
Employed	29,274	32,526	30,175	Employed	13,820	14,782	13,882
Unemployed	933	331	796	Unemployed	372	154	354
Percent	3.1%	1.0%	2.6%	Percent	2.6%	1.0%	2.5%
New Canaan				Wilton			
Labor Force	9,350	9,931	9,534	Labor Force	8,742	9,460	8,989
Employed	9,154	9,854	9,335	Employed	8,521	9,371	8,743
Unemployed	196	77	199	Unemployed	221	89	246
Percent	2.1%	0.8%	2.1%	Percent	2.5%	0.9%	2.7%
Norwalk				SOUTH WESTERN REGION			
Labor Force	47,633	50,633	48,841	Labor Force	187,005	201,768	194,020
Employed	45,510	49,768	46,676	Employed	179,854	198,936	187,104
Unemployed	2,123	865	2,165	Unemployed	7,151	2,832	6,916
Percent	4.5%	1.7%	4.4%	Percent	3.8%	1.4%	3.6%
Stamford				CONNECTICUT			
Labor Force	62,391	68,912	66,538	Labor Force	1,712,500	1,783,600	1,803,100
Employed	59,444	67,730	63,773	Employed	1,618,100	1,743,500	1,704,000
Unemployed	2,947	1,182	2,765	Unemployed	94,400	40,100	99,100
Percent	4.7%	1.7%	4.2%	Percent	5.5%	2.2%	5.5%

Source: Connecticut Department of Labor, Labor Market Information, Local Area Unemployment Statistics, 1995, 2000, 2003.

Journey to Work

The 7.2% increase in general population the region experienced between 1990 and 2000 was met with a decrease in total persons in the workforce. In 1990, the region had a workforce of 176,528, which decreased to 171,458 persons by 2000. The increase in general population coupled with the decrease in the workforce population was caused in part by a sharp increase in children and seniors. While the workforce living within the region has decreased, employment within the region increased by 3.2% from 205,871 in 1990 to 212,394 persons in 2000.

Table 6. Place of Employment and Residence Trends, South Western Region, 2000

A. Place of Work for Persons Residing in the South Western Region				
Area Name	Workers		Percent of Total	
	1990	2000	1990	2000
Darien	6,141	6,248	3.5%	3.6%
Greenwich	22,705	21,004	12.9%	12.3%
New Canaan	5,067	4,947	2.9%	2.9%
Norwalk	29,132	25,227	16.5%	14.7%
Stamford	53,931	47,087	30.6%	27.5%
Weston	1,246	1,374	0.7%	0.8%
Westport	9,072	7,928	5.1%	4.6%
Wilton	4,510	4,831	2.6%	2.8%
South Western Region	131,804	118,646	74.7%	69.2%
Housantonic Valley Region	1,935	4,908	1.1%	2.9%
Greater Bridgeport Region	5,522	8,488	3.1%	5.0%
South Central Region	1,582	2,085	0.9%	1.2%
Connecticut Total	142,310	136,628	80.6%	79.7%
New York Total	30,958	32,087	17.5%	18.7%
New Jersey Total	1,651	1,203	0.9%	0.7%
Elsewhere	1,609	1,540	0.9%	0.9%
Total Employed Persons Residing in the South Western Region	176,528	171,458	100.0%	100.0%

B. Place of Residence for Persons Working in the South Western Region				
Area Name	Workers		Percent of Total	
	1990	2000	1990	2000
Darien	5,780	4,876	2.8%	2.3%
Greenwich	19,668	16,631	9.6%	7.8%
New Canaan	5,908	4,999	2.9%	2.4%
Norwalk	36,916	33,290	17.9%	15.7%
Stamford	47,135	44,573	22.9%	21.0%
Weston	2,790	2,797	1.4%	1.3%
Westport	8,245	6,590	4.0%	3.1%
Wilton	5,362	4,890	2.6%	2.3%
South Western Region	131,804	118,646	64.0%	55.9%
Housantonic Valley Region	12,752	15,102	6.2%	7.1%
Greater Bridgeport Region	26,149	30,446	12.7%	14.3%
South Central Region	6,178	8,284	3.0%	3.9%
Connecticut Total	182,967	181,782	88.9%	85.6%
New York Total	20,228	26,748	9.8%	12.6%
New Jersey Total	1,294	1,976	0.6%	0.9%
Elsewhere	1,382	1,888	0.7%	0.9%
Total Persons Working in the South Western Region	205,871	212,394	100.0%	100.0%

Source: US Census Bureau, Census 1990 and 2000 Summary File 3 (SF 3) - Sample Data

The percent of persons living and working within the region decreased from 75% to 69% of all employed persons living in the region (Sub-table A of Table 5). There was an increase in the region’s population working in other areas of Connecticut, such as the Bridgeport, New Haven and Danbury areas. Roughly 10% of the region’s labor force works in other areas of Connecticut, whereas only 6% did so in 1990. The region’s population employed in New York increased slightly, mainly in areas other than Manhattan, such as Westchester County or other New York City boroughs. While the region’s total workforce decreased slightly, those living and working within the region decreased at a higher rate. This shows an out-migration of working adults from the region.

Similarly, a decrease can be seen in the percentage of persons living and working in the region as compared with those commuting to work within the region (Sub-table B of Table 5). The number of jobs available in the region increased at the same time that the number of people both working and living in the region decreased. Therefore, the number of people commuting into the region for employment has increased, making up 45% of the total labor pool in 2000. This is up from only 35% in 1990. The increase in commuting workers is greatest from other areas of Connecticut, including the Greater Bridgeport Valley, located to the immediate northeast of the region. There has also been an increase from New York, namely residents from Manhattan who work within the region. This increasing trend of living in one region and commuting to work in another has a noticeable effect both on the transportation infrastructure as well as individual commutes.

Mode of Transportation

The car remains the most popular form of transportation to work for residents of the South Western Region. The number of people who drove alone decreased very slightly between 1990 and 2000 from 123,996 to 118,474 persons. While the increase in persons who chose to carpool increased only slightly, this is in sharp contrast to decreasing trends in carpooling in the rest of Fairfield County, the state and the nation. The nationwide average for people using carpooling as a mode of transportation to work decreased from 13.4% in 1990 to 12.2% in 2000.

At the same time that congestion on major state highways increased, there was an increase in the use of other modes of transportation, including public transit and telecommuting. Users of public transportation increased from 21,081 persons in 1990 to 22,160 persons in 2000. Most of this increase was seen among Darien, Greenwich and Westport residents. The number of people working from home increased from 8,604 to 10,071, with the greatest increases in Weston and Wilton.

Table 7. Commutation Patterns, South Western Region, 1990 and 2000

	Means of Transportation to Work									
	Car, alone		Carpool		Public Transit		Work at home		Other	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Darien	61.0%	60.3%	5.7%	3.3%	22.7%	26.0%	7.3%	8.3%	3.2%	2.8%
Greenwich	65.4%	64.4%	7.6%	6.0%	15.1%	17.4%	6.3%	7.7%	5.6%	5.3%
New Canaan	68.5%	65.1%	4.5%	5.3%	16.2%	17.2%	7.4%	8.5%	3.4%	4.7%
Norwalk	75.8%	74.2%	9.9%	10.9%	8.0%	8.5%	3.2%	3.7%	3.2%	3.1%
Stamford	70.2%	70.1%	10.0%	10.6%	11.1%	10.7%	3.2%	3.8%	5.5%	5.2%
Weston	70.1%	65.6%	4.8%	3.0%	13.4%	13.8%	9.5%	14.7%	2.2%	3.3%
Westport	66.4%	64.5%	5.5%	2.9%	16.0%	18.6%	9.2%	11.1%	2.9%	3.1%
Wilton	75.6%	71.8%	4.1%	4.9%	10.4%	12.1%	6.9%	9.4%	3.0%	2.0%
South Western Region	70.2%	69.1%	8.3%	8.4%	12.2%	12.9%	4.9%	5.9%	4.3%	4.2%
Fairfield County	75.4%	74.7%	10.0%	9.6%	7.3%	8.1%	3.5%	4.5%	3.7%	3.4%
Connecticut	77.7%	80.0%	11.2%	9.4%	3.9%	4.0%	2.7%	3.1%	4.5%	3.6%

Source: US Census Bureau, Census 1990 and 2000 Summary File 3 (SF 3) - Sample Data

As compared with the rest of Fairfield County and the State, residents of the region take advantage of the convenience of public transit. Of the towns in the region, Darien had the highest percentage of residents using public transportation, followed by Westport, Greenwich and New Canaan. Weston residents were more likely to work at home than residents of other towns in the region. This includes railroad, bus, trolley and subway. Residents of Stamford and Norwalk are more likely to use the bus than they are to use rail. This is partially due to the developed bus system in both cities, a mode not offered in the smaller towns.

Commute Time

Residents of the South Western Region experienced increased commute time between 1990 and 2000,

likely due to greater congestion on local and interstate roads as well as longer distances between home and work. In 1990, 55% of the region's residents had a commute time less than 20 minutes. That decreased in 2000 when only 47.9% had a commute time less than 20 minutes. The percentage of residents with commutes greater than an hour increased the greatest, from 11.8% in 1990 to 15.7% in 2000. As mentioned above, the increase in time to get to and from work could explain why many chose to change commuting patterns or to work from home.

Table 8. Travel Time to Work, South Western Region, 1990 and 2000

	Commute Time, in minutes								Mean in minutes (2000)
	< 20 minutes		20 to 39		40 to 59		> 60 minutes		
	1990	2000	1990	2000	1990	2000	1990	2000	
Darien	51.7%	43.2%	18.2%	18.9%	4.6%	5.1%	25.4%	32.7%	36.4
Greenwich	56.5%	49.7%	20.7%	21.4%	5.6%	7.0%	17.3%	21.9%	30.3
New Canaan	45.0%	36.7%	33.2%	32.7%	4.5%	5.5%	17.3%	25.2%	35.7
Norwalk	56.0%	49.3%	32.3%	32.4%	5.1%	8.4%	6.7%	9.8%	25.4
Stamford	59.1%	53.3%	27.1%	31.3%	4.6%	5.3%	9.2%	10.0%	24.0
Weston	38.8%	27.0%	36.9%	32.8%	10.5%	13.9%	13.9%	26.3%	41.6
Westport	49.3%	39.2%	25.3%	23.3%	7.9%	8.4%	17.5%	29.1%	39.4
Wilton	44.0%	29.9%	34.7%	32.7%	12.3%	15.3%	9.0%	22.1%	39.2
South Western Region	55.0%	47.9%	27.7%	29.1%	5.6%	7.2%	11.8%	15.7%	28.7
Fairfield County	52.7%	45.8%	30.6%	31.1%	8.4%	10.2%	8.3%	12.8%	28.0
Connecticut	52.2%	47.8%	34.8%	35.7%	8.4%	9.2%	4.6%	7.3%	24.4

Source: US Census Bureau, Census 1990 and 2000 Summary File 3 (SF 3) - Sample Data

Commute time increased for residents of all towns within the region. This is most apparent when comparing commute times less than 20 minutes and greater than 60 minutes. In Wilton, commute times less than 20 minutes decreased by about 14% while travel times greater than 60 minutes increased by about the same amount. Travel times in between remained relatively constant. This trend is exhibited across the region, though at a lesser degree. When comparing mean commute times between municipalities, the cities of Norwalk and Stamford had significantly shorter commute times. Changes in employment locations, greater reliance on public transportation or more congestion on highly traveled roads could account for the trends the region is experiencing with regard to commuting patterns.

None of this data bodes well for the already strained transportation system of the region. There are a greater number of people commuting into and out of the region each day. The automobile is still their preferred means of transportation, though there have been slight increases in other, non-auto types of commuting. Finally, as a result, commute times have increased significantly since 1990.

TRANSPORTATION INVENTORY AND TRAVEL CHARACTERISTICS

A diverse transportation system with highway, transit and transportation demand management components serves local, regional and inter-regional travel needs. The Region's state and local highway system includes more than 1,500 miles of roads, almost 800 road and rail bridges, 22 at-grade rail/highway crossings, more than 800 traffic signals, 5 commuter park and ride lots, and thousands of public parking spaces in structures, on-street and off-street lots as well as bicycle and multi-modal trails, bicycle storage, and sidewalks. Commuter rail service by MetroNorth and ConnDOT provide intrastate and interstate service, with Acela/Amtrak providing inter-regional service at Stamford. Local bus transit services provided by Norwalk Transit District and Connecticut Transit include fixed route service, special commuter connections in Greenwich, Norwalk, Stamford, Westport and Wilton, I-Bus between Stamford and White Plains, Route 1 Coastal Link service between Norwalk and Milford, and Route 7 Link service between Norwalk and Danbury, and Easy-Access the regional elderly and disabled transportation service.

Vehicle Miles of Travel, Vehicle Occupancy and Congestion

In 2000, the South Western Region generated 9,035,403 vehicle miles of travel (VMT) daily. This was a 15% increase in VMT over the daily 7,769,295 VMT of 1990. Between 2000 and 2025, the VMT is predicted to reach 10.7 million. The additional 1.65 million VMT is an 18.3% increase in the 25 year period according to ConnDOT's Series 27C VMT Projections (ConnDOT Congestion Management System 2003 Congestion Screening and Monitoring Report, September 2003).

The Region's average vehicle occupancy in 2001 was 1.23 persons per vehicle in the a.m. peak period (7:00 a.m. to 9:00 a.m.) as compared to 1.21 persons per vehicle in 1998 and 1.19 in 1995. The 2001 p.m. peak period (4:00 p.m. to 6:00 p.m.) vehicle occupancy was 1.43, which increased from the 1.36 occupancy rate in 1995 and 1998. In 2001, unlike past years, the region's average vehicle occupancy was identical to the statewide average vehicle occupancy. Previously, the South Western Region a.m. average vehicle occupancy rate was less than the state's, but the p.m. vehicle occupancy rate was slightly greater.

The Region's most heavily traveled expressway, I-95, carries as many as 150,000 vehicles per day on sections. By 2025, ConnDOT models forecast traffic volumes in excess of 210,000 vehicles per day in Greenwich, and over 190,000 vehicles per day in Stamford and Norwalk. In 2002, 74% of the expressways in the South Western Region were approaching or over capacity. When all state highways are considered, 38% were approaching or over capacity as compared to 33% in 1995. The duration of congestion is increasing because traffic volumes and VMT are increase, while capacity remains constrained. By 2025, I-95 will be congested 50% of the time, and Route 15 will be congested 30% of the time. It is predicted that 54% of all state highways will be approaching or above capacity. Local road experience the same, with congestion severity and duration increasing.

Additional information on transportation services, facilities, functionality, and limitations is provided in detailed specialized reports, such as Congestion Mitigation Study Vision 2020 – Task 3 Existing Conditions Technical Memo on SWRPA's website at www.swrpa.org.

The South Western Region Long Range Transportation Plan 2004-2030

The South Western Region Long Range Transportation Plan 2004-2030 is an update of the Region's Long Range Transportation Plan 2001-2025 which was adopted in July 2001, and found to be conforming by U.S. DOT in November 2001. Federal metropolitan transportation planning regulations require that regional transportation plans be updated every three years. This update of the South Western Region Long Range Transportation Plan began in 2003 with Transportation Technical Advisory Group (TTAG) and South Western Region Metropolitan Planning Organization (MPO) approval of the Plan development schedule and approach. The public input process began with "listening sessions" in March 2004, meetings and discussions with town and state officials and other stakeholders, and with the distribution of draft Plans to the towns and public libraries, along with posting of the Plan on SWRPA's website in September 2004. Public information sessions are scheduled for September 28, 2004, prior to TTAG and MPO review and action in October 2004.

The South Western Region Long Range Transportation Plan 2004-2030:

- complies with the requirements of the metropolitan planning process for a long range transportation plan that looks forward at least 20 years,
- contains the basic components of a transportation plan,
- is financially constrained,
- has been determined to meet air quality conformity requirements (analysis conducted by ConnDOT),
- has been developed in accordance with the South Western Region MPO's Public Involvement Process adopted on December 5, 1997,
- was developed within a certified transportation planning process which was certified by the SWRMPO in June 2003, and will be certified again in September 2004, and
- incorporates key documents by the Connecticut Department of Transportation (ConnDOT) and the South Western Regional Planning Agency (SWRPA) and the South Western Region Metropolitan Planning Organization (MPO) including: the ConnDOT 2003 Master Transportation Plan, the ConnDOT Long Range Transportation Plan 2004-2030, the FFY2003-2005 Transportation Improvement Program (TIP), the draft FFY2005-2009 TIP, and the SWRPA Congestion Mitigation Systems Plan "Vision 2020".

Development of a regional long range transportation plan is an ongoing process. Through the continuing, comprehensive, cooperative transportation planning process, changing policies, regulations, funding, and needs are addressed. The South Western Region transportation planning work program is described in the annual Unified Planning Work Program (UPWP) of the South Western Region MPO.

Accomplishments and Changes Since the Last Plan Endorsement in 2001

Since the South Western Region Long Range Transportation Plan 2001-2025 was endorsed in 2001, there has been significant investment in transportation operations and improvements, and maintenance of existing facilities. According to ConnDOT federal funding obligation reports, more than \$600 million in

transportation projects have benefited the South Western Region in the last three federal fiscal years. As shown in Table 9, there was \$275 million invested in transportation projects in the South Western Region in federal fiscal years 2001, 2002 and 2003, along with \$194 million in statewide, \$134 million in district-wide projects, and \$11 million in multi-region projects that benefit the South Western Region. A complete listing of FFY2001-2003 project obligations is provided in the Financial Component section of the Plan.

Table 9. FFY2001-2003 Obligated Projects Benefiting the South Western Region

Project Type	FFY2001	FFY2002	FFY2003	Total
South Western Region	\$ 112,342,555	\$ 60,458,437	\$ 101,946,400	\$274,747,392
Statewide	\$ 46,520,000	\$ 84,864,612	\$ 63,091,000	\$194,475,612
District 3	\$ 38,930,345	\$ 48,151,776	\$ 46,546,000	\$133,628,121
Multi-Region			\$ 11,094,498	\$ 11,094,498
TOTAL	\$ 197,792,900	\$ 193,474,825	\$ 222,677,898	\$613,945,623

Source: SWRPA August 2004 - using ConnDOT obligated projects information FFY2001-2003.

Included in the South Western Region total, are projects undertaken by the towns of Greenwich, New Canaan, Norwalk, and Stamford for safety and operational improvements to local bridges, intersections, roadway sections, and signal systems along with design and construction of multi-use trails. State projects that were completed or started in the last three years include: rail projects to upgrade stations at Darien, Greenwich, Stamford and Wilton, catenary replacement, and rail station parking expansion at Stamford; I-95 bridge improvements; I-95 resurfacing and median projects in Stamford, Darien and Norwalk; Merritt Parkway/Route 15 gateway and safety improvements in Greenwich and North Street (Interchange 31), and design for future projects at Route 104/Long Ridge Road (Interchange 34). The first phase of the Route 15 and Route 7 interchange project (#102-312) reached the advertising stage, with construction scheduled to start in 2005. Route 7 widening between Wolfpit Road and Olmstead Hill Road in Wilton, is scheduled to start construction in 2006.

Other critical Route 7 corridor improvements are currently scheduled to begin after 2008, and include the Route 7 and 15 Interchange Phase 2 (#102-269), and the Route 7 improvements between the Route 7 expressway at Grist Mill Road in Norwalk and Route 33 in Wilton (#102-305). Regional efforts to initiate improved transit services in the corridor to mitigate construction disruptions, and provided coordination and communication are being promoted by the South Western and Housatonic Valley regions.

Also, bus and rail services were enhanced and included: additional direct express and semi-express Shore Line East service between New Haven and Stamford, increased Coastal Link bus service, additional commuter connections bus service in Stamford and Norwalk. In 2004, ConnDOT made a decision on the MetroNorth rail fleet configuration and issued a Rail Car Fleet Replacement Plan: New Haven Line. The financing plan for rail will be developed by ConnDOT in FY2005.

The State Incident Management Program continued its Bridgeport Operations Center co-located at Connecticut State Police Troop G. The operations center monitors traffic operations in the I-95 Bridgeport

to Branford corridor using camera and electronic detection equipment. The Incident Management Program includes service patrols (CHAMP), traveler notification through variable message signs and highway advisory radio (HAR), and daily faxes, and coordination with local and regional officials including the South Western Region Incident Management. Expansion of CHAMP service to the Merritt Parkway and update of 1990's diversion route plans to electronic format are funded in FY2005.

In the last three years a number of significant planning efforts were completed. SWRPA's Congestion Mitigation Systems Plan "Vision 2020" Final Report (2003) concluded there was no single solution for mitigating congestion in the region, or study area. Study recommendations describe immediate, short term and long term transportation projects, planning, and land use initiatives that will provide improved mobility, choice and better management of congestion. The 2002 SWRPA Regional Transit Card Study recommended future implementation of an integrated fare card for use by all transit and paratransit operators in Southwestern Connecticut, and the New York metro area.

Other important regional and state planning efforts are in progress and will help to guide future projects for rail parking, rail improvements, and rail governance and financing. These studies include: SWRPA's Rail Parking Feasibility Study for Darien and Norwalk; ConnDOT Danbury Branch Electrification Study Phase 1; ConnDOT Rail Governance Study, and, ConnDOT development of a financing plan for rail. The SWRPA Intelligent Transportation Systems Plan will define ITS projects for the South Western Region, and, in tandem with the State's ITS Regional Architecture Plans will comply with USDOT requirements for regional ITS architectures to be in place by April 2005.

The Transportation Strategy Board (TSB) plans and programs of 2001-2004, along with Coastal Corridor Transportation Investment Area (Coastal Corridor TIA) plans described in the introductory section of this Plan reinforce many of the SWRMPO's priorities. Since 2002, TSB recommendations have supported State funding for additional investment in rail rolling stock, maintenance facilities, rail parking facilities, increased rail service to Stamford, and increased commuter connections with rail, additional inter-regional and express bus services. Through State funding, TSB-recommended studies of new rail service potential (New Haven-Hartford-Springfield), and corridor needs (I-95 Southeast Corridor from Branford to the R.I. state line) have been undertaken, and an engineering study of the southwest corridor is funded, but not yet started. Waterborne ferry and feeder barge investments are slated, and a new Office of Maritime Policy within ConnDOT is being created. Additional incident management programs for highway assistance (CHAMP), development of additional diversion route plans in the Hartford area and update of the I-95 Greenwich to Bridgeport diversion route plans are funded in FY2005.

SWRMPO Designated a Transportation Management Agency (TMA)

Changes in the framework for metropolitan transportation planning and programming resulted from the 2000 Census and the inclusion of the Stamford Urban Area and the Norwalk Urban Area as part of a consolidated and expanded urbanized area designated as the Bridgeport-Stamford Urbanized Area. This redesignation by the US Department of Commerce Bureau of Census in May 2002, catapulted the South Western Region Metropolitan Planning Organization (SWRMPO) into a new relationship with the other Metropolitan Planning Organizations, regional planning organizations,

and transit operators in the new Bridgeport-Stamford Urbanized Area. In July 2002, the U.S. Department of Transportation designated the Bridgeport-Stamford Urbanized Area as a “transportation management area”, a category that applies to all urbanized areas with a population over 200,000. This designation is new to the SWRMPO, and institutes requirements for development of certain planning documents (a congestion management systems plan) and triennial reviews of the transportation planning program by USDOT. As a consequence of redesignation, a new Memorandum of Understanding Regarding Transportation Planning and Funding in the Bridgeport-Stamford Urbanized Area was executed by the 5 MPOs, 6 regional planning organizations, 5 transit operators, and ConnDOT in December 2002. Since the MOU, coordination of the Bridgeport-Stamford urbanized area planning and transit agencies and activities has taken place with respect to shared Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding programs, such as the FHWA Surface Transportation Program- for the Bridgeport-Stamford Urbanized Area (STP-BS), and FTA Section 5307 Enhancement program. FTA 5307 Enhancement funding is equivalent to 1% of the FTA 5307 funding for the urbanized area. Future coordination of Transportation Improvement Programs (TIPs), long range transportation plans, and congestion management systems (CMS) plans is envisioned. Figure 2, on page 27, shows the Bridgeport-Stamford Urbanized Area.

South Western Region Long Range Transportation Plan 2004-2030 Recommendations

The Plan recommends new planning and engineering studies that will define future strategies and investments, including:

- Regional Transit Strategies Plan that will develop the vision and an implementation plan for transit within the region and that will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry and air.
- Stamford Transportation Investment Strategies Study to develop a comprehensive plan for highway and all modes of transit in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access & arterial roadways, rail bridges & infrastructure, and Stamford Harbor.
- Stamford Transportation Center Master Plan that defines near term and long term capital projects, maintenance and operating requirements and financing.
- Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.
- South Norwalk Intermodal Facility Concept Plan
- Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- A comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program is development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the interchange.
- Danbury Rail Line Electrification Study Phase 2 modification of the scope of this funded study to develop rail service enhancement program and commuter connections to provide additional train service to the Wilton/Merritt 7/South Norwalk corridor.
- Darien Route 1 congestion, circulation and access management study

- Route 7 corridor needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield. This study will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach. This assessment should be a cooperative effort of ConnDOT, the Housatonic Valley Council of Elected Officials (HVCEO), and the SWRMPO and the South Western Regional Planning Agency (SWRPA).
- Develop New Canaan Branch implementation program for rail service, parking needs and intermodal connections that will enhance transit options, identify transit supporting strategies and recommend transit oriented development possibilities.
- Develop a comprehensive truck safety and enforcement program, including:
 - State adoption of truck safety and enforcement as high priorities with funding to support projects, and operations to support (1) already-required weigh station inspections, (2) increased truck safety inspections at I-95 Darien truck inspection station and I-84 inspection stations, and (3) to implement effective use of the I-95 Weigh-in-Motion project (#56-290) scheduled for design completion in 2005
 - a “truck information” webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the ConnDOT Incident Management webpage where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs. For the Merritt Parkway, use restrictions, bridge clearance restrictions, penalties and alternative routes would be included.
 - NYSDOT and ConnDOT should develop an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills.
 - Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway use restrictions.

The Plan recommends immediate implementation of certain new near-term projects and programs, **including**:

- A Route 7 corridor communications plan to provide for ongoing coordination and communication regarding the construction projects, service changes and restrictions, incident management in the Norwalk – Danbury corridor encompassing all modes of transportations. Recommended participants in a “steering committee” include: SWRPA, HVCEO, ridesharing brokerage, strategic business partners and chambers of commerce, legislators.
- Completion of the Danbury Branch signal and communications project (#302-0007).
- Enhanced rail and bus services in the Route 7 corridor between Norwalk and Danbury to mitigate construction disruptions for the duration of major Route 7 interchange and widening projects that will occur between 2005 and 2011. This recommendation follows the precedent set by enhanced transit services for the New Haven Harbor Crossing Program also known as Q Bridge. Transit options

include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor, express bus from the Danbury area to Stamford via I-684, continued support for 7Link bus service and enhanced service, as well as incentive-based ridesharing programs similar to NuRides.

- Continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).
- Replacement State funding for FY2005 Norwalk Transit District companion ADA service if federal funding for transit operations is no longer available as a result of 2002 redesignation of Norwalk and Stamford into the consolidated Bridgeport-Stamford urbanized area. Provisions of FFY2003 and FFY2004 federal transit authorizations have continued federal funding for ADA companion services.
- Institute a program for cost recovery that will reimburse municipalities for emergency response to incidents on I-95, Route 15 and Route 7 expressway.

The Plan supports special and priority projects that include:

- Stamford Urban Transitway Phase 1 (Stamford Transportation Center to Elm Street)
- Stamford Urban Transitway Phase 2 (Myrtle Avenue)
- Stamford Ferryboat Facilities
- Norwalk Pulse Point Security and Safety Project
- Norwalk Route 1 Cross Street improvements and design

The Plan restates as the region's highest highway and transit priorities:

- Completion of Route 7 corridor projects, including:
 - Route 15 and Route 7 Interchange Phase 1, Norwalk (#102-312)
 - Route 15 and Route 7 Interchange Phase 2, Norwalk (#102-269)
 - Route 7 widening between Wolfpit Road and Olmstead Hill Road, Wilton (#161-118,124)
 - Route 7 widening between Grist Mill Road, Norwalk, and Route 33, Wilton (#102-305)
- I-95 – develop and implement operational and safety improvements in the South Western Region.
- Rail: order new rail cars, increase rail parking at New Haven Line stations, and expand intrastate commuter rail service.
- Strategies and services to support the use of rail, including bus and shuttle commuter connections, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections.

Participation of regional and municipal officials in project and program planning is recommended in the following:

- The ConnDOT Southwest Corridor Safety and Operations Engineering Study funded by the CT Legislature and included in the TSB budget for \$1.5 million.
- The ConnDOT rest area lease renewal program that will result in reconfiguration of rest areas and their services. The Darien I-95 rest area, the Route 15 New Canaan and Greenwich rest areas are included in this ConnDOT initiative.
- Governor's Commuter Shoulders Project environmental assessment as a designated participating

agency.

- Transportation planning and programming with the state, partners within the Bridgeport-Stamford Urbanized Area, other Connecticut regions, the TSB, and New York metro area regions to cooperatively address transportation issues, and to develop cohesive investment strategies that result in funding and tangible projects.

Because the Region's long range transportation plan is a dynamic document, the Plan will be revised as new transportation needs and recommended projects or courses of action are identified by the municipalities, the South Western Region MPO, State and Federal Governments.

TRANSPORTATION PLAN UPDATE COMPONENTS

The South Western Region Long Range Transportation Plan 2004 – 2030 Plan Update describes the planning process, goals and objectives and transportation plan elements, including:

- The Transportation Planning Process
- Transportation Goals and Objectives
- Highway Systems and Operations
- Congestion Management
- Incident Management
- Bridges
- Noise Barriers
- Transit System: Buses, Elderly and Disabled Transportation, and Rail Passenger System
- Freight
- Transportation Demand Management and Commuter Choice
- Bicycling and Walking
- Waterborne Transportation
- Air and Pipeline Systems
- Intelligent Transportation Systems (ITS)
- Land Use
- Environmental Considerations
- Environmental Justice
- Financial Component

For each transportation element, the Plan Update provides background information, identifies issues and challenges, describes the process used to develop projects and programs, and summarizes recommendations. The framework for developing the Plan processes, policies, programs and projects is constructed through the Plan's goals and objectives which promote mobility, access and congestion management while supporting economic development, environmental sensitivity and justice within a financially constrained program. The plan seeks to:

- Maintain the infrastructure and equipment in a state of good repair (goal II)
- Promote and enhance safety (goal IV);
- Preserve and maintain existing systems (goal VIII);
- Increase system efficiency and productivity and the use of new technology (goal VIII)
- Foster economic competitiveness (goal I);
- Support environmental preservation and clean air (goal V);
- Recognize the linkage between land use and transportation (goal VI);
- Enhance and encourage intermodal connectivity (goal VII);
- Promote mobility and commuter choices (goals III, VII);
- Measure and monitor systems performance to forecast needs, develop transportation responses, and revise existing systems (goal IX);
- Estimate financial needs and develop adequate funding to support the Plan (goal X).

REGIONAL TRANSPORTATION PLAN REFERENCES

The South Western Region Long Range Transportation Plan 2004-2030 incorporates the latest regional Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program and endorsed adjustments and amendments as the first five years of the Long Range Transportation Plan's program. The State's latest Master Transportation Plan (2003) provides information through year 2013.

Documents that provide the platform for the South Western Long Range Transportation Plan 2004-2030 are:

- South Western Region FFY2003-2005 Transportation Improvement Program and amendments (SWRPA 2002 with updates).
- South Western Region FFY2005-2009 Transportation Improvement Program and amendments (SWRPA 2004 with updates).
- 2003 Master Transportation Plan: 2003-2013 (ConnDOT 2003).
- Long Range Transportation Plan 2004-2030 (ConnDOT 2004).
- The ConnDOT Public Transportation Capital Project Management Plan 2004-2020. (ConnDOT 2004)
- Regional Transit Card Implementation Study Final Report (SWRPA 2001)
- South Western Region Long Range Transportation Plan 2001-2025 (SWRPA 2001)
- South Western Region Metropolitan Planning Organization Transportation Investment Are Plan for the Coastal Corridor (SWRPA 2001)
- Congestion Mitigation Systems Plan "Vision 2020" Final Report (SWRPA 2003)

As new baseline documents are made available, they will be incorporated into the Long Range Transportation Plan 2004-2030. Plan updates and amendments will undergo air quality conformity analysis, public involvement, will be financially constrained, and will respond to federal and state mandates as they are effected.

THE TRANSPORTATION PLANNING PROCESS

The transportation planning process in the South Western Region is a cooperative effort among the South Western Regional Planning Agency (SWRPA), the Metropolitan Planning Organization (MPO) of the South Western Region, the Connecticut Department of Transportation (ConnDOT), the Connecticut Department of Environmental Protection (ConnDEP), the Federal Transit Administration (FTA), and the Federal Highway Administration (FHWA).

SWRPA is the federal and state-designated transportation planning agency for the Region. The South Western Region Metropolitan Planning Organization (SWRMPO) is the organization, which is federally mandated and designated by the Governor as the forum for cooperative transportation decision-making by chief elected local officials. The SWRMPO is composed of the Mayors and First Selectmen and First Selectwomen of the eight member municipalities, as well as the Directors of the Region's Transit Districts. The SWRPA Chairman participates as a non-voting member of the SWRMPO. In its capacity as the transportation planning agency SWRPA serves as the transportation planning staff for the SWRMPO. The Transportation Technical Advisory Group (TTAG), is a committee, which reviews and evaluates proposals and submits recommendations to the SWRMPO. The TTAG consists of professional staff from SWRPA, Transit Districts, Municipal Planning, Engineering and Traffic Engineering Departments, FHWA, FTA, ConnDOT and other interested federal and state agencies.

In accordance with the federal Transportation Equity Act for the 21st Century (TEA-21), the SWRMPO is responsible for developing the long range vision for transportation in the South Western Region. This document is the long range transportation plan, which must cover a 20 year timeframe and must be updated every three years. The SWRMPO's goals and objectives guide transportation decision-making, planning and programming of federal transportation funds. The South Western Region Long Range Transportation Plan 2004-2030 notes critical issues to the region, describes current and projected conditions, identifies needs, and proposes policies, programs and projects to address identified needs. The SWRMPO is also responsible for two other planning documents. These documents are the Transportation Improvement Program (TIP) and the annual Unified Planning Work Program (UPWP). The TIP lists projects for federal funding for the near term, three year period. Projects on the TIP must be on the region's long range transportation plan. The UPWP describes the planning activities that will be carried out during the fiscal year, and is directly related to the issues, analyses and solutions needed for the long range plan and TIP.

The key regulations that shape the region's long range transportation plan include three pieces of federal legislation: TEA-21, Clean Air Act Amendments of 1990, and the Americans with Disabilities Act of 1990.

TEA -21

Seven planning factors of TEA-21 are embodied in the Plan:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and, efficiency;
- Increase the safety and security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility option available to people and for freight;

- Protect and enhance the environment, promote energy conservation, and improve quality of life;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient systems management operation; and,
- Emphasize the preservation of the existing transportation system.

The seven planning factors are addressed in the South Western Region Long Range Transportation Plan 2004-2030 and reflected in the goals and objectives that shape the Plan. The region's goals are described in the next section of the Plan.

Clean Air Act Amendment of 1990

Another important control in transportation is the Clean Air Act Amendments of 1990 (CAA). The CAA focuses on the relationship of transportation (as mobile source of pollution) and the environment. The effects of these regulations are great, because analytical and programming requirements are established. All plans and TIP's must conform to the State Implementation Plan (SIP) for Air Quality, with the intent that projects contribute to attaining the national ambient air quality standards. The South Western Region is designated as a severe non-attainment area for hydrocarbons and must comply with these regulations.

Americans With Disabilities Act 1990

The Americans with Disabilities Act (ADA) became law in 1990 and makes it illegal to discriminate against anyone with disabilities, physical or mental, in employment, telecommunications or public accommodations. The ADA affects and shapes all transportation systems. New transit vehicles and new facilities of public transportation systems are required to be fully accessible for persons with disabilities. Key rail stations are also to be accessible.

The Region's planning process is described in more detail in the annual planning certification report, which describes how the Region complies with the seven planning factors mandated by federal regulations, identifies major projects and accomplishments, and serves as an encyclopedia of transportation planning documents, including the MPO designation, the Memorandum of Understanding, the public involvement process, and federal regulations and requirements.

South Western Region Long Range Transportation Plan 2004-2030 Goals and Objectives

The overarching goals of the South Western Region Long Range Transportation Plan 2004-2030 are to provide safe, efficient, cost effective and balanced transportation systems that promote mobility, access and choice. In addition, the transportation system is to provide multi-modal opportunities to meet the mobility needs of users and goods, while minimizing adverse impact, and optimizing investment in the transportation system.

The objectives of the Transportation Plan fall into ten categories:

- I **Economic Competitiveness** – to make timely investments in the transportation system to maintain a healthy regional economy and to promote quality of life. A balance should be achieved between housing availability, transportation capacity, and the locations of new jobs and employment centers to avoid creating or exacerbating housing shortages, congestion, and disorganized development patterns. The Plan should be responsive to business needs, and responsive to Connecticut urban development strategies. The Transportation Plan provides the framework to guide investments in transportation to attain economic and quality of life goals.
- II **Infrastructure** – to maintain in a state of good repair transportation equipment and facilities, including highways, bridges, and transit systems. The Transportation Plan identifies the maintenance needs and resources to maintain the Region’s transportation systems.
- III **Accessibility and Mobility (ADA)** – to maintain and increase options available for the movement of people and goods. The objective is to provide transportation for the traditionally transit-dependent (young, elderly, disabled, low income) as well as options that provide commuters with viable mode choices such as transit, walking, bicycling, ferry, and ridesharing. The Transportation Plan promotes choice, alternative modes and demand management, along with the use of new technology and Intelligent Transportation Systems (ITS) to help users be aware of and make smart travel choices. The Transportation Plan identifies strategies to reduce overall traffic congestion, to increase mobility, and to improve access to employment opportunities and services.
- IV **Safety and Security** – to promote the safety and security of all modes of transportation for all users and operators is a major objective of the Transportation Plan. Emphasis areas are pedestrian, bicycle and older driver safety, as well truck safety, and the security of transportation systems and the users. The Transportation Plan identifies key safety topics as more education programs, development of bicycle and pedestrian plans, enhanced truck safety inspections, and increased public safety enforcement and incident management programs.
- V **Environmental and Clean Air Responsibility** – to avoid, minimize, or mitigate any negative environmental impacts of transportation projects and systems whenever possible. Seek initiatives to improve air quality to bring the region into compliance with the clean air standards and develop a

more healthy and high quality of life for all residents. The Transportation Plan identifies and implements measures to improve air quality, including promotion of alternative fuels and energy efficient transportation modes, increased public transit opportunities, transportation demand management and transportation systems management, and development of bicycle and pedestrian plans.

- VI **Land Use and Transportation** – The link between land use and transportation is recognized as a critical component for improving mobility and maintaining or improving the quality of life in the Region. The Transportation Plan supports strategies that promote transit oriented development, contribute to regional congestion mitigation, encourage sustainable travel options and produce environmental benefits. The Transportation Plan identifies strategies to support smart growth and Context Sensitive Design Solutions.
- VII **Intermodal Connectivity** – to enhance the integration and connectivity of transportation systems and modes for people and freight. Select transportation investments that support and encourage development of a balanced transportation system which uses a variety of modes operating in a complementary way to save energy, reduce congestion, strengthen urban centers and meet the needs of all residents. The Transportation Plan proposes continuation and expansion of rail and commuter connections and services, more direct and seamless transit services, and future studies of freight alternatives that link Connecticut to the Port of New York/New Jersey and the international rail grid.
- VIII **Systems Efficiency and Productivity** – to make the most of current systems and resources through ‘transportation systems management’. The Transportation Plan identifies projects and studies aimed at prolonging the effective life of facilities, refining operations, management, finance or governance to improve efficiency, and using new technology to achieve transportation system productivity and enhanced services.
- IX **System Performance** – to develop measurement and monitoring tools and strategies to better analyze the highway and rail systems performance and adjust programs and projects. The Transportation Plan and companion Congestion Management System reports recommend projects and strategies to monitor and analyze congestion and systems performance that will lead to reduction of recurring and incident-related congestion in the southwest corridor. Recommended projects include: deployment of smart card technology, real time traveler information, various ITS projects and programs, commercial vehicle information systems (CVISN), and continuous traffic recording equipment.
- X **Financing** – to provide resources to maintain existing transportation systems and services in a state of good repair, and to support improvements and services that meet the needs of system users. The Transportation Plan describes the financial framework for system operation, maintenance and improvement. Available resources are identified. Projects within the 26 year financial envelope as well as future un-funded needs are noted.

HIGHWAY SYSTEMS AND OPERATIONS

Background

The Region's highway and bridge system faces the challenges of aging infrastructure, which demands more maintenance, rehabilitation and replacements within a framework of diminishing resources and ever-increasing travel demand. Though significant investment in the State's system occurred under the Transportation Infrastructure Program in place since 1983, and there was increased federal transportation funding through federal transportation programs (ISTEA – Intermodal Safety and Efficiency Act 1991 – 1997, TEA-21 – Transportation Efficiency Act for the 21st Century 1997-2003), the needs exceed the funding that is available. The challenge is to get transportation systems up to a state of good repair and operationally sufficient, to keep them functional, and to enhance and diversify systems to meet the needs of the 21st century and sensitive to context and stakeholders.

As noted in past regional long range transportation plans the challenges are: “to maintain and preserve the structural integrity and operational efficiency of existing facilities; and to identify and correct safety, capacity and congestion deficiencies within financial, environmental, and regulatory constraints.”

In the South Western Region there are 1,529 miles of road, with 179 miles (12%) maintained by the state, and 1,350 miles (88%) that are municipally or privately maintained. Roads that are classified as local (serving neighborhoods) account for 1092 miles or 81% of town roads are not eligible for federal transportation funding. However, the state's Local Road Accident Reduction Program targets low cost safety improvements on local roads. State 'Town Aid' funds and Local Capital Improvement funding (LoCIP) may be used on local roads, with many towns using these funds for paving/resurfacing programs. Information on highway system mileage, maintenance responsibility and functional classification is available on SWRPA's website under Transportation Facts. Figure 3 shows highways in the South Western Region and vicinity.

The following sections of the Plan describe highway/road and bridge systems, issues, challenges, planning processes, and make recommendations.

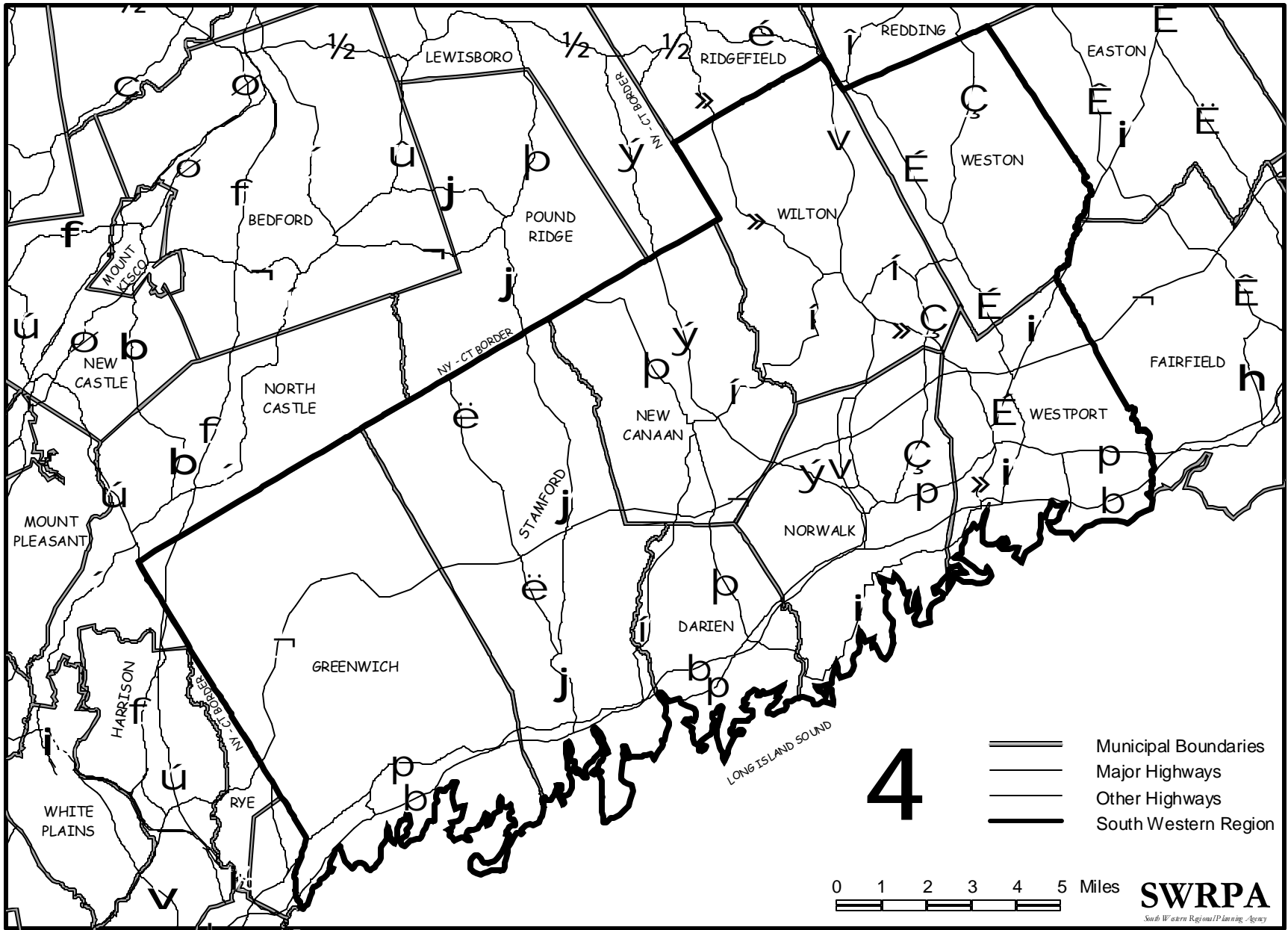


Figure 3. Highways, South Western Region and Vicinity

SAFETY & SECURITY

In this Plan, the many facets of safety are recognized, including bicycle, pedestrian, older driver, driving under the influence of alcohol, and truck safety as well as transit operations which is discussed in the transit sections of the plan. Homeland security is an essential component of all transportation systems planning and is handled by CT Office of Emergency Management and CT Homeland Security in coordination with state, regional and local officials and plans. SWRPA and the South Western Region Incident Management Team are active in transportation security planning, training and response.

Background

In the Congestion Mitigation Study “Vision 2020” approximately 60% of all commuters surveyed indicated that highway safety was decreasing. Federal and state programs recognize the importance of planning and implementing capital and operating projects to enhance safety through such programs as incident management, highway assistance patrols, pedestrian and older driver safety programs and targeted enforcement programs.

The process to identify unsafe roadway locations begins with data collection. The State of Connecticut collects and tabulates crash (accident) data using uniform traffic crash reporting provided by local and state police. The data and analyses assist planners to identify locations on state highways with potential for accident reduction, to conduct before and after improvement analyses, and to assist in setting priorities for the allocation of resources for capital projects or for enforcement purposes. Unlike past years, ConnDOT no longer makes accident data available to the public. The latest data sets available are for the 1996-1998 time-period, which were described in the region’s 2001-2025 long range transportation plan.

ConnDOT develops an annual Safety Plan that identifies all of the safety programs that it supports and how federal safety funding is used. Funding for low cost municipal safety programs is made available through the state’s Local Accident Reduction Program. There is also a Rail Crossing Program which upgrades highway and rail at grade crossings. The Connecticut Operation Lifesaver Program modeled on the nationwide program dedicated to ending collision, fatalities and injuries at highway rail grade crossings and on railroad rights of way. The program encompasses education, enforcement and engineering. A Commuter Rail System Safety Program Plan describes safety procedures for rail operations, and various contingencies plans address different service disruption scenarios.

Process

Safety is a fundamental transportation concern to all transportation officials and users of transportation systems. Accident data and safety analyses are used by towns, the state and the region to identify safety problem locations. Additional locations are identified by staff, elected officials and citizens. Site inspections are made, studies conducted, recommendations for corrective actions are developed and improvements are programmed. Priority is give to cost effective activities that identify and correct safety problems, both functionally and operationally.

Recommended Strategies

- Establish effective programs to monitor and evaluate the highway system to make it possible to identify locations where improvements. Conduct necessary studies and improve deficient locations. Install continuous traffic count stations at I-95 and the New York State Line, Route 15 and the State Line, I-84 at the New York State Line, the Route 7 and Route 15 interchange, and at I-95 and Route 15 crossings of the Housatonic River.
- Support education and training programs and regulations for truck safety, bicycles and pedestrians, older drivers, and driving under the influence.
- Support expanded truck inspection programs and implement Weigh In Motion projects for I-95 and I-84 at the New York State Line.
- Develop a program to address truck parking and to increase the safety of truck parking at rest areas and to address the I-95 Darien rest area safety issues. Since the completion of the ConnDOT Truck Stop and Rest Area Study in April 2001, no visible progress has been made in developing and implementing actions to improve current conditions or practices.
- Encourage the state of Connecticut to adopt the federally-mandated alcohol-related regulations for open container. Failure to adopt the legislation results in an annual penalty that diverts 3% of certain federal transportation programs (Surface Transportation Program, National Highway Systems, and Interstate Maintenance) equivalent to \$6.3 million to hazard elimination projects.
- Support Safe Routes to School Programs.
- Evaluate the use of cameras for enforcement, and implement proven best practices with changes in state law as necessary.
- Support legislation to ban the use of cell phone while driving a motor vehicle (hands free cell phone use).
- Support security programs and projects to “harden” transportation assets and operations.
- Develop real time traveler information programs.
- Upgrade incident management programs in the southwest corridor.

Recommended Projects

- Provide funding sufficient to increase truck safety and enforcement inspections with additional personnel, equipment and training for the CT Department of Motor Vehicle and CT Department of Public Safety.
- Prepare to implement a robust and effective Weigh In Motion program at I-95 Greenwich when the project is completed in 2007, and expand the program to I-84 in Danbury in the future.
- Staff CT State Police Troop G at full staffing level, and fund additional State Police to promote more comprehensive traffic and truck enforcement.
- Provide highway assistance patrols (CHAMP) on the Merritt Parkway (Route 15) and Route 7 as well as I-95.
- Update the I-95 incident management diversion route plans and provide them in an electronic format that may be accessed by emergency responders and the traveling public.
- Support state legislative adoption of mandated federal alcohol-related regulations (open container and repeat offender) to ensure federal funding is at maximum level to the state.

- Initiate Safe Routes to School Programs.
- Develop a Regional Transit Strategies Plan that will include bicycle and pedestrian elements with safety, operations, connectivity Bicycle and Pedestrian Plan (See Bicycle and Pedestrian Element).
- Secure funding for a Stamford Transportation Investment Strategies plan that will define future improvements to all modes of transit, highway systems.
- Develop a Stamford Transportation Center Master Plan which includes safety elements and real time traveler information for all modes, as well as homeland security considerations.

ROAD CONDITION

Background

Although the state-maintained highways, arterial and interstates carry more traffic volume, and higher vehicle miles of travel, almost 90% of the South Western Region's 1,500 miles of roads are locally maintained. Ability to monitor road and pavement conditions has improved with the implementation of pavement management systems that are in effect at ConnDOT, and all South Western Region municipalities except Wilton. Through using pavement management systems which enable collection and analysis of pavement condition and treatment information, it is possible to develop pavement treatment plans and priorities that lead to cost-effective allocation of resources and improved pavement conditions and increase the useful life of pavement.

The Connecticut Department of Transportation goal is to repave 10% of state highways each year; this translates into an annual repaving target of 438 two-lane miles. In 2001, 81% of the state-maintained highway system was rated as good or better. Generally, municipalities do not set numerical goals, but use funding that is made available through the state Town Aid (Town Aid for Roads Program) or LoCIP (Local Capital Improvement Program) or municipal funding to address roads with poor pavement condition index ratings (PCI), distressed, cracking rough or rutting roads, in tandem with the knowledge and skill of pavement/highway maintenance personnel. The challenge is to maintain the road system and its aging infrastructure, with limited budgets, and competing priorities for available resources. State support for the Town Road program was reduced from an annual level of \$30 million in FY2002 to \$12.5 million in FY2003 and FY2004. The CT legislature increased FY2005 funding to \$20 million.

Process

Continue to use and improve existing monitoring, management and evaluation systems of the towns, state and region to develop maintenance and paving programs and priorities to maximize pavement condition and longevity.

Recommended Strategies

- Advocate for continuation of the Town Aid Grant Program at \$30 million with an annual increase in funding parallel to the cost of living.
- Continue to support implementation and improvement of pavement management systems at local and state levels.
- Develop pavement that will better absorb noise not exacerbate it.
- Support asset management best practices.

Recommended Projects

- Fund resurfacing of remaining sections of Route 15 (Merritt Parkway).
- Continue SWRPA's support of municipal pavement management systems, if state-funded.

TRAFFIC SIGNALS

Background

Traffic signals are an important element of the transportation system infrastructure and operations. There are 256 traffic signals maintained by municipalities and the state in the South Western Region. Needs for new signals arise due to new development and increased traffic, and follow the procedure described in the following section on process. The challenge is to adequately maintain, replace/upgrade, and develop and coordinate responsive signal timing plans to maximize traffic flow and efficiency.

Process

ConnDOT and towns have monitoring and evaluation systems in place that identify needed improvements. The ConnDOT procedure uses the crash data, as well as input from staff, local and state officials, and the public to identify problem locations. Engineering analyses are performed, and low cost or maintenance items are accomplished with existing staff and resources. New signal installation necessitate signal design and permits, programming of funds, and then construction. Through the use of the federal transportation funding (Surface Transportation Program – Urban program [STP-O and STP-BS] and the Congestion Mitigation Air Quality Program [CMAQ]), signal systems have been upgraded or replaced in Greenwich, Stamford, Darien, and Norwalk, on Route 1, and I-95 diversion routes, and other state and local roads. The State has instituted an I-95 incident management system extending 56 miles from Greenwich to Branford which includes Bridgeport and Newington Traffic Operations Centers, cameras, detectors, coordinated signal systems, and a highway assistance patrol (Champ). In addition, through other state and local programs, signals have been installed, replaced or interconnected as appropriate.

Recommended Strategies

- Continue to monitor, evaluate and recommend warranted traffic system improvements and replacements.
- Implement needed traffic signal and system improvements.
- Maintain all equipment in good operating condition.
- Establish a program for equipment replacement based upon anticipated life cycle or functional obsolescence.
- Utilize state of the art technology whenever possible.
- Implement video detection and other innovative methods to replace traffic signal detection loops.
- Complete and maintain the ConnDOT Diversion Route Signal System so the system is fully optimized and operational.
- Incorporate traffic signal systems in the South Western Region ITS Plan.
- Implement traffic adaptive (responsive) signal systems along major transportation corridors.
- Expand the Stamford, Norwalk and Greenwich traffic monitoring and surveillance systems.

- Implement ‘Un-interruptible Power Systems’ (UPS) and other fail-safe systems for all major traffic signal locations.
- Install ‘pedestrian timing signals’ that count down time remaining for pedestrian to cross at major pedestrian intersections.
- Install audible pedestrian signal equipment at key locations as warranted.
- Utilize alternative pedestrian detection and pre-emption systems as appropriate.
- Maintain traffic signal equipment in accordance with industry standards and in compliance with the Manual on Uniform Traffic Control Devices (MUTCD).

Recommended Projects

- Develop supporting diversion route signal and signing capability (future, unfunded)
- Continue development of coordinated signal systems and traffic-responsive systems, including:
Stamford – Phase F, future East Main and West Main
Norwalk – South Norwalk (CMAQ \$ 3.3 million) and Strawberry Hill Avenue
Greenwich traffic responsive (CMAQ \$180,000)
Route 1 - Norwalk (Cross Street) and Westport (Route 136 to Fairfield Townline)
- Replace obsolete signals.
- Install new signals as warranted, including:
Westport – Route 57, Route 136 and Clinton (#158-201, 2011 construction)

AT-GRADE RAIL/HIGHWAY CROSSINGS

Background

There are 22 public at grade crossings of public active rail lines in the South Western Region. Through a twenty year program to upgrade crossings, provide pavement treatments, gates and signals, all locations have been treated. ConnDOT maintains an inventory of crossings, as well as a photo log that assists in system monitoring. The state has also been nationally recognized for designing special gates that restrict motorists from running lights and getting stuck on tracks as train's approach.

Process

Utilize and refine ConnDOT procedures for evaluation, priority-setting, design, and construction of projects to improve at-grade rail/highway crossings. In the period of 1991- 1997 ISTEA infused additional funding for at grade crossing, ConnDOT was able to make great progress in implementing improvements to public rail/highway grade crossings. Although funding was decreased under TEA-21, all of the Region's crossings have either been improved or will be improved by 2001, which is consistent with the Region's Long Range Transportation Plan.

Recommended Strategies

- Maintain rail at grade crossings in a state of good repair.
- Establish a program for equipment replacement based upon anticipated life cycle to avoid deferred-maintenance-created crises.
- Install warranted gates, lights, surface improvements, and other warning devices at identified crossings.
- Upgrade facilities as needed.
- Utilize state of the art technology whenever possible.
- Include at-grade rail/highway crossings in the South Western Region ITS Plan.
- Develop a program and funding mechanism for improvement of existing private/driveway crossings.
- Discourage land use and development that intensifies use of at grade crossings.

CRITICAL CORRIDORS

Background

To assure that the highway system meets existing and future travel needs of the Region, special attention is given to developing the implementation program for operational, safety, and capacity improvements as well as a transit and ridesharing projects. Future needs and investment recommendations are defined through regional, state, and local studies of state and local roads. New interest in systems solutions to transportation, and recognition that transportation is integrally linked to the economy, not just of a town, region, or state but broader regions such as ‘New England’, New York metropolitan area, and even the global. Competitiveness and connectivity reach beyond the artificial boundaries of the South Western Region.

The long range transportation plan identifies “critical corridors” that include the ‘southwest corridor’ encompassing I-95, the Merritt Parkway (Route 15), and Route 1, and also Route 7, and other state highways. Multi-modal approaches and projects are proposed to improve systems performance and longevity, connectivity, and safety and to enhance commuter choice.

Since 1994 SWRPA has conducted studies of critical corridors which have lead to recommended improvement programs, policies and procedures. SWRPA’s 1996 Route 7 Driveway and Access Management Plan for Norwalk and Wilton developed an access and curb cut management plan for the corridor and prepared draft access management regulations for Norwalk and Wilton. The Route 7 Plan also recommended driveway modifications or closures, intersection improvements, and proposed the desirable Route 7 cross-section and profile. The 1995 Route 33 Corridor Assessment Study for Westport and Wilton developed a program of improvements for Route 33. In 2000, SWRPA in cooperation with the Housatonic Valley Region Council of Elected Officials (HVCEO) completed the Route 7 Travel Options Implementation Plan. This plan for Route 7 travel options provides a companion to planned roadway improvements and recommends \$58 million of rail, bus, and ridesharing improvements and supporting strategies for the Norwalk to New Milford corridor.

In addition, SWRPA and SWRMPO members participated in the 1997 legislatively-mandated study of the south west corridor, and the subsequent southwest corridor 5% traffic reduction program that ran from 1998 through 2003. The goal of the legislatively-mandated program, also known as the “Governor’s Traffic Relief Initiatives” was to reduce highway commuter demand during peak periods from the 1997 base levels by 5% within a period of five years. The Southwest Corridor Report Year Five (February 2003) advised that while progress was made and there was a diversion of 6,635 person trips from the auto commute mode to alternative modes, this fell short of the 8,600 trip goal. ConnDOT committed to continue to improve the attractiveness and performance of commute options the southwest corridor.

The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Final Report (2003) concluded there was no single solution for mitigating congestion in the region, or study area. The study recommended immediate, short term and long term transportation projects and land use initiatives. The recommendations are described in the following section.

Congestion Mitigation Systems Plan “Vision 2020” Final Report Recommendations

Immediate Actions (0-2 years)

Public Education

- Inform the public and decision makers of the benefits and costs of transportation strategies.
- Emphasize the importance of the transportation and land use connection.
- Engage various media outlets to keep awareness of transportation issues on the forefront.

Land Use Review

- Local land use boards should begin to review master plans and plans of conservation and development to identify how transportation is supported by local zoning regulations.
- SWRPA should conduct a detailed land use study to evaluate potential for additional transportation corridor and transit-oriented development in the study area. Such studies should also identify opportunities for the development of new or expanded intermodal hubs.

Expand Travel Demand Management Programs

- Expand Travel Demand Management (TDM) programs to help reduce the number of peak-period single occupant automobile trips in the study area. Examples of programs that can have an impact on peak period trips are as follows: telecommuting; flexible work weeks; staggered work hours; organized vanpools.
- SWRPA – in partnership with ConnDOT and transportation management organizations – should study the performance of existing TDM programs to assess the effectiveness of current outreach and marketing strategies, develop creative strategies for altering traveler behavior, calculate the total cost of removing single-occupant vehicles from roadways during peak periods and identify methods that may be implemented to more closely track TDM program participation and monitor program performance.

Short-Term Actions (2-7 years)

Transit Operational Improvements

- Expand parking and intermodal connections at Metro North rail stations. Significant expansion should be targeted at the following locations: South Norwalk; Noroton Heights; Stamford; Greenwich; and Wilton.
- Intelligent Transportation Systems (ITS) should be used to improve the efficiency and operation of existing bus service in the corridor.
- Weigh-In-Motion technology should be evaluated for use at the Greenwich weigh station.
- SWRPA should engage Metro North and ConnDOT in discussions about intrastate rail pricing and seek opportunities to implement pilot programs to test market response to reduced intrastate fares.
- Implement a universal commuter pass, such as a SmartCard.
- Establish intermodal hubs with strong bicycle and pedestrian connectivity.

I-95 Operational Improvements

- Seek funding for a detailed operational study of I-95 between Stamford and Norwalk.

Traffic Systems Management (TSM)

- Improve the safety and operation of major arterial roads, such as Route 1, to reduce congestion and decrease accidents. Techniques may include: signal timing and coordination; access management; and operational improvements – i.e. turn lanes, shoulders, geometric modification.

Truck Parking at Rest Area

- Assist ConnDOT with efforts to expand existing rest areas while minimizing impacts to communities. Opportunities for new rest areas should be explored.

Changes to Zoning Regulations

- Work with municipalities to structure zoning regulations to embrace transit friendly development, walkable communities, increased density and mixing of land uses, reduced parking requirements, and access management along transportation corridors and in town centers.

Long-Term Actions (7-20 years)

Transit Capacity Expansion

- Improve intrastate commuter rail service.
- Explore opportunities for establishing Bus Rapid Transit (BRT) service along Route 1 and inland transportation corridors that feed into Route 1.
- Evaluate expansion of commuter rail service or BRT services in the Route 7 corridor.

I-95 Capacity Expansion

- Explore possibility of expanding I-95 to include two variably priced managed lanes.

External Connections

Interstate Rail

- Service improvements including fleet configuration, infrastructure upgrades and service upgrades should be coordinated with intrastate service improvements so that optimum system performance can be achieved.

Freight

- Further examine need for another lower Hudson River crossing to access New York City and Connecticut.
- Conduct a rail capacity study similar to the Mid-Atlantic Rail Study to determine the actual track capacity due to passenger and freight rail services and schedules.
- Conduct a market analysis of the viability of Feeder Barge Service from intermodal ports in New Jersey to a deep water port in Connecticut.

Ferry

- Monitor the results of the Long Island Sound Waterborne Transportation Plan and other studies of potential interstate passenger ferry services, particularly those focusing on improved connections between southwestern Connecticut and Long Island, Lower Manhattan and LaGuardia Airport.

Airport Connections

- Examine opportunities for improving transit connections between southwestern Connecticut and regional airports.

Route 7

- Plans to widen Route 7 to a four-lane arterial with full roadside access from Wilton to Danbury should be supported. Plans should incorporate ITS, where appropriate, to further improve the safety and operation of the roadway and to support use of priority signal treatments for transit.

Interstate 84

- Plans to widen I-84 from Danbury to Southington should be supported.

Merritt Parkway

- Evaluate this roadway and its interchanges for safety and operational deficiencies. Such evaluation should include a study of opportunities for improved emergency access and response and use of ITS to further improve the safety and operations of the roadway.

I-95 Operational Improvements

- Seek funding for a detailed operational study of I-95 between Stamford and Norwalk.

Traffic Systems Management (TSM)

- Improve the safety and operation of major arterial roads, such as Route 1, to reduce congestion and decrease accidents. Techniques may include: signal timing and coordination; access management; and operational improvements – i.e. turn lanes, shoulders, geometric modification.

Truck Parking at Rest Area

- Assist ConnDOT with efforts to expand existing rest areas while minimizing impacts to communities. Opportunities for new rest areas should be explored.

The recommendations of the Transportation Strategy Board (TSB) and the Coastal Corridor Transportation Investment Area (Coastal Corridor TIA) are provided in the next section on Southwest Corridor.

Process

Through on-going and special purpose planning efforts, ConnDOT, SWRPA and towns monitor and analyze multimodal transportation system operating and capacity deficiencies, develop plans and programs to address needs.

Recommended Strategies

Policies, studies, and proposals for the southwest corridor expressways and principal arterials (I-95, Route 15/Merritt Parkway, and Route 7) and Route 1 are presented in the next sections along with key strategies for other modes that affect the arterials. Strategies for other modes are presented in the sections of the long range plan that describe the mode or program.

Near Term

- Advocate for immediate initiation of the Southwest Corridor Safety and Operations Engineering Study that is funded by the State/TSB for \$1.5 million (FY2004).
- Implement corridor communications programs for major transportation projects modeled on the I-95 New Haven Harbor Crossing Corridor (Q-Bridge) program to provide information to users and officials about construction and maintenance activities. Immediately advocate for initiation of a Route 7 Corridor Communications Program that involves the participation of SWRMPO, SWRPA, HVCEO, the business community and other stakeholders in the Route 7 corridor.
- Develop corridor improvement programs for Route 1 in Westport, Norwalk, Darien, and Stamford.
- Implement corridor communications programs for major transportation projects modeled on the I-95 New Haven Harbor Crossing Corridor (Q-Bridge) program to provide information to users and officials about construction and maintenance activities. Immediately advocate for immediate implementation of a Route 7 Corridor Communications Program that involves the participation of SWRMPO, SWRPA, HVCEO, local officials, the business community, and other stakeholders in the Route 7 corridor.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service.
- Continue to work with the state, partners within the Bridgeport-Stamford Urbanized Area, other Connecticut regions, the TSB, and New York metro area regions to cooperatively address transportation issues, and to develop cohesive investment strategies that result in funding and tangible projects.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to

determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).

Longer Term

- Develop access management plans for major corridors, including Route 137, High Ridge Road between Cold Spring Road and the Merritt Parkway, Stamford; Route 104, Long Ridge Road between Cold Spring Road and the Merritt Parkway, Stamford; Route 1 – East Main Street between Glenbrook Road and the Darien town line, Stamford; Route 1 – West Main Street, between Tresser Boulevard, and the Greenwich town line, Stamford.
- Advocate for ConnDOT to develop a project reporting system that is user-friendly and accessible (replace current Project Capital Management System – PCMS).

The South Western Region Long Range Transportation Plan 2004-2030 also incorporates the projects that are funded in the Statewide and South Western Region Transportation Improvement Program FFY2005-2009, and the 2003 ConnDOT Master Transportation Plan or its upcoming successor, the 2005 ConnDOT Master Transportation Plan.

Southwest Corridor: I-95, Route 15/Merritt Parkway, Route 1

As noted in the introduction to “critical corridors”, the 1997 legislatively-mandated study of the south west corridor, and the 1998-2003 “Governor’s Traffic Relief Initiatives” program assessed and then aimed to reduce peak hour traffic congestion on the I-95 southwest corridor. The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Study (2001-2003) comprehensively studied the I-95 corridor from Greenwich to Branford, and areas served by MetroNorth rail, with the goals of improving mobility, reducing congestion, and providing options to customers as consumers. The study concluded there was no single solution for mitigating congestion in the region, or study area. Instead, coordination of transportation and land use strategies must be coordinated to develop a comprehensive transportation system with actions that are immediate, mid-term and long-term. These actions include: improving the efficiency, operation and safety of existing transportation systems; better managing the demand for travel; increasing the supply for transport services; and, establishing policies that focus on centers rather than sprawl to better overall system performance.

The Transportation Strategy Board (TSB) and the Coastal Corridor Transportation Investment Area advisory board to the TSB (Coastal Corridor TIA, representing the I-95 corridor from Greenwich to Branford, as well as the Housatonic Valley/Danbury (Route 7 corridor), Central Naugatuck Valley/Waterbury, the Valley (Route 8 corridor), and Greater Bridgeport areas) developed recommendations for improvement of all facets of transportation, including the southwest corridor.

The 2003 TSB Plan⁵ identifies strategic actions and tactics for FY2004 through FY2013 which include: transportation demand management; highway operational, safety and capacity improvements beginning with funding to identify and implement operational improvements, to increase available truck parking at rest areas, to expand bicycle and pedestrian facilities within road projects, to consider dedicated truck lanes in future limited access highways, and to consider tollways. For the South Western Region, as part of the Coastal Corridor, the TSB Plan supported ConnDOT’s current program of safety and operational improvements on I-95 and the Merritt Parkway, further evaluation of I-95 and Merritt Parkway operational lanes and safety improvements, closure of reconfiguration of entrances and exit ramps, and future consideration of commuter shoulders following completion of ConnDOT’s study of commuter shoulder lanes. In June 2003, the TSB passed a “Roadway Expansion Resolution” which supported the implementation of operational and safety improvements, including the closure or reconfiguration of appropriately selected entrance and exit ramps on I-95. The resolution also supported congestion mitigation pricing that optimizes performance and encourages ridesharing implemented with technology that avoids the necessity of toll booths (value pricing), and agreed to “forego any further evaluation of potential through lane additional on the Merritt Parkway.” The TSB also supported incident management strategies, traveler information, and participation in the I-95 Corridor Coalition. A Statewide Incident Management Task Force was created, and includes representatives from the SWRPA staff and the Town of Westport. Various bus and rail actions were included with state funding provided for bus purchases, enhanced commuter connections, and Coastal Link bus service that benefited the South Western Region. The Plan also reinforced investment in rail rolling stock, additional Shore Line East rail service between New Haven and

⁵ Transportation: A Strategic Investment – An Action Plan for Connecticut 2003-2023 (January 2003)

Stamford, investment in infrastructure for rail parking, stations, rail maintenance, power, ties, bridges and signal systems. The Plan supported additional rail interlockings west of Greenwich (as proposed in the South Western Region Long Range Transportation Plan 2001-2025), and between Norwalk and Bridgeport (CP248 was added to the Transportation Improvement Program in FY2004), and study of Danbury and Waterbury Branches as “feeders” to the main MetroNorth New Haven Line. There were recommendations for rail freight, waterborne transportation, Bradley and other airports, land use and economic development, evaluation and metrics, and financing. The TSB’s designation of only Bridgeport, New Haven and Stamford as “hub” stations and suitable for investments to improve parking, connectivity, community revitalization, transit oriented development is questioned by the SWRMPO. South Norwalk has all attributes and potential of a “hub station” except for control by the City of Norwalk rather than the State of Connecticut.

The Coastal Corridor TIA’s 2001 Plan⁶ emphasized transit options, transportation demand management and transportation systems management over highway improvement projects. With respect to roadway improvements that apply to the South Western Region, the CCTIA Plan recommended evaluation of operational and construction improvement to I-95 and Route 15 to relieve congestion and improve access, expansion of commuter parking lots, Statewide intelligent transportation systems initiatives, and road capacity expansion projects only after comprehensive study. CCTIA-supported transportation system management strategies included: I-95 entrance closures, signalization, incident management program, construction management practices, ramp metering, enhanced traffic enforcement, a dedicated high occupancy vehicle lane, and highway advisory radio. The recommended transportation demand management strategies included institution of value pricing on limited access highways and expansion of various ridesharing programs and incentives.

⁶ Twenty-Year Strategic Plan for Transportation in the Coastal Corridor Transportation Investment Area (November 2001)

In the last three years, many I-95 projects have been constructed including median barrier replacement and roadway improvements in Norwalk and Darien (Exit 15 – Exit 10), and Stamford (Exit 8 – Exit 5), as well as resurfacing, and bridge rehabilitation projects. Some projects, such as a southbound operational lane from Exit 15 to Exit 14, the addition of an operational lane to the East Avenue overpass of I-95 at Exit 16, began design, but were placed on hold due to financial constraints. Operationally, the state's Incident Management Program operate traffic cameras, detectors and highway advisory radios through the Bridgeport Operations Center co-located at the CT State Police Troop G and the Newington Traffic Operations Centers to monitor, verify, and respond incidents and traffic conditions. The CHAMP (CT. Assistance to Motorists Patrol) program provides motorist assistance on I-95, and will expand to cover Route 7 and the Merritt Parkway after additional equipment is purchased through FY2005 funding recommended by the TSB and approved by the CT Legislature. Some funding for staffing was also approved.

Governor's Commuter Shoulder Lanes Project

The controversial "Commuter Shoulder Lanes" project, was proposed by Governor John Rowland in October 2000. The proposal consists of establishing peak hour commuter lanes in both northbound and southbound shoulders between I-95 Exit 18 (Westport) and Exit 8 (Stamford). ConnDOT is evaluating the proposed commuter shoulders project and ramp metering, and is preparing an environmental assessment. In April 2003, the SWRMPO requested and received designation as a "cooperating agency" in the environmental assessment. In spite of this designation, the SWRMPO has not been consulted by ConnDOT, the Federal Highway Administration (FHWA), or any other agency regarding the commuter shoulders project. In August 2004, Governor Jodi Rell announced that she did not support the commuter shoulders project, or closing of I-95 exits. The proposal to close certain on-ramps due peak periods was a 2002 recommendation of the TSB. In the South Western Region, the interchanges were exits 4 (Greenwich), 10 and 12 (Darien). In September 2004, ConnDOT issued the Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) which concluded that auxiliary lanes (operational lanes) and interchange speed change lanes (acceleration and deceleration lanes) are preferable to commuter shoulders and provide operational and safety improvements that should be studied further. The long range transportation plan recommends that the proposed safety and operational engineering study of I-95 cover the Greenwich to Westport section at a minimum. I-95 Exit 8 through 18 ramp analyses, weave analysis, and accident data are provided in Tables 10 through 12 on the pages 54 through 57.

Truck Stops and Rest Areas

Truck stops and rest areas are an important issue in the South Western Region, because the I-95 Darien rest areas are the last on I-95 until the New Jersey Turnpike's Vince Lombardi rest area which is approximately 80 miles away. The I-95 Darien rest areas are heavily used by trucks that park in both legal and illegal locations, along the rest area access and egress roads and aisles and the highway shoulders. The safety of local emergency personnel and equipment who respond to rest area incidents is the primary concern. Since the 2001 completion of the ConnDOT study of truck stops and rest areas, there has been no mechanism for municipal, regional, state, or industry officials to deal with Connecticut's acknowledged 1,200 space truck parking shortfall or the projected increase

**Table 10a. Ramp Analysis LOS Summary
I-95 Southbound Direction (AM Peak Hour)**

Interchange	Exit	Ramp Type	Existing/2025 No Build/TDM		Commuter Shoulders	
			Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS	Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS
Sherwood Island Connector	18	off	29.8	D	26.5	C
Sherwood Island Connector	18E	on	28.2	D	24.2	C
Sherwood Island Connector	18W	on	30.5	D	22.9	C
Saugatuck Ave.	17	off	31.3	D	29.0	D
Saugatuck Ave.	17	on	31.2	D	20.9	C
East Ave.	16	off	33.7	D	30.7	D
East Ave.	16	on	*	*	*	*
US 7 - West Ave.	15	off	*	*	*	*
US 7 - West Ave.	15E	on	28.5	D	18.7	B
US 7 - West Ave.	15W	on	36.6	E	21.7	C
Scribner Ave. & Fairfield Ave.	14	off	42.5	F	34.3	D
Scribner Ave. & Fairfield Ave.	14	on	33.7	D	19.5	B
US 1	13	off	36.7	E	34.9	D
US 1	13	on	34.3	D	21.1	C
Rte. 136 - Tokeneke Ave.	12	on	38.0	F	20.4	C
US 1	11	off	41.5	F	36.1	E
US 1	11	on	35.9	F	22.9	C
Noroton Ave.	10	off	38.2	F	35.4	E
Noroton Ave.	10	on	34.5	F	42.0	F
Rest Area	R/A	off	29.9	D	35.8	E
Rest Area	R/A	on	20.7	C	22.9	C
US 1 - Main St.	9	off	35.5	E	41.6	E
US 1 - Main St.	9	on	21.0	C	22.7	F
SB Elm St.	8	off	38.7	E	45.7	F

Source:

Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, page 13

Notes:

* See weave analysis (Table 11).

Shaded area indicates freeway segments where a fourth lane currently exists on the mainline. The LOS changes result from volume changes for each alternative.

**Table 10b. Ramp Analysis LOS Summary
I-95 Northbound Direction (PM Peak Hour)**

Interchange	Exit	Ramp Type	Existing/2025 No Build/TDM		Commuter Shoulders	
			Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS	Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS
Canal St.	7	on	30.3	D	23.4	C
SB Elm St.	8	on	36.3	E	21.6	C
US 1 - Main St.	9	off	41.3	E	39.1	E
US 1 - Main St.	9	on	34.3	D	21.4	C
Noroton Ave.	10	off	37.2	E	37.0	E
Noroton Ave.	10	on	33.0	D	24.4	C
US 1	11	off	36.7	E	35.9	E
US 1	11	on	35.8	E	22.2	C
Rte. 136 - Tokeneke Ave.	12	off	37.8	E	30.7	D
Rest Area	R/A	off	35.7	E	34.7	D
Rest Area	R/A	on	33.0	D	21.4	C
Rte. 136 – Tokeneke Ave.	13	on	38.3	E	21.6	C
US 1	13	off	37.6	E	38.3	E
Scribner Ave. & Fairfield Ave.	14	on	38.4	F	27.0	C
Scribner Ave. & Fairfield Ave.	14	off	49.2	F	39.5	E
US 7 - West Ave.	15	off	36.8	E	40.7	F
US 7 - West Ave.	15W	on	34.3	D	26.7	C
US 7 - West Ave.	15E	on	*	*	*	*
East Ave.	16	off	*	*	*	*
East Ave.	16	on	18.0	B	21.0	C
Saugatuck Ave.	17	off	33.7	D	33.8	D
Saugatuck Ave.	17	on	32.8	D	27.7	C
Sherwood Island Connector	18	off	31.9	D	31.8	D
Sherwood Island Connector	18	on	31.2	D	26.1	C

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, page 14
Notes: * See weave analysis (Table12).

Table 11. Weave Analysis LOS Summary

Peak Hour/Freeway Segments	Existing/2025 No Build/TDM			Commuter Shoulders	
	Length (ft)	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
AM Peak Hour: I-95 Southbound					
Exit 16 On to Exit 15 Off	1877	85.9	F	107.3	F
PM Peak Hour: I-95 Northbound					
Exit 15 East On to Exit 16 Off	2500	49.4	F	68.3	F

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, page 15

**Table 12a. Accident Data Summary (2000-2002)
I-95 Southbound Direction**

Section of I-95 Southbound	Length (mi.)	Grand Total	Accident Severity			Type of Collision								
			Fatalities	Injuries	Property Damage Only	Rear End	Sideswipe (same direction)	Fixed Object	Moving Object	Backing	Overturn	Jack-knife	Parking	Unknown
Exit 18 off ramp to Exit 18E on ramp	0.15	12	-	1	11	7	2	3	-	-	-	-	-	-
Exit 18E on ramp to Exit 18W on ramp	0.16	35	-	22	13	17	11	7	-	-	-	-	-	-
Exit 18W on ramp to Exit 17 off ramp	2.08	138	-	63	75	80	28	20	9	1	-	-	-	-
Exit 17 off ramp to Exit 17 on ramp	0.17	11	-	5	6	6	-	4	1	-	-	-	-	-
Exit 17 on ramp to Exit 16 off ramp	1.57	282	1	149	132	148	61	64	8	-	-	1	-	-
Exit 16 off ramp to Exit 16 on ramp	0.24	74	1	40	33	51	10	11	1	-	-	1	-	-
Exit 16 on ramp to Exit 15 off ramp	0.31	92	-	48	44	66	13	10	3	-	-	-	-	-
Exit 15 off ramp to Exit 15E on ramp	0.22	50	-	18	32	32	9	7	2	-	-	-	-	-
Exit 15E on ramp to Exit 15W on ramp	0.2	17	-	3	14	7	4	6	-	-	-	-	-	-
Exit 15W on ramp to Exit 14 off ramp	0.57	90	-	20	70	51	18	12	6	1	1	1	-	-
Exit 14 off ramp to Exit 14 on ramp	0.18	25	-	11	14	16	4	4	1	-	-	-	-	-
Exit 14 on ramp to Exit 13 off ramp	1.46	273	-	99	174	148	60	54	6	1	2	1	1	-
Exit 13 off ramp to Exit 13 on ramp	0.24	49	-	11	38	19	14	15	-	-	1	-	-	-
Exit 13 on ramp to Exit 12 on ramp	0.87	102	-	48	54	55	19	24	3	-	-	-	-	1
Exit 12 on ramp to Exit 11 off ramp	0.27	77	-	46	31	33	18	22	3	1	-	-	-	-
Exit 11 off ramp to Exit 11 on ramp	0.43	80	-	28	52	47	21	9	3	-	-	-	-	-
Exit 11 on ramp to Exit 10 off ramp	0.21	37	-	9	28	17	12	7	1	-	-	-	-	-
Exit 10 off ramp to Exit 10 on ramp	0.64	87	-	38	49	44	15	21	3	1	1	1	1	-
Exit 10 on ramp to Rest Area off ramp	0.36	21	-	12	9	10	6	3	2	-	-	-	-	-
Rest Area off ramp to Rest Area on ramp	0.3	8	-	2	6	6	2	-	-	-	-	-	-	-
Rest Area on ramp to Exit 9 off ramp	0.38	60	-	22	38	27	19	8	4	2	-	-	-	-
Exit 9 off ramp to Exit 9 on ramp	0.43	48	-	15	33	22	20	5	-	-	1	-	-	-
Exit 9 on ramp to Exit 8 off ramp	0.3	41	-	16	25	17	17	6	1	-	-	-	-	-
Exit 8 off ramp to Exit 7 off ramp	0.6	57	-	26	31	40	12	2	3	-	-	-	-	-
Total	12.34	1766	2	752	1012	966	395	324	60	7	6	5	2	1

Source: Fitzgerald & Halliday, Inc., April 2004

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, Table 4, page 19.

**Table 12b. Accident Data Summary (2000-2002)
I-95 Northbound Direction**

Section of I-95 Northbound	Length (mi.)	Grand Total	Accident Severity			Type of Collision											
			Fatalities	Injuries	Property Damage Only	Rear End	Sideswipe (same direction)	Fixed Object	Moving Object	Backing	Overturn	Jack-knife	Head-on	Non-collision	Parking	Pedestrian	Unknown
Exit 7 on ramp to Exit 8 on ramp	0.38	39	-	14	25	33	3	3	-	-	-	-	-	-	-	-	-
Exit 8 on ramp to Exit 9 off ramp	0.71	110	-	43	67	68	21	11	8	-	2	-	-	-	-	-	-
Exit 9 off ramp to Exit 9 on ramp	0.13	31	-	15	16	15	8	5	2	-	-	1	-	-	-	-	-
Exit 9 on ramp to Exit 10 off ramp	1.37	224	-	100	124	132	49	35	6	1	-	-	-	-	1	-	-
Exit 10 off ramp to Exit 10 on ramp	0.38	70	-	31	39	40	9	19	2	-	-	-	-	-	-	-	-
Exit 10 on ramp to Exit 11 off ramp	0.4	66	-	28	38	23	22	17	3	-	-	1	-	-	-	-	-
Exit 11 off ramp to Exit 11 on ramp	0.4	49	-	16	33	26	14	7	2	-	-	-	-	-	-	-	-
Exit 11 on ramp to Exit 12 off ramp	0.32	49	-	18	31	19	8	21	1	-	-	-	-	-	-	-	-
Exit 12 off ramp to Rest Area off ramp	0.26	44	-	15	29	17	10	11	3	1	-	2	-	-	-	-	-
Rest Area off ramp to Rest Area on ramp	0.32	60	-	25	35	32	15	10	2	1	-	-	-	-	-	-	-
Rest Area on ramp to Exit 13 on ramp	0.25	95	-	41	54	54	16	21	3	-	1	-	-	-	-	-	-
Exit 13 on ramp to Exit 13 off ramp	0.18	49	-	12	37	31	7	10	1	-	-	-	-	-	-	-	-
Exit 13 off ramp to Exit 14 on ramp	1.59	270	-	119	151	187	30	42	5	-	3	2	-	1	-	-	-
Exit 14 on ramp to Exit 14 off ramp	0.32	188	1	83	104	126	39	17	3	1	1	-	1	-	-	-	-
Exit 14 off ramp to Exit 15 off ramp	0.16	38	-	19	19	22	11	3	-	-	1	-	-	-	-	-	1
Exit 15 off ramp to Exit 15W on ramp	0.26	52	-	27	25	23	13	12	3	1	-	-	-	-	-	-	-
Exit 15W on ramp to Exit 15E on ramp	0.2	32	-	15	17	14	8	7	3	-	-	-	-	-	-	-	-
Exit 15E on ramp to Exit 16 off ramp	0.42	118	-	44	74	62	26	19	11	-	-	-	-	-	-	-	-
Exit 16 off ramp to Exit 16 on ramp	0.31	59	-	33	26	19	15	23	2	-	-	-	-	-	-	-	-
Exit 16 on ramp to Exit 17 off ramp	1.53	114	-	41	73	30	39	38	6	-	-	-	-	-	-	1	-
Exit 17 off ramp to Exit 17 on ramp	0.15	25	-	13	12	12	3	9	1	-	-	-	-	-	-	-	-
Exit 17 on ramp to Exit 18 off ramp	2.08	153	2	77	74	80	25	35	11	-	1	-	-	1	-	-	-
Exit 18 off ramp to Exit 18 on ramp	0.39	70	-	49	21	31	12	27	-	-	-	-	-	-	-	-	-
Total	12.51	2005	3	878	1124	1096	403	402	78	5	9	6	1	2	1	1	1

Source: Fitzgerald & Halliday, Inc., April 2004

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, Table 5, page 20.

in truck traffic. Because this issue is a nationwide problem and as problem for the northeast corridor, there are no easy solutions. However, ConnDOT has initiated a rest area lease renewal program that will lead to new leases at all state rest areas as well as facility and parking improvements. Representatives from the South Western Region are not yet involved in this effort which may lead to increased truck parking at the I-95 Darien rest areas and at other rest areas.

Compounding the lack of truck parking spaces is the lack of trucker compliance with parking restrictions and lax enforcement of parking restrictions on I-95 shoulders and in rest areas. Limited enforcement is attributable to a number of factors, including: CT State Police reluctance to enforce I-95 shoulder parking restrictions because of the possibility of that a tired trucker who is asked to relocate might have an accident; no convenient legal alternative places for the trucker to relocate; a driver's hours of service may be exceeded which means the truck driver cannot legally drive; the fine associated with illegal parking on shoulders is minimal; and, there is significant paperwork involved in issuing a ticket for this type of violation.

Value Pricing – A Future Possibility

In 2002, SWRPA was invited to submit a proposal to USDOT for Value Pricing Pilot Program discretionary funding. The proposed project was a planning study designed to assess the feasibility of implementing a time of day, traffic volume or location-sensitive value pricing program on Connecticut's interstate system and, in particular, the South Western Region. The primary objective of the proposed project was to develop a methodology or framework for evaluating impacts of value pricing on existing, untolled interstates in Connecticut and throughout the nation. Once developed, the methodology was to be applied to Interstate 95 and the Merritt Parkway to identify specific costs and benefits of value pricing in the South Western Region, as well as the impacts of a highway-based value pricing program on demand for transit services. Unfortunately, ConnDOT did not support the project, and the project did not receive federal funding.

Congestion Mitigation System Plan “Vision 2020” Study

As part of SWRPA's 2003 Congestion Mitigation System Plan “Vision 2020” Study I-95 interchanges, ramps and segments were evaluated and deficiencies related to safety and operations were identified. The study cited the I-95 section between Interchange 6 and Interchange 16 as having the greatest need for improvement due to the level of congestion, and interchange spacing, ramp and segment deficiencies. A complete engineering analysis combined with concept development should include:

- Safety and operational improvements at specific interchanges;
- Additional operational lanes;
- Geometric modifications of entrance and exit ramps;
- Consolidation of interchanges;
- Horizontal and vertical alignment modifications;
- Ramp metering or peak period ramp closures;
- Increased ramp spacing; and
- Deployment of additional ITS technology.

This study also evaluated the potential of “HOT” High Occupancy Travel lanes or “HOV” High Occupancy Vehicle lanes that provide preferential treatment for vehicles with 2 or more persons, and stated that added capacity through HOT or HOV lanes would help to promote a mode shift from single occupancy vehicles.

The long range plan supports immediate initiation of the ConnDOT engineering study of I-95 southwest corridor safety and operations, participation in the assessment of the Governor’s Commuter Shoulders project as a designated “cooperating agency”, implementation of aggressive truck safety, enforcement and information programs, and continuous traffic counters as part of the Greenwich Weigh-In-Motion project, and at other key locations to monitor and evaluate traffic conditions and programs for congestion and incident management purposes. The strategies and projects are described in the following sections.

Recommended Strategies

Near Term

- Support immediate initiation of ConnDOT’s engineering study of I-95 southwest corridor safety and operations that will lead to development of a plan for I-95 improvements in the South Western Region, and participate in the study. This project is funded through the State/TSB for \$1.5 million.
- Support the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State’s I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Participate in review of the “Governor’s Commuter Shoulder Lanes” project environmental assessment as a designated “cooperating agency” and seek similar rights in future projects.
- Continue maintenance and safety projects on I-95 for resurfacing, bridge and safety improvements and support active consultation and cooperation with municipalities.
- Upgrade real time traveler information, including adequate Diversion Route Signing and advisories, establish functional Highway Advisory Radio (HAR), install and maintain .2 mile route markers, and institute state of the art real time traffic information programs.
- Provide additional resources to emergency responders for effective response to incidents on limited access highways (I-95, Route 15 and Route 7 incidents).
- Institute a program for cost recovery that will reimburse municipalities for emergency response to incidents on I-95, Route 15 and Route 7 expressway.
- Establish truck safety and enforcement as priorities and provide adequate state funding for staffing, equipment and training to support (1) required weigh station inspections, (2) increased truck safety inspections at I-95 Darien truck inspection station and I-84 inspection stations, and (3) to implement effective use of the I-95 Weigh-in-Motion project (#56-290)

Scheduled for design completion in 2005.

- Integrate ConnDOT's commercial vehicle information system (CVISN) into Weigh In Motion programs, and truck safety and inspections at Greenwich weigh station.
- Work with stakeholders to develop and implement solutions to truck stop and rest area problems and deficiencies.
- Develop effective monitoring and response/control plan for truck stops and rest areas.
- Advocate for regional and municipal participation in the ConnDOT rest area lease renewal program that will result in reconfiguration of rest areas and their services. The Darien I-95 rest area, the Route 15 New Canaan and Greenwich rest areas are included in this ConnDOT initiative.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).
- Develop a "truck information" webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the ConnDOT Incident Management webpage where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs.

Longer Term

- Evaluate 'value pricing' (also known as congestion pricing) and its applicability to I-95 and other limited access highways in the state.
- Implement the SWRPA Diversion Route Signing Plan (1998).

Recommended Projects

Near Term

- Initiate the Southwest Corridor Safety and Operations Engineering study that is funded by the State/TSB for \$1.5 million (FY2004).
- Construct I-95 Interchange 16 Improvements (Project 102-261) in the near term, to enable companion East Avenue roadway improvements to proceed along with reconstruction of the East Avenue Rail Bridge.
- Construct Project 56-290, the I-95 Weigh-In-Motion project, in Greenwich and fully fund the operation of the facility (near term, cost for operations TBD).
- Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290).
- Increase truck safety and weigh station inspections at I-95 Greenwich and I-84 Danbury locations.
- Define truck stop and rest area operational, safety and ITS improvements in the SWRPA Intelligent Transportation Systems (ITS) Plan and the Southwest Corridor Safety and

- Operations Study.
- Include I-95 in the SWRPA Intelligent Transportation Systems Plan and develop ITS strategies for I-95.

Route 15 – The Merritt Parkway

In the last decade the State has completed the Merritt Parkway Guidelines for Maintenance and Transportation Improvements (ConnDOT 1994), and the Merritt Parkway Landscape Master Plan (ConnDOT 1994), and the Merritt Parkway Bridge Restoration Guide - May 2002. ConnDOT also initiated ‘gateway projects’ to implement the recommendations of the Merritt Parkway Plans and proposed a comprehensive program to improve the Merritt Parkway. The Merritt Parkway is on the National Historic Register, is a designated state scenic highway, and received national scenic by-way designation in 1996. To complement the Merritt Parkway historic and aesthetic nature, ConnDOT developed, tested, and received federal approval for special steel-backed guide rail, and established unique Merritt Parkway guide signs are now standard requirements on the Merritt. The guide rail and signs have been installed in the constructed gateway sections of Greenwich and Stratford/Trumbull.

The Merritt Parkway Advisory Committee was established by ConnDOT in 1992 to advise the Commissioner of Transportation of ways to preserve and enhance the unique character of the Merritt Parkway, while continuing to maintain the Merritt’s function as a primary arterial. The Merritt Parkway Advisory Committee is to review all Merritt Parkway projects and elements in relation to stakeholders’ perspectives and the ConnDOT Merritt Parkway guidelines. Membership includes representatives from Merritt Parkway towns, the South Western Regional Planning Agency, the Greater Bridgeport Regional Planning Agency, landscape architects and others. The Merritt Parkway Conservancy, a non-profit group formed to promote preservation and appreciation of the Merritt Parkway while promoting restoration and enhancement through private funding and expertise for Merritt Parkway improvements, is also a member of the Merritt Parkway Advisory Committee. Because Merritt Parkway Advisory Committee meetings are held on average once every year or year and a half, the full potential of the committee is not realized. Regular and more frequent meetings are recommended in the long range plan.

The Merritt Parkway “Gateway” projects in Greenwich and Stratford, implement the first phase of operational and landscaping improvements with construction that began in 1997. Reconstruction of the North Street interchange (Interchange 31) and the section between Riversville Road and Stanwich Roads at a cost of \$19 million will be completed later in 2004. Additional projects are currently deferred to 2010 or beyond because of financial funding constraints.

The SWRPA Congestion Mitigation System Plan “Vision 2020” Study reaffirmed the regional transportation plan recommendation to evaluate the roadway and its interchanges for safety and operational deficiencies, opportunities for improved emergency access and response, and use of ITS to further improve the safety and operations of the roadway.

In 2004, the TSB secured legislative approval for funding additional CHAMP (highway assistance patrol) vehicles that would lead to expansion of CHAMP service to the Merritt Parkway.

Also in 2004, the shortcomings of landscaping plans for new Merritt Parkway interchange projects became evident, and reinforced long-standing concerns about previous projects (Route 7 interchange, Route 25 interchange, Route 8 interchange) that left areas without landscaping consistent with the

original parkway landscape design, or ConnDOT's Merritt Parkway Guidelines or Landscape Master Plan. The Merritt Parkway Conservancy and its landscape architect are working with ConnDOT to develop plans that are in keeping with the character of the Merritt Parkway.

The long range transportation plan translates the need for landscape treatments in context with the Merritt Parkway character into a number of strategies and projects that enhance the landscaping in upcoming Merritt Parkway projects (Route 7 interchange Phase 1 and Phase 2, Route 104 interchange, and Route 137 interchange), initiate a new project for a comprehensive landscape enhancement program for the entire Route 15 and Route 7 interchange to tie previous interchange quadrants that are not landscaped into a cohesive treatment for the entire interchange, and revise ConnDOT policies to enable additional maintenance and watering of landscape materials on Merritt Parkway. Other plan recommendations call for a plan for Merritt Parkway highway and bridge maintenance, treatment of deteriorating bridge facades, increased enforcement and noticing to discourage truck and commercial vehicle use of the Merritt Parkway, and better data collection through continuous traffic count stations to assist in monitoring, evaluating and devising congestion management plans. The South Western Region's highest highway priorities are completion of the fully directional Route 15 and Route 7 interchange and other Route 7 corridor roadway projects.

Recommended Strategies

Near Term

- Initiate a comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program will be development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the interchange.
- Revise ConnDOT policies and procedures to enable additional maintenance and watering of newly planted landscaping until the materials are established in 2 to 3 years. ConnDOT should have the capability to water plant materials or to contract for watering, and other arborist activities as appropriate.
- Evaluate roadway and interchange safety and operational deficiencies along with opportunities for improved emergency access, and opportunities for ITS through the proposed ConnDOT engineering study of Southwest Corridor Safety and Operations funded through the State/TSB for \$1.5 million.
- Institute an Incident Management program for the corridor, including highway assistance patrols (CHAMP) Additional vehicles are funded by the State/TSB in FY2005, but funding for staff is provided for only 3 months.
- Advocate for regular meetings of the Merritt Parkway Advisory Committee. Meetings are currently held on a 12- 18 month basis, which is not frequent enough for members and other interested parties to learn about activities, share information, and attain the goals of the committee.
- Develop a plan for Merritt Parkway highway and bridge maintenance and determine if there are sufficient funds to bring the road and bridges into a state of good repair consistent with the Merritt Parkway Plans and guidance; seek funding to assure adequate maintenance and prevent deferred maintenance.
- Address the deteriorating appearance of the Merritt Parkway bridges by providing a budget

- for esthetic treatments or repairs consistent with the Merritt Parkway Plan. For example, if parts of the fascia fall off, or are damaged by trucks, the damage is currently left as-is if the structural integrity is not compromised. Non-structural repairs are placed on "future needs" lists or to be done when the structure will be rehabilitated.
- A plan for repair, rehabilitation, restoration and replacement of the Merritt Parkway bridges should be developed and reviewed by the Merritt Parkway Advisory Committee and other interested parties.
- Include the Merritt Parkway/Route 15 in the SWRPA Intelligent Transportation Systems Plan and develop ITS strategies for the Merritt Parkway.
- Develop a "truck information" webpage on ConnDOT website that would identify Merritt Parkway use restrictions, bridge clearance restrictions, penalties, and alternative routes.

Longer Term

- Maintain Merritt Parkway infrastructure consistent with the Merritt Parkway Master Plan.
- Replace and repair deficient guide rail, and install new guide rail as warranted.
- Resurface and make safety improvements for entire length of Merritt Parkway to eliminate hazards and promote safe and efficient operation.
- Recognize the Merritt Parkway as linear multi-modal park.
- Implement the Merritt Parkway Master Plan, which balances transportation needs, with historic and aesthetic concerns.
- Identify the Merritt Parkway as a transportation preservation corridor.
- Improve enforcement of use restrictions of the Merritt Parkway (e.g. commercial vehicles, motorcycles, over height and over weight vehicles).
- Institute a meaningful penalty for use of the Merritt by illegal vehicles to reinforce enforcement and generate revenue (the current fine is less than \$50).
- Institute a program for cost recovery for damages to the Merritt Parkway and bridges that allows for recovered funds to be used for Merritt Parkway projects.
- In cooperation with NYSDOT, ConnDOT should evaluate an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills.
- Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway use restrictions. (During the I-95 Howard Avenue closure in 2004, many trucks unknowingly diverted to the Merritt Parkway and Hutchinson River Parkway and had to be escorted off the facilities by state police.)
- Evaluate the Merritt Parkway/ East Coast Greenway Trail proposal.

Recommended Projects

Near Term

- Construct the fully directional interchange at Route 15 & 7 in coordination with municipalities and other stakeholders:
 - Phase 1 - Project 102-312 (Interchange # 40a), Main Avenue and Glover Avenue - \$28.4m CON (FY2005-2007)
 - Phase 2 - Project 102-269 (complete fully directional interchange), \$56.6m CON (FY2007-2010)

- Enhance landscaping for the Route 7 & Route 15 interchange projects (#102-312 and #102-269), the Route 104 & Route 15 (#135-230) interchange project, the Route 137 & Route 15 (#135-249) interchange project in consultation with municipalities, landscape design professionals, and other stakeholders.
- Secure funding for the Route 15 and Route 7 Interchange Landscape Enhancement Project.
- Evaluate roadway and interchange safety and operational deficiencies along with opportunities for improved emergency access, and opportunities for ITS through initiations of the ConnDOT engineering study of Southwest Corridor Safety and Operations that will lead to development of a plan for improvements in the South Western Region, and participate in the study. This project is funded through the State/TSB for \$1.5 million.
- Implement CHAMP service on the Merritt Parkway.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).

Longer Term

- Implement projects in coordination with municipalities in accordance with context sensitive design solutions and enhanced landscaping, including:
 - Project 102-H044 (Norwalk Route 124 to Route 7 – resurfacing, bridge, safety and landscaping)
 - Project 102-H046 (Norwalk Route 7 to Route 33 – resurfacing, bridge, safety and landscaping)
 - Project 102-H046 (Norwalk Route 7 to Route 33 – resurfacing, bridge, safety and landscaping)
 - Project 135-H053 (Greenwich/Stamford town line east to Route 124, New Canaan – resurfacing, bridge, safety and landscaping)
 - Project 158-H041 (Route 33, Westport to Congress Street, Fairfield – resurfacing, bridge, safety and landscaping);
 - Project 135-230 (Route 104, Interchange # 34 improvements) - \$4.1m CON (FY2008)
 - Project 135-249 (Route 137, Interchange # 35 improvements) - \$750k ROW (FY2008)
- Determine feasibility of the March 2001 Regional Plan Association and City of Stamford proposal for the ‘Merritt Parkway Trail Demonstration Project’ along the Merritt between High Ridge Road (Exit 35) and Newfield Avenue, Stamford. This is a distance of 3,500 feet with a linkage to the High Ridge Office Park, Sunrise Assisted Living facility, and Turn-of-River apartments. The feasibility of the proposal should be determined in the engineering phase of Project 135-H053, the Route 15 resurfacing and safety improvements project scheduled to start design in 2001. This project is also referenced in the “Bicycle and Pedestrian” element of the Plan.

Route 1

Since 1994, ConnDOT has advanced Route 1 turning lane projects through study and design. Some sections and intersections in Greenwich, Norwalk, and Westport have been improved, or are scheduled for improvement. ConnDOT evaluated Route 1 Cross Street and recommended a program of improvements for this section of Route 1 (ConnDOT 1996). The City of Norwalk has secured \$500,000 as a FFY2004 USDOT earmark to study Route 1 Cross Street within the context of current land use and redevelopment plans.

With respect to Route 1, the Congestion Mitigation System Plan “Vision 2020” Study (SWRPA 2003) made recommendations that echoed past long range regional transportation plans. The study recommended that the Route 1 corridor from New Haven to Greenwich be targeted for transportation systems management improvements such as signal timing coordination, turning lanes, shoulders, geometric improvements, and access controls, that would improve safety and operations and result in tangible travel time savings, emissions and accident reduction. Strategic improvements were recommended for intersections or roadway segments with accident experience above average or with poor levels of service. Also, use of access management would help to rationalize driveway locations and frequency to improve Route 1 operations and safety.

The SWRMPO and SWRPA should continue to coordinate with ConnDOT to identify intersections on Route 1 that could be improved through signal coordination or operational modification. SWRPA should encourage municipalities to incorporate access management practices when approving new development or revising existing site plans. The long range plan supports efforts to develop corridor congestion, circulation, access management and improvement plans, to fund current and enhanced bus service along Route 1,

Recommended Strategies

Near Term

- Continue to monitor and evaluate corridor needs.
- Study deficient sections and intersections to develop improvement programs.
- Implement intersection, turning lane and traffic signal timing and coordination improvement projects in consultation with municipalities and using context sensitive design.
- Support City of Stamford efforts to develop East Main Street (Route 1) and West Main Street (Route 1) corridor improvement plans. (The East Main Street corridor study is City funded, 2004).
- Support evaluation and future improvement of Route 1 needs in Norwalk in the Cross Street segment (Belden Avenue to East Avenue). The study is a USDOT earmark funded project (FFY2004 \$500,000). The ConnDOT 1998 estimate for roadway improvements was \$8.8 million. (Refer to ConnDOT Project 102-264, “Route 1 Study, Norwalk” dated 1999.)
- Initiate a Route 1 Darien congestion, circulation and access study.
- Adequately fund and assure sustained funding for inter-regional Route 1 service and the Coastal Link from Milford to Norwalk, with future funding for continuation of the service to Stamford, Greenwich, Portchester and White Plains.

- In Stamford, widen and increase the vertical clearance of Route 1, an essential diversion route for I-95, at the railroad and Myrtle Avenue.

Longer Term

- Develop corridor and access improvement programs for Route 1 Westport, Route 1 Norwalk, and Route 1 Darien.
- Further investigate the potential for bus rapid transit in the Route 1 corridor (Congestion Mitigation Systems Plan “Vision 2020”.)
- Improve coordination and communications between ConnDOT, municipalities and other stakeholders regarding ConnDOT construction projects and maintenance activities to assure best traffic flow and to avoid multiple closures that create bottlenecks.
- If necessary, fund the signal upgrade to Westport Route 1 signals so they will be included in the state’s Diversion Route Signal Program controlled by the ConnDOT Incident Management Program at the Bridgeport Operations Center. A radio-based signal communications system was installed in 2002, and is functioning as of 2004.

Recommended Projects

Near Term

- Complete the Stamford Urban Transitway, Phase I (Stamford Rail Station to Elm Street), using \$18m of earmarked TEA-21 New Starts funding and supplemental funding.
- Route 1 needs in Norwalk in the Cross Street segment (Belden Avenue to East Avenue). The study is a USDOT earmark funded project (FFY2004 \$500,000). The ConnDOT 1998 estimate for roadway improvements was \$8.8 million. (Refer to ConnDOT Project 102-264, “Route 1 Study, Norwalk” dated 1999.)
- Initiate a Route 1 Darien congestion, circulation and access management study.
- Implement the Route 1 and Route 136 intersection improvement project (Project 158-193 funded).
- Develop a program of improvements road, intersection and signals for Route 1 in Westport from the vicinity of Route 33 to the Fairfield townline.
-
- Develop and implement acceptable scope of work for Route 1 improvements in Westport as a substitute for the Route 1 turning lane project, as agreed by ConnDOT and the Town of Westport on April 10, 2001 (Project 158-193, STP-A, \$50k ROW, \$1.1m Con).

Longer Term

- Implement the Stamford Urban Transitway, Phase II (Elm Street/Myrtle Avenue to Route 1), using future discretionary funding (\$30 million). Within the twenty four year timeframe of the Transportation Plan, it is reasonable to assume that additional ‘earmarked’ funding will be available for the project.
- Study Route 1 at I-95 Exit 11 to improve operations and safety particularly in the southbound off and on ramps.
- Fund the signal upgrade to Westport Route 1 signals and incorporate in the ConnDOT Diversion Route Signal Program operated through the ConnDOT Incident Management Bridgeport Operations Center (near term, \$ 1.5m, also cited under ‘Traffic Signals’)

Route 7

Route 7 is one the State's major north/south arteries, extending as an expressway north 3 miles from I-95 in Norwalk to a partial interchange with Route 15 (Norwalk), and continuing another mile north to the expressway terminus at Grist Mill Road, Norwalk. Route 7 is an essential link between the business/economic centers in South Western Connecticut and the fast growing residential suburbs of northern Fairfield County in the Housatonic Valley Region. Although a Route 7 expressway between I-95 and I-84 was included in 1960's state transportation plans, environmental permitting requirements and legal appeals delayed construction of the expressway beyond Norwalk. In the early 1990's, the Connecticut Department of Transportation, chose to conduct an environmental assessment of Route 7 expressway alternatives that would continue the expressway north from Grist Mill Road to Route 33 in Wilton. In November of 1999, Governor Rowland announced that the Route 7 expressway north of Grist Mill Road would not proceed but would be replaced by improvements to existing Route 7 (Main Avenue) between Grist Mill Road and Route 33 in Wilton. This change in course was subsequently studied and resulted in the environmental assessment for Route 7 improvements approved by the USDOT in December 2000 as the Final Environmental Assessment/Section 4(F) Evaluation for Route 7/15 Interchange Improvements and Route 7 Corridor Improvements state Projects 102-269 and 102-220 : Connecticut Finding of No Significant Impact. This document permits construction of the full Route 7 and Route 15 Interchange (Project 102-169 and Project 102-312); improvements to existing Route 7 between the Route 7 Expressway terminus at Grist Mill Road, Norwalk, and Route 33, Wilton (Project 102-305); and, the widening of Route 7 in Wilton between Wolfpit Road and Olmstead Hill Road (Projects 161-118,124). Although approved by the SWRMPO, a future un-funded project to build the Route 7 expressway to Danbury is included in the South Western Region Long Range Transportation Plan 2001-2025.

The SWRPA Congestion Mitigation Systems Plan "Vision 2020" Final Report (2003) recommended support for plans to widen Route 7 to a four-lane arterial with full roadside access from Wilton to Danbury should be supported. It was also recommended that the plans incorporate intelligent transportation systems (ITS), where appropriate, to further improve the safety and operation of the roadway and to support use of priority signal treatments for transit.

The South Western Region MPO's top highway priorities are completion of the fully directional Route 15 and Route 7 interchange, as well as widening of Route 7 in Wilton and Norwalk. In support of the highway projects, the SWRMPO supports increased rail service on the Danbury Branch to offset construction disruptions, completion of the Danbury Branch signal and communications projects, a Route 7 corridor construction communications plan, and completion of the Danbury Branch Electrification study. Looking to the future, a needs assessment of the unimproved two-lane cross section of Route 7 between Olmstead Hill in Wilton and Route 35 in Ridgefield is proposed and should be initiated in the near future. The Merritt 7 area transportation study is recommended to guide multimodal investments and develop transit supporting land use and services. Also important is the proposed Route 15 and Route 7 landscape enhancement project which will develop a comprehensive landscaping plan for the full interchange.

Recommended Strategies

Near Term

- Conduct a needs assessment of the Route 7 corridor between Olmstead Hill Road in Wilton and Route 35 in Ridgefield to establish an implementation program for operational, intersection, safety, access management, multimodal and streetscaping enhancements. This assessment should be a cooperative effort of ConnDOT, SWRPA and HVCEO within a framework of sensitive design.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service. In the Route 7 corridor, construction disruptions will start with Route 15 and Route 7 Interchange Phase 1 and Route 7 widening projects in Ridgefield that are scheduled to start construction in 2005. Construction of the 345kV transmission line along Route 7 that has CT Siting Council approval will further reduce the ability of Route 7 to handle traffic. In 2006, the Route 7 widening projects in Wilton will be initiated, further disrupting the use of Route 7 by passenger and commercial traffic. In 2008 – 2011, construction of Route 15 and Route 7 Interchange Phase 2, will take place. Transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor, express bus from the Danbury area to Stamford via I-684, continued support for 7Link bus service and enhanced service, also incentive-based ridesharing programs.
- Immediate action – establish a Route 7 corridor communications plan to provide for ongoing coordination and communication regarding the construction projects, service changes and restrictions, and incident management in the Norwalk – Danbury corridor encompassing all modes of transportations. Recommended participants in a “steering committee” include: SWRPA, HVCEO, local officials, ridesharing brokerage, strategic business partners and chambers of commerce, and legislators.
- Undertake a study of Merritt 7 area transportation needs to develop a program of multimodal improvements coordinated with land use to improve mobility and access, and manage congestion.
- Initiate a comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program will be development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the interchange.
- Complete Danbury Branch Electrification Study Phase 1.
- Initiate Danbury Branch Electrification Study Phase 2 with a scope that develops a rail service plan oriented to commutation in the Route 7 Norwalk to Danbury corridor with supporting bus service, and commuter connections, along with incentive-based ridesharing programs similar to the NuRide model. The service plan should develop viable commuter options to Merritt 7, Wilton and South Norwalk address Danbury Branch service options for commutation in the Route 7 Norwalk to Danbury corridor, and service to Merritt 7, Wilton and South Norwalk.
- Implement Danbury Branch signal and communications improvements (Project #302-0007) which ConnDOT identifies as a necessary precursor to increased service on the Danbury Branch.
- Consider access management principals and recommendations when development or improvement projects proposed in the corridor.
- Complement improvement projects with landscaping, sidewalks, and context sensitive design.

Longer Term

- Implement operational, intersection, safety, and capacity improvements.
- Develop a comprehensive multi-modal management and infrastructure plan and environmental assessment for the Route 7 corridor from Norwalk through Danbury, in cooperation with the Connecticut Department of Transportation and the Housatonic Valley Council of Elected Officials (HVCEO).
- Extend Route 7 Expressway from Gristmill Road, Norwalk to Danbury (a future unfunded need, confirmed by the MPO on March 15, 2001).

Recommended Projects

Near Term

- Complete the full interchange at Route 7 and Route 15, Norwalk. Phase 1 (Project 102-312, STP-A, \$28.4 million CON, FFY2005 -2007).
- Complete the full interchange at Route 7 and Route 15, Norwalk. Phase 2 (Project 102-269, STP-A, \$56.6 million CON, FFY 2008-2010);
- Complete Route 7 widening projects in Wilton between Wolf Pit Road and Olmstead Hill Road (Projects 161-118, 124 \$28.4 million CON, FFY2005-2007).
- Complete design and construct improvements from Route 7 expressway terminus at Gristmill Road, Norwalk to Route 33, Wilton, including widening of roadway to four lane cross-section, improvements at the Route 7 and Main Avenue intersections with Gristmill and Route 33, NHS \$3.0 million ROW FFY2008, \$15.6 million CON FYI).
- Conduct Route 7 corridor needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield. This study will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach. This assessment should be a cooperative effort of ConnDOT, the Housatonic Valley Council of Elected Officials (HVCEO), and the SWRMPO and the South Western Regional Planning Agency (SWRPA).
- Initiate the Route 7 corridor communications plan to provide for ongoing coordination and communication regarding the construction projects, service changes and restrictions, incident management in the Norwalk – Danbury corridor encompassing all modes of transportation. Recommended participants in a “steering committee” include: SWRPA, HVCEO, local officials, ridesharing brokerage, strategic business partners and chambers of commerce, and legislators.
- Fund the Merritt 7 Area Transportation Study (City of Norwalk, and Norwalk Transit District) to develop a program of improvements to improve mobility and access and manage congestion. Roadway, bus, rail, shuttle, bicycle, pedestrian, land use, and transportation demand management programs will be developed to support existing, planned and forecast (build out) growth.
- Fund the Route 15 and Route 7 Interchange Landscape Enhancement Project to develop the design, planting and maintenance plan for landscaping the entire interchange, including development of the concept and alignment of the extension of the Route 7 Norwalk River Multiuse Trail within the interchange.
- Implement the Route 7 Travel Options Implementation Plan (SWRPA 2000) which proposes

- \$57m in transit and ridesharing projects for the Route 7 corridor.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).

Longer Term

- Develop a comprehensive multi-modal management and infrastructure plan and environmental assessment for the Route 7 corridor from Norwalk through Danbury, in cooperation with the Connecticut Department of Transportation and the Housatonic Valley Council of Elected Officials (HVCEO).
- Extend Route 7 Expressway from Gristmill Road, Norwalk to Danbury (a future unfunded need, confirmed by the MPO on March 15, 2001).
- Implement the Route 7 Travel Options Implementation Plan (SWRPA 2000) which proposes \$57m in transit and ridesharing projects for the Route 7 corridor.

LOCALLY IDENTIFIED TRANSPORTATION PRIORITIES AND NEEDS

On-going town and regional planning, engineering and maintenance activities identify transportation needs and determine priorities for improvement projects and programs. Information on local transportation deficiencies and programs is contained in local and regional plans, capital improvement programs and special studies. SWRPA has conducted studies that have dealt with a variety of transportation concerns, including: traffic engineering studies of locally-identified transportation problems; traffic impact studies; Route 7 and Route 1 corridor access management studies; the southwestern CT congestion management study; Route 7 travel options study; Route 33 study; transit development studies; commuter connection studies; and, rail parking studies. As new transportation issues or funding opportunities arise, solutions and projects are developed to respond. The South Western Long Range Transportation Plan includes all information provided by the towns on local transportation needs and priorities; projects that are proposed, planned or programmed; financial information regarding needs and programming; and private sector transportation needs projects, and financial resources.

Transportation Goals and Projects of Municipal Plans

Each of the Region's municipalities has identified transportation goals and objectives in their plans of conservation and development and other documents. A summary each of the plans is provided.

Darien – 1995 Town Plan of Development

The fundamental goal of the Town is to preserve and enhance an attractive suburban living environment. The following priorities intend to meet this goal:

Priority Group One:

1. Coordinate with ConnDOT in making necessary improvements to:
 - I-95 interchange 13 and Boston Post Road.
 - The intersection of the Boston Post Road and Brookside Drive
2. Encourage Town improvements at the intersections of:
 - Brookside Road and Old King's Highway North
 - Noroton Avenue and West Avenue
 - Mansfield Avenue and Sedgwick Avenue
 - Mansfield Avenue and McLaren Road
 - Mansfield Avenue at Ox Ridge Elementary School
 - Mansfield Avenue and Stephen Mather Road
 - Hoyt Street and Middlesex and Christie Hill Road
3. Provide new sidewalks on both sides of Heights Road west of Noroton Avenue.
4. Continually improve the management for the downtown municipal parking system.
5. Accelerate the program to repair and replace existing sidewalks

Priority Group Two:

1. Continue to work with ConnDOT on the closing of I-95 interchange 12 and the potential for merging interchanges 10 and 11.

2. Parking:
 - Expand the existing municipal parking facilities between Center Street and Corbin Drive.
 - Establish a new municipal parking facility within the area bounded by the Post Office, Corbin Drive and the Boston Post Road.
 - Eliminate the perpendicular parking from Margo Moore to Fairbanks on the Boston Post Road.
 - Establish additional municipal parking in the business block between the Darien Playhouse and the commuter parking at the Darien Train Station.
 - Eliminate all perpendicular parking on Heights Road.
3. Redesign and rebuild the ingress/egress drive to the parking area at Heights Road and Hollow Tree Ridge Road to improve traffic circulation.

Greenwich – 1998 Plan of Conservation and Development

The Town of Greenwich has three main policy areas around which they focus their transportation recommendations:

1. Improve Safety
 - Provide crosswalks, signals, signs and sidewalks in densely developed areas.
 - Use more traffic calming methods, including narrow roads, on-street parking in business zones, humps, circles and islands, consistent with safety and efficiency of traffic flow.
2. Reduce Traffic Congestion and Improve Air Quality
 - Follow State and SWRPA plans to relieve congestion.
 - Advocate better train service.
 - Encourage coordination of non-profit, corporate and public van and bus services with mass transit.
 - Increase parking at appropriate railroad stations.
 - Encourage residents to use alternatives to single-occupancy vehicles.
 - Provide more bike racks at train stations and public buildings.
 - Support SWRPA's efforts to get freight off I-95 and onto rail lines or barges.
 - Maintain LOS "C" as the Town standard.
 - Update the 1977 Transportation Plan for Central Greenwich and adopt a Traffic Management Plan for the Central Greenwich area.
 - Increase station platform access and length of platforms.
3. Provide better parking for shoppers, Town resident-commuters and employees.
 - Encourage the combination of adjoining privately-owned sites for employee and shopper parking and public use of private parking after hours.
 - Eliminate parking permits for non-residents and businesses in Town-owned commuter lots.

New Canaan – 2003 Town Plan of Conservation and Development

The Town of New Canaan has developed strategies and tasks to address roadway and parking issues, to enhance pedestrian and bicycle circulation and to support transit facilities. The following are the strategies and tasks included in the Transportation Implementation Program:

1. Strategies

- Continue to manage the roadway system in New Canaan.
- Continue to maintain the scenic character of local roadways.
- Continue to explore other opportunities to expand community parking.
- Continue to require sidewalks in the Town Center, in contiguous areas, along arterial roads and near schools and parks.
- Avoid sidewalks in outlying areas where the density is much lower, unless these areas are part of a greenway trail system.
- Support the establishment of trails on open space.
- Support State efforts to establish a bicycle/pedestrian trail along the Merritt Parkway in New Canaan.
- Support continued high-quality Metro-North rail service.
- Support enhanced parking and related services for rail commuters.
- Consider the need for enhancing dial-a-ride services.

2. Tasks:

- Review road design standards and road construction standards.
- Explore strategies that would minimize the present value of future road maintenance funding.
- Implement recommendations from the parking study update.
- Modify the sidewalk ordinance to specify that the Town will maintain sidewalks in the Town Center.
- Modify the sidewalk ordinance to specify that the Town will be responsible for major sidewalk repair.
- Prepare an overall concept plan for a system of bicycle routes.

Norwalk – 1990 Town Plan of Conservation and Development

Norwalk's Plan recommends a dual transportation strategy that aims to undertake roadway improvements to correct deficiencies, while at the same time enacting management measures to limit traffic demand and improve traffic flow. The following policies are designed to meet this approach:

1. Rail: support convenient and reliable rail service to satisfy the needs of commuters and to encourage greater rail ridership.
 - Encourage Metro-North to continue to review and adjust train schedules.
 - Support increased train service and improved facilities on the Danbury Line.
 - Retain a rail siding in Norwalk to encourage freight deliveries and shipment.
 - Improve commuter parking lots at the East Norwalk and Merritt 7 Stations.
2. Bus and Dispatch-a-ride: support convenient, reliable and efficient services.
 - Evaluate and adjust the WHEELS bus service to expand hours of operation, adjust bus routes and schedules to reflect changes in the population and land use, and better coordinate WHEELS service with train schedules.
 - Expand dispatch-a-ride service to elderly and disabled.
 - Direct SWRPA to evaluate and encourage an express commuter bus service from other regions.

3. Traffic: provide a safe and efficient vehicular transportation system to serve the city and minimize delays.
 - Form a Traffic Management Association to encourage flextime and increase the use of vanpools, carpools and public transportation.
 - Continue to implement the traffic safety and accident reduction program.
 - Explore the feasibility of developing a network of bicycle routes.
 - Encourage walking by providing a pedestrian circulation system of sidewalks, footpaths and crosswalks, especially in high traffic areas.
4. Parking: provide and maintain municipal off-street parking facilities to minimize street congestion.
 - Provide adequate off-street parking to enable the elimination of on-street parking where it interferes with traffic flow and safety.
 - Encourage centralized parking in Norwalk and South Norwalk downtowns, including shared parking uses.
 - Support continued use of fee-in-lieu of parking in the Wall Street area and expand its use into South Norwalk.

Stamford – 2002 Master Plan

The plan's goal is to manage current and future traffic problems in spite of trends in population growth. The City proposes three ways to manage traffic impacts:

Transportation Demand Management

1. First Level Strategies – Employer-based Strategies:
 - Create alternative work schedules that involved telecommuting options.
 - Form a carpool matching service and a guaranteed ride home program.
2. Second Level Strategies:
 - Call for lower maximum or mandate lower parking ratios, especially near transit.
 - Mandate higher floor areas ratios near transit to encourage a dense, walkable landscape.
3. Transit Strategies
 - Lower rail fares and add more peak and evening hour trains.
 - Implement better bus connections at rail stations and increase bus service in denser areas.
 - Add parking along the New Haven Line.
4. Housing Strategies
 - Locate all multi-family housing within a quarter mile of a bus route or a half mile of downtown.
 - Increase housing density to at least seven units per net residential acre.

Weston – 2000 Town Plan of Conservation and Development

The plan's basic goal is to preserve and protect the rural character of the Town. The following transportation recommendations were made to coincide with this goal:

- Ensure that road improvements be designed to preserve the town’s rural identity while improving safety.
- Maintain minor roads to provide adequate circulation of local traffic and improved coordination with the major and collector road system.
- Fund a comprehensive road-maintenance program.
- Develop a system to ensure that residential house numbers are clearly marked and visible from the street to assist emergency services.

Westport – 1997 Town Plan of Conservation and Development

Westport desires a transportation system of roads, intersections, bikeways and sidewalk that promotes safe and efficient traffic and pedestrian circulation. This system should also be sufficiently diverse in its modes to satisfy the full range of travel needs. The following are the goals and policy recommendations to advance this system:

1. Create and maintain a safe and efficient street and highway system that satisfies local needs and does not harm local community character or residential amenities.
 - Design traffic and street improvement around historic elements including: old stone walls, historic road structures, mature trees and front landscape areas.
 - Review, evaluate and update the “Greening of the Post Road” program.
 - Evaluate the traffic patterns on streets around the Saugatuck Station.
 - Paint fog lines on arterial and collector roads to improve traffic safety.
 - Anticipate and seek remedies for traffic problems caused by major Town construction projects.
2. Support a public transit system that maintains a high level of commuter service and provides an alternative to vehicular travel.
 - Encourage the Railroad Parking Authority to review its fee structure to promote the use of minibus service.
 - Analyze the needs and services of minibus passengers to ensure timely expansions.
3. Maintain an adequate supply of parking facilities that is accessible and suitably located to meet the needs of carpoolers, rail commuters and business center customers.
 - Parking related to new construction should be privately provided.
4. Assure pedestrian safety and convenience with a sidewalk system that is suitable to the level of neighborhood development and traffic.
 - Install and maintain sidewalks of a capacity that is adequate to pedestrian volumes.
5. Create locations for safe recreational circulation, including biking, skating, jogging and walking.
 - Develop signage, traffic management and park use policies to resolve conflicts of multiple uses in heavily patronized areas.

Wilton – 1996 Plan of Conservation and Development

The Town is focused on providing for a safe and efficient overall vehicular circulation network. In addition, the Town encourages improvements and alternatives to meet transportation needs and to permit convenient access within and to all parts of town with minimum disturbance to adjoining residential areas. The following are specific projects the Town has outlined:

1. Work with the State to develop a mutually agreeable solution to congestion on Route 7.
2. Include the following objectives in the transportation program:
 - Effectively manage traffic capacity on existing roadways to avoid or defer major road improvements.
 - Address accident concentrations on state and local roads.
 - Require pedestrian improvements in Wilton Center, near schools, in commercial areas and elsewhere along arterial roads.
 - Allow steeper grades and longer cul-de-sacs due to local topography and development patterns and to minimize curb cuts on primary and secondary streets.
3. Transportation Alternatives:
 - Encourage improvements to rail service along the Danbury Line.
 - Encourage improvements to mass transit that could provide alternatives to automobile commuting.
 - Encourage the establishment of services at or near rail stations.
 - Encourage transit services that connect railroad stations to local employers.
 - Encourage employers to adopt and implement carpooling and vanpooling programs and contribute to the establishment of other commuting options.
4. Program Coordination:
 - Maintain a working relationship with ConnDOT in order to influence transportation programs and improvements on state highways and on rail and transit programs.
 - Effectively use the resources of SWRPA to coordinate and manage transportation programs.
 - Communicate with local businesses and other local departments to anticipate and effectively respond to local transportation improvement programs.
 - Periodically conduct or assist with a study of local commuter needs.

Translating Transportation Needs Into Funded Projects

Federal and state transportation funding is made available for locally-sponsored projects through the regional transportation planning process. The funding categories that may be accessed include: the USDOT Surface Transportation Program for urban areas (STP-Bridgeport Stamford), the USDOT STP Enhancement Program (STP-E), the State Local Roads Accident Reduction Program, and the USDOT Congestion Mitigation Air Quality Program (CMAQ). Since 1974, more than \$70 million in local transportation projects have been implemented through the STP urban program and its predecessor the Federal Aid Urban Systems Program. Locally identified project needs exceed \$500 million. The Region's STP urban program has progressed to the ninth phase and additional phases will be scheduled as required.

South Western Region applications for CMAQ funding have not met with success, except when ConnDOT has funded traffic signal projects with CMAQ funding. To ensure that all available funds are used, the transportation planning process will continue to coordinate with technical and policy groups, USDOT, ConnDOT and others.

In addition to the lack of funding to meet needs, another significant challenge for the Region is to secure funding for enhancement-type projects that provide sidewalks, streetscaping, landscaping, and other non-traditional elements of transportation. In the South Western Region, USDOT STP-Enhancement funding has provided landscaping, streetscaping, the Stamford rail 'Gateway' and rail trail projects, the Route 15/Merritt Parkway 'Gateway' Project, refurbished the New Canaan rail station, provided amenities at the South Norwalk Rail Station, and funded the Norwalk Heritage trail, the Norwalk River Linear Trail Phases 1 and 2, and the Mill River Multi-use Trail Phase 2. There is significant interest and demand for 'context sensitive' design, improving the aesthetics of transportation projects, improving the quality of life, and providing bicycle and pedestrian options. A critical constraint to using federal funds for enhancement-type activities is the Connecticut Department of Transportation policy that federal funds should not be used for stand-alone enhancement projects unless USDOT STP Enhancement or Federal Transit Administration (FTA) Enhancement programs are used.

Recommended Strategies

- Work with the state and others to enable the use of traditional federal transportation funding for eligible transportation enhancement activities as permitted by federal guidelines.
- Develop a cooperative and consultative process that makes it possible for MPOs to select eligible regional/municipal projects for the use of STP Urban (Other) funding.
- Coordinate with Bridgeport-Stamford Urbanized Area RPOs, MPOs and transit recipients to coordinate planning and programming for the STP Bridgeport-Stamford Urban Area funding, and FTA Enhancement programs.
- Encourage the State to provide adequate staff and funding to ConnDOT to enable timely review of municipal projects, so that all available federal funds may be utilized.
- Develop funding opportunities, regardless of sources for identified municipal and regional needs.
- Advocate for municipal and regional access to CMAQ (Congestion Mitigation Air Quality) funds through a revamping of the system to solicit, evaluate and select projects for implementation that will be a consultative process of state, federal, regional and local stakeholders.

- Overcome institutional barriers to ‘traffic calming’ measures, and enable use of state and federal transportation funding for traffic calming.
- Support ‘context sensitive design’ solutions at municipal, regional and state levels, design and construct projects developed within the context sensitive design framework.
- Evaluate transportation issues, locations and opportunities identified by the towns, region, state and others to develop solutions that improve the transportation system, mobility, choice, and meet goals and objectives. Municipally-identified projects and needs are referenced in the following Stamford Long Range Transportation Plan and Norwalk Transportation Project Candidates tables.

Recommended Projects

Near Term

- Stamford Transportation Investment Strategies Study (City of Stamford, \$1 million) – will develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access & arterial roadways, rail bridges & infrastructure, and Stamford Harbor. The study will encompass all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State’s I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Conduct Route 7 corridor needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield. This study will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach. This assessment should be a cooperative effort of ConnDOT, the Housatonic Valley Council of Elected Officials (HVCEO), and the SWRMPO and the South Western Regional Planning Agency (SWRPA).
- The City of Stamford has identified a comprehensive program of needed multi-modal improvements totaling \$473 million (Table 13. Stamford Long Range Transportation Plan, August 2004). Included in this list are: town road operational and safety improvements (\$79 million); sidewalk and bicycle enhancement projects (\$17 million); information kiosks and bus shelters (\$350,000); transit projects for a ferry terminal (\$7.5 million), Glenbrook and Springdale rail station enhancements (\$150,000) ; bridges (\$7.2 million); ITS projects for parking guidance and traffic signals (\$7.5 million) in station enhancements; Stamford Urban Transit Way Phase I (\$38 million, various earmarked New Starts, FTA and FHWA funding, STP-Urban and local funds); Stamford Urban Transit Way Phase II (\$30 million, partial funding through New Starts funding requested); rail underpasses at Atlantic Street, East Main Street, Greenwich Avenue, Elm Street and Canal Street (\$123 million); East Main (Route 1) Reconstruction (\$28 million); Greenwich Avenue Reconstruction (\$24,000,000); West Main Street (Route 1) reconstruction (\$23 million); operational and safety improvements for state highways (\$10 million); city wide street sign program; traffic calming program; and, bus service expansion. Also, future light rail systems for the South End and Bull’s Head; and, studies for a new rail station at East Main Street (Route 10 and Glenbrook and Springdale rail parking are identified).
- The City of Norwalk Transportation Project Candidates include traffic signals and signal systems,

intersection improvements, and road reconstruction, as well as area transportation studies. The projects are noted in Table 14.

- The Norwalk Transit District proposes FTA Enhancement projects for information kiosks at the South Norwalk Rail Station, Pulse Point Safety and Security Improvements (funded in part by a USDOT earmark and FTA), purchased or restored art for public display at the NTD facility, bus shelters, and bike racks for buses. The projects are identified in Table 15.
- The Town of Darien proposes to develop a Route 1 Congestion, Traffic Circulation and Access Management Plan.

Table 13
City of Stamford Long Range Transportation Plan
High Priority - Earmark Projects
August, 2004

Town	Project Name	Phase/Activity	Funding in Thousands of Dollars			Total	Comments	Cost
			Federal	State	Local			
Stamford	Myrtle Avenue Reconstruction	Design/Survey	\$ 800,000		\$ 200,000	\$ 1,000,000	Priority 1	
		ROW	\$ 14,000,000	\$ 1,750,000	\$ 1,750,000	\$ 17,500,000		
		Construction	\$ 4,000,000	\$ 1,000,000	\$ 500,000	\$ 5,500,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 1,800,000	\$ 450,000		\$ 2,250,000		
		Cost Increase	\$ 800,000	\$ 200,000		\$ 1,000,000		
		Total						
Stamford	Atlantic Street Rail_Road_Underpass	Design/Survey	\$ 1,200,000		\$ 300,000	\$ 1,500,000	Priority 5	
		ROW				\$ -		
		Construction	\$ 12,000,000	\$ 3,000,000	\$ 500,000	\$ 15,500,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 1,800,000	\$ 450,000		\$ 2,250,000		
		Cost Increase	\$ 1,000,000	\$ 250,000		\$ 1,250,000		
		Total						
Stamford	East Main Street Rail_Road_Underpass	Design/Survey	\$ 1,200,000		\$ 300,000	\$ 1,500,000	Priority 2	
		ROW	\$ 4,000,000	\$ 500,000	\$ 500,000	\$ 5,000,000		
		Construction	\$ 12,000,000	\$ 3,000,000	\$ 500,000	\$ 15,500,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Cost Increase	\$ 1,000,000	\$ 250,000		\$ 1,250,000		
		Total						
Stamford	East Main Street Reconstruct	Design/Survey	\$ 800,000		\$ 200,000	\$ 1,000,000	Priority 3	
		ROW	\$ 14,000,000	\$ 1,750,000	\$ 1,750,000	\$ 17,500,000		
		Con	\$ 23,344,000	\$ 5,836,000	\$ 500,000	\$ 29,680,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 4,000,000	\$ 1,000,000		\$ 5,000,000		
		Cost Increase	\$ 1,600,000	\$ 400,000		\$ 2,000,000		
		Total						
Stamford	Greenwich Avenue South State to Selleck St	Design/Survey	\$ 800,000		\$ 200,000	\$ 1,000,000	Priority 4	
		ROW	\$ 6,000,000	\$ 750,000	\$ 750,000	\$ 7,500,000		
		Construction	\$ 11,300,000	\$ 2,825,000	\$ 500,000	\$ 14,625,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Cost Increase	\$ 800,000	\$ 200,000		\$ 1,000,000		
		Total						
Stamford	Greenwich Avenue Rail_Road_Underpass	Design/Survey	\$ 1,200,000		\$ 300,000	\$ 1,500,000	Priority 8	
		ROW	\$ 800,000	\$ 200,000		\$ 1,000,000		
		Construction	\$ 12,000,000	\$ 3,000,000	\$ 500,000	\$ 15,500,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 1,800,000	\$ 450,000		\$ 2,250,000		
		Cost Increase	\$ 1,000,000	\$ 250,000		\$ 1,250,000		
		Total						
Stamford	Elm Street Street Rail_Road_Underpass	Design/Survey	\$ 1,200,000		\$ 300,000	\$ 1,500,000	Priority 6	
		ROW	\$ 1,200,000	\$ 300,000		\$ 1,500,000		
		Construction	\$ 12,000,000	\$ 3,000,000	\$ 500,000	\$ 15,500,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 1,800,000	\$ 450,000		\$ 2,250,000		
		Cost Increase	\$ 1,000,000	\$ 250,000		\$ 1,250,000		
		Total						
Stamford	Canal Street Street Rail_Road_Underpass	Design/Survey	\$ 1,200,000		\$ 300,000	\$ 1,500,000	Priority 7	
		ROW				\$ -		
		Construction	\$ 12,000,000	\$ 3,000,000	\$ 500,000	\$ 15,500,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 1,800,000	\$ 450,000		\$ 2,250,000		
		Cost Increase	\$ 1,000,000	\$ 250,000		\$ 1,250,000		
		Total						
Stamford	West Main Street Recon.	Design/Survey	\$ 800,000		\$ 200,000	\$ 1,000,000	Priority 9	
		ROW	\$ 20,000,000	\$ 2,500,000	\$ 2,500,000	\$ 25,000,000		
		Con	\$ 19,744,000	\$ 4,936,000	\$ 500,000	\$ 25,180,000		
		Project Manage	\$ 2,000,000	\$ 500,000		\$ 2,500,000		
		Contingencies	\$ 1,800,000	\$ 450,000		\$ 2,250,000		
		Cost Increase	\$ 1,000,000	\$ 250,000		\$ 1,250,000		
		Total						
Subtotal			\$ 233,588,000	\$ 48,847,000	\$ 14,050,000	\$ 290,485,000		\$ 296,485,000
							TOTAL	\$ 296,485,000

CITY OF STAMFORD
LONG RANGE TRANSPORTATION PLAN

August, 2004

No	Project Location	Limits	Proposed Improvements	Project Cost	Priority
SURFACE TRANSPORTATION PROGRAM (STP)					
1	Atlantic Street	I-95 to Washington Boulevard	Widening and Streetscape	\$5,000,000	STP
2	Greenwich Ave/W Main St	Smith Street to I-95	Reconstruction	\$10,000,000	STP
3	Grenhart Road	Harvard Avenue to West Avenue	Reconstruction	\$1,627,500	STP
4	Hope Street	Knapp Street to Minivale Road	Reconstruction	\$4,000,000	STP
5	Oaklawn Avenue	Halpin Avenue to Stanwick Place	Reconstruction	\$2,375,000	STP
6	Scotfieldtown Road	Northeast School to High Ridge Road	Reconstruction	\$1,475,000	STP
TOTAL				\$24,377,500	

PRIORITY RATING

- A - 1 TO 3 YEARS
- B - 4 TO 10 YEARS
- C - 11 TO 24 YEARS

I-95 & MERRITT PARKWAY

1	I-95	State of CT	Long Range Comprehensive Plan	\$750,000	A
2	Merritt Parkway	Greenwich to New Canaan Border	Greenway Trail	\$15,000,000	A
TOTAL				\$15,750,000	

MAJOR ARTERIALS

1	Route 1 (Tresser Boulevard)	Atlantic Street to Washington Boulevard	Reconstruct Median	\$1,500,000	B
2	Route 1 (Tresser Boulevard)	Atlantic Street to Washington Boulevard	Mid Block Crossing	\$500,000	B
3	Route 1 (Tresser Boulevard)	Greyrock Place to Elm Street	Mid Block Crossing	\$500,000	B
4	Route 1 (Tresser Boulevard)	Canal Street to Elm Street	Reconstruct Median	\$2,000,000	B
5	Route 104 (Long Ridge Road)	Cold Spring Road to Merritt Parkway	Access Management Plan	\$150,000	B
6	Route 104 (Long Ridge Road)	Roxbury Road and Stillwater Road	Intersection Improvement	\$3,000,000	A
7	Route 137 (High Ridge Road)	Cold Spring Road to Merritt Parkway	Access Management Plan	\$250,000	B
8	Route 137 (Washington Boulevard)	Hoyt Street	Add SB Left Turn Lane	\$750,000	B
9	Route 137 (Washington Boulevard)	Division Street to North State Street	Reconstruct Median	\$1,500,000	A
10	Route 137 (Washington Boulevard)	Summer Place	Add SB Left Turn Lane	\$500,000	B
TOTAL				\$10,650,000	

No	Project Location	Limits	Proposed Improvements	Project Cost	Priority
COLLECTOR AND LOCAL ROADWAYS					
2	Canal Street	Ludlow Street to Jefferson Street	Reconstruct Roadway	\$5,000,000	B
3	Cove Road	Shippan Avenue to Seaside Avenue	Reconstruct Roadway	\$10,000,000	B
4	Elm Street	Tresser Boulevard	Add SB Left turn lane	\$400,000	A
5	Glenbrook Road	Hamilton Avenue	Intersection Improvements	\$750,000	C
6	Intervale Road	Turn of River Road to John Road	Roadway Improvements	\$5,000,000	C
7	Main Street	Summer Street	Intersection Improvements	\$1,000,000	B
8	Newfield Drive	John Road to Newfield Avenue	Roadway Improvements	\$2,500,000	C
9	Pepper Ridge Road	Vine Road	Intersection Improvements	\$1,000,000	B
10	Stillwater Road	Cold Spring Road to Stillwater Avenue	Roadway Improvements	\$5,000,000	A
11	Stillwater Road	Roxbury Road to Pond Road	Safety Improvements	\$2,000,000	A
12	Spring Street	Summer Street to Bedford Street	Reconstruct Roadway	\$1,000,000	B
13	Toms Road	Upland Road to Hope Street	Roadway Improvements	\$8,000,000	C
14	Turn Of River	Buxton Farm Road to Intervale Road	Roadway Improvements	\$2,000,000	A
15	Washington Boulevard	Station Place to Pulaski Street	Widen to 4 Lanes	\$2,000,000	B
16	Washington Boulevard	Pulaski Street	Intersection Improvements	\$2,500,000	B
17	Washington Boulevard	Pulaski Street to Dyke Lane	Reconstruct Roadway	\$4,000,000	B
18	Washington Boulevard	Dyke Lane	Intersection Improvements	\$500,000	B
TOTAL				\$54,650,000	

ENHANCEMENT PROJECTS

1	Magee Avenue	Jefferson St to Shippan Ave	Sidewalk/On-Street Bicycle Route	\$1,450,000	B
2	Mill River	Broad Street to Scalzi Park	Pedestrian/Bicycle Trail	\$2,500,000	B
3	Mill River	Broad Street Bridge	Pedestrian/Bicycle Trail	\$3,000,000	C
4	Mill River	Main Street to Broad Street (East Side)	Pedestrian/Bicycle Trail	\$1,000,000	B
5	Mill River	Richmond Hill Avenue to Tresser Boulevard	Pedestrian/Bicycle Trail	\$750,000	A
6	Mill River	Richmond Hill Avenue to Pulaski Street	Pedestrian/Bicycle Trail	\$2,000,000	B
7	Harbor Area	Marshall Trucking Site	Pedestrian/Bicycle Trail	\$350,000	B
8	Harbor Area	Northeast Utilities Site	Pedestrian/Bicycle Trail	Developer	B
9	Harbor Area	Petro Site	Pedestrian/Bicycle Trail	Developer	B
10	Harbor Area	Woodland Cemetery	Pedestrian/Bicycle Trail	\$1,000,000	B
11	Main Street	Washington Boulevard to Clinton Avenue	Streetscape	\$1,000,000	A
12	Mianus Route	Scalzi Park to Mianus River Park	Bicycle Route	\$2,000,000	C
13	Richmond Hill Avenue	Greenwich Avenue to Wilson Street	Streetscape	\$2,000,000	A
14	City Wide	City Wide	Bicycle Rack Placement Program	\$100,000	B
15	Transportation Center	Transportation Center	Bicycle Lockers	\$75,000	B
TOTAL				\$17,225,000	

CITY OF STAMFORD
LONG RANGE TRANSPORTATION PLAN

August, 2004

No	Project Location	Limits	Proposed Improvements	Project Cost	Priority
TRANSIT : BUS, RAIL AND INTERMODAL					
1	Ferry Terminal	West Branch and Atlantic Street	Terminal & Parking Facility	\$7,500,000	A
2	Commuter Connection	Downtown	Improved Service	\$100,000	A
3	Commuter Connection	South End, Water Side	New Service	Transit	A
4	Glenbrook Train Station	Station	Enhancements	\$75,000	A
5	Springdale Train Station	Station	Enhancements	\$75,000	A
6	North Stamford	North of Merritt Parkway	Small Buses, Expanded Service	Transit	B
7	South End	Transportation Center - South End Loop	Light Rail	Transit	C
8	Bull's Head	Transportation Center - Bull's Head loop	Light Rail	Transit	C
8	City Wide	City Wide	Automatic Vehicle Location System	Transit	B
10	Train Station Study	Route 1	Transportation Study	\$350,000	B
11	Train Station Parking Study	Springdale & Glenbrook	Transportation Study	\$250,000	B
TOTAL				\$8,350,000	
BRIDGES					
1	Pulaski Street	Pulaski Street	Bridge Replacement	\$3,000,000	B
2	Farms Road	Farms Road	Bridge Replacement	\$1,500,000	B
3	Cold Spring Road	Cold Spring Road	Bridge Rehabilitation	\$1,100,000	B
4	South State Street	South State Street	Bridge Rehabilitation	\$500,000	B
5	Richmond Hill Avenue	Richmond Hill Avenue	Bridge Rehabilitation	\$600,000	B
6	June Road	June Road	Bridge Rehabilitation	\$500,000	B
TOTAL				\$7,200,000	
ITS PROJECTS					
1	Downtown	Downtown	Parking Guidance System	\$2,500,000	B
2	City Wide	City Wide	Traffic Signal System	\$5,000,000	A
TOTAL				\$7,500,000	
OTHER PROJECTS					
1	City Wide	City Wide	Street Sign Program	\$700,000	B
2	City Wide	City Wide	Safe Routes To School Program	\$1,000,000	B
3	City Wide	City Wide	Traffic Calming	\$1,500,000	A
4	City Wide	City Wide	Traffic Park - Educational Facility	\$5,000,000	C
5	Transportation Center	Downtown, South End, Waterside	Pedestrian Safety Program	\$7,500,000	B
6	Downtown	Old Town Hall/Veteran Park	Bus Shelters - Plaza	\$250,000	A
7	Downtown	Downtown	Kiosks	\$100,000	A
TOTAL				\$31,050,000	

SUMMARY

HIGH PRIORITY - EARMARK PROJECTS	\$296,485,000
SURFACE TRANSPORTATION PROGRAM (STP)	\$24,377,500
I-95 & MERRITT PARKWAY	\$15,750,000
MAJOR ARTERIALS	\$10,650,000
COLLECTOR AND LOCAL ROADWAYS	\$54,650,000
ENHANCEMENT PROJECTS	\$17,225,000
TRANSIT : BUS, RAIL AND INTERMODAL	\$8,350,000
BRIDGES	\$7,200,000
ITS PROJECTS	\$7,500,000
OTHER PROJECTS	\$31,050,000
TOTAL	\$473,237,500

Table 14
CITY OF NORWALK: TRANSPORTATION PROJECT CANDIDATES - AUGUST 2004

No	Project Location	Limits	Proposed Improvements	Project Cost	Year
TRAFFIC SIGNAL & SIGNAL SYSTEMS					
1	Strawberry Hill Avenue	Route 136 to Route 1	signal system interconnect	\$400,000	TBD
2	Redcoat Lane at Fox Run Road	Redcoat Lane at Fox Run Road	replace obsolete traffic signal	\$120,000	TBD
3	Strawberry Hill Avenue & Tierney	Strawberry Hill Avenue & Tierney	new traffic signal	\$150,000	TBD
				Subtotal \$	670,000
INTERSECTION IMPROVEMENTS					
1	Cannon Street & East Rocks Road	Cannon Street & East Rocks Road	intersection improvements	\$300,000	TBD
2	Route 53 (Newtown Avenue) & Dry Hill	Route 53 (Newtown Avenue) & Dry Hill & Murray	intersection improvements	\$230,000	TBD
3	Fairfield Avenue & Cedar Street	Fairfield Avenue & Cedar Street	intersection improvements	\$230,000	TBD
				Subtotal	\$760,000
ROAD RECONSTRUCTION					
1	Washington Street	Water Street to Flax Hill Road	road reconstruction	\$1,100,000	TBD
2	Fairfield Avenue	Flax Hill Road to Route 1 (Connecticut Avenue)	road reconstruction	\$600,000	TBD
3	Scribner Avenue	Flax Hill Road to Route 1 (Connecticut Avenue)	road reconstruction	\$850,000	TBD
4	Williams Street	Strawberry Hill Road to County Street	road reconstruction	\$1,100,000	
				Subtotal	\$3,650,000
EARMARK PROJECTS					
1	Route 1 Cross Street Feasibility Study	Belden Avenue to Route 53 (Newtown Road)	road reconstruction	\$500,000	FFY2004
				Subtotal	\$500,000
				Total \$	5,580,000
STUDIES					
TBD	Merritt 7 Area Transportation Study	Merritt 7 office park, and vicinity	comprehensive transit & traffic study	TBD	TBD
TBD	South Norwalk RR Intermodal Concept Plan	South Norwalk Railroad Station	develop concept plan for SoNo Intermodal area	TBD	TBD

Note: TBD = to be determined
Source: Norwalk DPW August 2004 and SWRPA August 2004

Table 15
NORWALK TRANSIT DISTRICT PROJECT CANDIDATES - AUGUST 2004

No	Project Name	Location	Proposed Improvements	Project Cost	Year
EARMARK PROJECTS					
	Pulse Point Security and Safety Point	Wall Street, Norwalk, NTD pulse point	improve safety, security & amenities	\$614,000	FFY2004
				Subtotal	\$614,000
ENHANCEMENT PROJECTS					
	Artwork for NTD Facility	Norwalk Transit District administrative offices	purchase/restore art (WPA murals)	\$15,000	FFY2004
	Artwork for NTD Facility	Norwalk Transit District administrative offices	purchase or restore artwork	\$15,000	FFY2005
	Artwork for NTD Facility	Norwalk Transit District administrative offices	purchase or restore artwork	\$15,000	FFY2006
	Artwork for NTD Facility	Norwalk Transit District administrative offices	purchase or restore artwork	\$15,000	FFY2007
	Bus Shelters	Westport for Coastal Link (2), Greenwich RR (1)	install bus shelter(s)	\$36,000	FFY2004
	Bus Shelters	Westport for Coastal Link (1), Greenwich RR (1)	install bus shelter(s)	\$36,000	FFY2006
	Bus Shelters	Westport for Coastal Link (1), Greenwich RR (1)	install bus shelter(s)	\$36,000	FFY2007
	Bicycle Racks for Buses	Coastal Link & 7 Link	purchase & install bike racks	\$12,000	FFY2004
	Information kiosks	South Norwalk Railroad Station	kiosks to provide transit information	\$45,000	FFY2005
				Subtotal	\$225,000
				Total	\$839,000

Source: NTD August 2004 and SWRPA 2004

INCIDENT MANAGEMENT

Congestion has two components: recurring congestion -- the predictable delay caused by highway demand exceeding capacity; and non-recurring or incident-related congestion -- the unpredictable delay caused by incidents. Incidents include accidents/crashes as well as a wide variety of other events related to malfunctioning vehicles, debris or spills on the roadway, weather, etc. Through incident management the severity and duration of this type of congestion can be reduced.

The South Western Region Metropolitan Planning (MPO) formed an Incident Management Team (formerly called the Freeway Management Team) in 1991. Composed of local emergency responders (police, fire, EMS), traffic and public works personnel, and agencies such as ConnDOT, the State Police, and Towing and Recovery Professionals, the Team meets to develop plans for coordination of activities and responses to incidents, critique past efforts, increase awareness and working relationships, and participate or review incident management studies and projects. I-95 incident management diversion routes, standpipe plans, and an interagency communications study have been completed with tangible results. Desktop and full scale field exercises have tested and improved Incident Management Team capabilities by leading to revisions in procedures that enhance emergency agency responsiveness. The SWRPA Corridor Emergency Communications Project has reached the implementation stage, and will result in improvements to the Department of Public Safety's 800 ITAC/ICALL system that will enable better interagency communications for responders in South Western and Greater Bridgeport areas, will update ConnDOT's Bridgeport Operations Center software and upgrade highway advisory radio systems broadcast quality and area. Since 2002, the region has participated in the Statewide Incident Management Task Force which developed the TSB Incident Management Task Force White Paper (October 2003). This report, endorsed by the TSB in November 2003, recommends policies and implementation plans to enhance Connecticut's incident management programs and their effectiveness. Key recommendations that were implemented in 2004 include: creation of a permanent statewide Incident Management Task Force, which includes representatives from the South Western Region; FY2005 funding for expansion of the highway motorist assistance program (CHAMP) with expansion to Route 7 and the Merritt Parkway; funding for development of additional diversion route plans in electronic format with updating of the 1992 southwest corridor diversion route plans in electronic format for use by emergency responders and the public; and change in the state statutes to reduce the time that disabled or abandoned vehicles can be left on shoulders of expressways to 6 hours. The Statewide Incident Management Task Force is addressing the other key recommendations, including: preplanning of incident response and development of a unified response manual; implementation of the incident command system as accepted state policy, and supported by manuals, training programs, after-incident review procedures, and on-going coordination; updating of the state's incident management policy; resolution of towing and recovery issues; creation of a unique state website for Connecticut Traveler Information Programs with incident management information posted; expansion of regional incident management teams modeled on the South Western and Capitol Region teams; and, implementation of public awareness programs to support effective incident scene management. Other recommendations that will be addressed include: live video feeds or restricted internet access to traffic cameras for appropriate responders; enhanced interoperable interagency communications for incident response; expand the standpipe program.

Recommended Strategies

Near Term

- Continue Incident Management Team meetings, activities and training.
- Support the activities of the Statewide Incident Management Task Force.
- Establish the Unified Command System (UCS) and National Incident Management System (NIMS) as Connecticut's standard for incident command, adopt at the municipal level, and develop appropriate unified response manuals and supportive training and exercises.
- Continue to enhance the working relationships of agencies involved in incident management.
- Advocate for the state to provide municipal access to the resources and technology of the State's Incident Management Program through live video feed or secure internet access to traffic cameras.
- Develop the South Western Region Intelligent Transportation Systems (ITS) Plan. The activity is funded and will be completed in 2005 in cooperation with the state, the Incident Management Team, and other stakeholders.
- Institute an Incident Management program for the Route 15 corridor, including highway assistance patrol (CHAMP), traffic cameras, and other program measures. The concept for expansion has been approved by the TSB and ConnDOT, with funding for additional CHAMP vehicles.
- Support real-time traveler information systems and a state 511 program.
- Continue to work with New York State, Westchester County, the I-95 Corridor Coalition and others on incident management and information/communication/monitoring systems.
- Bring the .2 milepost marker system into a state of good repair, and maintain it.
- Encourage ConnDOT to complete its study of '511' traveler information systems, and advocate for implementation of a multi-modal 511 traveler information system.
- Support multi-agency and multi-modal coordinate emergency preparedness response planning, training, and secure resources for effective programs.
- Institute a program for cost recovery that will reimburse municipalities for emergency response to incidents on I-95, Route 15 and Route 7 expressway.
- Develop a "truck information" webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the [ConnDOT Incident Management webpage](#) where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs. For the Merritt Parkway, use restrictions, bridge clearance restrictions, penalties and alternative routes would be included. Information on incidents and diversions could be posted on this site.

Longer Term

- Develop and implement an interoperable interagency communications system for incident management and emergency response for the South Western Region and adjacent regions as funding permits.
- Implement the South Western Region Intelligent Transportation Systems (ITS) Plan and regional

- ITS architecture to enhance incident management program effectiveness.
- Implement the Diversion Route Signing Project (SWRPA 1998).
 - Institute .1 milepost reference system and maintain it.
 - Include public rest areas in the ConnDOT traffic camera surveillance program.
 - Plan for future installation of cameras for surveillance and security of rail lines and stations.
 - Implement automatic vehicle location systems (AVL) and related dispatching programs for emergency responders, transit and other partners in incident management.
 - Implement a Connecticut 511 system.

CONGESTION MANAGEMENT SYSTEM

Background

The metropolitan planning region covered by the South Western Region Metropolitan Planning Organization (SWRMPO) was designated as a Transportation Management Area (TMA) as a result of population growth measured by the 2000 Census. As a result, the SWRMPO is required to develop and implement a congestion management system (CMS) as part of its Long Range Transportation Plan.

The SWRMPO, through the South Western Regional Planning Agency (SWRPA), anticipated the future need to comply with federal CMS requirements. In 1999, SWRPA sought funding for a corridor-level congestion mitigation study through the Connecticut Department of Transportation (ConnDOT). In early 2001, ConnDOT entered into an agreement with SWRPA that provided federal CMAQ and state funds to conduct such a study. The study, called the Congestion Mitigation Systems “Vision 2020” Plan, began in May 2001 and was completed in February 2003. The primary objective of this planning effort was to develop a vision for transportation in the corridor that focused on the transport needs and travel patterns of the commuters and shippers who are the “customers” of the region’s transportation system.

The purpose of this study was identify strategies that support safe, reliable, convenient and affordable travel options for the movement of persons and goods in and through southwestern Connecticut, with a focus on those travel options which have the greatest potential for reducing traffic congestion, improving environmental quality, promoting sustainable growth and offering long-term, flexible opportunities for increasing transportation system capacity.

The Vision 2020 report concluded that there is no single solution for mitigating congestion in southwestern Connecticut. The report recommends that transportation and land use strategies must be coordinated to form a comprehensive transportation system with immediate, mid-term and long-term planned actions. These actions include improving the efficiency, operation and safety of existing transportation systems, better managing the demand for travel, and increasing the supply of transport services. Specific study recommendations have been incorporated throughout this Long Range Transportation Plan.

Process

SWRPA used the Vision 2020 report as the foundation for the development of the South Western Region Congestion Management System Technical Memorandum. This technical memorandum was submitted to the FHWA and ConnDOT in January 2004, and defines the Region’s approach to congestion management systems.

The CMS technical memorandum provides an outline of those activities that will be undertaken by SWRPA during the first 18 months of the CMS implementation period. These activities are organized by category: planning and coordination; data collection and analysis; development of performance measures; evaluation of systems performance; and reporting. SWRPA began implementation of its CMS in early 2004 as

required by federal transportation planning program regulations.

Recommended Strategies

Planning and Coordination. SWRPA will be involved – either as a lead agency or as a participant – in activities to improve passenger and freight transport services, enhance coordination between SWRPA and its partners in adjacent planning regions, and better link land use and transportation planning efforts within the South Western Region.

SWRPA also will actively advocate for the development of an urbanized area-wide CMS. Through the Bridgeport-Stamford Urbanized Area Planning and Coordination, SWRPA will educate its peer agencies about the benefits of an urbanized area-wide CMS and seek consensus on the development of such a CMS during the next LRTP update cycle. SWRPA will invite ConnDOT and the FHWA to be partners in this process.

Data Collection and Analysis. SWRPA will engage in data collection and analysis activities to identify baseline conditions and characteristics, and review, reorganize and update data collected as part of the Vision 2020 planning process.

To date, SWRPA has obtained the following data sets: (1) data collected and analyzed as part of the Vision 2020 planning process; (2) Census, 2000; and (3) the Department of Transportation’s 2003 CMS Data Book. Initially, this data will be separated into two categories: transportation networks, and geography and population.

It is anticipated that these initial data collection and analysis activities will be completed by December 31, 2004.

Development of Performance Measures. The Vision 2020 study identified acceptable system performance as Level of Service (LOS) “C” or better. This study also identified five metrics that provide a basis for measuring transportation system performance. Those metrics are travel time, vehicle miles traveled, mode shift, accessibility and safety. Over the next 18 months, SWRPA will review those assessments and the underlying data to determine whether those metrics will be incorporated into the CMS as proposed in the Vision 2020 study or modified.

The following framework will be used to guide this process:

Defining congestion.

- o Focus on peak period only, or also consider off-peak times?
- o Identify the start/end times for peak periods.
- o Use performance measures as basis.
- o Consider the technical and policy perspectives.
- o Should corridor and “hot spot” congestion be defined differently?
- o Analyze patterns of incidents.

Develop method for analyzing recurring v. non-recurring congestion.

- Establishing performance measures.
- Acceptable V/C ratio (corridor, “hot spot”)?
- Acceptable LOS (corridor, “hot spot”)?
- Acceptable accident rates (e.g. targeted reduction over current)?
- Acceptable hours of congestion (e.g. targeted reduction over current)?
- Percentage increase in travel speed desired?

Strategy Evaluation. Through its Vision 2020 study, SWRPA has identified a collection of strategies that will help mitigate the growth of traffic congestion in the South Western Region. These strategies have already been screened, evaluated as a package and incorporated into this Long Range Transportation Plan.

Future evaluation will be conducted using the process developed for the Vision 2020 study. First, possible improvements will be identified as a systems management, a demand management or a capacity enhancing improvement. The placement of individual improvements along this continuum will assist in the initial assignment of priorities. Improvements then will be reviewed on the basis of professional judgment to determine their potential to achieve:

1. Reduction in person trips during peak periods
2. Reduction in VMT during peak periods
3. Measured shift from SOV to other modes
4. Measured shift from SOV to HOV
5. Measured improvement in systems/operational efficiency, e.g. on-time performance etc.
6. Desired capacity increases

SWRPA will also seek to identify quantitative methods for evaluating strategies and improvements that survive the initial screening and assessment process. Such quantitative methods will be designed once performance measurements have been developed. Thus, no such activities are planned during this initial phase of CMS implementation.

Progress Reports and Updates to CMS. During this initial phase of CMS implementation, interim progress reports will be made fiscal year. Updates to the CMS will be prepared to coincide with updates to the LRTP or as needed.

Recommended Projects

Near Term

- There are 4 new studies and 1 already-funded study included in this Plan that will contribute to congestion management and mitigation. They are:
 1. Southwest Corridor Safety and Operations Engineering Study funded by the State/TSB.
 2. The proposed Route 7 Corridor Needs Assessment for Route 7 between Olmstead Hill Road, Wilton and Route 35, Ridgefield.

3. Route 1 Darien congestion, circulation and access management study.
 4. Stamford Transportation Investment Strategy Study.
 5. Regional Transit Strategies Study.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service. Near-term the mobility needs of the Route 7 corridor must be addressed. Highway and power transmission projects in the Route 7 corridor will create significant construction-related congestion. Construction-related disruptions will start with Route 15 and Route 7 Interchange Phase 1 and Route 7 widening projects in Ridgefield that are scheduled to start construction in 2005. Construction of the CT Siting Council approved 345kV transmission line along Route 7 will further reduce the ability of Route 7 to handle traffic. In 2006, the Route 7 widening projects in Wilton will be initiated, further disrupting the use of Route 7 by passenger and commercial traffic. In 2008 – 2011, construction of Route 15 and Route 7 Interchange Phase 2, will take place. Transit options to mitigate construction-related congestion include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor; express bus from the Danbury area to Stamford via I-684; continued support for 7Link bus service and enhanced service; and new incentive-based ridesharing programs.
 - Implement corridor communications programs for major transportation projects modeled on the I-95 New Haven Harbor Crossing Corridor (Q-Bridge) program to provide information to users and officials about construction and maintenance activities. Immediately advocate for initiation of a Route 7 Corridor Communications Program that involves the participation of SWRMPO, SWRPA, HVCEO, the business community and other stakeholders in the Route 7 corridor.
 - Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).

BRIDGES

Background

Since the collapse of the I-95 Mianus Bridge in the early 1980's the State of Connecticut has had an comprehensive program of monitoring and funding for rehabilitation, repair and replacement of deficient or functionally obsolete bridges. Two decades of systematic investment have resulted in more structurally safe and functional bridges. According to the ConnDOT 2003 Master Transportation Plan, there are 5,082 bridges statewide⁷. Only 395 bridges or 8% are classified as being in poor condition, 50% are in fair condition, and 42% are in good condition, and 67 structures are posted with load restrictions. In comparison, only 21% (74) of the South Western Region bridges are classified as good, 64% (229) are fair, 53 (15%) are in poor condition, and 12 have load-posted restrictions. This discrepancy is, in part, attributable to inadequate funding for local bridges. Typically, less than 30% of the cost of bridge rehabilitation, repair or replacement is paid by the state through grant programs, the remainder is funded by municipalities.

With respect to local bridges, there are 28 bridges (20 feet or more in length) and 13 bridges or culverts (less than 20 feet) that qualify for grants or loans through the state Local Bridge Program (ConnDOT FY2005 Local Bridge Program).

In 2004, ConnDOT implemented an automated bridge scour monitoring system, called ScourWatch, that is part of a scour critical bridge action plan. Bridges that have spans greater than 20 feet in length and that are classified as "scour critical" are included. Under the ScourWatch system, a scour critical event will trigger notification to the responsibility agency. The event is usually rainfall or stream flows where sufficient soil may be eroded and possibly undermine the structure and endanger its stability and safety. There are 11 state structures, and 36 structures that are scour critical in the South Western Region.

Process and Goals

The goal is to improve all deficient structures as soon as possible, and to provide adequate funding to inspect, maintain, rehabilitate or replace all state and local structures. The process is to use ConnDOT inspection findings and recommendations in concert with local priorities as the basis for developing a program of recommended bridge improvements. Often the investment required to rehabilitate, replace or even adequately maintain a local structure exceeds a municipality's means.

Recommended Strategies

- Continue funding for the State Bridge Program but at an increased level.
- Advocate for increase state funding for the Local Bridge Program and develop new local bridge

⁷ The bridges are 20 or more feet in length, maintained by the state or town, and are not private or pedestrian structures.

programs that provide adequate funding so that all local bridge deficiencies can be addressed in a 10 year timeframe.

- Make local and regional needs and priorities known to state and federal officials.
- Institute a town aid grant program for local bridges that would provide funds for maintenance of all locally maintained structures (un-funded need).

NOISE BARRIERS

Background

The increase in traffic along with the increase in truck traffic and truck size now that tandems are allowed on I-95, has increased local interest in mitigating highway noise. Since 1990, ConnDOT has not constructed new stand-alone noise barriers. The ConnDOT policy adopted in 1997 provides for projects to mitigate highway construction projects (Type 1), but does not initiate stand-alone noise barrier projects to correct existing deficiencies (Type 2 noise barrier projects), although Type 2 projects are eligible to use federal transportation funding.

The latest available information on the extent of noise problems along limited access highways is the ConnDOT 1995 update of a 1985 study. In the South Western region, there 31 locations on ConnDOT's 1995 list. To install barriers for the locations is estimated to cost \$16.25 million (2004, using a cost factor of \$1.5 million per mile, for the 55,500 feet of barrier required). Residents, community groups and elected official continue to express interest in new barriers along I-95, Route 15, and Route 7 in the South Western Region.

Recent advances in noise barrier material have produced more esthetically-pleasing options for barriers that are also more durable, have longer life spans and cost less than wood. It is now easier to install 'context sensitive' barriers that are acceptable to abutting property owners.

The challenges are to determine the extent of the noise problem on limited access highways and to develop a proactive policy and plan to remedy deficiencies supported by funding.

Recommended Strategies

The recommendation is to create a new noise barrier program, using the existing retrofit barrier priority list as a starting point. The new program will require state legislative action to mandate and fund a Type 2 noise barrier program (stand alone noise barriers that correct existing deficiencies), and to revise the ConnDOT policy to permit construction of Type 2 barriers. The noise barrier program should provide funding for new barriers, adequate maintenance of existing barriers, and barrier replacement when the useful life (20-50 years) has been reached.

- Advocate for creation of a statewide noise barrier program through the legislature that will fund Type 2 (stand alone barriers), maintain existing barriers, and replace obsolete barriers.
- Revise the existing ConnDOT policy to permit a 'retrofit noise barrier' program.
- ConnDOT should continue to research best practices and new technology.
- ConnDOT should evaluate the effectiveness of already-installed to guide future specifications and maintenance, and to guide priority-setting procedures.
- Secure funding for 'retrofit noise barriers' in the South Western Region.
- Change specifications and bidding process to enable use of best technology and context sensitive design

barriers rather than low bid barriers.

- Adequately maintain noise barriers to maintain functionality and prevent eyesores.
- Establish planned replacement program for existing barriers when life-cycle has been reached (20-50 years).
- Design and install barriers that provide emergency personnel access (doors to nearby fire hydrants).

TRANSIT SYSTEM: BUSES

Background

The present bus service in the Region is a mosaic of services and management arrangements. Service in Westport and Norwalk is provided by Norwalk Transit District operating under the jurisdiction of the Norwalk Transit District and the Westport Transit District, funded by FTA, the State of Connecticut, and the towns within the districts. Service in Stamford is provided by Connecticut Transit (CT Transit) which is the contracted bus operator for the Connecticut Department of Transportation (ConnDOT) and funded entirely by the state and federal funds. The CT Transit's service area includes Greenwich, Stamford and Darien, with connections to Norwalk via Route 1 buses. In addition, commuter connections linking railroad stations and employment sites are provided in Greenwich, Norwalk and Westport by the Norwalk Transit District, and in Stamford by CT Transit. Inter-regional bus service links Stamford to White Plains via CT Transit I-Bus, Norwalk to Milford via Coastal Link provided by the Norwalk Transit District, the Greater Bridgeport Transit Authority, and the Milford Transit District. Route 7 Link service between Norwalk and Danbury is provided by the Norwalk Transit District and HART (Housatonic Area Transit). Transit services for the elderly and disabled are described in the next section of the Plan.

In 1994 and 1995, SWRPA prepared a comprehensive Transit and Transportation Demand Management Study which led to the 1995 update of the Region's Long Range Transportation Plan (SWRPA 1995). Positive outcomes from this effort were implementation of: Stamford/White Plains bus service (I-Bus in 1996) and extended evening hours on weekdays for CT Transit Stamford (1996). SWRPA's 1995 commuter connections feasibility studies for Darien, Norwalk and Stamford resulted in new Norwalk services. In 1999, U.S.DOT Access To Jobs funding made it possible to extend weekday and Saturday hours of service in Stamford and Norwalk, initiate Sunday service in Stamford and for I-Bus, and to implement the Coastal Link, bus service on Route 1 between Norwalk and Milford. Additional funding from the CT Department of Social Services (DSS), along with support from the TSB, increased Coastal Link service and commuter connection routes and services, including the Route 7 Link service between Norwalk and Danbury.

The Connecticut DOT Statewide Bus System Study, July 2000 evaluated local bus service and recommended efficiency improvements that included additions and reductions, and enhancements that offer new services or additions to existing services. The study found that most Connecticut systems are average or better than average when compared to national peers with respect to productivity and cost effectiveness. The study identified issues that needed to be addressed, including: implementing bus service changes at the local level; securing funding for recommendations; serving less dense areas using flexible services; attracting 'choice' riders; creating seamless and coordinated interregional connections; and responding to changes by ongoing monitoring and systems revisions. The suggested implementation timeframe for the study was about 5 years or 2005. Recommendations relevant to the South Western Region are noted in Table 16.

The South Western Region Metropolitan Planning Organization Transportation Investment Area Plan for the Coastal Corridor (October 2001) recommended strategies that support transit including:

- Encourage development of multi-modal transportation to facilitate movement of persons and goods throughout the Coastal Corridor TIA.
- Reinforce a transit agenda by promoting incentives for use and development of mass transit, seamless transfers between multiple modes and increased choices for commuters.
- Target development to encourage preservation of community character, revitalization of urban centers and support development or expansion of transit networks.
- Promote more efficient use of existing transportation facilities and infrastructure with an emphasis on integration, safety and connectivity of services.
- Use technology to improve transportation planning, management and operations.

Recommendations related to bus transit include:

- Develop and implement a universal fare card and collection system for all transit services statewide.
- Expand bus services connecting with rail services in the Coastal Corridor TIA, as proposed in Section 16(a)(6).
- Provide operating funding to expand bus services for existing and new western Connecticut commuters to utilize Metro-North's Upper Harlem Line for commuting to New York City and White Plains, as proposed in Section 16(a)(12).
- Develop "commuter connections" between transportation hubs, residential areas and employment centers.
- Implement the recommendations from the *Route 7 Travel Options Implementation Plan*, prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials.
- Provide annual operating support to replace expiring *Access to Jobs* grants for the Coastal Link, later evening bus service route extensions and customized paratransit services for residents in the cities of Bridgeport, New Haven, Norwalk, Stamford and Waterbury, as proposed in Section 16(a)(1).
- Where demand exists, provide for more inter-district, inter-town, inter-regional and interstate bus service like the Coastal Link

In 2002, the Norwalk Transit District developed the Pulse Point Safety and Security Project for its existing hub at Wall Street. Earmark, FTA and local funding will lead to enhanced passenger amenities and safety as well as traveler information when the project is implemented in 2006.

The 2003 SWRPA Congestion Mitigation Study "Vision 2020" investigated various bus transit options, including bus rapid transit for major corridors. A long term recommendation was to further exploration of bus rapid transit for Route 1 was recommended, with inland north-south bus rapid transit possibilities to be considered in the future. Near term strengthening of intermodal hubs with strong bicycle and pedestrian connectivity to rail and bus services, along with ITS technology to provide real time traveler information was recommended for Stamford Transportation Center and the South Norwalk rail stations.

New transit maintenance/offices were constructed for both the Norwalk Transit District and CT Transit Stamford. The Norwalk Transit District facility was opened in 2002, and the expanded and renovated CT Transit Stamford facility was opened in 2004. The State's bus replacement program which plans for routine replacement of the fixed route bus fleet at 12 years of age, has resulted in new buses for both operators.

Some changes in local bus service have been made to improve service, connections and continuity while reducing expenses. Both CT Transit and Norwalk Transit District have reconfigured bus routes and hours of service, and increased adult fares. The Norwalk Transit District fare is \$1.25, and the CT Transit fare is \$1.10 with an increase to \$1.25 scheduled to take effect January 1, 2005.

Two issues which need to be addressed include service sufficiency and funding. The viability of current services and the need for additional transit services is usually addressed only when funding is constrained. Adequate funding is needed to keep the bus fleets in a state of good repair, to provide current services, including fixed route, shuttle, commuter connections and services funded through Access to Jobs, CT DSS, TSB and other special funding sources.

The long range transportation plan proposes development of a number of essential planning studies that will guide investment in transit for the next 25 years, including a regional transit strategies plan, Stamford Transportation Investment Strategies, Stamford Transportation Center Master Plan, and immediate action operations plans for the Stamford Transportation Center, as well as a concept plan for the South Norwalk Rail Station Intermodal Area, and a Merritt 7 Area Transportation Study. Secure and sustainable funding is critical to continue existing transit services, and expand transit services to increase mobility, access and choice. Bus and shuttle transit is proposed to support and mitigation for construction disruptions is advocated, particularly in the Route 7 corridor where highway, power transmission lines, and rail signal communications projects will impact auto and rail travel. The long range plan encourages new technologies, such as real time traveler information, “smart cards”, and other Intelligent Transportation Systems programs that will be defined through the SWRPA ITS Plan, the ConnDOT regional ITS architecture, and specific studies. The recommended strategies and projects follow.

Recommended Strategies

Near Term

- Undertake a Regional Transit Strategies Plan that will develop the vision and an implementation plan for transit within the region and that will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry and air.
- Conduct the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access & arterial roadways, rail bridges & infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State’s I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Secure replacement State funding for Norwalk Transit District companion ADA service, if federal funding for transit operations is no longer available as a result of 2002 redesignation of Norwalk and Stamford into the consolidated Bridgeport-Stamford urbanized area.
- Adequately fund and assure sustained funding for inter-regional Route 1 service and the Coastal Link from Milford to Norwalk, with future funding for continuation of the service to Stamford,

Greenwich, Portchester and White Plains.

- Continue to fund 7Link inter-regional service between Norwalk and Danbury, increase service as warranted to keep up with demand and as a congestion mitigation measure in the Route 7 corridor.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service. For the Route 7 corridor construction disruptions will begin in 2005 and extend through 2011, with interchange projects, Route 7 widening in Norwalk, Wilton, Ridgefield and Bethel, and construction of the 345kV transmission line along Route 7. Transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor, express bus from the Danbury area to Stamford via I-684, continued support for 7Link bus service and enhanced service, also incentive-based ridesharing programs.
- Implement express bus service from Danbury area to Stamford via I-84, I-684, Route 287 and I-95 as a Route 7 construction mitigation measure.
- Increase demand responsive elderly and disabled transit
- Replace transit vehicles to maintain reliable and safe service.
- Continue to provide operating assistance to operators of public fixed route bus service at a level sufficient to maintain or expand service.
- Maintain and upgrade maintenance and administrative facilities to accommodate needs.
- Continue funding for the operation of existing commuter connections and modify service to respond to changing conditions and needs.
- Continue to develop “commuter connections” between transportation hubs, residential areas and employment centers.
- Conduct commuter connection studies for new residential or employment markets, refine existing services, and implement new services or modify existing services (e.g. South End, Waterside and downtown Stamford; Merritt 7, Norwalk; Greenwich downtown circulator options and commuter connections).
- Provide bus shelters, directional signing and information kiosks for transit use at hubs, pulse points and other key locations..
- Develop effective marketing programs for current and new services to enhance the public awareness of existing transit services and to encourage expanded use of the services.
- service.
- Improve intermodal connections between bus, rail, shuttles, bicycles and pedestrians.
- Provide transit services that promote access to jobs, and continue to work with regional partners on ‘Access to Jobs’ including; developing an inventory of transportation resources that assist job-developers and clients.
- Provide support to ‘People to Jobs’ and encourage development of a ‘transportation resource center’ that will provide current information on resources and will serve as the basis for matching clients, jobs and available transportation resources.
- Continue to work with officials from adjacent regions, and the New York Metropolitan area to collaborate in planning on public transportation issues, including corridor for public transportation solutions.
- Continue to support bicycle racks on buses.

- Advocate for funding to continue current transit services when special funding sources such as TSB’s Section 16 funding for Coastal Link and Route 7 Link, or FTA Access to Jobs funding expires.
- Regularly evaluate transit system operations, services and effectiveness and develop updated “transit development programs.”
-

Longer Term

- Develop long term plans for implementation of a universal fare card and collection system for all transit services statewide.
- Develop and implement “smart traveler” programs to provide real time transit information.
- Evaluate the feasibility of a reduced fee commuter bus/rail pass (supported by CMS 2020 survey respondents.)
- Identify express bus system possibilities (supported by CMS 2020 survey respondents.)
- Upgrade Norwalk Transit District and CT Transit Stamford operating capabilities to include “Intelligent Transportation Systems” or ITS capabilities to improve the efficiency and operation of existing bus services including but not limited to bus locator systems, dispatching, real time traveler information, electronic fare collection, and enhanced communications.
- Evaluate financing options, including the potential and advantages for a dedicated mass transit capital and operating fund.

Recommended Projects

Near Term

- Secure funding for the Regional Transit Strategies Study.
- Secure funding for the Stamford Transportation Investment Strategy Study.
- Develop South Norwalk Rail Station Intermodal Concept Plan.
- Prepare Merritt 7 Area Transportation Study.
- Implement enhanced transit services in the Route 7 corridor to counteract the negative impacts of construction in the corridor (2005-2011).
- Implement express bus service from Danbury area to Stamford via I-84, I-684, Route 287 and I-95 as a Route 7 construction mitigation measure.
- Increase shuttle service from South Norwalk rail station to Merritt 7 to keep pace with the growth in the state’s largest class A office park (un-funded need)
- Sustain funding for current shuttle, commuter connections, extended hours and days of service, Coastal Link, Route 7 Link once funding from sources such as the TSB’s Section 16 program, and FTA discretionary programs lapses.
- Expand commuter bus connections to the South End and Waterside neighborhoods and downtown Stamford (un-funded need).
- Implement Norwalk Transit District projects include Wall Street Pulse Point security and safety project (\$600,000 earmark, FTA 5307, and local funds), routine replacement of buses and other equipment, as well as enhancement projects for bus shelters, information kiosks (South Norwalk Rail Station), art work, and bicycle racks on buses.

- Prepare a Stamford Transportation Center Master Plan for near term and long term for capital projects, maintenance and operations, with a financial plan.
- Immediate action – conduct Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Immediate action – develop a Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.

**Table 16: South Western Region Bus Transit Recommendations
ConnDOT Statewide Bus Transit Study 2000**

CTTRANSIT Stamford Division

- **F-Norwalk** – Add one bus to ease loading during weekday peak-usage periods (7AM – 9PM, 2-6PM).
- **H-South End / H-Strawberry Hill** – Lengthen midday headways to 60 minutes to better match service to level of demand.
- **J-Route** – Modify to serve assisted living facility located on Palmers Hill Road, just north of Connecticut Avenue.
- **New Peak Period Express Bus Route** – Implement between New Canaan and downtown Stamford to supplement New Canaan Branch commuter rail service.
- **New Peak Period Express Bus Route** – Implement between Trumbull (Rt. 8/ Rt. 108) and downtown Stamford.
- **New Cross-town route** – Implement east-west service using smaller buses connecting Springdale to Stamford Hospital.
- **New Cross-town route** – Implement east-west service using smaller buses connecting Springdale to High Ridge/ Long Ridge.

Norwalk Transit District

- **Route 1-** Terminate at Ponus Middle School rather than operating out to Fox Run Elementary School.
- **Route 3** – Increase service level to provide service at 20 minute headways.
- **Route 5 and 6** – Combine lower portion of Route 5 to operate as part of a combined Route 5/6 that would operate north from the WHEELhub along Newtown and Wolfpit to Starlight Drive and Starlight at S.T.A.R., and then down Wolfpit to Westport Ave., and back to WHEELhub. The new route would operate on a 30 minute headway during the peak and 60 minutes during the off-peak and Saturdays.
- **Route 8** – Operate on alternate runs into the un-served area off Strawberry Hill Avenue.
- **Route 9** – Increase the service level to provide service at 20-minute headways.
- **Route 10** – Increase the service level to provide service at 20-minute headways.
- **Day-Tripper 10** – Eliminate tripper services in the peak periods.
- **Routes 11 and 12** – Reconfigure two loop routes (11 and 12) into two new routes, one which would operate from East Norwalk to Norwalk Community Technical College, and the other one which would operate from South Norwalk to Rowayton, terminating at Jacob Street/ Rowayton Avenue.
- **Route 13** – On its return trip, modify the route so that it uses Connecticut Avenue rather the West Cedar **and** increase frequency to 20-minute headways.
- Lengthen weekday off-peak headways on Route 1 & new Route 5/6 to 60 minutes.
- Change off-peak headways on all other routes from 35 to 30 minutes.
- Lengthen Saturday headways on Route 1 and 7.
- **New Sunday Feeder/ Distributor Service** – In conjunction with Coastal Link service, three routes similar to the three evening shuttles should be implemented to complement this service

Westport Transit District

- Set productivity standards for employer shuttles.
- Implementation of signed bus stops along daytime routes.

ELDERLY AND DISABLED TRANSPORTATION

Background

The Americans with Disabilities Act (ADA) was signed into law on July 26, 1990. This civil rights legislation was an outgrowth of nearly 20 years of debate on the issue of disability rights which mandates equal opportunity in employment, transportation, telecommunications, and places of public accommodations for individuals with disabilities.

The ADA delineates specific actions that public entities must take to avoid discrimination. These actions will have a positive effect upon the elderly and disabled population and include:

- All newly purchased or leased vehicles used in fixed route service must be accessible;
- Public entities which provide fixed route public transportation service also must offer comparable paratransit service;
- New facilities must be accessible;
- Alterations to transit facilities must include features to make them accessible;
- Bus stops must be announced on fixed route systems; and,
- Personnel must be trained to proficiency so that they operate vehicles and equipment safely and properly treat individuals with disabilities who use the service in a respectful and courteous way.

Plans have been prepared for each of the fixed route transit operators who outline specific measures to be taken to comply with ADA.

The elderly and disabled segment of society is increasing as the “baby boomer” generation begins to reach 60 years of age. In 2002, 17.9% of the region’s population was 60 years of age or older, which is comparable to the state’s percentage of 17.1%. More paratransit and specialized transportation services will be needed to serve the growing senior population.

The elderly and disabled transportation services provide vital to medical services for the elderly and disabled members of the community. The services are crucial for elderly residents with limited financial means, who live alone or who have no other means of transportation available to them. The elderly and disabled transportation services also serve the special needs of the emotionally and physically disabled youth of the region.

A collaborative effort of the People to Jobs Task Regional Transportation Task Force from 2002-2003 brought together diverse stakeholders such as the Connecticut Departments of Transportation and Social Services, transit operators, MetroPool, social service agencies including The WorkPlace and Kennedy Center, as well as the South Western Regional Planning Agency with the mission of educating the disabled and supporting service agencies about public transportation options for work trips. The project titled “Transit 101” developed a user-friendly publication “Getting On Board - The Southwestern Connecticut Accessible Transportation Guide”, a video “Opening Doors”, a travel training program, and various

handouts. There were multiple funding sources for this project, including U.S.DOT Access to Jobs and CMAQ, CT Department of Social Services and TANF grants, as well as the in-kind staff resources of the transit providers and regional planning agencies.

Recommended Strategies

- Promote increased mobility of the elderly and disabled through continued and enhanced transportation services.
- Routinely replace paratransit vehicles to maintain reliable and safe service.
- Explore possibilities for expanded cooperative purchasing, maintenance, training, education and marketing programs to cost-effectively support elderly and disabled transportation services.
- Continue accessible fixed route bus and complementary elderly and disabled service as required by ADA.
- Continue financial support for transit operations and transportation services for the disabled.
- Continue to coordinate existing services to avoid duplication and fragmentation of services.
- Continue to give priority for capital and operating assistance to those organizations that coordinate services; serve all disabled persons and that provide inter-town transportation.
- Seek to expand transportation services to the disabled elderly, as well as disabled youth as needed.
- Develop a senior transit options information program to educate seniors and supporting services of fixed route and paratransit services that are available.
- Participate in Everyone Rides and United We Ride programs with state, regional and local stakeholders to identify opportunities to maximize existing services and efficiencies and fill service gaps.

RAIL SYSTEM: PASSENGER SERVICE

Background

The South Western Region has an extensive commuter rail system. The MetroNorth New Haven Line provides intrastate and interstate rail service to New York City and New Haven with branch service to New Canaan, Danbury, and Waterbury. Shore Line East Service provides additional rail service between New Haven and New London, with some trains that connect directly with Stamford. Rail lines are depicted in Figure 4. Until 10 years ago, MetroNorth service was oriented to New York City. In the last decade, rail service improvements for intrastate and reverse commute trips have been made. Weekday intrastate service was enhanced in 2000 as part of the Governor's I-95 Initiative to reduce traffic by 5%. Through State/TSB Section 16 funding, additional Shore Line East express and limited stop service connecting New Haven with Bridgeport and Stamford in the morning peak, and Stamford with Bridgeport and New Haven in the evening peak were added in 2002 and 2003. At the same time, supporting commuter connection shuttle service coordinated with rail service was expanded in Stamford, Norwalk, Westport, and other towns through State/TSB funding. Additional rail parking was added at Bridgeport and Stamford, with more parking programmed for Bridgeport, Stratford, Wilton, Fairfield, New Haven, and either West Haven or Orange.

According to the Rail Car Fleet Replacement Plan: New Haven Line – Maintaining Connecticut's Rail Infrastructure (2004), the annual 2003 MetroNorth ridership was 33,034,554. There were 17,810,742 (54%) Connecticut passengers traveling interstate, 3,187,554 (10%) were passengers traveling intrastate, and 12,036,258 (36%) were New York passengers traveling intrastate. There are another 385,501 annual Shore Line East riders. Daily ridership on the Connecticut MetroNorth New Haven Line is approximately 55,600 passenger trips in 2001. Ridership is forecast to increase at 1.5% per year. As noted in the previous paragraph, supplemental intrastate service between New Haven and Stamford. Shore Line East service was added in 2000, 2002, and 2003 to connect New Haven and Stamford, with 2 morning express trains to Bridgeport and Stamford, and 2 afternoon express trains from Stamford to Bridgeport, New Haven and Shore Line East. Another 2 morning trains and 2 evening trains provide semi-express service between New Haven, Milford, Stratford, Bridgeport and Stamford; with 2 afternoon peak trains providing the reverse service.

In FY2003 the MetroNorth New Haven Line recouped 68.4% of its operating costs through fares, resulting in an average deficit per passenger of \$2.62 cents. In FY2002 and FY2001, the operating ratio was even better (74-76%), with a smaller per passenger deficit of approximately \$1.75. Increased operating costs account for the difference. Rail fares were increased by 15% in July 2003, along with institution of significant penalties for on-board purchase of tickets. A 5.5% fare increase is approved for January 2005.

Acela (formerly Amtrak) provides inter-regional rail service along the northeast rail corridor. Stamford is a key stop in the system, and recorded 216,000⁸ passengers in Federal Fiscal Year 2001.

⁸ 2003 Master Transportation Plan Part B, ConnDOT, page V-42

In 2002, there were a total of 307 MetroNorth and Acela trains on the New Haven Line, 39 daily trains on the New Canaan Branch, 20 on the Danbury Branch, and 55 Shore Line East trains⁹. In 2002 the rail service scheduled provided 262 weekday trains, 168 Saturday trains, and 136 Sunday and holiday trains. According to the 2004 ConnDOT Bureau of Public Transportation Report Operations Statistics for the Biennium – SFY 2002/2003, there are 344 multiple-unit electric cars (185 Connecticut owned), 36 push-pull coaches, 14 locomotives serving 36 Connecticut stations in 22 towns with 262 weekday trains, 168 Saturday trains, and 136 Sunday and holiday trains.

Investment in rail equipment, facilities and infrastructure has been significant in recent years.

In 2001, ConnDOT acquired 4 new Genesis diesel-electric locomotives and 10 passenger coaches. The 2004 session of the Connecticut Legislature approved \$60 million for additional rail equipment and facilities. The State will purchase and refurbish 38 rail cars from Virginia Railway Express which will provide 4,000 additional seats and will also procure 6 new dual-powered locomotives at an estimated cost of \$40 million. Just over half (20) of the refurbished rail cars will be put into service later in 2004 and will provide 2,000 additional seats. The locomotives will arrive in 2007. At the same time, the rail fleet rehabilitation and overhaul program is systematically rehabilitating the 242 M-2 cars at a pace of 2 to 4 cars per month. The rehabilitation will increase the life span of the cars by 18 years. This program is estimated to cost \$180 million and will be completed in 2010 at the current rate of rehabilitation.

The rail bridge rehabilitation and replacement program is being coordinated with the catenary replacement program. Bridges that are in this replacement or rehabilitation program include:

- Arch Street bridge replacement, Hamilton Avenue/North Water Street bridges rehabilitation (1999-2004)
- Route 1 bridge rehabilitation in Darien – started in 2004
- Rowayton Avenue bridge replacement in Norwalk – started in 2006
- Monroe Street bridge rehabilitation in Norwalk – started in 2006
- East Avenue bridge rehabilitation in Norwalk – scheduled to start in 2008
- Walk (Norwalk River) bridge rehabilitation in Norwalk - scheduled to start in 2008
- Sauga (Saugatuck River) bridge rehabilitation in Norwalk - scheduled to start in 2010
- Culverts are also repaired or replaced, including the Tokeneke River culvert in Darien.

Between Greenwich and New Haven the catenary system is being replaced in four stages with a constant-tension wire-supporting system. The cost will be more than \$300 million. In the South Western Region, Phase A between the Greenwich/New York state line and Stamford is completed. Phase B was initiated in 2004 to extend the catenary improvement from Stamford to Norwalk. Phase C1b will cover Norwalk to Westport (2010-2015 construction).

Rail stations have been systematically improved, and rail parking has been expanded. Stamford, Greenwich, New Canaan, Darien and Westport are key stations that have been or will be retrofitted to comply with ADA (American with Disabilities Act). South Norwalk station was constructed in the 1990's to be ADA-compliant. The New Canaan station was completed in 2000. Darien station was completed in

⁹ Vision 2020 Congestion Mitigation Study Task 3 Existing Condition Technical Memorandum, SWRPA, (2002), Table 4-6.

2002. Greenwich rail station retrofit was combined with the catenary and bridge replacement program and extension of platforms. This work should be completed in 2005. Westport's Saugatuck rail station ADA improvements were started in 2003, with completion scheduled for 2005. The Stamford Transportation Center project included new center island platforms, modifications to the Washington Boulevard rail bridge and roadway, Station Place and taxi area, along with ADA compliance improvements that were completed in 2004, at an estimated cost of \$150 million. An additional 1,200 parking spaces were added at the Stamford Transportation Center, and the existing structure was repaired in 2004 (\$30 million). Similar improvements are being made throughout the system, including ADA upgrades to the Milford station. A new station at State Street New Haven opened in 2002.

Other rail facilities for power, rail communications and multi-fiber optic communications, rail interlockings to enable switching between tracks (including CP248 in Greens Farms), New Haven shops and yard projects including rail car storage, crew, and power supply, fuel supply, wheel truing shop have been completed, are in construction or design. Also, 5 New Haven Line substations and tagging relay stations are in design. A signal communications project (#302-0007) for the Danbury Line is needed to replace the manual block system in place that restricts service or the ability to increase service on the line. This project is still in design, though funding for construction is in place. ConnDOT strives to program \$4 million a year for New Haven Line track improvements.

Each year unexpected emergencies require immediate investment, such as the 2004 barge damage to the Walk Bridge fender systems, damaged rolling stock, stations, and all facilities.

The ConnDOT Bureau of Public Transportation Capital Project Management Plan 2001-2020 details annual rail capital investments that usually exceed \$90 million a year, and includes planned and emergencies expenditures.

An adequate supply of safe, convenient and affordable rail parking is essential to facilitate the use of rail transit. In addition to the Stamford rail parking expansion, capacity will be added to the parking structure in Bridgeport. A planned new rail station in Fairfield will include parking, as will the station to be constructed at West Haven or Orange. A parking deck is under design for Stratford, and a tiered parking facility is in design for Wilton (\$10 million, 2008 construction). To define future rail parking possibilities, SWRPA is conducting a feasibility study of rail parking study for Darien and Norwalk rail stations which will be completed in late 2004. The City of Stamford Long Range Transportation Master Plan 2004 calls for study of Glenbrook and Springdale rail parking. Other towns in the region also grapple with rail parking supply and demand, including New Canaan, Westport, Darien, and Greenwich.

ConnDOT's 2003 Master Transportation Plan identifies factors affecting the ability of the rail passenger system to meet current and future demand as:

- Availability and cost of parking
- Management arrangements which establish parking fees and regulations
- Availability of public transportation services at rail stations to support accessibility
- Funding available through state and federal sources
- Transit funding policies, which determine how funding can be used

- Comfort and security
- Americans with Disabilities Act (ADA) requires that the key stations be accessible to the disabled.

The ConnDOT 2003 Master Transportation Plan acknowledges that the “accelerating level of demand is exceeding available operating and capital funding.” This is due to passenger growth which approaches capacity during peak periods and real life-cycle equipment modernization needs that exceed the funded program. Replacement of the aging rail rolling stock, along with additional rail cars, expanded rail maintenance facilities and expanded parking require additional funding.

The Rail Car Fleet Replacement Plan: New Haven Line – Maintaining Connecticut’s Rail Infrastructure (2004), issued on June 4, 2004, presents a strategy for replacing the New Haven Line rail fleet and providing additional maintenance and storage facilities at an estimated cost of \$1.4 billion. The plan recommends that the first generation rail fleet cars, 241 electric multiple unit (EMU) cars, be replaced with 342 EMU cars rather than with coaches and locomotives. The strategy addresses fleet reliability, ridership and service growth and meets ADA requirements. The EMU fleet would also be capable of operating on Shore Line East. The cost per EMU is approximately \$3 million, which equates to \$1.026 billion for rail cars. ConnDOT assumes responsibility for funding 65% of the cost, or \$667 million. New York State would be responsible for the remaining 35%.

Construction of new maintenance and storage facilities is proposed in tandem with the rail fleet replacement. The proposed facilities include: a main maintenance facility; a service/inspection facility; ancillary support facilities; a car repair shop; and, storage yards. The recommended completion date is 2010, when the new fleet is scheduled to arrive. The cost of \$350 million would be ConnDOT’s responsibility.

ConnDOT is developing the financing plan and the detailed rail fleet replacement program. Potential constraints include the inability or unwillingness of New York State to participate in the rail fleet replacement program at a cost of \$363 million, the feasibility of the acquisition strategies, procurement restrictions of the funding agencies, or technology and build-ability issues related to modification of the MTA M-7 car to a dual power car for the New Haven Line.

The ConnDOT Rail Governance Study is evaluating rail station parking and management of the MetroNorth New Haven Line, New Canaan, Danbury and Waterbury Branches. The study consists of three phases. The first phase includes: surveys of stakeholders; an inventory of rail parking capacity, utilization, fees, layouts, and physical facilities; station, parking, and platform condition surveys; a review of parking and station operations including contracts and finances with development of initial strategies for improvement; evaluation of the governance methods and identification of issues and opportunities for governance; and a summary report. The second phase includes: review of governance issues; survey of industry practices; development of two or three alternative methods of governance; and, a summary report. The final report will develop a plan for rail station and parking governance. The Connecticut Rail Governance Phase One Report was issued in January 2004.

Also underway is the Danbury Branch Electrification Feasibility Study, which evaluates the feasibility of electrifying the Danbury Branch Rail Line with the objective of reducing travel times on the Danbury Branch.

The Phase I study scope includes evaluation of the ability to construct the catenary and power supply infrastructure and estimates construction costs. The first study task reviewed existing conditions, service schedules, and prepared a purpose and needs report. The Danbury Branch Electrification Feasibility Task 2 Report (March 2004) describes the engineering alternatives evaluation. This report evaluates track geometry, the addition of double tracking and passing siding improvements under three alternative travel time reduction scenarios of 5, 10 and 15 minute travel time reductions for the South Norwalk to Danbury section, and the proposed Danbury to New Milford section. Under remaining tasks, ridership forecasts, electrification benefits and costs will be studied. A second phase of the Electrification Study will address outstanding issues, and define implementation programs. A recommendation of this long range transportation plan is for the Phase 2 study to develop a service and operating plan for increased rail service that will enable use of the Danbury Branch for commutation to employment in the Norwalk to Danbury corridor.

Since 2001, the South Western Region MPO's has set improvement of rail service and investment in rail equipment and supporting infrastructure as the Region's highest priorities. The rail orientation supports the goal of increasing mobility and choice, and reducing congestion while also supporting economic development and promoting quality of life. The supported strategies include:

- Purchase commuter rail equipment identified by ConnDOT and MTA as necessary to maintain existing and enhanced levels of service and reliability for interstate and intrastate commuters.
- Establish and adhere to a program for systematic replacement of rail cars so that no cars are kept in service beyond their useful lives.
- Construct rail maintenance, repair and storage facilities needed to ensure that Connecticut's commuter rail fleet is safe and reliable.
- Increase rail parking at New Haven Line stations to provide needed parking capacity both within the South Western Region, and east of Westport to encourage drivers to commuter to intrastate locations by rail.
- Expand intrastate commuter rail service ultimately developing "subway-style" service along the New Haven, Danbury and New Canaan branch lines.
- Maintain funding for existing rail and other transit services.
- Develop commuter connections between transportation hubs, residential areas and employment centers.
- Recognize Stamford and South Norwalk rail stations as essential intermodal transportation hubs.
- Develop an implementation plan for improved rail service and commuter connections in the Route 7 corridor as a construction mitigation measure for the upcoming Route 7 widening and Route 7 and Route 15 interchange projects that will disrupt the use of this principal arterial for the next decade.
- Institute additional rail service on the Danbury Rail Line to enable use of rail to access employment sites in the Route 7 corridor between Danbury to Norwalk that will fill service gaps and support service to regional employment needs.
- Implement the recommendations from the Route 7 Travel Options Implementation Plan (2000) prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials.
- Advocate for the creation of a seat for the State of Connecticut on the Metropolitan Transportation Authority (MTA) board.

- ConnDOT study of the feasibility and benefits of a “universal peak” fare that would apply peak rates in all directions during peak periods, rather than the “directional peak” fares currently in effect.

Specific projects endorsed by the SWRMPO include:

- Wilton station tiered parking
- Stamford ferry terminal and parking as an integral part of the Stamford Transportation Center
- Assessment of future rail parking needs and opportunities at: Merritt 7 (Norwalk), Glenbrook (Stamford), Springdale (Stamford), and Talmadge Hill (New Canaan)
- Investigation of possible new rail stations to be investigated include: East Main Street/Route 1 and Myrtle Avenue (Stamford), Reed-Putnam (Norwalk), and Wall Street (Norwalk) as noted in the South Western Region Long Range Transportation Plan 2001-2025.
- Stamford Urban Transitway Phase 1 which provides an improved roadway between Elm Street and the Stamford Transportation Center with exclusive lanes for buses and high occupancy vehicles, bicycle lanes and sidewalks, along with ITS features that provide real time information on signs, kiosks and bus stops (\$45 million).
- Stamford Urban Transitway Phase 2, continues the improved multimodal road from Elm Street, along Myrtle Avenue to Route 1/East Main Street (\$29 million).
- Route 7 Travel Options Implementation Plan projects.
- Enhanced rail service on the Danbury Branch to make rail commutation to jobs in the region a viable option, and to serve as a construction mitigation measure during the construction of Route 7 corridor projects between 2005 and 2015.

Since 1994 the South Western Region Long Range Transportation Plans (1994, 1995, 1998, 2001) have noted the deterrents to adequate rail service, including budget constraints, rolling stock and equipment maintenance and replacement, intermodal connections, scheduling, fares, and station conditions, but advocated for increased investment, service, parking, and supporting rail infrastructure. The Route 7 Travel Options Implementation Plan (2001) proposed \$58 million in rail, bus and supporting strategies to improve transportation options in the Route 7 corridor between Danbury and Norwalk. The recommendation to study electrification of the Danbury Rail Line was translated into the current study, through earmarked federal transportation funding. The complete list of Route 7 Travel Options Implementation Plan recommendations is given in the table provided in the Financial Component section, and individual projects are included as recommended projects in this chapter. In 2004 the SWRMPO asked ConnDOT to develop a construction mitigation plan for the Route 7 corridor that provides enhanced rail service with commuter connections to counteract the negative impacts of construction disruption that will occur for the next decade as major projects proceed to widen Route 7, and construct a fully directional interchange at Route 15/Route 7 and a new expressway section (New Milford). In addition, a viable design for the Danbury Branch signaling and communications project must be achieved and constructed. In August 2004, a ConnDOT letter to the SWRMPO advised that increased service on the Danbury Branch is only possible after the “manual block” system is replaced under the signal communications project (#302-0007).

The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Final Report (2003) concluded there was no single solution for mitigating congestion in the region, or study area. Recommendations for rail include:

Short-Term Actions (2-7 years) for Transit Operational Improvements

- Expand parking and intermodal connections at Metro North rail stations. Significant expansion should be targeted at the following locations: South Norwalk; Noroton Heights; Stamford; Greenwich; and Wilton.
- Intelligent Transportation Systems (ITS) should be used to improve the efficiency and operation of existing bus service in the corridor (and connections to rail)
- SWRPA should engage Metro North and ConnDOT in discussions about intrastate rail pricing and seek opportunities to implement pilot programs to test market response to reduced intrastate fares.
- Implement a universal commuter pass, such as a SmartCard.
- Establish intermodal hubs with strong bicycle and pedestrian connectivity.

Long-Term Actions (7-20 years) for Transit Capacity Expansion

- Improve intrastate commuter rail service.
- Evaluate expansion of commuter rail service or BRT services in the Route 7 corridor.

Other Strategies and External Connections for Interstate Rail

- Service improvements including fleet configuration, infrastructure upgrades and service upgrades should be coordinated with intrastate service improvements so that optimum system performance can be achieved.

Airport Connections

- Examine opportunities for improving transit connections, including rail transit, between southwestern Connecticut and regional airports.

Stamford Transportation Center

One of the Region's most important rail and multimodal assets is the Stamford Transportation Center. The facilities include the train station, bus area, shuttle area, taxi area and parking. The Stamford Transportation Center is used by more than 8,000 persons per day¹⁰. Available transportation modes include commuter rail (MetroNorth), inter-regional rail (Acela), local bus (CT Transit Stamford), inter-regional bus (Greyhound), taxis (Stamford Taxi, Eveready Taxi), and corporate shuttles. A proposed ferry terminal located a half mile south of the Stamford Transportation Center on Washington Boulevard will further enrich the transportation options available in Stamford. The ferryboat terminal project has received 2 separate USDOT Ferryboat Discretionary Funding grants, totaling approximately \$1 million to date.

In 2002, a study of the Stamford Transportation Center was initiated by the City of Stamford to develop a program for improvements to circulation, performance and use of the facility and to create stronger linkages with businesses and the community, and enhance the users experience at the facility. In the study's August 2004 Stamford Transportation Center Multimodal Circulation Study Draft Recommended Improvement Plan, nine areas of improvements were proposed, and included: governance; marketing; internal wayfinding; SmartTraveler/real time traveler information systems; commuter connections; Stamford Transportation Center area physical improvements; vehicular access and circulation; pedestrian and bicycle access; and, Stamford Transportation Center infrastructure. The following table provides a summary of the nine identified project programs.

Table 17. Stamford Transportation Center Improvement Recommendations -

¹⁰ Stamford Multimodal Circulation Study Existing Conditions Report (August 2004), page 1.

September 2004

Program	Projects	Implementation Leader	Timeframe	Estimated Cost
Station Governance Plan	<ol style="list-style-type: none"> 1. Station Map availability 2. Signage and enhancements to Gateway entrance 3. Passenger wayfinding signs 4. Internal standardization of signage and station branding linked to off-site signage 5. Directional signage and program such as color coded striping of STC 6. Information kiosk or live concierge 	ConnDOT with City of Stamford	<1 year	<\$100,000
STC Marketing Program	<ol style="list-style-type: none"> 1. STC Website 2. Station branding 3. Transportation outreach program 4. Development and coordination of a marketing plan 	ConnDOT	<1 year	<\$100,000
STC Internal Wayfinding Program	<ol style="list-style-type: none"> 1. Station map availability 2. Signage and enhancements to Gateway entrance 3. Passenger wayfinding signs 4. Internal standardization of signage and station branding linked to off-site signage 5. Directional signage program 6. Information kiosk or live concierge 	ConnDOT	1-5 years	\$100,000-\$500,000
SmartTraveler Initiative	<ol style="list-style-type: none"> 1. Integration with Trips 123 2. Integration with SWRPA ITS projects 3. Traveler information on I-95 4. Real time traveler information in station and garage 5. STC WiFi availability 6. Garage parking management 7. Real time transit information 	SWRPA	1-5 years	\$100,000-\$500,000
Commuter Connection Program	<ol style="list-style-type: none"> 1. Annual review of existing CTTtransit routing 2. Review of corporate shuttle routing and opportunities for cooperative shuttle service 3. Metropool liaison to STC 4. Stamford Urban Transitway circulation 5. Shuttle connection to high speed ferry 6. Expand route and frequency of downtown commuter shuttle 	City of Stamford	1-5 years	\$100,000-\$500,000

STC Area Physical Improvement Project	<ol style="list-style-type: none"> 1. Ticket window consolidation/reorganization 2. Bus Area improvements 3. Corporate shuttle waiting area improvements 4. Location of ticket vending machines / real time transit information on garage walkway 	ConnDOT	1-5 years	\$500,000-\$1,000,000
Vehicular Access, Parking and Circulation Improvements	<ol style="list-style-type: none"> 1. Short term parking program 2. Review of Station Place 3. Pick-up/drop-off area improvements 	ConnDOT	1-5 years	\$500,000-\$1,000,000
Pedestrian/Bike Access Improvement Project	<ol style="list-style-type: none"> 1. Pedestrian pathway to downtown 2. Pedestrian signage and information within downtown 3. Enhancements to North State Street/Gateway crossing area 4. Sidewalk improvements on the South State Street/Atlantic Street intersection 5. Review of South State Street/Atlantic Street intersection 6. Downtown area pedestrian amenity improvement projects 7. Streetscape guidelines for south of STC areas 8. Bicycle rack placement and installation program 9. North State Street improvements 	City of Stamford	1-5 years	\$500,000-\$1,000,000
STC Infrastructure Improvements	<ol style="list-style-type: none"> 1. Increase the visibility of train platform staircases 2. Construct a crosswalk across South State Street 3. Expand station concourse area over South State Street 4. Enhanced visibility through the provision of projects such as glass elevator cabs and shafts in ticket concourse and lower level 5. Clearer connections between the Gateway passageway 6. Reorient South State Street stairs 	ConnDOT	5-10 years	>\$1,000,000

Source: Stamford Transportation Center Multimodal Circulation Study Recommended Improvement Plan, September 2004

An outgrowth of the Stamford Transportation Center multimodal circulation study, and the State's implementation of a Taxi Starter Token System in March 2004, which was abandoned in August 2004, was recognition of needs to: develop ways to improve communications between the Connecticut Department of Transportation (ConnDOT) as operator of the Stamford Transportation Center, transit operators and tenants, and users; improve many facets of Stamford Transportation Center operations; plan for the future integration of the Stamford Urban Transitway, which will connect Elm Street with the Stamford Transportation Center in just a few years; and to develop a vision and master plan for the Stamford Transportation Center. These needs translate into recommendations for strategies and projects to be included in the regional long range transportation plan, and development of investment plans for highway and transit modes in Stamford and a regional transit strategy, to more immediate steps that should be taken to address operational issues at the Stamford Transportation Center. The recommendations are:

- To initiate a Stamford Transportation Investment Strategy which will develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor. The study will encompass all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State's I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- To develop a Regional Transit Strategies Plan that will define an implementation program for all modes of transit, ridesharing and transportation demand management within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry, and access to regional airports.
- To prepare a Stamford Transportation Center Master Plan to define near term and long term capital projects, maintenance and operating requirements, and financing.
- For ConnDOT and the City of Stamford to coordinate on development of an operations plan for integration of the Stamford Urban Transitway into the existing physical layout of the Stamford Transportation Center and the existing services and operations, including physical changes needed to accommodate the new facility.
- For ConnDOT as owner and operator of the Stamford Transportation Center to create a Stamford Transportation Center Advisory Committee modeled after the ConnDOT Merritt Parkway Advisory Committee which meets regularly to review and comment on projects and programs, providing input to the Commissioner of Transportation. The Advisory Committee should include various stakeholders including public agencies (City of Stamford, South Western Regional Planning Agency, MTA Police), service providers (CT Transit, MetroNorth, AMTRAK, taxi operators, shuttle operators), rail riders (MetroNorth New Haven/Shoreline East Commuter Council), tenants of the Stamford Transportation Center, the business community and other stakeholders.
- To initiate review of current operations, such as taxis, shuttles and Station Place to develop a program of immediate actions with a budget that can be considered in the SFY2005-2006 budget cycle.

South Norwalk Rail Station

This key station is considered a “hub” in the system by the SWRMPO because it is a major stop on the MetroNorth rail line as well as the Danbury Branch’s point of connection with the New Haven Line, with rail parking in a structure and surface lots, fixed route and shuttle bus service. The South Norwalk rail station is located in an area that is being studied by the City of Norwalk for redevelopment, with transit oriented development and a new intermodal area to serve not only the Norwalk Transit District services, but limousines and taxis as well. To assist the City of Norwalk in planning efforts, funding for a concept plan for the South Norwalk intermodal area is recommended as a supporting strategy.

Danbury Branch Recommendations 2004

In addition to pursuing recommendations presented in the 2001 Route 7 Travel Options Implementation Plan, the long range plan pulls together SWRMPO positions and recommendations, along with new opportunities to address identified needs. The recommendations include:

- Complete design and construct the new signal and communications system for the Danbury Branch (Project #302-0007)
- Complete Danbury Branch Electrification Study Phase 1.
- As part of Danbury Branch Electrification Study Phase 2, include development of an operations plan to increase rail service between Norwalk and Danbury with an emphasis on rail commutation to employment sites in the corridor and the South Western Region, and prepare an ITS Plan for the Danbury Branch.
- Develop a construction mitigation plan to deal with the construction disruptions that will occur between 2005 and 2015 due to Route 7 construction projects. This plan should be modeled after the I-95 New Haven Corridor/Q Bridge Plan that provides additional rail and bus service as remediation measures and should: increase rail service on the Danbury Branch with commuter connections; increase bus service between Norwalk and Danbury; institute express bus service from the Danbury area to the Stamford area via I-684; and, implement ridesharing incentive programs comparable to NuRide.
- A Route 7 corridor communications program should be instituted to keep officials, the business sector and commuters informed of all construction activities, highway diversions and transit options.
- Fund the Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- Designate South Norwalk Rail Station as a hub station.
- Fund development of the South Norwalk Intermodal Facility Concept Plan to support City of Norwalk South Norwalk revitalization efforts.

New Canaan Branch Needs and Opportunities

Interest in rail parking, rail service and transit connections for the New Canaan Branch, as well as the outstanding need to rehabilitate the New Canaan Branch bridge over the Merritt Parkway (Route 15) are reasons to evaluate the New Canaan Branch. In the 2004 Stamford Long Range Transportation Plan, the City of Stamford identified the need for study of rail parking at the New Canaan Branch rail stations of Glenbrook and Springdale. At the same time, Stamford has received USDOT earmark funding to study the feasibility of a new rail station at Route 1 (East Main Street) and Myrtle Avenue, which would also be a stop on the New Canaan Branch. In 2004, the Town of New Canaan has approved expansion of surface

parking at Talmadge Hill. There are also issues related to downtown New Canaan parking and rail parking. The long range transportation plan recommends that a rail operations, intermodal connections and parking needs assessment of the New Canaan Branch be undertaken.

The strategies and projects that have evolved from past regional transportation plans, special studies, identified needs, and SWRMPO recommendations are listed in the following sections.

Recommended Strategies

Near Term

- Undertake a Regional Transit Strategies Plan that will develop the vision and define an implementation plan for all modes of transit, ridesharing and transportation demand management within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry, and access to regional airports.
- Conduct the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State's I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Prepare a Stamford Transportation Center Master Plan for near term and long term for capital projects, maintenance and operations, with a financial plan.
- Immediate action – conduct Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Immediate action – develop a Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.
- Fund development of the South Norwalk Intermodal Facility Concept Plan to support City of Norwalk South Norwalk revitalization efforts.
- Fund the Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- Complete Phase 1 of the Danbury Rail Line Electrification Study.
- Include in the Danbury Branch Electrification Study Phase 2 scope: development of a rail service evaluation and service plans to provide additional rail service and commuter connections in the Norwalk to Danbury corridor with emphasis on the Wilton/Merritt 7/South Norwalk corridor;and, an ITS Plan for the Danbury Branch.
- Study and develop a New Canaan Branch implementation program for rail service, parking needs and intermodal connections that will enhance transit options, identify transit supporting strategies and recommend transit oriented development possibilities.
- Support completion of the rehabilitation of the EMU (electrical mechanical units, including M-2s,

M-6s) rail fleet.

- Expand rail rolling stock and maintenance facilities to accommodate forecast ridership.
- Support and monitor ConnDOT's development of the rail financial plan.
- Initiate design the rail replacement fleet, and develop the financial plan to construct and operate the rolling stock.
- Continue to fund direct Shore Line East (SLE) service to between New Haven and Stamford during peak periods and secure sufficient equipment to operate the service.
- Evaluate the feasibility of instituting a universal peak fare that would charge peak rates in all directions during peak periods, rather than the "directional peak" fares currently in effect.
- Continue to participate in the State's Rail Governance Study.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service.
- Near term – develop and implement enhanced rail and bus services and incentive-based ridesharing programs in the Route 7 corridor between Norwalk and Danbury to mitigate construction of major highway and utility projects that will occur from 2005 through 2011 or later.
- Institute express bus service from the Danbury area to the Stamford area via I-684 to provide a commute alternative and as a part of the Route 7 corridor construction mitigation program. (This express bus service was recommended in the South Western Region Long Range Transportation Plan 2001-2025.)
- Develop an ITS Plan for Danbury Rail Line under Phase 2 of the Danbury Branch Electrification Study (Route 7 Travel Options Implementation Plan, SWRPA 2000), and August 2004.

Longer Term

- Strive to provide enhanced 'subway service' on the New Haven Line (20 minute service in peak direction at hub stations).
- Develop comprehensive asset management system and plan for the Connecticut Rail System.
- Maintain/Overhaul/Replace rolling stock and equipment to provide reliable and safe service – integrate the findings of the Rail Fleet Study into the Long Range Plan.
- Recognize the railroad and its complementary systems of parking, stations, and shuttle services as a single system.
- Upgrade MetroNorth New Haven Line Rail stations with regard to buildings/shelters, platforms, hours of service, and safety conditions. Support efforts of other regions to construct new stations or renovate existing stations.
- Provide additional parking at New Haven Line stations, which have and/or are projected to have a parking deficit. Place priority on parking and service improvements at stations, which serve regional needs. Support efforts of other regions to increase rail parking supply as lack of parking is a critical constraint to use of the rail system.
- Continue to improve the Stamford Transportation Center and retro-fit as necessary to make user-friendly and to provide capacity needed through 2030.
- Complete the State's ADA key station plan by working with the affected municipalities to develop improvements that complement local needs.
- Maintain and improve existing rail service on the New Haven, New Canaan Branch, and Danbury

Branch Rail Lines (policy).

- Enhance rail service on the New Haven, New Canaan, and Danbury Rail Lines including: increase frequency on Danbury Branch; improve service to Greenwich, increase mid-day rail service between New York and South Norwalk, expand peak hour service, extend peak period local service east of Stamford; expand express service; and lengthen station platforms (unfunded needs).
- Seek to implement service and supporting strategies recommended in the Route 7 Travel Options Implementation Plan (SWRPA 2000).
- Conduct feasibility study of Reed-Putnam and north downtown Norwalk stations on Danbury Branch (Route 7 Travel Options Implementation Plan, SWRPA 2000)
- Undertake infrastructure and electrification study of Danbury Branch Line (Route 7 Travel Options Implementation Plan, SWRPA 2000) – funded by special \$2m appropriation 10/00.
- Study and implement vanpool/jitney/bus shuttles to Danbury Rail Line and Harlem Line (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Continue to work with officials from Westchester County, New York State, New York Metropolitan Transportation Council, and HVCEO to identify multi-modal public transportation issues and solutions in the MetroNorth Harlem, Hudson and Danbury Rail Line corridors.
- Develop an intrastate fare policy that encourages a mode shift to rail use.
- Develop a unified intermodal pricing structure.
- Improve intermodal transfers and schedules, secure funding and implement commuter connections.
- Implement a universal transit card that will promote seamless use of multiple modes, based upon recommendations of the SWRPA Regional Transit Card Implementation Study Final Report (December 2001)
- Support efforts to have the State of Connecticut represented on the MTA Board. The interests of the State of Connecticut and Connecticut rail commuters can most effectively be advanced with a voting member on the MTA Board. This will also enable ongoing communication and in-depth knowledge of MTA, MetroNorth activities, plans, issues and challenges. It will contribute to establishing a meaningful dialog with the rail governing board, the state of New York, and the rail operator (South Western Region MPO recommendation, February 2000.)
- Reassess the MTA MetroNorth/Connecticut contract and all legal, operational terms, consider best practices and options and develop recommendations for restructuring of the agreement or seeking alternative service providers.
- Advocate for additional direct service from Shore Line East to Stamford and Greenwich.
- Continue to consider the use of AMTRAK for commutation within Connecticut and between Connecticut and Penn Station, addressing institutional barriers, and developing commutation fee structure. Market program. This will provide additional seats, and premium service to the Penn Station area, which is the destination of 20% of Connecticut's New York City, bound commuters.
- Future – study light rail service between the Stamford Transportation Center and the South End and Bull's Head – Stamford.
- Study the placement of an additional rail station at East Main Street – Stamford.
- Investigate and implement reduced intra-town rail fares to promote rail use (e.g. in Greenwich where there are four rail stations, Norwalk where there are three rail stations, and Stamford where there are three rail stations).
- Engage MetroNorth and ConnDOT in discussions about intrastate rail pricing and seek

opportunities to implement pilot programs to test market response to reduced intrastate fares.

Recommended Projects

Near Term

- Secure funding for the Regional Transit Strategies Plan that will develop the vision and define an implementation plan for all modes of transit, ridesharing and transportation demand management within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry, and access to regional airports.
- Fund the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State’s I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Advocate for a Stamford Transportation Center Master Plan for near term and long term for capital projects, maintenance and operations, with a financial plan.
- Immediate action – conduct Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Immediate action – develop a Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.
- Fund development of the South Norwalk Intermodal Facility Concept Plan to support City of Norwalk South Norwalk revitalization efforts.
- Fund the Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- Implement Norwalk/Danbury Phase I rail service improvements (more shoulder peak and mid-day service, direct service from Branch line to Stamford) (Route 7 Travel Options Implementation Plan, SWRPA 2000) and SWRMPO recommendations (July 2004).
- Complete Phase 1 of the Danbury Rail Line Electrification Study, and include in the Phase 2 scope of this funded study to development of rail service enhancement programs and commuter connections to provide additional train service to the Wilton/Merritt 7/South Norwalk corridor.
- Conduct an evaluation of Danbury Rail Line service in Phase 2 of the Danbury Rail Line Electrification Study, as recommended in the Route 7 Travel Options Implementation Plan, (SWRPA 2000).
- Study and develop a New Canaan Branch implementation program for rail service, parking needs and intermodal connections that will enhance transit options, identify transit supporting strategies and recommend transit oriented development possibilities.
- Support completion of the rehabilitation of the EMU (electrical mechanical units, including M-2s, M-6s) rail fleet.

- Support and monitor ConnDOT’s development of the rail financial plan.
- Initiate design the rail replacement fleet, and develop the financial plan to construct and operate the rolling stock.
- ConnDOT evaluation of “universal peak” fare pricing feasibility and benefits.
- Complete Danbury Branch signalization and communications project (#302-0007).
- Purchase additional rail cars to maintain current service and reliability.
- Expand service capability with the purchase of 40 additional rail cars.
- Purchase additional engines to maintain and expand service capability and reliability.

Long Term

- Construct Greenwich interlocking facility west of Greenwich to create capability to run enhanced intra-state Connecticut service between Greenwich and all points east, begin with design near term (\$4m) and construction midterm (\$26m).
- Implement Norwalk/Danbury Phase II rail service improvements to reduce headways to 1 hour throughout the day and provide more direct service between the Branch line and Stamford (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Implement rail station enhancements at Wilton, Cannondale and other Danbury Rail Line stations (expand parking, provide lighting and amenities) (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Provide pedestrian overpass and amenities at Merritt 7 Station (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Develop program and funding to provide commuter bus connections to the South End and Waterside neighborhoods – Stamford
- Implement a universal commuter pass, such as a SmartCard.

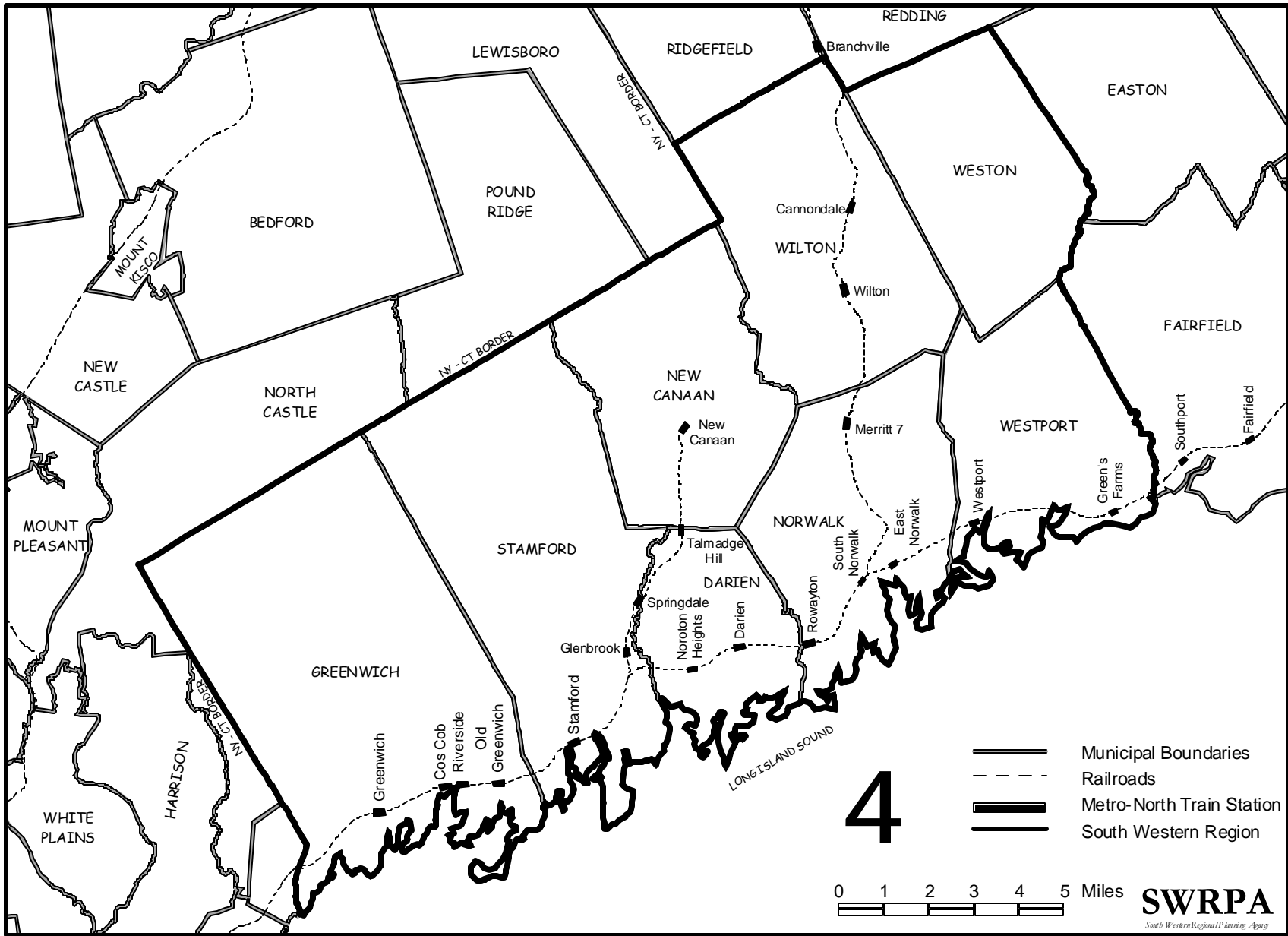


Figure 4. Rail Lines, South Western Region and Vicinity

FREIGHT

Background

The efficient movement of goods is critical to a sustainable economy. In southwestern Connecticut, the primary movers of goods are trucks. Even where rail connections exist to transport freight into the state, trucks still serve as the final delivery mechanism for businesses and consumers. A similar situation exists for goods entering the state by water. While movement of goods by truck is economical, flexible and efficient, competition for space on the state's roadway system is great and expected to grow over the next 20 years.

The projected increase in truck volume poses several problems for southwestern Connecticut, the most significant of which are a loss of operating efficiency, recurring delays, decreased safety and inadequate rest facilities. When combined with projected increases in the passenger vehicle volume, it is clear that existing conditions will be further exacerbated, perhaps leading to rush hour-type conditions in both directions throughout much of the day. Such delays are not only inconvenient for travelers, but may lead to economic losses as well.

The reasons for such heavy reliance on trucks for movement of goods to and through the region are many. Connecticut's proximity to major intermodal centers such as the Ports of New York and New Jersey, Quonset Point and Boston places most, if not all, of Connecticut's destinations within a short truck haul of these centers thereby limiting the market potential for additional centers within the state. Inadequate and outdated infrastructure – particularly along the Northeast Rail Corridor – also has been impediment to the use of the corridor for anything other than passenger transportation. A shift from an industrial to a service-oriented economy, Connecticut's geographic position as the gateway to New England and a public policy that emphasizes highway investments also play a role in the dominance of trucks.

Alternative modes for moving goods are available and both can and should be developed to provide options, even if those options may not significantly mitigate highway congestion or environmental conditions. Such alternatives include:

- **Barge service.** Container barge service serving southwestern and south-central Connecticut has been evaluated by the Greater Bridgeport Regional Planning Agency, the South Central Regional Council of Governments and the Connecticut Department of Transportation. Initial studies have found that barge feeder service is feasible and may move as many as 400 containers per day, resulting in the removal of approximately 80 trucks per day from I-95. An 80 trucks-per-day reduction on I-95 will have only a minimal effect on traffic congestion in the corridor. Despite the limited effect on congestion, barge feeder service may still yield other benefits for the region including reduced noise and air pollution and the availability of a safe alternative to transport by truck.
- **Freight rail.** Southwestern Connecticut has an extensive railroad network that includes the Northeast Corridor mainline between Boston and Washington and north-south connecting lines running from Pittsfield, Massachusetts, via Danbury, from Springfield, Massachusetts, via Hartford and from Waterbury. These lines are owned by the State of Connecticut or Amtrak. Currently, these lines are focused on travel to New York City and used predominantly for passenger rail service. A freight-only

line running from Derby to Danbury completes the rail network. This line is owned by the Housatonic Railroad and operates between Pittsfield, Massachusetts, and Derby. Due to limited Hudson River crossings, virtually all rail freight to and from the region enters the state through Massachusetts on the Boston to Chicago main line.

The total volume of freight traffic on the study area rail lines in Connecticut is quite small in proportion to both capacity and total volume of goods consumed and produced in the region. Analysis conducted by the City of New York and New York Metropolitan Transportation Council indicates that changing industrial geography and demographics, public ownership and regulation of infrastructure and services, and inadequate or outdated physical facilities and infrastructure are several of the factors contributing to low volumes of total freight traffic moving in the region via rail.

Although some circumstances, such as changing industrial geography, cannot be easily changed or addressed, other circumstances can be addressed with public investment. The proposed Cross Harbor Freight Tunnel is one such investment. Running from a rail yard in Northern New Jersey to a freight-only branch line in Brooklyn, this route would provide access to Long Island and New England via the Hells Gate Bridge. Such a tunnel, or similar lower Hudson River crossing, could make movement of goods by rail a more cost and time-effective option.

In addition to the barriers and impediments noted above, a number of other critical issues must be addressed in order to make the movement of goods by rail or water viable and to ensure that trucking activities are conducted safely. These critical issues include:

- The need for increased coordination of infrastructure and service planning in the New York Metropolitan Area. Such coordination is needed in order to ensure that regional improvements are made in a cost-effective, compatible and well-sequenced manner.
- The need to evaluate existing policies regarding overhead and side clearances for all railroad lines in Connecticut to ensure that the state's rail infrastructure can support existing freight rail equipment.
- The need to evaluate current policies and practices that grant exclusive or preferred access to publicly owned infrastructure to specific rail operators. Shared access policies should be explored.
- The need to restore Connecticut's direct connection to the international rail grid and assure workable freight access to Port of New York and New Jersey.
- The need to connect roads, rails and water ports to create intermodal freight hubs.
- The need to implement effective ways to improve safety on I-95 by providing additional truck stops and increasing enforcement of unsafe, overweight trucks through the I-95 coastal corridor.

Recommended Strategies

Near Term

- Continue advocacy for the further development of freight transport options through the Connecticut Public Transportation Commission, East of Hudson Task Force, NYMTC Freight Working Group, Transportation Strategy Board, Transportation Investment Areas, and other relevant policymakers, agencies, commissions and policy boards.
- Support coastal feeder barge operations or rail carfloat operations to the ports of Bridgeport, New Haven and New London.
- Support Incident Management activities to reduce incident-related congestion along major highway

corridors throughout the region.

- Seek effective ways to improve safety on I-95 by providing additional truck stops and increasing enforcement of weight restrictions and other safety regulations along the I-95.
- Work with stakeholders to develop and implement solutions to truck stop and rest area problems and deficiencies.
- Develop an effective monitoring and emergency response/control plan for truck stops and rest areas.
- Develop a “truck information” webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the ConnDOT Incident Management webpage where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs. For the Merritt Parkway, use restrictions, bridge clearance restrictions, penalties and alternative routes would be included. (Critical Corridors – I-95, Route 15, Congestion Management, Incident Management, Freight)
- In cooperation with NYSDOT, ConnDOT should evaluate an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills. (Critical Corridors – Route 15)
- Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway use restrictions. (During the I-95 Howard Avenue closure in 2004, many trucks unknowingly diverted to the Merritt Parkway and Hutchinson River Parkway and had to be escorted off the facilities by state police.) (Critical Corridors – Route 15)

Long Term

- Undertake a Southwestern Connecticut Corridor Freight Plan that details origin and destination movements; describes current and programmed freight delivery systems; recommends capital projects, policies and programs; suggests further freight transportation planning initiatives; and provides public outreach and education regarding freight movement in the corridor. The study will build upon current efforts underway within Connecticut, New York and New Jersey.
 - Evaluate re-opening the Poughkeepsie Rail Bridge or identify a new rail crossing south of Albany, New York. Connecticut needs to actively engage New York and New Jersey to link Connecticut directly to international rail grid and assure workable freight access to the Port of New York and New Jersey.
 - Support AMTRAK mail and other rail express “high value” goods movement. Create incentives for CSX and Norfolk Southern to ship freight via car float barges and the Northeast Corridor rail line.
-
- Revise public policy to actively promote high speed intermodal rail freight service along the Northeast Corridor via the Penn Station’s tunnels and directly along the Northeast Corridor rail line.
 - Evaluate and update policies regarding overhead and side clearances for all railroad lines in Connecticut to ensure that the state’s rail infrastructure can support existing freight rail equipment.

TRANSPORTATION DEMAND MANAGEMENT AND COMMUTER CHOICE

Background

Transportation demand management (TDM) strategies are actions that focus on reducing vehicle trips. These actions are primarily directed at commuter travel and are structured to either reduce solo driving or to alter the timing of travel to off peak hours.

Transportation demand management strategies include the following actions:

- carpooling;
- vanpooling;
- public transit (bus and rail);
- walking;
- bicycling;
- compressed work week;
- telecommuting work week;
- compressed work week;
- telecommuting; and,
- strategies to support these measures such as provision of employee services (e.g. guaranteed ride home, child care services, food services, and shuttle services, transit pass sales); facilities and equipment (e.g.. bus shelters, bicycle lockers/racks; changing rooms, home office equipment, park and ride lots); information and marketing (e.g.. brochures, newsletters, promotional events/items); trip reduction management policies (e.g.. parking management program, corporate commitment, late meeting and overtime policy); and incentives (e.g.. monetary rewards, subsidies, recognition, preferential parking for carpools/vanpools, etc.)

Transportation demand management measures have been historically encouraged in the State of Connecticut and the South Western Region through: the funding of ridesharing activities and ridesharing organizations, transit and planning organizations; construction, operation and maintenance of commuter park and ride lots; bus and rail transit, and selective funding “enhancement” projects.

Ridesharing programs funded by the Connecticut Department of Transportation include: support for ridesharing brokerages; the commute incentive programs enabled by federal tax law (Deduct-A-Ride, which permits pre-tax deductions for transit up to \$65 per month at this time); other commute incentive or infinity programs; telecommute programs; marketing and research programs; vanpooling programs; ride matching; and, on-going outreach and information services such as The Commuter Register. With annual ridesharing program investments averaging \$15 million per year, there is increasing concern and pressure from the South Western Region Technical Advisory Group and the SWRMPO to carefully evaluate all programs and establish benchmarks for performance before continuing investment in programs without proven results. The objective is to invest limited funds wisely.

The South Western Region Transit and Transportation Demand Management Plan (1995) was the Region’s comprehensive assessment and plan for transportation demand management, which led to the 1995 update of the Long Range Transportation Plan 1993-2013. The SWRPA Norwalk River Valley/Route 7 Linear

Trail Norwalk and Wilton (1995) developed a plan for a multimodal linear trail extending from downtown Norwalk to northern Wilton. Stamford initiated the Mill River Multi-Use Trail, and has developed a Stamford Harbor Area Development Plan (2000) that proposes a connected system of walkways around the harbor, and roadway connections between the harbor, highway, downtown and Transportation Center. The Stamford Long Range Transportation Plan (2004) proposes a comprehensive and ambitious \$450 million program of improvements for all modes of transportation including the Stamford Urban Transitway, East and West Main Street corridor improvements, reconstruction of rail underpasses, local and state roadway improvements, bicycle and pedestrian improvement, ferry transportation, ITS projects, and traffic calming, safety and education projects.

The Route 7 Travel Options Implementation Plan (SWRPA 2000) proposes a \$58 million program of rail and bus transportation improvements and transit supporting strategies for the Route 7 corridor between Norwalk and New Milford. The Stamford Multimodal Services Study Draft Recommended Improvement Plan (August 2004) outlines 9 sets of actions to increase the utility and effectiveness of the Stamford Transportation Center, including: governance; marketing; internal wayfinding; smart traveler elements; commuter connections; rail station physical improvements; vehicular access, parking and circulation improvements; bike and pedestrian improvements; and area infrastructure improvements. SWRPA's upcoming Intelligent Transportation Systems (ITS) Plan will develop the framework for ITS investment in the Region, including real time traveler and transit locator systems that promote transportation demand management.

In 2002, the SWRPA Congestion Management Systems Study evaluated TDM strategies that attempt to remove vehicles from the peak periods of the day by altering time of travel, encouraging carpooling and providing opportunities to avoid trip making through employer based ridesharing, telecommute, compressed work week and flextime programs. Through modeling, the study determined that "for every 1% increase in TDM program participation, a 0.1% reduction in overall travel demand can be expected."¹¹

SWRPA's annual surveys of state park and ride lots in the South Western Region show that there is sufficient capacity at all eight commuter parking locations. Just over half of the 375¹² spaces were occupied in November 2002.

Recommended Strategies

Near Term

- Continue to implement, market and monitor Travel Demand Management (TDM) strategies to help reduce the number of peak-period single occupant automobile trips in the Connecticut and the South Western Region. TDM strategies that focus on providing incentives to modify travel behavior are preferred to those that penalize. Examples of programs that can have an impact on peak period trips are as follows: telecommuting; flexible work weeks; staggered work hours; organized vanpools; and voluntary distance-based pricing. (Congestion Mitigation Systems Plan "Vision 2020")

¹¹ Congestion Mitigation Systems Plan Initial Vision Evaluation Report (November 2002), page 5-34.

¹² SWRPA Commuter Parking Utilization Report, November 2002

- SWRPA in partnership with ConnDOT, ridesharing brokerages, and other stakeholders, should study the performance of existing TDM programs to assess the effectiveness of current outreach and marketing strategies, develop creative strategies for altering traveler behavior, calculate the total cost of removing single-occupant vehicles from roadways during peak periods and identify methods that may be implemented to more closely track TDM program participation and monitor program performance. (Congestion Mitigation Systems Plan “Vision 2020”)
- Improve coordination and collaboration with ConnDOT, ridesharing brokerages, and the Region’s stakeholders to develop, evaluate and modify ridesharing programs.
- Expand ridesharing programs to include employers with less than 100 employees and concentrations of employers, and evaluate program effectiveness.
- Improve maintenance of the Region’s park and ride lots.
- Develop and implement measures to encourage greater use of carpooling and vanpooling, and use of public transportation, railroads, and buses, and coordination of these transportation elements to reduce traffic congestion.
- Support existing commuter incentive programs such as Deduct-A-Ride and new incentive-based approaches to ridesharing, such as NuRide.
- Implement a comprehensive user-friendly transportation website.
- Complete the ConnDOT ‘511’ traveler information systems study and implement a 511 system for Connecticut or other real time traveler systems.

Longer Term

- Evaluate shared-ride taxi services in the region.
- Develop subscription service as a ‘commuter connection’ between home and rail, and rail and employment.
- Continue to support telecommuting programs and options for the government, non-profit and business sectors.

BICYCLING AND WALKING

The region's vision for bicycling and walking echoes the state's vision and goals at a regional level: 'To enhance the bicycle and walking environment throughout the South Western Region (Connecticut) by providing for the safe, convenient and enjoyable use of these modes of transportation in an effort to meet the public's demand for improved mobility and a better quality of life.' (ConnDOT Bicycle and Pedestrian Plan, 1999). Safe and connected pedestrian and bicycle facilities are essential elements of the comprehensive multi-modal transportation system envisioned for the South Western Region. These modes provide personal transportation choices that are alternatives to the single occupant vehicle. They are environmentally-friendly and benefit air quality and reduce energy use and traffic congestion. They can be relatively low cost, and contribute to a better quality of life. The challenge is to develop a 'bicycle and pedestrian friendly' region and state.

The issues and impediments are varied, ranging from regressive state policies that prevent or restrict access to available funding for sidewalk projects and enhancements, to lack of knowledge about the 'rules of the road' by both motorists and cyclists, or the lack of routine road maintenance to clear debris off road so that cycling may be done safely. Other issues include: funding for new projects; new facilities and on-going maintenance; design standards for bicycle and pedestrian facilities; adequate secure bicycle storage at key intermodal points and public and private activity centers; safety and education; and, involvement of stakeholders in the planning process.

The response is to develop a more detailed regional bicycle and pedestrian plan, to reactivate a regional bicycle and pedestrian advisory group to participate in the transportation planning process, to continue to seek a change in the Connecticut Department of Transportation (ConnDOT) sidewalk policy so that new sidewalks are possible and bicycle and pedestrian projects are funded through all eligible federal programs and provided state funding, and to advocate for ConnDOT to establish a bicycle and pedestrian advisory group.

Developing a regional plan for bicycling and walking is an essential building block. Previous requests for funding for a discrete plan have not met with success. This plan proposes development of a regional transit strategies plan, which would include bicycle and pedestrian modes. Until the regional transit strategies plan is funded, SWRPA will work with municipalities, state, and advocates to inventory current facilities, policies, practices and funding. This in-house SWRPA effort will develop the framework for bicycle and pedestrian systems and projects, and build a coalition that will work to gain recognition and funding to implement selected projects.

Many of the bicycle and pedestrian projects identified in the 2001 long range transportation plan have been implemented or are underway, including: the Stamford Washington Boulevard pedestrian improvements; Safe Routes to Schools programs in Greenwich, Stamford and Norwalk; and, bike racks on CT Transit buses and Coastal Link buses. The initial phases of the Norwalk/Route 7 and Stamford Mill River trails are in design or rights of way phases. Future extensions of both the Norwalk River and Mill River trails are proposed. Funding for the next phases was requested in November 2000.

The most ambitious multimodal project for the region, the Stamford Urban Transitway, includes bicycle and

pedestrian facilities, along with the bus and road improvements. The first phase between the Stamford Transportation Center and Elm Street is in the design and rights of way phases now. Construction is scheduled for 2006. The next phase of the Stamford Urban Transitway will extend the project east from Elm Street to Route 1/East Main along Myrtle Avenue.

Stamford continues to develop and implement comprehensive bicycling, walking and traffic calming plans and programs. The Stamford Master Plan 2000 Traffic and Transit Report (2002) reinforces the Stamford Bicycle Plan (2001) goal to maximize a full range of bicycle and pedestrian improvements. Wherever possible major capital projects are to include provides for bicycling and walking. Stamford is implementing the initial phase of the Mill River Multi-use Trail between Tresser Boulevard and Broad Street. Rights of way acquisition has started, with construction anticipated in 2006. This project is a unique collaboration of public (Stamford and USDOT Surface Transportation Program Enhancement funding), private, and non-profit efforts. The first phase of the Washington Boulevard Pedestrian Safety Improvement Plan (Tresser Boulevard to Broad Street) is in construction, with completion expected in 2005. Funding has been requested to extend the improvements south from Tresser Boulevard to Division Street. Improvements in the North State Street pedestrian crossing the Stamford Transportation Center to the "Rail Trail" to the east of Washington Boulevard are planned. Additional improvements have been identified in the Stamford Multimodal Services Study (2004), and the Stamford Long Range Transportation Plan (2004).

Norwalk, too, continues to expand its bicycle and pedestrian improvements. The Norwalk Heritage Trail linking the Maritime area with Matthew's Park was opened in 2000. The Norwalk River (Route 7) Multimodal Trail will connect with the Heritage Trail at Mathews Park and extend north to Route 123. This project, also funded through USDOT Surface Transportation Program Enhancement funding is in design, with construction expected in 2005.

Greenwich has installed count-down pedestrian signal heads, audible pedestrian-activated traffic signals at downtown locations, and enhanced cross-walk striping at key locations to calm traffic and support pedestrian movements. An established sidewalk program enables sidewalk improvements, most recently on Hamilton Avenue. New Canaan's 2003 Plan of Conservation and Development recommends a number of pedestrian and bicycle improvements including the requirement for sidewalks in the downtown, town assumption of responsibility for downtown sidewalk maintenance and repair, and preparation of an overall concept plan for a bicycle route system in the town.

In addition to the proposed Route 7 linear trail, which is being implemented in phases by the City of Norwalk, there are two proposals for multi-use trails along the Merritt Parkway (Route 15).

A demonstration project on the south side of the Merritt between High Ridge Road (Route 137) at Exit 35, east approximately a mile to Newfield Avenue was proposed in 2001 by the Regional Plan Association. A joint application for STP-Enhancement funding was developed by the City of Stamford and Regional Plan Association in 2002, and awaits ConnDOT decisions on STP-Enhancement program priorities. Implementation of an East Coast Greenway along the Merritt Parkway corridor is another project proposed by the City of Stamford in its 2004 Long Range Transportation Plan. The East Coast Greenway initiative started in 1992 and has already-completed sections in the Greater Hartford and Greater New Haven areas.

The USDOT Federal Highway Administration (FHWA) Recreational Trails program provides grant funds for construction of new motorized and non-motorized trails, maintenance and restoration of existing

recreational trails, access to trails by persons with disabilities, purchase of equipment to construct or maintain trails, acquisition of land or easements for a trail or rail corridor, and funding for promotion, education, and interpretation. Funding for the program is approximately \$500,000 a year, beginning with FFY2003.

Since the South Western Region was incorporated into the Bridgeport-Stamford Urbanized area in 2002, FTA Enhancement funds are now available for transit enhancement projects. Through the FTA enhancement program, bus racks will be installed on Route 7 Link buses (Norwalk Transit District and Housatonic Area Transit), and bike racks will be added to Glenbrook and Springdale rail stations in Stamford. Additional bicycle and pedestrian projects are being developed for future use of this funding source.

Recommended Strategies

Near Term

- Recognize that bicycling and walking are essential modes in the transportation system, and are not just enhancements, and promote bicycling and walking as viable transportation options.
- Build bicycle and pedestrian elements into transportation and community facilities and develop bicycle and pedestrian systems and intermodal connections.
- Promote bicycle and pedestrian safety and education programs targeted at vulnerable groups such as seniors and youth.
- Construct and maintain secure bicycle storage at intermodal and community facilities.
- Develop safe walking and bicycling routes to schools (Safe Route to Schools).
- Promote bicycling and walking as ways to improve health.
- Secure funding for selected bicycle and pedestrian improvements identified in the Stamford Multimodal Services Study (2004).
- Advocate for revision of the ConnDOT sidewalk policy so that new sidewalks are possible and bicycle and pedestrian projects are funded through all eligible federal programs and provided state funding.
- Advocate for a full-time bicycle and pedestrian coordinator at ConnDOT.
- Create a statewide bicycle and pedestrian advisory group with staff support provided by the ConnDOT bicycle and pedestrian coordinator.
- Enact appropriate legislation that requires consideration of bicycle and pedestrian supporting elements in all USDOT and state funded projects and as a part of State Traffic Commission review of major traffic generators.
- Provide technical assistance to municipalities and advocacy groups regarding bicycle and pedestrian issues, projects, programs and plans.
- Re-establish a regional bicycle and pedestrian advisory group to participate in the regional transportation planning process.
- Advocate for and secure funding for additional bicycle and pedestrian improvements that are consistent with the vision, goals and objectives of the regional transportation plan.
- Support recreational trails projects developed to use USDOT Recreational Trails Program funding and administered by the CT Department of Environmental Protection.
- Determine the feasibility of the March 2001 Regional Plan Association and City of Stamford proposal for the 'Merritt Parkway Trail Demonstration Project' along the Merritt Parkway between

High Ridge Road (Exit 35) and Newfield Avenue, Stamford.

Recommended Projects

Near Term

- Develop a Bicycling and Walking Concept Plan for the South Western Region as a SWRPA staff effort.
- Include bicycling and walking as components of the Regional Transit Strategies Plan.
- Implement the current phases of the Norwalk River Valley Linear Trail
- Continue to support and promote bicycle racks on buses (near term, FTA Enhancement funding, and in-house support from involved agencies and organizations).
- Install secure bicycle storage at train stations, community and government facilities, and institutions. Specific projects are identified in the Stamford 2004 Long Range Transportation Plan project listing.
- Complete the first phase of the Washington Boulevard Pedestrian Improvements and continue with the second phase (Tresser Boulevard to Division Street)
- Review the Route 15 and Route 7 interchange Phase 2 project (#102-269) design for ability to accommodate extension of the Norwalk River Valley Linear Trail.

Longer Term

- Seek funding for future phases of the Norwalk River Valley Linear Trail through Norwalk and Wilton.
- Implement the Stamford Mill River Multi-use Trail Phase 2 (near term, \$1,950,000).
- Seek funding for future phases of the Stamford Mill River Multi-use Trail.
- Implement the Stamford Harbor Bicycle and Pedestrian Plan
- Continue Washington Boulevard Pedestrian Improvements to extend improvements beyond the first two phases (Broad Street – Tresser Boulevard, Tresser Boulevard – Division Street.)
- Install secure bicycle storage at train stations, community and government facilities, and institutions.

WATERBORNE TRANSPORTATION

In Connecticut and in New York, the need to consider alternatives to truck and automobile transport is growing. Increasing traffic volumes and the resulting traffic congestion continue to strain an already overburdened road network. Opportunities to expand roadway capacity are limited for community, environmental and fiscal reasons. Thus, it is critical that alternatives to highway transportation be developed to provide a range of convenient and affordable travel options, enhance access and mobility, sustain regional economic growth and maintain quality of life in the region.

Within the South Western Region and along Connecticut's coastline, opportunities exist to more fully develop a waterborne transportation network for the movement of persons and goods. Such a network can also create new travel paths between southwestern and south-central Connecticut and neighboring New York. The creation of such travel paths would serve as a component of a broader strategy for regional congestion mitigation. The SWRMPO has endorsed projects to increase use of waterborne transportation options.

Some elements of a waterborne transportation network are already in place. Within the South Western Region, petroleum, sand and gravel products travel by barge into Stamford and Norwalk Harbors. Other waterborne transport options may be accessed within close proximity to the South Western Region: Passenger ferry service to Long Island is provided at the Port of Bridgeport and barges and small ships carry freight shipments to the Ports of Bridgeport, Stamford and New Haven.

The soon-to-be-completed Long Island Sound Waterborne Transportation Plan, which is jointly sponsored by SWRPA, the Greater Bridgeport Regional Planning Agency and the New York Metropolitan Transportation Council, has identified potential markets for new passenger and freight ferry routes on Long Island Sound. Passenger ferry service to and from Norwalk and Stamford is recommended, as is the creation of an intermodal hub allowing for easy transfers between ferry, train and bus services in Stamford.

Recommended Strategies

- Continue to support and participate in activities related to the development and implementation of the Long Island Sound Waterborne Transportation Plan and related activities sponsored by the Long Island Sound Ferry Coalition (LISFC).
- Support initiation of high speed passenger ferry service from Stamford to lower Manhattan including the design and construction of land-side infrastructure improvements linking ferry landing and harbor development sites with the Stamford Transportation Center.
- Continue to participate in the High Speed Ferry Task Force initiatives in Connecticut to address the needs of commercial and recreational boaters in Long Island Sound. The Task Force acts as a forum for the discussion and resolution of safety and environmental issues on Long Island Sound, as well as for the dissemination of ferry and boating information.
- Support CDOT initiatives and studies pertaining to the development of intrastate commuter ferry services along Long Island Sound between Branford and Stamford Harbors.

- Continue maintenance dredging of harbor channels to ensure safe passage of passenger and commercial vessels, access to land-side infrastructure, maintenance of the recreational use of the region's rivers and harbors, and an undesirable shift to land transportation.
- Support feeder barge service, infrastructure improvements, and to the ports of Stamford, Bridgeport, New Haven and New London to help alleviate truck freight congestion along I-95.
- Balance the need to maintain waterways as viable corridors for the movement of goods and persons with other economic development and recreational interests.
- Continue to permit use of dredge disposal sites in Long Island Sound as a means of maintaining cost-effective disposal options for Connecticut.

Recommended Projects

- Construct the Stamford Ferry Terminal and parking facility. Estimated costs: near term property acquisition = \$2.0 million; construction = \$5.5 million.
- Conduct further study of "short-listed" alternatives for the movement of goods and persons by water, as identified in the Long Island Sound Waterborne Transportation Plan.
- Complete the dredging of the Norwalk River and Harbor as proposed.

AIR AND PIPELINE SYSTEMS

Background

Air transportation is essential to the movement of people and goods. The South Western Region is near the three major New York metropolitan airports (Kennedy, LaGuardia, and Newark), with the Westchester County (White Plains) Airport within a half mile of King Street in north Greenwich. Bradley International Airport is the state's major air facility with a full range of scheduled domestic and international air passenger and freight services, and general aviation facilities. In 2001, Bradley attracted only 8% of its air passengers from the towns in the South Western Region. Less than one hour in travel time away are two municipal airports: Bridgeport's Sikorsky Airport is a regional service and general aviation airport, currently without commercial or commuter air service; and, the Tweed-New Haven Airport, which is a general aviation and scheduled service airport. Both have issues associated with securing permits for construction of safety areas.

The challenge is to achieve good air service which is important to support the Region's economy for both passengers and goods. Environmental concerns, new requirements for improved navigational aids, and funding availability are constraints to the ability of Connecticut airports to meet current and future demands.

Pipelines in this Region are confined to natural gas transport. The increasing challenge is to assure adequate and affordable energy supplies.

Recommended Strategies

- Support quality air service opportunities at Connecticut and metro-New York Airports.
- Enhance access to airports by public transportation, also evaluate and promote ferry access to LaGuardia, rail connections to Kennedy, Newark, and improved transportation to Bradley International Airport.
- Provide public transportation connections between CT Transit and Westchester County Bee Line Transit to make it possible to use public transportation to access Westchester County Airport.
- Encourage cooperation between Westchester County Airport, the Town of Greenwich and the State of Connecticut to reduce airport impacts on neighboring residents in New York and Connecticut.
- Encourage the state to determine the adequacy of gas pipelines and sustainability of energy supplies to maintain a strong economy and to promote public policies that provide adequate energy supplies while addressing environmental concerns and regulations.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Background

SWRPA has received funding to develop an ITS plan for the South Western Region. The purpose of this planning effort is to conduct a strategic assessment of new and/or enhanced opportunities for the implementation of intelligent transportation systems (ITS) applications in the South Western Region, with a focus on improving the safety and efficiency of the regional transportation network.

The primary study area is comprised of the eight towns in the South Western Region (Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston, Westport, Wilton). Key transportation facilities and corridors in this study area include Interstate I-95, the Merritt Parkway, Routes 1 and 7, and the New Haven, New Canaan and Danbury rail lines, stations and amenities. External connections to the study area also will be considered to the extent necessary to ensure that the development of ITS projects in the region is compatible with ITS projects in place or planned at other locations in the State of Connecticut, the New York metropolitan area and the I-95 corridor. Particular attention will be paid to shared and adjacent facilities.

Primary study objectives are as follows:

- To identify regional issues, concerns and conditions that the Connecticut Department of Transportation should consider in its development of a regional/state-wide ITS;
- To establish ITS program policies that provide a framework for local and regional planning;
- To identify regional ITS program priorities and recommend specific projects for implementation over a 20-year period;
- To identify institutional and other challenges to plan implementation and propose strategies for meeting those challenges;
- To educate federal, state and local policy-makers, as well as the general public, about the role of ITS in transportation systems design and the benefits of implementation; and
- To actively involve federal, state and local stakeholders in the development of the regional ITS plan.

Project tasks include project scoping and mobilization; data collection and analysis; public involvement; development of alternatives and improvements; detailing of a recommended program; and the preparation of reports and post-completion outreach materials. The resulting plan will contribute to the development of a state-wide architecture and will meet the ITS-related program requirements of both the FHWA and the FTA.

Recommended Strategies

- Develop an ITS Plan for the South Western Region during FY 2005 through 2006, in coordination with all other active state, regional and local initiatives and stakeholders.
- Coordinate with ConnDOT on the development of the regional ITS architecture to be completed by April 2005 with endorsement by the SWRMPO in a timely manner.
- Seek implementation of ITS strategies recommended in the Congestion Mitigation System “*Vision 2020*” plan including Weigh-in-Motion technology on I-95 in Greenwich; automatic vehicle location systems (AVL) and related dispatching programs for transit operators, emergency responders and other partners in incident management; enhanced use of variable message signs on I-95 and the Merritt Parkway; and traveler information systems.
- Advocate for development of a Danbury Branch ITS plan as part of Danbury Branch Electrification Study Phase 2.
- Incorporate ITS elements into the design of projects and implement the projects. Some projects with ITS elements include: Stamford Urban Transitway,

LAND USE

Land use and transportation policies are inextricably linked. In any community, land use policies and practices are factors in determining the feasibility and, hence, the availability of transportation options. In fact, research has shown that population density, balance between residential and commercial land uses, connectivity of travel routes and regional accessibility impact vehicle trips, vehicle miles traveled, and availability and choice of travel options.

In February 2003, SWRPA released its Congestion Mitigation Systems “Vision 2020” Plan (Vision 2020), a portion of which examines the relationship between selected development strategies and transportation options. For the purposes of the Vision 2020 analysis, three land use strategies were identified for evaluation:

- Maintain existing land use policies and practices. This strategy was defined as a continuation of land use practices that emphasize neither regional coordination nor the comprehensive use of planning practices that promote development of sustainable travel options. The common result of such a land use strategy is the creation of an automobile-centered community.
- Strengthen existing transportation corridors. Transportation corridors are defined as both roadway and transit corridors. These corridors are characterized by heavy development either along an entire corridor or at particular intersections. Some mixing of land uses is present, although commercial development often dominates. Although transportation corridors may have sufficient destination densities to support transit, the automobile remains the most popular mode of travel.
- Promote transit-oriented neighborhoods. This strategy is characterized by transit hubs surrounded by dense, mixed use development. The clustering of origins, destinations, complementary land uses and transit hubs create an environment where reliance on the automobile for daily personal and business travel becomes unnecessary.

Each land use strategy evaluated is comprised of any number of elements that may be implemented at the municipal level through zoning regulations, master plans, plans of conservation and development or site plan review or, in the absence of regulatory mandates or incentives, by private developers and property owners.

These strategies and design elements were evaluated with regard to their potential to: (1) contribute to regional congestion mitigation; (2) support sustainable travel options; and (3) produce direct or indirect environmental benefits. Supporting transportation investments also were evaluated using a similar rating system. What the evaluation yielded is simple: Opportunities for the creation of sustainable travel options increase with the intensification of development densities, the mixing of land uses and the creation of transit nodes or hubs. The performance of the transportation investments supports this analysis.

Recommended Strategies

- Participate and support the Greenwich/Westchester Sustainable Development Study, which seeks to expand regional awareness of the links between land use practices and the effectiveness of transportation investments.
- Review municipal and regional land use policies and plans to identify the extent to which such policies support transportation investments or contribute to sprawl and increased automobile travel.

- Support municipal efforts to restructure zoning regulations to embrace transit-friendly development, walkable communities, density and mixed uses, reduced parking requirements, and access management.
- Support municipal “smart growth” initiatives -- such as the Stamford South End Development, Stamford Mill River Corridor, Greenwich East-West Multi-Use Path and the South Norwalk Reed-Putnam Development projects -- that link transit opportunities with central city business district development projects.
- Support greenway linkage projects that preserve open space and provide alternative travel opportunities.
- Support implementation of the FHWA and ConnDOT **Context Sensitive Design Solutions** approach which seeks to ensure that transportation projects are developed in harmony with host communities and preserve environmental, scenic, aesthetic and historic resources while maintaining safety and mobility.

ENVIRONMENTAL CONSIDERATIONS

Important controls and challenges for the South Western Region are the legal requirements of the federal Clean Air Act Amendments of 1991, other environmental regulatory requirements, and energy supplies. The Clean Air Act focuses on the relationship of transportation (as mobile source of pollution) and the environment. The regulations mandate analyses, creation of budgets and plans to attain set standards. All plans and transportation projects must conform to the State Implementation Plan for Air Quality. Fairfield County, along with most of metropolitan New York counties, is in a “severe non-attainment area” for ozone under the Clean Air Act. At the same time, the importance of balancing transportation systems improvements, and public needs with environmental concerns is acknowledged as important to preserving the quality of life and the quality of the environment.

Sound or “smart” land use policies can help regions continue to grow without worsening traffic or reducing the quality of life that attracts residents and businesses. As noted in the land use section, positive environmental benefits occur and the use of travel options increases as mixed land uses, with transit-supporting densities are planned near transit nodes.

Brownfields are both an environmental issue and an opportunity. Brownfields are abandoned, idled, or under used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. Usually brownfields are centrally located with connections to existing infrastructure and transportation systems, or are existing or former transportation facilities. Often, redevelopment of brownfields supports transit oriented development and the goals of mobility, improved access, reduced trip times and lengths, efficient use of the transportation system, maintenance of existing infrastructure, and environmental remediation and reduced pollution emissions.

Recommended Strategies

- Balance increased demand for transportation infrastructure and services with the need to preserve quality of life and protect the quality of air, water and other natural resources.
- Streamline existing environmental review and approvals processes to eliminate duplication of efforts and to enhance coordination among local, state and federal agencies.
- Expand use of federal provisions shielding state agencies, municipalities and political sub-division from liability associated with the clean-up, redevelopment or reuse of brownfields and other contaminated sites.
- Institute programs through which the Department of Transportation and other state agencies will acquire the skills and capacity to consider and model the impact of various transportation policies on the natural environment, land use, community character and quality of life.
- Promote clean air initiatives to: encourage smart growth and transit oriented development; use alternative fuels and low sulfur fuels; expand effective travel demand management programs such as telecommuting, flexible work weeks, staggered work hours, and various forms of ridesharing; support public transit, rail freight, traffic flow improvements, and incident management programs.
- Consider energy supply and conservation in the development of transportation strategies.

ENVIRONMENTAL JUSTICE

Background

Environmental Justice is a government mandate that seeks to build awareness of the impact of government actions on at-risk populations. The purpose of incorporating Environmental Justice (EJ) into the planning process is to ensure policy and land use decisions are made without inordinate negative effects on communities of concern. Recipients of Federal-aid must abide by the nondiscrimination provisions identified by Title VI of the Civil Rights Act of 1964. A 1994 Presidential Executive Order supplemented Title VI with the environmental justice requirement t for every Federal agency to incorporate EJ into its mission by “addressing the effects of all programs, policies and activities on ‘minority populations and low-income populations.’”¹³

The US Department of Transportation (US DOT) mandates that EJ efforts take place through each phase of the planning and implementation processes. Three principles regarding EJ were outlined by the US DOT for use by Metropolitan Planning Organizations (MPOs) when organizing EJ efforts:

1. Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. Prevent the denial of, the reduction in or the significant delay in the receipt of benefits by minority and low-income populations.¹⁴

In 1998, the Transportation Equity Act for the 21st Century was signed into law. A key element in the TEA-21 legislation includes efforts to implement EJ principles and procedures for all levels of transportation decision making.

Communities of Concern

In order to structure planning efforts that would comply with EJ regulations, SWRPA staff developed a demographic profile of the region based on US Census Block Group level data gathered in the 2000 Census that would determine communities of concern within the South Western Region. As documented in the South Western Region Environmental Justice Report June 2004, the profile examined six variables, including the percent of minority population, per capita income, the percent of persons below the poverty level, the percent of households receiving public assistance income, the percent of persons using the bus as a means of transportation to work, and the percent of households with zero vehicles available. If a block group exceeded the criteria for five of the six variables, they were highlighted as a community of concern. The Census Block Group (CBG) would meet one of the criteria for a community of concern if one of the variables exceeded 25% of the regional average for that variable. Per capita income was evaluated

¹³ US Department of Transportation, Federal Highway Administration, “An Overview of Transportation and Environmental Justice.” <http://www.fhwa.dot.gov/environment/ej2000.htm> Website viewed August 17, 2004.

¹⁴ US DOT, “An Overview of Transportation and Environmental Justice.”

differently. If the per capita income of the CBG was below half of the regional average, that group met one of the criteria for a community of concern.

Population, Race and Ethnicity

The population in the region grew by 7.2% between 1990 and 2000, from 329,925 to 353,556 persons, with highest percentages of growth in Weston and Wilton. The minority population increased from 68,575 to 105,535 persons, a jump of 54%. Within the minority population, black or African American residents decreased in number by about 1,000 persons, declining by roughly 3%. Persons of Hispanic origin increased significantly from 20,830 persons in 1990 to 38,191 in 2000, a gain of about 83%. The largest increases in minority populations were seen in Norwalk and Stamford.

In the South Western Region, 25.4% of the population is classified as a minority. If a CBG has a minority population greater than 31.7%, it meets one of the criteria for identifying a community of concern. In 2000, 66 CBGs had a minority population that exceeded 31.7% of its total population. All of these CBGs were located in Greenwich, Norwalk and Stamford.

Income

Median household incomes ranged from \$59,839 per year in Norwalk to \$146,755 per year in Darien in 1999 in the South Western Region. Darien, New Canaan, Weston and Wilton had median household incomes over \$140,000 per year. The median household incomes for Fairfield County and Connecticut were \$65,249 per year and \$53,935 per year, respectively. Household incomes include any income received by any occupant of a housing unit.

Unlike household incomes, family incomes are derived by including the incomes of a family group, that is a group of two or more people who reside together and who are related by birth, marriage or adoption. Therefore, because many households consist of only one person, a single earner, median household income is less than median family income. The median family income ranged from \$68,219 per year in Norwalk to \$175,331 per year in New Canaan in 1999. Five towns had median family incomes greater than \$150,000 per year: Darien, New Canaan, Weston, Westport and Wilton. Fairfield County's median family income for 1999 was \$77,690 per year, while the figure for the state was \$65,521.

For the purpose of this analysis, the per capita income is used to establish a community of concern. The per capita income in the region ranged from \$31,781 per year in Norwalk to \$82,049 per year in New Canaan.

The per capita income is lower than median household and median family incomes because it takes all income earned in an area and divides in by the total population in the area, regardless of their working status. Both other measures of income only measure incomes based on employed persons. A CBG meets one of the criteria of a community of concern if its per capita income is less than 50% of the regional average (\$25,621 per year). Following this criteria, 51 CBGs met this level of per capita income. These CBGs were located in Greenwich, Norwalk and Stamford.

Poverty

The South Western Region has a fewer percentage of people living below the poverty level than both Fairfield County and Connecticut. In 1999, 5.7% of the region's population was living below the poverty level, compared with 6.9% in Fairfield County and 7.9% across the state. This is low in comparison to the rest of the country where 12.4% of the population lived below the poverty level. Stamford and Norwalk have the highest concentrations of persons living below the poverty level, comprising 9,194 persons (7.9%) and 5,944 persons (7.2%) respectively. A criterion for a community of concern is met if 7.2% or more of the population of a CBG is below of the poverty level. Sixty-nine CBGs had or exceeded this level of poverty. They were located primarily in Greenwich, Norwalk and Stamford, but Wilton and Westport had one CBG each that had this level of poverty.

Another means of measuring poverty and income is looking at how many households receive public assistance income. On the regional level, 1.9% of households received some form of public assistance income. Following a similar trend to poverty level findings, 2.7% of households on Fairfield County and 3.7% of households in Connecticut received public assistance. Across the country, 3.4% of households receive public assistance income. To determine if a CBG met one criterion of a community of concern, more than 2.3% of the households must receive public assistance income. Analysis showed that 78 CBGs met or exceeded this criterion and were located across the region in all towns but Darien and Weston.

Transportation

The survey also looked at transportation patterns to identify communities of concern across the region. Transit dependency was viewed as a criterion to identify a community of concern. CBGs with a high percentage of workers who primarily use a bus to get to work and households who do not have a vehicle are viewed as transit dependent.

In the South Western Region, 2.6% of workers over 16 years of age use the bus as their primary means of transportation to work. A CBG where more than 3.4% of workers use the bus to get to work would be considered to meet a criterion of a community of concern. There were 56 CBGs that met or exceeded the transit dependency threshold. These CBGs were concentrated in Greenwich, Norwalk and Stamford, with the exception of one CBG in Darien.

Another measure of transit dependency is a concentration of households that have no vehicle available. On the regional level, 7.1% of households had no vehicle available. This level increases when approaching the national percentage, with 8.6% of households in Fairfield County having no vehicle available, 9.6% of households in Connecticut and 10.3% of households in the nation having no vehicle. CBGs with 8.9% of households with no vehicle are considered to be transit dependent. Sixty-three CBGs meet this last criteria use to determine a community of concern.

Composite of Communities of Concern

In the South Western Region, 37 out of 272 CBGs met five of the six criteria used to identify a community of concern. These communities were all in Greenwich, Norwalk and Stamford. Only one CBG in Greenwich was identified as a community of concern and is located in the southwestern part of the town. In Norwalk, the communities of concern are concentrated in South Norwalk and along the southern portion of the Route 7 Corridor (see Map X). The communities of concern in Stamford are located along the Route 1 and Interstate 95 corridor between the Greenwich and Stamford town line and Route 106. The remaining

towns in the region did not have any CBGs that met more than one of the criteria defining a community of concern. The South Western Region Environmental Justice Report June 2004, and the report's update for the South Western Region Long Range Transportation Plan 2004-2030, provide detailed block group information on communities of concern, maps, and a list of proposed projects and their locations.

Implications

Analysis of regional communities of concern provides the towns with information they can use towards compliance with the Environmental Justice legislation and planning activities. Many of these requirements demand that municipalities determine if a proposed transportation expansion will have a disproportionate effect on a minority or low-income community. Additional efforts need to be taken to involve effected communities in the planning process. Beyond the planning process, it is the responsibility of MPOs to consider how current federal aid funds are allocated and address the ratio of highway-to-transit expenditures.

In the South Western Region, it is the policy of SWRPA and the SWRMPO to provide public access and involvement under a collaborative planning process in which the interests of all of the stakeholders are reflected and considered. SWRMPO has an endorsed public involvement process that is based upon proactive public involvement program at both MPO and Transportation Technical Advisory Group (TTAG) meetings. SWRPA seeks to enhance this process by developing new networks of contacts and venues for community and neighborhood involvement in the transportation planning and programming process.

Recommended Strategies

- Annually review and update the South Western Region MPO Public Involvement Process, adopted on December 4, 1997, to incorporate noteworthy public involvement practices and address new regulations, guidance, and regional needs.
- Continue to expand EJ analyses and document findings and recommendations in reports.
- Rely on major project's environmental assessments and EJ components to evaluate and remediate EJ impacts and consider the findings and recommendations in regional EJ assessments and reports.
- Develop and document a systematic way to review the effectiveness of public outreach efforts and use the information to modify public involvement procedures.
- Expand the community network for transportation and regional planning; expand outreach efforts to bring the plans and projects to community and neighborhood groups, and other venues and at convenient times and locations.
- Continue to issue media releases and public service announcements regarding transportation projects, programs, studies and issues of concern.
- For major transportation planning studies undertaken by SWRPA or others, customize the public outreach efforts to assure outreach and input of identified "communities of concern" with the assistance and participation of community, neighborhood and social service agencies.

FINANCIAL COMPONENT

The financial component of the Plan identifies policies that are used to guide financing, the process for identifying specific elements of the financial plan, the resources available to support the Plan, recommended elements of the financially constrained plan, and un-funded needs.

Policies

- Maintain and preserve basic transportation systems
- Enhance safety and system productivity
- Promote system connectivity
- Support multi-modal and multi-disciplinary program.
- Address and direct funding to federal and/or state mandates
- Provide needed transportation systems enhancements
- Utilize state, federal, and town funding to maximum extent
- Develop financially realistic and constrained plans and programs

Process

Maintain the Long Range Transportation Plan and Transportation Improvement Program (TIP) in accordance with the latest available information and guidance, and develop accurate and financially constrained implementation programs that are based upon financial resources that are reasonably expected to be available. The Long Range Transportation Plan and the TIP are developed in concert with the TTAG, the MPO, funding agencies, sponsors, stakeholders and others. Conduct studies and incorporate supported findings and recommendations. Seek creative solutions.

Financial Assessment

The South Western Region Long Range Transportation Plan 2004-2030, presents a program of transportation capital and operating projects, programs and studies that fall within the envelope of available financial resources. The Financial Plan identifies as “funded” only projects that are approved by ConnDOT and included in the current TIP (FFY2005-2009 Transportation Improvement Program), ConnDOT 2003 Transportation Master Plan, Air Quality Conformity Determination, or are approved for discretionary funding by USDOT in earmark, FTA New Start, Ferryboat Discretionary, or Transportation Community System Preservation (TCSP) programs. All other projects are deemed to be proposed future un-funded needs.

The Region’s Surface Transportation Program – Bridgeport Stamford program (STP-BS) projects include active projects already in design, rights of way or construction, projects in review at ConnDOT’s “Project Concept Unit”, or recently proposed under the Region’s STP Phase IX program. The projects total approximately \$62 million, which can be accomplished in 13 years at the current funding level of \$4,625,000 as shown in Table 26 on page 161.

The draft South Western Region Long Range Transportation Plan 2004-2030 is financially constrained. The cost to implement the Plan is estimated to cost \$3.9 billion, while the anticipated financial resources are \$4.7 billion. The net reserve balance is \$760 million, as shown in Table 18a. The

following sections of the Plan describe available funding, programmed projects, and un-funded needs.

**Table 18a. Summary of Financial Resources and Needs
South Western Region Long Range Transportation Plan
2005-2030**

Anticipated Financial Resources 2004-2030		Estimated Project Costs 2004-2030	
Funding Category	Estimated Funds	System Category	Estimated Cost
Highway System Improvements	\$ 1,300,615,538	Highway System Projects	\$ 617,873,600
Highway System Preservation	\$ 707,236,065	Highway System Preservation	\$ 707,236,065
Major State Projects	\$ 203,600,000	Major State Projects	\$ 203,600,000
		Region's STP-BS Projects	\$ 61,759,000
Subtotal	\$ 2,211,451,603	Subtotal	\$ 1,590,468,665
Transit Capital Program	\$ 1,260,799,000	Transit Capital Program	\$ 1,260,799,000
Operating Subsidies	\$ 1,055,489,499	Operating Subsidies	\$ 1,055,489,499
Subtotal	\$ 2,316,288,499	Subtotal	\$ 2,316,288,499
Discretionary Funding	\$ 169,000,000	Special Projects	\$ 30,003,528
Subtotal	\$ 169,000,000	Subtotal	\$ 30,003,528
Total Anticipated Funds	\$ 4,696,740,102	Total Estimated Project Costs	\$ 3,936,760,692
Net Reserve (Under Budget Limit)	\$ 759,979,410		

**Table 18b
ConnDOT Estimate of Funding Available for the South Western Region
Long Range Transportation Plan 2004-2030**

Project Type	Annual 2004	2005-2009	2010-2030	Total 2004-2030
Highway				
Improvement	\$ 48,170,946	\$ 240,854,729	\$ 1,011,589,863	\$ 1,300,615,538
Preservation	\$ 26,193,928	\$ 130,969,642	\$ 550,072,495	\$ 707,236,065
Sub-Total	\$ 74,364,874	\$ 371,824,371	\$ 1,561,662,357	\$ 2,007,851,602
Major Projects				\$ 203,600,000
Total				\$ 2,211,451,602

Source: ConnDOT 7/28/03 letter to RPOs re. Allocation of Anticipated Funds to CT Planning Regions 2004-2025. Estimates for 2026-2030 developed by SWRPA assume current funding levels and allocations.

South Western Region Allocation of Funds for Highway System Preservation and Enhancement

According to ConnDOT estimates provided in July 28, 2003 guidance¹⁵ there is approximately \$74 million per year available to preserve or enhance the Region's highway system. Between 2004 and 2030, this is an investment of more than \$2 billion.

Over the twenty-seven (27) year span of the Plan between 2004 and 2030, \$707 million will be spent on system preservation and maintenance for projects such as paving, bridge repair or replacement and other forms of reconstruction in place. This equates to \$26 million per year for system preservation and maintenance.

¹⁵ ConnDOT letter dated July 28, 2003 from Charles Barone to Regional Planning Organizations regarding Allocation of Anticipated Funds to Connecticut Planning Regions (2004-2025).

ConnDOT also estimates that enhancement of the highway system will be allocated \$48 million per year. The twenty-seven (27) year expenditure is approximately \$1.26 billion for system improvements for projects that promote safety, improve mobility, increase system productivity or support economic growth.

Major Projects of Statewide Significance

In the allocation of funds ConnDOT also reserved some future revenue for projects they classified as “major projects of statewide significance”. For the South Western Region, this allocation was \$179 million, and included the Route 7 and 15 interchange, Route 7 widening and improvement projects in Norwalk and Wilton, and improvements to I-95. Another \$25 million was reserved for rail parking improvements on the MetroNorth New Haven Line or Branch lines.

Taken together, the South Western Region’s allocation for the time span of the new long range transportation plan (2004-2030) is \$2.2 billion.

Highway Projects

The South Western Region Long Range Transportation Plan 2004-2030 incorporates the ConnDOT-sponsored state highway projects on the FFY2005-2009 Statewide Transportation Improvement Program identified in Table 19 total \$617 million. An additional \$101 million in projects is identified in the 2003 ConnDOT Master Transportation Plan, with \$93 million noted as requiring additional funds. These projects are shown in Table 20.

Highway Maintenance

Because maintenance of existing systems is a high priority for the state, ConnDOT has allocated roughly approximately \$26 million per year for maintenance of highways and bridges in the South Western Region. As noted in the previous section on “Allocation of Funds for Maintenance and Preservation of Systems”, and shown in Table 18, ConnDOT estimates that \$707 million will be invested in maintenance and preservation of the highway and bridge system between 2004 and 2030.

Transit Capital Projects

The Plan considers transit capital projects as funded if they are included in the FFY2005-2005 TIP or the ConnDOT Transit Capital Program 2003-2013. Table 21 shows \$344 million in transit capital projects on the South Western Region FFY2005-2009 TIP. The projects include: replacement or rehabilitation of rail bridges at East Avenue (Norwalk), Walk Bridge over the Norwalk River, Sauga Bridge over the Saugatuck River in Westport; replacement of a culvert in Darien at mile post 38.53; bus paratransit vehicle replacement; and, various small bus transit capital and service vehicle replacements. Also on the TIP are projects that benefit the South Western Region, including the catenary replacement project, the new Fairfield railroad station, access road and high level platforms, the New Haven Line Track Program, rail car (M2) rehabilitation/overhaul, and design of the Devon Bridge (Milford/Stratford), as well as transit capital planning, and purchase of accessible vans for non-profit organizations under the FTA 5310 program.

The ConnDOT Transit Capital Program 2003-2013 extends the timeframe to 2022. Using ConnDOT’s formula for replacement of transit buses on a 12 year cycle, and paratransit vehicle on a 5 year cycle, SWRPA extended the capital program to 2030. As shown in Table 22, the capital investment requirements beyond the TIP period is \$1.26 billion for 2010 – 2030.

Transit Operating and Replacement Costs

Maintaining existing bus and rail operations for 27 years will cost just over a billion dollars (\$1.097 billion). Using information provided by transit operators and current TIP documents, Tables 23 and 24 were developed. The annual operating deficit (SFY2005) for bus transit is estimated to be \$11.9 million. The bulk of the deficit, or 94% is made up by federal and state funding. Approximately 6%, or \$742,000 per year is contributed by local sources.

The annual MetroNorth rail transit operating deficit is \$45,456,000¹⁶. In past South Western Region Long Range Transportation Plans, 66.6% of this deficit was allocated to the South Western Region. The same allocation is used in this plan and results in an annual deficit of \$30.3 million. Over the 26 year period of 2005-2030, the cost for MetroNorth rail operations is \$758 million. Shoreline East Service between New Haven and Stamford is funded through state/TSB accounts, and not included in the South Western Region rail operating costs. The annual deficit for regular Shoreline East Service is roughly \$5 million, and is noted in Table 24.

Ridesharing and Transportation Demand Management Program Operations

Based upon the FFY2005-2009 Statewide Transportation Improvement Program, Table 25, the State of Connecticut spends approximately \$10.6 million per year on ridesharing and other transportation demand management programs. Over the five year period of the TIP, \$53 million will be spent on TDM programs that include: four ridesharing brokerages; telecommuting; promotion of the pre-tax deduction program, called "Deduct A Ride" in Connecticut; vanpool financing and vanpool promotion and delivery programs; marketing; customer information; ride-matching; and, ConnDOT's staff to manage programs. The South Western Region's fairshare allocation for TDM programs is roughly \$1.2 million per year. Over the 27 year period of the long range transportation plan, the current TDM programs are forecast to cost more than \$31 million for South Western Region's 11% fairshare.

Projects Proposed or Sponsored by the South Western Region for the Use of STP-BS or CMAQ Funding

The current level of "fairshare" funding available to the South Western Region under TEA-21 through the Surface Transportation Program – Bridgeport Stamford Urbanized Area program (STP-BS) is \$3.7 million per year. Until Congress reauthorizes federal transportation funds later in 2004 or 2005, and creates the successor to TEA-21, the long range transportation plan assumes that \$3.7 million in federal STP-BS funds is available annually. Once federal funds are matched with state and local funds, generally in a ratio of 80% federal and 20% state or local funds, the annual federal funds of \$3.7 million is matched with \$925,000 which provides \$4,625,000 per year. In the 2004-2030 time period of the plan this generates approximately \$125 million for local and regional projects.

The STP-BS funding is the only federal or state source of funding that is controlled by the SWRMPO, in consultation with ConnDOT and USDOT. As shown in Table 26, the South Western Region has \$10.1 million in projects programmed on the FFY2005-2009 TIP. Another \$14.2 million in projects are in the project concept review stage. A 2004 solicitation for new STP-BS or CMAQ projects under the South Western Region STP Phase IX program, has candidate projects totaling \$7.6 million as of August 2004. Additional projects are expected before endorsement of the South Western Region Long Range

¹⁶ ConnDOT estimate August 2004.

Transportation Plan 2004-2030 in October, and will be added to the appropriate tables. The STP-BS program that is funded or proposed totals \$32 million, which is within the estimate of \$125 million in funds available to the region through 2030. The proposed program of STP-BS projects could be accomplished in 7 years if \$4.6 million per year continues to be available.

South Western Region Projects Proposed for the Use of STP-Enhancement Funding

The STP-Enhancement Program was established under ISTEA in 1992 to fund transportation-related activities that strengthen the cultural, esthetic, and environmental aspects of intermodal transportation systems. The funding enables the implementation of non-traditional projects such as the restoration of historic transportation facilities, bike and pedestrian facilities, landscaping and scenic beautification, and mitigation of water pollution from highway runoff. In the South Western Region enhancement projects sponsored by towns, the Norwalk Transit District, and ConnDOT have included landscaping, streetscaping, multi-use trails, rail station rehabilitation and beautification, drainage improvements, and other non-traditional projects. The sixteen projects that were funded as of October 2002 were programmed to use \$16.3 million in STP-Enhancement funding and are noted in Table 27.

In response to ConnDOT's 2002 solicitation for new STP-Enhancement projects, the South Western Region submitted five candidate projects, totaling \$6.7 million. The South Western Region Candidate Projects and Priorities are shown in Table 28. ConnDOT typically funds 1 or 2 projects per region. According to ConnDOT, no new STP-Enhancement projects will be funded until after reauthorization of federal transportation funding.

South Western Region Projects Proposed for the Use of FTA Enhancement Funding

One measurable benefit of the South Western Region's 2002 designation as a "transportation management area" after incorporation into the Bridgeport-Stamford Urbanized Area, is the ability to access the FTA Section 5307 funding set-aside for enhancement projects. This set-aside is equivalent to 1% of the FTA Section 5307 funding for the urbanized area. For the Bridgeport-Stamford Urbanized Area, this is \$157,092 per year. The Bridgeport-Stamford Regional Planning Organizations, FTA-designated transit recipients, ConnDOT and USDOT have established an on-going process to develop, select, program and monitor eligible projects for funding. Through this cooperative process, the City of Stamford and the Norwalk Transit District received \$119,500 in funds for projects in FFY2004. Additional project proposals developed by the City of Stamford and the Norwalk Transit District are shown in Tables 13 and 15.

Special Projects Proposed or Funded in the South Western Region

During TEA-21, several projects in the region have received funding through earmark and discretionary programs that included High Priority Projects, Ferryboat Discretionary Programs, Transportation and Community and System Preservation (TCSP) Pilot Program¹⁷, FTA New Starts, as well as special earmark funding. The roster of projects and funding sources for special projects is provided in Table 29, and includes: Stamford Urban Transitway Phase 1; Stamford Urban Transitway Phase 2; MetroNorth rail underpasses at Atlantic Street, Elm Street, Canal Street and Route 1, Stamford; Stamford Ferry Terminal; Route 1 (Cross Street), Norwalk; and, Norwalk Transit District Pulse Point Security and Safety Project. ConnDOT has also received earmark funding for a number of projects that benefit the South Western

¹⁷ The Stamford Waterside Transportation and Community and System Preservation project was funded in FFY2002 for \$250,000.

Region, such as the catenary system upgrade.

Additional Potential Funding Sources: Federal Discretionary or Earmark Funding, and State/TSB Funding

Based upon past experience, it is reasonable to expect that the Region will receive additional discretionary funding from federal and state sources. It is also reasonable to expect that new special projects will be submitted for federal transportation funding and other programs in multi-year reauthorization programs as well as in annual authorizations and allocations of federal transportation projects.

The Region's special projects have successfully applied for and received federal transportation discretionary funding under Congressional actions that authorized High Priority Project funding (\$2.5 million for Route 1/Cross Street, Norwalk and MetroNorth Railroad Underpasses, Stamford); FTA New Starts and FHWA earmark funding for Stamford Urban Transitway Phase 1 and Phase 2 (\$36.5 million); Ferryboat Discretionary Programs for the Stamford Ferry Terminal (\$1 million); FTA earmark funding for the Norwalk Transit District Pulse Point Safety and Security Project (\$400,000); and the Transportation and Community and System Preservation (TCSP) Pilot Program for Waterside (\$250,000). Between 1999 and 2004, federal discretionary funding totaled \$ 40.6 million between FFY1999 and FY2004, which is approximately \$6.8 million per year. Using \$6.5 million as the annual target level for special funding for special projects, \$169 million in additional funding will be available between 2005 and 2030. Information on special projects and discretionary funding is provided in Table 29.

The Region and its municipalities may also be able to tap into additional state resources. CT Public Act 01-5 (HB 7506) – An Act Implementing the Recommendations of the Transportation Strategy Board set up mechanisms for funding capital and operating projects. When the Act was passed, \$50 million in state funding from the state surplus was set aside for transportation projects identified in the Act, but this was reduced to \$36 million when the state incurred a deficit rather than a surplus. As noted in other sections of the long range plan, State/TSB Section 16 funds have expanded commuter shuttle service in Stamford and Norwalk, increased service on the Coastal Link, initiated Route 7 bus service between Norwalk and Danbury (7 Link), and will fund the South West Corridor highway operations and safety engineering study. The State/TSB Section 3 program for FY2004-2013 includes funding for capital projects such as rail rolling stock, rail maintenance facilities, rail station parking expansion, high speed ferry service, and the Bridgeport Intermodal. As noted in Table 29, the State/TSB Section 3 Plan for FY2004-2013 includes funding for High Speed Ferry in the amount of \$4 to \$16 million. Some of this funding may be available for the Stamford ferry terminal.

Projects and Programs that Are Un-funded Future Needs

The proposed projects identified in Table 30 Route 7 Travel Options Implementation Plan (dated June 2000) are future un-funded needs.

Recommended Strategy

Seek to secure adequate level of local, state, and federal funding to perform maintenance, management and monitoring, system optimization, or expansion and to implement needed improvements.

Tables that document the Plan's needs, recommendations, and financial resources are provided in Tables 19 through 30 on the following pages.

TABLE 30
Route 7 Travel Options Implementation Plan
Future Unfunded Needs

PROJECT No. Name	CONCEPTUAL COST ESTIMATES					BENEFITS/COMMENTS
	CAPITAL			ANNUAL OPERATING	STUDY COST	
	Infrastructure	Equipment	Total			
RAIL						
1 Enhanced Danbury Branch Service - Phase 1*	\$0	\$5,300,000	\$5,300,000	\$1,314,084	\$0	Potential for over 400 new daily riders (800 trips)
2 Enhanced Danbury Branch Service - Phase 2*	\$0	\$12,900,000	\$12,900,000	\$895,712	\$0	Potential to add almost 250 new riders above Phase 1 (500 trips)
Sub-Total Enhanced Danbury Service	\$0	\$18,200,000	\$18,200,000	\$2,209,796	\$0	Potential for 650 new daily riders (1300 trips)
3 New Milford Extension - Phase 1*	\$10,800,458	\$2,800,000	\$13,600,458	\$1,775,456	\$0	Potential for almost 150 new daily riders (300 trips)
4 New Milford Extension - Phase 2*	\$6,261,906	\$0	\$6,261,906	\$682,239	\$0	Potential to add 320 additional riders over Phase 1 (640 trips)
5 New Milford Extension - Phase 3*	\$12,685,004	\$1,400,000	\$14,085,004	\$1,053,380	\$0	Potential to add 60 additional daily riders over Phase II (120 trips)
Sub-Total New Milford Extension	\$29,747,368	\$4,200,000	\$33,947,368	\$3,511,075	\$0	Potential for 520 new daily riders (1040 trips)
6 Norwalk Station(s) Feasibility Study	\$0	\$0	\$4,000,000	\$30,000	\$200,000	Ridership/Operations/Concepts
7 Redding Station Feasibility Study	\$0	\$0	\$0	\$0	\$150,000	Ridership/Operations/Concepts
8 Branchline Service Evaluation and Governance Study	\$0	\$0	\$0	\$0	\$250,000	Examination of Costs/management
9 Pursue extension of branchline service to Stamford	\$0	\$0	\$0	\$0	\$0	Examine operational feasibility with respect to main line operations.
10 Evaluate Electrification of branchline	\$0	\$0	\$0	\$0	\$275,000	Examine feasibility, benefits & costs
Sub-Total Rail Projects	\$29,747,368	\$22,400,000	\$56,147,368	\$5,750,871	\$875,000	Potential for 1,170 new daily rail riders (2,340 trips)
BUS						
11 Route 7 Corridor Bus Service	\$0	\$0	\$0	\$615,000	\$0	Alternative travel mode servicing over 7,000 jobs along the corridor.
12 HART Pulse Point Fixed Route Service	\$0	\$0	\$0	\$185,000	\$0	
13 Rail/Employment Sites Shuttle Connections Study	\$0	\$0	\$0	\$0	\$150,000	Might be undertaken by local transit providers, regional planning agencies, or MetroPool through expanded outreach to employers
Sub-Total Bus Projects	\$0	\$0	\$0	\$800,000	\$150,000	
SUPPORT STRATEGIES						
14 Train Station Enhancements	\$2,000,000	\$0	\$2,000,000	\$0	\$0	Varies by Station: Stations requiring significant enhancements include: Branchville, Cannondale, Wilton and Merritt 7
15 Transit Oriented Development Feasibility Study	\$0	\$0	\$0	\$0	\$250,000	
16 Danbury Branch Transit ITS Study	\$0	\$0	\$0	\$0	\$175,000	Applicability to Danbury Branch to enhance customer service
17 Universal Transit Card Feasibility Study	\$0	\$0	\$0	\$0	\$100,000	Initiated by SWRPA in FY99-2000
18 Establish Route 7 Travel Options Coalition	\$0	\$0	\$0	\$0	\$0	To advocate for and oversee implementation of transportation recommendations in the corridor.
Sub-Total Other Projects	\$2,000,000	\$0	\$2,000,000	\$0	\$525,000	
TOTAL	\$31,747,368	\$22,400,000	\$58,147,368	\$6,550,871	\$1,550,000	

* The costs presented are incremental costs for each phase of the project (i.e. the total New Milford Extension costs equal the Phase 1 + 2 + 3 costs.

Source: VHB

Prepared for: South Western Regional Planning Agency

Prepared by: Vanasse Hangen Brustlin, Inc.

June 2000

AIR QUALITY CONFORMITY FINDING

On November 15, 1990, the Clean Air Act Amendments (CAAA) of 1990 were signed into law. On August 15, 1997 the U.S. Department of Environmental Protection (EPA) published the Final Conformity Rule. Effective February 4, 2004, EPA approved a revision to the Connecticut State Implementation Plan (SIP) for the attainment and maintenance of the one-hour National Ambient Air Quality Standard (NAAQS) for ground level ozone. Emissions budgets for the 2005 and 2007 VOC and NO_x (volatile organic compounds and nitrous oxides) were calculated using MOBILE6.2 for the Connecticut portion of the New York-Northern New Jersey-Long Island (severe) non-attainment area and the 2007 motor vehicle emissions budgets for the Greater Connecticut (serious) non-attainment area. Procedures and criteria contained in the Connecticut Department of Transportation Air Quality Conformity Report: Fiscal Year 2005 Transportation Improvement Program and Long Range Transportation Plans (June 2004) document the conformity determination. Implementation of rules has been worked out through a cooperative effort of the Regional Planning Agencies, the Environmental Protection Agency (EPA), Federal Transit Administration (FTA), Federal Highway Administration (FHWA), Connecticut Department of Transportation (ConnDOT) and the Connecticut Department of Environmental Protection (CTDEP).

ConnDOT has assessed its compliance with the applicable conformity criteria requirements of the 1990 CAAA. Based upon the June analysis, it was determined that all elements of ConnDOT's transportation program, and the Regional Long-Range Plans conform to applicable SIP and 1990 CAAA Conformity Guidance criteria.

ConnDOT conducted the air quality conformity analysis of the South Western Region Long Range Transportation Plan 2004-2030. Because the South Western plan proposed no new action scenarios a finding of conformity was issued. The findings served as the basis for the SWRMPO's endorsement of the Air Quality Conformity Determination (Resolution #2004-018) on October 19, 2004.

Under the current conformity rules, the transportation improvement program and the long range transportation plan must meet two required conformity tests:

- Test 1 – Emissions from future action scenarios¹⁸ must be less than existed in 1990;
- Test 2 – For VOC and NO_x, transportation emissions from the action scenarios must be less than the 2007 SIP transportation emission budgets;

In July 2004, EPA issued a rule that reclassified three areas of Connecticut (southwestern, greater New Haven, and greater Hartford) from CO non-attainment areas to CO Limited Maintenance Plan status, which eliminated the need for budget testing.

¹⁸ The action scenarios are the future transportation systems that result from full implementation of the TIP and the Long Range Transportation Plans.

PUBLIC INVOLVEMENT SUMMARY

Update of the Region's long range transportation plan began in 2003 with the technical and policy board review and approval of the schedule that would lead to adoption of the 2004-2030 Long Range Transportation Plan in 2004. Throughout the process public information and involvement opportunities were provided. In addition to the traditional publication of legal notices of availability of the draft plan in the region's newspapers, the draft Plans were available for review at the main branches of town libraries, and at SWRPA. Additional accommodations were made to ensure access to documents and facilitate participation in the development of the updated transportation plan. The draft Plan as well as notices of meetings and plan workshops were posted on the SWRPA website (www.swrpa.org). Agendas for TTAG and MPO meetings were also posted on the SWRPA website and identified agenda items related to the Plan update and actions. Formal public meetings to solicit input were held on March 2, 2004, September 28, 2004, and October 12, 2004.

The public comment for the Draft Plan extended from September 10, 2004 through October 15, 2004. One written comment was received on October 15, 2004, and supported Plan recommendations for projects that benefited the East Side of Stamford. Following the SWRMPO's October 19, 2004 endorsement of the South Western Region Long Range Transportation Plan 2004-2030, notice of the endorsement was legally noticed, and the document was posted on the SWRPA website.

The public involvement process is documented in a separate report titled South Western Region Long Range Transportation Plan 2004-2030 Public Involvement Summary (October 2004).

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